# LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

# ADMINISTRATIVE RECORD

**Volume 16**

**2024**

**Bate Stamp Numbers**
**01240063 – 01242040**

**Prepared for**

**Department of the Army**
**Longhorn Army Ammunition Plant**

**1976–2024**

***LONGHORN ARMY AMMUNITION PLANT***
***KARNACK, TEXAS***
**ADMINISTRATIVE RECORD – CHRONOLOGICAL INDEX**

VOLUME 16

2024

| | | |
|---|---|---|
| A. | Title: | Report (Cont'd) – Appendix C, File 2 to Draft Final Third Annual Remedial Action Operation Report, LHAAP-16 Landfill, Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas, May 2024 |
| | Author(s): | Department of the Army |
| | Recipient: | Environmental Protection Agency and Texas Commission on Environmental Quality |
| | Date: | May 9, 2024 |
| | Bate Stamp: | 01240063–01242040 |

Report Date: 25-Jan-2023 11:08:42

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0015.d | | | | |
| Lims ID: | 410-113148-A-5-A | | | | |
| Client ID: | HS23010986-07 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 25-Jan-2023 09:59:00 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075742-015 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 25-Jan-2023 11:03:51 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1627 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.029 | 2.048 | -0.019 | 364753185 | 92098 | H |

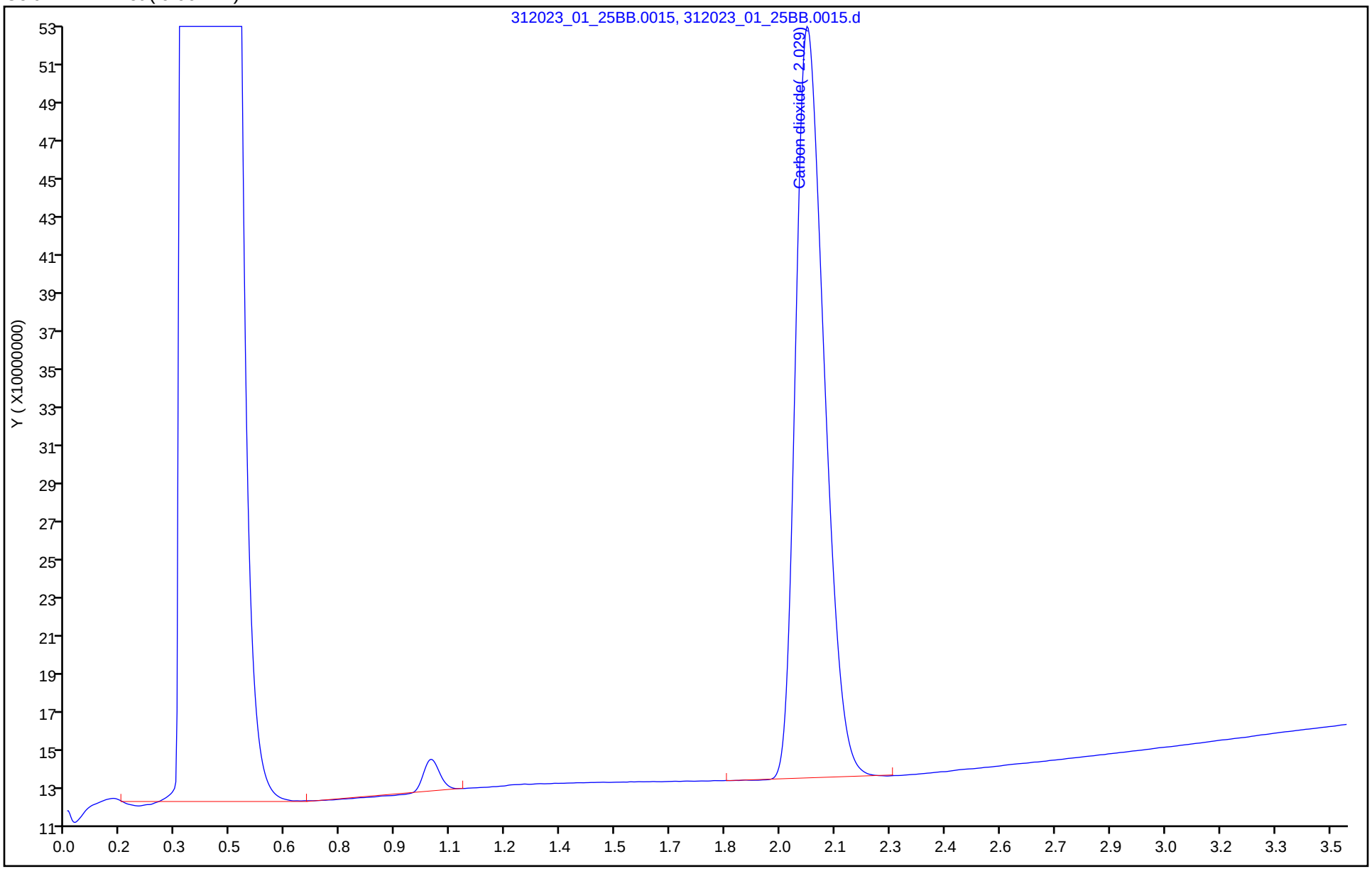
Chrom Revision: 2.3 17-Jan-2023 20:47:52

Report Date: 25-Jan-2023 11:08:42 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0015.d | | | | |
| Injection Date: | 25-Jan-2023 09:59:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | 410-113148-A-5-A | Lab Sample ID: | 410-113148-5 | Worklist Smp#: | 15 |
| Client ID: | HS23010986-07 | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envirc Job No.: 410-113148-1 Analy Batch No.: 331616

SDG No.:

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/30/2022 16:32 Calibration End Date: 12/30/2022 17:13 Calibration ID: 45608

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-331616/2 | 312022_12_30B.0002.d |
| Level 2 | IC 410-331616/3 | 312022_12_30B.0003.d |
| Level 3 | ICRT 410-331616/4 | 312022_12_30B.0004.d |
| Level 4 | IC 410-331616/5 | 312022_12_30B.0005.d |
| Level 5 | IC 410-331616/6 | 312022_12_30B.0006.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 1.980 | 1.977 | 1.973 | 1.960 | 1.943 | | | | | | 1.943 - 2.003 | 1.967 |

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113148-1  Analy Batch No.: 331616

SDG No.:

Instrument ID: 19506-B  GC Column: HP Plot  ID: 0.53(mm)  Heated Purge: (Y/N) N

Calibration Start Date: 12/30/2022 16:32  Calibration End Date: 12/30/2022 17:13  Calibration ID: 45608

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-331616/2 | 312022_12_30B.0002.d |
| Level 2 | IC 410-331616/3 | 312022_12_30B.0003.d |
| Level 3 | ICRT 410-331616/4 | 312022_12_30B.0004.d |
| Level 4 | IC 410-331616/5 | 312022_12_30B.0005.d |
| Level 5 | IC 410-331616/6 | 312022_12_30B.0006.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 5 | LVL 2 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Carbon dioxide | 4382.9 3543.4 | 4049.0 | 3981.6 | 3845.7 | Ave | | 3960.50209 | | | | 7.7 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Envirc Job No.: 410-113148-1 Analy Batch No.: 331616

SDG No.:

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/30/2022 16:32 Calibration End Date: 12/30/2022 17:13 Calibration ID: 45608

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-331616/2 | 312022_12_30B.0002.d |
| Level 2 | IC 410-331616/3 | 312022_12_30B.0003.d |
| Level 3 | ICRT 410-331616/4 | 312022_12_30B.0004.d |
| Level 4 | IC 410-331616/5 | 312022_12_30B.0005.d |
| Level 5 | IC 410-331616/6 | 312022_12_30B.0006.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Carbon dioxide | Ave | 47098229 | 87021455 | 142619437 | 344380785 | 634621588 | 10746 | 21492 | 35820 | 89550 | 179100 |

Curve Type Legend
Ave = Average by Height

Report Date: 03-Jan-2023 07:38:08

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0002.d | | | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 30-Dec-2022 16:32:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ic | | | | |
| Misc. Info.: | 410-0074294-002 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:38:08 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |
| First Level Reviewer: WN7O | | Date: | 03-Jan-2023 07:38:08 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.980 | 1.973 | 0.007 | 47098229H | 10746 | 11892 | |

## QC Flag Legend

Processing Flags

H - Response Measured by Height

## Reagents:

EPH_CO2MS_00004 Amount Added: 30.00 Units: uL

Chrom Revision: 2.3 20-Dec-2022 14:14:06

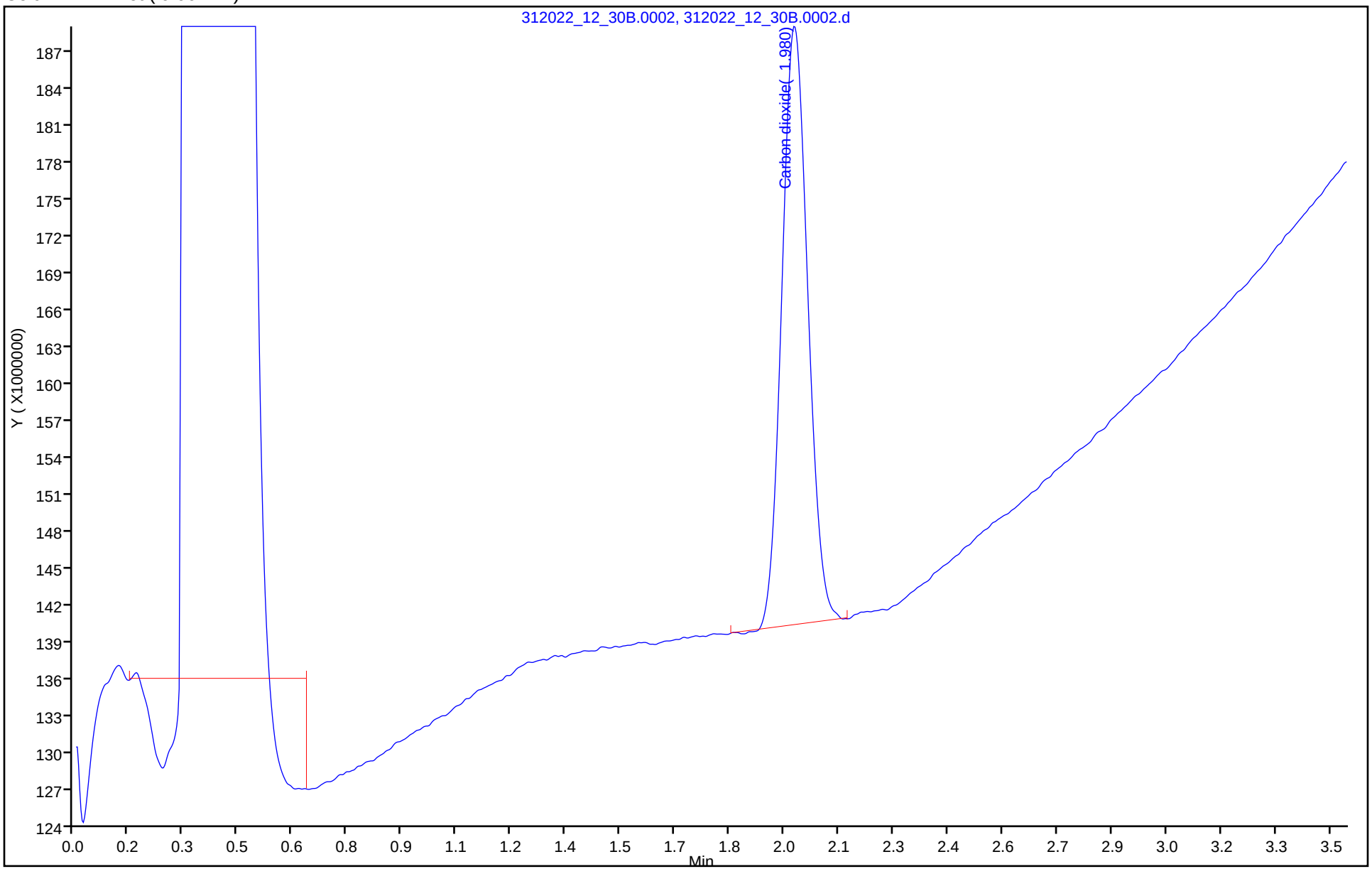
Report Date: 03-Jan-2023 07:38:08 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0002.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Dec-2022 16:32:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | IC | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 03-Jan-2023 07:31:24

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0003.d | | | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 30-Dec-2022 16:40:00 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ic | | | | |
| Misc. Info.: | 410-0074294-003 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:31:24 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.977 | 1.973 | 0.004 | 87021455H | 21492 | 21972 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 60.00 Units: uL

Chrom Revision: 2.3 20-Dec-2022 14:14:06

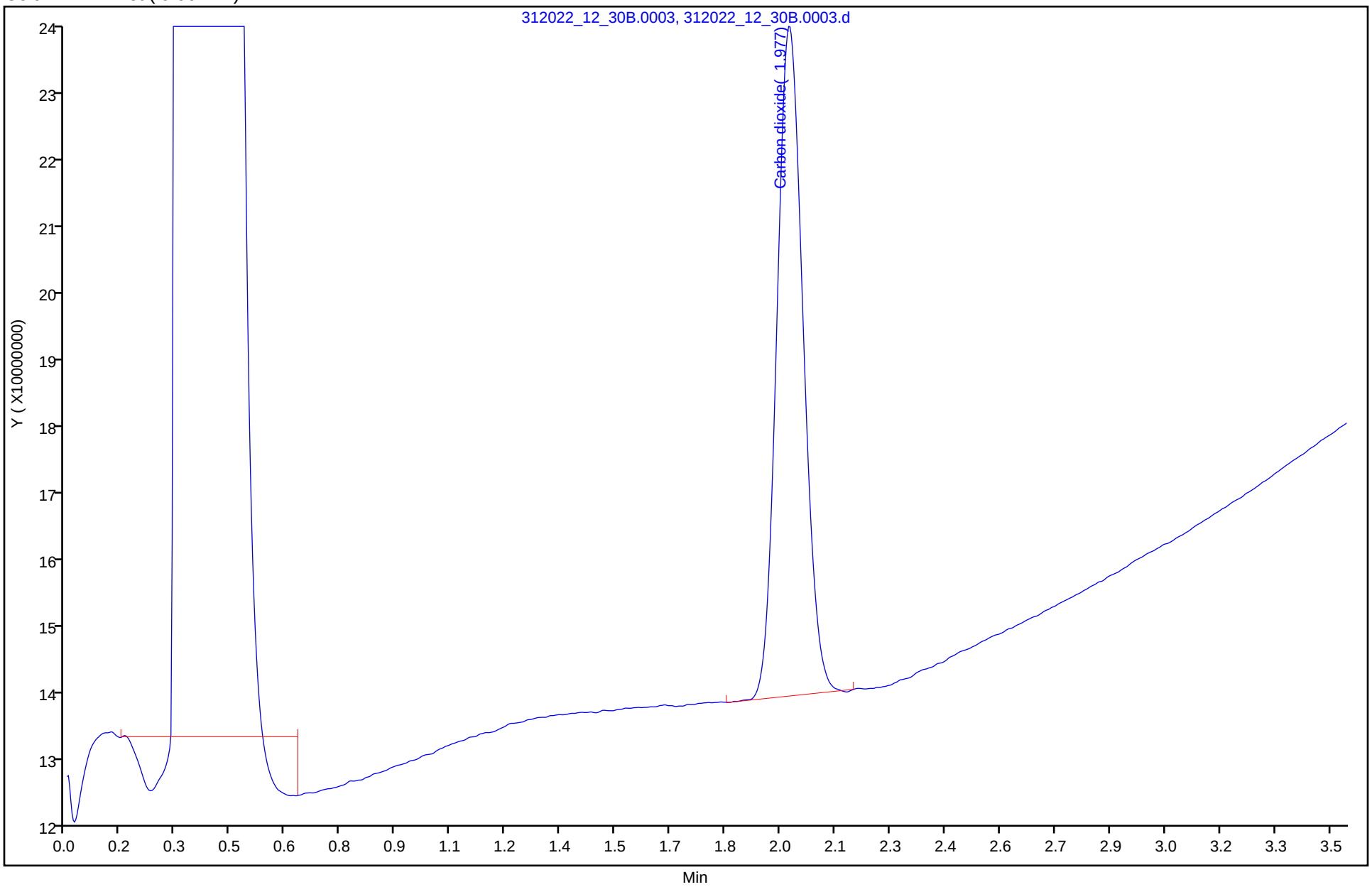
Report Date: 03-Jan-2023 07:31:24 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Dec-2022 16:40:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | IC | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 03-Jan-2023 07:31:25

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0004.d | | | | |
| Lims ID: | ICRT | | | | |
| Client ID: | | | | | |
| Sample Type: | ICRT | Calib Level: | 3 | | |
| Inject. Date: | 30-Dec-2022 16:48:00 | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | icrt | | | | |
| Misc. Info.: | 410-0074294-004 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:31:25 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.973 | 1.973 | 0.000 | 142619437 | H 35820 | 36010 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 20-Dec-2022 14:14:06

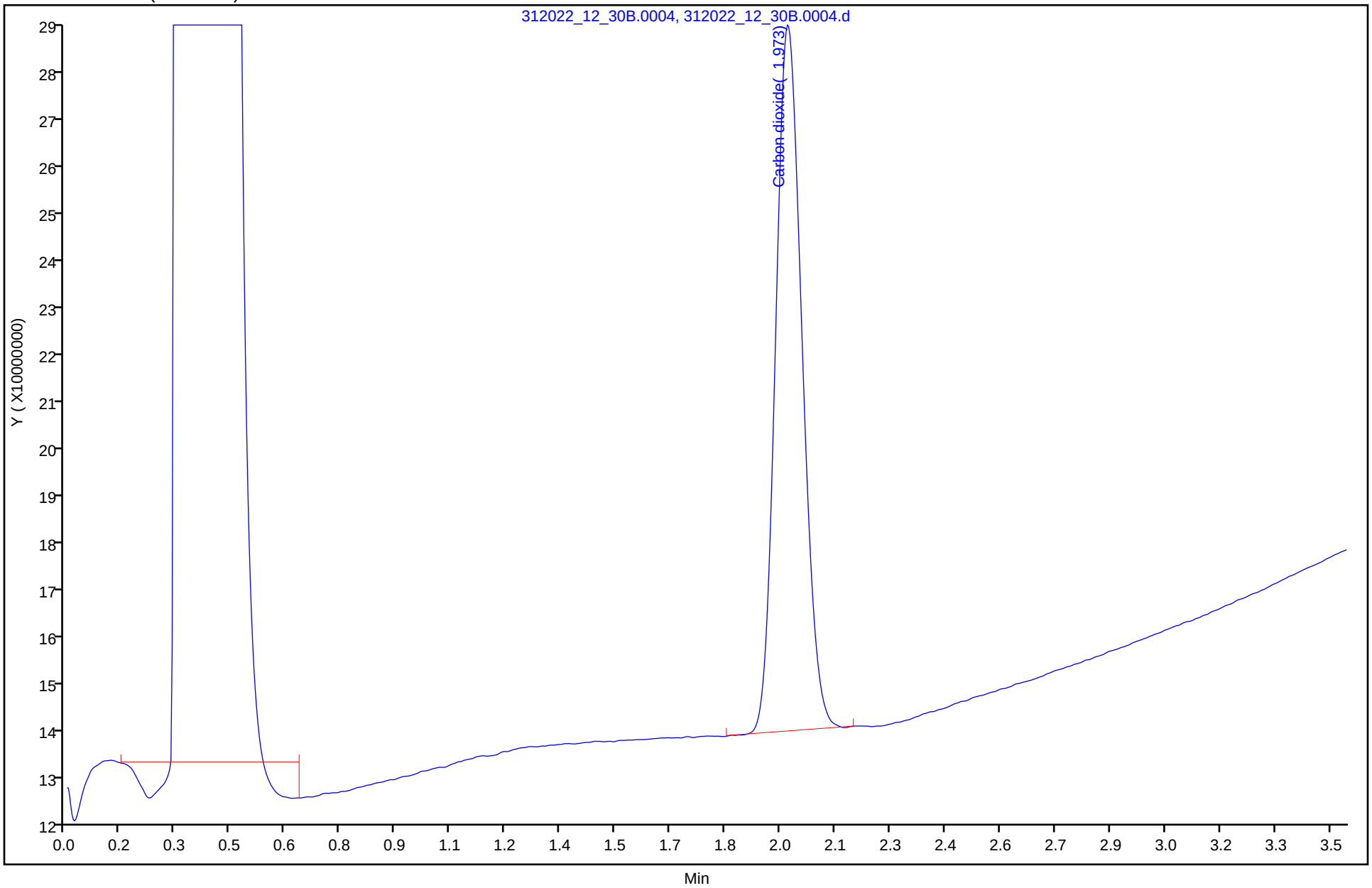
Report Date: 03-Jan-2023 07:31:25 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Dec-2022 16:48:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | ICRT | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 03-Jan-2023 07:31:26

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0005.d | | | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 30-Dec-2022 16:56:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ic | | | | |
| Misc. Info.: | 410-0074294-005 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:31:26 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.960 | 1.973 | -0.013 | 344380785 | H 89550 | 86954 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 250.00 Units: uL

Chrom Revision: 2.3 20-Dec-2022 14:14:06

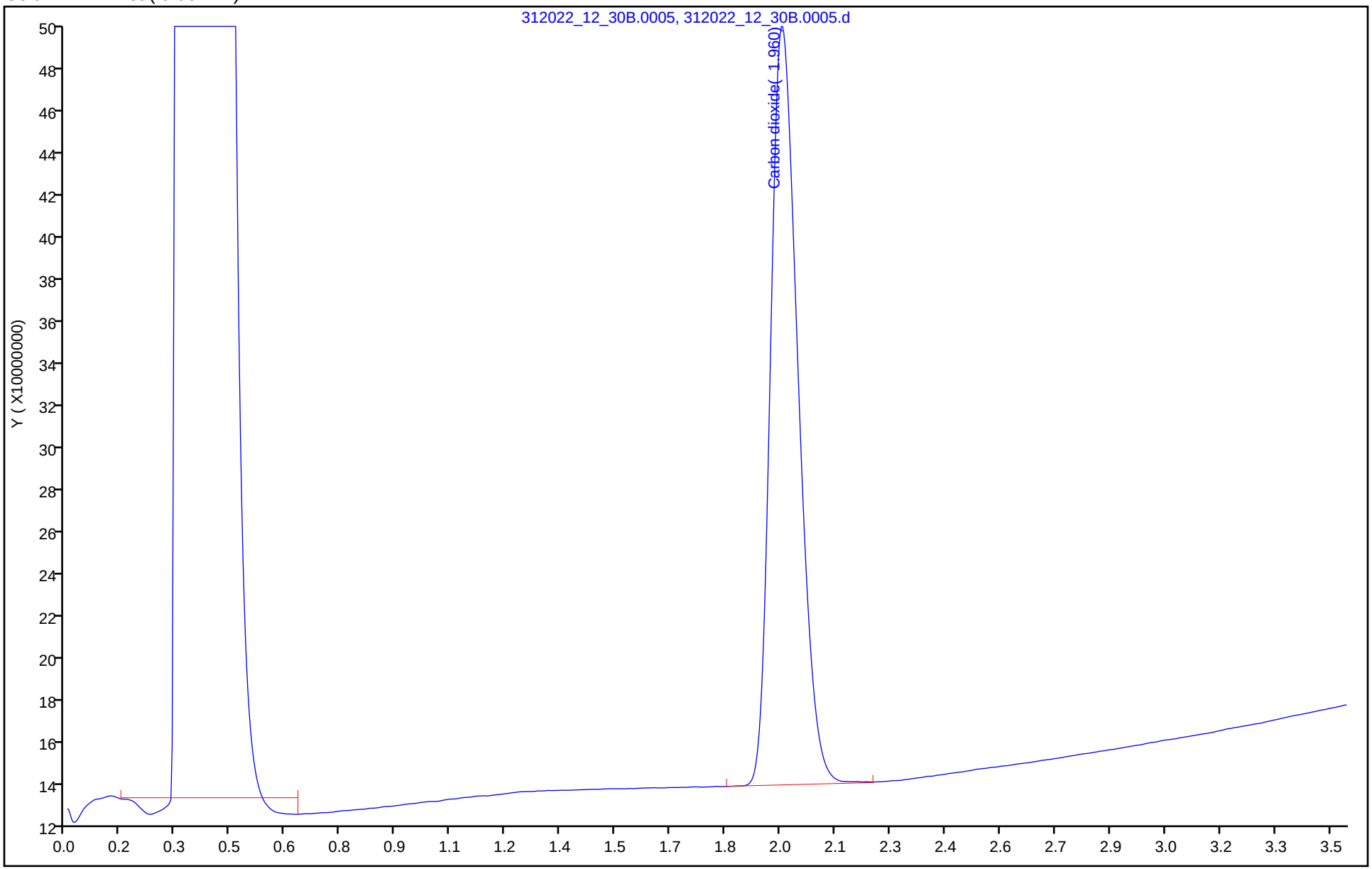
Report Date: 03-Jan-2023 07:31:26 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0005.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Dec-2022 16:56:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | IC | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 03-Jan-2023 07:31:27

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 30-Dec-2022 17:05:00 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ic | | | | |
| Misc. Info.: | 410-0074294-006 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:31:27 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |
| First Level Reviewer: WN7O | | Date: | 30-Dec-2022 17:19:32 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.943 | 1.973 | -0.030 | 634621588H | 179100 | 160238 | a |

## QC Flag Legend

Processing Flags
H - Response Measured by Height
Review Flags
a - User Assigned ID

## Reagents:

EPH_CO2MS_00004 Amount Added: 500.00 Units: uL

Chrom Revision: 2.3 20-Dec-2022 14:14:06

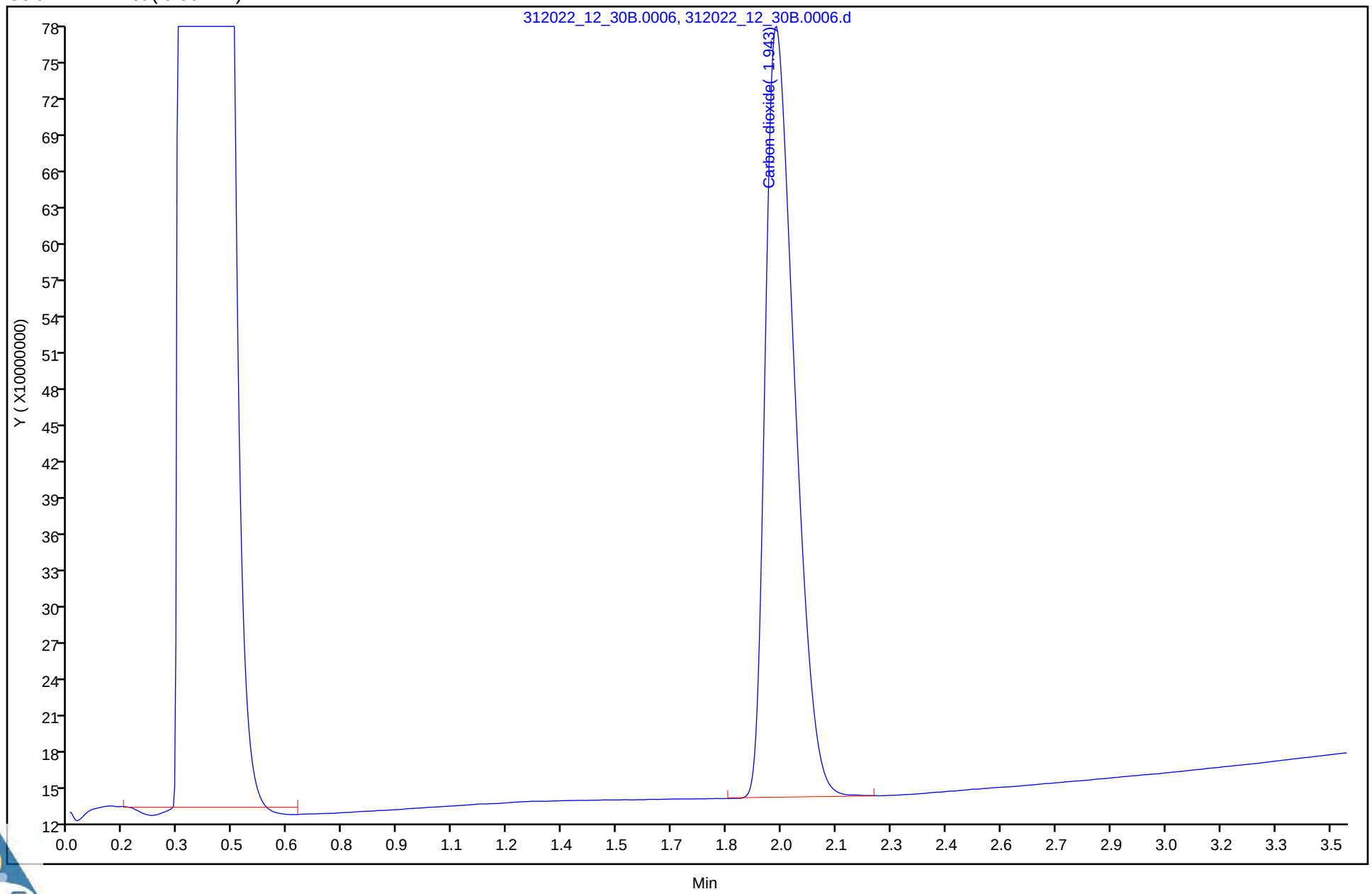
Report Date: 03-Jan-2023 07:31:27 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Dec-2022 17:05:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | IC | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 03-Jan-2023 07:31:27 Chrom Revision: 2.3 20-Dec-2022 14:14:06 Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing, LLC

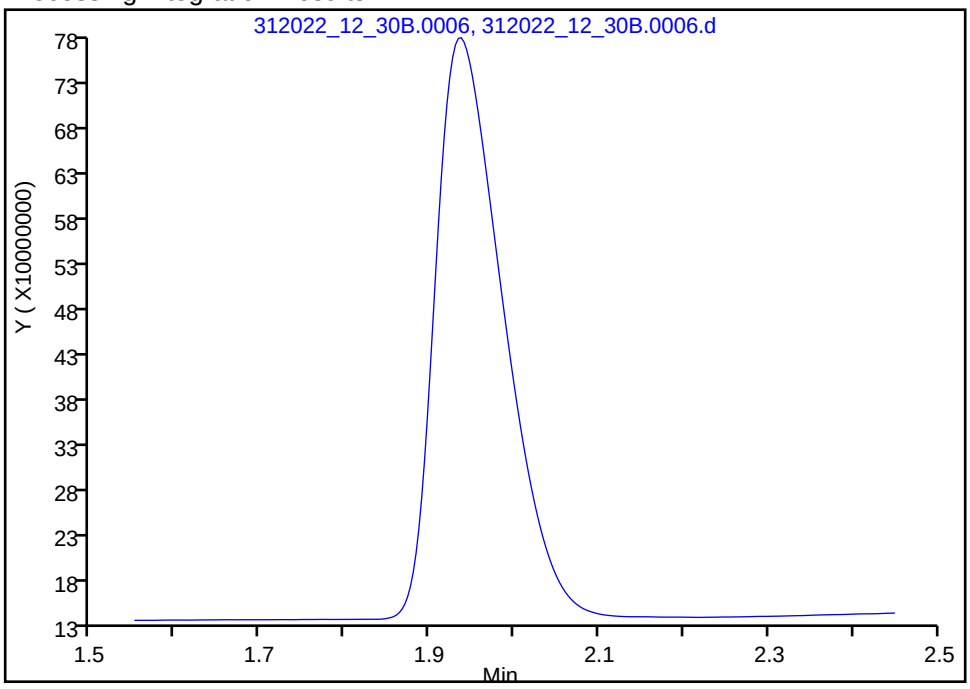
Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d
Injection Date: 30-Dec-2022 17:05:00 Instrument ID: 19506-B
Lims ID: IC
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2
Column: HP Plot ( 0.00 mm) Detector 0FIDA

## 1 Carbon dioxide, CAS: 124-38-9

Signal: 1

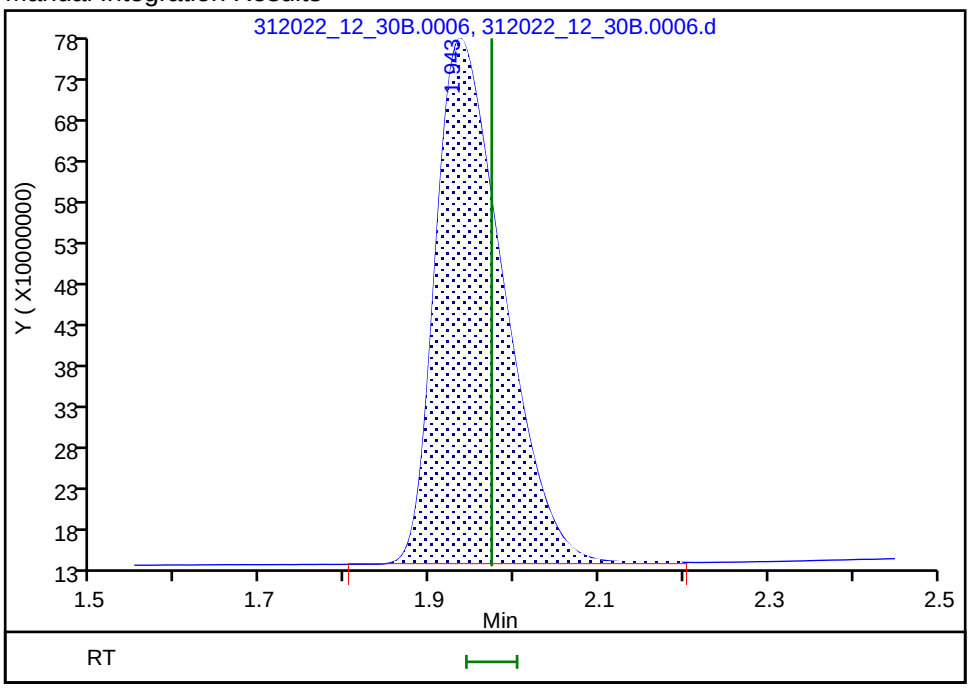
Not Detected
Expected RT: 1.97

Processing Integration Results




Manual Integration Results

RT: 1.94
Height: 634621588
Amount: 160238
Amount Units: ug/l




Audit Reason: Peak assignment corrected

Reviewer: WN7O, 30-Dec-2022 17:19:26
Audit Action: Assigned Compound ID

## Calibration / Carbon dioxide

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | HEIGHT |
| **RF Rounding:** | 0 |

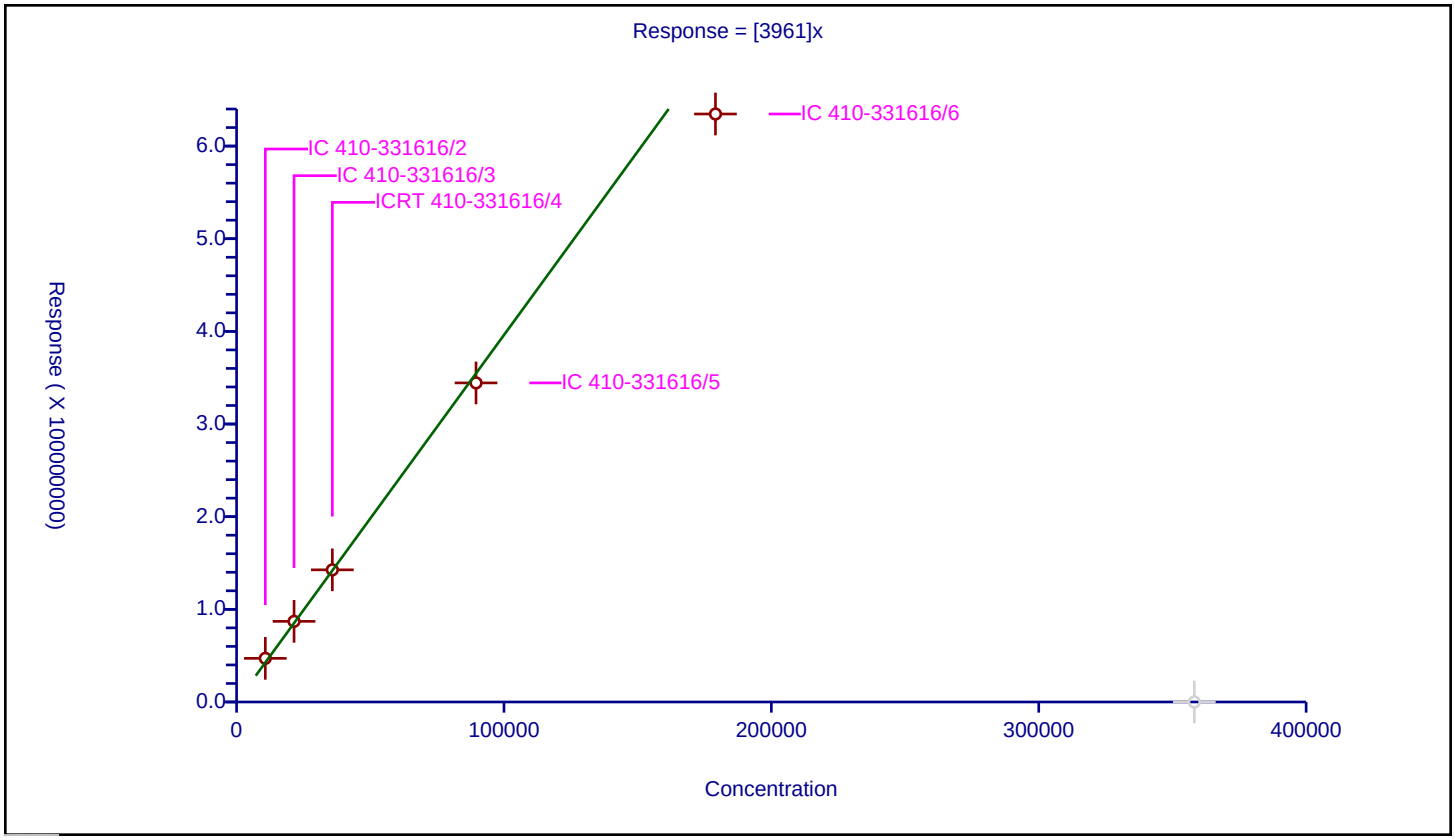
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3961 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 37800000 |
| **Relative Standard Error:** | 7.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-331616/2 | 10746.0 | 47098229.0 | | | 4382.861437 | Y |
| 2 | IC 410-331616/3 | 21492.0 | 87021455.0 | | | 4049.016146 | Y |
| 3 | ICRT 410-331616/4 | 35820.0 | 142619437.0 | | | 3981.558822 | Y |
| 4 | IC 410-331616/5 | 89550.0 | 344380785.0 | | | 3845.681575 | Y |
| 5 | IC 410-331616/6 | 179100.0 | 634621588.0 | | | 3543.392451 | Y |
| 6 | IC 410-331616/7 | 358200.0 | 0.0 | | | 0.0 | N |



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Lab Sample ID: ICV 410-331616/10 Calibration Date: 12/30/2022 17:37

Instrument ID: 19506-B Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 12/30/2022 17:13

Lab File ID: 312022_12_30B.0010.d Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | Ave | 3961 | 3752 | | 33200 | 35000 | -5.3 | 15.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Lab Sample ID: ICV 410-331616/10 Calibration Date: 12/30/2022 17:37

Instrument ID: 19506-B Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 12/30/2022 17:13

Lab File ID: 312022_12_30B.0010.d Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Carbon dioxide | 1.98 | 1.94 | 2.00 |

Report Date: 03-Jan-2023 07:38:13

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0010.d | | | | |
| Lims ID: | icv | | | | |
| Client ID: | | | | | |
| Sample Type: | ICV | | | | |
| Inject. Date: | 30-Dec-2022 17:37:00 | ALS Bottle#: | 0 | Worklist Smp#: | 10 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | icv | | | | |
| Misc. Info.: | 410-0074294-010 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:38:08 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.977 | 1.973 | 0.004 | 131333027 | H 35008 | 33161 | |

## Reagents:

EPH_CO2ICV_00002 Amount Added: 0.32 Units: mL

Chrom Revision: 2.3 20-Dec-2022 14:14:06

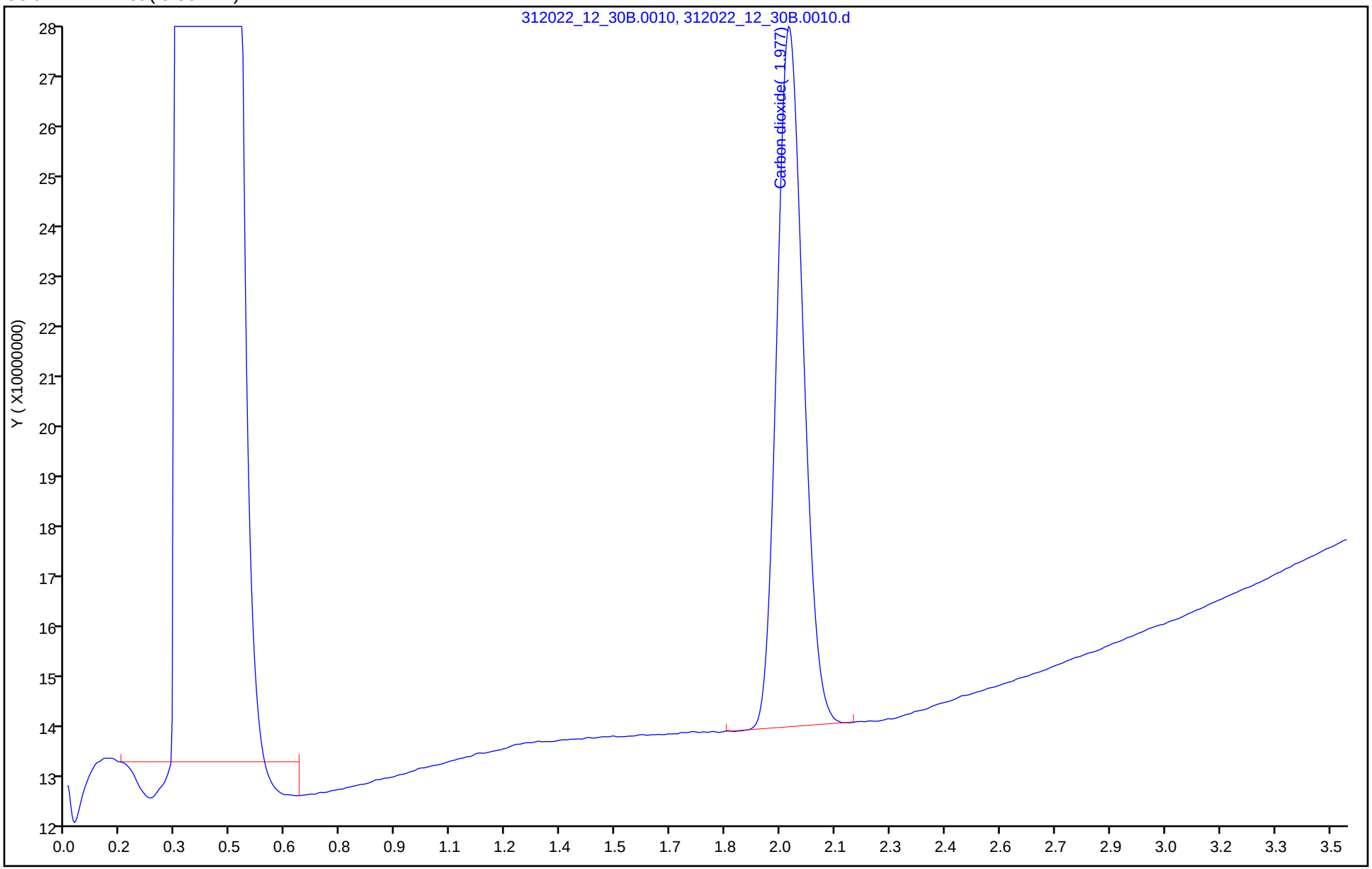
Report Date: 03-Jan-2023 07:38:13 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0010.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Dec-2022 17:37:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | icv | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Lab Sample ID: CCVRT 410-338435/4 Calibration Date: 01/25/2023 08:03

Instrument ID: 19506-B Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_25BB.0004.d Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | Ave | 3961 | 3728 | | 33700 | 35800 | -5.9 | 15.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Lab Sample ID: CCVRT 410-338435/4 Calibration Date: 01/25/2023 08:03

Instrument ID: 19506-B Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_25BB.0004.d Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Carbon dioxide | 2.05 | 2.02 | 2.08 |

Report Date: 25-Jan-2023 10:15:57

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0004.d | | | | |
| Lims ID: | ccvrt | | | | |
| Client ID: | | | | | |
| Sample Type: | CCVRT | | | | |
| Inject. Date: | 25-Jan-2023 08:03:00 | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | cond | | | | |
| Misc. Info.: | 410-0075742-002 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 25-Jan-2023 10:15:57 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1627 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.048 | 2.048 | 0.000 | 133542116 | H 35820 | 33718 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 0.10 Units: mL

Chrom Revision: 2.3 17-Jan-2023 20:47:52

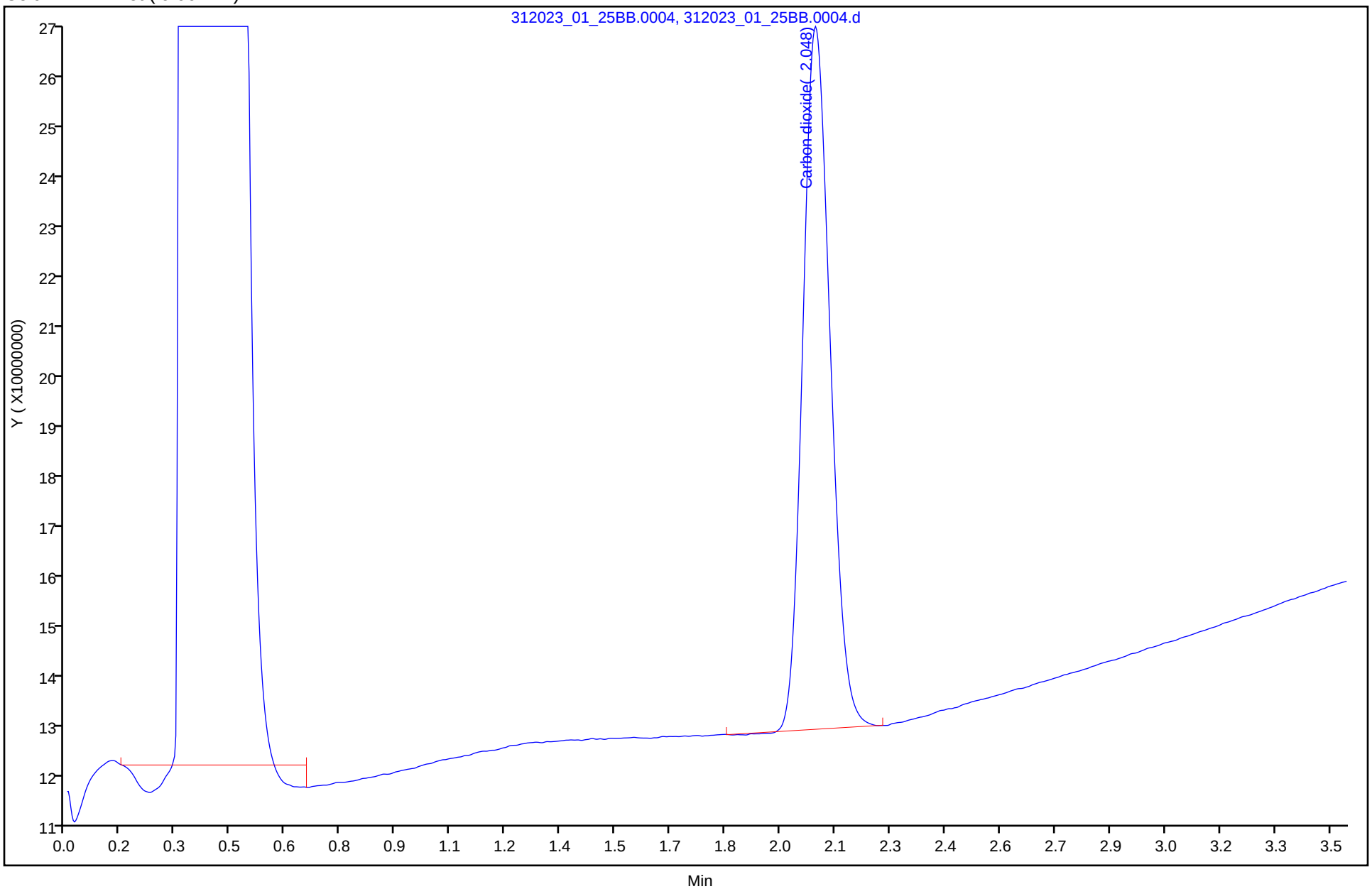
Report Date: 25-Jan-2023 10:15:57 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Jan-2023 08:03:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | ccvrt | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Lab Sample ID: CCV 410-338435/14 Calibration Date: 01/25/2023 09:46

Instrument ID: 19506-B Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_25BB.0014.d Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | Ave | 3961 | 3465 | | 31300 | 35800 | -12.5 | 15.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Lab Sample ID: CCV 410-338435/14 Calibration Date: 01/25/2023 09:46

Instrument ID: 19506-B Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_25BB.0014.d Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Carbon dioxide | 2.05 | 2.02 | 2.08 |

Report Date: 25-Jan-2023 10:16:00

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0014.d | | | | |
| Lims ID: | ccv | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 25-Jan-2023 09:46:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075742-014 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 25-Jan-2023 10:16:00 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1627 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.049 | 2.048 | 0.001 | 124123563 | H 35820 | 31340 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 17-Jan-2023 20:47:52

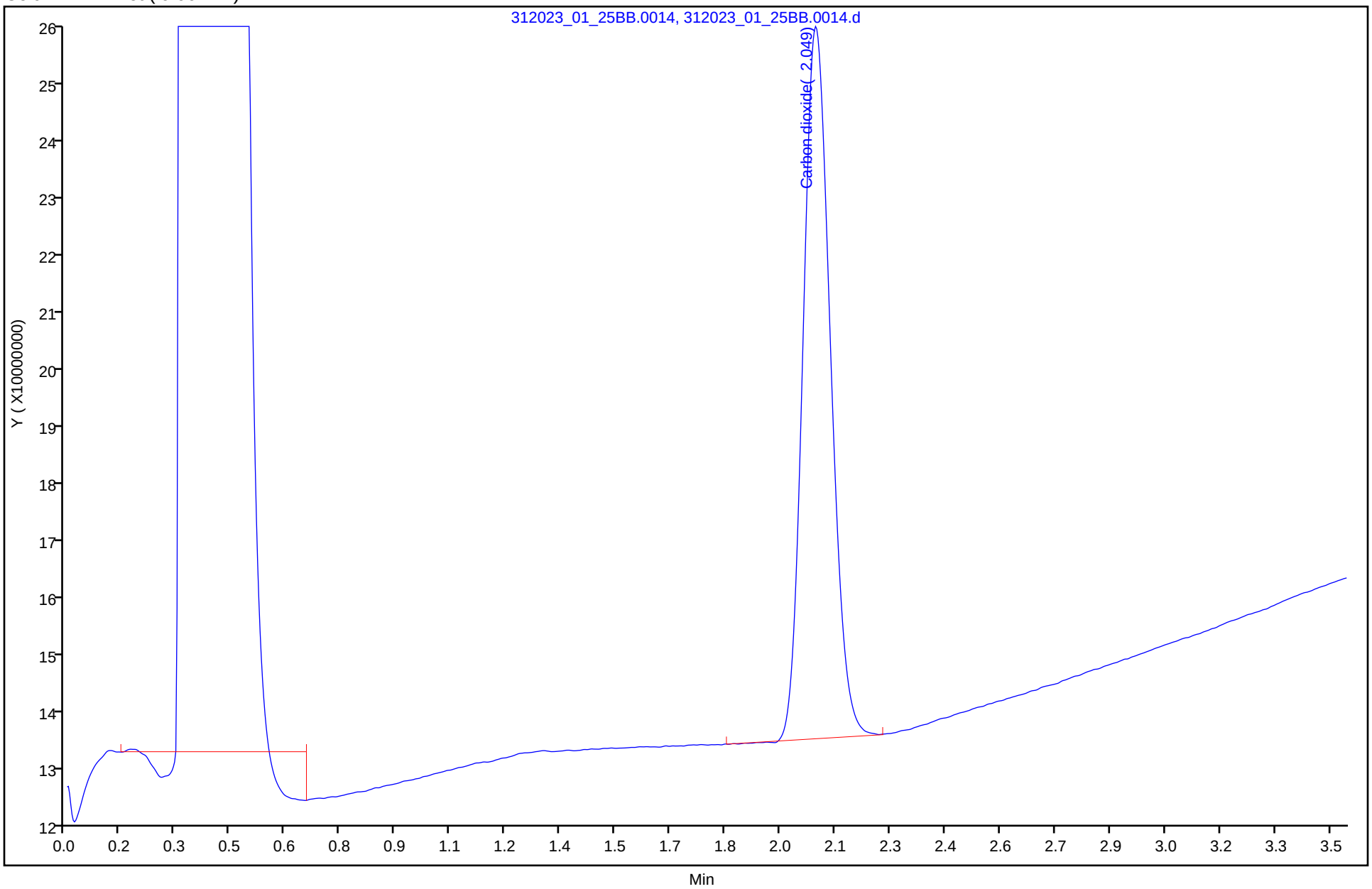
Report Date: 25-Jan-2023 10:16:01 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Jan-2023 09:46:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | ccv | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Lab Sample ID: CCV 410-338435/24 Calibration Date: 01/25/2023 11:29

Instrument ID: 19506-B Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_25BB.0024.d Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | Ave | 3961 | 3884 | | 35100 | 35800 | -1.9 | 15.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Lab Sample ID: CCV 410-338435/24 Calibration Date: 01/25/2023 11:29

Instrument ID: 19506-B Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_25BB.0024.d Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Carbon dioxide | 2.05 | 2.02 | 2.08 |

Report Date: 25-Jan-2023 11:41:38

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0024.d | | | | |
| Lims ID: | ccv | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 25-Jan-2023 11:29:00 | ALS Bottle#: | 0 | Worklist Smp#: | 24 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075742-024 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 25-Jan-2023 11:41:38 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1618 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.045 | 2.048 | -0.003 | 139141032 | H 35820 | 35132 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 17-Jan-2023 20:47:52

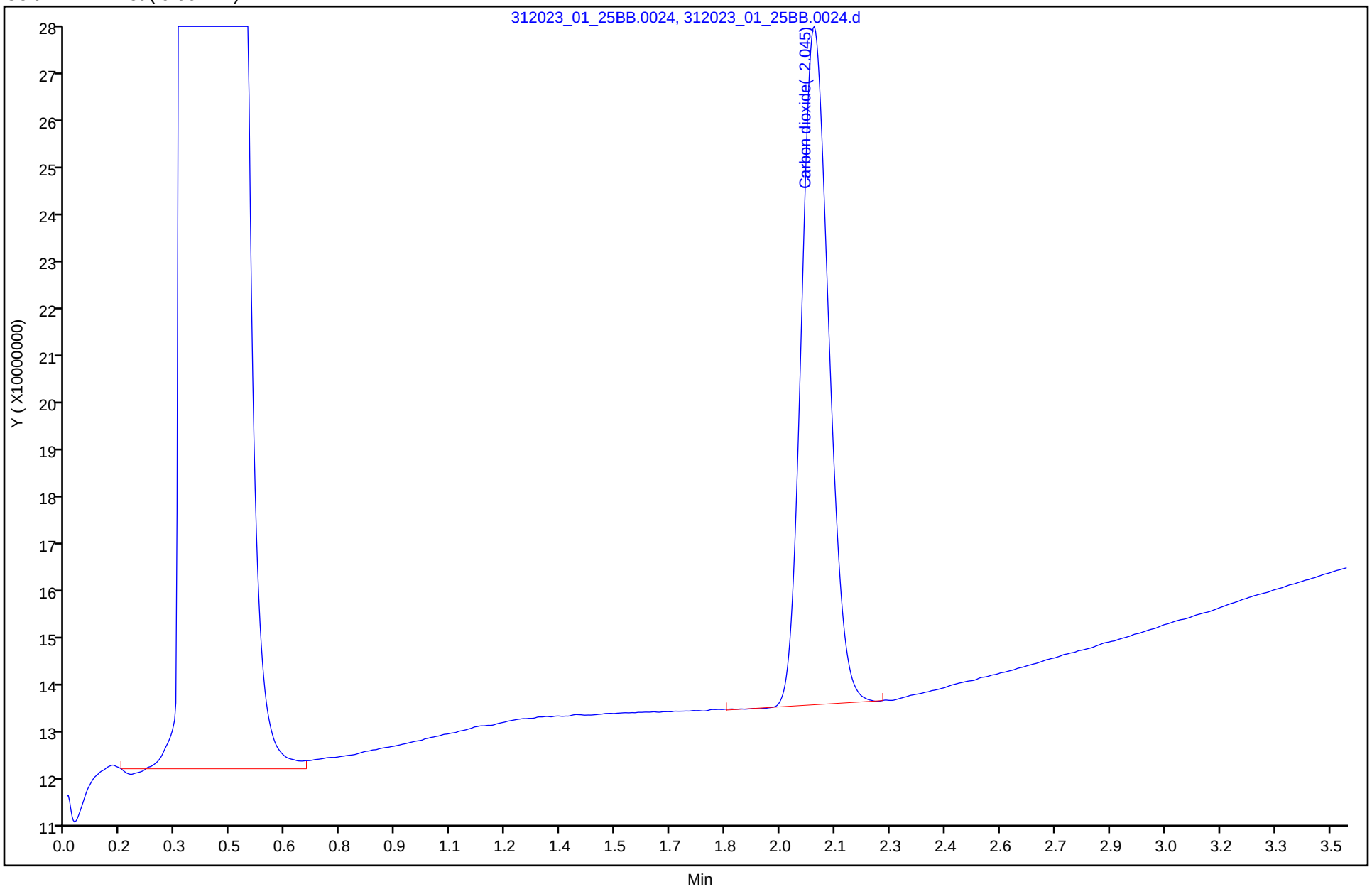
Report Date: 25-Jan-2023 11:41:39 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0024.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Jan-2023 11:29:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | ccv | | | Worklist Smp#: | 24 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Lab Sample ID: CCV 410-338435/25 Calibration Date: 01/25/2023 11:37

Instrument ID: 19506-B Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_25BB.0025.d Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | Ave | 3961 | 3665 | | 33200 | 35800 | -7.5 | 15.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Lab Sample ID: CCV 410-338435/25 Calibration Date: 01/25/2023 11:37

Instrument ID: 19506-B Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_25BB.0025.d Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Carbon dioxide | 2.05 | 2.02 | 2.08 |

Report Date: 25-Jan-2023 11:41:39

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0025.d | | | | |
| Lims ID: | ccv | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 25-Jan-2023 11:37:00 | ALS Bottle#: | 0 | Worklist Smp#: | 25 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075742-025 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 25-Jan-2023 11:41:39 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1618 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.046 | 2.048 | -0.002 | 131291278 | H 35820 | 33150 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 17-Jan-2023 20:47:52

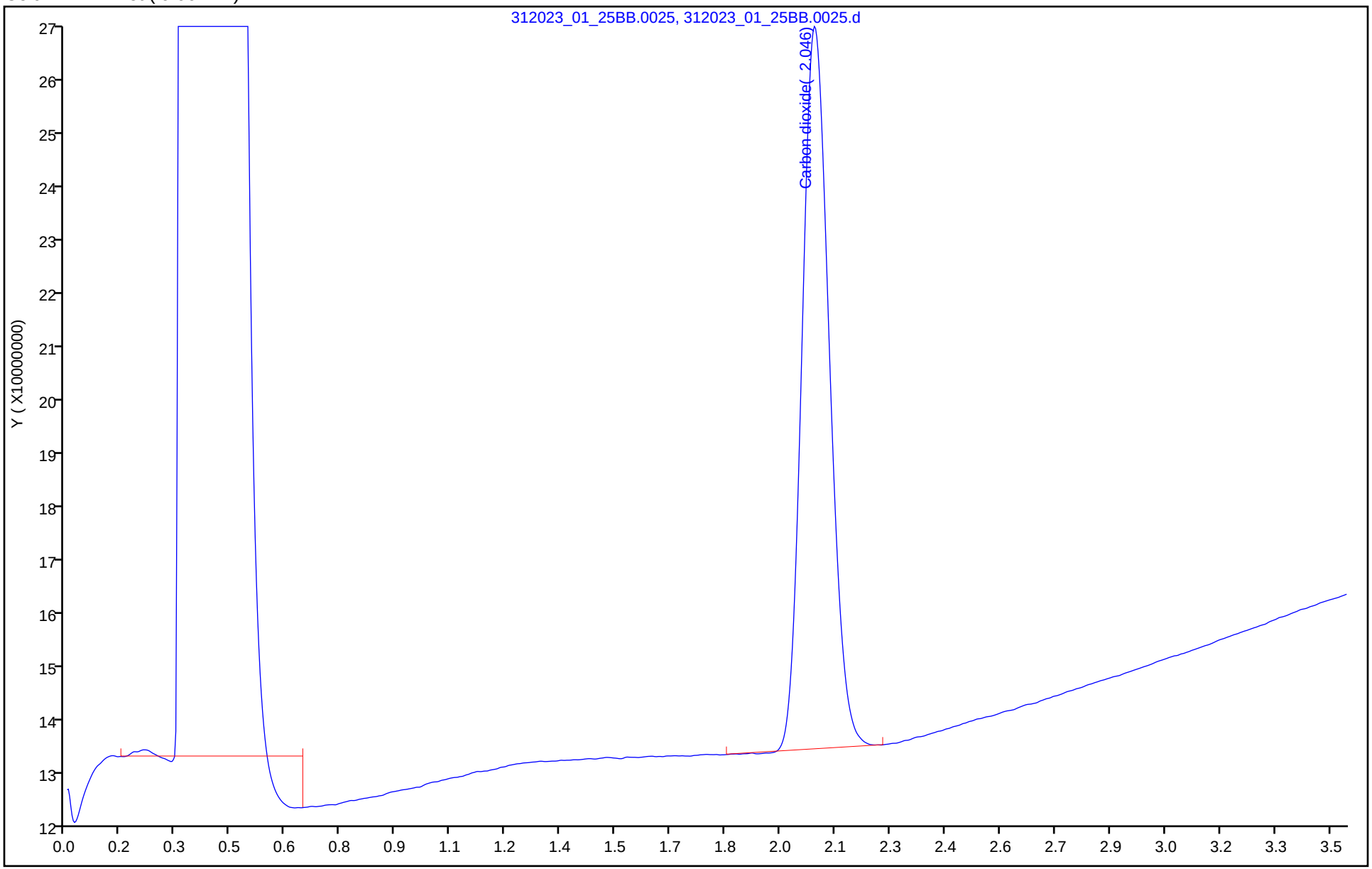
Report Date: 25-Jan-2023 11:41:39 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0025.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Jan-2023 11:37:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | ccv | | | Worklist Smp#: | 25 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC
Job No.: 410-113148-1

SDG No.:

Client Sample ID:
Lab Sample ID: MB 410-338469/1-A

Matrix: Water
Lab File ID: 312023_01_25BB.0006.d

Analysis Method: RSK-175
Date Collected:

Sample wt/vol: 5(mL)
Date Analyzed: 01/25/2023 08:34

Soil Aliquot Vol:
Dilution Factor: 1

Soil Extract Vol.:
GC Column: HP Plot ID: 0.53(mm)

Purge Volume:
Heated Purge: (Y/N) N pH:

% Moisture: % Solids:
Level: (low/med) Low

Analysis Batch No.: 338435
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 2600 | U | 12000 | 2600 |

Report Date: 25-Jan-2023 10:15:58

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0006.d | | | | |
| Lims ID: | MB 410-338469/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 25-Jan-2023 08:34:00 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | MB | | | | |
| Misc. Info.: | 410-0075742-006 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 25-Jan-2023 10:15:57 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1627 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | | 2.048 | | | | ND | |

Chrom Revision: 2.3 17-Jan-2023 20:47:52

Report Date: 25-Jan-2023 10:15:58 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0006.d

Injection Date: 25-Jan-2023 08:34:00 Instrument ID: 19506-B Operator ID:

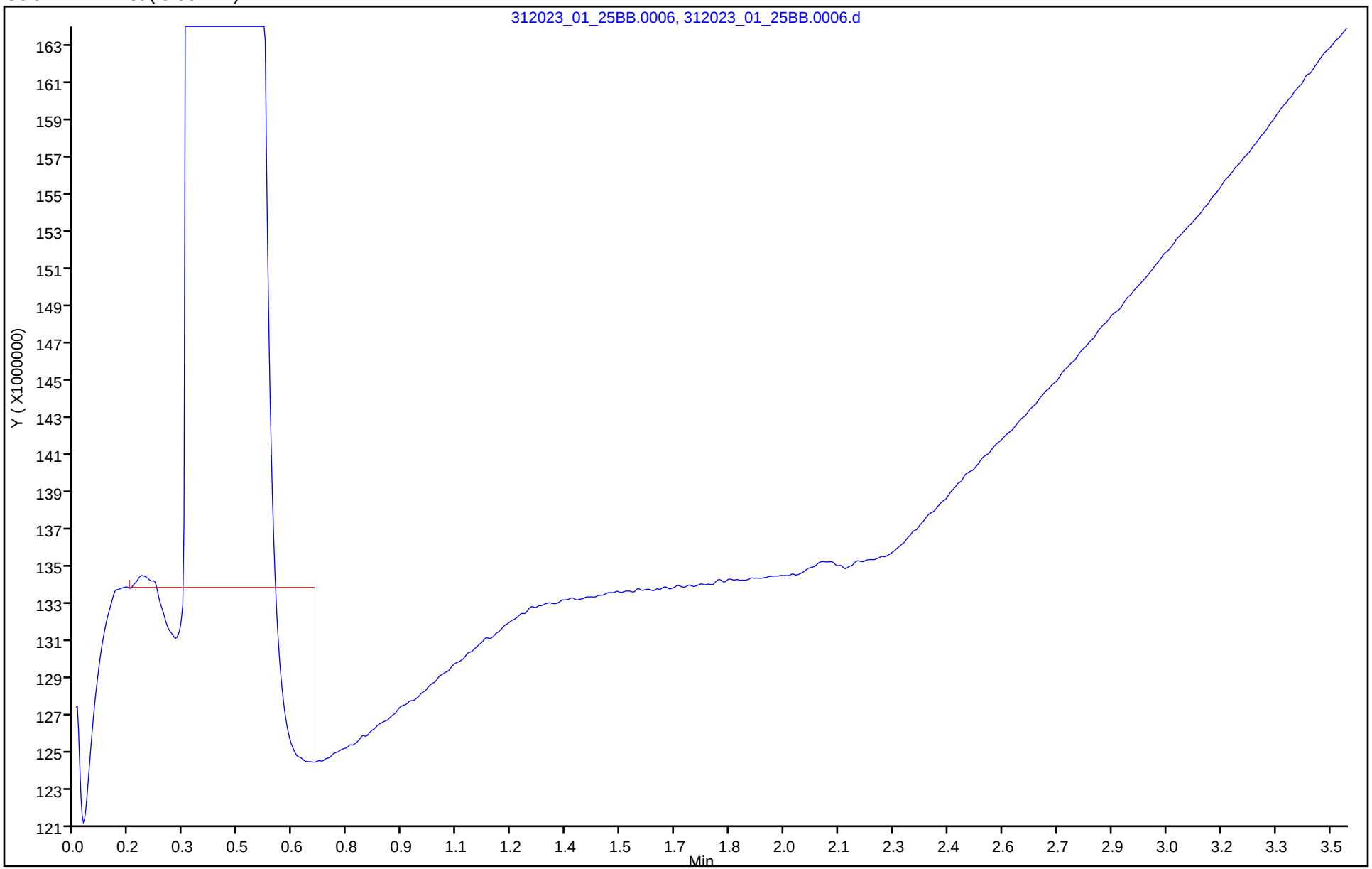
Lims ID: MB 410-338469/1-A Worklist Smp#: 6

Client ID:

Purge Vol: 1.000 mL Dil. Factor: 1.0000 ALS Bottle#: 0

Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2

Column: HP Plot ( 0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC
Job No.: 410-113148-1

SDG No.:

Client Sample ID:
Lab Sample ID: LCS 410-338469/2-A

Matrix: Water
Lab File ID: 312023_01_25BB.0007.d

Analysis Method: RSK-175
Date Collected:

Sample wt/vol: 5(mL)
Date Analyzed: 01/25/2023 08:42

Soil Aliquot Vol:
Dilution Factor: 1

Soil Extract Vol.:
GC Column: HP Plot ID: 0.53(mm)

Purge Volume:
Heated Purge: (Y/N) N pH:

% Moisture: % Solids:
Level: (low/med) Low

Analysis Batch No.: 338435
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 32400 | | 12000 | 2600 |

Report Date: 25-Jan-2023 10:15:58

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0007.d | | | | |
| Lims ID: | LCS 410-338469/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 25-Jan-2023 08:42:00 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS | | | | |
| Misc. Info.: | 410-0075742-007 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 25-Jan-2023 10:15:57 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1627 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.048 | 2.048 | 0.000 | 128244943 | H 35820 | 32381 | |

Chrom Revision: 2.3 17-Jan-2023 20:47:52

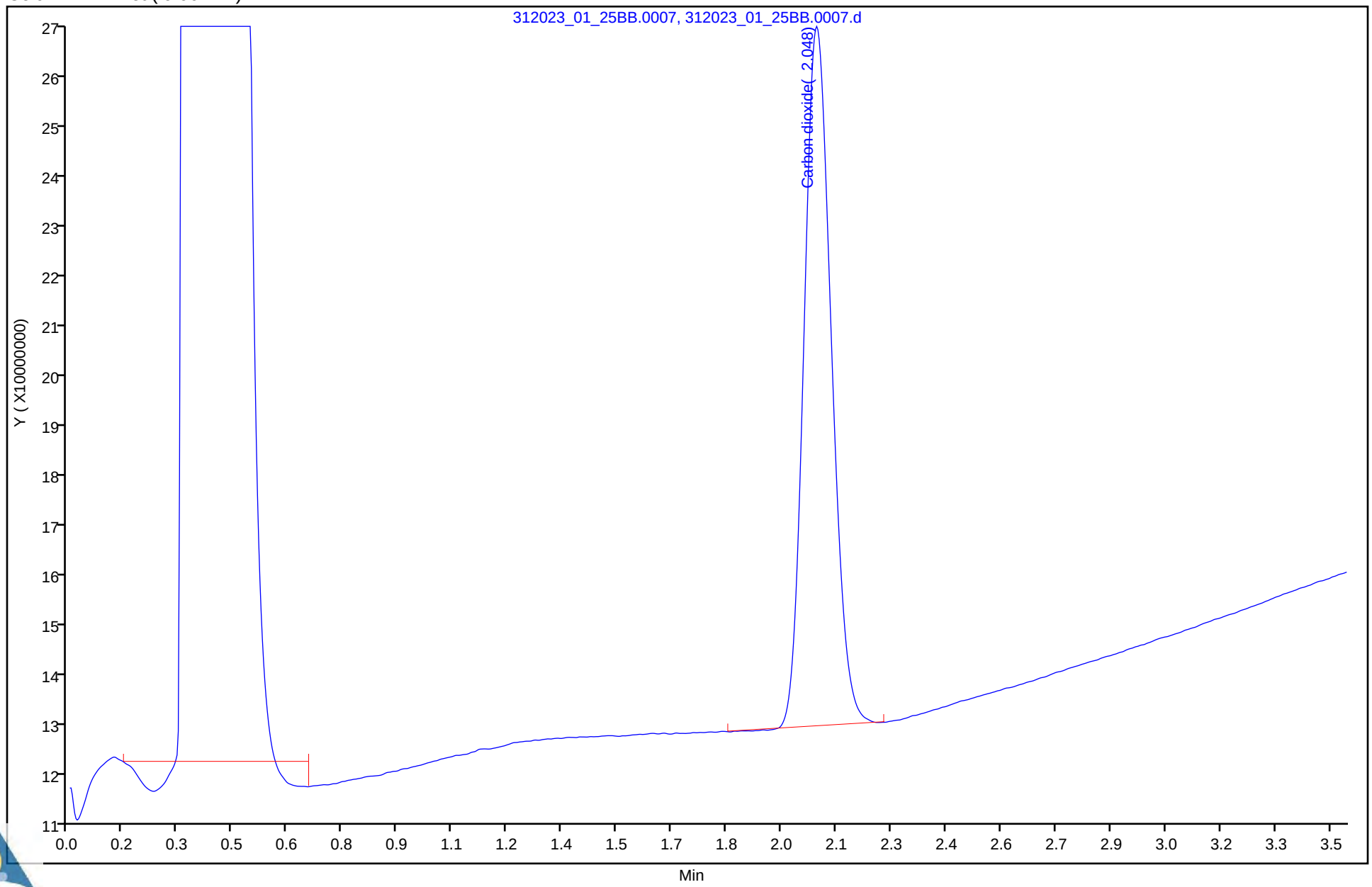
Report Date: 25-Jan-2023 10:15:58 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0007.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Jan-2023 08:42:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | LCS 410-338469/2-A | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC
Job No.: 410-113148-1

SDG No.:

Client Sample ID: HS23010986-05 MS
Lab Sample ID: 410-113148-3 MS

Matrix: Water
Lab File ID: 312023_01_25BB.0011.d

Analysis Method: RSK-175
Date Collected: 01/19/2023 12:55

Sample wt/vol: 5(mL)
Date Analyzed: 01/25/2023 09:23

Soil Aliquot Vol:
Dilution Factor: 1

Soil Extract Vol.:
GC Column: HP Plot ID: 0.53(mm)

Purge Volume:
Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids:
Level: (low/med) Low

Analysis Batch No.: 338435
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 171000 | M J1 | 12000 | 2600 |

Report Date: 25-Jan-2023 10:15:59

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0011.d | | | | |
| Lims ID: | 410-113148-A-3-B MS | | | | |
| Client ID: | HS23010986-05 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 25-Jan-2023 09:23:00 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075742-011 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 25-Jan-2023 10:15:57 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1627 | | | | |
| First Level Reviewer: WN7O | | Date: | 25-Jan-2023 09:39:26 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.010 | 2.048 | -0.038 | 676550205H | 35820 | 170824 | a |

## QC Flag Legend

Processing Flags
H - Response Measured by Height
Review Flags
a - User Assigned ID

Chrom Revision: 2.3 17-Jan-2023 20:47:52

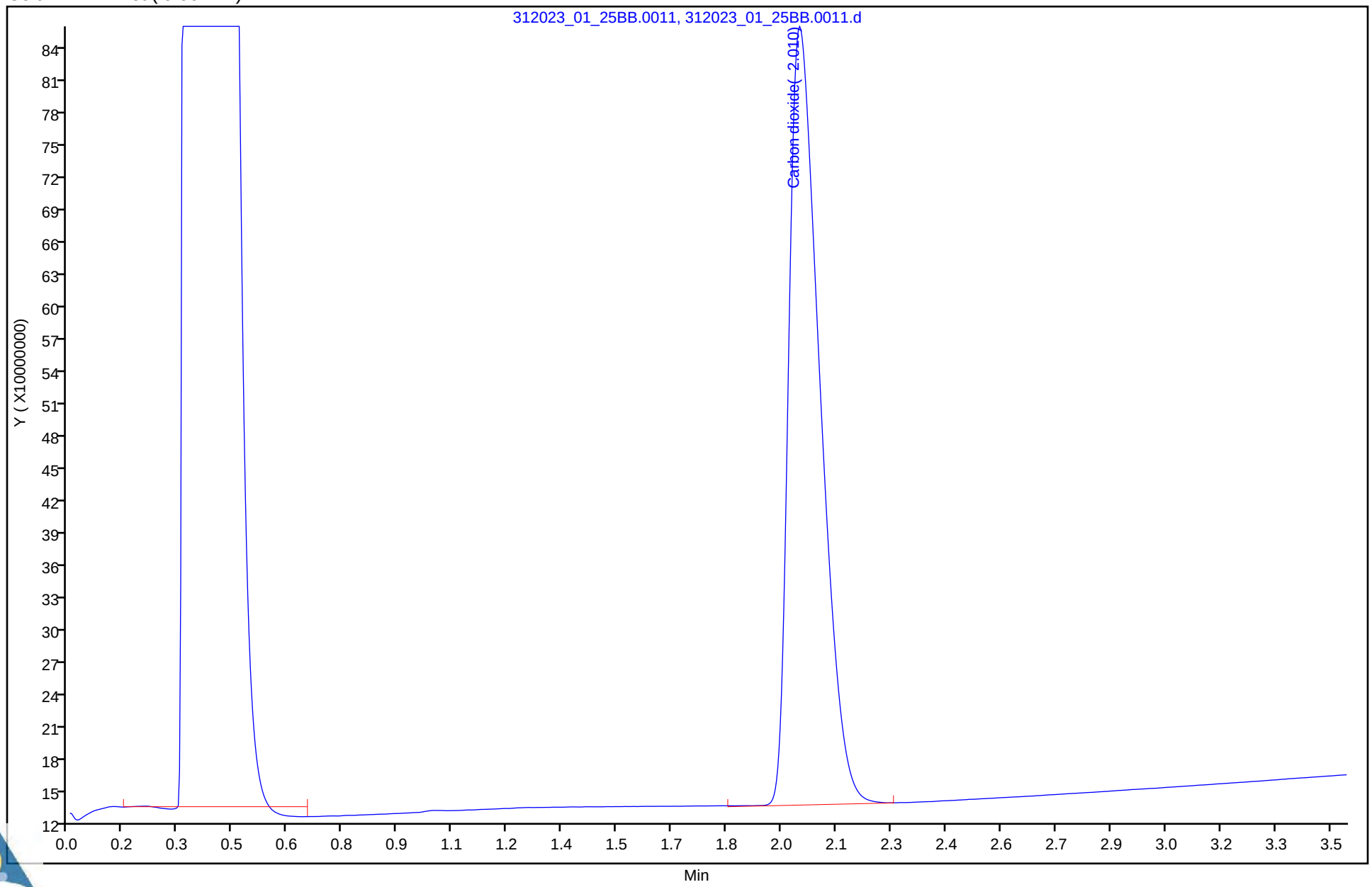
Report Date: 25-Jan-2023 10:15:59 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0011.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Jan-2023 09:23:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | 410-113148-A-3-B MS | | | Worklist Smp#: | 11 |
| Client ID: | HS23010986-05 | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 25-Jan-2023 10:15:59 Chrom Revision: 2.3 17-Jan-2023 20:47:52 Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing, LLC

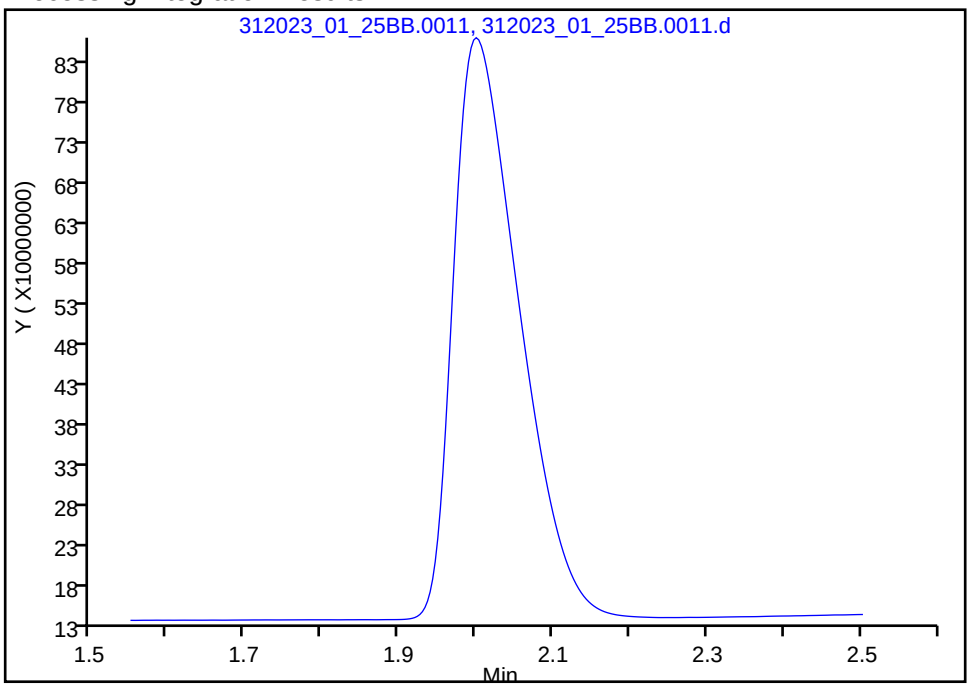
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0011.d | | |
| Injection Date: | 25-Jan-2023 09:23:00 | Instrument ID: | 19506-B |
| Lims ID: | 410-113148-A-3-B MS | | |
| Client ID: | HS23010986-05 | | |
| Operator ID: | | ALS Bottle#: | 0 Worklist Smp#: 11 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 |
| Column: | HP Plot ( 0.00 mm) | Detector | 0FIDA |

## 1 Carbon dioxide, CAS: 124-38-9

Signal: 1

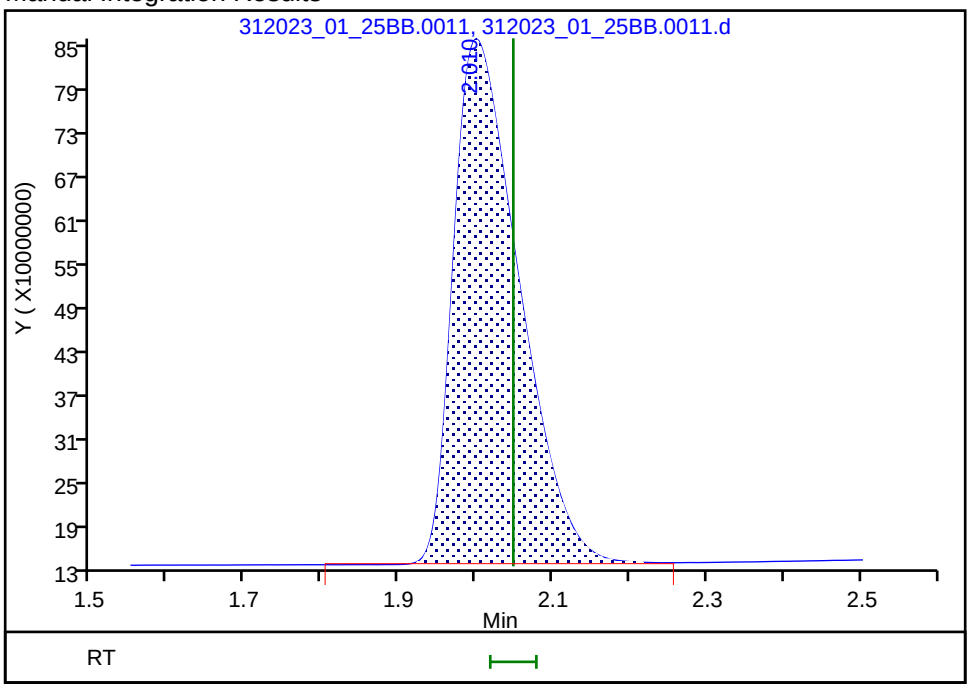
Not Detected
Expected RT: 2.05

Processing Integration Results




Manual Integration Results

RT: 2.01
Height: 676550205
Amount: 170824
Amount Units: ug/l




Audit Reason: Peak assignment corrected

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC
Job No.: 410-113148-1

SDG No.:

Client Sample ID: HS23010986-05 MSD
Lab Sample ID: 410-113148-3 MSD

Matrix: Water
Lab File ID: 312023_01_25BB.0012.d

Analysis Method: RSK-175
Date Collected: 01/19/2023 12:55

Sample wt/vol: 5(mL)
Date Analyzed: 01/25/2023 09:31

Soil Aliquot Vol:
Dilution Factor: 1

Soil Extract Vol.:
GC Column: HP Plot ID: 0.53(mm)

Purge Volume:
Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids:
Level: (low/med) Low

Analysis Batch No.: 338435
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 134000 | J1 | 12000 | 2600 |

Report Date: 25-Jan-2023 10:16:00

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0012.d | | | | |
| Lims ID: | 410-113148-A-3-C MSD | | | | |
| Client ID: | HS23010986-05 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 25-Jan-2023 09:31:00 | ALS Bottle#: | 0 | Worklist Smp#: | 12 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075742-012 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 25-Jan-2023 10:15:57 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1627 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.021 | 2.048 | -0.027 | 529982677 | H 35820 | 133817 | |

Chrom Revision: 2.3 17-Jan-2023 20:47:52

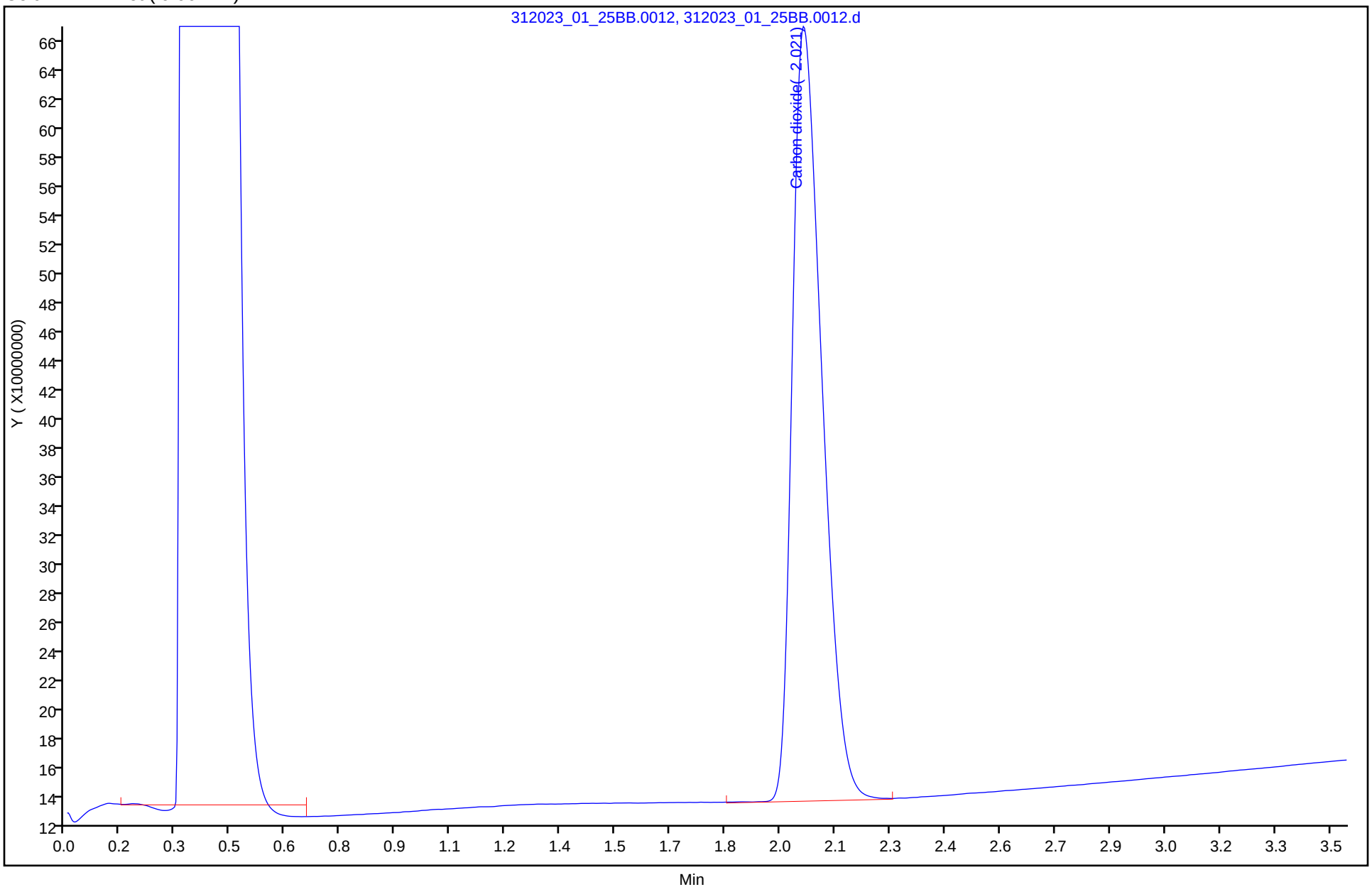
Report Date: 25-Jan-2023 10:16:00 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230125-75742.b\312023_01_25BB.0012.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Jan-2023 09:31:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | 410-113148-A-3-C MSD | | | Worklist Smp#: | 12 |
| Client ID: | HS23010986-05 | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



# GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Instrument ID: 19506-B Start Date: 12/30/2022 16:24

Analysis Batch Number: 331616 End Date: 12/30/2022 22:25

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| PIBLK 410-331616/1 | | 12/30/2022 16:24 | 1 | | HP Plot 0.53(mm) |
| IC 410-331616/2 | | 12/30/2022 16:32 | 1 | 312022_12_30B.0002.d | HP Plot 0.53(mm) |
| IC 410-331616/3 | | 12/30/2022 16:40 | 1 | 312022_12_30B.0003.d | HP Plot 0.53(mm) |
| ICRT 410-331616/4 | | 12/30/2022 16:48 | 1 | 312022_12_30B.0004.d | HP Plot 0.53(mm) |
| IC 410-331616/5 | | 12/30/2022 16:56 | 1 | 312022_12_30B.0005.d | HP Plot 0.53(mm) |
| IC 410-331616/6 | | 12/30/2022 17:05 | 1 | 312022_12_30B.0006.d | HP Plot 0.53(mm) |
| IC 410-331616/7 | | 12/30/2022 17:13 | 1 | | HP Plot 0.53(mm) |
| PIBLK 410-331616/8 | | 12/30/2022 17:21 | 1 | | HP Plot 0.53(mm) |
| ICVL 410-331616/9 | | 12/30/2022 17:29 | 1 | | HP Plot 0.53(mm) |
| ICV 410-331616/10 | | 12/30/2022 17:37 | 1 | 312022_12_30B.0010.d | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:10 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:17 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:26 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:33 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:41 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:48 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:56 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:04 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:11 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:19 | 1 | | HP Plot 0.53(mm) |
| CCV 410-331616/21 | | 12/30/2022 19:27 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:34 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:42 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:50 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:57 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:05 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:13 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:20 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:28 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:35 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:43 | 1 | | HP Plot 0.53(mm) |
| CCV 410-331616/32 | | 12/30/2022 20:51 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:03 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:11 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:20 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:28 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:36 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:44 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:52 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 22:01 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 22:09 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 22:17 | 5 | | HP Plot 0.53(mm) |

# GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Enviror Job No.: 410-113148-1

SDG No.:

Instrument ID: 19506-B Start Date: 12/30/2022 16:24

Analysis Batch Number: 331616 End Date: 12/30/2022 22:25

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 410-331616/43 | | 12/30/2022 22:25 | 1 | | HP Plot 0.53(mm) |

# GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Enviror  Job No.: 410-113148-1

SDG No.:

Instrument ID: 19506-B  Start Date: 01/25/2023 08:03

Analysis Batch Number: 338435  End Date: 01/25/2023 11:37

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCVRT 410-338435/4 | | 01/25/2023 08:03 | 1 | 312023_01_25BB.0004.d | HP Plot 0.53(mm) |
| ICVL 410-338435/5 | | 01/25/2023 08:27 | 1 | | HP Plot 0.53(mm) |
| MB 410-338469/1-A | | 01/25/2023 08:34 | 1 | 312023_01_25BB.0006.d | HP Plot 0.53(mm) |
| LCS 410-338469/2-A | | 01/25/2023 08:42 | 1 | 312023_01_25BB.0007.d | HP Plot 0.53(mm) |
| 410-113148-1 | HS23010986-01 | 01/25/2023 09:00 | 1 | 312023_01_25BB.0008.d | HP Plot 0.53(mm) |
| 410-113148-2 | HS23010986-04 | 01/25/2023 09:08 | 1 | 312023_01_25BB.0009.d | HP Plot 0.53(mm) |
| 410-113148-3 | HS23010986-05 | 01/25/2023 09:16 | 1 | 312023_01_25BB.0010.d | HP Plot 0.53(mm) |
| 410-113148-3 MS | HS23010986-05 MS | 01/25/2023 09:23 | 1 | 312023_01_25BB.0011.d | HP Plot 0.53(mm) |
| 410-113148-3 MSD | HS23010986-05 MSD | 01/25/2023 09:31 | 1 | 312023_01_25BB.0012.d | HP Plot 0.53(mm) |
| 410-113148-4 | HS23010986-06 | 01/25/2023 09:38 | 1 | 312023_01_25BB.0013.d | HP Plot 0.53(mm) |
| CCV 410-338435/14 | | 01/25/2023 09:46 | 1 | 312023_01_25BB.0014.d | HP Plot 0.53(mm) |
| 410-113148-5 | HS23010986-07 | 01/25/2023 09:59 | 1 | 312023_01_25BB.0015.d | HP Plot 0.53(mm) |
| ZZZZZ | | 01/25/2023 10:06 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 01/25/2023 10:14 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 01/25/2023 10:22 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 01/25/2023 10:30 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 01/25/2023 10:37 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 01/25/2023 10:45 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 01/25/2023 10:53 | 1 | | HP Plot 0.53(mm) |
| CCV 410-338435/23 | | 01/25/2023 11:00 | 1 | | HP Plot 0.53(mm) |
| CCV 410-338435/24 | | 01/25/2023 11:29 | 1 | 312023_01_25BB.0024.d | HP Plot 0.53(mm) |
| CCV 410-338435/25 | | 01/25/2023 11:37 | 1 | 312023_01_25BB.0025.d | HP Plot 0.53(mm) |

# GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratories  Job No.: 410-113148-1

SDG No.:

Batch Number: 331616  Batch Start Date: 12/30/22 16:24  Batch Analyst: Patrushev, James P

Batch Method: RSK-175  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | EPH_CO2ICV 00002 | EPH_CO2MS 00004 | | |
|---|---|---|---|---|---|---|---|---|---|
| IC 410-331616/2 | | RSK-175 | | 5 mL | 5 mL | | 30 uL | | |
| IC 410-331616/3 | | RSK-175 | | 5 mL | 5 mL | | 60 uL | | |
| ICRT 410-331616/4 | | RSK-175 | | 5 mL | 5 mL | | 100 uL | | |
| IC 410-331616/5 | | RSK-175 | | 5 mL | 5 mL | | 250 uL | | |
| IC 410-331616/6 | | RSK-175 | | 5 mL | 5 mL | | 500 uL | | |
| ICV 410-331616/10 | | RSK-175 | | 5 mL | 5 mL | 0.32 mL | | | |

| Batch Notes | |
|---|---|
| | |

| Basis | Basis Description |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratories  Job No.: 410-113148-1

SDG No.:

Batch Number: 338469  Batch Start Date: 01/25/23 08:22  Batch Analyst: Patrushev, James P

Batch Method: RSK-175  Batch End Date: 01/25/23 08:53

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | Headspace | EPH_CO2MS 00004 | |
|---|---|---|---|---|---|---|---|---|---|
| MB 410-338469/1 | | RSK-175, RSK-175 | | | 5 mL | 5 mL | | | |
| LCS 410-338469/2 | | RSK-175, RSK-175 | | | 5 mL | 5 mL | | 0.1 mL | |
| 410-113148-A-1 | HS23010986-01 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | | |
| 410-113148-A-2 | HS23010986-04 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | | |
| 410-113148-A-3 | HS23010986-05 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | | |
| 410-113148-A-3 MS | HS23010986-05 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | 0.1 mL | |
| 410-113148-A-3 MSD | HS23010986-05 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | 0.1 mL | |
| 410-113148-A-4 | HS23010986-06 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | | |
| 410-113148-A-5 | HS23010986-07 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | | |

| Batch Notes | |
|---|---|
| Pipette/Syringe/Dispenser ID | 7105 |
| pH Indicator ID | 10BDH1521 |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents

410-113148 Chain of Custody

10450 Stancliff Rd, Ste 210
Houston, TX 77099
**T:** +1 281 530 5656
**F:** +1 281 530 5887
**www.alsglobal.com**

# Subcontract Chain of Custody

**SAMPLING STATE:** Dept of Defense **COC ID:** 20793

**SUBCONTRACT TO:**

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601 **Phone:** +1 717 656 2300

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | HS23010986 |
| **TSR:** | Ron Martino |

| | LAB SAMPLE ID | CLIENT SAMPLE ID | MATRIX | COLLECT DATE |
|---|---|---|---|---|
| | ANALYSIS REQUESTED | | | DUE DATE |
| 1. | HS23010986-01 | 16WW41-230119 | Groundwater | 19 Jan 2023 09:00 |
| | RSK - CO2; Level II & IV, LHAAP EQUIS EDD | | | 03 Feb 2023 |
| 2. | HS23010986-04 | 16WW55-230119 | Groundwater | 19 Jan 2023 12:05 |
| | RSK - CO2; Level II & IV, LHAAP EQUIS EDD | | | 03 Feb 2023 |
| 3. | HS23010986-05 | 16WW35-230119 | Groundwater | 19 Jan 2023 12:55 |
| | RSK - CO2; Level II & IV, LHAAP EQUIS EDD | | | 03 Feb 2023 |
| 4. | HS23010986-06 | 16WW16-230119 | Groundwater | 19 Jan 2023 14:30 |
| | RSK - CO2; Level II & IV, LHAAP EQUIS EDD | | | 03 Feb 2023 |
| 5. | HS23010986-07 | 16WW16-230119-FD | Groundwater | 19 Jan 2023 14:30 |
| | RSK - CO2; Level II & IV, LHAAP EQUIS EDD | | | 03 Feb 2023 |

**Comments:** Please analyze for the analysis listed above.
Send report to the emails shown above.
HS23010986-05 = ms/msd

**QC Level:** DOD IV (DoD Data Package)

# Subcontract Chain of Custody

**SAMPLING STATE:** Dept of Defense **COC ID:** 20793

Relinquished By: [signature] Date/Time: 1-24-23 1806

Received By: [signature] Date/Time: 1/24/23 10:20

Cooler ID(s): Temperature(s): 2.3

10450 Stancliff Rd, Ste 210
Houston, TX 77099
**T:** +1 281 530 5656
**F:** +1 281 530 5887
**www.alsglobal.com**

# Purchase Order

**PO: HS23010986**

**VENDOR:**

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

**Phone:** +1 717 656 2300

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | 20793 |
| **TSR:** | Ron Martino |

| | Item | Catalog No | Unit Price | Quantity | Ext Price |
|---|---|---|---|---|---|
| 1. | RSK - CO2; Level II & IV, LHAAP EQUIS EDD | NA | $95.00 | 5 | $475.00 |

**Order Total:** $475.00

RIGHT SOLUTIONS | RIGHT PARTNER

# Login Sample Receipt Checklist

Client: ALS Group USA, Corp

Job Number: 410-113148-1

**Login Number: 113148**
**List Number: 1**
**Creator: McBeth, Jessica**

**List Source: Eurofins Lancaster Laboratories Environment Testing, LLC**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal is intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable (</=6C, not frozen). | True | |
| Cooler Temperature is recorded. | True | |
| WV: Container Temperature is acceptable (</=6C, not frozen). | N/A | |
| WV:  Container Temperature is recorded. | N/A | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| There is sufficient vol. for all requested analyses. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| Sample custody seals are intact. | N/A | |
| VOA sample vials do not have headspace >6mm in diameter (none, if from WV)? | True | |

# HS23010986-E2300053 Level IV Perchlorate Report

ALS WO# HS23010986

January 27, 2023 Service Request No:E2300053

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

**Laboratory Results for: HS23010986**

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory January 23, 2023
For your reference, these analyses have been assigned our service request number **E2300053.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

# Certificate of Analysis

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Environmental**

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request No.:** | E2200053 |
| **Project:** | HS23010986 | **Date Received:** | 01/23/23 |
| **Sample Matrix:** | Ground Water | | |

## CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

### Sample Receipt

Seven samples were received for analysis at ALS Environmental in Houston on 01/23/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

### Data Validation Notes and Discussion

**Precision and Accuracy:**

EQ2300026: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch. MS/DMS results flagged with a pound (#) indicate the control criteria is not applicable.

*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

**Client:** ALS Environmental - US **Service Request:**E2300053
**Project:** HS23010986

## SAMPLE CROSS-REFERENCE

| SAMPLE # | CLIENT SAMPLE ID | DATE | TIME |
|---|---|---|---|
| E2300053-001 | 16WW41-230119 | 1/19/2023 | 0900 |
| E2300053-002 | 16RW06-230119 | 1/19/2023 | 1010 |
| E2300053-003 | 16RW07-230119 | 1/19/2023 | 1115 |
| E2300053-004 | 16WW55-230119 | 1/19/2023 | 1205 |
| E2300053-005 | 16WW35-230119 | 1/19/2023 | 1255 |
| E2300053-006 | 16WW16-230119 | 1/19/2023 | 1430 |
| E2300053-007 | 16WW16-230119-FD | 1/19/2023 | 1430 |

# Service Request Summary

**Folder #:** **E2300053**
Client Name: ALS Environmental - US
Project Name: HS23010986
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/23/23
Internal Due Date: 2/3/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23010986
EDD: EQUIS
EFWEDD_LHAAP

9 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

| Lab Samp No. | Client Samp No | Matrix | Collected | HOUSTON<br>ClO4 DOD/6850 |
|---|---|---|---|---|
| E2300053-001 | 16WW41-230119 | Ground Water | 01/19/23 0900 | **IV** |
| E2300053-002 | 16RW06-230119 | Ground Water | 01/19/23 1010 | **IV** |
| E2300053-003 | 16RW07-230119 | Ground Water | 01/19/23 1115 | **IV** |
| E2300053-004 | 16WW55-230119 | Ground Water | 01/19/23 1205 | **IV** |
| E2300053-005 | 16WW35-230119 | Ground Water | 01/19/23 1255 | **IV** |
| E2300053-006 | 16WW16-230119 | Ground Water | 01/19/23 1430 | **IV** |
| E2300053-007 | 16WW16-230119-FD | Ground Water | 01/19/23 1430 | **IV** |

# Service Request Summary

**Folder #:** **E2300053**
Client Name: ALS Environmental - US
Project Name: HS23010986
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/23/23
Internal Due Date: 2/3/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23010986
EDD: EQUIS
EFWEDD_LHAAP

9 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

## Test Comments:

| Group | Test/Method | Samples | Comments |
|---|---|---|---|
| Semivoa GCMS | ClO4 DOD/6850 | 6 | IV Due 2/10 |
| Semivoa GCMS | ClO4 DOD/6850 | 1 | MS/MSD |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| + | Possible Tedlar bag artifact. |
| A | TIC is a suspected aldol-condensation product |
| B | Analyte found in the associated method blank as well as in the sample. |
| BC | Reported results are not blank corrected. |
| BH | The back section of the tube yielded higher results than the front. |
| BT | Results indicated possible breakthrough; back section >=10% front section. |
| C | Result identification confirmed. |
| D | Compound identified in an analysis at a secondary dilution factor |
| D | Spike was diluted out |
| DE | Reported results are corrected for desorption efficiency. |
| E | Estimated value. Concentration above calibration range |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| H1 | Sample analysis performed past holding time. See case narrative. |
| H2 | Initial analysis within holding time. Reanalysis for the required dilution was past holding time. |
| H3 | Sample was received and analyzed past holding time. |
| H4 | Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative. |
| I | (Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| I | Internal standard not within the specified limits. See case narrative. |
| I | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| J | Estimated Value. Concentration found below MRL. |
| K | A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate. |
| K | Analyte was detected above the method reporting limit prior to normalization. |
| K | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| L1 | Laboratory control sample recovery outside the specified limits; results may be biased high. |
| L2 | Laboratory control sample recovery outside the specified limits; results may be biased low. |
| L3 | Laboratory control sample recovery outside the specified limits. |
| M | Matrix interference; results may be biased high. |
| M | The duplicate injection precision not met. |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| M1 | Matrix interference due to coelution with a non-target compound; results may be biased high. |
| N | Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| P | Indicates chlorodiphenyl ether interference present at the retention time of the target compound. |
| P | Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns |
| Q | Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria. |
| R | Duplicate Precision not met. |
| R1 | Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated. |
| S | Surrogate recovery not within specified limits. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| T | Analyte is a tentatively identified compound, result is estimated. |
| U | Compound was analyzed for, but was not detected (ND). |
| V1 | The continuing calibration verification standard was outside (biased high) the specified limits for this compound. |
| V2 | The continuing calibration verification standard was outside (biased low) the specified limits for this compound. |
| W | Result quantified, but the corresponding peak was detected outside the generated retention time window. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| X | See case narrative. |
| Y | Recovery outside limits |
| Y | The chromatogram resembles a petroleum product but does not match the calibration standard. |
| Z | The chromatogram does not resemble a petroleum product. |
| i | The MRL/MDL has been elevated due to a matrix interference. |

# ALS Laboratory Group

**Acronyms**

| | |
|---|---|
| Cal | Calibration |
| Conc | CONCentration |
| Dioxin(s) | Polychlorinated dibenzo-p-dioxin(s) |
| EDL | Estimated Detection Limit |
| EMPC | Estimated Maximum Possible Concentration |
| Flags | Data qualifiers |
| Furan(s) | Polychlorinated dibenzofuran(s) |
| g | Grams |
| ICAL | Initial CALibration |
| ID | IDentifier |
| Ions | Masses monitored for the analyte during data acquisition |
| L | Liter (s) |
| LCS | Laboratory Control Sample |
| DLCS | Duplicate Laboratory Control Sample |
| MB | Method Blank |
| MCL | Method Calibration Limit |
| MDL | Method Detection Limit |
| mL | Milliliters |
| MS | Matrix Spiked sample |
| DMS | Duplicate Matrix Spiked sample |
| NO | Number of peaks meeting all identification criteria |
| PCDD(s) | Polychlorinated dibenzo-p-dioxin(s) |
| PCDF(s) | Polychlorinated dibenzofuran(s) |
| ppb | Parts per billion |
| ppm | Parts per million |
| ppq | Parts per quadrillion |
| ppt | Parts per trillion |
| QA | Quality Assurance |
| QC | Quality Control |
| Ratio | Ratio of areas from monitored ions for an analyte |
| % Rec. | Percent recovery |
| RPD | Relative Percent Difference |
| RRF | Relative Response Factor |
| RT | Retention Time |
| SDG | Sample Delivery Group |
| S/N | Signal-to-noise ratio |
| TEF | Toxicity Equivalence Factor |
| TEQ | Toxicity Equivalence Quotient |

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

## State Certifications, Accreditations, and Licenses

| Agency | Number | Expire Date |
|---|---|---|
| Arizona Department of Health Services | AZ0793 | 5/27/2023 |
| Arkansas Department of Environmental Quality | 22-041-0 | 3/27/2023 |
| California Department of Health Services | 2919-2023 | 4/30/2023 |
| Department of Defense | L22-90 | 3/31/2024 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Hawaii Department of Health | 2022 | 4/30/2023 |
| Illinois Environmental Protection Agency | 2000322022-9 | 5/9/2023 |
| Kansas Department of Health and Environment | E-10352 2022-2023 | 7/31/2023 |
| Louisiana Department of Environmental Quality | 03087-2022 | 6/30/2023 |
| Louisiana Department of Health and Hospitals | LA028-2023 | 12/31/2023 |
| Maine Department of Health and Human Services | 2022017 | 6/5/2024 |
| Maryland Department of the Environment | 343 | 6/30/2023 |
| Michigan Depratment of Environmental Quality | 9971-2022 | 4/30/2023 |
| Minnesota Department of Health | 2368363 | 12/31/2023 |
| Nebraska Department of Health and Human Services | NE-OS-25-13 | 4/30/2023 |
| Nevada Department of Conservation and Natural Resources | TX026932023-1 | 7/31/2023 |
| New Hampshire Environmental Laboratory Accreditation Program | 209422 | 4/24/2023 |
| New Jersey Department of Environmental Protection | TX008-2023 | 6/30/2023 |
| New York Department of Health | 11707 | 3/31/2023 |
| Oklahoma Department of Environmental Quality | 2022-141 | 8/31/2023 |
| Oregon Environmental Laboratory Accreditation Program | TX200002 | 5/15/2023 |
| Pennsylvania Department of Environmental Protection | 68-03441-016 | 6/30/2023 |
| Perry Johnson Laboratory Accreditation | L22-91 | 3/31/2024 |
| Tennessee Department of Environment and Concervation | 04016-2022 | 4/30/2023 |
| Texas Commision on Environmental Quality | T104704231-22-29 | 4/30/2023 |
| Utah Department of Health Environmental Laboratory Certification | TX026932022-13 | 7/31/2023 |
| Washington Department of Ecology | C819-22 | 11/14/2023 |



ALS

# Chain of Custody

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
**T:** +1 281 530 5656
**F:** +1 281 530 5887
**www.alsglobal.com**

# Subcontract Chain of Custody

**SAMPLING STATE:** Dept of Defense **COC ID:** 20794

**SUBCONTRACT TO:**

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

**Phone:** +1 281 530 5656

**CUSTOMER INFORMATION:**

| | |
|---|---|
| Company: | ALS Houston |
| Contact: | Dane J. Wacasey |
| Address: | 10450 Stancliff Rd, Ste 210 |
| Phone: | +1 281 530 5656 |
| Email: | Dane.Wacasey@alsglobal.com |
| Alternate Contact: | Jumoke M. Lawal |
| Email: | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | HS23010986 |
| **TSR:** | Ron Martino |

| | LAB SAMPLE ID | CLIENT SAMPLE ID | MATRIX | COLLECT DATE |
|---|---|---|---|---|
| | ANALYSIS REQUESTED | | | DUE DATE |
| 1. | HS23010986-01 | 16WW41-230119 | Groundwater | 19 Jan 2023 09:00 |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 03 Feb 2023 |
| 2. | HS23010986-02 | 16RW06-230119 | Groundwater | 19 Jan 2023 10:10 |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 03 Feb 2023 |
| 3. | HS23010986-03 | 16RW07-230119 | Groundwater | 19 Jan 2023 11:15 |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 03 Feb 2023 |
| 4. | HS23010986-04 | 16WW55-230119 | Groundwater | 19 Jan 2023 12:05 |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 03 Feb 2023 |
| 5. | HS23010986-05 | 16WW35-230119 | Groundwater | 19 Jan 2023 12:55 |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 03 Feb 2023 |
| 6. | HS23010986-06 | 16WW16-230119 | Groundwater | 19 Jan 2023 14:30 |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 03 Feb 2023 |
| 7. | HS23010986-07 | 16WW16-230119-FD | Groundwater | 19 Jan 2023 14:30 |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 03 Feb 2023 |

# Subcontract Chain of Custody

**SAMPLING STATE:** **Dept of Defense** **COC ID:** **20794**

**Comments:** Please analyze for the analysis listed above.
Send report to the emails shown above.
HS23010986-05 = ms/msd

**QC Level:** DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 1-24-23 1200

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

# Cooler Receipt Form

Project Chemist JG

Client/Project ALS

Thermometer ID IR1

Date/Time Received: 1-23-23 Initials: CG

Date/Time Logged in: 1-23-23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ◉ Courier (ALS) ○ Client

2. Samples received in: ◉ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ◉ No

Were they intact? ○ Yes ○ No ◉ N/A

Were they signed and dated? ○ Yes ○ No ◉ N/A

If yes, how many and where?

4. Packing Material: ○ Inserts ◉ Baggies ○ Bubble Wrap ○ Gel Packs ◉ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

| Cooler Tracking Number | COC ID | Date Opened | Time Opened | Opened By | Temp. °C | Temp Blank? |
|---|---|---|---|---|---|---|
| NA | | 1-23-23 | 1100 | CG | 3.7 | ☑ |
| | | | | | | ☐ |
| | | | | | | ☐ |
| | | | | | | ☐ |

6. Were custody papers properly filled out (ink, signed, dated, etc)? ◉ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ◉ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ◉ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ◉ Yes ○ No

10. Did sample labels and tags agree with custody documents? ◉ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

HS-HRMSCoolerReceipt R1.0

10450 Stancliff Rd., Suite 210
Houston, TX 77099
**T:** +1 713 266 1599
**F:** +1 713 266 1599
**www.alsglobal.com**

# SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

**Cooler Custody Seals (desirable, mandatory if specified in SAP):**

- ✓ Intact on outside of cooler, signed and dated

**Chain-of-Custody (COC) documentation (mandatory):**

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

**Sample Integrity (mandatory):**

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

**Temperature Requirement (varies by sample matrix):**

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

# Preparation Information Benchsheets

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

# *Preparation Information Benchsheet*

**Prep Run#:** 413582 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/26/23 08:50

| # | Lab Code | Client ID | B# | Method /Test | pH | Cl | Matrix | Amt. Ext. | Sample Description |
|---|---|---|---|---|---|---|---|---|---|
| 1 | E2300053-001 | 16WW41-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 2 | E2300053-002 | 16RW06-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 3 | E2300053-003 | 16RW07-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 4 | E2300053-004 | 16WW55-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 5 | E2300053-005 | 16WW35-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 6 | E2300053-006 | 16WW16-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 7 | E2300053-007 | 16WW16-230119-FD | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 8 | E2300056-001 | 16WW48-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 9 | E2300056-002 | 16RW04-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 10 | E2300056-003 | 16IW09-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 11 | E2300056-004 | 16IW20-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 12 | E2300056-005 | 16EW02-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 13 | E2300056-006 | 16EW03-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 14 | E2300080-001 | LH18/24-SP650_012523_AIX | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 15 | E2300080-002 | LH18/24-SP650_012523_BIX | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 16 | EQ2300026-01 | MB | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 17 | EQ2300026-02 | LCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 18 | EQ2300026-03 | DLCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 19 | EQ2300026-04 | 16EW02-230119 MS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 20 | EQ2300026-05 | 16EW02-230119 DMS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 21 | EQ2300026-06 | 16WW35-230119 MS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 22 | EQ2300026-07 | 16WW35-230119 DMS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 23 | R2300316-004 | 2301091027A BLM-17-550 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 24 | R2300316-009 | 2301091456A BLM-15-305 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 25 | R2300316-014 | 2301101352Y PL-6-1195 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 26 | R2300519-005 | 2301170958A BLM-18-430 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 27 | R2300519-010 | 2301171442A 400-A-151 | .01 | 6850/ClO4 | | | Water | 10mL | |

**Spiking Solutions**

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E2300053-001 | 100.00µL | E2300053-002 | 100.00µL | E2300053-003 | 100.00µL | E2300053-004 | 100.00µL | E2300053-005 | 100.00µL | E2300053-006 | 100.00µL |
| E2300053-007 | 100.00µL | E2300056-001 | 100.00µL | E2300056-002 | 100.00µL | E2300056-003 | 100.00µL | E2300056-004 | 100.00µL | E2300056-005 | 100.00µL |
| E2300056-006 | 100.00µL | E2300080-001 | 100.00µL | E2300080-002 | 100.00µL | EQ2300026-01 | 100.00µL | EQ2300026-01 | 100.00µL | EQ2300026-02 | 1.00µL |
| EQ2300026-02 | 1.00µL | EQ2300026-03 | 1.00µL | EQ2300026-03 | 1.00µL | EQ2300026-04 | 1.00µL | EQ2300026-05 | 1.00µL | EQ2300026-06 | 1.00µL |

# *Preparation Information Benchsheet*

**Prep Run#:** 413582 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/26/23 08:50

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EQ2300026-07 | 1.00µL | R2300316-004 | 100.00µL | R2300316-009 | 100.00µL | R2300316-014 | 100.00µL | R2300519-005 | 100.00µL | R2300519-010 | 100.00µL |

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EQ2300026-02 | 100.00µL | EQ2300026-02 | 100.00µL | EQ2300026-03 | 100.00µL | EQ2300026-03 | 100.00µL | EQ2300026-04 | 100.00µL | EQ2300026-05 | 100.00µL |
| EQ2300026-06 | 100.00µL | EQ2300026-07 | 100.00µL | | | | | | | | |

## Preparation Materials

| | | | | | |
|---|---|---|---|---|---|
| Water HPLC Grade | 01/04/2023 Water (226857) | 6850 Amber Glass screw vial | 2mL Screw Top Vial (221894) | 6850 0.45um syringe filters | 6850 Syringe Filters (224414) |
| 6850 Pipette Tips 50-1000 uL | 6850 Pipette Tips (221929) | 6850 Luer-Lok Syringes | Luer-Lok Syringes (221305) | | |

## Preparation Steps

Step: Preparation
Started: 1/26/23 08:50
Finished: 1/26/23 09:50
By: XMI
Comments

Comments: _____

Reviewed By: TW Date: 01/26/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

# Analytical Results

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | 1/19/23 0900 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| **Sample Name:** | 16WW41-230119 | **Units:** | µg/L |
| **Lab Code:** | E2300053-001 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **11.0** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/26/23 13:06 | 413582 | 792728 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | 1/19/23 1010 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| **Sample Name:** | 16RW06-230119 | **Units:** | µg/L |
| **Lab Code:** | E2300053-002 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/26/23 13:12 | 413582 | 792728 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | 1/19/23 1115 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| **Sample Name:** | 16RW07-230119 | **Units:** | µg/L |
| **Lab Code:** | E2300053-003 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.633** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/26/23 13:17 | 413582 | 792728 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | 1/19/23 1205 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| **Sample Name:** | 16WW55-230119 | **Units:** | µg/L |
| **Lab Code:** | E2300053-004 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **55.5** | | 1.00 | 0.500 | 0.250 | 10 | 1/26/23 | 1/26/23 13:22 | 413582 | 792728 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | 1/19/23 1255 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| **Sample Name:** | 16WW35-230119 | **Units:** | µg/L |
| **Lab Code:** | E2300053-005 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **94.9** | | 1.00 | 0.500 | 0.250 | 10 | 1/26/23 | 1/26/23 13:28 | 413582 | 792728 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | 1/19/23 1430 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| **Sample Name:** | 16WW16-230119 | **Units:** | µg/L |
| **Lab Code:** | E2300053-006 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **630** | | 5.00 | 2.50 | 1.25 | 50 | 1/26/23 | 1/26/23 14:33 | 413582 | 792728 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | 1/19/23 1430 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| **Sample Name:** | 16WW16-230119-FD | **Units:** | µg/L |
| **Lab Code:** | E2300053-007 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **650** | | 5.00 | 2.50 | 1.25 | 50 | 1/26/23 | 1/26/23 14:38 | 413582 | 792728 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Units:** | µg/L |
| **Lab Code:** | EQ2300026-01 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/26/23 11:44 | 413582 | 792728 | |

# Accuracy & Precision

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010986
**Sample Matrix:** Ground Water

**Service Request:** E2300053
**Date Analyzed:** 1/26/23

## Lab Control Sample Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**Prep Method:** Method

**Units:** µg/L
**Basis:** NA

**Extraction Lot:** 413582

| | Lab Control Sample EQ2300026-02 | | | Duplicate Lab Control Sample EQ2300026-03 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Perchlorate | 0.0868 | 0.100 | 87 | 0.0936 | 0.100 | 94 | 84 - 119 | 8 | 15 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300026-02 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0868** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/26/23 11:50 | 413582 | 792728 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Duplicate Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300026-03 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0936** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/26/23 11:55 | 413582 | 792728 | |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | 1/19/23 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| | | **Date Analyzed:** | 1/26/23 |

**Matrix Spike Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **Sample Name:** | 16WW35-230119 | **Units:** | µg/L |
| **Lab Code:** | E2300053-005 | **Basis:** | NA |

**Analytical Method:** 6850
**Prep Method:** Method

| | | 16WW35-230119MS | | | | 16WW35-230119DMS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Matrix Spike** | | | | **Duplicate Matrix Spike** | | | | | |
| | | EQ2300026-06 | | | | EQ2300026-07 | | | | | |
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | | **Result** | **Spike Amount** | **% Rec** | | **% Rec Limits** | **RPD** | **RPD Limit** |
| Perchlorate | 94.9 | 96.2 | 0.100 | 1293 | # | 102 | 0.100 | 6906 | # | 84 - 119 | 6 | 15 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | 1/19/23 1255 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| **Sample Name:** | 16WW35-230119 | **Units:** | µg/L |
| **Lab Code:** | EQ2300026-06 | **Basis:** | NA |
| **Run Type:** | Matrix Spike | | |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **96.2** | E | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/26/23 14:43 | 413582 | 792728 | * |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Collected:** | 1/19/23 1255 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| **Sample Name:** | 16WW35-230119 | **Units:** | µg/L |
| **Lab Code:** | EQ2300026-07 | **Basis:** | NA |
| **Run Type:** | Duplicate Matrix Spike | | |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **102** | E | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/26/23 14:49 | 413582 | 792728 | |

# Initial Calibration

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**20221214**

# Injection Log

LCMS01 -Shimadzu 8050

**1st Review:** XMI
**2nd Review:** Kneir

**ICAL Date:** 12/14/2022
**Cal. Std. xp:** 01/31/2023
**ICAL ID:** EC2200016

**Mobile Phases :** **A:**0.10% Formic Acid/Water 3210301-08 **B:**MeOH 224417

| | Sample Name | | File Name | Acquisition Method | Dilution | R | Comments | Date/Time |
|---|---|---|---|---|---|---|---|---|
| 1 | IB | | 20221214_001 | Perchlorate6850c.lcm | 1x | ☒ | | 12/14/2022 15:12 |
| 2 | ICS | | 20221214_002 | Perchlorate6850c.lcm | 1x | ☒ | | 12/14/2022 15:29 |
| 3 | LODV | | 20221214_003 | Perchlorate6850c.lcm | 1x | ☒ | | 12/14/2022 15:35 |
| 4 | PERCHLORATE1 | | 20221214_004 | Perchlorate6850c.lcm | 1x | ☒ | 226061 | 12/14/2022 15:40 |
| 5 | PERCHLORATE2 | | 20221214_005 | Perchlorate6850c.lcm | 1x | ☒ | 226062 | 12/14/2022 15:46 |
| 6 | PERCHLORATE3 | | 20221214_006 | Perchlorate6850c.lcm | 1x | ☒ | 226063 | 12/14/2022 15:51 |
| 7 | PERCHLORATE4 | | 20221214_007 | Perchlorate6850c.lcm | 1x | ☒ | 226064 | 12/14/2022 15:57 |
| 8 | PERCHLORATE5 | | 20221214_008 | Perchlorate6850c.lcm | 1x | ☒ | 226065 | 12/14/2022 16:02 |
| 9 | PERCHLORATE6 | | 20221214_009 | Perchlorate6850c.lcm | 1x | ☒ | 226066 | 12/14/2022 16:09 |
| 10 | PERCHLORATE7 | | 20221214_010 | Perchlorate6850c.lcm | 1x | ☒ | 225881 | 12/14/2022 16:15 |
| 11 | PERCHLORATE8 | | 20221214_011 | Perchlorate6850c.lcm | 1x | ☒ | 226068 | 12/14/2022 16:20 |
| 12 | PERCHLORATE9 | | 20221214_012 | Perchlorate6850c.lcm | 1x | ☒ | 226069 | 12/14/2022 16:25 |
| 13 | PERCHLORATE10 | | 20221214_013 | Perchlorate6850c.lcm | 1x | ☒ | 226070 | 12/14/2022 16:31 |
| 14 | PERCHLORATEICV | | 20221214_014 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 12/14/2022 16:37 |

# *Initial Calibration - Detailed Report*

**Calibration ID:** EC2200016 **Instrument ID:** E-LCMS-01
**Column Name:** 1

| # | Lab Code | Sample Name | File Location | Aquisition Date |
|---|---|---|---|---|
| 01 | EC2200016-01 | PERCHLORATE1 | 20221214_004 | 12/14/2022 15:40 |
| 02 | EC2200016-02 | PERCHLORATE2 | 20221214_005 | 12/14/2022 15:46 |
| 03 | EC2200016-03 | PERCHLORATE3 | 20221214_006 | 12/14/2022 15:51 |
| 04 | EC2200016-04 | PERCHLORATE4 | 20221214_007 | 12/14/2022 15:57 |
| 05 | EC2200016-05 | PERCHLORATE5 | 20221214_008 | 12/14/2022 16:02 |
| 06 | EC2200016-06 | PERCHLORATE6 | 20221214_009 | 12/14/2022 16:09 |
| 07 | EC2200016-07 | PERCHLORATE7 | 20221214_010 | 12/14/2022 16:15 |
| 08 | EC2200016-08 | PERCHLORATE8 | 20221214_011 | 12/14/2022 16:20 |
| 09 | EC2200016-09 | PERCHLORATE9 | 20221214_012 | 12/14/2022 16:25 |
| 10 | EC2200016-10 | PERCHLORATE10 | 20221214_013 | 12/14/2022 16:31 |

**Analyte** **Curve Fit** **Weighting**

**Perchlorate** **Average RF** **RSD = 2.927** **Average RF = 0.1567**

| # | Amount | RF | # | Amount | RF | # | Amount | RF | # | Amount | RF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 0.1000 | 0.1615 | 02 | 0.5000 | 0.1479 | 03 | 0.7000 | 0.1579 | 04 | 1.0000 | 0.1573 |
| 05 | 2.0000 | 0.1505 | 06 | 5.0000 | 0.1573 | 07 | 10.0000 | 0.1541 | 08 | 20.0000 | 0.162 |
| 09 | 30.0000 | 0.1598 | 10 | 50.0000 | 0.1587 | | | | | | |

**Analyte**

**Perchlorate** RSE = 2.93

| # | Amount | Calculated Conc | %D | # | Amount | Calculated Conc | %D | # | Amount | Calculated Conc | %D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 0.1000 | 0.103 | 3.1 | 02 | 0.5000 | 0.472 | -5.6 | 03 | 0.7000 | 0.705 | 0.8 |
| 04 | 1.0000 | 1.00 | 0.4 | 05 | 2.0000 | 1.92 | -3.9 | 06 | 5.0000 | 5.02 | 0.4 |
| 07 | 10.0000 | 9.83 | -1.7 | 08 | 20.0000 | 20.7 | 3.4 | 09 | 30.0000 | 30.6 | 2.0 |
| 10 | 50.0000 | 50.6 | 1.3 | | | | | | | | |

# *Initial Calibration Verification Summary Report*

| | | | |
|---|---|---|---|
| **Calibration ID:** | EC2200016 | **Instrument ID:** | E-LCMS-01 |
| **Datafile ID:** | 20221214_014 | **Column Name:** | 1 |

| Analyte | Lab Code | Type | Curve Fit | True Value | Calc Conc | Units | Result | Criteria |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | EC2200016-11 | T | Average RF | 10 | 9.359 | ng/mL | -6.4 | <= 15 |

# Insight Report

Printed at 12/15/2022 10:55:51 AM

Method File: I:\LCMS01\DATA\20221013ICAL\20221013ICAL.lcm
Project File: I:\LCMS01\DATA\20221214\12142022 ICAL.damlp

## PERCHLORATE1

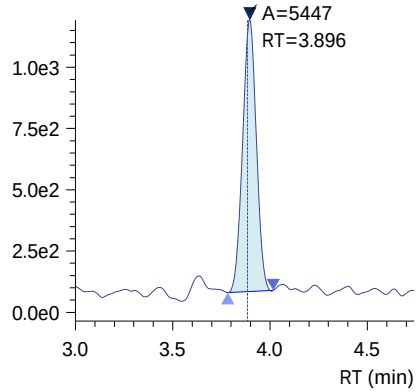
Sample ID: PERCHLORATE1
Date Acquired: 12/14/2022 3:40:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_004.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.896 | 5447 | 337240 | 0.1031 | ng/mL | 101.00<br>>85.00 | 35.31 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.889 | 337240 | 337240 | 1.0000 | ng/mL | ---- | ---- | |

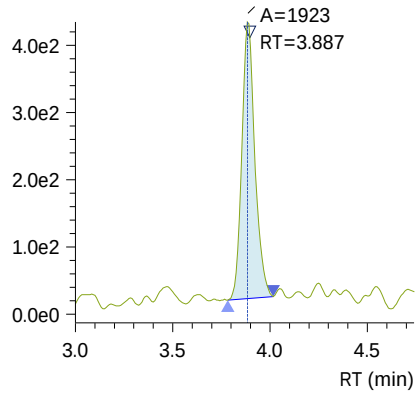
### Perchlorate

Conc 0.1031
R#1 35.31 (34.02)

Q 99.00>83.00 (-) 1.19e3



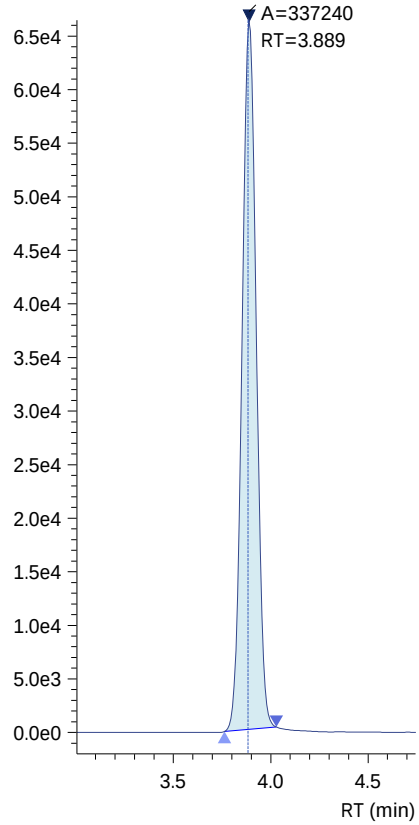

R1 101.00>85.00 (-) 4.35e2




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.65e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

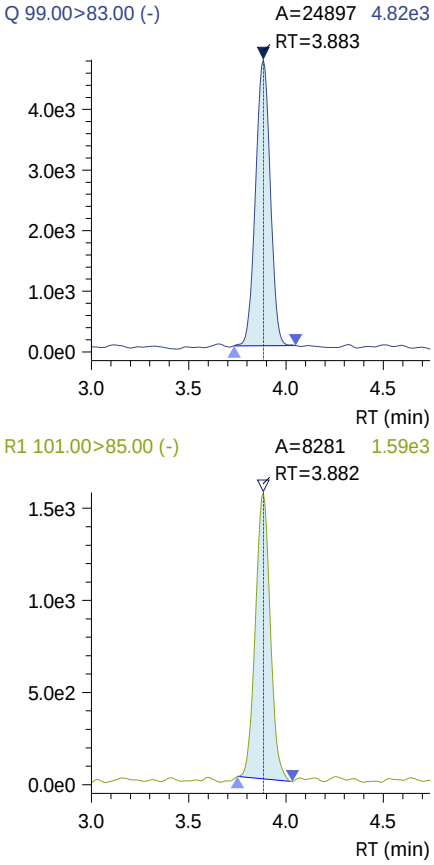
## PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 12/14/2022 3:46:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_005.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.883 | 24897 | 336620 | 0.4720 | ng/mL | 101.00<br>>85.00 | 33.26 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.878 | 336620 | 336620 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc 0.4720
R#1 33.26 (34.02)

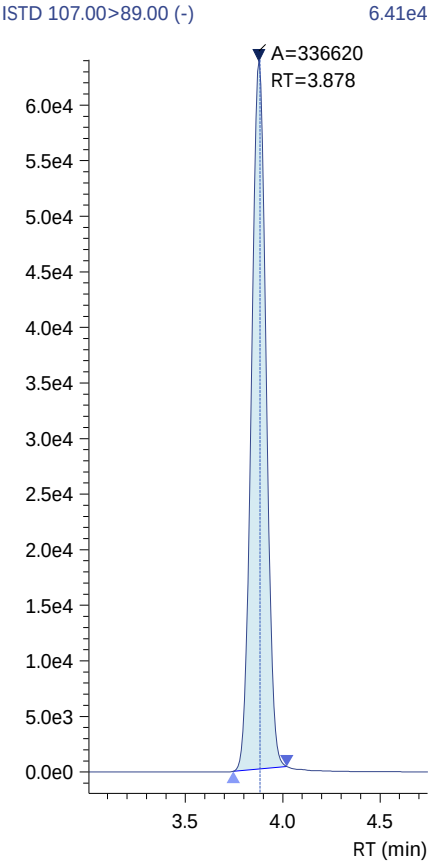






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE3

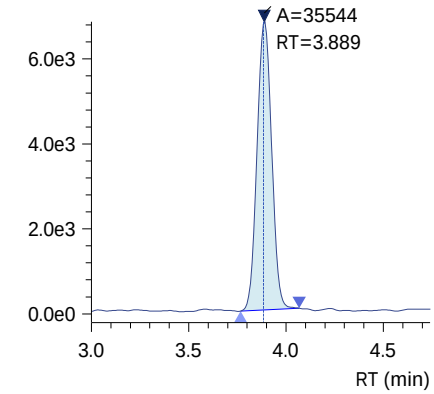
Sample ID: PERCHLORATE3
Date Acquired: 12/14/2022 3:51:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_006.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.889 | 35544 | 321596 | 0.7053 | ng/mL | 101.00<br>>85.00 | 35.09 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.885 | 321596 | 321596 | 1.0000 | ng/mL | ---- | ---- | |

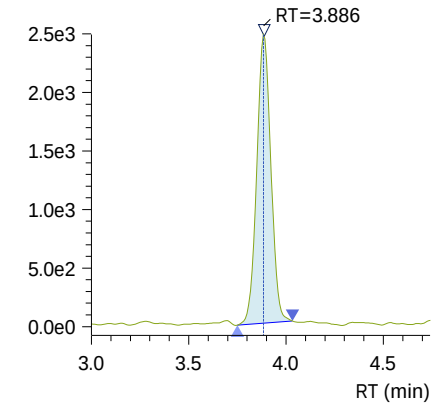
### Perchlorate

Conc 0.7053
R#1 35.09 (34.02)

Q 99.00>83.00 (-) 6.88e3



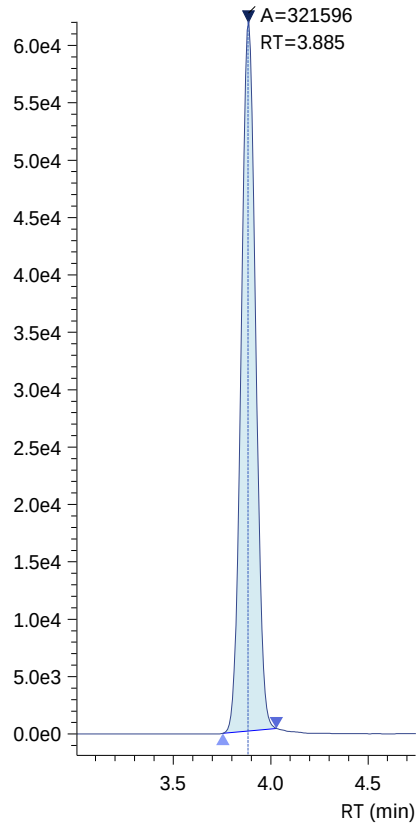

R1 101.00>85.00 (-) A=12471 2.50e3




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.21e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE4

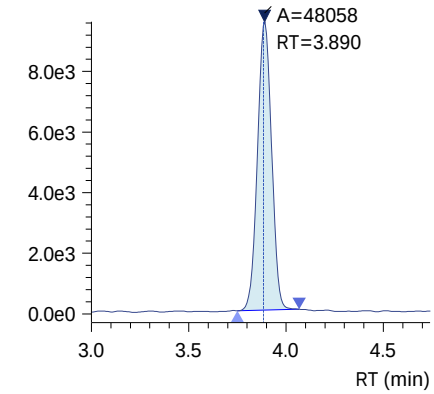
Sample ID: PERCHLORATE4
Date Acquired: 12/14/2022 3:57:06 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_007.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.890 | 48058 | 305584 | 1.0036 | ng/mL | 101.00<br>>85.00 | 33.87 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.886 | 305584 | 305584 | 1.0000 | ng/mL | ---- | ---- | |

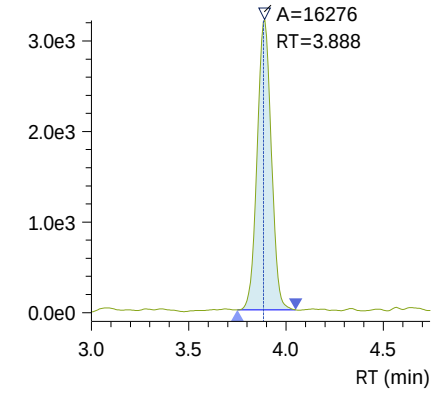
### Perchlorate

Conc 1.0036
R#1 33.87 (34.02)

Q 99.00>83.00 (-) 9.64e3



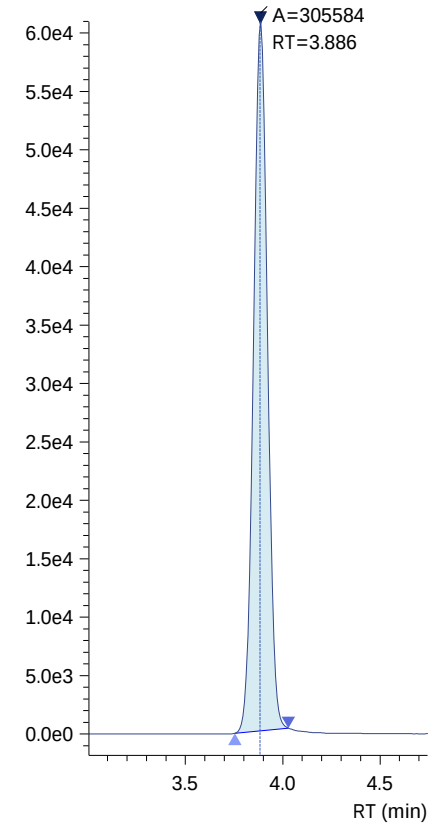

R1 101.00>85.00 (-) 3.23e3




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.10e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

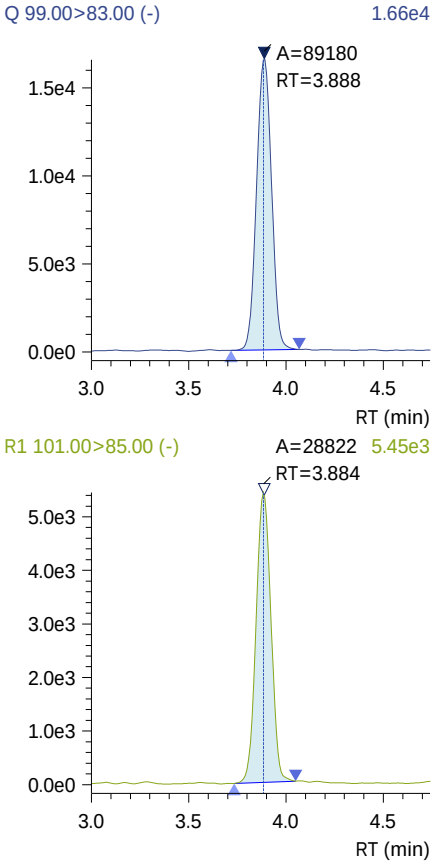
## PERCHLORATE5

Sample ID: PERCHLORATE5
Date Acquired: 12/14/2022 4:02:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_008.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.888 | 89180 | 296200 | 1.9213 | ng/mL | 101.00<br>>85.00 | 32.32 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.885 | 296200 | 296200 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc 1.9213
R#1 32.32 (34.02)

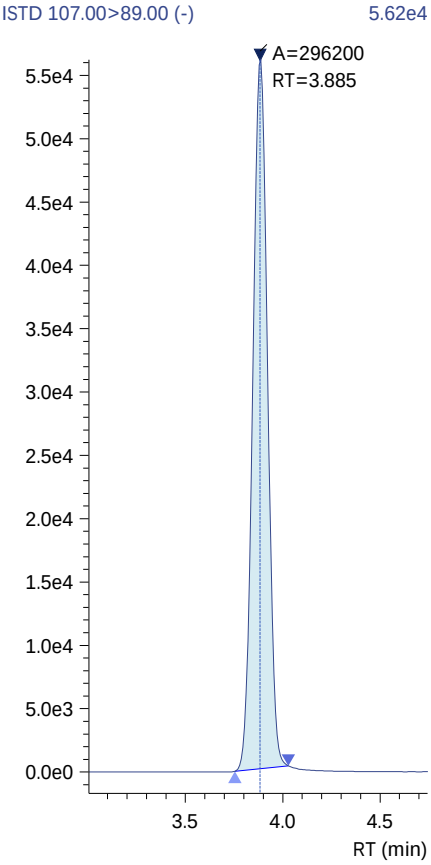






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE6

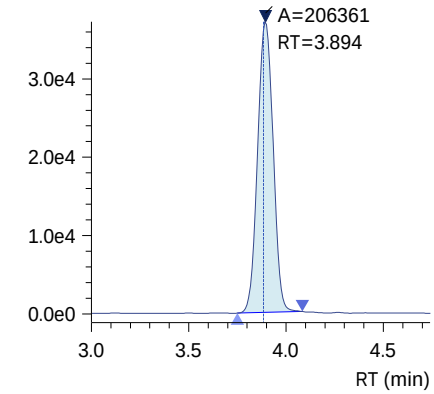
Sample ID: PERCHLORATE6
Date Acquired: 12/14/2022 4:09:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_009.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.894 | 206361 | 262312 | 5.0202 | ng/mL | 101.00 >85.00 | 33.93 | 23.94 -44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.889 | 262312 | 262312 | 1.0000 | ng/mL | ---- | ---- | |

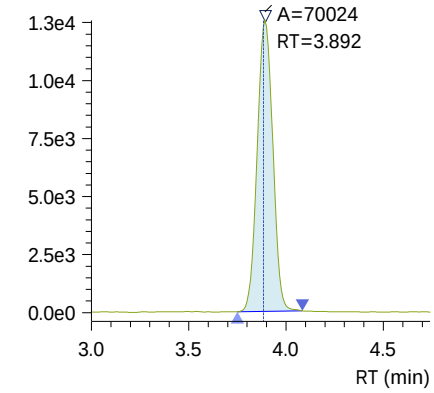
### Perchlorate

Conc 5.0202
R#1 33.93 (34.02)

Q 99.00>83.00 (-) 3.73e4



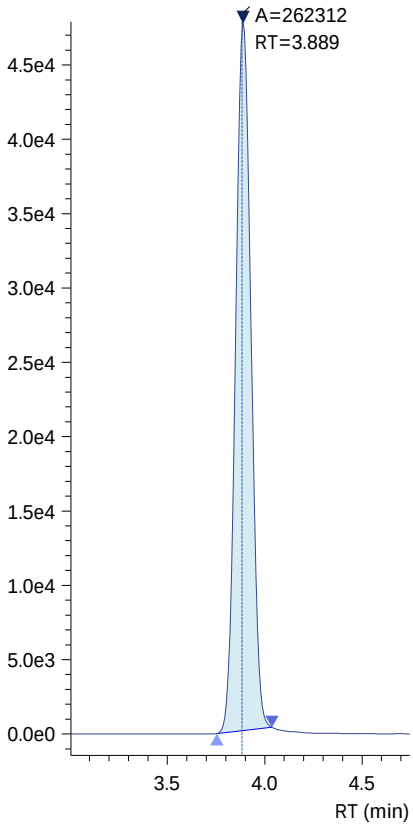

R1 101.00>85.00 (-) 1.26e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.79e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE7

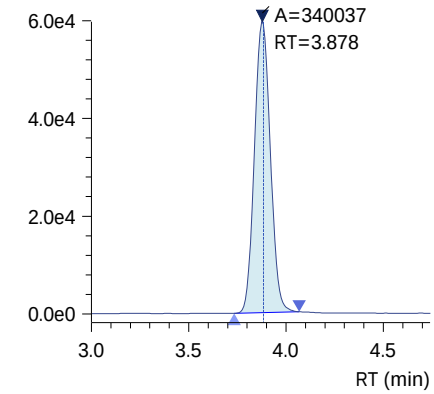
Sample ID: PERCHLORATE7
Date Acquired: 12/14/2022 4:15:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_010.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.878 | 340037 | 220702 | 9.8317 | ng/mL | 101.00 >85.00 | 34.05 | 23.94 -44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.875 | 220702 | 220702 | 1.0000 | ng/mL | ---- | ---- | |

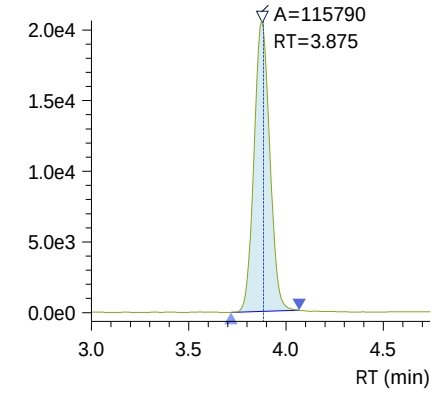
### Perchlorate

Conc 9.8317
R#1 34.05 (34.02)

Q 99.00>83.00 (-) 5.98e4



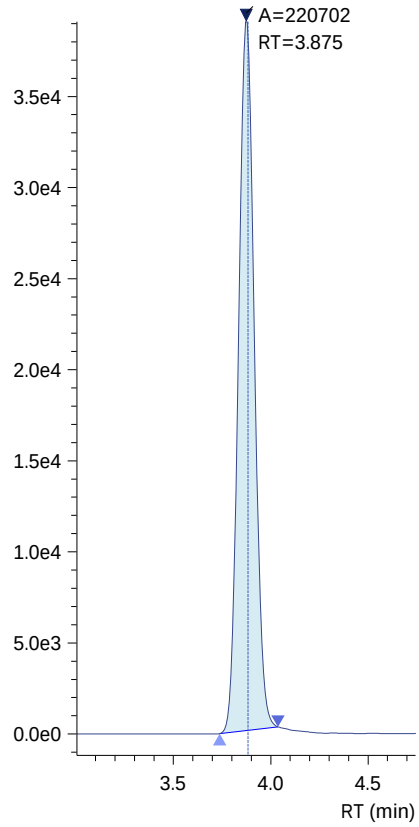

R1 101.00>85.00 (-) 2.07e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.91e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE8

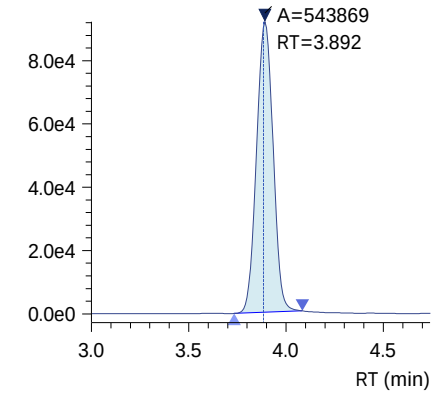
Sample ID: PERCHLORATE8
Date Acquired: 12/14/2022 4:20:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_011.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.892 | 543869 | 167819 | 20.6806 | ng/mL | 101.00 >85.00 | 33.45 | 23.94 -44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.888 | 167819 | 167819 | 1.0000 | ng/mL | ---- | ---- | |

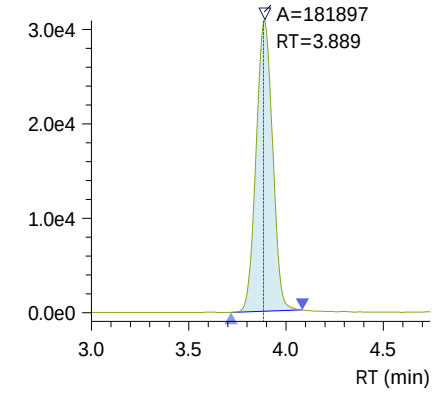
### Perchlorate

Conc 20.6806
R#1 33.45 (34.02)

Q 99.00>83.00 (-) 9.23e4



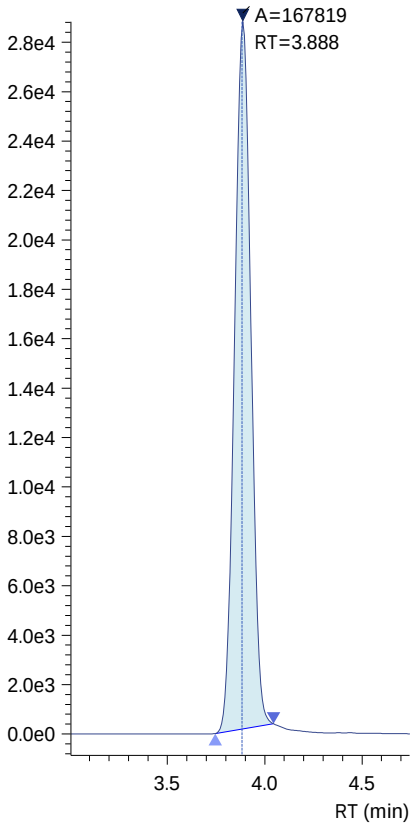

R1 101.00>85.00 (-) 3.09e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.88e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE9

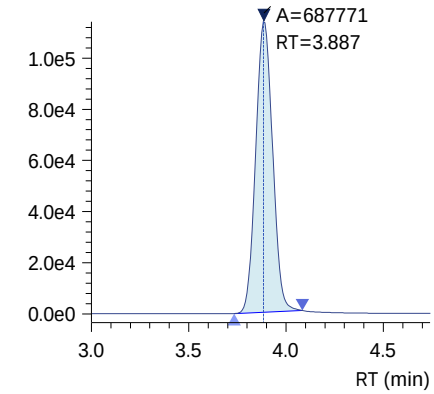
Sample ID: PERCHLORATE9
Date Acquired: 12/14/2022 4:25:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_012.lcd
Vial: 9 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.887 | 687771 | 143493 | 30.5860 | ng/mL | 101.00 >85.00 | 33.79 | 23.94 -44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.883 | 143493 | 143493 | 1.0000 | ng/mL | ---- | ---- | |

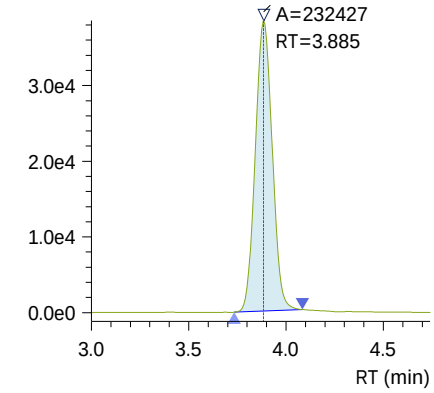
### Perchlorate

Conc 30.5860
R#1 33.79 (34.02)

Q 99.00>83.00 (-) 1.14e5



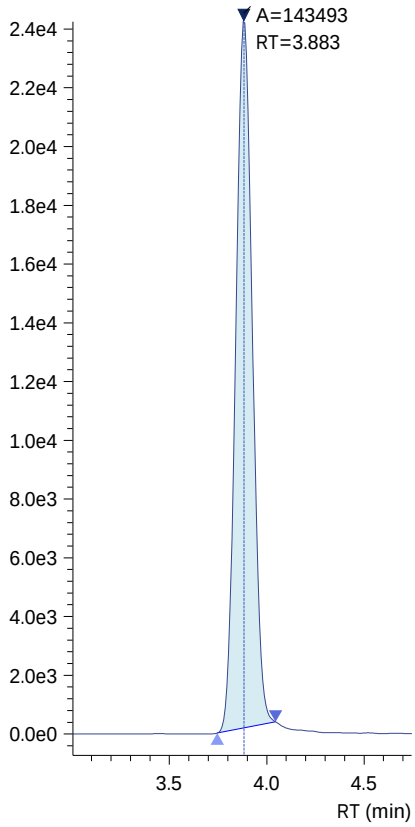

R1 101.00>85.00 (-) 3.86e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.43e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE10

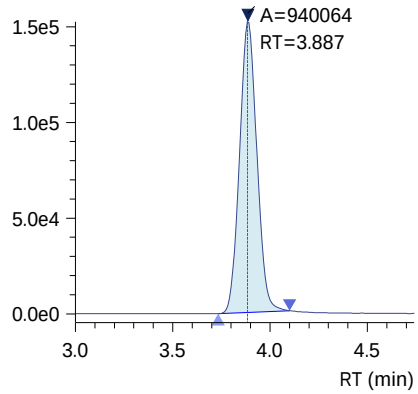
Sample ID: PERCHLORATE10
Date Acquired: 12/14/2022 4:31:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_013.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.887 | 9400<br>64 | 118445 | 50.6<br>464 | ng/mL | 101.00<br>>85.00 | 33.39 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.883 | 1184<br>45 | 118445 | 1.0000 | ng/mL | ---- | ---- | |

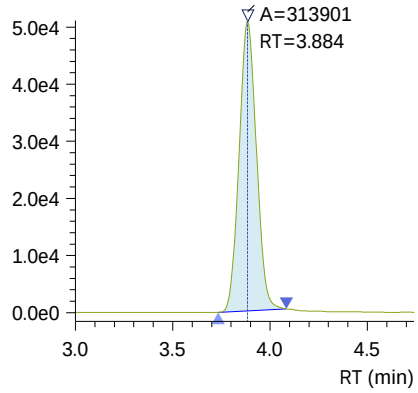
### Perchlorate

Conc 50.6464
R#1 33.39 (34.02)

Q 99.00>83.00 (-) 1.53e5



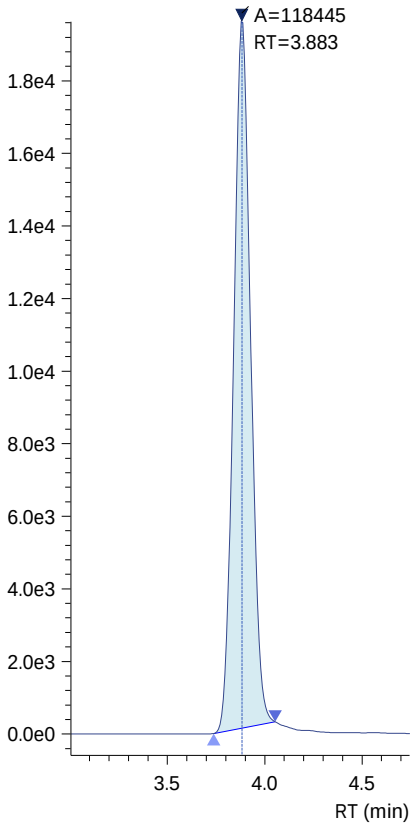

R1 101.00>85.00 (-) 5.12e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.96e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

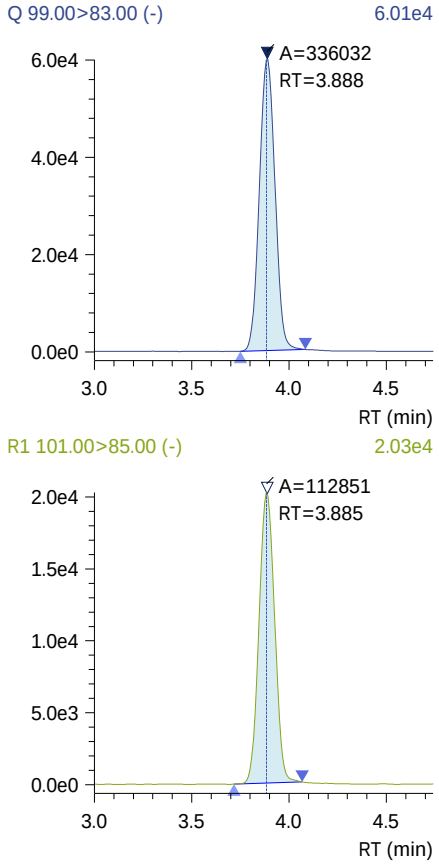
## PERCHLORATEICV

Sample ID: PERCHLORATEICV
Date Acquired: 12/14/2022 4:37:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_014.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.888 | 3360<br>32 | 229124 | 9.3588 | ng/mL | 101.00<br>>85.00 | 33.58 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4 _IS | Auto | 3.884 | 2291<br>24 | 229124 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc 9.3588
R#1 33.58 (34.02)

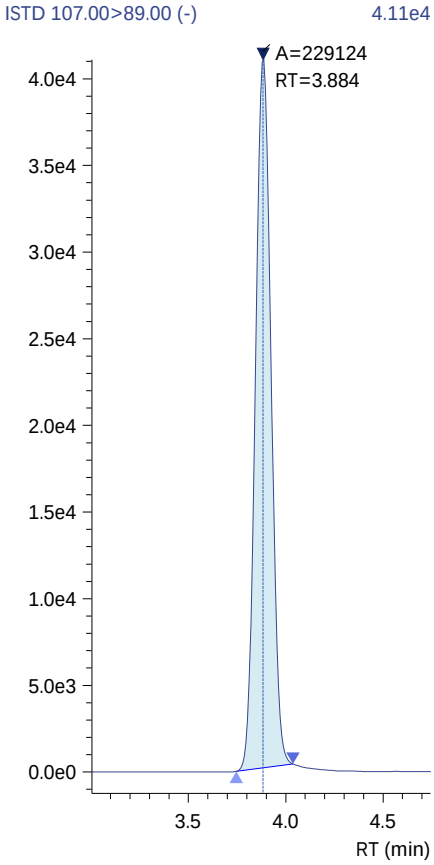






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Chromatograms and Selected Ion Monitoring

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**20230126**

# Injection Log

LCMS01 -Shimadzu 8050

**1st Review:** XMI
**2nd Review:** Kneir

**ICAL Date:** 12/14/2022
**Cal. Std. xp:** 01/31/2023
**ICAL ID:** EC2200016

**Mobile Phases : A:**0.10% Formic Acid/Water 3210303-02 **B:**MeOH 224417

| | Sample Name | | File Name | Acquisition Method | Dilution | R | Comments | Date/Time |
|---|---|---|---|---|---|---|---|---|
| 1 | IB | | 20230125-001 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 10:56 |
| 2 | ICS | | 20230125-002 | Perchlorate6850c.lcm | 1x | ☒ | 32103024 | 1/26/2023 11:01 |
| 3 | LODV | | 20230125-003 | Perchlorate6850c.lcm | 1x | ☒ | 225199 | 1/26/2023 11:33 |
| 4 | PERCHLORATE7 | | 20230125-004 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/26/2023 11:39 |
| 5 | EQ2300026-01 | | 20230125-005 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 11:44 |
| 6 | EQ2300026-02 | | 20230125-006 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 11:50 |
| 7 | EQ2300026-03 | | 20230125-007 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 11:55 |
| 8 | R2300519-005 | | 20230125-008 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 12:12 |
| 9 | R2300519-010 | | 20230125-009 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 12:18 |
| 10 | R2300316-004 | | 20230125-010 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 12:23 |
| 11 | R2300316-009 | | 20230125-011 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 12:28 |
| 12 | R2300316-014 | | 20230125-012 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 12:34 |
| 13 | E2300080-001 | | 20230126-013 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 12:50 |
| 14 | PERCHLORATE7 | | 20230126-014 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/26/2023 12:55 |
| 15 | E2300080-002x5 | | 20230126-015 | Perchlorate6850c.lcm | 5x | ☒ | | 1/26/2023 13:01 |
| 16 | E2300053-001 | | 20230126-016 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 13:06 |
| 17 | E2300053-002 | | 20230126-017 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 13:12 |
| 18 | E2300053-003 | | 20230126-018 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 13:17 |
| 19 | E2300053-004x10 | | 20230126-019 | Perchlorate6850c.lcm | 10x | ☒ | | 1/26/2023 13:22 |
| 20 | E2300053-005x10 | | 20230126-020 | Perchlorate6850c.lcm | 10x | ☒ | | 1/26/2023 13:28 |
| 21 | E2300053-006x50 | | 20230126-021 | Perchlorate6850c.lcm | 50x | ☒ | | 1/26/2023 14:33 |
| 22 | E2300053-007x50 | | 20230126-022 | Perchlorate6850c.lcm | 50x | ☒ | | 1/26/2023 14:38 |
| 23 | EQ2300026-06 | | 20230126-023 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 14:43 |
| 24 | EQ2300026-07 | | 20230126-024 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 14:49 |
| 25 | PERCHLORATE7 | | 20230126-025 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/26/2023 14:54 |
| 26 | E2300056-001 | | 20230126-026 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 15:18 |
| 27 | E2300056-002 | | 20230126-027 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 15:23 |
| 28 | E2300056-003 | | 20230126-028 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 15:29 |
| 29 | E2300056-004 | | 20230126-029 | Perchlorate6850c.lcm | 1x | ☒ | DNU-CONFIRM PEAK | 1/26/2023 15:34 |
| 30 | EQ2300026-04 | | 20230126-030 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 15:45 |
| 31 | EQ2300026-05 | | 20230126-031 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 15:50 |
| 32 | E2300056-005 | | 20230126-032 | Perchlorate6850c.lcm | 1x | ☒ | DNU-CONFIRM PEAK | 1/26/2023 15:56 |
| 33 | E2300056-006 | | 20230126-033 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 16:02 |
| 34 | E2300056-004 | | 20230126-034 | Perchlorate6850c.lcm | 1x | ☒ | | 1/26/2023 16:08 |
| 35 | PERCHLORATE7 | | 20230126-035 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/26/2023 16:29 |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Analyzed:** | 1/26/23 11:39 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230125\20230125-004 | **Lab Code:** | EQ2300035-04 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792728 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300035-04 | 195,847 | 3.51 |
| Method Blank | EQ2300026-01 | 330,820 | 3.51 |
| Lab Control Sample | EQ2300026-02 | 329,146 | 3.51 |
| Duplicate Lab Control Sample | EQ2300026-03 | 325,820 | 3.51 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Analyzed:** | 1/26/23 12:55 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230125\20230126-014 | **Lab Code:** | EQ2300035-01 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792728 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300035-01 | 200,906 | 3.51 |
| 16WW41-230119 | E2300053-001 | 252,681 | 3.51 |
| 16RW06-230119 | E2300053-002 | 303,092 | 3.51 |
| 16RW07-230119 | E2300053-003 | 293,184 | 3.51 |
| 16WW55-230119 | E2300053-004 | 242,460 | 3.51 |
| 16WW35-230119 | E2300053-005 | 216,903 | 3.51 |
| 16WW16-230119 | E2300053-006 | 226,744 | 3.44 |
| 16WW16-230119-FD | E2300053-007 | 221,956 | 3.46 |
| 16WW35-230119MS | EQ2300026-06 | 111,913* | 3.47 |
| 16WW35-230119DMS | EQ2300026-07 | 128,050 | 3.47 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Analyzed:** | 1/26/23 14:54 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230125\20230126-025 | **Lab Code:** | EQ2300035-02 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792728 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300035-02 | 313,798 | 3.46 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300053 |
| **Project:** | HS23010986 | **Date Analyzed:** | 1/26/23 16:29 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230125\20230126-035 | **Lab Code:** | EQ2300035-03 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792728 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300035-03 | 263,972 | 3.45 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010986

**Service Request:** E2300053
**Date Analyzed:** 1/26/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230125\20230126-014

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792728
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 10.5 | 0.1567 | 0.1641 | 4.7 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010986

**Service Request:** E2300053
**Date Analyzed:** 1/26/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230125\20230126-025

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792728
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 10.2 | 0.1567 | 0.1606 | 2.5 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010986

**Service Request:** E2300053
**Date Analyzed:** 1/26/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230125\20230126-035

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792728
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.97 | 0.1567 | 0.1562 | -0.3 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010986

**Service Request:** E2300053
**Date Analyzed:** 1/26/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230125\20230125-004

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792728
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 10.4 | 0.1567 | 0.1637 | 4.4 | NA | ± 15 % | Average RF |

# Insight Report

Printed at 1/27/2023 9:34:02 AM

Method File: I:\LCMS01\DATA\20230125\01262023.lcm
Project File: I:\LCMS01\DATA\20230125\01262023.damlp

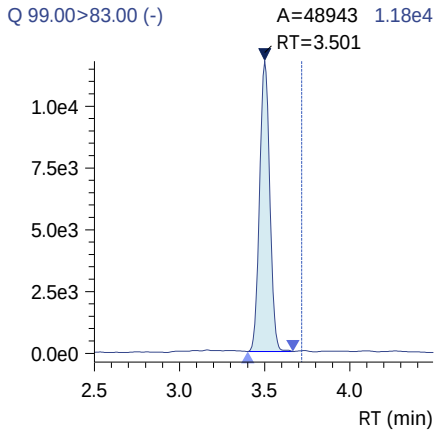
## ICS

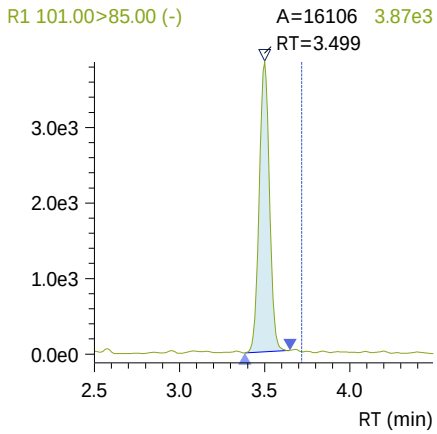
Sample ID: ICS
Date Acquired: 1/26/2023 11:01:40 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-002.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.501 | 48943 | 292300 | 1.0685 | ng/mL | 101.00<br>>85.00 | 32.91 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.497 | 292300 | 292300 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

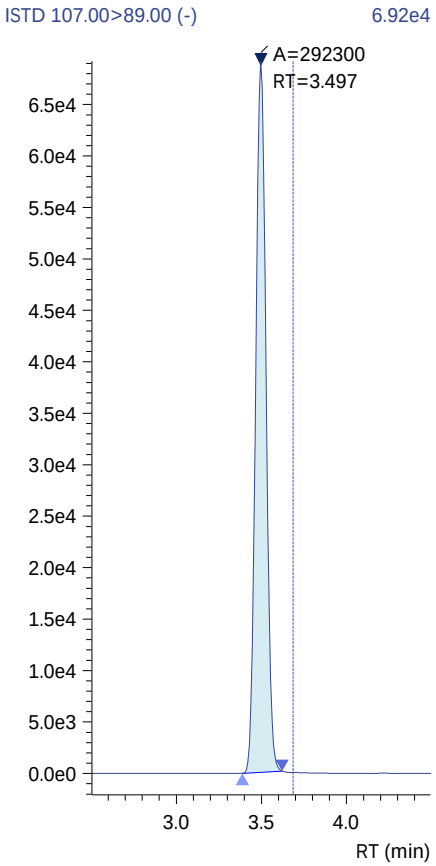
Conc 1.0685
R#1 32.91 (32.08)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/27/2023 9:34:02 AM

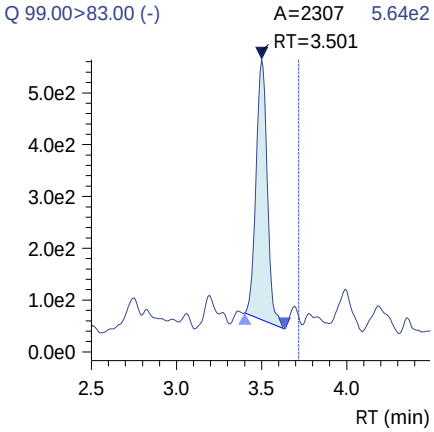
## LODV

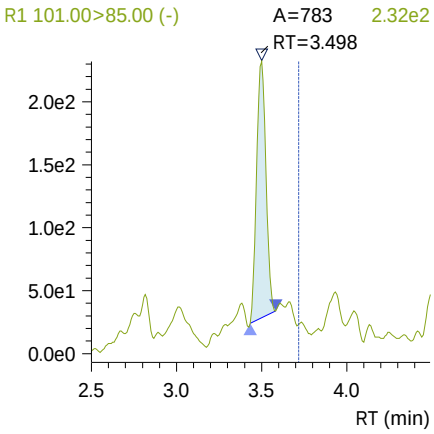
Sample ID: LODV
Date Acquired: 1/26/2023 11:33:59 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-003.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.501 | 2307 | 248256 | 0.0593 | ng/mL | 101.00<br>>85.00 | 33.94 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.497 | 248256 | 248256 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

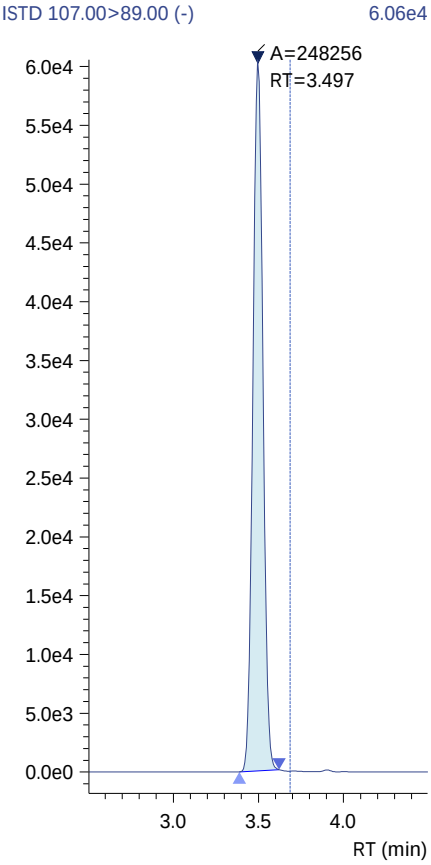
Conc 0.0593
R#1 33.94 (32.08)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/27/2023 9:34:02 AM

## PERCHLORATE7

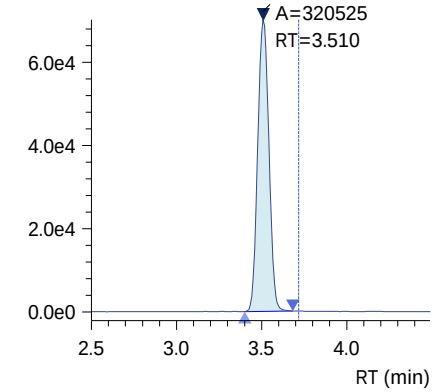
Sample ID: PERCHLORATE7
Date Acquired: 1/26/2023 11:39:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-004.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.510 | 320525 | 195847 | 10.4437 | ng/mL | 101.00<br>>85.00 | 32.60 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.505 | 195847 | 195847 | 1.0000 | ng/mL | ---- | ---- | |

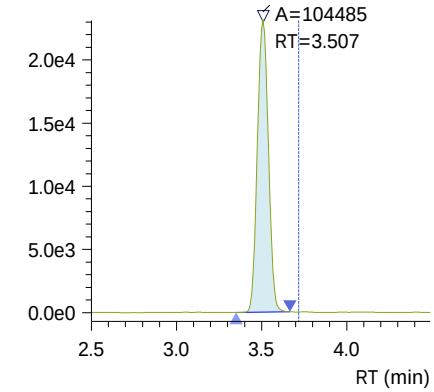
### Perchlorate

Conc 10.4437
R#1 32.60 (32.08)

Q 99.00>83.00 (-) 7.03e4



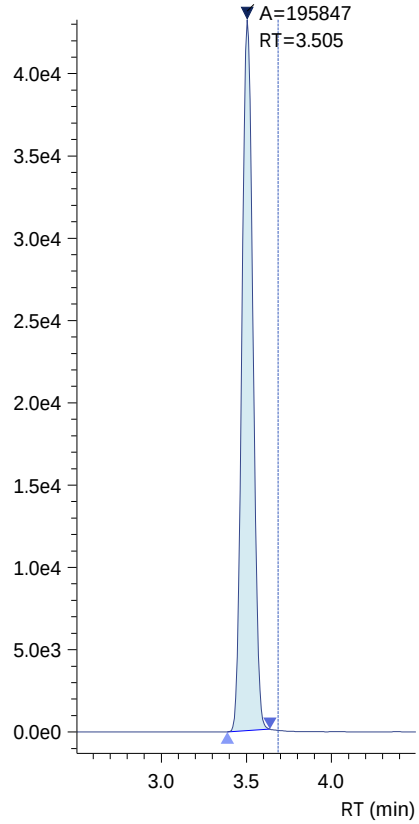

R1 101.00>85.00 (-) 2.31e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.33e4



# Insight Report

Printed at 1/27/2023 9:34:02 AM

## EQ2300026-01

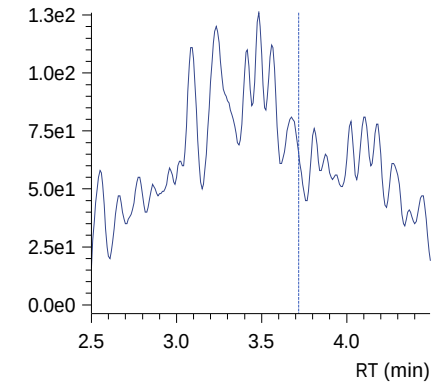
Sample ID: EQ2300026-01
Date Acquired: 1/26/2023 11:44:49 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-005.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND(W/B) | ---- | ---- | 330820 | ---- | ng/mL | 101.00<br>>85.00 | 0.00 | 22.45<br>-41.70 |
| Sodium Perchlorate-18O4_IS | Auto | 3.509 | 330820 | 330820 | 1.0000 | ng/mL | ---- | ---- | |

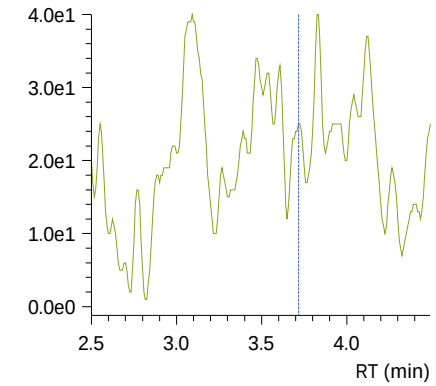
### Perchlorate

Conc ----
R#1 0.00 (32.08)

Q 99.00>83.00 (-) 1.26e2



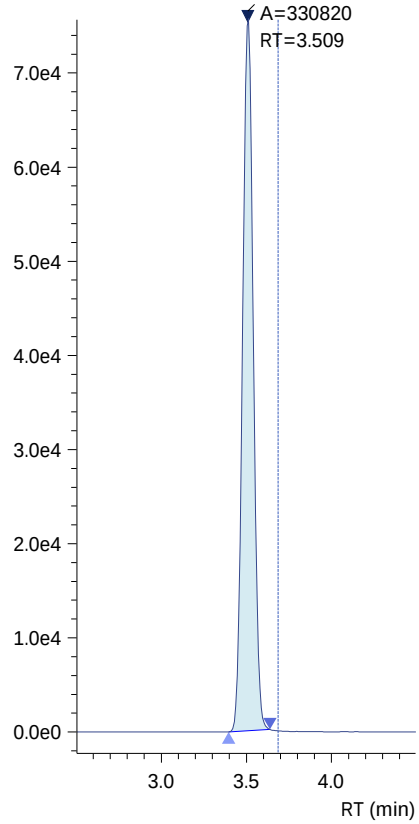

R1 101.00>85.00 (-) 4.00e1




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.57e4



# Insight Report

Printed at 1/27/2023 9:34:02 AM

## EQ2300026-02

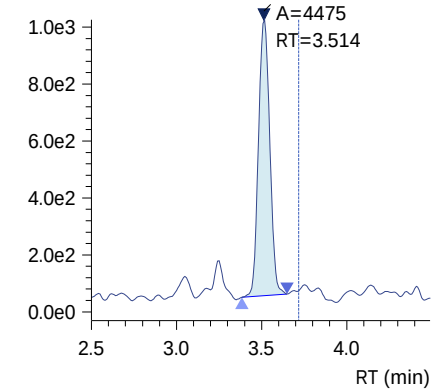
Sample ID: EQ2300026-02
Date Acquired: 1/26/2023 11:50:15 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-006.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.514 | 4475 | 329146 | 0.0868 | ng/mL | 101.00<br>>85.00 | 31.79 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.510 | 329146 | 329146 | 1.0000 | ng/mL | ---- | ---- | |

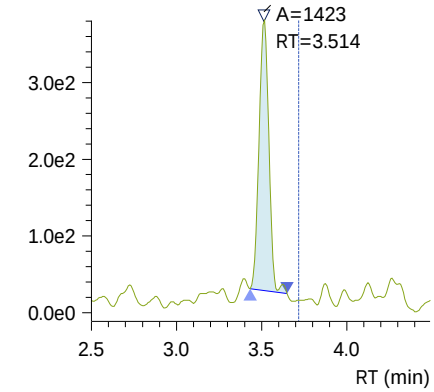
### Perchlorate

Conc 0.0868
R#1 31.79 (32.08)

Q 99.00>83.00 (-) 1.03e3



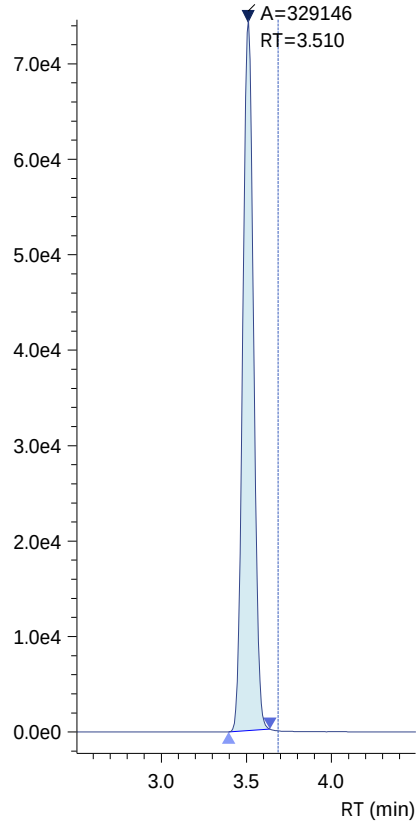

R1 101.00>85.00 (-) 3.81e2




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.46e4



# Insight Report

Printed at 1/27/2023 9:34:02 AM

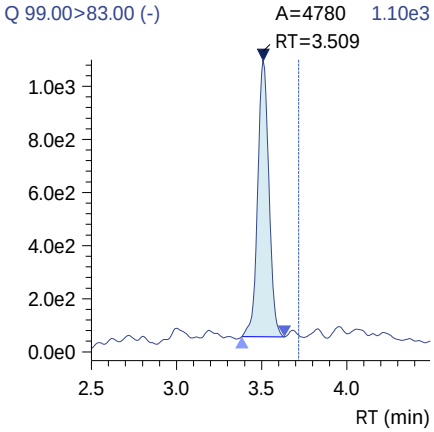
## EQ2300026-03

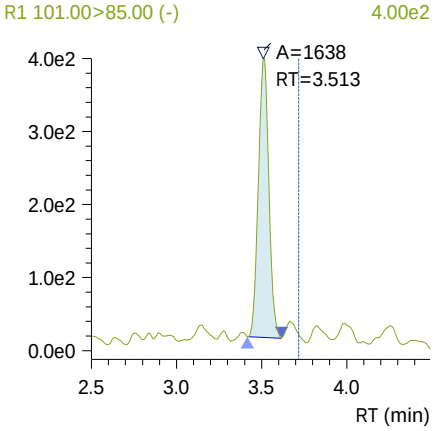
Sample ID: EQ2300026-03
Date Acquired: 1/26/2023 11:55:43 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-007.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.509 | 4780 | 325820 | 0.0936 | ng/mL | 101.00<br>>85.00 | 34.26 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.508 | 325820 | 325820 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

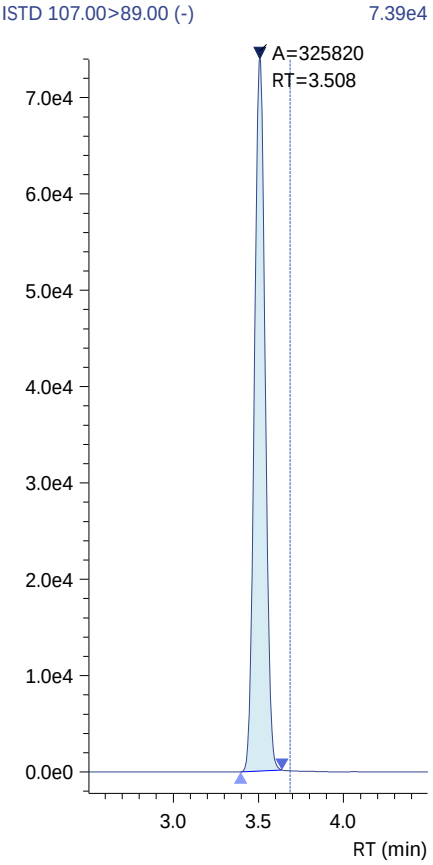
Conc 0.0936
R#1 34.26 (32.08)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/27/2023 9:34:02 AM

## PERCHLORATE7

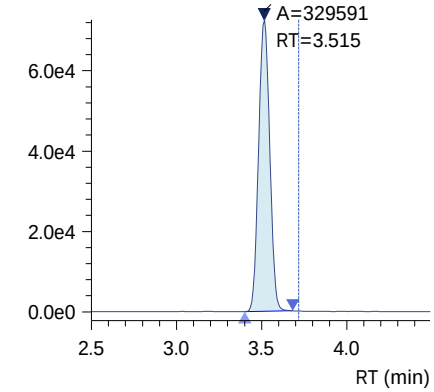
Sample ID: PERCHLORATE7
Date Acquired: 1/26/2023 12:55:59 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-014.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.515 | 329591 | 200906 | 10.4687 | ng/mL | 101.00<br>>85.00 | 32.18 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.510 | 200906 | 200906 | 1.0000 | ng/mL | ---- | ---- | |

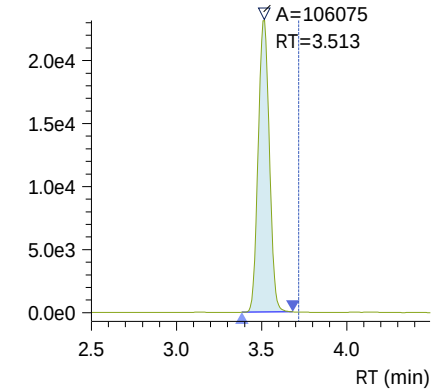
### Perchlorate

Conc 10.4687
R#1 32.18 (32.08)

Q 99.00>83.00 (-) 7.27e4



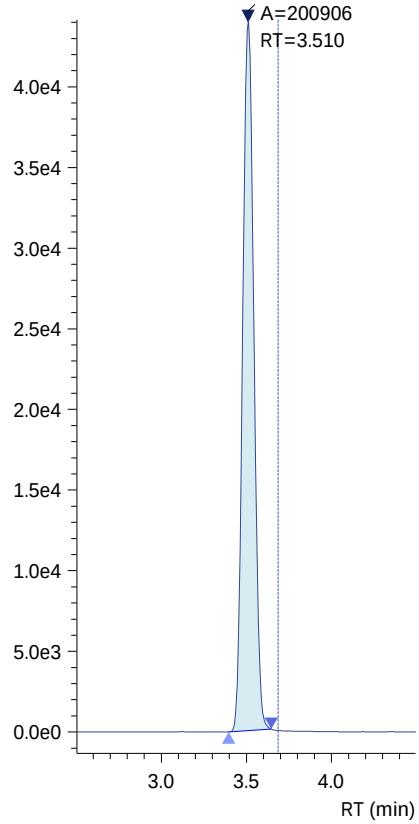

R1 101.00>85.00 (-) 2.32e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.42e4



# Insight Report

Printed at 1/27/2023 9:34:02 AM

## E2300053-001

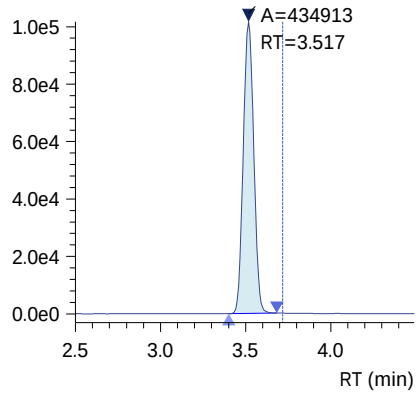
Sample ID: E2300053-001
Date Acquired: 1/26/2023 1:06:48 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-016.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 3

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.517 | 434913 | 252681 | 10.9834 | ng/mL | 101.00<br>>85.00 | 31.57 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.513 | 252681 | 252681 | 1.0000 | ng/mL | ---- | ---- | |

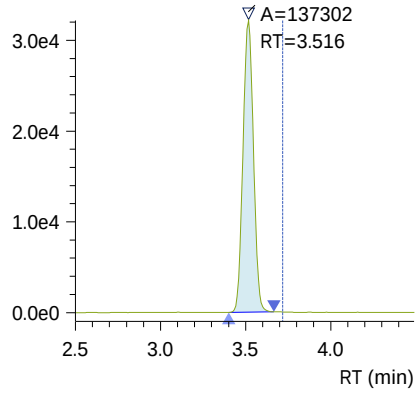
### Perchlorate

Conc 10.9834
R#1 31.57 (32.08)

Q 99.00>83.00 (-) 1.02e5



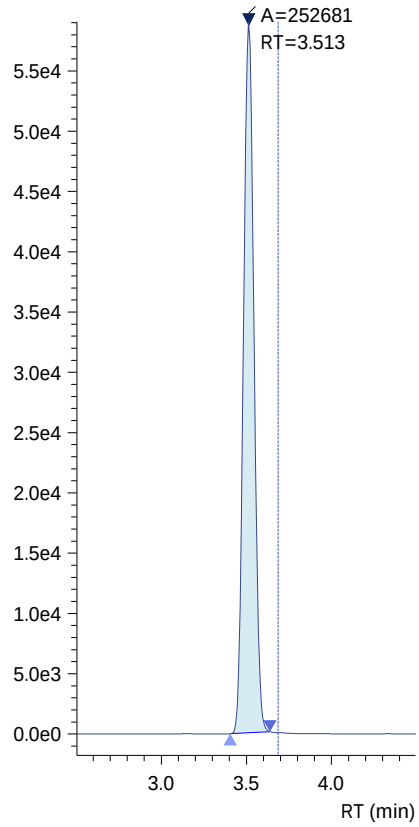

R1 101.00>85.00 (-) 3.22e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.91e4



# Insight Report

Printed at 1/27/2023 9:34:02 AM

## E2300053-002

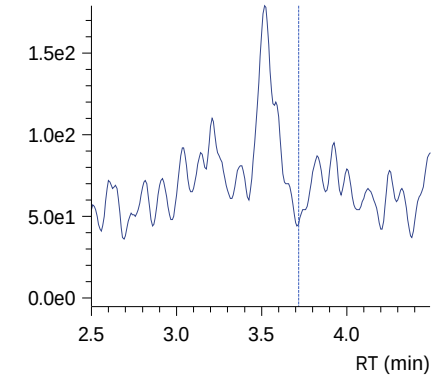
Sample ID: E2300053-002
Date Acquired: 1/26/2023 1:12:12 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-017.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 3

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND(W/B) | ---- | ---- | 303092 | ---- | ng/mL | 101.00<br>>85.00 | 0.00 | 22.45<br>-41.70 |
| Sodium Perchlorate-18O4_IS | Auto | 3.513 | 303092 | 303092 | 1.0000 | ng/mL | ---- | ---- | |

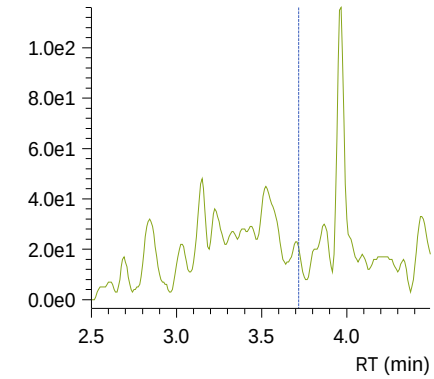
### Perchlorate

Conc ----
R#1 0.00 (32.08)

Q 99.00>83.00 (-) 1.79e2



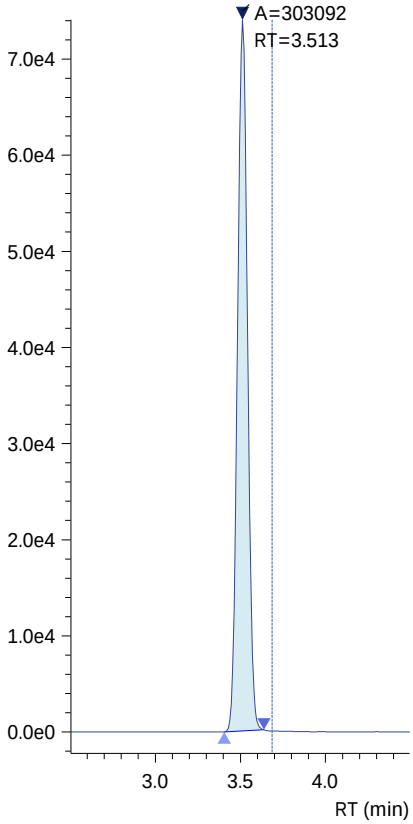

R1 101.00>85.00 (-) 1.16e2




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.41e4



# Insight Report

Printed at 1/27/2023 9:34:02 AM

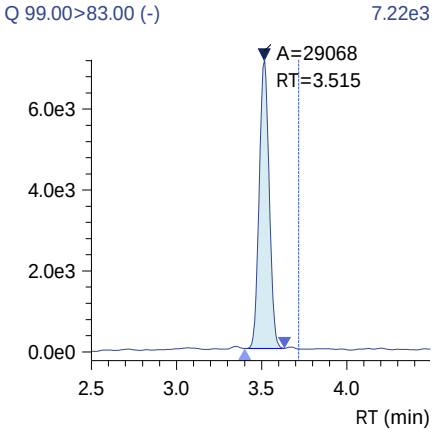
## E2300053-003

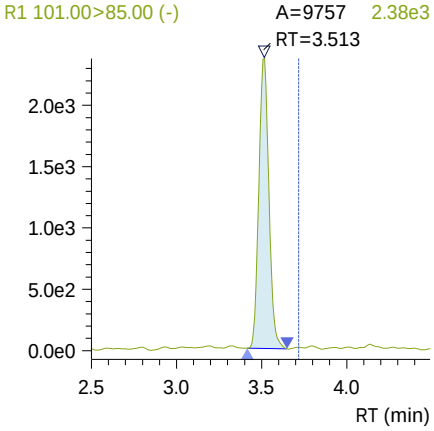
Sample ID: E2300053-003
Date Acquired: 1/26/2023 1:17:37 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-018.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 3

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.515 | 29068 | 293184 | 0.6327 | ng/mL | 101.00<br>>85.00 | 33.57 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.513 | 293184 | 293184 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

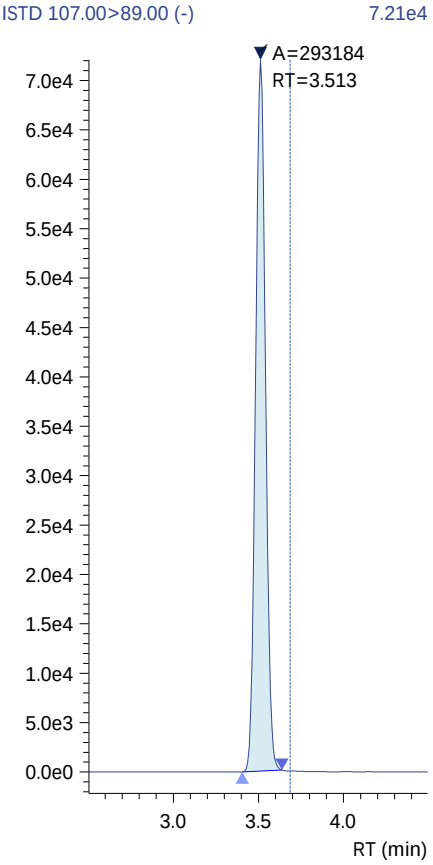
Conc 0.6327
R#1 33.57 (32.08)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/27/2023 9:34:02 AM

## E2300053-004x10

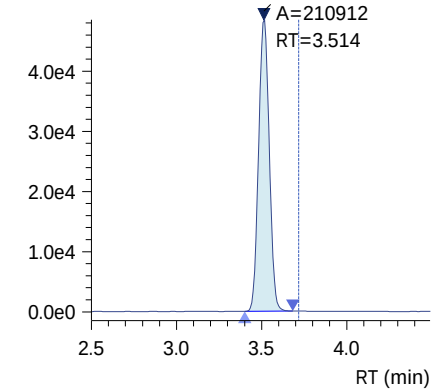
Sample ID: E2300053-004x10
Date Acquired: 1/26/2023 1:22:59 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-019.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 5

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.514 | 210912 | 242460 | 5.5510 | ng/mL | 101.00<br>>85.00 | 31.61 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.510 | 242460 | 242460 | 1.0000 | ng/mL | ---- | ---- | |

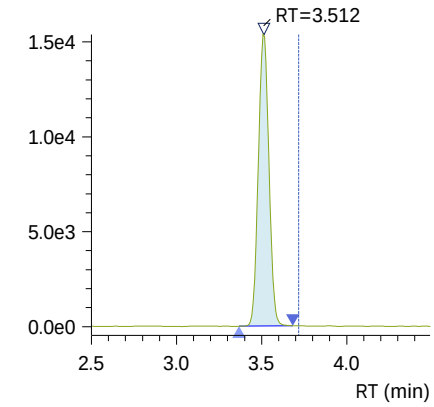
### Perchlorate

Conc 5.5510
R#1 31.61 (32.08)

Q 99.00>83.00 (-) 4.86e4



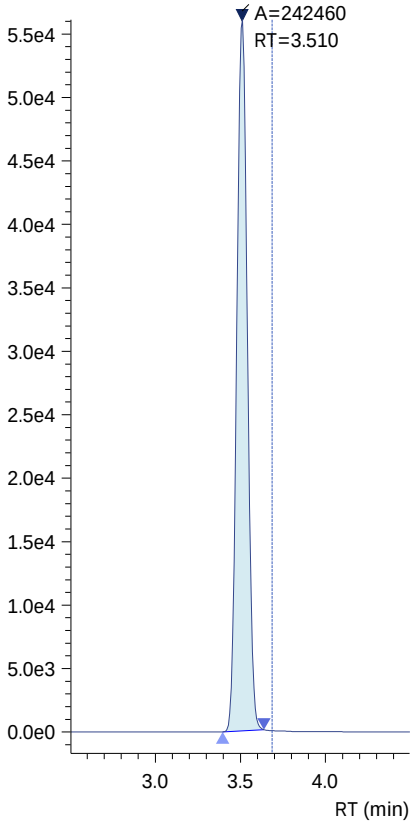

R1 101.00>85.00 (-) A=66674 1.54e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.61e4



# Insight Report

Printed at 1/27/2023 9:34:02 AM

## E2300053-005x10

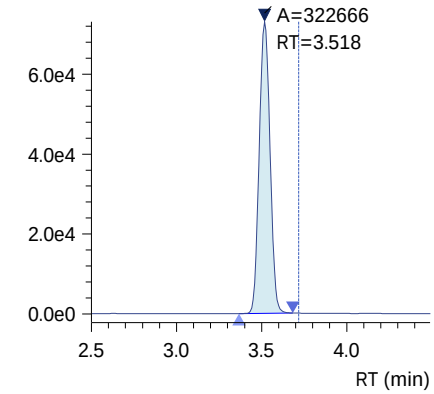
Sample ID: E2300053-005x10
Date Acquired: 1/26/2023 1:28:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-020.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 5

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.518 | 322666 | 216903 | 9.4928 | ng/mL | 101.00<br>>85.00 | 31.37 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.514 | 216903 | 216903 | 1.0000 | ng/mL | ---- | ---- | |

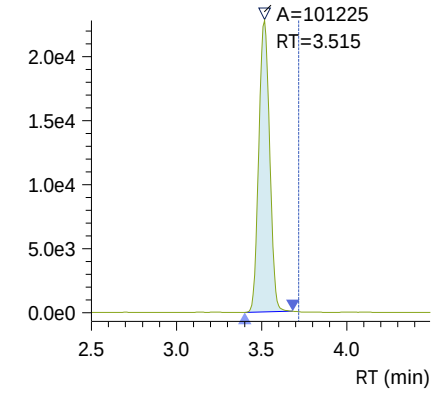
### Perchlorate

Conc 9.4928
R#1 31.37 (32.08)

Q 99.00>83.00 (-) 7.32e4



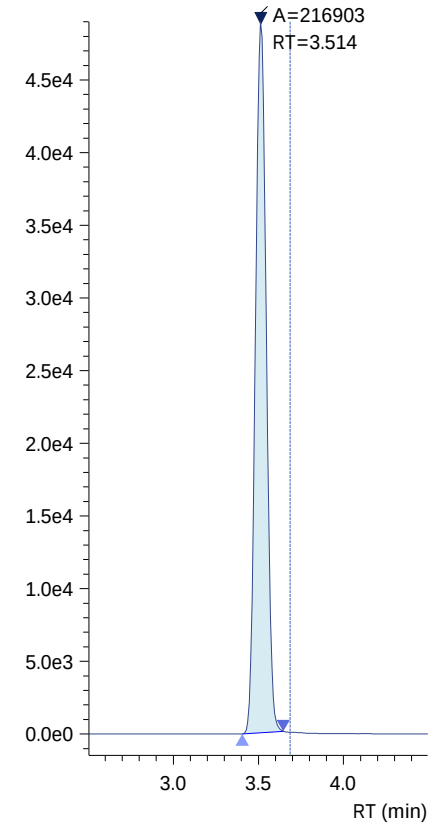

R1 101.00>85.00 (-) 2.28e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.90e4



# Insight Report

Printed at 1/27/2023 9:34:02 AM

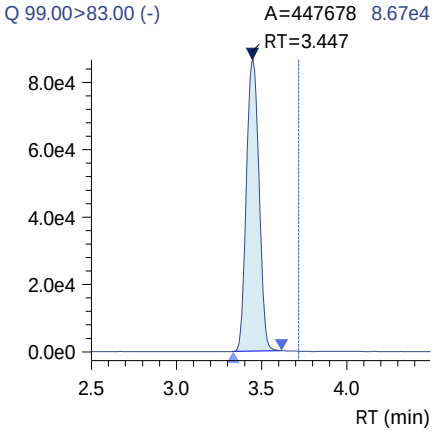
## E2300053-006x50

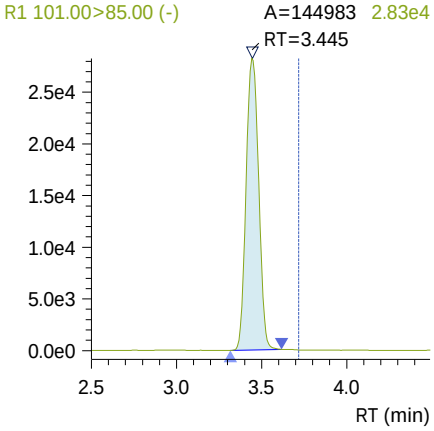
Sample ID: E2300053-006x50
Date Acquired: 1/26/2023 2:33:02 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-021.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 5

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.447 | 447678 | 226744 | 12.5990 | ng/mL | 101.00<br>>85.00 | 32.39 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.443 | 226744 | 226744 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

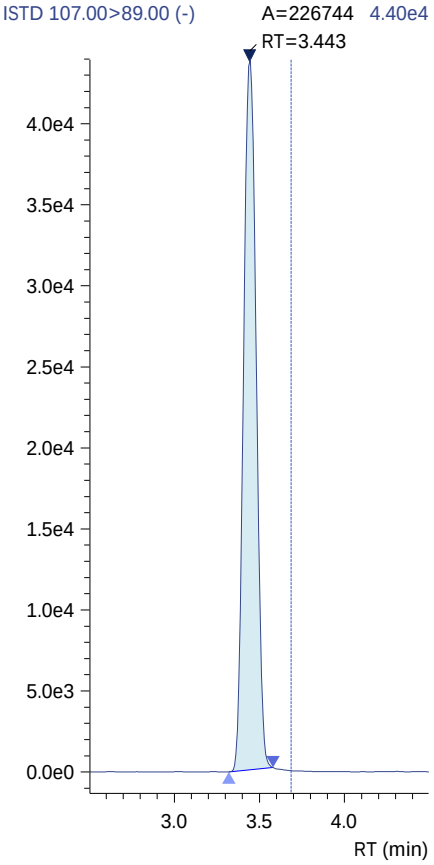
Conc 12.5990
R#1 32.39 (32.08)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/27/2023 9:34:02 AM

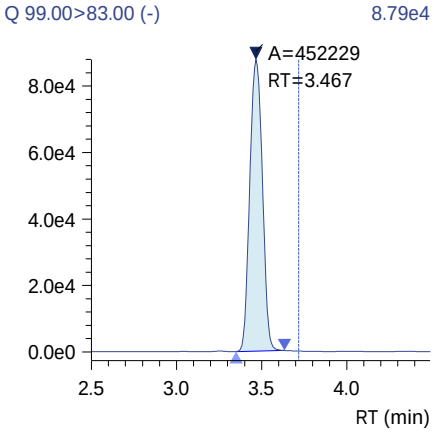
## E2300053-007x50

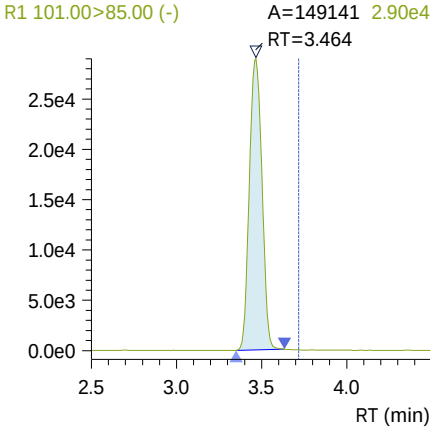
Sample ID: E2300053-007x50
Date Acquired: 1/26/2023 2:38:25 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-022.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 5

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.467 | 452229 | 221956 | 13.0017 | ng/mL | 101.00<br>>85.00 | 32.98 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.462 | 221956 | 221956 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

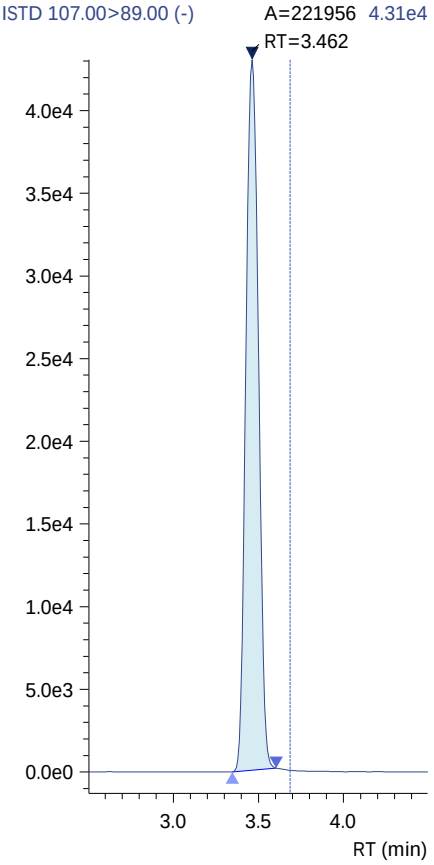
Conc 13.0017
R#1 32.98 (32.08)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/27/2023 9:34:02 AM

## EQ2300026-06

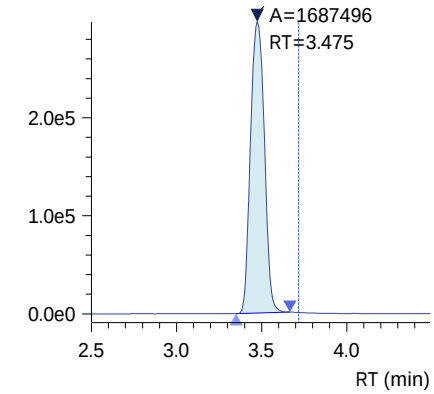
Sample ID: EQ2300026-06
Date Acquired: 1/26/2023 2:43:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-023.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.475 | 16874<br>96 | 111913 | 96.2212 | ng/mL | 101.00<br>>85.00 | 32.30 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.465 | 111913 | 111913 | 1.0000 | ng/mL | ---- | ---- | |

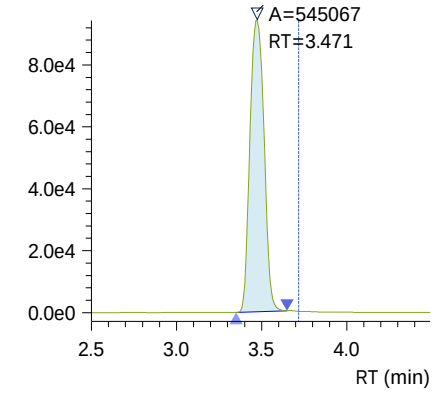
### Perchlorate

Conc 96.2212
R#1 32.30 (32.08)

Q 99.00>83.00 (-) 2.98e5



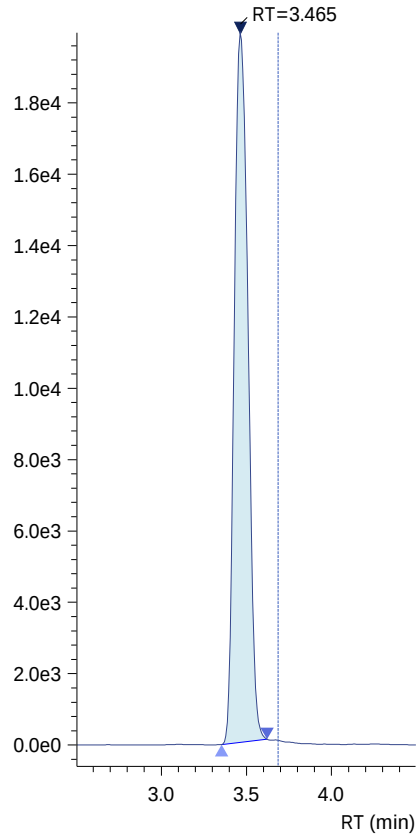

R1 101.00>85.00 (-) 9.44e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=111913 2.00e4



# Insight Report

Printed at 1/27/2023 9:34:02 AM

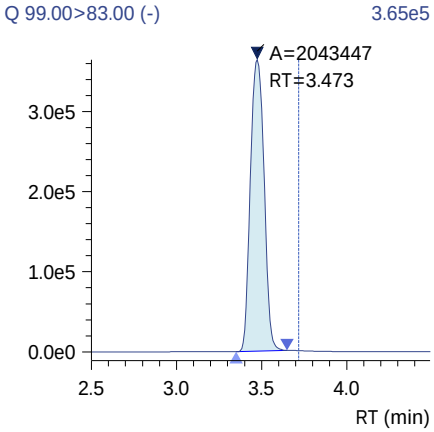
## EQ2300026-07

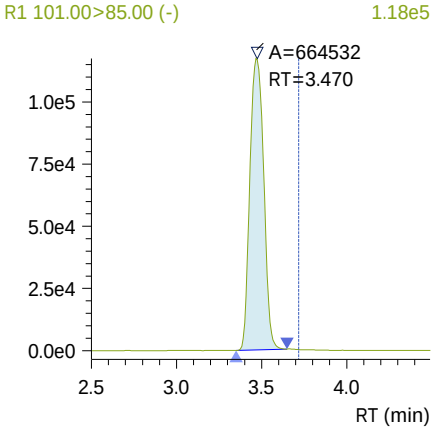
Sample ID: EQ2300026-07
Date Acquired: 1/26/2023 2:49:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-024.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.473 | 20434<br>47 | 128050 | 101.83<br>38 | ng/mL | 101.00<br>>85.00 | 32.52 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.465 | 128050 | 128050 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

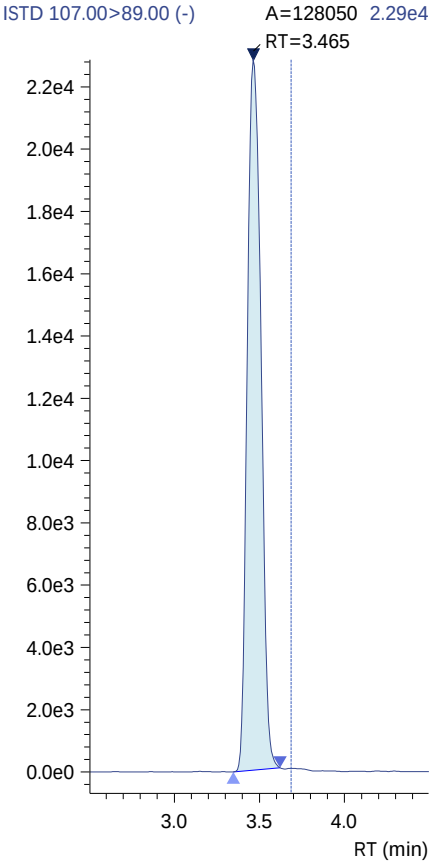
Conc 101.8338
R#1 32.52 (32.08)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/27/2023 9:34:02 AM

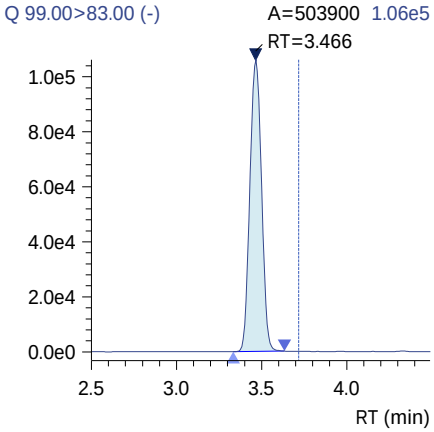
## PERCHLORATE7

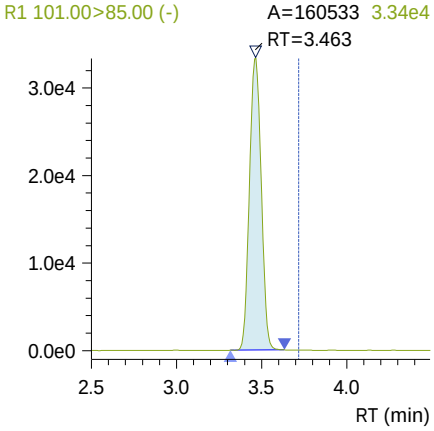
Sample ID: PERCHLORATE7
Date Acquired: 1/26/2023 2:54:41 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-025.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.466 | 503900 | 313798 | 10.2471 | ng/mL | 101.00<br>>85.00 | 31.86 | 22.45<br>-41.70 |
| Sodium Perchlorate -18O4_IS | Auto | 3.461 | 313798 | 313798 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

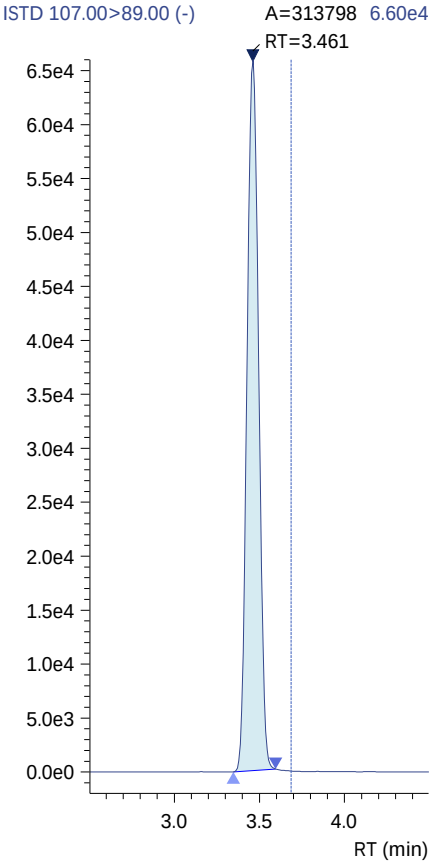
Conc 10.2471
R#1 31.86 (32.08)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# HS23010991 LHAAP 16 January 2023 Final

ALS WO# HS23010991

ALS Environmental
ALS Group USA, Corp
10450 Stancliff Road, Suite 210
Houston, TX 77099
**T :** +1 281 530 5656
**F :** +1 281 530 5887
**www.alsglobal.com**

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- COC
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HS23010991 Wet Chemistry

HS23010991-E2300057 Perchlorate Level IV

CoverLetter

Certificate of Analysis

Chain of Custody

Preparation Sheets

Analytical Results

Accuracy and Precision

Initial Calibration

Chromatograms and Selected Ion Monitoring

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

February 01, 2023

Vicki Graves
Aptim Environmental & Infrastucture, Inc.
10333 Richmond Ave
Ste 1030
Houston, TX 77042

Work Order: **HS23010991**

Laboratory Results for: **LHAAP 16 January 2023**

Dear Vicki Graves ,

ALS Environmental received 2 sample(s) on Jan 20, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

**Generated By: JUMOKE.LAWAL**
Dane J. Wacasey

**ALS Houston, US** Date: 01-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**Work Order:** HS23010991

## SAMPLE SUMMARY

| Lab Samp ID | Client Sample ID | Matrix | TagNo | Collection Date | Date Received | Hold |
|---|---|---|---|---|---|---|
| HS23010991-01 | 16EW01-230119 | Groundwater | | 19-Jan-2023 13:25 | 20-Jan-2023 10:10 | ☐ |
| HS23010991-02 | Trip Blank-230119 | Water | CG-090622-777 | 19-Jan-2023 00:00 | 20-Jan-2023 10:10 | ☐ |

**ALS Houston, US** Date: 01-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
**Project:** LHAAP 16 January 2023
**Work Order:** HS23010991

## Work Order Comments

• The analysis for Perchlorate was performed by ALS Houston Specialty Lab. The final report is appended.

## GCMS Volatiles by Method SW8260

### Batch ID: R426481

**Sample ID: HS23010982-02MS**

• MS/MSD was performed on an unrelated sample.

### Batch ID: R426355

**Sample ID: HS23010986-05MS**

• MS/MSD was performed on an unrelated sample.

### Batch ID: R426320

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

## WetChemistry by Method SM5310B

### Batch ID: R427021

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

**ALS Houston, US** Date: 01-Feb-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16EW01-230119
Collection Date: 19-Jan-2023 13:25

**ANALYTICAL REPORT**
WorkOrder:HS23010991
Lab ID:HS23010991-01
Matrix:Groundwater

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 5.0 | U | 1.5 | 5.0 | 5.0 | ug/L | 5 | 24-Jan-2023 16:17 |
| **1,1-Dichloroethene** | **28** | | **1.0** | **5.0** | **5.0** | **ug/L** | 5 | 24-Jan-2023 16:17 |
| **1,2-Dichloroethane** | **18** | | **1.0** | **5.0** | **5.0** | **ug/L** | 5 | 24-Jan-2023 16:17 |
| **cis-1,2-Dichloroethene** | **7,000** | | **20** | **100** | **100** | **ug/L** | 100 | 25-Jan-2023 13:36 |
| Methylene chloride | 5.0 | U | 2.0 | 5.0 | 10 | ug/L | 5 | 24-Jan-2023 16:17 |
| **Trichloroethene** | **2,400** | | **20** | **100** | **100** | **ug/L** | 100 | 25-Jan-2023 13:36 |
| **Vinyl chloride** | **890** | | **20** | **100** | **100** | **ug/L** | 100 | 25-Jan-2023 13:36 |
| *Surr: 1,2-Dichloroethane-d4* | *95.5* | | | **0** | *81-118* | *%REC* | *5* | *24-Jan-2023 16:17* |
| *Surr: 1,2-Dichloroethane-d4* | *98.0* | | | **0** | *81-118* | *%REC* | *100* | *25-Jan-2023 13:36* |
| *Surr: 4-Bromofluorobenzene* | *99.8* | | | **0** | *85-114* | *%REC* | *5* | *24-Jan-2023 16:17* |
| *Surr: 4-Bromofluorobenzene* | *101* | | | **0** | *85-114* | *%REC* | *100* | *25-Jan-2023 13:36* |
| *Surr: Dibromofluoromethane* | *87.6* | | | **0** | *80-119* | *%REC* | *5* | *24-Jan-2023 16:17* |
| *Surr: Dibromofluoromethane* | *90.8* | | | **0** | *80-119* | *%REC* | *100* | *25-Jan-2023 13:36* |
| *Surr: Toluene-d8* | *104* | | | **0** | *89-112* | *%REC* | *5* | *24-Jan-2023 16:17* |
| *Surr: Toluene-d8* | *104* | | | **0** | *89-112* | *%REC* | *100* | *25-Jan-2023 13:36* |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **17.3** | | **0.500** | **1.00** | **1.00** | **mg/L** | 1 | 30-Jan-2023 21:53 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US** Date: 01-Feb-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: Trip Blank-230119
Collection Date: 19-Jan-2023 00:00

**ANALYTICAL REPORT**
WorkOrder:HS23010991
Lab ID:HS23010991-02
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: PC |
| 1,1,2-Trichloroethane | 1.0 | U | 0.30 | 1.0 | 1.0 | ug/L | 1 | 23-Jan-2023 20:02 |
| 1,1-Dichloroethene | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 23-Jan-2023 20:02 |
| 1,2-Dichloroethane | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 23-Jan-2023 20:02 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 23-Jan-2023 20:02 |
| Methylene chloride | 1.0 | U | 0.40 | 1.0 | 2.0 | ug/L | 1 | 23-Jan-2023 20:02 |
| Trichloroethene | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 23-Jan-2023 20:02 |
| Vinyl chloride | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 23-Jan-2023 20:02 |
| *Surr: 1,2-Dichloroethane-d4* | *99.2* | | | **0** | *81-118* | *%REC* | *1* | *23-Jan-2023 20:02* |
| *Surr: 4-Bromofluorobenzene* | *97.2* | | | **0** | *85-114* | *%REC* | *1* | *23-Jan-2023 20:02* |
| *Surr: Dibromofluoromethane* | *93.3* | | | **0** | *80-119* | *%REC* | *1* | *23-Jan-2023 20:02* |
| *Surr: Toluene-d8* | *106* | | | **0** | *89-112* | *%REC* | *1* | *23-Jan-2023 20:02* |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US** Date: 01-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23010991

## DATES REPORT

| Sample ID | Client Samp ID | Collection Date | Leachate Date | Prep Date | Analysis Date | DF |
|---|---|---|---|---|---|---|
| **Batch ID:** R426320 ( 0 ) | **Test Name :** VOLATILES ORGANICS BY METHOD 8260C | | | | **Matrix:** Water | |
| HS23010991-02 | Trip Blank-230119 | 19 Jan 2023 00:00 | | | 23 Jan 2023 20:02 | 1 |
| **Batch ID:** R426355 ( 0 ) | **Test Name :** VOLATILES ORGANICS BY METHOD 8260C | | | | **Matrix:** Groundwater | |
| HS23010991-01 | 16EW01-230119 | 19 Jan 2023 13:25 | | | 24 Jan 2023 16:17 | 5 |
| **Batch ID:** R426481 ( 0 ) | **Test Name :** VOLATILES ORGANICS BY METHOD 8260C | | | | **Matrix:** Groundwater | |
| HS23010991-01 | 16EW01-230119 | 19 Jan 2023 13:25 | | | 25 Jan 2023 13:36 | 100 |
| **Batch ID:** R426969 ( 0 ) | **Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850) | | | | **Matrix:** Groundwater | |
| HS23010991-01 | 16EW01-230119 | 19 Jan 2023 13:25 | | | 31 Jan 2023 15:57 | 1 |
| **Batch ID:** R427021 ( 0 ) | **Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011 | | | | **Matrix:** Groundwater | |
| HS23010991-01 | 16EW01-230119 | 19 Jan 2023 13:25 | | | 30 Jan 2023 21:53 | 1 |

**ALS Houston, US** Date: 01-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23010991

**QC BATCH REPORT**

**Batch ID: R426320 ( 0 )** **Instrument: VOA6** **Method: VOLATILES ORGANICS BY METHOD 8260C**

**MBLK** Sample ID: **VBLKW-230123** Units: **ug/L** Analysis Date: **23-Jan-2023 13:22**
Client ID: Run ID: **VOA6_426320** SeqNo: **7084047** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1.0 | 1.0 | | | | | | | | U |
| 1,1-Dichloroethene | 1.0 | 1.0 | | | | | | | | U |
| 1,2-Dichloroethane | 1.0 | 1.0 | | | | | | | | U |
| cis-1,2-Dichloroethene | 1.0 | 1.0 | | | | | | | | U |
| Methylene chloride | 1.0 | 2.0 | | | | | | | | U |
| Trichloroethene | 1.0 | 1.0 | | | | | | | | U |
| Vinyl chloride | 1.0 | 1.0 | | | | | | | | U |
| *Surr: 1,2-Dichloroethane-d4* | *49.84* | *1.0* | *50* | *0* | *99.7* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *50.23* | *1.0* | *50* | *0* | *100* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *46.52* | *1.0* | *50* | *0* | *93.0* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *52.64* | *1.0* | *50* | *0* | *105* | *89 - 112* | | | | |

**LCS** Sample ID: **VLCSW-233120** Units: **ug/L** Analysis Date: **23-Jan-2023 12:40**
Client ID: Run ID: **VOA6_426320** SeqNo: **7084046** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20.37 | 1.0 | 20 | 0 | 102 | 80 - 119 | | | | |
| 1,1-Dichloroethene | 21.61 | 1.0 | 20 | 0 | 108 | 71 - 131 | | | | |
| 1,2-Dichloroethane | 23.17 | 1.0 | 20 | 0 | 116 | 73 - 128 | | | | |
| cis-1,2-Dichloroethene | 20.59 | 1.0 | 20 | 0 | 103 | 78 - 123 | | | | |
| Methylene chloride | 20.48 | 2.0 | 20 | 0 | 102 | 74 - 124 | | | | |
| Trichloroethene | 21.86 | 1.0 | 20 | 0 | 109 | 79 - 123 | | | | |
| Vinyl chloride | 20.85 | 1.0 | 20 | 0 | 104 | 58 - 137 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *55.96* | *1.0* | *50* | *0* | *112* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *51.76* | *1.0* | *50* | *0* | *104* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *50.19* | *1.0* | *50* | *0* | *100* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *49.52* | *1.0* | *50* | *0* | *99.0* | *89 - 112* | | | | |

**ALS Houston, US** Date: 01-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23010991

**QC BATCH REPORT**

**Batch ID:** R426320 ( 0 ) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

**MS** Sample ID: **HS23010982-05MS** Units: **ug/L** Analysis Date: **23-Jan-2023 17:35**
Client ID: Run ID: **VOA6_426320** SeqNo: **7084059** PrepDate: DF: **2000**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 39330 | 2000 | 40000 | 0 | 98.3 | 80 - 119 | | | | |
| 1,1-Dichloroethene | 40510 | 2000 | 40000 | 0 | 101 | 71 - 131 | | | | |
| 1,2-Dichloroethane | 40730 | 2000 | 40000 | 0 | 102 | 73 - 128 | | | | |
| cis-1,2-Dichloroethene | 75870 | 2000 | 40000 | 39010 | 92.1 | 78 - 123 | | | | |
| Methylene chloride | 35340 | 4000 | 40000 | 0 | 88.4 | 74 - 124 | | | | |
| Trichloroethene | 75470 | 2000 | 40000 | 31950 | 109 | 79 - 123 | | | | |
| Vinyl chloride | 40100 | 2000 | 40000 | 1012 | 97.7 | 58 - 137 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *98270* | *2000* | *100000* | *0* | *98.3* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *102700* | *2000* | *100000* | *0* | *103* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *90860* | *2000* | *100000* | *0* | *90.9* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *104500* | *2000* | *100000* | *0* | *104* | *89 - 112* | | | | |

**MSD** Sample ID: **HS23010982-05MSD** Units: **ug/L** Analysis Date: **23-Jan-2023 17:56**
Client ID: Run ID: **VOA6_426320** SeqNo: **7084060** PrepDate: DF: **2000**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 39070 | 2000 | 40000 | 0 | 97.7 | 80 - 119 | 39330 | 0.675 | 20 | |
| 1,1-Dichloroethene | 39400 | 2000 | 40000 | 0 | 98.5 | 71 - 131 | 40510 | 2.76 | 20 | |
| 1,2-Dichloroethane | 41710 | 2000 | 40000 | 0 | 104 | 73 - 128 | 40730 | 2.38 | 20 | |
| cis-1,2-Dichloroethene | 74150 | 2000 | 40000 | 39010 | 87.9 | 78 - 123 | 75870 | 2.29 | 20 | |
| Methylene chloride | 34660 | 4000 | 40000 | 0 | 86.7 | 74 - 124 | 35340 | 1.95 | 20 | |
| Trichloroethene | 70940 | 2000 | 40000 | 31950 | 97.5 | 79 - 123 | 75470 | 6.19 | 20 | |
| Vinyl chloride | 37340 | 2000 | 40000 | 1012 | 90.8 | 58 - 137 | 40100 | 7.12 | 20 | |
| *Surr: 1,2-Dichloroethane-d4* | *99630* | *2000* | *100000* | *0* | *99.6* | *81 - 118* | *98270* | *1.37* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *102600* | *2000* | *100000* | *0* | *103* | *85 - 114* | *102700* | *0.111* | *20* | |
| *Surr: Dibromofluoromethane* | *92490* | *2000* | *100000* | *0* | *92.5* | *80 - 119* | *90860* | *1.78* | *20* | |
| *Surr: Toluene-d8* | *104100* | *2000* | *100000* | *0* | *104* | *89 - 112* | *104500* | *0.316* | *20* | |

**The following samples were analyzed in this batch:** HS23010991-02

**ALS Houston, US** Date: 01-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23010991

**QC BATCH REPORT**

**Batch ID: R426355 ( 0 )** **Instrument: VOA6** **Method: VOLATILES ORGANICS BY METHOD 8260C**

**MBLK** Sample ID: **VBLKW-230124** Units: **ug/L** Analysis Date: **24-Jan-2023 09:37**
Client ID: Run ID: **VOA6_426355** SeqNo: **7084871** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1.0 | 1.0 | | | | | | | | U |
| 1,1-Dichloroethene | 1.0 | 1.0 | | | | | | | | U |
| 1,2-Dichloroethane | 1.0 | 1.0 | | | | | | | | U |
| Methylene chloride | 1.0 | 2.0 | | | | | | | | U |
| *Surr: 1,2-Dichloroethane-d4* | *49.27* | *1.0* | *50* | *0* | *98.5* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *50.18* | *1.0* | *50* | *0* | *100* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *46.97* | *1.0* | *50* | *0* | *93.9* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *52.83* | *1.0* | *50* | *0* | *106* | *89 - 112* | | | | |

**LCS** Sample ID: **VLCSW-230124** Units: **ug/L** Analysis Date: **24-Jan-2023 08:55**
Client ID: Run ID: **VOA6_426355** SeqNo: **7084870** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 19.79 | 1.0 | 20 | 0 | 98.9 | 80 - 119 | | | | |
| 1,1-Dichloroethene | 21.1 | 1.0 | 20 | 0 | 106 | 71 - 131 | | | | |
| 1,2-Dichloroethane | 22.96 | 1.0 | 20 | 0 | 115 | 73 - 128 | | | | |
| Methylene chloride | 20.26 | 2.0 | 20 | 0 | 101 | 74 - 124 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *55.08* | *1.0* | *50* | *0* | *110* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *51* | *1.0* | *50* | *0* | *102* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *49.99* | *1.0* | *50* | *0* | *100.0* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *49.61* | *1.0* | *50* | *0* | *99.2* | *89 - 112* | | | | |

**MS** Sample ID: **HS23010986-05MS** Units: **ug/L** Analysis Date: **24-Jan-2023 18:23**
Client ID: Run ID: **VOA6_426355** SeqNo: **7086553** PrepDate: DF: **100**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1596 | 100 | 2000 | 0 | 79.8 | 80 - 119 | | | | S |
| 1,1-Dichloroethene | 1730 | 100 | 2000 | 149.1 | 79.1 | 71 - 131 | | | | |
| 1,2-Dichloroethane | 1728 | 100 | 2000 | 0 | 86.4 | 73 - 128 | | | | |
| Methylene chloride | 1374 | 200 | 2000 | 0 | 68.7 | 74 - 124 | | | | S |
| *Surr: 1,2-Dichloroethane-d4* | *4981* | *100* | *5000* | *0* | *99.6* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *5111* | *100* | *5000* | *0* | *102* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *4544* | *100* | *5000* | *0* | *90.9* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *5173* | *100* | *5000* | *0* | *103* | *89 - 112* | | | | |

**ALS Houston, US** Date: 01-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23010991

**QC BATCH REPORT**

**Batch ID: R426355 ( 0 )** **Instrument: VOA6** **Method: VOLATILES ORGANICS BY METHOD 8260C**

**MS** Sample ID: **HS23010982-05MS** Units: **ug/L** Analysis Date: **24-Jan-2023 11:01**
Client ID: Run ID: **VOA6_426355** SeqNo: **7085373** PrepDate: DF: **100**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1946 | 100 | 2000 | 120.3 | 91.3 | 80 - 119 | | | | |
| 1,1-Dichloroethene | 4826 | 100 | 2000 | 2800 | 101 | 71 - 131 | | | | |
| 1,2-Dichloroethane | 2896 | 100 | 2000 | 945.1 | 97.6 | 73 - 128 | | | | |
| Methylene chloride | 1568 | 200 | 2000 | 0 | 78.4 | 74 - 124 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *5000* | *100* | *5000* | *0* | *100.0* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *5184* | *100* | *5000* | *0* | *104* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *4698* | *100* | *5000* | *0* | *94.0* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *5138* | *100* | *5000* | *0* | *103* | *89 - 112* | | | | |

**MSD** Sample ID: **HS23010982-05MSD** Units: **ug/L** Analysis Date: **24-Jan-2023 11:22**
Client ID: Run ID: **VOA6_426355** SeqNo: **7085374** PrepDate: DF: **100**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1872 | 100 | 2000 | 120.3 | 87.6 | 80 - 119 | 1946 | 3.83 | 20 | |
| 1,1-Dichloroethene | 4530 | 100 | 2000 | 2800 | 86.5 | 71 - 131 | 4826 | 6.33 | 20 | |
| 1,2-Dichloroethane | 2828 | 100 | 2000 | 945.1 | 94.1 | 73 - 128 | 2896 | 2.38 | 20 | |
| Methylene chloride | 1502 | 200 | 2000 | 0 | 75.1 | 74 - 124 | 1568 | 4.35 | 20 | |
| *Surr: 1,2-Dichloroethane-d4* | *5037* | *100* | *5000* | *0* | *101* | *81 - 118* | *5000* | *0.739* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *5146* | *100* | *5000* | *0* | *103* | *85 - 114* | *5184* | *0.745* | *20* | |
| *Surr: Dibromofluoromethane* | *4688* | *100* | *5000* | *0* | *93.8* | *80 - 119* | *4698* | *0.207* | *20* | |
| *Surr: Toluene-d8* | *5132* | *100* | *5000* | *0* | *103* | *89 - 112* | *5138* | *0.11* | *20* | |

**MSD** Sample ID: **HS23010982-05MSD** Units: **ug/L** Analysis Date: **24-Jan-2023 18:44**
Client ID: Run ID: **VOA6_426355** SeqNo: **7086554** PrepDate: DF: **100**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1488 | 100 | 2000 | 120.3 | 68.4 | 80 - 119 | 1946 | 26.6 | 20 | SR |
| 1,1-Dichloroethene | 1567 | 100 | 2000 | 2800 | -61.6 | 71 - 131 | 4826 | 102 | 20 | SR |
| 1,2-Dichloroethane | 1684 | 100 | 2000 | 945.1 | 36.9 | 73 - 128 | 2896 | 53 | 20 | SR |
| Methylene chloride | 1318 | 200 | 2000 | 0 | 65.9 | 74 - 124 | 1568 | 17.4 | 20 | S |
| *Surr: 1,2-Dichloroethane-d4* | *4925* | *100* | *5000* | *0* | *98.5* | *81 - 118* | *5000* | *1.5* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *5115* | *100* | *5000* | *0* | *102* | *85 - 114* | *5184* | *1.34* | *20* | |
| *Surr: Dibromofluoromethane* | *4507* | *100* | *5000* | *0* | *90.1* | *80 - 119* | *4698* | *4.14* | *20* | |
| *Surr: Toluene-d8* | *5153* | *100* | *5000* | *0* | *103* | *89 - 112* | *5138* | *0.279* | *20* | |

**ALS Houston, US** Date: 01-Feb-23

| | |
|---|---|
| **Client:** | Aptim Environmental & Infrastucture, Inc. |
| **Project:** | LHAAP 16 January 2023 |
| **WorkOrder:** | HS23010991 |

**QC BATCH REPORT**

| | | | | | |
|---|---|---|---|---|---|
| **Batch ID:** | **R426355 ( 0 )** | **Instrument:** | **VOA6** | **Method:** | **VOLATILES ORGANICS BY METHOD 8260C** |

**The following samples were analyzed in this batch:** HS23010991-01

**ALS Houston, US** Date: 01-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23010991

**QC BATCH REPORT**

**Batch ID: R426481 ( 0 )** **Instrument: VOA6** **Method: VOLATILES ORGANICS BY METHOD 8260C**

**MBLK** Sample ID: **VBLKW-230125** Units: **ug/L** Analysis Date: **25-Jan-2023 09:24**
Client ID: Run ID: **VOA6_426481** SeqNo: **7087539** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 1.0 | 1.0 | | | | | | | | U |
| Trichloroethene | 1.0 | 1.0 | | | | | | | | U |
| Vinyl chloride | 1.0 | 1.0 | | | | | | | | U |
| *Surr: 1,2-Dichloroethane-d4* | *48.66* | *1.0* | *50* | *0* | *97.3* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *50.26* | *1.0* | *50* | *0* | *101* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *45.56* | *1.0* | *50* | *0* | *91.1* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *52.59* | *1.0* | *50* | *0* | *105* | *89 - 112* | | | | |

**LCS** Sample ID: **VLCSW-230125** Units: **ug/L** Analysis Date: **25-Jan-2023 08:42**
Client ID: Run ID: **VOA6_426481** SeqNo: **7087538** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 17.55 | 1.0 | 20 | 0 | 87.8 | 78 - 123 | | | | |
| Trichloroethene | 20.24 | 1.0 | 20 | 0 | 101 | 79 - 123 | | | | |
| Vinyl chloride | 18.47 | 1.0 | 20 | 0 | 92.4 | 58 - 137 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *57.18* | *1.0* | *50* | *0* | *114* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *53.58* | *1.0* | *50* | *0* | *107* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *50.07* | *1.0* | *50* | *0* | *100* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *51.82* | *1.0* | *50* | *0* | *104* | *89 - 112* | | | | |

**MS** Sample ID: **HS23010982-02MS** Units: **ug/L** Analysis Date: **25-Jan-2023 10:27**
Client ID: Run ID: **VOA6_426481** SeqNo: **7087542** PrepDate: DF: **100**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 1610 | 100 | 2000 | 145.3 | 73.2 | 78 - 123 | | | | S |
| Trichloroethene | 5232 | 100 | 2000 | 3310 | 96.1 | 79 - 123 | | | | |
| Vinyl chloride | 1548 | 100 | 2000 | 0 | 77.4 | 58 - 137 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *4875* | *100* | *5000* | *0* | *97.5* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *5159* | *100* | *5000* | *0* | *103* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *4446* | *100* | *5000* | *0* | *88.9* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *5207* | *100* | *5000* | *0* | *104* | *89 - 112* | | | | |

**ALS Houston, US** Date: 01-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23010991

**QC BATCH REPORT**

**Batch ID:** R426481 ( 0 ) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

**MSD** Sample ID: **HS23010982-02MSD** Units: **ug/L** Analysis Date: **25-Jan-2023 10:48**
Client ID: Run ID: **VOA6_426481** SeqNo: **7087543** PrepDate: DF: **100**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 1504 | 100 | 2000 | 145.3 | 67.9 | 78 - 123 | 1610 | 6.8 | 20 | S |
| Trichloroethene | 4875 | 100 | 2000 | 3310 | 78.3 | 79 - 123 | 5232 | 7.05 | 20 | S |
| Vinyl chloride | 1360 | 100 | 2000 | 0 | 68.0 | 58 - 137 | 1548 | 12.9 | 20 | |
| *Surr: 1,2-Dichloroethane-d4* | *4839* | *100* | *5000* | *0* | *96.8* | *81 - 118* | *4875* | *0.755* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *5099* | *100* | *5000* | *0* | *102* | *85 - 114* | *5159* | *1.18* | *20* | |
| *Surr: Dibromofluoromethane* | *4465* | *100* | *5000* | *0* | *89.3* | *80 - 119* | *4446* | *0.446* | *20* | |
| *Surr: Toluene-d8* | *5214* | *100* | *5000* | *0* | *104* | *89 - 112* | *5207* | *0.12* | *20* | |

**The following samples were analyzed in this batch:** HS23010991-01

**ALS Houston, US** Date: 01-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23010991

**QC BATCH REPORT**

**Batch ID:** R427021 ( 0 ) **Instrument:** TOC_05 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

**MBLK** Sample ID: **MBLK-01302023** Units: **mg/L** Analysis Date: **30-Jan-2023 19:46**
Client ID: Run ID: **TOC_05_427021** SeqNo: **7100674** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 1.00 | 1.00 | | | | | | | | U |

**LCS** Sample ID: **LCS-01302023** Units: **mg/L** Analysis Date: **30-Jan-2023 20:00**
Client ID: Run ID: **TOC_05_427021** SeqNo: **7100675** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 10.43 | 1.00 | 10 | 0 | 104 | 85 - 115 | | | | |

**LCSD** Sample ID: **LCSD-01302023** Units: **mg/L** Analysis Date: **30-Jan-2023 20:13**
Client ID: Run ID: **TOC_05_427021** SeqNo: **7100676** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 10.36 | 1.00 | 10 | 0 | 104 | 85 - 115 | 10.43 | 0.673 | 20 | |

**MS** Sample ID: **HS23010986-05MS** Units: **mg/L** Analysis Date: **30-Jan-2023 21:12**
Client ID: Run ID: **TOC_05_427021** SeqNo: **7100680** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 53.03 | 1.00 | 10 | 42.78 | 102 | 80 - 120 | | | | EO |

**The following samples were analyzed in this batch:** HS23010991-01

**ALS Houston, US** Date: 01-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** **HS23010991**

**QUALIFIERS, ACRONYMS, UNITS**

| Qualifier | Description |
|---|---|
| * | Value exceeds Regulatory Limit |
| a | Not accredited |
| B | Analyte detected in the associated Method Blank above the Reporting Limit |
| E | Value above quantitation range |
| H | Analyzed outside of Holding Time |
| J | Analyte detected below quantitation limit |
| M | Manually integrated, see raw data for justification |
| n | Not offered for accreditation |
| ND | Not Detected at the Reporting Limit |
| O | Sample amount is > 4 times amount spiked |
| P | Dual Column results percent difference > 40% |
| R | RPD above laboratory control limit |
| S | Spike Recovery outside laboratory control limits |
| U | Analyzed but not detected above the MDL/SDL |

| Acronym | Description |
|---|---|
| DCS | Detectability Check Study |
| DUP | Method Duplicate |
| LCS | Laboratory Control Sample |
| LCSD | Laboratory Control Sample Duplicate |
| MBLK | Method Blank |
| MDL | Method Detection Limit |
| MQL | Method Quantitation Limit |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| PDS | Post Digestion Spike |
| PQL | Practical Quantitaion Limit |
| SD | Serial Dilution |
| SDL | Sample Detection Limit |
| TRRP | Texas Risk Reduction Program |

## CERTIFICATIONS,ACCREDITATIONS & LICENSES

| Agency | Number | Expire Date |
|---|---|---|
| Arkansas | 22-041-0 | 27-Mar-2023 |
| California | 2919 2022-2023 | 30-Apr-2023 |
| Dept of Defense | L21-682 | 31-Dec-2023 |
| Florida | E87611-36 | 30-Jun-2023 |
| Illinois | 2000322022-9 | 09-May-2023 |
| Kansas | E-10352; 2022-2023 | 31-Jul-2023 |
| Kentucky | 123043, 2022-2023 | 30-Apr-2023 |
| Louisiana | 03087, 2022-2023 | 30-Jun-2023 |
| Maryland | 343, 2022-2023 | 30-Jun-2023 |
| North Carolina | 624-2023 | 31-Dec-2023 |
| North Dakota | R-193 2022-2023 | 30-Apr-2023 |
| Oklahoma | 2022-141 | 31-Aug-2023 |
| Texas | T104704231-22-29 | 30-Apr-2023 |
| Utah | TX026932022-13 | 31-Jul-2023 |

**ALS Houston, US** Date: 01-Feb-23

## Sample Receipt Checklist

**Work Order ID:** HS23010991 **Date/Time Received:** 20-Jan-2023 10:10

**Client Name:** CBI-Houston **Received by:** Malcolm Burleson

**Completed By:** /S/ Paresh M. Giga (eSignature) 20-Jan-2023 14:35 (Date/Time) **Reviewed by:** /S/ Dane J. Wacasey (eSignature) 31-Jan-2023 18:38 (Date/Time)

Matrices: GW/Water Carrier name: FedEx Priority Overnight

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on shipping container/cooler? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Present ☑ |
| VOA/TX1005/TX1006 Solids in hermetically sealed vials? | Yes ☐ | No ☐ | Not Present ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | 1 Page(s) |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | COC IDs:none |
| Samplers name present on COC? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature in compliance? | Yes ☑ | No ☐ | |

| | | |
|---|---|---|
| Temperature(s)/Thermometer(s): | 2.0C/1.5C U/c | IR31 |
| Cooler(s)/Kit(s): | 49212 | |
| Date/Time sample(s) sent to storage: | 1/20/23 16:35 | |

| | | | |
|---|---|---|---|
| Water - VOA vials have zero headspace? | Yes ☑ | No ☐ | No VOA vials submitted ☐ |
| Water - pH acceptable upon receipt? | Yes ☐ | No ☑ | N/A ☐ |
| pH adjusted? | Yes ☑ | No ☐ | N/A ☐ |
| pH adjusted by: | Paresh M. Giga | | |

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

# CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 575-2190 ATTN: Dane Wacasey



| Project: APTIM<br>LONGHORN ARMY AMMN. PLANT (LHAAP)<br>GROUNDWATER TREATMENT PLANT (GWTP)<br>KARNACK, TEXAS | Project No.<br>501032 |
|---|---|
| Job:<br>**LHAAP 16 January 2023** | |
| Prepared By:<br>Scott Beesinger | P.O. Number |

| Field Sample I.D. / Time | Sample Matrix | Date / | MS / MSD | No. OF CONTAINERS | VOC by SW 8260B | TOC by SM5310C | MEE by RSK 175 | Anions sulfate and nitrate by SW9056 | CO2 by RSK 175 | Perchlorate by SW 6850 | Manganese by SW6020A | Remarks (Preservatives, etc.) | Lab I.D.# |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16EW01-230119 | WG | 1/19/23 1325 | | 6 | X | X | | | | X | | | |
| TRIP BLANK-230119 | WG | 1/19/23 | | 2 | X | | | | | | | | |

Analyses

**Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com**

| Relinquished By: | Date | Time | Received By: | Date | Time | Relinquished By: | Date | Time | Received By: | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Scott Beesinger | 1/19/23 | 1430 | | | | | | | | | |

**For Lab Use Only**

| Received At Lab By: | Date | Time | Airbill No. | Opened By: | Date | Time | Temp of Container | Seal No. | Condition |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

Remarks:

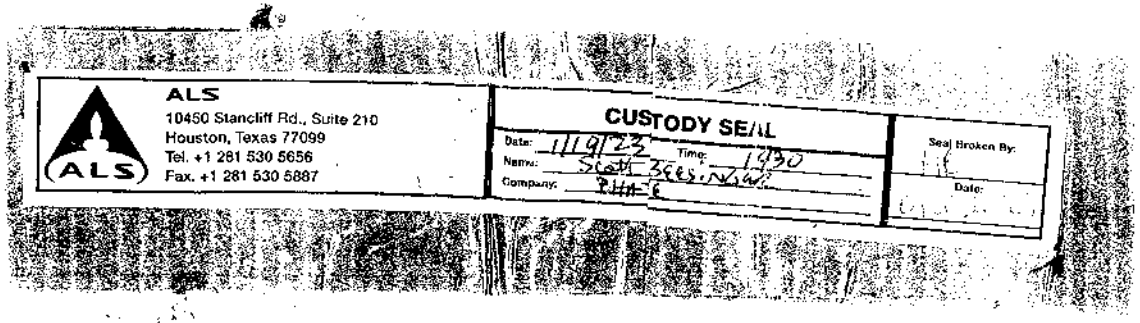
**HS23010991**

Aptim Environmental & Infrastucture, Inc.
Longhorn Army Ammunition Plant 16 January 2023

49.2 12

1123 1
2.0 ml
- 0.5

(Word) S:\Forms\Chain of Custody - BiWeekly

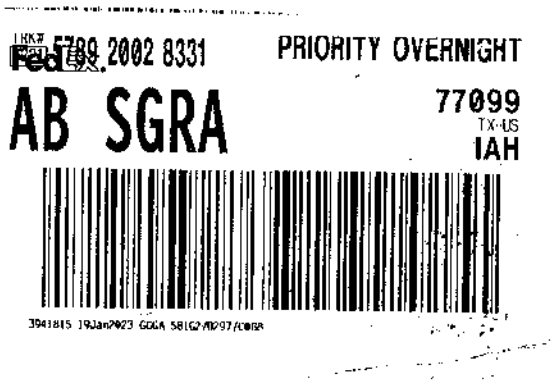


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 1119/22 Time: 1430
Name: Scott Sees, NSW
Company: PHH-E

Seal Broken By:
Date:



FedEx 5788 2002 8331 PRIORITY OVERNIGHT

AB SGRA

77099
TX-US
IAH

3943815 19Jan2023 GGGA 5816/M097/COBR

January 30, 2023 Service Request No:E2300057

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

**Laboratory Results for: HS23010991**

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory January 23, 2023
For your reference, these analyses have been assigned our service request number **E2300057.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

# Certificate of Analysis

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Environmental**

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request No.:** | E2300057 |
| **Project:** | HS23010991 | **Date Received:** | 01/23/23 |
| **Sample Matrix:** | Ground Water | | |

## CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

### Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 01/23/23.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

### Data Validation Notes and Discussion

**Precision and Accuracy:**

EQ2300029: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

**Client:** ALS Environmental - US **Service Request:**E2300057
**Project:** HS23010991

## SAMPLE CROSS-REFERENCE

| SAMPLE # | CLIENT SAMPLE ID | DATE | TIME |
|---|---|---|---|
| E2300057-001 | 16EW01-230119 | 1/19/2023 | 1325 |

# Service Request Summary

**Folder #:** **E2300057**
Client Name: ALS Environmental - US
Project Name: HS23010991
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/23/23
Internal Due Date: 2/3/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23010991
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

| Lab Samp No. | Client Samp No | Matrix | Collected | HOUSTON ClO4 DOD/6850 |
|---|---|---|---|---|
| E2300057-001 | 16EW01-230119 | Ground Water | 01/19/23 1325 | IV |

# Service Request Summary

**Folder #:** **E2300057**
Client Name: ALS Environmental - US
Project Name: HS23010991
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/23/23
Internal Due Date: 2/3/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23010991
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

## Test Comments:

| Group | Test/Method | Samples | Comments |
|---|---|---|---|
| Semivoa GCMS | ClO4 DOD/6850 | 1 | IV Due 2/10 |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| + | Possible Tedlar bag artifact. |
| A | TIC is a suspected aldol-condensation product |
| B | Analyte found in the associated method blank as well as in the sample. |
| BC | Reported results are not blank corrected. |
| BH | The back section of the tube yielded higher results than the front. |
| BT | Results indicated possible breakthrough; back section >=10% front section. |
| C | Result identification confirmed. |
| D | Compound identified in an analysis at a secondary dilution factor |
| D | Spike was diluted out |
| DE | Reported results are corrected for desorption efficiency. |
| E | Estimated value. Concentration above calibration range |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| H1 | Sample analysis performed past holding time. See case narrative. |
| H2 | Initial analysis within holding time. Reanalysis for the required dilution was past holding time. |
| H3 | Sample was received and analyzed past holding time. |
| H4 | Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative. |
| I | (Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| I | Internal standard not within the specified limits. See case narrative. |
| I | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| J | Estimated Value. Concentration found below MRL. |
| K | A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate. |
| K | Analyte was detected above the method reporting limit prior to normalization. |
| K | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| L1 | Laboratory control sample recovery outside the specified limits; results may be biased high. |
| L2 | Laboratory control sample recovery outside the specified limits; results may be biased low. |
| L3 | Laboratory control sample recovery outside the specified limits. |
| M | Matrix interference; results may be biased high. |
| M | The duplicate injection precision not met. |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| M1 | Matrix interference due to coelution with a non-target compound; results may be biased high. |
| N | Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| P | Indicates chlorodiphenyl ether interference present at the retention time of the target compound. |
| P | Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns |
| Q | Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria. |
| R | Duplicate Precision not met. |
| R1 | Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated. |
| S | Surrogate recovery not within specified limits. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| T | Analyte is a tentatively identified compound, result is estimated. |
| U | Compound was analyzed for, but was not detected (ND). |
| V1 | The continuing calibration verification standard was outside (biased high) the specified limits for this compound. |
| V2 | The continuing calibration verification standard was outside (biased low) the specified limits for this compound. |
| W | Result quantified, but the corresponding peak was detected outside the generated retention time window. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| X | See case narrative. |
| Y | Recovery outside limits |
| Y | The chromatogram resembles a petroleum product but does not match the calibration standard. |
| Z | The chromatogram does not resemble a petroleum product. |
| i | The MRL/MDL has been elevated due to a matrix interference. |

# ALS Laboratory Group

**Acronyms**

| | |
|---|---|
| Cal | Calibration |
| Conc | CONCentration |
| Dioxin(s) | Polychlorinated dibenzo-p-dioxin(s) |
| EDL | Estimated Detection Limit |
| EMPC | Estimated Maximum Possible Concentration |
| Flags | Data qualifiers |
| Furan(s) | Polychlorinated dibenzofuran(s) |
| g | Grams |
| ICAL | Initial CALibration |
| ID | IDentifier |
| Ions | Masses monitored for the analyte during data acquisition |
| L | Liter (s) |
| LCS | Laboratory Control Sample |
| DLCS | Duplicate Laboratory Control Sample |
| MB | Method Blank |
| MCL | Method Calibration Limit |
| MDL | Method Detection Limit |
| mL | Milliliters |
| MS | Matrix Spiked sample |
| DMS | Duplicate Matrix Spiked sample |
| NO | Number of peaks meeting all identification criteria |
| PCDD(s) | Polychlorinated dibenzo-p-dioxin(s) |
| PCDF(s) | Polychlorinated dibenzofuran(s) |
| ppb | Parts per billion |
| ppm | Parts per million |
| ppq | Parts per quadrillion |
| ppt | Parts per trillion |
| QA | Quality Assurance |
| QC | Quality Control |
| Ratio | Ratio of areas from monitored ions for an analyte |
| % Rec. | Percent recovery |
| RPD | Relative Percent Difference |
| RRF | Relative Response Factor |
| RT | Retention Time |
| SDG | Sample Delivery Group |
| S/N | Signal-to-noise ratio |
| TEF | Toxicity Equivalence Factor |
| TEQ | Toxicity Equivalence Quotient |

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

## State Certifications, Accreditations, and Licenses

| Agency | Number | Expire Date |
|---|---|---|
| Arizona Department of Health Services | AZ0793 | 5/27/2023 |
| Arkansas Department of Environmental Quality | 22-041-0 | 3/27/2023 |
| California Department of Health Services | 2919-2023 | 4/30/2023 |
| Department of Defense | L22-90 | 3/31/2024 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Hawaii Department of Health | 2022 | 4/30/2023 |
| Illinois Environmental Protection Agency | 2000322022-9 | 5/9/2023 |
| Kansas Department of Health and Environment | E-10352 2022-2023 | 7/31/2023 |
| Louisiana Department of Environmental Quality | 03087-2022 | 6/30/2023 |
| Louisiana Department of Health and Hospitals | LA028-2023 | 12/31/2023 |
| Maine Department of Health and Human Services | 2022017 | 6/5/2024 |
| Maryland Department of the Environment | 343 | 6/30/2023 |
| Michigan Depratment of Environmental Quality | 9971-2022 | 4/30/2023 |
| Minnesota Department of Health | 2368363 | 12/31/2023 |
| Nebraska Department of Health and Human Services | NE-OS-25-13 | 4/30/2023 |
| Nevada Department of Conservation and Natural Resources | TX026932023-1 | 7/31/2023 |
| New Hampshire Environmental Laboratory Accreditation Program | 209422 | 4/24/2023 |
| New Jersey Department of Environmental Protection | TX008-2023 | 6/30/2023 |
| New York Department of Health | 11707 | 3/31/2023 |
| Oklahoma Department of Environmental Quality | 2022-141 | 8/31/2023 |
| Oregon Environmental Laboratory Accreditation Program | TX200002 | 5/15/2023 |
| Pennsylvania Department of Environmental Protection | 68-03441-016 | 6/30/2023 |
| Perry Johnson Laboratory Accreditation | L22-91 | 3/31/2024 |
| Tennessee Department of Environment and Concervation | 04016-2022 | 4/30/2023 |
| Texas Commision on Environmental Quality | T104704231-22-29 | 4/30/2023 |
| Utah Department of Health Environmental Laboratory Certification | TX026932022-13 | 7/31/2023 |
| Washington Department of Ecology | C819-22 | 11/14/2023 |

# Chain of Custody

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
**T:** +1 281 530 5656
**F:** +1 281 530 5887
**www.alsglobal.com**

# Subcontract Chain of Custody

**SAMPLING STATE:** Dept of Defense **COC ID:** 20797

**SUBCONTRACT TO:**

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

**Phone:** +1 281 530 5656

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | HS23010991 |
| **TSR:** | Ron Martino |

| | LAB SAMPLE ID | CLIENT SAMPLE ID | MATRIX | COLLECT DATE |
|---|---|---|---|---|
| | ANALYSIS REQUESTED | | | DUE DATE |
| 1. | HS23010991-01 | **16EW01-230119** | **Groundwater** | **19 Jan 2023 13:25** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 03 Feb 2023 |

**Comments:** Please analyze for the analysis listed above.
Send report to the emails shown above.

**QC Level:** DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 1-23-23 1120

Cooler ID(s): _____ Temperature(s): _____

# Cooler Receipt Form

Project Chemist JH

Client/Project ALS

Thermometer ID IR31

Date/Time Received: 1-23-23 Initials: CG Date/Time Logged in: 1-23-23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ⊗ ALS Courier ○ Client
2. Samples received in: ⊗ Cooler ○ Box ○ Envelope ○ Other
3. Were custody seals on coolers? ○ Yes ⊗ No
   Were they intact? ○ Yes ○ No ⊗ N/A
   Were they signed and dated? ○ Yes ○ No ⊗ N/A
   If yes, how many and where?
4. Packing Material: ○ Inserts ⊗ Baggies ○ Bubble Wrap ○ Gel Packs ⊗ Wet Ice ○ Sleeves ○ Other
5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

| Cooler Tracking Number | COC ID | Date Opened | Time Opened | Opened By | Temp. °C | Temp Blank? |
|---|---|---|---|---|---|---|
| NA | | 1-23-23 | 1100 | CG | 3.7 | ☑ |
| | | | | | | ☐ |
| | | | | | | ☐ |
| | | | | | | ☐ |

6. Were custody papers properly filled out (ink, signed, dated, etc)? ⊗ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ⊗ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ⊗ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ⊗ Yes ○ No
10. Did sample labels and tags agree with custody documents? ⊗ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

HS-HRMSCoolerReceipt R1.0

ALS Environmental - Houston HRMS

10450 Stancliff Rd., Suite 210
Houston, TX 77099
**T:** +1 713 266 1599
**F:** +1 713 266 1599
**www.alsglobal.com**

# SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

**Cooler Custody Seals (desirable, mandatory if specified in SAP):**

- ✓ Intact on outside of cooler, signed and dated

**Chain-of-Custody (COC) documentation (mandatory):**

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

**Sample Integrity (mandatory):**

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

**Temperature Requirement (varies by sample matrix):**

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

# Preparation Information Benchsheets

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

# *Preparation Information Benchsheet*

**Prep Run#:** 413589 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/26/23 15:12

| # | Lab Code | Client ID | B# | Method /Test | pH | Cl | Matrix | Amt. Ext. | Sample Description |
|---|---|---|---|---|---|---|---|---|---|
| 1 | E2300057-001 | 16EW01-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 2 | E2300060-001 | MC-4_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 3 | E2300060-002 | MC-3_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 4 | E2300060-003 | MC-2_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 5 | E2300060-004 | Pit Lake_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 6 | E2300060-005 | CTC-38_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 7 | E2300060-006 | CTC-34_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 8 | E2300060-007 | EA-20_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 9 | E2300060-008 | EA-50_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 10 | E2300060-009 | CTC-36_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 11 | E2300060-010 | CTC-5_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 12 | E2300065-001 | MN-2_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 13 | E2300065-002 | 1100-1_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 14 | E2300065-003 | 1100-2_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 15 | E2300065-004 | MN-1_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 16 | E2300065-005 | CTC-17_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 17 | E2300065-006 | CTC-40_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 18 | E2300065-007 | CTC-39_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 19 | E2300065-008 | EA-16_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 20 | E2300065-009 | EA-44_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 21 | EQ2300029-01 | MB | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 22 | EQ2300029-02 | LCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 23 | EQ2300029-03 | DLCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |

## Spiking Solutions

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E2300060-001 | 100.00µL | E2300060-002 | 100.00µL | E2300060-003 | 100.00µL | E2300060-004 | 100.00µL | E2300060-005 | 100.00µL | E2300060-006 | 100.00µL |
| E2300060-007 | 100.00µL | E2300060-008 | 100.00µL | E2300060-009 | 100.00µL | E2300060-010 | 100.00µL | E2300065-001 | 100.00µL | E2300065-002 | 100.00µL |
| E2300065-003 | 100.00µL | E2300065-004 | 100.00µL | E2300065-005 | 100.00µL | E2300065-006 | 100.00µL | E2300065-007 | 100.00µL | E2300065-008 | 100.00µL |
| E2300065-009 | 100.00µL | EQ2300029-01 | 100.00µL | EQ2300029-02 | 100.00µL | EQ2300029-03 | 100.00µL | | | | |

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

| | | | |
|---|---|---|---|
| EQ2300029-02 | 1.00µL | EQ2300029-03 | 1.00µL |

# *Preparation Information Benchsheet*

**Prep Run#:** 413589 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/26/23 15:12

## Preparation Materials

| | | | | | |
|---|---|---|---|---|---|
| Water HPLC Grade | 01/04/2023 Water (226857) | 6850 Amber Glass screw vial | 2mL Screw Top Vial (221894) | 6850 0.45um syringe filters | 6850 Syringe Filters (224414) |
| 6850 Luer-Lok Syringes | Luer-Lok Syringes (221305) | 6850 Pipette Tips 50-1000 uL | 6850 Pipette Tips (221929) | | |

## Preparation Steps

Step: Preparation
Started: 1/26/23 15:12
Finished: 1/26/23 16:50
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 01/26/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

# Analytical Results

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Collected:** | 1/19/23 1325 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| **Sample Name:** | 16EW01-230119 | **Units:** | µg/L |
| **Lab Code:** | E2300057-001 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **30.7** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/27/23 14:37 | 413589 | 792859 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Units:** | µg/L |
| **Lab Code:** | EQ2300029-01 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/27/23 12:36 | 413589 | 792859 | |

# Accuracy & Precision

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010991
**Sample Matrix:** Ground Water

**Service Request:** E2300057
**Date Analyzed:** 1/27/23

## Lab Control Sample Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**Prep Method:** Method

**Units:** µg/L
**Basis:** NA

**Extraction Lot:** 413589

| | Lab Control Sample EQ2300029-02 | | | Duplicate Lab Control Sample EQ2300029-03 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Perchlorate | 0.0855 | 0.100 | 86 | 0.0889 | 0.100 | 89 | 84 - 119 | 4 | 15 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300029-02 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0855** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/27/23 12:47 | 413589 | 792859 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Duplicate Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300029-03 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0889** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/27/23 12:53 | 413589 | 792859 | |

# HS23010991 LHAAP 16 January 2023 Cover Page

ALS WO# HS23010991

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
alsglobal.com

# WorkOrder: HS23010991

## LHAAP 16 January 2023

## Aptim Environmental & Infrastucture, Inc.

Vicki Graves
10333 Richmond Ave Ste 1030
Houston TX 77042

**16-Feb-2023**

# HS23010991-MSVOA-SW8260

ALS WO# HS23010991

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Form 1

# Organic Analysis Data Sheet

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

| HS23010991-01 | | | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|---|---|
| **16EW01-230119** | | | | 01/19/23 13:25 | 01/20/23 10:10 | Groundwater | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 5.0 | U | 1.5 | 5.0 | 5.0 | 5 | 01/24/23 16:17 | VOA6_426355 | X012425 |
| 1,1-Dichloroethene | ug/L | 28 | | 1.0 | 5.0 | 5.0 | 5 | 01/24/23 16:17 | VOA6_426355 | X012425 |
| 1,2-Dichloroethane | ug/L | 18 | | 1.0 | 5.0 | 5.0 | 5 | 01/24/23 16:17 | VOA6_426355 | X012425 |
| cis-1,2-Dichloroethene | ug/L | 7,000 | | 20 | 100 | 100 | 100 | 01/25/23 13:36 | VOA6_426481 | X012518 |
| Methylene chloride | ug/L | 10 | U | 2.0 | 10 | 10 | 5 | 01/24/23 16:17 | VOA6_426355 | X012425 |
| Trichloroethene | ug/L | 2,400 | | 20 | 100 | 100 | 100 | 01/25/23 13:36 | VOA6_426481 | X012518 |
| Vinyl chloride | ug/L | 890 | | 20 | 100 | 100 | 100 | 01/25/23 13:36 | VOA6_426481 | X012518 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

| HS23010991-02 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **Trip Blank-230119** | 01/19/23 00:00 | 01/20/23 10:10 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 1.0 | U | 0.30 | 1.0 | 1.0 | 1 | 01/23/23 20:02 | VOA6_426320 | X012326 |
| 1,1-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/23/23 20:02 | VOA6_426320 | X012326 |
| 1,2-Dichloroethane | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/23/23 20:02 | VOA6_426320 | X012326 |
| cis-1,2-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/23/23 20:02 | VOA6_426320 | X012326 |
| Methylene chloride | ug/L | 2.0 | U | 0.40 | 2.0 | 2.0 | 1 | 01/23/23 20:02 | VOA6_426320 | X012326 |
| Trichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/23/23 20:02 | VOA6_426320 | X012326 |
| Vinyl chloride | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/23/23 20:02 | VOA6_426320 | X012326 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

| VBLKW-230123 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **VBLKW-230123** | NA | NA | Aqueous | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 1.0 | U | 0.30 | 1.0 | 1.0 | 1 | 01/23/23 13:22 | VOA6_426320 | X012307 |
| 1,1-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/23/23 13:22 | VOA6_426320 | X012307 |
| 1,2-Dichloroethane | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/23/23 13:22 | VOA6_426320 | X012307 |
| cis-1,2-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/23/23 13:22 | VOA6_426320 | X012307 |
| Methylene chloride | ug/L | 2.0 | U | 0.40 | 2.0 | 2.0 | 1 | 01/23/23 13:22 | VOA6_426320 | X012307 |
| Trichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/23/23 13:22 | VOA6_426320 | X012307 |
| Vinyl chloride | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/23/23 13:22 | VOA6_426320 | X012307 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

| VBLKW-230124 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **VBLKW-230124** | NA | NA | Aqueous | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 1.0 | U | 0.30 | 1.0 | 1.0 | 1 | 01/24/23 09:37 | VOA6_426355 | X012406 |
| 1,1-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/24/23 09:37 | VOA6_426355 | X012406 |
| 1,2-Dichloroethane | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/24/23 09:37 | VOA6_426355 | X012406 |
| Methylene chloride | ug/L | 2.0 | U | 0.40 | 2.0 | 2.0 | 1 | 01/24/23 09:37 | VOA6_426355 | X012406 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

| VBLKW-230125 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **VBLKW-230125** | NA | NA | Aqueous | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/25/23 09:24 | VOA6_426481 | X012506 |
| Trichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/25/23 09:24 | VOA6_426481 | X012506 |
| Vinyl chloride | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/25/23 09:24 | VOA6_426481 | X012506 |

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Form 2

# System Monitoring Compound Recovery

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426320

## Volatiles by EPA 8260

| CCV | Analyzed 01/23/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 53.58 | 50 | 107 | 80-120 | |
| 4-Bromofluorobenzene | 54.11 | 50 | 108 | 80-120 | |
| Dibromofluoromethane | 49.92 | 50 | 99.8 | 80-120 | |
| Toluene-d8 | 50.96 | 50 | 102 | 80-120 | |

| CCB | Analyzed 01/23/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 49.73 | 50 | 99.5 | 80-120 | |
| 4-Bromofluorobenzene | 50.92 | 50 | 102 | 80-120 | |
| Dibromofluoromethane | 46.43 | 50 | 92.9 | 80-120 | |
| Toluene-d8 | 52.56 | 50 | 105 | 80-120 | |

| VLCSW-233120 | Analyzed 01/23/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 55.96 | 50 | 112 | 81-118 | |
| 4-Bromofluorobenzene | 51.76 | 50 | 104 | 85-114 | |
| Dibromofluoromethane | 50.19 | 50 | 100 | 80-119 | |
| Toluene-d8 | 49.52 | 50 | 99.0 | 89-112 | |

| VBLKW-230123 | Analyzed 01/23/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 49.84 | 50 | 99.7 | 81-118 | |
| 4-Bromofluorobenzene | 50.23 | 50 | 100 | 85-114 | |
| Dibromofluoromethane | 46.52 | 50 | 93.0 | 80-119 | |
| Toluene-d8 | 52.64 | 50 | 105 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426320

## Volatiles by EPA 8260

| HS23010982-05MS | Analyzed 01/23/23 | | Conc Units µg/L | | DF 2000 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 98270 | 100000 | 98.3 | 81-118 | |
| 4-Bromofluorobenzene | 102700 | 100000 | 103 | 85-114 | |
| Dibromofluoromethane | 90860 | 100000 | 90.9 | 80-119 | |
| Toluene-d8 | 104500 | 100000 | 104 | 89-112 | |

| HS23010982-05MSD | Analyzed 01/23/23 | | Conc Units µg/L | | DF 2000 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 99630 | 100000 | 99.6 | 81-118 | |
| 4-Bromofluorobenzene | 102600 | 100000 | 103 | 85-114 | |
| Dibromofluoromethane | 92490 | 100000 | 92.5 | 80-119 | |
| Toluene-d8 | 104100 | 100000 | 104 | 89-112 | |

| HS23010991-02 | Analyzed 01/23/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 50 | 50 | 99.2 | 81-118 | |
| 4-Bromofluorobenzene | 49 | 50 | 97.2 | 85-114 | |
| Dibromofluoromethane | 47 | 50 | 93.3 | 80-119 | |
| Toluene-d8 | 53 | 50 | 106 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426355

## Volatiles by EPA 8260

| CCV | Analyzed 01/24/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 54.93 | 50 | 110 | 80-120 | |
| 4-Bromofluorobenzene | 53.31 | 50 | 107 | 80-120 | |
| Dibromofluoromethane | 50.54 | 50 | 101 | 80-120 | |
| Toluene-d8 | 50.21 | 50 | 100 | 80-120 | |

| VLCSW-230124 | Analyzed 01/24/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 55.08 | 50 | 110 | 81-118 | |
| 4-Bromofluorobenzene | 51 | 50 | 102 | 85-114 | |
| Dibromofluoromethane | 49.99 | 50 | 100.0 | 80-119 | |
| Toluene-d8 | 49.61 | 50 | 99.2 | 89-112 | |

| VBLKW-230124 | Analyzed 01/24/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 49.27 | 50 | 98.5 | 81-118 | |
| 4-Bromofluorobenzene | 50.18 | 50 | 100 | 85-114 | |
| Dibromofluoromethane | 46.97 | 50 | 93.9 | 80-119 | |
| Toluene-d8 | 52.83 | 50 | 106 | 89-112 | |

| HS23010982-05MS | Analyzed 01/24/23 | | Conc Units µg/L | | DF 100 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 5000 | 5000 | 100.0 | 81-118 | |
| 4-Bromofluorobenzene | 5184 | 5000 | 104 | 85-114 | |
| Dibromofluoromethane | 4698 | 5000 | 94.0 | 80-119 | |
| Toluene-d8 | 5138 | 5000 | 103 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426355

## Volatiles by EPA 8260

| HS23010982-05MSD | Analyzed 01/24/23 | | Conc Units µg/L | | DF 100 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 5037 | 5000 | 101 | 81-118 | |
| 4-Bromofluorobenzene | 5146 | 5000 | 103 | 85-114 | |
| Dibromofluoromethane | 4688 | 5000 | 93.8 | 80-119 | |
| Toluene-d8 | 5132 | 5000 | 103 | 89-112 | |

| HS23010991-01 | Analyzed 01/24/23 | | Conc Units µg/L | | DF 5 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 240 | 250 | 95.5 | 81-118 | |
| 4-Bromofluorobenzene | 250 | 250 | 99.8 | 85-114 | |
| Dibromofluoromethane | 220 | 250 | 87.6 | 80-119 | |
| Toluene-d8 | 260 | 250 | 104 | 89-112 | |

| HS23010986-05MS | Analyzed 01/24/23 | | Conc Units µg/L | | DF 100 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 4981 | 5000 | 99.6 | 81-118 | |
| 4-Bromofluorobenzene | 5111 | 5000 | 102 | 85-114 | |
| Dibromofluoromethane | 4544 | 5000 | 90.9 | 80-119 | |
| Toluene-d8 | 5173 | 5000 | 103 | 89-112 | |

| HS23010986-05MSD | Analyzed 01/24/23 | | Conc Units µg/L | | DF 100 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 4925 | 5000 | 98.5 | 81-118 | |
| 4-Bromofluorobenzene | 5115 | 5000 | 102 | 85-114 | |
| Dibromofluoromethane | 4507 | 5000 | 90.1 | 80-119 | |
| Toluene-d8 | 5153 | 5000 | 103 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426481

## Volatiles by EPA 8260

| CCV | Analyzed 01/25/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 52.7 | 50 | 105 | 80-120 | |
| 4-Bromofluorobenzene | 52.42 | 50 | 105 | 80-120 | |
| Dibromofluoromethane | 48.88 | 50 | 97.8 | 80-120 | |
| Toluene-d8 | 49.61 | 50 | 99.2 | 80-120 | |

| VLCSW-230125 | Analyzed 01/25/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 57.18 | 50 | 114 | 81-118 | |
| 4-Bromofluorobenzene | 53.58 | 50 | 107 | 85-114 | |
| Dibromofluoromethane | 50.07 | 50 | 100 | 80-119 | |
| Toluene-d8 | 51.82 | 50 | 104 | 89-112 | |

| VBLKW-230125 | Analyzed 01/25/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 48.66 | 50 | 97.3 | 81-118 | |
| 4-Bromofluorobenzene | 50.26 | 50 | 101 | 85-114 | |
| Dibromofluoromethane | 45.56 | 50 | 91.1 | 80-119 | |
| Toluene-d8 | 52.59 | 50 | 105 | 89-112 | |

| HS23010982-02MS | Analyzed 01/25/23 | | Conc Units µg/L | | DF 100 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 4875 | 5000 | 97.5 | 81-118 | |
| 4-Bromofluorobenzene | 5159 | 5000 | 103 | 85-114 | |
| Dibromofluoromethane | 4446 | 5000 | 88.9 | 80-119 | |
| Toluene-d8 | 5207 | 5000 | 104 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426481

## Volatiles by EPA 8260

| HS23010982-02MSD | Analyzed 01/25/23 | | Conc Units µg/L | | DF 100 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 4839 | 5000 | 96.8 | 81-118 | |
| 4-Bromofluorobenzene | 5099 | 5000 | 102 | 85-114 | |
| Dibromofluoromethane | 4465 | 5000 | 89.3 | 80-119 | |
| Toluene-d8 | 5214 | 5000 | 104 | 89-112 | |

| HS23010991-01 | Analyzed 01/25/23 | | Conc Units µg/L | | DF 100 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 4,900 | 5000 | 98.0 | 81-118 | |
| 4-Bromofluorobenzene | 5,000 | 5000 | 101 | 85-114 | |
| Dibromofluoromethane | 4,500 | 5000 | 90.8 | 80-119 | |
| Toluene-d8 | 5,200 | 5000 | 104 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

right solutions.
right partner.

Form 3A

# Matrix Spike/Spike Duplicate Recovery

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 3A - Matrix Spike/Spike Duplicate Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

| | | HS23010982-05 | | HS23010982-05MS | | | | HS23010982-05MSD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Matrix** | Aqueous | **Run Date** | 01/23/23 | 01/23/23 | | | | 01/23/23 | | | | | | |
| **Units** | µg/L | **Run Time** | 16:32 | 17:35 | | | | 17:56 | | | | | | |
| | | **Data File** | X012316.D | X012319.D | | | | X012320.D | | | | | | |
| Analyte | %R Limits | DF | Result | MS Result | Spike Added | %R | Q | MSD Result | Spike Added | %R | Q | RPD Limit | RPD | Q |
| 1,1,2-Trichloroethane | 80-119 | 2000 | 0 | 39330 | 40000 | 98 | | 39070 | 40000 | 98 | | 20 | 0.700 | |
| 1,1-Dichloroethene | 71-131 | 2000 | 0 | 40510 | 40000 | 101 | | 39400 | 40000 | 99 | | 20 | 2.80 | |
| 1,2-Dichloroethane | 73-128 | 2000 | 0 | 40730 | 40000 | 102 | | 41710 | 40000 | 104 | | 20 | 2.40 | |
| cis-1,2-Dichloroethene | 78-123 | 2000 | 39010 | 75870 | 40000 | 92 | | 74150 | 40000 | 88 | | 20 | 2.30 | |
| Methylene chloride | 74-124 | 2000 | 0 | 35340 | 40000 | 88 | | 34660 | 40000 | 87 | | 20 | 1.90 | |
| Trichloroethene | 79-123 | 2000 | 31950 | 75470 | 40000 | 109 | | 70940 | 40000 | 98 | | 20 | 6.20 | |
| Vinyl chloride | 58-137 | 2000 | 1012 | 40100 | 40000 | 98 | | 37340 | 40000 | 91 | | 20 | 7.10 | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits  OL - Outside Limits

# Form 3A - Matrix Spike/Spike Duplicate Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder **HS23010991**

| | | HS23010982-05 | | HS23010982-05MS | | | | HS23010982-05MSD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Matrix** | Aqueous | **Run Date** | 01/24/23 | 01/24/23 | | | | 01/24/23 | | | | | | |
| **Units** | µg/L | **Run Time** | 09:58 | 11:01 | | | | 11:22 | | | | | | |
| | | **Data File** | X012407.D | X012410.D | | | | X012411.D | | | | | | |
| Analyte | %R Limits | DF | Result | MS Result | Spike Added | %R | Q | MSD Result | Spike Added | %R | Q | RPD Limit | RPD | Q |
| 1,1,2-Trichloroethane | 80-119 | 100 | 120.3 | 1946 | 2000 | 91 | | 1872 | 2000 | 88 | | 20 | 3.80 | |
| 1,1-Dichloroethene | 71-131 | 100 | 2800 | 4826 | 2000 | 101 | | 4530 | 2000 | 87 | | 20 | 6.30 | |
| 1,2-Dichloroethane | 73-128 | 100 | 945.1 | 2896 | 2000 | 98 | | 2828 | 2000 | 94 | | 20 | 2.40 | |
| Methylene chloride | 74-124 | 100 | 0 | 1568 | 2000 | 78 | | 1502 | 2000 | 75 | | 20 | 4.30 | |

| | | HS23010986-05 | | HS23010986-05MS | | | | HS23010986-05MSD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Matrix** | Aqueous | **Run Date** | 01/24/23 | 01/24/23 | | | | 01/24/23 | | | | | | |
| **Units** | µg/L | **Run Time** | 18:02 | 18:23 | | | | 18:44 | | | | | | |
| | | **Data File** | X012430.D | X012431.D | | | | X012432.D | | | | | | |
| Analyte | %R Limits | DF | Result | MS Result | Spike Added | %R | Q | MSD Result | Spike Added | %R | Q | RPD Limit | RPD | Q |
| 1,1,2-Trichloroethane | 80-119 | 100 | 0 | 1596 | 2000 | 80 | * | 1488 | 2000 | 74 | * | 20 | 7.00 | |
| 1,1-Dichloroethene | 71-131 | 100 | 149.1 | 1730 | 2000 | 79 | | 1567 | 2000 | 71 | * | 20 | 9.90 | |
| 1,2-Dichloroethane | 73-128 | 100 | 0 | 1728 | 2000 | 86 | | 1684 | 2000 | 84 | | 20 | 2.60 | |
| Methylene chloride | 74-124 | 100 | 0 | 1374 | 2000 | 69 | * | 1318 | 2000 | 66 | * | 20 | 4.20 | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits  OL - Outside Limits

# Form 3A - Matrix Spike/Spike Duplicate Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

| | | HS23010982-02 | | HS23010982-02MS | | | | HS23010982-02MSD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Matrix** | Aqueous | **Run Date** | 01/25/23 | 01/25/23 | | | | 01/25/23 | | | | | | |
| **Units** | µg/L | **Run Time** | 10:06 | 10:27 | | | | 10:48 | | | | | | |
| | | **Data File** | X012508.D | X012509.D | | | | X012510.D | | | | | | |
| Analyte | %R Limits | DF | Result | MS Result | Spike Added | %R | Q | MSD Result | Spike Added | %R | Q | RPD Limit | RPD | Q |
| cis-1,2-Dichloroethene | 78-123 | 100 | 145.3 | 1610 | 2000 | 73 | * | 1504 | 2000 | 68 | * | 20 | 6.80 | |
| Trichloroethene | 79-123 | 100 | 3310 | 5232 | 2000 | 96 | | 4875 | 2000 | 78 | * | 20 | 7.10 | |
| Vinyl chloride | 58-137 | 100 | 0 | 1548 | 2000 | 77 | | 1360 | 2000 | 68 | | 20 | 12.9 | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits  OL - Outside Limits

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right partner.

Form 3B

# Laboratory Control Sample Recovery

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 3B - Laboratory Control Sample Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

| VOA6_426320 | | QC ID | VLCSW-233120 | | | |
|---|---|---|---|---|---|---|
| QC Matrix Aqueous | Units | Run Date | 01/23/23 | | | |
| | ug/L | Run Time | 12:40 | | | |
| Analyte | %R Limits | Spike Added | LCS Result | %R | Q | |
| 1,1,2-Trichloroethane | 80-119 | 20 | 20.37 | 102 | | |
| 1,1-Dichloroethene | 71-131 | 20 | 21.61 | 108 | | |
| 1,2-Dichloroethane | 73-128 | 20 | 23.17 | 116 | | |
| 1,2-Dichloroethane-d4 | 81-118 | 50 | 55.96 | 112 | | |
| 4-Bromofluorobenzene | 85-114 | 50 | 51.76 | 104 | | |
| cis-1,2-Dichloroethene | 78-123 | 20 | 20.59 | 103 | | |
| Dibromofluoromethane | 80-119 | 50 | 50.19 | 100 | | |
| Methylene chloride | 74-124 | 20 | 20.48 | 102 | | |
| Toluene-d8 | 89-112 | 50 | 49.52 | 99 | | |
| Trichloroethene | 79-123 | 20 | 21.86 | 109 | | |
| Vinyl chloride | 58-137 | 20 | 20.85 | 104 | | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits

# Form 3B - Laboratory Control Sample Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

| VOA6_426355 | | QC ID | VLCSW-230124 | | | |
|---|---|---|---|---|---|---|
| QC Matrix Aqueous | Units | Run Date | 01/24/23 | | | |
| | ug/L | Run Time | 08:55 | | | |
| Analyte | %R Limits | Spike Added | LCS Result | %R | Q | |
| 1,1,2-Trichloroethane | 80-119 | 20 | 19.79 | 99 | | |
| 1,1-Dichloroethene | 71-131 | 20 | 21.1 | 106 | | |
| 1,2-Dichloroethane | 73-128 | 20 | 22.96 | 115 | | |
| 1,2-Dichloroethane-d4 | 81-118 | 50 | 55.08 | 110 | | |
| 4-Bromofluorobenzene | 85-114 | 50 | 51 | 102 | | |
| Dibromofluoromethane | 80-119 | 50 | 49.99 | 100 | | |
| Methylene chloride | 74-124 | 20 | 20.26 | 101 | | |
| Toluene-d8 | 89-112 | 50 | 49.61 | 99 | | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits

# Form 3B - Laboratory Control Sample Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

| VOA6_426481 | | QC ID | VLCSW-230125 | | | |
|---|---|---|---|---|---|---|
| QC Matrix Aqueous | Units | Run Date | 01/25/23 | | | |
| | %REC | Run Time | 08:42 | | | |
| Analyte | %R Limits | Spike Added | LCS Result | %R | Q | |
| 1,2-Dichloroethane-d4 | 81-118 | 50 | 57.18 | 114 | | |
| 4-Bromofluorobenzene | 85-114 | 50 | 53.58 | 107 | | |
| cis-1,2-Dichloroethene | 78-123 | 20 | 17.55 | 88 | | |
| Dibromofluoromethane | 80-119 | 50 | 50.07 | 100 | | |
| Toluene-d8 | 89-112 | 50 | 51.82 | 104 | | |
| Trichloroethene | 79-123 | 20 | 20.24 | 101 | | |
| Vinyl chloride | 58-137 | 20 | 18.47 | 92 | | |

# - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

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right partner.

Form 4

# Method Blank Summary

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 4 - Method Blank Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

| Client Sample ID | Type | Lab Sample ID | File ID | Date Analyzed | Run ID |
|---|---|---|---|---|---|
| METHOD BLANK | MBLK | VBLKW-230123 | X012307.D | 01/23/23 13:22 | VOA6_426320 |
| VLCSW-233120 | LCS | VLCSW-233120 | X012305.D | 01/23/23 12:40 | VOA6_426320 |
| BatchQC | MS | HS23010982-05MS | X012319.D | 01/23/23 17:35 | VOA6_426320 |
| BatchQC | MSD | HS23010982-05MSD | X012320.D | 01/23/23 17:56 | VOA6_426320 |
| Trip Blank-230119 | SAMP | HS23010991-02 | X012326.D | 01/23/23 20:02 | VOA6_426320 |

# Form 4 - Method Blank Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

| Client Sample ID | Type | Lab Sample ID | File ID | Date Analyzed | Run ID |
|---|---|---|---|---|---|
| METHOD BLANK | MBLK | VBLKW-230124 | X012406.D | 01/24/23 09:37 | VOA6_426355 |
| VLCSW-230124 | LCS | VLCSW-230124 | X012404.D | 01/24/23 08:55 | VOA6_426355 |
| BatchQC | MS | HS23010982-05MS | X012410.D | 01/24/23 11:01 | VOA6_426355 |
| BatchQC | MSD | HS23010982-05MSD | X012411.D | 01/24/23 11:22 | VOA6_426355 |
| 16EW01-230119 | SAMP | HS23010991-01 | X012425.D | 01/24/23 16:17 | VOA6_426355 |
| BatchQC | MS | HS23010986-05MS | X012431.D | 01/24/23 18:23 | VOA6_426355 |
| BatchQC | MSD | HS23010986-05MSD | X012432.D | 01/24/23 18:44 | VOA6_426355 |

# Form 4 - Method Blank Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

| Client Sample ID | Type | Lab Sample ID | File ID | Date Analyzed | Run ID |
|---|---|---|---|---|---|
| METHOD BLANK | MBLK | VBLKW-230125 | X012506.D | 01/25/23 09:24 | VOA6_426481 |
| VLCSW-230125 | LCS | VLCSW-230125 | X012504.D | 01/25/23 08:42 | VOA6_426481 |
| BatchQC | MS | HS23010982-02MS | X012509.D | 01/25/23 10:27 | VOA6_426481 |
| BatchQC | MSD | HS23010982-02MSD | X012510.D | 01/25/23 10:48 | VOA6_426481 |
| 16EW01-230119 | SAMP | HS23010991-01 | X012518.D | 01/25/23 13:36 | VOA6_426481 |

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Form 5

# Instrument Performance Check

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 5 - Instrument Performance Check

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_424237

Tune File X121601.D 12/16/22 11:17

| m / e | Ion Abundance Criterion | %RA |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 18.3 (18.4) |
| 75 | 30.0 - 60.0% of mass 95 | 46.1 (46.1) |
| 95 | Base peak, 100% RA | 100 (100) |
| 96 | 5.0 - 9.0% of mass 95 | 7.2 (7.16) |
| 173 | Less than 2.0% of mass 174 | 0.8 (0.897) 1 |
| 174 | 50.0 - 120.0% of mass 95 | 89 (89) |
| 175 | 4.0 - 9.0% of mass 174 | 7 (7.82) 1 |
| 176 | 93.0 - 101.0% of mass 174 | 87.4 (98.2) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.8 (6.59) 2 |

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

| | Type | Date Analyzed | Lab File ID | Sample ID |
|---|---|---|---|---|
| 1 | ICAL1 | 12/16/22 11:38 | X121602 | VSTD000.25 |
| 2 | ICAL2 | 12/16/22 12:20 | X121603 | VSTD000.5 |
| 3 | ICAL3 | 12/16/22 12:41 | X121604 | VSTD001 |
| 4 | ICAL4 | 12/16/22 13:02 | X121605 | VSTD002 |
| 5 | ICAL5 | 12/16/22 13:23 | X121606 | VSTD005 |
| 6 | ICAL6 | 12/16/22 13:43 | X121607 | VSTD020 |
| 7 | ICAL7 | 12/16/22 14:04 | X121608 | VSTD050 |
| 8 | ICAL8 | 12/16/22 14:25 | X121609 | VSTD100 |
| 9 | ICAL9 | 12/16/22 14:46 | X121610 | VSTD150 |
| 10 | ICAL | 12/16/22 15:07 | X121611 | VSTD200 |
| 11 | ICV | 12/16/22 15:49 | X121613 | CCV |

# Form 5 - Instrument Performance Check

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426320

Tune File X012301.D 01/23/23 11:16

| m / e | Ion Abundance Criterion | %RA |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 23.8 (23.8) |
| 75 | 30.0 - 60.0% of mass 95 | 48.6 (48.6) |
| 95 | Base peak, 100% RA | 100 (100) |
| 96 | 5.0 - 9.0% of mass 95 | 8.3 (8.27) |
| 173 | Less than 2.0% of mass 174 | 0.4 (0.48) 1 |
| 174 | 50.0 - 120.0% of mass 95 | 87 (87) |
| 175 | 4.0 - 9.0% of mass 174 | 6.8 (7.77) 1 |
| 176 | 93.0 - 101.0% of mass 174 | 85.6 (98.4) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 5 (5.83) 2 |

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

| | Type | Date Analyzed | Lab File ID | Sample ID |
|---|---|---|---|---|
| 1 | CCV | 01/23/23 11:58 | X012303 | CCV |
| 2 | CCB | 01/23/23 12:19 | X012304 | CCB |
| 3 | LCS | 01/23/23 12:40 | X012305 | VLCSW-233120 |
| 4 | MBLK | 01/23/23 13:22 | X012307 | VBLKW-230123 |
| 5 | MS | 01/23/23 17:35 | X012319 | ZZZZZZMS |
| 6 | MSD | 01/23/23 17:56 | X012320 | ZZZZZZMSD |
| 7 | SAMP | 01/23/23 20:02 | X012326 | Trip Blank-230119 |
| 8 | CCV_EN | 01/23/23 21:47 | X012331 | CCV-END |

# Form 5 - Instrument Performance Check

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426355

Tune File X012401.D 01/24/23 07:31

| m / e | Ion Abundance Criterion | %RA |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 19.3 (19.3) |
| 75 | 30.0 - 60.0% of mass 95 | 50 (50) |
| 95 | Base peak, 100% RA | 100 (100) |
| 96 | 5.0 - 9.0% of mass 95 | 7 (7.04) |
| 173 | Less than 2.0% of mass 174 | 0.7 (0.819) 1 |
| 174 | 50.0 - 120.0% of mass 95 | 86.8 (86.8) |
| 175 | 4.0 - 9.0% of mass 174 | 6.1 (7.05) 1 |
| 176 | 93.0 - 101.0% of mass 174 | 83.5 (96.2) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.8 (6.91) 2 |

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

| | Type | Date Analyzed | Lab File ID | Sample ID |
|---|---|---|---|---|
| 1 | CCV | 01/24/23 07:52 | X012402 | CCV |
| 2 | LCS | 01/24/23 08:55 | X012404 | VLCSW-230124 |
| 3 | MBLK | 01/24/23 09:37 | X012406 | VBLKW-230124 |
| 4 | MS | 01/24/23 11:01 | X012410 | ZZZZZZMS |
| 5 | MSD | 01/24/23 11:22 | X012411 | ZZZZZZMSD |
| 6 | SAMP | 01/24/23 16:17 | X012425 | 16EW01-230119 |
| 7 | MS | 01/24/23 18:23 | X012431 | ZZZZZZMS |
| 8 | MSD | 01/24/23 18:44 | X012432 | ZZZZZZMSD |
| 9 | CCV_EN | 01/24/23 19:05 | X012433 | CCV-END |

# Form 5 - Instrument Performance Check

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426481

Tune File X012501.D 01/25/23 07:18

| m / e | Ion Abundance Criterion | %RA |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 19.1 (19.1) |
| 75 | 30.0 - 60.0% of mass 95 | 50.9 (50.9) |
| 95 | Base peak, 100% RA | 100 (100) |
| 96 | 5.0 - 9.0% of mass 95 | 7.3 (7.3) |
| 173 | Less than 2.0% of mass 174 | 0.8 (0.922) 1 |
| 174 | 50.0 - 120.0% of mass 95 | 84.4 (84.4) |
| 175 | 4.0 - 9.0% of mass 174 | 6.1 (7.23) 1 |
| 176 | 93.0 - 101.0% of mass 174 | 82.3 (97.6) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.3 (6.48) 2 |

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

| | Type | Date Analyzed | Lab File ID | Sample ID |
|---|---|---|---|---|
| 1 | CCV | 01/25/23 07:39 | X012502 | CCV |
| 2 | LCS | 01/25/23 08:42 | X012504 | VLCSW-230125 |
| 3 | MBLK | 01/25/23 09:24 | X012506 | VBLKW-230125 |
| 4 | MS | 01/25/23 10:27 | X012509 | ZZZZZZMS |
| 5 | MSD | 01/25/23 10:48 | X012510 | ZZZZZZMSD |
| 6 | SAMP | 01/25/23 13:36 | X012518 | 16EW01-230119 |
| 7 | CCV_EN | 01/25/23 15:00 | X012522 | CCV-END |

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right partner.

Form 6

# Initial Calibration Data

# Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138
**ICAL End Date** 16-DEC-2022 1507

**Calibration Files**

**Level 1** ..voa6.i\X221216.b\X121602.D
**Level 2** ..voa6.i\X221216.b\X121603.D
**Level 3** ..voa6.i\X221216.b\X121604.D
**Level 4** ..voa6.i\X221216.b\X121605.D
**Level 5** ..voa6.i\X221216.b\X121606.D
**Level 6** ..voa6.i\X221216.b\X121607.D
**Level 7** ..voa6.i\X221216.b\X121608.D
**Level 8** ..voa6.i\X221216.b\X121609.D
**Level 9** ..voa6.i\X221216.b\X121610.D
**Level 10** ..voa6.i\X221216.b\X121611.D

| Compound | Level 1<br>0.250<br>Level 7<br>50.0 | Level 2<br>0.500<br>Level 8<br>100.0 | Level 3<br>1.00<br>Level 9<br>150.0 | Level 4<br>2.00<br>Level 10<br>200.0 | Level 5<br>5.00 | Level 6<br>20.00 | Curve | b | m1 | m2 | %RSD<br>or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | NE<br>160392 | 1990<br>309019 | 2911<br>476130 | 6239<br>635808 | 15008 | 63382 | LINR | 0.00786 | 0.35247 | | 0.99971 | |
| Chloromethane | NE<br>192710 | 2466<br>388163 | 3670<br>621048 | 8057<br>865151 | 19623 | 72324 | LINR | 0.04423 | 0.47332 | | 0.99747 | |
| Propionitrile | NE<br>0.04851 | 0.06018<br>0.04917 | 0.05265<br>0.05178 | 0.04739<br>0.05178 | 0.05114 | 0.04656 | AVRG | | 0.05102 | | 7.91502 | |
| Vinyl Chloride | NE<br>0.44103 | 0.52268<br>0.42953 | 0.40472<br>0.44923 | 0.39786<br>0.45909 | 0.42164 | 0.40520 | AVRG | | 0.43678 | | 8.81916 | |
| Bromomethane | NE<br>139689 | 1893<br>284165 | 3293<br>470318 | 5996<br>NE | 15112 | 52034 | LINR | 0.03529 | 0.34244 | | 0.99519 | |
| Chloroethane | NE<br>0.29447 | 0.35820<br>0.28714 | 0.27936<br>0.30494 | 0.31044<br>0.30410 | 0.31436 | 0.28309 | AVRG | | 0.30401 | | 7.80750 | |
| Trichlorofluoromethane | NE<br>0.60756 | 0.71207<br>0.59817 | 0.54474<br>0.64605 | 0.57316<br>0.65074 | 0.59068 | 0.57785 | AVRG | | 0.61122 | | 8.28859 | |
| Acrolein | NE<br>27445 | 440<br>60756 | 761<br>96139 | 1317<br>125874 | 2699 | 12279 | LINR | 0.05644 | 0.03519 | | 0.99833 | |
| Acetone | NE<br>124798 | 2669<br>243517 | 4787<br>373504 | 7041<br>514105 | 17632 | 50987 | LINR | -0.00069 | 0.14025 | | 0.99910 | |
| 1,1-Dichloroethene | NE<br>0.36912 | 0.44142<br>0.36226 | 0.35953<br>0.38517 | 0.37590<br>0.39076 | 0.37389 | 0.35725 | AVRG | | 0.37948 | | 6.80558 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Isobutyl Alcohol | NE<br>0.05462 | 0.05610<br>0.05559 | 0.05239<br>0.05946 | 0.05650<br>0.05952 | 0.05728 | 0.05469 | AVRG | | 0.05624 | | 4.10209 | |
| Acetonitrile | NE<br>0.04430 | 0.04776<br>0.04552 | 0.04645<br>0.04791 | 0.04253<br>0.04736 | 0.04357 | 0.04417 | AVRG | | 0.04551 | | 4.32823 | |
| Allyl Chloride | NE<br>0.81324 | 0.99118<br>0.83169 | 0.95202<br>0.86799 | 0.81682<br>0.86396 | 0.84304 | 0.82034 | AVRG | | 0.86670 | | 7.30464 | |
| Iodomethane | NE<br>455792 | 2397<br>958603 | 3865<br>1554547 | 8702<br>2193685 | 26708 | 143457 | QUAD | 0.06641 | 2.01333 | -0.08031 | 0.99956 | |
| Acrylonitrile | NE<br>0.12970 | 0.12113<br>0.12956 | 0.12536<br>0.13857 | 0.12482<br>0.13997 | 0.12256 | 0.12666 | AVRG | | 0.12870 | | 5.15060 | |
| Methylene Chloride | NE<br>0.49311 | 0.63666<br>0.46611 | 0.59459<br>0.48892 | 0.50364<br>0.47907 | 0.50885 | 0.51372 | AVRG | | 0.52052 | | 10.92514 | |
| Methyl tert-butyl ether | NE<br>1.16844 | 1.26574<br>1.18584 | 1.39027<br>1.23813 | 1.27259<br>1.24075 | 1.24993 | 1.16729 | AVRG | | 1.24211 | | 5.52745 | |
| Carbon Disulfide | NE<br>0.97542 | 1.07494<br>0.97088 | 1.00609<br>1.02392 | 0.95722<br>1.06178 | 0.94769 | 0.91773 | AVRG | | 0.99285 | | 5.32584 | |
| trans-1,2-Dichloroethene | NE<br>0.41851 | 0.48064<br>0.41454 | 0.42427<br>0.43221 | 0.38965<br>0.43554 | 0.42173 | 0.40526 | AVRG | | 0.42470 | | 5.92187 | |
| Vinyl Acetate | NE<br>1.07506 | 1.09845<br>1.07519 | 0.99054<br>1.16529 | 1.06368<br>1.16741 | 1.12321 | 1.05445 | AVRG | | 1.09037 | | 5.13969 | |
| 1,1-Dichloroethane | NE<br>0.72125 | 0.83949<br>0.70504 | 0.80145<br>0.74074 | 0.69997<br>0.74459 | 0.75023 | 0.70550 | AVRG | | 0.74536 | | 6.34771 | |
| Chloroprene | NE<br>0.16145 | 0.19503<br>0.16116 | 0.18721<br>0.16823 | 0.17124<br>0.17481 | 0.15874 | 0.15219 | AVRG | | 0.17001 | | 8.17551 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Butanone | NE<br>130179 | 1292<br>264221 | 2498<br>407629 | 5418<br>555896 | 11771 | 47830 | LINR | 0.06050 | 0.15346 | | 0.99924 | |
| Methacrylonitrile | NE<br>0.32328 | 0.44770<br>0.32565 | 0.36475<br>0.34081 | 0.34993<br>0.34351 | 0.34840 | 0.34235 | AVRG | | 0.35404 | | 10.52608 | |
| 2,2-Dichloropropane | NE<br>0.62063 | 0.70167<br>0.61027 | 0.65466<br>0.64008 | 0.60521<br>0.65162 | 0.61866 | 0.59289 | AVRG | | 0.63286 | | 5.25207 | |
| cis-1,2-Dichloroethene | NE<br>0.49985 | 0.61803<br>0.48778 | 0.49622<br>0.51710 | 0.52999<br>0.51455 | 0.50446 | 0.48374 | AVRG | | 0.51686 | | 7.86616 | |
| Chloroform | NE<br>0.81023 | 0.87547<br>0.78725 | 0.86252<br>0.84612 | 0.85352<br>0.84457 | 0.84666 | 0.79238 | AVRG | | 0.83541 | | 3.73708 | |
| Bromochloromethane | NE<br>0.26364 | 0.32093<br>0.26287 | 0.29857<br>0.28290 | 0.28124<br>0.28282 | 0.29319 | 0.26077 | AVRG | | 0.28299 | | 6.91423 | |
| 1,1,1-Trichloroethane | NE<br>0.65703 | 0.76105<br>0.64156 | 0.65666<br>0.67604 | 0.60049<br>0.69720 | 0.64387 | 0.63152 | AVRG | | 0.66283 | | 6.90392 | |
| 1,1-Dichloropropene | NE<br>0.37084 | 0.35889<br>0.35979 | 0.34245<br>0.36734 | 0.33027<br>0.37324 | 0.34789 | 0.34406 | AVRG | | 0.35497 | | 4.12237 | |
| 1,2-Dichloroethane | NE<br>0.39909 | 0.45501<br>0.40154 | 0.40587<br>0.41082 | 0.39492<br>0.41030 | 0.41104 | 0.39842 | AVRG | | 0.40967 | | 4.39762 | |
| Carbon Tetrachloride | NE<br>0.36348 | 0.40179<br>0.35355 | 0.45347<br>0.36349 | 0.40515<br>0.37429 | 0.35265 | 0.34370 | AVRG | | 0.37906 | | 9.25223 | |
| Benzene | NE<br>1.17241 | 1.34410<br>1.15323 | 1.19304<br>1.17461 | 1.18322<br>1.18197 | 1.19608 | 1.14722 | AVRG | | 1.19399 | | 4.90945 | |
| Trichloroethene | NE<br>0.33750 | 0.37562<br>0.33140 | 0.31723<br>0.33891 | 0.33885<br>0.34649 | 0.33109 | 0.33079 | AVRG | | 0.33865 | | 4.73809 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | NE<br>0.42913 | 0.53078<br>0.42602 | 0.45893<br>0.44706 | 0.43689<br>0.45009 | 0.42833 | 0.42563 | AVRG | | 0.44810 | | 7.41292 | |
| Methyl Methacrylate | NE<br>0.32238 | 0.38746<br>0.32465 | 0.34921<br>0.34726 | 0.33881<br>0.35704 | 0.33548 | 0.30606 | AVRG | | 0.34093 | | 6.87301 | |
| 2-Chloroethylvinyl ether | NE<br>0.13057 | 0.13531<br>0.12541 | 0.11670<br>0.12799 | 0.12141<br>0.12973 | 0.12912 | 0.13108 | AVRG | | 0.12748 | | 4.37734 | |
| 1,2-Dichloropropane | NE<br>0.31044 | 0.35613<br>0.30521 | 0.33560<br>0.31542 | 0.29692<br>0.31856 | 0.31629 | 0.30391 | AVRG | | 0.31761 | | 5.71516 | |
| 2-Nitropropane | NE<br>0.73644 | 1.05598<br>0.73807 | 0.76159<br>0.78445 | 0.80915<br>0.80253 | 0.77468 | 0.75211 | AVRG | | 0.80167 | | 12.32619 | |
| Dibromomethane | NE<br>0.20672 | 0.25085<br>0.20317 | 0.21183<br>0.21324 | 0.22317<br>0.21357 | 0.21081 | 0.20954 | AVRG | | 0.21588 | | 6.58330 | |
| 4-Methyl-2-Pentanone | NE<br>0.25814 | 0.28987<br>0.25156 | 0.26418<br>0.26114 | 0.28502<br>0.26166 | 0.26684 | 0.26684 | AVRG | | 0.26725 | | 4.64865 | |
| cis-1,3-Dichloropropene | NE<br>0.52860 | 0.53732<br>0.53368 | 0.47650<br>0.55605 | 0.50179<br>0.56353 | 0.51804 | 0.52075 | AVRG | | 0.52625 | | 5.04185 | |
| Ethyl Methacrylate | NE<br>0.20804 | 0.28138<br>0.22619 | 0.24077<br>0.24786 | 0.23910<br>0.26163 | 0.20135 | 0.21276 | AVRG | | 0.23545 | | 11.14205 | |
| Toluene | NE<br>1.36202 | 1.60765<br>1.32088 | 1.37997<br>1.35198 | 1.37463<br>1.35870 | 1.36957 | 1.31273 | AVRG | | 1.38201 | | 6.34459 | |
| trans-1,3-Dichloropropene | NE<br>0.44682 | 0.44236<br>0.44877 | 0.39493<br>0.47075 | 0.40065<br>0.48573 | 0.41433 | 0.42619 | AVRG | | 0.43673 | | 7.01005 | |
| 2-Hexanone | NE<br>0.17839 | 0.19991<br>0.17192 | 0.17409<br>0.18312 | 0.17972<br>0.18566 | 0.18386 | 0.17978 | AVRG | | 0.18183 | | 4.45920 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | NE<br>0.26479 | 0.32419<br>0.25654 | 0.26954<br>0.26825 | 0.29087<br>0.26649 | 0.28491 | 0.26973 | AVRG | | 0.27726 | | 7.37510 | |
| 1,3-Dichloropropane | NE<br>0.53007 | 0.62065<br>0.51166 | 0.55587<br>0.53587 | 0.54217<br>0.53590 | 0.54663 | 0.53274 | AVRG | | 0.54573 | | 5.60982 | |
| Dibromochloromethane | NE<br>0.39906 | 0.43810<br>0.39075 | 0.38701<br>0.40792 | 0.39402<br>0.40793 | 0.38762 | 0.38903 | AVRG | | 0.40016 | | 4.08851 | |
| Tetrachloroethene | NE<br>0.29836 | 0.33024<br>0.28012 | 0.25660<br>0.28506 | 0.28292<br>0.28889 | 0.26322 | 0.28810 | AVRG | | 0.28594 | | 7.36821 | |
| 1,2-Dibromoethane | NE<br>0.35151 | 0.36263<br>0.33998 | 0.33509<br>0.35512 | 0.32714<br>0.35096 | 0.35422 | 0.34322 | AVRG | | 0.34665 | | 3.22017 | |
| 1-Chlorohexane | NE<br>0.24556 | 0.26597<br>0.23682 | 0.22998<br>0.25047 | 0.21386<br>0.26558 | 0.22191 | 0.24457 | AVRG | | 0.24163 | | 7.44215 | |
| Chlorobenzene | NE<br>0.95622 | 1.20054<br>0.92158 | 0.96715<br>0.96470 | 0.94773<br>0.97511 | 0.95913 | 0.93014 | AVRG | | 0.98026 | | 8.61127 | |
| 1,1,1,2-Tetrachloroethane | NE<br>0.36060 | 0.42477<br>0.35457 | 0.34549<br>0.36940 | 0.36191<br>0.37188 | 0.34596 | 0.34861 | AVRG | | 0.36480 | | 6.70616 | |
| Ethylbenzene | NE<br>0.47797 | 0.47482<br>0.45902 | 0.43893<br>0.46986 | 0.45503<br>0.47447 | 0.45171 | 0.45394 | AVRG | | 0.46175 | | 2.86128 | |
| m,p-Xylenes | NE<br>0.60205 | 0.69860<br>0.58346 | 0.55710<br>0.60071 | 0.56286<br>0.61493 | 0.56012 | 0.57743 | AVRG | | 0.59525 | | 7.35638 | |
| o-Xylene | NE<br>0.59049 | 0.68372<br>0.57562 | 0.51381<br>0.60058 | 0.56977<br>0.61516 | 0.56849 | 0.56994 | AVRG | | 0.58751 | | 7.79066 | |
| Styrene | NE<br>1.03116 | 1.02806<br>1.01266 | 0.79991<br>1.07651 | 0.88633<br>1.09594 | 0.95404 | 0.97800 | AVRG | | 0.98473 | | 9.52837 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromoform | NE | 0.31195 | 0.25221 | 0.26817 | 0.25683 | 0.26696 | | | | | | |
| | 0.27805 | 0.27584 | 0.29222 | 0.29278 | | | AVRG | | 0.27722 | | 6.87336 | |
| Isopropylbenzene | NE | 1.35706 | 1.16805 | 1.25967 | 1.30607 | 1.32939 | | | | | | |
| | 1.41077 | 1.36357 | 1.42773 | 1.45784 | | | AVRG | | 1.34224 | | 6.69875 | |
| 1,1,2,2-Tetrachloroethane | NE | 0.91828 | 0.84470 | 0.83187 | 0.83648 | 0.79018 | | | | | | |
| | 0.74007 | 0.71754 | 0.75363 | 0.73962 | | | AVRG | | 0.79693 | | 8.24435 | |
| 1,2,3-Trichloropropane | NE | 0.58047 | 0.56626 | 0.53238 | 0.58048 | 0.54015 | | | | | | |
| | 0.53505 | 0.52761 | 0.60583 | 0.53897 | | | AVRG | | 0.55636 | | 4.97536 | |
| trans-1,4-Dichloro-2-butene | NE | 0.12274 | 0.09213 | 0.10381 | 0.10162 | 0.10094 | | | | | | |
| | 0.10800 | 0.10845 | 0.11623 | 0.11751 | | | AVRG | | 0.10794 | | 8.88299 | |
| n-Propylbenzene | NE | 3.20938 | 2.13608 | 2.47845 | 2.73904 | 2.83806 | | | | | | |
| | 2.90611 | 2.78733 | 2.90643 | 2.92515 | | | AVRG | | 2.76956 | | 11.03336 | |
| Bromobenzene | NE | 0.90477 | 0.79060 | 0.83045 | 0.81066 | 0.82521 | | | | | | |
| | 0.80056 | 0.78064 | 0.82147 | 0.81857 | | | AVRG | | 0.82033 | | 4.35370 | |
| 1,3,5-Trimethylbenzene | NE | 2.06484 | 1.68256 | 1.97796 | 2.03460 | 2.07048 | | | | | | |
| | 2.12398 | 2.07652 | 2.18148 | 2.20122 | | | AVRG | | 2.04596 | | 7.47801 | |
| 2-Chlorotoluene | NE | 1.93144 | 1.77508 | 1.90257 | 1.85141 | 1.80074 | | | | | | |
| | 1.79455 | 1.71779 | 1.79669 | 1.78644 | | | AVRG | | 1.81741 | | 3.65582 | |
| 4-Chlorotoluene | NE | 2.19766 | 1.72811 | 1.99610 | 2.10678 | 2.06499 | | | | | | |
| | 2.09570 | 2.05624 | 2.19099 | 2.20989 | | | AVRG | | 2.07183 | | 7.13984 | |
| tert-Butylbenzene | NE | 1.83685 | 1.33195 | 1.56610 | 1.66625 | 1.69957 | | | | | | |
| | 1.74647 | 1.66742 | 1.77236 | 1.78580 | | | AVRG | | 1.67475 | | 9.03914 | |
| 1,2,4-Trimethylbenzene | NE | 2.44261 | 1.84882 | 2.01055 | 2.12502 | 2.14371 | | | | | | |
| | 2.18278 | 2.12445 | 2.25368 | 2.24326 | | | AVRG | | 2.15277 | | 7.66012 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | NE<br>2.38144 | 2.28219<br>2.30322 | 1.76441<br>2.43114 | 1.95855<br>2.46321 | 2.17705 | 2.29365 | AVRG | | 2.22832 | | 10.32115 | |
| p-Isopropyltoluene | NE<br>2.16946 | 2.11113<br>2.07989 | 1.42476<br>2.19272 | 1.76888<br>2.20460 | 1.95504 | 2.06459 | AVRG | | 1.99679 | | 12.72950 | |
| 1,3-Dichlorobenzene | NE<br>1.39279 | 1.34465<br>1.34586 | 1.21323<br>1.42324 | 1.32549<br>1.42237 | 1.40186 | 1.38449 | AVRG | | 1.36155 | | 4.82043 | |
| 1,4-Dichlorobenzene | NE<br>1.45712 | 1.63128<br>1.44362 | 1.40441<br>1.52301 | 1.45614<br>1.52190 | 1.47766 | 1.45673 | AVRG | | 1.48576 | | 4.44368 | |
| Benzyl Chloride | NE<br>472387 | 3642<br>1009234 | 4632<br>1650494 | 12783<br>2286488 | 35254 | 163895 | LINR | 0.05387 | 0.82700 | | 0.99832 | |
| n-Butylbenzene | NE<br>696355 | 5149<br>1425779 | 8459<br>2293126 | 19853<br>3216534 | 54831 | 248190 | LINR | 0.03551 | 1.99525 | | 0.99890 | |
| 1,2-Dichlorobenzene | NE<br>1.39065 | 1.58241<br>1.36532 | 1.22790<br>1.44207 | 1.34058<br>1.43128 | 1.42827 | 1.41177 | AVRG | | 1.40225 | | 6.73504 | |
| 1,2-Dibromo-3-Chloropropane | NE<br>48660 | 441<br>94321 | 778<br>149691 | 1619<br>205063 | 4911 | 18635 | LINR | 0.00184 | 0.12764 | | 0.99948 | |
| 1,2,4-Trichlorobenzene | NE<br>0.95146 | 0.91627<br>0.90293 | 0.65608<br>0.94400 | 0.83350<br>0.95022 | 0.89445 | 0.91558 | AVRG | | 0.88494 | | 10.53488 | |
| Hexachlorobutadiene | NE<br>155390 | 1477<br>299042 | 1928<br>466452 | 3970<br>654615 | 13454 | 55912 | QUAD | -0.00107 | 2.58308 | -0.07816 | 0.99966 | |
| Naphthalene | NE<br>2.14094 | 2.01970<br>2.06230 | 1.60683<br>2.15450 | 1.85985<br>2.12714 | 2.04153 | 2.10842 | AVRG | | 2.01347 | | 8.78393 | |
| 1,2,3-Trichlorobenzene | NE<br>0.85880 | 1.02696<br>0.83163 | 0.68341<br>0.85478 | 0.79977<br>0.84995 | 0.84958 | 0.87304 | AVRG | | 0.84755 | | 10.42886 | |

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# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethyl Acetate | NE<br>0.37280 | 0.44748<br>0.34980 | 0.34909<br>0.38488 | 0.40657<br>0.39192 | 0.39985 | 0.40902 | AVRG | | 0.39016 | | 7.92750 | |
| Methyl Acrylate | NE<br>0.33014 | 0.38247<br>0.33914 | 0.34243<br>0.35741 | 0.29817<br>0.35867 | 0.33173 | 0.31494 | AVRG | | 0.33946 | | 7.36740 | |
| n-Butanol | NE<br>54418 | 622<br>124057 | 1171<br>210842 | 2004<br>297334 | 4891 | 15012 | QUAD | 0.80435 | 158 | -58.97368 | 0.99813 | * |
| Ethyl Acrylate | NE<br>420886 | NE<br>862071 | NE<br>1358300 | 9825<br>1836030 | 26414 | 172044 | LINR | 0.05859 | 1.02468 | | 0.99901 | * |
| Cyclohexanone | NE<br>0.01934 | 0.07093<br>0.01945 | 0.03374<br>0.01993 | 0.02556<br>0.01966 | 0.01884 | 0.01912 | AVRG | | 0.02740 | | 62.21369 | * |
| 1,4-Dioxane | 0.00463<br>0.00443 | 0.00501<br>0.00442 | 0.00455<br>0.00480 | 0.00386<br>0.00497 | 0.00466 | 0.00438 | AVRG | | 0.00457 | | 7.29408 | |
| n-Hexane | NE<br>0.39852 | 0.41368<br>0.36338 | 0.26016<br>0.39788 | 0.32309<br>0.40267 | 0.32437 | 0.35631 | AVRG | | 0.36001 | | 13.97418 | |
| Freon TF | NE<br>0.37622 | 0.40111<br>0.36030 | 0.37263<br>0.38547 | 0.33005<br>0.39624 | 0.32940 | 0.35185 | AVRG | | 0.36703 | | 7.16337 | |
| Methyl Acetate | NE<br>0.21071 | 0.27499<br>0.21615 | 0.23617<br>0.22455 | 0.22728<br>0.22667 | 0.19900 | 0.20937 | AVRG | | 0.22499 | | 9.73149 | |
| Methylcyclohexane | NE<br>0.60749 | 0.69525<br>0.62521 | 0.49917<br>0.65111 | 0.58500<br>0.65095 | 0.56389 | 0.63030 | AVRG | | 0.61204 | | 9.36456 | |
| Isopropyl alcohol | NE<br>0.01716 | 0.02240<br>0.01767 | 0.01652<br>0.01919 | 0.01536<br>0.01934 | 0.01833 | 0.01677 | AVRG | | 0.01808 | | 11.41496 | |
| Amyl alcohol | NE<br>0.00433 | NE<br>0.00498 | NE<br>0.00582 | NE<br>0.00605 | 0.00196 | 0.00315 | AVRG | | 0.00438 | | 36.19033 | * |

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# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Allyl alcohol | NE<br>0.01993 | 0.03347<br>0.01817 | 0.01301<br>0.01989 | 0.01615<br>0.02013 | 0.01622 | 0.01782 | AVRG | | 0.01942 | | 29.60962 | * |
| 4-Methyl-2-pentanol | NE<br>0.04191 | 0.13977<br>0.04448 | 0.06768<br>0.05120 | 0.05740<br>0.05444 | 0.04467 | 0.04137 | AVRG | | 0.06032 | | 51.38639 | * |
| Tert-butyl alcohol | NE<br>0.03307 | 0.04145<br>0.03257 | 0.03359<br>0.03586 | 0.03291<br>0.03628 | 0.03387 | 0.03199 | AVRG | | 0.03462 | | 8.48705 | |
| Diethyl ether | NE<br>0.30968 | 0.40393<br>0.31674 | 0.33122<br>0.33062 | 0.34807<br>0.33029 | 0.33548 | 0.30080 | AVRG | | 0.33409 | | 8.92652 | |
| 1,3-Butadiene | NE<br>0.33288 | 0.38854<br>0.32994 | 0.38107<br>0.34951 | 0.31405<br>0.35836 | 0.31693 | 0.31715 | AVRG | | 0.34316 | | 8.15203 | |
| Cyclohexane | NE<br>237699 | 2803<br>432198 | 4003<br>682728 | 7375<br>943314 | 19859 | 84355 | LINR | 0.02522 | 0.51703 | | 0.99847 | |
| Tetrahydrofuran | NE<br>58181 | 900<br>109518 | 1361<br>162133 | 2867<br>219995 | 7598 | 28221 | LINR | -0.06333 | 0.06025 | | 0.99942 | |
| alpha-Methylstyrene | NE<br>1.13399 | 1.35155<br>1.10993 | 0.85865<br>1.16502 | 1.02359<br>1.17184 | 1.06165 | 1.09458 | AVRG | | 1.10787 | | 11.89593 | |
| Diisopropyl ether | NE<br>1.21127 | 1.41201<br>1.25239 | 1.35074<br>1.32366 | 1.30436<br>1.33324 | 1.25459 | 1.23114 | AVRG | | 1.29704 | | 5.00179 | |
| Dichlorofluoromethane | NE<br>0.05734 | NE<br>0.05842 | NE<br>0.06234 | NE<br>0.06214 | 0.06484 | 0.06089 | AVRG | | 0.06099 | | 4.51209 | * |
| Propylene oxide | NE<br>0.03071 | NE<br>0.03174 | 0.05613<br>0.03407 | 0.03062<br>0.03228 | 0.03687 | 0.02961 | AVRG | | 0.03525 | | 24.79698 | * |
| 3-Methyl-1-butanol | NE<br>0.00489 | NE<br>0.00483 | NE<br>0.00601 | NE<br>0.00612 | 0.00211 | 0.00438 | AVRG | | 0.00472 | | 30.80128 | * |

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# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Butyl acrylate | NE<br>0.63698 | 0.73114<br>0.67566 | 0.58907<br>0.72950 | 0.57945<br>0.74630 | 0.58578 | 0.60437 | AVRG | | 0.65314 | | 10.52624 | |
| 1,2,3-Trimethylbenzene | NE<br>2.21302 | 2.76749<br>2.29498 | 2.61167<br>2.36627 | 2.52848<br>2.30685 | 2.25428 | 2.32678 | AVRG | | 2.40776 | | 7.74526 | |
| Ethanol | NE<br>29714 | 458<br>56794 | 787<br>87890 | 1703<br>117751 | 3072 | 12594 | LINR | -0.06594 | 0.00325 | | 0.99956 | |
| 1-Propanol | NE<br>0.00727 | 0.00862<br>0.00784 | 0.00964<br>0.00802 | 0.00852<br>0.00816 | 0.00825 | 0.00721 | AVRG | | 0.00817 | | 9.04495 | |
| tert-Butyl formate | NE<br>0.24908 | NE<br>0.25521 | NE<br>0.29218 | 0.25634<br>0.29283 | 0.33766 | 0.24706 | AVRG | | 0.27577 | | 12.14219 | * |
| 3,3-Dimethyl-1-butanol | NE<br>0.02235 | NE<br>0.02388 | NE<br>0.02628 | NE<br>0.02679 | 0.01912 | 0.02169 | AVRG | | 0.02335 | | 12.46791 | * |
| tert-Amyl methyl ether | NE<br>1.32775 | 2.53777<br>1.35994 | 1.82297<br>1.44272 | 1.67155<br>1.43312 | 1.55575 | 1.35887 | AVRG | | 1.61227 | | 23.79383 | * |
| tert-Butyl ethyl ether | NE<br>1.27589 | 1.81984<br>1.30743 | 1.44501<br>1.37993 | 1.35004<br>1.39745 | 1.35223 | 1.28319 | AVRG | | 1.40122 | | 11.86386 | |
| tert-Amyl alcohol | NE<br>0.02491 | 0.03129<br>0.02552 | 0.02457<br>0.02922 | 0.02972<br>0.02928 | 0.03377 | 0.02471 | AVRG | | 0.02811 | | 11.82574 | |
| Epichlorohydrin | NE<br>58515 | 926<br>126478 | 1242<br>183469 | 2483<br>257397 | 5941 | 23842 | LINR | 0.04999 | 0.02268 | | 0.99921 | |
| Isoprene | NE<br>0.13550 | 0.20890<br>0.13652 | 0.10782<br>0.14294 | 0.12769<br>0.14612 | 0.14811 | 0.13210 | AVRG | | 0.14286 | | 19.27805 | * |
| n-Amyl acetate | NE<br>0.52035 | NE<br>0.54240 | NE<br>0.59479 | NE<br>0.61078 | NE | 0.53118 | AVRG | | 0.55990 | | 7.20069 | * |

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# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Isopropyl acetate | NE<br>0.72227 | 1.34716<br>0.73275 | 0.78367<br>0.76494 | 0.79130<br>0.76466 | 0.77391 | 0.74796 | AVRG | | 0.82540 | | 23.86221 | * |
| n-Butyl acetate | NE<br>0.19856 | 0.47947<br>0.20815 | 0.28533<br>0.21762 | 0.15799<br>0.22438 | 0.22627 | 0.22783 | AVRG | | 0.24729 | | 37.68114 | * |
| Acetaldehyde | NE<br>67188 | NE<br>107798 | 3384<br>161053 | 5661<br>205547 | 6161 | 32393 | LINR | -0.46573 | 0.02837 | | 0.99553 | |
| Methyl Amyl Ketone | NE<br>0.62641 | 1.24254<br>0.65992 | 0.68451<br>0.69377 | 0.63815<br>0.71197 | 0.57607 | 0.60726 | AVRG | | 0.71562 | | 28.26825 | * |
| Dimethyl Disulfide | NE<br>0.67210 | 0.79855<br>0.68414 | 0.63899<br>0.70500 | 0.61608<br>0.69777 | 0.61366 | 0.66406 | AVRG | | 0.67671 | | 8.32695 | |
| 1,2-Dichloroethylene (total) | NE<br>0.45918 | 0.54933<br>0.45116 | 0.46024<br>0.47466 | 0.45982<br>0.47504 | 0.46309 | 0.44450 | AVRG | | 0.47078 | | 6.59168 | |
| Xylenes (total) | NE<br>0.56357 | 0.65089<br>0.56191 | 0.51351<br>0.58028 | 0.53491<br>0.60523 | 0.53725 | 0.54549 | AVRG | | 0.56589 | | 7.37687 | |
| Dibromofluoromethane | NE<br>211939 | 2321<br>438954 | 4769<br>652724 | 9050<br>856027 | 24255 | 90108 | LINR | -0.00333 | 0.47851 | | 0.99972 | |
| 1,2-Dichloroethane-d4 | NE<br>222293 | 2849<br>455890 | 5559<br>686218 | 9783<br>919752 | 24938 | 92990 | LINR | 0.00543 | 0.50950 | | 0.99982 | |
| Toluene-d8 | NE<br>1.18347 | 1.47608<br>1.20166 | 1.31472<br>1.16429 | 1.20749<br>1.10711 | 1.24798 | 1.21701 | AVRG | | 1.23554 | | 8.62469 | |
| 4-Bromofluorobenzene | NE<br>292753 | 3870<br>615584 | 7790<br>936681 | 13631<br>1277239 | 32501 | 116878 | LINR | 0.00128 | 0.46242 | | 0.99992 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

right solutions.
right partner.

Form 6I

# Initial Calibration Verification (ICV)

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Initial Calibration Verification (ICV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

| Compound | Amount Added | Amount Recovered | % Recovered | Limits | Q |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachlor | 50.00 | 48.61 | 97.24 | 80-120 | |
| 1,1,1-Trichloroeth | 50.00 | 50.16 | 100.33 | 80-120 | |
| 1,1,2,2-Tetrachlor | 50.00 | 46.75 | 93.50 | 80-120 | |
| Freon TF | 50.00 | 52.90 | 105.81 | 80-120 | |
| Methyl Acetate | 50.00 | 48.17 | 96.35 | 80-120 | |
| Cyclohexane | 50.00 | 51.73 | 103.47 | 80-120 | |
| Methylcyclohexane | 50.00 | 50.89 | 101.79 | 80-120 | |
| Carbon Disulfide | 100.00 | 98.50 | 98.50 | 80-120 | |
| 2-Hexanone | 100.00 | 96.73 | 96.74 | 80-120 | |
| 1,1,2-Trichloroeth | 50.00 | 47.91 | 95.83 | 80-120 | |
| 1,1-Dichloroethane | 50.00 | 48.19 | 96.39 | 80-120 | |
| 1,1-Dichloroethene | 50.00 | 49.34 | 98.68 | 80-120 | |
| 1,1-Dichloropropen | 50.00 | 52.11 | 104.24 | 80-120 | |
| 1,2,3-Trichloroben | 50.00 | 52.79 | 105.58 | 80-120 | |
| 1,2,3-Trichloropro | 50.00 | 48.07 | 96.16 | 80-120 | |
| 1,2,4-Trichloroben | 50.00 | 54.66 | 109.32 | 80-120 | |
| 1,2,4-Trimethylben | 50.00 | 51.32 | 102.65 | 80-120 | |
| 1,2-Dibromo-3-Chlo | 50.00 | 50.53 | 101.07 | 80-120 | |
| 1,2-Dibromoethane | 50.00 | 50.24 | 100.49 | 80-120 | |
| Acrolein | 100.00 | 95.06 | 95.07 | 80-120 | |
| Acrylonitrile | 100.00 | 101.42 | 101.43 | 80-120 | |
| 1,2-Dichlorobenzen | 50.00 | 49.52 | 99.05 | 80-120 | |
| 1,2-Dichloroethane | 50.00 | 49.52 | 99.05 | 80-120 | |
| 1,2-Dichloropropan | 50.00 | 49.60 | 99.22 | 80-120 | |
| 1,3,5-Trimethylben | 50.00 | 52.30 | 104.61 | 80-120 | |
| 1,3-Dichlorobenzen | 50.00 | 51.21 | 102.43 | 80-120 | |
| 1,3-Dichloropropan | 50.00 | 47.82 | 95.66 | 80-120 | |
| 1,4-Dichlorobenzen | 50.00 | 49.71 | 99.44 | 80-120 | |
| 1-Chlorohexane | 50.00 | 51.98 | 103.97 | 80-120 | |
| 2,2-Dichloropropan | 50.00 | 50.98 | 101.98 | 80-120 | |
| 2-Butanone | 100.00 | 97.74 | 97.74 | 80-120 | |
| 2-Chloroethylvinyl | 100.00 | 104.19 | 104.19 | 80-120 | |
| 2-Chlorotoluene | 50.00 | 49.94 | 99.89 | 80-120 | |
| 4-Chlorotoluene | 50.00 | 51.25 | 102.51 | 80-120 | |

# Initial Calibration Verification (ICV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

| Compound | Amount Added | Amount Recovered | % Recovered | Limits | Q |
|---|---|---|---|---|---|
| p-Isopropyltoluene | 50.00 | 54.75 | 109.51 | 80-120 | |
| 4-Methyl-2-Pentano | 100.00 | 94.03 | 94.03 | 80-120 | |
| Acetone | 100.00 | 101.89 | 101.90 | 80-120 | |
| Acetonitrile | 500.00 | 475.59 | 95.12 | 80-120 | |
| Allyl Chloride | 50.00 | 47.31 | 94.63 | 80-120 | |
| Benzene | 50.00 | 50.29 | 100.58 | 80-120 | |
| Bromobenzene | 50.00 | 49.62 | 99.25 | 80-120 | |
| Bromochloromethane | 50.00 | 47.25 | 94.51 | 80-120 | |
| Bromodichlorometha | 50.00 | 49.22 | 98.45 | 80-120 | |
| Bromoform | 50.00 | 49.33 | 98.66 | 80-120 | |
| Bromomethane | 50.00 | 50.78 | 101.58 | 80-120 | |
| Carbon Tetrachlori | 50.00 | 49.06 | 98.12 | 80-120 | |
| Chlorobenzene | 50.00 | 48.34 | 96.68 | 80-120 | |
| Chloroethane | 50.00 | 48.32 | 96.64 | 80-120 | |
| Chloroform | 50.00 | 48.45 | 96.91 | 80-120 | |
| Chloromethane | 50.00 | 50.17 | 100.35 | 80-120 | |
| Chloroprene | 50.00 | 47.74 | 95.50 | 80-120 | |
| cis-1,2-Dichloroet | 50.00 | 48.25 | 96.51 | 80-120 | |
| cis-1,3-Dichloropr | 50.00 | 52.11 | 104.22 | 80-120 | |
| Dibromochlorometha | 50.00 | 49.50 | 99.02 | 80-120 | |
| Dibromomethane | 50.00 | 49.19 | 98.38 | 80-120 | |
| Dichlorodifluorome | 50.00 | 52.19 | 104.38 | 80-120 | |
| Ethylbenzene | 50.00 | 51.31 | 102.63 | 80-120 | |
| Ethyl Methacrylate | 50.00 | 44.07 | 88.15 | 80-120 | |
| Iodomethane | 100.00 | 96.48 | 96.49 | 80-120 | |
| Isobutyl Alcohol | 1000.00 | 982.15 | 98.22 | 70-130 | |
| Propionitrile | 500.00 | 486.89 | 97.38 | 70-130 | |
| Hexachlorobutadien | 50.00 | 57.73 | 115.48 | 80-120 | |
| Isopropylbenzene | 50.00 | 52.09 | 104.19 | 80-120 | |
| m,p-Xylenes | 100.00 | 100.17 | 100.17 | 80-120 | |
| Methyl tert-butyl | 50.00 | 48.12 | 96.25 | 80-120 | |
| Methylene Chloride | 50.00 | 47.56 | 95.14 | 80-120 | |
| Methacrylonitrile | 50.00 | 46.73 | 93.48 | 80-120 | |
| Methyl Methacrylat | 50.00 | 47.71 | 95.43 | 80-120 | |

# Initial Calibration Verification (ICV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_424237

## Volatiles by by EPA 8260

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

| Compound | Amount Added | Amount Recovered | % Recovered | Limits | Q |
|---|---|---|---|---|---|
| n-Butylbenzene | 50.00 | 50.66 | 101.33 | 80-120 | |
| n-Propylbenzene | 50.00 | 52.67 | 105.35 | 80-120 | |
| Naphthalene | 50.00 | 52.67 | 105.35 | 80-120 | |
| o-Xylene | 50.00 | 49.75 | 99.51 | 80-120 | |
| sec-Butylbenzene | 50.00 | 54.16 | 108.34 | 80-120 | |
| Styrene | 50.00 | 52.09 | 104.20 | 80-120 | |
| tert-Butylbenzene | 50.00 | 52.83 | 105.67 | 80-120 | |
| Tetrachloroethene | 50.00 | 50.99 | 101.99 | 80-120 | |
| Toluene | 50.00 | 49.20 | 98.42 | 80-120 | |
| trans-1,2-Dichloro | 50.00 | 49.99 | 99.98 | 80-120 | |
| trans-1,3-Dichloro | 50.00 | 52.50 | 105.01 | 80-120 | |
| trans-1,4-Dichloro | 50.00 | 49.73 | 99.47 | 80-120 | |
| Trichloroethene | 50.00 | 51.28 | 102.56 | 80-120 | |
| Trichlorofluoromet | 50.00 | 51.00 | 102.02 | 80-120 | |
| Vinyl Acetate | 100.00 | 104.75 | 104.76 | 80-120 | |
| Vinyl Chloride | 50.00 | 50.57 | 101.15 | 80-120 | |
| 1,2-Dichloroethyle | 100.00 | 98.24 | 98.25 | 80-120 | |
| Xylenes (total) | 150.00 | 149.92 | 99.95 | 80-120 | |
| 1,4-Dioxane | 1000.00 | 1021.76 | 102.18 | 80-120 | |
| Dibromofluorometha | 50.00 | 50.91 | 101.84 | 71-125 | |
| 1,2-Dichloroethane | 50.00 | 50.36 | 100.73 | 70-125 | |
| Toluene-d8 | 50.00 | 49.50 | 99.00 | 75-125 | |
| 4-Bromofluorobenze | 50.00 | 49.98 | 99.97 | 72-125 | |

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Form 7

# Continuing Calibration Verification (CCV)

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426320

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 23-JAN-2023 1158
Lab File ID X012303.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | RRF / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.00457 | 0.00505 | 0.00505 | 0.001 | -10.49147 | 20.0 | Averaged | |
| 1,3-Butadiene | 0.34316 | 0.34818 | 0.34818 | 0.100 | -1.46355 | 20.0 | Averaged | |
| Methacrylonitrile | 0.35404 | 0.36667 | 0.36667 | 0.100 | -3.56579 | 20.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06377 | 0.06377 | 0.005 | -13.39904 | 20.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.04951 | 0.04951 | 0.005 | -8.80136 | 20.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.89571 | 0.89571 | 0.100 | -3.34791 | 20.0 | Averaged | |
| Propionitrile | 0.05102 | 0.05133 | 0.05133 | 0.010 | -0.62064 | 20.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.12345 | 0.12345 | 0.050 | -14.36868 | 20.0 | Averaged | |
| Acetaldehyde | 200 | 199 | 0.03147 | 0.001 | 0.71921 | 20.0 | Linear | |
| Chloroprene | 0.17001 | 0.17102 | 0.17102 | 0.100 | -0.59453 | 20.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.37177 | 0.37177 | 0.100 | -9.04673 | 20.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.25887 | 0.25887 | 0.100 | -9.94645 | 20.0 | Averaged | |
| Methyl Acrylate | 0.33946 | 0.44490 | 0.44490 | 0.100 | -31.06261 | 20.0 | Averaged | <- |
| Tetrahydrofuran | 100 | 103 | 0.06410 | 0.001 | -3.21461 | 20.0 | Linear | |
| alpha-Methylstyrene | 1.10787 | 1.15049 | 1.15049 | 0.100 | -3.84763 | 20.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.31677 | 1.31677 | 0.100 | -1.52107 | 20.0 | Averaged | |
| Epichlorohydrin | 200 | 210 | 0.02358 | 0.001 | -5.24322 | 20.0 | Linear | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.31173 | 2.31173 | 0.100 | 3.98798 | 20.0 | Averaged | |
| Dichlorodifluoromethane | 50.0 | 57.08991 | 0.39968 | 0.100 | -14.17981 | 20.0 | Linear | |
| Chloromethane | 50.0 | 52.67899 | 0.47774 | 0.100 | -5.35798 | 20.0 | Linear | |
| Vinyl Chloride | 0.43678 | 0.46086 | 0.46086 | 0.100 | -5.51363 | 20.0 | Averaged | |
| Bromomethane | 50.0 | 49.22760 | 0.32507 | 0.100 | 1.54480 | 20.0 | Linear | |
| Chloroethane | 0.30401 | 0.28905 | 0.28905 | 0.100 | 4.92275 | 20.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.68982 | 0.68982 | 0.100 | -12.85943 | 20.0 | Averaged | |
| Acrolein | 100 | 94.59177 | 0.03229 | 0.010 | 5.40823 | 20.0 | Linear | |
| Acetone | 100 | 112 | 0.15735 | 0.100 | -12.15738 | 20.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.39169 | 0.39169 | 0.100 | -3.21760 | 20.0 | Averaged | |
| Iodomethane | 100 | 104 | 0.52265 | 0.100 | -4.15938 | 20.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.13921 | 0.13921 | 0.050 | -8.16556 | 20.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.47860 | 0.47860 | 0.100 | 8.05268 | 20.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.24735 | 1.24735 | 0.100 | -0.42164 | 20.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.03089 | 1.03089 | 0.100 | -3.83088 | 20.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.43144 | 0.43144 | 0.100 | -1.58657 | 20.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.24066 | 1.24066 | 0.010 | -13.78413 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426320

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 23-JAN-2023 1158
Lab File ID X012303.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 0.74536 | 0.75327 | 0.75327 | 0.200 | -1.06142 | 20.0 | Averaged | |
| 2-Butanone | 100 | 114 | 0.17014 | 0.100 | -13.89601 | 20.0 | Linear | |
| 2,2-Dichloropropane | 0.63286 | 0.72017 | 0.72017 | 0.100 | -13.79667 | 20.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.49960 | 0.49960 | 0.100 | 3.33903 | 20.0 | Averaged | |
| Chloroform | 0.83541 | 0.84699 | 0.84699 | 0.200 | -1.38551 | 20.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.26448 | 0.26448 | 0.100 | 6.54301 | 20.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 49.92048 | 0.47934 | 0.100 | 0.15904 | 20.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.73601 | 0.73601 | 0.100 | -11.04145 | 20.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.42074 | 0.42074 | 0.100 | -18.52542 | 20.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.45585 | 0.45585 | 0.100 | -11.27212 | 20.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.41755 | 0.41755 | 0.100 | -10.15321 | 20.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 53.57850 | 0.54320 | 0.100 | -7.15700 | 20.0 | Linear | |
| Benzene | 1.19399 | 1.24043 | 1.24043 | 0.500 | -3.88960 | 20.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.35378 | 0.35378 | 0.200 | -4.46809 | 20.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.45944 | 0.45944 | 0.200 | -2.53160 | 20.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.16483 | 0.16483 | 0.001 | -29.29666 | 20.0 | Averaged | <- |
| 1,2-Dichloropropane | 0.31761 | 0.32602 | 0.32602 | 0.100 | -2.65000 | 20.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.21420 | 0.21420 | 0.100 | 0.77829 | 20.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.30090 | 0.30090 | 0.100 | -12.59285 | 20.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.56679 | 0.56679 | 0.200 | -7.70399 | 20.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.25924 | 1.25924 | 0.100 | -1.91881 | 20.0 | Averaged | |
| Toluene | 1.38201 | 1.45494 | 1.45494 | 0.400 | -5.27656 | 20.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.49472 | 0.49472 | 0.100 | -13.28025 | 20.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.21427 | 0.21427 | 0.100 | -17.84287 | 20.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.27712 | 0.27712 | 0.100 | 0.05054 | 20.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.56085 | 0.56085 | 0.100 | -2.77168 | 20.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.41139 | 0.41139 | 0.100 | -2.80662 | 20.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.31579 | 0.31579 | 0.200 | -10.43683 | 20.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.36356 | 0.36356 | 0.100 | -4.87733 | 20.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.29112 | 0.29112 | 0.100 | -20.48086 | 20.0 | Averaged | <- |
| Chlorobenzene | 0.98026 | 0.99925 | 0.99925 | 0.500 | -1.93817 | 20.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.38335 | 0.38335 | 0.100 | -5.08415 | 20.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.50888 | 0.50888 | 0.100 | -10.20682 | 20.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.64686 | 0.64686 | 0.100 | -8.67017 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426320

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 23-JAN-2023 1158
Lab File ID X012303.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | RRF / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| o-Xylene | 0.58751 | 0.61571 | 0.61571 | 0.300 | -4.80022 | 20.0 | Averaged | |
| Styrene | 0.98473 | 1.08887 | 1.08887 | 0.300 | -10.57527 | 20.0 | Averaged | |
| Bromoform | 0.27722 | 0.29817 | 0.29817 | 0.100 | -7.55468 | 20.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.57290 | 1.57290 | 0.100 | -17.18489 | 20.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.80786 | 0.80786 | 0.300 | -1.37135 | 20.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 54.11359 | 0.49987 | 0.100 | -8.22718 | 20.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.61934 | 0.61934 | 0.100 | -11.32046 | 20.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.29769 | 3.29769 | 0.100 | -19.06904 | 20.0 | Averaged | |
| Bromobenzene | 0.82033 | 0.83444 | 0.83444 | 0.100 | -1.72113 | 20.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.38745 | 2.38745 | 0.100 | -16.69117 | 20.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 2.02344 | 2.02344 | 0.100 | -11.33648 | 20.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.39141 | 2.39141 | 0.100 | -15.42530 | 20.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 1.99746 | 1.99746 | 0.100 | -19.26890 | 20.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.44161 | 2.44161 | 0.100 | -13.41738 | 20.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.80419 | 2.80419 | 0.100 | -25.84361 | 20.0 | Averaged | <- |
| p-Isopropyltoluene | 1.99679 | 2.49985 | 2.49985 | 0.100 | -25.19371 | 20.0 | Averaged | <- |
| 1,3-Dichlorobenzene | 1.36155 | 1.48258 | 1.48258 | 0.600 | -8.88907 | 20.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.57555 | 1.57555 | 0.400 | -6.04316 | 20.0 | Averaged | |
| n-Butylbenzene | 50.0 | 58.29302 | 2.25533 | 0.500 | -16.58603 | 20.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.48930 | 1.48930 | 0.400 | -6.20770 | 20.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 54.58068 | 0.13910 | 0.040 | -9.16136 | 20.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 1.04104 | 1.04104 | 0.100 | -17.63938 | 20.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 60.45124 | 0.47530 | 0.100 | -20.90247 | 20.0 | Quadratic | <- |
| Naphthalene | 2.01347 | 2.35396 | 2.35396 | 0.200 | -16.91077 | 20.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.96214 | 0.96214 | 0.010 | -13.52093 | 20.0 | Averaged | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.46552 | 0.46552 | 0.200 | 1.11727 | 20.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.60831 | 0.60831 | 0.100 | -7.49564 | 20.0 | Averaged | |
| Cyclohexane | 50.0 | 58.83325 | 0.59533 | 0.100 | -17.66649 | 20.0 | Linear | |
| Freon TF | 0.36703 | 0.39987 | 0.39987 | 0.100 | -8.94752 | 20.0 | Averaged | |
| Methylcyclohexane | 0.61204 | 0.69701 | 0.69701 | 0.100 | -13.88285 | 20.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.23708 | 0.23708 | 0.100 | -5.37612 | 20.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03979 | 0.03979 | 0.005 | -14.92555 | 20.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02173 | 0.02173 | 0.005 | -20.16479 | 20.0 | Averaged | <- |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426320

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 23-JAN-2023 2147
Lab File ID X012331.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.00457 | 0.00522 | 0.00522 | 0.001 | -14.15009 | 50.0 | Averaged | |
| 1,3-Butadiene | 0.34316 | 0.32395 | 0.32395 | 0.100 | 5.59636 | 50.0 | Averaged | |
| Methacrylonitrile | 0.35404 | 0.37037 | 0.37037 | 0.100 | -4.61104 | 50.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06130 | 0.06130 | 0.005 | -9.00526 | 50.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.04689 | 0.04689 | 0.005 | -3.04927 | 50.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.85096 | 0.85096 | 0.100 | 1.81568 | 50.0 | Averaged | |
| Propionitrile | 0.05102 | 0.05399 | 0.05399 | 0.010 | -5.82918 | 50.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11119 | 0.11119 | 0.050 | -3.01539 | 50.0 | Averaged | |
| Acetaldehyde | 200 | 308 | 0.04701 | 0.001 | -54.05144 | 50.0 | Linear | |
| Chloroprene | 0.17001 | 0.16025 | 0.16025 | 0.100 | 5.74058 | 50.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.37645 | 0.37645 | 0.100 | -10.41836 | 50.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.25252 | 0.25252 | 0.100 | -7.24700 | 50.0 | Averaged | |
| Methyl Acrylate | 0.33946 | 0.39436 | 0.39436 | 0.100 | -16.17453 | 50.0 | Averaged | |
| Tetrahydrofuran | 100 | 104 | 0.06471 | 0.001 | -4.23487 | 50.0 | Linear | |
| alpha-Methylstyrene | 1.10787 | 1.08863 | 1.08863 | 0.100 | 1.73648 | 50.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.27807 | 1.27807 | 0.100 | 1.46320 | 50.0 | Averaged | |
| Epichlorohydrin | 200 | 208 | 0.02328 | 0.001 | -3.92090 | 50.0 | Linear | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.31822 | 2.31822 | 0.100 | 3.71845 | 50.0 | Averaged | |
| Dichlorodifluoromethane | 50.0 | 42.11733 | 0.29414 | 0.100 | 15.76533 | 50.0 | Linear | |
| Chloromethane | 50.0 | 44.30505 | 0.39847 | 0.100 | 11.38990 | 50.0 | Linear | |
| Vinyl Chloride | 0.43678 | 0.41822 | 0.41822 | 0.100 | 4.24882 | 50.0 | Averaged | |
| Bromomethane | 50.0 | 44.59479 | 0.29334 | 0.100 | 10.81043 | 50.0 | Linear | |
| Chloroethane | 0.30401 | 0.28451 | 0.28451 | 0.100 | 6.41438 | 50.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.64895 | 0.64895 | 0.100 | -6.17148 | 50.0 | Averaged | |
| Acrolein | 100 | 79.99609 | 0.02716 | 0.010 | 20.00391 | 50.0 | Linear | |
| Acetone | 100 | 87.89892 | 0.12332 | 0.100 | 12.10108 | 50.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.37678 | 0.37678 | 0.100 | 0.71015 | 50.0 | Averaged | |
| Iodomethane | 100 | 94.47972 | 0.47043 | 0.100 | 5.52028 | 50.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.14069 | 0.14069 | 0.050 | -9.31415 | 50.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.48150 | 0.48150 | 0.100 | 7.49590 | 50.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.20828 | 1.20828 | 0.100 | 2.72354 | 50.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 0.99570 | 0.99570 | 0.100 | -0.28701 | 50.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.42362 | 0.42362 | 0.100 | 0.25440 | 50.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 0.95940 | 0.95940 | 0.010 | 12.01110 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426320

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 23-JAN-2023 2147
Lab File ID X012331.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 0.74536 | 0.74655 | 0.74655 | 0.200 | -0.15892 | 50.0 | Averaged | |
| 2-Butanone | 100 | 103 | 0.15359 | 0.100 | -3.11175 | 50.0 | Linear | |
| 2,2-Dichloropropane | 0.63286 | 0.59596 | 0.59596 | 0.100 | 5.83059 | 50.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.50934 | 0.50934 | 0.100 | 1.45484 | 50.0 | Averaged | |
| Chloroform | 0.83541 | 0.85855 | 0.85855 | 0.200 | -2.76940 | 50.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.26975 | 0.26975 | 0.100 | 4.67740 | 50.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 49.40394 | 0.47439 | 0.100 | 1.19213 | 50.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.71230 | 0.71230 | 0.100 | -7.46348 | 50.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.38382 | 0.38382 | 0.100 | -8.12486 | 50.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.43530 | 0.43530 | 0.100 | -6.25649 | 50.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.38497 | 0.38497 | 0.100 | -1.55911 | 50.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 53.63368 | 0.54376 | 0.100 | -7.26735 | 50.0 | Linear | |
| Benzene | 1.19399 | 1.18660 | 1.18660 | 0.500 | 0.61871 | 50.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.35326 | 0.35326 | 0.200 | -4.31229 | 50.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.43953 | 0.43953 | 0.200 | 1.91033 | 50.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.14063 | 0.14063 | 0.001 | -10.31362 | 50.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.30945 | 0.30945 | 0.100 | 2.56905 | 50.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.21059 | 0.21059 | 0.100 | 2.44952 | 50.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.27898 | 0.27898 | 0.100 | -4.38820 | 50.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.51412 | 0.51412 | 0.200 | 2.30491 | 50.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.18729 | 1.18729 | 0.100 | 3.90490 | 50.0 | Averaged | |
| Toluene | 1.38201 | 1.36561 | 1.36561 | 0.400 | 1.18735 | 50.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.44851 | 0.44851 | 0.100 | -2.69805 | 50.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.19207 | 0.19207 | 0.100 | -5.63344 | 50.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.26448 | 0.26448 | 0.100 | 4.60715 | 50.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.53111 | 0.53111 | 0.100 | 2.67872 | 50.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.39120 | 0.39120 | 0.100 | 2.23821 | 50.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.29271 | 0.29271 | 0.200 | -2.36595 | 50.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.34926 | 0.34926 | 0.100 | -0.75298 | 50.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.26176 | 0.26176 | 0.100 | -8.32905 | 50.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.95228 | 0.95228 | 0.500 | 2.85393 | 50.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.36374 | 0.36374 | 0.100 | 0.28992 | 50.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.47907 | 0.47907 | 0.100 | -3.75014 | 50.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.60892 | 0.60892 | 0.100 | -2.29577 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426320

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 23-JAN-2023 2147
Lab File ID X012331.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| o-Xylene | 0.58751 | 0.58930 | 0.58930 | 0.300 | -0.30570 | 50.0 | Averaged | |
| Styrene | 0.98473 | 1.03863 | 1.03863 | 0.300 | -5.47293 | 50.0 | Averaged | |
| Bromoform | 0.27722 | 0.27452 | 0.27452 | 0.100 | 0.97384 | 50.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.48640 | 1.48640 | 0.100 | -10.74069 | 50.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.70822 | 0.70822 | 0.300 | 11.13138 | 50.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 51.44330 | 0.47517 | 0.100 | -2.88660 | 50.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.55759 | 0.55759 | 0.100 | -0.22120 | 50.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 2.99158 | 2.99158 | 0.100 | -8.01632 | 50.0 | Averaged | |
| Bromobenzene | 0.82033 | 0.79241 | 0.79241 | 0.100 | 3.40283 | 50.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.21456 | 2.21456 | 0.100 | -8.24067 | 50.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 1.85203 | 1.85203 | 0.100 | -1.90502 | 50.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.16731 | 2.16731 | 0.100 | -4.60878 | 50.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 1.84584 | 1.84584 | 0.100 | -10.21567 | 50.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.26554 | 2.26554 | 0.100 | -5.23880 | 50.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.56760 | 2.56760 | 0.100 | -15.22589 | 50.0 | Averaged | |
| p-Isopropyltoluene | 1.99679 | 2.27090 | 2.27090 | 0.100 | -13.72803 | 50.0 | Averaged | |
| 1,3-Dichlorobenzene | 1.36155 | 1.38790 | 1.38790 | 0.600 | -1.93487 | 50.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.45878 | 1.45878 | 0.400 | 1.81640 | 50.0 | Averaged | |
| n-Butylbenzene | 50.0 | 51.42462 | 1.98125 | 0.500 | -2.84923 | 50.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.40135 | 1.40135 | 0.400 | 0.06437 | 50.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 49.91238 | 0.12719 | 0.040 | 0.17525 | 50.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 0.94079 | 0.94079 | 0.100 | -6.31053 | 50.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 50.40790 | 0.39544 | 0.100 | -0.81580 | 50.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.14566 | 2.14566 | 0.200 | -6.56555 | 50.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.87842 | 0.87842 | 0.010 | -3.64247 | 50.0 | Averaged | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.46648 | 0.46648 | 0.200 | 0.91337 | 50.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.58347 | 0.58347 | 0.100 | -3.10599 | 50.0 | Averaged | |
| Cyclohexane | 50.0 | 55.44221 | 0.56027 | 0.100 | -10.88441 | 50.0 | Linear | |
| Freon TF | 0.36703 | 0.37192 | 0.37192 | 0.100 | -1.33132 | 50.0 | Averaged | |
| Methylcyclohexane | 0.61204 | 0.63618 | 0.63618 | 0.100 | -3.94431 | 50.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.24418 | 0.24418 | 0.100 | -8.52774 | 50.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03856 | 0.03856 | 0.005 | -11.38872 | 50.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02077 | 0.02077 | 0.005 | -14.89667 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426355

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 24-JAN-2023 0752
Lab File ID X012402.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 43.46372 | 0.30363 | 0.100 | 13.07255 | 20.0 | Linear | |
| Chloromethane | 50.0 | 47.04171 | 0.42438 | 0.100 | 5.91658 | 20.0 | Linear | |
| Propionitrile | 0.05102 | 0.05658 | 0.05658 | 0.010 | -10.89928 | 20.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.42536 | 0.42536 | 0.100 | 2.61473 | 20.0 | Averaged | |
| Bromomethane | 50.0 | 46.37703 | 0.30555 | 0.100 | 7.24594 | 20.0 | Linear | |
| Chloroethane | 0.30401 | 0.28704 | 0.28704 | 0.100 | 5.58124 | 20.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.66678 | 0.66678 | 0.100 | -9.08910 | 20.0 | Averaged | |
| Acrolein | 100 | 103 | 0.03516 | 0.010 | -2.74295 | 20.0 | Linear | |
| Acetone | 100 | 110 | 0.15370 | 0.100 | -9.55416 | 20.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.38027 | 0.38027 | 0.100 | -0.20880 | 20.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06598 | 0.06598 | 0.005 | -17.31786 | 20.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.05401 | 0.05401 | 0.005 | -18.67808 | 20.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.96166 | 0.96166 | 0.100 | -10.95676 | 20.0 | Averaged | |
| Iodomethane | 100 | 102 | 0.51250 | 0.100 | -2.28565 | 20.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.14847 | 0.14847 | 0.050 | -15.35984 | 20.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.48596 | 0.48596 | 0.100 | 6.64028 | 20.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.33368 | 1.33368 | 0.100 | -7.37258 | 20.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.05102 | 1.05102 | 0.100 | -5.85845 | 20.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.43863 | 0.43863 | 0.100 | -3.27902 | 20.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.27201 | 1.27201 | 0.010 | -16.65922 | 20.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.76741 | 0.76741 | 0.200 | -2.95779 | 20.0 | Averaged | |
| Chloroprene | 0.17001 | 0.16396 | 0.16396 | 0.100 | 3.55956 | 20.0 | Averaged | |
| 2-Butanone | 100 | 111 | 0.16565 | 0.100 | -10.97028 | 20.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.39326 | 0.39326 | 0.100 | -11.07804 | 20.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.73773 | 0.73773 | 0.100 | -16.57210 | 20.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.50541 | 0.50541 | 0.100 | 2.21463 | 20.0 | Averaged | |
| Chloroform | 0.83541 | 0.85884 | 0.85884 | 0.200 | -2.80386 | 20.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.26476 | 0.26476 | 0.100 | 6.44309 | 20.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 50.54201 | 0.48529 | 0.100 | -1.08402 | 20.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.75141 | 0.75141 | 0.100 | -13.36404 | 20.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.42083 | 0.42083 | 0.100 | -18.55297 | 20.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.45623 | 0.45623 | 0.100 | -11.36502 | 20.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.41971 | 0.41971 | 0.100 | -10.72407 | 20.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 54.92946 | 0.55697 | 0.100 | -9.85893 | 20.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426355

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 24-JAN-2023 0752
Lab File ID X012402.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.23242 | 1.23242 | 0.500 | -3.21892 | 20.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.35892 | 0.35892 | 0.200 | -5.98441 | 20.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.45546 | 0.45546 | 0.200 | -1.64355 | 20.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.39915 | 0.39915 | 0.100 | -17.07916 | 20.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.14872 | 0.14872 | 0.001 | -16.66371 | 20.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.32073 | 0.32073 | 0.100 | -0.98342 | 20.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.15726 | 0.15726 | 0.000 | -24.54847 | 20.0 | Averaged | <- |
| Dibromomethane | 0.21588 | 0.21656 | 0.21656 | 0.100 | -0.31458 | 20.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.29611 | 0.29611 | 0.100 | -10.79742 | 20.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.56177 | 0.56177 | 0.200 | -6.74973 | 20.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.24078 | 1.24078 | 0.100 | -0.42453 | 20.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.26783 | 0.26783 | 0.100 | -13.75030 | 20.0 | Averaged | |
| Toluene | 1.38201 | 1.43737 | 1.43737 | 0.400 | -4.00528 | 20.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.49161 | 0.49161 | 0.100 | -12.56715 | 20.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.20842 | 0.20842 | 0.100 | -14.62209 | 20.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.27255 | 0.27255 | 0.100 | 1.69756 | 20.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.55948 | 0.55948 | 0.100 | -2.51948 | 20.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.40703 | 0.40703 | 0.100 | -1.71720 | 20.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.32100 | 0.32100 | 0.200 | -12.26115 | 20.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.36165 | 0.36165 | 0.100 | -4.32772 | 20.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.29701 | 0.29701 | 0.100 | -22.91612 | 20.0 | Averaged | <- |
| Chlorobenzene | 0.98026 | 0.98352 | 0.98352 | 0.500 | -0.33302 | 20.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.37500 | 0.37500 | 0.100 | -2.79473 | 20.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.50775 | 0.50775 | 0.100 | -9.96066 | 20.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.64741 | 0.64741 | 0.100 | -8.76315 | 20.0 | Averaged | |
| o-Xylene | 0.58751 | 0.61524 | 0.61524 | 0.300 | -4.71985 | 20.0 | Averaged | |
| Styrene | 0.98473 | 1.07182 | 1.07182 | 0.300 | -8.84350 | 20.0 | Averaged | |
| Bromoform | 0.27722 | 0.28569 | 0.28569 | 0.100 | -3.05500 | 20.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.59205 | 1.59205 | 0.100 | -18.61159 | 20.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.77429 | 0.77429 | 0.300 | 2.84050 | 20.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 53.31448 | 0.49248 | 0.100 | -6.62895 | 20.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.59000 | 0.59000 | 0.100 | -6.04687 | 20.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.12369 | 0.12369 | 0.050 | -14.59072 | 20.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.29232 | 3.29232 | 0.100 | -18.87513 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

RunID VOA6_426355

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 24-JAN-2023 0752
Lab File ID X012402.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.81343 | 0.81343 | 0.100 | 0.84012 | 20.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.38751 | 2.38751 | 0.100 | -16.69398 | 20.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 1.99202 | 1.99202 | 0.100 | -9.60752 | 20.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.33540 | 2.33540 | 0.100 | -12.72184 | 20.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 1.99053 | 1.99053 | 0.100 | -18.85498 | 20.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.42500 | 2.42500 | 0.100 | -12.64559 | 20.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.82484 | 2.82484 | 0.100 | -26.77019 | 20.0 | Averaged | <- |
| p-Isopropyltoluene | 1.99679 | 2.52320 | 2.52320 | 0.100 | -26.36316 | 20.0 | Averaged | <- |
| 1,3-Dichlorobenzene | 1.36155 | 1.46731 | 1.46731 | 0.600 | -7.76740 | 20.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.54667 | 1.54667 | 0.400 | -4.09957 | 20.0 | Averaged | |
| Benzyl Chloride | 50.0 | 54.78916 | 0.86167 | 0.010 | -9.57833 | 20.0 | Linear | |
| n-Butylbenzene | 50.0 | 59.29315 | 2.29524 | 0.500 | -18.58631 | 20.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.45055 | 1.45055 | 0.400 | -3.44437 | 20.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 52.85755 | 0.13470 | 0.040 | -5.71510 | 20.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 1.05472 | 1.05472 | 0.100 | -19.18461 | 20.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 59.03119 | 0.46399 | 0.100 | -18.06237 | 20.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.25857 | 2.25857 | 0.200 | -12.17325 | 20.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.95851 | 0.95851 | 0.010 | -13.09219 | 20.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.25699 | 0.25699 | 0.100 | -14.22206 | 20.0 | Averaged | |
| Freon TF | 0.36703 | 0.39383 | 0.39383 | 0.100 | -7.30111 | 20.0 | Averaged | |
| Cyclohexane | 50.0 | 59.83489 | 0.60569 | 0.100 | -19.66977 | 20.0 | Linear | |
| Tetrahydrofuran | 100 | 106 | 0.06566 | 0.001 | -5.80765 | 20.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.78046 | 0.78046 | 0.100 | -27.51713 | 20.0 | Averaged | <- |
| 1,4-Dioxane | 0.00457 | 0.00510 | 0.00510 | 0.001 | -11.52102 | 20.0 | Averaged | |
| n-Butanol | 1000 | 1170 | 0.00760 | 0.005 | -17.02338 | 20.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.43700 | 0.43700 | 0.100 | -28.73507 | 20.0 | Averaged | <- |
| Ethyl Acrylate | 50.0 | 59.78295 | 1.17864 | 0.100 | -19.56589 | 20.0 | Linear | |
| n-Hexane | 0.36001 | 0.46688 | 0.46688 | 0.100 | -29.68804 | 20.0 | Averaged | <- |
| Diethyl ether | 0.33409 | 0.31783 | 0.31783 | 0.100 | 4.86841 | 20.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.04084 | 0.04084 | 0.005 | -17.96123 | 20.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02197 | 0.02197 | 0.005 | -21.48986 | 20.0 | Averaged | <- |
| Diisopropyl ether | 1.29704 | 1.41121 | 1.41121 | 0.100 | -8.80228 | 20.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 1.07108 | 1.07108 | 0.100 | -10.41266 | 20.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.64258 | 2.64258 | 0.100 | -9.75280 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426355

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 24-JAN-2023 0752
Lab File ID X012402.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 1107 | 0.00361 | 0.001 | -10.72715 | 20.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.32117 | 0.32117 | 0.100 | -21.05122 | 20.0 | Averaged | <- |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02865 | 0.02865 | 0.005 | -21.12182 | 20.0 | Averaged | <- |
| tert-Amyl methyl ether | 1.44127 | 1.51435 | 1.51435 | 0.005 | -5.07027 | 20.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.47876 | 1.47876 | 0.100 | -7.29422 | 20.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.03212 | 0.03212 | 0.005 | -19.59981 | 20.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.05704 | 0.05704 | 0.005 | -20.52985 | 20.0 | Averaged | <- |
| 1-Methylnaphthalene | ++++ | 1.07108 | 1.07108 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.33346 | 0.33346 | 0.100 | 2.82619 | 20.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00589 | 0.00589 | 0.005 | -19.14178 | 20.0 | Averaged | <- |
| Dichlorofluoromethane | 0.06474 | 0.06267 | 0.06267 | 0.100 | 3.20266 | 20.0 | Averaged | <- |
| Propylene oxide | 0.03144 | 0.03211 | 0.03211 | 0.005 | -2.12099 | 20.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00631 | 0.00631 | 0.005 | -27.71454 | 20.0 | Averaged | <- |
| Butyl acrylate | 0.65314 | 0.75966 | 0.75966 | 0.100 | -16.30897 | 20.0 | Averaged | |
| Epichlorohydrin | 200 | 229 | 0.02563 | 0.001 | -14.25972 | 20.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.47202 | 0.47202 | 0.200 | -0.26335 | 20.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.61191 | 0.61191 | 0.100 | -8.13163 | 20.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.15502 | 1.15502 | 0.100 | -4.25589 | 20.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.44813 | 0.44813 | 0.100 | -14.85875 | 20.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.02700 | 0.02700 | 0.005 | -29.44332 | 20.0 | Averaged | <- |
| Isoprene | 0.13320 | 0.15062 | 0.15062 | 0.100 | -13.07944 | 20.0 | Averaged | |
| Isopentane | ++++ | 0.28776 | 0.28776 | 0.100 | ++++ | 20.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.87677 | 0.87677 | 0.100 | -12.86716 | 20.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.61633 | 0.61633 | 0.100 | -5.71021 | 20.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.50880 | 0.50880 | 0.100 | -18.46056 | 20.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02334 | 0.02334 | 0.004 | -27.02397 | 20.0 | Averaged | <- |
| Acetaldehyde | 200 | 200 | 0.03174 | 0.001 | -0.24429 | 20.0 | Linear | |
| Methyl Amyl Ketone | 0.66478 | 0.75219 | 0.75219 | 0.100 | -13.14967 | 20.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.72740 | 0.72740 | 0.100 | -7.49196 | 20.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00043 | 0.00043 | 0.001 | ++++ | 20.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 3.846e+67 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00814 | 0.00814 | 0.005 | 0.33380 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426355

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 24-JAN-2023 1905
Lab File ID X012433.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 44.20299 | 0.30884 | 0.100 | 11.59403 | 50.0 | Linear | |
| Chloromethane | 50.0 | 46.23524 | 0.41674 | 0.100 | 7.52953 | 50.0 | Linear | |
| Propionitrile | 0.05102 | 0.05441 | 0.05441 | 0.010 | -6.64296 | 50.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.42390 | 0.42390 | 0.100 | 2.94848 | 50.0 | Averaged | |
| Bromomethane | 50.0 | 46.13258 | 0.30387 | 0.100 | 7.73485 | 50.0 | Linear | |
| Chloroethane | 0.30401 | 0.27943 | 0.27943 | 0.100 | 8.08480 | 50.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.67463 | 0.67463 | 0.100 | -10.37300 | 50.0 | Averaged | |
| Acrolein | 100 | 97.99542 | 0.03349 | 0.010 | 2.00458 | 50.0 | Linear | |
| Acetone | 100 | 98.66267 | 0.13842 | 0.100 | 1.33733 | 50.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.37843 | 0.37843 | 0.100 | 0.27518 | 50.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06380 | 0.06380 | 0.005 | -13.44571 | 50.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.05249 | 0.05249 | 0.005 | -15.34840 | 50.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.93269 | 0.93269 | 0.100 | -7.61392 | 50.0 | Averaged | |
| Iodomethane | 100 | 97.51495 | 0.48676 | 0.100 | 2.48505 | 50.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.14471 | 0.14471 | 0.050 | -12.43992 | 50.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.47850 | 0.47850 | 0.100 | 8.07330 | 50.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.29397 | 1.29397 | 0.100 | -4.17520 | 50.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.00873 | 1.00873 | 0.100 | -1.59948 | 50.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.43227 | 0.43227 | 0.100 | -1.78107 | 50.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.08738 | 1.08738 | 0.010 | 0.27416 | 50.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.74037 | 0.74037 | 0.200 | 0.66988 | 50.0 | Averaged | |
| Chloroprene | 0.17001 | 0.16600 | 0.16600 | 0.100 | 2.35763 | 50.0 | Averaged | |
| 2-Butanone | 100 | 105 | 0.15695 | 0.100 | -5.30296 | 50.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.38024 | 0.38024 | 0.100 | -7.39903 | 50.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.61886 | 0.61886 | 0.100 | 2.21067 | 50.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.50503 | 0.50503 | 0.100 | 2.28889 | 50.0 | Averaged | |
| Chloroform | 0.83541 | 0.85432 | 0.85432 | 0.200 | -2.26317 | 50.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.26408 | 0.26408 | 0.100 | 6.68179 | 50.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 49.86951 | 0.47885 | 0.100 | 0.26097 | 50.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.74089 | 0.74089 | 0.100 | -11.77757 | 50.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.40205 | 0.40205 | 0.100 | -13.26124 | 50.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.43433 | 0.43433 | 0.100 | -6.02098 | 50.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.40734 | 0.40734 | 0.100 | -7.45914 | 50.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 54.20416 | 0.54958 | 0.100 | -8.40832 | 50.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426355

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 24-JAN-2023 1905
Lab File ID X012433.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.18956 | 1.18956 | 0.500 | 0.37087 | 50.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.36140 | 0.36140 | 0.200 | -6.71707 | 50.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.43377 | 0.43377 | 0.200 | 3.19673 | 50.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.39866 | 0.39866 | 0.100 | -16.93538 | 50.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.13925 | 0.13925 | 0.001 | -9.22960 | 50.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.30487 | 0.30487 | 0.100 | 4.00990 | 50.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.14417 | 0.14417 | 0.000 | -14.18583 | 50.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.20762 | 0.20762 | 0.100 | 3.82665 | 50.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.27449 | 0.27449 | 0.100 | -2.70870 | 50.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.51722 | 0.51722 | 0.200 | 1.71626 | 50.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.19404 | 1.19404 | 0.100 | 3.35833 | 50.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.25638 | 0.25638 | 0.100 | -8.88994 | 50.0 | Averaged | |
| Toluene | 1.38201 | 1.38367 | 1.38367 | 0.400 | -0.11953 | 50.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.44637 | 0.44637 | 0.100 | -2.20819 | 50.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.19178 | 0.19178 | 0.100 | -5.47393 | 50.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.26245 | 0.26245 | 0.100 | 5.34071 | 50.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.52759 | 0.52759 | 0.100 | 3.32336 | 50.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.38615 | 0.38615 | 0.100 | 3.50141 | 50.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.30755 | 0.30755 | 0.200 | -7.55720 | 50.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.34155 | 0.34155 | 0.100 | 1.47091 | 50.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.28221 | 0.28221 | 0.100 | -16.79346 | 50.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.94171 | 0.94171 | 0.500 | 3.93259 | 50.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.36005 | 0.36005 | 0.100 | 1.30184 | 50.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.49252 | 0.49252 | 0.100 | -6.66381 | 50.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.62084 | 0.62084 | 0.100 | -4.29909 | 50.0 | Averaged | |
| o-Xylene | 0.58751 | 0.59325 | 0.59325 | 0.300 | -0.97727 | 50.0 | Averaged | |
| Styrene | 0.98473 | 1.02837 | 1.02837 | 0.300 | -4.43166 | 50.0 | Averaged | |
| Bromoform | 0.27722 | 0.26961 | 0.26961 | 0.100 | 2.74681 | 50.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.55110 | 1.55110 | 0.100 | -15.56075 | 50.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.71408 | 0.71408 | 0.300 | 10.39606 | 50.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 50.80001 | 0.46922 | 0.100 | -1.60002 | 50.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.78918 | 0.78918 | 0.100 | -41.84810 | 50.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11160 | 0.11160 | 0.050 | -3.39650 | 50.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.12247 | 3.12247 | 0.100 | -12.74261 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426355

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 24-JAN-2023 1905
Lab File ID X012433.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.78323 | 0.78323 | 0.100 | 4.52243 | 50.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.29698 | 2.29698 | 0.100 | -12.26916 | 50.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 1.89793 | 1.89793 | 0.100 | -4.43056 | 50.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.22504 | 2.22504 | 0.100 | -7.39496 | 50.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 1.92910 | 1.92910 | 0.100 | -15.18700 | 50.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.31173 | 2.31173 | 0.100 | -7.38425 | 50.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.70982 | 2.70982 | 0.100 | -21.60857 | 50.0 | Averaged | |
| p-Isopropyltoluene | 1.99679 | 2.39627 | 2.39627 | 0.100 | -20.00646 | 50.0 | Averaged | |
| 1,3-Dichlorobenzene | 1.36155 | 1.38856 | 1.38856 | 0.600 | -1.98339 | 50.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.46983 | 1.46983 | 0.400 | 1.07223 | 50.0 | Averaged | |
| Benzyl Chloride | 50.0 | 38.96922 | 0.60000 | 0.010 | 22.06156 | 50.0 | Linear | |
| n-Butylbenzene | 50.0 | 54.53251 | 2.10527 | 0.500 | -9.06503 | 50.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.39341 | 1.39341 | 0.400 | 0.63050 | 50.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 48.73652 | 0.12418 | 0.040 | 2.52697 | 50.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 0.97030 | 0.97030 | 0.100 | -9.64490 | 50.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 54.33295 | 0.42660 | 0.100 | -8.66589 | 50.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.11971 | 2.11971 | 0.200 | -5.27688 | 50.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.90268 | 0.90268 | 0.010 | -6.50485 | 50.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.24138 | 0.24138 | 0.100 | -7.28376 | 50.0 | Averaged | |
| Freon TF | 0.36703 | 0.39662 | 0.39662 | 0.100 | -8.06055 | 50.0 | Averaged | |
| Cyclohexane | 50.0 | 60.20402 | 0.60951 | 0.100 | -20.40805 | 50.0 | Linear | |
| Tetrahydrofuran | 100 | 107 | 0.06666 | 0.001 | -7.46791 | 50.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.73485 | 0.73485 | 0.100 | -20.06496 | 50.0 | Averaged | |
| 1,4-Dioxane | 0.00457 | 0.00541 | 0.00541 | 0.001 | -18.41020 | 50.0 | Averaged | |
| n-Butanol | 1000 | 1056 | 0.00679 | 0.005 | -5.58483 | 50.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.46148 | 0.46148 | 0.100 | -35.94624 | 50.0 | Averaged | |
| Ethyl Acrylate | 50.0 | 57.83779 | 1.13908 | 0.100 | -15.67558 | 50.0 | Linear | |
| n-Hexane | 0.36001 | 0.40991 | 0.40991 | 0.100 | -13.86200 | 50.0 | Averaged | |
| Diethyl ether | 0.33409 | 0.31236 | 0.31236 | 0.100 | 6.50394 | 50.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03851 | 0.03851 | 0.005 | -11.22766 | 50.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02083 | 0.02083 | 0.005 | -15.18430 | 50.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.37638 | 1.37638 | 0.100 | -6.11674 | 50.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 0.99426 | 0.99426 | 0.100 | -2.49348 | 50.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.55834 | 2.55834 | 0.100 | -6.25425 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426355

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 24-JAN-2023 1905
Lab File ID X012433.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 1080 | 0.00352 | 0.001 | -8.01081 | 50.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.29963 | 0.29963 | 0.100 | -12.93457 | 50.0 | Averaged | |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02575 | 0.02575 | 0.005 | -8.83588 | 50.0 | Averaged | |
| tert-Amyl methyl ether | 1.44127 | 1.50899 | 1.50899 | 0.005 | -4.69854 | 50.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.44124 | 1.44124 | 0.100 | -4.57222 | 50.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.02996 | 0.02996 | 0.005 | -11.58048 | 50.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.04725 | 0.04725 | 0.005 | 0.16450 | 50.0 | Averaged | |
| 1-Methylnaphthalene | ++++ | 0.99426 | 0.99426 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.32793 | 0.32793 | 0.100 | 4.43746 | 50.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00536 | 0.00536 | 0.005 | -8.32029 | 50.0 | Averaged | |
| Dichlorofluoromethane | 0.06474 | 0.06574 | 0.06574 | 0.100 | -1.53841 | 50.0 | Averaged | |
| Propylene oxide | 0.03144 | 0.03068 | 0.03068 | 0.005 | 2.42736 | 50.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00546 | 0.00546 | 0.005 | -10.44766 | 50.0 | Averaged | |
| Butyl acrylate | 0.65314 | 0.70970 | 0.70970 | 0.100 | -8.66014 | 50.0 | Averaged | |
| Epichlorohydrin | 200 | 211 | 0.02364 | 0.001 | -5.50350 | 50.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.46865 | 0.46865 | 0.200 | 0.45308 | 50.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.58878 | 0.58878 | 0.100 | -4.04357 | 50.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.08841 | 1.08841 | 0.100 | 1.75630 | 50.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.41815 | 0.41815 | 0.100 | -7.17357 | 50.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.02491 | 0.02491 | 0.005 | -19.43320 | 50.0 | Averaged | |
| Isoprene | 0.13320 | 0.14475 | 0.14475 | 0.100 | -8.66806 | 50.0 | Averaged | |
| Isopentane | ++++ | 0.25846 | 0.25846 | 0.100 | ++++ | 50.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.82319 | 0.82319 | 0.100 | -5.96915 | 50.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.57571 | 0.57571 | 0.100 | 1.25623 | 50.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.48161 | 0.48161 | 0.100 | -12.12905 | 50.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02050 | 0.02050 | 0.004 | -11.52303 | 50.0 | Averaged | |
| Acetaldehyde | 200 | 255 | 0.03953 | 0.001 | -27.68724 | 50.0 | Linear | |
| Methyl Amyl Ketone | 0.66478 | 0.69860 | 0.69860 | 0.100 | -5.08739 | 50.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.69265 | 0.69265 | 0.100 | -2.35634 | 50.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00041 | 0.00041 | 0.001 | ++++ | 50.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 3.846e+67 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00795 | 0.00795 | 0.005 | 2.74312 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426481

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 25-JAN-2023 0739
Lab File ID X012502.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 42.94017 | 0.29994 | 0.100 | 14.11967 | 20.0 | Linear | |
| Chloromethane | 50.0 | 43.94037 | 0.39502 | 0.100 | 12.11927 | 20.0 | Linear | |
| Propionitrile | 0.05102 | 0.05054 | 0.05054 | 0.010 | 0.94574 | 20.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.40969 | 0.40969 | 0.100 | 6.20259 | 20.0 | Averaged | |
| Bromomethane | 50.0 | 42.55394 | 0.27936 | 0.100 | 14.89212 | 20.0 | Linear | |
| Chloroethane | 0.30401 | 0.26660 | 0.26660 | 0.100 | 12.30500 | 20.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.66633 | 0.66633 | 0.100 | -9.01551 | 20.0 | Averaged | |
| Acrolein | 100 | 96.94529 | 0.03312 | 0.010 | 3.05471 | 20.0 | Linear | |
| Acetone | 100 | 93.98292 | 0.13186 | 0.100 | 6.01708 | 20.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.37087 | 0.37087 | 0.100 | 2.26928 | 20.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06049 | 0.06049 | 0.005 | -7.56610 | 20.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.05056 | 0.05056 | 0.005 | -11.10759 | 20.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.87296 | 0.87296 | 0.100 | -0.72299 | 20.0 | Averaged | |
| Iodomethane | 100 | 97.52577 | 0.48681 | 0.100 | 2.47423 | 20.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.13624 | 0.13624 | 0.050 | -5.85506 | 20.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.46108 | 0.46108 | 0.100 | 11.41993 | 20.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.20628 | 1.20628 | 0.100 | 2.88453 | 20.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.00276 | 1.00276 | 0.100 | -0.99816 | 20.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.42585 | 0.42585 | 0.100 | -0.27020 | 20.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.16994 | 1.16994 | 0.010 | -7.29743 | 20.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.72542 | 0.72542 | 0.200 | 2.67573 | 20.0 | Averaged | |
| Chloroprene | 0.17001 | 0.16191 | 0.16191 | 0.100 | 4.76104 | 20.0 | Averaged | |
| 2-Butanone | 100 | 102 | 0.15201 | 0.100 | -2.08341 | 20.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.35218 | 0.35218 | 0.100 | 0.52474 | 20.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.69770 | 0.69770 | 0.100 | -10.24635 | 20.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.49013 | 0.49013 | 0.100 | 5.17118 | 20.0 | Averaged | |
| Chloroform | 0.83541 | 0.83191 | 0.83191 | 0.200 | 0.41905 | 20.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.25354 | 0.25354 | 0.100 | 10.40840 | 20.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 48.88030 | 0.46938 | 0.100 | 2.23939 | 20.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.72976 | 0.72976 | 0.100 | -10.09786 | 20.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.41724 | 0.41724 | 0.100 | -17.54060 | 20.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.44375 | 0.44375 | 0.100 | -8.32039 | 20.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.42419 | 0.42419 | 0.100 | -11.90565 | 20.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 52.69913 | 0.53424 | 0.100 | -5.39826 | 20.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426481

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 25-JAN-2023 0739
Lab File ID X012502.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.22740 | 1.22740 | 0.500 | -2.79810 | 20.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.36324 | 0.36324 | 0.200 | -7.25914 | 20.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.44597 | 0.44597 | 0.200 | 0.47499 | 20.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.36494 | 0.36494 | 0.100 | -7.04448 | 20.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.14192 | 0.14192 | 0.001 | -11.32375 | 20.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.31157 | 0.31157 | 0.100 | 1.90004 | 20.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.13514 | 0.13514 | 0.000 | -7.02835 | 20.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.21030 | 0.21030 | 0.100 | 2.58559 | 20.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.27848 | 0.27848 | 0.100 | -4.20204 | 20.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.54533 | 0.54533 | 0.200 | -3.62519 | 20.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.22580 | 1.22580 | 0.100 | 0.78807 | 20.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.24336 | 0.24336 | 0.100 | -3.35899 | 20.0 | Averaged | |
| Toluene | 1.38201 | 1.41845 | 1.41845 | 0.400 | -2.63662 | 20.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.47263 | 0.47263 | 0.100 | -8.22138 | 20.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.19301 | 0.19301 | 0.100 | -6.14741 | 20.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.26668 | 0.26668 | 0.100 | 3.81508 | 20.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.54056 | 0.54056 | 0.100 | 0.94722 | 20.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.39502 | 0.39502 | 0.100 | 1.28443 | 20.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.32583 | 0.32583 | 0.200 | -13.94737 | 20.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.35049 | 0.35049 | 0.100 | -1.10808 | 20.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.28460 | 0.28460 | 0.100 | -17.78186 | 20.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.97639 | 0.97639 | 0.500 | 0.39464 | 20.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.37055 | 0.37055 | 0.100 | -1.57739 | 20.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.51103 | 0.51103 | 0.100 | -10.67167 | 20.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.64386 | 0.64386 | 0.100 | -8.16552 | 20.0 | Averaged | |
| o-Xylene | 0.58751 | 0.61350 | 0.61350 | 0.300 | -4.42356 | 20.0 | Averaged | |
| Styrene | 0.98473 | 1.06380 | 1.06380 | 0.300 | -8.02907 | 20.0 | Averaged | |
| Bromoform | 0.27722 | 0.27421 | 0.27421 | 0.100 | 1.08603 | 20.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.60202 | 1.60202 | 0.100 | -19.35461 | 20.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.75416 | 0.75416 | 0.300 | 5.36642 | 20.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 52.41920 | 0.48420 | 0.100 | -4.83841 | 20.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.57029 | 0.57029 | 0.100 | -2.50508 | 20.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11796 | 0.11796 | 0.050 | -9.28110 | 20.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.31463 | 3.31463 | 0.100 | -19.68095 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

RunID VOA6_426481

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 25-JAN-2023 0739
Lab File ID X012502.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.81789 | 0.81789 | 0.100 | 0.29660 | 20.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.40823 | 2.40823 | 0.100 | -17.70682 | 20.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 1.99939 | 1.99939 | 0.100 | -10.01276 | 20.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.33071 | 2.33071 | 0.100 | -12.49548 | 20.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 2.02737 | 2.02737 | 0.100 | -21.05485 | 20.0 | Averaged | <- |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.43774 | 2.43774 | 0.100 | -13.23748 | 20.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.88310 | 2.88310 | 0.100 | -29.38453 | 20.0 | Averaged | <- |
| p-Isopropyltoluene | 1.99679 | 2.55236 | 2.55236 | 0.100 | -27.82324 | 20.0 | Averaged | <- |
| 1,3-Dichlorobenzene | 1.36155 | 1.45687 | 1.45687 | 0.600 | -7.00077 | 20.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.54570 | 1.54570 | 0.400 | -4.03430 | 20.0 | Averaged | |
| Benzyl Chloride | 50.0 | 50.28936 | 0.78724 | 0.010 | -0.57872 | 20.0 | Linear | |
| n-Butylbenzene | 50.0 | 59.35307 | 2.29763 | 0.500 | -18.70615 | 20.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.43850 | 1.43850 | 0.400 | -2.58491 | 20.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 50.62783 | 0.12901 | 0.040 | -1.25566 | 20.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 1.04369 | 1.04369 | 0.100 | -17.93847 | 20.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 62.29313 | 0.48999 | 0.100 | -24.58626 | 20.0 | Quadratic | <- |
| Naphthalene | 2.01347 | 2.20027 | 2.20027 | 0.200 | -9.27753 | 20.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.93294 | 0.93294 | 0.010 | -10.07569 | 20.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.22497 | 0.22497 | 0.100 | 0.00627 | 20.0 | Averaged | |
| Freon TF | 0.36703 | 0.40197 | 0.40197 | 0.100 | -9.51882 | 20.0 | Averaged | |
| Cyclohexane | 50.0 | 59.69943 | 0.60429 | 0.100 | -19.39886 | 20.0 | Linear | |
| Tetrahydrofuran | 100 | 93.40801 | 0.05819 | 0.001 | 6.59199 | 20.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.72726 | 0.72726 | 0.100 | -18.82572 | 20.0 | Averaged | |
| 1,4-Dioxane | 0.00457 | 0.00494 | 0.00494 | 0.001 | -8.18125 | 20.0 | Averaged | |
| n-Butanol | 1000 | 1006 | 0.00644 | 0.005 | -0.60632 | 20.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.42900 | 0.42900 | 0.100 | -26.37960 | 20.0 | Averaged | <- |
| Ethyl Acrylate | 50.0 | 55.77932 | 1.09721 | 0.100 | -11.55865 | 20.0 | Linear | |
| n-Hexane | 0.36001 | 0.47714 | 0.47714 | 0.100 | -32.53734 | 20.0 | Averaged | <- |
| Diethyl ether | 0.33409 | 0.28575 | 0.28575 | 0.100 | 14.46830 | 20.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03645 | 0.03645 | 0.005 | -5.27078 | 20.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.01973 | 0.01973 | 0.005 | -9.11564 | 20.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.29126 | 1.29126 | 0.100 | 0.44617 | 20.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 1.02001 | 1.02001 | 0.100 | -5.14844 | 20.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.56385 | 2.56385 | 0.100 | -6.48314 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

RunID VOA6_426481

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 25-JAN-2023 0739
Lab File ID X012502.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 1007 | 0.00328 | 0.001 | -0.72838 | 20.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.28579 | 0.28579 | 0.100 | -7.71853 | 20.0 | Averaged | |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02494 | 0.02494 | 0.005 | -5.41990 | 20.0 | Averaged | |
| tert-Amyl methyl ether | 1.44127 | 1.39324 | 1.39324 | 0.005 | 3.33273 | 20.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.35600 | 1.35600 | 0.100 | 1.61264 | 20.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.02858 | 0.02858 | 0.005 | -6.42698 | 20.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.05008 | 0.05008 | 0.005 | -5.83268 | 20.0 | Averaged | |
| 1-Methylnaphthalene | ++++ | 1.02001 | 1.02001 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.33019 | 0.33019 | 0.100 | 3.78013 | 20.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00510 | 0.00510 | 0.005 | -3.05976 | 20.0 | Averaged | <- |
| Dichlorofluoromethane | 0.06474 | 0.05600 | 0.05600 | 0.100 | 13.49876 | 20.0 | Averaged | <- |
| Propylene oxide | 0.03144 | 0.02922 | 0.02922 | 0.005 | 7.06551 | 20.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00556 | 0.00556 | 0.005 | -12.51591 | 20.0 | Averaged | <- |
| Butyl acrylate | 0.65314 | 0.70132 | 0.70132 | 0.100 | -7.37756 | 20.0 | Averaged | |
| Epichlorohydrin | 200 | 211 | 0.02364 | 0.001 | -5.50467 | 20.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.45799 | 0.45799 | 0.200 | 2.71678 | 20.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.61132 | 0.61132 | 0.100 | -8.02675 | 20.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.14713 | 1.14713 | 0.100 | -3.54415 | 20.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.39139 | 0.39139 | 0.100 | -0.31559 | 20.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.02473 | 0.02473 | 0.005 | -18.55217 | 20.0 | Averaged | |
| Isoprene | 0.13320 | 0.13989 | 0.13989 | 0.100 | -5.02463 | 20.0 | Averaged | |
| Isopentane | ++++ | 0.26266 | 0.26266 | 0.100 | ++++ | 20.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.82473 | 0.82473 | 0.100 | -6.16825 | 20.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.59270 | 0.59270 | 0.100 | -1.65717 | 20.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.47919 | 0.47919 | 0.100 | -11.56593 | 20.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02386 | 0.02386 | 0.004 | -29.81474 | 20.0 | Averaged | <- |
| Acetaldehyde | 200 | 178 | 0.02854 | 0.001 | 11.04492 | 20.0 | Linear | |
| Methyl Amyl Ketone | 0.66478 | 0.68236 | 0.68236 | 0.100 | -2.64571 | 20.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.67380 | 0.67380 | 0.100 | 0.42870 | 20.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00048 | 0.00048 | 0.001 | ++++ | 20.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 5.923e+59 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00751 | 0.00751 | 0.005 | 8.09206 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426481

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 25-JAN-2023 1500
Lab File ID X012522.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 42.55407 | 0.29721 | 0.100 | 14.89187 | 50.0 | Linear | |
| Chloromethane | 50.0 | 43.51269 | 0.39097 | 0.100 | 12.97461 | 50.0 | Linear | |
| Propionitrile | 0.05102 | 0.05154 | 0.05154 | 0.010 | -1.01486 | 50.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.41405 | 0.41405 | 0.100 | 5.20455 | 50.0 | Averaged | |
| Bromomethane | 50.0 | 45.74369 | 0.30121 | 0.100 | 8.51262 | 50.0 | Linear | |
| Chloroethane | 0.30401 | 0.26717 | 0.26717 | 0.100 | 12.11669 | 50.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.64252 | 0.64252 | 0.100 | -5.11971 | 50.0 | Averaged | |
| Acrolein | 100 | 88.92443 | 0.03030 | 0.010 | 11.07557 | 50.0 | Linear | |
| Acetone | 100 | 88.00826 | 0.12348 | 0.100 | 11.99174 | 50.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.35954 | 0.35954 | 0.100 | 5.25320 | 50.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06200 | 0.06200 | 0.005 | -10.24009 | 50.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.04867 | 0.04867 | 0.005 | -6.95600 | 50.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.86616 | 0.86616 | 0.100 | 0.06154 | 50.0 | Averaged | |
| Iodomethane | 100 | 91.44282 | 0.45415 | 0.100 | 8.55718 | 50.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.13711 | 0.13711 | 0.050 | -6.53054 | 50.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.46701 | 0.46701 | 0.100 | 10.27922 | 50.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.20402 | 1.20402 | 0.100 | 3.06655 | 50.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 0.97715 | 0.97715 | 0.100 | 1.58154 | 50.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.41492 | 0.41492 | 0.100 | 2.30352 | 50.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.11169 | 1.11169 | 0.010 | -1.95572 | 50.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.70676 | 0.70676 | 0.200 | 5.17866 | 50.0 | Averaged | |
| Chloroprene | 0.17001 | 0.15715 | 0.15715 | 0.100 | 7.56348 | 50.0 | Averaged | |
| 2-Butanone | 100 | 100 | 0.14873 | 0.100 | 0.05435 | 50.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.36464 | 0.36464 | 0.100 | -2.99202 | 50.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.63147 | 0.63147 | 0.100 | 0.21835 | 50.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.47542 | 0.47542 | 0.100 | 8.01745 | 50.0 | Averaged | |
| Chloroform | 0.83541 | 0.81347 | 0.81347 | 0.200 | 2.62691 | 50.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.25373 | 0.25373 | 0.100 | 10.33897 | 50.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 47.28488 | 0.45411 | 0.100 | 5.43024 | 50.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.72268 | 0.72268 | 0.100 | -9.02950 | 50.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.41299 | 0.41299 | 0.100 | -16.34412 | 50.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.43354 | 0.43354 | 0.100 | -5.82775 | 50.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.40990 | 0.40990 | 0.100 | -8.13415 | 50.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 52.07942 | 0.52793 | 0.100 | -4.15885 | 50.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426481

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 25-JAN-2023 1500
Lab File ID X012522.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.21073 | 1.21073 | 0.500 | -1.40210 | 50.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.35917 | 0.35917 | 0.200 | -6.05906 | 50.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.44150 | 0.44150 | 0.200 | 1.47104 | 50.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.37488 | 0.37488 | 0.100 | -9.95795 | 50.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.14171 | 0.14171 | 0.001 | -11.16356 | 50.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.30613 | 0.30613 | 0.100 | 3.61324 | 50.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.13481 | 0.13481 | 0.000 | -6.76700 | 50.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.20618 | 0.20618 | 0.100 | 4.49382 | 50.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.28037 | 0.28037 | 0.100 | -4.90854 | 50.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.52717 | 0.52717 | 0.200 | -0.17453 | 50.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.19389 | 1.19389 | 0.100 | 3.37052 | 50.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.25534 | 0.25534 | 0.100 | -8.44544 | 50.0 | Averaged | |
| Toluene | 1.38201 | 1.40751 | 1.40751 | 0.400 | -1.84490 | 50.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.45573 | 0.45573 | 0.100 | -4.35116 | 50.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.19478 | 0.19478 | 0.100 | -7.12446 | 50.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.26499 | 0.26499 | 0.100 | 4.42505 | 50.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.53112 | 0.53112 | 0.100 | 2.67686 | 50.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.39207 | 0.39207 | 0.100 | 2.02053 | 50.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.31766 | 0.31766 | 0.200 | -11.09334 | 50.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.34891 | 0.34891 | 0.100 | -0.65024 | 50.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.30084 | 0.30084 | 0.100 | -24.50223 | 50.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.96409 | 0.96409 | 0.500 | 1.64941 | 50.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.36867 | 0.36867 | 0.100 | -1.06044 | 50.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.49914 | 0.49914 | 0.100 | -8.09753 | 50.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.63668 | 0.63668 | 0.100 | -6.96059 | 50.0 | Averaged | |
| o-Xylene | 0.58751 | 0.60433 | 0.60433 | 0.300 | -2.86410 | 50.0 | Averaged | |
| Styrene | 0.98473 | 1.04640 | 1.04640 | 0.300 | -6.26203 | 50.0 | Averaged | |
| Bromoform | 0.27722 | 0.27482 | 0.27482 | 0.100 | 0.86545 | 50.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.58513 | 1.58513 | 0.100 | -18.09591 | 50.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.73487 | 0.73487 | 0.300 | 7.78753 | 50.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 50.99162 | 0.47100 | 0.100 | -1.98325 | 50.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.81153 | 0.81153 | 0.100 | -45.86546 | 50.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11652 | 0.11652 | 0.050 | -7.95382 | 50.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.19533 | 3.19533 | 0.100 | -15.37322 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

RunID VOA6_426481

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 25-JAN-2023 1500
Lab File ID X012522.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.79943 | 0.79943 | 0.100 | 2.54710 | 50.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.33869 | 2.33869 | 0.100 | -14.30786 | 50.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 1.92649 | 1.92649 | 0.100 | -6.00190 | 50.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.26708 | 2.26708 | 0.100 | -9.42434 | 50.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 1.97537 | 1.97537 | 0.100 | -17.95030 | 50.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.35788 | 2.35788 | 0.100 | -9.52788 | 50.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.78791 | 2.78791 | 0.100 | -25.11301 | 50.0 | Averaged | |
| p-Isopropyltoluene | 1.99679 | 2.46875 | 2.46875 | 0.100 | -23.63640 | 50.0 | Averaged | |
| 1,3-Dichlorobenzene | 1.36155 | 1.42075 | 1.42075 | 0.600 | -4.34804 | 50.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.48497 | 1.48497 | 0.400 | 0.05340 | 50.0 | Averaged | |
| Benzyl Chloride | 50.0 | 44.33656 | 0.68878 | 0.010 | 11.32689 | 50.0 | Linear | |
| n-Butylbenzene | 50.0 | 56.35085 | 2.17783 | 0.500 | -12.70169 | 50.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.40978 | 1.40978 | 0.400 | -0.53664 | 50.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 50.63512 | 0.12903 | 0.040 | -1.27024 | 50.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 0.99778 | 0.99778 | 0.100 | -12.75082 | 50.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 57.37873 | 0.45083 | 0.100 | -14.75745 | 50.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.18456 | 2.18456 | 0.200 | -8.49754 | 50.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.90862 | 0.90862 | 0.010 | -7.20535 | 50.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.23243 | 0.23243 | 0.100 | -3.30837 | 50.0 | Averaged | |
| Freon TF | 0.36703 | 0.38104 | 0.38104 | 0.100 | -3.81573 | 50.0 | Averaged | |
| Cyclohexane | 50.0 | 58.82577 | 0.59526 | 0.100 | -17.65155 | 50.0 | Linear | |
| Tetrahydrofuran | 100 | 95.64069 | 0.05953 | 0.001 | 4.35931 | 50.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.73804 | 0.73804 | 0.100 | -20.58657 | 50.0 | Averaged | |
| 1,4-Dioxane | 0.00457 | 0.00495 | 0.00495 | 0.001 | -8.31484 | 50.0 | Averaged | |
| n-Butanol | 1000 | 1013 | 0.00649 | 0.005 | -1.31806 | 50.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.43501 | 0.43501 | 0.100 | -28.15027 | 50.0 | Averaged | |
| Ethyl Acrylate | 50.0 | 55.93940 | 1.10047 | 0.100 | -11.87880 | 50.0 | Linear | |
| n-Hexane | 0.36001 | 0.43980 | 0.43980 | 0.100 | -22.16460 | 50.0 | Averaged | |
| Diethyl ether | 0.33409 | 0.28594 | 0.28594 | 0.100 | 14.41256 | 50.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03810 | 0.03810 | 0.005 | -10.04850 | 50.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02053 | 0.02053 | 0.005 | -13.56394 | 50.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.29060 | 1.29060 | 0.100 | 0.49717 | 50.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 0.99379 | 0.99379 | 0.100 | -2.44523 | 50.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.49497 | 2.49497 | 0.100 | -3.62205 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23010991

**RunID** VOA6_426481

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 25-JAN-2023 1500
Lab File ID X012522.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 1067 | 0.00347 | 0.001 | -6.69503 | 50.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.29803 | 0.29803 | 0.100 | -12.32887 | 50.0 | Averaged | |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02457 | 0.02457 | 0.005 | -3.87142 | 50.0 | Averaged | |
| tert-Amyl methyl ether | 1.44127 | 1.41184 | 1.41184 | 0.005 | 2.04190 | 50.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.35617 | 1.35617 | 0.100 | 1.60071 | 50.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.02980 | 0.02980 | 0.005 | -10.98204 | 50.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.05125 | 0.05125 | 0.005 | -8.30006 | 50.0 | Averaged | |
| 1-Methylnaphthalene | ++++ | 0.99379 | 0.99379 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.31601 | 0.31601 | 0.100 | 7.91020 | 50.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00534 | 0.00534 | 0.005 | -7.90640 | 50.0 | Averaged | |
| Dichlorofluoromethane | 0.06474 | 0.05780 | 0.05780 | 0.100 | 10.71467 | 50.0 | Averaged | |
| Propylene oxide | 0.03144 | 0.02982 | 0.02982 | 0.005 | 5.14355 | 50.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00558 | 0.00558 | 0.005 | -12.88255 | 50.0 | Averaged | |
| Butyl acrylate | 0.65314 | 0.69339 | 0.69339 | 0.100 | -6.16285 | 50.0 | Averaged | |
| Epichlorohydrin | 200 | 216 | 0.02425 | 0.001 | -8.18238 | 50.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.44517 | 0.44517 | 0.200 | 5.44010 | 50.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.60790 | 0.60790 | 0.100 | -7.42221 | 50.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.11388 | 1.11388 | 0.100 | -0.54279 | 50.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.42840 | 0.42840 | 0.100 | -9.80120 | 50.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.02306 | 0.02306 | 0.005 | -10.57111 | 50.0 | Averaged | |
| Isoprene | 0.13320 | 0.13818 | 0.13818 | 0.100 | -3.73648 | 50.0 | Averaged | |
| Isopentane | ++++ | 0.24298 | 0.24298 | 0.100 | ++++ | 50.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.83340 | 0.83340 | 0.100 | -7.28345 | 50.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.58946 | 0.58946 | 0.100 | -1.10206 | 50.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.48167 | 0.48167 | 0.100 | -12.14347 | 50.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02199 | 0.02199 | 0.004 | -19.65508 | 50.0 | Averaged | |
| Acetaldehyde | 200 | 210 | 0.03307 | 0.001 | -4.93122 | 50.0 | Linear | |
| Methyl Amyl Ketone | 0.66478 | 0.67365 | 0.67365 | 0.100 | -1.33472 | 50.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.66883 | 0.66883 | 0.100 | 1.16367 | 50.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00038 | 0.00038 | 0.001 | ++++ | 50.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 5.923e+59 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00742 | 0.00742 | 0.005 | 9.14792 | 50.0 | Averaged | |

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Form 8

# Internal Standard Area and RT Summary

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 8 - Internal Standard Area and RT Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426320

| | | IS1 | | | | IS2 | | | | IS3 | | | | IS4 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | File ID | Area | | RT | | Area | | RT | | Area | | RT | | Area | | RT | |
| 12-HOUR STD (CCV) | X012303 | 516521 | # | 4.17 | # | 773798 | # | 4.97 | # | 739557 | # | 7.67 | # | 423283 | # | 9.66 | # |
| CCB | X012304 | 581391 | | 4.18 | | 834048 | | 4.96 | | 751359 | | 7.67 | | 387886 | | 9.66 | |
| VLCSW-233120 | X012305 | 497251 | | 4.18 | | 752142 | | 4.96 | | 718965 | | 7.67 | | 409890 | | 9.66 | |
| VBLKW-230123 | X012307 | 570496 | | 4.18 | | 819696 | | 4.96 | | 736361 | | 7.67 | | 383647 | | 9.66 | |
| ZZZZZZMS | X012319 | 572145 | | 4.18 | | 812038 | | 4.96 | | 736303 | | 7.67 | | 406015 | | 9.66 | |
| ZZZZZZMSD | X012320 | 575104 | | 4.17 | | 829960 | | 4.97 | | 757057 | | 7.67 | | 419641 | | 9.66 | |
| HS23010991-02 | X012326 | 578306 | | 4.17 | | 824111 | | 4.96 | | 730433 | | 7.67 | | 361641 | | 9.66 | |
| CCV-END | X012331 | 481163 | | 4.18 | | 752129 | | 4.97 | | 728521 | | 7.67 | | 426275 | | 9.66 | |

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

# - Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

# Form 8 - Internal Standard Area and RT Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426355

| | | IS1 | | | | IS2 | | | | IS3 | | | | IS4 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | File ID | Area | | RT | | Area | | RT | | Area | | RT | | Area | | RT | |
| 12-HOUR STD (CCV) | X012402 | 507505 | # | 4.18 | # | 766430 | # | 4.96 | # | 736604 | # | 7.67 | # | 425473 | # | 9.66 | # |
| VLCSW-230124 | X012404 | 506288 | | 4.18 | | 768279 | | 4.97 | | 730061 | | 7.67 | | 416844 | | 9.66 | |
| VBLKW-230124 | X012406 | 599102 | | 4.17 | | 853587 | | 4.97 | | 761276 | | 7.67 | | 394519 | | 9.66 | |
| ZZZZZZMS | X012410 | 607736 | | 4.17 | | 875321 | | 4.97 | | 808850 | | 7.67 | | 449514 | | 9.66 | |
| ZZZZZZMSD | X012411 | 616157 | | 4.18 | | 883093 | | 4.96 | | 815509 | | 7.67 | | 448260 | | 9.66 | |
| HS23010991-01 | X012425 | 569275 | | 4.17 | | 818311 | | 4.96 | | 734264 | | 7.67 | | 381164 | | 9.66 | |
| ZZZZZZMS | X012431 | 609595 | | 4.18 | | 862181 | | 4.96 | | 792242 | | 7.67 | | 441556 | | 9.66 | |
| ZZZZZZMSD | X012432 | 615830 | | 4.17 | | 871402 | | 4.97 | | 797088 | | 7.67 | | 441078 | | 9.66 | |
| CCV-END | X012433 | 503782 | | 4.18 | | 780908 | | 4.96 | | 751713 | | 7.67 | | 437932 | | 9.66 | |

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

# - Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

# Form 8 - Internal Standard Area and RT Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

RunID
VOA6_426481

| | | IS1 | | | | IS2 | | | | IS3 | | | | IS4 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | File ID | Area | | RT | | Area | | RT | | Area | | RT | | Area | | RT | |
| 12-HOUR STD (CCV) | X012502 | 518521 | # | 4.18 | # | 760669 | # | 4.96 | # | 733760 | # | 7.67 | # | 423046 | # | 9.66 | # |
| VLCSW-230125 | X012504 | 500560 | | 4.17 | | 748036 | | 4.96 | | 704985 | | 7.67 | | 403871 | | 9.66 | |
| VBLKW-230125 | X012506 | 637607 | | 4.17 | | 893865 | | 4.96 | | 802467 | | 7.67 | | 420093 | | 9.66 | |
| ZZZZZZMS | X012509 | 626410 | | 4.17 | | 872602 | | 4.96 | | 797697 | | 7.67 | | 445771 | | 9.66 | |
| ZZZZZZMSD | X012510 | 632455 | | 4.18 | | 884706 | | 4.96 | | 806161 | | 7.67 | | 440623 | | 9.66 | |
| HS23010991-01 | X012518 | 628487 | | 4.18 | | 886806 | | 4.96 | | 799349 | | 7.67 | | 414897 | | 9.66 | |
| CCV-END | X012522 | 525517 | | 4.17 | | 783584 | | 4.96 | | 761044 | | 7.67 | | 443732 | | 9.66 | |

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

# - Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

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# Analysis Run Log

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# MSVOA06 -Logbook

**Batch:** 52417 **Analyst:** Presenta Cabascango

**Date:** 12-16-2022 **Reviewer:**

**Method:** 8260 **Laboratory:** Houston

**Comments:**

| # | Samp ID | Type | Analyzed | DF | Init Wt/Vol | Final Vol | File ID | Matrix | Status | pH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BFB | TUNE | 12-16-2022 11:17 am | 1.00 | 50 mL | 50 mL | X121601.D | Liquid | Y | NA |
| 2 | VSTD000.25 | ICAL1 | 12-16-2022 11:38 am | 1.00 | 50 mL | 50 mL | X121602.D | Liquid | Y | NA |
| 3 | VSTD000.5 | ICAL2 | 12-16-2022 12:20 pm | 1.00 | 50 mL | 50 mL | X121603.D | Liquid | Y | NA |
| 4 | VSTD001 | ICAL3 | 12-16-2022 12:41 pm | 1.00 | 50 mL | 50 mL | X121604.D | Liquid | Y | NA |
| 5 | VSTD002 | ICAL4 | 12-16-2022 01:02 pm | 1.00 | 50 mL | 50 mL | X121605.D | Liquid | Y | NA |
| 6 | VSTD005 | ICAL5 | 12-16-2022 01:23 pm | 1.00 | 50 mL | 50 mL | X121606.D | Liquid | Y | NA |
| 7 | VSTD020 | ICAL6 | 12-16-2022 01:43 pm | 1.00 | 50 mL | 50 mL | X121607.D | Liquid | Y | NA |
| 8 | VSTD050 | ICAL7 | 12-16-2022 02:04 pm | 1.00 | 50 mL | 50 mL | X121608.D | Liquid | Y | NA |
| 9 | VSTD100 | ICAL8 | 12-16-2022 02:25 pm | 1.00 | 50 mL | 50 mL | X121609.D | Liquid | Y | NA |
| 10 | VSTD150 | ICAL9 | 12-16-2022 02:46 pm | 1.00 | 50 mL | 50 mL | X121610.D | Liquid | Y | NA |
| 11 | VSTD200 | ICAL | 12-16-2022 03:07 pm | 1.00 | 50 mL | 50 mL | X121611.D | Liquid | Y | NA |
| 12 | BLANK | SAMP | 12-16-2022 03:28 pm | 1.00 | 50 mL | 50 mL | X121612.D | Liquid | Y | NA |
| 13 | CCV | CCV | 12-16-2022 03:49 pm | 1.00 | 50 mL | 50 mL | X121613.D | Liquid | Y | NA |
| 14 | BLANK | SAMP | 12-16-2022 04:10 pm | 1.00 | 50 mL | 50 mL | X121614.D | Liquid | Y | NA |
| 15 | CCB | SAMP | 12-16-2022 04:31 pm | 1.00 | 50 mL | 50 mL | X121615.D | Liquid | Y | NA |
| 16 | VLCSW-221216 | LCS | 12-16-2022 04:52 pm | 1.00 | 50 mL | 50 mL | X121616.D | Liquid | Y | NA |
| 17 | BLANK | SAMP | 12-16-2022 05:13 pm | 1.00 | 50 mL | 50 mL | X121617.D | Liquid | Y | NA |
| 18 | VBLKW-221216 | MBLK | 12-16-2022 05:34 pm | 1.00 | 50 mL | 50 mL | X121618.D | Liquid | Y | NA |
| 19 | HS22120648-05 | SAMP | 12-16-2022 05:55 pm | 1.00 | 50 mL | 50 mL | X121619.D | Liquid | Y | NA |
| 20 | HS22120648-09 | SAMP | 12-16-2022 06:16 pm | 1.00 | 50 mL | 50 mL | X121620.D | Liquid | Y | NA |
| 21 | HS22120648-01 | SAMP | 12-16-2022 06:37 pm | 1.00 | 50 mL | 50 mL | X121621.D | Liquid | Y | NA |
| 22 | HS22120648-02 | SAMP | 12-16-2022 06:58 pm | 1.00 | 50 mL | 50 mL | X121622.D | Liquid | Y | NA |
| 23 | HS22120648-03 | SAMP | 12-16-2022 07:19 pm | 1.00 | 50 mL | 50 mL | X121623.D | Liquid | Y | NA |
| 24 | HS22120648-04 | SAMP | 12-16-2022 07:40 pm | 1.00 | 50 mL | 50 mL | X121624.D | Liquid | Y | NA |
| 25 | HS22120648-06 | SAMP | 12-16-2022 08:01 pm | 1.00 | 50 mL | 50 mL | X121625.D | Liquid | Y | NA |
| 26 | HS22120648-07 | SAMP | 12-16-2022 08:22 pm | 1.00 | 50 mL | 50 mL | X121626.D | Liquid | Y | NA |
| 27 | HS22120648-08 | SAMP | 12-16-2022 08:43 pm | 1.00 | 50 mL | 50 mL | X121627.D | Liquid | Y | NA |
| 28 | HS22120648-06MS | MS | 12-16-2022 09:04 pm | 1.00 | 50 mL | 50 mL | X121628.D | Liquid | Y | NA |
| 29 | HS22120648-06MSD | MSD | 12-16-2022 09:25 pm | 1.00 | 50 mL | 50 mL | X121629.D | Liquid | Y | NA |
| 30 | CCV-END | CCV | 12-16-2022 09:46 pm | 1.00 | 50 mL | 50 mL | X121630.D | Liquid | Y | NA |
| 31 | BFB | TUNE | 12-16-2022 10:07 pm | 1.00 | 50 mL | 50 mL | Y121601.D | Liquid | Y | NA |
| 32 | CCV | CCV | 12-16-2022 10:28 pm | 1.00 | 50 mL | 50 mL | Y121602a.D | Liquid | Y | NA |
| 33 | CCV | CCV | 12-16-2022 10:49 pm | 1.00 | 50 mL | 50 mL | Y121603.D | Liquid | Y | NA |
| 34 | CCB | SAMP | 12-16-2022 11:10 pm | 1.00 | 50 mL | 50 mL | Y121604.D | Liquid | Y | NA |
| 35 | VLCSW-221215 | LCS | 12-16-2022 11:31 pm | 1.00 | 50 mL | 50 mL | Y121605.D | Liquid | Y | NA |
| 36 | BLANK | SAMP | 12-16-2022 11:52 pm | 1.00 | 50 mL | 50 mL | Y121606.D | Liquid | Y | NA |
| 37 | VBLKW-221215 | MBLK | 12-17-2022 12:13 am | 1.00 | 50 mL | 50 mL | Y121607.D | Liquid | Y | NA |
| 38 | HS22120974-13 | SAMP | 12-17-2022 12:34 am | 1.00 | 50 mL | 50 mL | Y121608.D | Liquid | Y | NA |
| 39 | HS22120974-01 | SAMP | 12-17-2022 12:55 am | 1.00 | 50 mL | 50 mL | Y121609.D | Liquid | Y | NA |
| 40 | HS22120974-01MS | MS | 12-17-2022 01:16 am | 1.00 | 50 mL | 50 mL | Y121610.D | Liquid | Y | NA |
| 41 | HS22120974-01MSD | MSD | 12-17-2022 01:38 am | 1.00 | 50 mL | 50 mL | Y121611.D | Liquid | Y | NA |

# MSVOA06 -Logbook

| # | Samp ID | Type | Analyzed | DF | Init Wt/Vol | Final Vol | File ID | Matrix | Status | pH |
|---|---|---|---|---|---|---|---|---|---|---|
| 42 | BLANK | SAMP | 12-17-2022 01:59 am | 1.00 | 50 mL | 50 mL | Y121612.D | Liquid | Y | NA |
| 43 | HS22120974-02 | SAMP | 12-17-2022 02:20 am | 1.00 | 50 mL | 50 mL | Y121613.D | Liquid | Y | NA |
| 44 | HS22120974-03 | SAMP | 12-17-2022 02:41 am | 1.00 | 50 mL | 50 mL | Y121614.D | Liquid | Y | NA |
| 45 | HS22120974-04 | SAMP | 12-17-2022 03:02 am | 1.00 | 50 mL | 50 mL | Y121615.D | Liquid | Y | NA |
| 46 | HS22120974-05 | SAMP | 12-17-2022 03:23 am | 1.00 | 50 mL | 50 mL | Y121616.D | Liquid | Y | NA |
| 47 | HS22120974-06 | SAMP | 12-17-2022 03:44 am | 1.00 | 50 mL | 50 mL | Y121617.D | Liquid | Y | NA |
| 48 | HS22120974-07 | SAMP | 12-17-2022 04:05 am | 1.00 | 50 mL | 50 mL | Y121618.D | Liquid | Y | NA |
| 49 | HS22120974-08 | SAMP | 12-17-2022 04:26 am | 1.00 | 50 mL | 50 mL | Y121619.D | Liquid | Y | NA |
| 50 | HS22120974-09 | SAMP | 12-17-2022 04:47 am | 1.00 | 50 mL | 50 mL | Y121620.D | Liquid | Y | NA |
| 51 | HS22120974-10 | SAMP | 12-17-2022 05:08 am | 1.00 | 50 mL | 50 mL | Y121621.D | Liquid | Y | NA |
| 52 | HS22120974-11 | SAMP | 12-17-2022 05:29 am | 1.00 | 50 mL | 50 mL | Y121622.D | Liquid | Y | NA |
| 53 | HS22120974-12 | SAMP | 12-17-2022 05:50 am | 1.00 | 50 mL | 50 mL | Y121623.D | Liquid | Y | NA |
| 54 | HS22120974-14 | SAMP | 12-17-2022 06:11 am | 1.00 | 50 mL | 50 mL | Y121624.D | Liquid | Y | NA |
| 55 | HS22120974-15 | SAMP | 12-17-2022 06:32 am | 1.00 | 50 mL | 50 mL | Y121625.D | Liquid | Y | NA |
| 56 | HS22120574-15 | SAMP | 12-17-2022 06:53 am | 5.00 | 10 mL | 50 mL | Y121626.D | Liquid | Y | NA |
| 57 | HS22120574-17 | SAMP | 12-17-2022 07:14 am | 5.00 | 10 mL | 50 mL | Y121627.D | Liquid | Y | NA |
| 58 | HS22120770-07 | SAMP | 12-17-2022 07:36 am | 10.00 | 5 mL | 50 mL | Y121628.D | Liquid | Y | NA |
| 59 | HS22120770-07 | SAMP | 12-17-2022 07:57 am | 100.0( | 500 µL | 50 mL | Y121629.D | Liquid | Y | NA |
| 60 | HS22120770-10 | SAMP | 12-17-2022 08:18 am | 5.00 | 10 mL | 50 mL | Y121630.D | Liquid | Y | NA |
| 61 | BLANK | SAMP | 12-17-2022 08:39 am | 1.00 | 50 mL | 50 mL | Y121631.D | Liquid | Y | NA |

# Form 13 - Analysis Run Log

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

RUNID
VOA6_426320

**Run ID** VOA6_426320 **Start Date** 01/23/23 **EndDate** 01/23/23 **Matrix** Aqueous

| Client Sample ID | Type | Lab Sample ID | File ID | Analysis Date | DF |
|---|---|---|---|---|---|
| CCV | CCV | CCV | X012303.D | 01/23/23 11:58 | 1 |
| CCB | CCB | CCB | X012304.D | 01/23/23 12:19 | 1 |
| VLCSW-233120 | LCS | VLCSW-233120 | X012305.D | 01/23/23 12:40 | 1 |
| VBLKW-230123 | MBLK | VBLKW-230123 | X012307.D | 01/23/23 13:22 | 1 |
| BatchQC | MS | HS23010982-05MS | X012319.D | 01/23/23 17:35 | 2000 |
| BatchQC | MSD | HS23010982-05MSD | X012320.D | 01/23/23 17:56 | 2000 |
| Trip Blank-230119 | SAMP | HS23010991-02 | X012326.D | 01/23/23 20:02 | 1 |

# Form 13 - Analysis Run Log

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

RUNID
VOA6_426355

**Run ID** VOA6_426355 **Start Date** 01/24/23 **EndDate** 01/24/23 **Matrix** Aqueous

| Client Sample ID | Type | Lab Sample ID | File ID | Analysis Date | DF |
|---|---|---|---|---|---|
| CCV | CCV | CCV | X012402.D | 01/24/23 07:52 | 1 |
| VLCSW-230124 | LCS | VLCSW-230124 | X012404.D | 01/24/23 08:55 | 1 |
| VBLKW-230124 | MBLK | VBLKW-230124 | X012406.D | 01/24/23 09:37 | 1 |
| BatchQC | MS | HS23010982-05MS | X012410.D | 01/24/23 11:01 | 100 |
| BatchQC | MSD | HS23010982-05MSD | X012411.D | 01/24/23 11:22 | 100 |
| 16EW01-230119 | SAMP | HS23010991-01 | X012425.D | 01/24/23 16:17 | 5 |
| BatchQC | MS | HS23010986-05MS | X012431.D | 01/24/23 18:23 | 100 |
| BatchQC | MSD | HS23010986-05MSD | X012432.D | 01/24/23 18:44 | 100 |

# Form 13 - Analysis Run Log

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23010991**

## Volatiles by EPA 8260

RUNID
VOA6_426481

**Run ID** VOA6_426481 **Start Date** 01/25/23 **EndDate** 01/25/23 **Matrix** Aqueous

| Client Sample ID | Type | Lab Sample ID | File ID | Analysis Date | DF |
|---|---|---|---|---|---|
| CCV | CCV | CCV | X012502.D | 01/25/23 07:39 | 1 |
| VLCSW-230125 | LCS | VLCSW-230125 | X012504.D | 01/25/23 08:42 | 1 |
| VBLKW-230125 | MBLK | VBLKW-230125 | X012506.D | 01/25/23 09:24 | 1 |
| BatchQC | MS | HS23010982-02MS | X012509.D | 01/25/23 10:27 | 100 |
| BatchQC | MSD | HS23010982-02MSD | X012510.D | 01/25/23 10:48 | 100 |
| 16EW01-230119 | SAMP | HS23010991-01 | X012518.D | 01/25/23 13:36 | 100 |

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# Raw Data VOA6 424237

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\x221216.b\X121601.D  Page 1
Report Date: 16-Dec-2022 12:08

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\x221216.b\X121601.D
Lab Smp Id: BFB  Client Smp ID: BFB
Inj Date  : 16-DEC-2022 11:17
Operator  : PC  Inst ID: voa6.i
Smp Info  : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\x221216.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham  Quant Type: ISTD
Cal Date  :  Cal File:
Als bottle: 1  QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: all.sub
Target Version:  4.14  Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vf | 1.000 | Volumetric correction factor |
| Vi | 2.000 | Injection Volume |
| Cpnd Variable | | Local Compound Variable |

| RT | EXP RT | REL RT | MASS | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | CONCENTRATIONS FINAL ( ug/l) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 8.691 | 8.889 | ( 0.000) | 95 | 72328 | | | 0.00- 100.00 | 100.00 |
| 8.691 | 8.889 | ( 0.000) | 50 | 13272 | | | 15.00- 40.00 | 18.35 |
| 8.691 | 8.889 | ( 0.000) | 75 | 33368 | | | 30.00- 60.00 | 46.13 |
| 8.691 | 8.889 | ( 0.000) | 96 | 5178 | | | 5.00- 9.00 | 7.16 |
| 8.691 | 8.889 | ( 0.000) | 173 | 577 | | | 0.00- 2.00 | 0.90 |
| 8.691 | 8.889 | ( 0.000) | 174 | 64360 | | | 50.00- 0.00 | 88.98 |
| 8.691 | 8.889 | ( 0.000) | 175 | 5033 | | | 5.00- 9.00 | 7.82 |
| 8.691 | 8.889 | ( 0.000) | 176 | 63184 | | | 95.00- 101.00 | 98.17 |
| 8.691 | 8.889 | ( 0.000) | 177 | 4164 | | | 5.00- 9.00 | 6.59 |

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 18.35 |
| 75 | 30.00 - 60.00% of mass 95 | 46.13 |
| 96 | 5.00 - 9.00% of mass 95 | 7.16 |
| 173 | Less than 2.00% of mass 174 | 0.80 ( 0.90) |
| 174 | Greater than 50.00% of mass 95 | 88.98 |
| 175 | 5.00 - 9.00% of mass 174 | 6.96 ( 7.82) |
| 176 | 95.00 - 101.00% of mass 174 | 87.36 ( 98.17) |
| 177 | 5.00 - 9.00% of mass 176 | 5.76 ( 6.59) |

Data File: X121601.D
Spectrum: Scan 2160 ( 8.68)
Location of Maximum: 95.00
Number of points: 84

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 35.90 | 686 | 63.00 | 2521 | 93.00 | 2705 | 136.90 | 215 |
| 37.00 | 3051 | 64.10 | 316 | 94.00 | 9587 | 140.90 | 735 |
| 38.00 | 2957 | 66.90 | 155 | 95.00 | 72328 | 141.70 | 91 |
| 39.00 | 1321 | 67.90 | 6274 | 96.00 | 5178 | 142.80 | 683 |
| 39.90 | 1146 | 69.00 | 6990 | 96.90 | 213 | 145.60 | 119 |
| 42.00 | 114 | 69.90 | 604 | 103.00 | 58 | 148.00 | 107 |
| 42.90 | 301 | 71.80 | 385 | 104.00 | 313 | 149.80 | 105 |
| 44.00 | 1509 | 72.90 | 2986 | 104.70 | 125 | 153.80 | 54 |
| 45.00 | 716 | 74.00 | 11163 | 105.10 | 132 | 154.80 | 169 |
| 46.80 | 723 | 75.00 | 33368 | 105.90 | 451 | 156.80 | 155 |
| 48.00 | 503 | 76.00 | 3228 | 110.60 | 54 | 160.80 | 71 |
| 49.00 | 3278 | 76.90 | 395 | 113.00 | 74 | 171.60 | 83 |
| 50.00 | 13272 | 77.80 | 187 | 114.80 | 159 | 172.80 | 577 |
| 51.00 | 3648 | 78.90 | 2224 | 115.80 | 342 | 173.90 | 64360 |
| 52.10 | 365 | 79.80 | 718 | 116.90 | 386 | 174.90 | 5033 |
| 54.00 | 52 | 80.90 | 2158 | 117.90 | 425 | 175.90 | 63184 |
| 54.90 | 278 | 81.80 | 420 | 118.80 | 260 | 176.90 | 4164 |
| 56.00 | 1513 | 83.00 | 51 | 127.90 | 191 | 178.00 | 133 |
| 57.00 | 1763 | 86.90 | 2878 | 128.90 | 172 | | |
| 59.90 | 665 | 87.80 | 2342 | 129.80 | 237 | | |
| 61.00 | 3173 | 91.00 | 516 | 130.80 | 156 | | |
| 62.00 | 3572 | 92.00 | 2006 | 134.70 | 222 | | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D Page 1

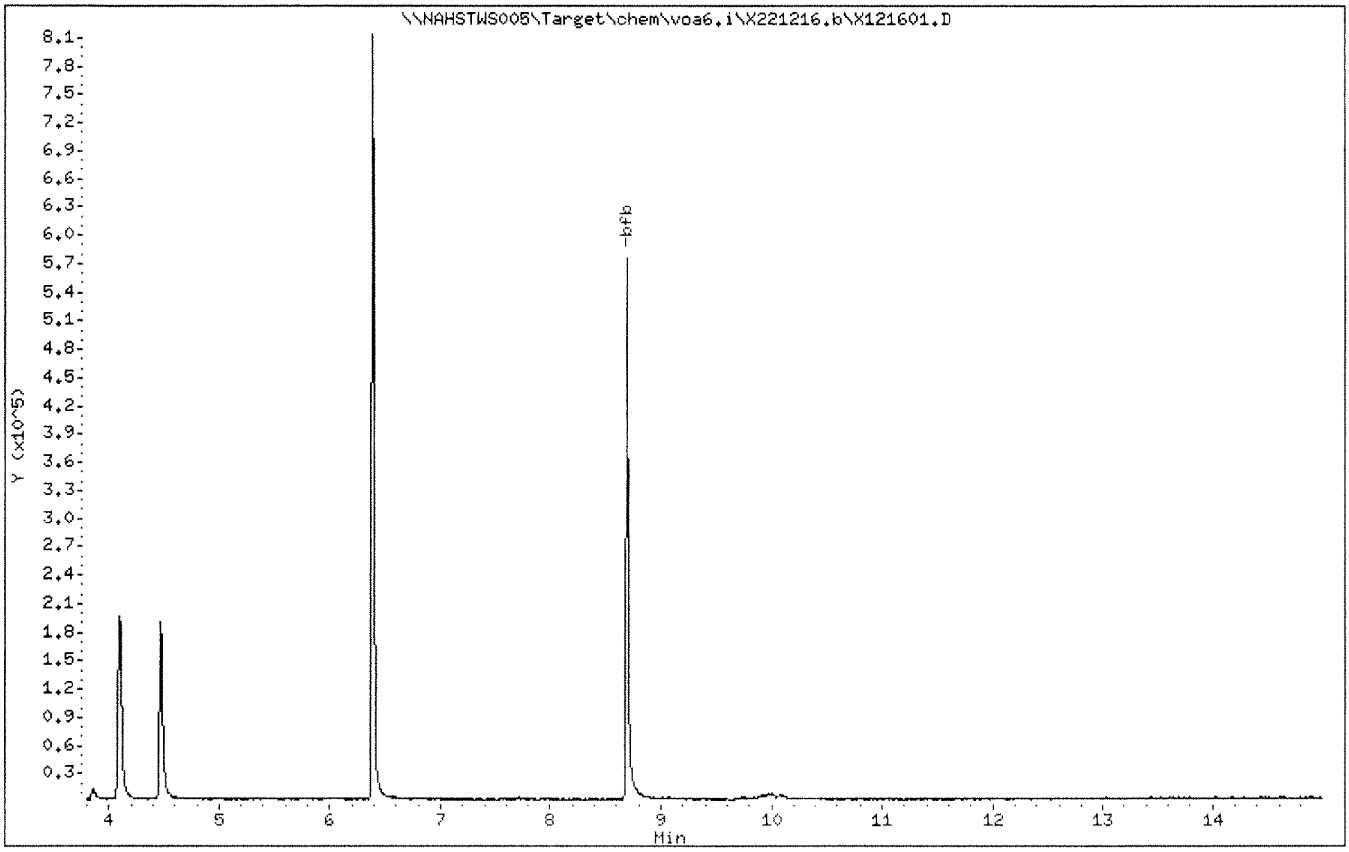
Date : 16-DEC-2022 11:17

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D Page 2

Date : 16-DEC-2022 11:17

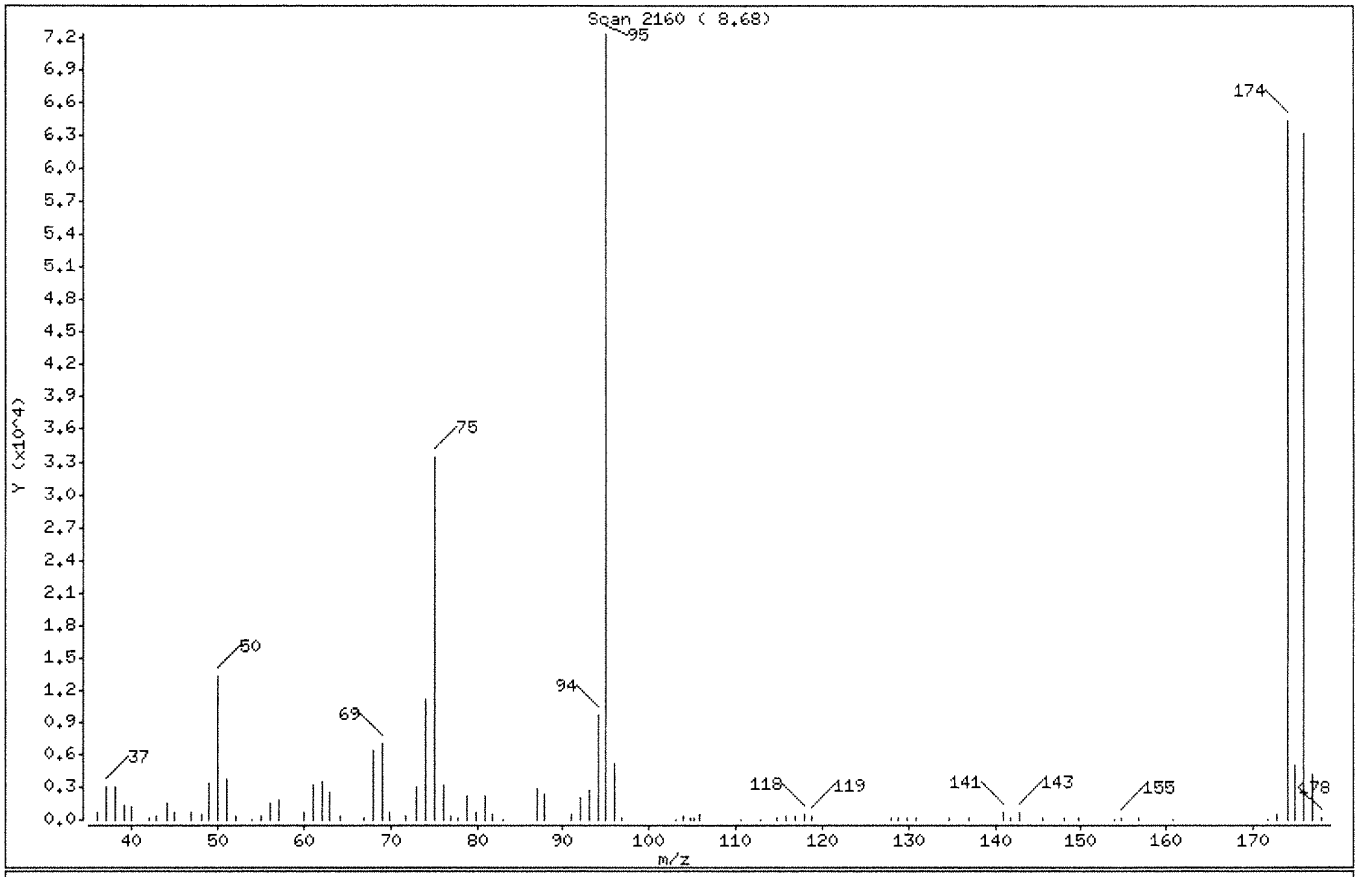
Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 18.35 |
| 75 | 30.00 - 60.00% of mass 95 | 46.13 |
| 96 | 5.00 - 9.00% of mass 95 | 7.16 |
| 173 | Less than 2.00% of mass 174 | 0.80 ( 0.90) |
| 174 | Greater than 50.00% of mass 95 | 88.98 |
| 175 | 5.00 - 9.00% of mass 174 | 6.96 ( 7.82) |
| 176 | 95.00 - 101.00% of mass 174 | 87.36 ( 98.17) |
| 177 | 5.00 - 9.00% of mass 176 | 5.76 ( 6.59) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D 

Date : 16-DEC-2022 11:17

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X121601.D
Spectrum: Scan 2160 ( 8.68)
Location of Maximum: 95.00
Number of points: 84

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 35.90 | 686 | 63.00 | 2521 | 93.00 | 2705 | 136.90 | 215 |
| 37.00 | 3051 | 64.10 | 316 | 94.00 | 9587 | 140.90 | 735 |
| 38.00 | 2957 | 66.90 | 155 | 95.00 | 72328 | 141.70 | 91 |
| 39.00 | 1321 | 67.90 | 6274 | 96.00 | 5178 | 142.80 | 683 |
| 39.90 | 1146 | 69.00 | 6990 | 96.90 | 213 | 145.60 | 119 |
| 42.00 | 114 | 69.90 | 604 | 103.00 | 58 | 148.00 | 107 |
| 42.90 | 301 | 71.80 | 385 | 104.00 | 313 | 149.80 | 105 |
| 44.00 | 1509 | 72.90 | 2986 | 104.70 | 125 | 153.80 | 54 |
| 45.00 | 716 | 74.00 | 11163 | 105.10 | 132 | 154.80 | 169 |
| 46.80 | 723 | 75.00 | 33368 | 105.90 | 451 | 156.80 | 155 |
| 48.00 | 503 | 76.00 | 3228 | 110.60 | 54 | 160.80 | 71 |
| 49.00 | 3278 | 76.90 | 395 | 113.00 | 74 | 171.60 | 83 |
| 50.00 | 13272 | 77.80 | 187 | 114.80 | 159 | 172.80 | 577 |
| 51.00 | 3648 | 78.90 | 2224 | 115.80 | 342 | 173.90 | 64360 |
| 52.10 | 365 | 79.80 | 718 | 116.90 | 386 | 174.90 | 5033 |
| 54.00 | 52 | 80.90 | 2158 | 117.90 | 425 | 175.90 | 63184 |
| 54.90 | 278 | 81.80 | 420 | 118.80 | 260 | 176.90 | 4164 |
| 56.00 | 1513 | 83.00 | 51 | 127.90 | 191 | 178.00 | 133 |
| 57.00 | 1763 | 86.90 | 2878 | 128.90 | 172 | | |
| 59.90 | 665 | 87.80 | 2342 | 129.80 | 237 | | |
| 61.00 | 3173 | 91.00 | 516 | 130.80 | 156 | | |
| 62.00 | 3572 | 92.00 | 2006 | 134.70 | 222 | | |

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Inj Date  : 16-DEC-2022 11:17
InstruID  : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Lab Smp Id: VSTD000.25  Client Smp ID: VSTD000.25
Inj Date  : 16-DEC-2022 11:38
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD000.25;VSTD000.25;1;1;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 2  Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 461807 | 50.0000 | |
| 135 | 1,4-Dioxane | 88 | 5.625 | 5.625 | (1.346) | 214 | 5.00000 | 5.06(M) |
| 140 | 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 1172 | 0.25000 | 0.36 |
| 25 | Methacrylonitrile | 41 | 3.855 | 3.855 | (0.923) | 5876 | 0.25000 | 1.79 |
| 12 | Isobutyl Alcohol | 43 | 4.687 | 4.687 | (1.122) | 2537 | 5.00000 | 4.88(TM) |
| 13 | Acetonitrile | 39 | 2.202 | 2.202 | (0.527) | 730 | 2.50000 | 1.73 |
| 14 | Allyl Chloride | 41 | 2.206 | 2.206 | (0.528) | 1591 | 0.25000 | 0.19 |
| 4 | Propionitrile | 54 | 3.702 | 3.702 | (0.886) | 1165 | 2.50000 | 2.47(M) |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.931 | 8.931 | (1.164) | 280 | 0.25000 | 0.19(M) |
| 145 | alpha-Methylstyrene | 118 | 9.268 | 9.268 | (0.959) | 2322 | 0.25000 | 0.30 |
| 200 | Dimethyl Disulfide | 94 | 6.213 | 6.213 | (0.810) | 1870 | 0.25000 | 0.21 |
| 139 | Diethyl ether | 59 | 1.760 | 1.760 | (0.421) | 687 | 0.25000 | 0.22 |
| 49 | Ethyl Methacrylate | 69 | 6.738 | 6.738 | (1.357) | 625 | 0.25000 | 0.19 |
| 142 | Tetrahydrofuran | 42 | 3.836 | 3.836 | (0.918) | 358 | 0.50000 | (M) |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.737 | 9.737 | (1.008) | 4360 | 0.25000 | 0.25 |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 801 | 0.25000 | 0.63(M) |
| 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 1420 | 0.25000 | 2.53 |
| 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 1134 | 0.25000 | 0.28(M) |
| 6 | Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 1009 | 0.25000 | 2.08(M) |
| 8 | Trichlorofluoromethane | 101 | 1.561 | 1.561 | (0.374) | 1468 | 0.25000 | 0.26 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 10 Acetone | 43 | 1.977 | 1.977 (0.473) | 2727 | 0.50000 | 2.07 |
| 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 (0.457) | 1010 | 0.25000 | 0.28(M) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D Page 2
Report Date: 27-Dec-2022 16:07

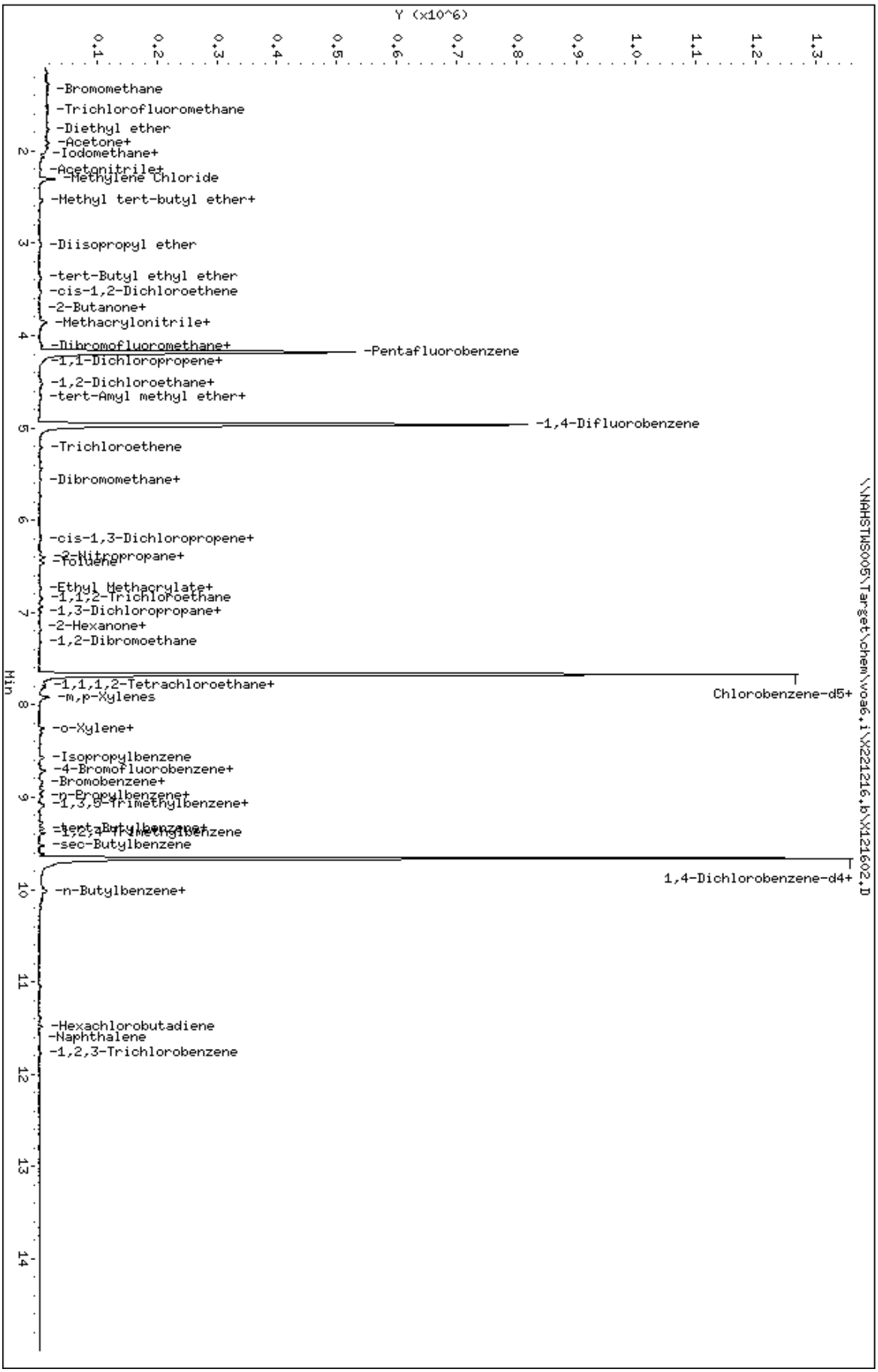
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | CAL-AMT | ON-COL |
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ( ug/l) | ( ug/l) |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 1106 | 0.50000 | 3.56(T) |
| | 17 | Methylene Chloride | 84 | 2.292 | 2.292 | (0.549) | 1436 | 0.25000 | 0.29(M) |
| | 18 | Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 2787 | 0.25000 | 0.24 |
| | 19 | Carbon Disulfide | 76 | 2.071 | 2.071 | (0.496) | 5999 | 0.50000 | 0.65 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.539 | 2.539 | (0.608) | 1302 | 0.25000 | 0.33 |
| | 24 | 2-Butanone | 43 | 3.698 | 3.698 | (0.885) | 1014 | 0.50000 | 3.74 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.533 | 3.533 | (0.846) | 1402 | 0.25000 | 0.29 |
| | 28 | Chloroform | 83 | 3.908 | 3.908 | (0.935) | 2553 | 0.25000 | 0.33 |
| | 29 | Bromochloromethane | 128 | 3.799 | 3.799 | (0.909) | 802 | 0.25000 | 0.30(M) |
| $ | 30 | Dibromofluoromethane | 113 | 4.103 | 4.103 | (0.982) | 1706 | 0.25000 | 0.21 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 1648 | 0.25000 | 0.26 |
| | 32 | 1,1-Dichloropropene | 75 | 4.286 | 4.286 | (0.863) | 2114 | 0.25000 | 0.43 |
| | 33 | 1,2-Dichloroethane | 62 | 4.571 | 4.571 | (0.921) | 2167 | 0.25000 | 0.38 |
| | 34 | Carbon Tetrachloride | 117 | 4.256 | 4.256 | (0.857) | 1685 | 0.25000 | 0.32(M) |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.481 | 4.481 | (1.073) | 2260 | 0.25000 | 0.75(T) |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 690224 | 50.0000 | |
| | 37 | Benzene | 78 | 4.522 | 4.522 | (0.911) | 5768 | 0.25000 | 0.34 |
| | 38 | Trichloroethene | 130 | 5.212 | 5.212 | (1.050) | 1544 | 0.25000 | 0.33 |
| | 44 | Dibromomethane | 93 | 5.565 | 5.565 | (1.121) | 1046 | 0.25000 | 0.35 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.352 | 6.352 | (0.828) | 2297 | 0.50000 | 0.65 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.168 | 6.168 | (1.242) | 1839 | 0.25000 | 0.25 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 653787 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.401 | 6.401 | (0.834) | 6828 | 0.25000 | 0.42(T) |
| | 50 | Toluene | 91 | 6.457 | 6.457 | (0.842) | 6778 | 0.25000 | 0.37 |
| | 52 | 2-Hexanone | 43 | 7.150 | 7.150 | (0.932) | 974 | 0.50000 | 0.40(T) |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.847 | 6.847 | (0.893) | 1098 | 0.25000 | 0.30 |
| | 54 | 1,3-Dichloropropane | 76 | 6.993 | 6.993 | (0.912) | 2278 | 0.25000 | 0.31 |
| | 55 | Dibromochloromethane | 129 | 7.184 | 7.184 | (0.936) | 1732 | 0.25000 | 0.33 |
| | 56 | Tetrachloroethene | 164 | 6.933 | 6.933 | (0.904) | 1051 | 0.25000 | 0.28 |
| | 57 | 1,2-Dibromoethane | 107 | 7.278 | 7.278 | (0.949) | 1100 | 0.25000 | 0.24 |
| | 58 | 1-Chlorohexane | 55 | 7.668 | 7.668 | (1.544) | 6570 | 0.25000 | 1.96 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 3981 | 0.25000 | 0.31 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.780 | 7.780 | (1.014) | 1245 | 0.25000 | 0.26 |
| | 61 | Ethylbenzene | 106 | 7.810 | 7.810 | (1.018) | 1854 | 0.25000 | 0.30 |
| | 62 | m,p-Xylenes | 106 | 7.915 | 7.915 | (1.032) | 5083 | 0.50000 | 0.65 |
| | 63 | o-Xylene | 106 | 8.252 | 8.252 | (1.076) | 2471 | 0.25000 | 0.32 |
| | 64 | Styrene | 104 | 8.297 | 8.297 | (1.082) | 3214 | 0.25000 | 0.24 |
| | 67 | Isopropylbenzene | 105 | 8.575 | 8.575 | (1.118) | 5495 | 0.25000 | 0.31 |
| $ | 69 | 4-Bromofluorobenzene | 95 | 8.706 | 8.706 | (1.135) | 4271 | 0.25000 | 0.77 |
| * | 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 348702 | 50.0000 | |
| | 71 | 1,2,3-Trichloropropane | 75 | 8.875 | 8.875 | (0.919) | 766 | 0.25000 | 0.19(M) |
| | 73 | n-Propylbenzene | 91 | 8.931 | 8.931 | (0.924) | 5570 | 0.25000 | 0.28 |
| | 74 | Bromobenzene | 156 | 8.826 | 8.826 | (0.913) | 1517 | 0.25000 | 0.26 |
| | 75 | 1,3,5-Trimethylbenzene | 105 | 9.081 | 9.081 | (0.940) | 4893 | 0.25000 | 0.34 |
| | 76 | 2-Chlorotoluene | 91 | 8.991 | 8.991 | (0.931) | 4890 | 0.25000 | 0.38 |
| | 77 | 4-Chlorotoluene | 91 | 9.107 | 9.107 | (0.943) | 3881 | 0.25000 | 0.26 |
| | 78 | tert-Butylbenzene | 119 | 9.343 | 9.343 | (0.967) | 4059 | 0.25000 | 0.34 |
| | 79 | 1,2,4-Trimethylbenzene | 105 | 9.392 | 9.392 | (0.972) | 5202 | 0.25000 | 0.34 |
| | 81 | sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 4818 | 0.25000 | 0.31 |
| | 82 | p-Isopropyltoluene | 119 | 9.662 | 9.662 | (1.000) | 4406 | 0.25000 | 0.31 |
| | 83 | 1,3-Dichlorobenzene | 146 | 9.621 | 9.621 | (0.996) | 3005 | 0.25000 | 0.31 |
| | 84 | 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 3674 | 0.25000 | 0.35 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 87 | n-Butylbenzene | 91 | 10.033 | 10.033 (1.038) | 1595 | 0.25000 | 1.89 |
| 88 | 1,2-Dichlorobenzene | 146 | 10.010 | 10.010 (1.036) | 2937 | 0.25000 | 0.30 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 91 Hexachlorobutadiene | 225 | 11.484 | 11.484 | (1.189) | 726 | 0.25000 | 0.21(M) |
| | 92 Naphthalene | 128 | 11.607 | 11.607 | (1.201) | 1969 | 0.25000 | 0.14 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.769 | 11.769 | (1.218) | 1816 | 0.25000 | 0.30(M) |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 2704 | 0.50000 | |
| M | 95 Xylenes (total) | 106 | | | | 7554 | 0.75000 | |
| | 141 Cyclohexane | 56 | 4.125 | 4.125 | (0.987) | 1235 | 0.25000 | 1.51(M) |
| | 138 Freon TF | 101 | 1.917 | 1.917 | (0.459) | 765 | 0.25000 | 0.22(M) |

## QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Date : 16-DEC-2022 11:38
Client ID: VSTD000.25
Sample Info: VSTD000.25;VSTD000.25;1;1;
Purge Volume: 5.0
Column phase: DB624

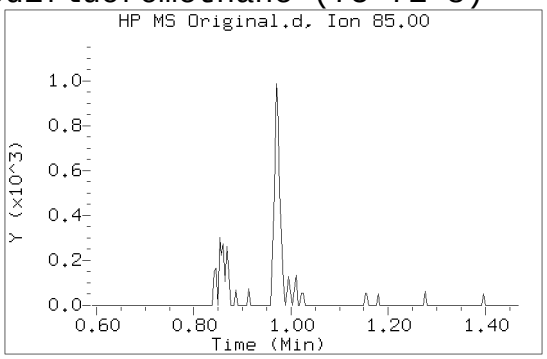
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Dichlorodifluoromethane (75-71-8)

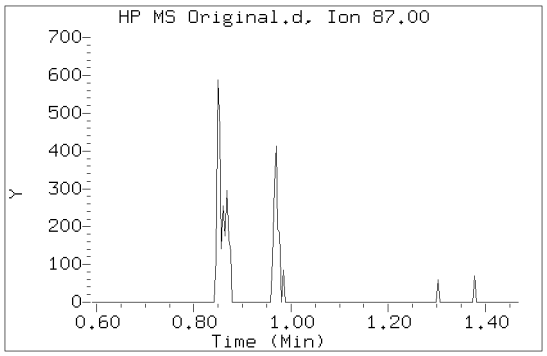
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AREA
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HEIGHT
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16-Dec-2022
11:54
ALSHS
Server




### BEFORE

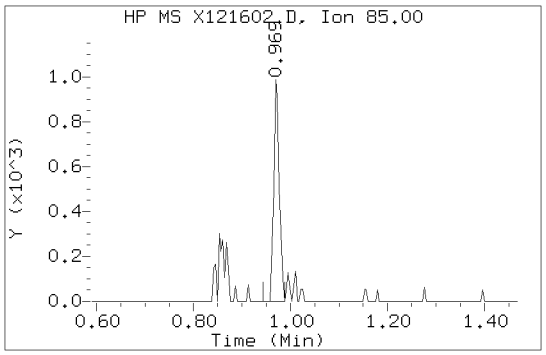
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16-Dec-2022
11:54
ALSHS
Server




### Reason Code:

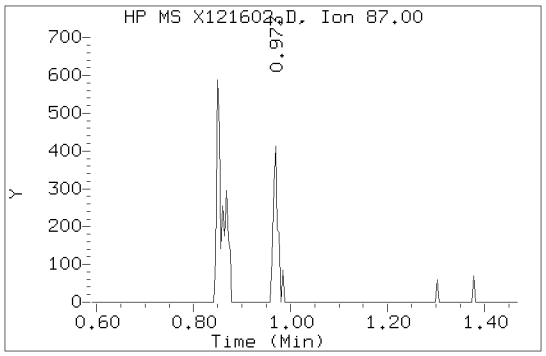
### AFTER

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AREA
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HEIGHT
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27-Dec-2022
16:07
ALSHS
Ser




### AFTER

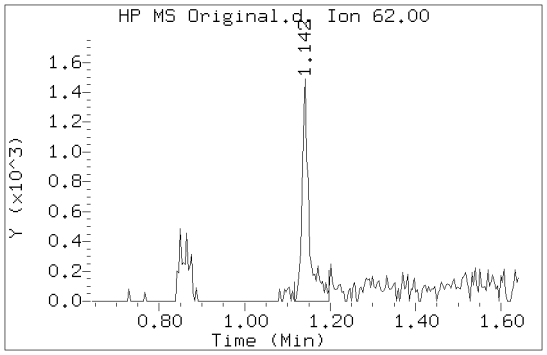
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HEIGHT
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27-Dec-2022
16:07
ALSHS
Ser




## Vinyl Chloride (75-01-4)

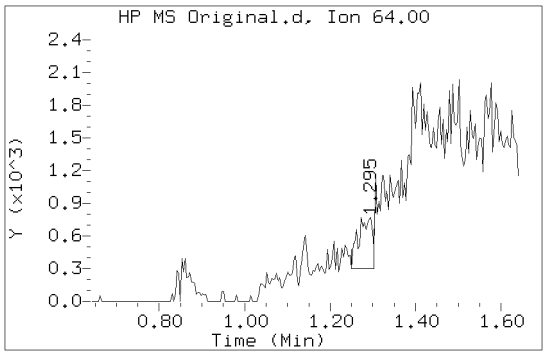
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16-Dec-2022
11:54
ALSHS
Server




### BEFORE

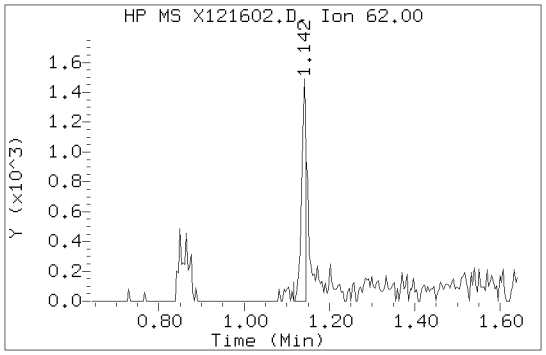
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16-Dec-2022
11:54
ALSHS
Server




### Reason Code:

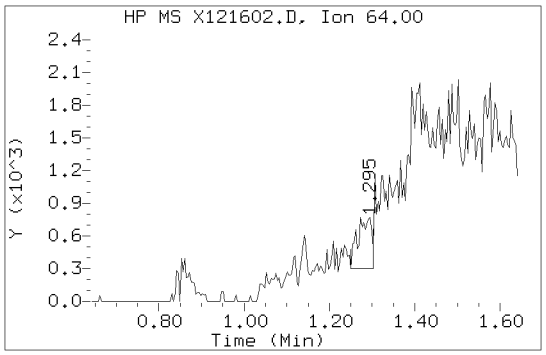
### AFTER

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HEIGHT
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27-Dec-2022
16:07
ALSHS
Ser




### AFTER

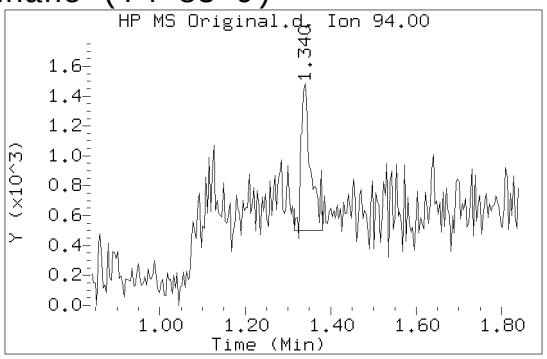
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27-Dec-2022
16:07
ALSHS
Ser



Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

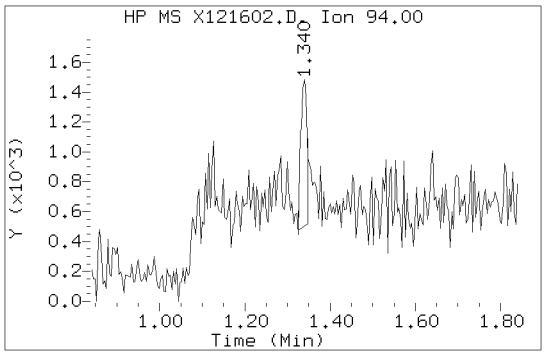
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BEFORE
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16-Dec-2022
11:54
ALSHS
Server

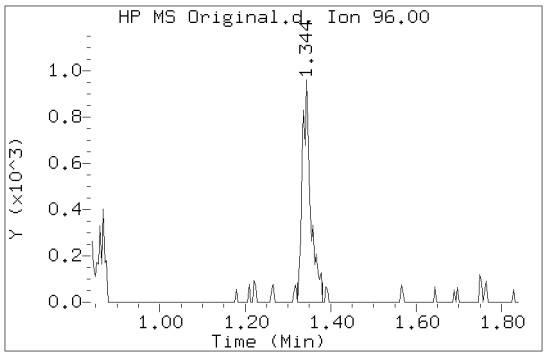



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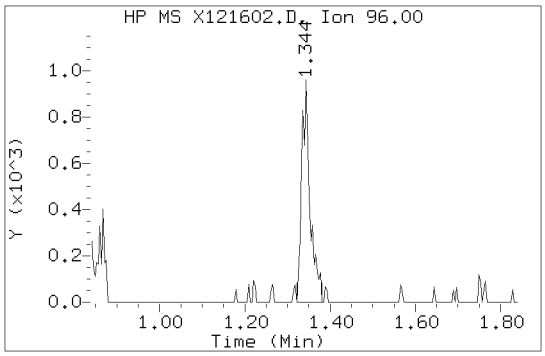
AFTER
MASS
94
AREA
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HEIGHT
977
27-Dec-2022
16:07
ALSHS
Ser




BEFORE
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AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



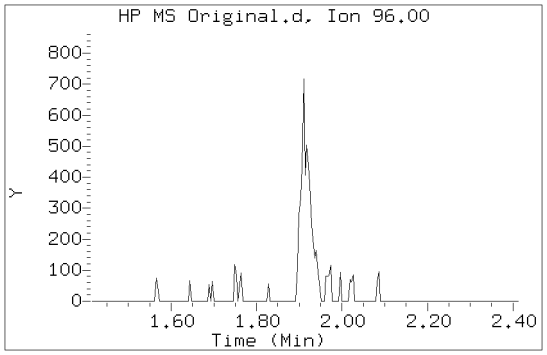

AFTER
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AREA
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HEIGHT
961
27-Dec-2022
16:07
ALSHS
Ser



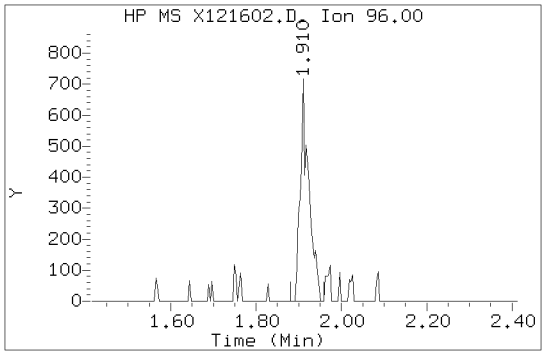

## 1,1-Dichloroethene (75-35-4)

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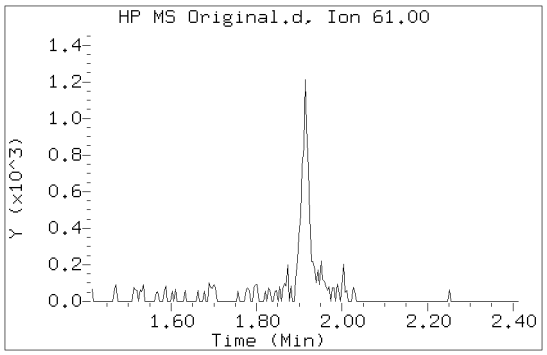
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HEIGHT
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11:54
ALSHS
Server



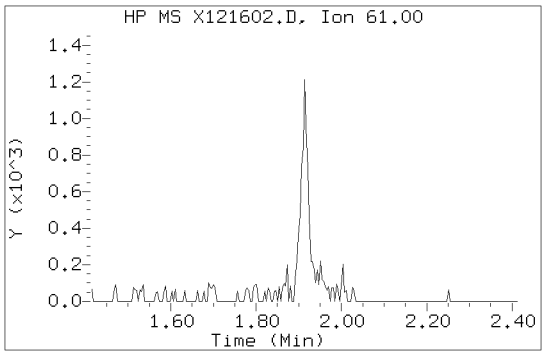

AFTER
MASS
96
AREA
1010
HEIGHT
717
27-Dec-2022
16:07
ALSHS
Ser




BEFORE
MASS
127
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




AFTER
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



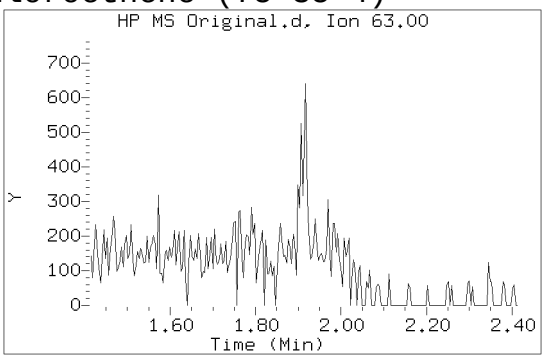
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## 1,1-Dichloroethene (75-35-4)

Reason Code:

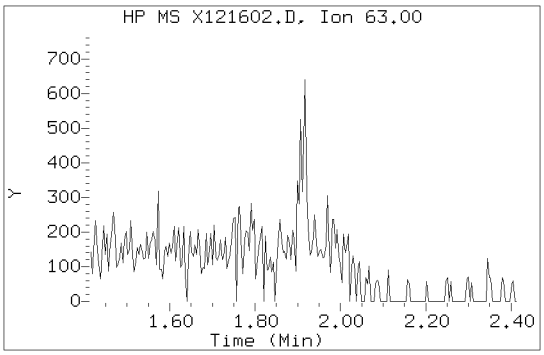
**BEFORE**

MASS
141
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

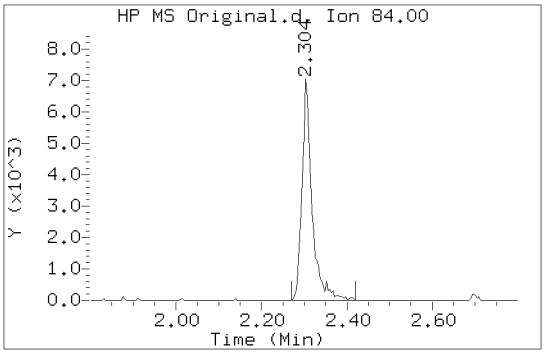



## Methylene Chloride (75-09-2)

Reason Code:

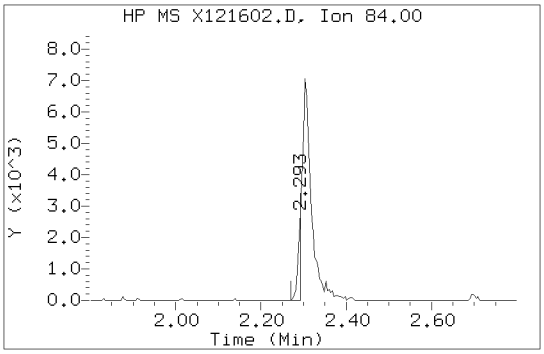
**BEFORE**

MASS
84
AREA
11777
HEIGHT
7057
16-Dec-2022
11:54
ALSHS
Server



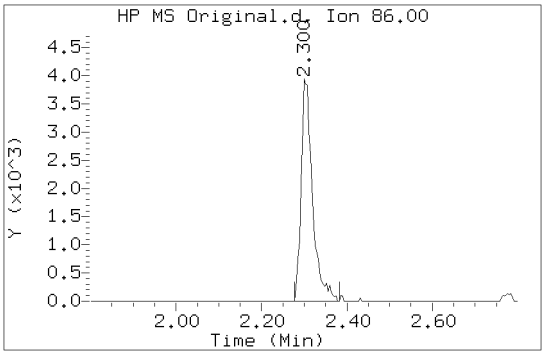

**AFTER**

MASS
84
AREA
1436
HEIGHT
2786
27-Dec-2022
16:07
ALSHS
Ser



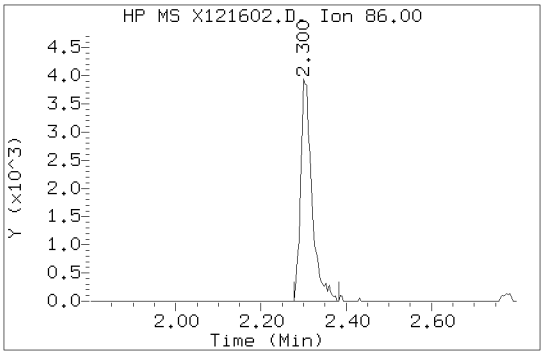

**BEFORE**

MASS
86
AREA
7453
HEIGHT
3944
16-Dec-2022
11:54
ALSHS
Server



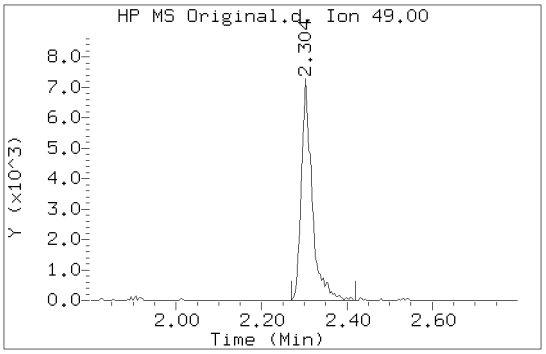

**AFTER**

MASS
86
AREA
7453
HEIGHT
3944
27-Dec-2022
16:07
ALSHS
Ser



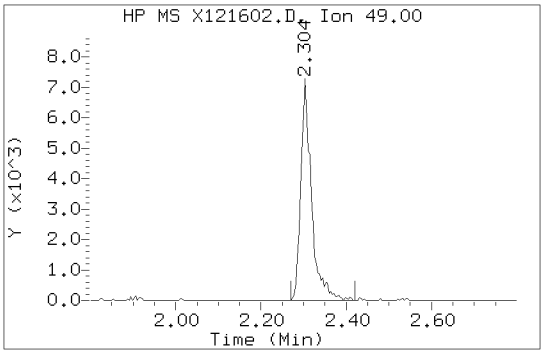

**BEFORE**

MASS
49
AREA
12974
HEIGHT
7289
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
49
AREA
12974
HEIGHT
7289
27-Dec-2022
16:07
ALSHS
Ser



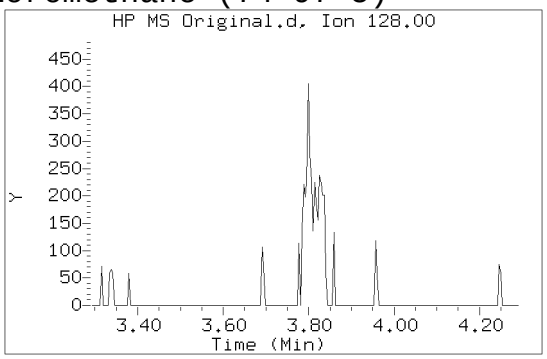
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Bromochloromethane (74-97-5)

Reason Code:

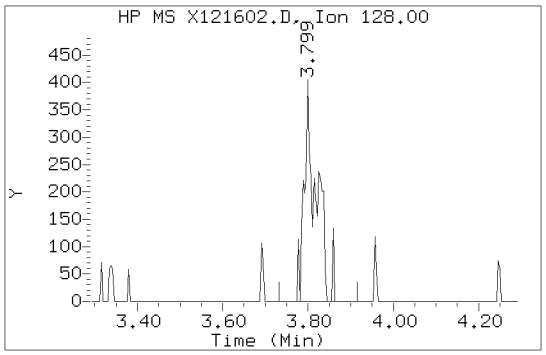
BEFORE

MASS
96
AREA
1402
HEIGHT
854
16-Dec-2022
11:54
ALSHS
Server



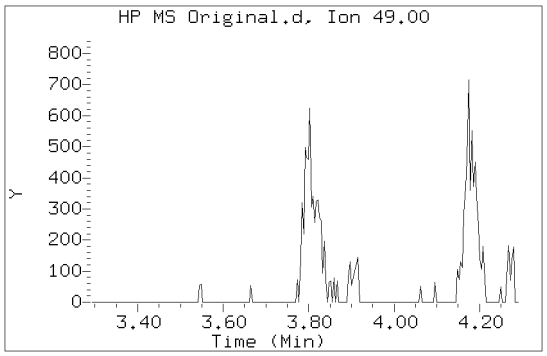

AFTER

MASS
128
AREA
802
HEIGHT
405
27-Dec-2022
16:07
ALSHS
Ser



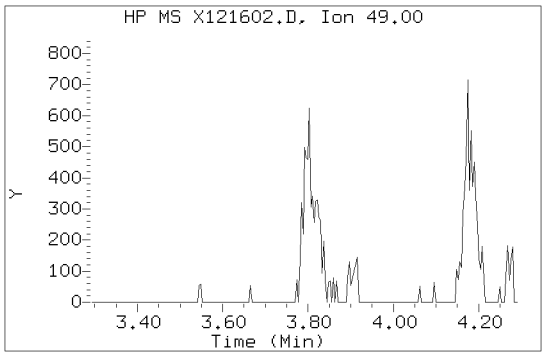

BEFORE

MASS
61
AREA
1975
HEIGHT
828
16-Dec-2022
11:54
ALSHS
Server



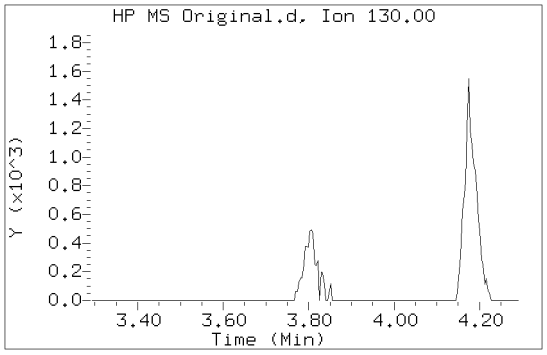

AFTER

MASS
49
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



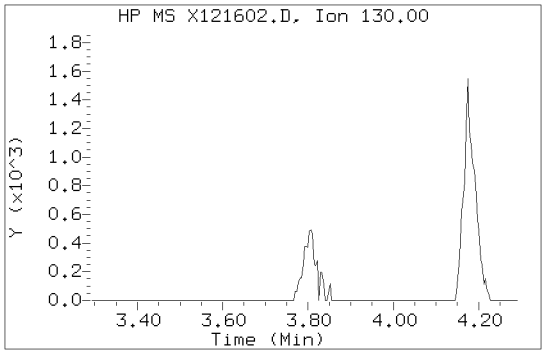

BEFORE

MASS
98
AREA
1027
HEIGHT
608
16-Dec-2022
11:54
ALSHS
Server




AFTER

MASS
130
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

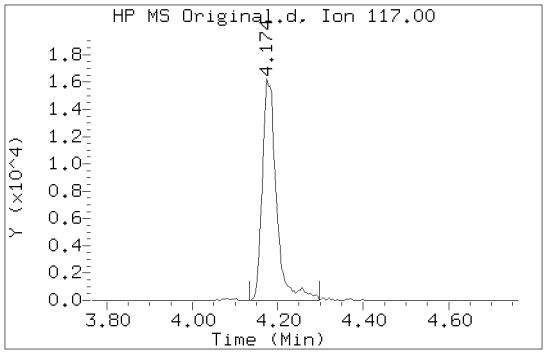



## Carbon Tetrachloride (56-23-5)

Reason Code:

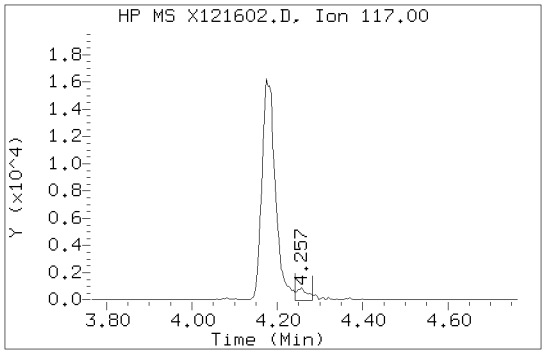
BEFORE

MASS
97
AREA
1700
HEIGHT
1016
16-Dec-2022
11:54
ALSHS
Server




AFTER

MASS
117
AREA
1685
HEIGHT
944
27-Dec-2022
16:07
ALSHS
Ser

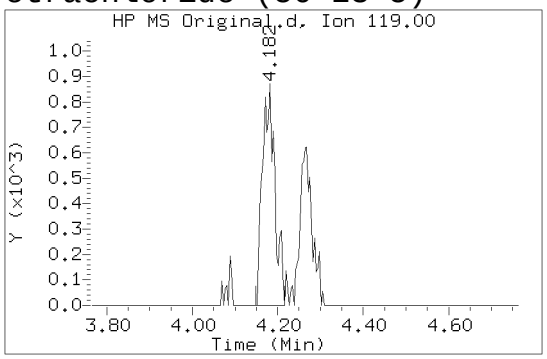


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Carbon Tetrachloride (56-23-5)

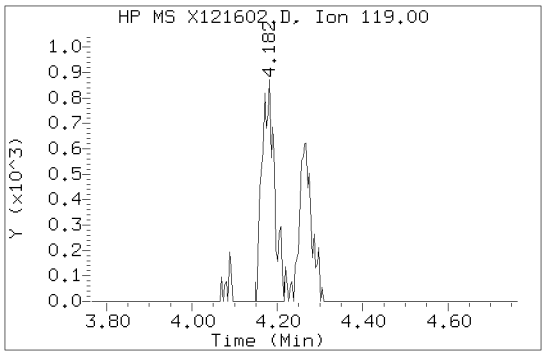
Reason Code:

**BEFORE**




MASS
99
AREA
207130
HEIGHT
91368
16-Dec-2022
11:54
ALSHS
Server

**AFTER**

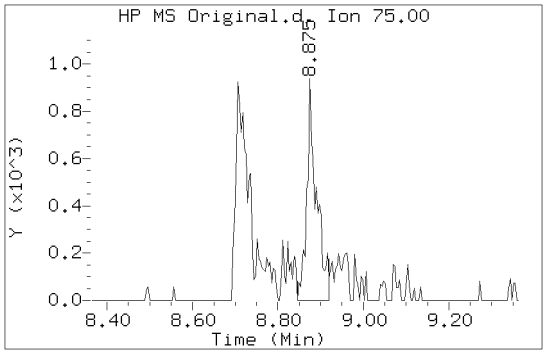



MASS
119
AREA
1748
HEIGHT
872
27-Dec-2022
16:07
ALSHS
Ser

## 1,2,3-Trichloropropane (96-18-4)

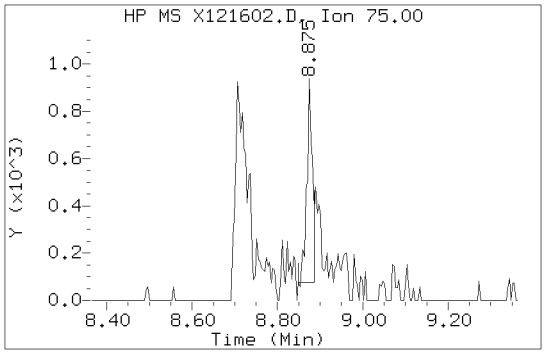
Reason Code:

**BEFORE**



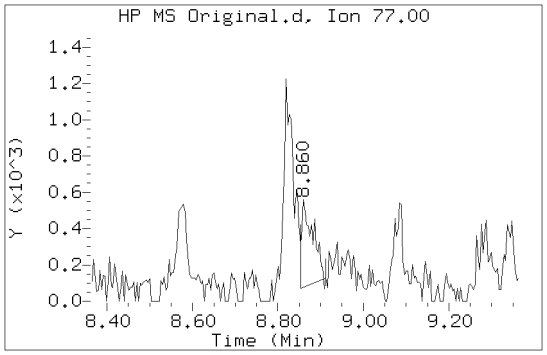

MASS
152
AREA
348702
HEIGHT
242350
16-Dec-2022
11:54
ALSHS
Server

**AFTER**



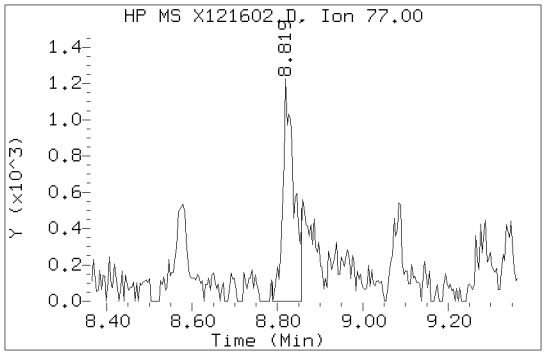

MASS
75
AREA
766
HEIGHT
862
27-Dec-2022
16:07
ALSHS
Ser

**BEFORE**




MASS
115
AREA
184413
HEIGHT
133835
16-Dec-2022
11:54
ALSHS
Server

**AFTER**

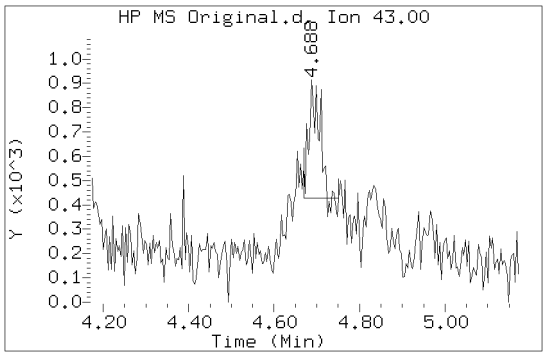



MASS
77
AREA
2223
HEIGHT
1225
27-Dec-2022
16:07
ALSHS
Ser

## Isobutyl Alcohol (78-83-1)

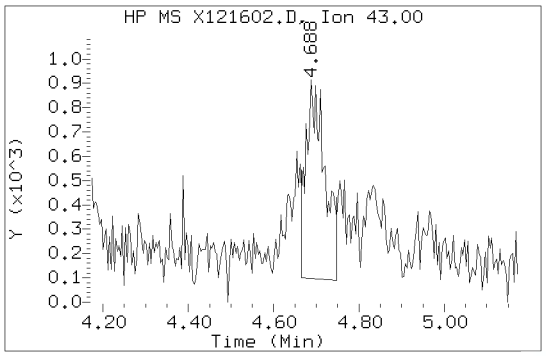
Reason Code:

**BEFORE**




MASS
75
AREA
1475
HEIGHT
938
16-Dec-2022
11:54
ALSHS
Server

**AFTER**



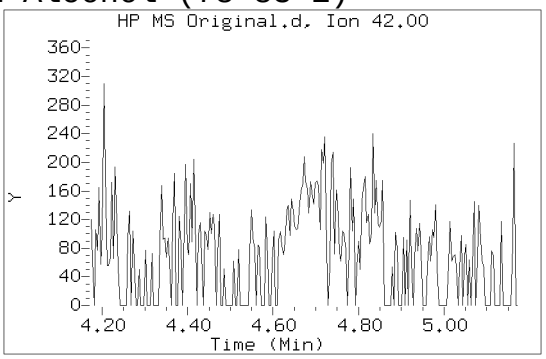

MASS
43
AREA
2537
HEIGHT
816
27-Dec-2022
16:07
ALSHS
Ser

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Isobutyl Alcohol (78-83-1)

BEFORE

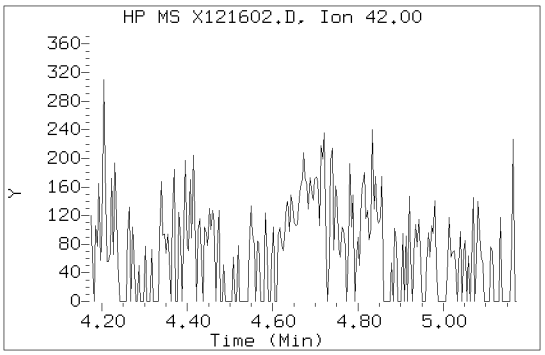
MASS
77
AREA
888
HEIGHT
483
16-Dec-2022
11:54
ALSHS
Server




Reason Code:

AFTER

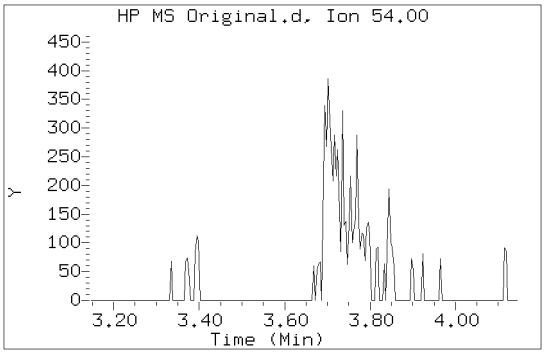
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser




## Propionitrile (107-12-0)

BEFORE

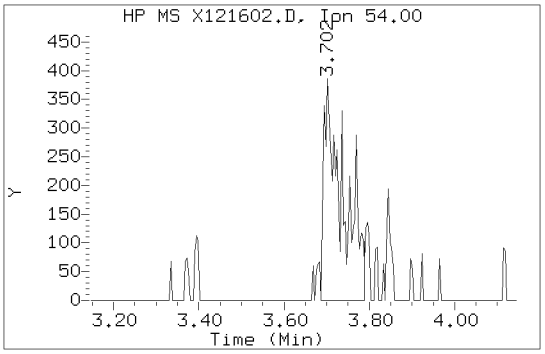
MASS
91
AREA
3881
HEIGHT
1822
16-Dec-2022
11:54
ALSHS
Server




Reason Code:

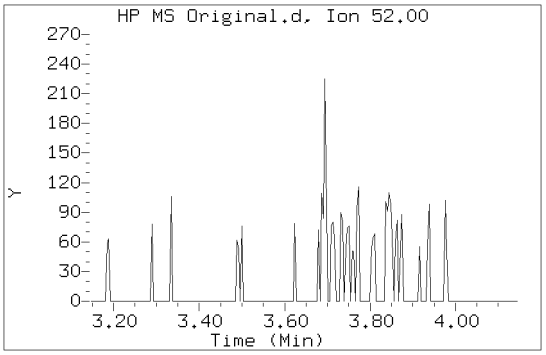
AFTER

MASS
54
AREA
1165
HEIGHT
386
27-Dec-2022
16:07
ALSHS
Ser



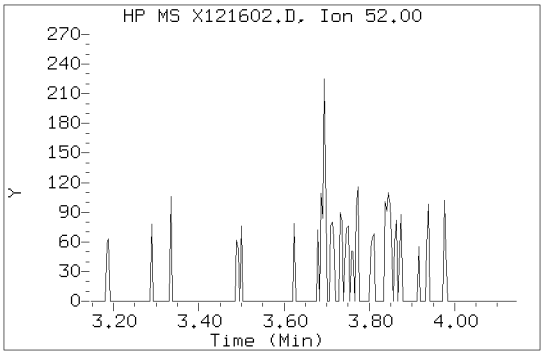

BEFORE

MASS
126
AREA
1511
HEIGHT
914
16-Dec-2022
11:54
ALSHS
Server




AFTER

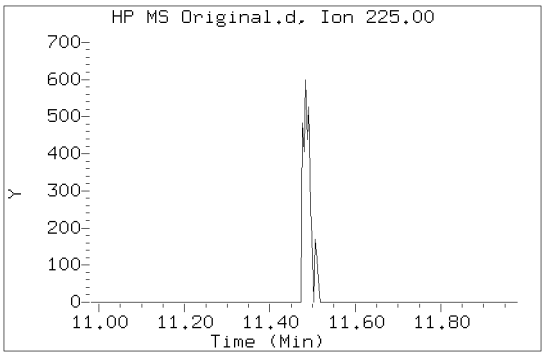
MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser




## Hexachlorobutadiene (87-68-3)

BEFORE

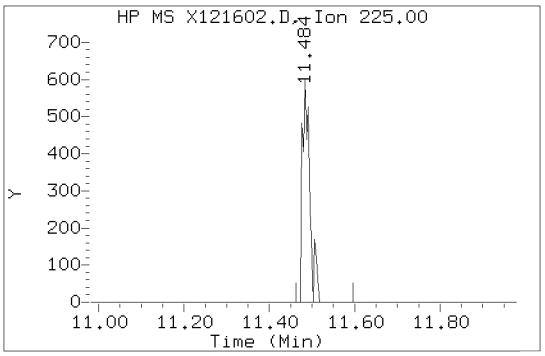
MASS
155
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




Reason Code:

AFTER

MASS
225
AREA
726
HEIGHT
599
27-Dec-2022
16:07
ALSHS
Ser

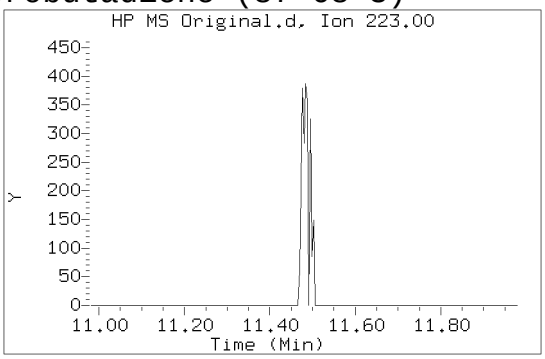


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

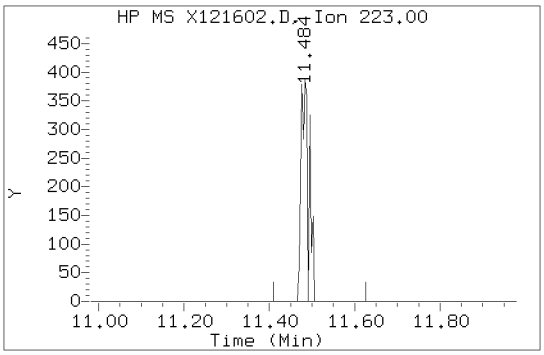
## Hexachlorobutadiene (87-68-3)

Reason Code:

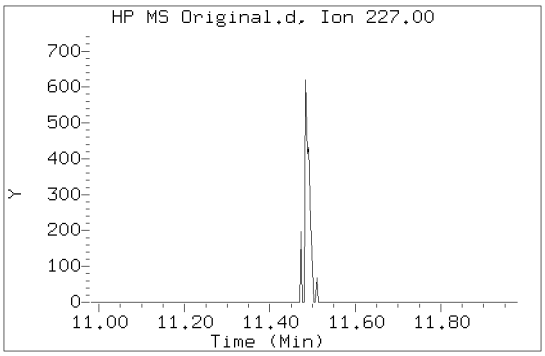
BEFORE
MASS
157
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



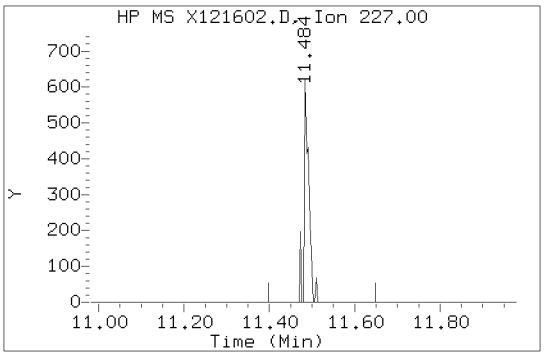

AFTER
MASS
223
AREA
502
HEIGHT
387
27-Dec-2022
16:07
ALSHS
Ser




BEFORE
MASS
75
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



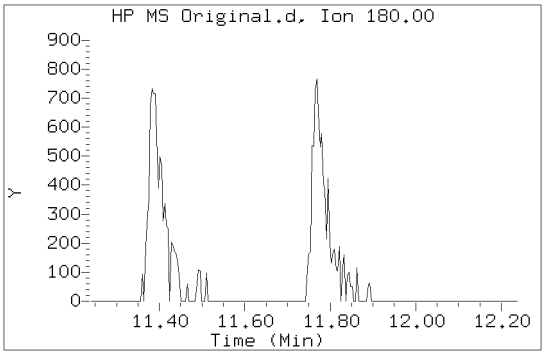

AFTER
MASS
227
AREA
469
HEIGHT
620
27-Dec-2022
16:07
ALSHS
Ser



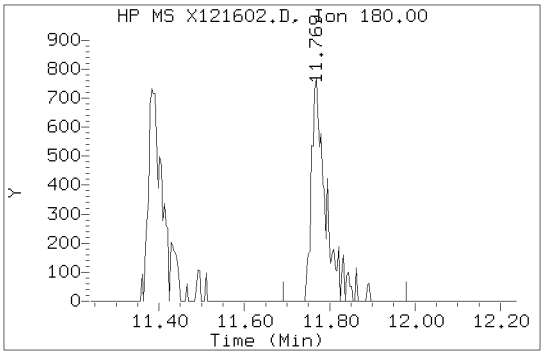

## 1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

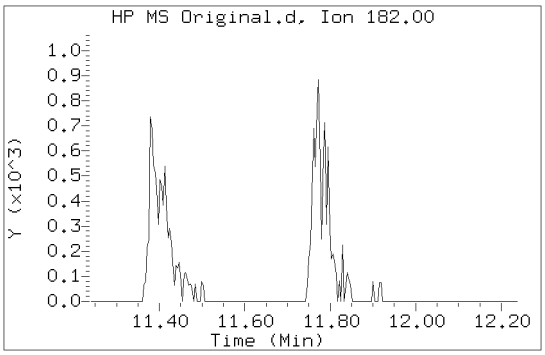
BEFORE
MASS
225
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



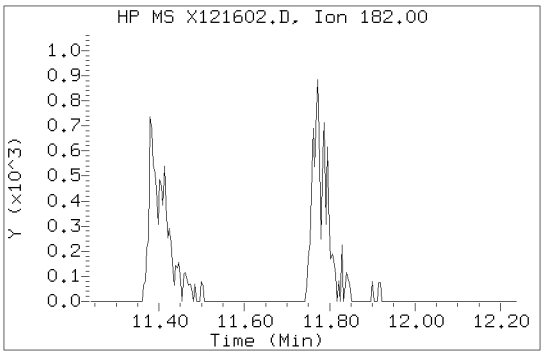

AFTER
MASS
180
AREA
1816
HEIGHT
766
27-Dec-2022
16:07
ALSHS
Ser




BEFORE
MASS
223
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




AFTER
MASS
182
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



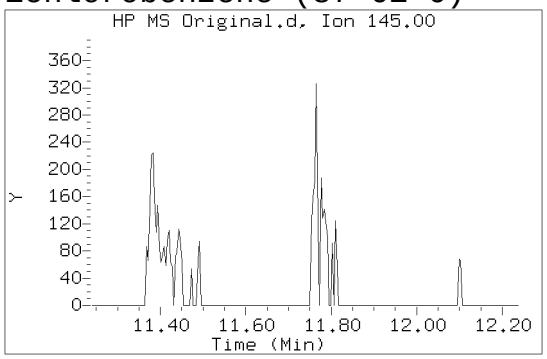
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## 1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

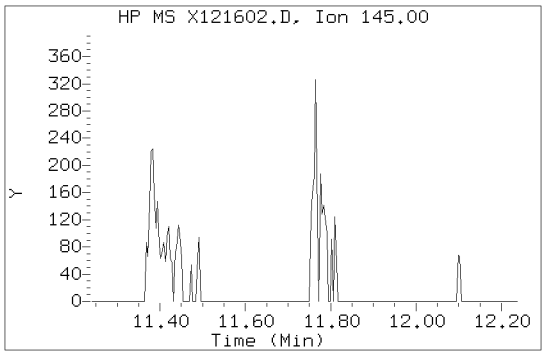
**BEFORE**

MASS
227
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
145
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

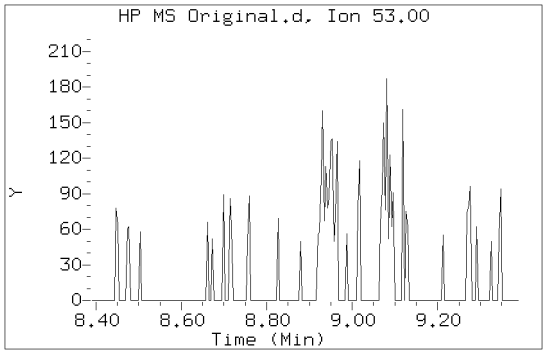



## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

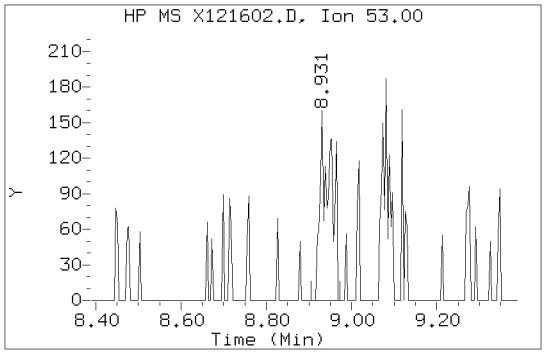
**BEFORE**

MASS
53
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



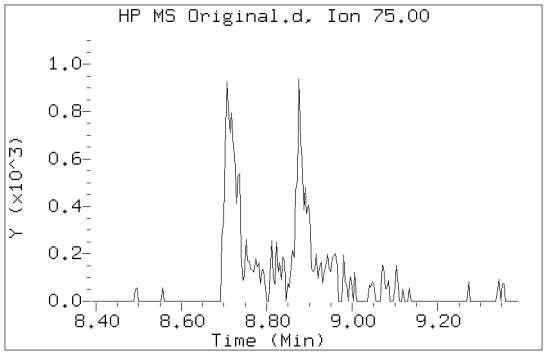

**AFTER**

MASS
53
AREA
280
HEIGHT
160
27-Dec-2022
16:07
ALSHS
Ser



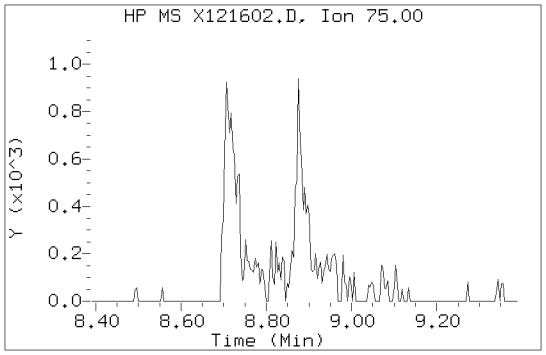

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

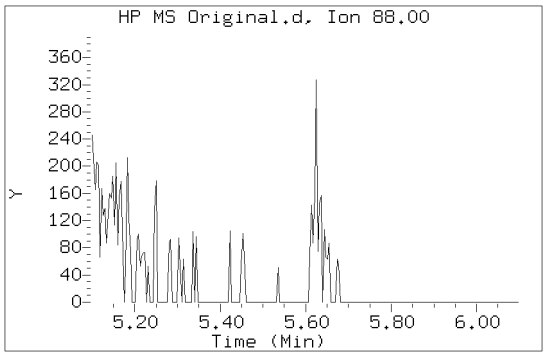



## 1,4-Dioxane ()

Reason Code:

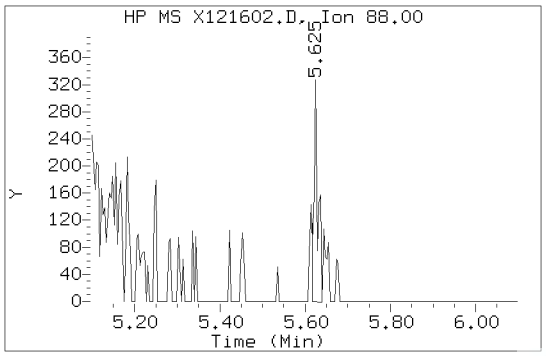
**BEFORE**

MASS
57
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
88
AREA
214
HEIGHT
327
27-Dec-2022
16:07
ALSHS
Ser



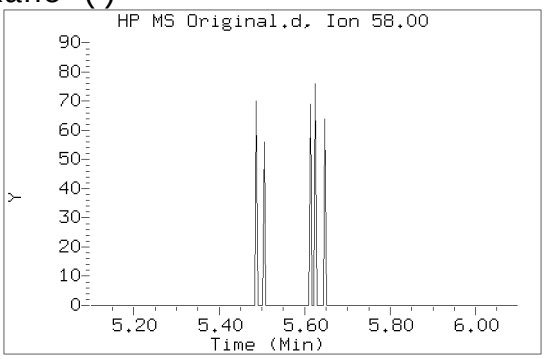
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## 1,4-Dioxane ()

Reason Code:

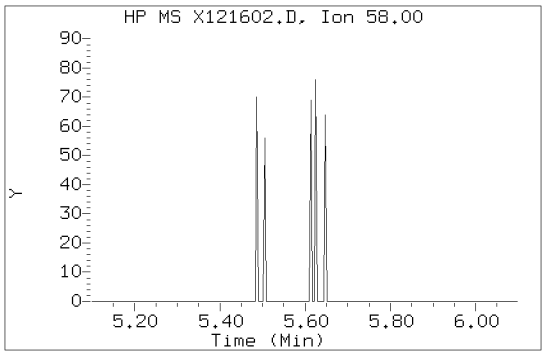
**BEFORE**

MASS
41
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

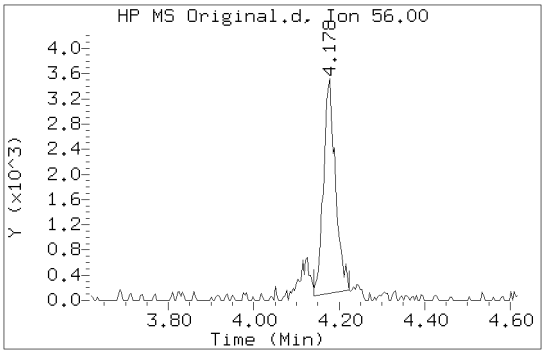



## Cyclohexane (110-82-7)

Reason Code:

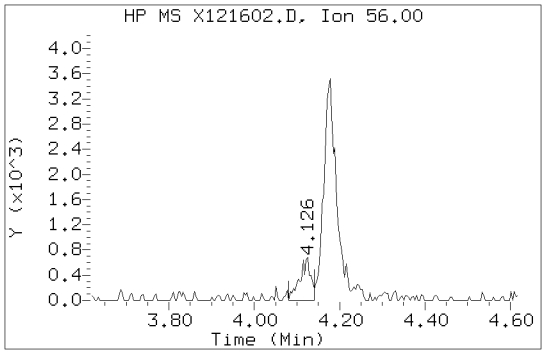
**BEFORE**

MASS
42
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



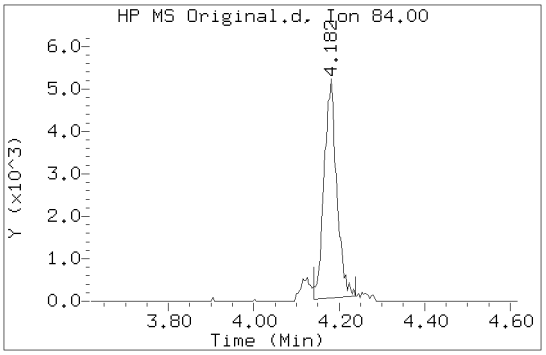

**AFTER**

MASS
56
AREA
1235
HEIGHT
682
27-Dec-2022
16:07
ALSHS
Ser



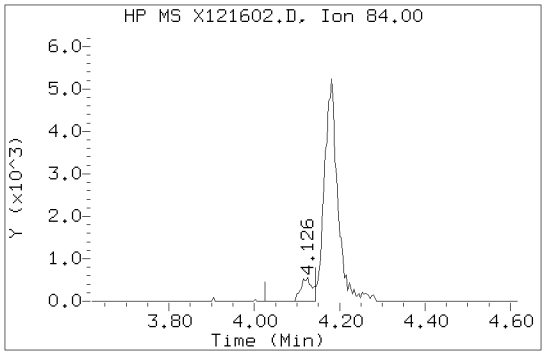

**BEFORE**

MASS
71
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
84
AREA
1062
HEIGHT
557
27-Dec-2022
16:07
ALSHS
Ser

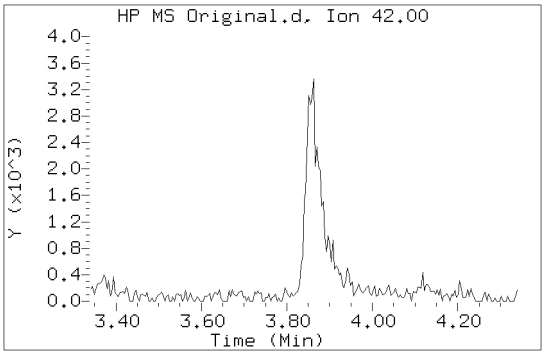



## Tetrahydrofuran (109-99-9)

Reason Code:

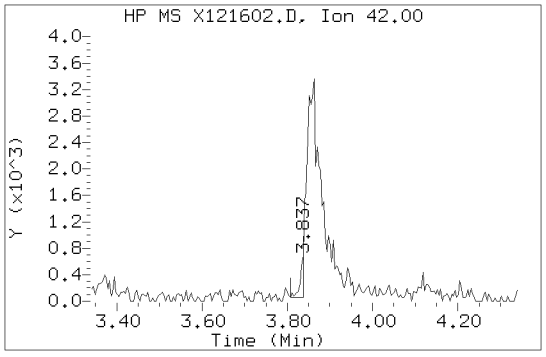
**BEFORE**

MASS
101
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
42
AREA
358
HEIGHT
628
27-Dec-2022
16:07
ALSHS
Ser



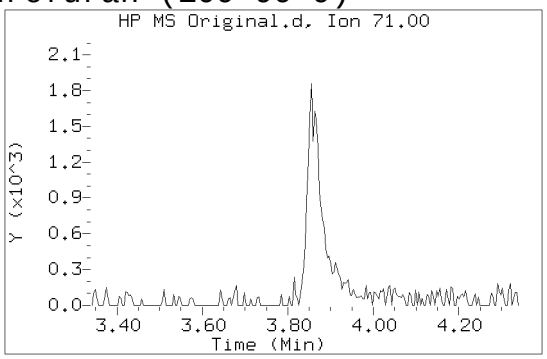
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Tetrahydrofuran (109-99-9)

Reason Code:

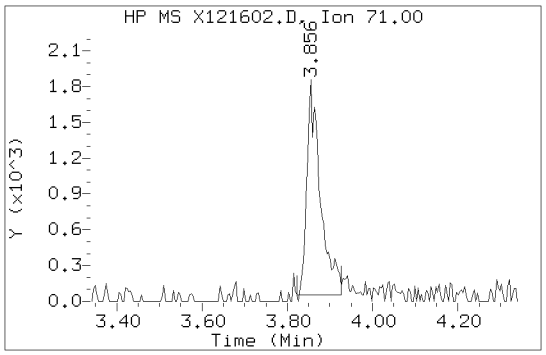
**BEFORE**

MASS
151
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
71
AREA
3962
HEIGHT
1803
27-Dec-2022
16:07
ALSHS
Ser

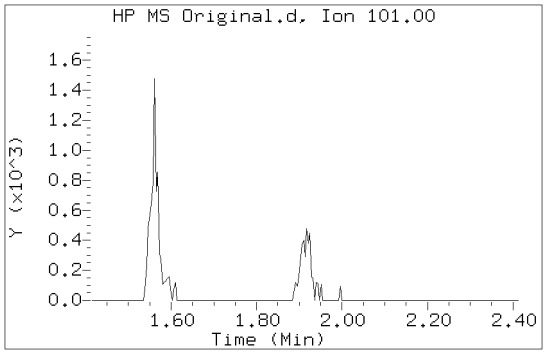



## Freon TF (76-13-1)

Reason Code:

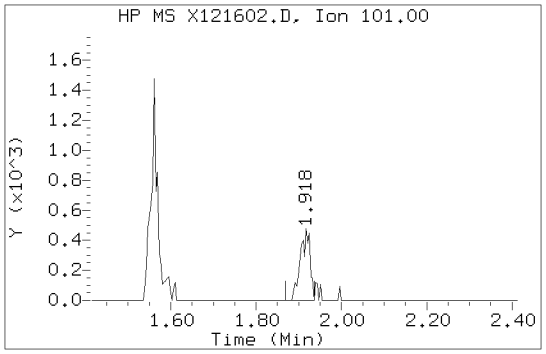
**BEFORE**

MASS
118
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



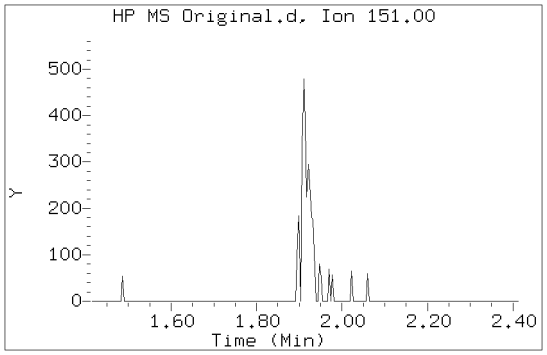

**AFTER**

MASS
101
AREA
765
HEIGHT
479
27-Dec-2022
16:07
ALSHS
Ser



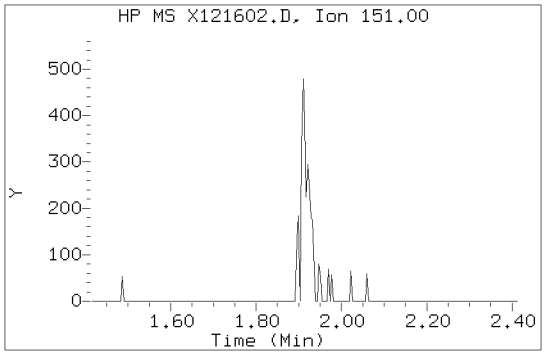

**BEFORE**

MASS
103
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
151
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Lab Smp Id: VSTD000.5  Client Smp ID: VSTD000.5
Inj Date  : 16-DEC-2022 12:20
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD000.5;VSTD000.5;1;2;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 11:38  Cal File: X121602.D
Als bottle: 4  Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 461469 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.625 | 5.625 | (1.346) | 462 | 10.0000 | 10.95(M) |
| 140 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 1793 | 0.50000 | 0.56(M) |
| 25 Methacrylonitrile | 41 | 3.848 | 3.848 | (0.921) | 2066 | 0.50000 | 0.63(M) |
| 12 Isobutyl Alcohol | 43 | 4.695 | 4.695 | (1.124) | 5178 | 10.0000 | 9.97(M) |
| 13 Acetonitrile | 39 | 2.210 | 2.210 | (0.529) | 2204 | 5.00000 | 5.24(M) |
| 14 Allyl Chloride | 41 | 2.206 | 2.206 | (0.528) | 4574 | 0.50000 | 0.57(M) |
| 4 Propionitrile | 54 | 3.686 | 3.686 | (0.882) | 2777 | 5.00000 | 5.89(M) |
| 136 n-Hexane | 57 | 2.772 | 2.772 | (0.664) | 1909 | 0.50000 | 0.57(M) |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.931 | 8.931 | (1.165) | 792 | 0.50000 | 0.56(M) |
| 23 Chloroprene | 53 | 1.771 | 1.771 | (0.424) | 900 | 0.50000 | 0.57(M) |
| 145 alpha-Methylstyrene | 118 | 9.272 | 9.272 | (0.960) | 4701 | 0.50000 | 0.60 |
| 200 Dimethyl Disulfide | 94 | 6.202 | 6.202 | (0.809) | 5153 | 0.50000 | 0.59(M) |
| 139 Diethyl ether | 59 | 1.760 | 1.760 | (0.421) | 1864 | 0.50000 | 0.60 |
| 130 Ethyl Acetate | 43 | 3.679 | 3.679 | (0.881) | 2065 | 0.50000 | 0.57(M) |
| 40 Methyl Methacrylate | 41 | 5.628 | 5.628 | (1.347) | 1788 | 0.50000 | 0.56(M) |
| 49 Ethyl Methacrylate | 69 | 6.727 | 6.727 | (1.355) | 1935 | 0.50000 | 0.59(M) |
| 132 n-Butanol | 56 | 5.291 | 5.291 | (1.266) | 622 | 10.0000 | 50.83(M) |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 900 | 1.00000 | (M) |
| 150 Allyl alcohol | 57 | 2.772 | 2.772 | (0.664) | 3089 | 10.0000 | 17.23 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 9626 | 0.50000 | 0.57(M) |
| 131 | Methyl Acrylate | 55 | 3.743 | 3.743 (0.896) | 1765 | 0.50000 | 0.56(M) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D Page 2
Report Date: 27-Dec-2022 16:07

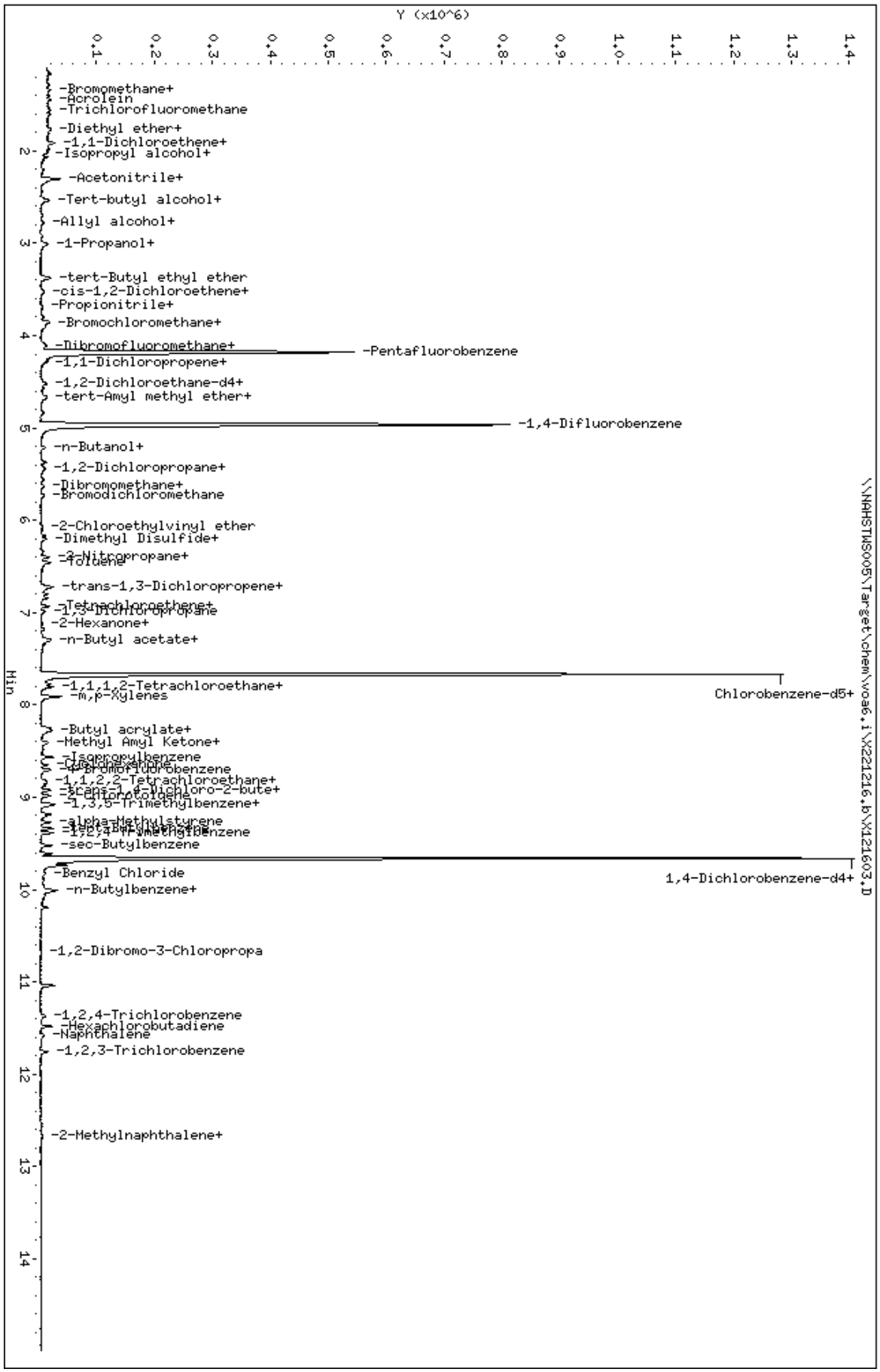
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT ( ug/l) | ON-COL ( ug/l) |
| | 162 | Butyl acrylate | 55 | 8.271 | 8.271 | (1.079) | 4718 | 0.50000 | 0.55(M) |
| | 2 | Dichlorodifluoromethane | 85 | 0.972 | 0.972 | (0.233) | 1990 | 0.50000 | 1.00(M) |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 2466 | 0.50000 | 2.77(M) |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 2412 | 0.50000 | 0.59(M) |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 1893 | 0.50000 | 2.36(M) |
| | 7 | Chloroethane | 64 | 1.407 | 1.407 | (0.337) | 1653 | 0.50000 | 0.58(M) |
| | 8 | Trichlorofluoromethane | 101 | 1.561 | 1.561 | (0.374) | 3286 | 0.50000 | 0.58(M) |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 440 | 1.00000 | 4.17(M) |
| | 10 | Acetone | 43 | 1.977 | 1.977 | (0.473) | 2669 | 1.00000 | 2.02(M) |
| | 11 | 1,1-Dichloroethene | 96 | 1.913 | 1.913 | (0.458) | 2037 | 0.50000 | 0.58(M) |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 2397 | 1.00000 | 3.84(TM) |
| | 16 | Acrylonitrile | 53 | 2.566 | 2.566 | (0.614) | 1118 | 1.00000 | 0.94(M) |
| | 17 | Methylene Chloride | 84 | 2.296 | 2.296 | (0.550) | 2938 | 0.50000 | 0.61(M) |
| | 18 | Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 5841 | 0.50000 | 0.50(M) |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 9921 | 1.00000 | 1.08(M) |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.543 | 2.543 | (0.609) | 2218 | 0.50000 | 0.56(M) |
| | 21 | Vinyl Acetate | 43 | 3.023 | 3.023 | (0.724) | 10138 | 1.00000 | 1.00(M) |
| | 22 | 1,1-Dichloroethane | 63 | 2.926 | 2.926 | (0.700) | 3874 | 0.50000 | 0.56(M) |
| | 24 | 2-Butanone | 43 | 3.649 | 3.649 | (0.873) | 1292 | 1.00000 | 3.93(M) |
| | 26 | 2,2-Dichloropropane | 77 | 3.514 | 3.514 | (0.841) | 3238 | 0.50000 | 0.55(M) |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.544 | 3.544 | (0.848) | 2852 | 0.50000 | 0.59 |
| | 28 | Chloroform | 83 | 3.908 | 3.908 | (0.935) | 4040 | 0.50000 | 0.52(M) |
| | 29 | Bromochloromethane | 128 | 3.799 | 3.799 | (0.909) | 1481 | 0.50000 | 0.56 |
| $ | 30 | Dibromofluoromethane | 113 | 4.110 | 4.110 | (0.984) | 2321 | 0.50000 | 0.35 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.084 | 4.084 | (0.978) | 3512 | 0.50000 | 0.57(M) |
| | 32 | 1,1-Dichloropropene | 75 | 4.290 | 4.290 | (0.864) | 2468 | 0.50000 | 0.50(M) |
| | 33 | 1,2-Dichloroethane | 62 | 4.567 | 4.567 | (0.920) | 3129 | 0.50000 | 0.55(M) |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 2763 | 0.50000 | 0.52(MH) |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.481 | 4.481 | (1.073) | 2849 | 0.50000 | 0.87(T) |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 687671 | 50.0000 | |
| | 37 | Benzene | 78 | 4.519 | 4.519 | (0.910) | 9243 | 0.50000 | 0.56 |
| | 38 | Trichloroethene | 130 | 5.216 | 5.216 | (1.051) | 2583 | 0.50000 | 0.55(M) |
| | 39 | Bromodichloromethane | 83 | 5.730 | 5.730 | (1.154) | 3650 | 0.50000 | 0.59(M) |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.071 | 6.071 | (1.223) | 1861 | 1.00000 | 1.06(M) |
| | 42 | 1,2-Dichloropropane | 63 | 5.441 | 5.441 | (1.096) | 2449 | 0.50000 | 0.56(M) |
| | 44 | Dibromomethane | 93 | 5.557 | 5.557 | (1.119) | 1725 | 0.50000 | 0.58 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.337 | 6.337 | (0.826) | 3741 | 1.00000 | 1.08(M) |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.168 | 6.168 | (1.242) | 3695 | 0.50000 | 0.51(M) |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 645291 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.401 | 6.401 | (0.835) | 9525 | 0.50000 | 0.59 |
| | 50 | Toluene | 91 | 6.460 | 6.460 | (0.843) | 10374 | 0.50000 | 0.58(M) |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.697 | 6.697 | (1.349) | 3042 | 0.50000 | 0.50 |
| | 52 | 2-Hexanone | 43 | 7.117 | 7.117 | (0.928) | 2580 | 1.00000 | 1.09 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 2092 | 0.50000 | 0.58(M) |
| | 54 | 1,3-Dichloropropane | 76 | 6.993 | 6.993 | (0.912) | 4005 | 0.50000 | 0.56(M) |
| | 55 | Dibromochloromethane | 129 | 7.180 | 7.180 | (0.936) | 2827 | 0.50000 | 0.54 |
| | 56 | Tetrachloroethene | 164 | 6.933 | 6.933 | (0.904) | 2131 | 0.50000 | 0.57(M) |
| | 57 | 1,2-Dibromoethane | 107 | 7.270 | 7.270 | (0.948) | 2340 | 0.50000 | 0.52(M) |
| | 58 | 1-Chlorohexane | 55 | 7.705 | 7.705 | (1.552) | 1829 | 0.50000 | 0.55(MH) |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 7747 | 0.50000 | 0.61 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.784 | 7.784 | (1.015) | 2741 | 0.50000 | 0.58(M) |
| | 61 | Ethylbenzene | 106 | 7.806 | 7.806 | (1.018) | 3064 | 0.50000 | 0.51(M) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 62 m,p-Xylenes | 106 | 7.911 | 7.911 (1.032) | 9016 | 1.00000 | 1.17(M) |
| 63 o-Xylene | 106 | 8.252 | 8.252 (1.076) | 4412 | 0.50000 | 0.58(M) |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 64 Styrene | 104 | 8.286 | 8.286 | (1.081) | 6634 | 0.50000 | 0.52(M) |
| | 66 Bromoform | 173 | 8.421 | 8.421 | (1.098) | 2013 | 0.50000 | 0.56(TM) |
| | 67 Isopropylbenzene | 105 | 8.567 | 8.567 | (1.117) | 8757 | 0.50000 | 0.50(M) |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.845 | 8.845 | (0.915) | 3194 | 0.50000 | 0.57(M) |
| $ | 69 4-Bromofluorobenzene | 95 | 8.706 | 8.706 | (1.135) | 3870 | 0.50000 | 0.71(M) |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 347824 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.871 | 8.871 | (0.918) | 2019 | 0.50000 | 0.52(M) |
| | 73 n-Propylbenzene | 91 | 8.923 | 8.923 | (0.924) | 11163 | 0.50000 | 0.57(M) |
| | 74 Bromobenzene | 156 | 8.818 | 8.818 | (0.913) | 3147 | 0.50000 | 0.55(M) |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.073 | 9.073 | (0.939) | 7182 | 0.50000 | 0.50(M) |
| | 76 2-Chlorotoluene | 91 | 8.983 | 8.983 | (0.930) | 6718 | 0.50000 | 0.53(M) |
| | 77 4-Chlorotoluene | 91 | 9.088 | 9.088 | (0.941) | 7644 | 0.50000 | 0.53(M) |
| | 78 tert-Butylbenzene | 119 | 9.339 | 9.339 | (0.967) | 6389 | 0.50000 | 0.54(M) |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.384 | 9.384 | (0.971) | 8496 | 0.50000 | 0.56(M) |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 7938 | 0.50000 | 0.51(M) |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 7343 | 0.50000 | 0.52(M) |
| | 83 1,3-Dichlorobenzene | 146 | 9.613 | 9.613 | (0.995) | 4677 | 0.50000 | 0.49(M) |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 5674 | 0.50000 | 0.54(M) |
| | 86 Benzyl Chloride | 91 | 9.831 | 9.831 | (1.282) | 3642 | 0.50000 | 3.03 |
| | 87 n-Butylbenzene | 91 | 10.014 | 10.014 | (1.036) | 5149 | 0.50000 | 2.14(M) |
| | 88 1,2-Dichlorobenzene | 146 | 10.010 | 10.010 | (1.036) | 5504 | 0.50000 | 0.56(M) |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.678 | 10.678 | (1.105) | 441 | 0.50000 | 0.58(M) |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.364 | 11.364 | (1.176) | 3187 | 0.50000 | 0.51(M) |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 1477 | 0.50000 | 0.49(M) |
| | 92 Naphthalene | 128 | 11.581 | 11.581 | (1.199) | 7025 | 0.50000 | 0.50 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.765 | 11.765 | (1.218) | 3572 | 0.50000 | 0.60(M) |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 5070 | 1.00000 | |
| M | 95 Xylenes (total) | 106 | | | | 13428 | 1.50000 | |
| | 141 Cyclohexane | 56 | 4.114 | 4.114 | (0.985) | 2803 | 0.50000 | 1.84(M) |
| | 138 Freon TF | 101 | 1.917 | 1.917 | (0.459) | 1851 | 0.50000 | 0.54(M) |
| | 147 Methylcyclohexane | 55 | 5.415 | 5.415 | (1.091) | 4781 | 0.50000 | 0.56(M) |
| | 146 Methyl Acetate | 43 | 2.240 | 2.240 | (0.536) | 1269 | 0.50000 | 0.61(M) |

## QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121603,D
Date : 16-DEC-2022 12:20
Client ID: VSTD000.5
Sample Info: VSTD000,5;VSTD000,5;1;2;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6,i
Operator: PC
Column diameter: 0.18

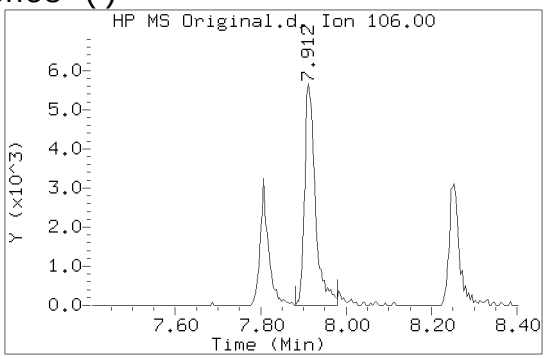
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## m,p-Xylenes ()

Reason Code:

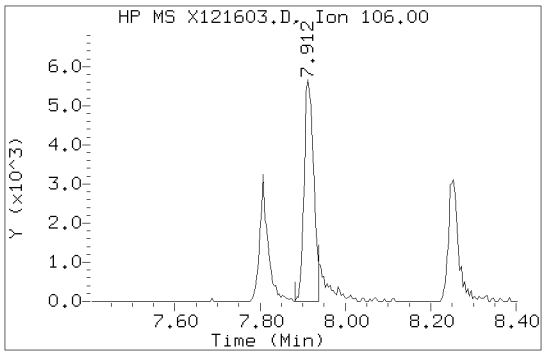
BEFORE

MASS
106
AREA
10070
HEIGHT
5666
27-Dec-2022
16:03
linh
pham



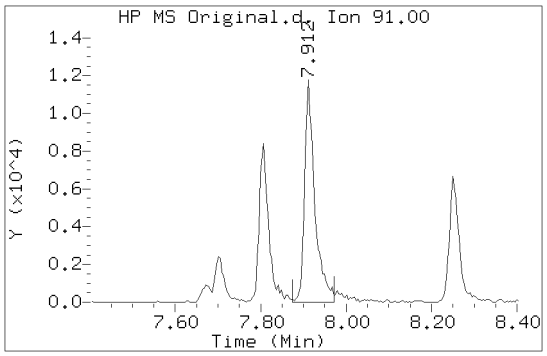

AFTER

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HEIGHT
5666
27-Dec-2022
16:07
linh
pham



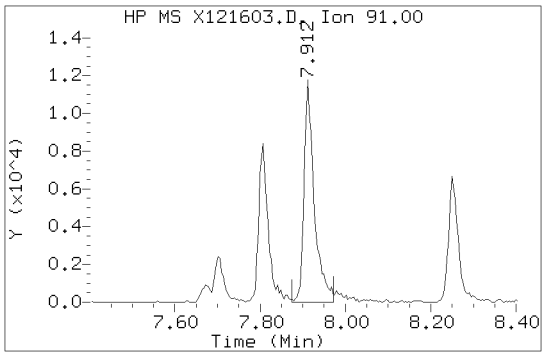

BEFORE

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AREA
19887
HEIGHT
11768
27-Dec-2022
16:03
linh
pham




AFTER

MASS
91
AREA
19887
HEIGHT
11768
27-Dec-2022
16:07
linh
pham

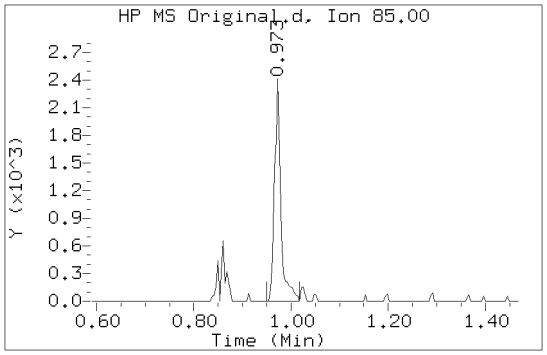



## Dichlorodifluoromethane (75-71-8)

Reason Code:

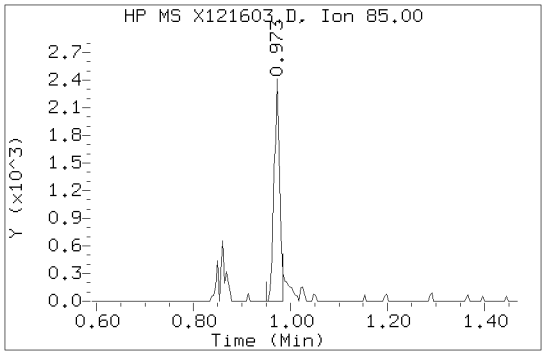
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AREA
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HEIGHT
2413
27-Dec-2022
16:03
linh
pham



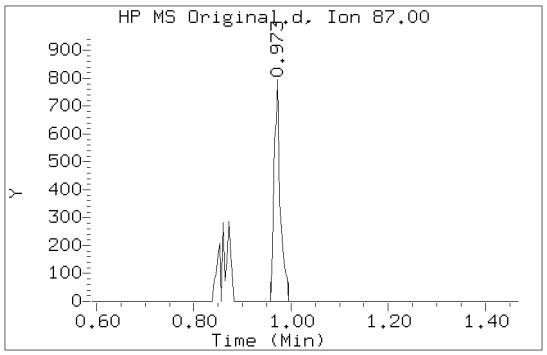

AFTER

MASS
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AREA
1990
HEIGHT
2413
27-Dec-2022
16:07
linh
pham



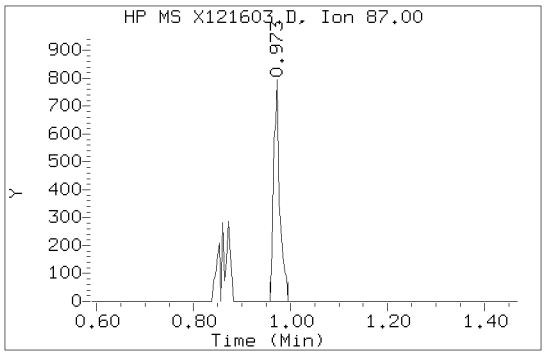

BEFORE

MASS
87
AREA
713
HEIGHT
795
27-Dec-2022
16:03
linh
pham




AFTER

MASS
87
AREA
713
HEIGHT
795
27-Dec-2022
16:07
linh
pham

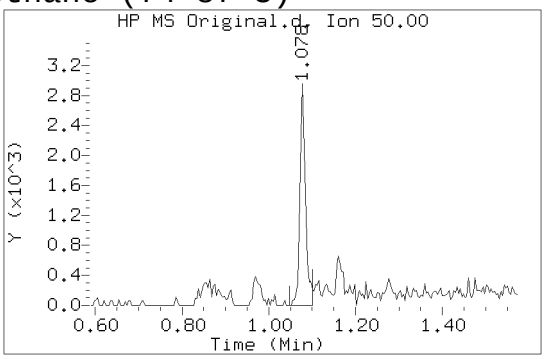


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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Chloromethane (74-87-3)

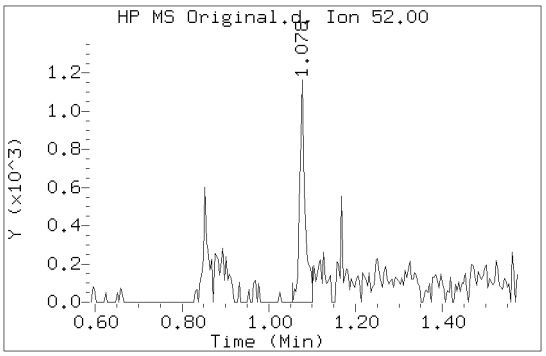
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HEIGHT
2959
27-Dec-2022
16:03
linh
pham




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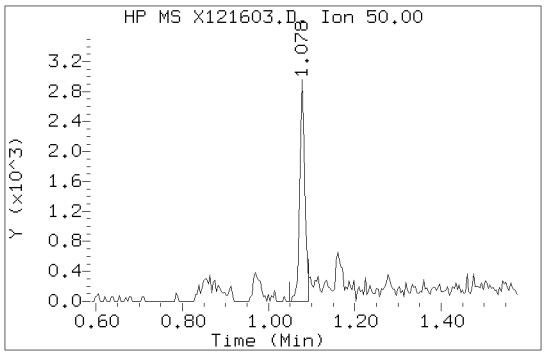
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AREA
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HEIGHT
1164
27-Dec-2022
16:03
linh
pham




### Reason Code:

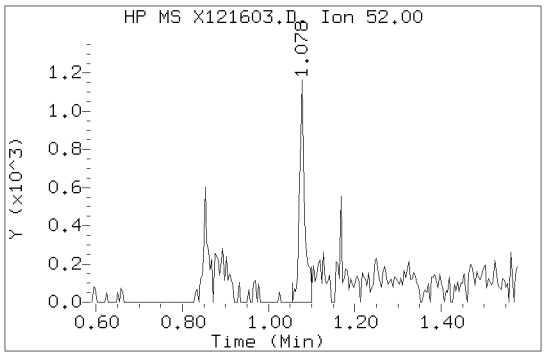
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AREA
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HEIGHT
2959
27-Dec-2022
16:07
linh
pham




### AFTER

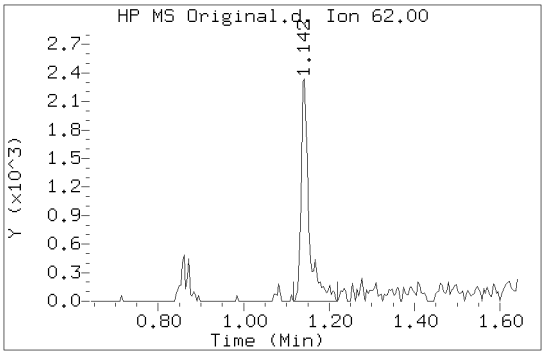
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AREA
985
HEIGHT
1164
27-Dec-2022
16:07
linh
pham




## Vinyl Chloride (75-01-4)

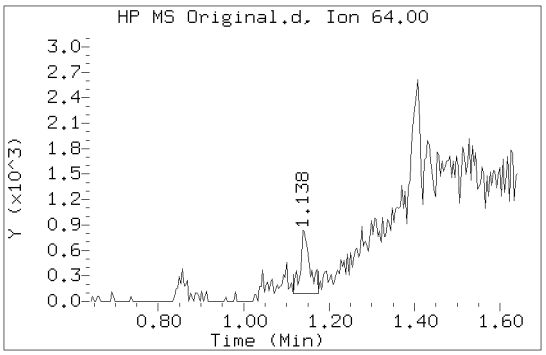
### BEFORE

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AREA
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HEIGHT
2337
27-Dec-2022
16:03
linh
pham




### BEFORE

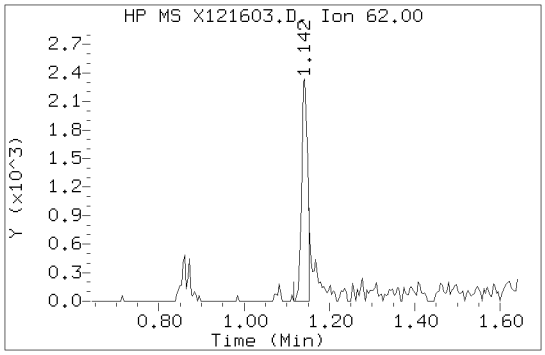
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HEIGHT
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27-Dec-2022
16:03
linh
pham




### Reason Code:

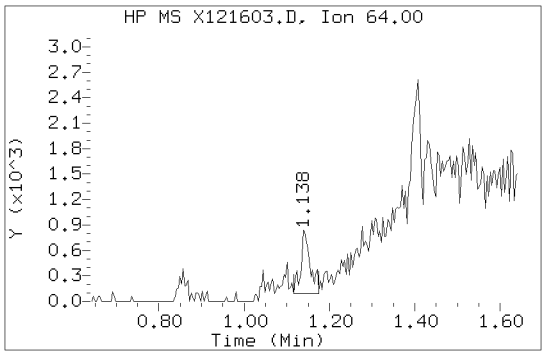
### AFTER

MASS
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AREA
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HEIGHT
2337
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
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AREA
1174
HEIGHT
750
27-Dec-2022
16:07
linh
pham

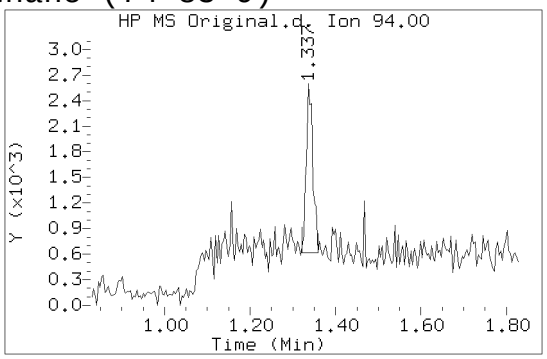


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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Bromomethane (74-83-9)

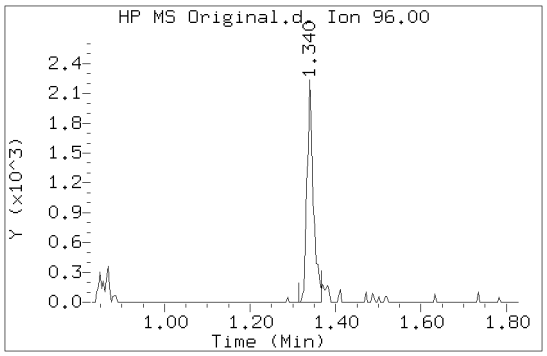
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HEIGHT
1983
27-Dec-2022
16:03
linh
pham




### BEFORE

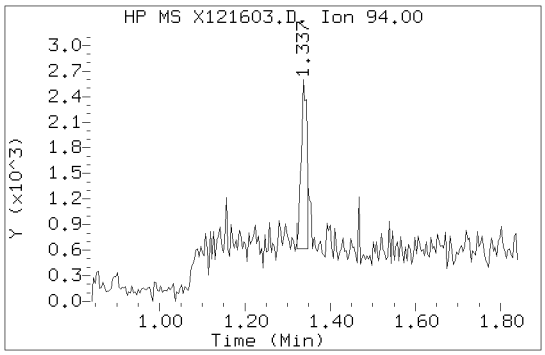
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2236
27-Dec-2022
16:03
linh
pham




Reason Code:

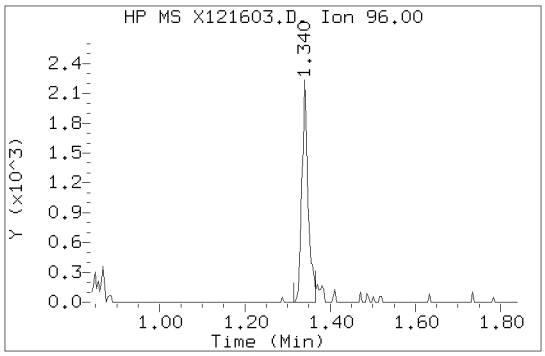
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27-Dec-2022
16:07
linh
pham




### AFTER

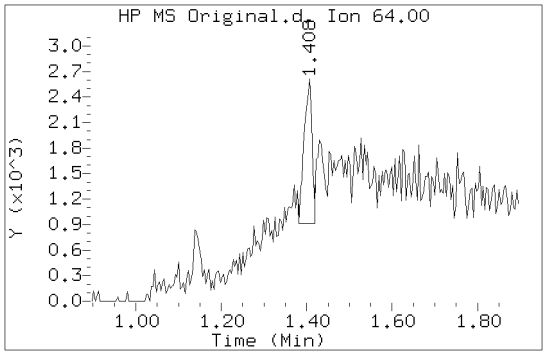
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2304
HEIGHT
2236
27-Dec-2022
16:07
linh
pham




## Chloroethane (75-00-3)

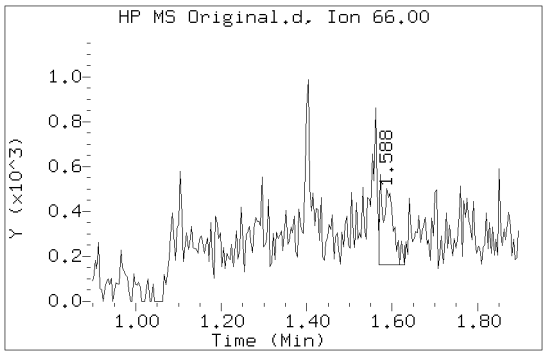
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AREA
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27-Dec-2022
16:03
linh
pham




### BEFORE

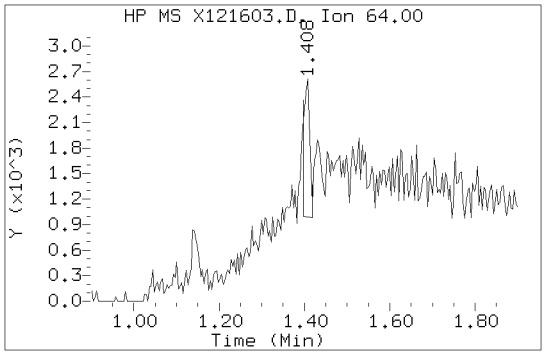
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16:03
linh
pham




Reason Code:

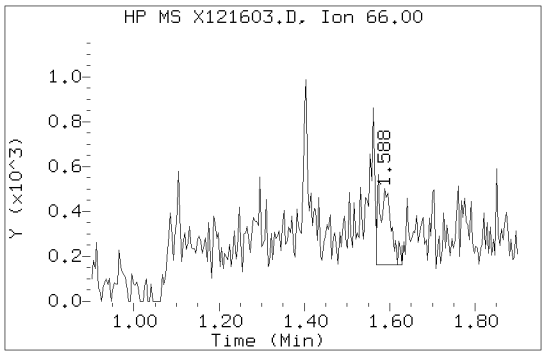
### AFTER

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27-Dec-2022
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pham




### AFTER

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AREA
677
HEIGHT
340
27-Dec-2022
16:07
linh
pham



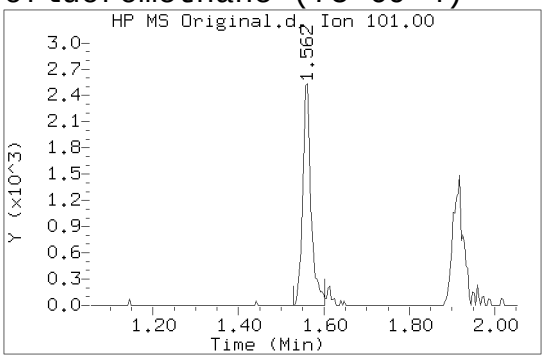
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Trichlorofluoromethane (75-69-4)

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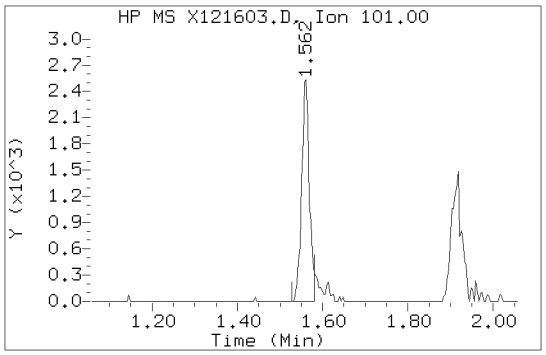
BEFORE

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27-Dec-2022
16:03
linh
pham



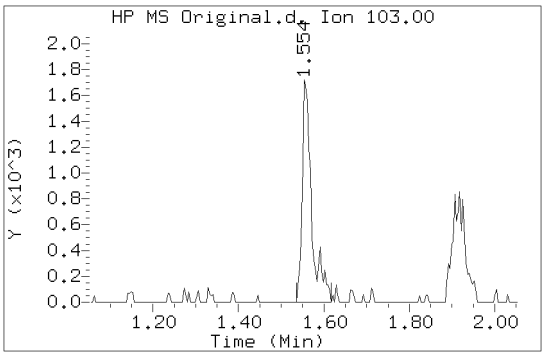

AFTER

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pham



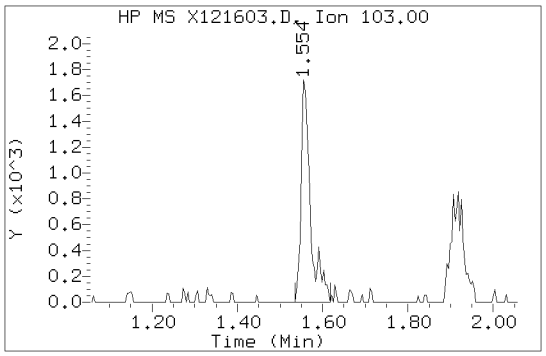

BEFORE

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27-Dec-2022
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AFTER

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AREA
2708
HEIGHT
1720
27-Dec-2022
16:07
linh
pham

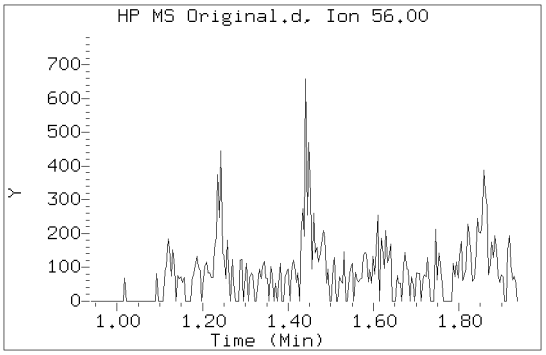



## Acrolein (107-02-8 )

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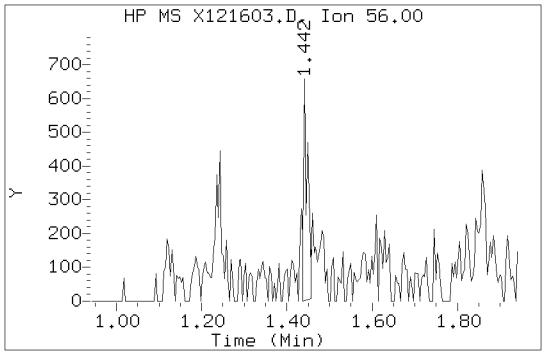
BEFORE

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HEIGHT
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27-Dec-2022
16:03
linh
pham



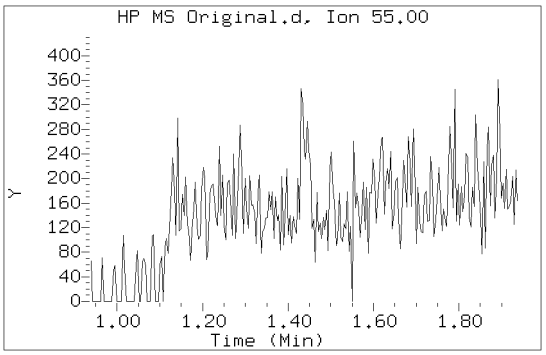

AFTER

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656
27-Dec-2022
16:07
linh
pham



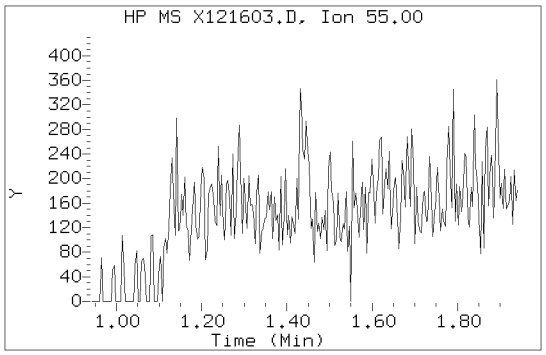

BEFORE

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



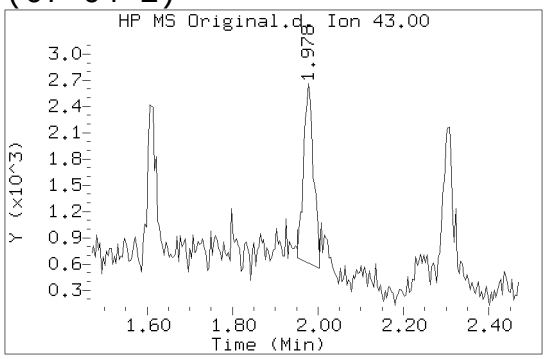
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Acetone (67-64-1)

Reason Code:

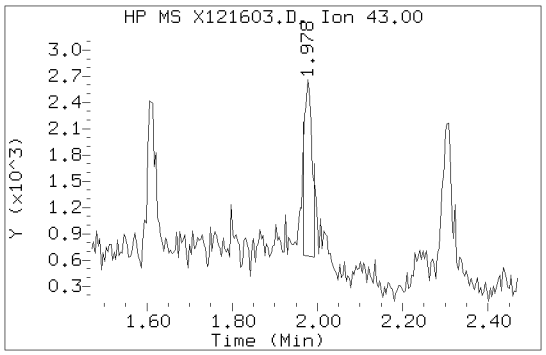
**BEFORE**

MASS
43
AREA
3388
HEIGHT
2046
27-Dec-2022
16:03
linh
pham



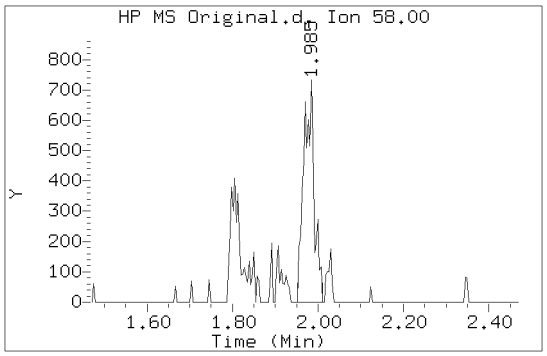

**AFTER**

MASS
43
AREA
2669
HEIGHT
2015
27-Dec-2022
16:07
linh
pham



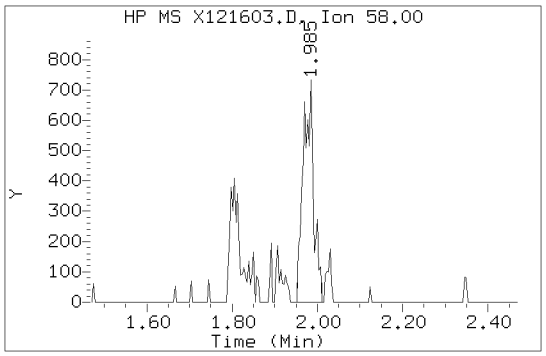

**BEFORE**

MASS
58
AREA
1264
HEIGHT
733
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
1264
HEIGHT
733
27-Dec-2022
16:07
linh
pham

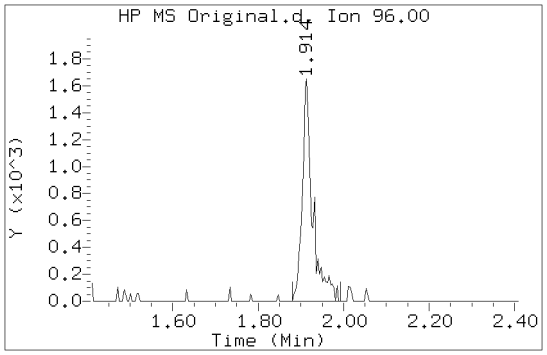



## 1,1-Dichloroethene (75-35-4)

Reason Code:

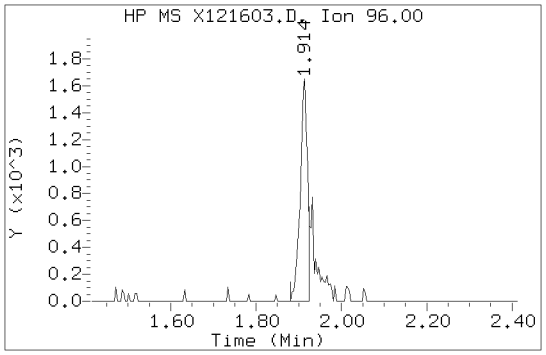
**BEFORE**

MASS
96
AREA
2836
HEIGHT
1651
27-Dec-2022
16:03
linh
pham



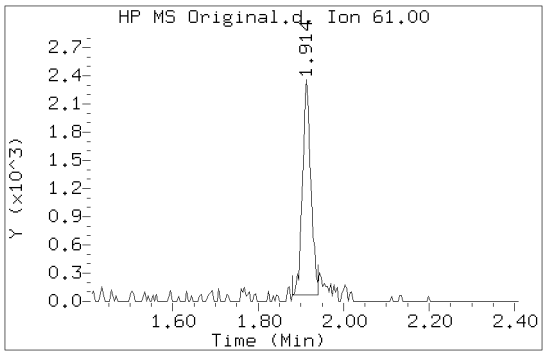

**AFTER**

MASS
96
AREA
2037
HEIGHT
1651
27-Dec-2022
16:07
linh
pham



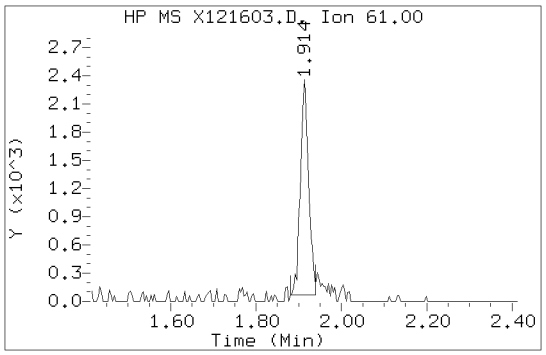

**BEFORE**

MASS
61
AREA
3197
HEIGHT
2293
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
61
AREA
3197
HEIGHT
2293
27-Dec-2022
16:07
linh
pham



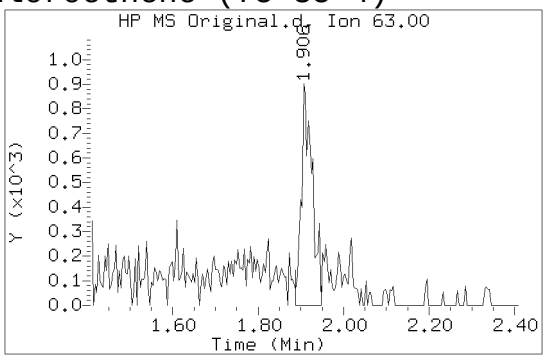
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1-Dichloroethene (75-35-4)

Reason Code:

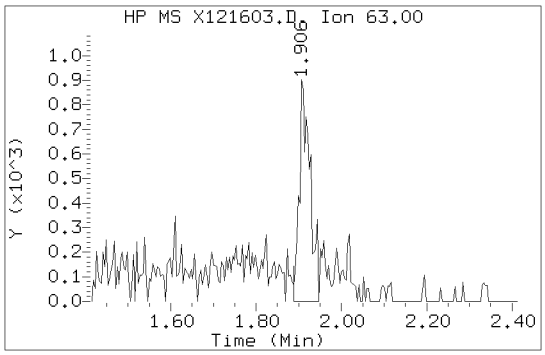
**BEFORE**

MASS
63
AREA
1607
HEIGHT
902
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
63
AREA
1607
HEIGHT
902
27-Dec-2022
16:07
linh
pham

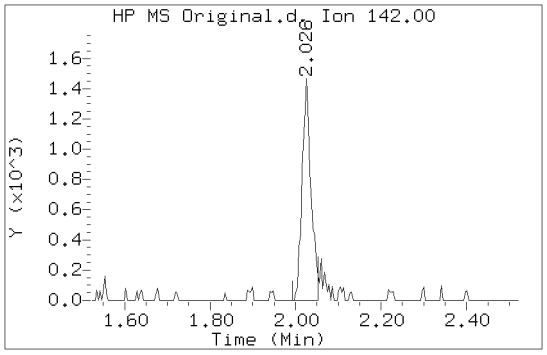



## Iodomethane (74-88-4)

Reason Code:

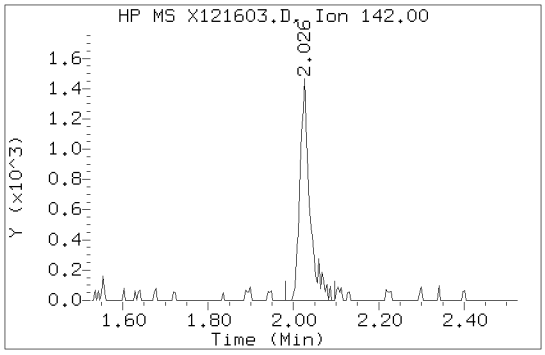
**BEFORE**

MASS
142
AREA
2166
HEIGHT
1466
27-Dec-2022
16:03
linh
pham



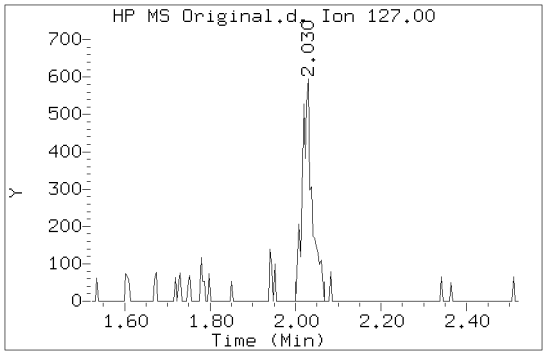

**AFTER**

MASS
142
AREA
2397
HEIGHT
1466
27-Dec-2022
16:07
linh
pham



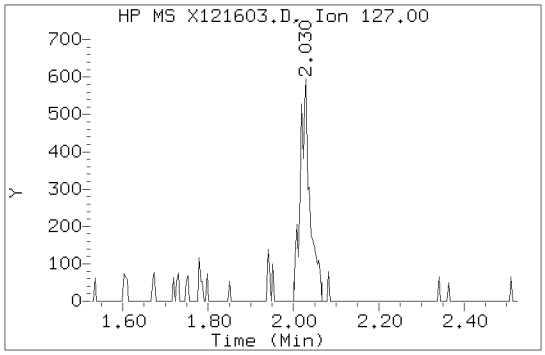

**BEFORE**

MASS
127
AREA
958
HEIGHT
595
27-Dec-2022
16:03
linh
pham



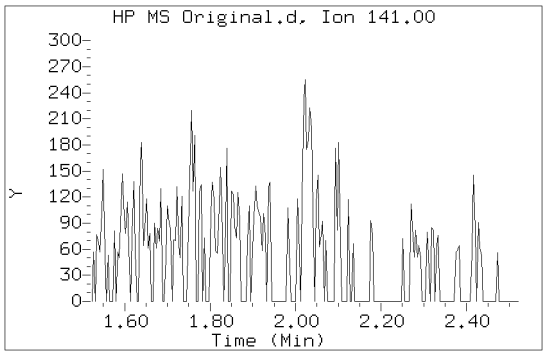

**AFTER**

MASS
127
AREA
958
HEIGHT
595
27-Dec-2022
16:07
linh
pham



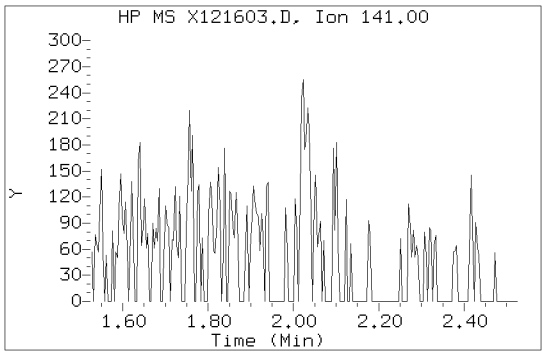

**BEFORE**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

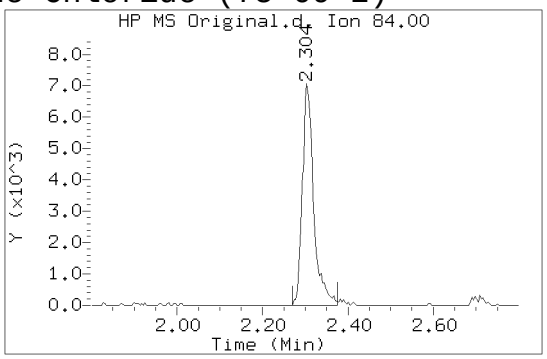


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

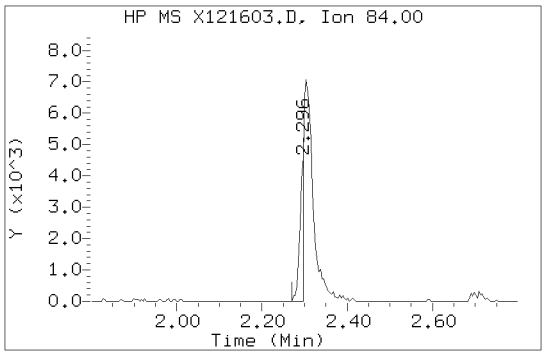
## Methylene Chloride (75-09-2)

Reason Code:

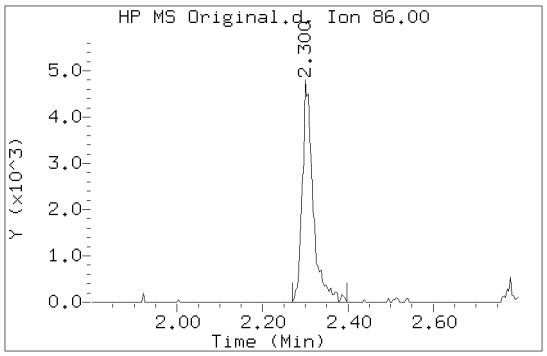
**BEFORE**
MASS
84
AREA
13307
HEIGHT
7067
27-Dec-2022
16:03
linh
pham



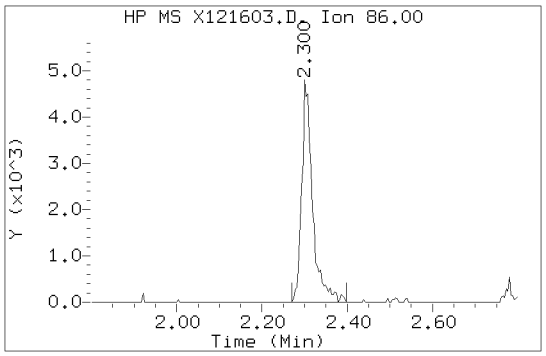

**AFTER**
MASS
84
AREA
2938
HEIGHT
4595
27-Dec-2022
16:07
linh
pham



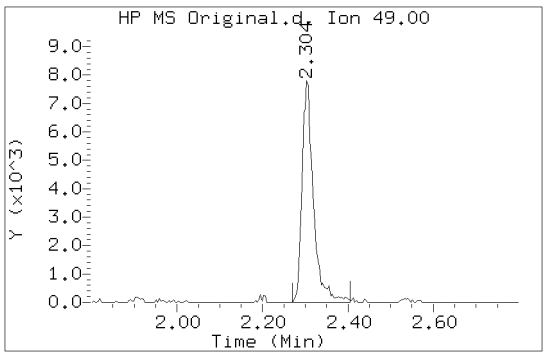

**BEFORE**
MASS
86
AREA
8692
HEIGHT
4802
27-Dec-2022
16:03
linh
pham



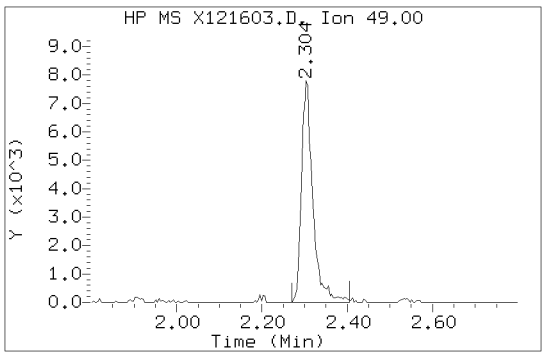

**AFTER**
MASS
86
AREA
8692
HEIGHT
4802
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
49
AREA
14733
HEIGHT
7803
27-Dec-2022
16:03
linh
pham



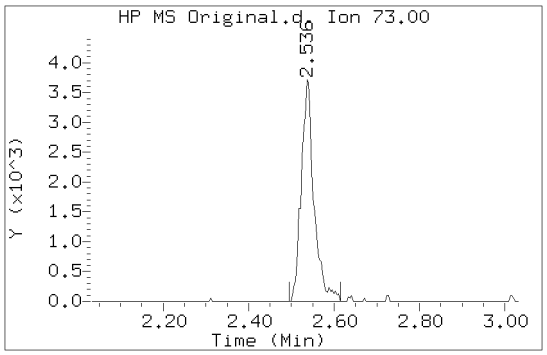

**AFTER**
MASS
49
AREA
14733
HEIGHT
7803
27-Dec-2022
16:07
linh
pham



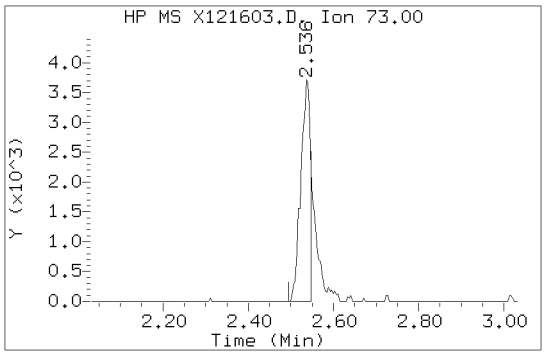

## Methyl tert-butyl ether (1634-04-4)

Reason Code:

**BEFORE**
MASS
73
AREA
7826
HEIGHT
3716
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
73
AREA
5841
HEIGHT
3716
27-Dec-2022
16:07
linh
pham

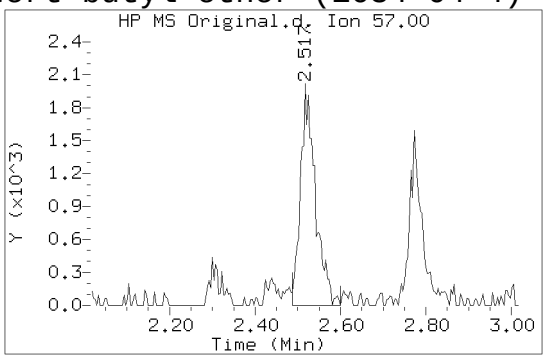


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methyl tert-butyl ether (1634-04-4)

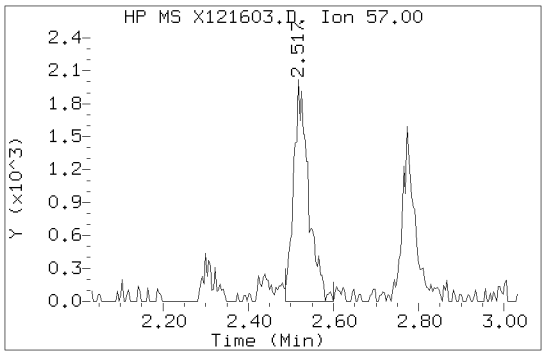
**BEFORE**

MASS
57
AREA
4915
HEIGHT
2019
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
57
AREA
4915
HEIGHT
2019
27-Dec-2022
16:07
linh
pham

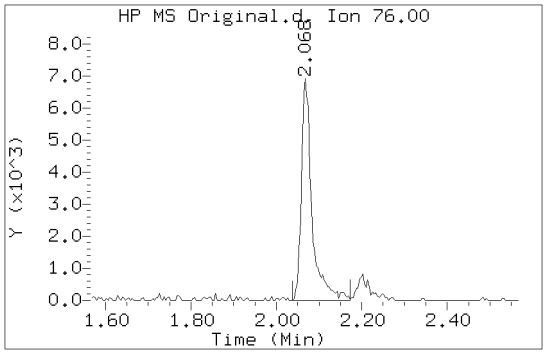



Reason Code:

## Carbon Disulfide (75-15-0)

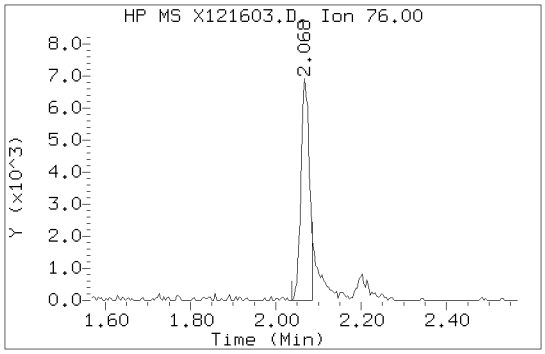
**BEFORE**

MASS
76
AREA
12313
HEIGHT
6923
27-Dec-2022
16:03
linh
pham




**AFTER**

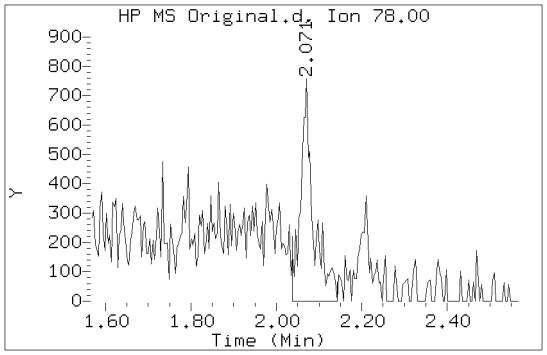
MASS
76
AREA
9921
HEIGHT
6923
27-Dec-2022
16:07
linh
pham




Reason Code:

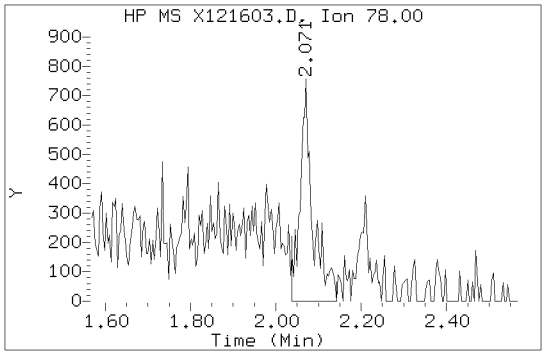
**BEFORE**

MASS
78
AREA
1586
HEIGHT
757
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
78
AREA
1586
HEIGHT
757
27-Dec-2022
16:07
linh
pham

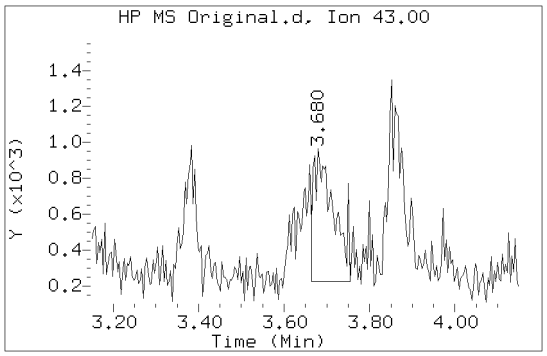



Reason Code:

## 2-Butanone (78-93-3)

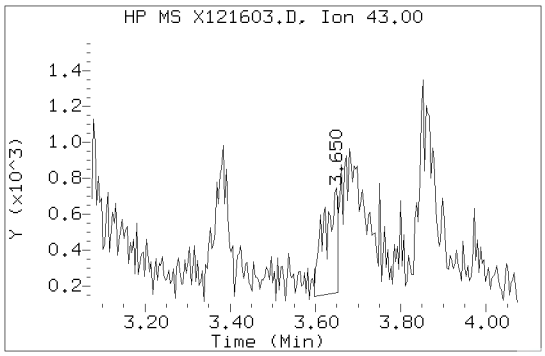
**BEFORE**

MASS
43
AREA
2415
HEIGHT
742
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
43
AREA
1292
HEIGHT
587
27-Dec-2022
16:07
linh
pham




Reason Code:

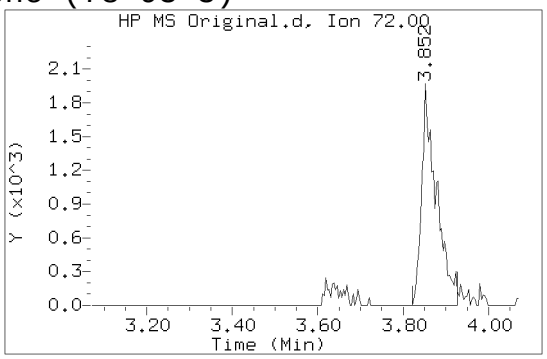
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 2-Butanone (78-93-3)

Reason Code:

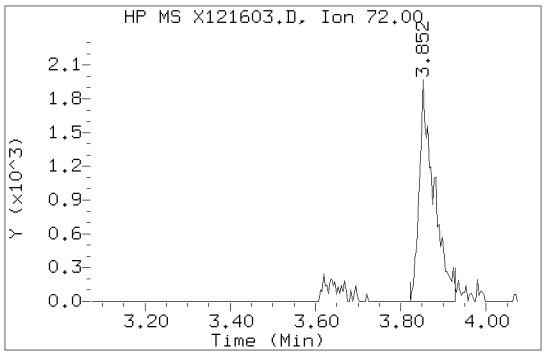
**BEFORE**

MASS
72
AREA
4698
HEIGHT
1970
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
72
AREA
4698
HEIGHT
1970
27-Dec-2022
16:07
linh
pham

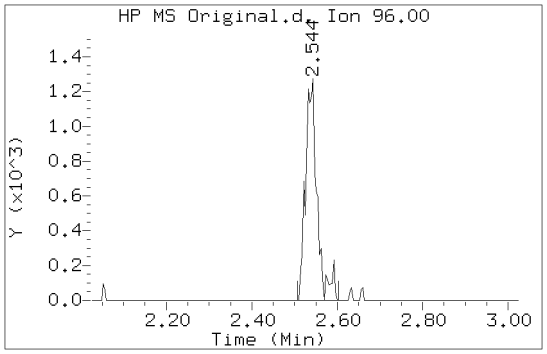



## trans-1,2-Dichloroethene (156-60-5)

Reason Code:

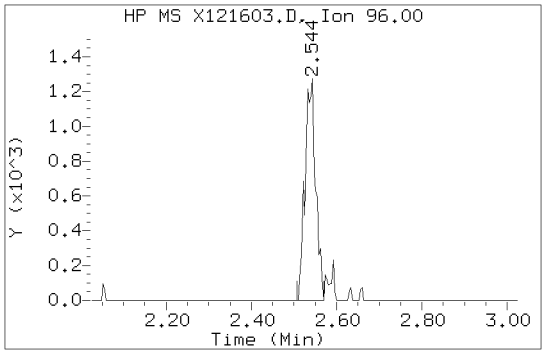
**BEFORE**

MASS
96
AREA
2404
HEIGHT
1274
27-Dec-2022
16:03
linh
pham



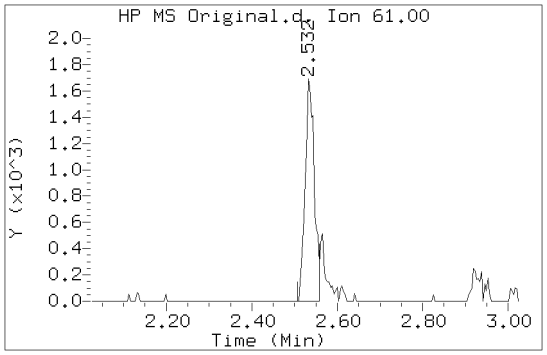

**AFTER**

MASS
96
AREA
2218
HEIGHT
1274
27-Dec-2022
16:07
linh
pham



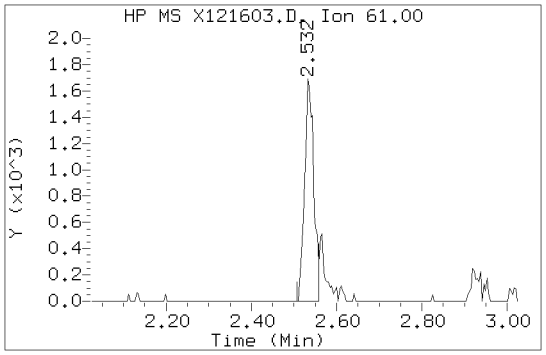

**BEFORE**

MASS
61
AREA
2571
HEIGHT
1692
27-Dec-2022
16:03
linh
pham



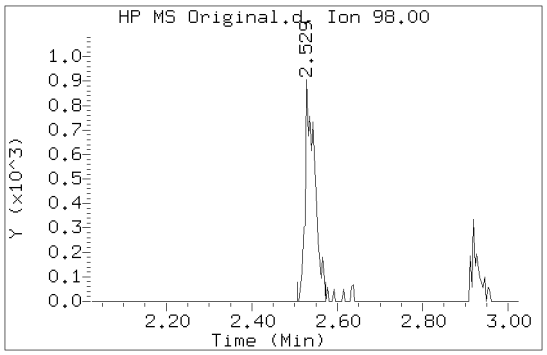

**AFTER**

MASS
61
AREA
2571
HEIGHT
1692
27-Dec-2022
16:07
linh
pham



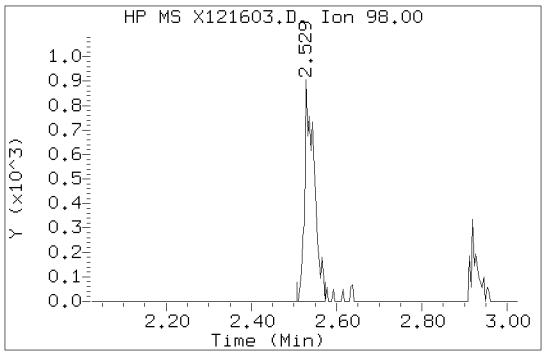

**BEFORE**

MASS
98
AREA
1412
HEIGHT
906
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
98
AREA
1412
HEIGHT
906
27-Dec-2022
16:07
linh
pham



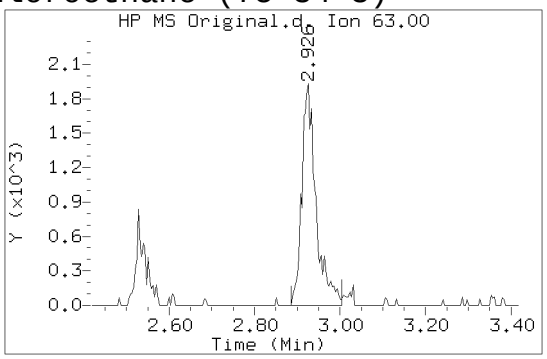
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1-Dichloroethane (75-34-3)

Reason Code:

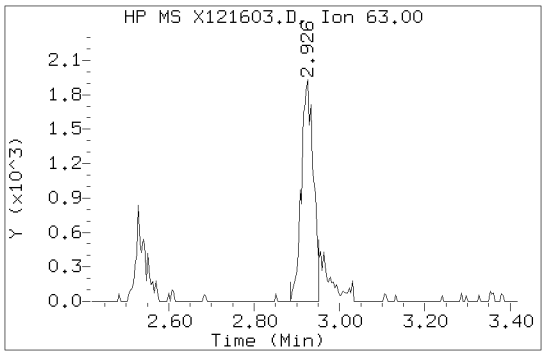
**BEFORE**

MASS
63
AREA
4504
HEIGHT
1931
27-Dec-2022
16:03
linh
pham



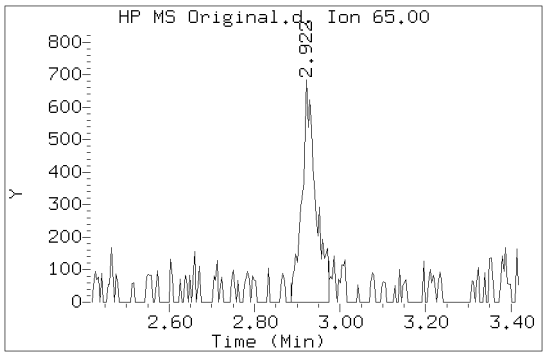

**AFTER**

MASS
63
AREA
3874
HEIGHT
1931
27-Dec-2022
16:07
linh
pham



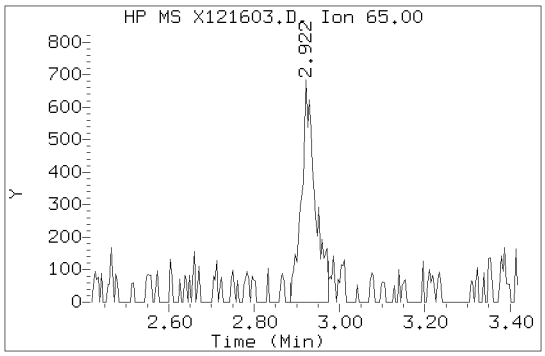

**BEFORE**

MASS
65
AREA
1548
HEIGHT
684
27-Dec-2022
16:03
linh
pham



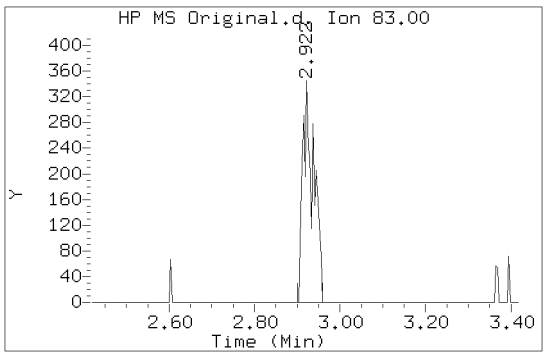

**AFTER**

MASS
65
AREA
1548
HEIGHT
684
27-Dec-2022
16:07
linh
pham



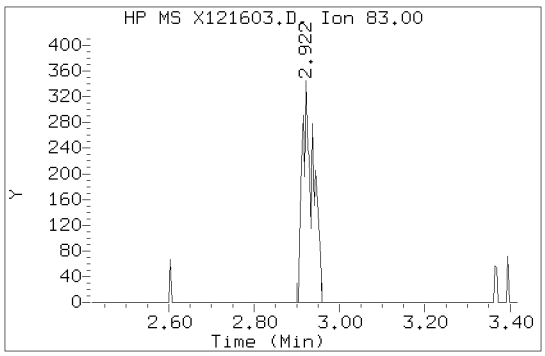

**BEFORE**

MASS
83
AREA
618
HEIGHT
345
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
83
AREA
618
HEIGHT
345
27-Dec-2022
16:07
linh
pham

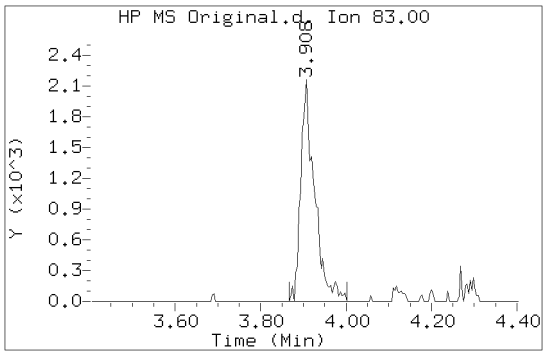



## Chloroform (67-66-3)

Reason Code:

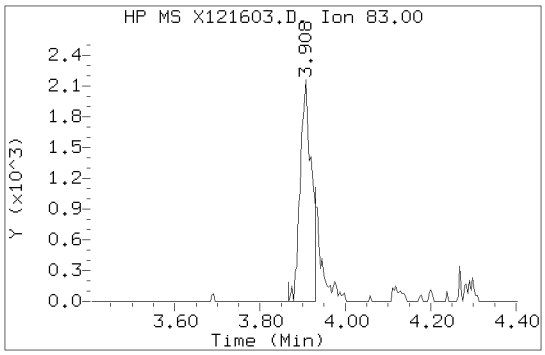
**BEFORE**

MASS
83
AREA
4949
HEIGHT
2160
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
83
AREA
4040
HEIGHT
2160
27-Dec-2022
16:07
linh
pham



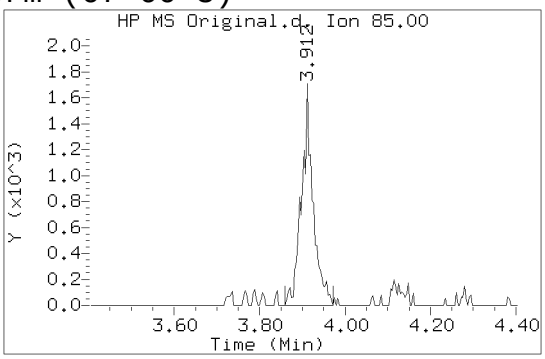
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Chloroform (67-66-3)

Reason Code:

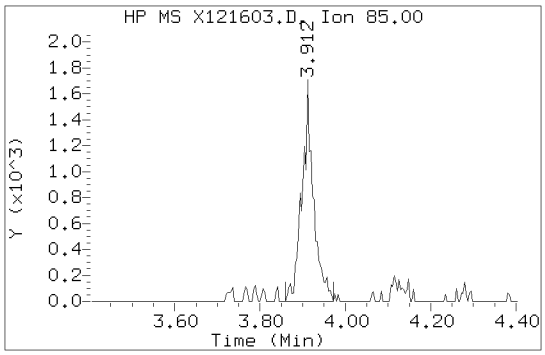
**BEFORE**

MASS
85
AREA
3222
HEIGHT
1709
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
3222
HEIGHT
1709
27-Dec-2022
16:07
linh
pham

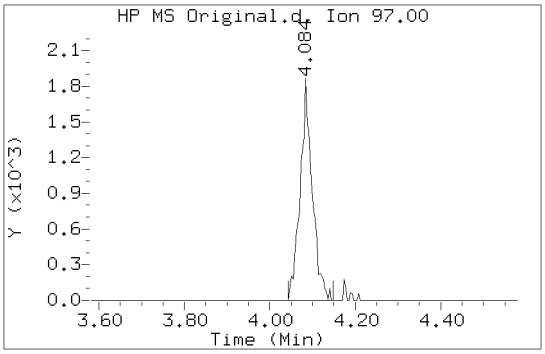



## 1,1,1-Trichloroethane (71-55-6)

Reason Code:

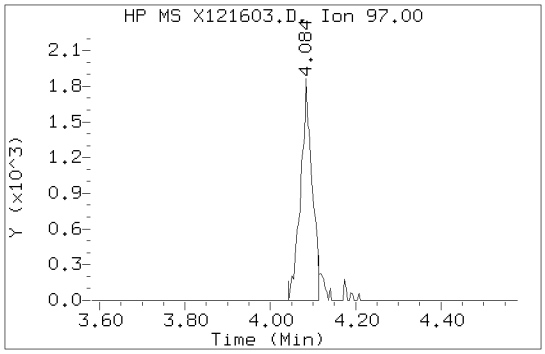
**BEFORE**

MASS
97
AREA
3710
HEIGHT
1863
27-Dec-2022
16:03
linh
pham



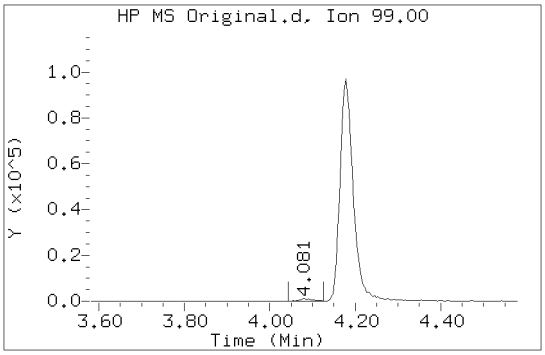

**AFTER**

MASS
97
AREA
3512
HEIGHT
1863
27-Dec-2022
16:07
linh
pham



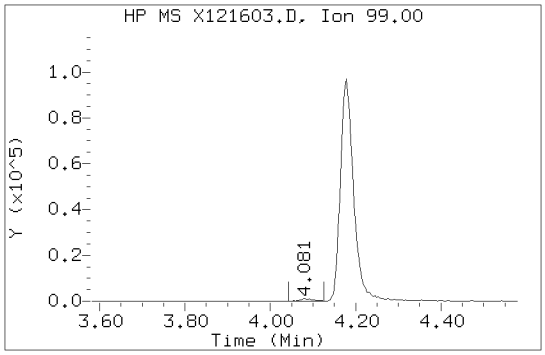

**BEFORE**

MASS
99
AREA
2299
HEIGHT
1029
27-Dec-2022
16:03
linh
pham



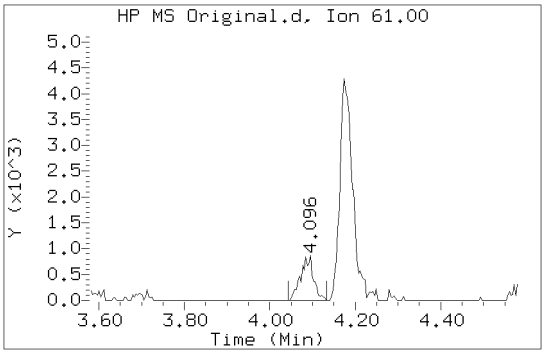

**AFTER**

MASS
99
AREA
2299
HEIGHT
1029
27-Dec-2022
16:07
linh
pham



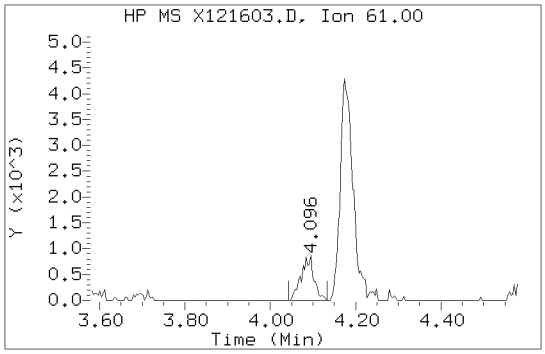

**BEFORE**

MASS
61
AREA
1801
HEIGHT
872
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
61
AREA
1801
HEIGHT
872
27-Dec-2022
16:07
linh
pham



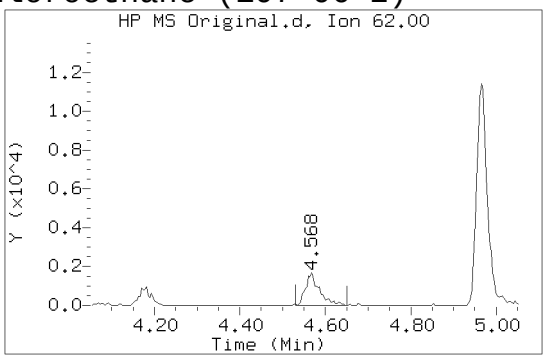
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,2-Dichloroethane (107-06-2)

Reason Code:

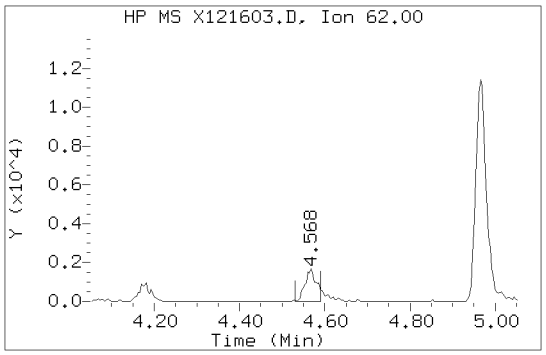
BEFORE

MASS
62
AREA
3822
HEIGHT
1678
27-Dec-2022
16:03
linh
pham



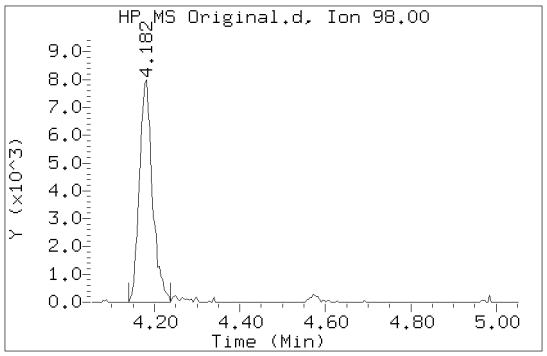

AFTER

MASS
62
AREA
3129
HEIGHT
1678
27-Dec-2022
16:07
linh
pham



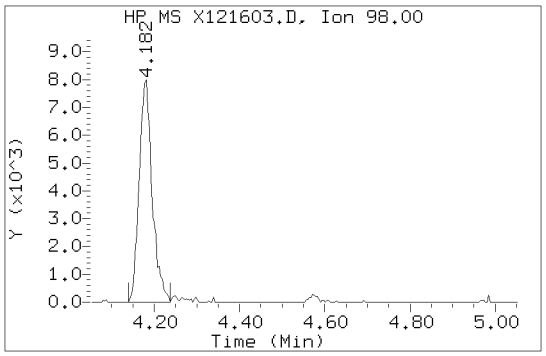

BEFORE

MASS
98
AREA
16918
HEIGHT
7987
27-Dec-2022
16:03
linh
pham




AFTER

MASS
98
AREA
16918
HEIGHT
7987
27-Dec-2022
16:07
linh
pham

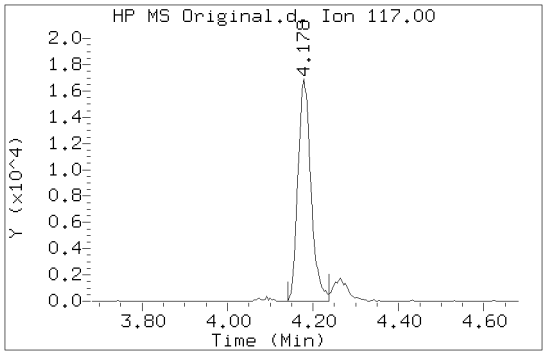



## Carbon Tetrachloride (56-23-5)

Reason Code:

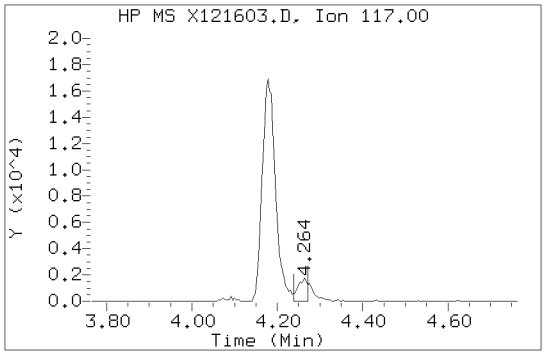
BEFORE

MASS
117
AREA
36559
HEIGHT
16920
27-Dec-2022
16:03
linh
pham



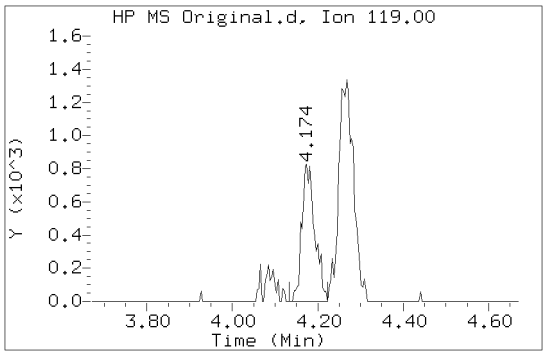

AFTER

MASS
117
AREA
2763
HEIGHT
1744
27-Dec-2022
16:07
linh
pham



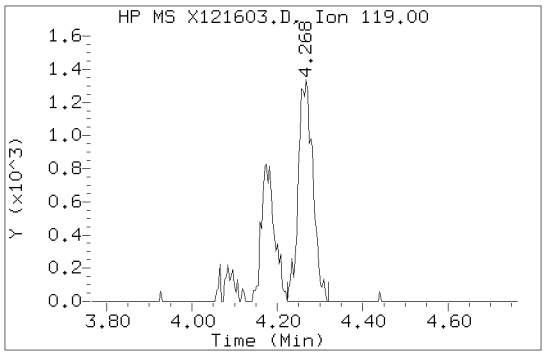

BEFORE

MASS
119
AREA
1780
HEIGHT
826
27-Dec-2022
16:03
linh
pham




AFTER

MASS
119
AREA
3227
HEIGHT
1337
27-Dec-2022
16:07
linh
pham



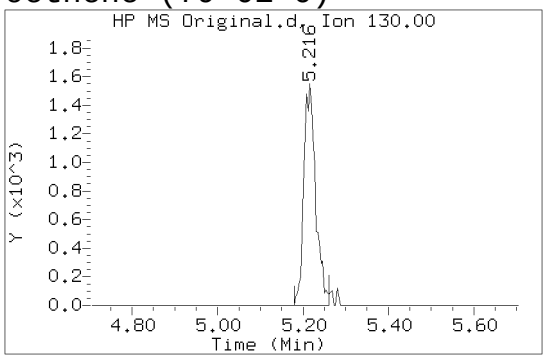
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Trichloroethene (79-01-6)

Reason Code:

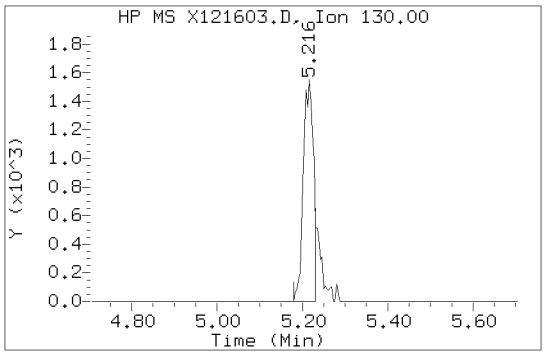
**BEFORE**

MASS
130
AREA
3011
HEIGHT
1551
27-Dec-2022
16:03
linh
pham



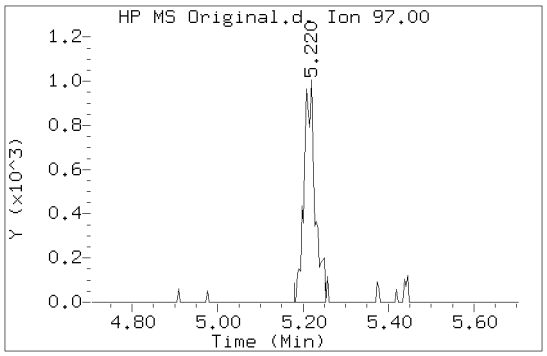

**AFTER**

MASS
130
AREA
2583
HEIGHT
1551
27-Dec-2022
16:07
linh
pham



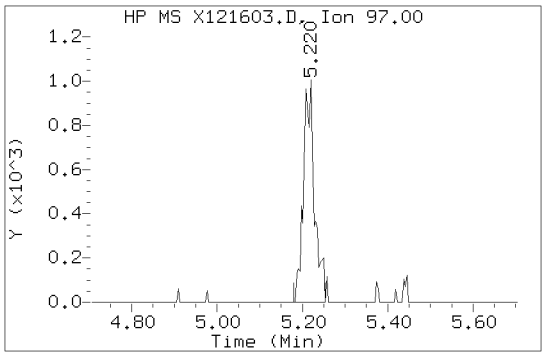

**BEFORE**

MASS
97
AREA
1808
HEIGHT
1006
27-Dec-2022
16:03
linh
pham



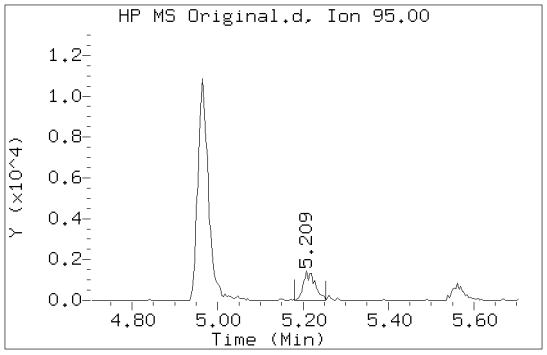

**AFTER**

MASS
97
AREA
1808
HEIGHT
1006
27-Dec-2022
16:07
linh
pham



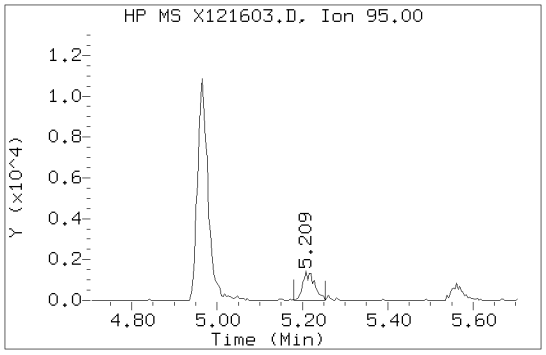

**BEFORE**

MASS
95
AREA
2693
HEIGHT
1431
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
95
AREA
2693
HEIGHT
1431
27-Dec-2022
16:07
linh
pham

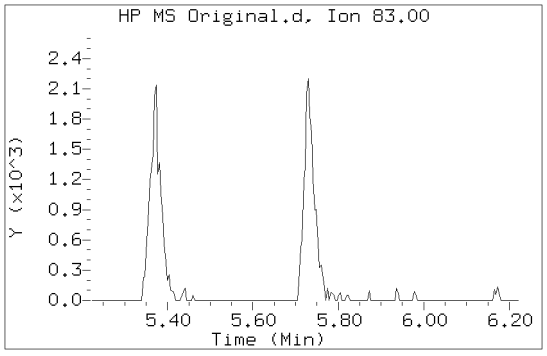



## Bromodichloromethane (75-27-4)

Reason Code:

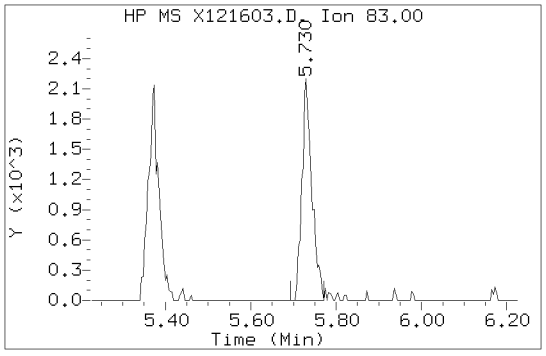
**BEFORE**

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
83
AREA
3650
HEIGHT
2201
27-Dec-2022
16:07
linh
pham



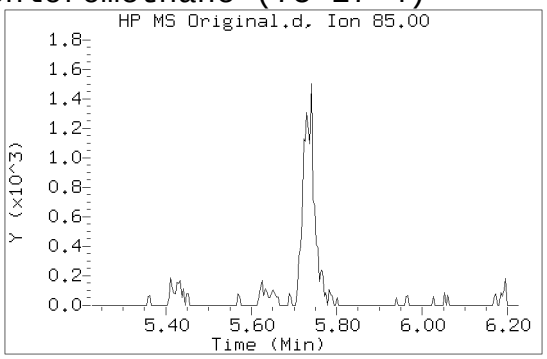
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Bromodichloromethane (75-27-4)

Reason Code:

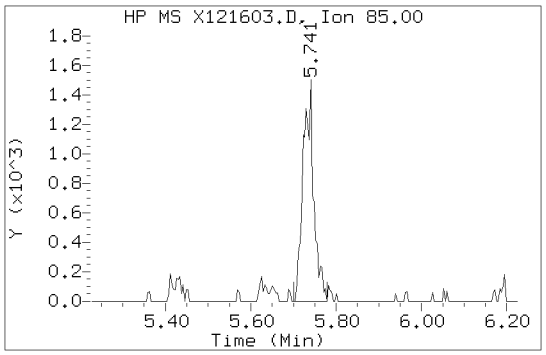
BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



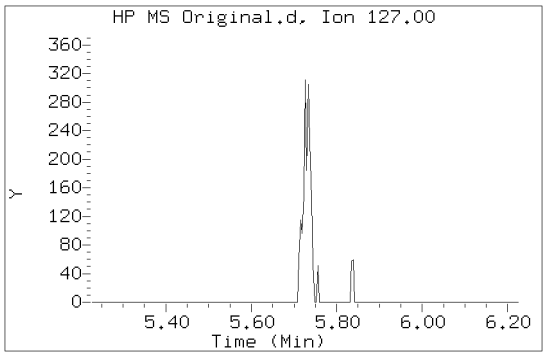

AFTER

MASS
85
AREA
2639
HEIGHT
1503
27-Dec-2022
16:07
linh
pham



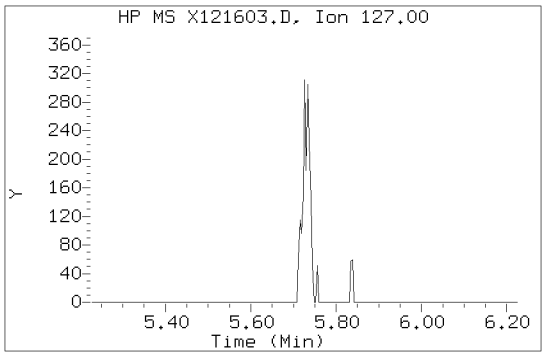

BEFORE

MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

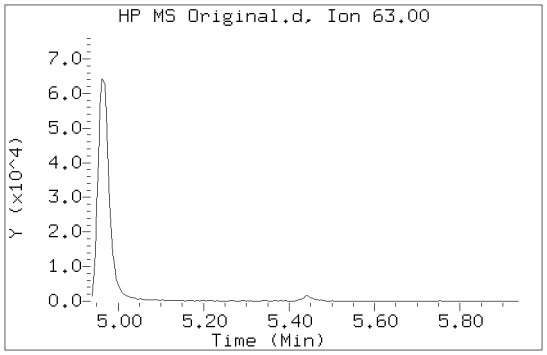



## 1,2-Dichloropropane (78-87-5)

Reason Code:

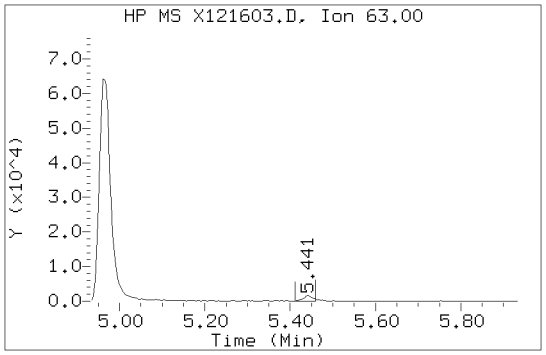
BEFORE

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



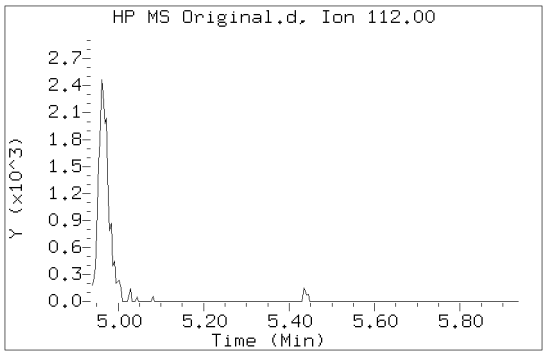

AFTER

MASS
63
AREA
2449
HEIGHT
1587
27-Dec-2022
16:07
linh
pham



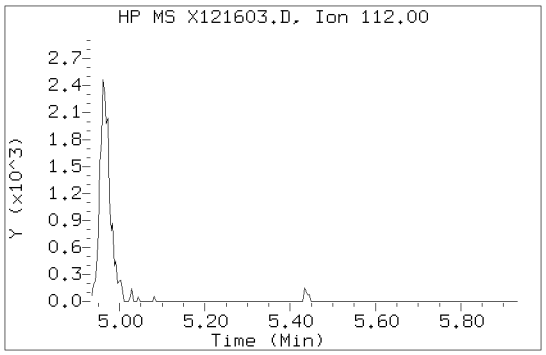

BEFORE

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



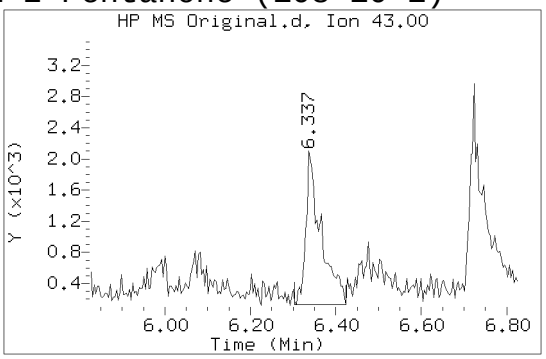
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 4-Methyl-2-Pentanone (108-10-1)

Reason Code:

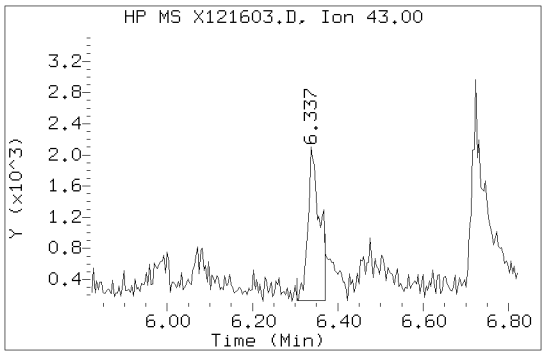
**BEFORE**

MASS
43
AREA
4873
HEIGHT
1970
27-Dec-2022
16:03
linh
pham



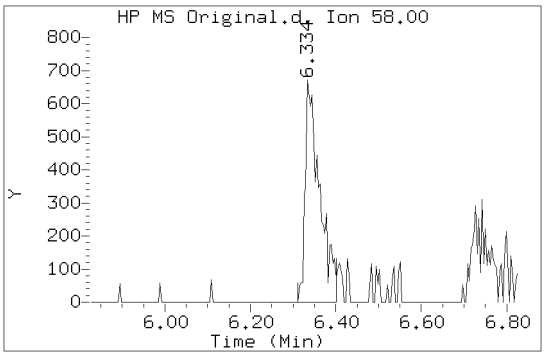

**AFTER**

MASS
43
AREA
3741
HEIGHT
1970
27-Dec-2022
16:07
linh
pham



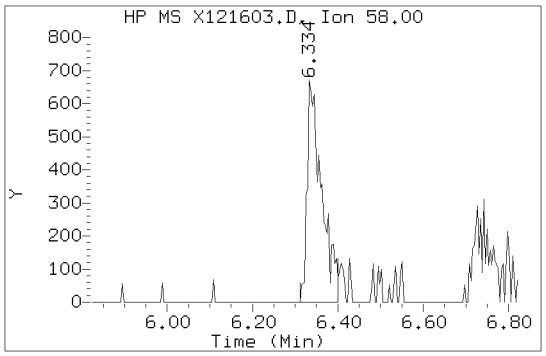

**BEFORE**

MASS
58
AREA
1585
HEIGHT
672
27-Dec-2022
16:03
linh
pham



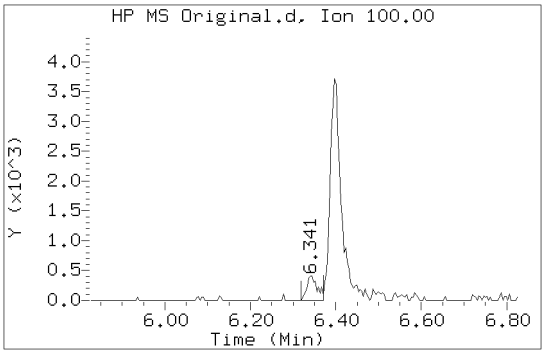

**AFTER**

MASS
58
AREA
1585
HEIGHT
672
27-Dec-2022
16:07
linh
pham



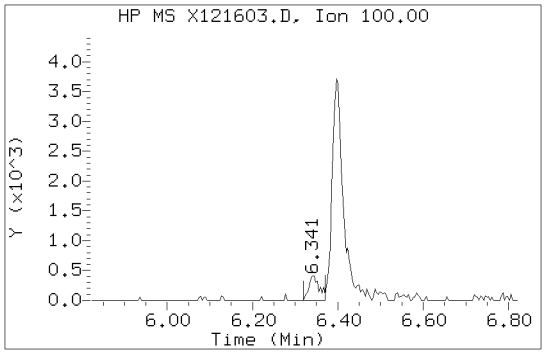

**BEFORE**

MASS
100
AREA
714
HEIGHT
412
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
100
AREA
714
HEIGHT
412
27-Dec-2022
16:07
linh
pham

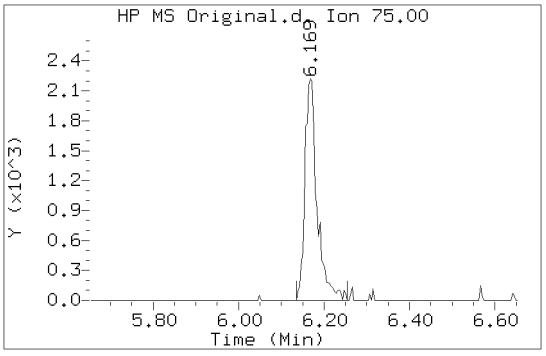



## cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

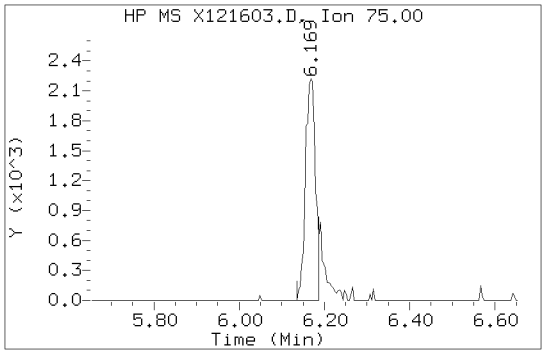
**BEFORE**

MASS
75
AREA
4432
HEIGHT
2222
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
3695
HEIGHT
2222
27-Dec-2022
16:07
linh
pham



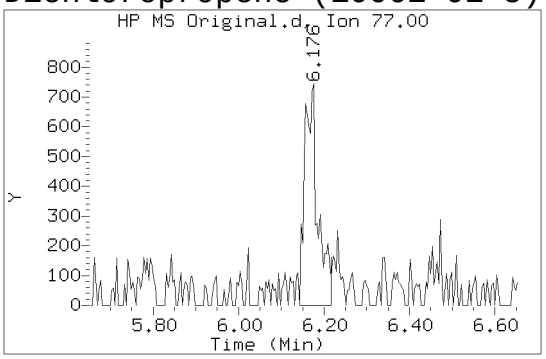
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

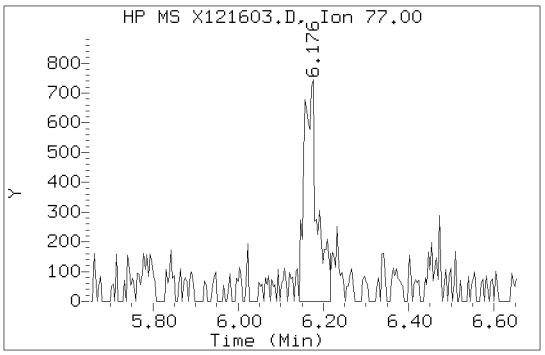
BEFORE

MASS
77
AREA
1607
HEIGHT
745
27-Dec-2022
16:03
linh
pham



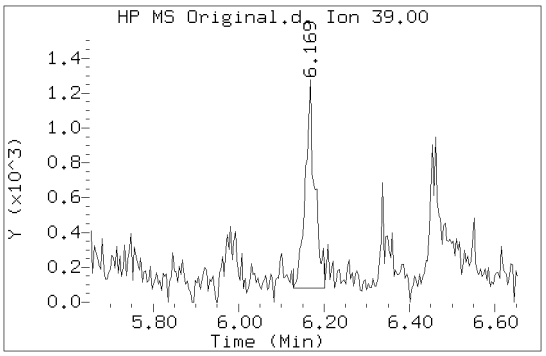

AFTER

MASS
77
AREA
1607
HEIGHT
745
27-Dec-2022
16:07
linh
pham



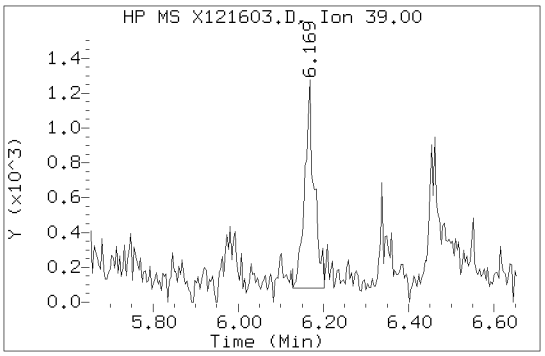

BEFORE

MASS
39
AREA
1836
HEIGHT
1193
27-Dec-2022
16:03
linh
pham




AFTER

MASS
39
AREA
1836
HEIGHT
1193
27-Dec-2022
16:07
linh
pham

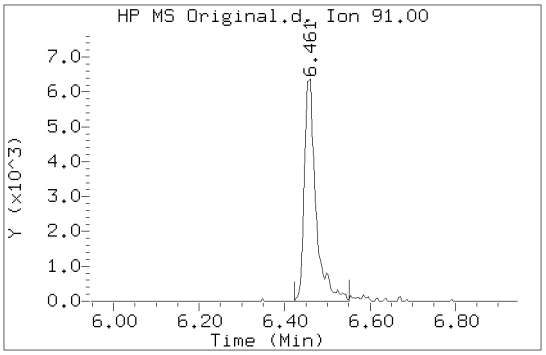



## Toluene (108-88-3)

Reason Code:

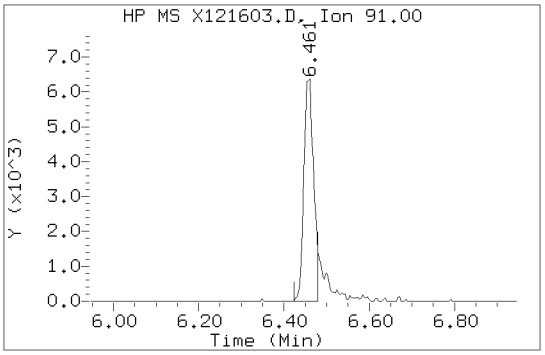
BEFORE

MASS
91
AREA
12225
HEIGHT
6374
27-Dec-2022
16:03
linh
pham



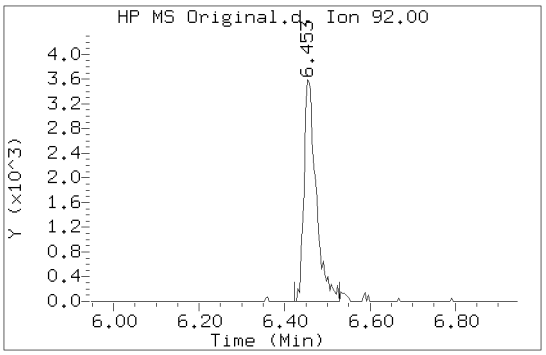

AFTER

MASS
91
AREA
10374
HEIGHT
6374
27-Dec-2022
16:07
linh
pham



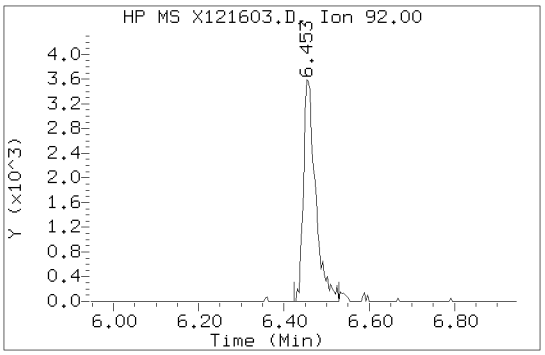

BEFORE

MASS
92
AREA
7180
HEIGHT
3591
27-Dec-2022
16:03
linh
pham




AFTER

MASS
92
AREA
7180
HEIGHT
3591
27-Dec-2022
16:07
linh
pham



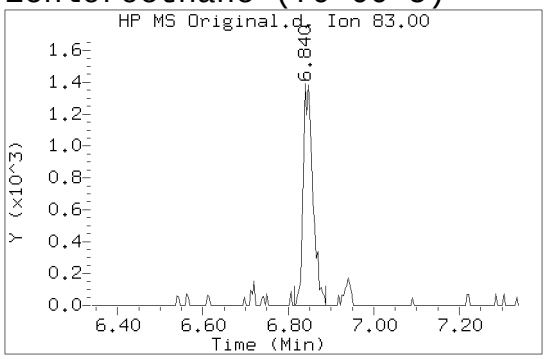
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1,2-Trichloroethane (79-00-5)

Reason Code:

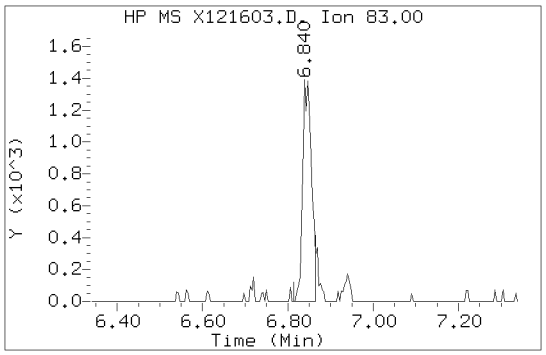
BEFORE

MASS
83
AREA
2247
HEIGHT
1391
27-Dec-2022
16:03
linh
pham



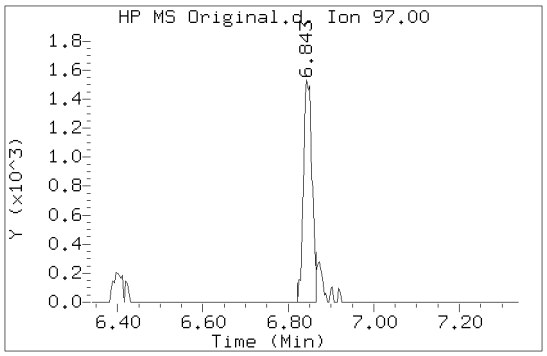

AFTER

MASS
83
AREA
2092
HEIGHT
1391
27-Dec-2022
16:07
linh
pham



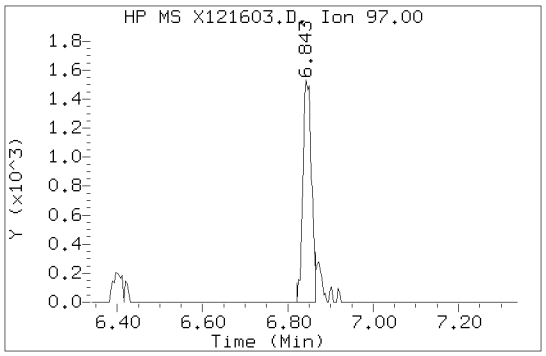

BEFORE

MASS
97
AREA
2224
HEIGHT
1532
27-Dec-2022
16:03
linh
pham




AFTER

MASS
97
AREA
2224
HEIGHT
1532
27-Dec-2022
16:07
linh
pham

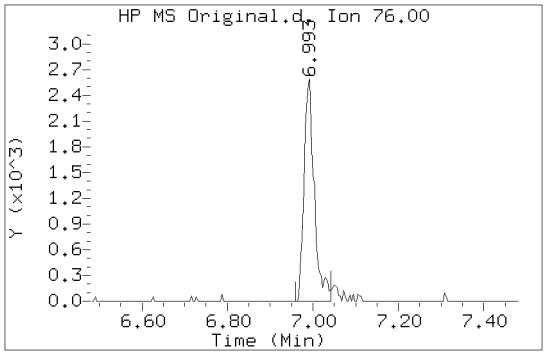



## 1,3-Dichloropropane (142-28-9)

Reason Code:

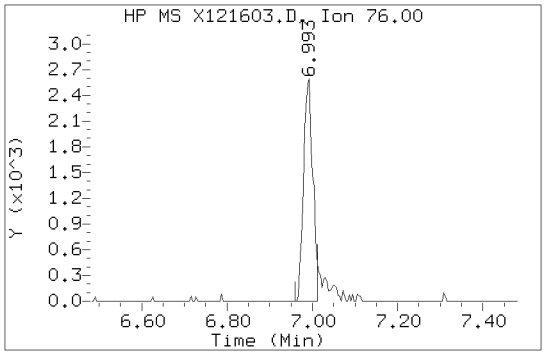
BEFORE

MASS
76
AREA
4415
HEIGHT
2592
27-Dec-2022
16:03
linh
pham



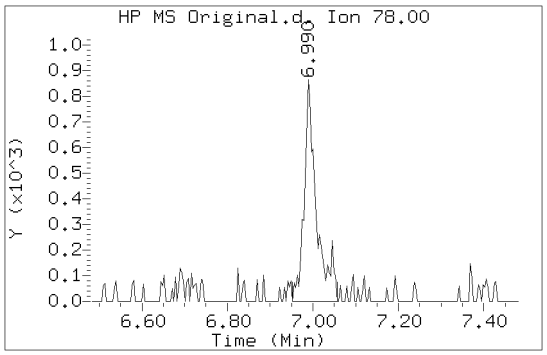

AFTER

MASS
76
AREA
4005
HEIGHT
2592
27-Dec-2022
16:07
linh
pham



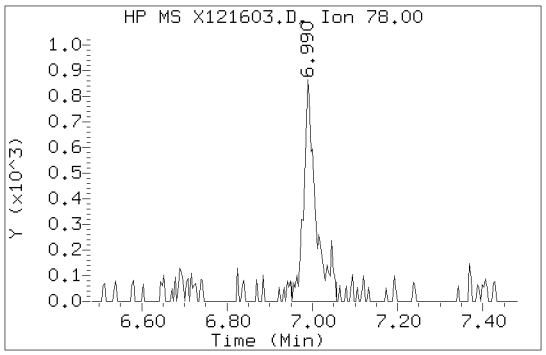

BEFORE

MASS
78
AREA
1727
HEIGHT
864
27-Dec-2022
16:03
linh
pham




AFTER

MASS
78
AREA
1727
HEIGHT
864
27-Dec-2022
16:07
linh
pham



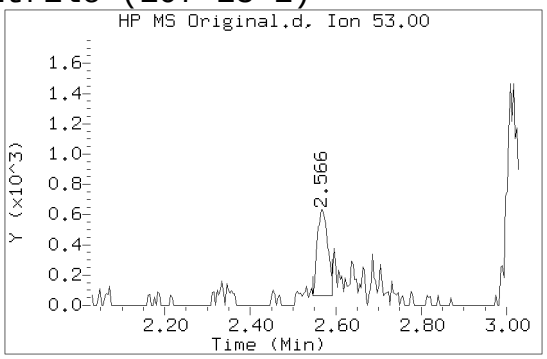
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Acrylonitrile (107-13-1)

Reason Code:

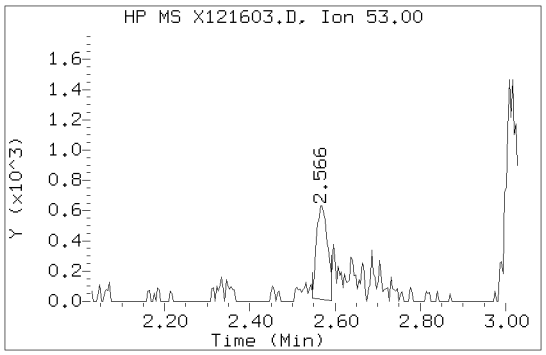
**BEFORE**

MASS
53
AREA
975
HEIGHT
571
27-Dec-2022
16:03
linh
pham



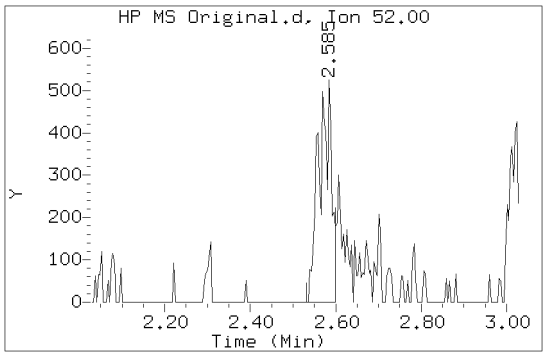

**AFTER**

MASS
53
AREA
1118
HEIGHT
618
27-Dec-2022
16:07
linh
pham



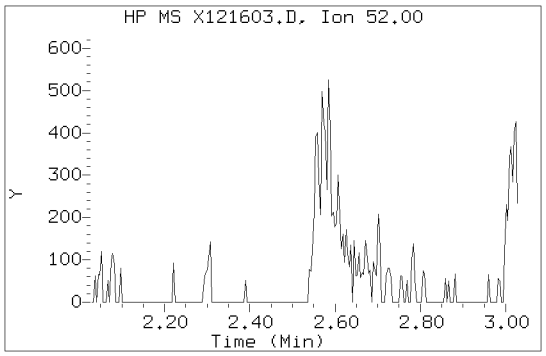

**BEFORE**

MASS
52
AREA
1100
HEIGHT
525
27-Dec-2022
16:03
linh
pham



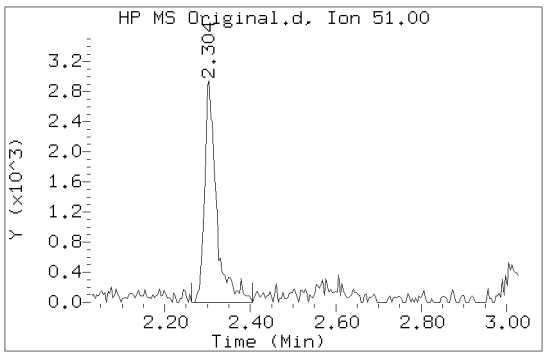

**AFTER**

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



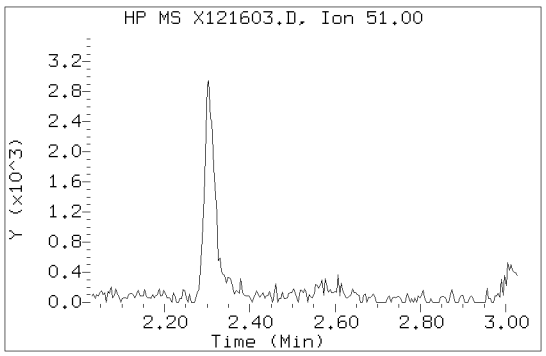

**BEFORE**

MASS
51
AREA
5708
HEIGHT
2946
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
51
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

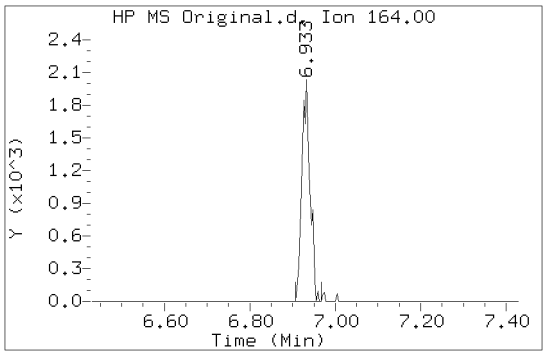



## Tetrachloroethene (127-18-4)

Reason Code:

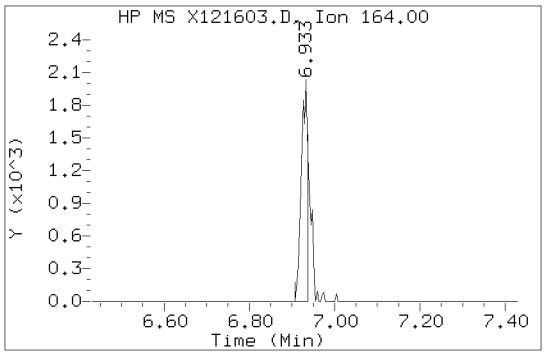
**BEFORE**

MASS
164
AREA
2777
HEIGHT
2036
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
164
AREA
2131
HEIGHT
2036
27-Dec-2022
16:07
linh
pham



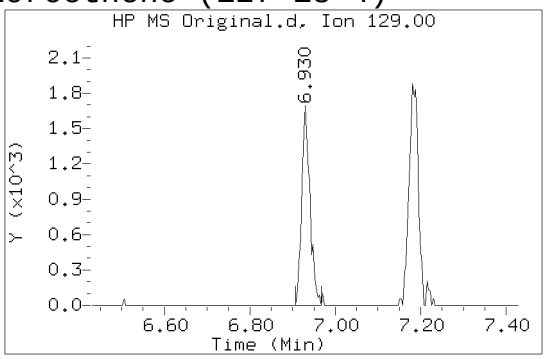
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Tetrachloroethene (127-18-4)

Reason Code:

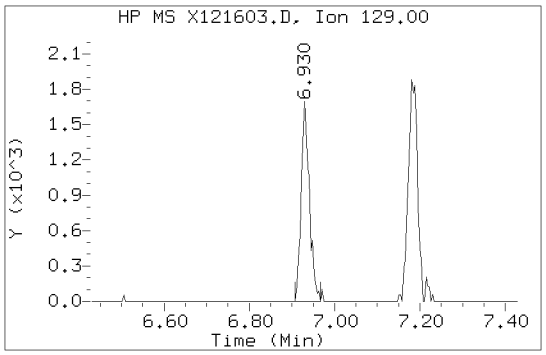
**BEFORE**

MASS
129
AREA
2342
HEIGHT
1697
27-Dec-2022
16:03
linh
pham



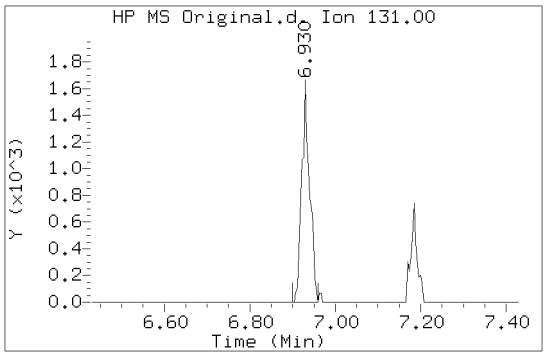

**AFTER**

MASS
129
AREA
2342
HEIGHT
1697
27-Dec-2022
16:07
linh
pham



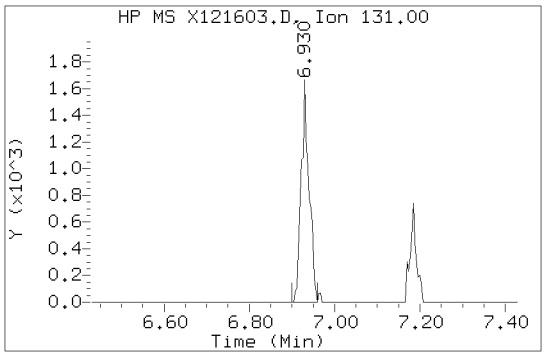

**BEFORE**

MASS
131
AREA
2193
HEIGHT
1665
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
131
AREA
2193
HEIGHT
1665
27-Dec-2022
16:07
linh
pham

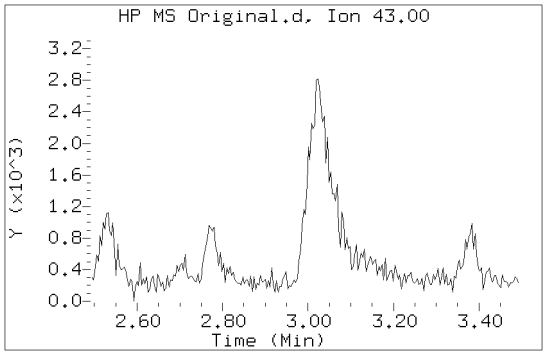



## Vinyl Acetate (108-05-4)

Reason Code:

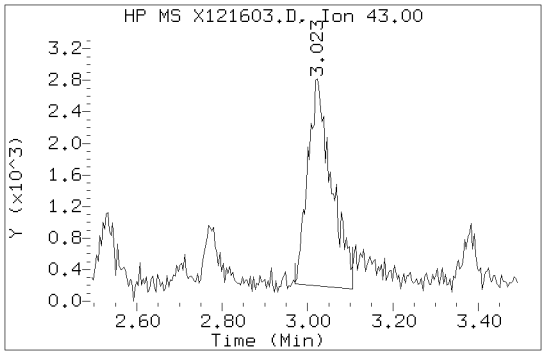
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



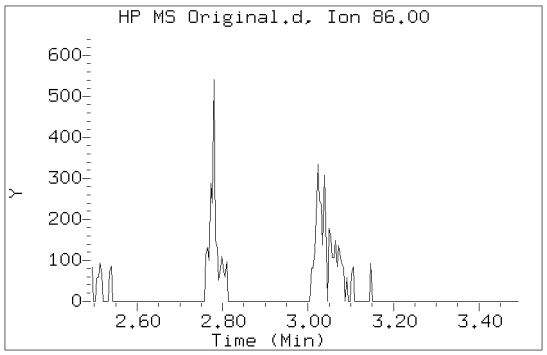

**AFTER**

MASS
43
AREA
10138
HEIGHT
2622
27-Dec-2022
16:07
linh
pham



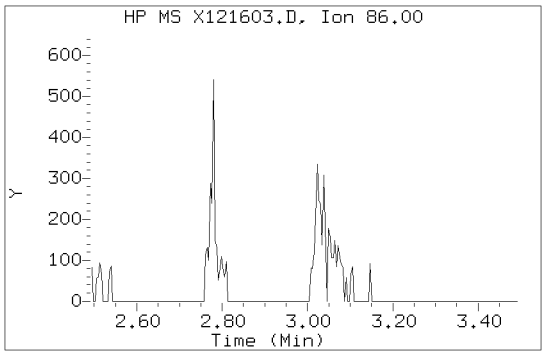

**BEFORE**

MASS
86
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
86
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

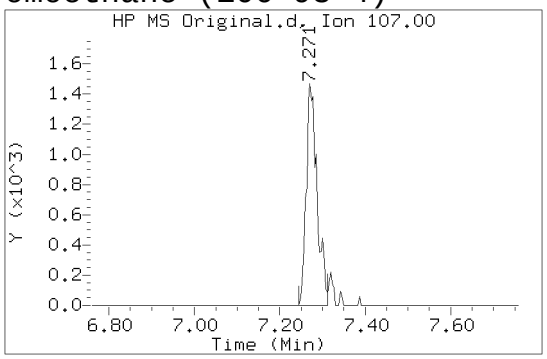


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

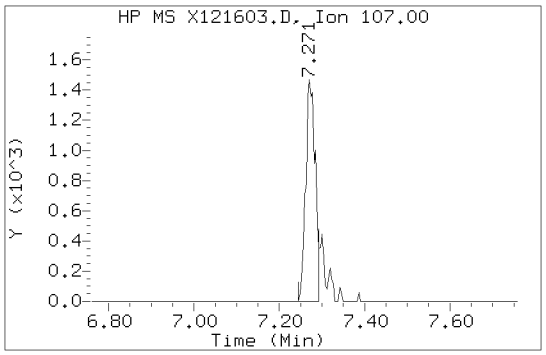
## 1,2-Dibromoethane (106-93-4)

Reason Code:

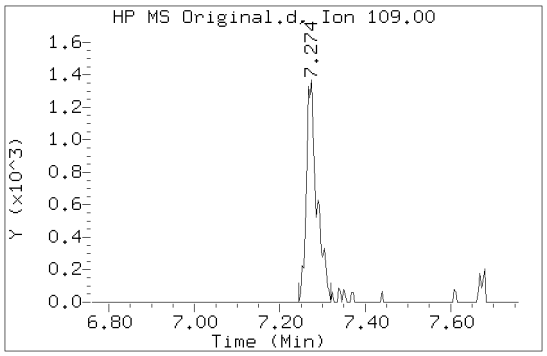
BEFORE
MASS
107
AREA
2627
HEIGHT
1469
27-Dec-2022
16:03
linh
pham



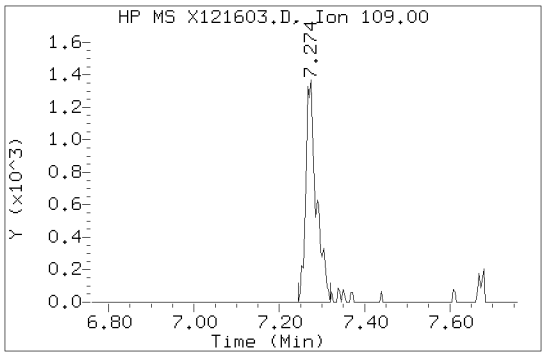

AFTER
MASS
107
AREA
2340
HEIGHT
1469
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
109
AREA
2396
HEIGHT
1369
27-Dec-2022
16:03
linh
pham



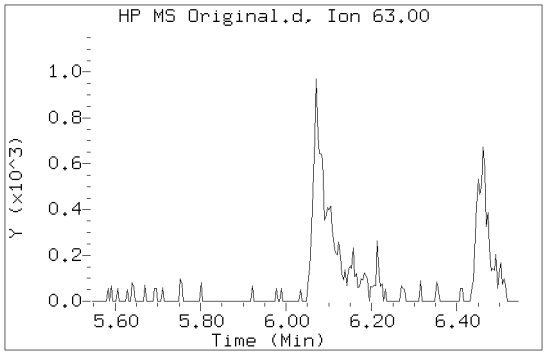

AFTER
MASS
109
AREA
2396
HEIGHT
1369
27-Dec-2022
16:07
linh
pham



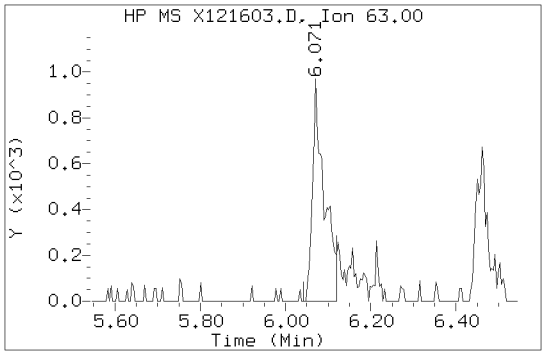

## 2-Chloroethylvinyl ether (110-75-8)

Reason Code:

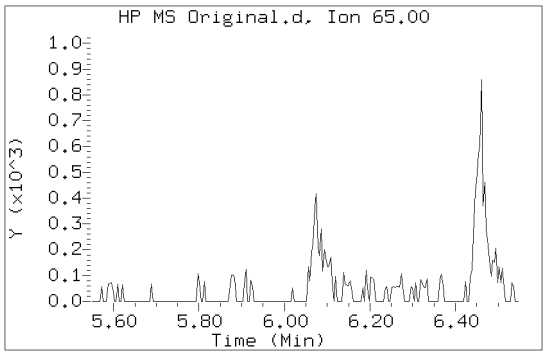
BEFORE
MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



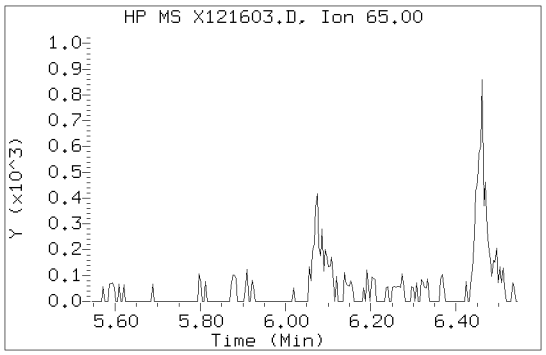

AFTER
MASS
63
AREA
1861
HEIGHT
970
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
65
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
65
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



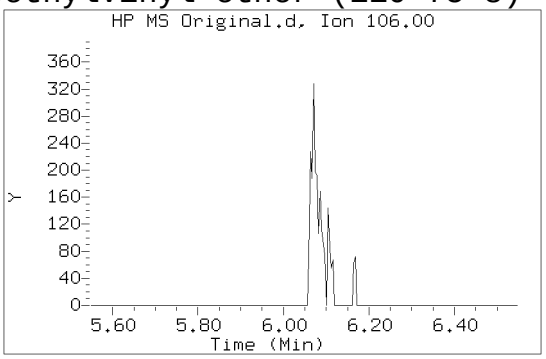
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 2-Chloroethylvinyl ether (110-75-8)

Reason Code:

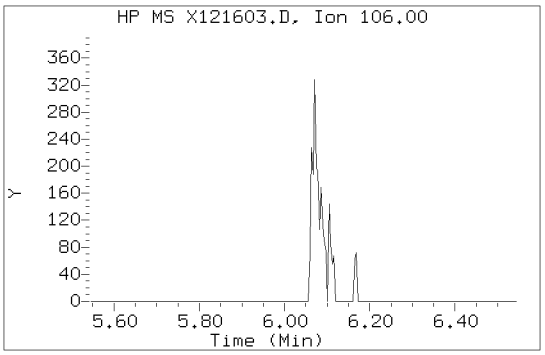
**BEFORE**

MASS
106
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
106
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

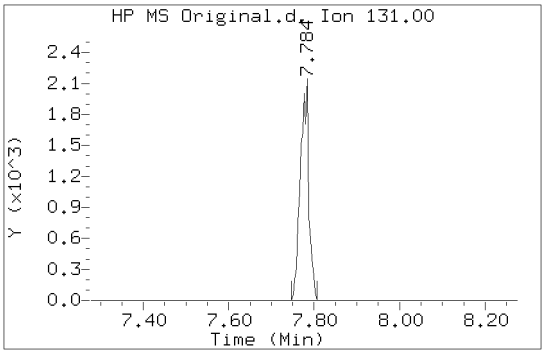



## 1,1,1,2-Tetrachloroethane (630-20-6)

Reason Code:

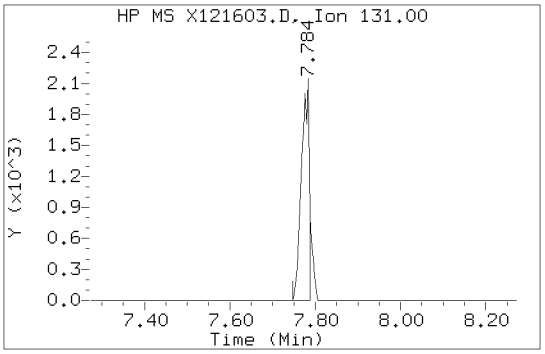
**BEFORE**

MASS
131
AREA
3036
HEIGHT
2146
27-Dec-2022
16:03
linh
pham



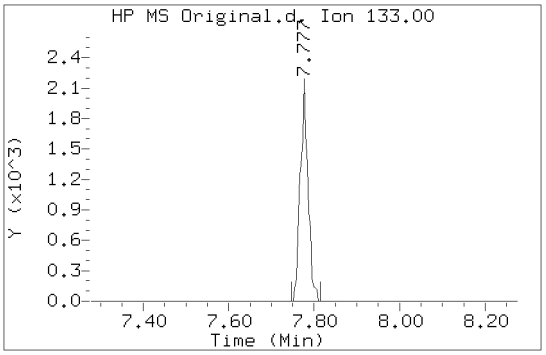

**AFTER**

MASS
131
AREA
2741
HEIGHT
2146
27-Dec-2022
16:07
linh
pham



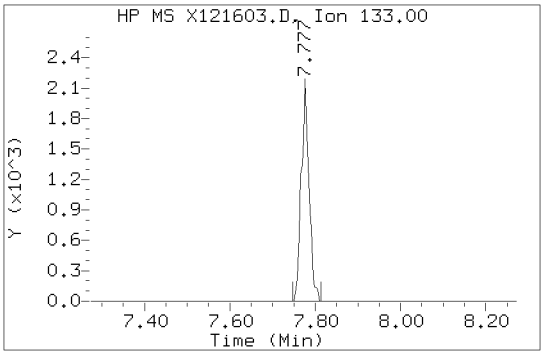

**BEFORE**

MASS
133
AREA
2829
HEIGHT
2191
27-Dec-2022
16:03
linh
pham



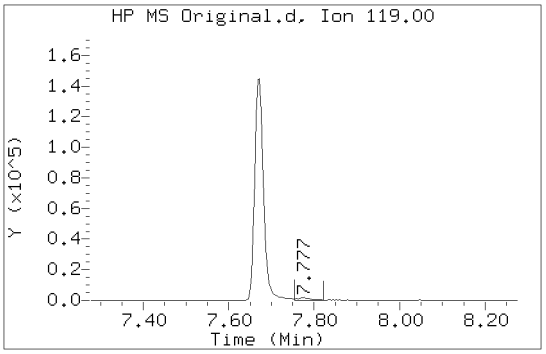

**AFTER**

MASS
133
AREA
2829
HEIGHT
2191
27-Dec-2022
16:07
linh
pham



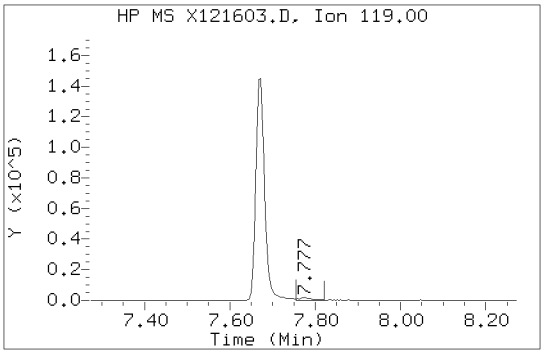

**BEFORE**

MASS
119
AREA
2971
HEIGHT
1971
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
119
AREA
2971
HEIGHT
1971
27-Dec-2022
16:07
linh
pham



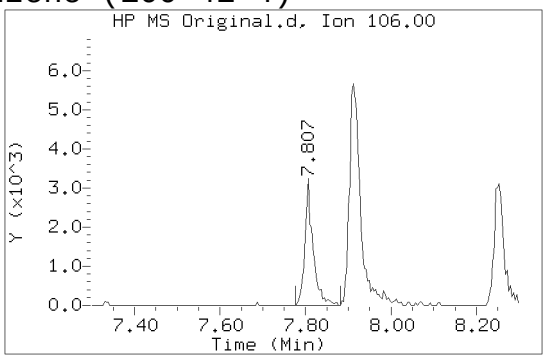
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Ethylbenzene (100-41-4)

Reason Code:

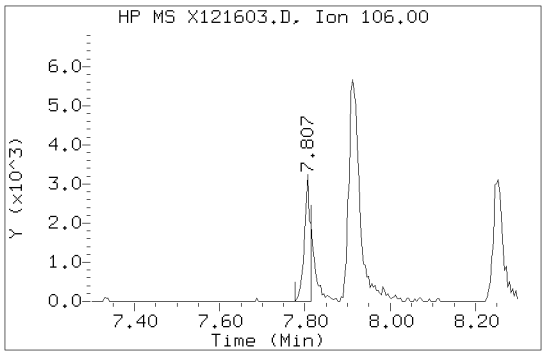
BEFORE

MASS
106
AREA
4331
HEIGHT
3242
27-Dec-2022
16:03
linh
pham



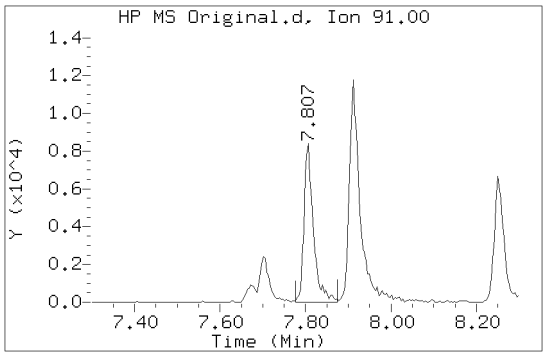

AFTER

MASS
106
AREA
3064
HEIGHT
3242
27-Dec-2022
16:07
linh
pham



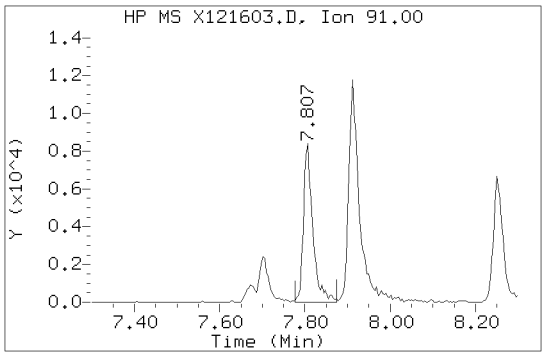

BEFORE

MASS
91
AREA
13136
HEIGHT
8410
27-Dec-2022
16:03
linh
pham




AFTER

MASS
91
AREA
13136
HEIGHT
8410
27-Dec-2022
16:07
linh
pham

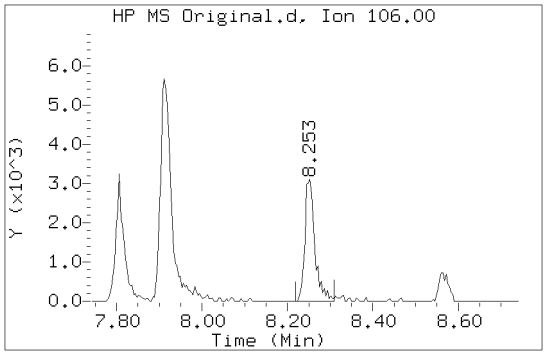



## o-Xylene (95-47-6)

Reason Code:

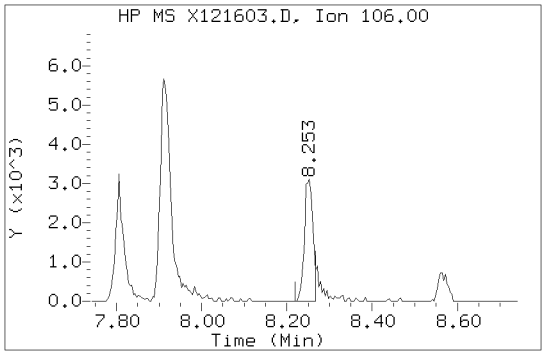
BEFORE

MASS
106
AREA
5100
HEIGHT
3111
27-Dec-2022
16:03
linh
pham



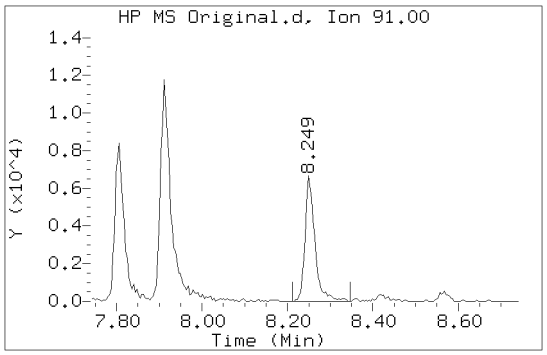

AFTER

MASS
106
AREA
4412
HEIGHT
3111
27-Dec-2022
16:07
linh
pham



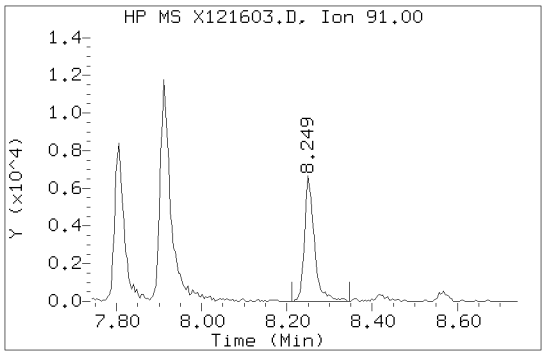

BEFORE

MASS
91
AREA
10808
HEIGHT
6665
27-Dec-2022
16:03
linh
pham




AFTER

MASS
91
AREA
10808
HEIGHT
6665
27-Dec-2022
16:07
linh
pham



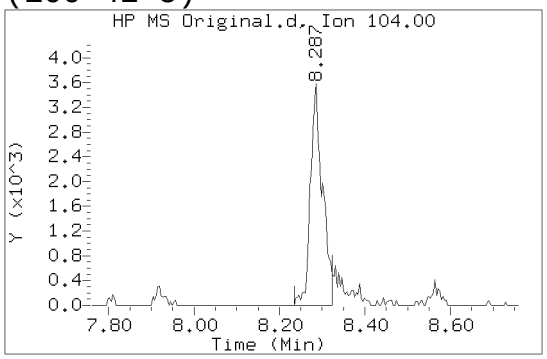
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Styrene (100-42-5)

Reason Code:

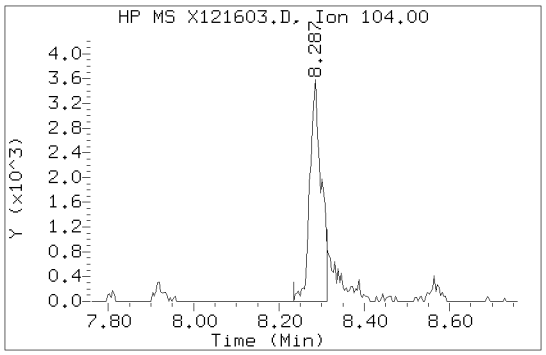
**BEFORE**

MASS
104
AREA
7074
HEIGHT
3581
27-Dec-2022
16:03
linh
pham



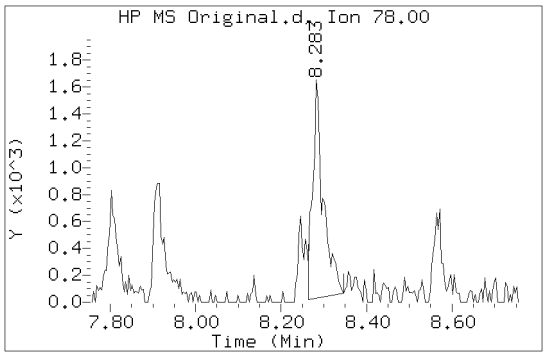

**AFTER**

MASS
104
AREA
6634
HEIGHT
3581
27-Dec-2022
16:07
linh
pham



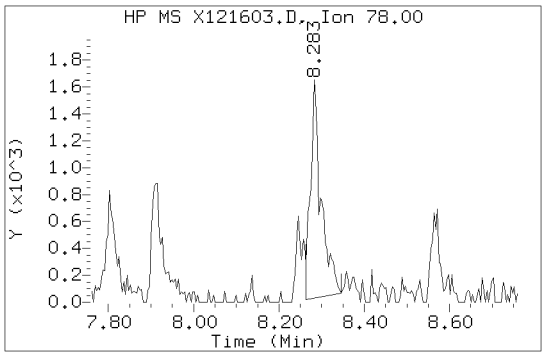

**BEFORE**

MASS
78
AREA
2827
HEIGHT
1622
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
78
AREA
2827
HEIGHT
1622
27-Dec-2022
16:07
linh
pham

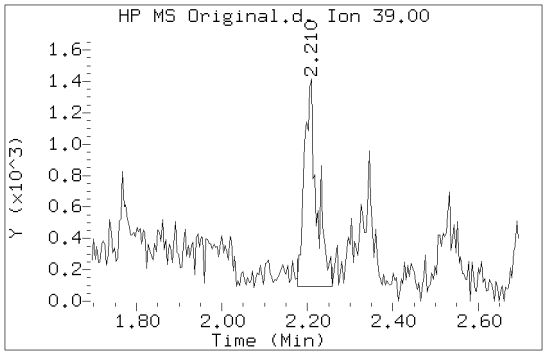



## Acetonitrile (75-05-8)

Reason Code:

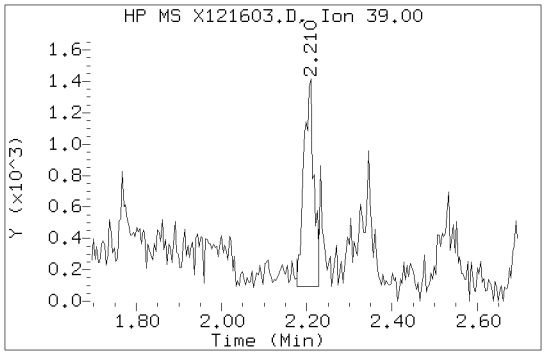
**BEFORE**

MASS
39
AREA
2674
HEIGHT
1321
27-Dec-2022
16:03
linh
pham



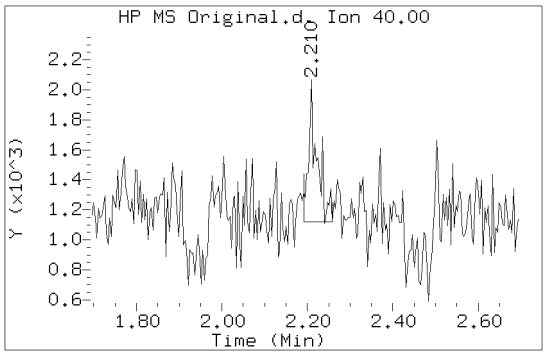

**AFTER**

MASS
39
AREA
2204
HEIGHT
1321
27-Dec-2022
16:07
linh
pham



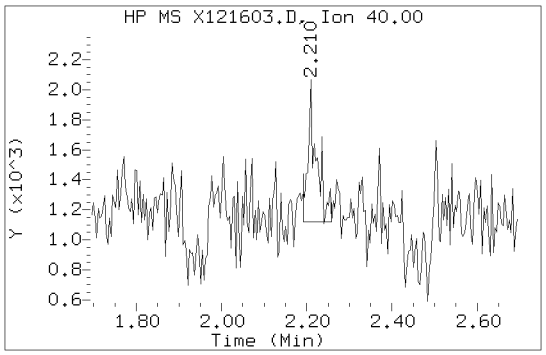

**BEFORE**

MASS
40
AREA
1296
HEIGHT
946
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
40
AREA
1296
HEIGHT
946
27-Dec-2022
16:07
linh
pham



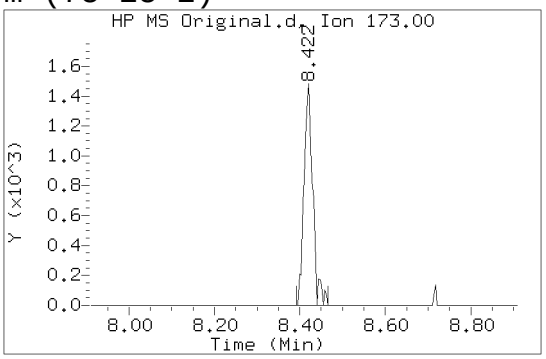
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Bromoform (75-25-2)

Reason Code:

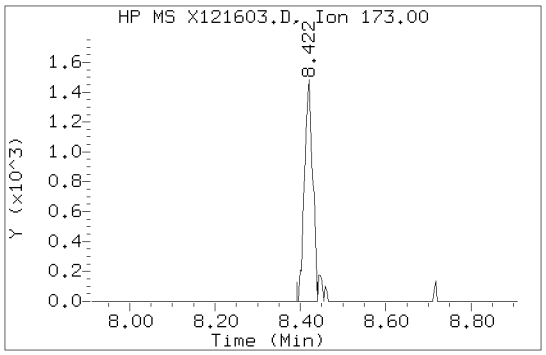
**BEFORE**

MASS
173
AREA
2158
HEIGHT
1483
27-Dec-2022
16:03
linh
pham



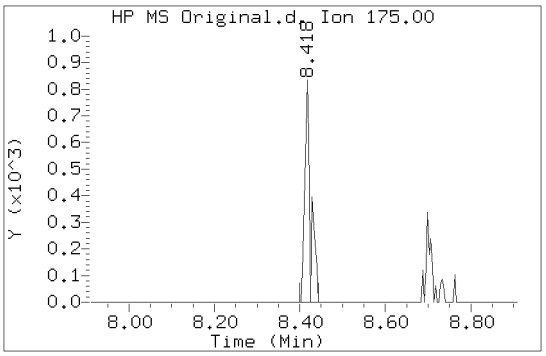

**AFTER**

MASS
173
AREA
2013
HEIGHT
1483
27-Dec-2022
16:07
linh
pham



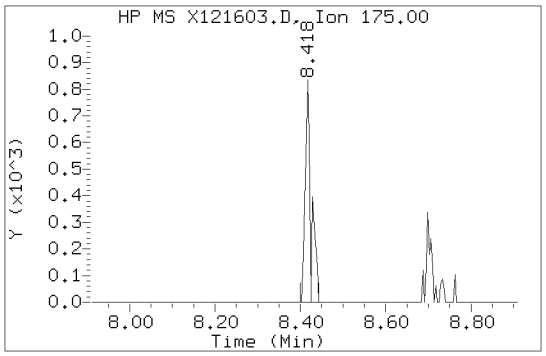

**BEFORE**

MASS
175
AREA
807
HEIGHT
835
27-Dec-2022
16:03
linh
pham



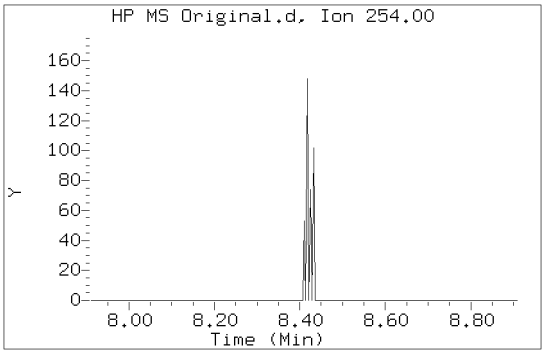

**AFTER**

MASS
175
AREA
807
HEIGHT
835
27-Dec-2022
16:07
linh
pham



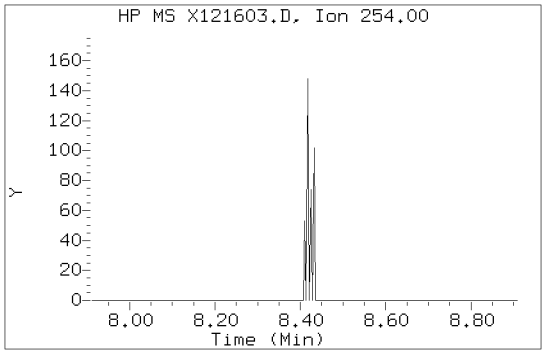

**BEFORE**

MASS
254
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
254
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

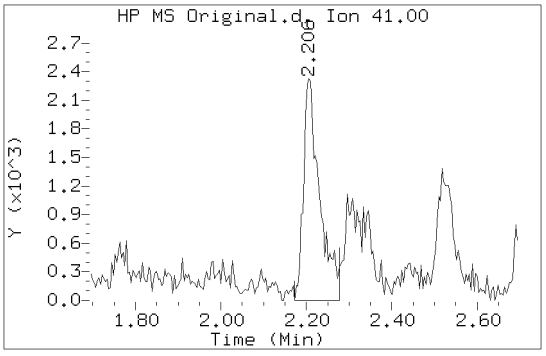



## Allyl Chloride (107-05-1)

Reason Code:

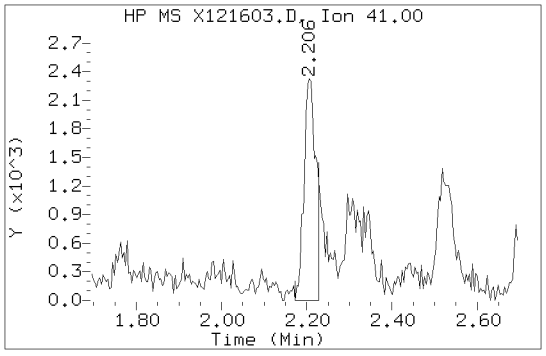
**BEFORE**

MASS
41
AREA
6169
HEIGHT
2326
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
4574
HEIGHT
2326
27-Dec-2022
16:07
linh
pham



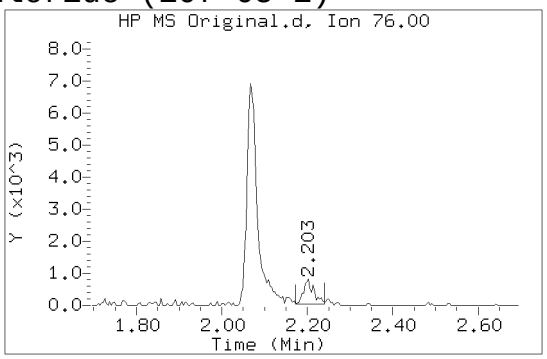
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Allyl Chloride (107-05-1)

Reason Code:

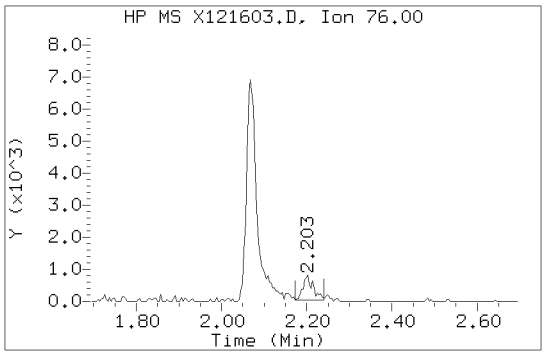
**BEFORE**

MASS
76
AREA
1254
HEIGHT
763
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
76
AREA
1254
HEIGHT
763
27-Dec-2022
16:07
linh
pham

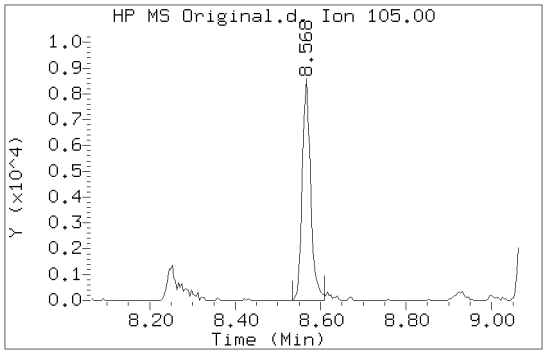



## Isopropylbenzene (98-82-8)

Reason Code:

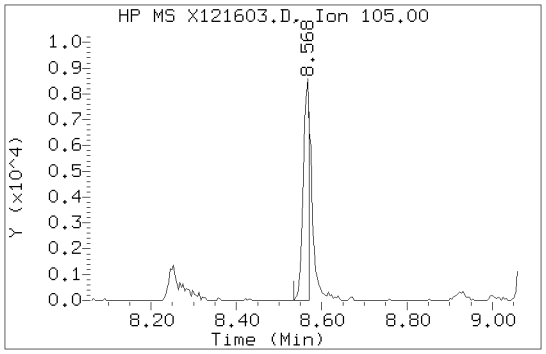
**BEFORE**

MASS
105
AREA
12091
HEIGHT
8588
27-Dec-2022
16:03
linh
pham



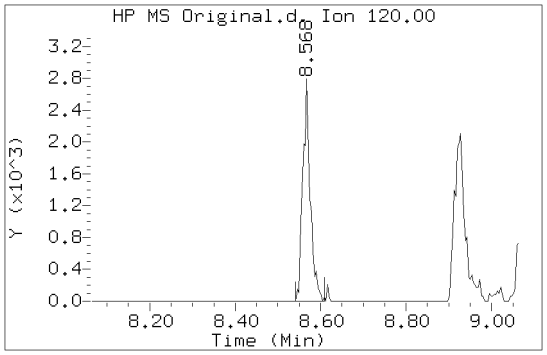

**AFTER**

MASS
105
AREA
8757
HEIGHT
8588
27-Dec-2022
16:07
linh
pham



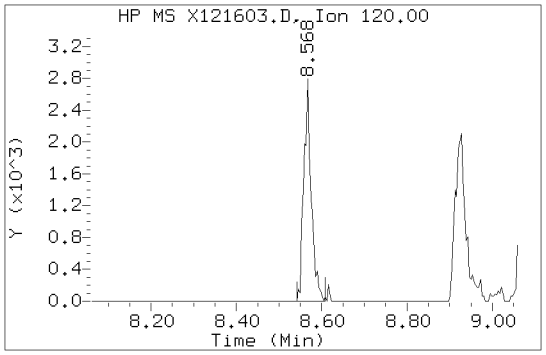

**BEFORE**

MASS
120
AREA
3462
HEIGHT
2793
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
120
AREA
3462
HEIGHT
2793
27-Dec-2022
16:07
linh
pham

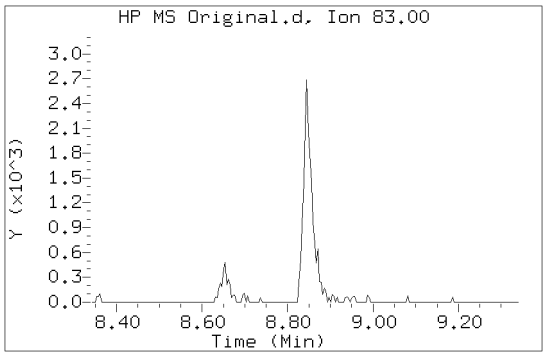



## 1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

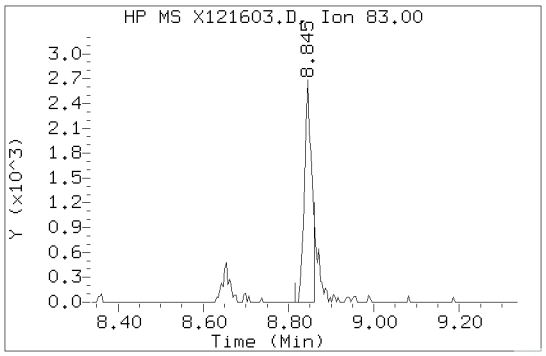
**BEFORE**

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
83
AREA
3194
HEIGHT
2685
27-Dec-2022
16:07
linh
pham



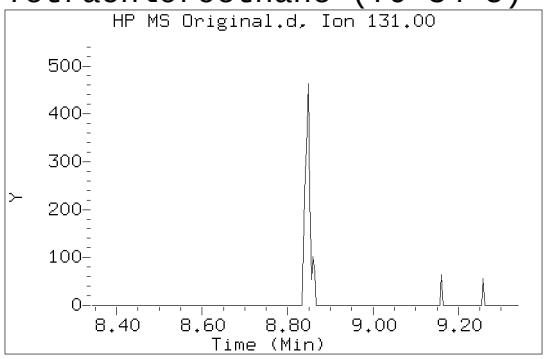
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

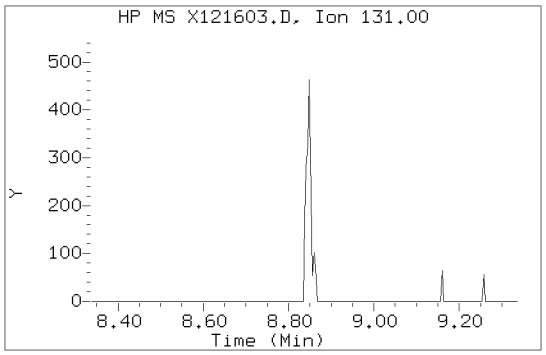
BEFORE

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



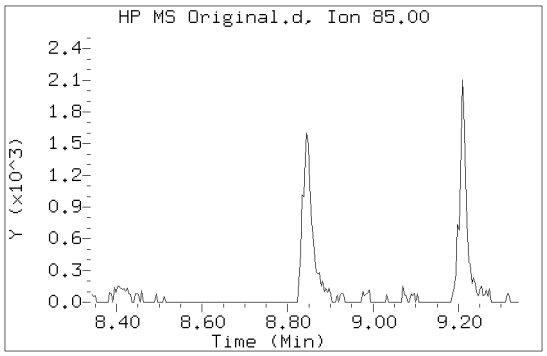

AFTER

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



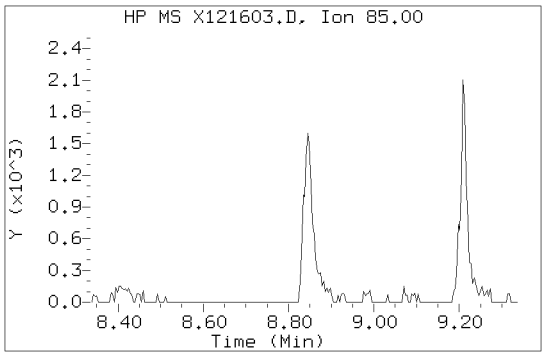

BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

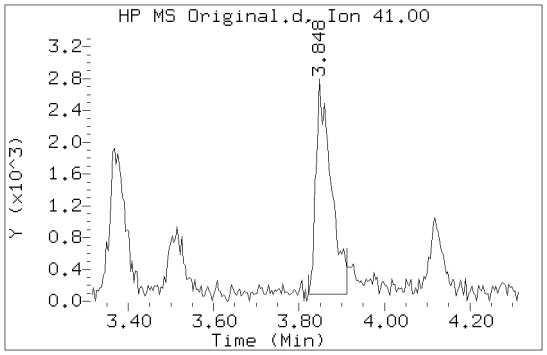



## Methacrylonitrile (126-98-7)

Reason Code:

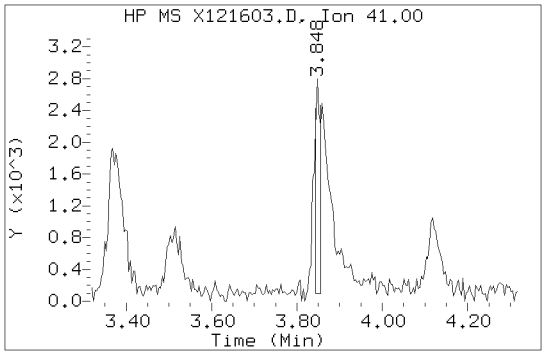
BEFORE

MASS
41
AREA
6587
HEIGHT
2708
27-Dec-2022
16:03
linh
pham



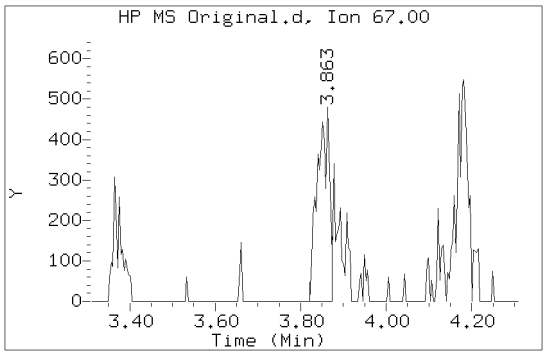

AFTER

MASS
41
AREA
2066
HEIGHT
2701
27-Dec-2022
16:07
linh
pham



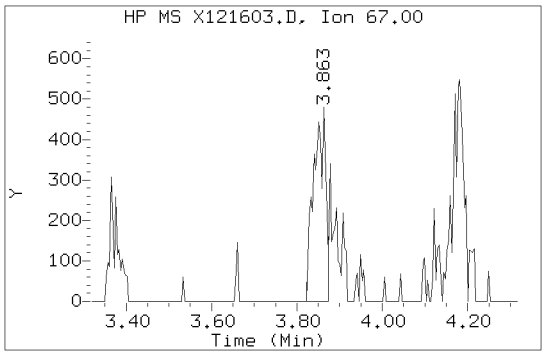

BEFORE

MASS
67
AREA
937
HEIGHT
480
27-Dec-2022
16:03
linh
pham




AFTER

MASS
67
AREA
937
HEIGHT
480
27-Dec-2022
16:07
linh
pham



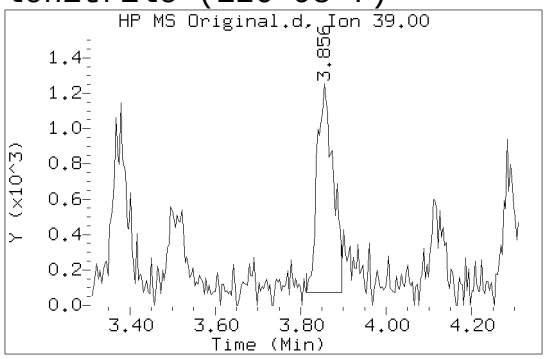
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methacrylonitrile (126-98-7)

Reason Code:

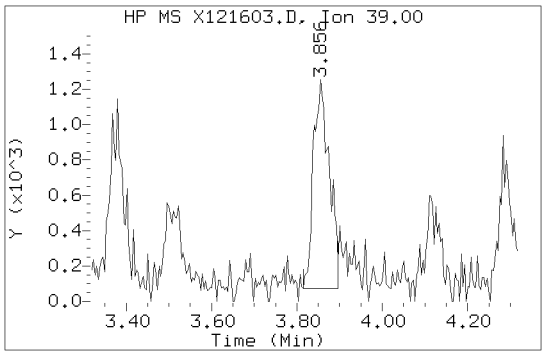
BEFORE

MASS
39
AREA
3048
HEIGHT
1181
27-Dec-2022
16:03
linh
pham




AFTER

MASS
39
AREA
3048
HEIGHT
1181
27-Dec-2022
16:07
linh
pham

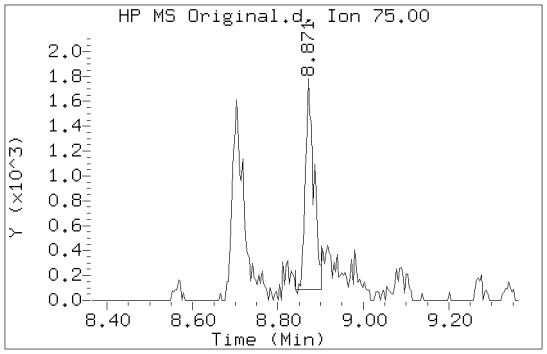



## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

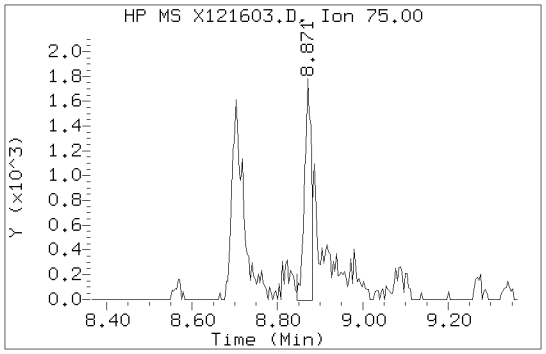
BEFORE

MASS
75
AREA
2351
HEIGHT
1693
27-Dec-2022
16:03
linh
pham



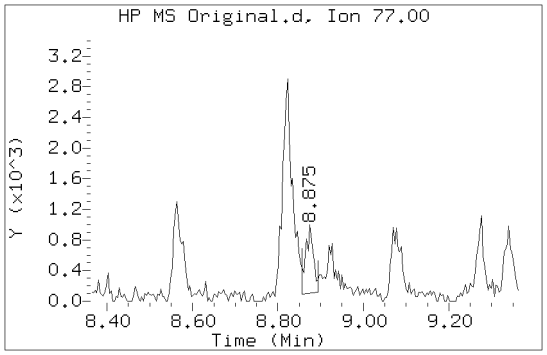

AFTER

MASS
75
AREA
2019
HEIGHT
1788
27-Dec-2022
16:07
linh
pham



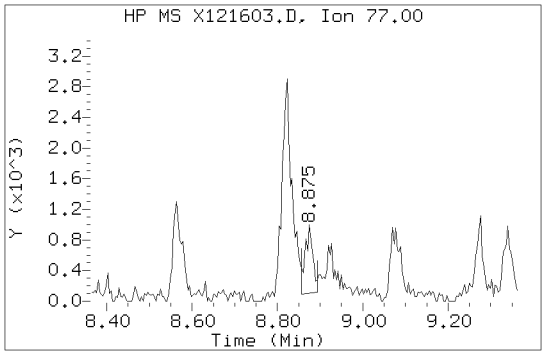

BEFORE

MASS
77
AREA
1161
HEIGHT
895
27-Dec-2022
16:03
linh
pham




AFTER

MASS
77
AREA
1161
HEIGHT
895
27-Dec-2022
16:07
linh
pham

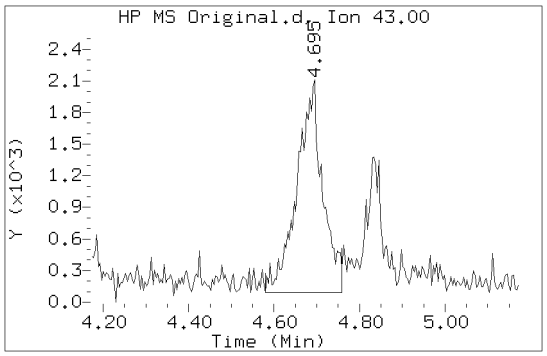



## Isobutyl Alcohol (78-83-1)

Reason Code:

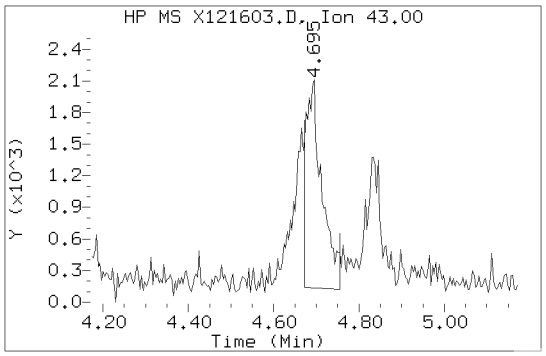
BEFORE

MASS
43
AREA
8478
HEIGHT
2018
27-Dec-2022
16:03
linh
pham




AFTER

MASS
43
AREA
5178
HEIGHT
1973
27-Dec-2022
16:07
linh
pham



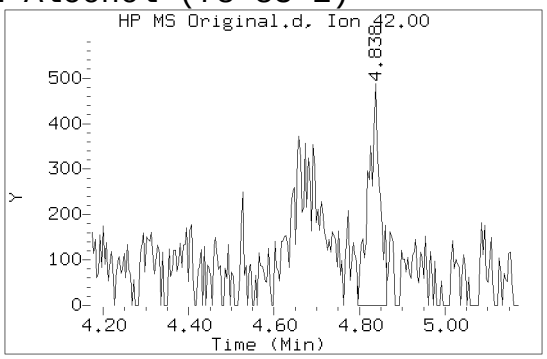
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Isobutyl Alcohol (78-83-1)

Reason Code:

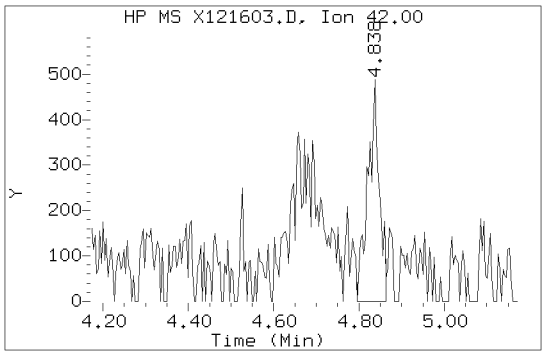
**BEFORE**

MASS
42
AREA
904
HEIGHT
488
27-Dec-2022
16:03
linh
pham



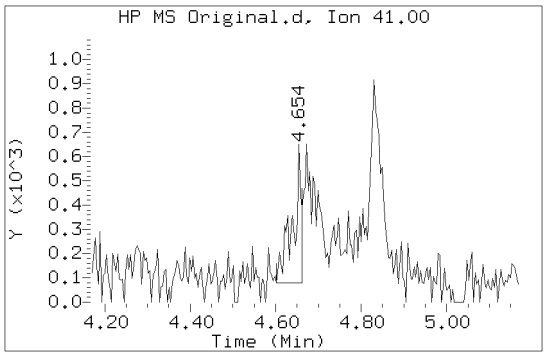

**AFTER**

MASS
42
AREA
904
HEIGHT
488
27-Dec-2022
16:07
linh
pham



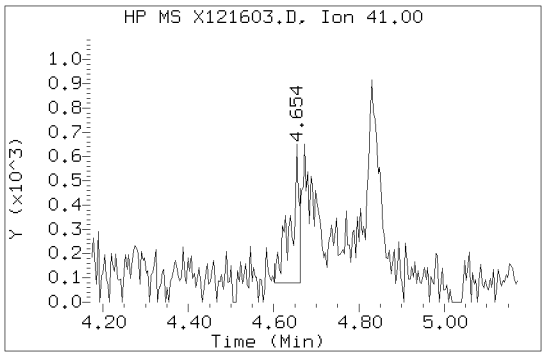

**BEFORE**

MASS
41
AREA
776
HEIGHT
572
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
776
HEIGHT
572
27-Dec-2022
16:07
linh
pham

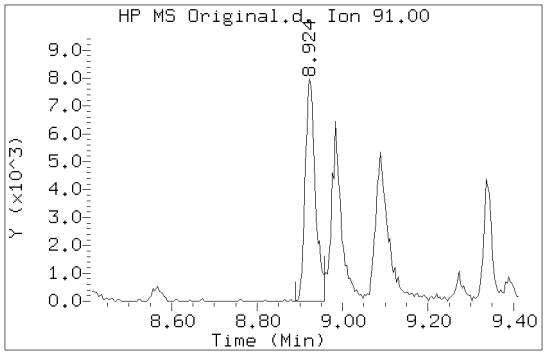



## n-Propylbenzene (106-65-1)

Reason Code:

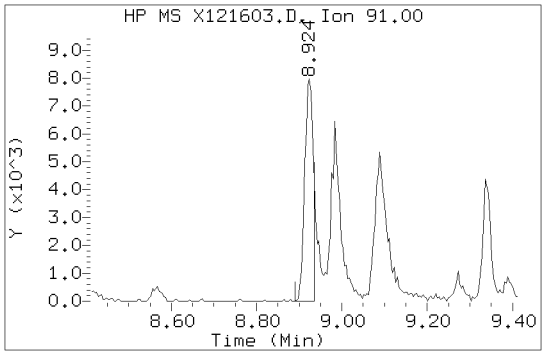
**BEFORE**

MASS
91
AREA
13496
HEIGHT
7972
27-Dec-2022
16:03
linh
pham



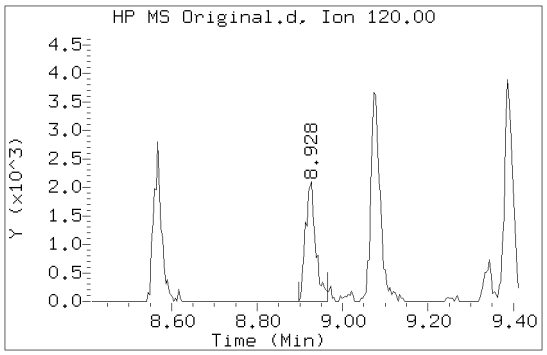

**AFTER**

MASS
91
AREA
11163
HEIGHT
7972
27-Dec-2022
16:07
linh
pham



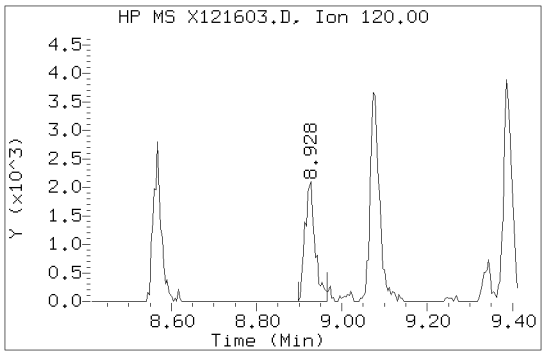

**BEFORE**

MASS
120
AREA
3559
HEIGHT
2104
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
120
AREA
3559
HEIGHT
2104
27-Dec-2022
16:07
linh
pham

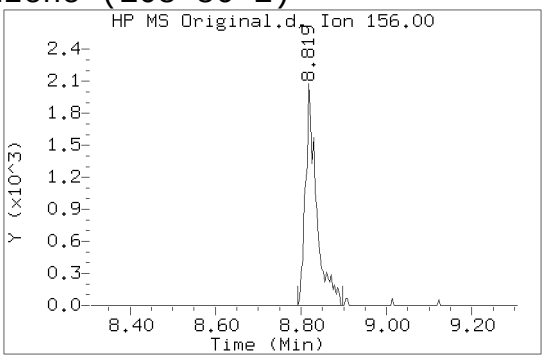


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

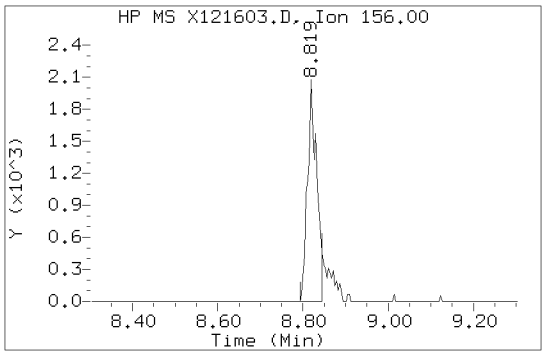
## Bromobenzene (108-86-1)

Reason Code:

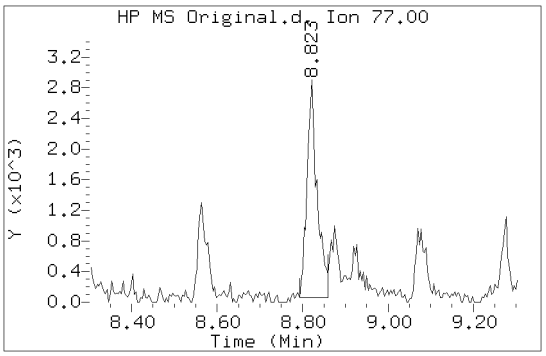
BEFORE
MASS
156
AREA
3747
HEIGHT
2077
27-Dec-2022
16:03
linh
pham



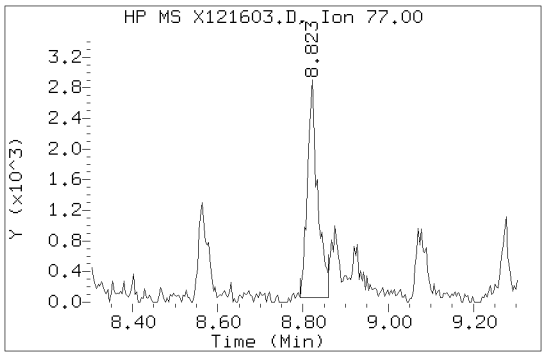

AFTER
MASS
156
AREA
3147
HEIGHT
2077
27-Dec-2022
16:07
linh
pham



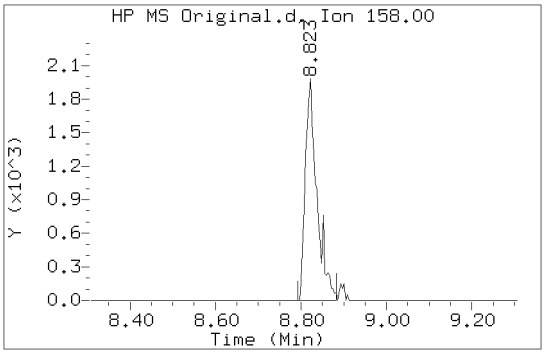

BEFORE
MASS
77
AREA
4719
HEIGHT
2841
27-Dec-2022
16:03
linh
pham



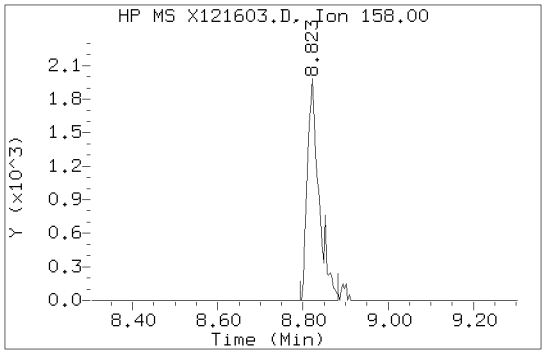

AFTER
MASS
77
AREA
4719
HEIGHT
2841
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
158
AREA
3772
HEIGHT
1983
27-Dec-2022
16:03
linh
pham



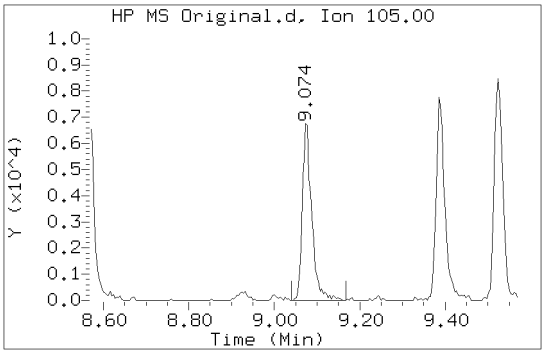

AFTER
MASS
158
AREA
3772
HEIGHT
1983
27-Dec-2022
16:07
linh
pham



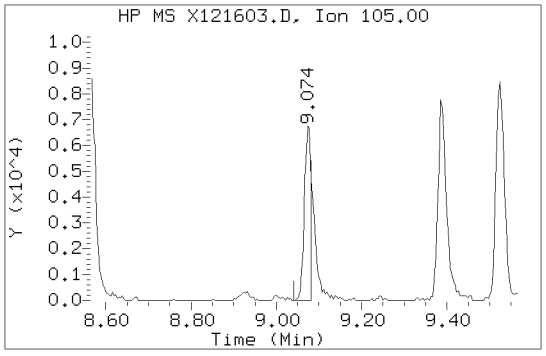

## 1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

BEFORE
MASS
105
AREA
10555
HEIGHT
6758
27-Dec-2022
16:03
linh
pham




AFTER
MASS
105
AREA
7182
HEIGHT
6758
27-Dec-2022
16:07
linh
pham



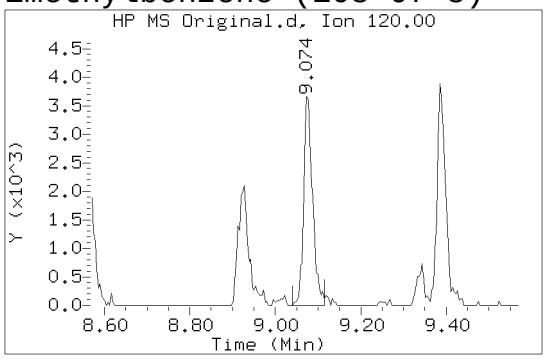
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

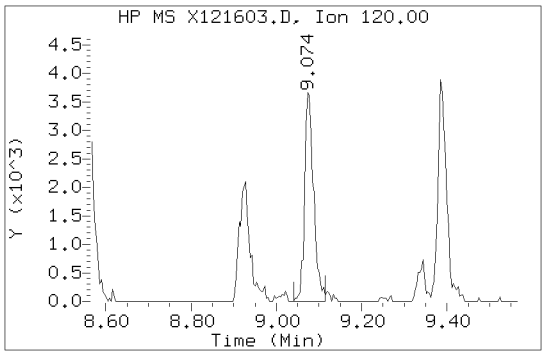
**BEFORE**

MASS
120
AREA
5450
HEIGHT
3663
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
120
AREA
5450
HEIGHT
3663
27-Dec-2022
16:07
linh
pham

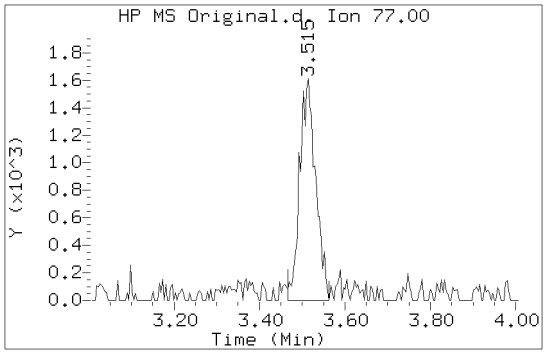



## 2,2-Dichloropropane (594-20-7)

Reason Code:

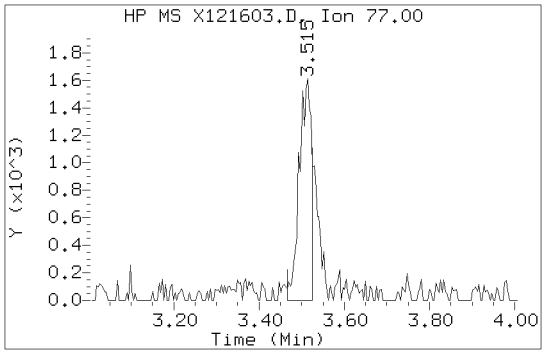
**BEFORE**

MASS
77
AREA
4217
HEIGHT
1612
27-Dec-2022
16:03
linh
pham



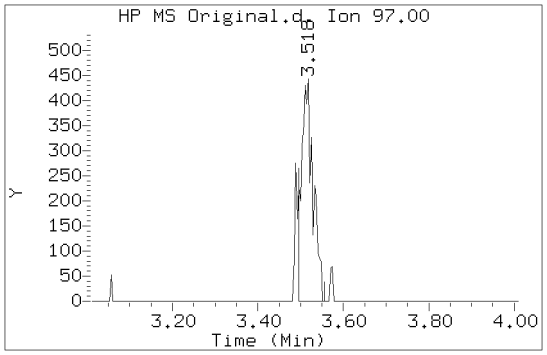

**AFTER**

MASS
77
AREA
3238
HEIGHT
1612
27-Dec-2022
16:07
linh
pham



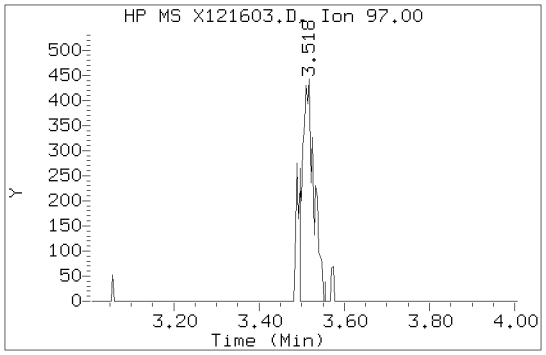

**BEFORE**

MASS
97
AREA
843
HEIGHT
443
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
97
AREA
843
HEIGHT
443
27-Dec-2022
16:07
linh
pham

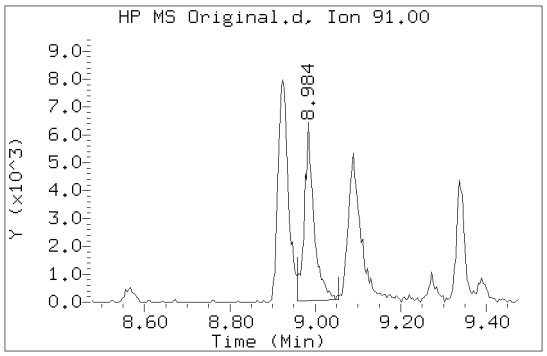



## 2-Chlorotoluene (95-49-8)

Reason Code:

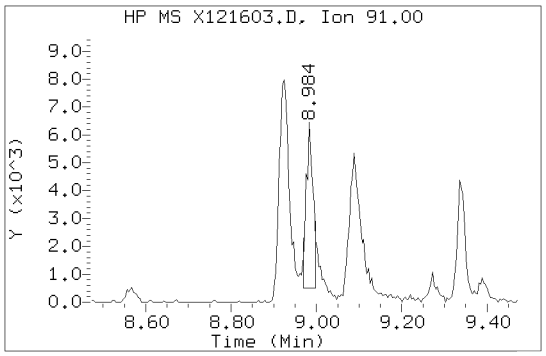
**BEFORE**

MASS
91
AREA
10128
HEIGHT
6401
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
91
AREA
6718
HEIGHT
5942
27-Dec-2022
16:07
linh
pham



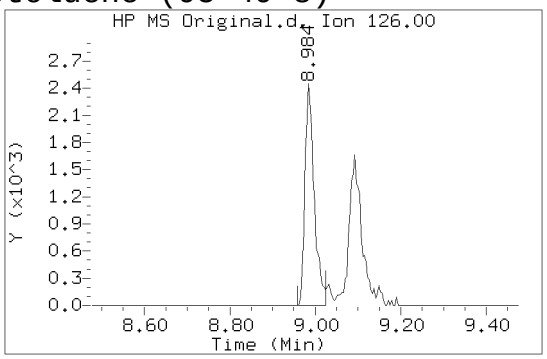
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 2-Chlorotoluene (95-49-8)

Reason Code:

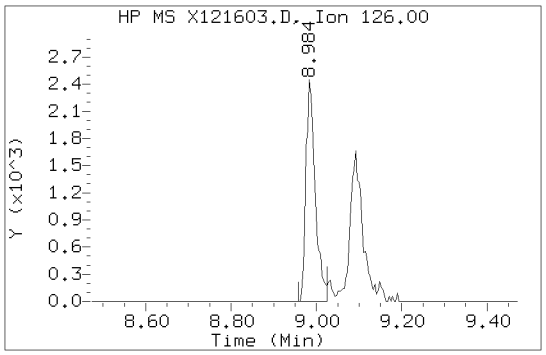
BEFORE

MASS
126
AREA
3761
HEIGHT
2450
27-Dec-2022
16:03
linh
pham




AFTER

MASS
126
AREA
3761
HEIGHT
2450
27-Dec-2022
16:07
linh
pham

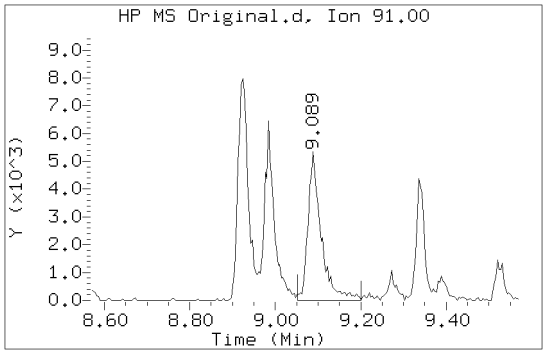



## 4-Chlorotoluene (106-43-4)

Reason Code:

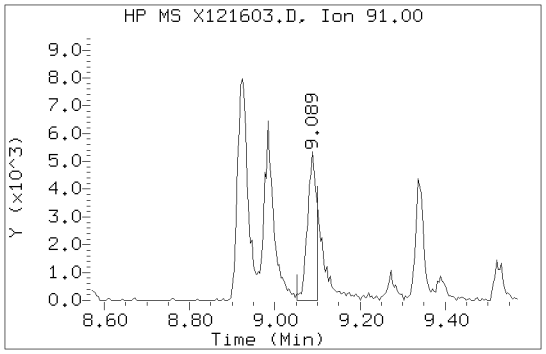
BEFORE

MASS
91
AREA
11481
HEIGHT
5337
27-Dec-2022
16:03
linh
pham



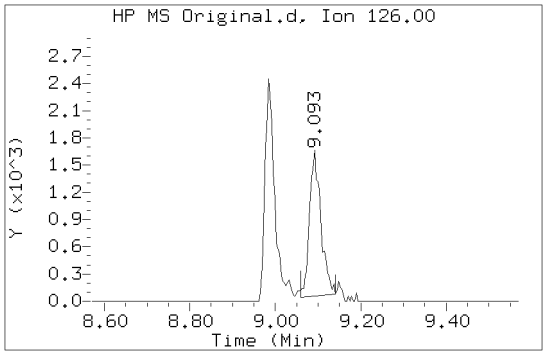

AFTER

MASS
91
AREA
7644
HEIGHT
5337
27-Dec-2022
16:07
linh
pham



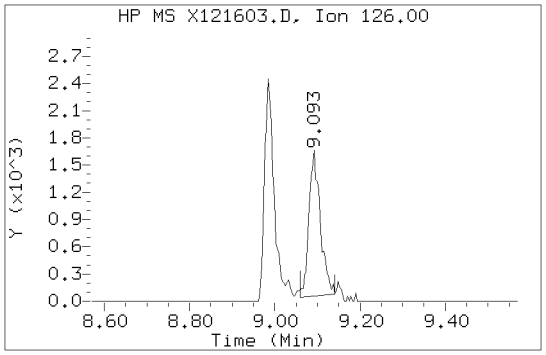

BEFORE

MASS
126
AREA
3008
HEIGHT
1612
27-Dec-2022
16:03
linh
pham




AFTER

MASS
126
AREA
3008
HEIGHT
1612
27-Dec-2022
16:07
linh
pham

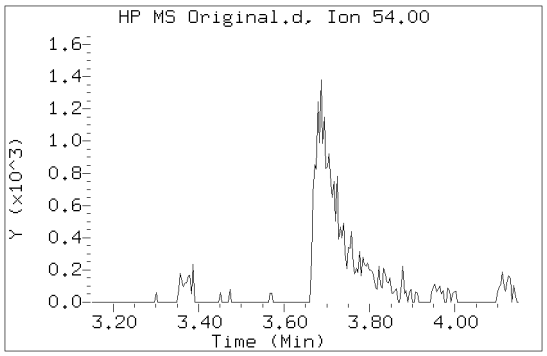



## Propionitrile (107-12-0)

Reason Code:

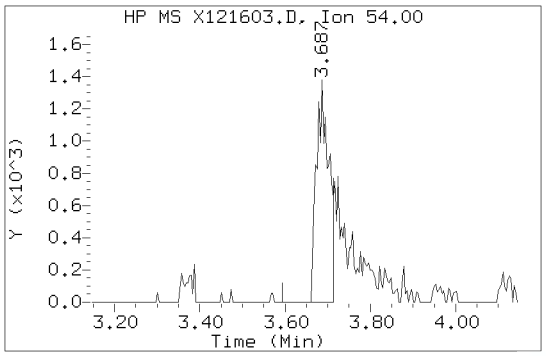
BEFORE

MASS
54
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
54
AREA
2777
HEIGHT
1380
27-Dec-2022
16:07
linh
pham



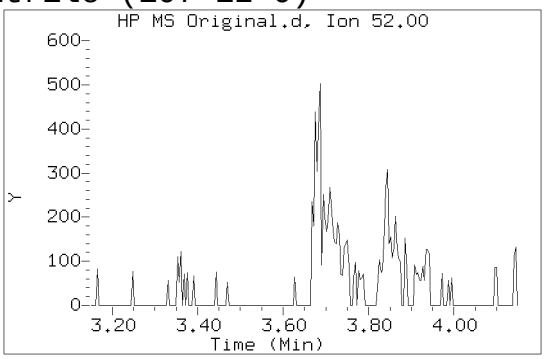
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Propionitrile (107-12-0)

Reason Code:

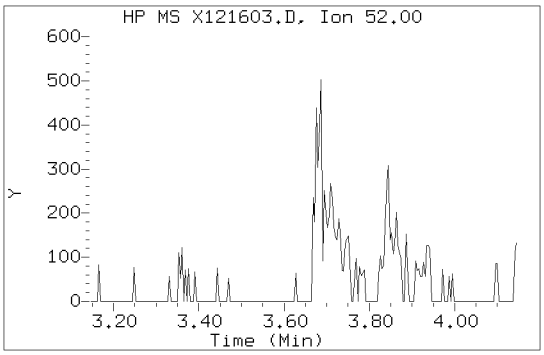
**BEFORE**

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



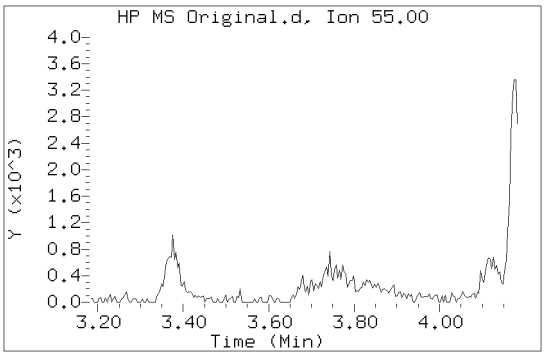

**AFTER**

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



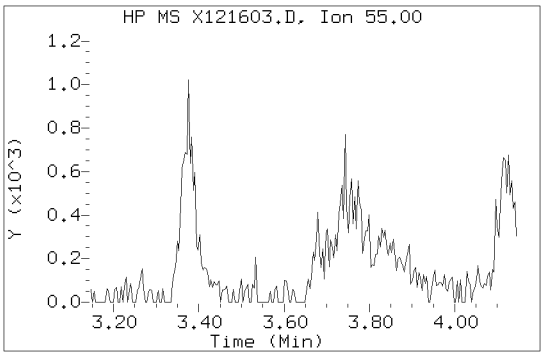

**BEFORE**

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

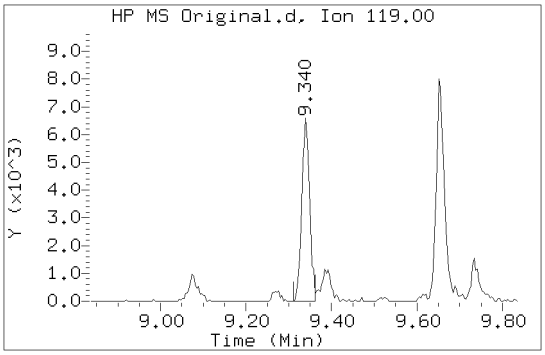



## tert-Butylbenzene (98-06-6)

Reason Code:

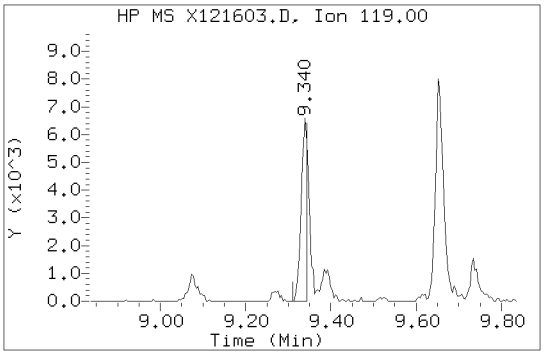
**BEFORE**

MASS
119
AREA
8660
HEIGHT
6598
27-Dec-2022
16:03
linh
pham



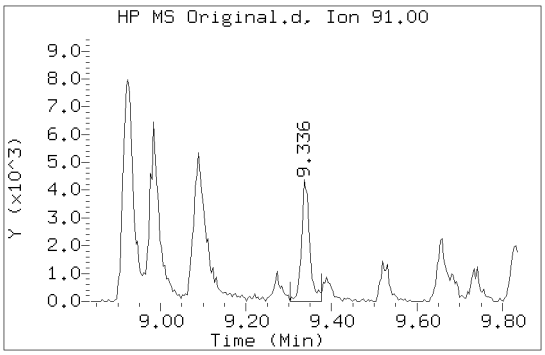

**AFTER**

MASS
119
AREA
6389
HEIGHT
6598
27-Dec-2022
16:07
linh
pham



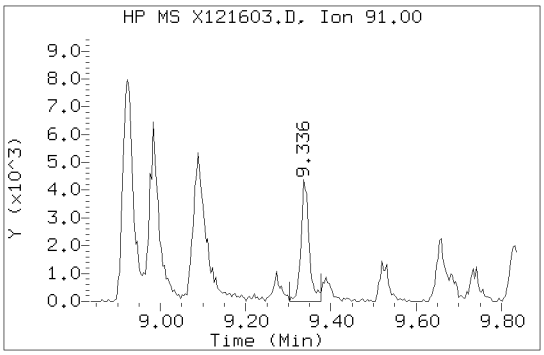

**BEFORE**

MASS
91
AREA
6013
HEIGHT
4378
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
91
AREA
6013
HEIGHT
4378
27-Dec-2022
16:07
linh
pham



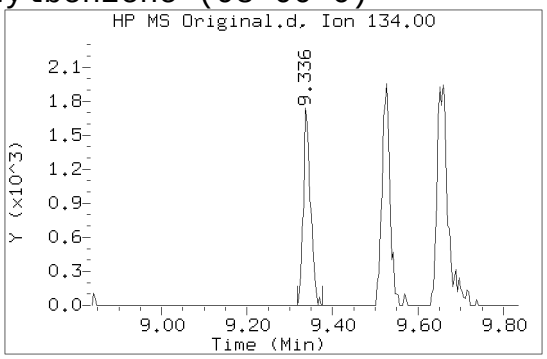
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## tert-Butylbenzene (98-06-6)

Reason Code:

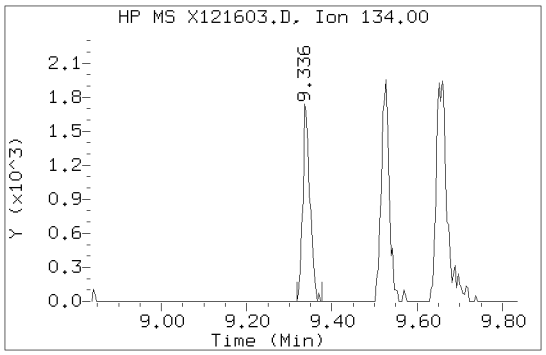
BEFORE

MASS
134
AREA
2112
HEIGHT
1740
27-Dec-2022
16:03
linh
pham




AFTER

MASS
134
AREA
2112
HEIGHT
1740
27-Dec-2022
16:07
linh
pham

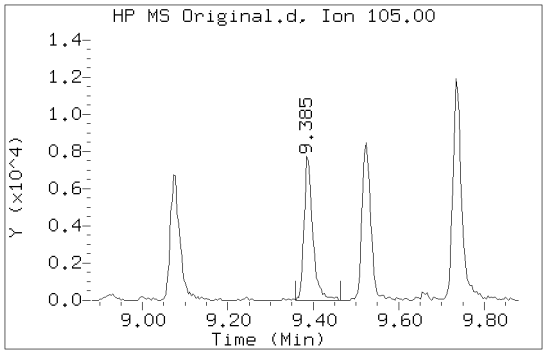



## 1,2,4-Trimethylbenzene (95-63-6)

Reason Code:

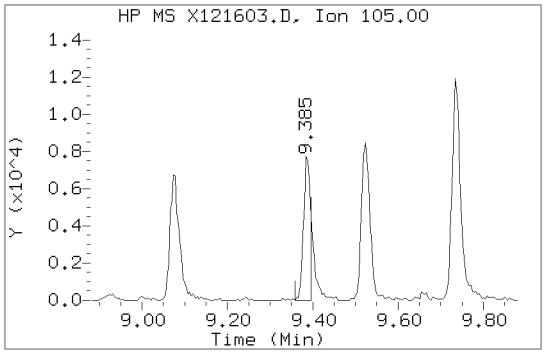
BEFORE

MASS
105
AREA
11065
HEIGHT
7775
27-Dec-2022
16:03
linh
pham



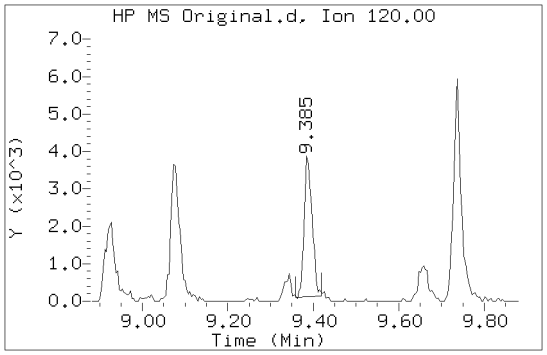

AFTER

MASS
105
AREA
8496
HEIGHT
7775
27-Dec-2022
16:07
linh
pham



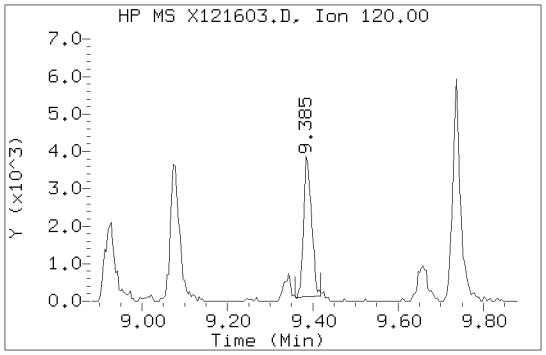

BEFORE

MASS
120
AREA
4898
HEIGHT
3773
27-Dec-2022
16:03
linh
pham




AFTER

MASS
120
AREA
4898
HEIGHT
3773
27-Dec-2022
16:07
linh
pham

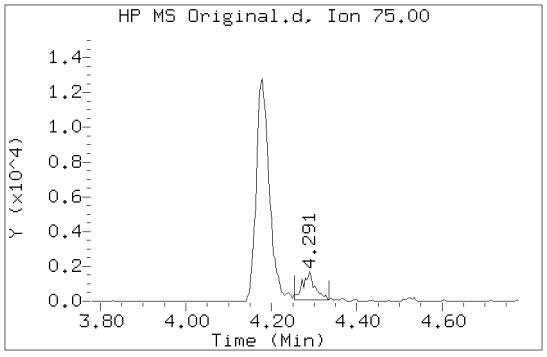



## 1,1-Dichloropropene (563-58-6)

Reason Code:

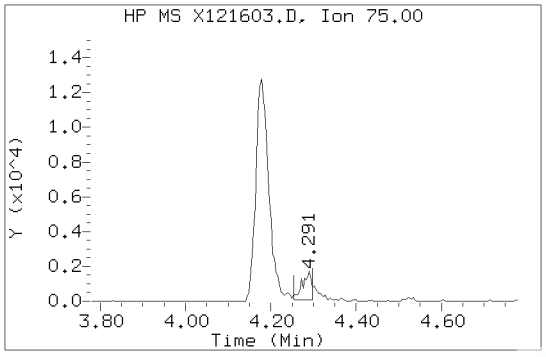
BEFORE

MASS
75
AREA
3235
HEIGHT
1674
27-Dec-2022
16:03
linh
pham




AFTER

MASS
75
AREA
2468
HEIGHT
1674
27-Dec-2022
16:07
linh
pham



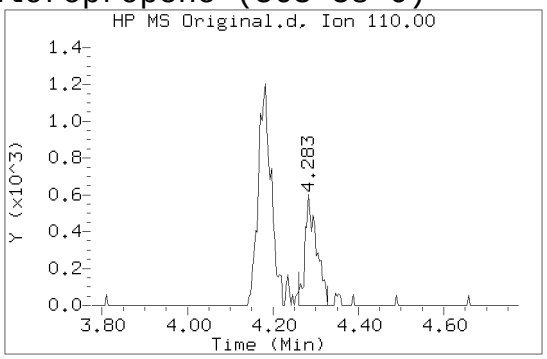
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1-Dichloropropene (563-58-6)

Reason Code:

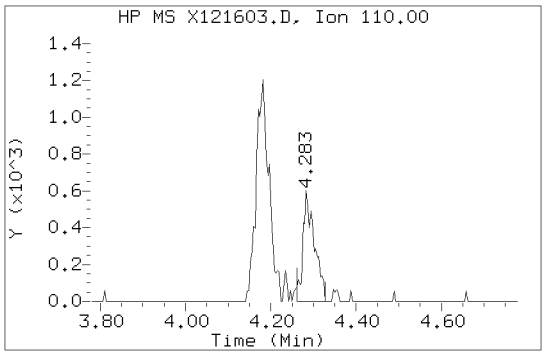
**BEFORE**

MASS
110
AREA
1143
HEIGHT
603
27-Dec-2022
16:03
linh
pham



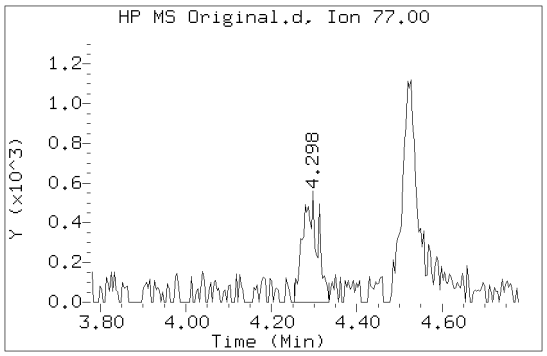

**AFTER**

MASS
110
AREA
1143
HEIGHT
603
27-Dec-2022
16:07
linh
pham



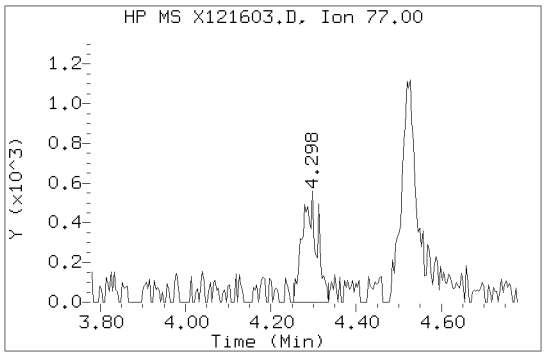

**BEFORE**

MASS
77
AREA
1342
HEIGHT
559
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
77
AREA
1342
HEIGHT
559
27-Dec-2022
16:07
linh
pham

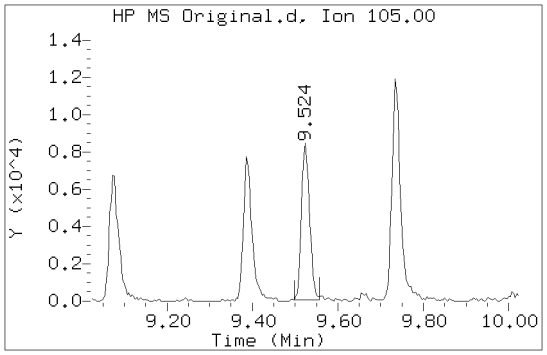



## sec-Butylbenzene (135-98-8)

Reason Code:

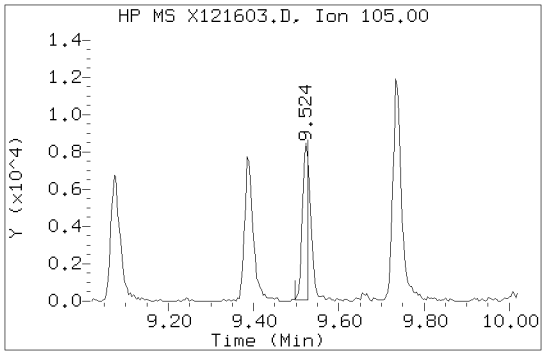
**BEFORE**

MASS
105
AREA
11512
HEIGHT
8394
27-Dec-2022
16:03
linh
pham



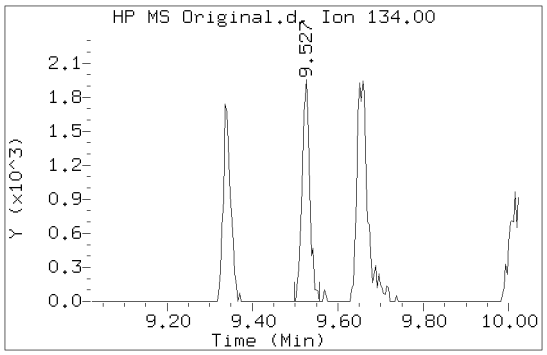

**AFTER**

MASS
105
AREA
7938
HEIGHT
8394
27-Dec-2022
16:07
linh
pham



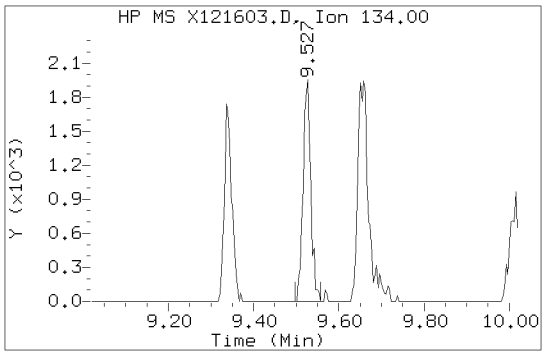

**BEFORE**

MASS
134
AREA
2519
HEIGHT
1955
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
134
AREA
2519
HEIGHT
1955
27-Dec-2022
16:07
linh
pham



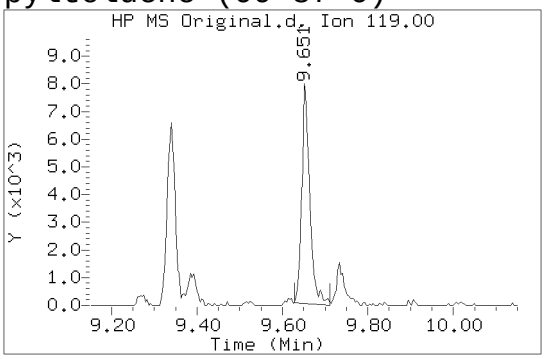
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## p-Isopropyltoluene (99-87-6)

Reason Code:

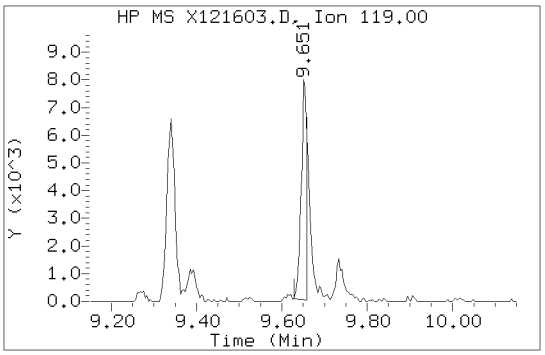
BEFORE

MASS
119
AREA
10660
HEIGHT
7944
27-Dec-2022
16:03
linh
pham



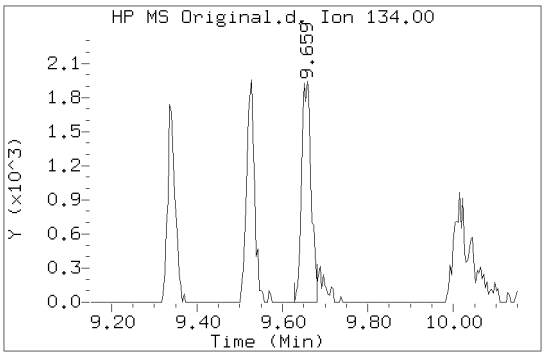

AFTER

MASS
119
AREA
7343
HEIGHT
7944
27-Dec-2022
16:07
linh
pham



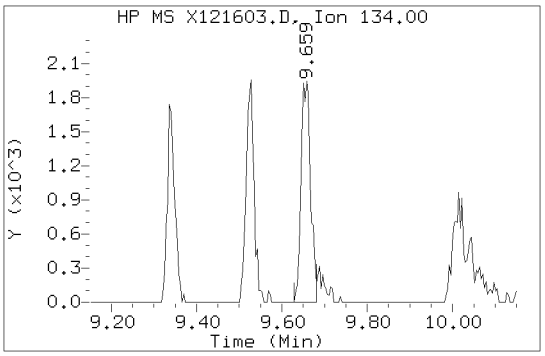

BEFORE

MASS
134
AREA
3102
HEIGHT
1946
27-Dec-2022
16:03
linh
pham



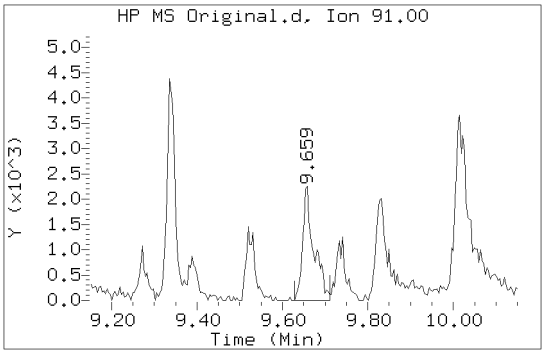

AFTER

MASS
134
AREA
3102
HEIGHT
1946
27-Dec-2022
16:07
linh
pham



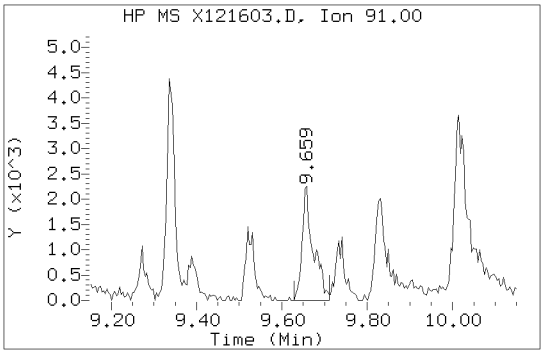

BEFORE

MASS
91
AREA
4191
HEIGHT
2256
27-Dec-2022
16:03
linh
pham




AFTER

MASS
91
AREA
4191
HEIGHT
2256
27-Dec-2022
16:07
linh
pham

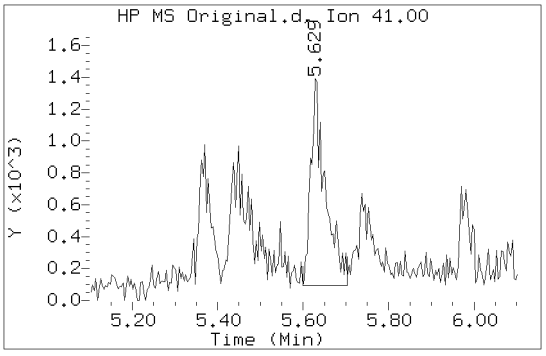



## Methyl Methacrylate (80-62-6)

Reason Code:

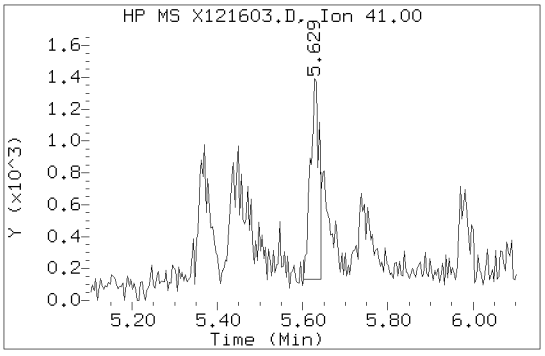
BEFORE

MASS
41
AREA
3067
HEIGHT
1299
27-Dec-2022
16:03
linh
pham




AFTER

MASS
41
AREA
1788
HEIGHT
1257
27-Dec-2022
16:07
linh
pham

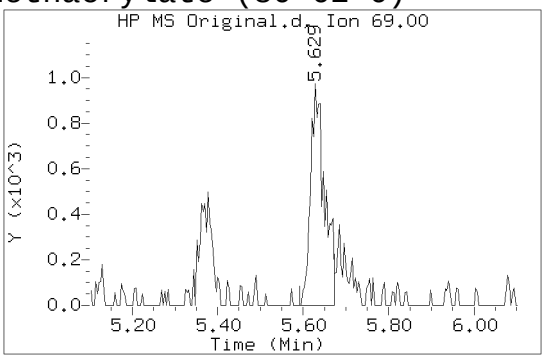


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methyl Methacrylate (80-62-6)

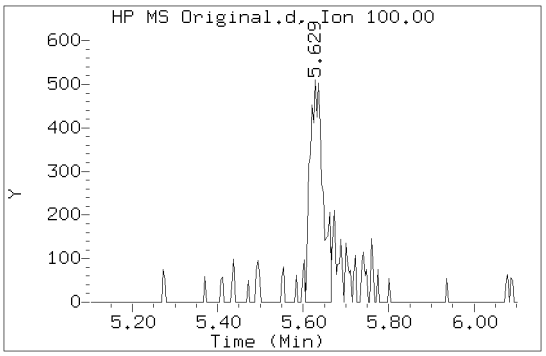
**BEFORE**

MASS
69
AREA
2216
HEIGHT
973
27-Dec-2022
16:03
linh
pham




**BEFORE**

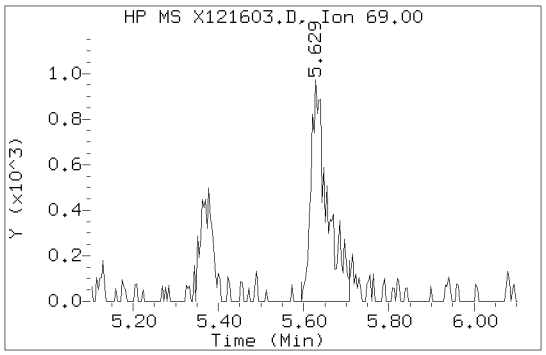
MASS
100
AREA
1074
HEIGHT
510
27-Dec-2022
16:03
linh
pham




Reason Code:

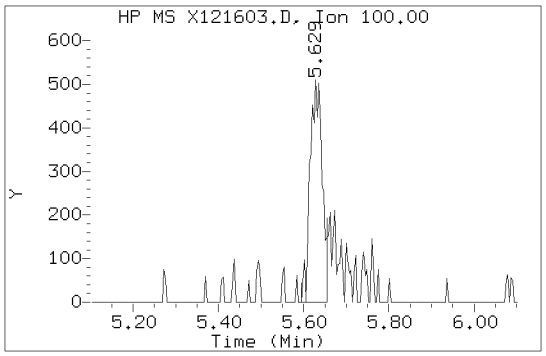
**AFTER**

MASS
69
AREA
2595
HEIGHT
973
27-Dec-2022
16:07
linh
pham




**AFTER**

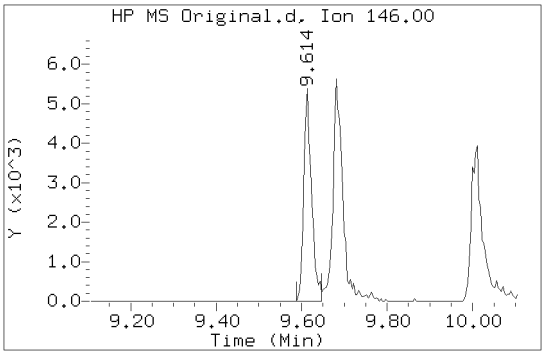
MASS
100
AREA
1011
HEIGHT
510
27-Dec-2022
16:07
linh
pham




## 1,3-Dichlorobenzene (541-73-1)

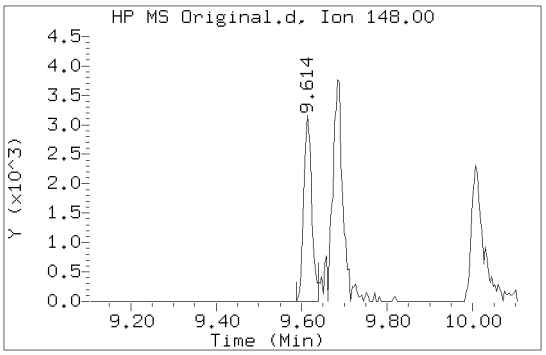
**BEFORE**

MASS
146
AREA
6964
HEIGHT
5387
27-Dec-2022
16:03
linh
pham




**BEFORE**

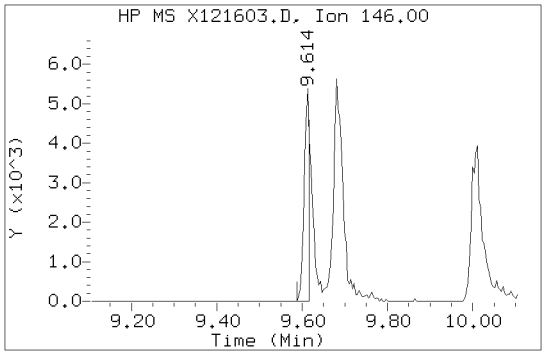
MASS
148
AREA
4216
HEIGHT
3157
27-Dec-2022
16:03
linh
pham




Reason Code:

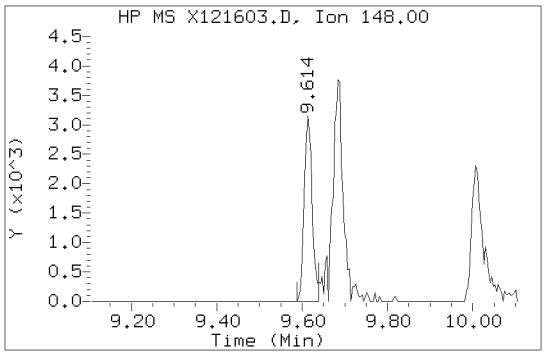
**AFTER**

MASS
146
AREA
4677
HEIGHT
5387
27-Dec-2022
16:07
linh
pham




**AFTER**

MASS
148
AREA
4216
HEIGHT
3157
27-Dec-2022
16:07
linh
pham



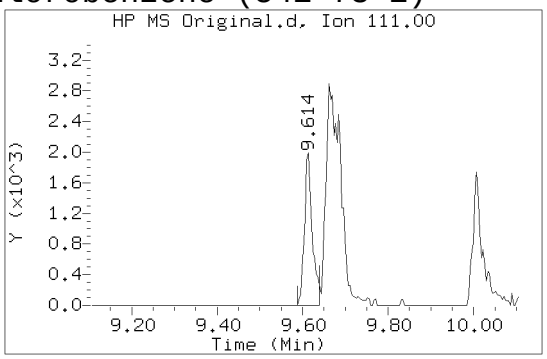
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,3-Dichlorobenzene (541-73-1)

Reason Code:

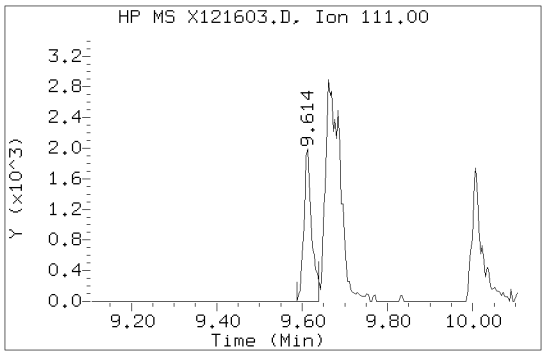
BEFORE

MASS
111
AREA
2596
HEIGHT
1995
27-Dec-2022
16:03
linh
pham




AFTER

MASS
111
AREA
2596
HEIGHT
1995
27-Dec-2022
16:07
linh
pham

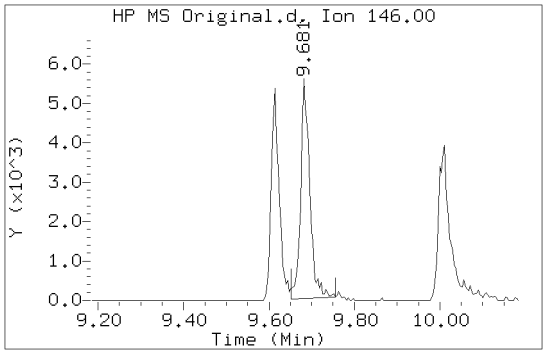



## 1,4-Dichlorobenzene (106-46-7)

Reason Code:

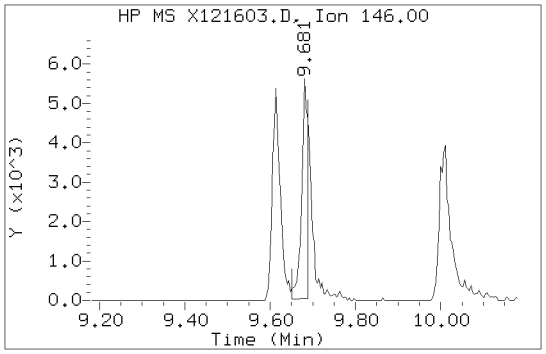
BEFORE

MASS
146
AREA
8510
HEIGHT
5586
27-Dec-2022
16:03
linh
pham



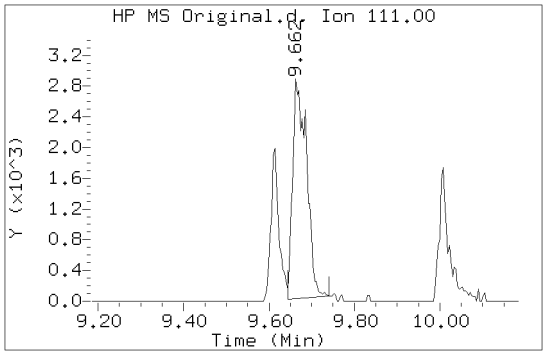

AFTER

MASS
146
AREA
5674
HEIGHT
5587
27-Dec-2022
16:07
linh
pham



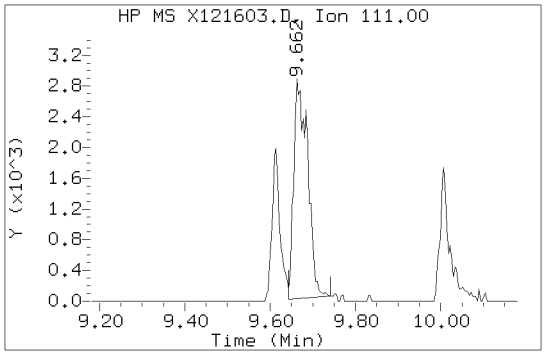

BEFORE

MASS
111
AREA
6571
HEIGHT
2862
27-Dec-2022
16:03
linh
pham



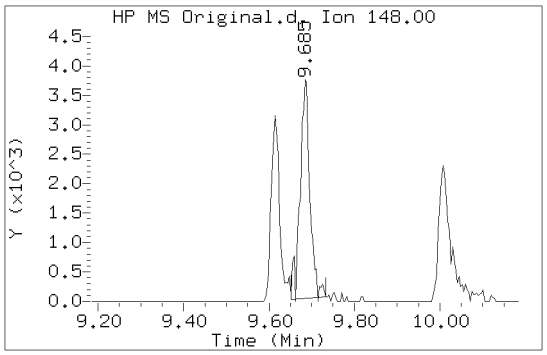

AFTER

MASS
111
AREA
6571
HEIGHT
2862
27-Dec-2022
16:07
linh
pham



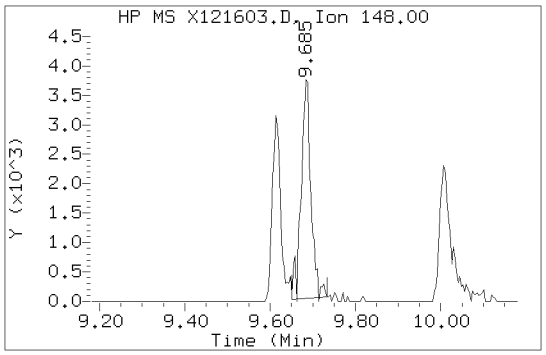

BEFORE

MASS
148
AREA
6083
HEIGHT
3714
27-Dec-2022
16:03
linh
pham




AFTER

MASS
148
AREA
6083
HEIGHT
3714
27-Dec-2022
16:07
linh
pham



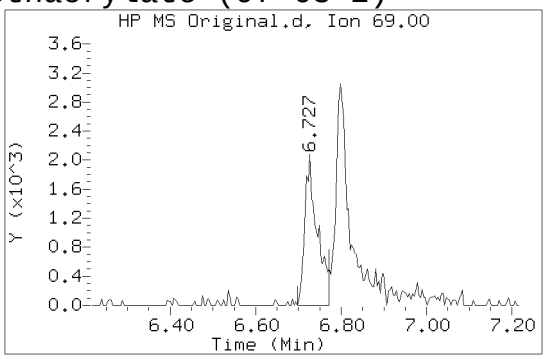
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Ethyl Methacrylate (97-63-2)

Reason Code:

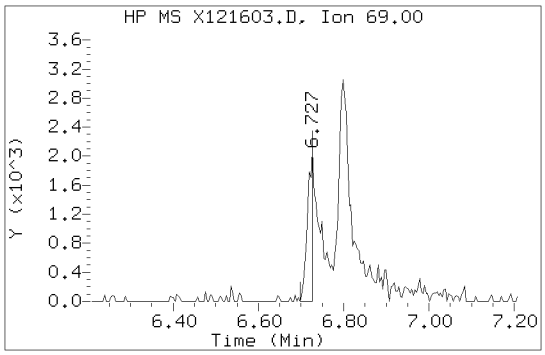
BEFORE

MASS
69
AREA
4283
HEIGHT
2083
27-Dec-2022
16:03
linh
pham



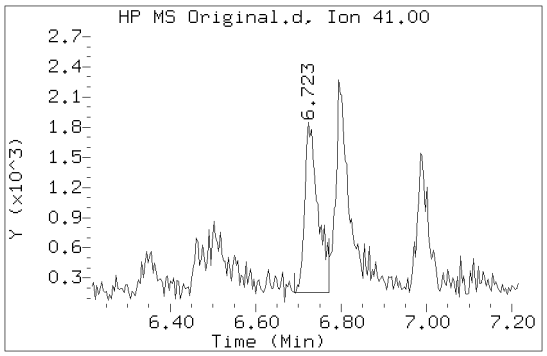

AFTER

MASS
69
AREA
1935
HEIGHT
2083
27-Dec-2022
16:07
linh
pham



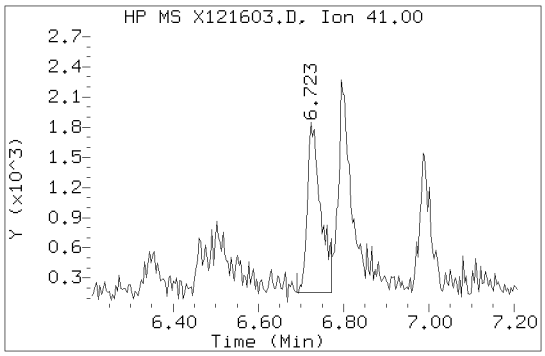

BEFORE

MASS
41
AREA
3701
HEIGHT
1688
27-Dec-2022
16:03
linh
pham




AFTER

MASS
41
AREA
3701
HEIGHT
1688
27-Dec-2022
16:07
linh
pham

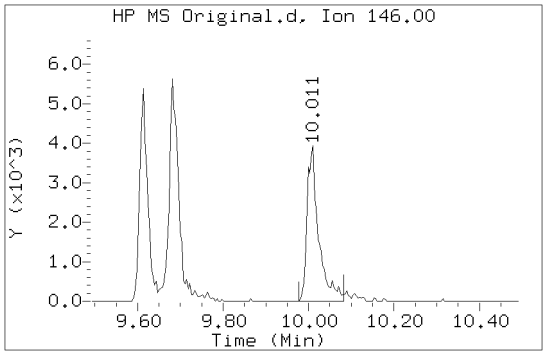



## 1,2-Dichlorobenzene (95-50-1)

Reason Code:

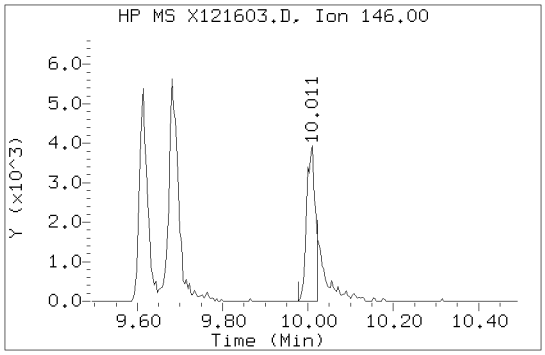
BEFORE

MASS
146
AREA
7400
HEIGHT
3934
27-Dec-2022
16:03
linh
pham



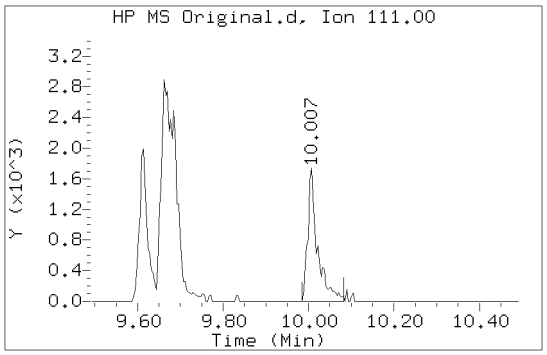

AFTER

MASS
146
AREA
5504
HEIGHT
3934
27-Dec-2022
16:07
linh
pham



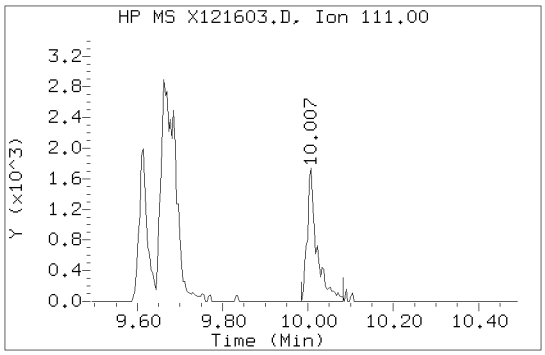

BEFORE

MASS
111
AREA
2768
HEIGHT
1741
27-Dec-2022
16:03
linh
pham




AFTER

MASS
111
AREA
2768
HEIGHT
1741
27-Dec-2022
16:07
linh
pham



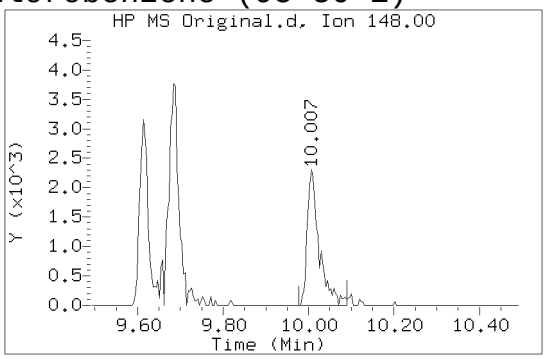
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,2-Dichlorobenzene (95-50-1)

Reason Code:

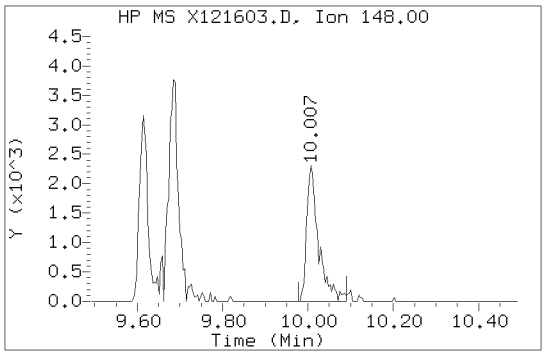
**BEFORE**

MASS
148
AREA
4515
HEIGHT
2306
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
148
AREA
4515
HEIGHT
2306
27-Dec-2022
16:07
linh
pham

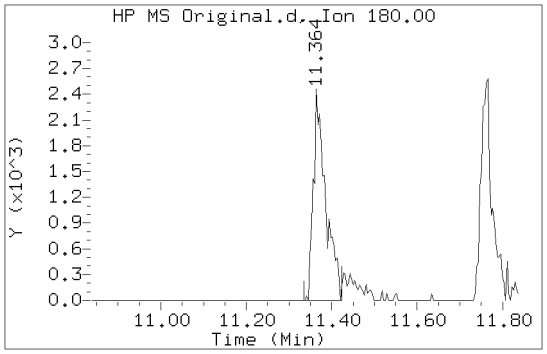



## 1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

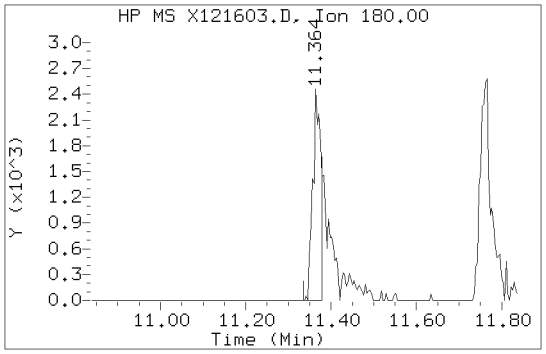
**BEFORE**

MASS
180
AREA
4912
HEIGHT
2459
27-Dec-2022
16:03
linh
pham



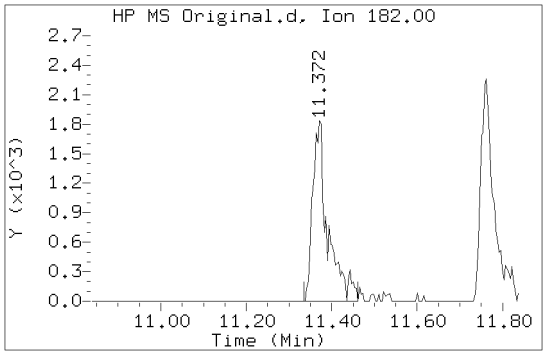

**AFTER**

MASS
180
AREA
3187
HEIGHT
2459
27-Dec-2022
16:07
linh
pham



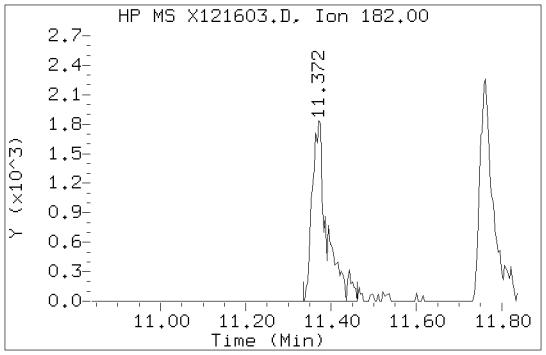

**BEFORE**

MASS
182
AREA
4514
HEIGHT
1835
27-Dec-2022
16:03
linh
pham



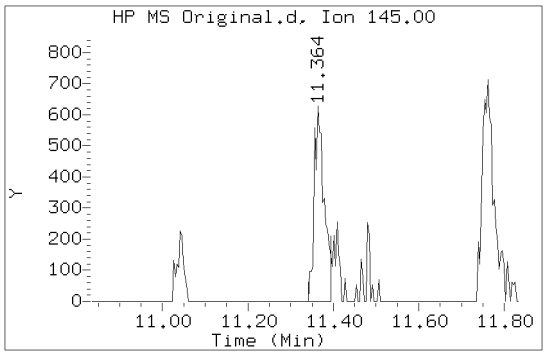

**AFTER**

MASS
182
AREA
4514
HEIGHT
1835
27-Dec-2022
16:07
linh
pham



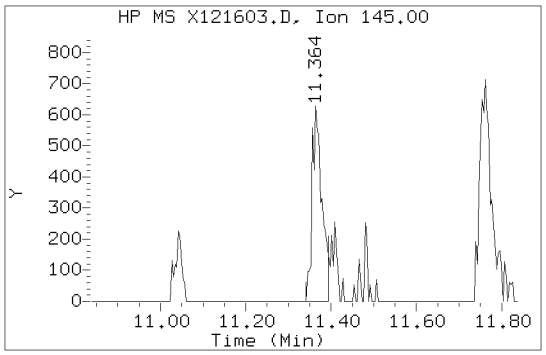

**BEFORE**

MASS
145
AREA
1003
HEIGHT
629
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
145
AREA
1003
HEIGHT
629
27-Dec-2022
16:07
linh
pham

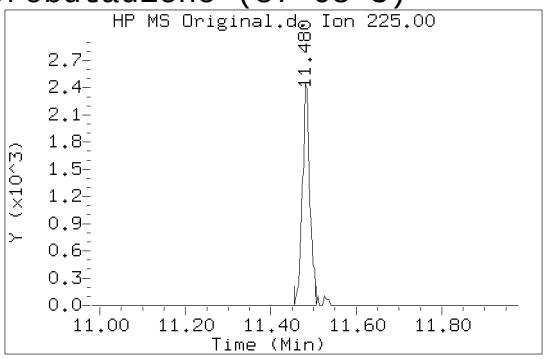


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

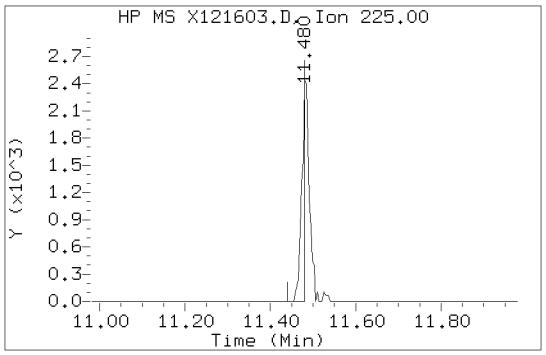
## Hexachlorobutadiene (87-68-3)

Reason Code:

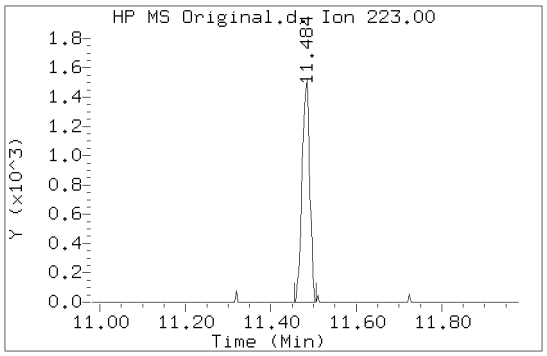
BEFORE
MASS
225
AREA
3038
HEIGHT
2444
27-Dec-2022
16:03
linh
pham



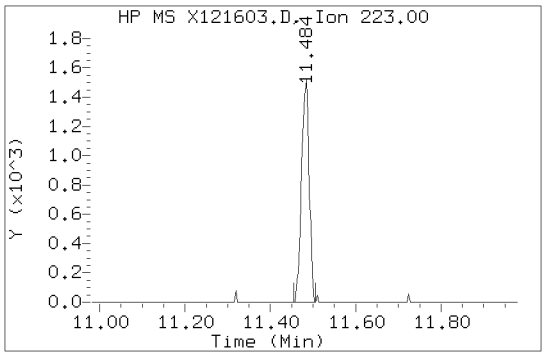

AFTER
MASS
225
AREA
1477
HEIGHT
2444
27-Dec-2022
16:07
linh
pham



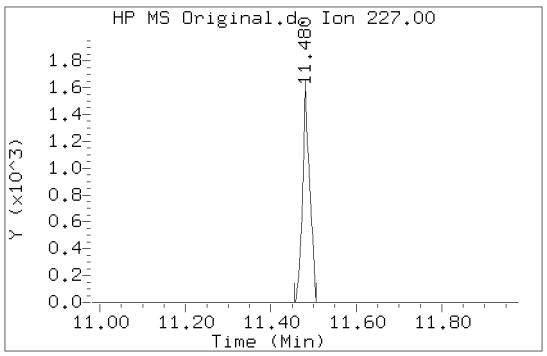

BEFORE
MASS
223
AREA
1952
HEIGHT
1518
27-Dec-2022
16:03
linh
pham



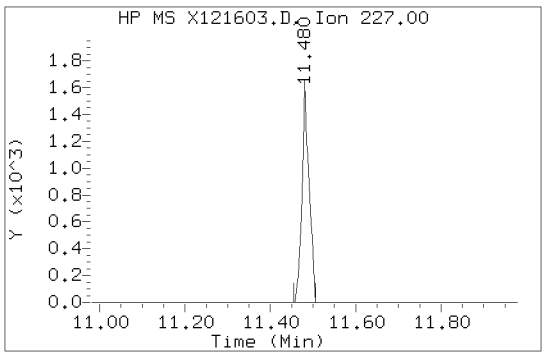

AFTER
MASS
223
AREA
1952
HEIGHT
1518
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
227
AREA
1938
HEIGHT
1652
27-Dec-2022
16:03
linh
pham



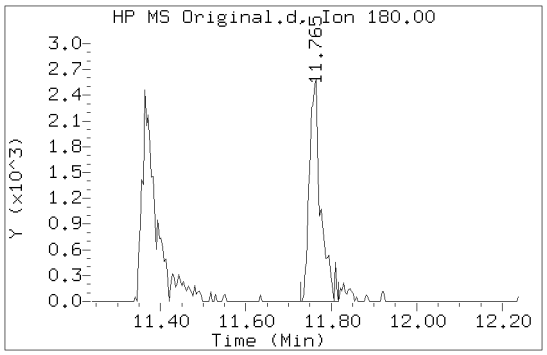

AFTER
MASS
227
AREA
1938
HEIGHT
1652
27-Dec-2022
16:07
linh
pham



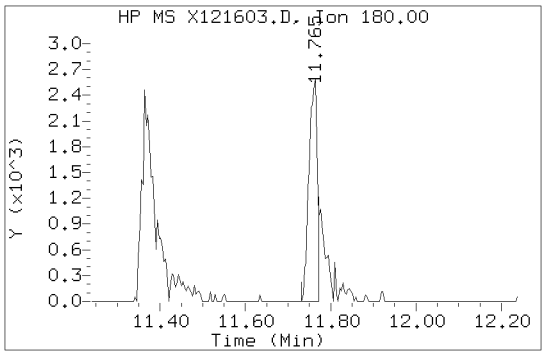

## 1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

BEFORE
MASS
180
AREA
4741
HEIGHT
2580
27-Dec-2022
16:03
linh
pham




AFTER
MASS
180
AREA
3572
HEIGHT
2580
27-Dec-2022
16:07
linh
pham



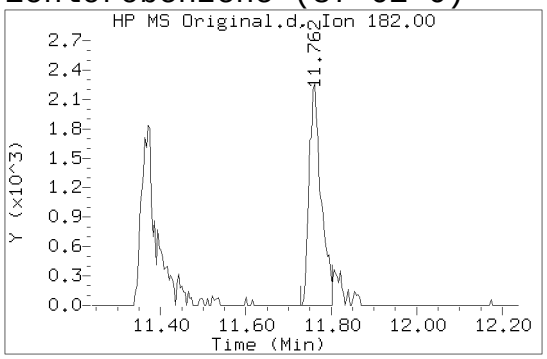
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

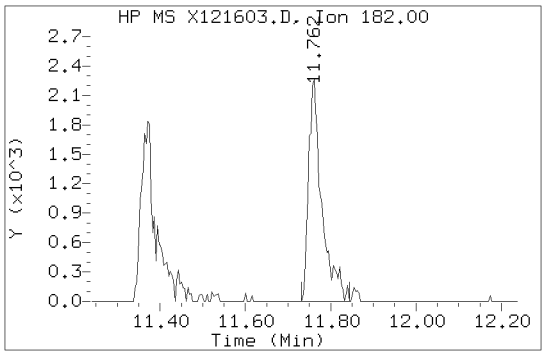
**BEFORE**

MASS
182
AREA
4404
HEIGHT
2261
27-Dec-2022
16:03
linh
pham



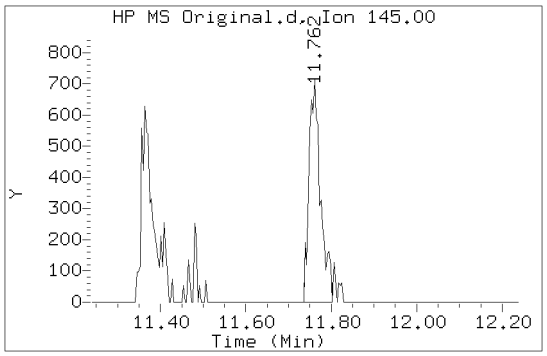

**AFTER**

MASS
182
AREA
4881
HEIGHT
2261
27-Dec-2022
16:07
linh
pham



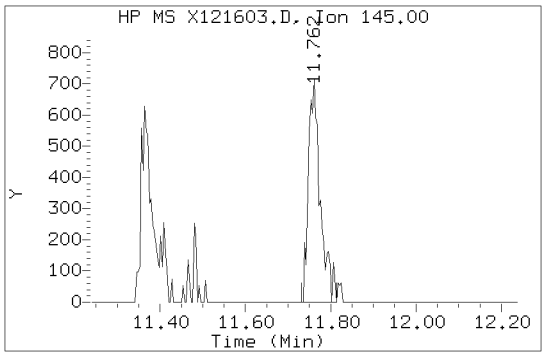

**BEFORE**

MASS
145
AREA
1338
HEIGHT
713
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
145
AREA
1384
HEIGHT
713
27-Dec-2022
16:07
linh
pham

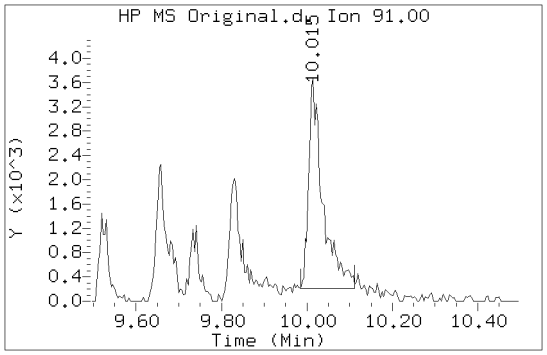



## n-Butylbenzene (104-51-8)

Reason Code:

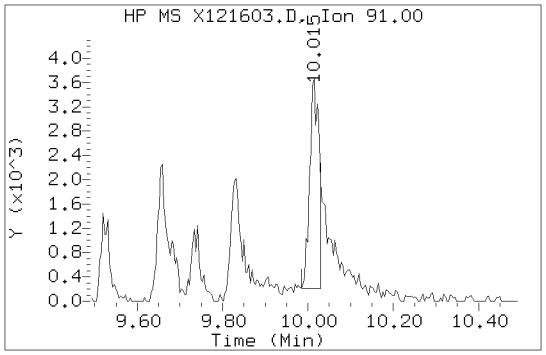
**BEFORE**

MASS
91
AREA
8005
HEIGHT
3451
27-Dec-2022
16:03
linh
pham



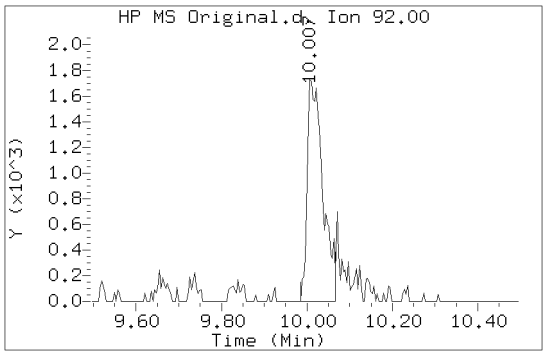

**AFTER**

MASS
91
AREA
5149
HEIGHT
3451
27-Dec-2022
16:07
linh
pham



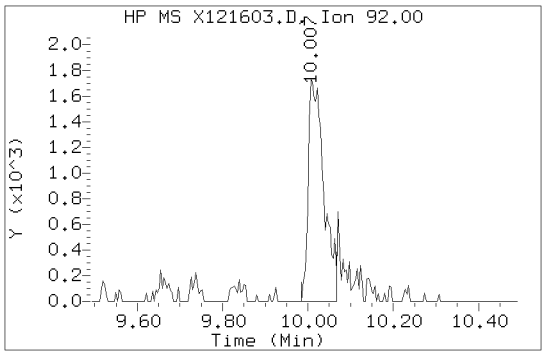

**BEFORE**

MASS
92
AREA
4404
HEIGHT
1727
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
92
AREA
4404
HEIGHT
1727
27-Dec-2022
16:07
linh
pham



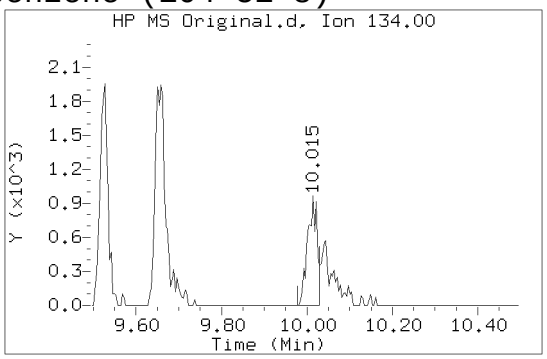
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## n-Butylbenzene (104-51-8)

Reason Code:

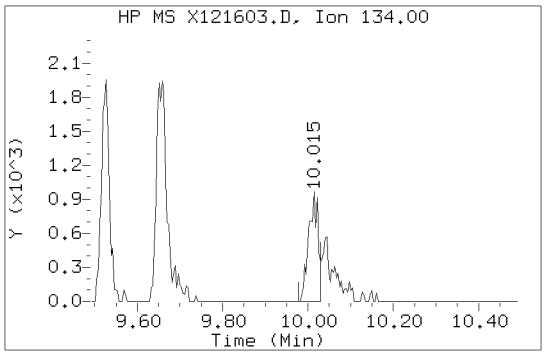
BEFORE

MASS
134
AREA
1502
HEIGHT
969
27-Dec-2022
16:03
linh
pham




AFTER

MASS
134
AREA
1502
HEIGHT
969
27-Dec-2022
16:07
linh
pham

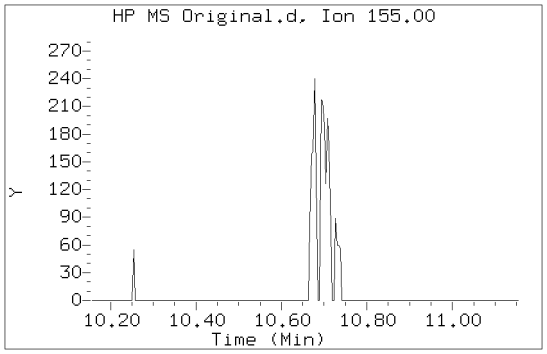



## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

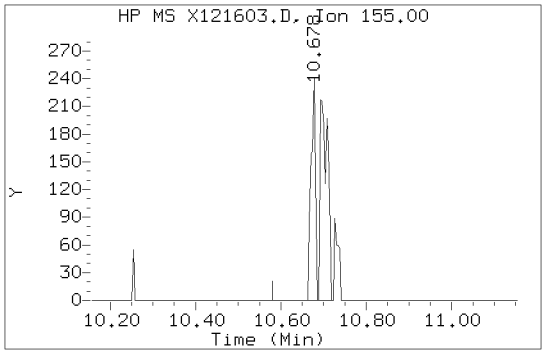
BEFORE

MASS
155
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



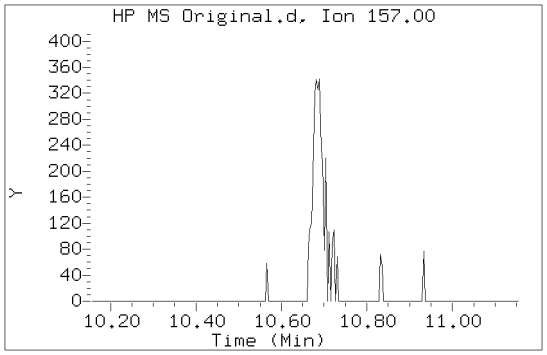

AFTER

MASS
155
AREA
441
HEIGHT
240
27-Dec-2022
16:07
linh
pham



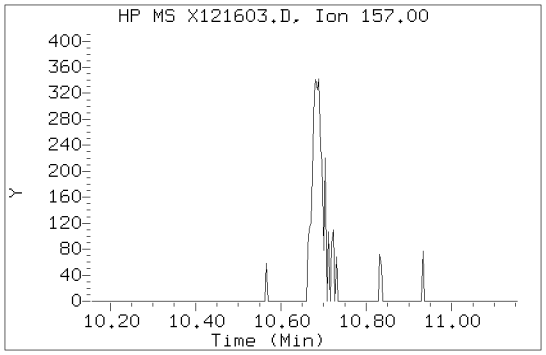

BEFORE

MASS
157
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



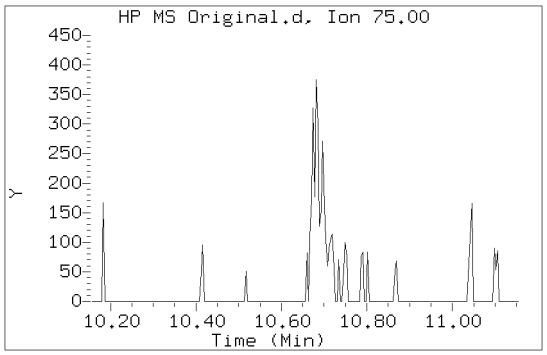

AFTER

MASS
157
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



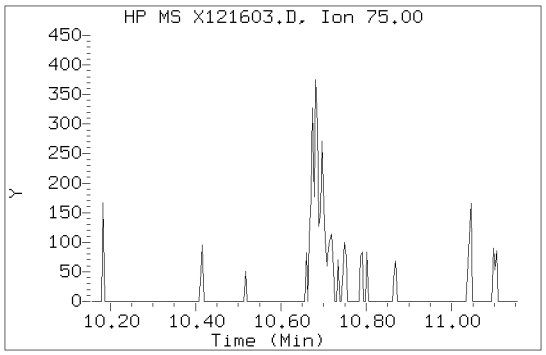

BEFORE

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

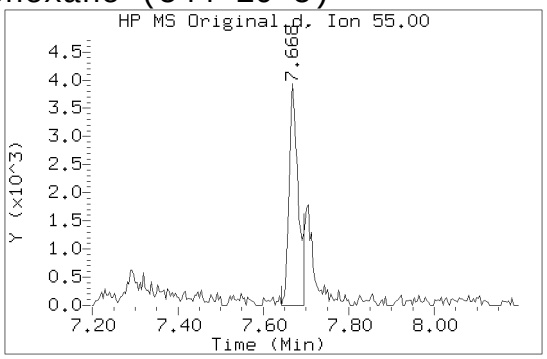


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

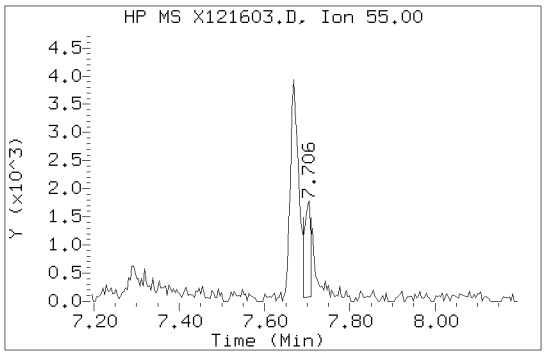
## 1-Chlorohexane (544-10-5)

Reason Code:

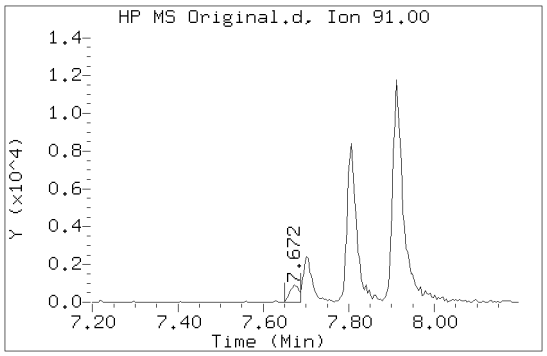
BEFORE
MASS
55
AREA
5785
HEIGHT
3936
27-Dec-2022
16:03
linh
pham



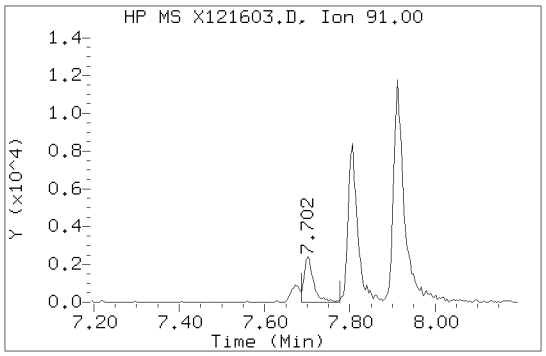

AFTER
MASS
55
AREA
1829
HEIGHT
1707
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
91
AREA
1355
HEIGHT
933
27-Dec-2022
16:03
linh
pham



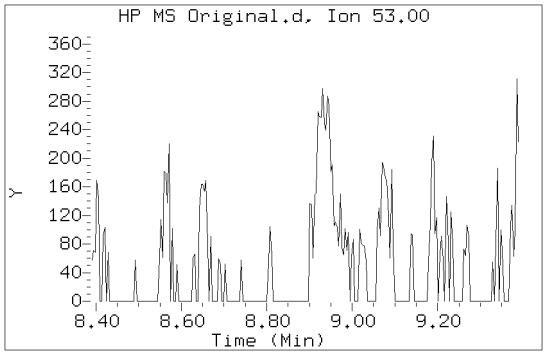

AFTER
MASS
91
AREA
3802
HEIGHT
2430
27-Dec-2022
16:07
linh
pham



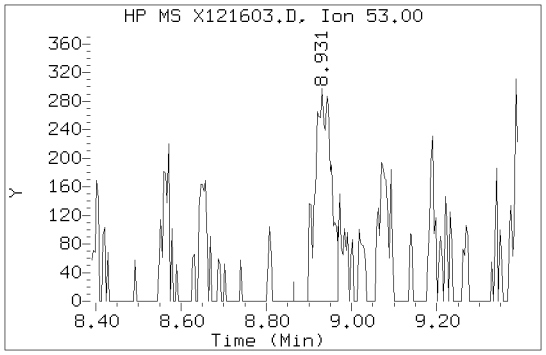

## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

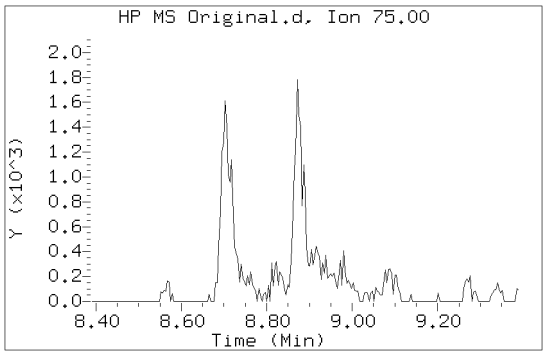
BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



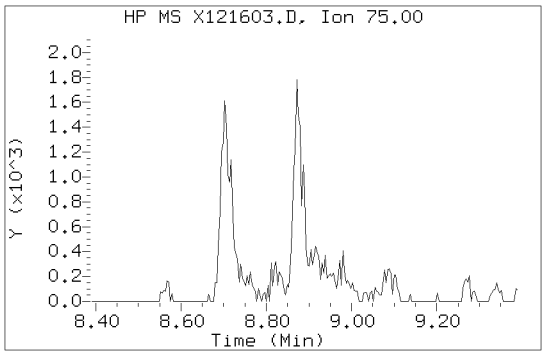

AFTER
MASS
53
AREA
792
HEIGHT
298
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

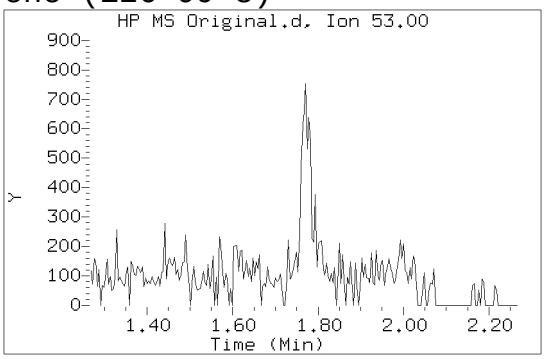


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Chloroprene (126-99-8)

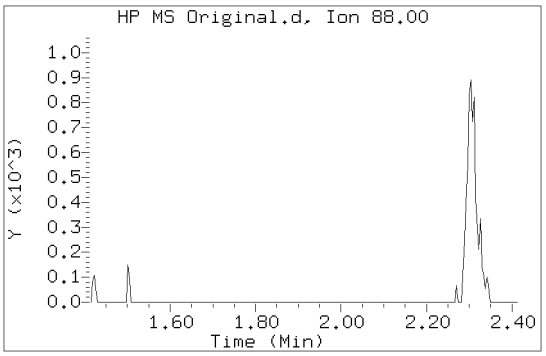
### BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### BEFORE

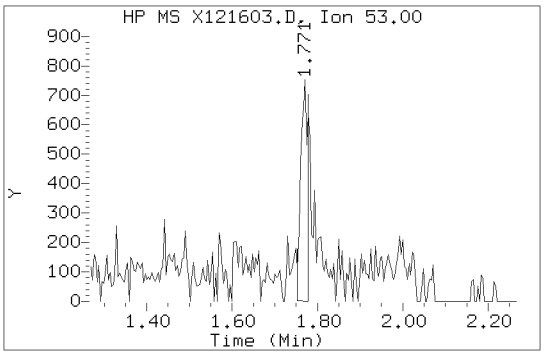
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### Reason Code:

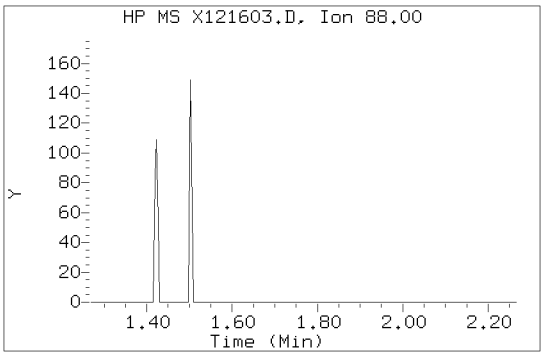
### AFTER

MASS
53
AREA
900
HEIGHT
751
27-Dec-2022
16:07
linh
pham




### AFTER

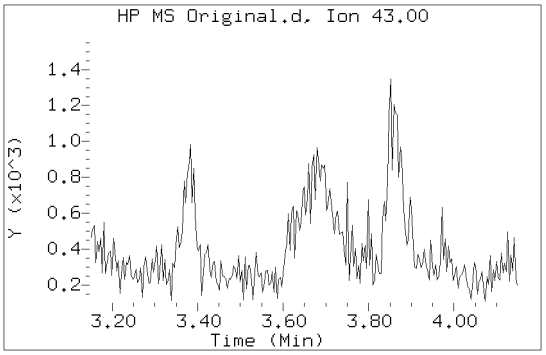
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




## Ethyl Acetate (141-78-6)

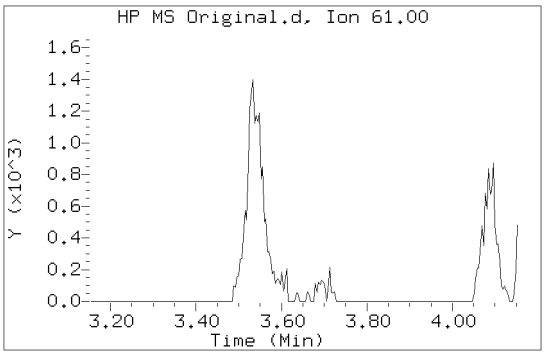
### BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### BEFORE

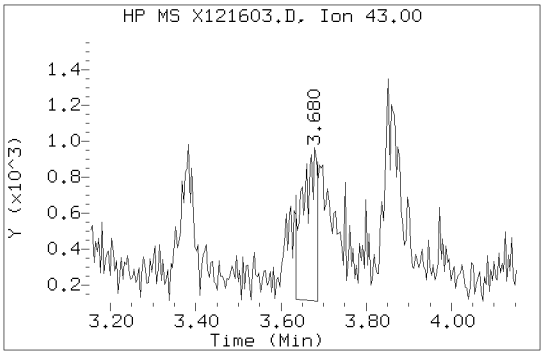
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### Reason Code:

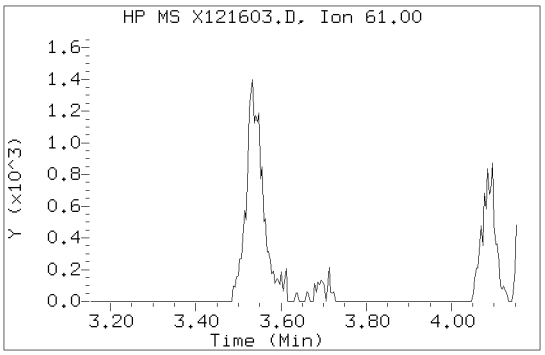
### AFTER

MASS
43
AREA
2065
HEIGHT
853
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

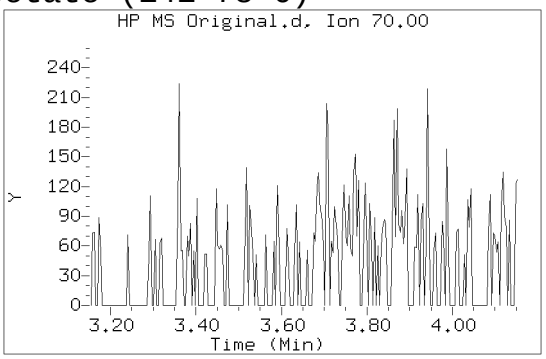


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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Ethyl Acetate (141-78-6)

### BEFORE

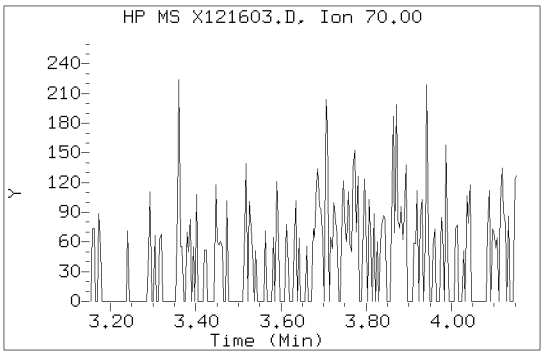
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

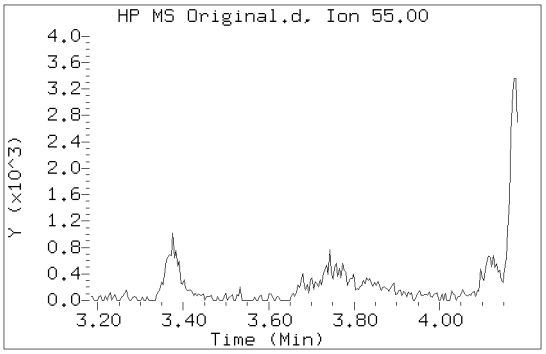
Reason Code:




## Methyl Acrylate (96-33-3)

### BEFORE

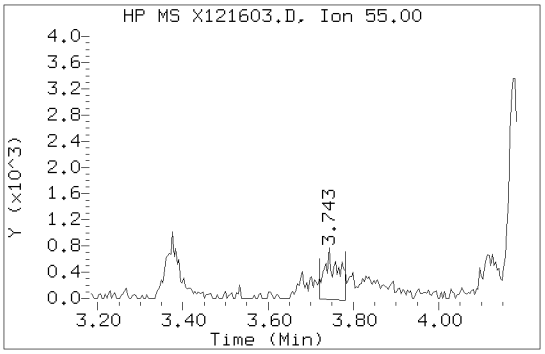
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### AFTER

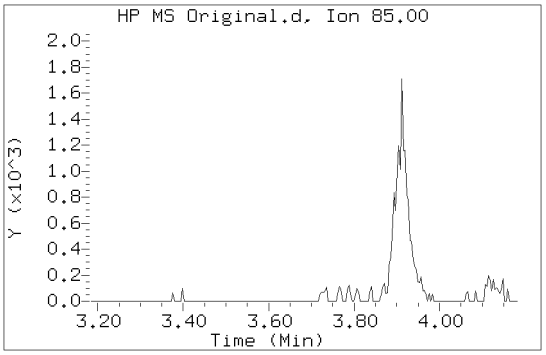
MASS
55
AREA
1765
HEIGHT
787
27-Dec-2022
16:07
linh
pham

Reason Code:



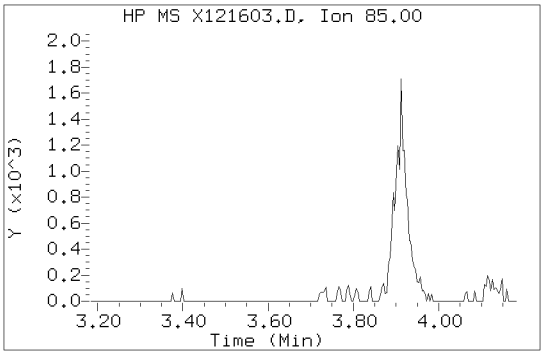

### BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### AFTER

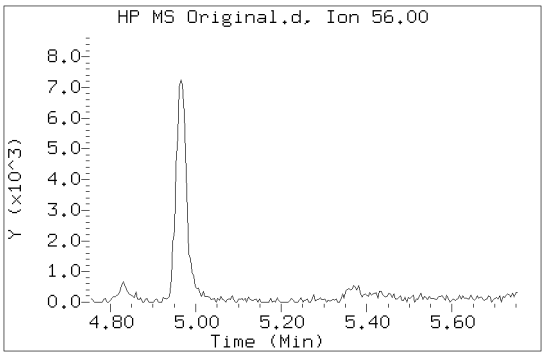
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




## n-Butanol (71-36-3)

### BEFORE

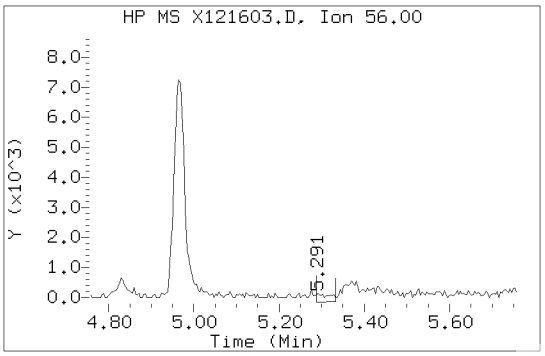
MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
56
AREA
622
HEIGHT
300
27-Dec-2022
16:07
linh
pham

Reason Code:



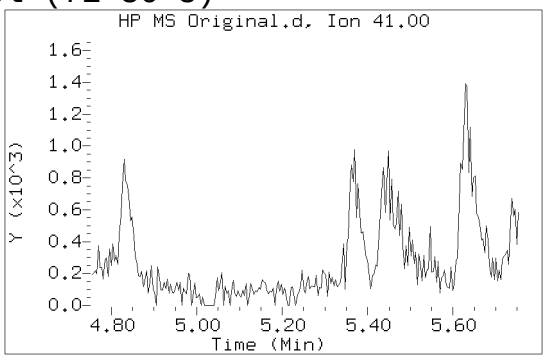
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## n-Butanol (71-36-3)

Reason Code:

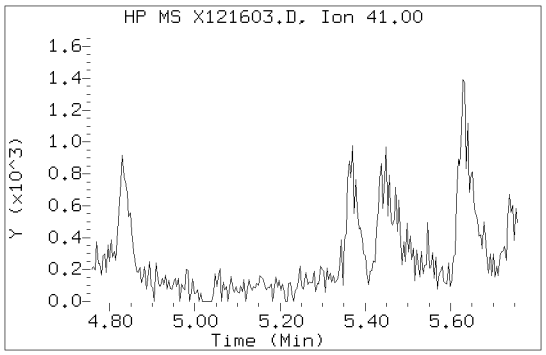
**BEFORE**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

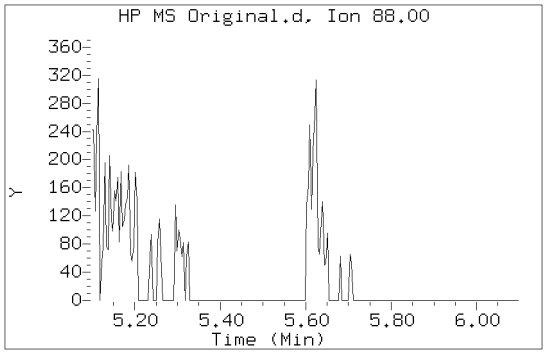



## 1,4-Dioxane ()

Reason Code:

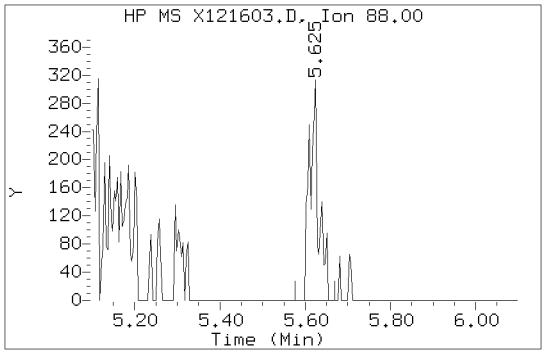
**BEFORE**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



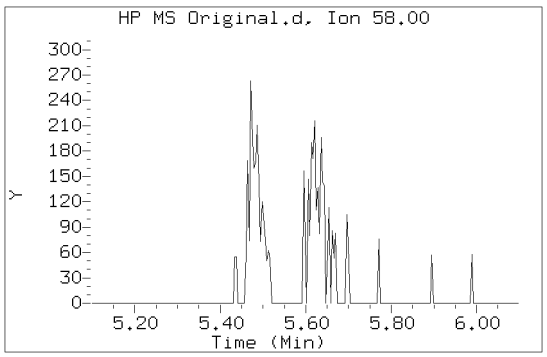

**AFTER**

MASS
88
AREA
462
HEIGHT
313
27-Dec-2022
16:07
linh
pham



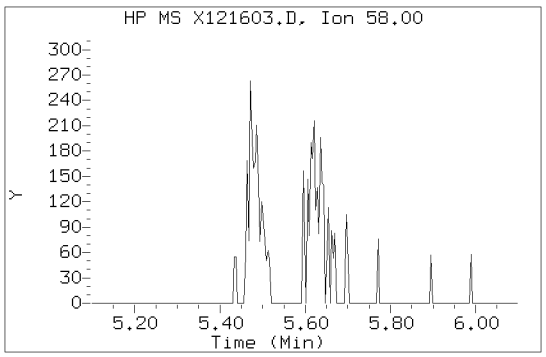

**BEFORE**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

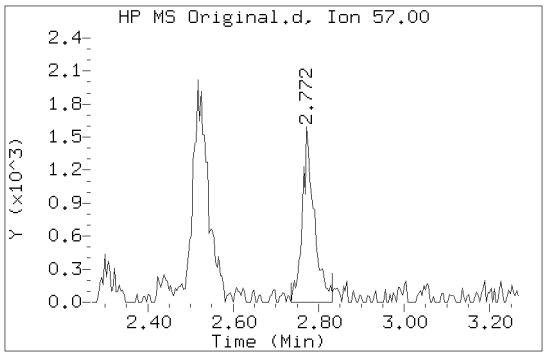



## n-Hexane (110-54-3)

Reason Code:

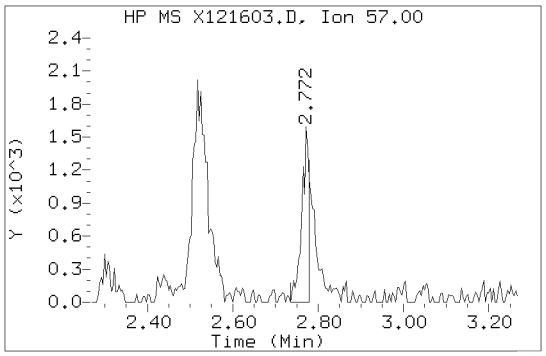
**BEFORE**

MASS
57
AREA
3089
HEIGHT
1591
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
57
AREA
1909
HEIGHT
1591
27-Dec-2022
16:07
linh
pham

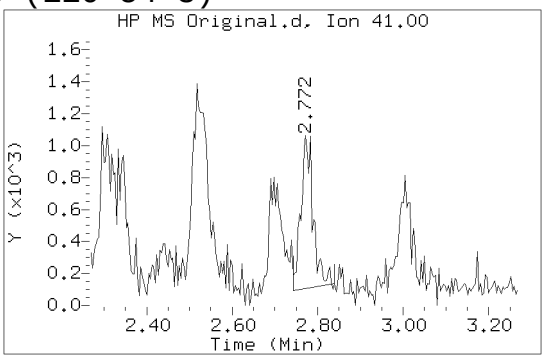


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

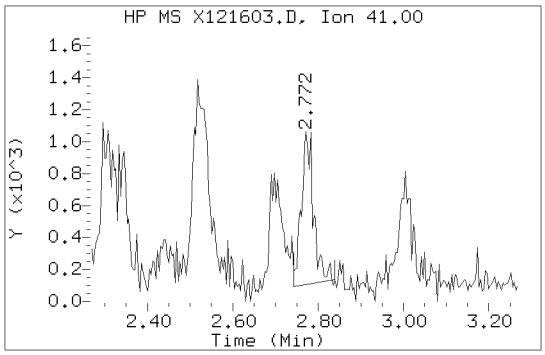
## n-Hexane (110-54-3)

Reason Code:

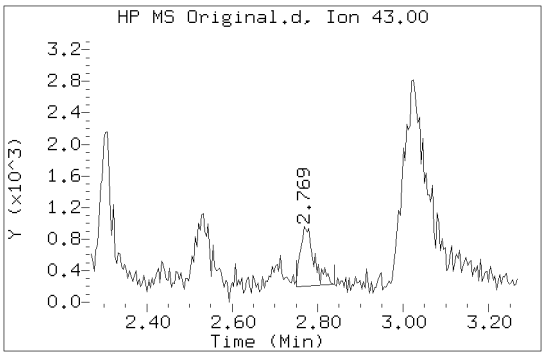
BEFORE
MASS
41
AREA
1918
HEIGHT
958
27-Dec-2022
16:03
linh
pham



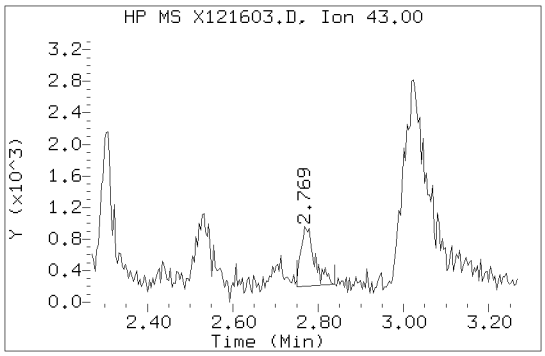

AFTER
MASS
41
AREA
1918
HEIGHT
958
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
43
AREA
1726
HEIGHT
759
27-Dec-2022
16:03
linh
pham



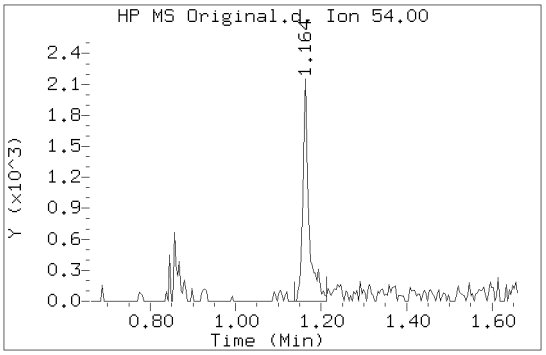

AFTER
MASS
43
AREA
1726
HEIGHT
759
27-Dec-2022
16:07
linh
pham



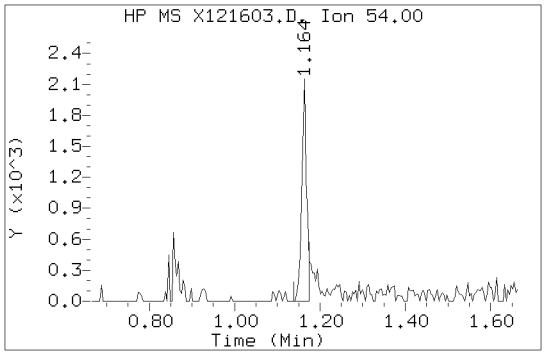

## 1,3-Butadiene (106-99-0)

Reason Code:

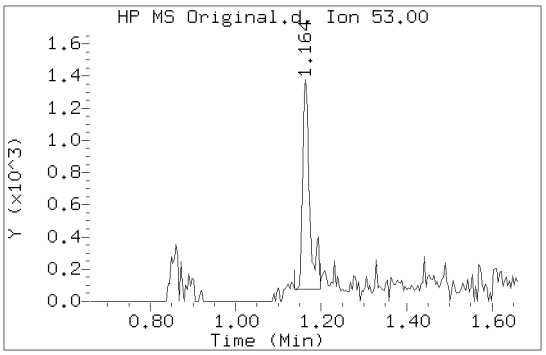
BEFORE
MASS
54
AREA
2206
HEIGHT
2153
27-Dec-2022
16:03
linh
pham



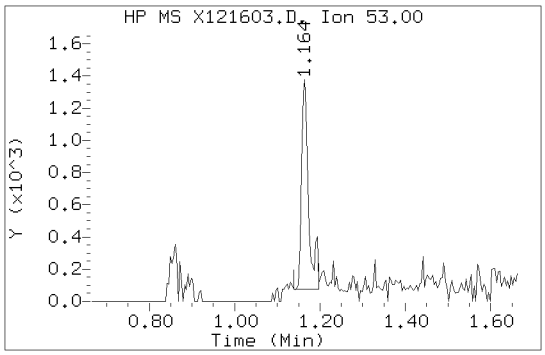

AFTER
MASS
54
AREA
1793
HEIGHT
2153
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
53
AREA
1535
HEIGHT
1301
27-Dec-2022
16:03
linh
pham




AFTER
MASS
53
AREA
1535
HEIGHT
1301
27-Dec-2022
16:07
linh
pham



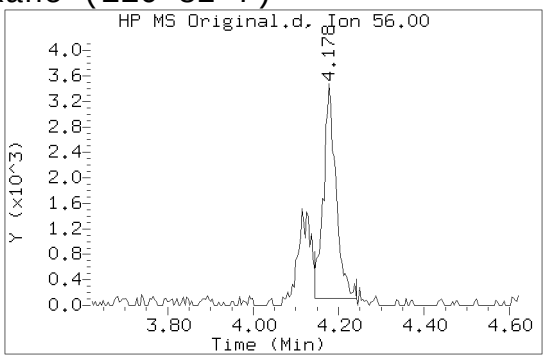
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Cyclohexane (110-82-7)

Reason Code:

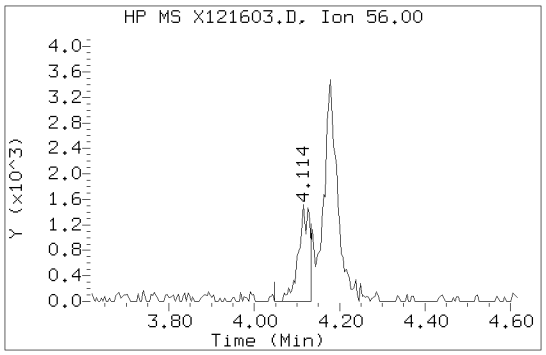
**BEFORE**

MASS
56
AREA
6884
HEIGHT
3363
27-Dec-2022
16:03
linh
pham



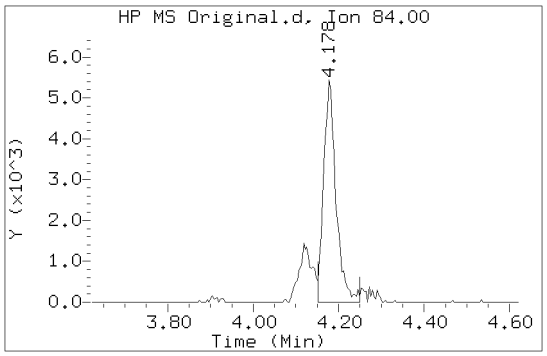

**AFTER**

MASS
56
AREA
2803
HEIGHT
1514
27-Dec-2022
16:07
linh
pham



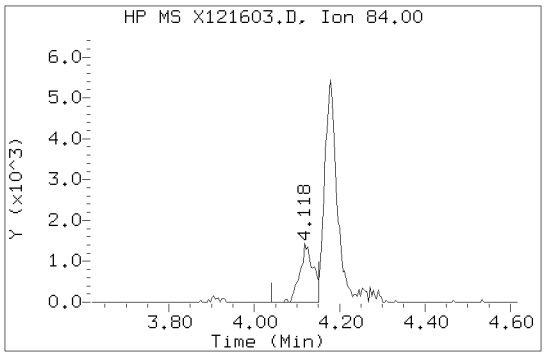

**BEFORE**

MASS
84
AREA
10951
HEIGHT
5440
27-Dec-2022
16:03
linh
pham



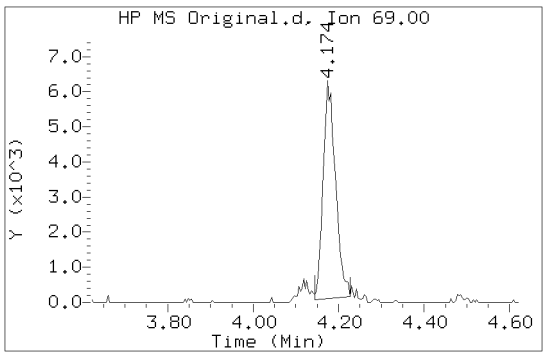

**AFTER**

MASS
84
AREA
3197
HEIGHT
1443
27-Dec-2022
16:07
linh
pham



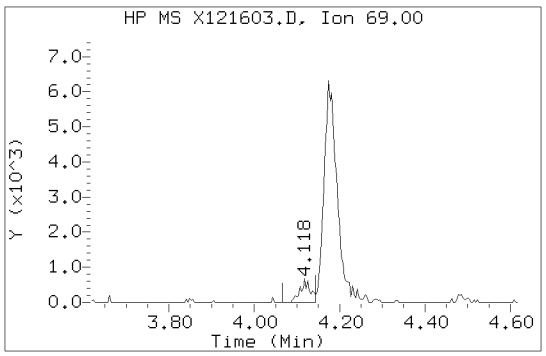

**BEFORE**

MASS
69
AREA
12449
HEIGHT
6206
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
69
AREA
1108
HEIGHT
681
27-Dec-2022
16:07
linh
pham

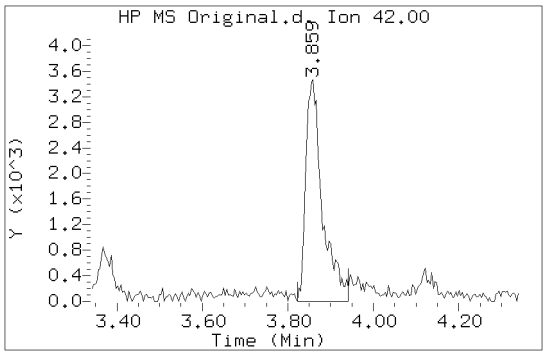



## Tetrahydrofuran (109-99-9)

Reason Code:

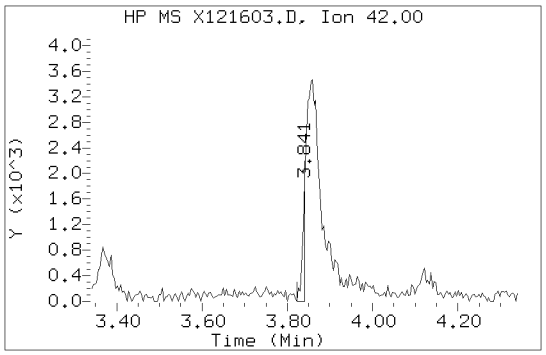
**BEFORE**

MASS
42
AREA
9468
HEIGHT
3467
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
42
AREA
900
HEIGHT
1891
27-Dec-2022
16:07
linh
pham

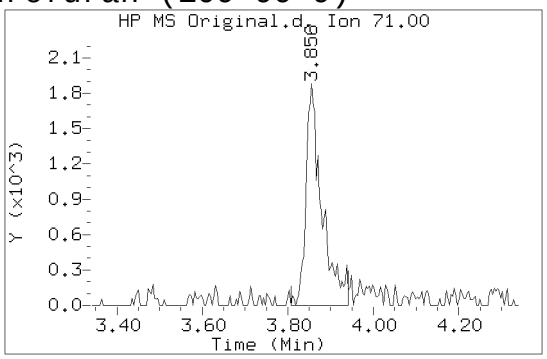


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Tetrahydrofuran (109-99-9)

### BEFORE

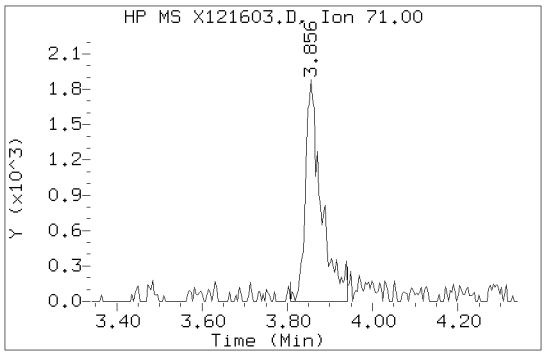
MASS
71
AREA
4885
HEIGHT
1881
27-Dec-2022
16:03
linh
pham




### Reason Code:

### AFTER

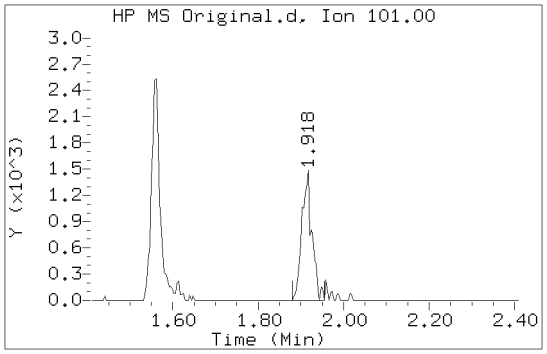
MASS
71
AREA
4885
HEIGHT
1881
27-Dec-2022
16:07
linh
pham




## Freon TF (76-13-1)

### BEFORE

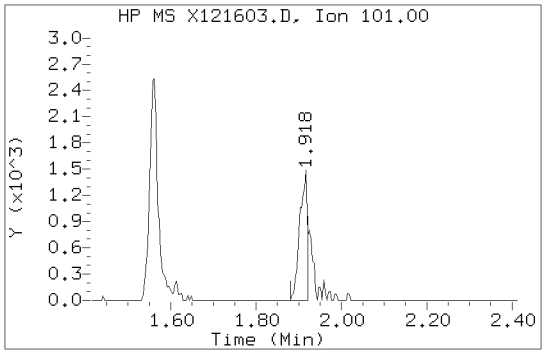
MASS
101
AREA
2478
HEIGHT
1484
27-Dec-2022
16:03
linh
pham




### Reason Code:

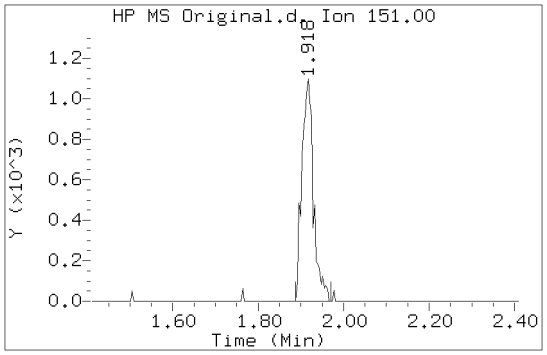
### AFTER

MASS
101
AREA
1851
HEIGHT
1484
27-Dec-2022
16:07
linh
pham



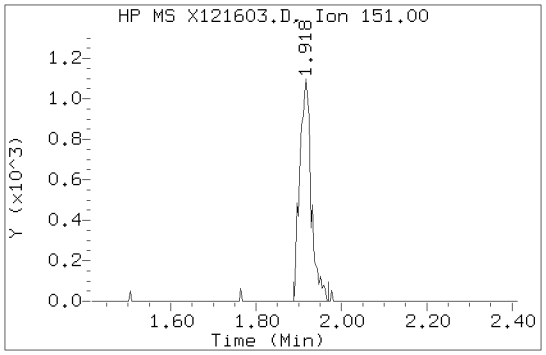

### BEFORE

MASS
151
AREA
2095
HEIGHT
1098
27-Dec-2022
16:03
linh
pham




### AFTER

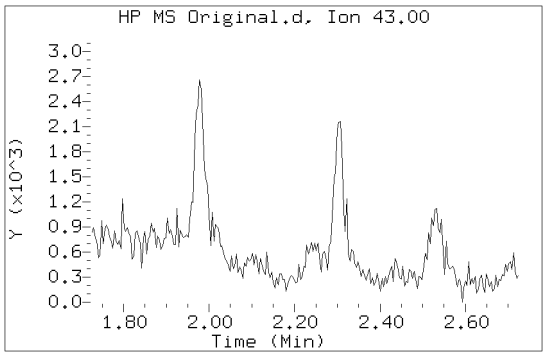
MASS
151
AREA
2095
HEIGHT
1098
27-Dec-2022
16:07
linh
pham




## Methyl Acetate (79-20-9)

### BEFORE

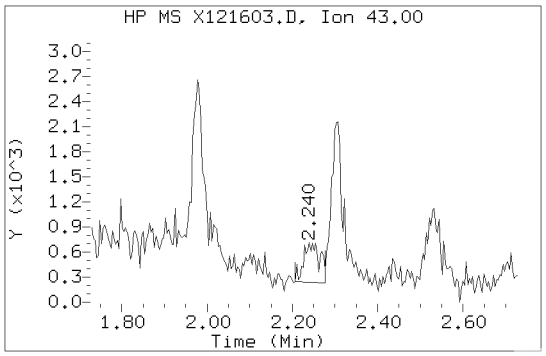
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### Reason Code:

### AFTER

MASS
43
AREA
1269
HEIGHT
477
27-Dec-2022
16:07
linh
pham

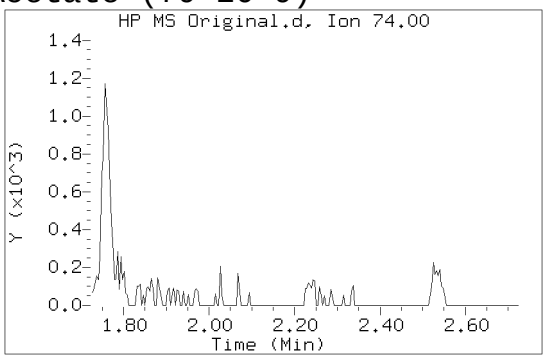


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methyl Acetate (79-20-9)

### BEFORE

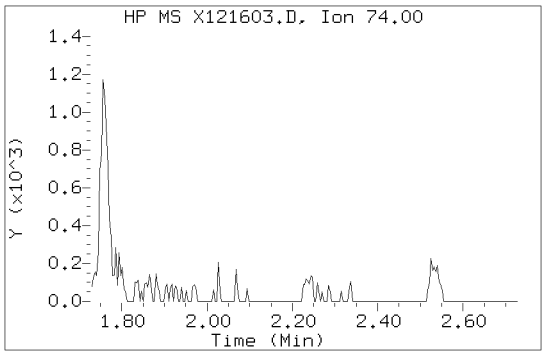
MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

### AFTER

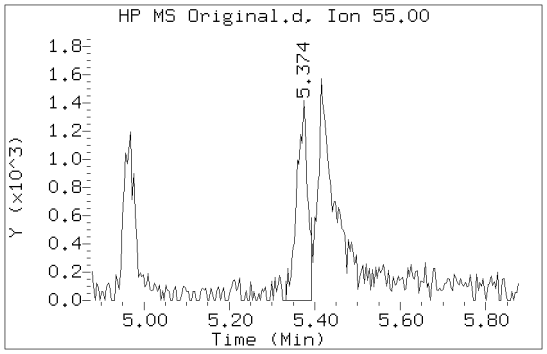
MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




## Methylcyclohexane (108-87-2)

### BEFORE

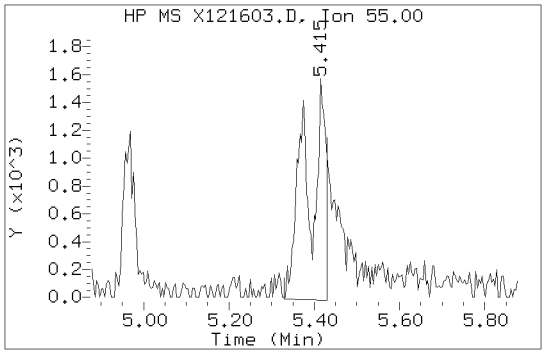
MASS
55
AREA
2505
HEIGHT
1416
27-Dec-2022
16:03
linh
pham




Reason Code:

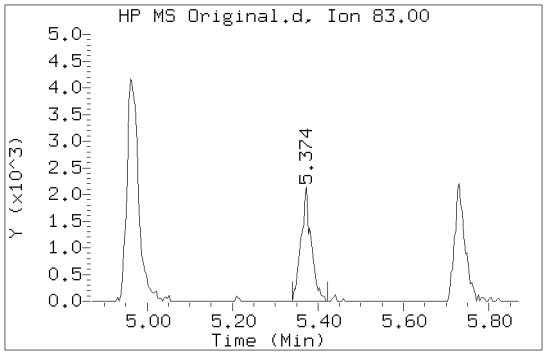
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MASS
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AREA
4781
HEIGHT
1590
27-Dec-2022
16:07
linh
pham



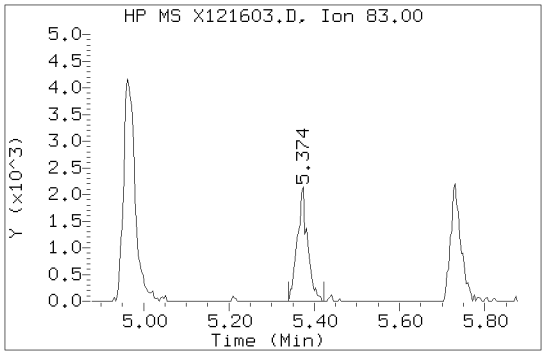

### BEFORE

MASS
83
AREA
3627
HEIGHT
2141
27-Dec-2022
16:03
linh
pham




### AFTER

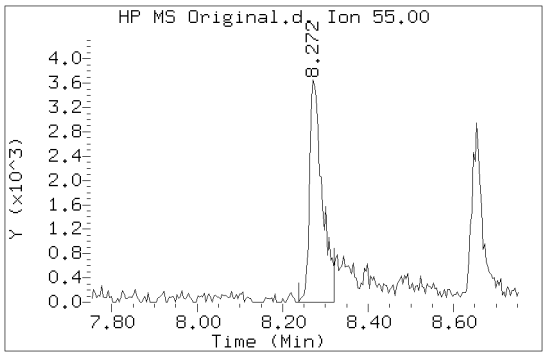
MASS
83
AREA
3627
HEIGHT
2141
27-Dec-2022
16:07
linh
pham




## Butyl acrylate (141-32-2)

### BEFORE

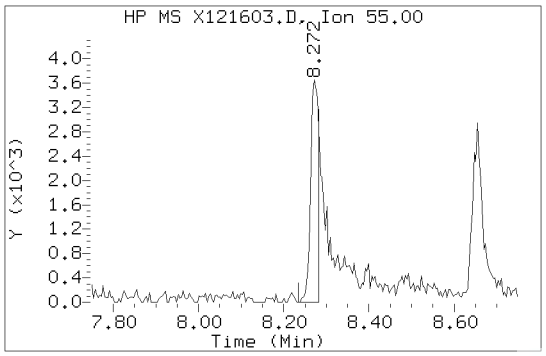
MASS
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AREA
7480
HEIGHT
3653
27-Dec-2022
16:03
linh
pham




Reason Code:

### AFTER

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AREA
4718
HEIGHT
3653
27-Dec-2022
16:07
linh
pham



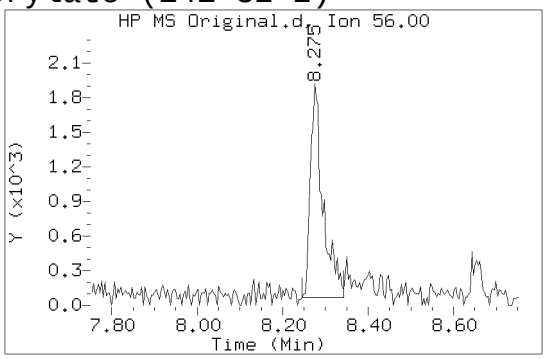
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Butyl acrylate (141-32-2)

Reason Code:

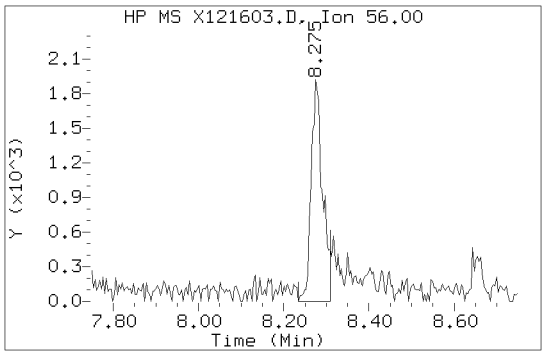
BEFORE

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AREA
3795
HEIGHT
1858
27-Dec-2022
16:03
linh
pham



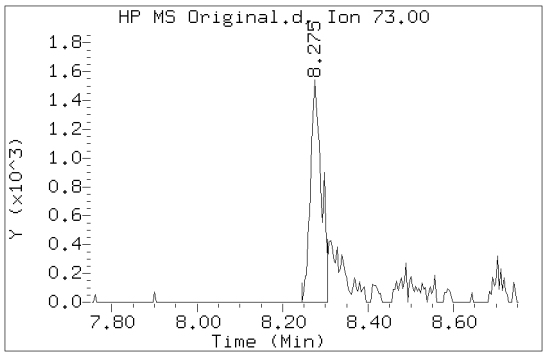

AFTER

MASS
56
AREA
3566
HEIGHT
1923
27-Dec-2022
16:07
linh
pham



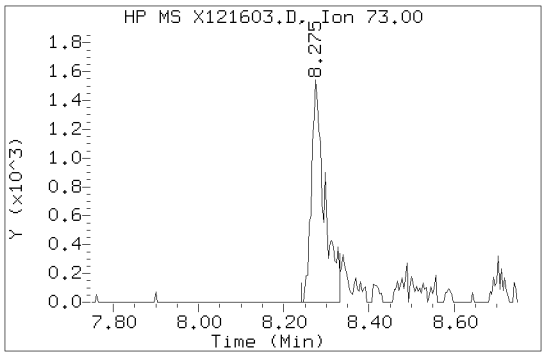

BEFORE

MASS
73
AREA
2742
HEIGHT
1542
27-Dec-2022
16:03
linh
pham




AFTER

MASS
73
AREA
3276
HEIGHT
1542
27-Dec-2022
16:07
linh
pham

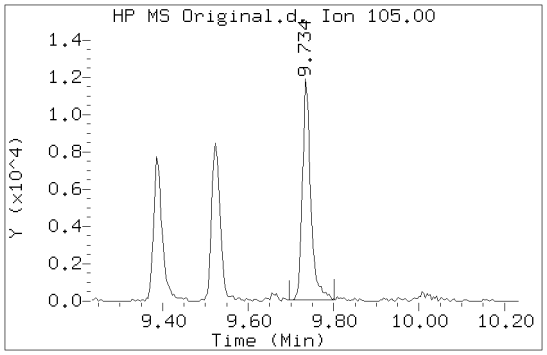



## 1,2,3-Trimethylbenzene (526-73-8)

Reason Code:

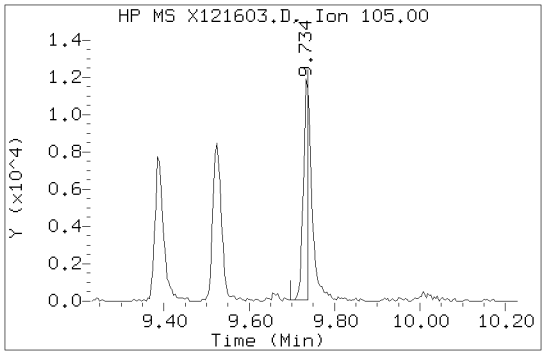
BEFORE

MASS
105
AREA
16642
HEIGHT
11860
27-Dec-2022
16:03
linh
pham




AFTER

MASS
105
AREA
9626
HEIGHT
11860
27-Dec-2022
16:07
linh
pham

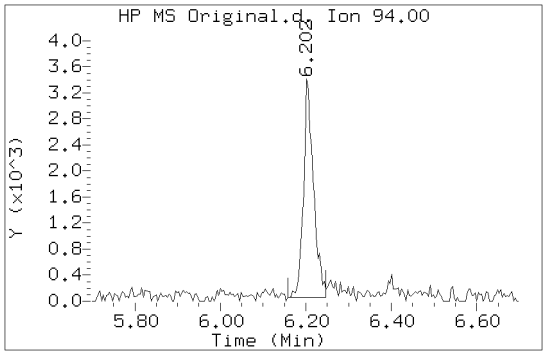



## Dimethyl Disulfide (624-92-0)

Reason Code:

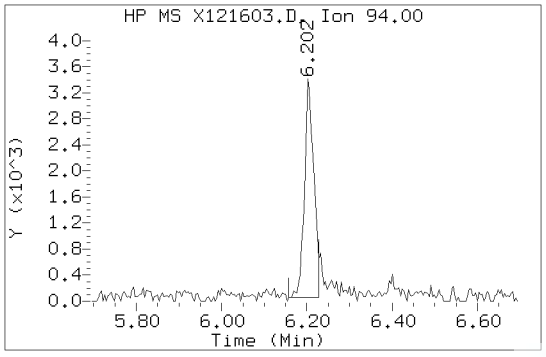
BEFORE

MASS
94
AREA
5523
HEIGHT
3352
27-Dec-2022
16:03
linh
pham




AFTER

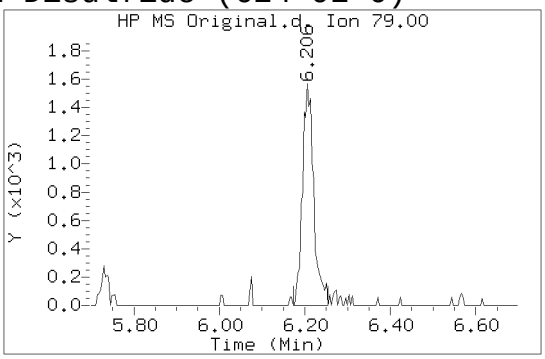
MASS
94
AREA
5153
HEIGHT
3352
27-Dec-2022
16:07
linh
pham



Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

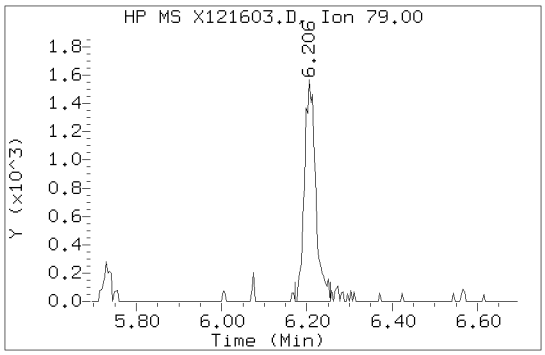
## Dimethyl Disulfide (624-92-0)

BEFORE
MASS
79
AREA
2905
HEIGHT
1568
27-Dec-2022
16:03
linh
pham

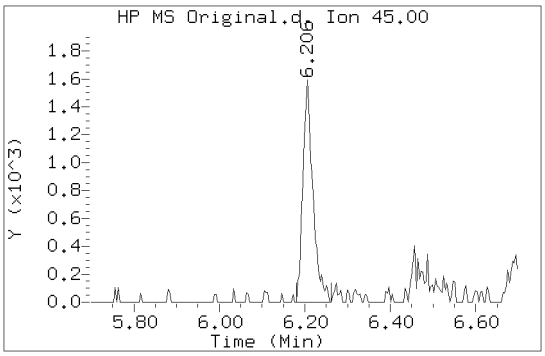



Reason Code:

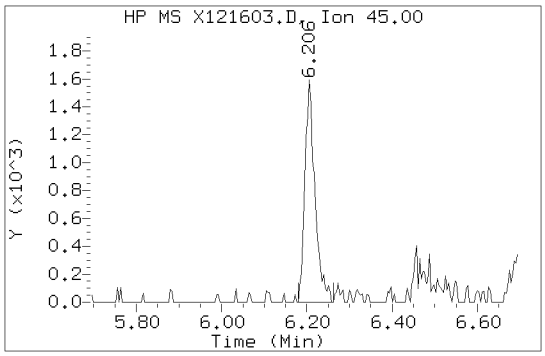
AFTER
MASS
79
AREA
2905
HEIGHT
1568
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
45
AREA
2647
HEIGHT
1593
27-Dec-2022
16:03
linh
pham

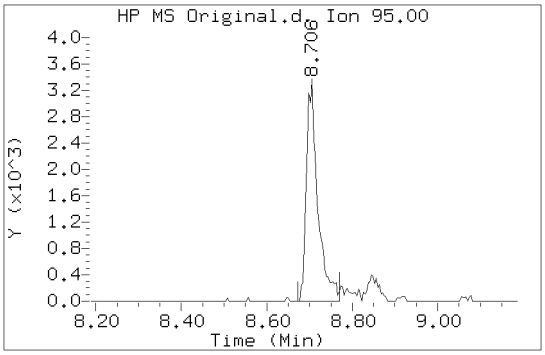



AFTER
MASS
45
AREA
2647
HEIGHT
1593
27-Dec-2022
16:07
linh
pham



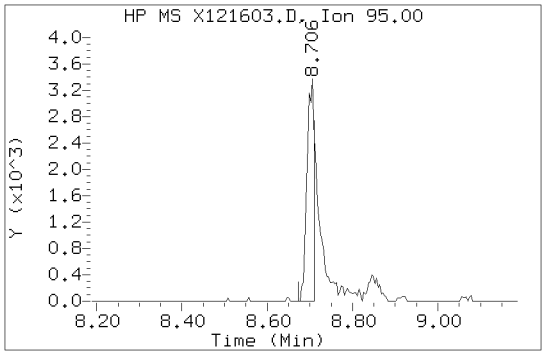

## 4-Bromofluorobenzene (460-00-4)

BEFORE
MASS
95
AREA
6240
HEIGHT
3372
27-Dec-2022
16:03
linh
pham

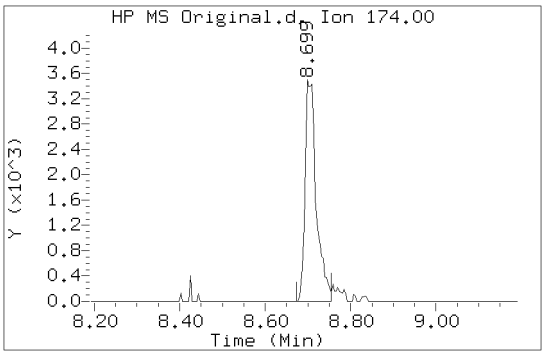



Reason Code:

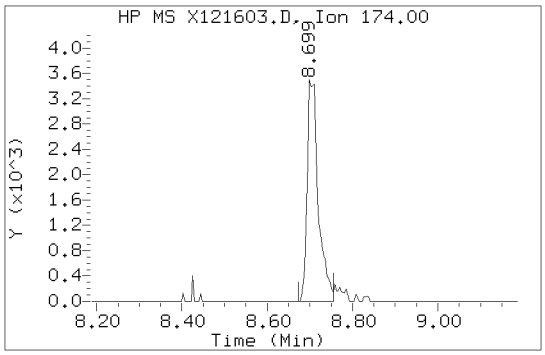
AFTER
MASS
95
AREA
3870
HEIGHT
3372
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
174
AREA
6370
HEIGHT
3502
27-Dec-2022
16:03
linh
pham




AFTER
MASS
174
AREA
6370
HEIGHT
3502
27-Dec-2022
16:07
linh
pham



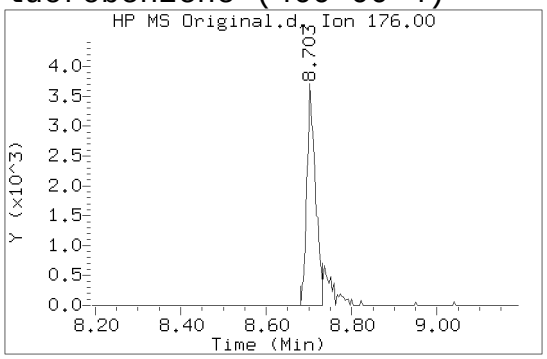
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

4-Bromofluorobenzene (460-00-4)

Reason Code:

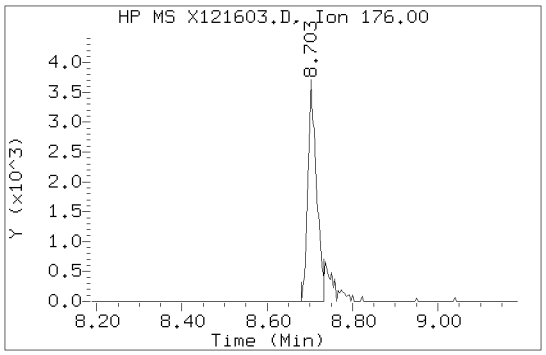
BEFORE

MASS
176
AREA
5204
HEIGHT
3711
27-Dec-2022
16:03
linh
pham




AFTER

MASS
176
AREA
5204
HEIGHT
3711
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Lab Smp Id: VSTD001  Client Smp ID: VSTD001
Inj Date  : 16-DEC-2022 12:41
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD001;VSTD001;1;3;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 12:20  Cal File: X121603.D
Als bottle: 5  Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 450308 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.610 | 5.610 | (1.343) | 820 | 20.0000 | 19.92(M) |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 3432 | 1.00000 | 1.11 |
| 25 Methacrylonitrile | 41 | 3.852 | 3.852 | (0.922) | 3285 | 1.00000 | 1.03(M) |
| 12 Isobutyl Alcohol | 43 | 4.695 | 4.695 | (1.124) | 9436 | 20.0000 | 18.62(M) |
| 13 Acetonitrile | 39 | 2.198 | 2.198 | (0.526) | 4183 | 10.0000 | 10.20 |
| 14 Allyl Chloride | 41 | 2.202 | 2.202 | (0.527) | 8574 | 1.00000 | 1.09 |
| 4 Propionitrile | 54 | 3.687 | 3.687 | (0.882) | 4742 | 10.0000 | 10.32(M) |
| 136 n-Hexane | 57 | 2.776 | 2.776 | (0.664) | 2343 | 1.00000 | 0.72 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.920 | 8.920 | (1.163) | 1196 | 1.00000 | 0.85(M) |
| 194 Acetaldehyde | 44 | 1.212 | 1.212 | (0.290) | 3384 | 4.00000 | (M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 1686 | 1.00000 | 1.10(M) |
| 145 alpha-Methylstyrene | 118 | 9.272 | 9.272 | (0.960) | 6032 | 1.00000 | 0.77 |
| 200 Dimethyl Disulfide | 94 | 6.206 | 6.206 | (0.809) | 8295 | 1.00000 | 0.94 |
| 139 Diethyl ether | 59 | 1.760 | 1.760 | (0.421) | 2983 | 1.00000 | 0.99 |
| 130 Ethyl Acetate | 43 | 3.675 | 3.675 | (0.880) | 3144 | 1.00000 | 0.89(M) |
| 40 Methyl Methacrylate | 41 | 5.628 | 5.628 | (1.347) | 3145 | 1.00000 | 1.02 |
| 49 Ethyl Methacrylate | 69 | 6.727 | 6.727 | (1.355) | 3303 | 1.00000 | 1.02(M) |
| 132 n-Butanol | 56 | 5.239 | 5.239 | (1.254) | 1171 | 20.0000 | 60.69(M) |
| 142 Tetrahydrofuran | 42 | 3.844 | 3.844 | (0.920) | 1361 | 2.00000 | (M) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.776 | 2.776 (0.664) | 2343 | 20.0000 | 13.39 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 18347 | 1.00000 | 1.08 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D Page 2
Report Date: 27-Dec-2022 16:07

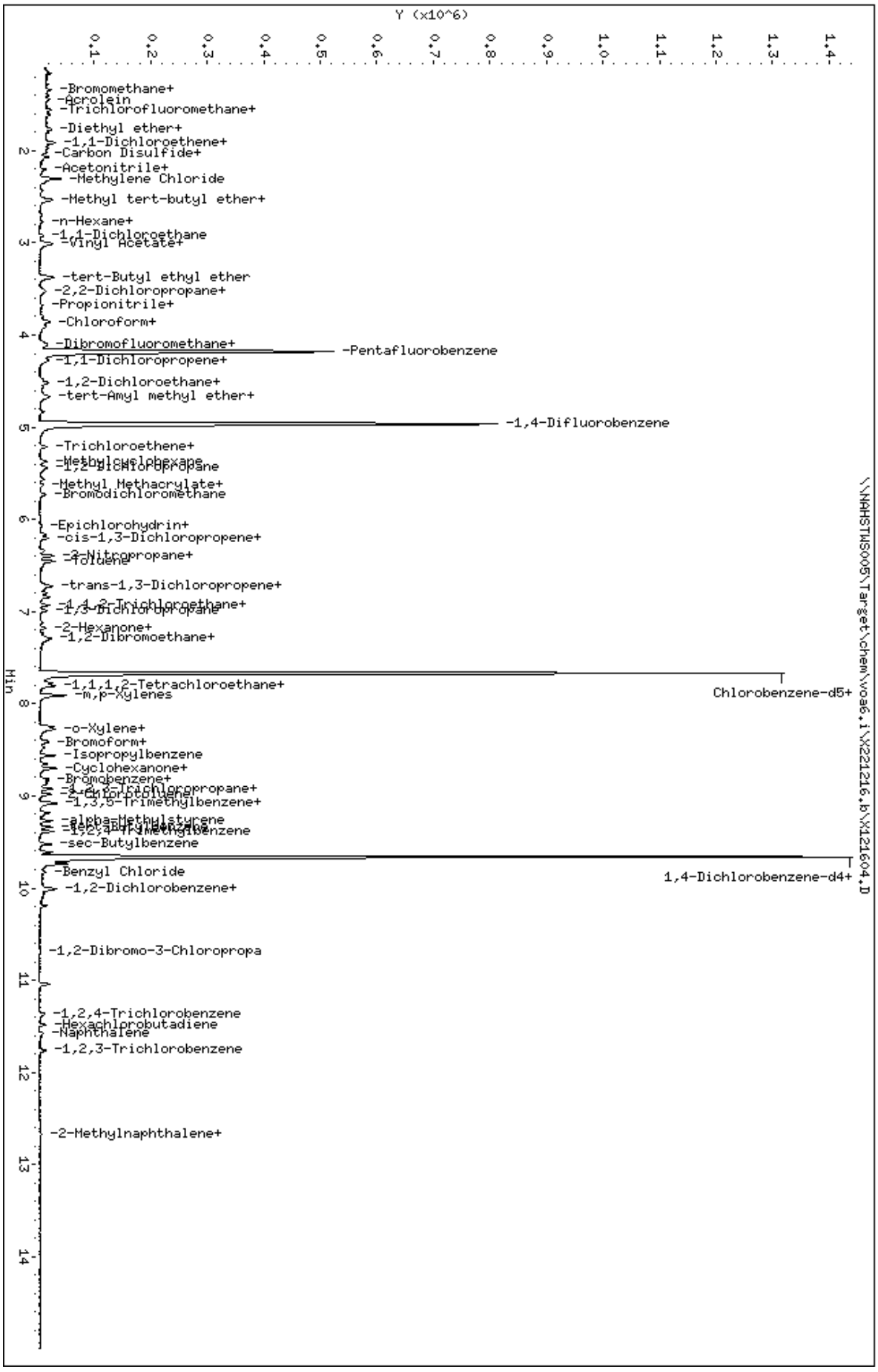
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT ( ug/l) | ON-COL ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.743 | 3.743 | (0.896) | 3084 | 1.00000 | 1.00(M) |
| | 162 | Butyl acrylate | 55 | 8.271 | 8.271 | (1.078) | 7647 | 1.00000 | 0.90 |
| | 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 2911 | 1.00000 | 1.30 |
| | 3 | Chloromethane | 50 | 1.078 | 1.078 | (0.258) | 3670 | 1.00000 | 3.07 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 3645 | 1.00000 | 0.92 |
| | 6 | Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 3293 | 1.00000 | 2.83 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 2516 | 1.00000 | 0.91(M) |
| | 8 | Trichlorofluoromethane | 101 | 1.554 | 1.554 | (0.372) | 4906 | 1.00000 | 0.89 |
| | 9 | Acrolein | 56 | 1.452 | 1.452 | (0.348) | 761 | 2.00000 | 5.22(M) |
| | 10 | Acetone | 43 | 1.977 | 1.977 | (0.473) | 4787 | 2.00000 | 3.75(M) |
| | 11 | 1,1-Dichloroethene | 96 | 1.913 | 1.913 | (0.458) | 3238 | 1.00000 | 0.94 |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 3865 | 2.00000 | 4.18(TM) |
| | 16 | Acrylonitrile | 53 | 2.554 | 2.554 | (0.612) | 2258 | 2.00000 | 1.94(M) |
| | 17 | Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 5355 | 1.00000 | 1.14(M) |
| | 18 | Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 12521 | 1.00000 | 1.11 |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 18122 | 2.00000 | 2.02 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.532 | 2.532 | (0.606) | 3821 | 1.00000 | 0.99 |
| | 21 | Vinyl Acetate | 43 | 3.012 | 3.012 | (0.721) | 17842 | 2.00000 | 1.81 |
| | 22 | 1,1-Dichloroethane | 63 | 2.922 | 2.922 | (0.699) | 7218 | 1.00000 | 1.07 |
| | 24 | 2-Butanone | 43 | 3.619 | 3.619 | (0.866) | 2498 | 2.00000 | 4.83(M) |
| | 26 | 2,2-Dichloropropane | 77 | 3.514 | 3.514 | (0.841) | 5896 | 1.00000 | 1.03 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.540 | 3.540 | (0.847) | 4469 | 1.00000 | 0.96 |
| | 28 | Chloroform | 83 | 3.908 | 3.908 | (0.935) | 7768 | 1.00000 | 1.03 |
| | 29 | Bromochloromethane | 128 | 3.803 | 3.803 | (0.910) | 2689 | 1.00000 | 1.05 |
| $ | 30 | Dibromofluoromethane | 113 | 4.103 | 4.103 | (0.982) | 4769 | 1.00000 | 0.94 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.088 | 4.088 | (0.978) | 5914 | 1.00000 | 0.99 |
| | 32 | 1,1-Dichloropropene | 75 | 4.286 | 4.286 | (0.863) | 4698 | 1.00000 | 0.96 |
| | 33 | 1,2-Dichloroethane | 62 | 4.564 | 4.564 | (0.919) | 5568 | 1.00000 | 0.99 |
| | 34 | Carbon Tetrachloride | 117 | 4.271 | 4.271 | (0.860) | 6221 | 1.00000 | 1.19 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.485 | 4.485 | (1.074) | 5559 | 1.00000 | 1.48 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 685937 | 50.0000 | |
| | 37 | Benzene | 78 | 4.515 | 4.515 | (0.909) | 16367 | 1.00000 | 0.99 |
| | 38 | Trichloroethene | 130 | 5.216 | 5.216 | (1.051) | 4352 | 1.00000 | 0.93 |
| | 39 | Bromodichloromethane | 83 | 5.730 | 5.730 | (1.154) | 6296 | 1.00000 | 1.02(M) |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.071 | 6.071 | (1.223) | 3202 | 2.00000 | 1.83(M) |
| | 42 | 1,2-Dichloropropane | 63 | 5.445 | 5.445 | (1.097) | 4604 | 1.00000 | 1.05(M) |
| | 44 | Dibromomethane | 93 | 5.557 | 5.557 | (1.119) | 2906 | 1.00000 | 0.98 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.341 | 6.341 | (0.827) | 6859 | 2.00000 | 1.97 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.168 | 6.168 | (1.242) | 6537 | 1.00000 | 0.90 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 649074 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.401 | 6.401 | (0.834) | 17067 | 1.00000 | 1.06 |
| | 50 | Toluene | 91 | 6.457 | 6.457 | (0.842) | 17914 | 1.00000 | 0.99 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.693 | 6.693 | (1.348) | 5418 | 1.00000 | 0.90 |
| | 52 | 2-Hexanone | 43 | 7.109 | 7.109 | (0.927) | 4520 | 2.00000 | 1.91 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.843 | 6.843 | (0.892) | 3499 | 1.00000 | 0.97 |
| | 54 | 1,3-Dichloropropane | 76 | 6.989 | 6.989 | (0.911) | 7216 | 1.00000 | 1.01 |
| | 55 | Dibromochloromethane | 129 | 7.177 | 7.177 | (0.936) | 5024 | 1.00000 | 0.96 |
| | 56 | Tetrachloroethene | 164 | 6.933 | 6.933 | (0.904) | 3331 | 1.00000 | 0.89 |
| | 57 | 1,2-Dibromoethane | 107 | 7.270 | 7.270 | (0.948) | 4350 | 1.00000 | 0.96 |
| | 58 | 1-Chlorohexane | 55 | 7.705 | 7.705 | (1.552) | 3155 | 1.00000 | 0.95(MH) |
| | 59 | Chlorobenzene | 112 | 7.698 | 7.698 | (1.003) | 12555 | 1.00000 | 0.98 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.776 | 7.776 | (1.014) | 4485 | 1.00000 | 0.94 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.806 | 7.806 (1.018) | 5698 | 1.00000 | 0.95 |
| 62 m,p-Xylenes | 106 | 7.911 | 7.911 (1.031) | 14464 | 2.00000 | 1.87 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 63 | o-Xylene | 106 | 8.249 | 8.249 | (1.075) | 6670 | 1.00000 | 0.87 |
| 64 | Styrene | 104 | 8.282 | 8.282 | (1.080) | 10384 | 1.00000 | 0.81 |
| 66 | Bromoform | 173 | 8.417 | 8.417 | (1.097) | 3274 | 1.00000 | 0.90(T) |
| 67 | Isopropylbenzene | 105 | 8.564 | 8.564 | (1.116) | 15163 | 1.00000 | 0.87 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.845 | 8.845 | (0.915) | 5934 | 1.00000 | 1.05(M) |
| $ 69 | 4-Bromofluorobenzene | 95 | 8.702 | 8.702 | (1.134) | 7790 | 1.00000 | 1.36(M) |
| * 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 351251 | 50.0000 | |
| 71 | 1,2,3-Trichloropropane | 75 | 8.871 | 8.871 | (0.918) | 3978 | 1.00000 | 1.01 |
| 73 | n-Propylbenzene | 91 | 8.923 | 8.923 | (0.924) | 15006 | 1.00000 | 0.77 |
| 74 | Bromobenzene | 156 | 8.818 | 8.818 | (0.913) | 5554 | 1.00000 | 0.96 |
| 75 | 1,3,5-Trimethylbenzene | 105 | 9.073 | 9.073 | (0.939) | 11820 | 1.00000 | 0.82 |
| 76 | 2-Chlorotoluene | 91 | 8.980 | 8.980 | (0.929) | 12470 | 1.00000 | 0.97 |
| 77 | 4-Chlorotoluene | 91 | 9.085 | 9.085 | (0.940) | 12140 | 1.00000 | 0.83 |
| 78 | tert-Butylbenzene | 119 | 9.340 | 9.340 | (0.967) | 9357 | 1.00000 | 0.79 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.385 | 9.385 | (0.971) | 12988 | 1.00000 | 0.85 |
| 81 | sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 12395 | 1.00000 | 0.79 |
| 82 | p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 10009 | 1.00000 | 0.71 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.609 | 9.609 | (0.995) | 8523 | 1.00000 | 0.89 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 9866 | 1.00000 | 0.94 |
| 86 | Benzyl Chloride | 91 | 9.823 | 9.823 | (1.280) | 4632 | 1.00000 | 3.12 |
| 87 | n-Butylbenzene | 91 | 10.014 | 10.014 | (1.036) | 8459 | 1.00000 | 2.37(M) |
| 88 | 1,2-Dichlorobenzene | 146 | 10.007 | 10.007 | (1.036) | 8626 | 1.00000 | 0.87 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.689 | 10.689 | (1.106) | 778 | 1.00000 | 0.95(M) |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.371 | 11.371 | (1.177) | 4609 | 1.00000 | 0.74 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 1928 | 1.00000 | 0.65 |
| 92 | Naphthalene | 128 | 11.574 | 11.574 | (1.198) | 11288 | 1.00000 | 0.79(M) |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.754 | 11.754 | (1.216) | 4801 | 1.00000 | 0.80 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 8290 | 2.00000 | |
| M 95 | Xylenes (total) | 106 | | | | 21134 | 3.00000 | |
| 141 | Cyclohexane | 56 | 4.125 | 4.125 | (0.987) | 4003 | 1.00000 | 2.12(H) |
| 138 | Freon TF | 101 | 1.906 | 1.906 | (0.456) | 3356 | 1.00000 | 1.01 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 6848 | 1.00000 | 0.81(M) |
| 146 | Methyl Acetate | 43 | 2.236 | 2.236 | (0.535) | 2127 | 1.00000 | 1.04(M) |
| 148 | Tert-Butyl alcohol | 59 | 2.438 | 2.438 | (0.584) | 6051 | 20.0000 | 19.40(a) |

## QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121604.D
Date : 16-DEC-2022 12:41
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6,i
Operator: PC
Column diameter: 0.18

\\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121604.D

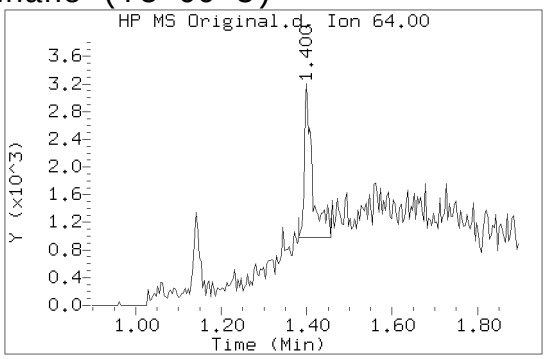
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Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Chloroethane (75-00-3)

Reason Code:

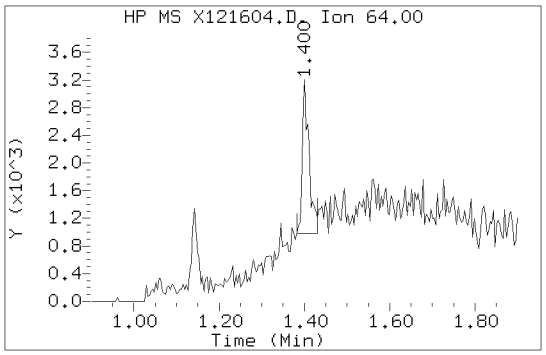
BEFORE

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2984
HEIGHT
2221
27-Dec-2022
16:03
linh
pham



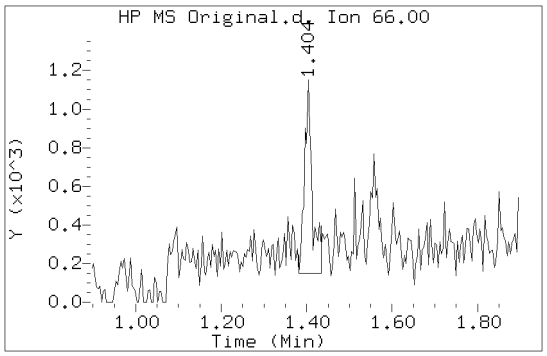

AFTER

MASS
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AREA
2516
HEIGHT
2221
27-Dec-2022
16:07
linh
pham



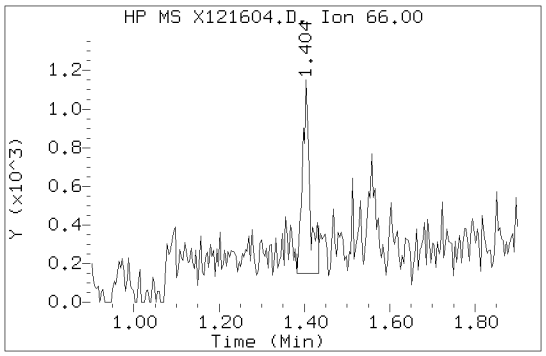

BEFORE

MASS
66
AREA
1262
HEIGHT
1002
27-Dec-2022
16:03
linh
pham




AFTER

MASS
66
AREA
1262
HEIGHT
1002
27-Dec-2022
16:07
linh
pham

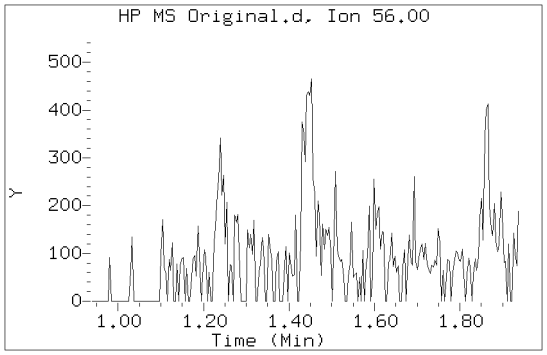



## Acrolein (107-02-8 )

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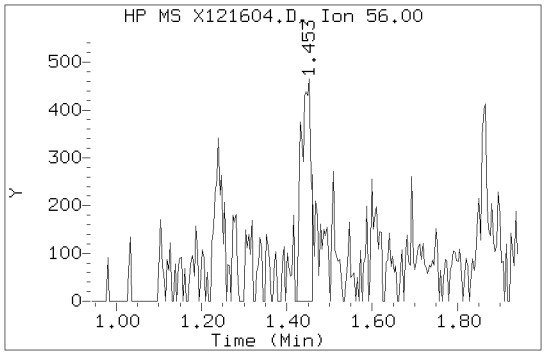
BEFORE

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AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham



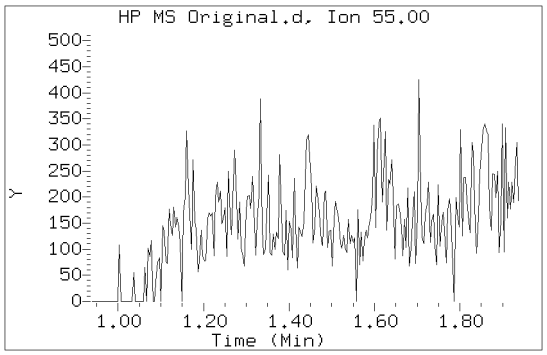

AFTER

MASS
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AREA
761
HEIGHT
465
27-Dec-2022
16:07
linh
pham



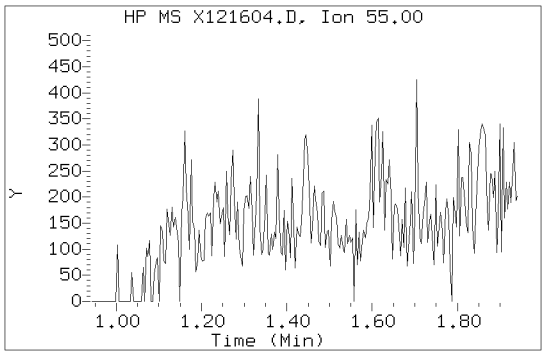

BEFORE

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HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
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AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

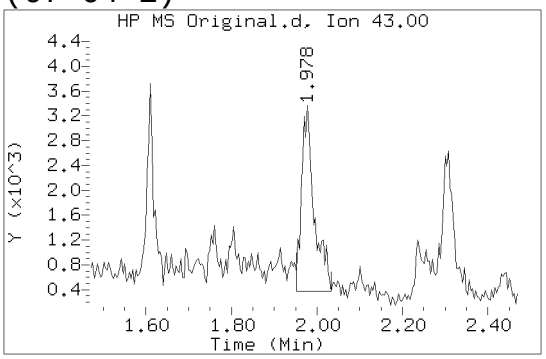


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Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Acetone (67-64-1)

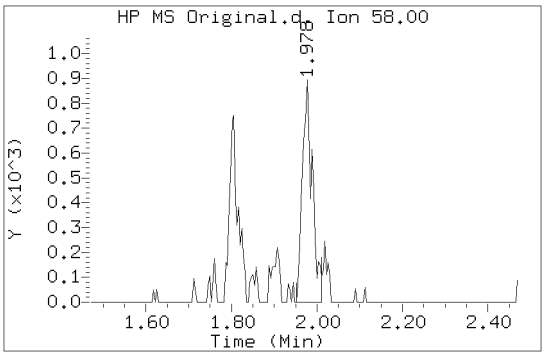
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HEIGHT
2993
27-Dec-2022
16:03
linh
pham




### BEFORE

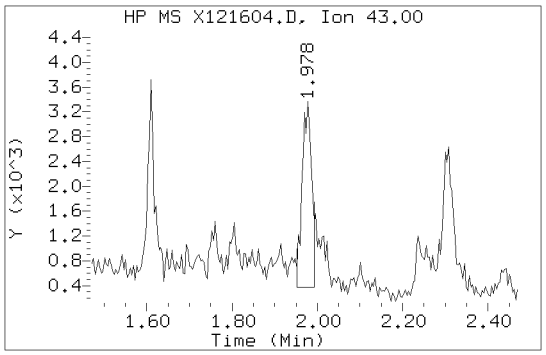
MASS
58
AREA
1474
HEIGHT
894
27-Dec-2022
16:03
linh
pham




Reason Code:

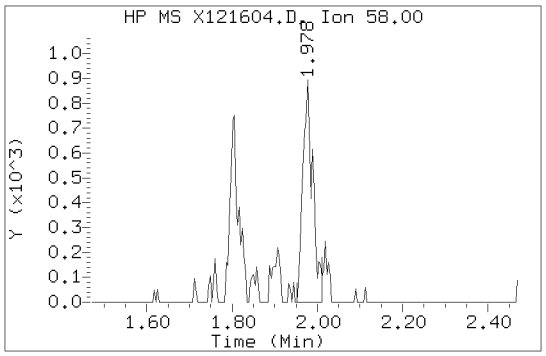
### AFTER

MASS
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AREA
4787
HEIGHT
2993
27-Dec-2022
16:07
linh
pham




### AFTER

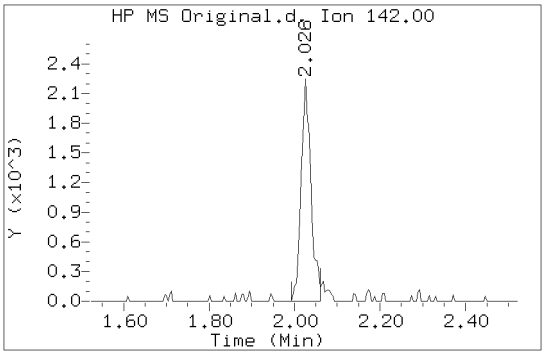
MASS
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AREA
1474
HEIGHT
894
27-Dec-2022
16:07
linh
pham




## Iodomethane (74-88-4)

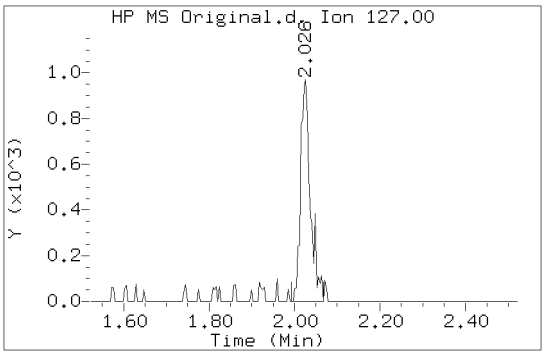
### BEFORE

MASS
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AREA
3661
HEIGHT
2248
27-Dec-2022
16:03
linh
pham




### BEFORE

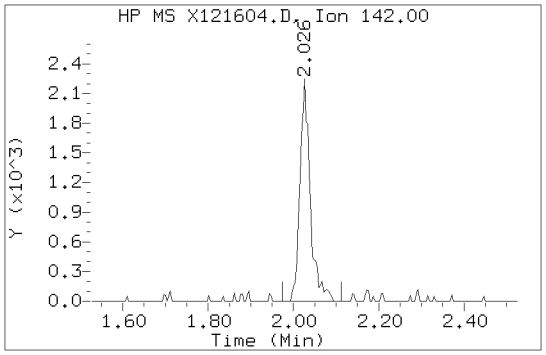
MASS
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AREA
1585
HEIGHT
970
27-Dec-2022
16:03
linh
pham




Reason Code:

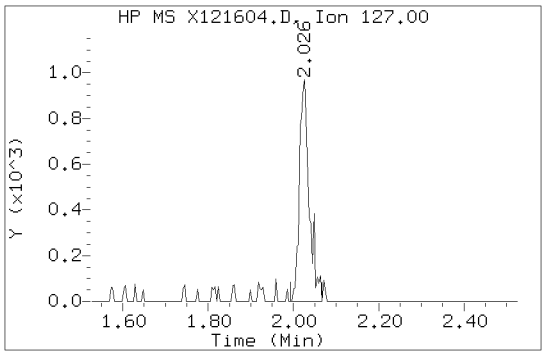
### AFTER

MASS
142
AREA
3865
HEIGHT
2248
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
127
AREA
1585
HEIGHT
970
27-Dec-2022
16:07
linh
pham



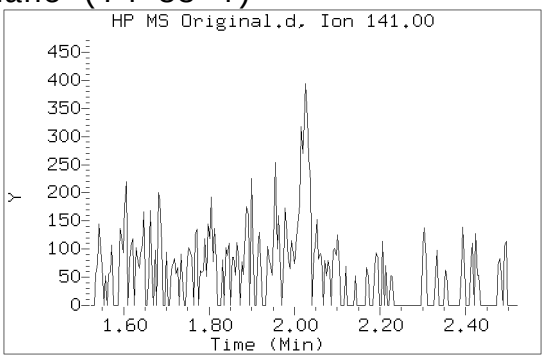
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Iodomethane (74-88-4)

Reason Code:

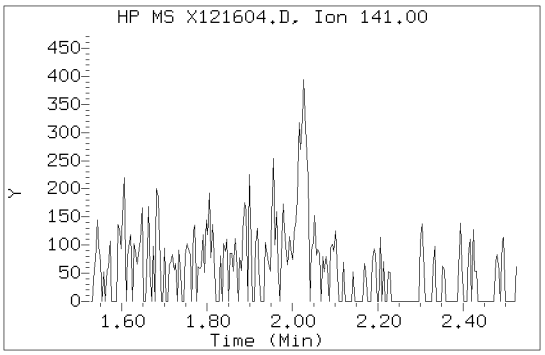
**BEFORE**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

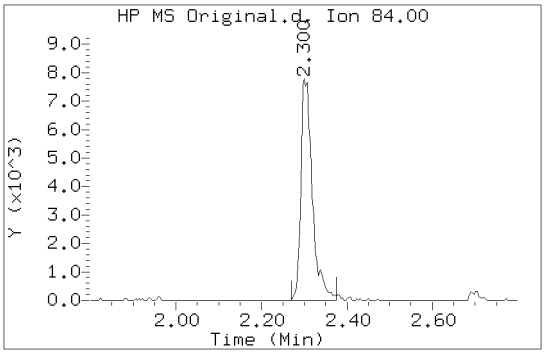



## Methylene Chloride (75-09-2)

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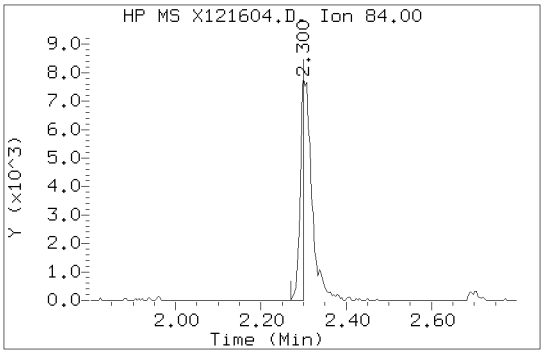
**BEFORE**

MASS
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AREA
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HEIGHT
7788
27-Dec-2022
16:03
linh
pham



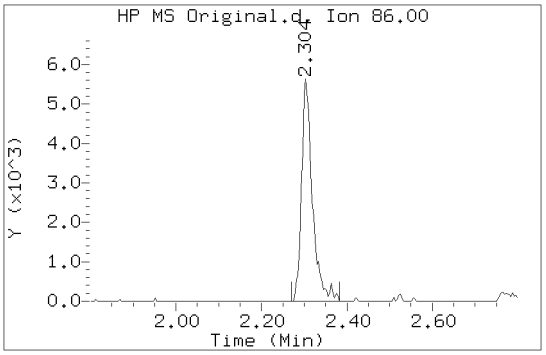

**AFTER**

MASS
84
AREA
5355
HEIGHT
7788
27-Dec-2022
16:07
linh
pham



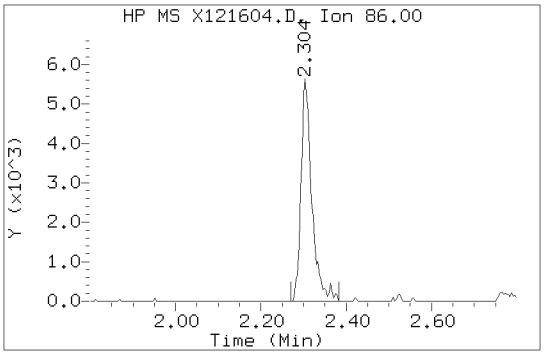

**BEFORE**

MASS
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AREA
10161
HEIGHT
5637
27-Dec-2022
16:03
linh
pham



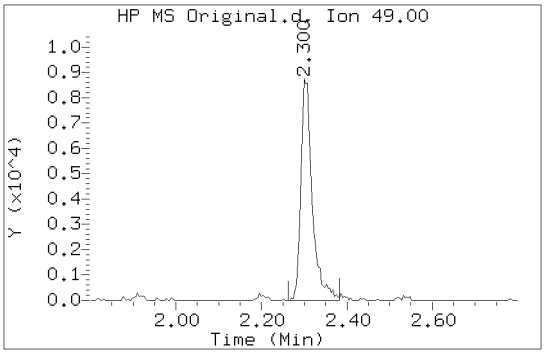

**AFTER**

MASS
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AREA
10161
HEIGHT
5637
27-Dec-2022
16:07
linh
pham



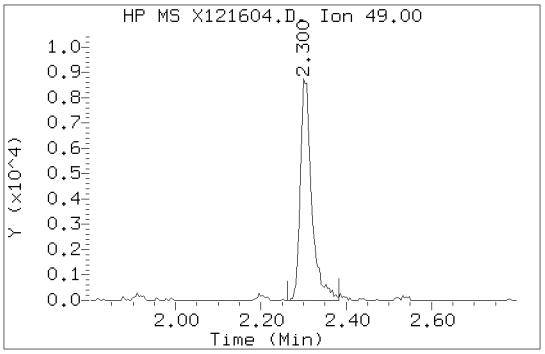

**BEFORE**

MASS
49
AREA
16641
HEIGHT
8752
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
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AREA
16641
HEIGHT
8752
27-Dec-2022
16:07
linh
pham

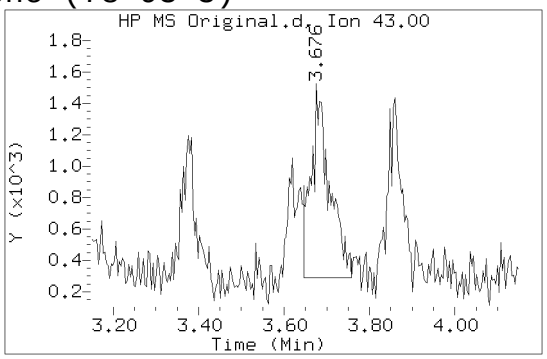


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 2-Butanone (78-93-3)

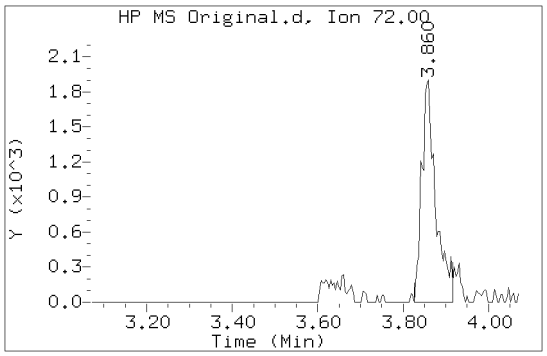
### BEFORE

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3758
HEIGHT
1236
27-Dec-2022
16:03
linh
pham




### BEFORE

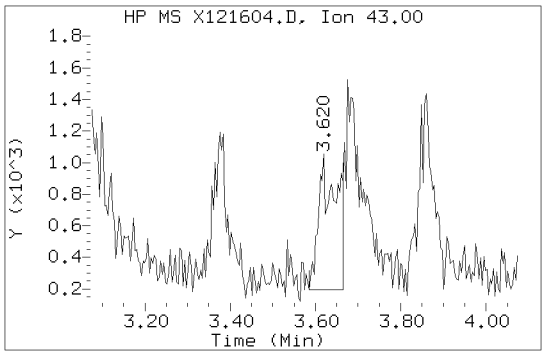
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27-Dec-2022
16:03
linh
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Reason Code:

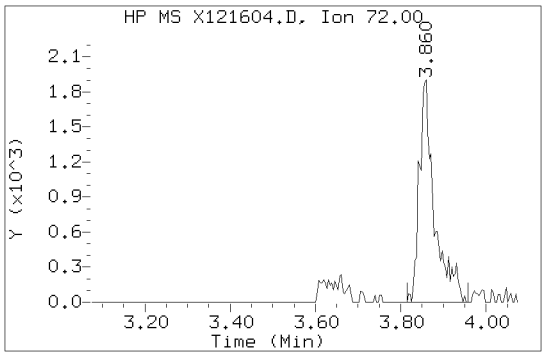
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27-Dec-2022
16:07
linh
pham




### AFTER

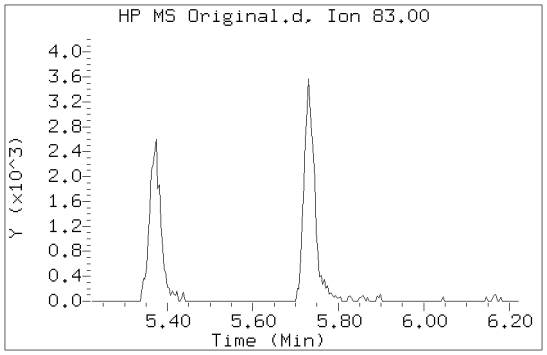
MASS
72
AREA
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HEIGHT
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27-Dec-2022
16:07
linh
pham




## Bromodichloromethane (75-27-4)

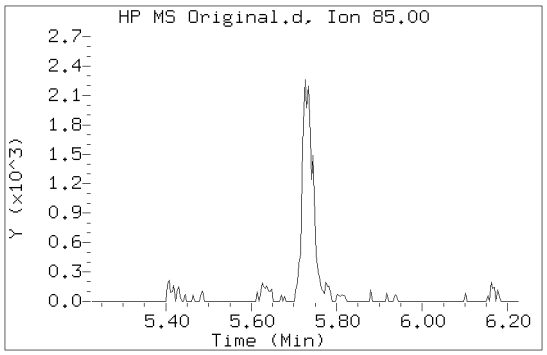
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AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham




### BEFORE

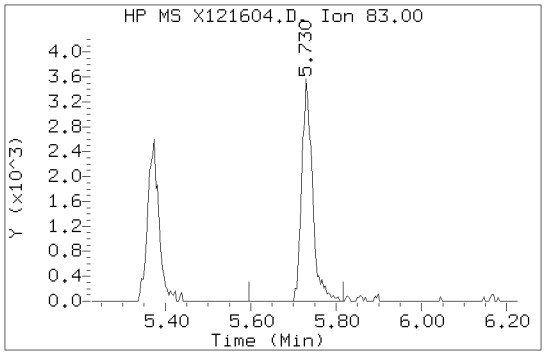
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

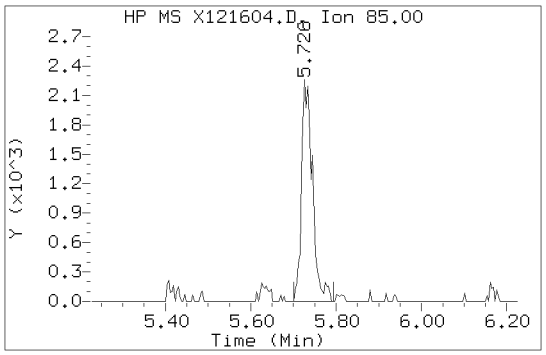
### AFTER

MASS
83
AREA
6296
HEIGHT
3568
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
85
AREA
4084
HEIGHT
2261
27-Dec-2022
16:07
linh
pham



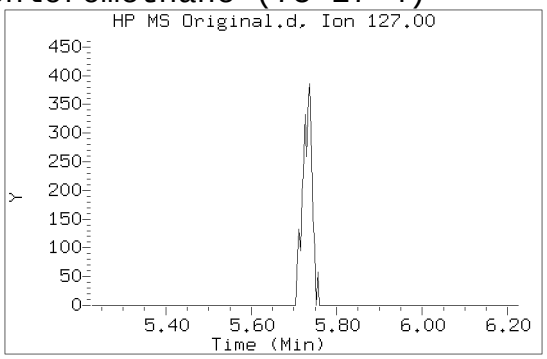
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Bromodichloromethane (75-27-4)

Reason Code:

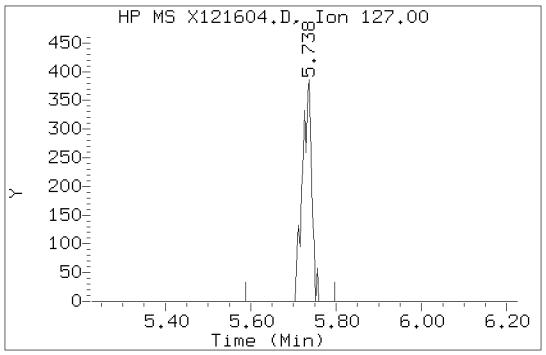
BEFORE

MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
127
AREA
595
HEIGHT
386
27-Dec-2022
16:07
linh
pham

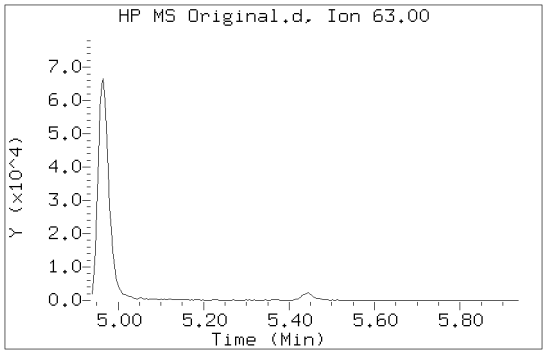



## 1,2-Dichloropropane (78-87-5)

Reason Code:

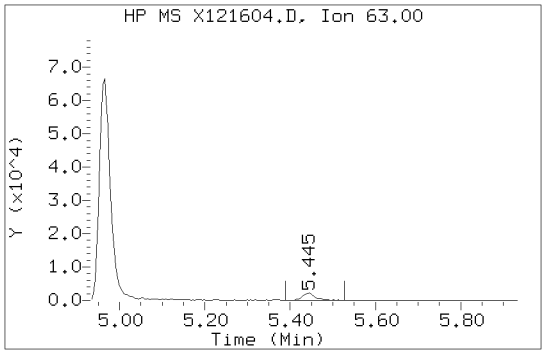
BEFORE

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



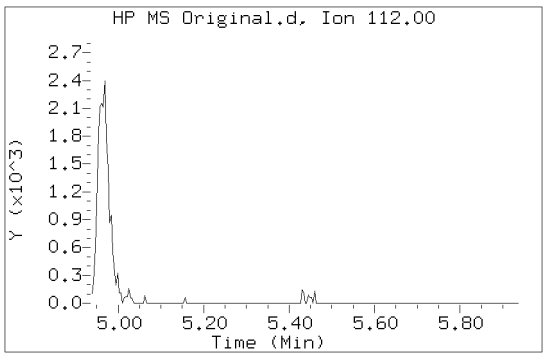

AFTER

MASS
63
AREA
4604
HEIGHT
2381
27-Dec-2022
16:07
linh
pham



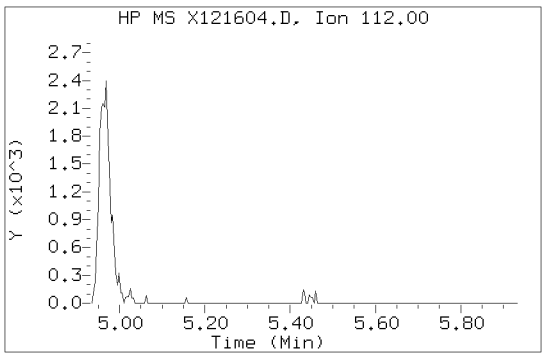

BEFORE

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

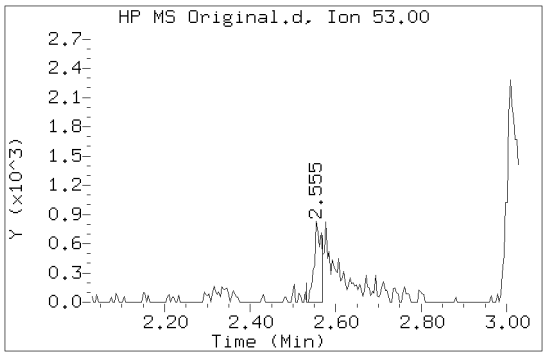



## Acrylonitrile (107-13-1)

Reason Code:

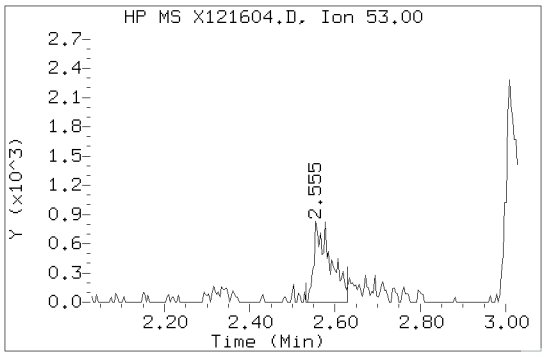
BEFORE

MASS
53
AREA
967
HEIGHT
834
27-Dec-2022
16:03
linh
pham




AFTER

MASS
53
AREA
2258
HEIGHT
834
27-Dec-2022
16:07
linh
pham



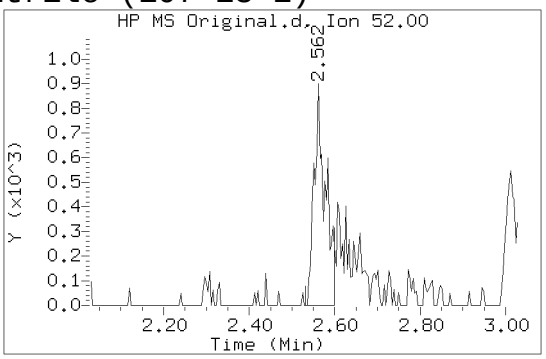
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Acrylonitrile (107-13-1)

Reason Code:

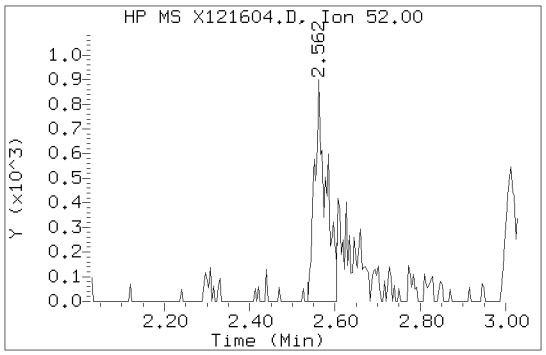
BEFORE

MASS
52
AREA
1657
HEIGHT
900
27-Dec-2022
16:03
linh
pham



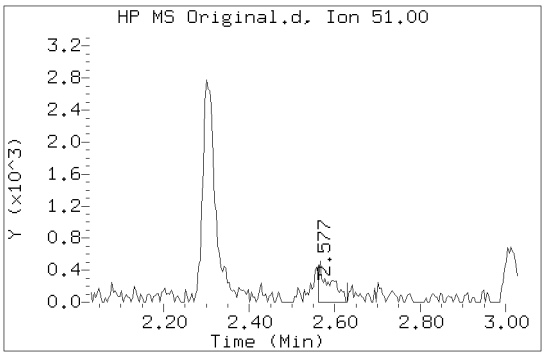

AFTER

MASS
52
AREA
1692
HEIGHT
900
27-Dec-2022
16:07
linh
pham



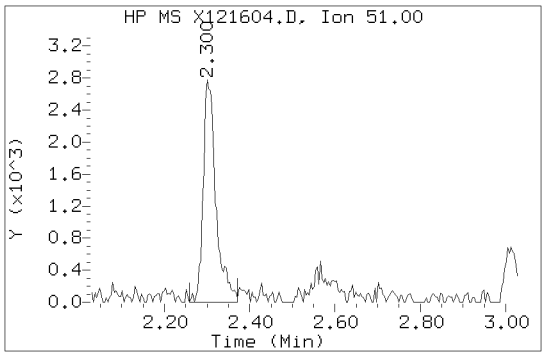

BEFORE

MASS
51
AREA
901
HEIGHT
301
27-Dec-2022
16:03
linh
pham




AFTER

MASS
51
AREA
5757
HEIGHT
2777
27-Dec-2022
16:07
linh
pham

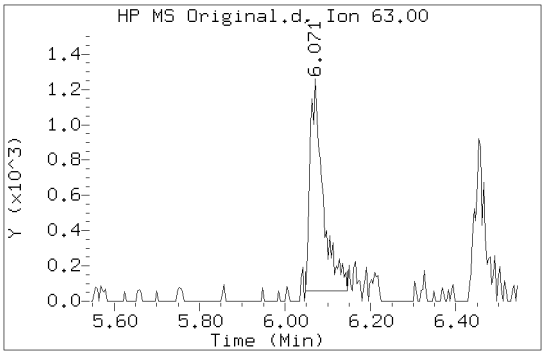



## 2-Chloroethylvinyl ether (110-75-8)

Reason Code:

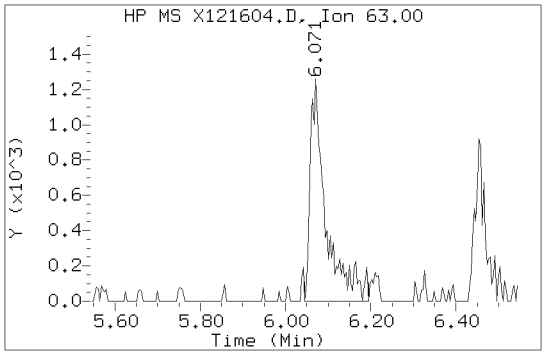
BEFORE

MASS
63
AREA
2513
HEIGHT
1202
27-Dec-2022
16:03
linh
pham



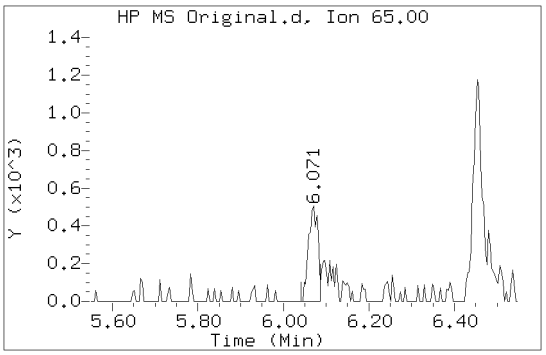

AFTER

MASS
63
AREA
3202
HEIGHT
1260
27-Dec-2022
16:07
linh
pham



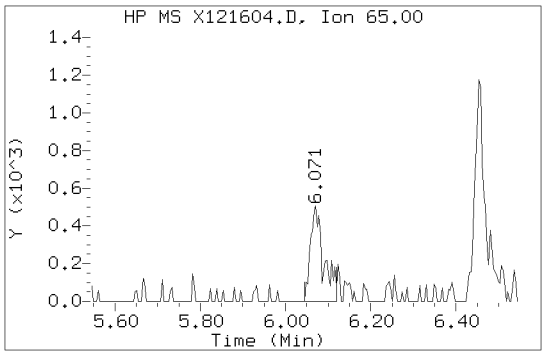

BEFORE

MASS
65
AREA
775
HEIGHT
507
27-Dec-2022
16:03
linh
pham




AFTER

MASS
65
AREA
1093
HEIGHT
507
27-Dec-2022
16:07
linh
pham



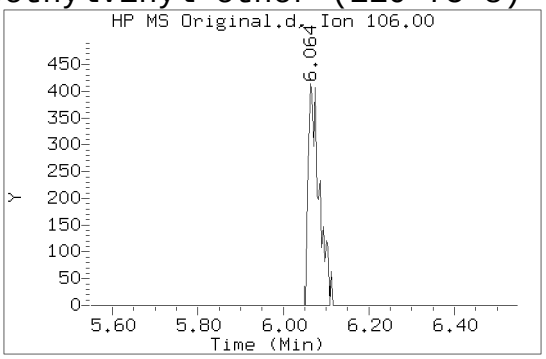
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 2-Chloroethylvinyl ether (110-75-8)

Reason Code:

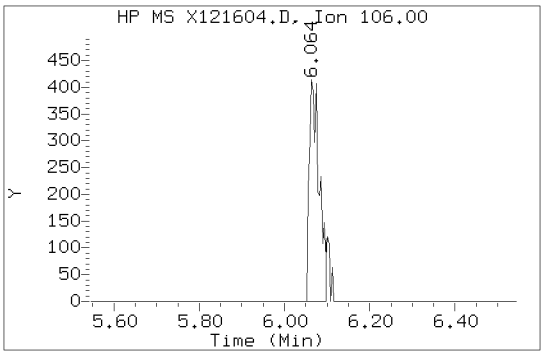
BEFORE

MASS
106
AREA
725
HEIGHT
414
27-Dec-2022
16:03
linh
pham




AFTER

MASS
106
AREA
673
HEIGHT
414
27-Dec-2022
16:07
linh
pham

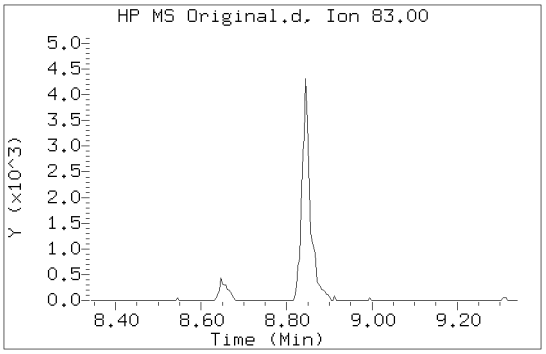



## 1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

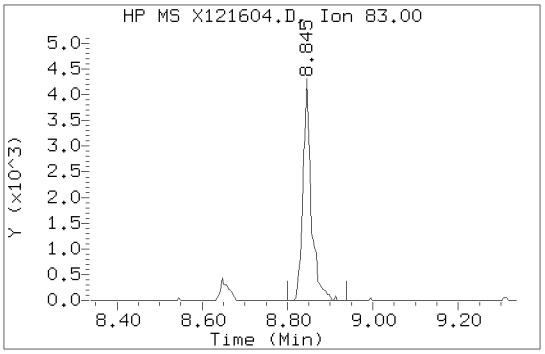
BEFORE

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



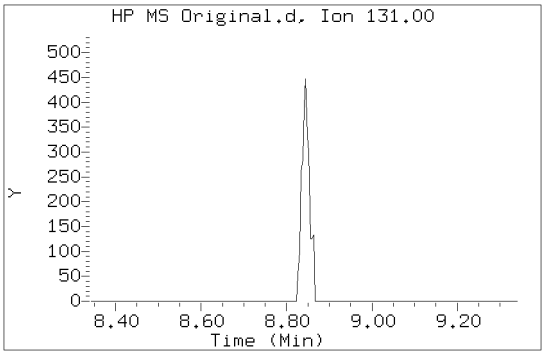

AFTER

MASS
83
AREA
5934
HEIGHT
4312
27-Dec-2022
16:07
linh
pham



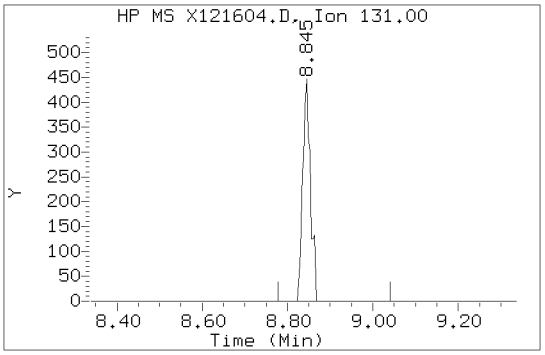

BEFORE

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



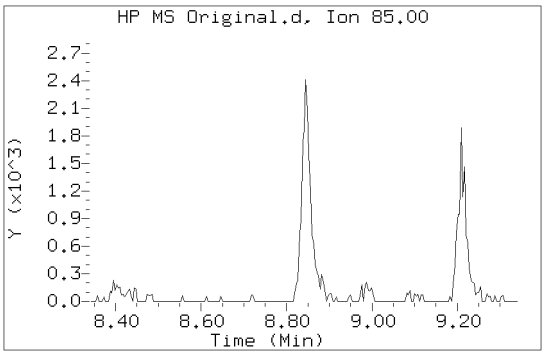

AFTER

MASS
131
AREA
574
HEIGHT
447
27-Dec-2022
16:07
linh
pham



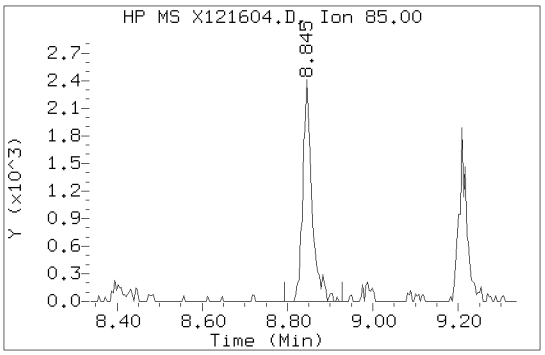

BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
85
AREA
3682
HEIGHT
2411
27-Dec-2022
16:07
linh
pham

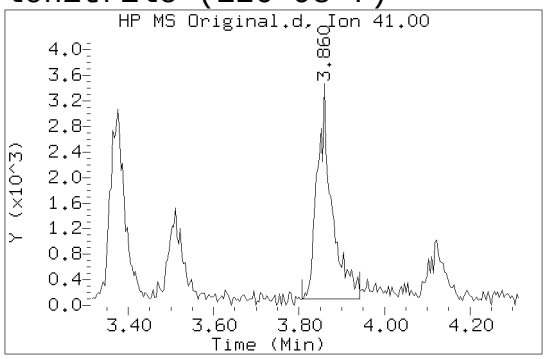


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Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

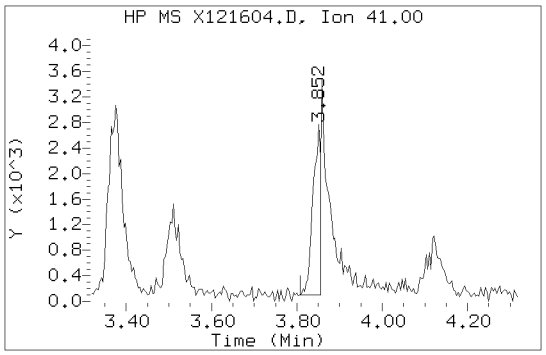
## Methacrylonitrile (126-98-7)

Reason Code:

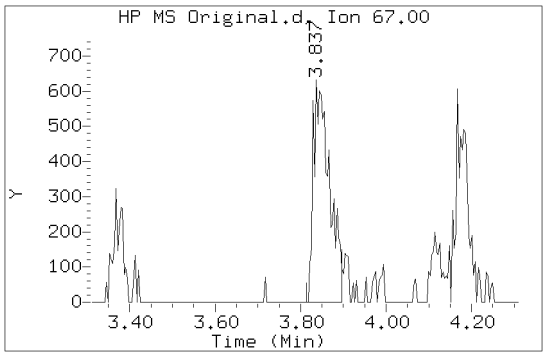
BEFORE
MASS
41
AREA
7966
HEIGHT
3370
27-Dec-2022
16:03
linh
pham



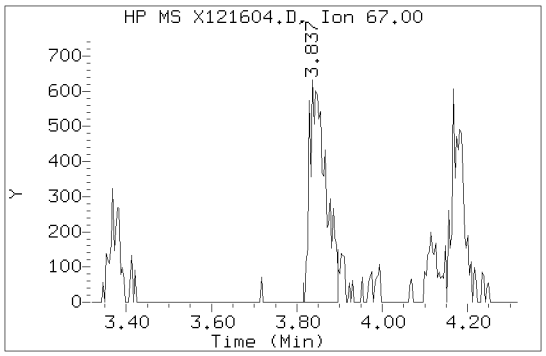

AFTER
MASS
41
AREA
3285
HEIGHT
2668
27-Dec-2022
16:07
linh
pham



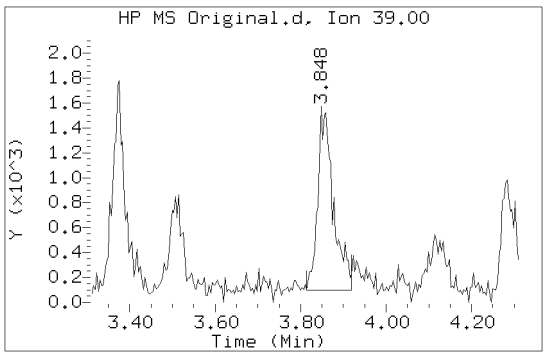

BEFORE
MASS
67
AREA
1649
HEIGHT
632
27-Dec-2022
16:03
linh
pham



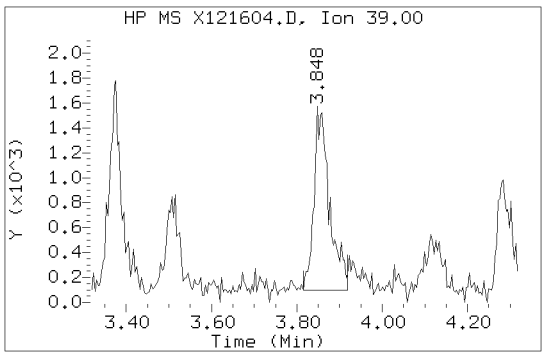

AFTER
MASS
67
AREA
1649
HEIGHT
632
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
39
AREA
3700
HEIGHT
1473
27-Dec-2022
16:03
linh
pham



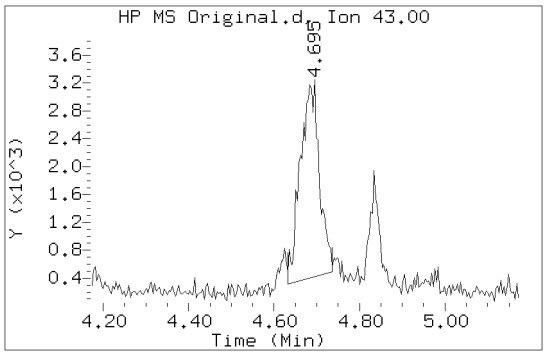

AFTER
MASS
39
AREA
3700
HEIGHT
1473
27-Dec-2022
16:07
linh
pham



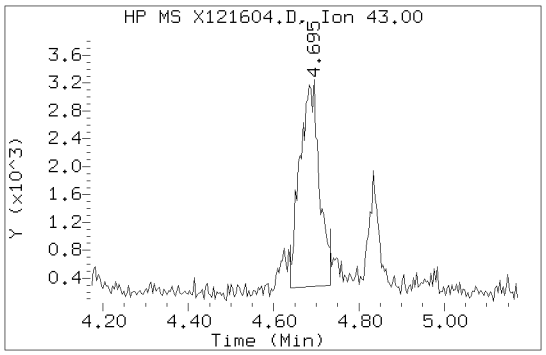

## Isobutyl Alcohol (78-83-1)

Reason Code:

BEFORE
MASS
43
AREA
8847
HEIGHT
2826
27-Dec-2022
16:03
linh
pham




AFTER
MASS
43
AREA
9436
HEIGHT
2966
27-Dec-2022
16:07
linh
pham

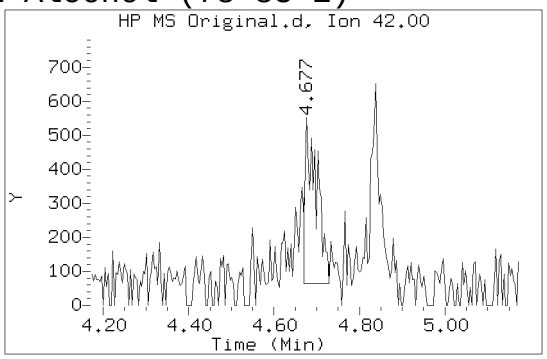


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Isobutyl Alcohol (78-83-1)

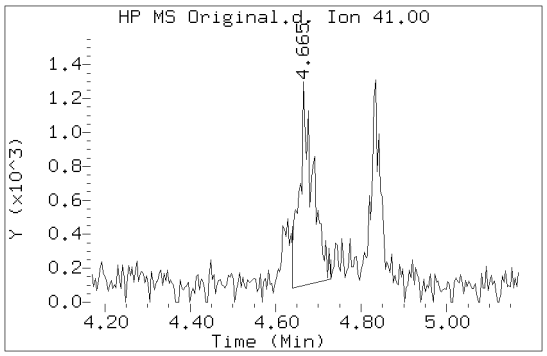
### BEFORE

MASS
42
AREA
953
HEIGHT
488
27-Dec-2022
16:03
linh
pham




### BEFORE

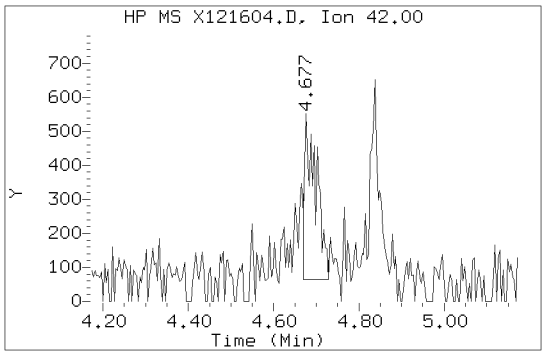
MASS
41
AREA
2650
HEIGHT
1200
27-Dec-2022
16:03
linh
pham




### Reason Code:

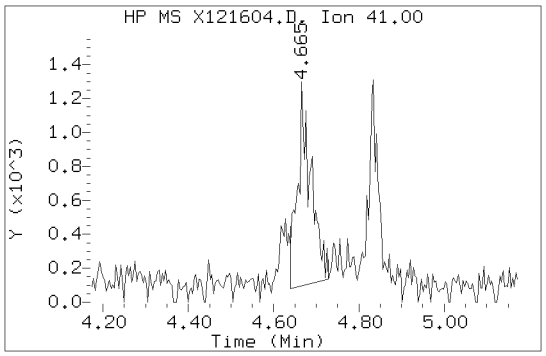
### AFTER

MASS
42
AREA
953
HEIGHT
488
27-Dec-2022
16:07
linh
pham




### AFTER

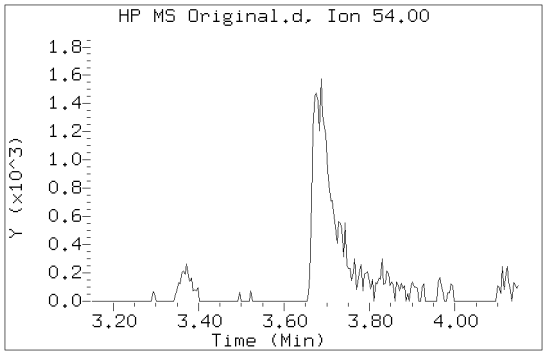
MASS
41
AREA
2656
HEIGHT
1201
27-Dec-2022
16:07
linh
pham




## Propionitrile (107-12-0)

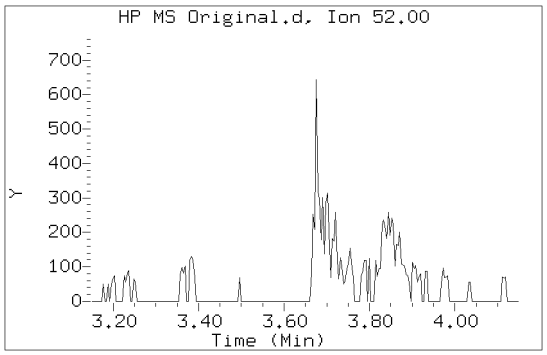
### BEFORE

MASS
54
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### BEFORE

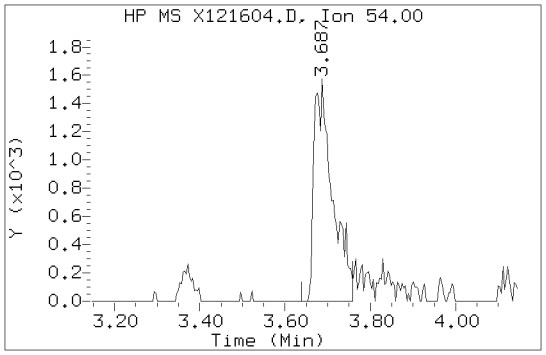
MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### Reason Code:

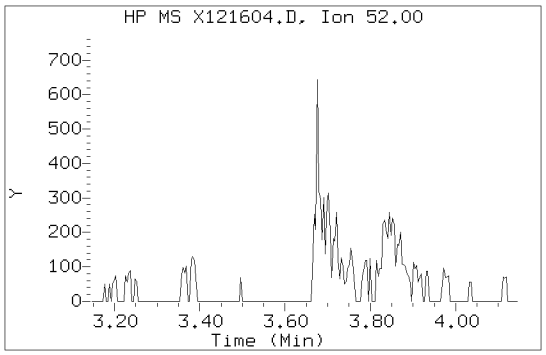
### AFTER

MASS
54
AREA
4742
HEIGHT
1574
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



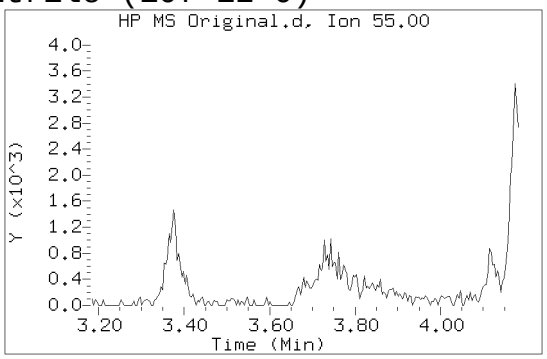
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Propionitrile (107-12-0)

Reason Code:

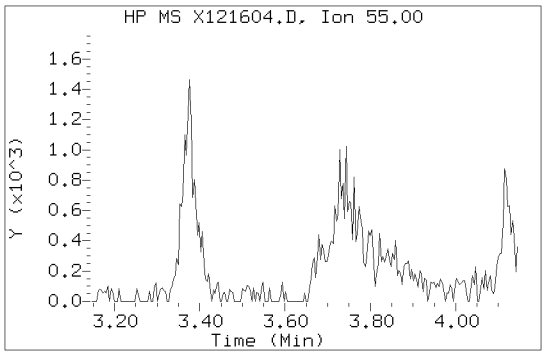
**BEFORE**

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

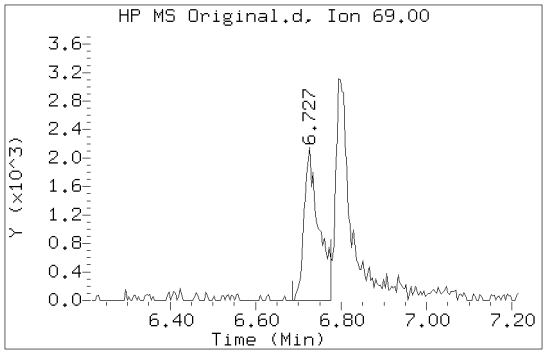



## Ethyl Methacrylate (97-63-2)

Reason Code:

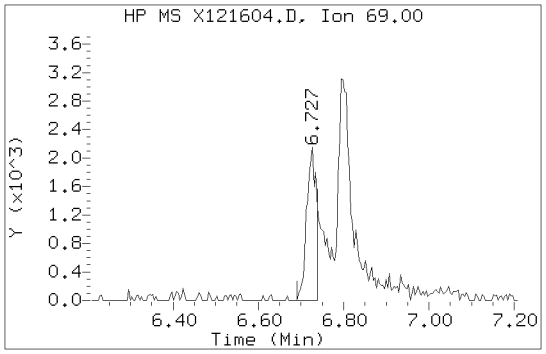
**BEFORE**

MASS
69
AREA
5177
HEIGHT
2156
27-Dec-2022
16:03
linh
pham



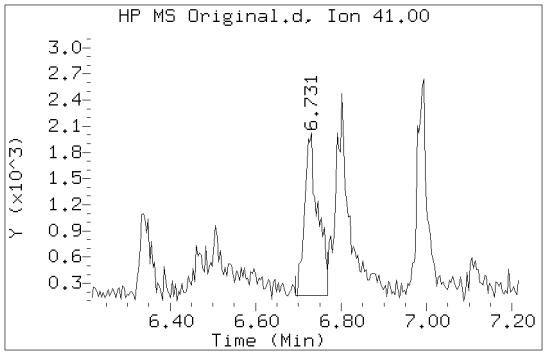

**AFTER**

MASS
69
AREA
3303
HEIGHT
2156
27-Dec-2022
16:07
linh
pham



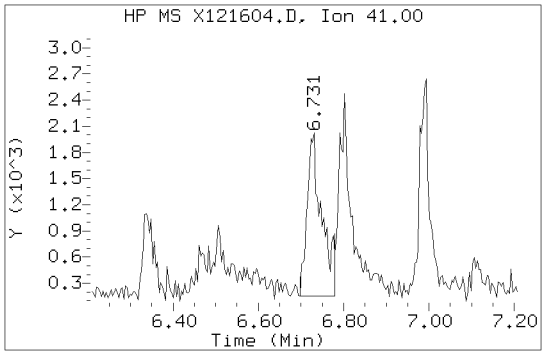

**BEFORE**

MASS
41
AREA
4059
HEIGHT
1867
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
4485
HEIGHT
1872
27-Dec-2022
16:07
linh
pham

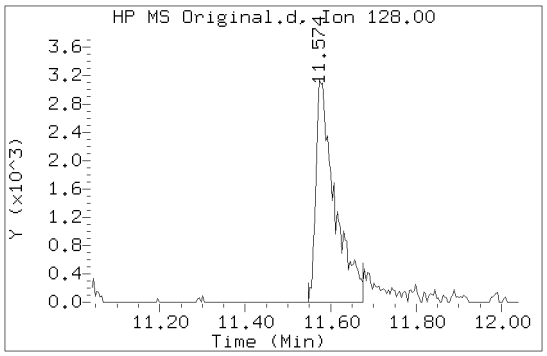



## Naphthalene (91-20-3)

Reason Code:

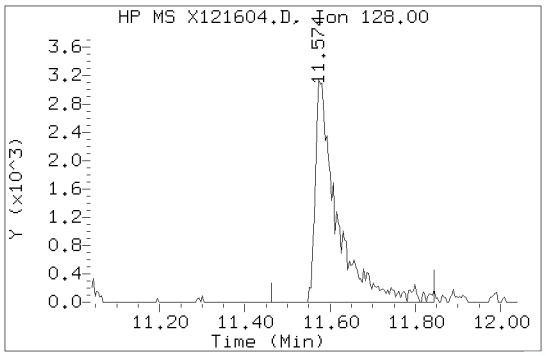
**BEFORE**

MASS
128
AREA
9627
HEIGHT
3139
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
128
AREA
11288
HEIGHT
3139
27-Dec-2022
16:07
linh
pham



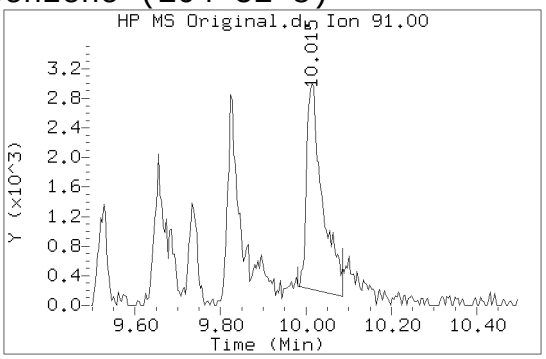
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## n-Butylbenzene (104-51-8)

Reason Code:

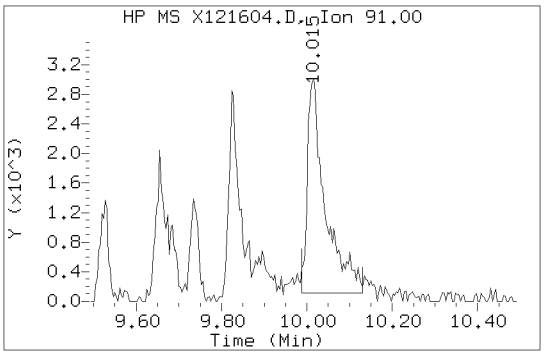
**BEFORE**

MASS
91
AREA
7194
HEIGHT
2783
27-Dec-2022
16:03
linh
pham



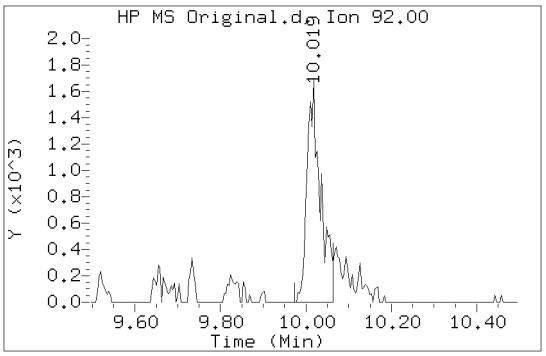

**AFTER**

MASS
91
AREA
8459
HEIGHT
2887
27-Dec-2022
16:07
linh
pham



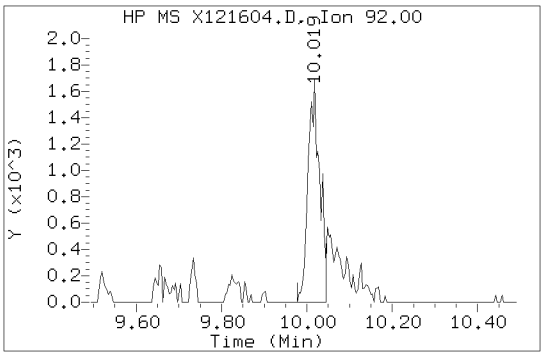

**BEFORE**

MASS
92
AREA
3696
HEIGHT
1686
27-Dec-2022
16:03
linh
pham



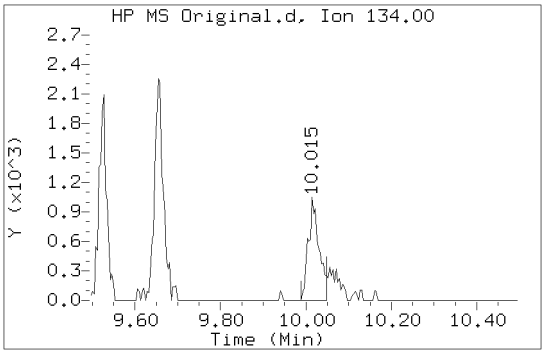

**AFTER**

MASS
92
AREA
3188
HEIGHT
1686
27-Dec-2022
16:07
linh
pham



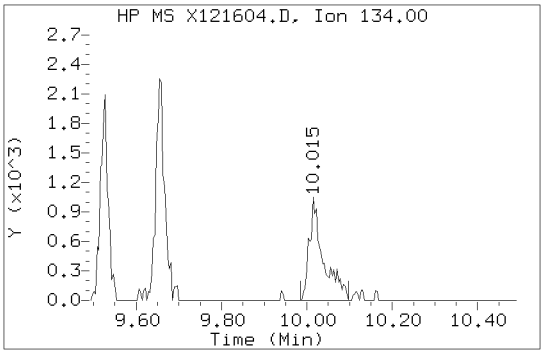

**BEFORE**

MASS
134
AREA
1829
HEIGHT
1051
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
134
AREA
2397
HEIGHT
1051
27-Dec-2022
16:07
linh
pham

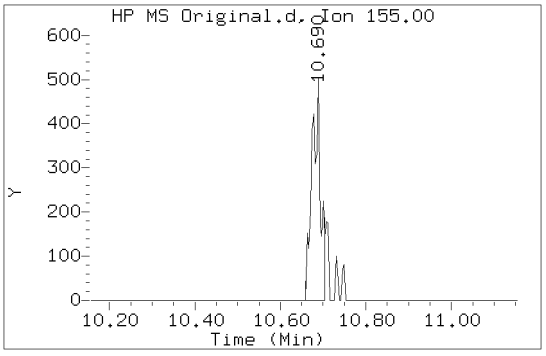



## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

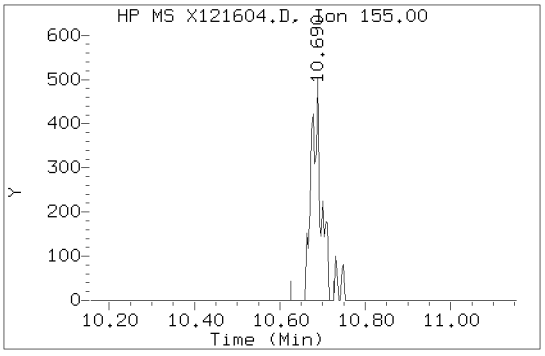
**BEFORE**

MASS
155
AREA
699
HEIGHT
502
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
155
AREA
778
HEIGHT
502
27-Dec-2022
16:07
linh
pham



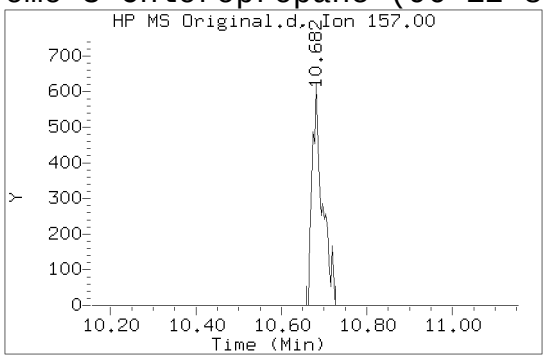
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

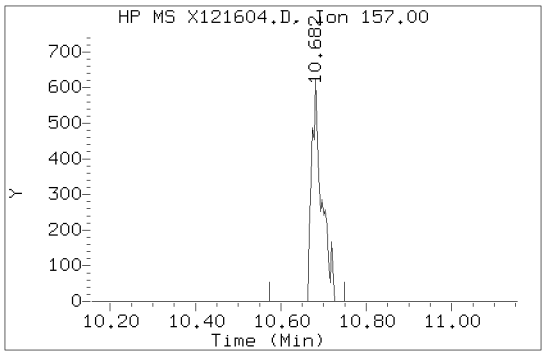
**BEFORE**

MASS
157
AREA
1023
HEIGHT
622
27-Dec-2022
16:03
linh
pham



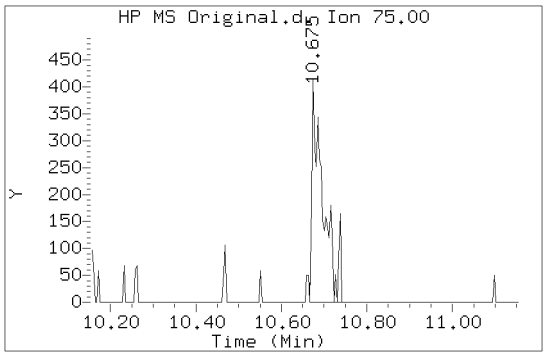

**AFTER**

MASS
157
AREA
1023
HEIGHT
622
27-Dec-2022
16:07
linh
pham



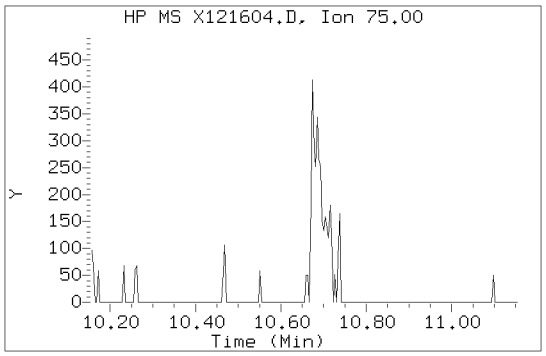

**BEFORE**

MASS
75
AREA
742
HEIGHT
413
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

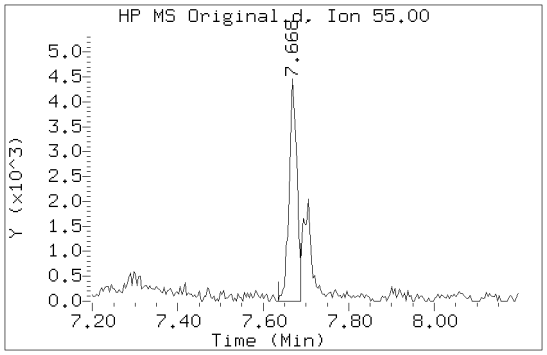



## 1-Chlorohexane (544-10-5)

Reason Code:

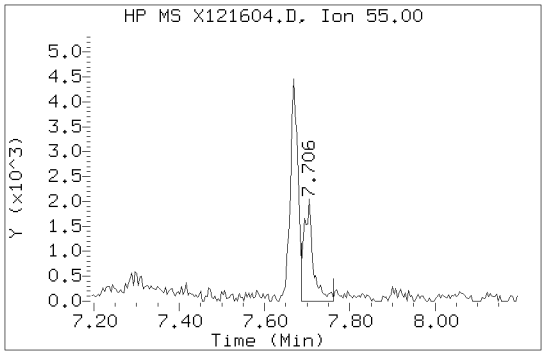
**BEFORE**

MASS
55
AREA
5660
HEIGHT
4460
27-Dec-2022
16:03
linh
pham



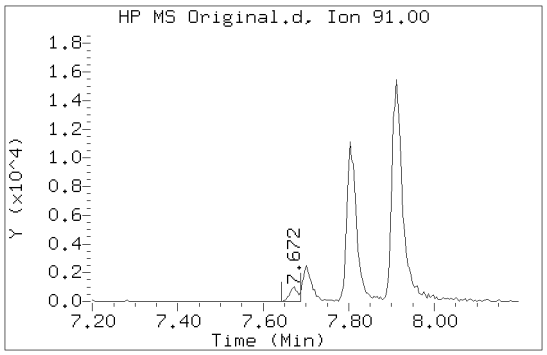

**AFTER**

MASS
55
AREA
3155
HEIGHT
2048
27-Dec-2022
16:07
linh
pham



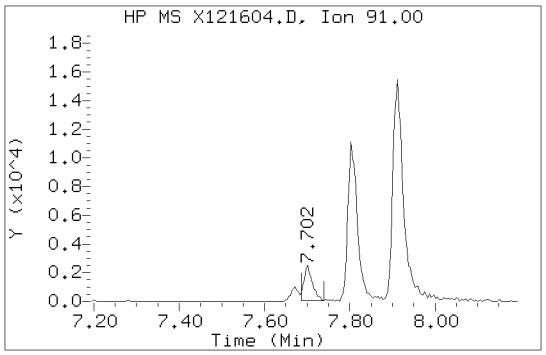

**BEFORE**

MASS
91
AREA
1392
HEIGHT
1029
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
91
AREA
3448
HEIGHT
2478
27-Dec-2022
16:07
linh
pham

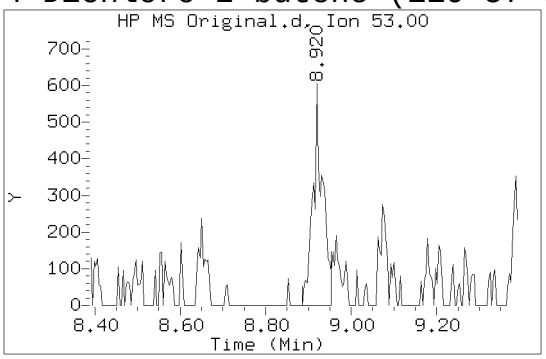


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

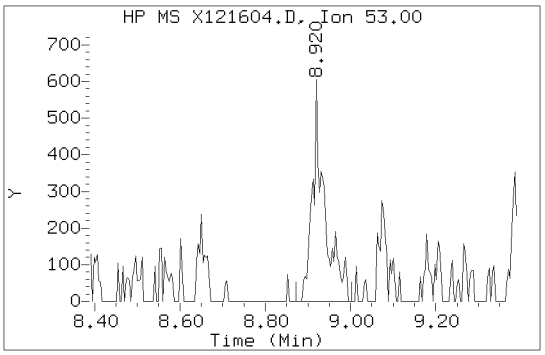
## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

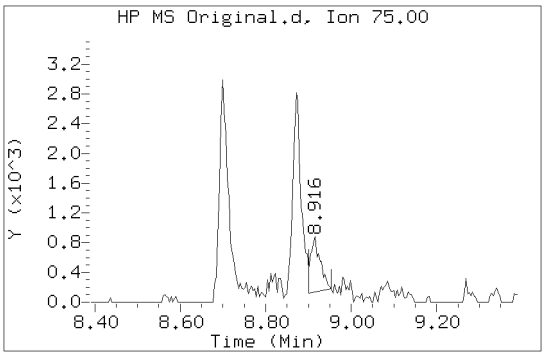
BEFORE
MASS
53
AREA
956
HEIGHT
605
27-Dec-2022
16:03
linh
pham



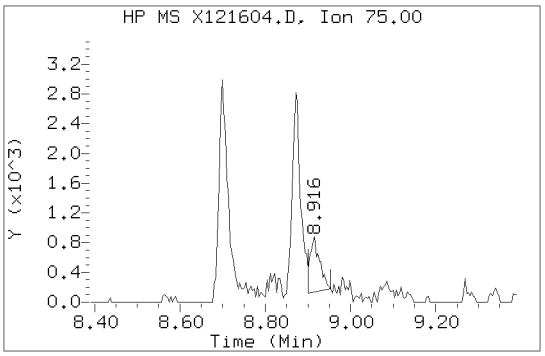

AFTER
MASS
53
AREA
1196
HEIGHT
605
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
75
AREA
1166
HEIGHT
745
27-Dec-2022
16:03
linh
pham



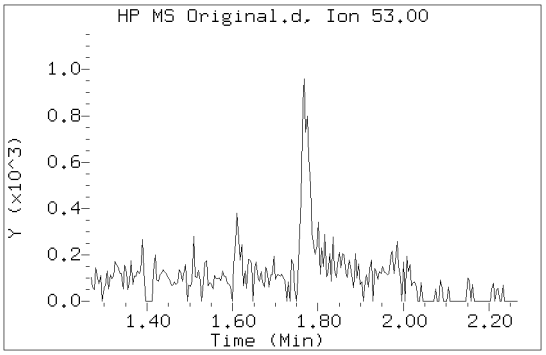

AFTER
MASS
75
AREA
1166
HEIGHT
745
27-Dec-2022
16:07
linh
pham



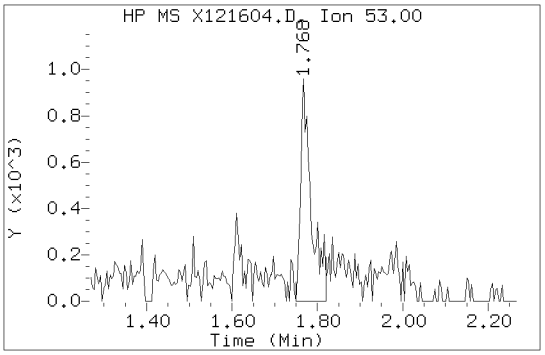

## Chloroprene (126-99-8)

Reason Code:

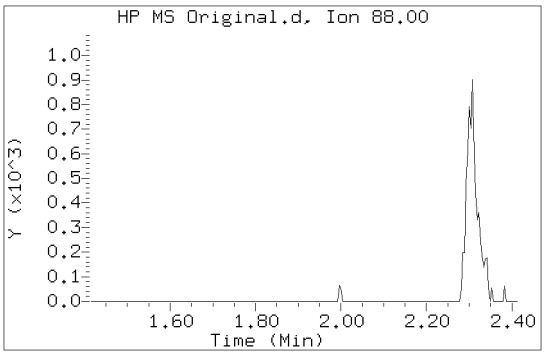
BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



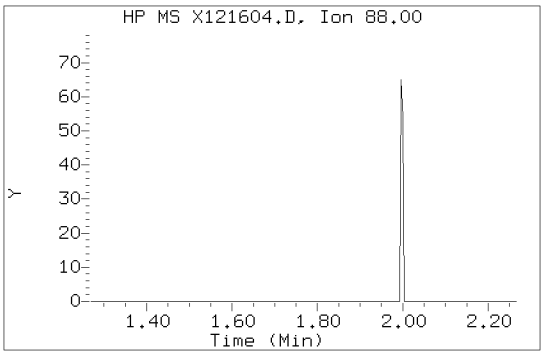

AFTER
MASS
53
AREA
1686
HEIGHT
959
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

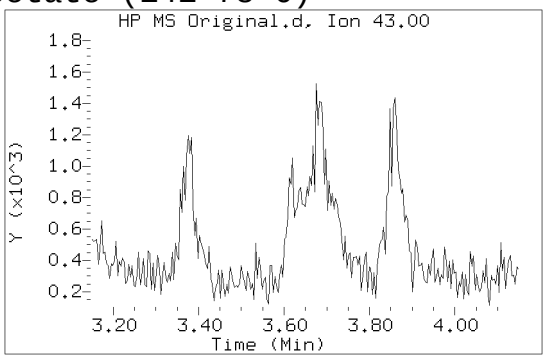


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

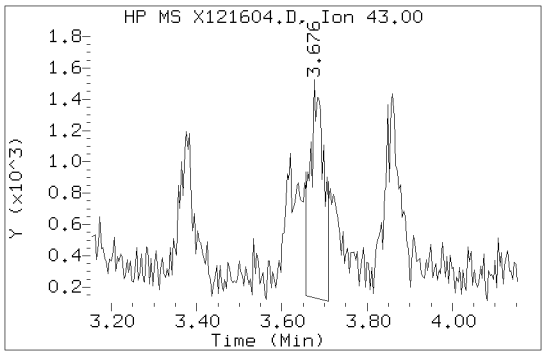
## Ethyl Acetate (141-78-6)

Reason Code:

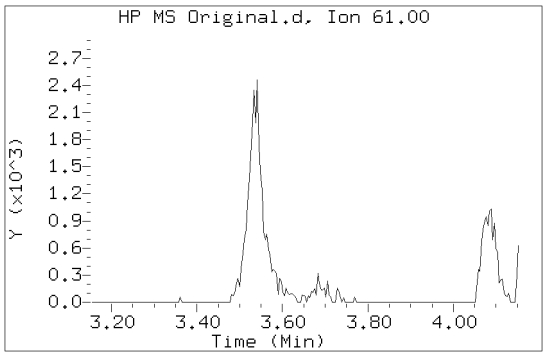
**BEFORE**
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



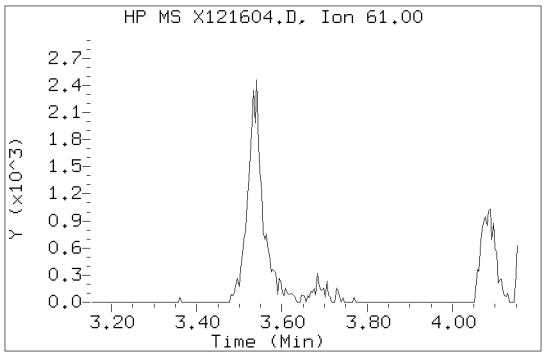

**AFTER**
MASS
43
AREA
3144
HEIGHT
1392
27-Dec-2022
16:07
linh
pham



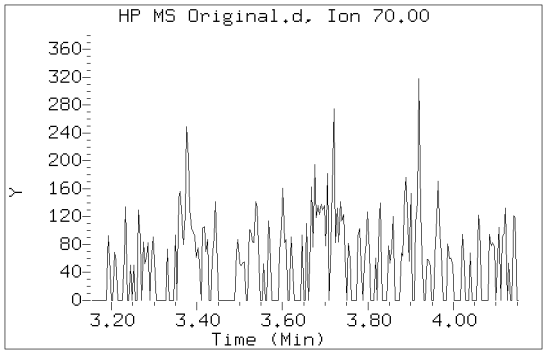

**BEFORE**
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



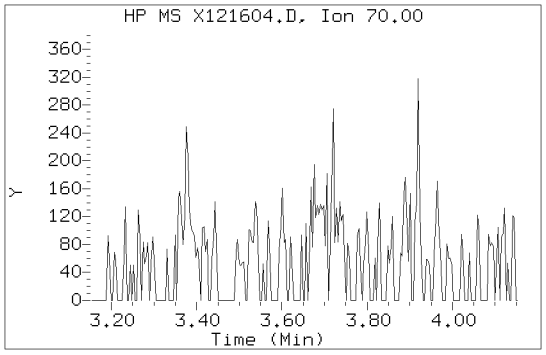

**AFTER**
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



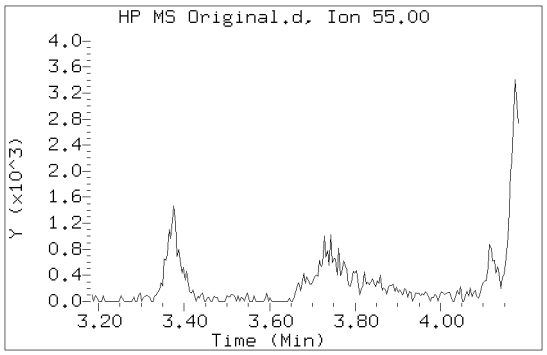

**AFTER**
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



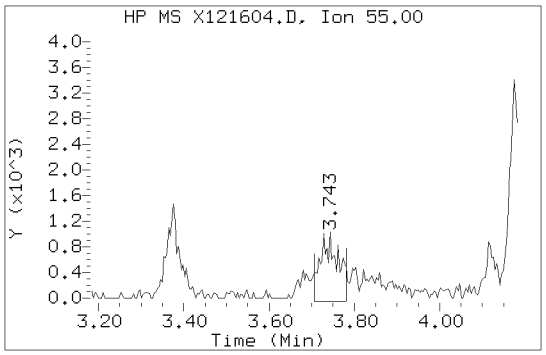

## Methyl Acrylate (96-33-3)

Reason Code:

**BEFORE**
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
55
AREA
3084
HEIGHT
1078
27-Dec-2022
16:07
linh
pham

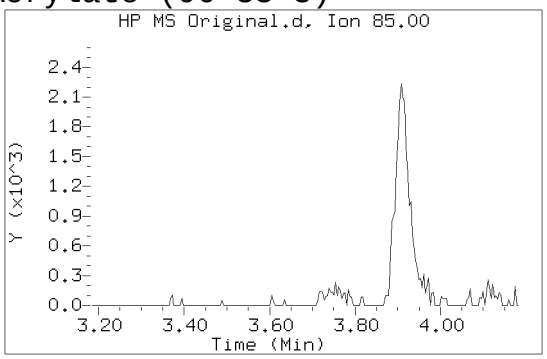


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

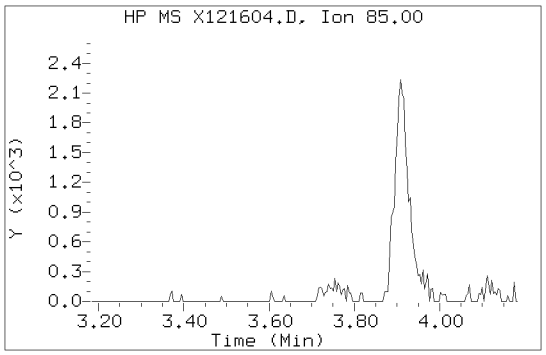
## Methyl Acrylate (96-33-3)

Reason Code:

BEFORE
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



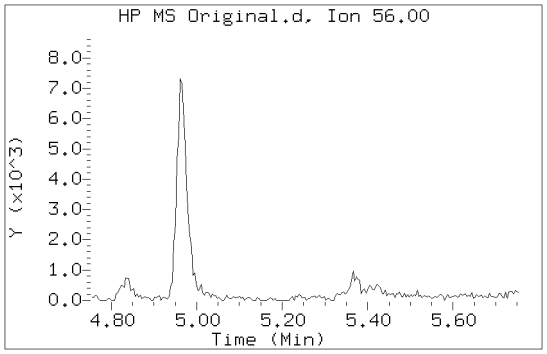

AFTER
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



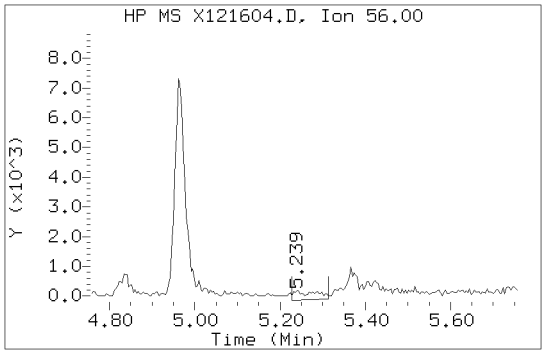

## n-Butanol (71-36-3)

Reason Code:

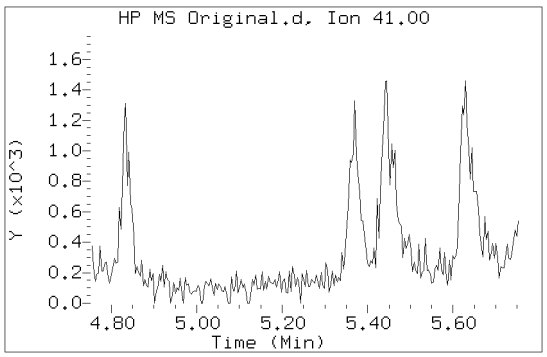
BEFORE
MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



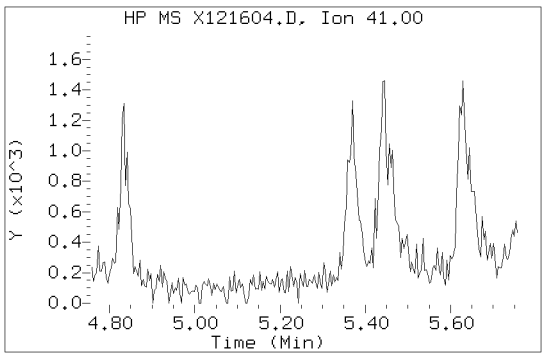

AFTER
MASS
56
AREA
1171
HEIGHT
317
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



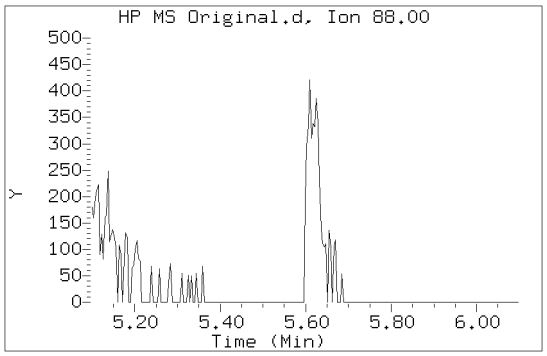

AFTER
MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



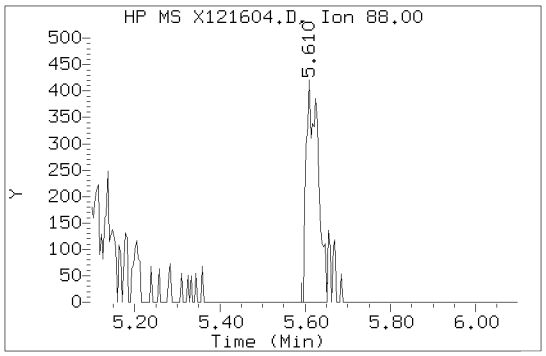

## 1,4-Dioxane ()

Reason Code:

BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
88
AREA
820
HEIGHT
421
27-Dec-2022
16:07
linh
pham



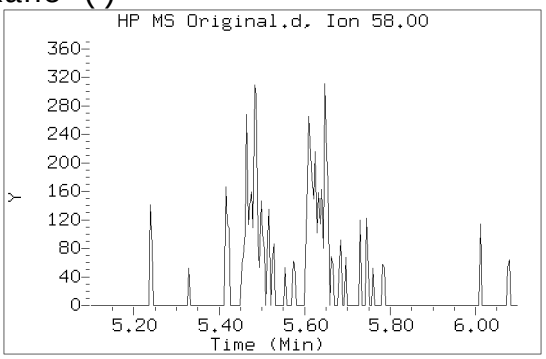
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 1,4-Dioxane ()

Reason Code:

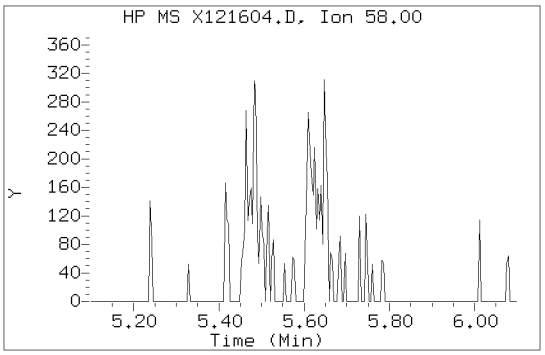
**BEFORE**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

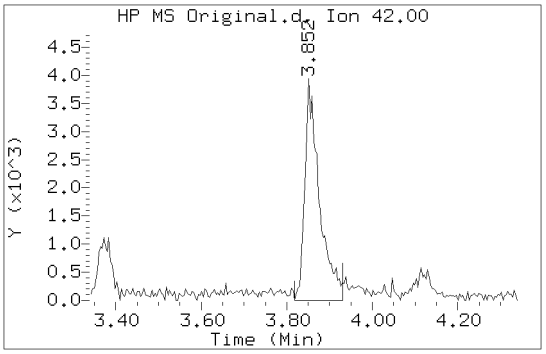



## Tetrahydrofuran (109-99-9)

Reason Code:

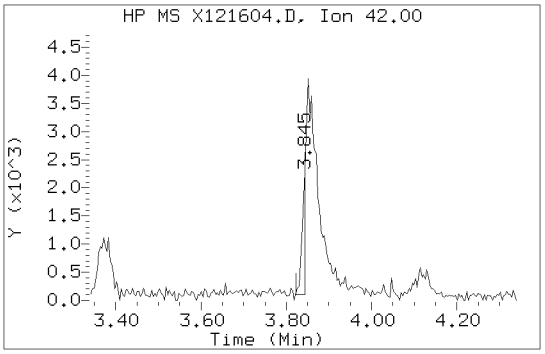
**BEFORE**

MASS
42
AREA
9396
HEIGHT
3939
27-Dec-2022
16:03
linh
pham



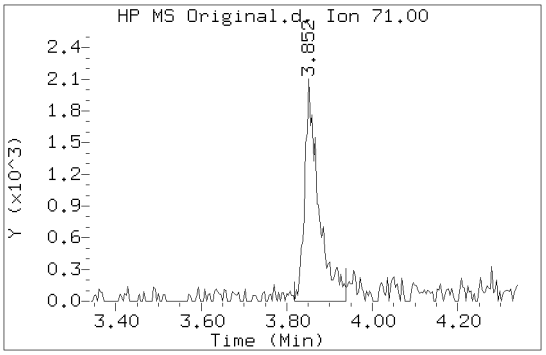

**AFTER**

MASS
42
AREA
1361
HEIGHT
2190
27-Dec-2022
16:07
linh
pham



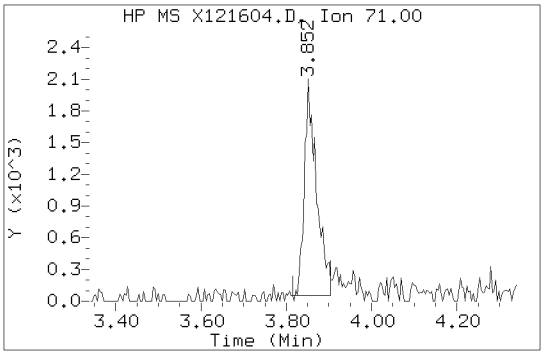

**BEFORE**

MASS
71
AREA
4781
HEIGHT
2103
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
71
AREA
4046
HEIGHT
2046
27-Dec-2022
16:07
linh
pham

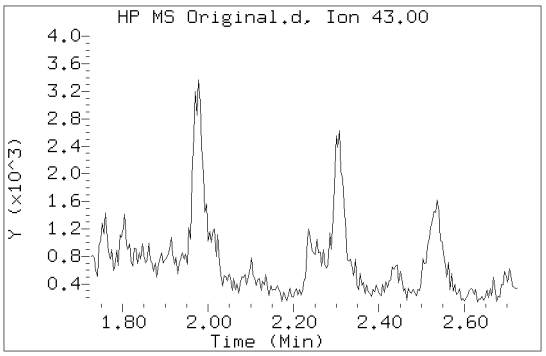



## Methyl Acetate (79-20-9)

Reason Code:

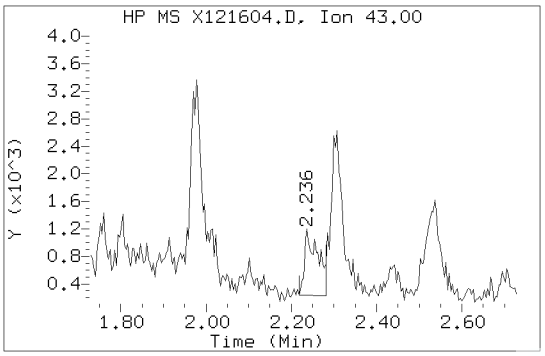
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
43
AREA
2127
HEIGHT
968
27-Dec-2022
16:07
linh
pham

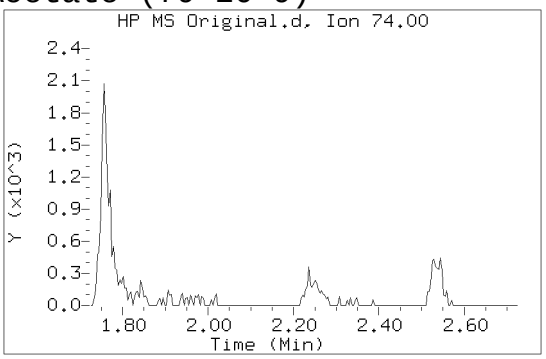


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Methyl Acetate (79-20-9)

### BEFORE

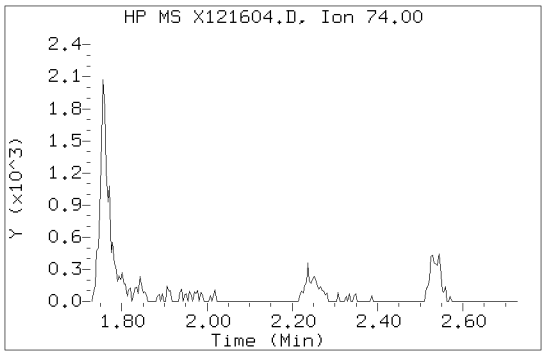
MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

### AFTER

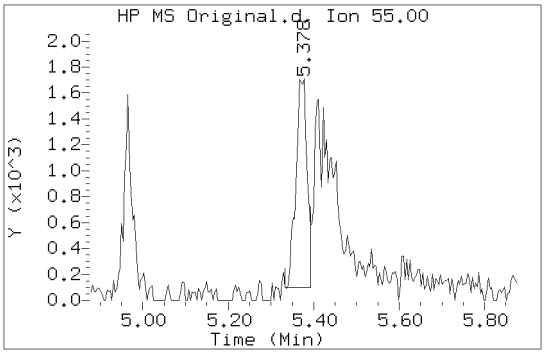
MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




## Methylcyclohexane (108-87-2)

### BEFORE

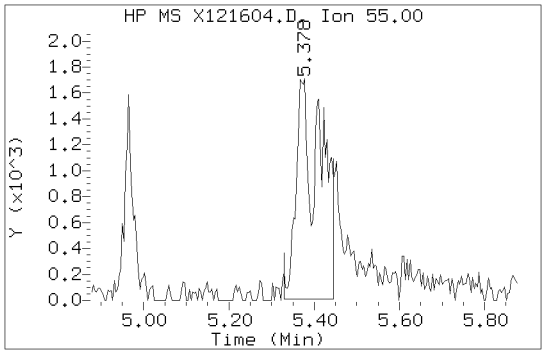
MASS
55
AREA
2998
HEIGHT
1612
27-Dec-2022
16:03
linh
pham




Reason Code:

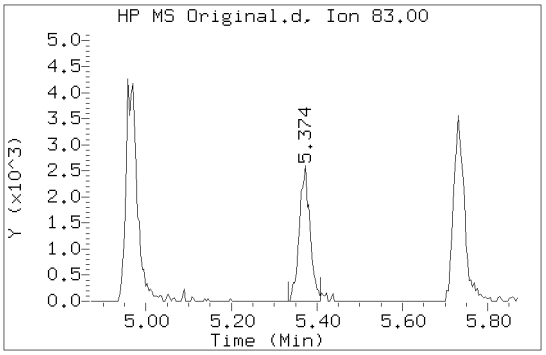
### AFTER

MASS
55
AREA
6848
HEIGHT
1699
27-Dec-2022
16:07
linh
pham



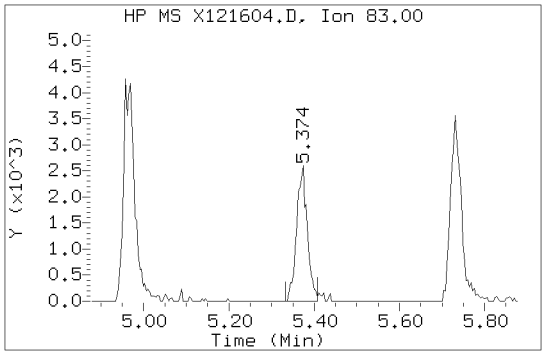

### BEFORE

MASS
83
AREA
4577
HEIGHT
2601
27-Dec-2022
16:03
linh
pham




### AFTER

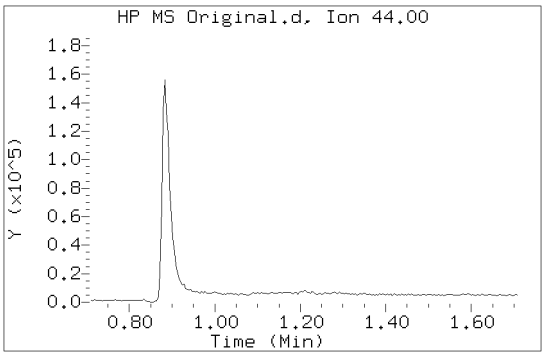
MASS
83
AREA
4577
HEIGHT
2601
27-Dec-2022
16:07
linh
pham




## Acetaldehyde (75-07-0)

### BEFORE

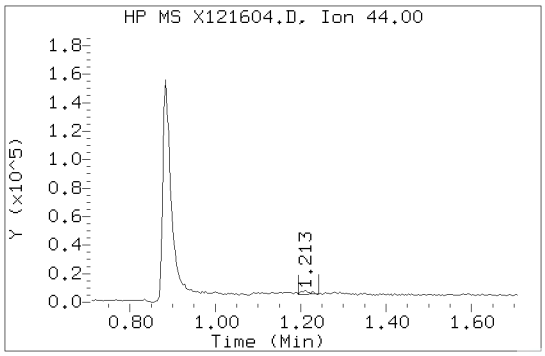
MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

### AFTER

MASS
44
AREA
3384
HEIGHT
2655
27-Dec-2022
16:07
linh
pham



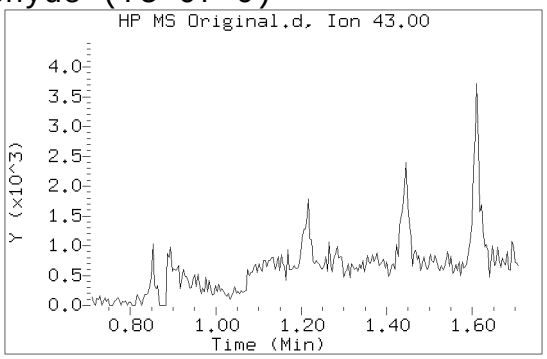
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Acetaldehyde (75-07-0)

Reason Code:

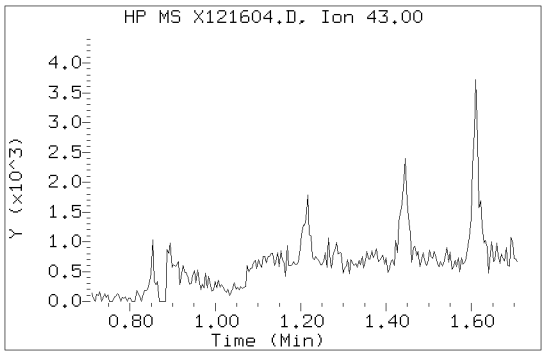
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



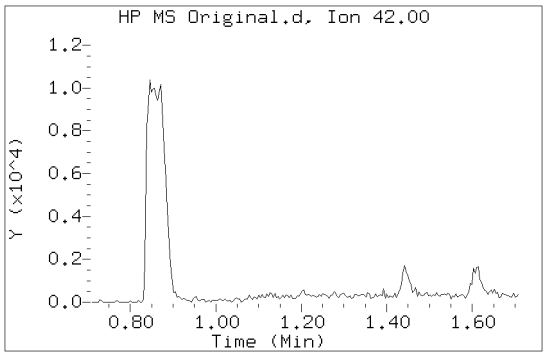

**AFTER**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



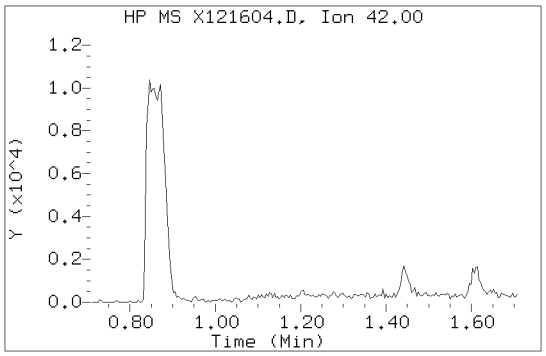

**BEFORE**

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

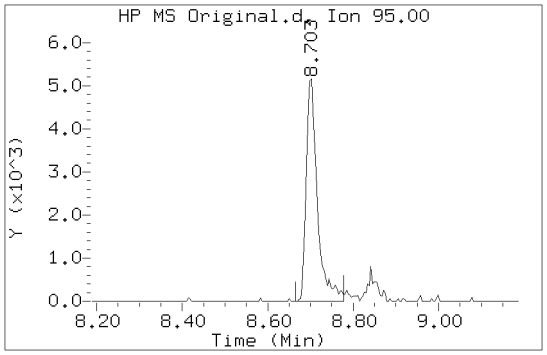



## 4-Bromofluorobenzene (460-00-4)

Reason Code:

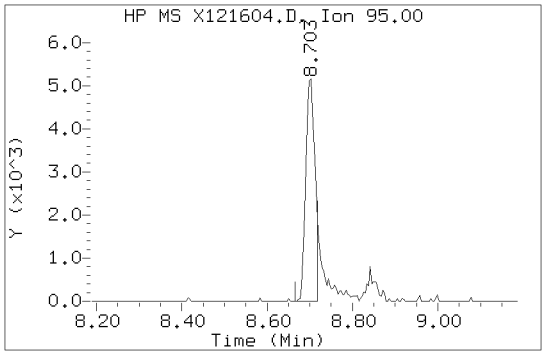
**BEFORE**

MASS
95
AREA
9514
HEIGHT
5159
27-Dec-2022
16:03
linh
pham



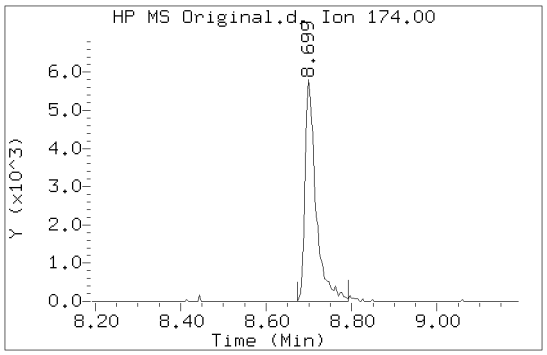

**AFTER**

MASS
95
AREA
7790
HEIGHT
5159
27-Dec-2022
16:07
linh
pham



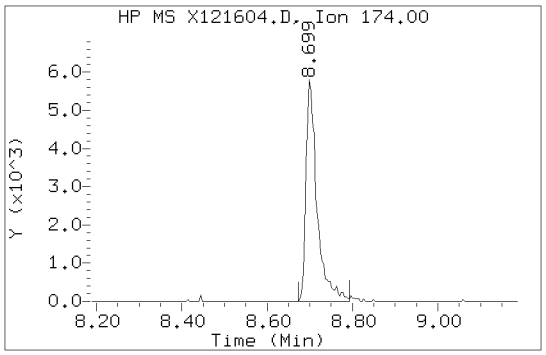

**BEFORE**

MASS
174
AREA
10505
HEIGHT
5802
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
174
AREA
10505
HEIGHT
5802
27-Dec-2022
16:07
linh
pham



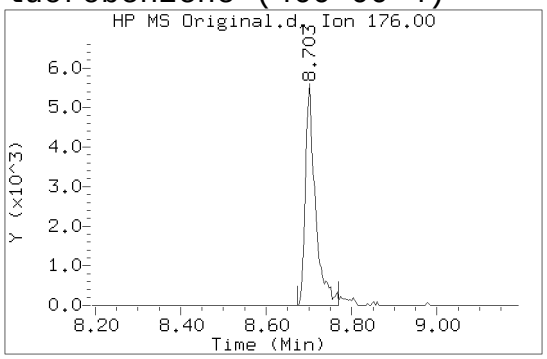
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

4-Bromofluorobenzene (460-00-4)

Reason Code:

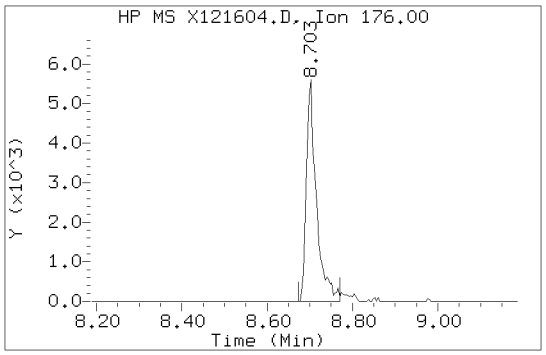
BEFORE

MASS
176
AREA
9226
HEIGHT
5603
27-Dec-2022
16:03
linh
pham




AFTER

MASS
176
AREA
9226
HEIGHT
5603
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Lab Smp Id: VSTD002  Client Smp ID: VSTD002
Inj Date  : 16-DEC-2022 13:02
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD002;VSTD002;1;4;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 12:41  Cal File: X121604.D
Als bottle: 6  Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 456374 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.610 | 5.610 | (1.343) | 1409 | 40.0000 | 33.77(M) |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 5733 | 2.00000 | 1.83 |
| 25 Methacrylonitrile | 41 | 3.859 | 3.859 | (0.924) | 6388 | 2.00000 | 1.97(M) |
| 12 Isobutyl Alcohol | 43 | 4.684 | 4.684 | (1.121) | 20629 | 40.0000 | 40.18(M) |
| 13 Acetonitrile | 39 | 2.198 | 2.198 | (0.526) | 7764 | 20.0000 | 18.69 |
| 14 Allyl Chloride | 41 | 2.206 | 2.206 | (0.528) | 14911 | 2.00000 | 1.88 |
| 4 Propionitrile | 54 | 3.675 | 3.675 | (0.880) | 8651 | 20.0000 | 18.57 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 5898 | 2.00000 | 1.79 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.920 | 8.920 | (1.163) | 2690 | 2.00000 | 1.92(M) |
| 194 Acetaldehyde | 44 | 1.212 | 1.212 | (0.290) | 5661 | 8.00000 | (M) |
| 23 Chloroprene | 53 | 1.771 | 1.771 | (0.424) | 3126 | 2.00000 | 2.01(M) |
| 145 alpha-Methylstyrene | 118 | 9.268 | 9.268 | (0.959) | 14447 | 2.00000 | 1.84 |
| 200 Dimethyl Disulfide | 94 | 6.202 | 6.202 | (0.808) | 15964 | 2.00000 | 1.82 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 6354 | 2.00000 | 2.08 |
| 130 Ethyl Acetate | 43 | 3.675 | 3.675 | (0.880) | 7422 | 2.00000 | 2.08(M) |
| 40 Methyl Methacrylate | 41 | 5.617 | 5.617 | (1.345) | 6185 | 2.00000 | 1.98 |
| 49 Ethyl Methacrylate | 69 | 6.715 | 6.715 | (1.353) | 6546 | 2.00000 | 2.03 |
| 132 n-Butanol | 56 | 5.343 | 5.343 | (1.279) | 2004 | 40.0000 | 74.77(TM) |
| 142 Tetrahydrofuran | 42 | 3.848 | 3.848 | (0.921) | 2867 | 4.00000 | 2.04(M) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 5898 | 40.0000 | 33.27 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 35687 | 2.00000 | 2.10 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D Page 2
Report Date: 27-Dec-2022 16:07

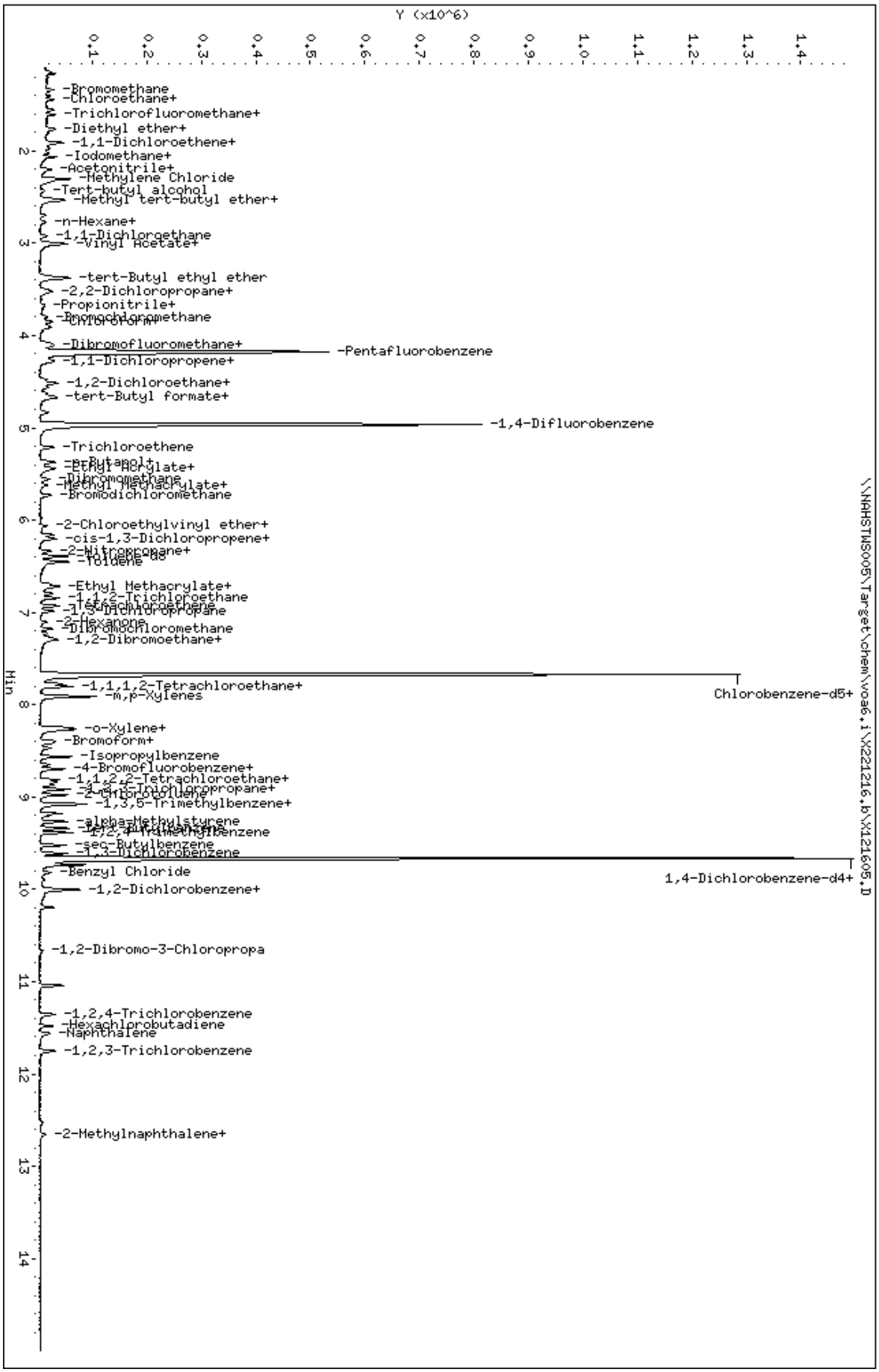
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 131 Methyl Acrylate | 55 | 3.720 | 3.720 | (0.891) | 5443 | 2.00000 | 1.75(M) |
| | 162 Butyl acrylate | 55 | 8.267 | 8.267 | (1.078) | 15015 | 2.00000 | 1.77 |
| | 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 6239 | 2.00000 | 2.33 |
| | 3 Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 8057 | 2.00000 | 4.07 |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 7263 | 2.00000 | 1.82 |
| | 6 Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 5996 | 2.00000 | 3.68(M) |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 5667 | 2.00000 | 2.04(M) |
| | 8 Trichlorofluoromethane | 101 | 1.561 | 1.561 | (0.374) | 10463 | 2.00000 | 1.87 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 1317 | 4.00000 | 6.92(M) |
| | 10 Acetone | 43 | 1.973 | 1.973 | (0.472) | 7041 | 4.00000 | 5.46(M) |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 6862 | 2.00000 | 1.98 |
| | 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 8702 | 4.00000 | 5.23 |
| | 16 Acrylonitrile | 53 | 2.554 | 2.554 | (0.611) | 4557 | 4.00000 | 3.87(M) |
| | 17 Methylene Chloride | 84 | 2.303 | 2.303 | (0.551) | 9194 | 2.00000 | 1.93(M) |
| | 18 Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 23231 | 2.00000 | 2.04 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 34948 | 4.00000 | 3.85 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.532 | 2.532 | (0.606) | 7113 | 2.00000 | 1.83 |
| | 21 Vinyl Acetate | 43 | 3.008 | 3.008 | (0.720) | 38835 | 4.00000 | 3.90 |
| | 22 1,1-Dichloroethane | 63 | 2.922 | 2.922 | (0.699) | 12778 | 2.00000 | 1.87 |
| | 24 2-Butanone | 43 | 3.604 | 3.604 | (0.863) | 5418 | 4.00000 | 6.89(M) |
| | 26 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 11048 | 2.00000 | 1.91 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.529 | 3.529 | (0.845) | 9675 | 2.00000 | 2.05 |
| | 28 Chloroform | 83 | 3.908 | 3.908 | (0.935) | 15581 | 2.00000 | 2.04 |
| | 29 Bromochloromethane | 128 | 3.803 | 3.803 | (0.910) | 5134 | 2.00000 | 1.98 |
| $ | 30 Dibromofluoromethane | 113 | 4.106 | 4.106 | (0.983) | 9050 | 2.00000 | 1.90 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 10962 | 2.00000 | 1.81 |
| | 32 1,1-Dichloropropene | 75 | 4.286 | 4.286 | (0.863) | 9042 | 2.00000 | 1.86 |
| | 33 1,2-Dichloroethane | 62 | 4.560 | 4.560 | (0.918) | 10812 | 2.00000 | 1.92 |
| | 34 Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 11092 | 2.00000 | 2.13(M) |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.477 | 4.477 | (1.072) | 9783 | 2.00000 | 2.37 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 684444 | 50.0000 | |
| | 37 Benzene | 78 | 4.515 | 4.515 | (0.909) | 32394 | 2.00000 | 1.98 |
| | 38 Trichloroethene | 130 | 5.216 | 5.216 | (1.051) | 9277 | 2.00000 | 2.00 |
| | 39 Bromodichloromethane | 83 | 5.733 | 5.733 | (1.155) | 11961 | 2.00000 | 1.94 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.059 | 6.059 | (1.220) | 6648 | 4.00000 | 3.80 |
| | 42 1,2-Dichloropropane | 63 | 5.441 | 5.441 | (1.096) | 8129 | 2.00000 | 1.86(M) |
| | 44 Dibromomethane | 93 | 5.553 | 5.553 | (1.119) | 6110 | 2.00000 | 2.06 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.337 | 6.337 | (0.826) | 14771 | 4.00000 | 4.26 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.161 | 6.161 | (1.241) | 13738 | 2.00000 | 1.90 |
| * | 47 Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 647809 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.393 | 6.393 | (0.833) | 31289 | 2.00000 | 1.95 |
| | 50 Toluene | 91 | 6.453 | 6.453 | (0.841) | 35620 | 2.00000 | 1.98 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.693 | 6.693 | (1.348) | 10969 | 2.00000 | 1.83 |
| | 52 2-Hexanone | 43 | 7.105 | 7.105 | (0.926) | 9314 | 4.00000 | 3.95 |
| | 53 1,1,2-Trichloroethane | 83 | 6.843 | 6.843 | (0.892) | 7537 | 2.00000 | 2.09 |
| | 54 1,3-Dichloropropane | 76 | 6.989 | 6.989 | (0.911) | 14049 | 2.00000 | 1.98 |
| | 55 Dibromochloromethane | 129 | 7.180 | 7.180 | (0.936) | 10210 | 2.00000 | 1.96 |
| | 56 Tetrachloroethene | 164 | 6.929 | 6.929 | (0.903) | 7331 | 2.00000 | 1.97 |
| | 57 1,2-Dibromoethane | 107 | 7.263 | 7.263 | (0.947) | 8477 | 2.00000 | 1.88 |
| | 58 1-Chlorohexane | 55 | 7.697 | 7.697 | (1.550) | 5855 | 2.00000 | 1.77(MH) |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 24558 | 2.00000 | 1.93 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.013) | 9378 | 2.00000 | 1.98 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.802 | 7.802 (1.017) | 11791 | 2.00000 | 1.97 |
| 62 m,p-Xylenes | 106 | 7.911 | 7.911 (1.031) | 29170 | 4.00000 | 3.78 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.249 | 8.249 | (1.075) | 14764 | 2.00000 | 1.93 |
| | 64 Styrene | 104 | 8.271 | 8.271 | (1.078) | 22967 | 2.00000 | 1.80 |
| | 66 Bromoform | 173 | 8.417 | 8.417 | (1.097) | 6949 | 2.00000 | 1.93(T) |
| | 67 Isopropylbenzene | 105 | 8.563 | 8.563 | (1.116) | 32641 | 2.00000 | 1.87 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.841 | 8.841 | (0.915) | 11741 | 2.00000 | 2.08 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.698 | 8.698 | (1.134) | 13631 | 2.00000 | 2.33 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 352851 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.867 | 8.867 | (0.918) | 7514 | 2.00000 | 1.91 |
| | 73 n-Propylbenzene | 91 | 8.916 | 8.916 | (0.923) | 34981 | 2.00000 | 1.78 |
| | 74 Bromobenzene | 156 | 8.815 | 8.815 | (0.912) | 11721 | 2.00000 | 2.02 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.073 | 9.073 | (0.939) | 27917 | 2.00000 | 1.93 |
| | 76 2-Chlorotoluene | 91 | 8.980 | 8.980 | (0.929) | 26853 | 2.00000 | 2.09 |
| | 77 4-Chlorotoluene | 91 | 9.077 | 9.077 | (0.939) | 28173 | 2.00000 | 1.92 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 22104 | 2.00000 | 1.87 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.384 | 9.384 | (0.971) | 28377 | 2.00000 | 1.86 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 27643 | 2.00000 | 1.75 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 24966 | 2.00000 | 1.77 |
| | 83 1,3-Dichlorobenzene | 146 | 9.613 | 9.613 | (0.995) | 18708 | 2.00000 | 1.94 |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 20552 | 2.00000 | 1.96 |
| | 86 Benzyl Chloride | 91 | 9.819 | 9.819 | (1.280) | 12783 | 2.00000 | 3.88 |
| | 87 n-Butylbenzene | 91 | 10.003 | 10.003 | (1.035) | 19853 | 2.00000 | 3.18(M) |
| | 88 1,2-Dichlorobenzene | 146 | 9.999 | 9.999 | (1.035) | 18921 | 2.00000 | 1.91 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.678 | 10.678 | (1.105) | 1619 | 2.00000 | 1.88(M) |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.352 | 11.352 | (1.175) | 11764 | 2.00000 | 1.88(M) |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 3970 | 2.00000 | 1.39 |
| | 92 Naphthalene | 128 | 11.559 | 11.559 | (1.196) | 26250 | 2.00000 | 1.84(M) |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.750 | 11.750 | (1.216) | 11288 | 2.00000 | 1.88 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 16788 | 4.00000 | |
| M | 95 Xylenes (total) | 106 | | | | 43934 | 6.00000 | |
| | 141 Cyclohexane | 56 | 4.125 | 4.125 | (0.987) | 7375 | 2.00000 | 2.82(H) |
| | 138 Freon TF | 101 | 1.917 | 1.917 | (0.459) | 6025 | 2.00000 | 1.79 |
| | 147 Methylcyclohexane | 55 | 5.373 | 5.373 | (1.082) | 16016 | 2.00000 | 1.91(M) |
| | 146 Methyl Acetate | 43 | 2.247 | 2.247 | (0.538) | 4149 | 2.00000 | 2.02 |
| | 148 Tert-Butyl alcohol | 59 | 2.434 | 2.434 | (0.583) | 12015 | 40.0000 | 38.02(a) |
| | 149 Isopropyl Alcohol | 45 | 2.101 | 2.101 | (0.503) | 5607 | 40.0000 | 33.97 |

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



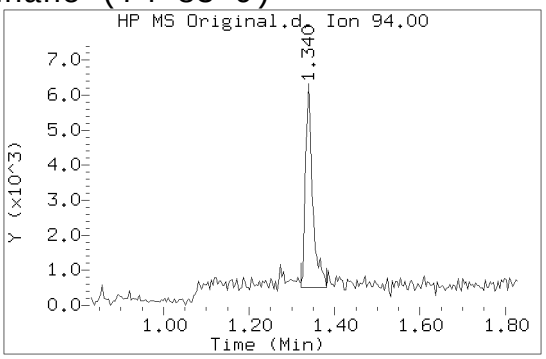

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Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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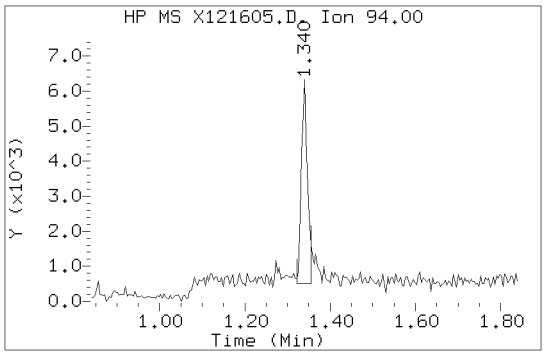
## Bromomethane (74-83-9)

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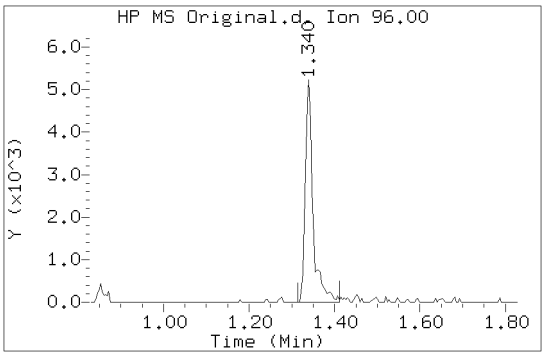



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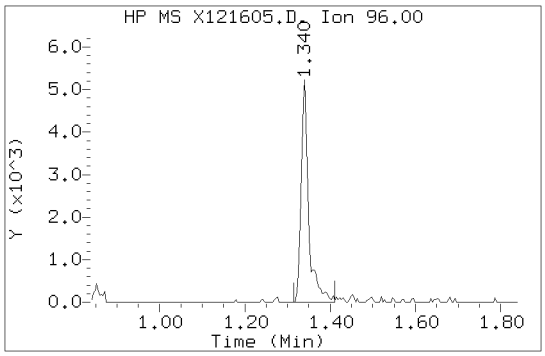
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BEFORE
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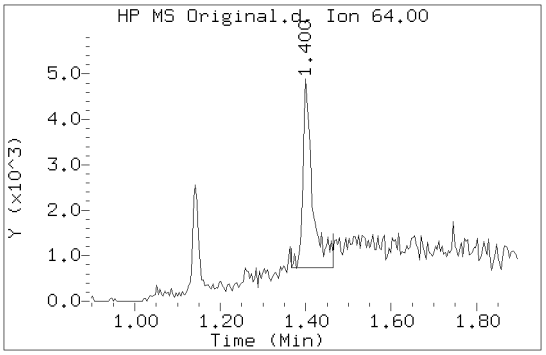

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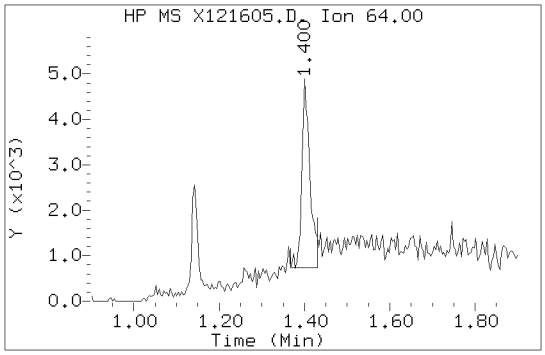

## Chloroethane (75-00-3)

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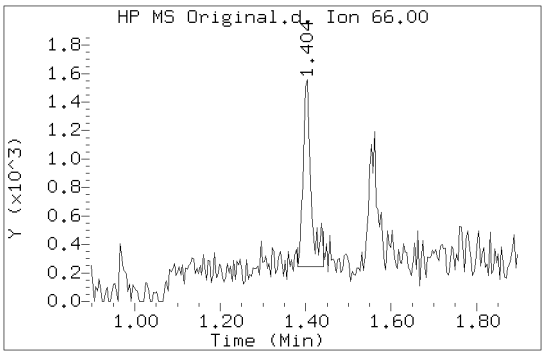
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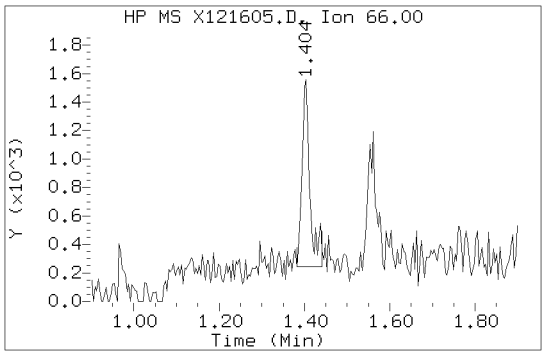

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BEFORE
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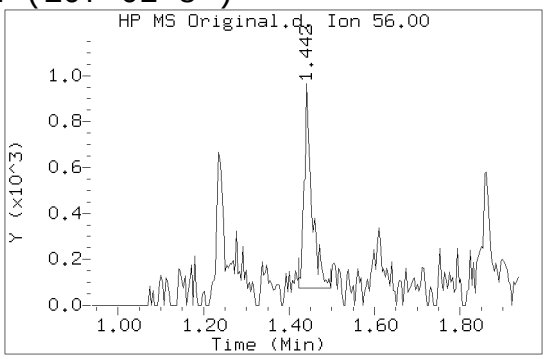
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LabSampID : VSTD002

## Acrolein (107-02-8 )

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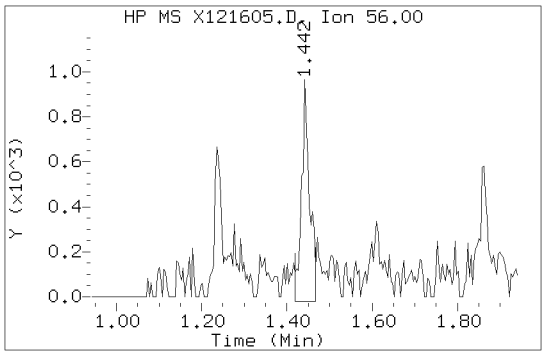
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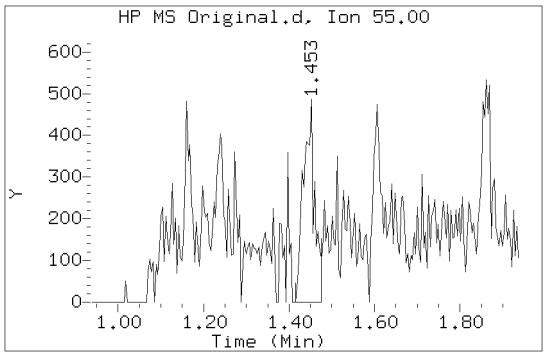

**AFTER**

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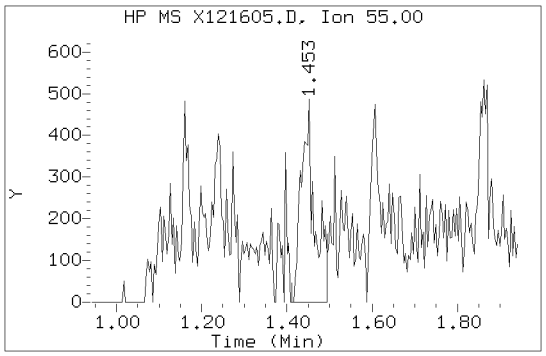

**BEFORE**

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**AFTER**

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27-Dec-2022
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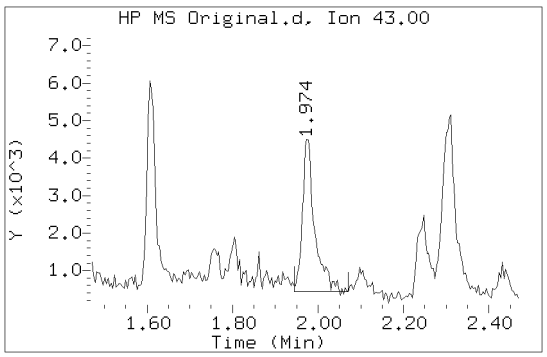



## Acetone (67-64-1)

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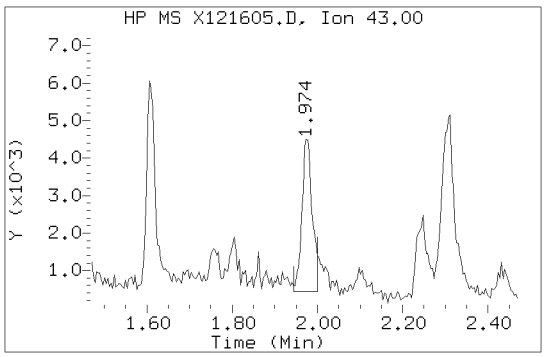
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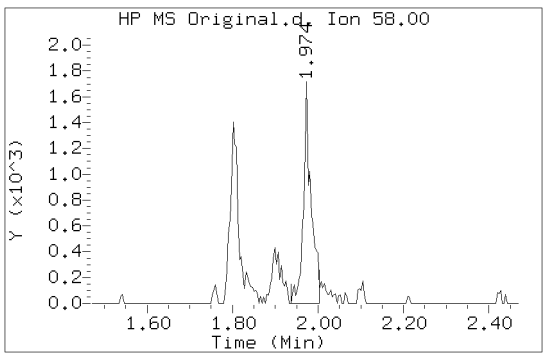

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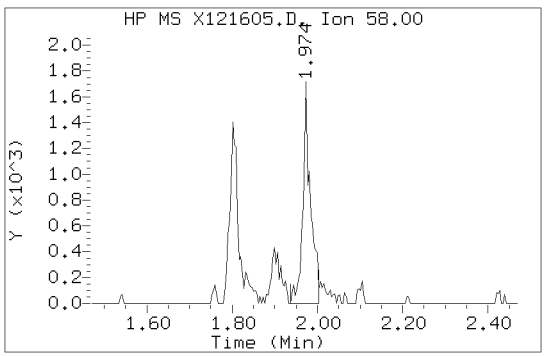

**BEFORE**

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27-Dec-2022
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**AFTER**

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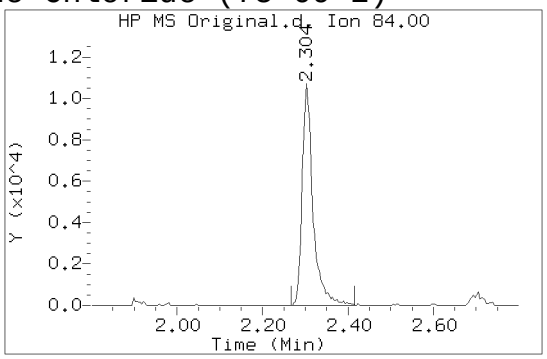


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LabSampID : VSTD002

## Methylene Chloride (75-09-2)

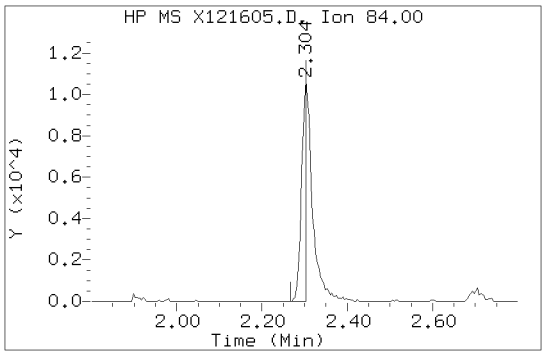
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pham




### AFTER

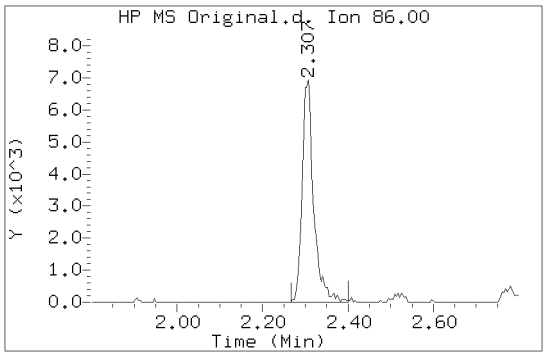
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pham




Reason Code:

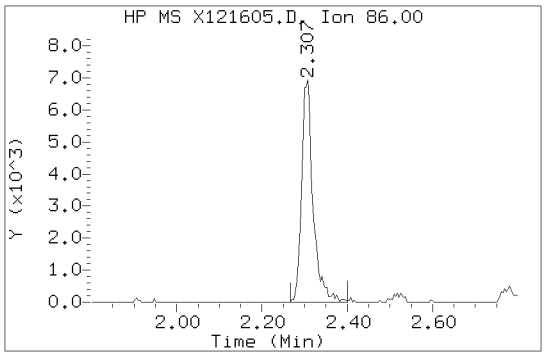
### BEFORE

MASS
86
AREA
13231
HEIGHT
6936
27-Dec-2022
16:03
linh
pham



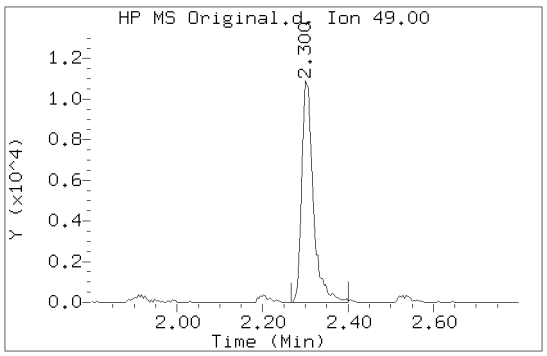

### AFTER

MASS
86
AREA
13231
HEIGHT
6936
27-Dec-2022
16:07
linh
pham



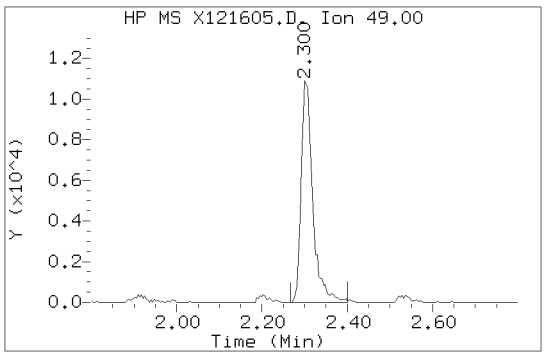

### BEFORE

MASS
49
AREA
21067
HEIGHT
10905
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
49
AREA
21067
HEIGHT
10905
27-Dec-2022
16:07
linh
pham

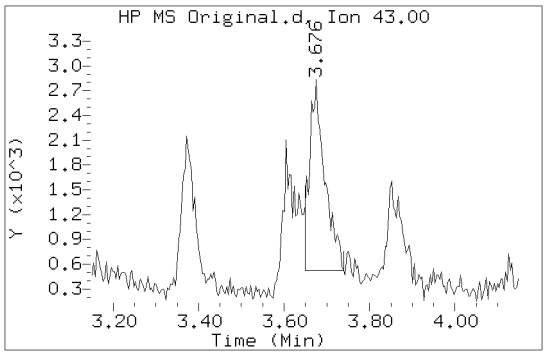



## 2-Butanone (78-93-3)

Reason Code:

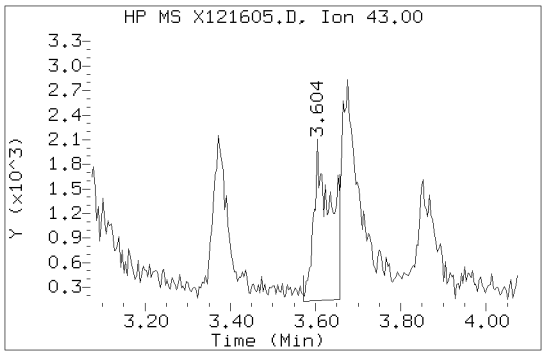
### BEFORE

MASS
43
AREA
5778
HEIGHT
2307
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
43
AREA
5418
HEIGHT
1969
27-Dec-2022
16:07
linh
pham



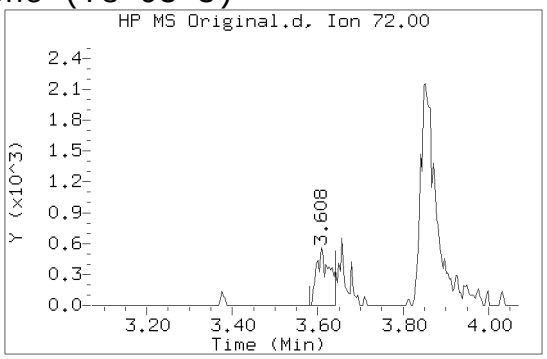
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 2-Butanone (78-93-3)

Reason Code:

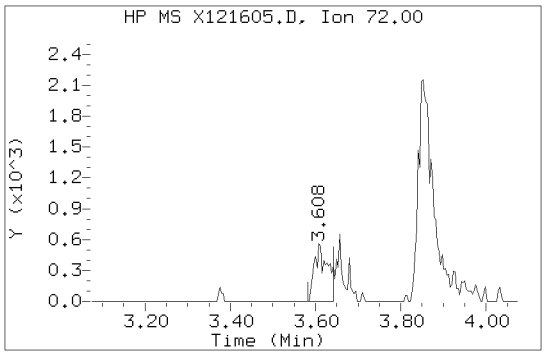
**BEFORE**

MASS
72
AREA
1209
HEIGHT
563
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
72
AREA
1209
HEIGHT
563
27-Dec-2022
16:07
linh
pham

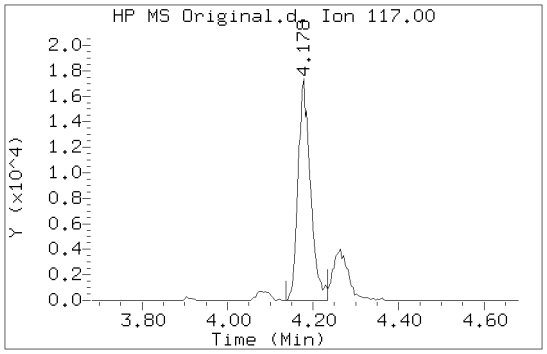



## Carbon Tetrachloride (56-23-5)

Reason Code:

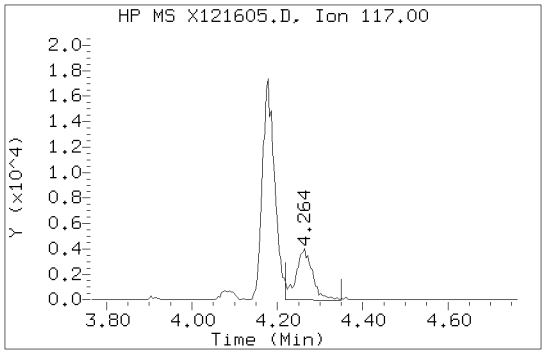
**BEFORE**

MASS
117
AREA
35555
HEIGHT
17376
27-Dec-2022
16:03
linh
pham



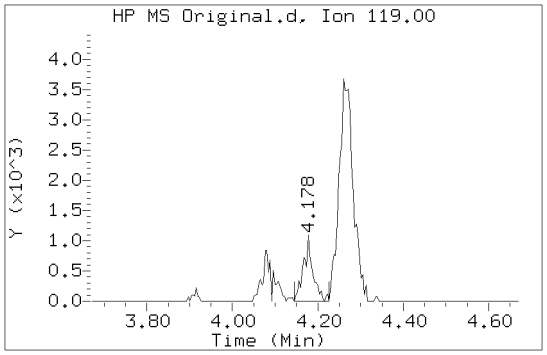

**AFTER**

MASS
117
AREA
11092
HEIGHT
4036
27-Dec-2022
16:07
linh
pham



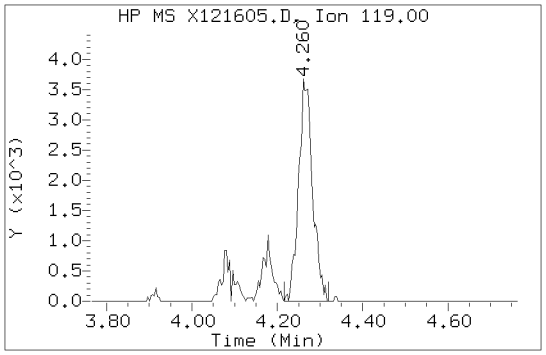

**BEFORE**

MASS
119
AREA
1692
HEIGHT
1100
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
119
AREA
8494
HEIGHT
3676
27-Dec-2022
16:07
linh
pham

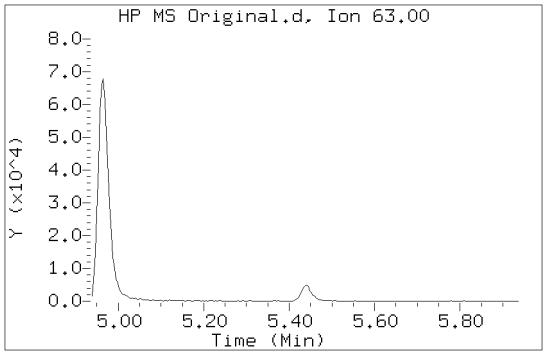



## 1,2-Dichloropropane (78-87-5)

Reason Code:

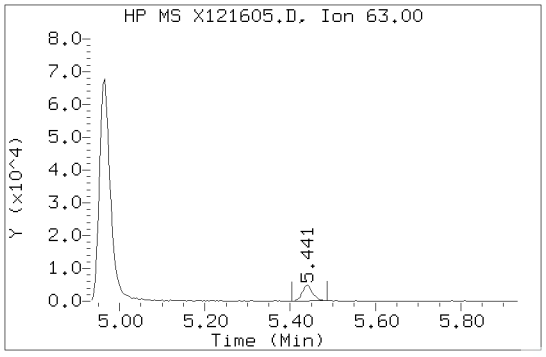
**BEFORE**

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
63
AREA
8129
HEIGHT
4705
27-Dec-2022
16:07
linh
pham



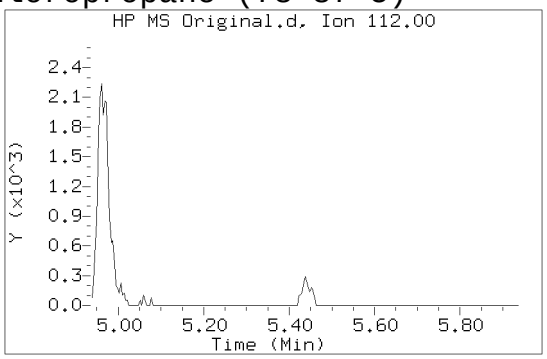
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 1,2-Dichloropropane (78-87-5)

Reason Code:

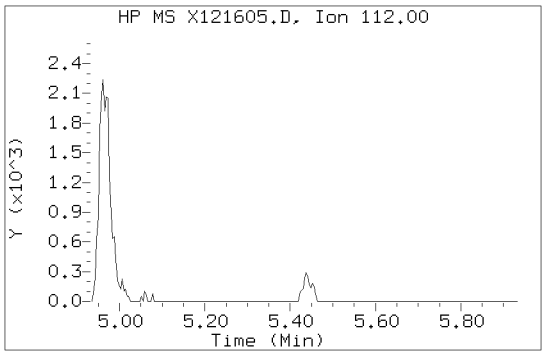
**BEFORE**

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

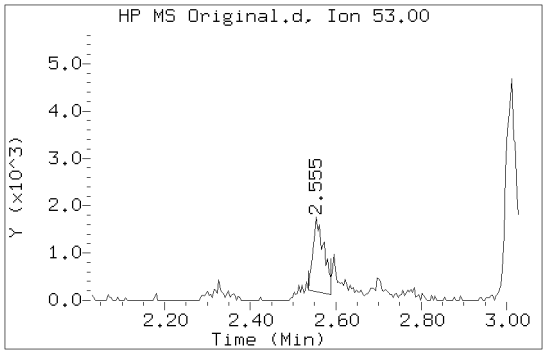



## Acrylonitrile (107-13-1)

Reason Code:

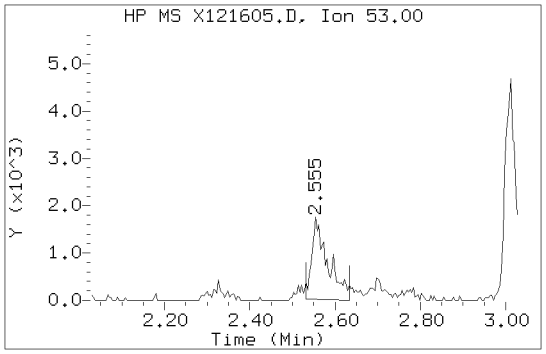
**BEFORE**

MASS
53
AREA
2810
HEIGHT
1577
27-Dec-2022
16:03
linh
pham



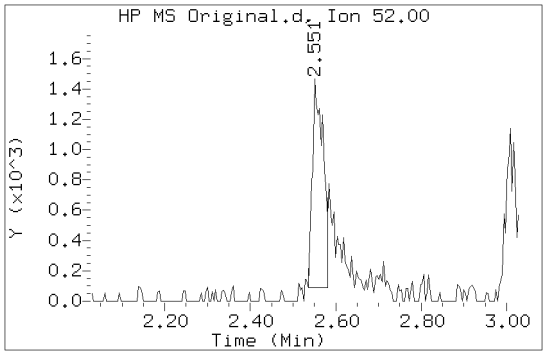

**AFTER**

MASS
53
AREA
4557
HEIGHT
1735
27-Dec-2022
16:07
linh
pham



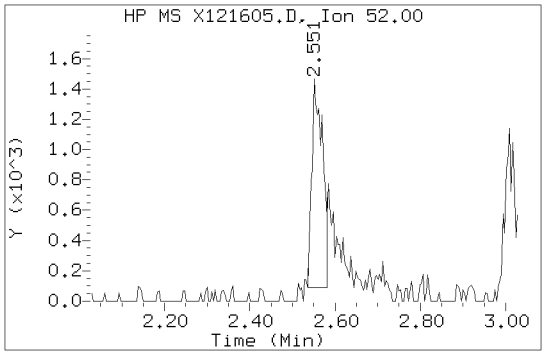

**BEFORE**

MASS
52
AREA
2408
HEIGHT
1379
27-Dec-2022
16:03
linh
pham



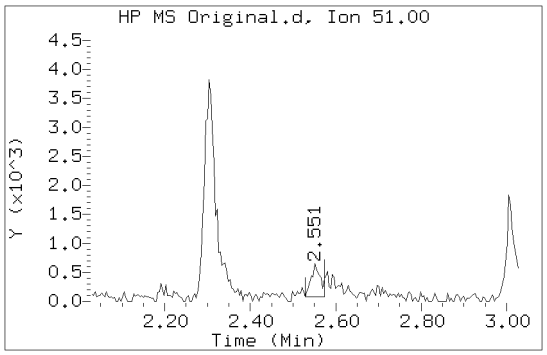

**AFTER**

MASS
52
AREA
2408
HEIGHT
1379
27-Dec-2022
16:07
linh
pham



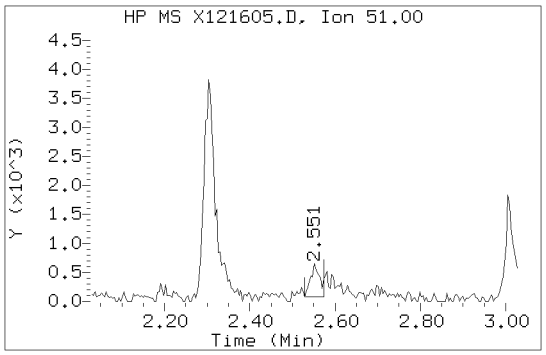

**BEFORE**

MASS
51
AREA
876
HEIGHT
575
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
51
AREA
876
HEIGHT
575
27-Dec-2022
16:07
linh
pham



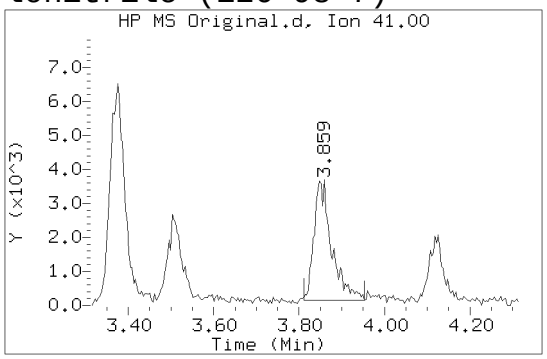
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## Methacrylonitrile (126-98-7)

Reason Code:

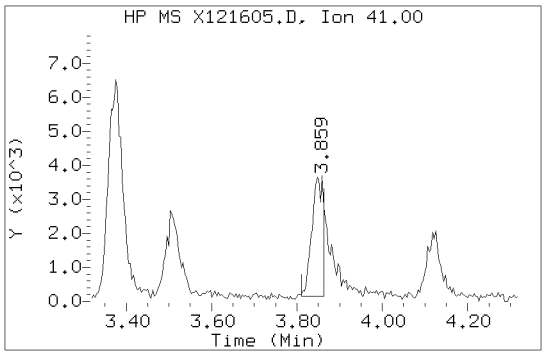
**BEFORE**

MASS
41
AREA
10013
HEIGHT
3544
27-Dec-2022
16:03
linh
pham



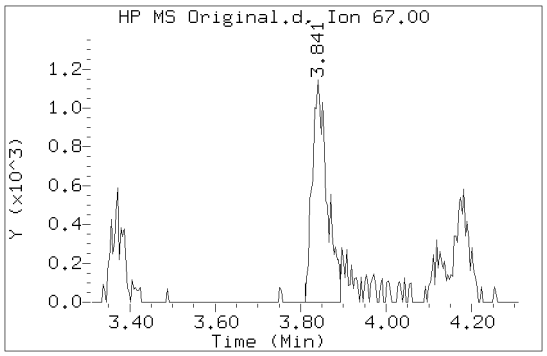

**AFTER**

MASS
41
AREA
6388
HEIGHT
3544
27-Dec-2022
16:07
linh
pham



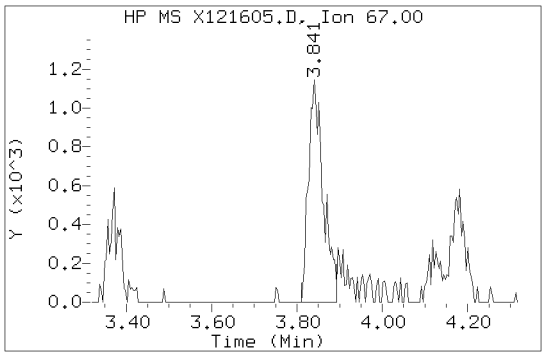

**BEFORE**

MASS
67
AREA
2751
HEIGHT
1145
27-Dec-2022
16:03
linh
pham



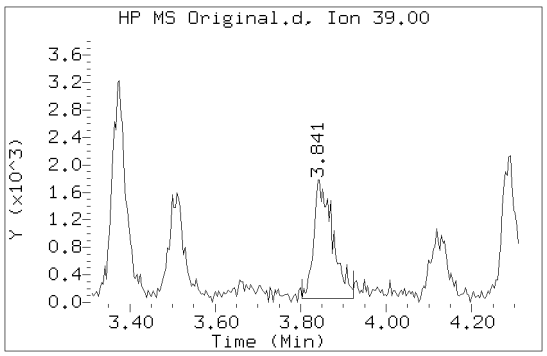

**AFTER**

MASS
67
AREA
2751
HEIGHT
1145
27-Dec-2022
16:07
linh
pham



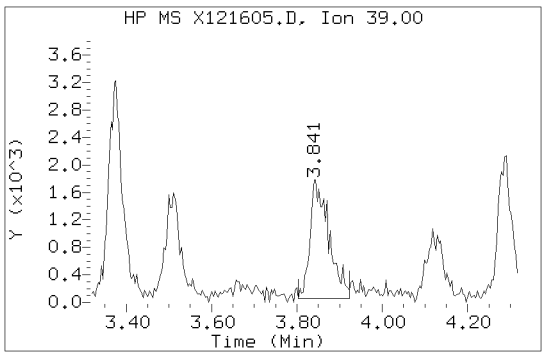

**BEFORE**

MASS
39
AREA
5310
HEIGHT
1724
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
39
AREA
5310
HEIGHT
1724
27-Dec-2022
16:07
linh
pham

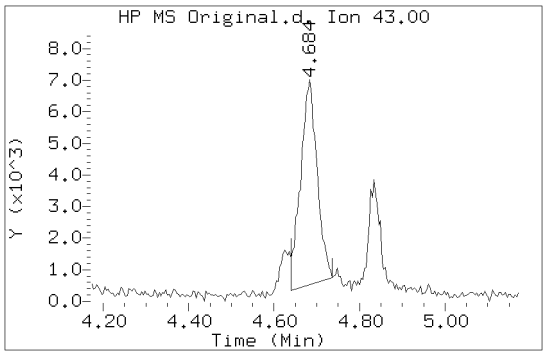



## Isobutyl Alcohol (78-83-1)

Reason Code:

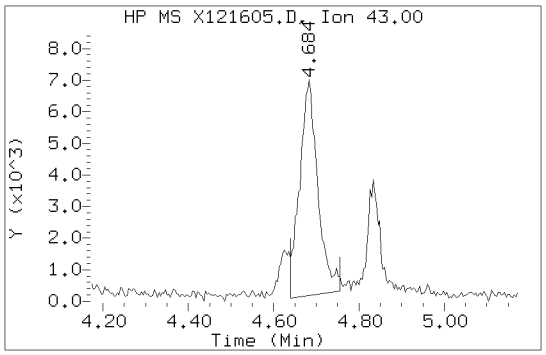
**BEFORE**

MASS
43
AREA
17811
HEIGHT
6479
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
43
AREA
20629
HEIGHT
6832
27-Dec-2022
16:07
linh
pham



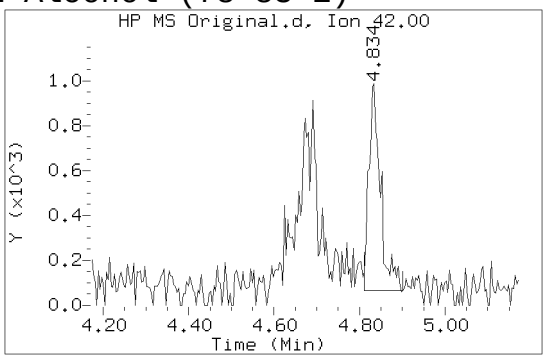
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## Isobutyl Alcohol (78-83-1)

Reason Code:

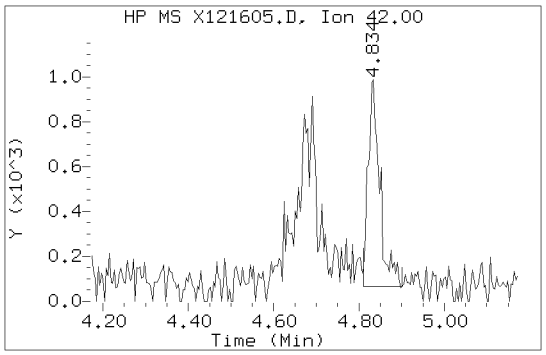
**BEFORE**

MASS
42
AREA
1728
HEIGHT
920
27-Dec-2022
16:03
linh
pham



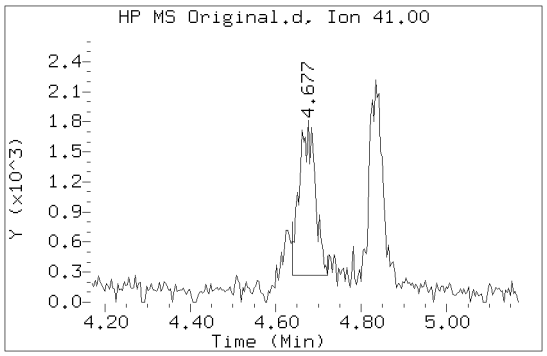

**AFTER**

MASS
42
AREA
1728
HEIGHT
920
27-Dec-2022
16:07
linh
pham



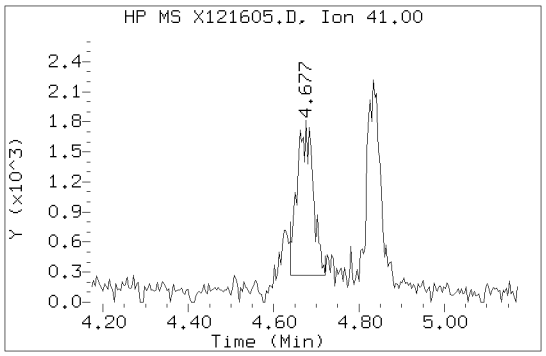

**BEFORE**

MASS
41
AREA
4067
HEIGHT
1547
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
4067
HEIGHT
1547
27-Dec-2022
16:07
linh
pham

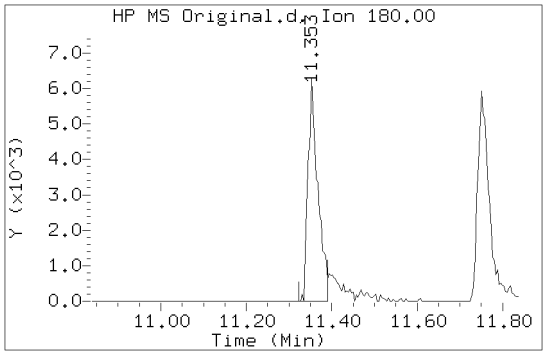



## 1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

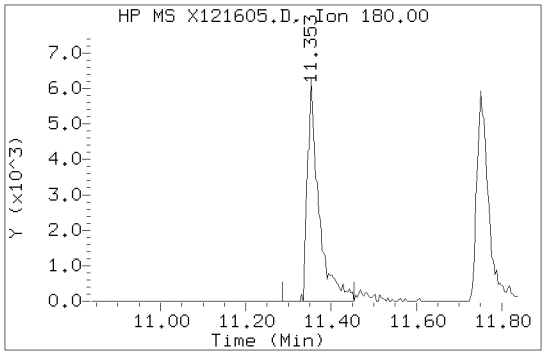
**BEFORE**

MASS
180
AREA
10131
HEIGHT
6269
27-Dec-2022
16:03
linh
pham



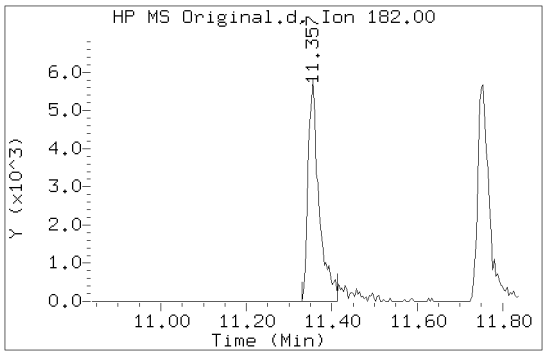

**AFTER**

MASS
180
AREA
11764
HEIGHT
6269
27-Dec-2022
16:07
linh
pham



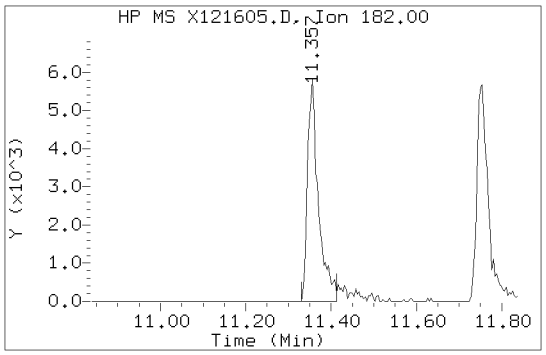

**BEFORE**

MASS
182
AREA
10317
HEIGHT
5807
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
182
AREA
10317
HEIGHT
5807
27-Dec-2022
16:07
linh
pham

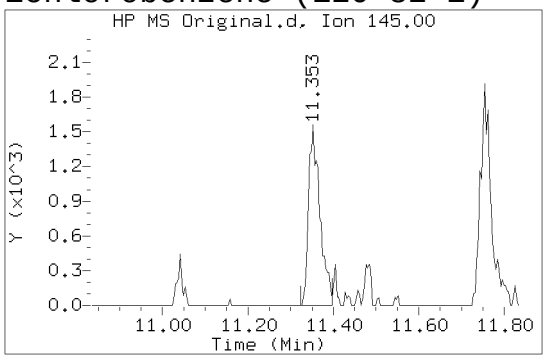


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 1,2,4-Trichlorobenzene (120-82-1)

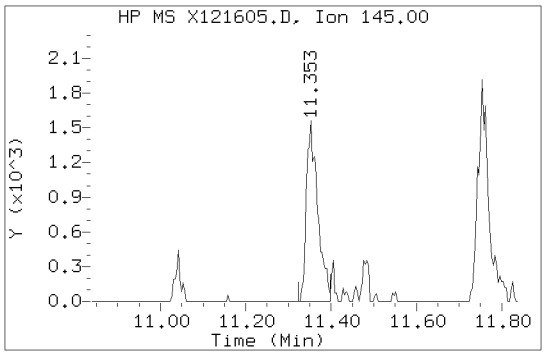
### BEFORE

MASS
145
AREA
2887
HEIGHT
1565
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
145
AREA
2887
HEIGHT
1565
27-Dec-2022
16:07
linh
pham

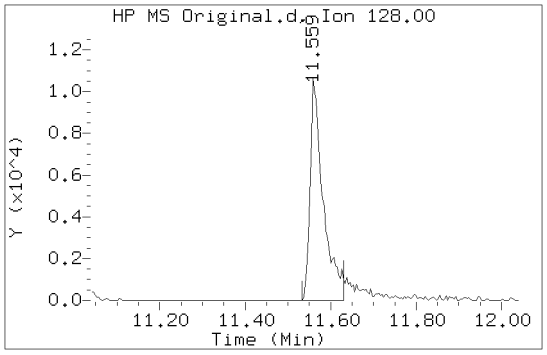



Reason Code:

## Naphthalene (91-20-3)

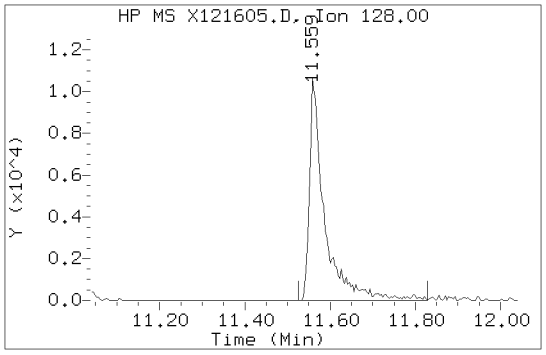
### BEFORE

MASS
128
AREA
22581
HEIGHT
10616
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
128
AREA
26250
HEIGHT
10616
27-Dec-2022
16:07
linh
pham

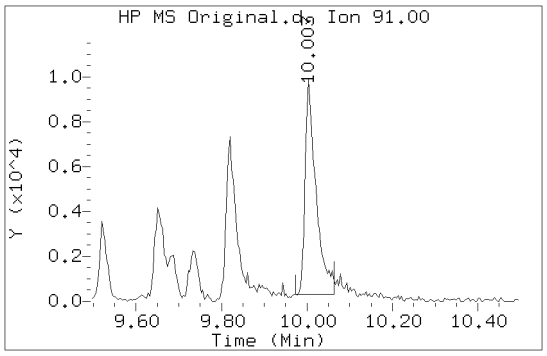



Reason Code:

## n-Butylbenzene (104-51-8)

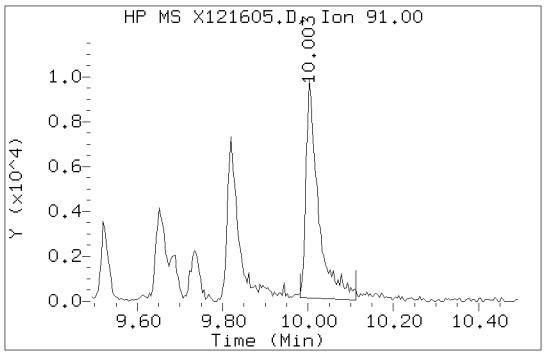
### BEFORE

MASS
91
AREA
17181
HEIGHT
9558
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
91
AREA
19853
HEIGHT
9720
27-Dec-2022
16:07
linh
pham



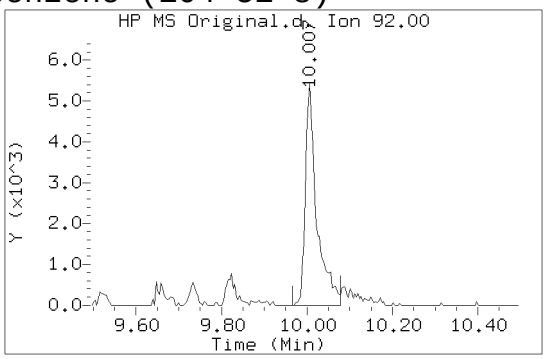

Reason Code:

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

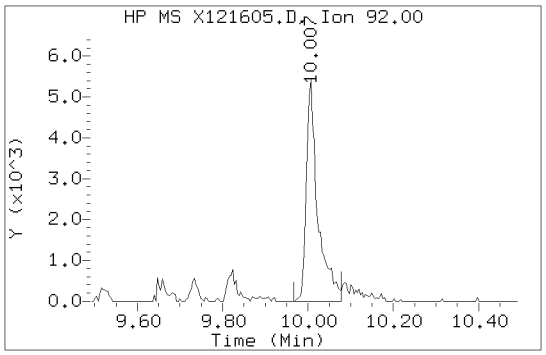
## n-Butylbenzene (104-51-8)

Reason Code:

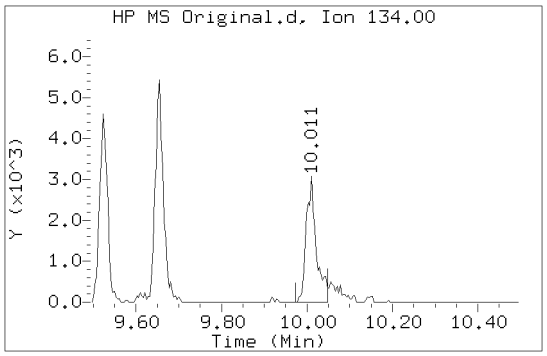
BEFORE
MASS
92
AREA
10185
HEIGHT
5422
27-Dec-2022
16:03
linh
pham



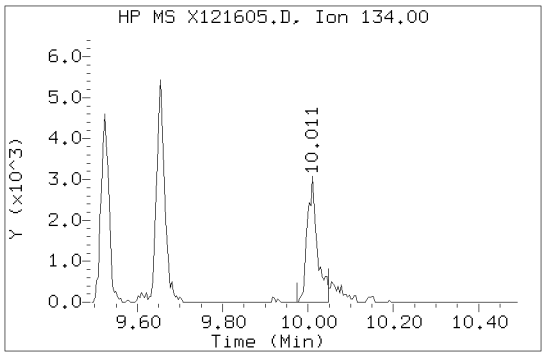

AFTER
MASS
92
AREA
10185
HEIGHT
5422
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
134
AREA
5059
HEIGHT
3076
27-Dec-2022
16:03
linh
pham



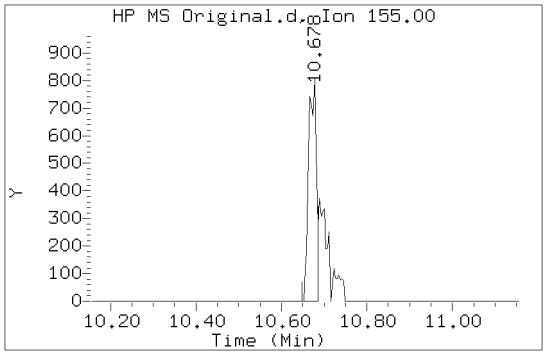

AFTER
MASS
134
AREA
5059
HEIGHT
3076
27-Dec-2022
16:07
linh
pham



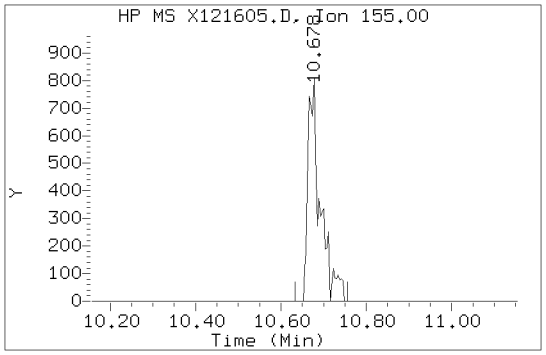

## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

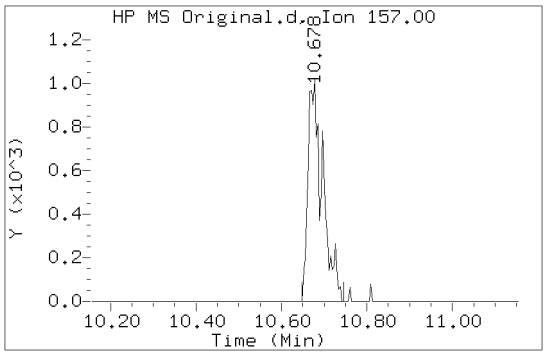
BEFORE
MASS
155
AREA
1026
HEIGHT
806
27-Dec-2022
16:03
linh
pham



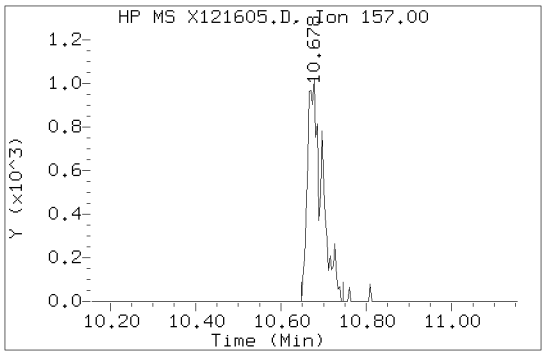

AFTER
MASS
155
AREA
1619
HEIGHT
806
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
157
AREA
2422
HEIGHT
1016
27-Dec-2022
16:03
linh
pham




AFTER
MASS
157
AREA
2422
HEIGHT
1016
27-Dec-2022
16:07
linh
pham



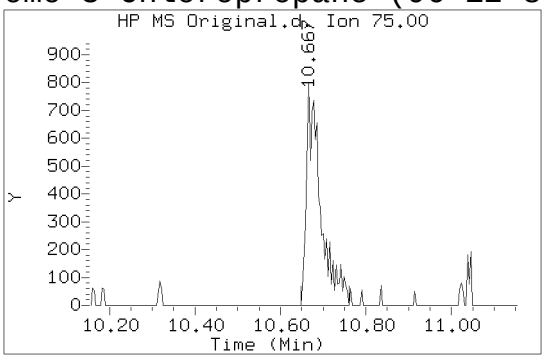
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

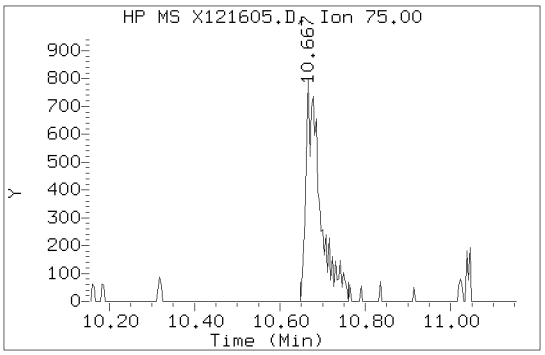
**BEFORE**

MASS
75
AREA
1843
HEIGHT
796
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
1843
HEIGHT
796
27-Dec-2022
16:07
linh
pham

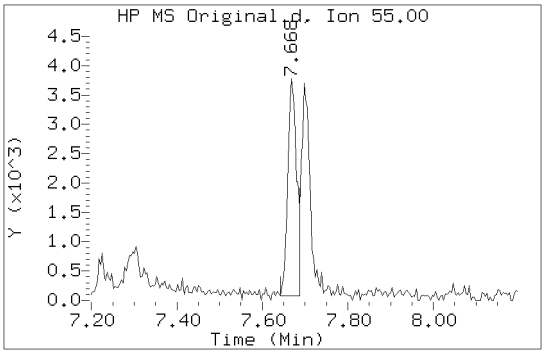



## 1-Chlorohexane (544-10-5)

Reason Code:

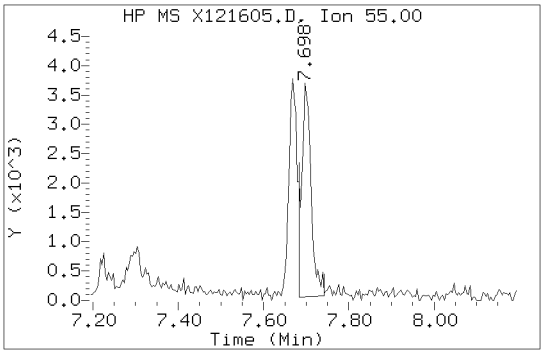
**BEFORE**

MASS
55
AREA
5357
HEIGHT
3703
27-Dec-2022
16:03
linh
pham



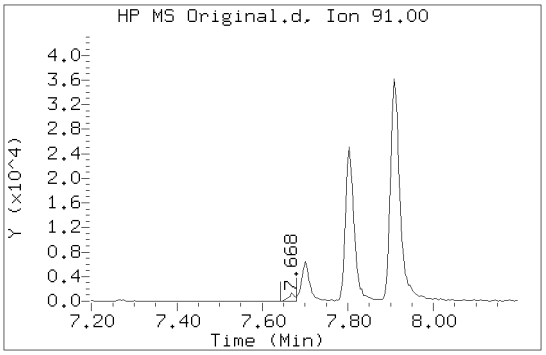

**AFTER**

MASS
55
AREA
5855
HEIGHT
3647
27-Dec-2022
16:07
linh
pham



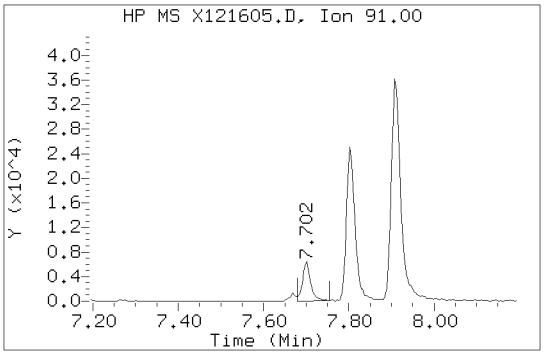

**BEFORE**

MASS
91
AREA
1356
HEIGHT
1324
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
91
AREA
8682
HEIGHT
6440
27-Dec-2022
16:07
linh
pham

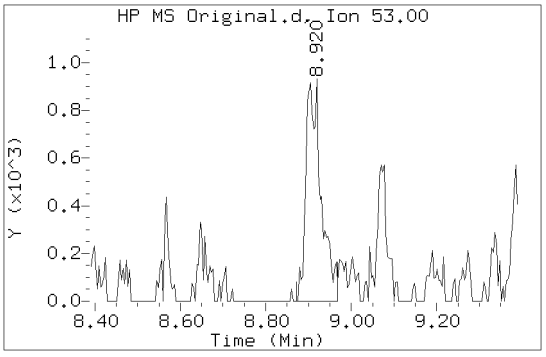



## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

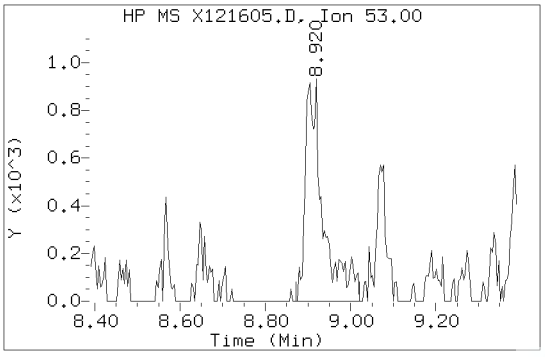
**BEFORE**

MASS
53
AREA
2313
HEIGHT
932
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
53
AREA
2690
HEIGHT
932
27-Dec-2022
16:07
linh
pham



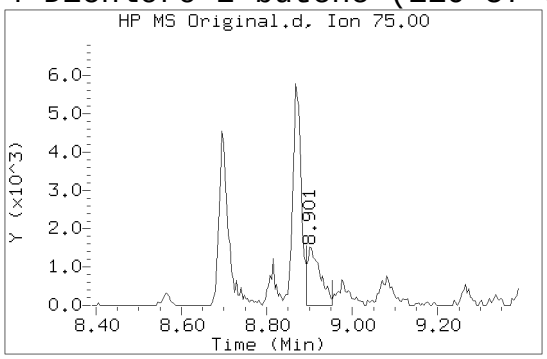
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

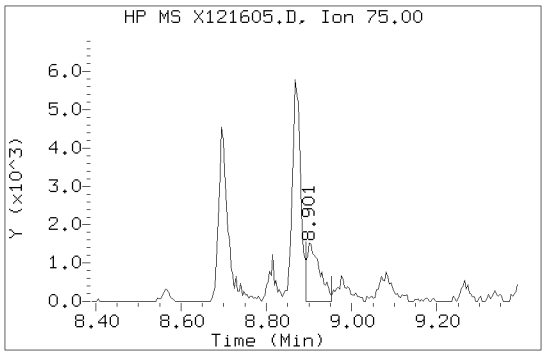
**BEFORE**

MASS
75
AREA
3228
HEIGHT
1526
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
3228
HEIGHT
1526
27-Dec-2022
16:07
linh
pham

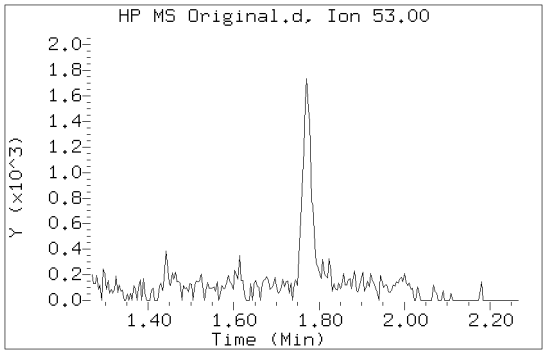



## Chloroprene (126-99-8)

Reason Code:

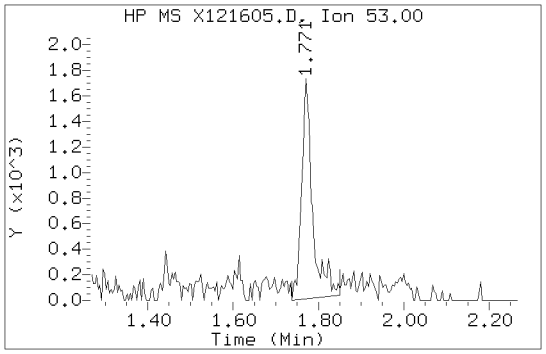
**BEFORE**

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



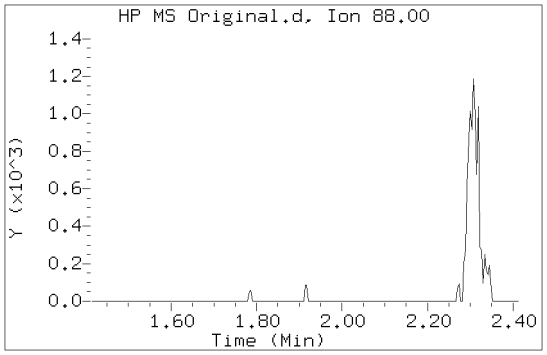

**AFTER**

MASS
53
AREA
3126
HEIGHT
1722
27-Dec-2022
16:07
linh
pham



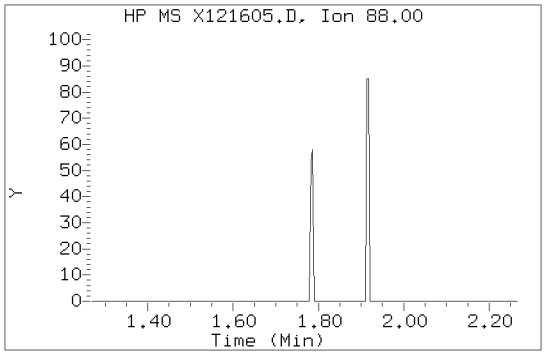

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

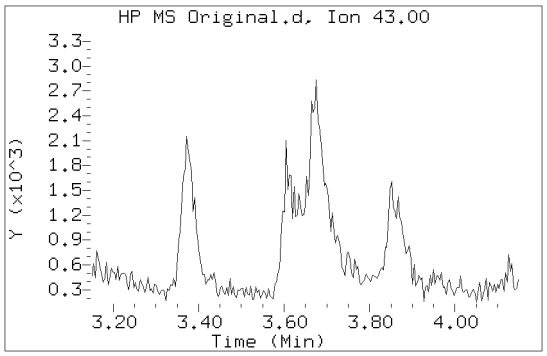



## Ethyl Acetate (141-78-6)

Reason Code:

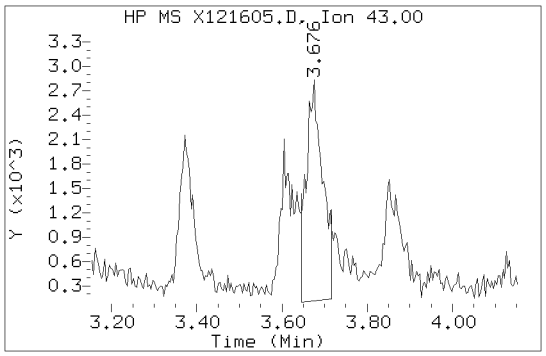
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

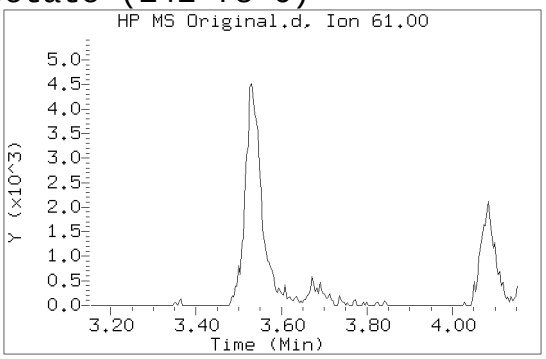
MASS
43
AREA
7422
HEIGHT
2716
27-Dec-2022
16:07
linh
pham



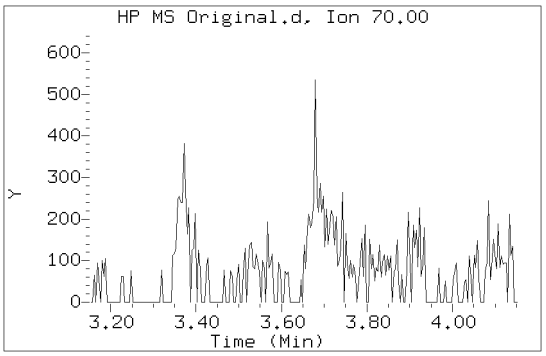
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## Ethyl Acetate (141-78-6)

**BEFORE**
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

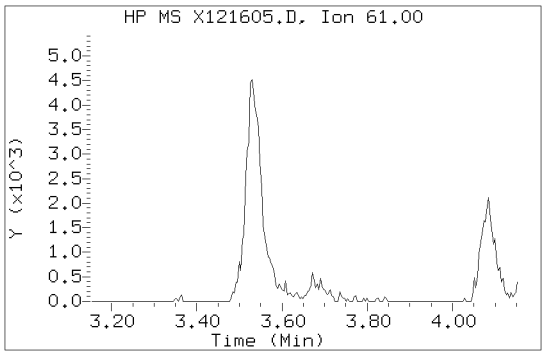



**BEFORE**
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

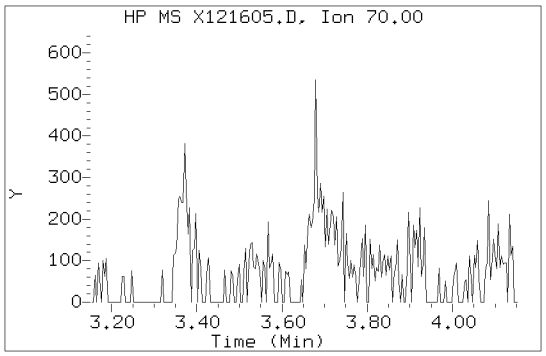



Reason Code:

**AFTER**
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

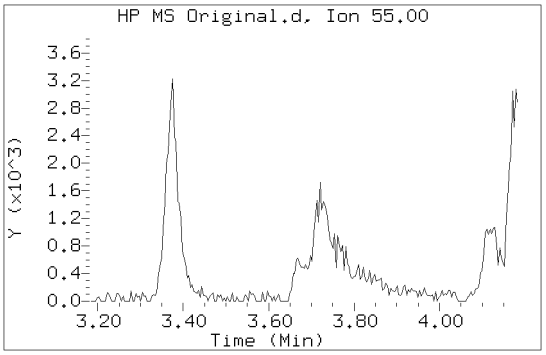



**AFTER**
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

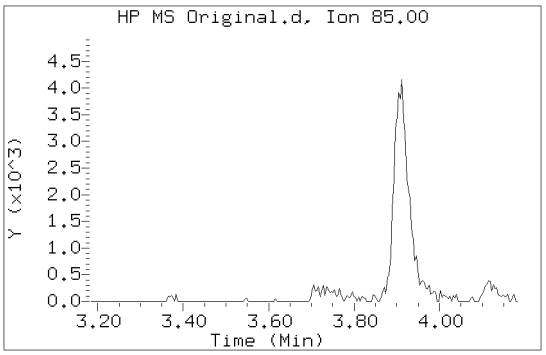



## Methyl Acrylate (96-33-3)

**BEFORE**
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

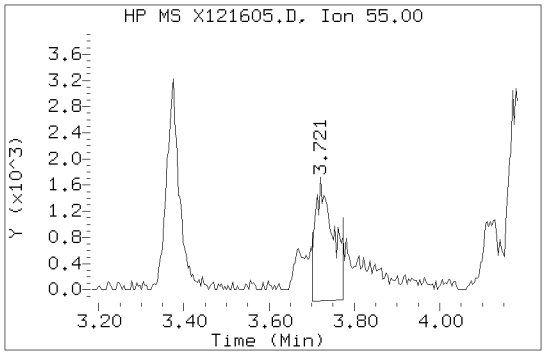



**BEFORE**
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

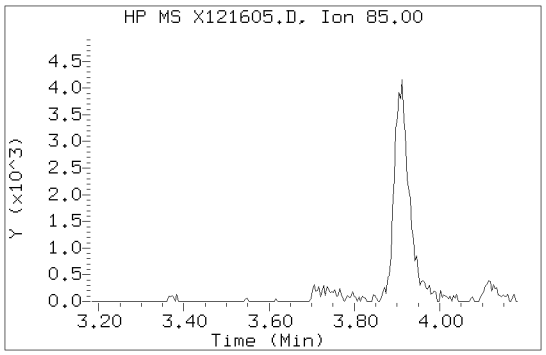



Reason Code:

**AFTER**
MASS
55
AREA
5443
HEIGHT
1892
27-Dec-2022
16:07
linh
pham




**AFTER**
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



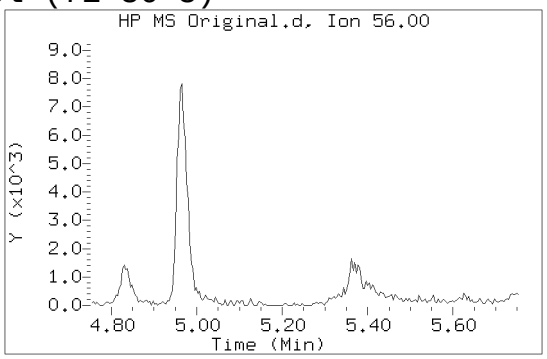
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## n-Butanol (71-36-3)

Reason Code:

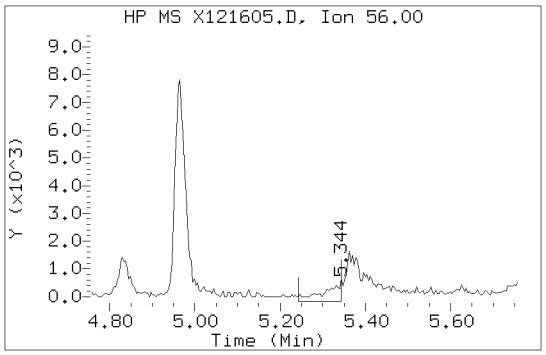
**BEFORE**

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



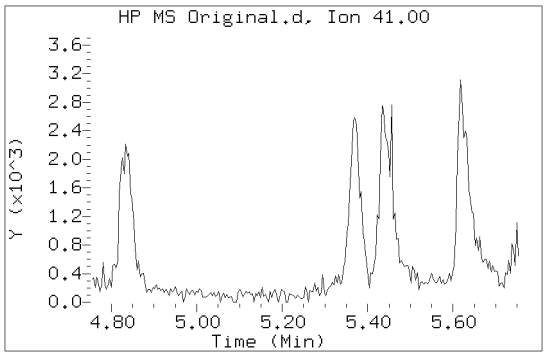

**AFTER**

MASS
56
AREA
2004
HEIGHT
808
27-Dec-2022
16:07
linh
pham



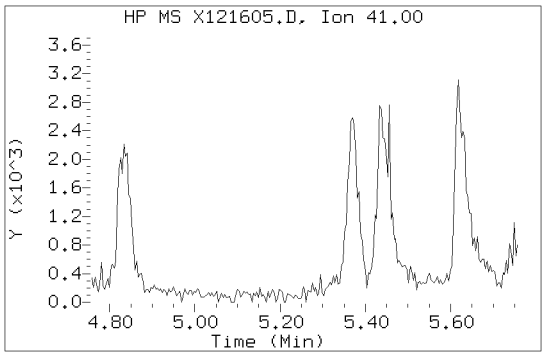

**BEFORE**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

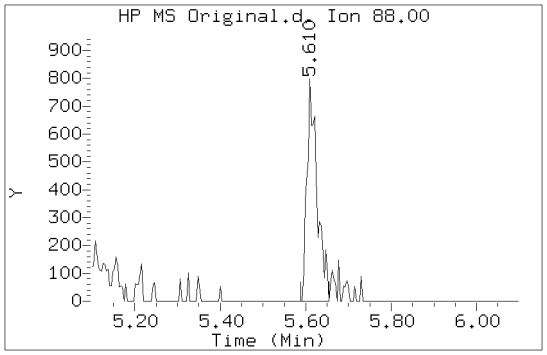



## 1,4-Dioxane ()

Reason Code:

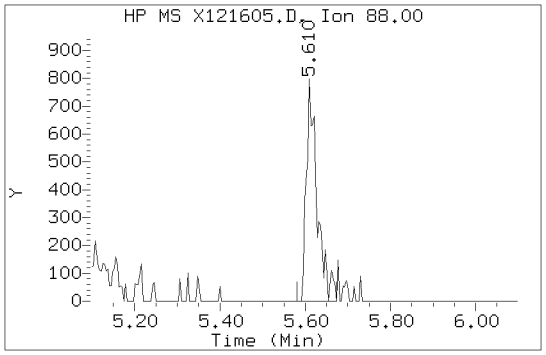
**BEFORE**

MASS
88
AREA
1335
HEIGHT
798
27-Dec-2022
16:03
linh
pham



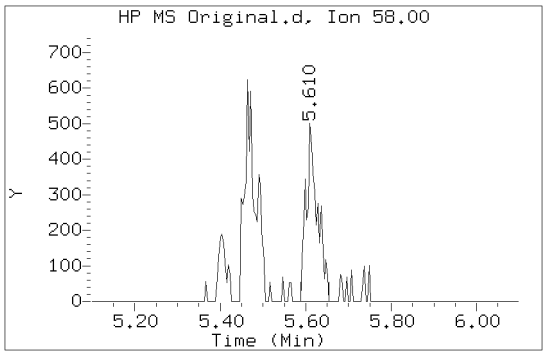

**AFTER**

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pham



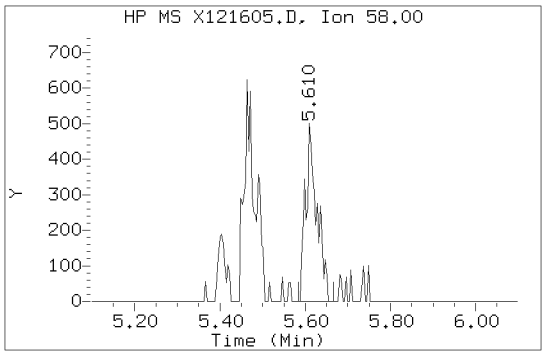

**BEFORE**

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501
27-Dec-2022
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linh
pham




**AFTER**

MASS
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AREA
934
HEIGHT
501
27-Dec-2022
16:07
linh
pham

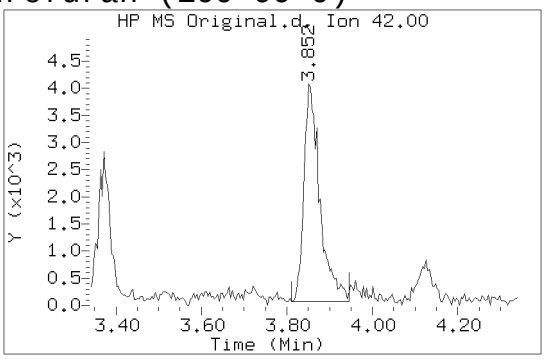


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Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

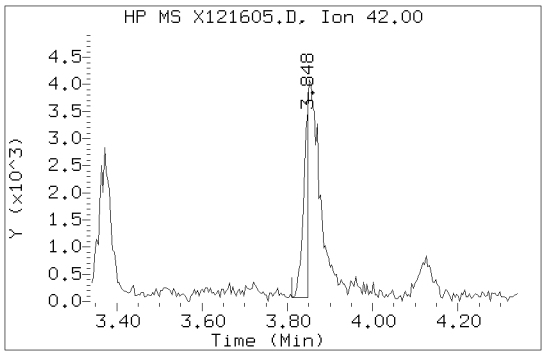
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Reason Code:

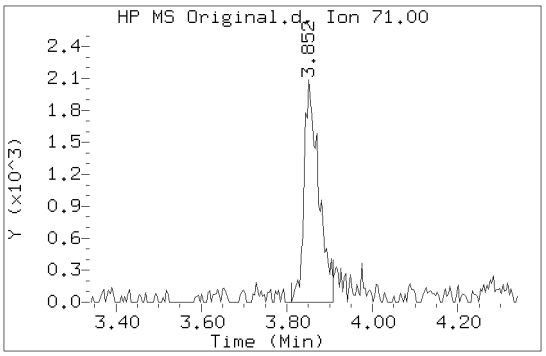
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AREA
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4012
27-Dec-2022
16:03
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pham



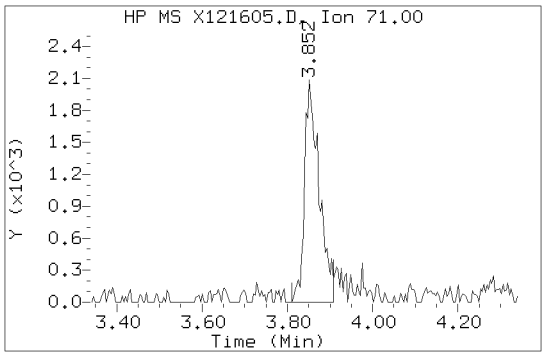

AFTER
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42
AREA
2867
HEIGHT
3419
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
71
AREA
5020
HEIGHT
2086
27-Dec-2022
16:03
linh
pham



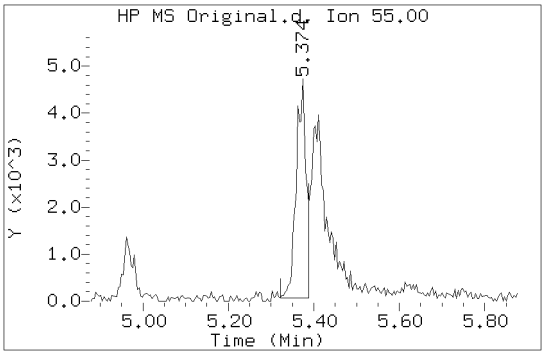

AFTER
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AREA
5020
HEIGHT
2086
27-Dec-2022
16:07
linh
pham



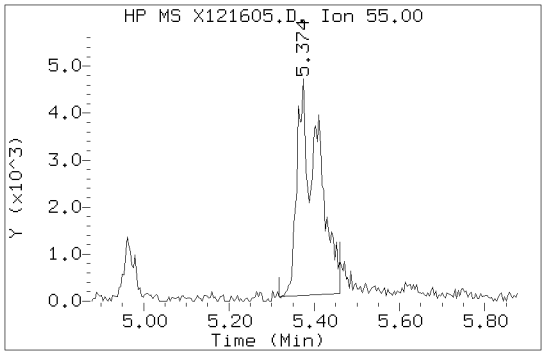

## Methylcyclohexane (108-87-2)

Reason Code:

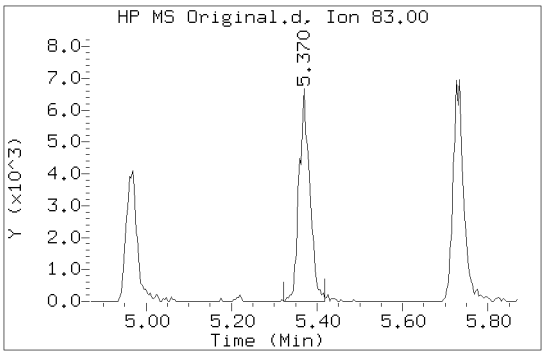
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27-Dec-2022
16:03
linh
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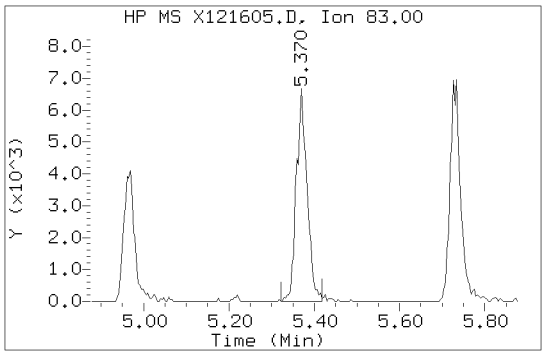

AFTER
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HEIGHT
4611
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16:07
linh
pham




BEFORE
MASS
83
AREA
11881
HEIGHT
6672
27-Dec-2022
16:03
linh
pham




AFTER
MASS
83
AREA
11881
HEIGHT
6672
27-Dec-2022
16:07
linh
pham



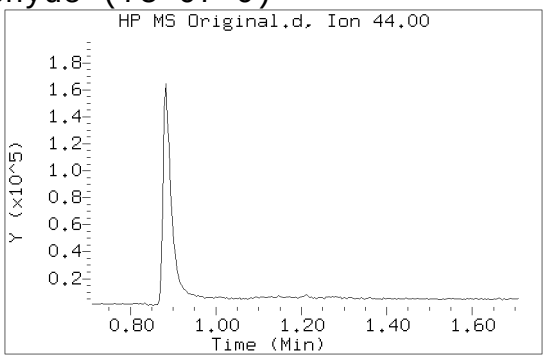
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## Acetaldehyde (75-07-0)

Reason Code:

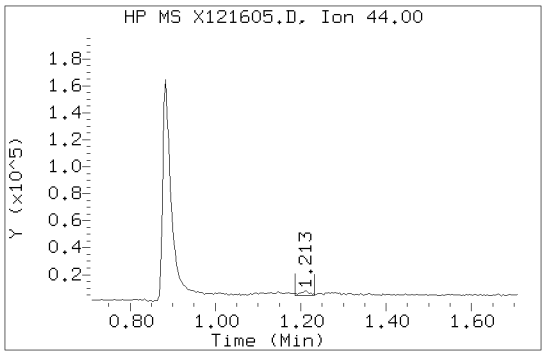
**BEFORE**

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AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



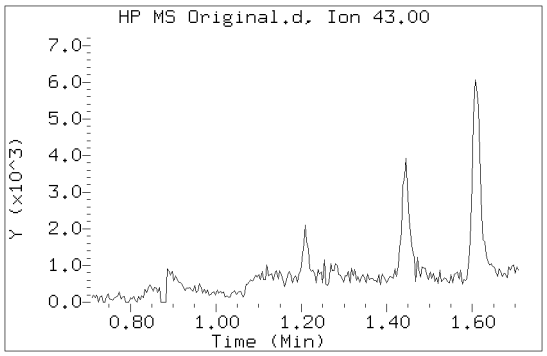

**AFTER**

MASS
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AREA
5661
HEIGHT
3463
27-Dec-2022
16:07
linh
pham



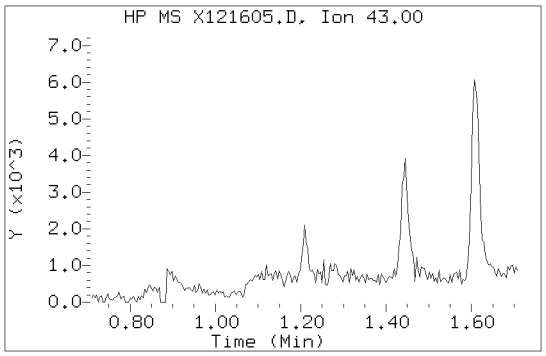

**BEFORE**

MASS
43
AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham



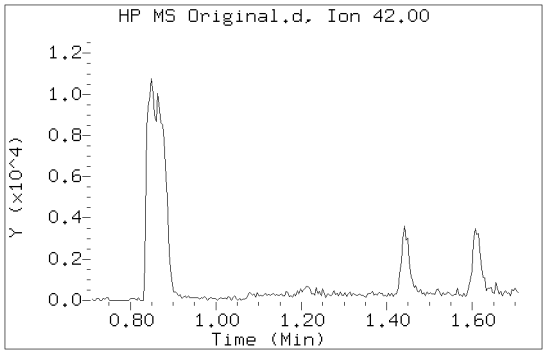

**AFTER**

MASS
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HEIGHT
0
27-Dec-2022
16:07
linh
pham



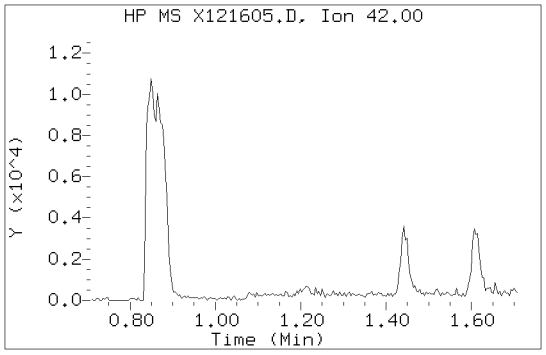

**BEFORE**

MASS
42
AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Lab Smp Id: VSTD005  Client Smp ID: VSTD005
Inj Date  : 16-DEC-2022 13:23
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD005;VSTD005;1;5;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 13:02  Cal File: X121605.D
Als bottle: 7  Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 450664 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.602 | 5.602 | (1.341) | 4197 | 100.000 | 101.88(M) |
| 140 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 14283 | 5.00000 | 4.61 |
| 25 Methacrylonitrile | 41 | 3.840 | 3.840 | (0.919) | 15701 | 5.00000 | 4.92(M) |
| 12 Isobutyl Alcohol | 43 | 4.680 | 4.680 | (1.120) | 51624 | 100.000 | 101.84 |
| 13 Acetonitrile | 39 | 2.198 | 2.198 | (0.526) | 19635 | 50.0000 | 47.87 |
| 14 Allyl Chloride | 41 | 2.198 | 2.198 | (0.526) | 37993 | 5.00000 | 4.86 |
| 4 Propionitrile | 54 | 3.660 | 3.660 | (0.876) | 23049 | 50.0000 | 50.12 |
| 136 n-Hexane | 57 | 2.772 | 2.772 | (0.664) | 14618 | 5.00000 | 4.50 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.901 | 8.901 | (1.161) | 6648 | 5.00000 | 4.70(M) |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 6161 | 20.0000 | 0.80(M) |
| 23 Chloroprene | 53 | 1.771 | 1.771 | (0.424) | 7154 | 5.00000 | 4.66(M) |
| 145 alpha-Methylstyrene | 118 | 9.261 | 9.261 | (0.958) | 37831 | 5.00000 | 4.79 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 40144 | 5.00000 | 4.53 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 15119 | 5.00000 | 5.02 |
| 130 Ethyl Acetate | 43 | 3.660 | 3.660 | (0.876) | 18020 | 5.00000 | 5.12(M) |
| 40 Methyl Methacrylate | 41 | 5.617 | 5.617 | (1.345) | 15119 | 5.00000 | 4.92 |
| 49 Ethyl Methacrylate | 69 | 6.715 | 6.715 | (1.353) | 13801 | 5.00000 | 4.27 |
| 132 n-Butanol | 56 | 5.287 | 5.287 | (1.266) | 4891 | 100.000 | 125.41(M) |
| 142 Tetrahydrofuran | 42 | 3.848 | 3.848 | (0.921) | 7598 | 10.0000 | 10.82(M) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.772 | 2.772 (0.664) | 14618 | 100.000 | 83.50 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 80329 | 5.00000 | 4.68 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D Page 2
Report Date: 27-Dec-2022 16:07

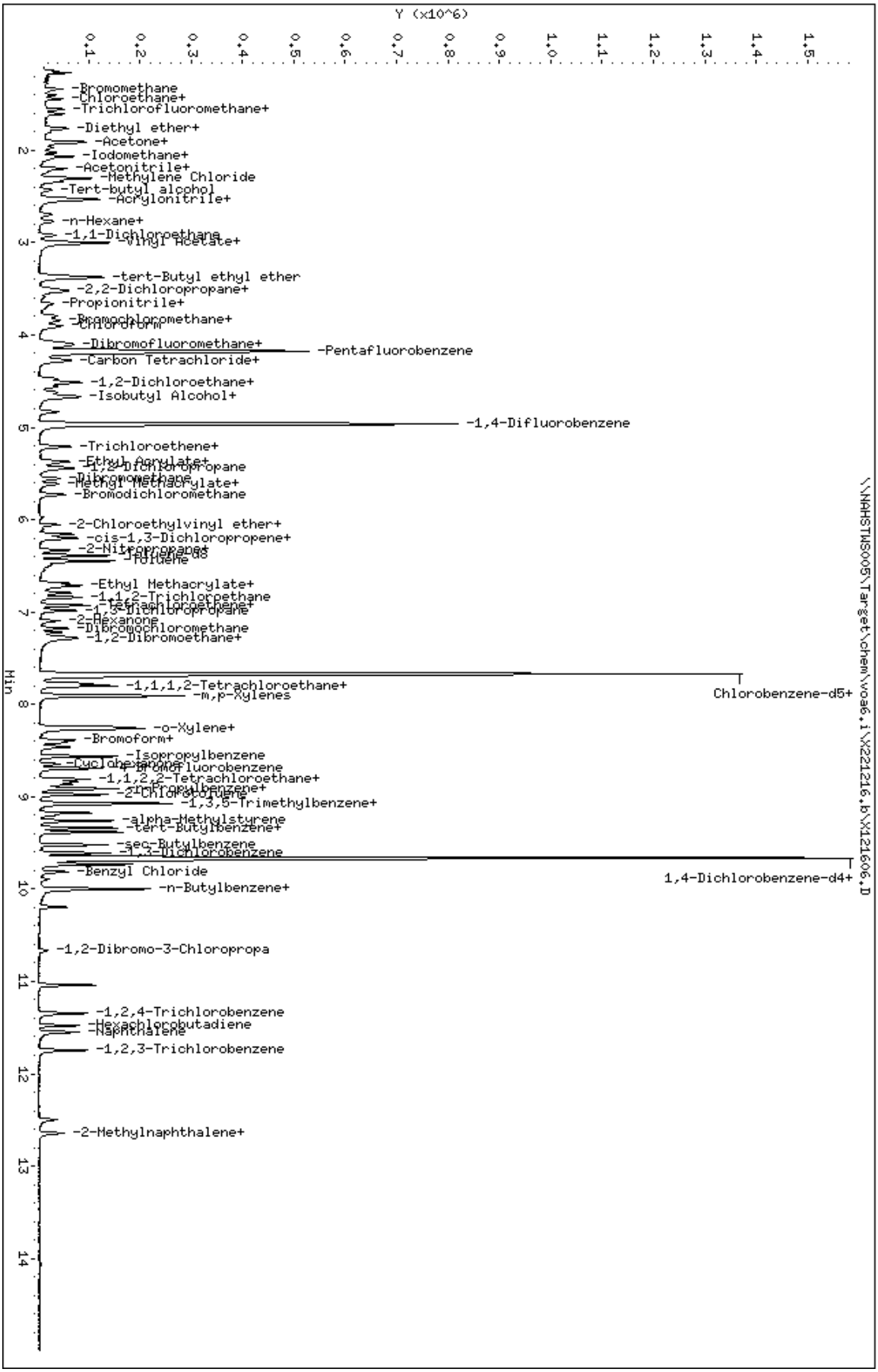
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | CAL-AMT | ON-COL |
| | Compounds | | MASS | RT | EXP RT | REL RT | RESPONSE | ( ug/l) | ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.705 | 3.705 | (0.887) | 14950 | 5.00000 | 4.88(M) |
| | 162 | Butyl acrylate | 55 | 8.260 | 8.260 | (1.077) | 38320 | 5.00000 | 4.48 |
| | 2 | Dichlorodifluoromethane | 85 | 0.972 | 0.972 | (0.233) | 15008 | 5.00000 | 5.11 |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 19623 | 5.00000 | 6.81 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 19002 | 5.00000 | 4.82 |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 15112 | 5.00000 | 6.66 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 14167 | 5.00000 | 5.17 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 26620 | 5.00000 | 4.83 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 2699 | 10.0000 | 11.33 |
| | 10 | Acetone | 43 | 1.973 | 1.973 | (0.472) | 17632 | 10.0000 | 13.91 |
| | 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 16850 | 5.00000 | 4.92 |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 26708 | 10.0000 | 9.27 |
| | 16 | Acrylonitrile | 53 | 2.551 | 2.551 | (0.611) | 11047 | 10.0000 | 9.52 |
| | 17 | Methylene Chloride | 84 | 2.303 | 2.303 | (0.551) | 22932 | 5.00000 | 4.88(M) |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 56330 | 5.00000 | 5.03 |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 85418 | 10.0000 | 9.54 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.532 | 2.532 | (0.606) | 19006 | 5.00000 | 4.96 |
| | 21 | Vinyl Acetate | 43 | 3.000 | 3.000 | (0.718) | 101238 | 10.0000 | 10.30 |
| | 22 | 1,1-Dichloroethane | 63 | 2.922 | 2.922 | (0.699) | 33810 | 5.00000 | 5.03 |
| | 24 | 2-Butanone | 43 | 3.600 | 3.600 | (0.862) | 11771 | 10.0000 | 11.53(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 27881 | 5.00000 | 4.88 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.533 | 3.533 | (0.846) | 22734 | 5.00000 | 4.88 |
| | 28 | Chloroform | 83 | 3.904 | 3.904 | (0.935) | 38156 | 5.00000 | 5.06 |
| | 29 | Bromochloromethane | 128 | 3.799 | 3.799 | (0.909) | 13213 | 5.00000 | 5.18 |
| $ | 30 | Dibromofluoromethane | 113 | 4.103 | 4.103 | (0.982) | 24255 | 5.00000 | 5.45 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 29017 | 5.00000 | 4.85 |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 23845 | 5.00000 | 4.90(M) |
| | 33 | 1,2-Dichloroethane | 62 | 4.556 | 4.556 | (0.918) | 28173 | 5.00000 | 5.01 |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 24171 | 5.00000 | 4.65 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.477 | 4.477 | (1.072) | 24938 | 5.00000 | 5.70(M) |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 685413 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.511 | (0.909) | 81981 | 5.00000 | 5.00 |
| | 38 | Trichloroethene | 130 | 5.208 | 5.208 | (1.049) | 22693 | 5.00000 | 4.88 |
| | 39 | Bromodichloromethane | 83 | 5.729 | 5.729 | (1.154) | 29358 | 5.00000 | 4.77 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.056 | 6.056 | (1.220) | 17700 | 10.0000 | 10.12 |
| | 42 | 1,2-Dichloropropane | 63 | 5.437 | 5.437 | (1.095) | 21679 | 5.00000 | 4.97 |
| | 44 | Dibromomethane | 93 | 5.557 | 5.557 | (1.119) | 14449 | 5.00000 | 4.88 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.329 | 6.329 | (0.825) | 34912 | 10.0000 | 9.98 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.161 | 6.161 | (1.241) | 35507 | 5.00000 | 4.92 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 654176 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.389 | 6.389 | (0.833) | 81640 | 5.00000 | 5.05 |
| | 50 | Toluene | 91 | 6.449 | 6.449 | (0.841) | 89594 | 5.00000 | 4.95 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.689 | 6.689 | (1.347) | 28399 | 5.00000 | 4.74(M) |
| | 52 | 2-Hexanone | 43 | 7.094 | 7.094 | (0.925) | 24056 | 10.0000 | 10.11 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 18638 | 5.00000 | 5.13 |
| | 54 | 1,3-Dichloropropane | 76 | 6.985 | 6.985 | (0.911) | 35759 | 5.00000 | 5.00 |
| | 55 | Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 25357 | 5.00000 | 4.84 |
| | 56 | Tetrachloroethene | 164 | 6.929 | 6.929 | (0.904) | 17219 | 5.00000 | 4.60 |
| | 57 | 1,2-Dibromoethane | 107 | 7.263 | 7.263 | (0.947) | 23172 | 5.00000 | 5.10 |
| | 58 | 1-Chlorohexane | 55 | 7.698 | 7.698 | (1.550) | 15210 | 5.00000 | 4.59(MH) |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 62744 | 5.00000 | 4.89 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.776 | 7.776 | (1.014) | 22632 | 5.00000 | 4.74 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.802 | 7.802 (1.018) | 29550 | 5.00000 | 4.89 |
| 62 m,p-Xylenes | 106 | 7.907 | 7.907 (1.031) | 73283 | 10.0000 | 9.40 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 63 | o-Xylene | 106 | 8.245 | 8.245 | (1.075) | 37189 | 5.00000 | 4.83 |
| 64 | Styrene | 104 | 8.267 | 8.267 | (1.078) | 62411 | 5.00000 | 4.84 |
| 66 | Bromoform | 173 | 8.414 | 8.414 | (1.097) | 16801 | 5.00000 | 4.63 |
| 67 | Isopropylbenzene | 105 | 8.563 | 8.563 | (1.117) | 85440 | 5.00000 | 4.86 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.841 | 8.841 | (0.915) | 29807 | 5.00000 | 5.24 |
| $ 69 | 4-Bromofluorobenzene | 95 | 8.695 | 8.695 | (1.134) | 32501 | 5.00000 | 5.43 |
| * 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 356340 | 50.0000 | |
| 71 | 1,2,3-Trichloropropane | 75 | 8.867 | 8.867 | (0.918) | 20685 | 5.00000 | 5.21(M) |
| 73 | n-Propylbenzene | 91 | 8.916 | 8.916 | (0.923) | 97603 | 5.00000 | 4.94 |
| 74 | Bromobenzene | 156 | 8.811 | 8.811 | (0.912) | 28887 | 5.00000 | 4.94 |
| 75 | 1,3,5-Trimethylbenzene | 105 | 9.070 | 9.070 | (0.939) | 72501 | 5.00000 | 4.97 |
| 76 | 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 65973 | 5.00000 | 5.09 |
| 77 | 4-Chlorotoluene | 91 | 9.077 | 9.077 | (0.939) | 75073 | 5.00000 | 5.08 |
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 59375 | 5.00000 | 4.97 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 75723 | 5.00000 | 4.93 |
| 81 | sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 77577 | 5.00000 | 4.88 |
| 82 | p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 69666 | 5.00000 | 4.89 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.609 | 9.609 | (0.995) | 49954 | 5.00000 | 5.14 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 52655 | 5.00000 | 4.97 |
| 86 | Benzyl Chloride | 91 | 9.816 | 9.816 | (1.280) | 35254 | 5.00000 | 5.95 |
| 87 | n-Butylbenzene | 91 | 9.999 | 9.999 | (1.035) | 54831 | 5.00000 | 5.63 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.995 | 9.995 | (1.035) | 50895 | 5.00000 | 5.09 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.670 | 10.670 | (1.104) | 4911 | 5.00000 | 5.49 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.345 | 11.345 | (1.174) | 31873 | 5.00000 | 5.05 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 13454 | 5.00000 | 4.81 |
| 92 | Naphthalene | 128 | 11.551 | 11.551 | (1.196) | 72748 | 5.00000 | 5.06 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.746 | 11.746 | (1.216) | 30274 | 5.00000 | 5.01 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 41740 | 10.0000 | |
| M 95 | Xylenes (total) | 106 | | | | 110472 | 15.0000 | |
| 141 | Cyclohexane | 56 | 4.118 | 4.118 | (0.986) | 19859 | 5.00000 | 5.52(H) |
| 138 | Freon TF | 101 | 1.913 | 1.913 | (0.458) | 14845 | 5.00000 | 4.48 |
| 147 | Methylcyclohexane | 55 | 5.388 | 5.388 | (1.085) | 38650 | 5.00000 | 4.60(M) |
| 146 | Methyl Acetate | 43 | 2.236 | 2.236 | (0.535) | 8968 | 5.00000 | 4.42 |
| 148 | Tert-Butyl alcohol | 59 | 2.431 | 2.431 | (0.582) | 30525 | 100.000 | 97.81 |
| 149 | Isopropyl Alcohol | 45 | 2.097 | 2.097 | (0.502) | 16518 | 100.000 | 101.35(T) |

## QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121606,D
Date : 16-DEC-2022 13:23
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6,i
Operator: PC
Column diameter: 0.18

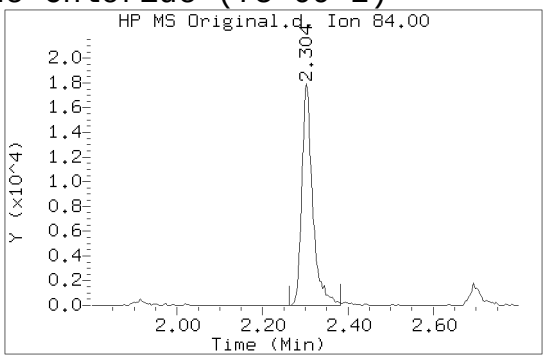
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Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

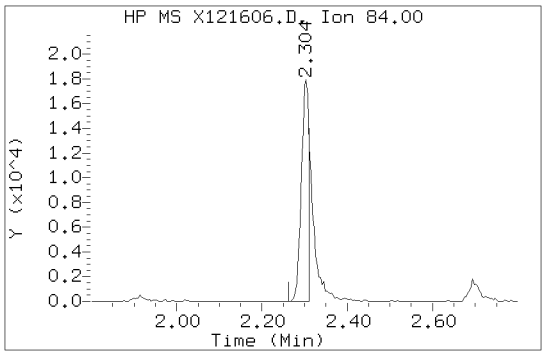
## Methylene Chloride (75-09-2)

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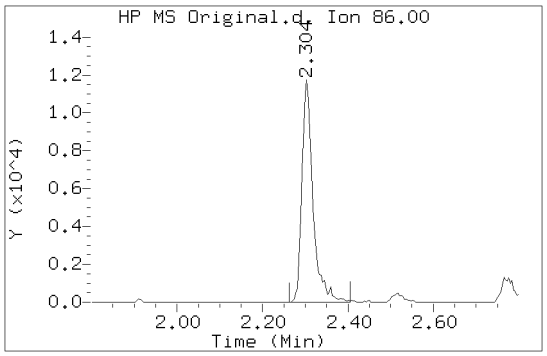
BEFORE
MASS
84
AREA
32325
HEIGHT
17936
27-Dec-2022
16:03
linh
pham



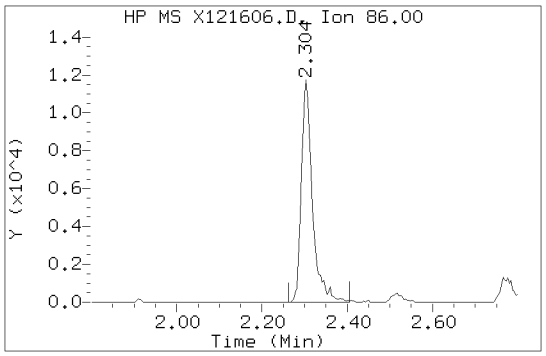

AFTER
MASS
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AREA
22932
HEIGHT
17936
27-Dec-2022
16:07
linh
pham



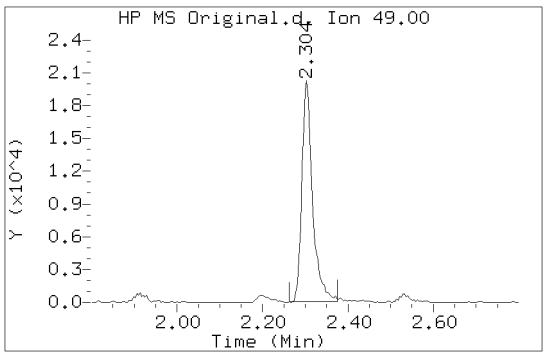

BEFORE
MASS
86
AREA
21691
HEIGHT
11740
27-Dec-2022
16:03
linh
pham



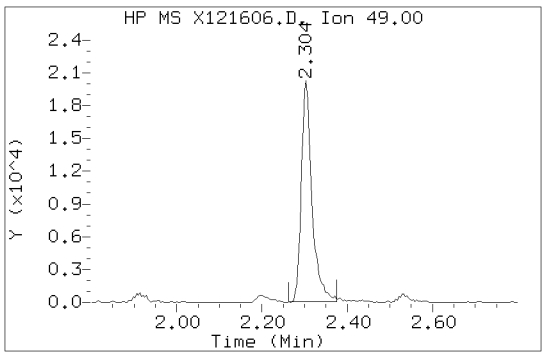

AFTER
MASS
86
AREA
21691
HEIGHT
11740
27-Dec-2022
16:07
linh
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BEFORE
MASS
49
AREA
35909
HEIGHT
20222
27-Dec-2022
16:03
linh
pham



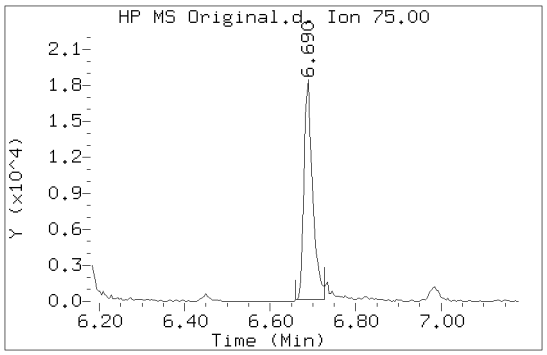

AFTER
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HEIGHT
20222
27-Dec-2022
16:07
linh
pham



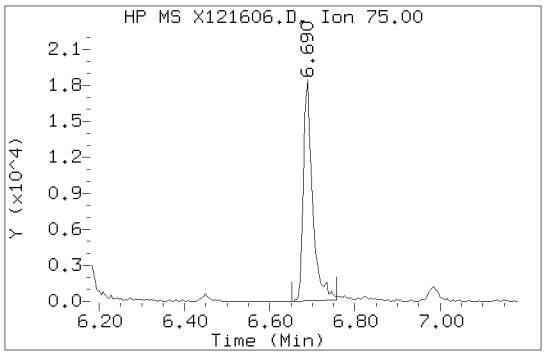

## trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

BEFORE
MASS
75
AREA
26483
HEIGHT
18306
27-Dec-2022
16:03
linh
pham




AFTER
MASS
75
AREA
28399
HEIGHT
18443
27-Dec-2022
16:07
linh
pham



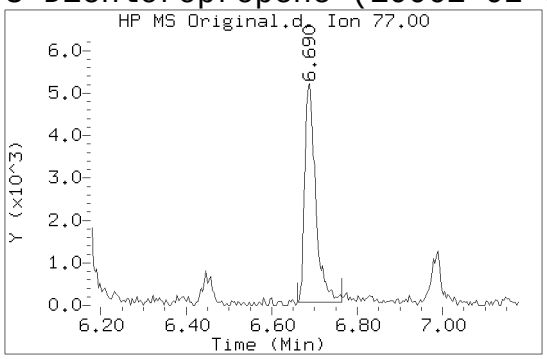
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Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

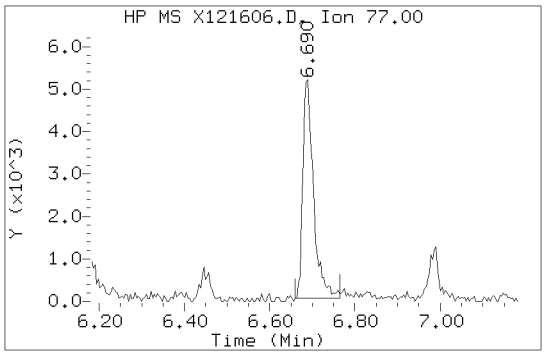
BEFORE

MASS
77
AREA
9244
HEIGHT
5154
27-Dec-2022
16:03
linh
pham



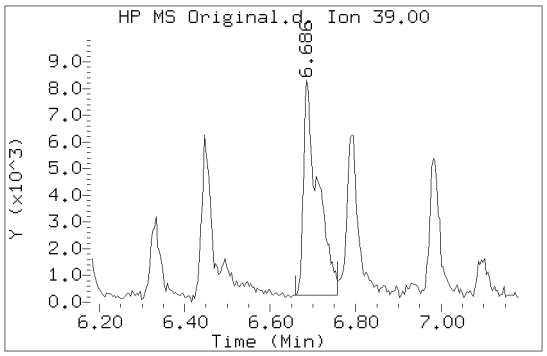

AFTER

MASS
77
AREA
9244
HEIGHT
5154
27-Dec-2022
16:07
linh
pham



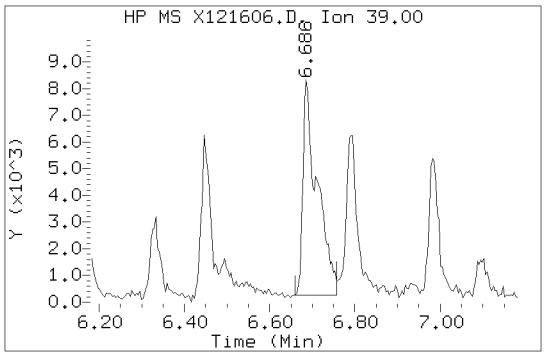

BEFORE

MASS
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AREA
19092
HEIGHT
8065
27-Dec-2022
16:03
linh
pham




AFTER

MASS
39
AREA
19092
HEIGHT
8065
27-Dec-2022
16:07
linh
pham

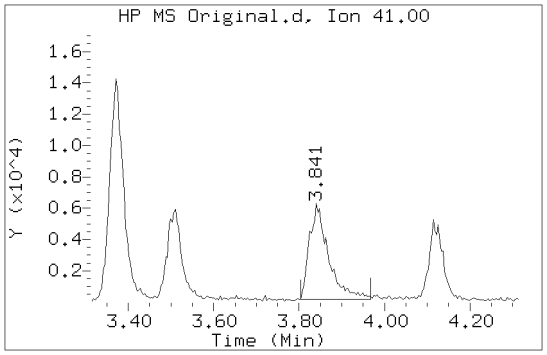



## Methacrylonitrile (126-98-7)

Reason Code:

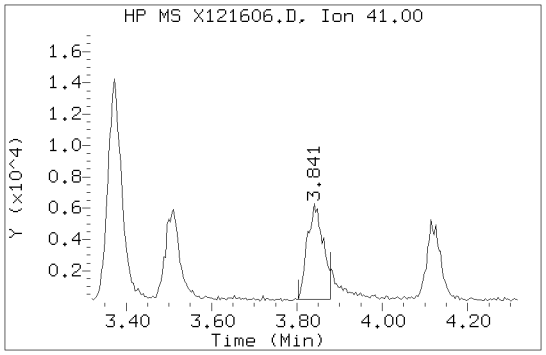
BEFORE

MASS
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AREA
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HEIGHT
6109
27-Dec-2022
16:03
linh
pham



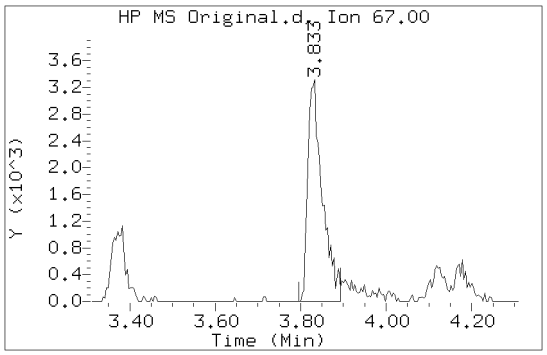

AFTER

MASS
41
AREA
15701
HEIGHT
6109
27-Dec-2022
16:07
linh
pham



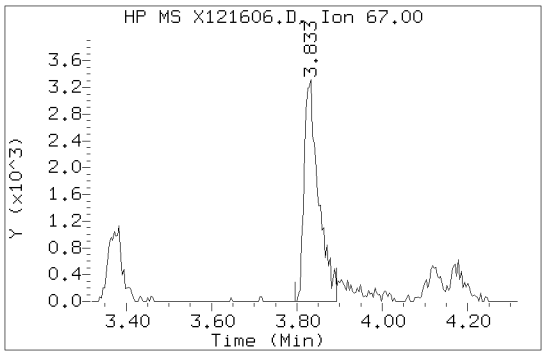

BEFORE

MASS
67
AREA
7866
HEIGHT
3315
27-Dec-2022
16:03
linh
pham




AFTER

MASS
67
AREA
7866
HEIGHT
3315
27-Dec-2022
16:07
linh
pham



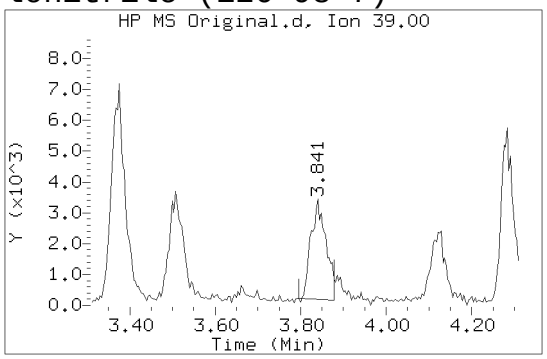
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Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Methacrylonitrile (126-98-7)

Reason Code:

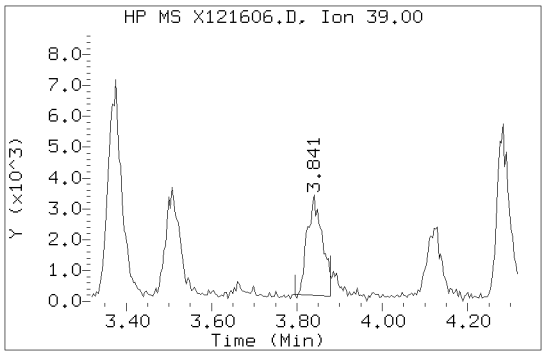
BEFORE

MASS
39
AREA
7951
HEIGHT
3252
27-Dec-2022
16:03
linh
pham




AFTER

MASS
39
AREA
7951
HEIGHT
3252
27-Dec-2022
16:07
linh
pham

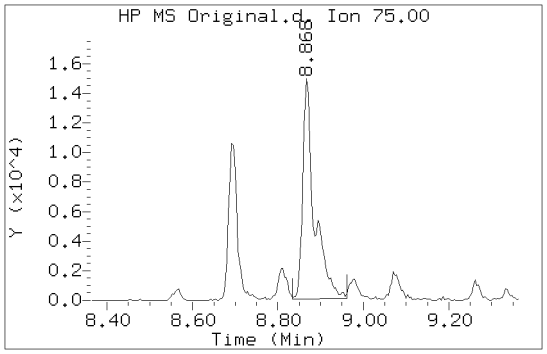



## 1,2,3-Trichloropropane (96-18-4)

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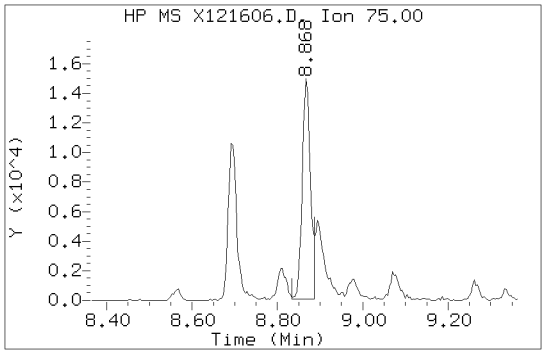
BEFORE

MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:03
linh
pham



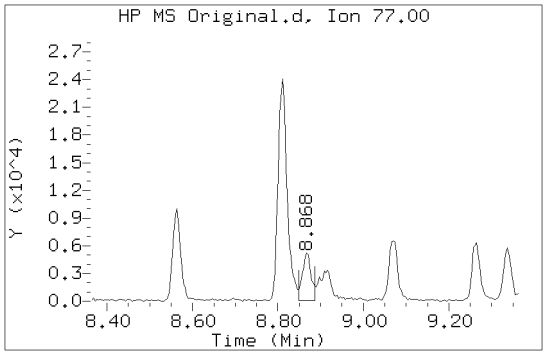

AFTER

MASS
75
AREA
20685
HEIGHT
14911
27-Dec-2022
16:07
linh
pham



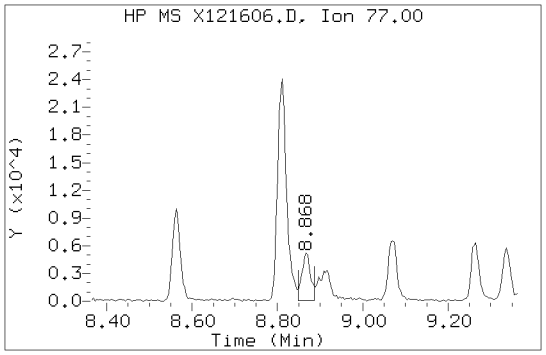

BEFORE

MASS
77
AREA
7524
HEIGHT
5143
27-Dec-2022
16:03
linh
pham




AFTER

MASS
77
AREA
7524
HEIGHT
5143
27-Dec-2022
16:07
linh
pham

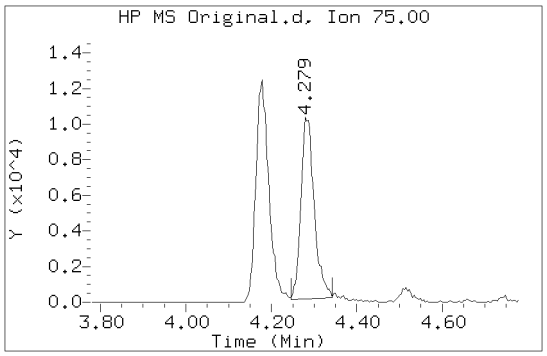



## 1,1-Dichloropropene (563-58-6)

Reason Code:

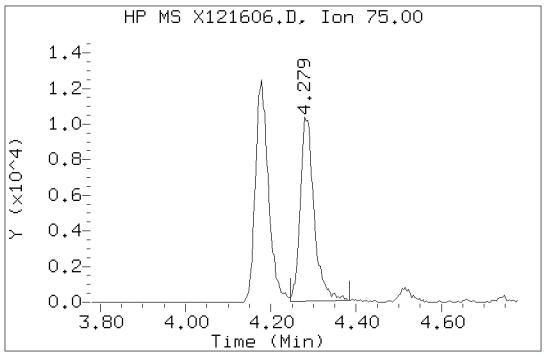
BEFORE

MASS
75
AREA
22411
HEIGHT
10201
27-Dec-2022
16:03
linh
pham




AFTER

MASS
75
AREA
23845
HEIGHT
10354
27-Dec-2022
16:07
linh
pham

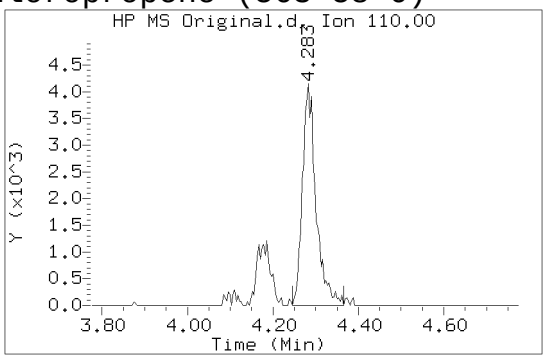


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## 1,1-Dichloropropene (563-58-6)

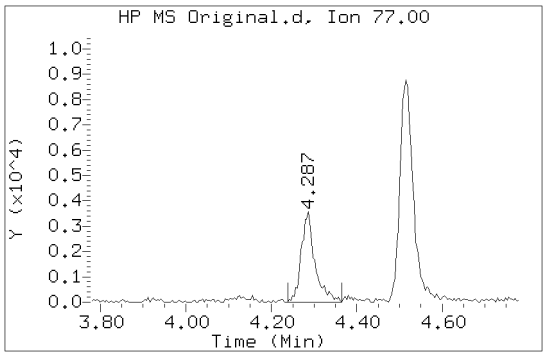
### BEFORE

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AREA
9244
HEIGHT
4151
27-Dec-2022
16:03
linh
pham




### BEFORE

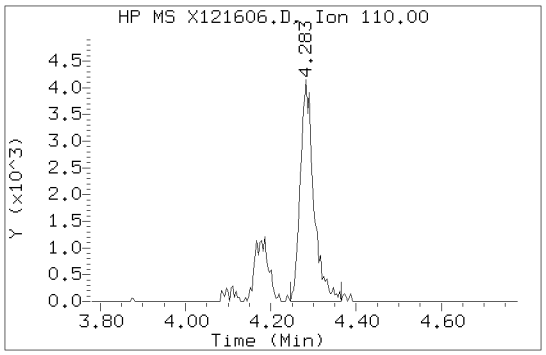
MASS
77
AREA
8083
HEIGHT
3567
27-Dec-2022
16:03
linh
pham




### Reason Code:

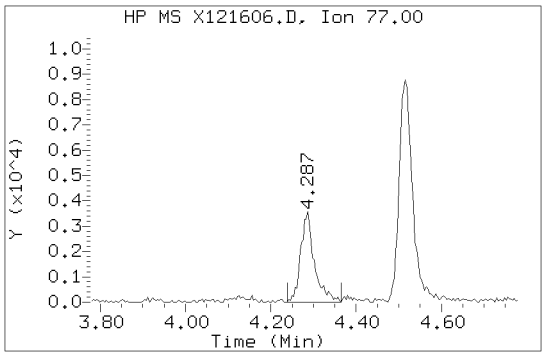
### AFTER

MASS
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AREA
9244
HEIGHT
4151
27-Dec-2022
16:07
linh
pham




### AFTER

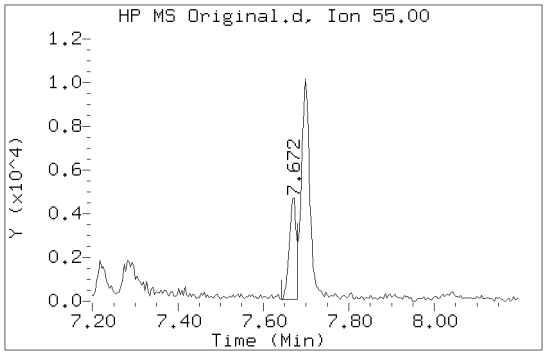
MASS
77
AREA
8083
HEIGHT
3567
27-Dec-2022
16:07
linh
pham




## 1-Chlorohexane (544-10-5)

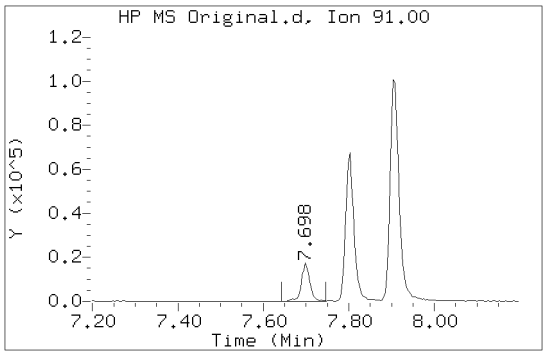
### BEFORE

MASS
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AREA
5371
HEIGHT
4660
27-Dec-2022
16:03
linh
pham




### BEFORE

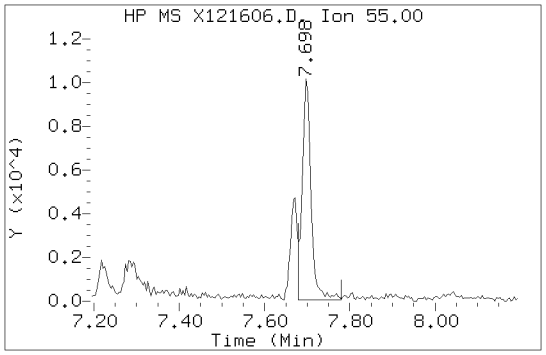
MASS
91
AREA
24578
HEIGHT
17336
27-Dec-2022
16:03
linh
pham




### Reason Code:

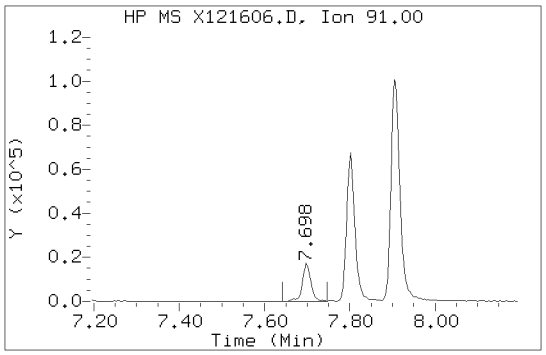
### AFTER

MASS
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AREA
15210
HEIGHT
10126
27-Dec-2022
16:07
linh
pham




### AFTER

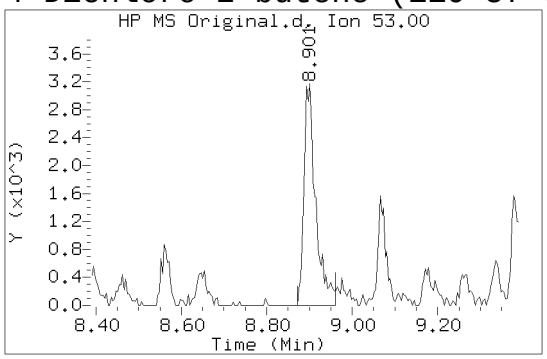
MASS
91
AREA
24578
HEIGHT
17336
27-Dec-2022
16:07
linh
pham



Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

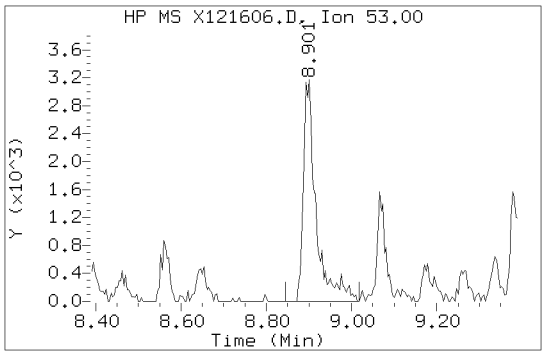
## trans-1,4-Dichloro-2-butene (110-57-6)

BEFORE
MASS
53
AREA
6122
HEIGHT
3172
27-Dec-2022
16:03
linh
pham

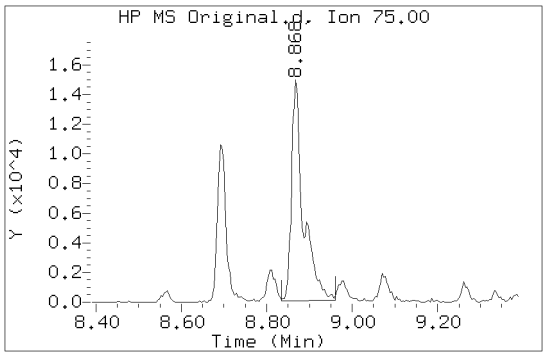



Reason Code:

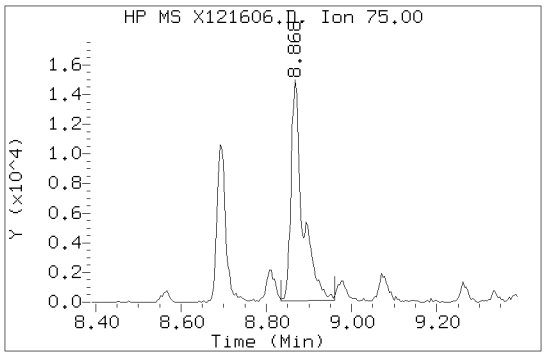
AFTER
MASS
53
AREA
6648
HEIGHT
3172
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:03
linh
pham

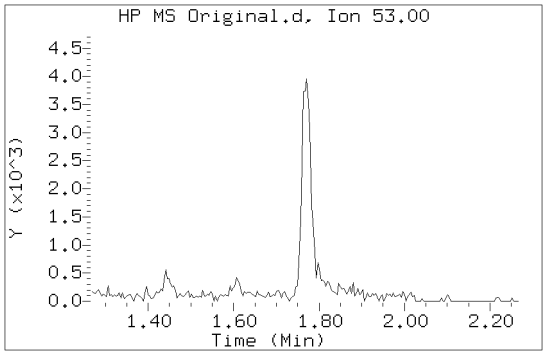



AFTER
MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:07
linh
pham



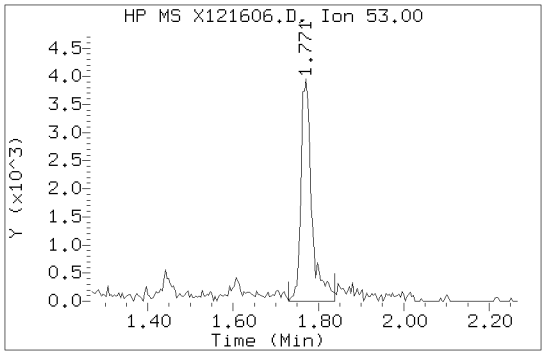

## Chloroprene (126-99-8)

BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

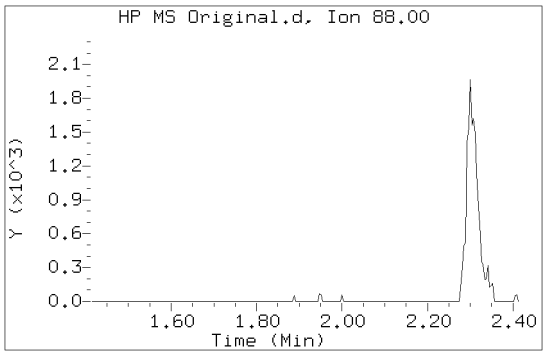



Reason Code:

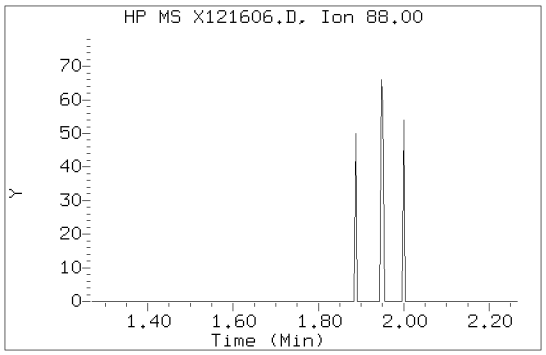
AFTER
MASS
53
AREA
7154
HEIGHT
3955
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

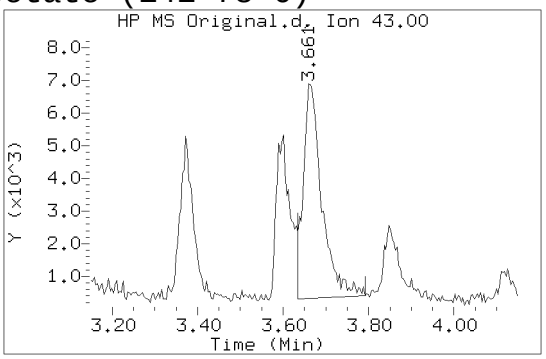


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Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Ethyl Acetate (141-78-6)

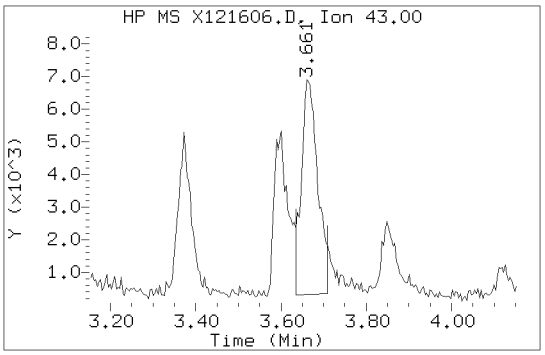
**BEFORE**

MASS
43
AREA
20113
HEIGHT
6576
27-Dec-2022
16:03
linh
pham




**AFTER**

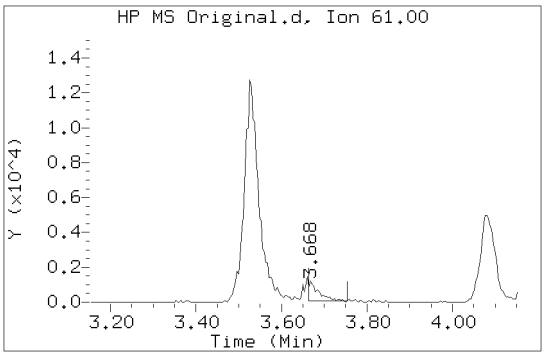
MASS
43
AREA
18020
HEIGHT
6576
27-Dec-2022
16:07
linh
pham




Reason Code:

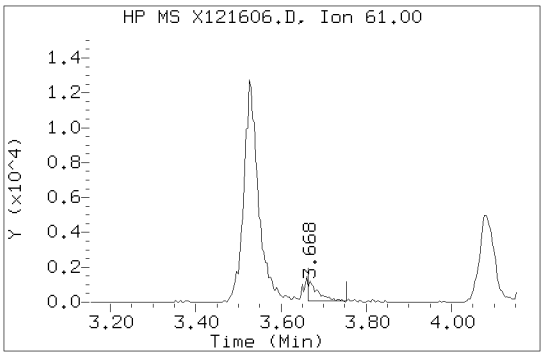
**BEFORE**

MASS
61
AREA
1766
HEIGHT
1155
27-Dec-2022
16:03
linh
pham



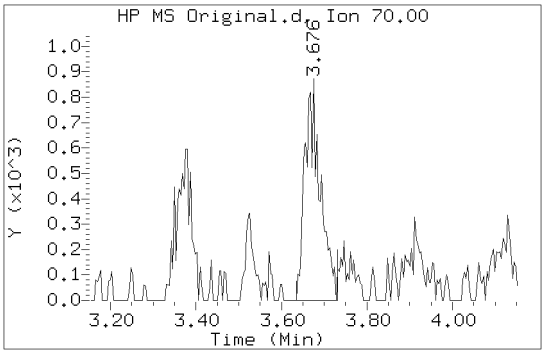

**AFTER**

MASS
61
AREA
1766
HEIGHT
1155
27-Dec-2022
16:07
linh
pham



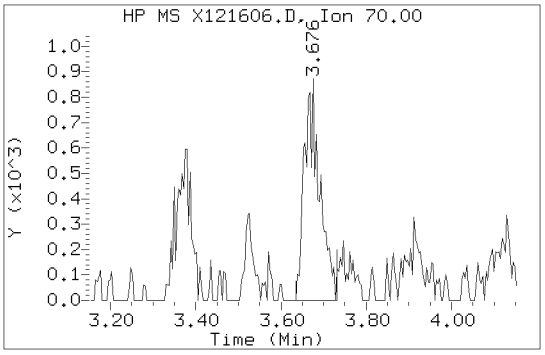

**BEFORE**

MASS
70
AREA
2205
HEIGHT
873
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
70
AREA
2205
HEIGHT
873
27-Dec-2022
16:07
linh
pham

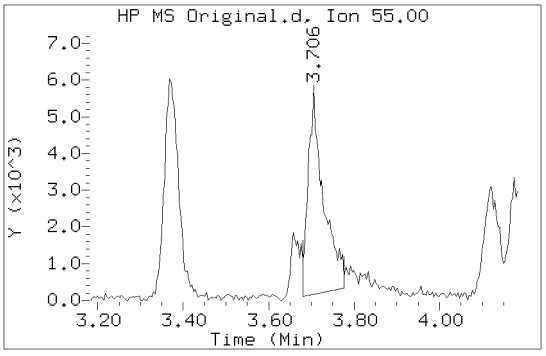



## Methyl Acrylate (96-33-3)

Reason Code:

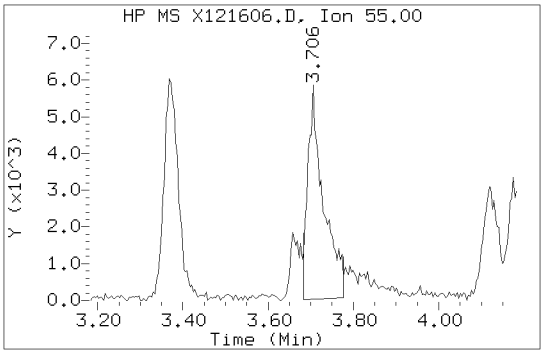
**BEFORE**

MASS
55
AREA
14157
HEIGHT
5696
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
55
AREA
14950
HEIGHT
5831
27-Dec-2022
16:07
linh
pham



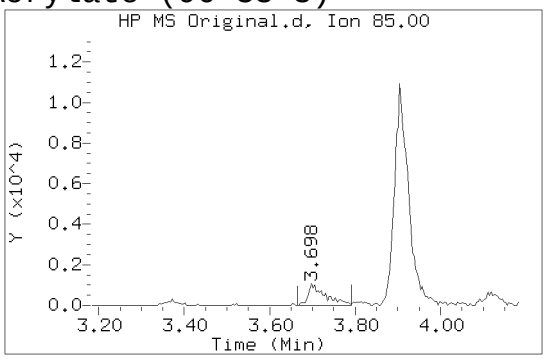
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Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Methyl Acrylate (96-33-3)

Reason Code:

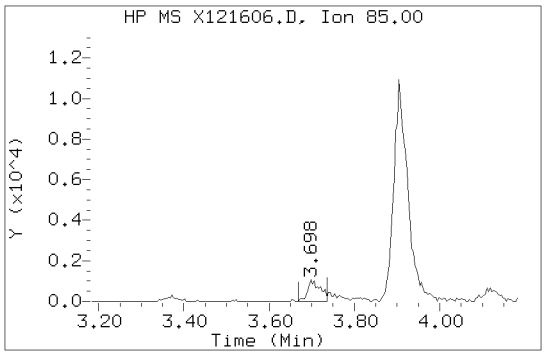
**BEFORE**

MASS
85
AREA
2934
HEIGHT
1073
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
2159
HEIGHT
1073
27-Dec-2022
16:07
linh
pham

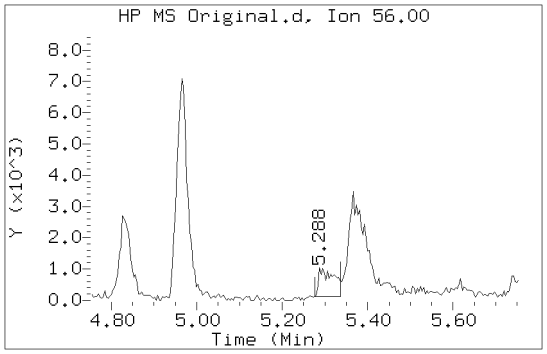



## n-Butanol (71-36-3)

Reason Code:

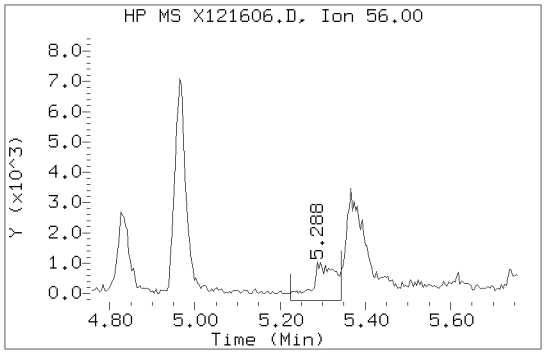
**BEFORE**

MASS
56
AREA
2243
HEIGHT
922
27-Dec-2022
16:03
linh
pham



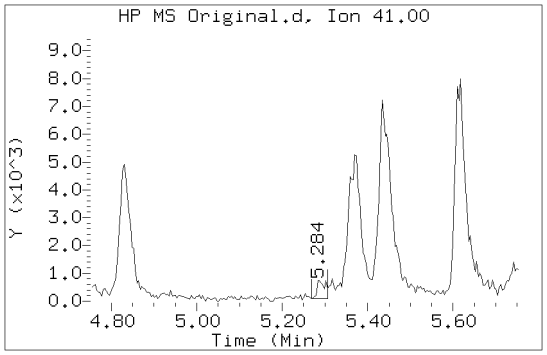

**AFTER**

MASS
56
AREA
4891
HEIGHT
1266
27-Dec-2022
16:07
linh
pham



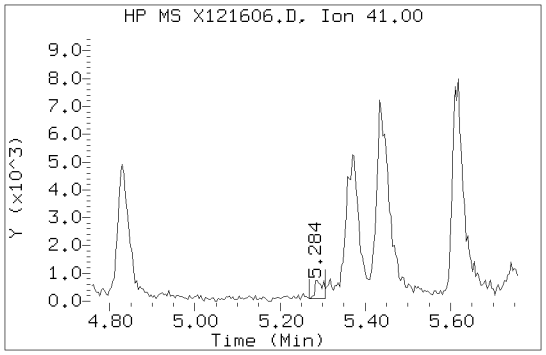

**BEFORE**

MASS
41
AREA
876
HEIGHT
641
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
876
HEIGHT
641
27-Dec-2022
16:07
linh
pham

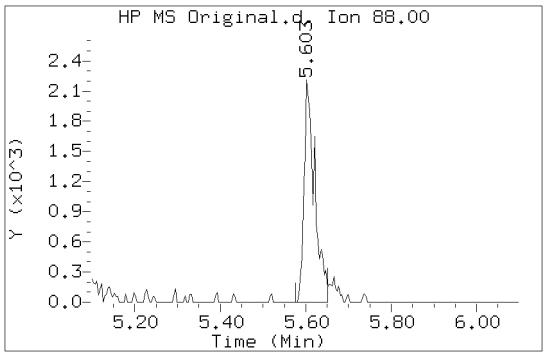



## 1,4-Dioxane ()

Reason Code:

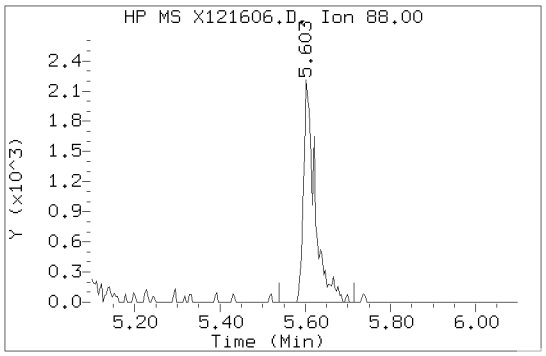
**BEFORE**

MASS
88
AREA
3873
HEIGHT
2211
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
88
AREA
4197
HEIGHT
2211
27-Dec-2022
16:07
linh
pham



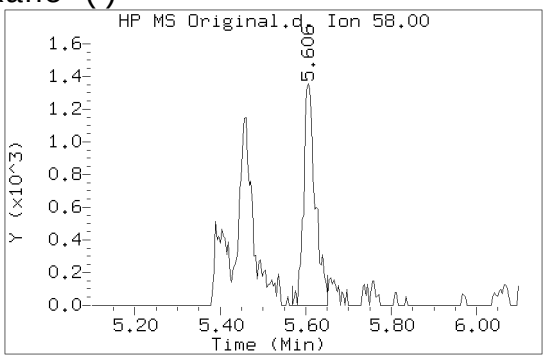
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## 1,4-Dioxane ()

Reason Code:

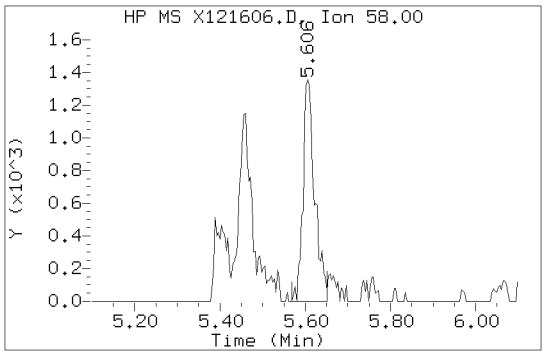
**BEFORE**

MASS
58
AREA
2625
HEIGHT
1356
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
2625
HEIGHT
1356
27-Dec-2022
16:07
linh
pham

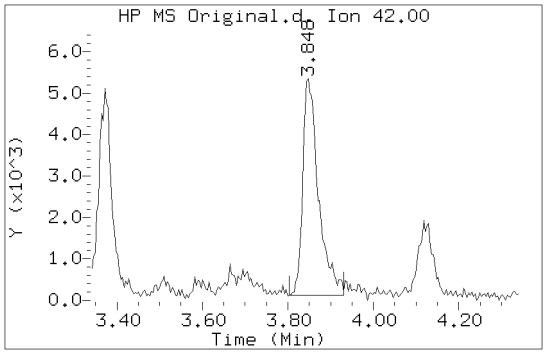



## Tetrahydrofuran (109-99-9)

Reason Code:

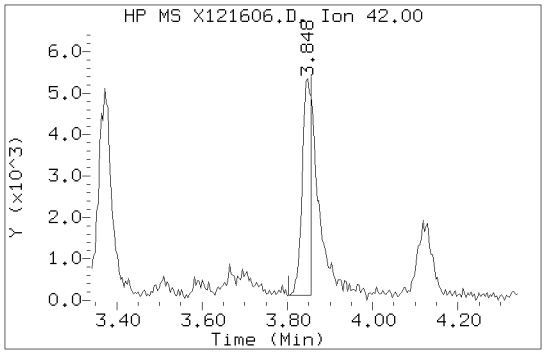
**BEFORE**

MASS
42
AREA
13557
HEIGHT
5225
27-Dec-2022
16:03
linh
pham



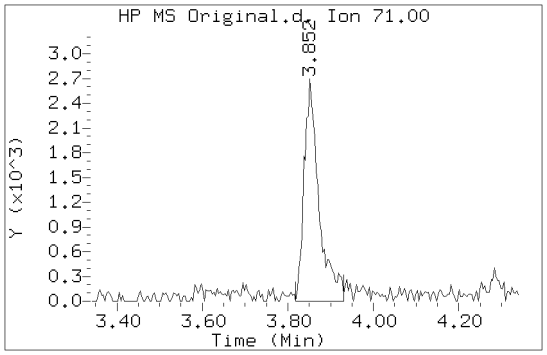

**AFTER**

MASS
42
AREA
7598
HEIGHT
5225
27-Dec-2022
16:07
linh
pham



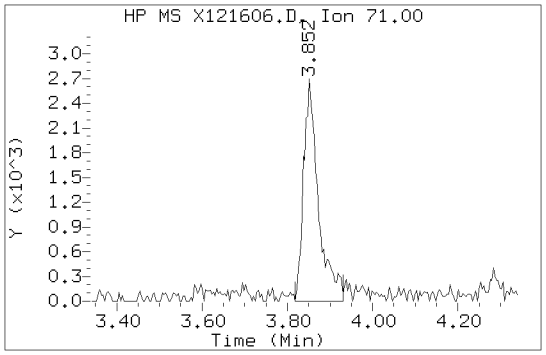

**BEFORE**

MASS
71
AREA
6572
HEIGHT
2695
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
71
AREA
6572
HEIGHT
2695
27-Dec-2022
16:07
linh
pham

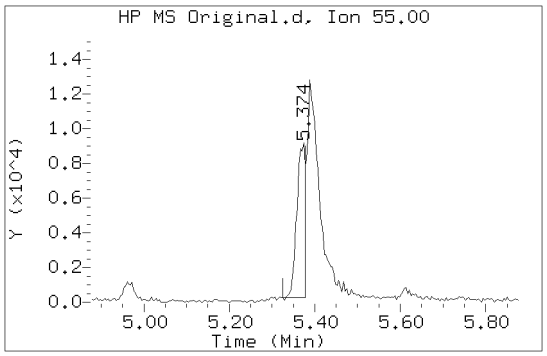



## Methylcyclohexane (108-87-2)

Reason Code:

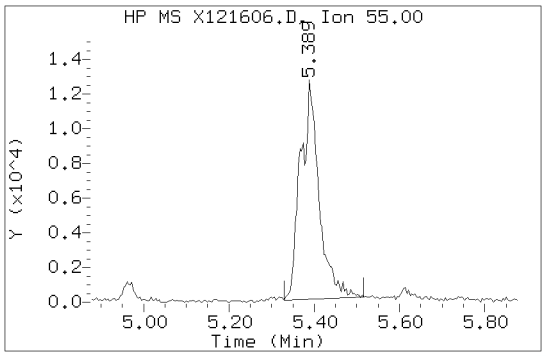
**BEFORE**

MASS
55
AREA
12381
HEIGHT
8941
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
55
AREA
38650
HEIGHT
12647
27-Dec-2022
16:07
linh
pham

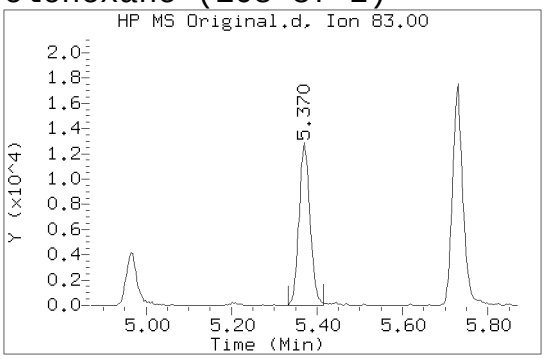


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Methylcyclohexane (108-87-2)

### BEFORE

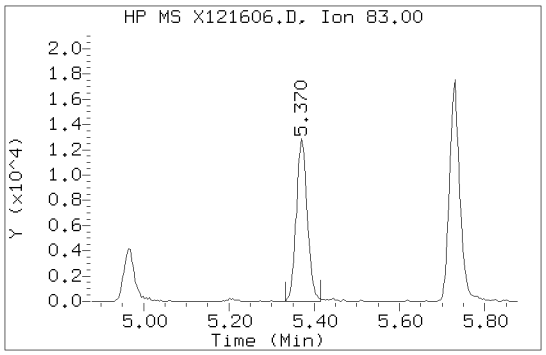
MASS
83
AREA
23564
HEIGHT
12870
27-Dec-2022
16:03
linh
pham




Reason Code:

### AFTER

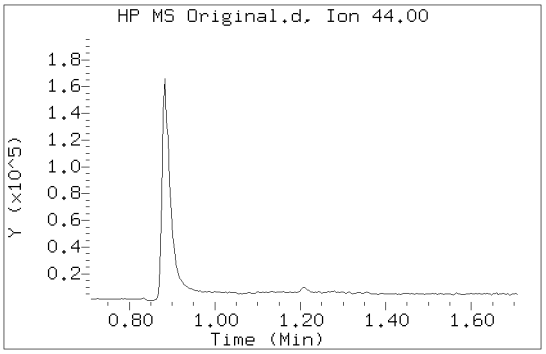
MASS
83
AREA
23564
HEIGHT
12870
27-Dec-2022
16:07
linh
pham




## Acetaldehyde (75-07-0)

### BEFORE

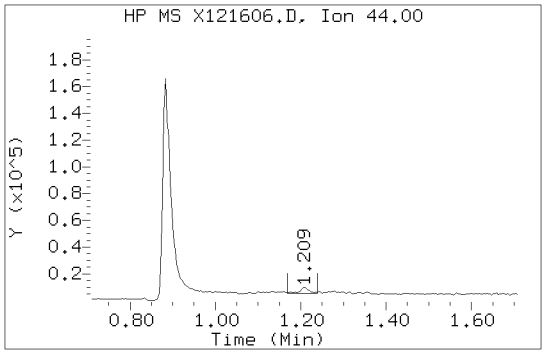
MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

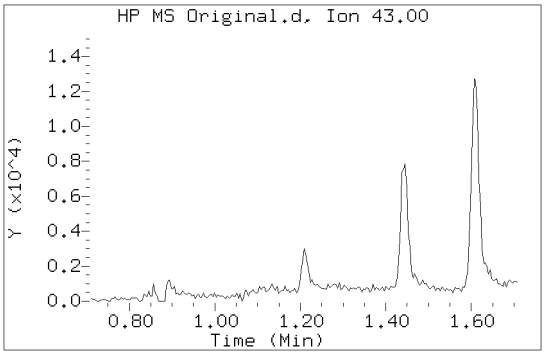
### AFTER

MASS
44
AREA
6161
HEIGHT
4314
27-Dec-2022
16:07
linh
pham



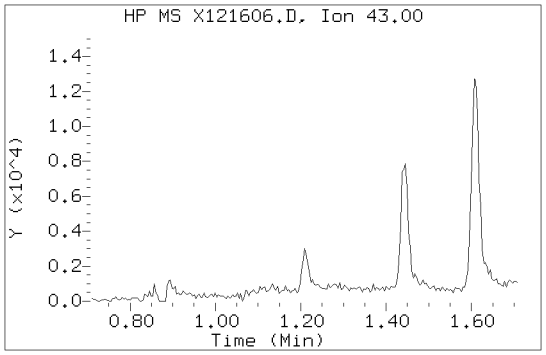

### BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



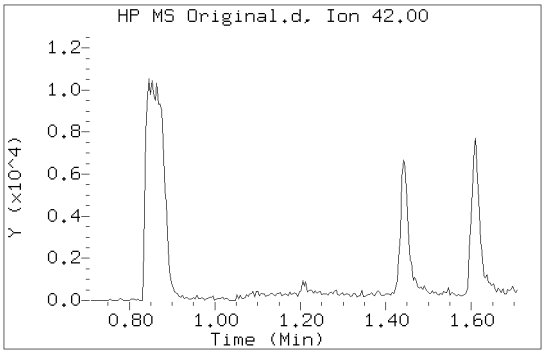

### AFTER

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



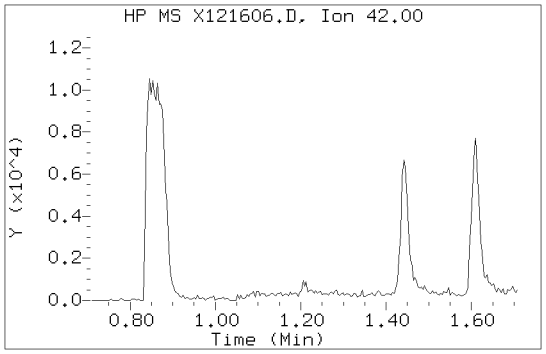

### BEFORE

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



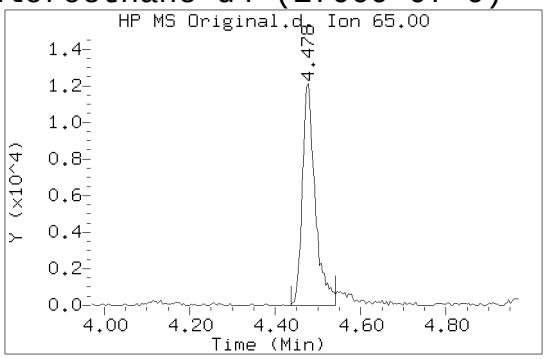
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Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

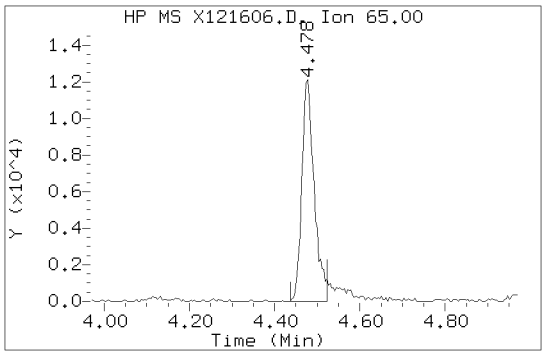
BEFORE

MASS
65
AREA
25815
HEIGHT
12121
27-Dec-2022
16:03
linh
pham



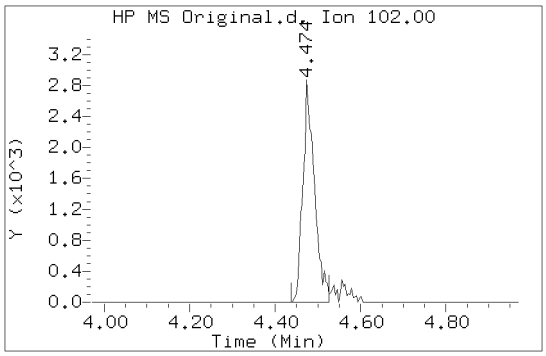

AFTER

MASS
65
AREA
24938
HEIGHT
12121
27-Dec-2022
16:07
linh
pham



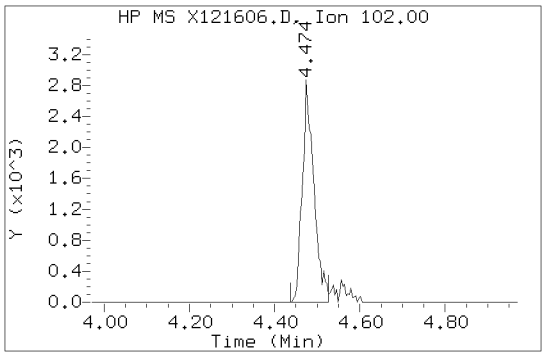

BEFORE

MASS
102
AREA
5492
HEIGHT
2873
27-Dec-2022
16:03
linh
pham




AFTER

MASS
102
AREA
5492
HEIGHT
2873
27-Dec-2022
16:07
linh
pham



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Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Lab Smp Id: VSTD020  Client Smp ID: VSTD020
Inj Date  : 16-DEC-2022 13:43
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD020;VSTD020;1;6;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 13:23  Cal File: X121606.D
Als bottle: 8  Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 459407 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 16105 | 400.000 | 383.50(M) |
| 140 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 58280 | 20.0000 | 18.48 |
| 25 Methacrylonitrile | 41 | 3.821 | 3.821 | (0.915) | 62911 | 20.0000 | 19.33 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 201008 | 400.000 | 388.99 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 81163 | 200.000 | 194.11 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 150748 | 20.0000 | 18.93 |
| 4 Propionitrile | 54 | 3.653 | 3.653 | (0.874) | 85562 | 200.000 | 182.52 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 65476 | 20.0000 | 19.79 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.893 | 8.893 | (1.160) | 26140 | 20.0000 | 18.70 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 32393 | 80.0000 | 100.98(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 27967 | 20.0000 | 17.90(M) |
| 145 alpha-Methylstyrene | 118 | 9.261 | 9.261 | (0.958) | 155968 | 20.0000 | 19.76 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 171978 | 20.0000 | 19.62 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 55275 | 20.0000 | 18.00 |
| 130 Ethyl Acetate | 43 | 3.660 | 3.660 | (0.876) | 75163 | 20.0000 | 20.96 |
| 40 Methyl Methacrylate | 41 | 5.606 | 5.606 | (1.342) | 56242 | 20.0000 | 17.95 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 58073 | 20.0000 | 18.07 |
| 132 n-Butanol | 56 | 5.268 | 5.268 | (1.261) | 15012 | 400.000 | 294.62 |
| 142 Tetrahydrofuran | 42 | 3.848 | 3.848 | (0.921) | 28221 | 40.0000 | 47.81 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 65476 | 400.000 | 366.93 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 331546 | 20.0000 | 19.32 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D Page 2
Report Date: 27-Dec-2022 16:07

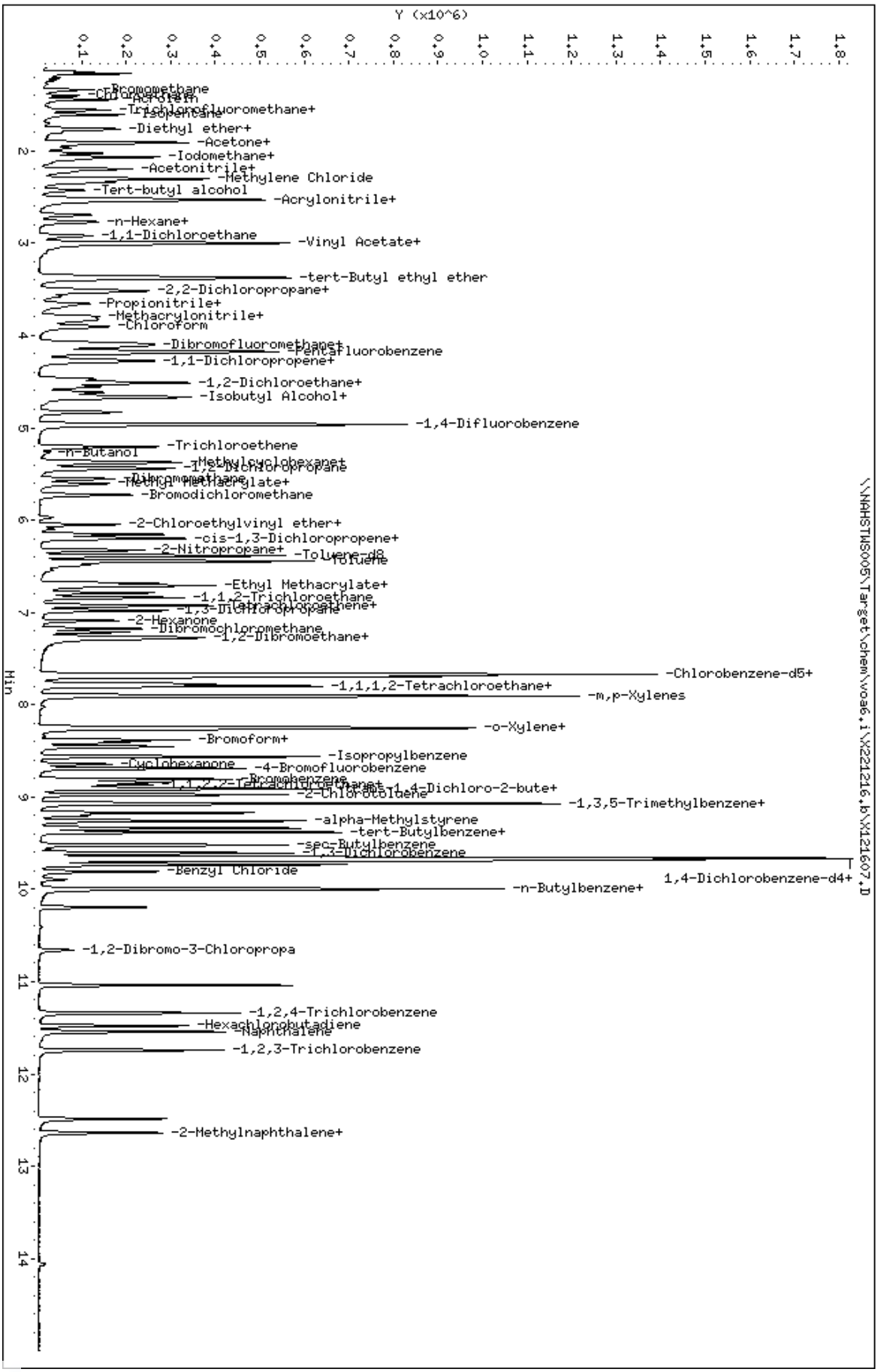
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 131 Methyl Acrylate | 55 | 3.690 | 3.690 | (0.883) | 57874 | 20.0000 | 18.55(M) |
| | 162 Butyl acrylate | 55 | 8.252 | 8.252 | (1.076) | 156518 | 20.0000 | 18.50 |
| | 2 Dichlorodifluoromethane | 85 | 0.972 | 0.972 | (0.233) | 63382 | 20.0000 | 19.96 |
| | 3 Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 72324 | 20.0000 | 18.84 |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 74461 | 20.0000 | 18.55 |
| | 6 Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 52034 | 20.0000 | 18.30 |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 52021 | 20.0000 | 18.62 |
| | 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 106188 | 20.0000 | 18.90 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 12279 | 40.0000 | 40.80 |
| | 10 Acetone | 43 | 1.973 | 1.973 | (0.472) | 50987 | 40.0000 | 39.53 |
| | 11 1,1-Dichloroethene | 96 | 1.913 | 1.913 | (0.458) | 65650 | 20.0000 | 18.82 |
| | 15 Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 143457 | 40.0000 | 34.36 |
| | 16 Acrylonitrile | 53 | 2.532 | 2.532 | (0.606) | 46552 | 40.0000 | 39.36 |
| | 17 Methylene Chloride | 84 | 2.303 | 2.303 | (0.551) | 94402 | 20.0000 | 19.73 |
| | 18 Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 214504 | 20.0000 | 18.79 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 337289 | 40.0000 | 36.97 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 74471 | 20.0000 | 19.08 |
| | 21 Vinyl Acetate | 43 | 2.997 | 2.997 | (0.717) | 387538 | 40.0000 | 38.68 |
| | 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 129644 | 20.0000 | 18.93 |
| | 24 2-Butanone | 43 | 3.578 | 3.578 | (0.856) | 47830 | 40.0000 | 36.94(H) |
| | 26 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 108952 | 20.0000 | 18.73 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.525 | 3.525 | (0.844) | 88894 | 20.0000 | 18.71 |
| | 28 Chloroform | 83 | 3.904 | 3.904 | (0.935) | 145610 | 20.0000 | 18.96 |
| | 29 Bromochloromethane | 128 | 3.795 | 3.795 | (0.908) | 47919 | 20.0000 | 18.42 |
| $ | 30 Dibromofluoromethane | 113 | 4.099 | 4.099 | (0.981) | 90108 | 20.0000 | 20.32 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 116049 | 20.0000 | 19.05 |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 93914 | 20.0000 | 19.38 |
| | 33 1,2-Dichloroethane | 62 | 4.556 | 4.556 | (0.918) | 108750 | 20.0000 | 19.45 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 93815 | 20.0000 | 18.13 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 92990 | 20.0000 | 20.13 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 682389 | 50.0000 | |
| | 37 Benzene | 78 | 4.511 | 4.511 | (0.909) | 313141 | 20.0000 | 19.21 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 90292 | 20.0000 | 19.53 |
| | 39 Bromodichloromethane | 83 | 5.726 | 5.726 | (1.153) | 116178 | 20.0000 | 18.99 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.048 | 6.048 | (1.218) | 71559 | 40.0000 | 41.12 |
| | 42 1,2-Dichloropropane | 63 | 5.437 | 5.437 | (1.095) | 82954 | 20.0000 | 19.13 |
| | 44 Dibromomethane | 93 | 5.553 | 5.553 | (1.119) | 57196 | 20.0000 | 19.41 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.326 | 6.326 | (0.825) | 138209 | 40.0000 | 39.93 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 142141 | 20.0000 | 19.79 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 647445 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 315179 | 20.0000 | 19.70 |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 339968 | 20.0000 | 18.99 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 116330 | 20.0000 | 19.51 |
| | 52 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 93119 | 40.0000 | 39.54 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 69855 | 20.0000 | 19.45 |
| | 54 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 137967 | 20.0000 | 19.52 |
| | 55 Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 100749 | 20.0000 | 19.44 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 74611 | 20.0000 | 20.15 |
| | 57 1,2-Dibromoethane | 107 | 7.263 | 7.263 | (0.947) | 88886 | 20.0000 | 19.80 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 66757 | 20.0000 | 20.24 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 240885 | 20.0000 | 18.97 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 90283 | 20.0000 | 19.11 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 117560 | 20.0000 | 19.66 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 299082 | 40.0000 | 38.80 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 147602 | 20.0000 | 19.40 |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 253280 | 20.0000 | 19.86 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 69137 | 20.0000 | 19.25 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 344283 | 20.0000 | 19.80 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 112594 | 20.0000 | 19.83 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.691 | 8.691 | (1.133) | 116878 | 20.0000 | 19.58 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 356229 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 76967 | 20.0000 | 19.41 |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 404399 | 20.0000 | 20.49 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 117586 | 20.0000 | 20.11 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.070 | 9.070 | (0.939) | 295026 | 20.0000 | 20.23 |
| | 76 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 256591 | 20.0000 | 19.81 |
| | 77 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 294244 | 20.0000 | 19.93 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 242174 | 20.0000 | 20.29 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 305461 | 20.0000 | 19.91 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 326826 | 20.0000 | 20.58 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 294187 | 20.0000 | 20.67 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 197278 | 20.0000 | 20.33 |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 207572 | 20.0000 | 19.60 |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 163895 | 20.0000 | 17.99 |
| | 87 n-Butylbenzene | 91 | 9.995 | 9.995 | (1.035) | 248190 | 20.0000 | 19.23 |
| | 88 1,2-Dichlorobenzene | 146 | 9.995 | 9.995 | (1.035) | 201166 | 20.0000 | 20.13 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.663 | 10.663 | (1.104) | 18635 | 20.0000 | 20.58 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 130463 | 20.0000 | 20.69 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 55912 | 20.0000 | 20.12 |
| | 92 Naphthalene | 128 | 11.544 | 11.544 | (1.195) | 300432 | 20.0000 | 20.94 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.742 | (1.215) | 124401 | 20.0000 | 20.60 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 163365 | 40.0000 | |
| M | 95 Xylenes (total) | 106 | | | | 446684 | 60.0000 | |
| | 141 Cyclohexane | 56 | 4.118 | 4.118 | (0.986) | 84355 | 20.0000 | 19.01(M) |
| | 138 Freon TF | 101 | 1.910 | 1.910 | (0.457) | 64657 | 20.0000 | 19.17 |
| | 147 Methylcyclohexane | 55 | 5.381 | 5.381 | (1.084) | 172044 | 20.0000 | 20.59 |
| | 146 Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 38475 | 20.0000 | 18.61 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.423 | (0.580) | 117583 | 400.000 | 369.63 |
| | 149 Isopropyl Alcohol | 45 | 2.090 | 2.090 | (0.500) | 61646 | 400.000 | 371.06 |

## QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121607,D
Date : 16-DEC-2022 13:43
Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;
Purge Volume: 5.0
Column phase: DB624

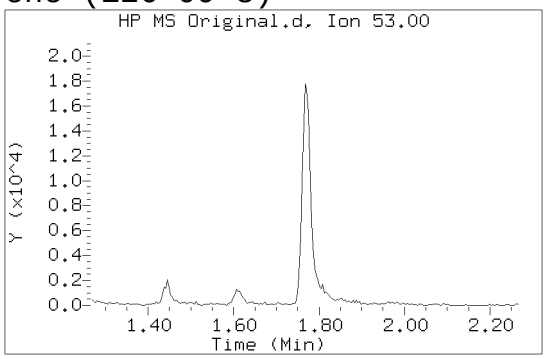
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Operator: PC
Column diameter: 0.18

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Inj Date : 16-DEC-2022 13:43
InstruID : voa6.i
LabSampID : VSTD020

## Chloroprene (126-99-8)

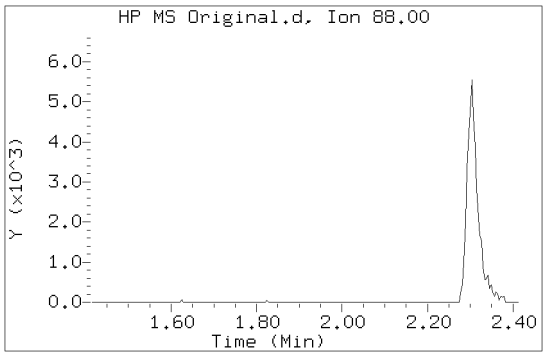
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### BEFORE

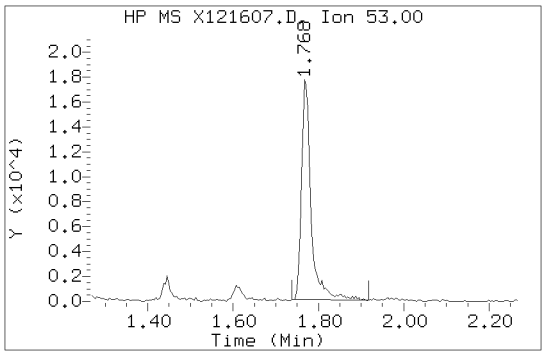
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Reason Code:

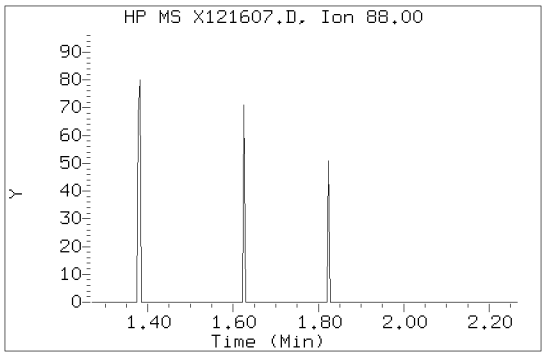
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### AFTER

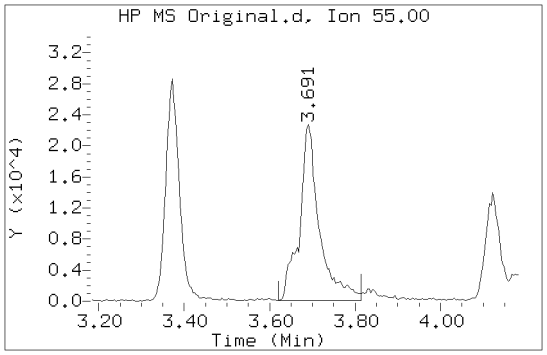
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## Methyl Acrylate (96-33-3)

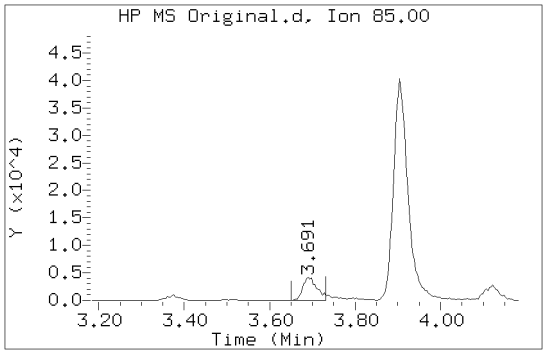
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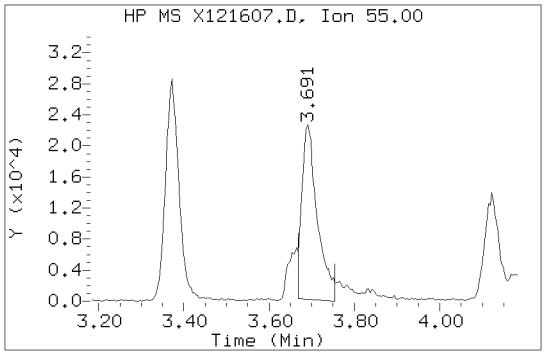
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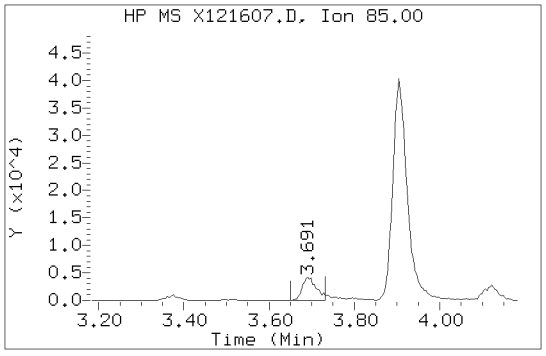
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### AFTER

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27-Dec-2022
16:06
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pham



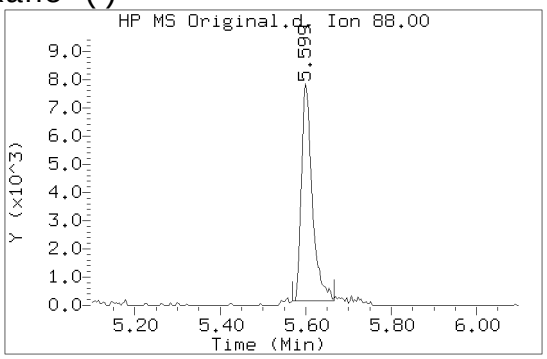
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Inj Date : 16-DEC-2022 13:43
InstruID : voa6.i
LabSampID : VSTD020

## 1,4-Dioxane ()

Reason Code:

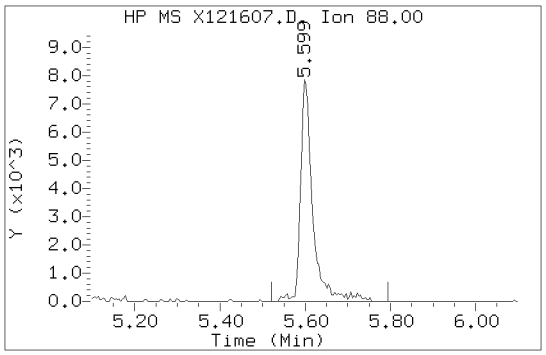
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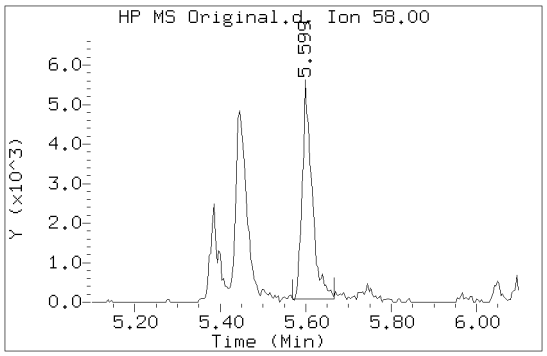

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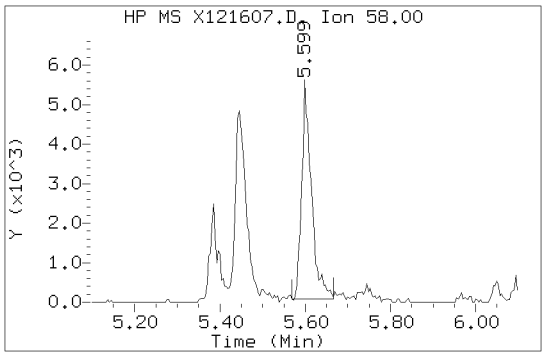

**BEFORE**

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**AFTER**

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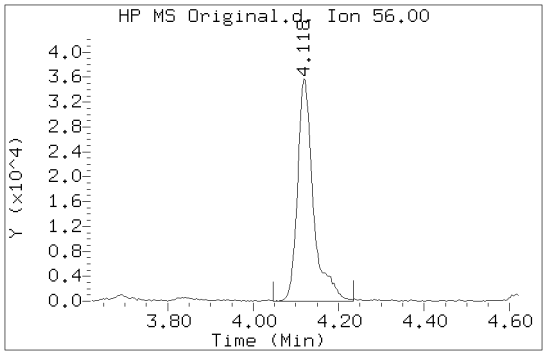



## Cyclohexane (110-82-7)

Reason Code:

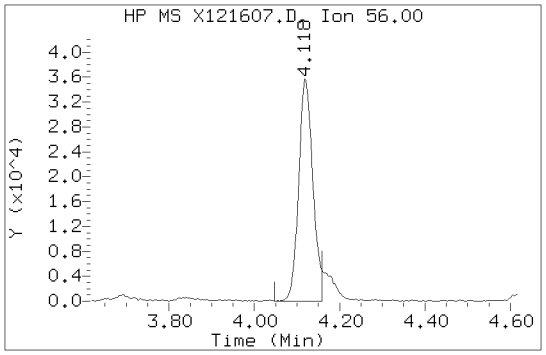
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linh
pham



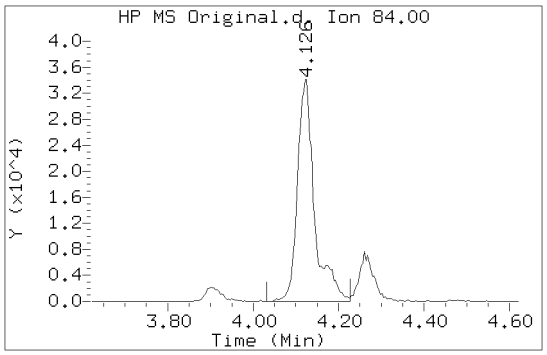

**AFTER**

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35720
27-Dec-2022
16:06
linh
pham



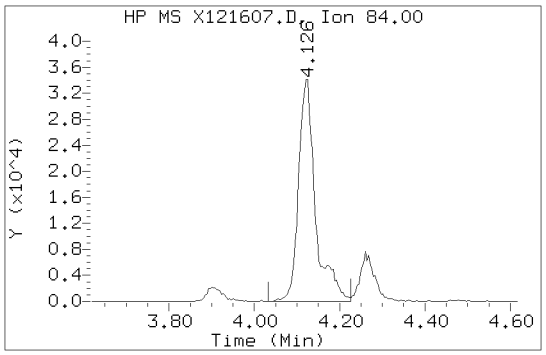

**BEFORE**

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27-Dec-2022
16:03
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pham




**AFTER**

MASS
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AREA
95724
HEIGHT
34088
27-Dec-2022
16:06
linh
pham

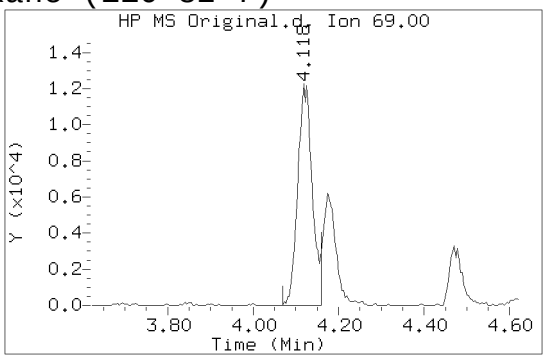


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Inj Date : 16-DEC-2022 13:43
InstruID : voa6.i
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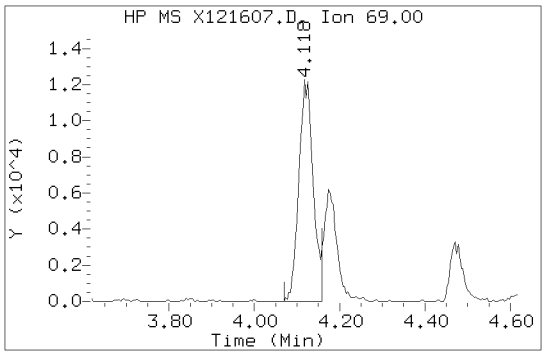
## Cyclohexane (110-82-7)

Reason Code:

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pham



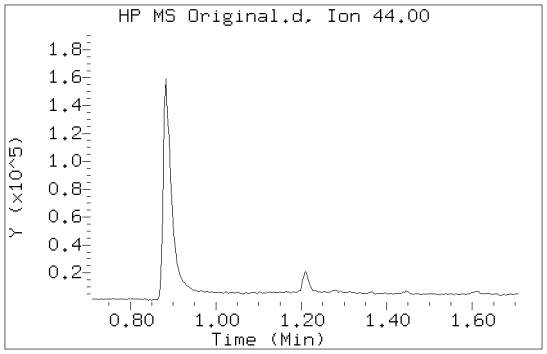

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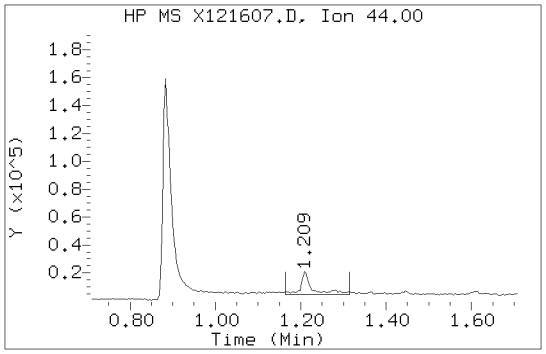

## Acetaldehyde (75-07-0)

Reason Code:

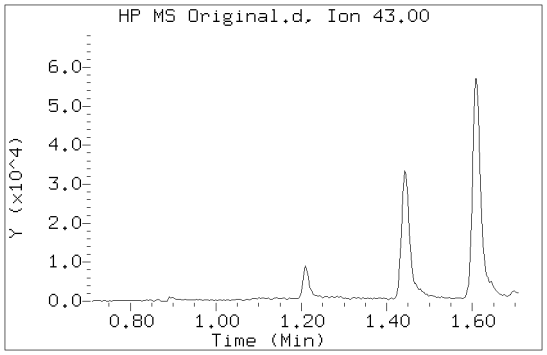
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27-Dec-2022
16:03
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pham



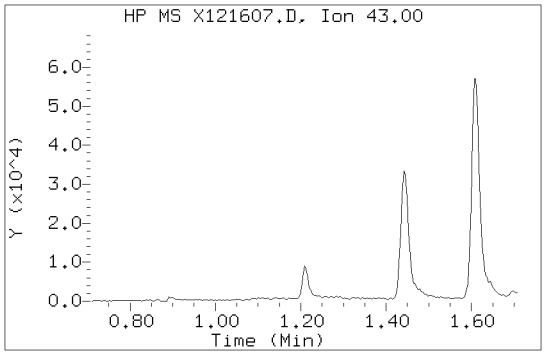

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16632
27-Dec-2022
16:06
linh
pham



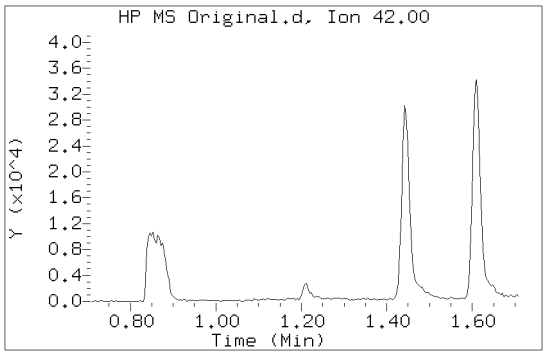

BEFORE
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16:03
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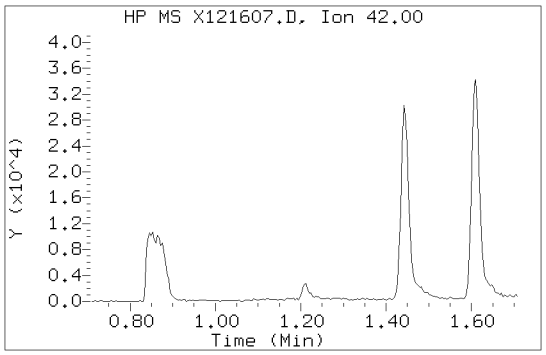

AFTER
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16:06
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BEFORE
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HEIGHT
0
27-Dec-2022
16:03
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pham




AFTER
MASS
42
AREA
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HEIGHT
0
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Lab Smp Id: VSTD050  Client Smp ID: VSTD050
Inj Date  : 16-DEC-2022 14:04
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD050;VSTD050;1;7;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 13:43  Cal File: X121607.D
Als bottle: 9  Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 457591 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.595 | 5.595 | (1.339) | 40509 | 1000.00 | 968.45 |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 152324 | 50.0000 | 48.50 |
| 25 Methacrylonitrile | 41 | 3.821 | 3.821 | (0.915) | 147931 | 50.0000 | 45.65 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 499872 | 1000.00 | 971.21 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 202696 | 500.000 | 486.70 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 372130 | 50.0000 | 46.91 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 221995 | 500.000 | 475.45 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 182358 | 50.0000 | 55.34 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.890 | (1.159) | 70497 | 50.0000 | 50.03 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 67188 | 200.000 | 235.49(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 73877 | 50.0000 | 47.48(M) |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 423646 | 50.0000 | 51.17 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 438695 | 50.0000 | 49.65 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 141705 | 50.0000 | 46.34 |
| 130 Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 170590 | 50.0000 | 47.77 |
| 40 Methyl Methacrylate | 41 | 5.606 | 5.606 | (1.342) | 147516 | 50.0000 | 47.27 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 144135 | 50.0000 | 44.17 |
| 132 n-Butanol | 56 | 5.253 | 5.253 | (1.257) | 54418 | 1000.00 | 935.85 |
| 142 Tetrahydrofuran | 42 | 3.844 | 3.844 | (0.920) | 58181 | 100.000 | 102.34 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 182358 | 1000.00 | 1026.00 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 826758 | 50.0000 | 45.95 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D Page 2
Report Date: 27-Dec-2022 16:07

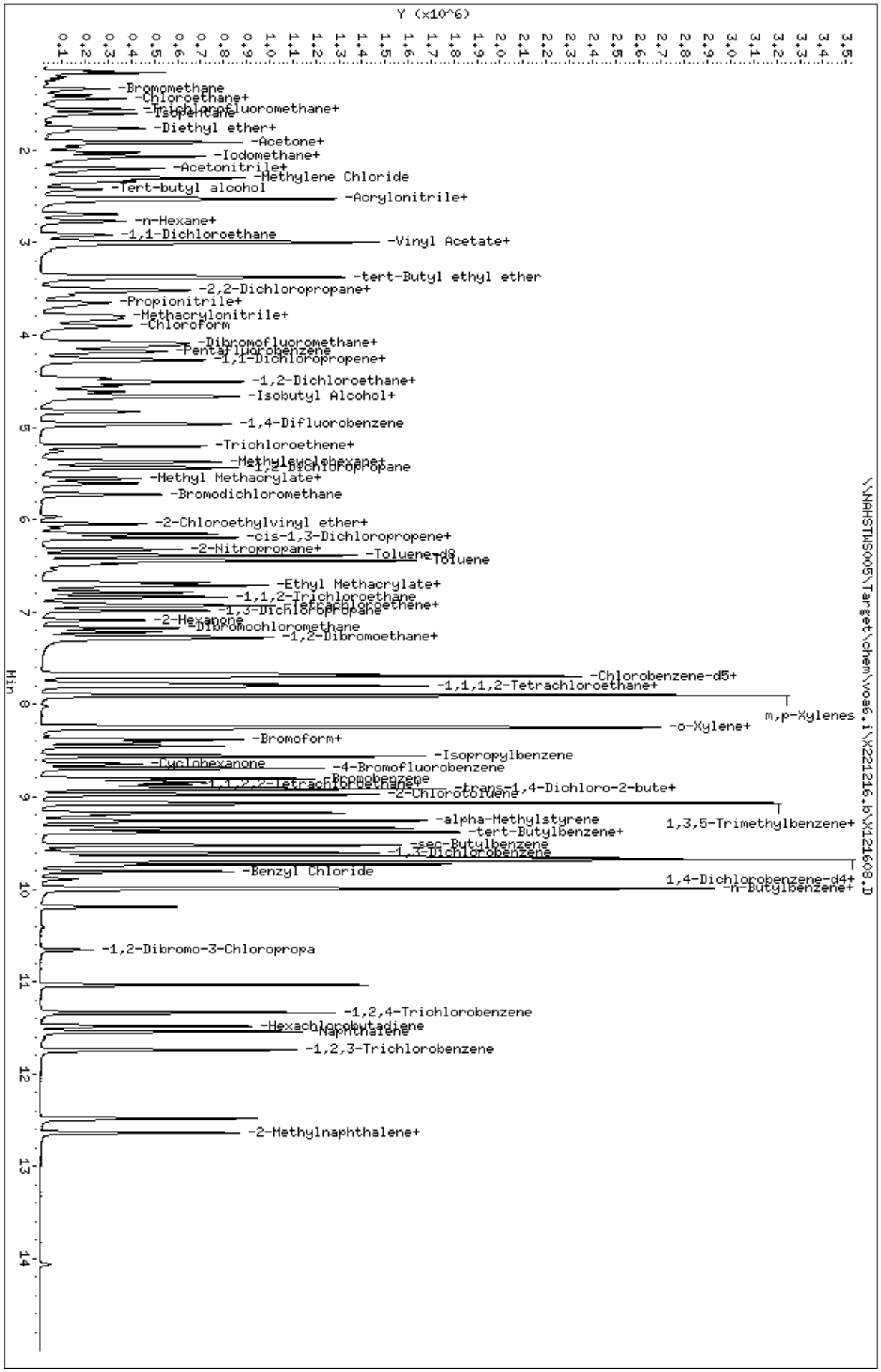
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT ( ug/l) | ON-COL ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 151068 | 50.0000 | 48.62(M) |
| | 162 | Butyl acrylate | 55 | 8.252 | 8.252 | (1.076) | 415774 | 50.0000 | 48.76 |
| | 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 160392 | 50.0000 | 50.11 |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 192710 | 50.0000 | 46.69 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 201812 | 50.0000 | 50.48 |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 139689 | 50.0000 | 46.33 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 134745 | 50.0000 | 48.43 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 278013 | 50.0000 | 49.70 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 27445 | 100.000 | 88.04 |
| | 10 | Acetone | 43 | 1.970 | 1.970 | (0.472) | 124798 | 100.000 | 97.19 |
| | 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 168905 | 50.0000 | 48.63 |
| | 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 455792 | 100.000 | 99.60 |
| | 16 | Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 118697 | 100.000 | 100.77 |
| | 17 | Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 225642 | 50.0000 | 47.36 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 534667 | 50.0000 | 47.03 |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 892690 | 100.000 | 98.24 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 191505 | 50.0000 | 49.27 |
| | 21 | Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 983875 | 100.000 | 98.59 |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 330037 | 50.0000 | 48.38 |
| | 24 | 2-Butanone | 43 | 3.574 | 3.574 | (0.856) | 130179 | 100.000 | 95.71(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 283996 | 50.0000 | 49.03 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.525 | 3.525 | (0.844) | 228729 | 50.0000 | 48.35 |
| | 28 | Chloroform | 83 | 3.904 | 3.904 | (0.935) | 370755 | 50.0000 | 48.49 |
| | 29 | Bromochloromethane | 128 | 3.788 | 3.788 | (0.907) | 120638 | 50.0000 | 46.58 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 211939 | 50.0000 | 48.23 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 300650 | 50.0000 | 49.56 |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 256928 | 50.0000 | 52.23 |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 276500 | 50.0000 | 48.70 |
| | 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 251833 | 50.0000 | 47.94 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 222293 | 50.0000 | 47.94 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 692830 | 50.0000 | |
| | 37 | Benzene | 78 | 4.507 | 4.507 | (0.908) | 812279 | 50.0000 | 49.09 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 233833 | 50.0000 | 49.83 |
| | 39 | Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 297315 | 50.0000 | 47.88 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.048 | 6.048 | (1.218) | 180920 | 100.000 | 102.42 |
| | 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 215079 | 50.0000 | 48.87 |
| | 44 | Dibromomethane | 93 | 5.553 | 5.553 | (1.119) | 143223 | 50.0000 | 47.87 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 336990 | 100.000 | 96.59 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 366231 | 50.0000 | 50.22 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 652727 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 772486 | 50.0000 | 47.89 |
| | 50 | Toluene | 91 | 6.446 | 6.446 | (0.841) | 889029 | 50.0000 | 49.27 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 309568 | 50.0000 | 51.15 |
| | 52 | 2-Hexanone | 43 | 7.087 | 7.087 | (0.924) | 232879 | 100.000 | 98.10 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 172833 | 50.0000 | 47.75 |
| | 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 345991 | 50.0000 | 48.56 |
| | 55 | Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 260477 | 50.0000 | 49.86 |
| | 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 194749 | 50.0000 | 52.17 |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 229442 | 50.0000 | 50.70 |
| | 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 170128 | 50.0000 | 50.81 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 624151 | 50.0000 | 48.77 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.773 | (1.014) | 235373 | 50.0000 | 49.42 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 311983 | 50.0000 | 51.75 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 785955 | 100.000 | 101.14 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 385427 | 50.0000 | 50.25 |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 673066 | 50.0000 | 52.35 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 181492 | 50.0000 | 50.14 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 920845 | 50.0000 | 52.55 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 276483 | 50.0000 | 46.43 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 292753 | 50.0000 | 48.55 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 373588 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 199888 | 50.0000 | 48.08(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1085689 | 50.0000 | 52.46 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 299078 | 50.0000 | 48.79 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 793494 | 50.0000 | 51.90 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 670422 | 50.0000 | 49.37 |
| | 77 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 782927 | 50.0000 | 50.57 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 652461 | 50.0000 | 52.14 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 815460 | 50.0000 | 50.69 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 889679 | 50.0000 | 53.43 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 810483 | 50.0000 | 54.32 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 520329 | 50.0000 | 51.14 |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 544362 | 50.0000 | 49.03 |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 472387 | 50.0000 | 46.44 |
| | 87 n-Butylbenzene | 91 | 9.995 | 9.995 | (1.035) | 696355 | 50.0000 | 48.48 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 519532 | 50.0000 | 49.58 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 48660 | 50.0000 | 51.11 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 355455 | 50.0000 | 53.75 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 155390 | 50.0000 | 52.99 |
| | 92 Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 799829 | 50.0000 | 53.16 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.742 | (1.215) | 320836 | 50.0000 | 50.66 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 420234 | 100.000 | |
| M | 95 Xylenes (total) | 106 | | | | 1171382 | 150.000 | |
| | 141 Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 237699 | 50.0000 | 51.49 |
| | 138 Freon TF | 101 | 1.913 | 1.913 | (0.458) | 172155 | 50.0000 | 51.25 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 420886 | 50.0000 | 49.62 |
| | 146 Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 96420 | 50.0000 | 46.82 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.423 | (0.580) | 302677 | 1000.00 | 955.26 |
| | 149 Isopropyl Alcohol | 45 | 2.090 | 2.090 | (0.500) | 157082 | 1000.00 | 949.28 |

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.


Y (x10^6)
Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Date : 16-DEC-2022 14:04
Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
\\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Min
-Bromomethane
-Chloroethane+
-Trichlorofluoromethane+
-Isopentane
-Diethyl ether+
-Acetone+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-Propionitrile+
-Methacrylonitrile+
-Chloroform
-Dibromofluoromethane+
-Pentafluorobenzene
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-Methylcyclohexane+
-1,2-Dichloropropane
-Methyl Methacrylate+
-Bromodichloromethane
-2-Chloroethylvinyl ether+
-cis-1,3-Dichloropropene+
-2-Nitropropane+
-Toluene-d8
-Toluene
-Ethyl Methacrylate+
-1,1,2-Trichloroethane
-Tetrachloroethene+
-1,3-Dichloropropane
-2-Hexanone
-Dibromochloromethane
-1,2-Dibromoethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Bromoform+
-Isopropylbenzene
-Cyclohexanone
-4-Bromofluorobenzene
-Bromobenzene
-1,1,2,2-Tetrachloroethane
-trans-1,4-Dichloro-2-bute+
-2-Chlorotoluene
-alpha-Methylstyrene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,3-Dichlorobenzene
-Benzyl Chloride
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene+

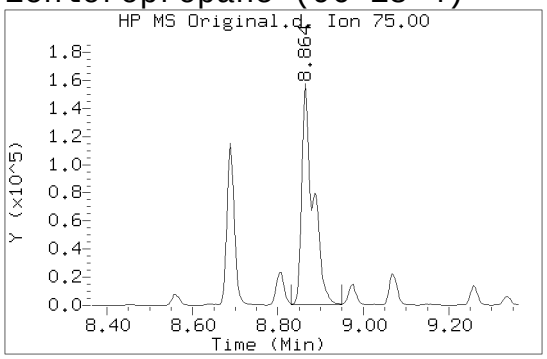
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Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

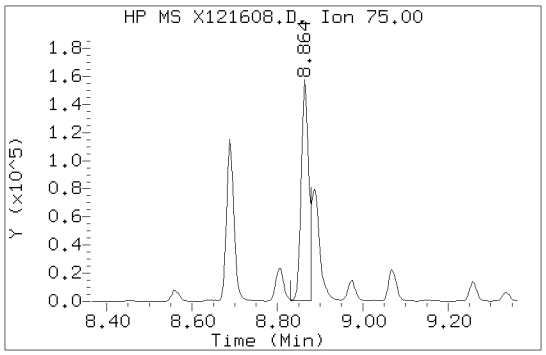
**BEFORE**

MASS
75
AREA
298610
HEIGHT
157256
27-Dec-2022
16:03
linh
pham



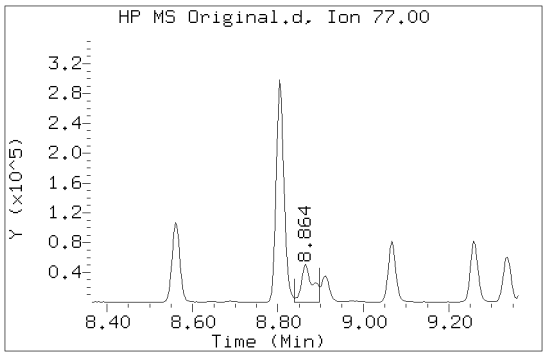

**AFTER**

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AREA
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HEIGHT
157257
27-Dec-2022
16:06
linh
pham



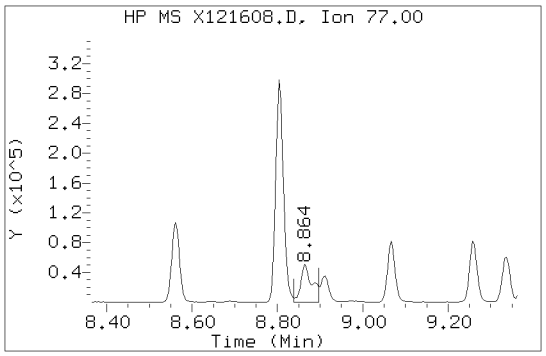

**BEFORE**

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AREA
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HEIGHT
50650
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
77
AREA
96560
HEIGHT
50650
27-Dec-2022
16:06
linh
pham

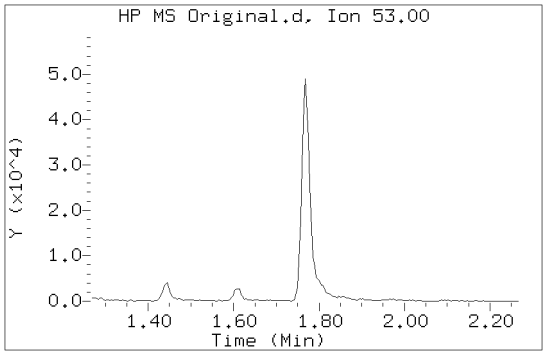



## Chloroprene (126-99-8)

Reason Code:

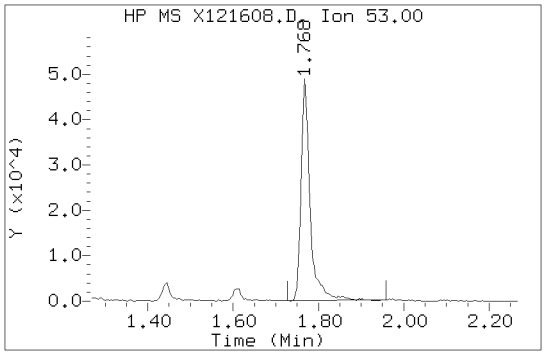
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HEIGHT
0
27-Dec-2022
16:03
linh
pham



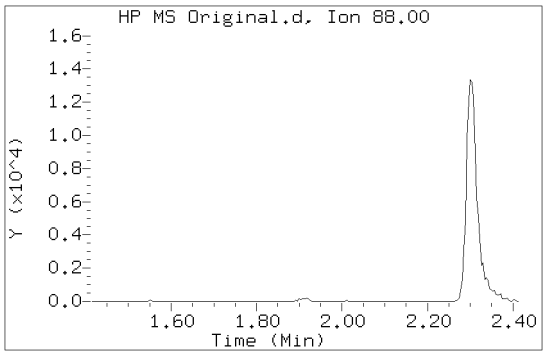

**AFTER**

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HEIGHT
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16:06
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pham



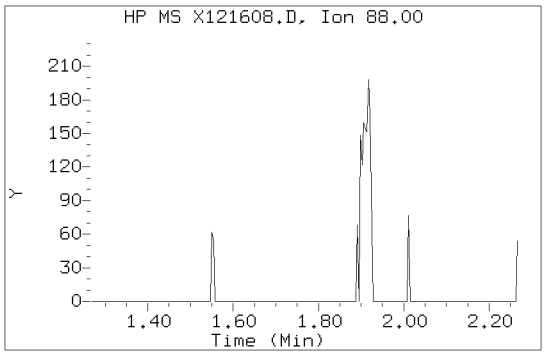

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham

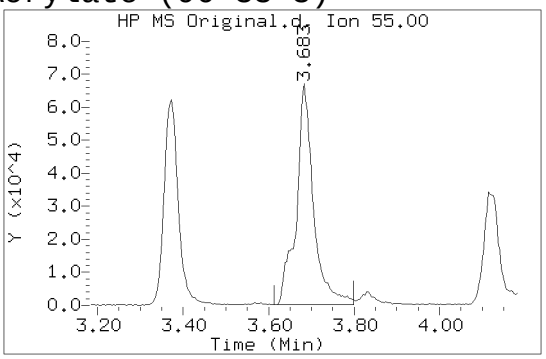


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Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

## Methyl Acrylate (96-33-3)

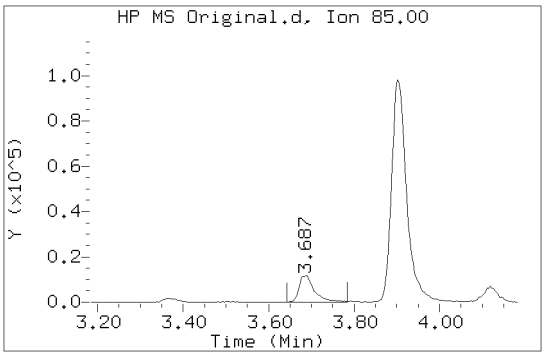
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AREA
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HEIGHT
66813
27-Dec-2022
16:03
linh
pham




### BEFORE

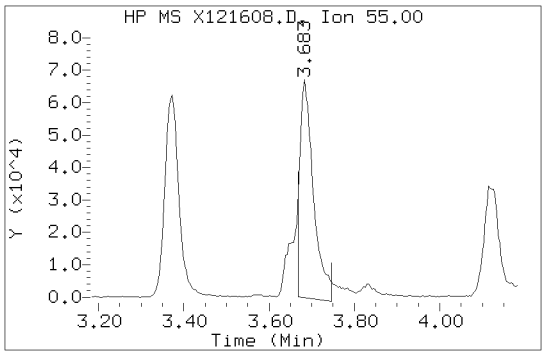
MASS
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AREA
29996
HEIGHT
11707
27-Dec-2022
16:03
linh
pham




### Reason Code:

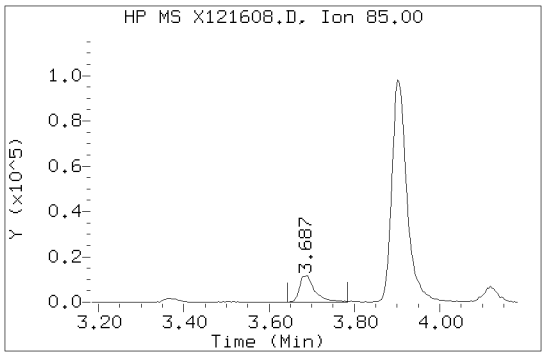
### AFTER

MASS
55
AREA
151068
HEIGHT
67146
27-Dec-2022
16:06
linh
pham




### AFTER

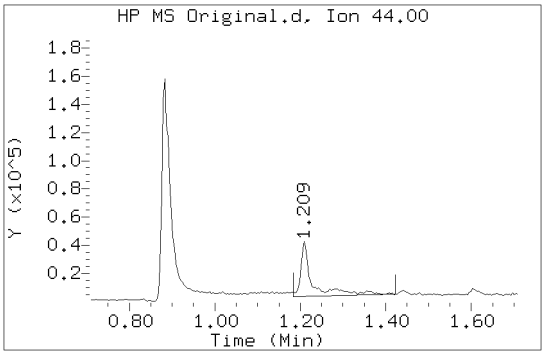
MASS
85
AREA
29996
HEIGHT
11707
27-Dec-2022
16:06
linh
pham




## Acetaldehyde (75-07-0)

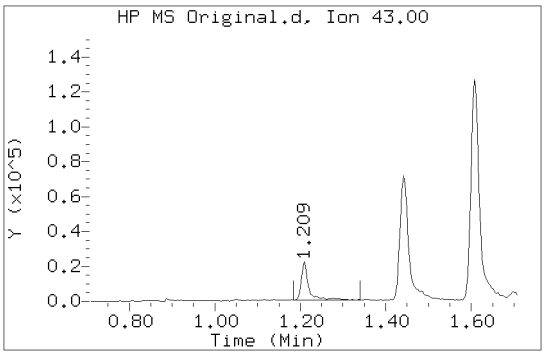
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MASS
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AREA
71920
HEIGHT
38656
27-Dec-2022
16:03
linh
pham




### BEFORE

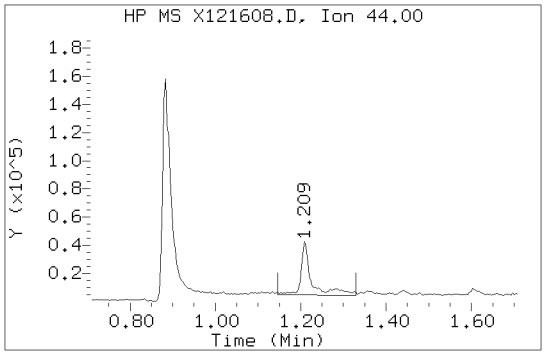
MASS
43
AREA
28032
HEIGHT
22022
27-Dec-2022
16:03
linh
pham




### Reason Code:

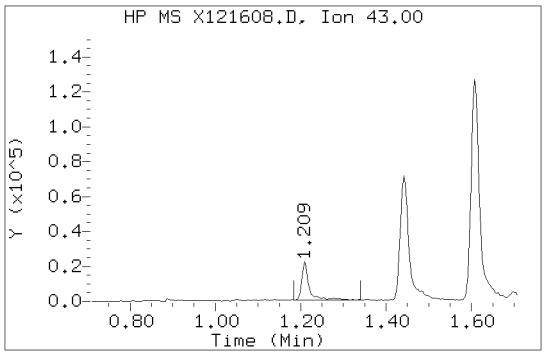
### AFTER

MASS
44
AREA
67188
HEIGHT
37862
27-Dec-2022
16:06
linh
pham




### AFTER

MASS
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AREA
28032
HEIGHT
22022
27-Dec-2022
16:06
linh
pham



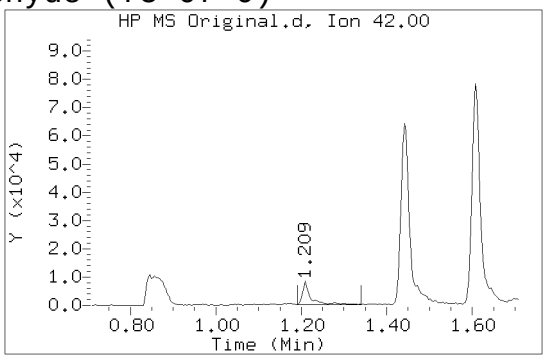
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Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

Reason Code:

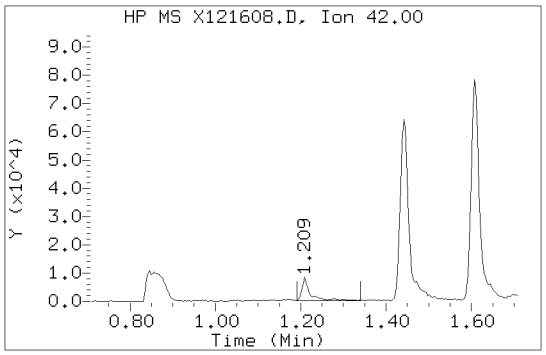
BEFORE

MASS
42
AREA
11352
HEIGHT
8504
27-Dec-2022
16:03
linh
pham




AFTER

MASS
42
AREA
11352
HEIGHT
8504
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Lab Smp Id: VSTD100  Client Smp ID: VSTD100
Inj Date  : 16-DEC-2022 14:25
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD100;VSTD100;1;8;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 10  Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 454640 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 80329 | 2000.00 | 1932.89 |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 300004 | 100.000 | 96.14 |
| 25 Methacrylonitrile | 41 | 3.822 | 3.822 | (0.915) | 296105 | 100.000 | 91.97 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 1010956 | 2000.00 | 1976.95 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 413876 | 1000.00 | 1000.23 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 756242 | 100.000 | 95.96 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 447087 | 1000.00 | 963.76 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 330416 | 100.000 | 100.93 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.890 | (1.159) | 144667 | 100.000 | 100.47 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 107798 | 400.000 | 394.60(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 146540 | 100.000 | 94.79(M) |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 857105 | 100.000 | 100.18 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 912573 | 100.000 | 101.09 |
| 139 Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 288002 | 100.000 | 94.80 |
| 130 Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 318062 | 100.000 | 89.65 |
| 40 Methyl Methacrylate | 41 | 5.606 | 5.606 | (1.342) | 295199 | 100.000 | 95.22 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 311883 | 100.000 | 96.06 |
| 132 n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 124057 | 2000.00 | 1971.40 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 109518 | 200.000 | 196.74 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 330416 | 2000.00 | 1871.09 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 1772216 | 100.000 | 95.31 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D Page 2
Report Date: 27-Dec-2022 16:07

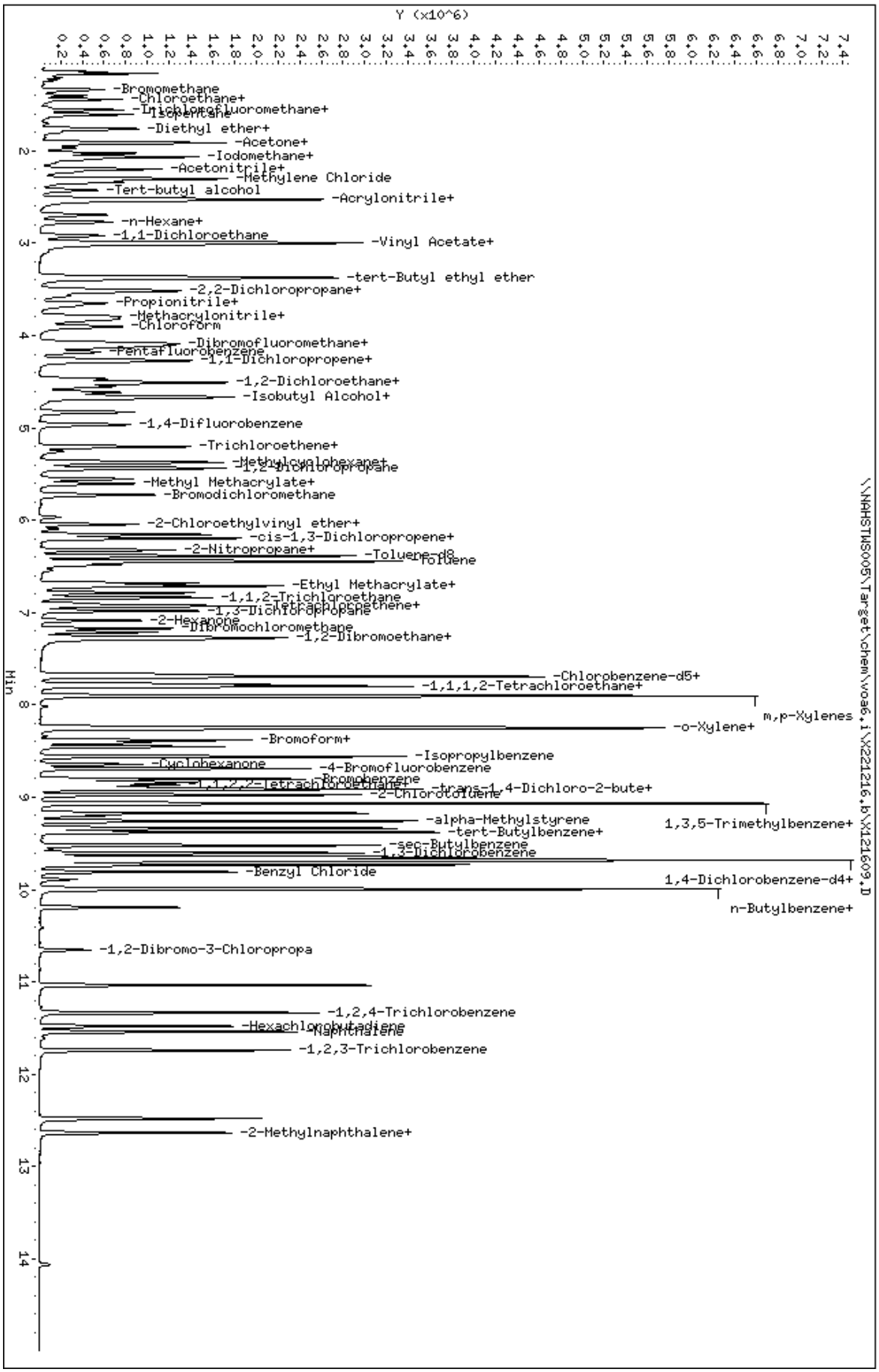
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT ( ug/l) | ON-COL ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 308372 | 100.000 | 99.90(M) |
| | 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 901265 | 100.000 | 103.44 |
| | 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 309019 | 100.000 | 96.81 |
| | 3 | Chloromethane | 50 | 1.078 | 1.078 | (0.258) | 388163 | 100.000 | 92.40 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 390567 | 100.000 | 98.34 |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 284165 | 100.000 | 93.02 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 261091 | 100.000 | 94.45 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 543907 | 100.000 | 97.86 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 60756 | 200.000 | 192.70 |
| | 10 | Acetone | 43 | 1.970 | 1.970 | (0.472) | 243517 | 200.000 | 190.92 |
| | 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 329394 | 100.000 | 95.46 |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 958603 | 200.000 | 197.72 |
| | 16 | Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 235604 | 200.000 | 201.32 |
| | 17 | Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 423827 | 100.000 | 89.54 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 1078258 | 100.000 | 95.46 |
| | 19 | Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 1765599 | 200.000 | 195.57 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 376933 | 100.000 | 97.60 |
| | 21 | Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 1955305 | 200.000 | 197.21 |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 641083 | 100.000 | 94.59 |
| | 24 | 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 264221 | 200.000 | 192.38(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 554902 | 100.000 | 96.43 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.843) | 443532 | 100.000 | 94.37 |
| | 28 | Chloroform | 83 | 3.904 | 3.904 | (0.935) | 715830 | 100.000 | 94.23 |
| | 29 | Bromochloromethane | 128 | 3.792 | 3.792 | (0.908) | 239022 | 100.000 | 92.88 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 438954 | 100.000 | 100.72 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 583361 | 100.000 | 96.79 |
| | 32 | 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.861) | 496096 | 100.000 | 101.35 |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 553661 | 100.000 | 98.01 |
| | 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 487488 | 100.000 | 93.26 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 455890 | 100.000 | 98.67 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 689427 | 50.0000 | |
| | 37 | Benzene | 78 | 4.508 | 4.508 | (0.908) | 1590142 | 100.000 | 96.58 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 456948 | 100.000 | 97.85 |
| | 39 | Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 587419 | 100.000 | 95.07 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.217) | 345852 | 200.000 | 196.75 |
| | 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 420835 | 100.000 | 96.09 |
| | 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 280146 | 100.000 | 94.11 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 671115 | 200.000 | 188.25 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 735867 | 100.000 | 101.41 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 666948 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 1602890 | 100.000 | 97.25 |
| | 50 | Toluene | 91 | 6.446 | 6.446 | (0.841) | 1761917 | 100.000 | 95.57 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.678 | 6.678 | (1.345) | 618784 | 100.000 | 102.75 |
| | 52 | 2-Hexanone | 43 | 7.087 | 7.087 | (0.924) | 458639 | 200.000 | 189.09 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 342194 | 100.000 | 92.52 |
| | 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 682500 | 100.000 | 93.75 |
| | 55 | Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 521219 | 100.000 | 97.64 |
| | 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 373651 | 100.000 | 97.96 |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 453499 | 100.000 | 98.07 |
| | 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 326538 | 100.000 | 98.00 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 1229287 | 100.000 | 94.01 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.773 | (1.014) | 472962 | 100.000 | 97.19 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 612289 | 100.000 | 99.40 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 1556563 | 200.000 | 196.03 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 63 | o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 767814 | 100.000 | 97.97 |
| 64 | Styrene | 104 | 8.260 | 8.260 | (1.077) | 1350780 | 100.000 | 102.83 |
| 66 | Bromoform | 173 | 8.410 | 8.410 | (1.097) | 367943 | 100.000 | 99.50 |
| 67 | Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 1818857 | 100.000 | 101.58 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 554091 | 100.000 | 90.03 |
| $ 69 | 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 615584 | 100.000 | 99.86 |
| * 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 386107 | 50.0000 | |
| 71 | 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 407425 | 100.000 | 94.83(M) |
| 73 | n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 2152414 | 100.000 | 100.64 |
| 74 | Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 602819 | 100.000 | 95.16 |
| 75 | 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1603520 | 100.000 | 101.49 |
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 1326500 | 100.000 | 94.51 |
| 77 | 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 1587855 | 100.000 | 99.24 |
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 1287608 | 100.000 | 99.56 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 1640529 | 100.000 | 98.68 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1778581 | 100.000 | 103.36 |
| 82 | p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 1606121 | 100.000 | 104.16 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 1039293 | 100.000 | 98.84 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 1114780 | 100.000 | 97.16 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 1009234 | 100.000 | 94.18 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 1425779 | 100.000 | 94.31 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 1054319 | 100.000 | 97.36 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 94321 | 100.000 | 95.78 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.338 | 11.338 | (1.173) | 697257 | 100.000 | 102.03 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 299042 | 100.000 | 97.63 |
| 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 1592534 | 100.000 | 102.42 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.215) | 642199 | 100.000 | 98.12 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 820465 | 200.000 | |
| M 95 | Xylenes (total) | 106 | | | | 2324377 | 300.000 | |
| 141 | Cyclohexane | 56 | 4.118 | 4.118 | (0.986) | 432198 | 100.000 | 93.19 |
| 138 | Freon TF | 101 | 1.913 | 1.913 | (0.458) | 327614 | 100.000 | 98.16 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 862071 | 100.000 | 102.15(A) |
| 146 | Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 196542 | 100.000 | 96.07 |
| 148 | Tert-Butyl alcohol | 59 | 2.427 | 2.427 | (0.581) | 592215 | 2000.00 | 1881.19 |
| 149 | Isopropyl Alcohol | 45 | 2.093 | 2.093 | (0.501) | 321288 | 2000.00 | 1954.21 |

## QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Date : 16-DEC-2022 14:25
Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;
Purge Volume: 5.0
Column phase: DB624

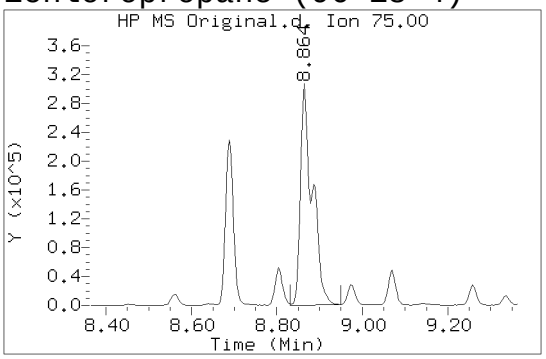
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

## 1,2,3-Trichloropropane (96-18-4)

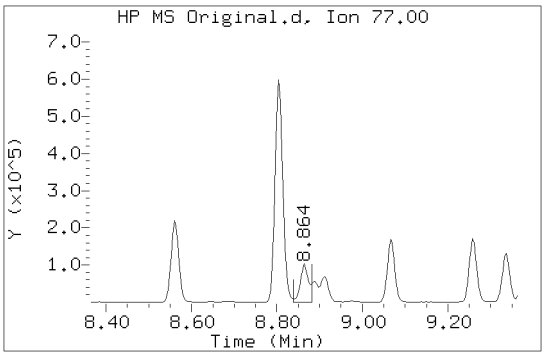
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27-Dec-2022
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linh
pham




### BEFORE

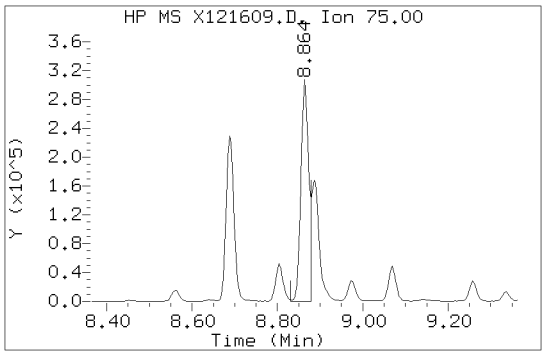
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### Reason Code:

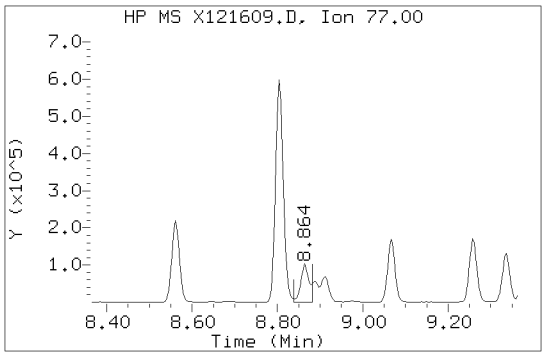
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pham




### AFTER

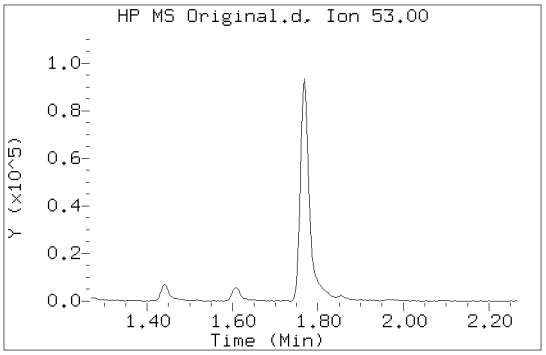
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16:06
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pham




## Chloroprene (126-99-8)

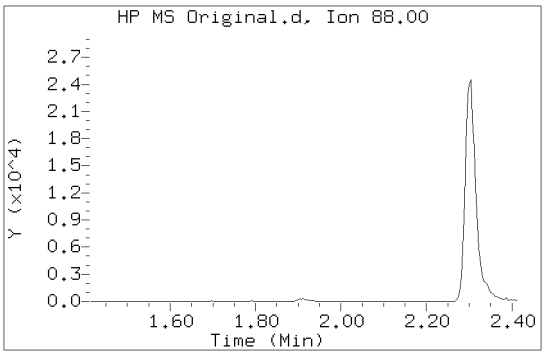
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16:03
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### BEFORE

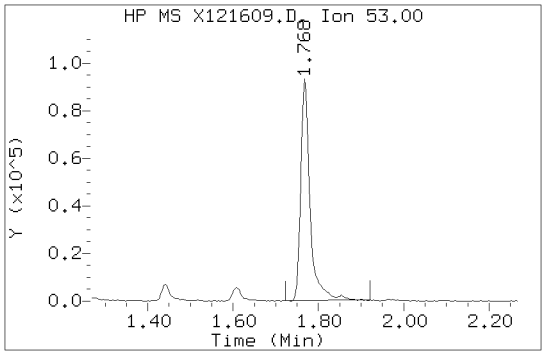
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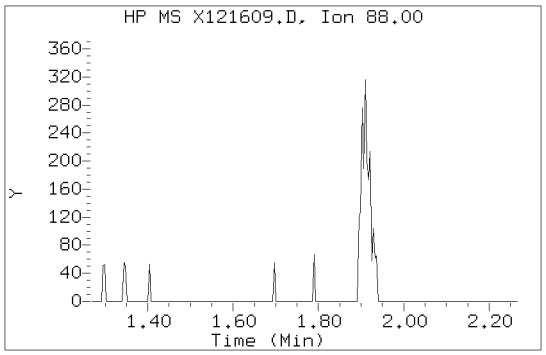
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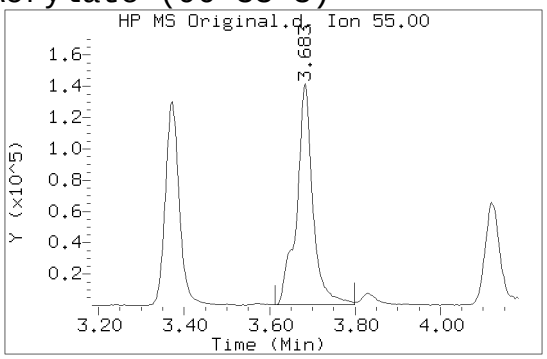
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Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
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InstruID : voa6.i
LabSampID : VSTD100

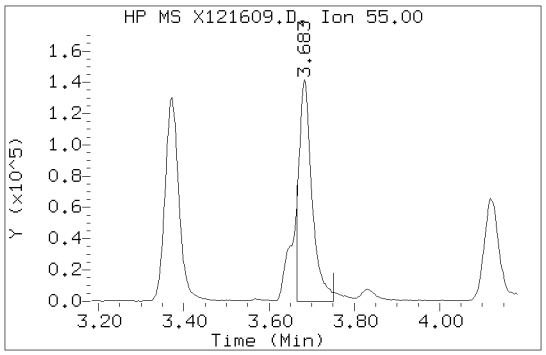
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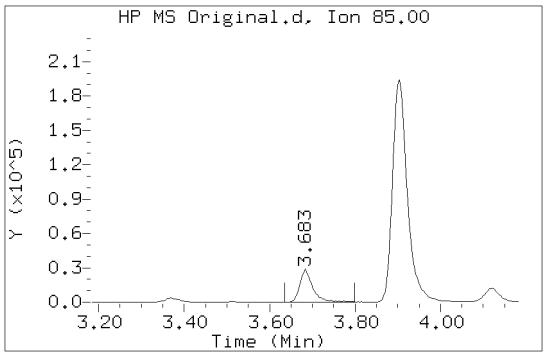



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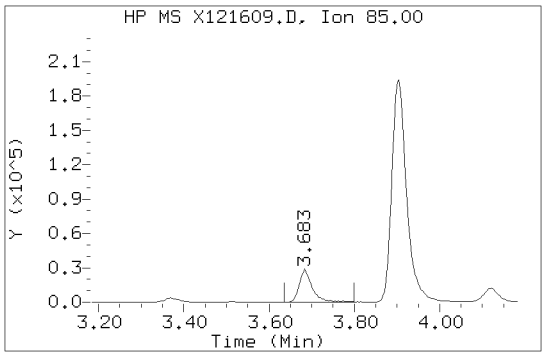
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27-Dec-2022
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BEFORE
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27-Dec-2022
16:03
linh
pham

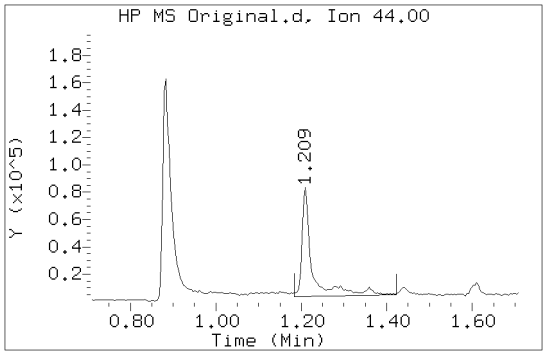



AFTER
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AREA
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27-Dec-2022
16:06
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pham



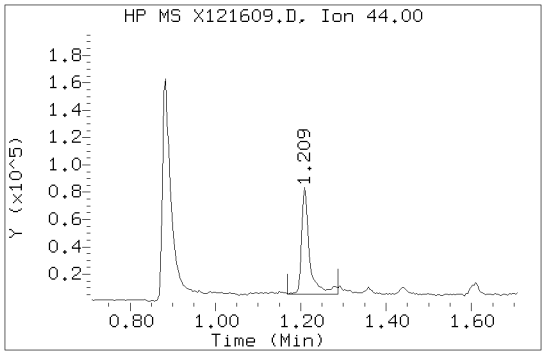

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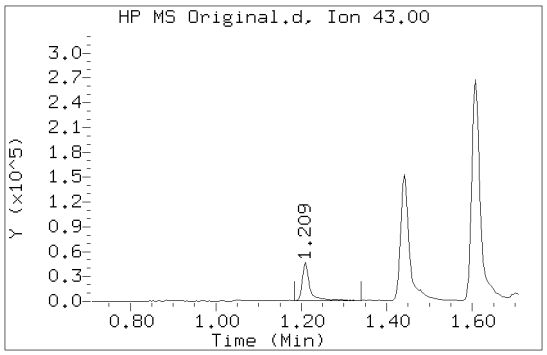



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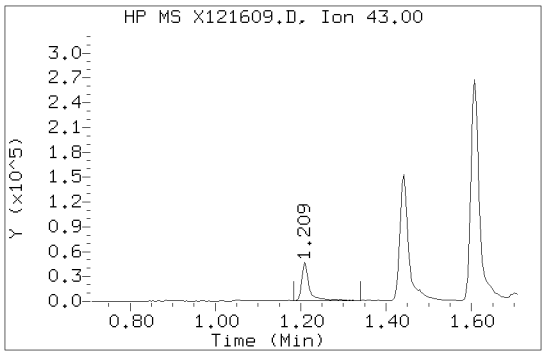
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27-Dec-2022
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pham




BEFORE
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58307
HEIGHT
46134
27-Dec-2022
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AFTER
MASS
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HEIGHT
46134
27-Dec-2022
16:06
linh
pham



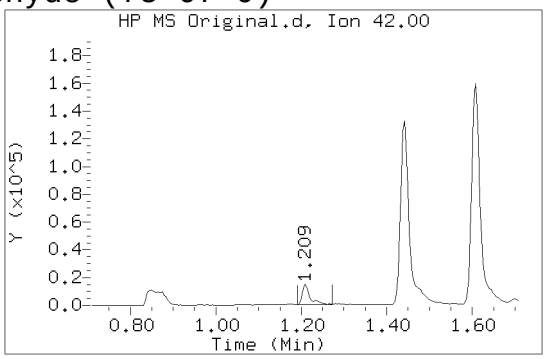
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Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

Acetaldehyde (75-07-0)

Reason Code:

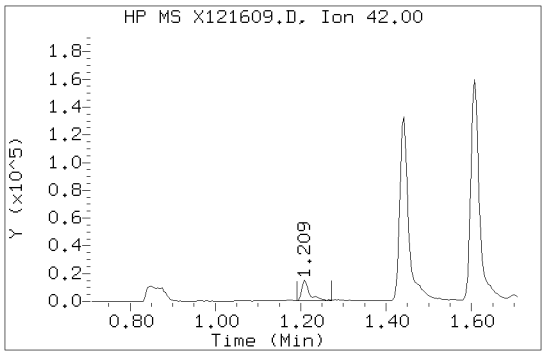
BEFORE

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27-Dec-2022
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pham




AFTER

MASS
42
AREA
19613
HEIGHT
14674
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D
Lab Smp Id: VSTD150  Client Smp ID: VSTD150
Inj Date  : 16-DEC-2022 14:46
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD150;VSTD150;1;9;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:25  Cal File: X121609.D
Als bottle: 11  Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.177 | 4.177 | (1.000) | 447266 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 128845 | 3000.00 | 3151.41 |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 468966 | 150.000 | 152.77 |
| 25 Methacrylonitrile | 41 | 3.818 | 3.818 | (0.914) | 457301 | 150.000 | 144.39 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 1595753 | 3000.00 | 3171.99 |
| 13 Acetonitrile | 39 | 2.194 | 2.194 | (0.525) | 642798 | 1500.00 | 1579.09 |
| 14 Allyl Chloride | 41 | 2.194 | 2.194 | (0.525) | 1164663 | 150.000 | 150.22 |
| 4 Propionitrile | 54 | 3.649 | 3.649 | (0.873) | 694740 | 1500.00 | 1522.31 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 533876 | 150.000 | 165.78 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.889 | 8.889 | (1.159) | 234252 | 150.000 | 161.53 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 161053 | 600.000 | 611.34(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 225733 | 150.000 | 148.43 |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 1351001 | 150.000 | 157.73 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 1420820 | 150.000 | 156.27 |
| 139 Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 443624 | 150.000 | 148.44 |
| 130 Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 516433 | 150.000 | 147.97 |
| 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 465959 | 150.000 | 152.78 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 517063 | 150.000 | 157.90 |
| 132 n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 210842 | 3000.00 | 3100.52 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 162133 | 300.000 | 297.65 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 533876 | 3000.00 | 3073.09 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 2744011 | 150.000 | 147.41 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D Page 2
Report Date: 27-Dec-2022 16:07

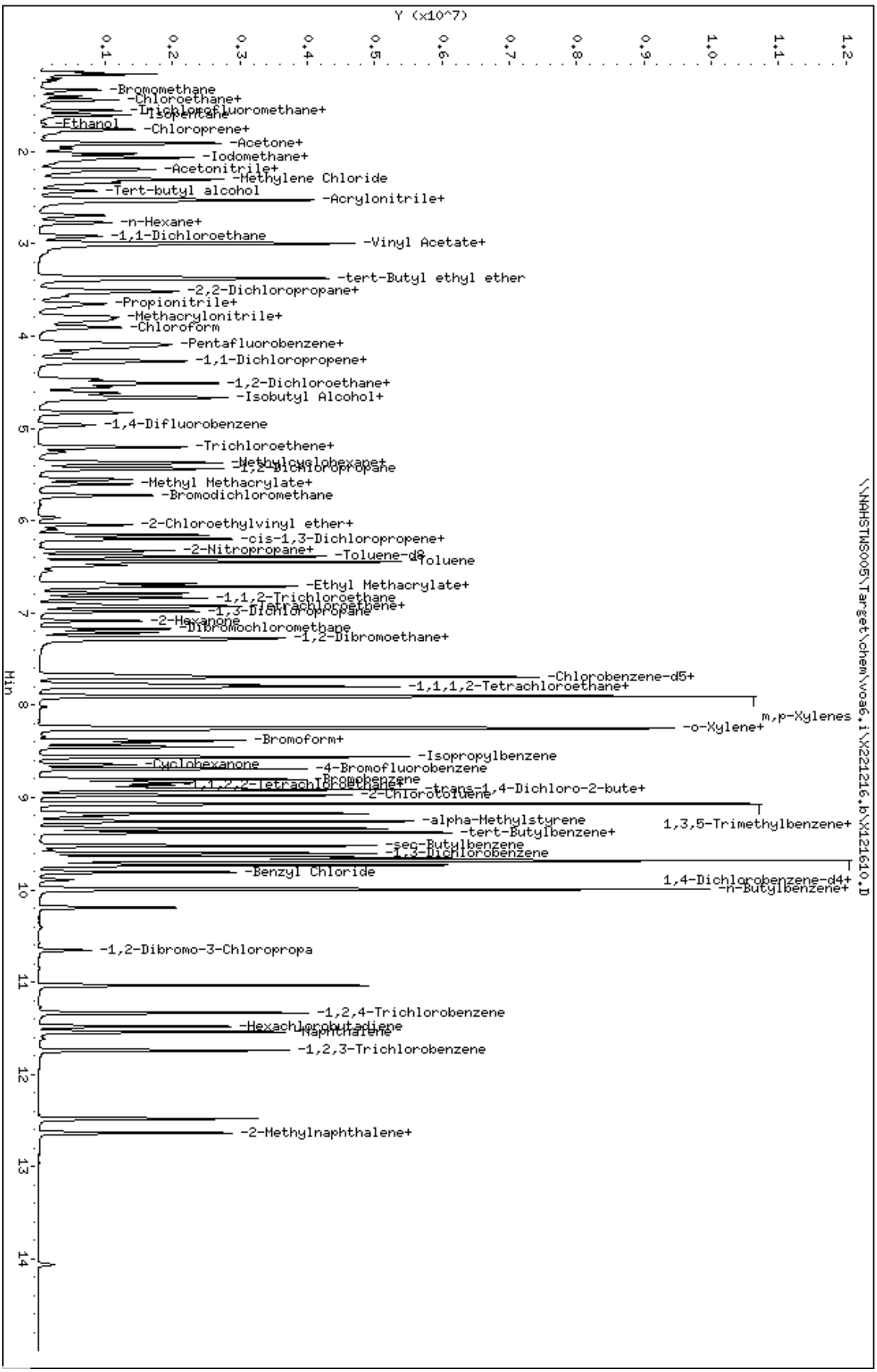
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT ( ug/l) | ON-COL ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 479571 | 150.000 | 157.93(M) |
| | 162 | Butyl acrylate | 55 | 8.248 | 8.248 | (1.076) | 1470193 | 150.000 | 167.53 |
| | 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 476130 | 150.000 | 151.40 |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 621048 | 150.000 | 148.89 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 602774 | 150.000 | 154.27 |
| | 6 | Bromomethane | 94 | 1.332 | 1.332 | (0.319) | 470318 | 150.000 | 155.29 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 409168 | 150.000 | 150.45 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 866865 | 150.000 | 158.54 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 96139 | 300.000 | 308.25 |
| | 10 | Acetone | 43 | 1.969 | 1.969 | (0.472) | 373504 | 300.000 | 297.68 |
| | 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 516820 | 150.000 | 152.24 |
| | 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 1554547 | 300.000 | 304.69 |
| | 16 | Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 371872 | 300.000 | 323.00 |
| | 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 656037 | 150.000 | 140.89 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 1661314 | 150.000 | 149.51 |
| | 19 | Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 2747788 | 300.000 | 309.38 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 579939 | 150.000 | 152.65 |
| | 21 | Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 3127175 | 300.000 | 320.61 |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 993924 | 150.000 | 149.06 |
| | 24 | 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 407629 | 300.000 | 299.97(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.506 | 3.506 | (0.839) | 858853 | 150.000 | 151.71 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.521 | 3.521 | (0.843) | 693846 | 150.000 | 150.07 |
| | 28 | Chloroform | 83 | 3.904 | 3.904 | (0.935) | 1135322 | 150.000 | 151.92 |
| | 29 | Bromochloromethane | 128 | 3.791 | 3.791 | (0.908) | 379595 | 150.000 | 149.95 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 652724 | 150.000 | 152.32 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 907111 | 150.000 | 152.99 |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 766313 | 150.000 | 155.22 |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 857022 | 150.000 | 150.42 |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 758288 | 150.000 | 143.83 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 686218 | 150.000 | 150.83 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 695375 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.511 | (0.909) | 2450385 | 150.000 | 147.56 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 707016 | 150.000 | 150.11 |
| | 39 | Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 932632 | 150.000 | 149.65 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.217) | 534005 | 300.000 | 301.19 |
| | 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 658007 | 150.000 | 148.96 |
| | 44 | Dibromomethane | 93 | 5.549 | 5.549 | (1.118) | 444851 | 150.000 | 148.16 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.325 | 6.325 | (0.825) | 1052577 | 300.000 | 293.14 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 1159982 | 150.000 | 158.49 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 671780 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 2346444 | 150.000 | 141.35 |
| | 50 | Toluene | 91 | 6.445 | 6.445 | (0.841) | 2724692 | 150.000 | 146.73 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 982044 | 150.000 | 161.68 |
| | 52 | 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 738082 | 300.000 | 302.12 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 540625 | 150.000 | 145.13 |
| | 54 | 1,3-Dichloropropane | 76 | 6.981 | 6.981 | (0.911) | 1079961 | 150.000 | 147.29 |
| | 55 | Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 822094 | 150.000 | 152.90 |
| | 56 | Tetrachloroethene | 164 | 6.929 | 6.929 | (0.904) | 574499 | 150.000 | 149.53 |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 715678 | 150.000 | 153.66 |
| | 58 | 1-Chlorohexane | 55 | 7.697 | 7.697 | (1.550) | 522502 | 150.000 | 155.48 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 1944205 | 150.000 | 147.62 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 744470 | 150.000 | 151.89 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 946928 | 150.000 | 152.63 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 2421267 | 300.000 | 302.75 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 1210374 | 150.000 | 153.33 |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 2169528 | 150.000 | 163.97 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 588916 | 150.000 | 158.11 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 2877359 | 150.000 | 159.55 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 873933 | 150.000 | 141.84 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 936681 | 150.000 | 150.82 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 386546 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 702545 | 150.000 | 163.33 |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 3370402 | 150.000 | 157.41 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 952608 | 150.000 | 150.20 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 2529726 | 150.000 | 159.93 |
| | 76 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 2083510 | 150.000 | 148.28 |
| | 77 4-Chlorotoluene | 91 | 9.069 | 9.069 | (0.939) | 2540753 | 150.000 | 158.62 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 2055293 | 150.000 | 158.74 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 2613455 | 150.000 | 157.03 |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 2819238 | 150.000 | 163.65 |
| | 82 p-Isopropyltoluene | 119 | 9.650 | 9.650 | (0.999) | 2542764 | 150.000 | 164.71 |
| | 83 1,3-Dichlorobenzene | 146 | 9.605 | 9.605 | (0.994) | 1650440 | 150.000 | 156.79 |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 1766146 | 150.000 | 153.76 |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 1650494 | 150.000 | 151.23 |
| | 87 n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 2293126 | 150.000 | 150.43 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 1672283 | 150.000 | 154.25 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 149691 | 150.000 | 151.78 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 1094701 | 150.000 | 160.01 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 466452 | 150.000 | 150.10 |
| | 92 Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 2498440 | 150.000 | 160.50 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.738 | 11.738 | (1.215) | 991236 | 150.000 | 151.28 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 1273785 | 300.000 | |
| M | 95 Xylenes (total) | 106 | | | | 3631641 | 450.000 | |
| | 141 Cyclohexane | 56 | 4.117 | 4.117 | (0.986) | 682728 | 150.000 | 148.87 |
| | 138 Freon TF | 101 | 1.910 | 1.910 | (0.457) | 517229 | 150.000 | 157.53 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 1358300 | 150.000 | 159.57(A) |
| | 146 Methyl Acetate | 43 | 2.224 | 2.224 | (0.533) | 301298 | 150.000 | 149.70 |
| | 148 Tert-Butyl alcohol | 59 | 2.427 | 2.427 | (0.581) | 962267 | 3000.00 | 3107.07 |
| | 149 Isopropyl Alcohol | 45 | 2.093 | 2.093 | (0.501) | 514966 | 3000.00 | 3183.89 |

## QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121610.D
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Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
Purge Volume: 5.0
Column phase: DB624

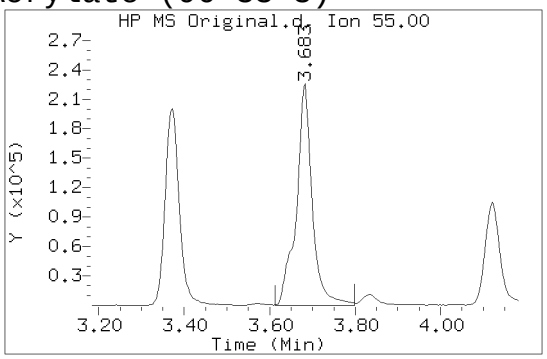
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D
Inj Date : 16-DEC-2022 14:46
InstruID : voa6.i
LabSampID : VSTD150

## Methyl Acrylate (96-33-3)

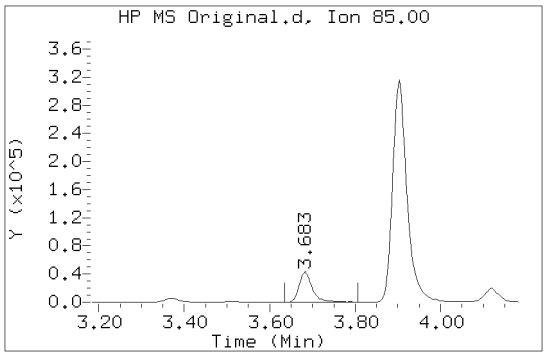
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### BEFORE

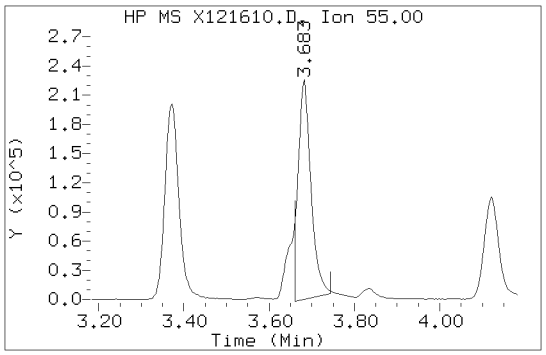
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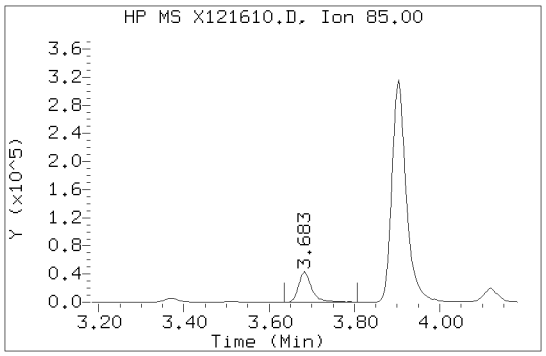
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linh
pham




### AFTER

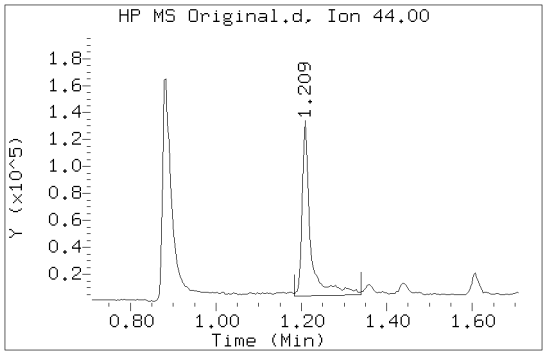
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## Acetaldehyde (75-07-0)

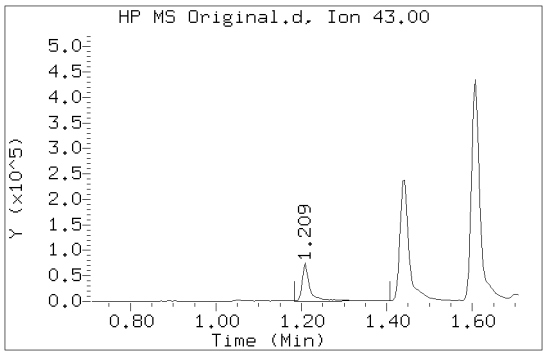
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pham




### BEFORE

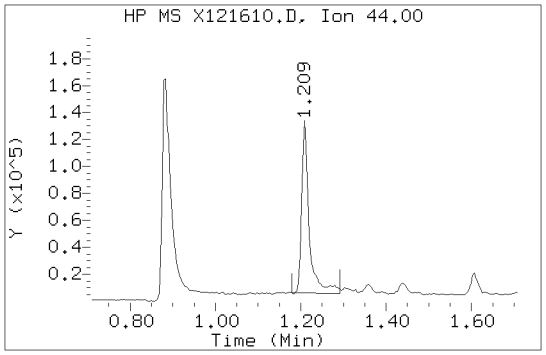
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### Reason Code:

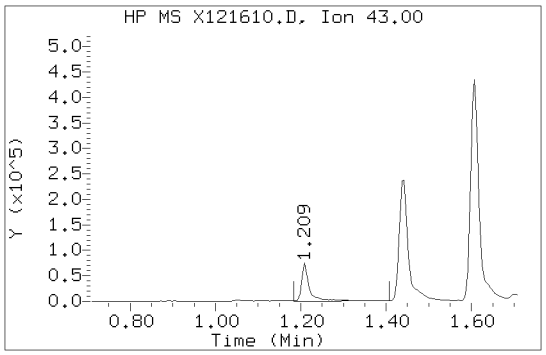
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27-Dec-2022
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### AFTER

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74827
27-Dec-2022
16:06
linh
pham



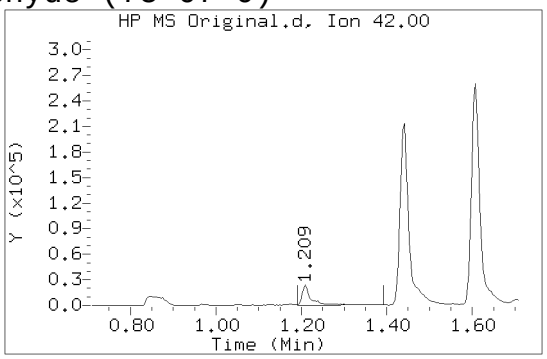
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Inj Date : 16-DEC-2022 14:46
InstruID : voa6.i
LabSampID : VSTD150

Acetaldehyde (75-07-0)

Reason Code:

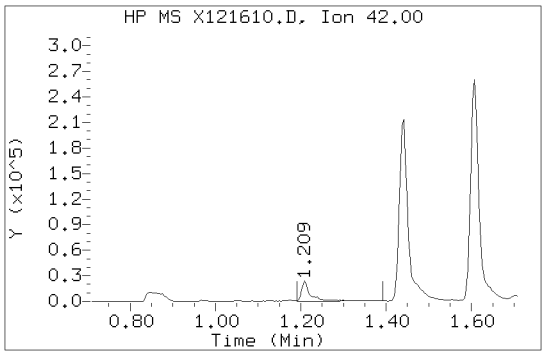
BEFORE

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27-Dec-2022
16:04
linh
pham




AFTER

MASS
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36089
HEIGHT
23932
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
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Inj Date  : 16-DEC-2022 15:07
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD200;VSTD200;1;10;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:46  Cal File: X121610.D
Als bottle: 12  Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 450847 | 50.0000 | |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 179280 | 4000.00 | 4350.17(A) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 646265 | 200.000 | 208.86(A) |
| 25 | Methacrylonitrile | 41 | 3.814 | 3.814 | (0.913) | 619479 | 200.000 | 194.04 |
| 12 | Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 2146631 | 4000.00 | 4233.12(A) |
| 13 | Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 854153 | 2000.00 | 2081.63(A) |
| 14 | Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 1558053 | 200.000 | 199.36 |
| 4 | Propionitrile | 54 | 3.649 | 3.649 | (0.873) | 933721 | 2000.00 | 2029.71(A) |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 726173 | 200.000 | 223.70(A) |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.890 | (1.159) | 324976 | 200.000 | 217.73(A) |
| 194 | Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 205547 | 800.000 | 780.23(M) |
| 23 | Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 315248 | 200.000 | 205.64(A) |
| 145 | alpha-Methylstyrene | 118 | 9.261 | 9.261 | (0.958) | 1880547 | 200.000 | 211.54(A) |
| 200 | Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 1929723 | 200.000 | 206.22(A) |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 595638 | 200.000 | 197.72 |
| 130 | Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 706790 | 200.000 | 200.90(A) |
| 40 | Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 643877 | 200.000 | 209.45(A) |
| 49 | Ethyl Methacrylate | 69 | 6.715 | 6.715 | (1.353) | 735246 | 200.000 | 222.23(A) |
| 132 | n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 297334 | 4000.00 | 3955.86 |
| 142 | Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 219995 | 400.000 | 401.77(A) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 726173 | 4000.00 | 4146.79(A) |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 3701988 | 200.000 | 191.61 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D Page 2
Report Date: 27-Dec-2022 16:07

| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT ( ug/l) | ON-COL ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 646827 | 200.000 | 211.32(AM) |
| | 162 | Butyl acrylate | 55 | 8.252 | 8.252 | (1.076) | 2063916 | 200.000 | 228.52(A) |
| | 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 635808 | 200.000 | 200.44(A) |
| | 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 865151 | 200.000 | 204.92(A) |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 827926 | 200.000 | 210.21(A) |
| | 6 | Bromomethane | 94 | 1.329 | 1.329 | (0.318) | 666705 | 200.000 | 217.67(A) |
| | 7 | Chloroethane | 64 | 1.396 | 1.396 | (0.334) | 548415 | 200.000 | 200.06(A) |
| | 8 | Trichlorofluoromethane | 101 | 1.553 | 1.553 | (0.372) | 1173529 | 200.000 | 212.92(A) |
| | 9 | Acrolein | 56 | 1.437 | 1.437 | (0.344) | 125874 | 400.000 | 399.54 |
| | 10 | Acetone | 43 | 1.970 | 1.970 | (0.472) | 514105 | 400.000 | 406.50(A) |
| | 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 704695 | 200.000 | 205.94(A) |
| | 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 2193685 | 400.000 | 398.07 |
| | 16 | Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 504850 | 400.000 | 435.02(A) |
| | 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 863945 | 200.000 | 184.07 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 2237559 | 200.000 | 199.78 |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 3829593 | 400.000 | 427.76(A) |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 785444 | 200.000 | 205.10(A) |
| | 21 | Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 4210603 | 400.000 | 428.26(A) |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 1342786 | 200.000 | 199.79 |
| | 24 | 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 555896 | 400.000 | 404.77(AH) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 1175128 | 200.000 | 205.93(A) |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.843) | 927934 | 200.000 | 199.10 |
| | 28 | Chloroform | 83 | 3.904 | 3.904 | (0.935) | 1523082 | 200.000 | 202.19(A) |
| | 29 | Bromochloromethane | 128 | 3.791 | 3.791 | (0.908) | 510028 | 200.000 | 199.87 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 856027 | 200.000 | 198.23 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 1257327 | 200.000 | 210.37(A) |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 1048877 | 200.000 | 210.29(A) |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 1153034 | 200.000 | 200.31(A) |
| | 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 1051824 | 200.000 | 197.48 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 919752 | 200.000 | 200.47(A) |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 702551 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.511 | (0.909) | 3321582 | 200.000 | 197.98 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 973709 | 200.000 | 204.62(A) |
| | 39 | Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 1264834 | 200.000 | 200.88(A) |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.217) | 729151 | 400.000 | 407.06(A) |
| | 42 | 1,2-Dichloropropane | 63 | 5.437 | 5.437 | (1.095) | 895211 | 200.000 | 200.59(A) |
| | 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 600170 | 200.000 | 197.85 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.326 | 6.326 | (0.825) | 1447268 | 400.000 | 391.63 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 1583645 | 200.000 | 214.16(A) |
| * | 47 | Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 691386 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.385 | 6.385 | (0.832) | 3061758 | 200.000 | 179.21 |
| | 50 | Toluene | 91 | 6.445 | 6.445 | (0.840) | 3757557 | 200.000 | 196.62 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 1365007 | 200.000 | 222.44(A) |
| | 52 | 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 1026898 | 400.000 | 408.42(A) |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 736981 | 200.000 | 192.23 |
| | 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.910) | 1482067 | 200.000 | 196.39 |
| | 55 | Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 1128140 | 200.000 | 203.88(A) |
| | 56 | Tetrachloroethene | 164 | 6.929 | 6.929 | (0.903) | 798932 | 200.000 | 202.05(A) |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.946) | 970608 | 200.000 | 202.48(A) |
| | 58 | 1-Chlorohexane | 55 | 7.698 | 7.698 | (1.550) | 746326 | 200.000 | 219.81(A) |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 2696715 | 200.000 | 198.95 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.776 | 7.776 | (1.014) | 1028448 | 200.000 | 203.88(A) |

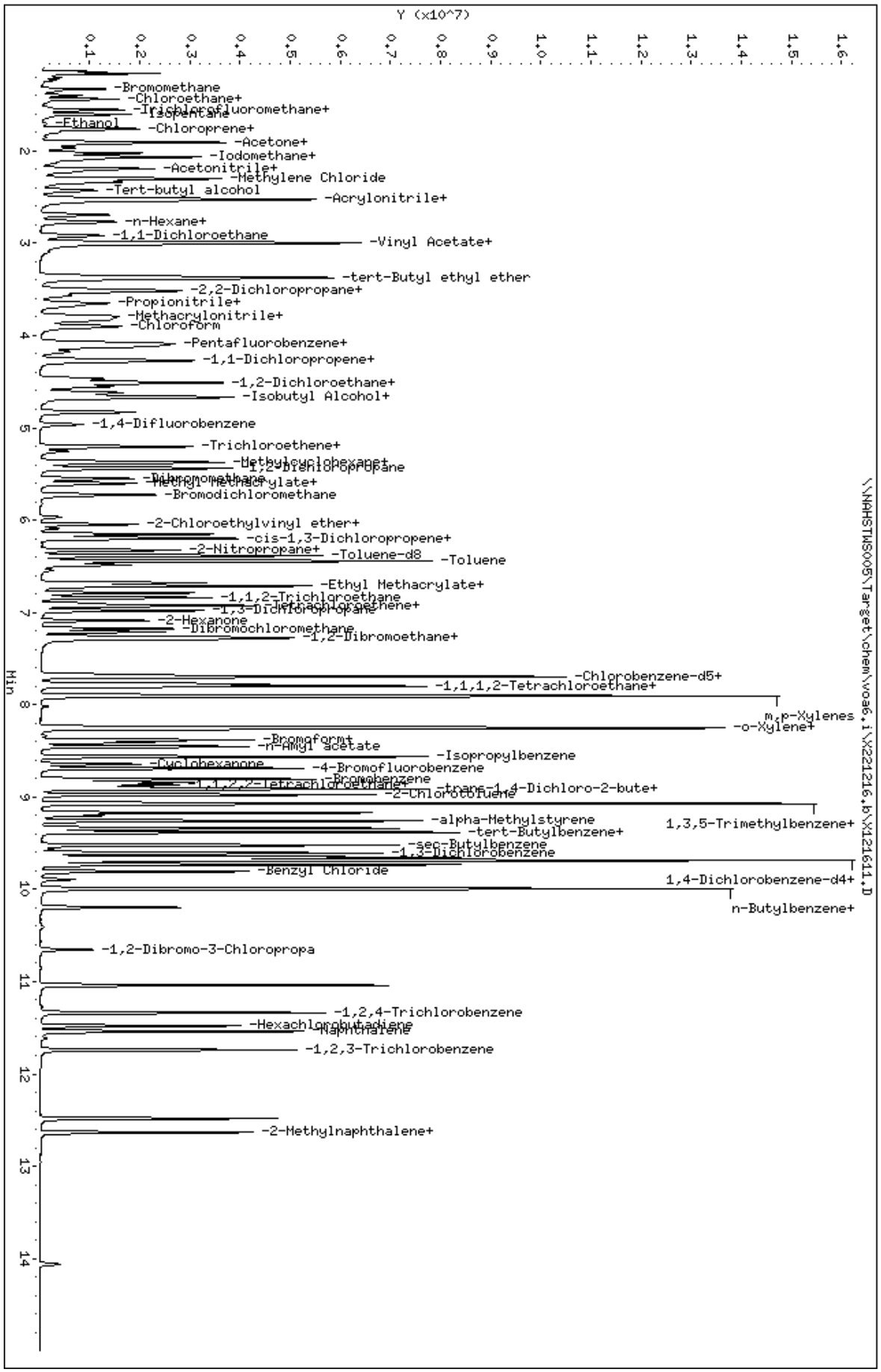
| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 1312165 | 200.000 | 205.50(A) |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.030) | 3401207 | 400.000 | 413.22(A) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D Page 3
Report Date: 27-Dec-2022 16:07

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.074) | 1701245 | 200.000 | 209.41(A) |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 3030858 | 200.000 | 222.58(A) |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.096) | 809693 | 200.000 | 211.22(A) |
| | 67 Isopropylbenzene | 105 | 8.563 | 8.563 | (1.116) | 4031708 | 200.000 | 217.22(A) |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.841 | 8.841 | (0.915) | 1186926 | 200.000 | 185.61 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.132) | 1277239 | 200.000 | 199.81 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.666 | 9.666 | (1.000) | 401196 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 864931 | 200.000 | 193.75(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 4694239 | 200.000 | 211.23(A) |
| | 74 Bromobenzene | 156 | 8.807 | 8.807 | (0.911) | 1313631 | 200.000 | 199.57 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.070 | 9.070 | (0.938) | 3532485 | 200.000 | 215.17(A) |
| | 76 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 2866849 | 200.000 | 196.59 |
| | 77 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.938) | 3546402 | 200.000 | 213.32(A) |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 2865820 | 200.000 | 213.26(A) |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 3599947 | 200.000 | 208.40(A) |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.985) | 3952917 | 200.000 | 221.08(A) |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.998) | 3537904 | 200.000 | 220.81(A) |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 2282597 | 200.000 | 208.93(A) |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 2442324 | 200.000 | 204.86(A) |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 2286488 | 200.000 | 202.63(A) |
| | 87 n-Butylbenzene | 91 | 9.995 | 9.995 | (1.034) | 3216534 | 200.000 | 202.68(A) |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 2296902 | 200.000 | 204.14(A) |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.102) | 205063 | 200.000 | 200.30(A) |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 1524896 | 200.000 | 214.75(A) |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 654615 | 200.000 | 200.27(A) |
| | 92 Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 3413593 | 200.000 | 211.29(A) |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.214) | 1363987 | 200.000 | 200.56(A) |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 1713378 | 400.000 | |
| M | 95 Xylenes (total) | 106 | | | | 5102452 | 600.000 | |
| | 141 Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 943314 | 200.000 | 203.60(A) |
| | 138 Freon TF | 101 | 1.910 | 1.910 | (0.457) | 714577 | 200.000 | 215.91(A) |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 1829310 | 200.000 | 212.71(A) |
| | 146 Methyl Acetate | 43 | 2.224 | 2.224 | (0.533) | 408781 | 200.000 | 201.49(A) |
| | 148 Tert-Butyl alcohol | 59 | 2.431 | 2.431 | (0.582) | 1308623 | 4000.00 | 4191.87(A) |
| | 149 Isopropyl Alcohol | 45 | 2.093 | 2.093 | (0.501) | 697543 | 4000.00 | 4278.45(A) |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

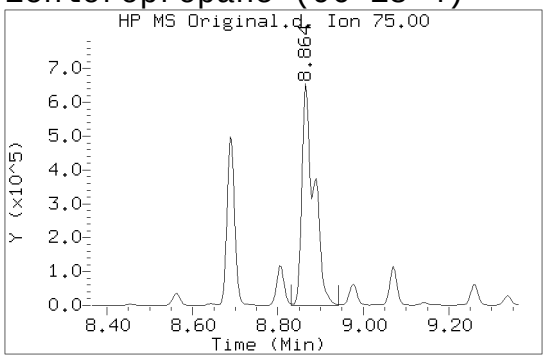

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Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
\\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121611.D
Y (x10^7)
Min
-Bromomethane
-Chloroethane+
-Trichlorofluoromethane+
Isopentane
-Ethanol
-Chloroprene+
-Acetone+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-Propionitrile+
-Methacrylonitrile+
-Chloroform
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-Methylcyclohexane+
-1,2-Dichloropropane
-Dibromomethane
-Methyl Methacrylate+
-Bromodichloromethane
-2-Chloroethylvinyl ether+
-cis-1,3-Dichloropropene+
-2-Nitropropane+
-Toluene-d8
-Toluene
-Ethyl Methacrylate+
-1,1,2-Trichloroethane
-Tetrachloroethene+
-1,3-Dichloropropane
-2-Hexanone
-Dibromochloromethane
-1,2-Dibromoethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Bromoform
-n-Amyl acetate
-Isopropylbenzene
-Cyclohexanone
-4-Bromofluorobenzene
-Bromobenzene
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-2-Chlorotoluene
1,3,5-Trimethylbenzene+
-alpha-Methylstyrene
-tert-Butylbenzene+
-sec-Butylbenzene
-1,3-Dichlorobenzene
-Benzyl Chloride
1,4-Dichlorobenzene-d4+
n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene+

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
Inj Date : 16-DEC-2022 15:07
InstruID : voa6.i
LabSampID : VSTD200

## 1,2,3-Trichloropropane (96-18-4)

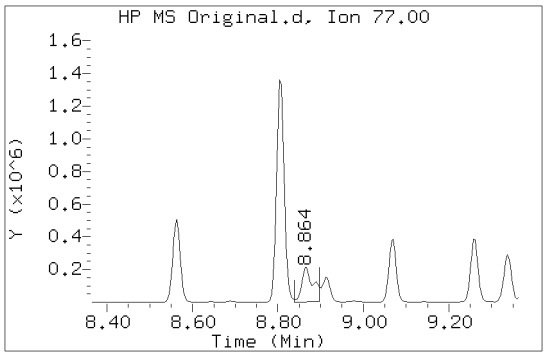
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16:04
linh
pham




### BEFORE

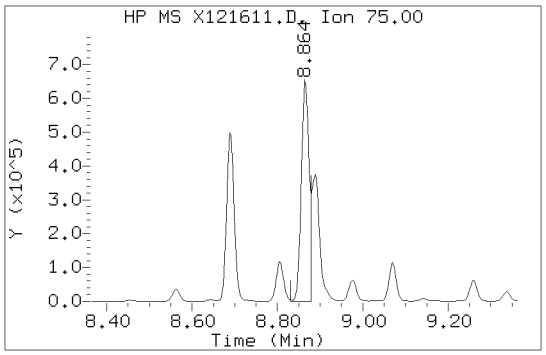
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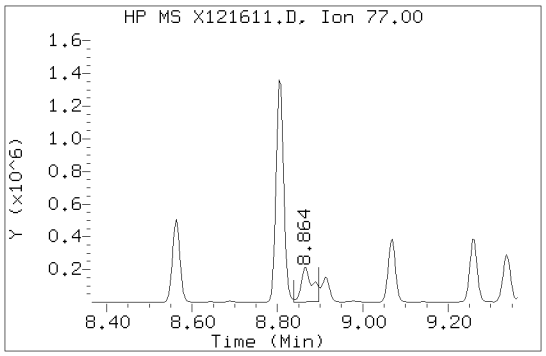
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pham




### AFTER

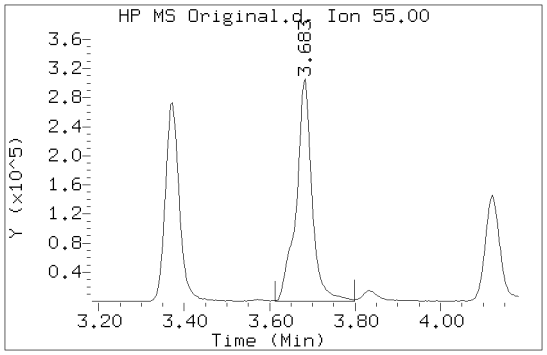
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pham




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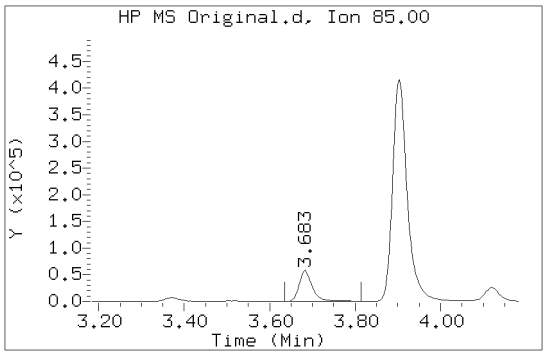
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pham




### BEFORE

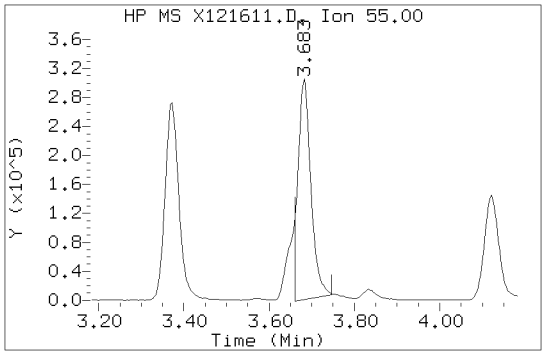
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16:04
linh
pham




### Reason Code:

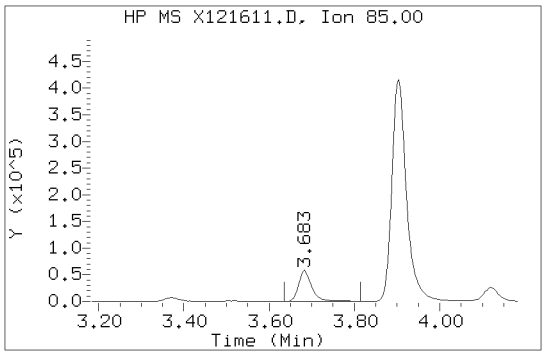
### AFTER

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AREA
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HEIGHT
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27-Dec-2022
16:06
linh
pham




### AFTER

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AREA
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HEIGHT
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27-Dec-2022
16:06
linh
pham



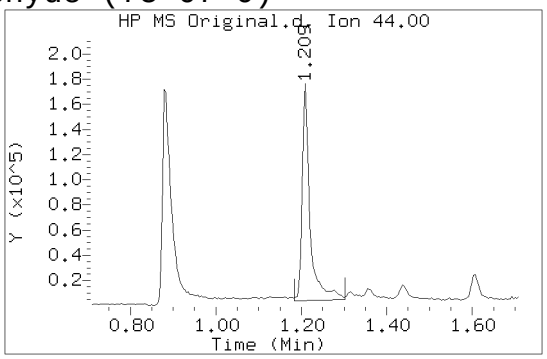
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Inj Date : 16-DEC-2022 15:07
InstruID : voa6.i
LabSampID : VSTD200

## Acetaldehyde (75-07-0)

Reason Code:

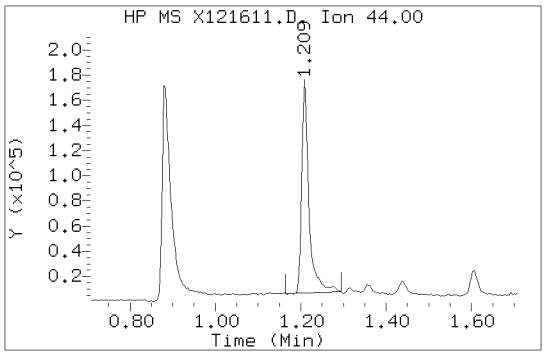
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HEIGHT
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27-Dec-2022
16:04
linh
pham



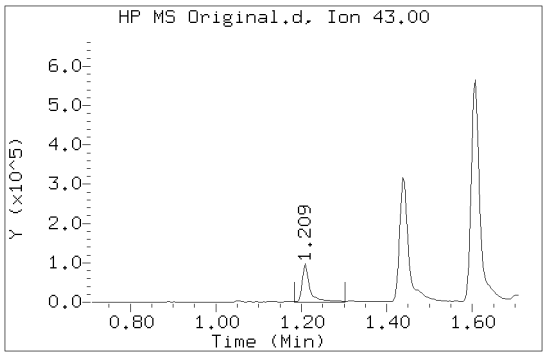

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16:06
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pham



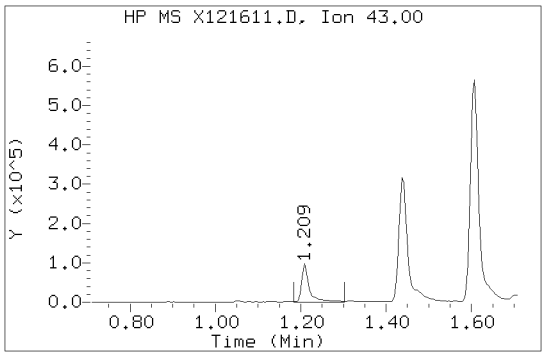

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linh
pham



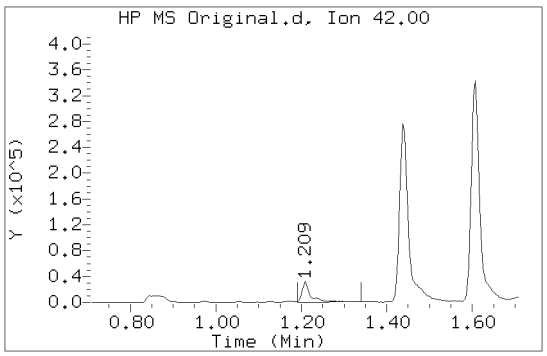

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16:06
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pham



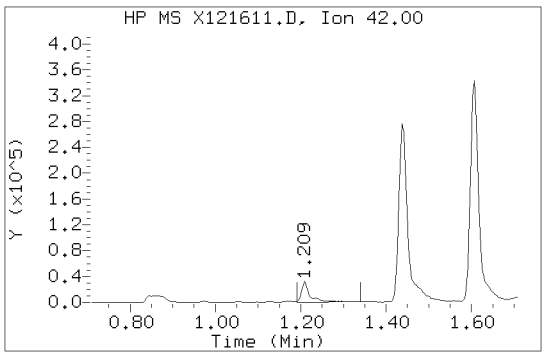

### BEFORE

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27-Dec-2022
16:04
linh
pham




### AFTER

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AREA
43931
HEIGHT
31915
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D  Page 1
Report Date: 13-Feb-2023 13:08

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
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Inj Date  : 16-DEC-2022 15:49
Operator  : PC  Inst ID: voa6.i
Smp Info  : CCV;CCV;2;;ICV
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:38 Linh.Pham  Quant Type: ISTD
Cal Date  : 16-DEC-2022 15:07  Cal File: X121611.D
Als bottle: 14  QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 457291 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 42711 | 1021.77 | 1021.76 |
| 140 1,3-Butadiene | 54 | 1.164 | 1.160 | (0.279) | 155959 | 49.6927 | 49.69 |
| 25 Methacrylonitrile | 41 | 3.818 | 3.818 | (0.914) | 151341 | 46.7389 | 46.73 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 505171 | 982.151 | 982.15 |
| 13 Acetonitrile | 39 | 2.194 | 2.195 | (0.525) | 197937 | 475.590 | 475.59 |
| 14 Allyl Chloride | 41 | 2.194 | 2.195 | (0.525) | 375064 | 47.3168 | 47.31 |
| 4 Propionitrile | 54 | 3.649 | 3.645 | (0.873) | 227186 | 486.896 | 486.89 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 183599 | 55.7620 | 55.76 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 71513 | 49.7372 | 49.73 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 52697 | 179.814 | 179.81(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 74243 | 47.7493 | 47.74(M) |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 428317 | 51.3094 | 51.30 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.194 | (0.808) | 437905 | 48.5791 | 48.57 |
| 139 Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 142672 | 46.6930 | 46.69 |
| 130 Ethyl Acetate | 43 | 3.653 | 3.653 | (0.874) | 171211 | 47.9808 | 47.98 |
| 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 148777 | 47.7146 | 47.71 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.708 | (1.352) | 142471 | 44.0730 | 44.07 |
| 132 n-Butanol | 56 | 5.257 | 5.253 | (1.258) | 56842 | 974.397 | 974.39 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.844 | (0.919) | 61534 | 108.502 | 108.50 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 846843 | 46.6777 | 46.67 |
| 131 | Methyl Acrylate | 55 | 3.683 | 3.683 (0.882) | 162555 | 52.3594 | 52.35 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D Page 2
Report Date: 13-Feb-2023 13:08

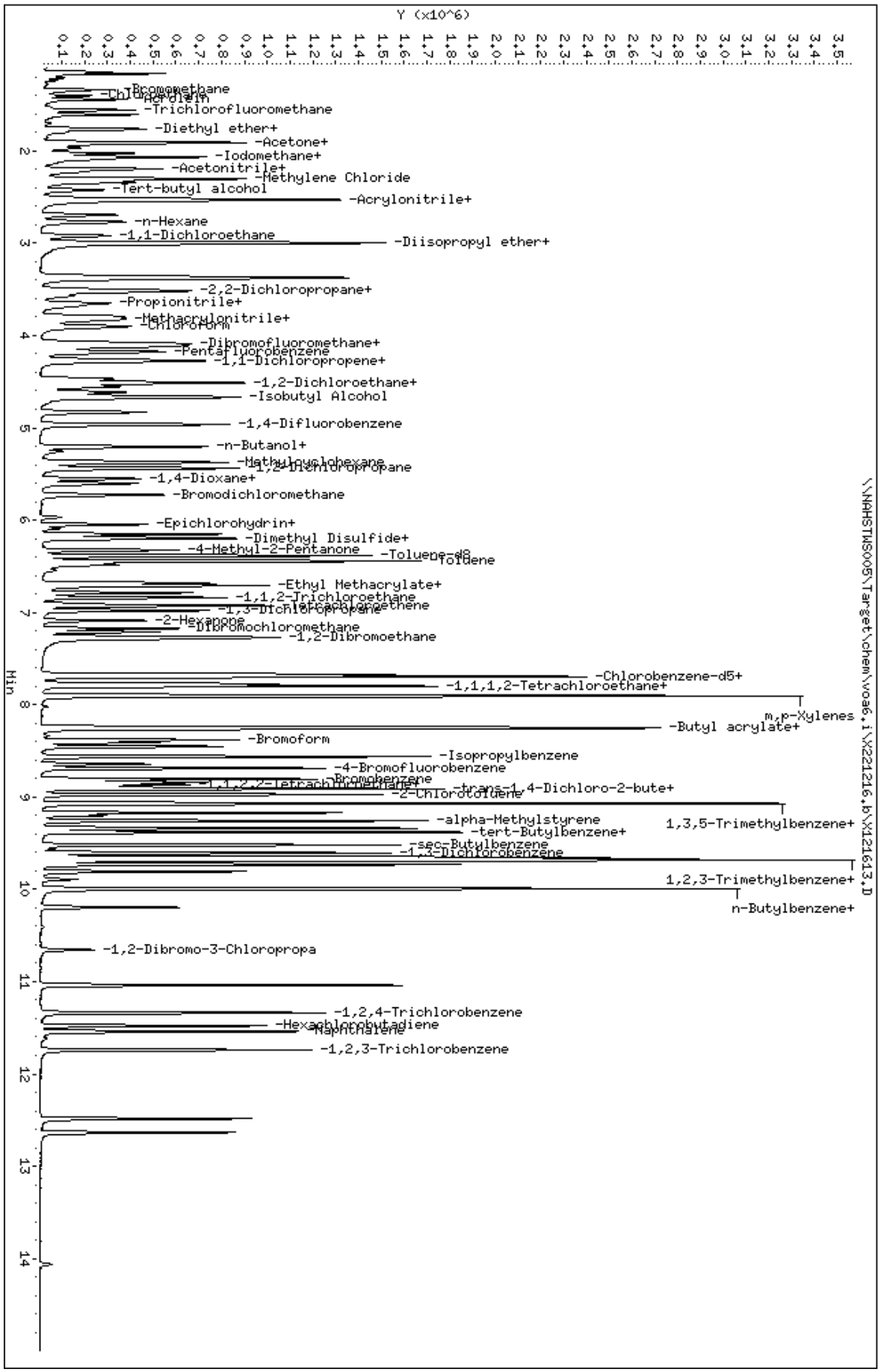
| | | | QUANT SIG | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN ( ug/l) | FINAL ( ug/l) |
| | 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 417137 | 47.9449 | 47.94 |
| | 2 | Dichlorodifluoromethane | 85 | 0.972 | 0.969 | (0.233) | 166984 | 52.1924 | 52.19 |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 207623 | 50.1741 | 50.17 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 202038 | 50.5766 | 50.57 |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 153541 | 50.7886 | 50.78 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 134354 | 48.3213 | 48.32 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 285144 | 51.0083 | 51.00 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 29687 | 95.0682 | 95.06 |
| | 10 | Acetone | 43 | 1.970 | 1.970 | (0.472) | 130747 | 101.899 | 101.89 |
| | 11 | 1,1-Dichloroethene | 96 | 1.913 | 1.910 | (0.458) | 171246 | 49.3414 | 49.34 |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 440111 | 96.4856 | 96.48 |
| | 16 | Acrylonitrile | 53 | 2.532 | 2.528 | (0.606) | 119393 | 101.430 | 101.42 |
| | 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 226449 | 47.5675 | 47.56 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 546711 | 48.1256 | 48.12 |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 894433 | 98.5011 | 98.50 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.528 | 2.524 | (0.605) | 194181 | 49.9917 | 49.99 |
| | 21 | Vinyl Acetate | 43 | 2.997 | 2.993 | (0.717) | 1044658 | 104.756 | 104.75 |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 328530 | 48.1931 | 48.19 |
| | 24 | 2-Butanone | 43 | 3.574 | 3.574 | (0.856) | 132931 | 97.7407 | 97.74(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.503 | (0.839) | 295126 | 50.9895 | 50.98 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.525 | 3.522 | (0.844) | 228100 | 48.2538 | 48.25 |
| | 28 | Chloroform | 83 | 3.904 | 3.900 | (0.935) | 370227 | 48.4556 | 48.45 |
| | 29 | Bromochloromethane | 128 | 3.795 | 3.791 | (0.908) | 122310 | 47.2570 | 47.25 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.099 | (0.980) | 223563 | 50.9182 | 50.91 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 304118 | 50.1673 | 50.16 |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 254008 | 52.1195 | 52.11 |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 278558 | 49.5262 | 49.52 |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.260 | (0.859) | 255322 | 49.0600 | 49.06 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 233432 | 50.3661 | 50.36 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 686467 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.507 | (0.909) | 824422 | 50.2921 | 50.29 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 238429 | 51.2807 | 51.28 |
| | 39 | Bromodichloromethane | 83 | 5.726 | 5.726 | (1.153) | 302844 | 49.2265 | 49.22 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.048 | 6.044 | (1.218) | 182363 | 104.194 | 104.19 |
| | 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 216322 | 49.6089 | 49.60 |
| | 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 145797 | 49.1915 | 49.19 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.325 | 6.322 | (0.825) | 334751 | 94.0316 | 94.03 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 376514 | 52.1120 | 52.11 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 666040 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.385 | 6.386 | (0.833) | 814721 | 49.5021 | 49.50 |
| | 50 | Toluene | 91 | 6.445 | 6.446 | (0.841) | 905906 | 49.2085 | 49.20 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.346) | 314805 | 52.5028 | 52.50 |
| | 52 | 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 234303 | 96.7356 | 96.73 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 176962 | 47.9147 | 47.91 |
| | 54 | 1,3-Dichloropropane | 76 | 6.981 | 6.982 | (0.911) | 347689 | 47.8282 | 47.82 |
| | 55 | Dibromochloromethane | 129 | 7.176 | 7.173 | (0.936) | 263907 | 49.5095 | 49.50 |
| | 56 | Tetrachloroethene | 164 | 6.929 | 6.925 | (0.904) | 194246 | 50.9965 | 50.99 |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 232024 | 50.2468 | 50.24 |
| | 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 172462 | 51.9860 | 51.98 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 631235 | 48.3416 | 48.34 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 236254 | 48.6176 | 48.61 |
| | 61 | Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 315635 | 51.3153 | 51.31 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 794307 | 100.175 | 100.17 |
| 63 o-Xylene | 106 | 8.241 | 8.241 (1.075) | 389371 | 49.7531 | 49.75 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 64 Styrene | 104 | 8.260 | 8.256 | (1.077) | 683415 | 52.0997 | 52.09 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 182169 | 49.3304 | 49.33 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 931467 | 52.0964 | 52.09 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 280729 | 46.7506 | 46.75 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 307493 | 49.9836 | 49.98 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 376748 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 201551 | 48.0786 | 48.07(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1099273 | 52.6761 | 52.67 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 306751 | 49.6271 | 49.62 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 806374 | 52.3068 | 52.30 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 683941 | 49.9441 | 49.94 |
| | 77 4-Chlorotoluene | 91 | 9.069 | 9.070 | (0.939) | 800114 | 51.2527 | 51.25 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 666730 | 52.8346 | 52.83 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 832541 | 51.3249 | 51.32 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 909529 | 54.1700 | 54.16 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.647 | (0.999) | 823827 | 54.7550 | 54.75 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 525438 | 51.2160 | 51.21 |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 556610 | 49.7188 | 49.71 |
| | 87 n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 735043 | 50.6672 | 50.66 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 523296 | 49.5268 | 49.52 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 48516 | 50.5353 | 50.53 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 364475 | 54.6601 | 54.66 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 170927 | 57.7383 | 57.73 |
| | 92 Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 799121 | 52.6729 | 52.67 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.215) | 337140 | 52.7917 | 52.79 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 422281 | 98.2454 | 98.24 |
| M | 95 Xylenes (total) | 106 | | | | 1183678 | 149.928 | 149.92 |
| | 141 Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 238664 | 51.7326 | 51.73 |
| | 138 Freon TF | 101 | 1.913 | 1.913 | (0.458) | 177599 | 52.9072 | 52.90 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 427649 | 50.8929 | 50.89 |
| | 146 Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 99131 | 48.1755 | 48.17 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.427 | (0.580) | 311463 | 983.641 | 983.64 |
| | 149 Isopropyl Alcohol | 45 | 2.090 | 2.090 | (0.500) | 170003 | 1028.04 | 1028.03 |

## QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121613.D
Date : 16-DEC-2022 15:49
Client ID: ICV
Sample Info: CCV;CCV;2;;ICV
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

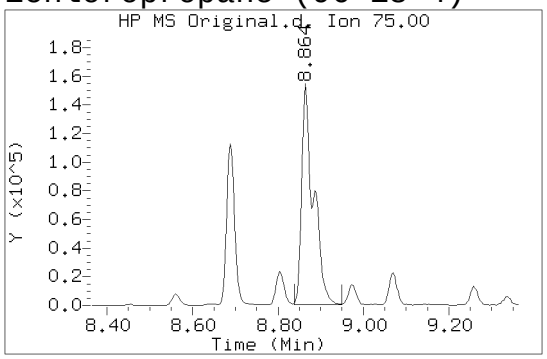
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Inj Date : 16-DEC-2022 15:49
InstruID : voa6.i
LabSampID : ICV

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

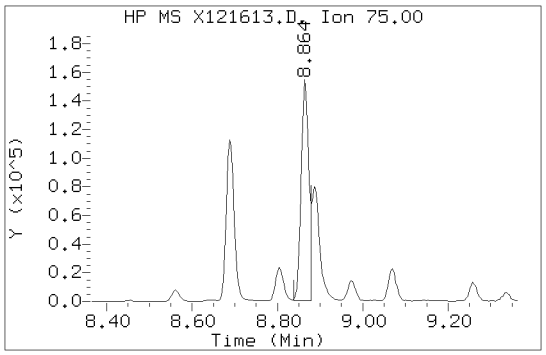
**BEFORE**

MASS
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AREA
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HEIGHT
154590
27-Dec-2022
16:04
linh
pham



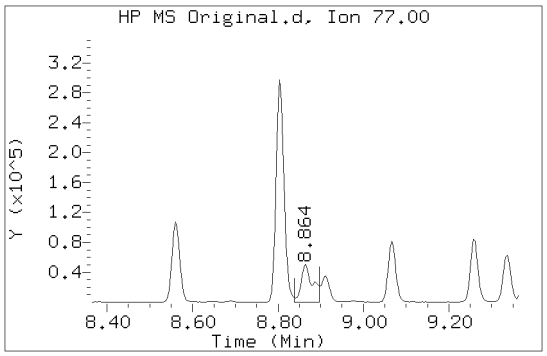

**AFTER**

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HEIGHT
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13-Feb-2023
13:08
linh
pham



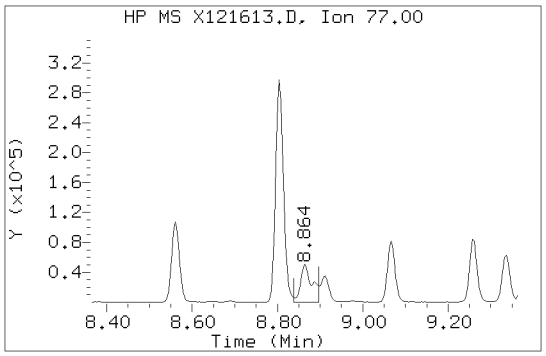

**BEFORE**

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HEIGHT
50627
27-Dec-2022
16:04
linh
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**AFTER**

MASS
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AREA
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HEIGHT
50627
13-Feb-2023
13:08
linh
pham

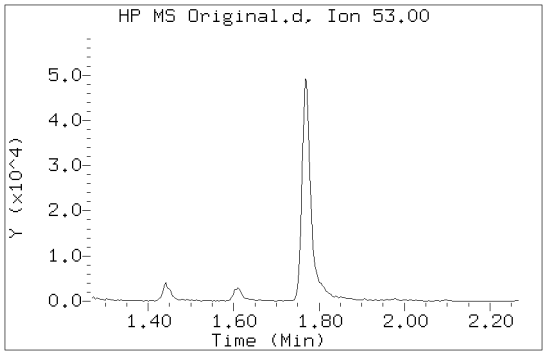



## Chloroprene (126-99-8)

Reason Code:

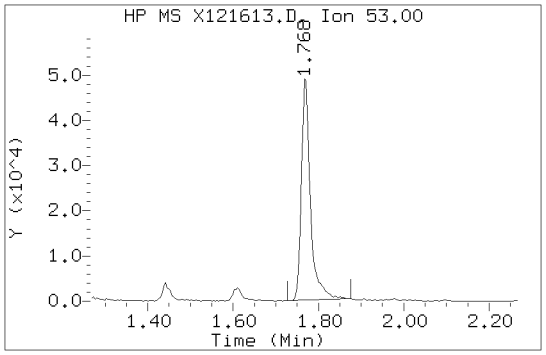
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HEIGHT
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27-Dec-2022
16:04
linh
pham



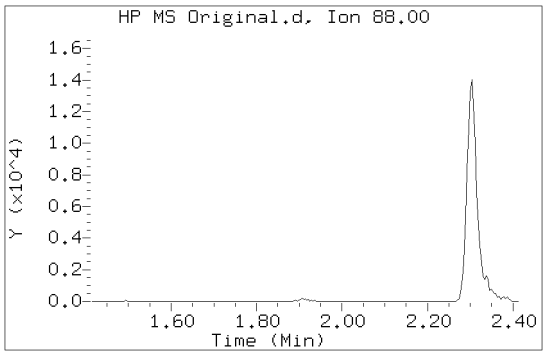

**AFTER**

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AREA
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HEIGHT
48931
13-Feb-2023
13:08
linh
pham



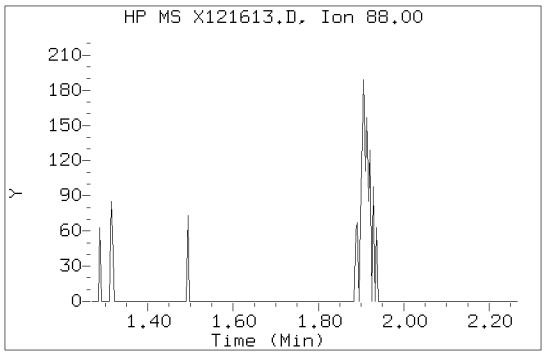

**BEFORE**

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AREA
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HEIGHT
0
27-Dec-2022
16:04
linh
pham




**AFTER**

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AREA
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HEIGHT
0
13-Feb-2023
13:08
linh
pham



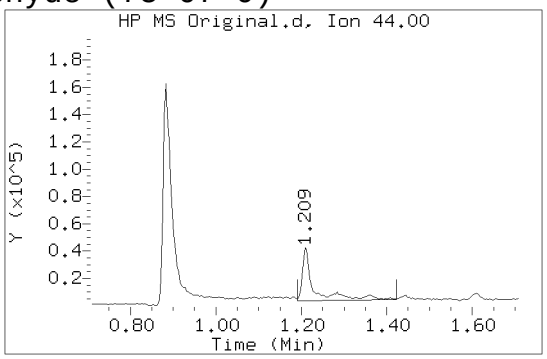
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Inj Date : 16-DEC-2022 15:49
InstruID : voa6.i
LabSampID : ICV

## Acetaldehyde (75-07-0)

Reason Code:

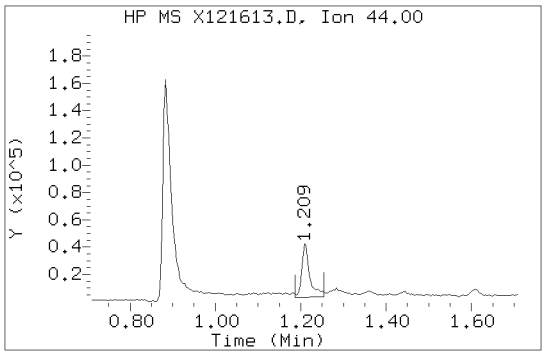
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HEIGHT
39303
27-Dec-2022
16:04
linh
pham



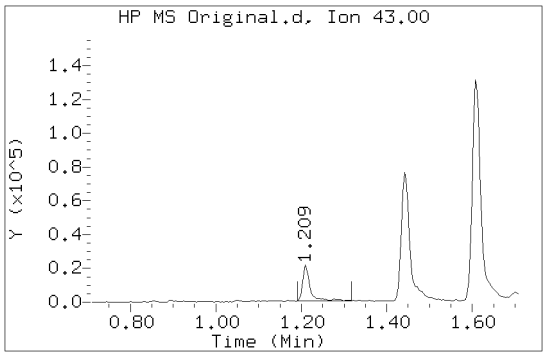

### AFTER

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13:08
linh
pham



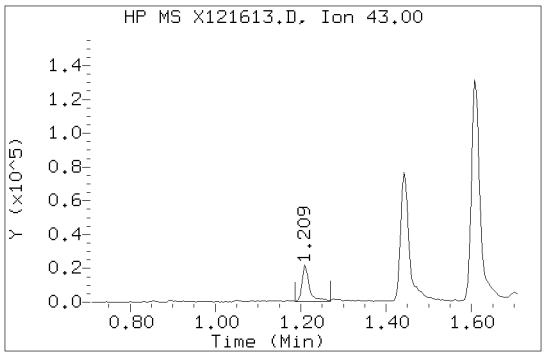

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16:04
linh
pham



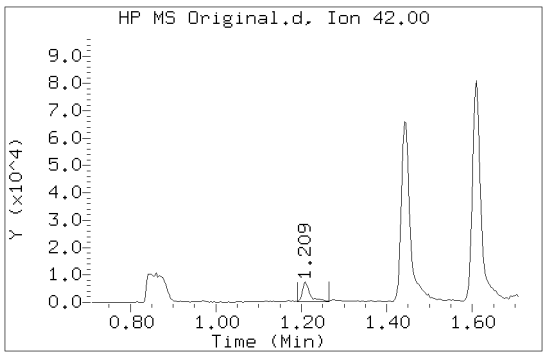

### AFTER

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linh
pham



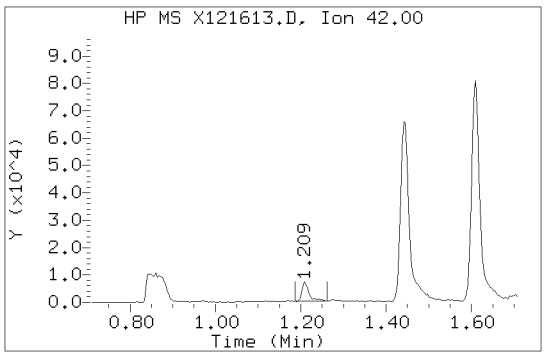

### BEFORE

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AREA
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HEIGHT
7131
27-Dec-2022
16:04
linh
pham




### AFTER

MASS
42
AREA
8550
HEIGHT
7027
13-Feb-2023
13:08
linh
pham



right solutions.
right partner.

# Raw Data VOA6 426320

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012301.D  Page 1
Report Date: 23-Jan-2023 19:57

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012301.D
Lab Smp Id: BFB  Client Smp ID: BFB
Inj Date  : 23-JAN-2023 11:16
Operator  : PC  Inst ID: voa6.i
Smp Info  : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham  Quant Type: ISTD
Cal Date  :  Cal File:
Als bottle: 1  QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: all.sub
Target Version:  4.14  Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vf | 1.000 | Volumetric correction factor |
| Vi | 2.000 | Injection Volume |
| Cpnd Variable | | Local Compound Variable |

| RT | EXP RT | REL RT | MASS | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | CONCENTRATIONS FINAL ( ug/l) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.889 | ( 0.000) | 95 | 19168 | | | 0.00- 100.00 | 100.00 |
| 8.687 | 8.889 | ( 0.000) | 50 | 4561 | | | 15.00- 40.00 | 23.79 |
| 8.687 | 8.889 | ( 0.000) | 75 | 9314 | | | 30.00- 60.00 | 48.59 |
| 8.687 | 8.889 | ( 0.000) | 96 | 1585 | | | 5.00- 9.00 | 8.27 |
| 8.687 | 8.889 | ( 0.000) | 173 | 80 | | | 0.00- 2.00 | 0.48 |
| 8.687 | 8.889 | ( 0.000) | 174 | 16672 | | | 50.00- 0.00 | 86.98 |
| 8.687 | 8.889 | ( 0.000) | 175 | 1296 | | | 5.00- 9.00 | 7.77 |
| 8.687 | 8.889 | ( 0.000) | 176 | 16400 | | | 95.00- 101.00 | 98.37 |
| 8.687 | 8.889 | ( 0.000) | 177 | 956 | | | 5.00- 9.00 | 5.83 |

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 23.79 |
| 75 | 30.00 - 60.00% of mass 95 | 48.59 |
| 96 | 5.00 - 9.00% of mass 95 | 8.27 |
| 173 | Less than 2.00% of mass 174 | 0.42 ( 0.48) |
| 174 | Greater than 50.00% of mass 95 | 86.98 |
| 175 | 5.00 - 9.00% of mass 174 | 6.76 ( 7.77) |
| 176 | 95.00 - 101.00% of mass 174 | 85.56 ( 98.37) |
| 177 | 5.00 - 9.00% of mass 176 | 4.99 ( 5.83) |

Data File: X012301.D
Spectrum: Scan 2159 ( 8.68)
Location of Maximum: 95.00
Number of points: 84

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.10 | 328 | 57.80 | 340 | 81.90 | 167 | 116.80 | 91 |
| 37.00 | 1140 | 59.90 | 182 | 83.00 | 472 | 117.70 | 122 |
| 38.10 | 1062 | 60.90 | 1209 | 85.10 | 136 | 119.00 | 103 |
| 39.10 | 1614 | 61.90 | 1018 | 87.00 | 1023 | 126.80 | 139 |
| 40.00 | 1261 | 63.00 | 862 | 87.90 | 807 | 127.80 | 262 |
| 41.10 | 1660 | 64.00 | 102 | 90.80 | 188 | 129.90 | 68 |
| 42.00 | 2657 | 64.90 | 172 | 91.80 | 467 | 141.10 | 282 |
| 42.90 | 1090 | 66.90 | 214 | 92.90 | 929 | 142.70 | 121 |
| 43.90 | 1010 | 67.90 | 2661 | 93.90 | 2515 | 155.00 | 84 |
| 45.00 | 539 | 69.00 | 3450 | 95.00 | 19168 | 169.70 | 53 |
| 46.10 | 56 | 69.90 | 1186 | 96.00 | 1585 | 172.70 | 80 |
| 47.00 | 81 | 71.00 | 344 | 97.00 | 224 | 173.90 | 16672 |
| 48.00 | 136 | 71.70 | 114 | 98.00 | 1550 | 174.90 | 1296 |
| 49.00 | 812 | 73.00 | 900 | 98.90 | 116 | 175.90 | 16400 |
| 50.00 | 4561 | 74.00 | 3548 | 103.90 | 193 | 177.00 | 956 |
| 51.10 | 1322 | 75.00 | 9314 | 105.10 | 102 | 177.90 | 59 |
| 51.80 | 78 | 76.00 | 829 | 105.90 | 134 | 185.80 | 200 |
| 52.80 | 217 | 76.90 | 348 | 106.60 | 114 | 261.80 | 65 |
| 54.00 | 395 | 77.90 | 114 | 109.00 | 98 | | |
| 55.00 | 3549 | 78.80 | 924 | 109.90 | 51 | | |
| 56.00 | 1033 | 80.00 | 480 | 114.90 | 114 | | |
| 57.00 | 1048 | 80.90 | 770 | 115.90 | 160 | | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012301.D Page 1

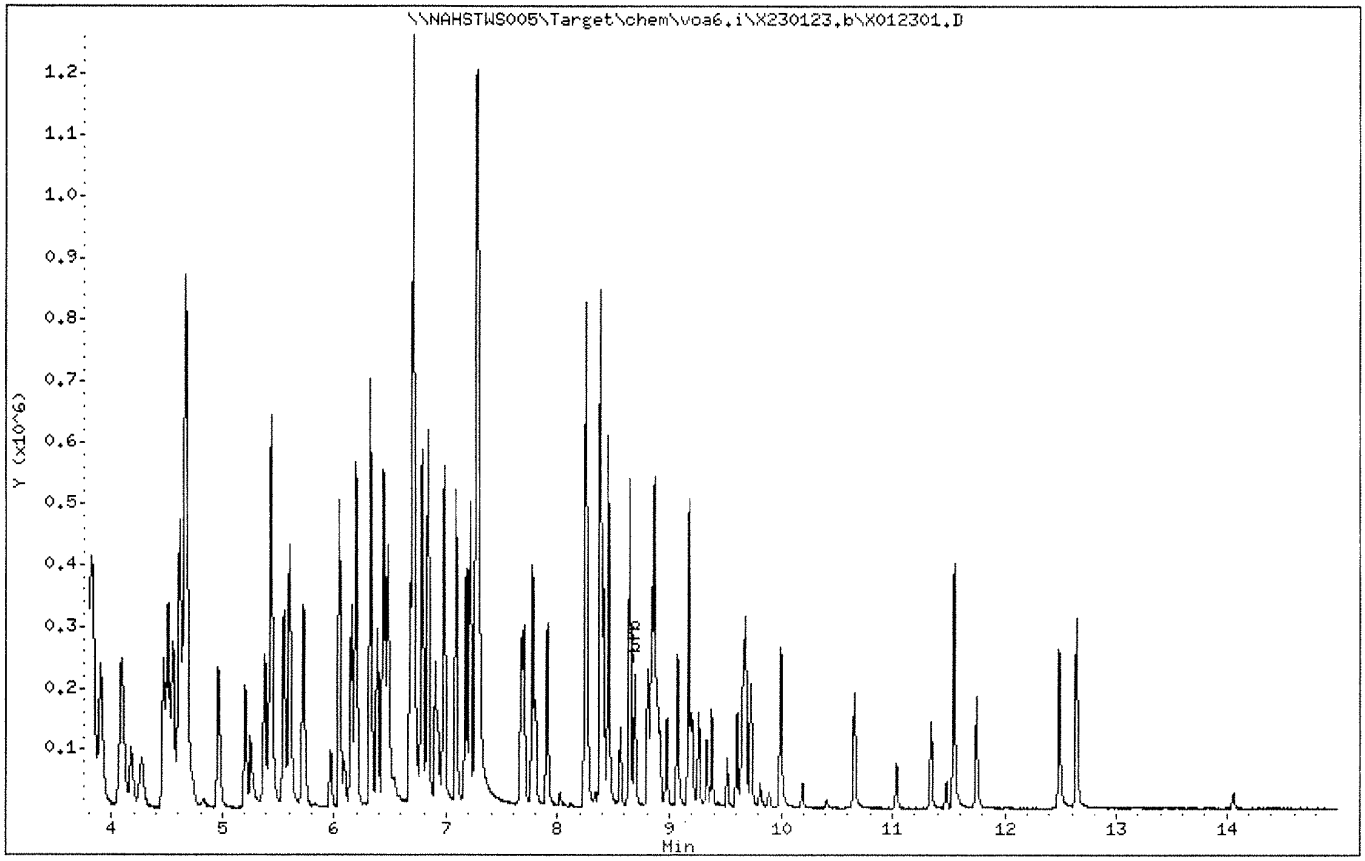
Date : 23-JAN-2023 11:16

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012301.D Page 2

Date : 23-JAN-2023 11:16

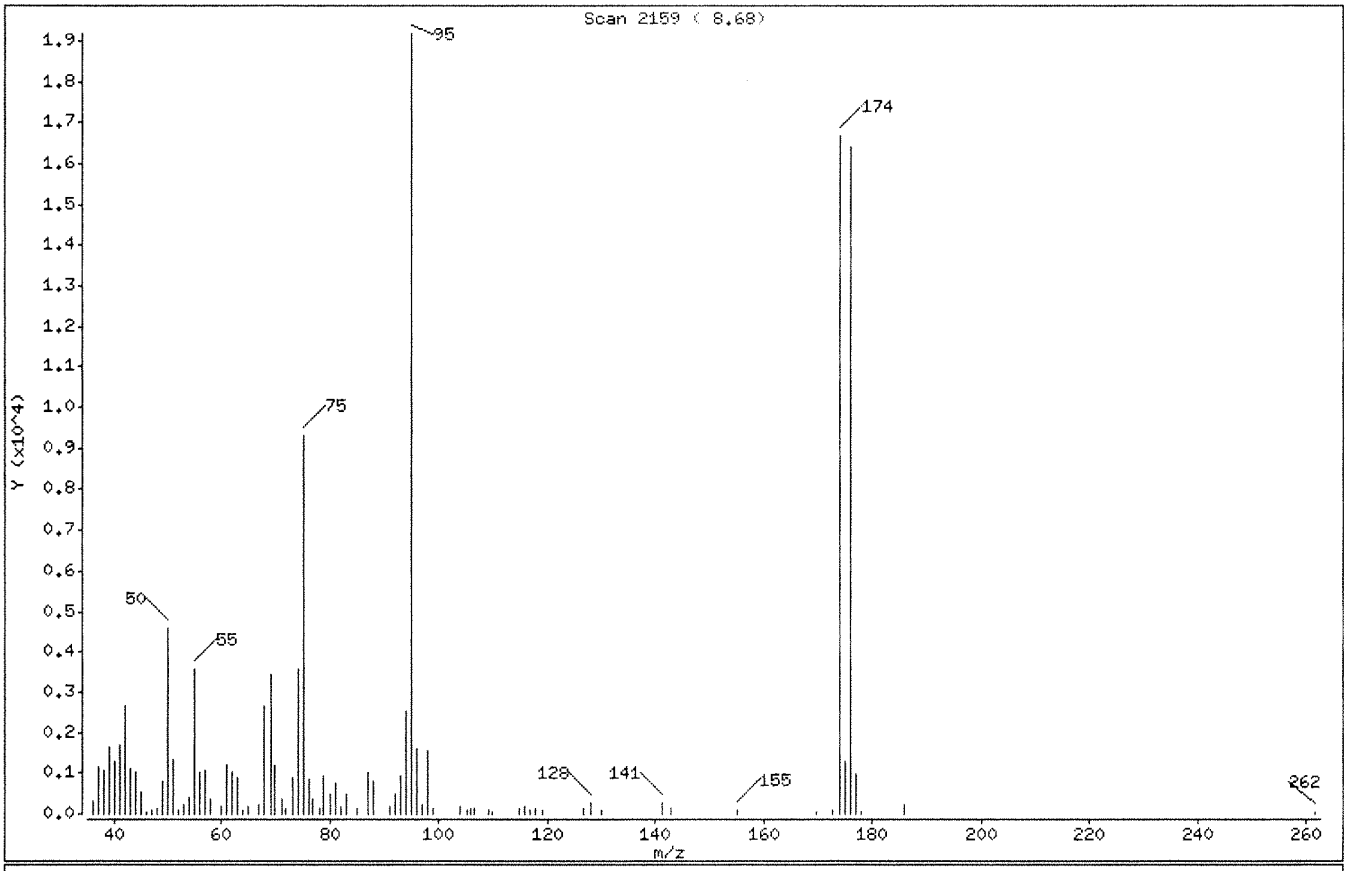
Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 23.79 |
| 75 | 30.00 - 60.00% of mass 95 | 48.59 |
| 96 | 5.00 - 9.00% of mass 95 | 8.27 |
| 173 | Less than 2.00% of mass 174 | 0.42 ( 0.48) |
| 174 | Greater than 50.00% of mass 95 | 86.98 |
| 175 | 5.00 - 9.00% of mass 174 | 6.76 ( 7.77) |
| 176 | 95.00 - 101.00% of mass 174 | 85.56 ( 98.37) |
| 177 | 5.00 - 9.00% of mass 176 | 4.99 ( 5.83) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012301.D 

Date : 23-JAN-2023 11:16

Client ID: BFB Instrument: voa6.i

Sample Info: BFB:BFB:3::BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X012301.D
Spectrum: Scan 2159 ( 8.68)
Location of Maximum: 95.00
Number of points: 84

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.10 | 328 | 57.80 | 340 | 81.90 | 167 | 116.80 | 91 |
| 37.00 | 1140 | 59.90 | 182 | 83.00 | 472 | 117.70 | 122 |
| 38.10 | 1062 | 60.90 | 1209 | 85.10 | 136 | 119.00 | 103 |
| 39.10 | 1614 | 61.90 | 1018 | 87.00 | 1023 | 126.80 | 139 |
| 40.00 | 1261 | 63.00 | 862 | 87.90 | 807 | 127.80 | 262 |
| 41.10 | 1660 | 64.00 | 102 | 90.80 | 188 | 129.90 | 68 |
| 42.00 | 2657 | 64.90 | 172 | 91.80 | 467 | 141.10 | 282 |
| 42.90 | 1090 | 66.90 | 214 | 92.90 | 929 | 142.70 | 121 |
| 43.90 | 1010 | 67.90 | 2661 | 93.90 | 2515 | 155.00 | 84 |
| 45.00 | 539 | 69.00 | 3450 | 95.00 | 19168 | 169.70 | 53 |
| 46.10 | 56 | 69.90 | 1186 | 96.00 | 1585 | 172.70 | 80 |
| 47.00 | 81 | 71.00 | 344 | 97.00 | 224 | 173.90 | 16672 |
| 48.00 | 136 | 71.70 | 114 | 98.00 | 1550 | 174.90 | 1296 |
| 49.00 | 812 | 73.00 | 900 | 98.90 | 116 | 175.90 | 16400 |
| 50.00 | 4561 | 74.00 | 3548 | 103.90 | 193 | 177.00 | 956 |
| 51.10 | 1322 | 75.00 | 9314 | 105.10 | 102 | 177.90 | 59 |
| 51.80 | 78 | 76.00 | 829 | 105.90 | 134 | 185.80 | 200 |
| 52.80 | 217 | 76.90 | 348 | 106.60 | 114 | 261.80 | 65 |
| 54.00 | 395 | 77.90 | 114 | 109.00 | 98 | | |
| 55.00 | 3549 | 78.80 | 924 | 109.90 | 51 | | |
| 56.00 | 1033 | 80.00 | 480 | 114.90 | 114 | | |
| 57.00 | 1048 | 80.90 | 770 | 115.90 | 160 | | |

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012301.D
Inj Date  : 23-JAN-2023 11:16
InstruID  : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012303.D  Page 1
Report Date: 13-Feb-2023 13:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012303.D
Lab Smp Id: CCV  Client Smp ID: CCV
Inj Date  : 23-JAN-2023 11:58
Operator  : PC  Inst ID: voa6.i
Smp Info  : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\8260W.m
Meth Date : 13-Feb-2023 13:14 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 3  Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 8260_GB.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 516521 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.595 | 5.595 | (1.340) | 52169 | 1000.00 | 1104.91 |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 179843 | 50.0000 | 50.73 |
| 25 Methacrylonitrile | 41 | 3.821 | 3.821 | (0.916) | 189391 | 50.0000 | 51.78 |
| 12 Isobutyl Alcohol | 43 | 4.669 | 4.669 | (1.119) | 658817 | 1000.00 | 1133.99 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.526) | 255737 | 500.000 | 544.00 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.526) | 462655 | 50.0000 | 51.67 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 265154 | 500.000 | 503.10 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.886 | 8.886 | (1.159) | 91296 | 50.0000 | 57.18 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.290) | 65017 | 200.000 | 198.56 |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 88334 | 50.0000 | 50.29(M) |
| 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.342) | 192027 | 50.0000 | 54.52 |
| 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.351) | 200315 | 50.0000 | 54.97 |
| 131 Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 229800 | 50.0000 | 65.53 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.920) | 66213 | 100.000 | 103.21 |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 486984 | 50.0000 | 51.92 |
| 156 Diisopropyl ether | 45 | 2.997 | 2.997 | (0.718) | 680141 | 50.0000 | 50.76 |
| 182 Epichlorohydrin | 57 | 6.089 | 6.089 | (1.226) | 72988 | 200.000 | 210.48 |
| 166 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 978518 | 50.0000 | 48.00 |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 206445 | 50.0000 | 57.08 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 Chloromethane | 50 | 1.074 | 1.074 (0.257) | 246763 | 50.0000 | 52.67 |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 (0.273) | 238044 | 50.0000 | 52.75 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012303.D Page 2
Report Date: 13-Feb-2023 13:14

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 167906 | 50.0000 | 49.22 |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 149298 | 50.0000 | 47.53 |
| | 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 356309 | 50.0000 | 56.42 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 33359 | 100.000 | 94.59 |
| | 10 Acetone | 43 | 1.966 | 1.966 | (0.471) | 162545 | 100.000 | 112.15 |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.458) | 202315 | 50.0000 | 51.60 |
| | 15 Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 539918 | 100.000 | 104.15 |
| | 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.606) | 143813 | 100.000 | 108.16 |
| | 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.551) | 247209 | 50.0000 | 45.97 |
| | 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.606) | 644280 | 50.0000 | 50.21 |
| | 19 Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 1064949 | 100.000 | 103.83 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 222849 | 50.0000 | 50.79 |
| | 21 Vinyl Acetate | 43 | 2.993 | 2.993 | (0.717) | 1281658 | 100.000 | 113.78 |
| | 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 389082 | 50.0000 | 50.53 |
| | 24 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 175759 | 100.000 | 113.89 |
| | 26 2,2-Dichloropropane | 77 | 3.503 | 3.503 | (0.839) | 371982 | 50.0000 | 56.89 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.844) | 258054 | 50.0000 | 48.33 |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 437487 | 50.0000 | 50.69 |
| | 29 Bromochloromethane | 128 | 3.788 | 3.788 | (0.908) | 136607 | 50.0000 | 46.72 |
| $ | 30 Dibromofluoromethane | 113 | 4.091 | 4.091 | (0.980) | 247588 | 50.0000 | 49.92 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.977) | 380165 | 50.0000 | 55.52 |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 325564 | 50.0000 | 59.26 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 352732 | 50.0000 | 55.63 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 323099 | 50.0000 | 55.07 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 280575 | 50.0000 | 53.57 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 773798 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.908) | 959842 | 50.0000 | 51.94 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 273758 | 50.0000 | 52.23 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 355513 | 50.0000 | 51.26 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.217) | 255088 | 100.000 | 129.29 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 252277 | 50.0000 | 51.32 |
| | 44 Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 165746 | 50.0000 | 49.61 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 445072 | 100.000 | 112.59 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 438584 | 50.0000 | 53.85 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 739557 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 931282 | 50.0000 | 50.95 |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 1076009 | 50.0000 | 52.63 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.678 | 6.678 | (1.345) | 382817 | 50.0000 | 56.64 |
| | 52 2-Hexanone | 43 | 7.083 | 7.083 | (0.924) | 316932 | 100.000 | 117.84 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 204943 | 50.0000 | 49.97 |
| | 54 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 414784 | 50.0000 | 51.38 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 304246 | 50.0000 | 51.40 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 233543 | 50.0000 | 55.21 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 268873 | 50.0000 | 52.43 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 225270 | 50.0000 | 60.24 |
| | 59 Chlorobenzene | 112 | 7.690 | 7.690 | (1.003) | 739006 | 50.0000 | 50.96 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 283507 | 50.0000 | 52.54 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 376347 | 50.0000 | 55.10 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 956780 | 100.000 | 108.67 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 455352 | 50.0000 | 52.40 |
| | 64 Styrene | 104 | 8.256 | 8.256 | (1.077) | 805283 | 50.0000 | 55.28 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 220511 | 50.0000 | 53.77 |

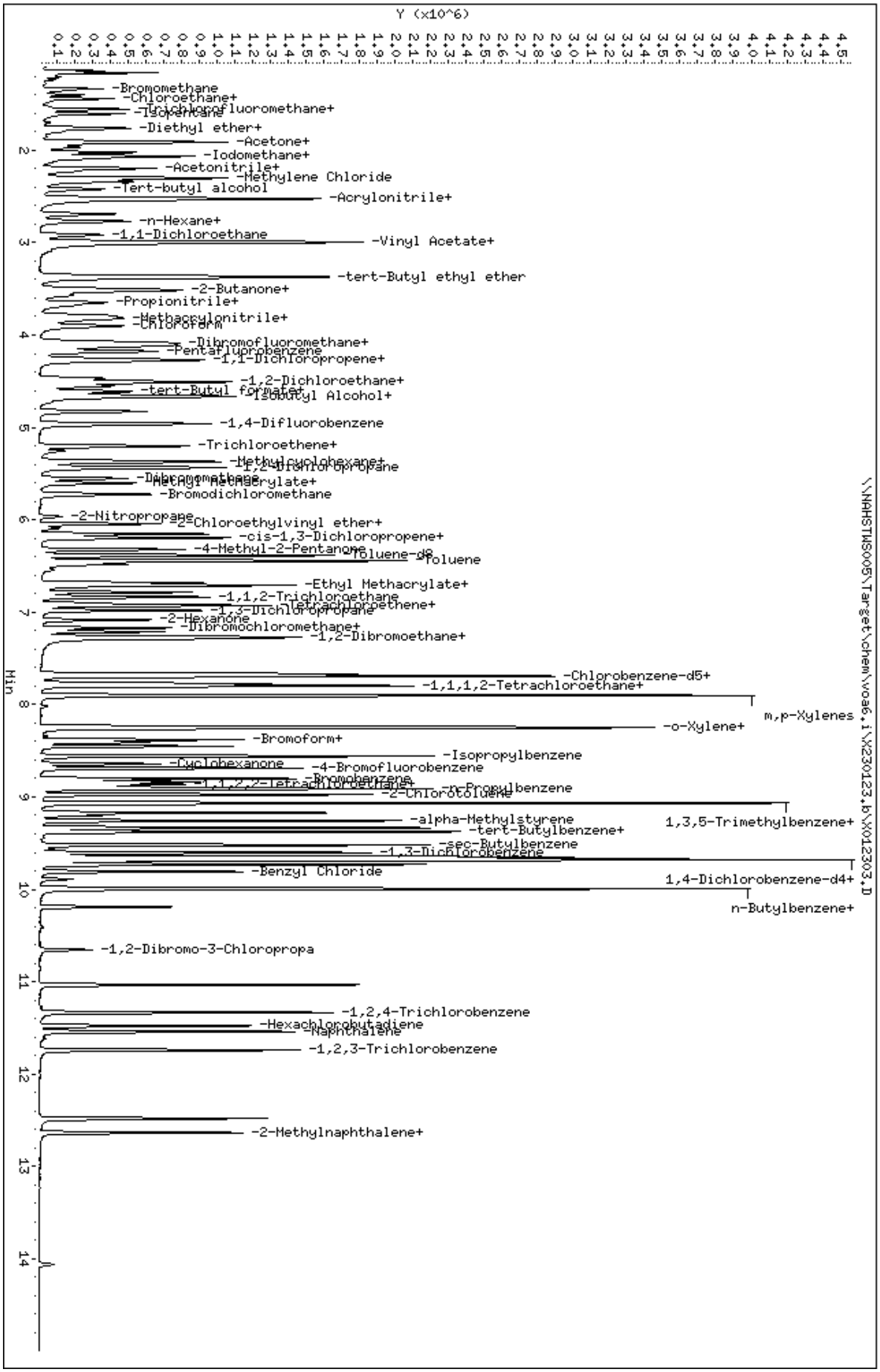
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 67 | Isopropylbenzene | 105 | 8.560 | 8.560 (1.116) | 1163249 | 50.0000 | 58.59 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 (0.915) | 341952 | 50.0000 | 50.68 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012303.D Page 3
Report Date: 13-Feb-2023 13:14

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 369682 | 50.0000 | 54.11 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 423283 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 262155 | 50.0000 | 55.66(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1395855 | 50.0000 | 59.53 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 353206 | 50.0000 | 50.86 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1010569 | 50.0000 | 58.34 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 856489 | 50.0000 | 55.66 |
| | 77 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 1012245 | 50.0000 | 57.71 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 845490 | 50.0000 | 59.63 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 1033492 | 50.0000 | 56.70 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1186968 | 50.0000 | 62.92 |
| | 82 p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 1058144 | 50.0000 | 62.59 |
| | 83 1,3-Dichlorobenzene | 146 | 9.602 | 9.602 | (0.994) | 627552 | 50.0000 | 54.44 |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 666904 | 50.0000 | 53.02 |
| | 87 n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 954643 | 50.0000 | 58.29 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 630395 | 50.0000 | 53.10 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 58880 | 50.0000 | 54.58 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.334 | 11.334 | (1.173) | 440656 | 50.0000 | 58.81 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 201188 | 50.0000 | 60.45 |
| | 92 Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 996391 | 50.0000 | 58.45 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.215) | 407259 | 50.0000 | 56.76 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 480903 | 100.000 | (a) |
| | 141 Cyclohexane | 56 | 4.118 | 4.118 | (0.987) | 307502 | 50.0000 | 58.83 |
| | 138 Freon TF | 101 | 1.910 | 1.910 | (0.458) | 206542 | 50.0000 | 54.47 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 539345 | 50.0000 | 56.94 |
| | 146 Methyl Acetate | 43 | 2.224 | 2.224 | (0.533) | 122459 | 50.0000 | 52.68 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.423 | (0.581) | 411038 | 1000.00 | 1149.25 |
| | 149 Isopropyl Alcohol | 45 | 2.086 | 2.086 | (0.500) | 224450 | 1000.00 | 1201.64 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTWS005\Target\chem\voa6.i\x230123.b\x012303.D
Date : 23-JAN-2023 11:58
Client ID: CCV
Sample Info: CCV;CCV;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

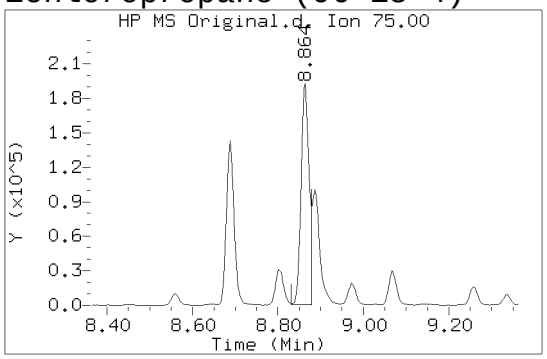
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012303.D
Inj Date : 23-JAN-2023 11:58
InstruID : voa6.i
LabSampID : CCV

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

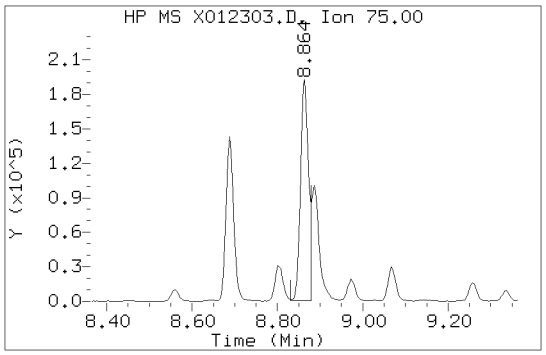
BEFORE

MASS
75
AREA
262155
HEIGHT
192389
13-Feb-2023
13:13
linh
pham



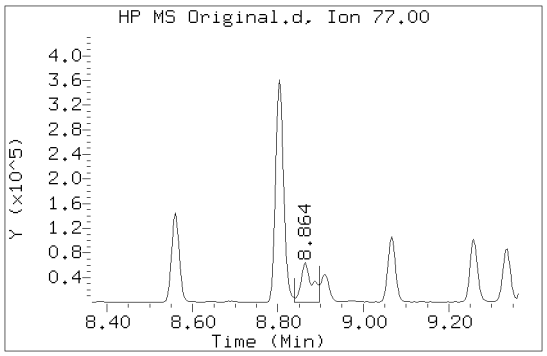

AFTER

MASS
75
AREA
262155
HEIGHT
192389
13-Feb-2023
13:13
linh
pham



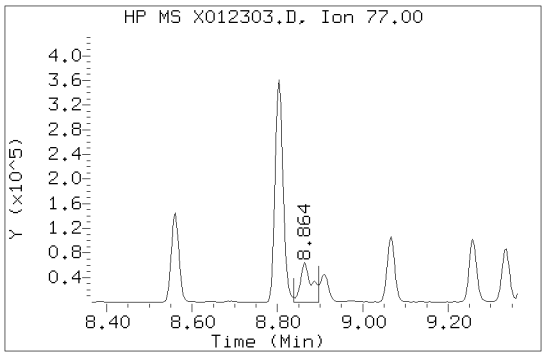

BEFORE

MASS
77
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123638
HEIGHT
64538
13-Feb-2023
13:13
linh
pham




AFTER

MASS
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13-Feb-2023
13:13
linh
pham

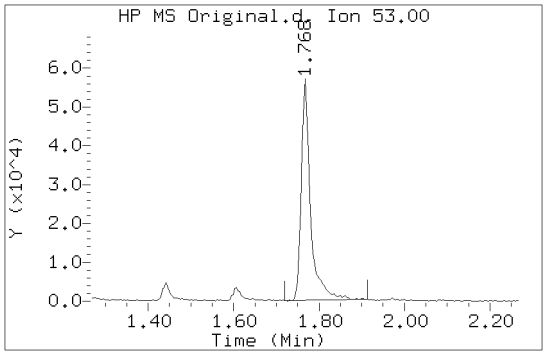



## Chloroprene (126-99-8)

Reason Code:

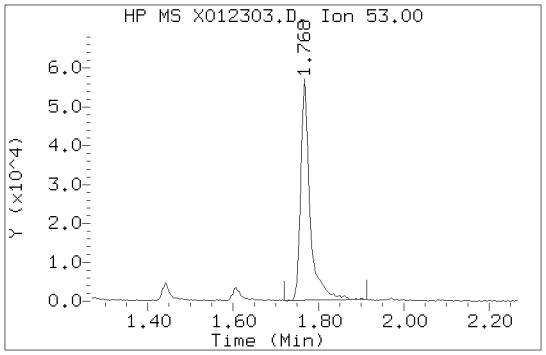
BEFORE

MASS
53
AREA
88334
HEIGHT
56986
13-Feb-2023
13:13
linh
pham



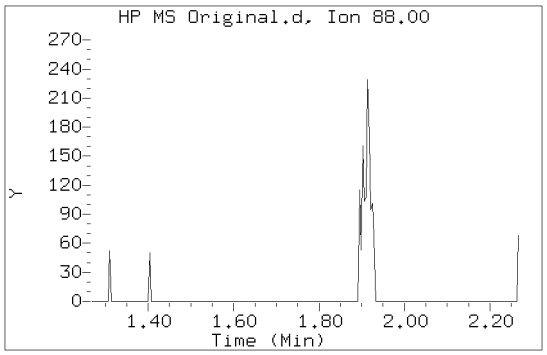

AFTER

MASS
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AREA
88334
HEIGHT
56986
13-Feb-2023
13:13
linh
pham



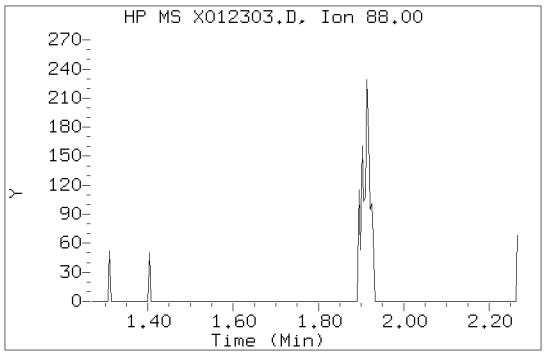

BEFORE

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:13
linh
pham




AFTER

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:13
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012304.D  Page 1
Report Date: 09-Feb-2023 14:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012304.D
Lab Smp Id: CCB  Client Smp ID: CCB
Inj Date  : 23-JAN-2023 12:19
Operator  : PC  Inst ID: voa6.i
Smp Info  : CCB;CCB;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\nahstws005\Target\chem\voa6.i\X230123.b\8260W.m
Meth Date : 09-Feb-2023 14:22 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 8260_GB.sub
Target Version:  4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.174 | (1.000) | 581391 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.091 | 4.091 | (0.979) | 259243 | 46.4266 | 46.42 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 293032 | 49.7333 | 49.73 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.965 | (1.000) | 834048 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 751359 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 975880 | 52.5610 | 52.56 |
| $ 69 4-Bromofluorobenzene | 95 | 8.691 | 8.687 | (1.133) | 353420 | 50.9244 | 50.92 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 387886 | 50.0000 | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012305.D  Page 1
Report Date: 13-Feb-2023 13:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012305.D
Lab Smp Id: VLCSW-233120  Client Smp ID: VLCSW-230123
Inj Date  : 23-JAN-2023 12:40
Operator  : PC  Inst ID: voa6.i
Smp Info  : VLCSW-233120;VLCSW-230123;3;;LCS
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\8260W.m
Meth Date : 13-Feb-2023 13:14 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 5  QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 8260_GB.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.174 | (1.000) | 497251 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.595 | (1.340) | 19971 | 439.368 | 439.36(a) |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 73183 | 21.4442 | 21.44 |
| 25 Methacrylonitrile | 41 | 3.818 | 3.821 | (0.914) | 77326 | 21.9616 | 21.96 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.669 | (1.118) | 262597 | 469.512 | 469.51 |
| 13 Acetonitrile | 39 | 2.194 | 2.195 | (0.525) | 99656 | 220.205 | 220.20 |
| 14 Allyl Chloride | 41 | 2.194 | 2.195 | (0.525) | 187590 | 21.7639 | 21.76 |
| 4 Propionitrile | 54 | 3.649 | 3.645 | (0.873) | 113073 | 222.859 | 222.85(a) |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 35165 | 22.6569 | 22.65 |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 35678 | 21.1023 | 21.10(M) |
| 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 81137 | 23.9305 | 23.93 |
| 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 81620 | 23.0442 | 23.04 |
| 131 Methyl Acrylate | 55 | 3.686 | 3.683 | (0.882) | 86455 | 25.6095 | 25.60 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 26684 | 41.3667 | 41.36 |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 189591 | 20.8753 | 20.87 |
| 156 Diisopropyl ether | 45 | 2.997 | 2.997 | (0.717) | 270377 | 20.9609 | 20.96 |
| 182 Epichlorohydrin | 57 | 6.093 | 6.089 | (1.228) | 31390 | 94.5240 | 94.52 |
| 166 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 414593 | 21.0045 | 21.00 |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 67292 | 19.5897 | 19.58 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 92840 | 21.9349 | 21.93 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 (0.273) | 90574 | 20.8515 | 20.85 |
| 6 Bromomethane | 94 | 1.336 | 1.336 (0.320) | 68025 | 21.7387 | 21.73 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012305.D Page 2
Report Date: 13-Feb-2023 13:14

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 60632 | 20.0543 | 20.05 |
| | 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 146438 | 24.0906 | 24.09 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 11994 | 37.0957 | 37.09 |
| | 10 Acetone | 43 | 1.970 | 1.966 | (0.472) | 67663 | 48.4779 | 48.47 |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 81538 | 21.6057 | 21.60 |
| | 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 196366 | 42.4477 | 42.44 |
| | 16 Acrylonitrile | 53 | 2.532 | 2.528 | (0.606) | 58751 | 45.9006 | 45.90 |
| | 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 105991 | 20.4751 | 20.47 |
| | 18 Methyl tert-butyl ether | 73 | 2.532 | 2.528 | (0.606) | 262791 | 21.2738 | 21.27 |
| | 19 Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 433969 | 43.9510 | 43.95 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.528 | 2.524 | (0.605) | 89449 | 21.1779 | 21.17 |
| | 21 Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 515314 | 47.5219 | 47.52 |
| | 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 161970 | 21.8505 | 21.85 |
| | 24 2-Butanone | 43 | 3.574 | 3.570 | (0.856) | 65419 | 45.8915 | 45.89 |
| | 26 2,2-Dichloropropane | 77 | 3.503 | 3.503 | (0.838) | 148463 | 23.5889 | 23.58 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.843) | 105825 | 20.5879 | 20.58 |
| | 28 Chloroform | 83 | 3.904 | 3.900 | (0.935) | 177353 | 21.3467 | 21.34 |
| | 29 Bromochloromethane | 128 | 3.788 | 3.788 | (0.907) | 54788 | 19.4673 | 19.46 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.091 | (0.980) | 239631 | 50.1894 | 50.18 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 154223 | 23.3962 | 23.39 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.279 | (0.862) | 128020 | 23.9746 | 23.97 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 142773 | 23.1678 | 23.16 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 133719 | 23.4505 | 23.45 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 282167 | 55.9585 | 55.95 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.965 | (1.000) | 752142 | 50.0000 | |
| | 37 Benzene | 78 | 4.511 | 4.507 | (0.909) | 384035 | 21.3816 | 21.38 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 111371 | 21.8618 | 21.86 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 143573 | 21.2997 | 21.29 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.218) | 89802 | 46.8286 | 46.82 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 99471 | 20.8198 | 20.81 |
| | 44 Dibromomethane | 93 | 5.550 | 5.550 | (1.119) | 68246 | 21.0154 | 21.01 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.325 | 6.322 | (0.825) | 177214 | 46.1150 | 46.11 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 172568 | 21.7990 | 21.79 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 718965 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.382 | 6.385 | (0.832) | 879803 | 49.5213 | 49.52 |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 426731 | 21.4736 | 21.47 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.347) | 146042 | 22.2300 | 22.22 |
| | 52 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 127306 | 48.6911 | 48.69 |
| | 53 1,1,2-Trichloroethane | 83 | 6.835 | 6.839 | (0.891) | 81214 | 20.3710 | 20.37 |
| | 54 1,3-Dichloropropane | 76 | 6.978 | 6.982 | (0.910) | 165318 | 21.0671 | 21.06 |
| | 55 Dibromochloromethane | 129 | 7.176 | 7.173 | (0.936) | 119386 | 20.7483 | 20.74 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 94167 | 22.9023 | 22.90 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 107280 | 21.5222 | 21.52 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 96376 | 26.5144 | 26.51 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.690 | (1.003) | 295340 | 20.9529 | 20.95 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 109936 | 20.9579 | 20.95 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 151332 | 22.7921 | 22.79 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 382605 | 44.7005 | 44.70 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 184237 | 21.8085 | 21.80 |
| | 64 Styrene | 104 | 8.256 | 8.256 | (1.077) | 317750 | 22.4403 | 22.44 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 81660 | 20.4853 | 20.48 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 461647 | 23.9190 | 23.91 |

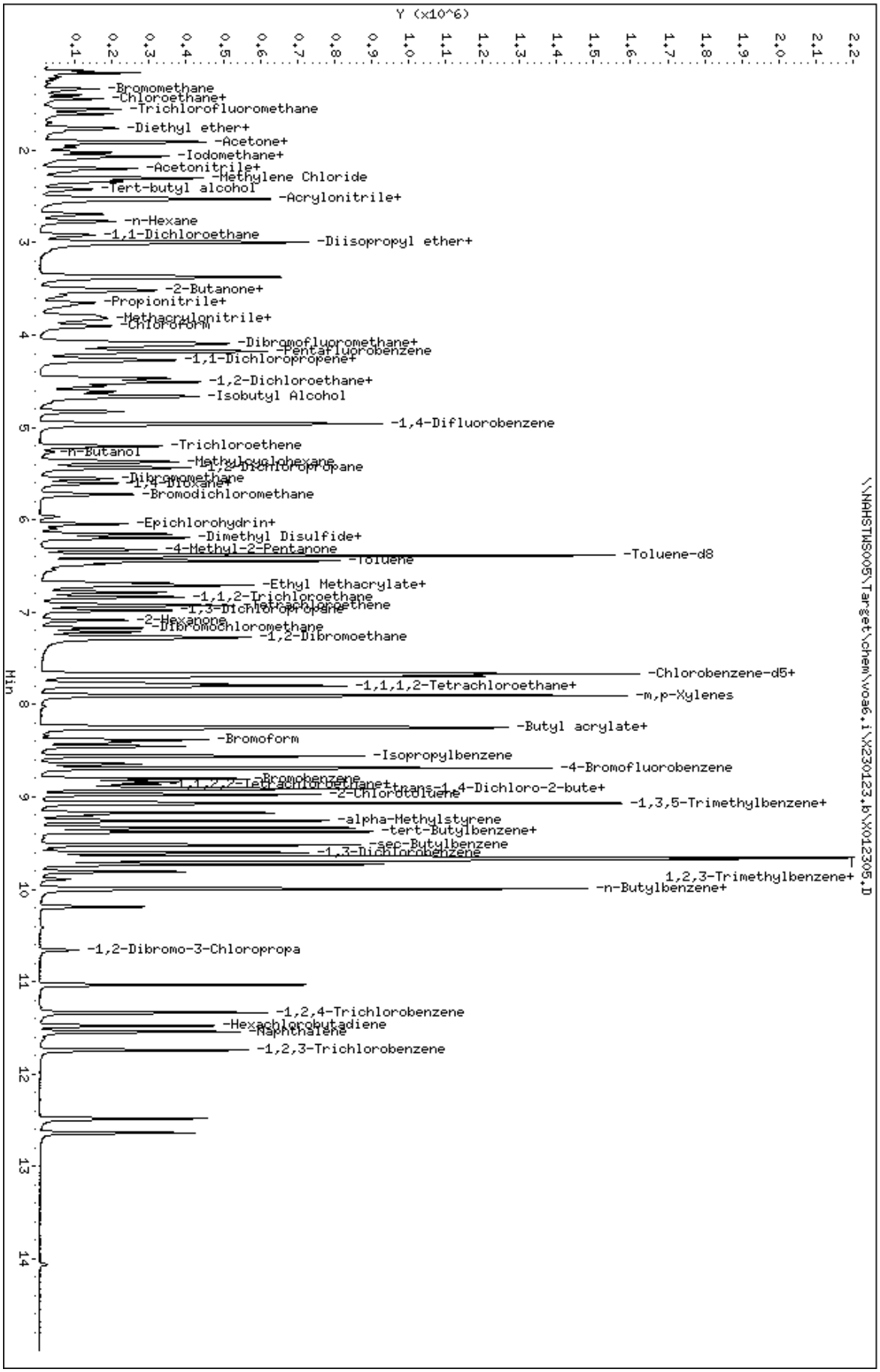
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 (0.915) | 134605 | 20.6037 | 20.60 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 (1.133) | 343730 | 51.7586 | 51.75 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012305.D Page 3
Report Date: 13-Feb-2023 13:14

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 409890 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 98843 | 21.6719 | 21.67(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 556082 | 24.4924 | 24.49 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 137608 | 20.4626 | 20.46 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 401985 | 23.9671 | 23.96 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 341318 | 22.9091 | 22.90 |
| | 77 4-Chlorotoluene | 91 | 9.069 | 9.070 | (0.939) | 394630 | 23.2348 | 23.23 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 334154 | 24.3388 | 24.33 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 402383 | 22.8006 | 22.80 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 471537 | 25.8132 | 25.81 |
| | 82 p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 420042 | 25.6604 | 25.66 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.602 | (0.994) | 247304 | 22.1564 | 22.15 |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 262535 | 21.5546 | 21.55 |
| | 87 n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 372630 | 24.5571 | 24.55 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 247616 | 21.5405 | 21.54 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.659 | 10.655 | (1.103) | 21571 | 20.7066 | 20.70 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.334 | (1.173) | 176304 | 24.3024 | 24.30 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 77611 | 24.2613 | 24.26 |
| | 92 Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 379763 | 23.0076 | 23.00 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 157152 | 22.6182 | 22.61 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 195274 | 41.7658 | 41.76 |
| M | 95 Xylenes (total) | 106 | | | | 566842 | 66.5090 | 66.50 |
| | 141 Cyclohexane | 56 | 4.118 | 4.118 | (0.986) | 132853 | 27.0984 | 27.09 |
| | 138 Freon TF | 101 | 1.913 | 1.910 | (0.458) | 89044 | 24.3947 | 24.39 |
| | 147 Methylcyclohexane | 55 | 5.381 | 5.377 | (1.085) | 214400 | 23.2870 | 23.28 |
| | 146 Methyl Acetate | 43 | 2.228 | 2.224 | (0.533) | 51444 | 22.9916 | 22.99 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.423 | (0.580) | 165046 | 479.349 | 479.34 |
| | 149 Isopropyl Alcohol | 45 | 2.090 | 2.086 | (0.500) | 85672 | 476.441 | 476.44 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X230123.b\X012305.D
Date : 23-JAN-2023 12:40
Client ID: VLCSW-230123
Sample Info: VLCSW-233120;VLCSW-230123;3;;LCS
Purge Volume: 5.0
Column phase: DB624

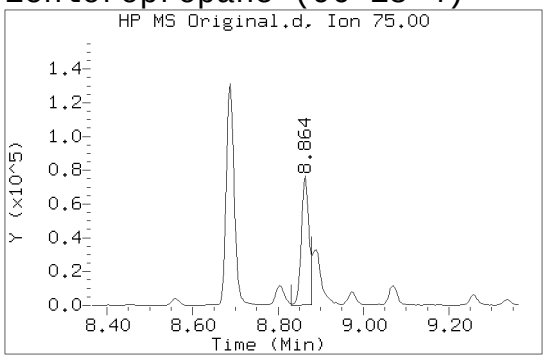
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012305.D
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LabSampID : VLCSW-233120

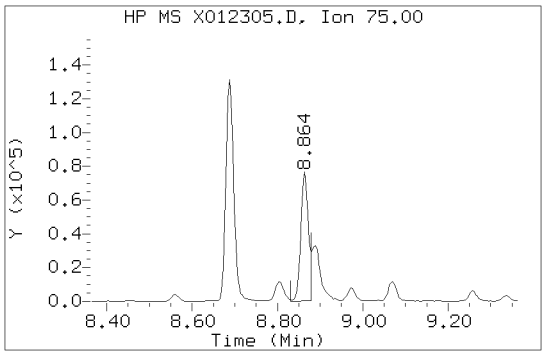
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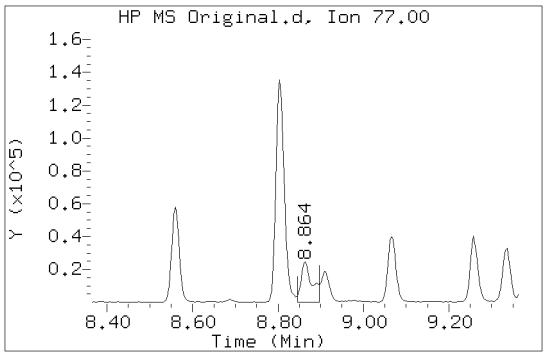
BEFORE
MASS
75
AREA
98843
HEIGHT
76450
13-Feb-2023
13:13
linh
pham



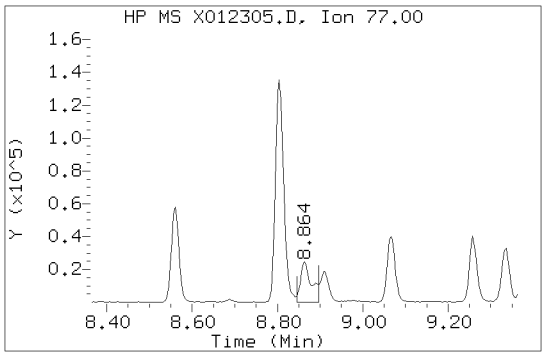

AFTER
MASS
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HEIGHT
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13-Feb-2023
13:13
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pham




BEFORE
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13-Feb-2023
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linh
pham



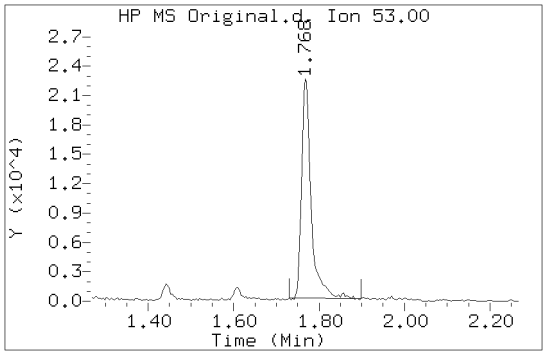

AFTER
MASS
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HEIGHT
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13-Feb-2023
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linh
pham



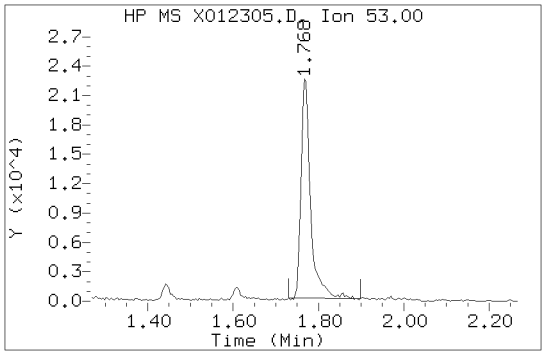

## Chloroprene (126-99-8)

Reason Code:

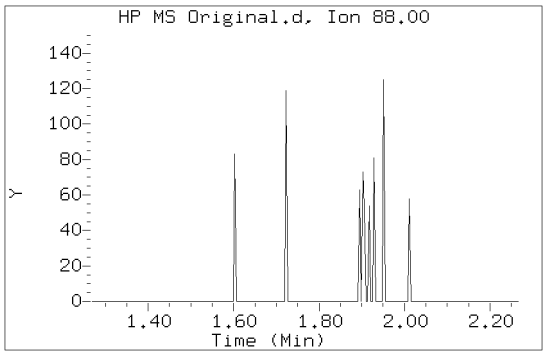
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13-Feb-2023
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linh
pham



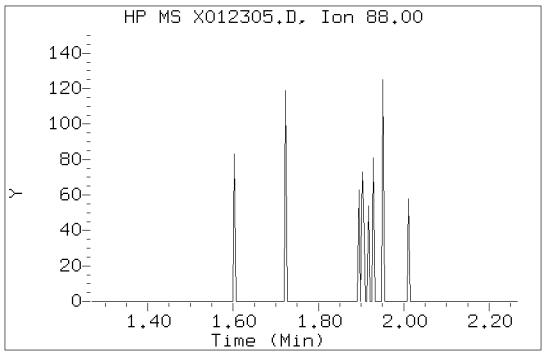

AFTER
MASS
53
AREA
35678
HEIGHT
22373
13-Feb-2023
13:13
linh
pham




BEFORE
MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:13
linh
pham




AFTER
MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:13
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012307.D  Page 1
Report Date: 13-Feb-2023 13:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012307.D
Lab Smp Id: VBLKW-230123  Client Smp ID: VBLKW-230123
Inj Date  : 23-JAN-2023 13:22
Operator  : PC  Inst ID: voa6.i
Smp Info  : VBLKW-230123;VBLKW-230123;3;;BLANK
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\8260W.m
Meth Date : 13-Feb-2023 13:14 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 7  QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 8260_GB.sub
Target Version:  4.14
Processing Host: NAHSTW7056

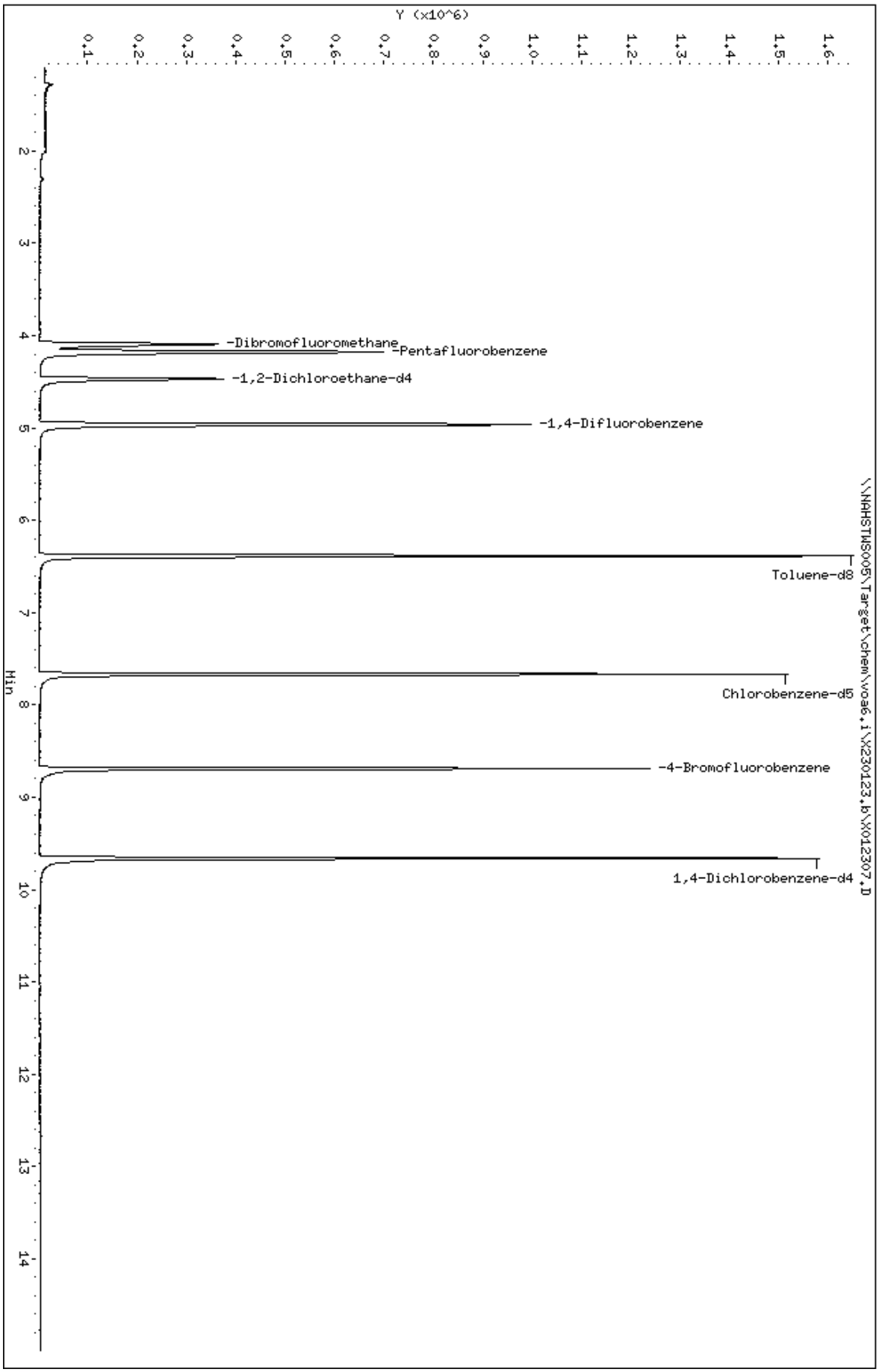
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.174 | (1.000) | 570496 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.095 | 4.091 | (0.980) | 254870 | 46.5155 | 46.51 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 288132 | 49.8350 | 49.83 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.965 | (1.000) | 819696 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 736361 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.386 | 6.385 | (0.833) | 957853 | 52.6408 | 52.64 |
| $ 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 341625 | 50.2283 | 50.22 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 383647 | 50.0000 | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012307.D
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Sample Info: VBLKW-230123;VBLKW-230123;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012307.D
Inj Date  : 23-JAN-2023 13:22
InstruID  : voa6.i
LabSampID : VBLKW-230123

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012319.D  Page 1
Report Date: 13-Feb-2023 13:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012319.D
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Inj Date  : 23-JAN-2023 17:35
Operator  : PC  Inst ID: voa6.i
Smp Info  : HS23010982-05MS;HS23010982-05MS;3;;MS
Misc Info : V6;WATER;0;2000;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\8260W.m
Meth Date : 13-Feb-2023 13:14 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 19  QC Sample: MS
Dil Factor: 2000.00000
Integrator: HP RTE  Compound Sublist: 8260_GB.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 2000.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.177 | 4.174 | (1.000) | 572145 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.594 | 5.595 | (1.339) | 19678 | 376.252 | 752504.42(a) |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 76560 | 19.4971 | 38994.22 |
| 25 Methacrylonitrile | 41 | 3.818 | 3.821 | (0.914) | 73684 | 18.1879 | 36375.75 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.669 | (1.118) | 263019 | 408.708 | 817416.84 |
| 13 Acetonitrile | 39 | 2.194 | 2.195 | (0.525) | 116203 | 223.157 | 446313.43 |
| 14 Allyl Chloride | 41 | 2.194 | 2.195 | (0.525) | 201709 | 20.3386 | 40677.25 |
| 4 Propionitrile | 54 | 3.649 | 3.645 | (0.873) | 114510 | 196.148 | 392296.28(a) |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.889 | 8.886 | (1.159) | 35093 | 22.0781 | 44156.12 |
| 194 Acetaldehyde | 44 | 1.208 | 1.209 | (0.289) | 64309 | 174.813 | 349625.11 |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 40810 | 20.9780 | 41956.08(M) |
| 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 77145 | 19.7747 | 39549.41 |
| 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 69282 | 18.1180 | 36235.92 |
| 131 Methyl Acrylate | 55 | 3.686 | 3.683 | (0.882) | 81422 | 20.9615 | 41923.00 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 28279 | 37.8507 | 75701.39 |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 204550 | 22.7374 | 45474.72 |
| 156 Diisopropyl ether | 45 | 2.997 | 2.997 | (0.717) | 296925 | 20.0058 | 40011.59 |
| 182 Epichlorohydrin | 57 | 6.097 | 6.089 | (1.229) | 30475 | 85.2516 | 170503.29 |
| 166 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 444419 | 22.7305 | 45460.91 |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 65637 | 16.6665 | 33333.01 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 Chloromethane | 50 | 1.074 | 1.074 (0.257) | 90297 | 18.8836 | 37767.16 |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 (0.273) | 100207 | 20.0494 | 40098.78 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012319.D Page 2
Report Date: 13-Feb-2023 13:14

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 74355 | 20.7394 | 41478.80 |
| 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 62386 | 17.9334 | 35866.71 |
| 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 156621 | 22.3930 | 44786.06 |
| 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 16572 | 43.9789 | 87957.74 |
| 10 | Acetone | 43 | 1.969 | 1.966 | (0.472) | 46208 | 28.7586 | 57517.29 |
| 11 | 1,1-Dichloroethene | 96 | 1.909 | 1.910 | (0.457) | 87951 | 20.2544 | 40508.70 |
| 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 177384 | 34.1444 | 68288.83 |
| 16 | Acrylonitrile | 53 | 2.532 | 2.528 | (0.606) | 60936 | 41.3758 | 82751.64 |
| 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 105250 | 17.6705 | 35340.99 |
| 18 | Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.605) | 278889 | 19.6217 | 39243.33 |
| 19 | Carbon Disulfide | 76 | 2.067 | 2.063 | (0.495) | 455560 | 40.0982 | 80196.45 |
| 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 96146 | 19.7838 | 39567.50 |
| 21 | Vinyl Acetate | 43 | 2.997 | 2.993 | (0.717) | 513297 | 41.1396 | 82279.21 |
| 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 163726 | 19.1961 | 38392.26 |
| 24 | 2-Butanone | 43 | 3.574 | 3.570 | (0.856) | 56230 | 35.0473 | 70094.58 |
| 26 | 2,2-Dichloropropane | 77 | 3.506 | 3.503 | (0.839) | 151283 | 20.8905 | 41781.07 |
| 27 | cis-1,2-Dichloroethene | 96 | 3.521 | 3.522 | (0.843) | 224356 | 37.9341 | 75868.25 |
| 28 | Chloroform | 83 | 3.900 | 3.900 | (0.934) | 182671 | 19.1087 | 38217.49 |
| 29 | Bromochloromethane | 128 | 3.791 | 3.788 | (0.908) | 55046 | 16.9987 | 33997.45 |
| $ 30 | Dibromofluoromethane | 113 | 4.095 | 4.091 | (0.980) | 249655 | 45.4285 | 45.42 |
| 31 | 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 161925 | 21.3491 | 42698.12 |
| 32 | 1,1-Dichloropropene | 75 | 4.275 | 4.279 | (0.862) | 139719 | 24.2355 | 48470.98 |
| 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 135487 | 20.3639 | 40727.74 |
| 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 141010 | 22.9051 | 45810.25 |
| $ 35 | 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 284877 | 49.1339 | 49.13 |
| * 36 | 1,4-Difluorobenzene | 114 | 4.961 | 4.965 | (1.000) | 812038 | 50.0000 | |
| 37 | Benzene | 78 | 4.507 | 4.507 | (0.909) | 398874 | 20.5698 | 41139.52 |
| 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 207539 | 37.7344 | 75468.86 |
| 39 | Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 142364 | 19.5625 | 39124.93 |
| 41 | 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.218) | 89631 | 43.2919 | 86583.82 |
| 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 102178 | 19.8089 | 39617.76 |
| 44 | Dibromomethane | 93 | 5.553 | 5.550 | (1.119) | 64689 | 18.4508 | 36901.61 |
| 45 | 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 169801 | 43.1455 | 86291.06 |
| 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 166576 | 19.4900 | 38980.07 |
| * 47 | Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 736303 | 50.0000 | |
| $ 48 | Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 950471 | 52.2393 | 52.23 |
| 50 | Toluene | 91 | 6.445 | 6.445 | (0.841) | 447073 | 21.9674 | 43934.86 |
| 51 | trans-1,3-Dichloropropene | 75 | 6.681 | 6.678 | (1.347) | 141397 | 19.9354 | 39870.75 |
| 52 | 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 110533 | 41.2804 | 82560.86 |
| 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 80290 | 19.6650 | 39329.99 |
| 54 | 1,3-Dichloropropane | 76 | 6.978 | 6.982 | (0.910) | 163567 | 20.3532 | 40706.35 |
| 55 | Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 117155 | 19.8812 | 39762.35 |
| 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 102802 | 24.4137 | 48827.41 |
| 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 104483 | 20.4675 | 40935.03 |
| 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 107505 | 27.3946 | 54789.15 |
| 59 | Chlorobenzene | 112 | 7.694 | 7.690 | (1.003) | 302433 | 20.9509 | 41901.84 |
| 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 110372 | 20.5455 | 41091.06 |
| 61 | Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 157018 | 23.0916 | 46183.25 |
| 62 | m,p-Xylenes | 106 | 7.900 | 7.904 | (1.030) | 400967 | 45.7427 | 91485.43 |
| 63 | o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 189310 | 21.8813 | 43762.64 |
| 64 | Styrene | 104 | 8.260 | 8.256 | (1.077) | 324455 | 22.3743 | 44748.55 |
| 66 | Bromoform | 173 | 8.410 | 8.410 | (1.097) | 79781 | 19.5427 | 39085.31 |

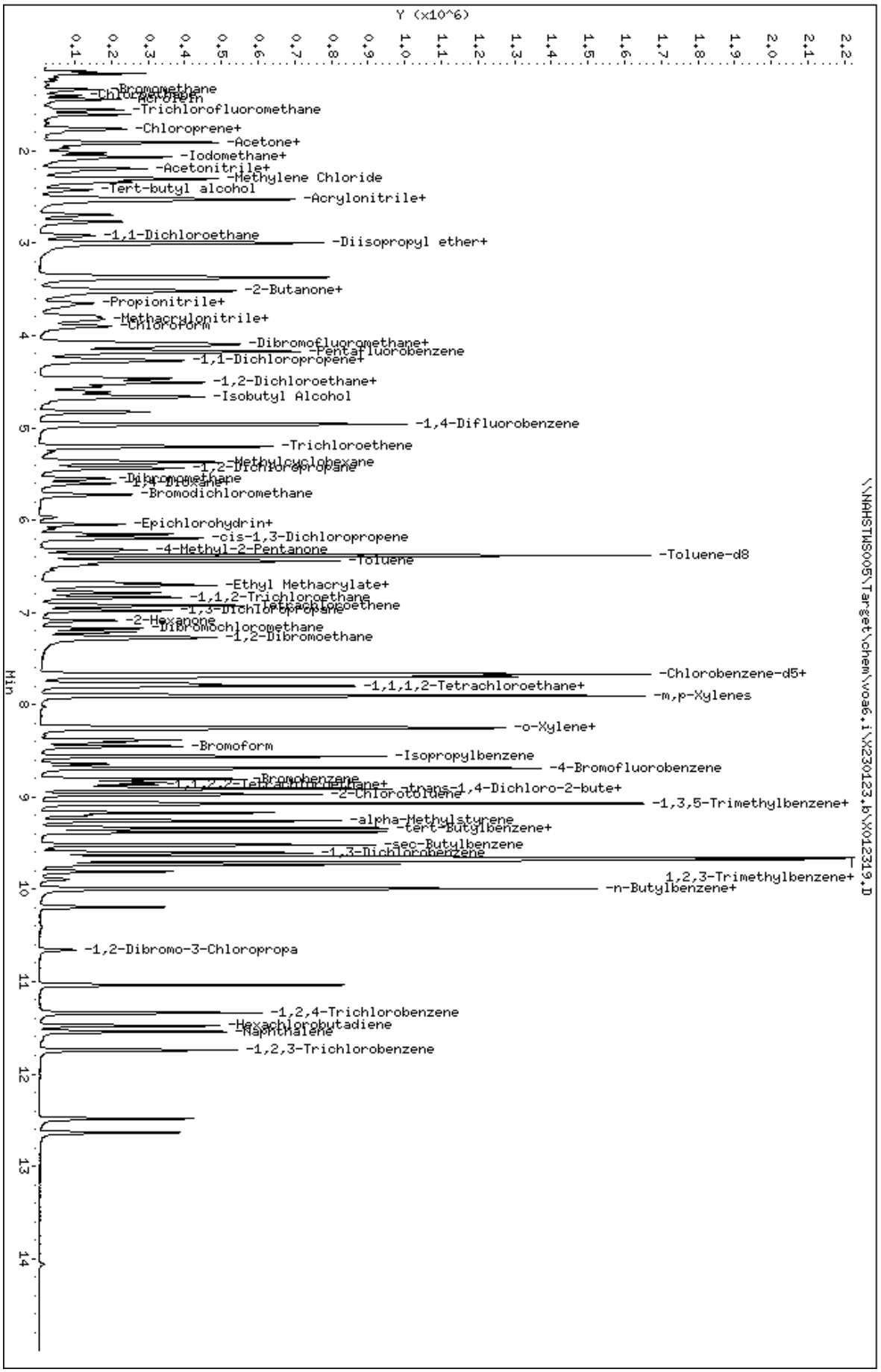
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 67 | Isopropylbenzene | 105 | 8.560 | 8.560 (1.116) | 501706 | 25.3824 | 50764.87 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 (0.915) | 130859 | 20.2215 | 40442.91 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012319.D Page 3
Report Date: 13-Feb-2023 13:14

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 349282 | 51.3567 | 51.35 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 406015 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 94305 | 20.8742 | 41748.44(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 589956 | 26.2323 | 52464.66 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 141904 | 21.3028 | 42605.58 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 425537 | 25.6135 | 51226.90 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 351850 | 23.8414 | 47682.82 |
| | 77 4-Chlorotoluene | 91 | 9.069 | 9.070 | (0.939) | 408650 | 24.2899 | 48579.78 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 363550 | 26.7326 | 53465.25 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 423323 | 24.2160 | 48432.07 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 509718 | 28.1696 | 56339.22 |
| | 82 p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 448587 | 27.6658 | 55331.59 |
| | 83 1,3-Dichlorobenzene | 146 | 9.605 | 9.602 | (0.994) | 254034 | 22.9766 | 45953.13 |
| | 84 1,4-Dichlorobenzene | 146 | 9.680 | 9.681 | (1.002) | 271956 | 22.5412 | 45082.36 |
| | 87 n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 393951 | 26.0904 | 52180.89 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 250424 | 21.9927 | 43985.33 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.659 | 10.655 | (1.103) | 21338 | 20.6785 | 41357.00 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.334 | (1.173) | 169611 | 23.6029 | 47205.84 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 79588 | 25.1135 | 50227.09 |
| | 92 Naphthalene | 128 | 11.543 | 11.540 | (1.195) | 364640 | 22.3022 | 44604.40 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 151858 | 22.0649 | 44129.77 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 320502 | 57.7179 | 115435.76 |
| M | 95 Xylenes (total) | 106 | | | | 590277 | 67.6240 | 135248.08 |
| | 141 Cyclohexane | 56 | 4.117 | 4.118 | (0.986) | 157089 | 27.8127 | 55625.47 |
| | 138 Freon TF | 101 | 1.913 | 1.910 | (0.458) | 99996 | 23.8091 | 47618.25 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.084) | 241600 | 24.3058 | 48611.59 |
| | 146 Methyl Acetate | 43 | 2.228 | 2.224 | (0.533) | 49910 | 19.3861 | 38772.24 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.423 | (0.580) | 156265 | 394.438 | 788875.01 |
| | 149 Isopropyl Alcohol | 45 | 2.089 | 2.086 | (0.500) | 84316 | 407.521 | 815041.04 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X230123.b\X012319.D
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Sample Info: HS23010982-05MS;HS23010982-05MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

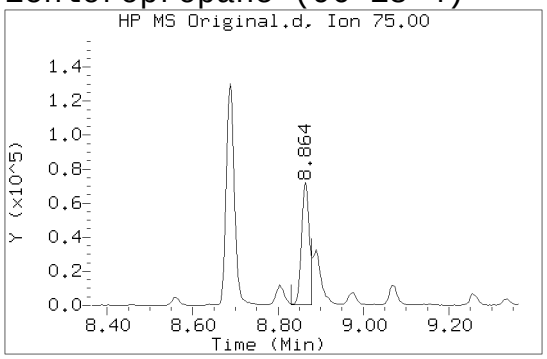
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Inj Date : 23-JAN-2023 17:35
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LabSampID : HS23010982-05MS

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

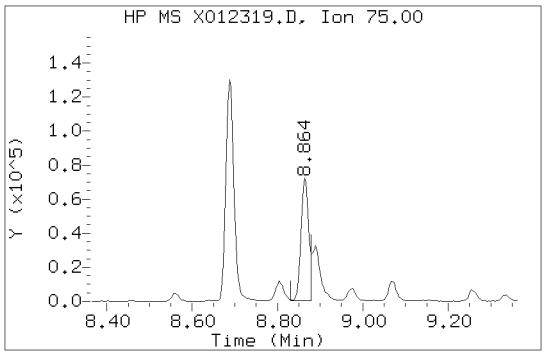
BEFORE

MASS
75
AREA
94305
HEIGHT
71851
13-Feb-2023
13:14
linh
pham



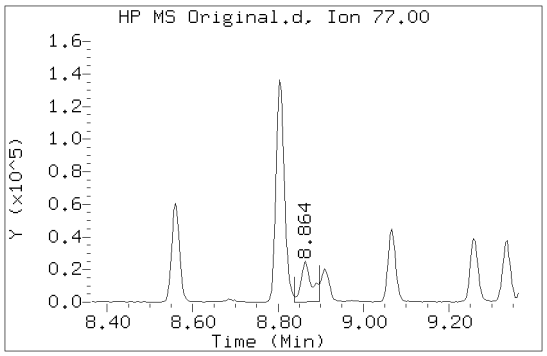

AFTER

MASS
75
AREA
94305
HEIGHT
71851
13-Feb-2023
13:14
linh
pham



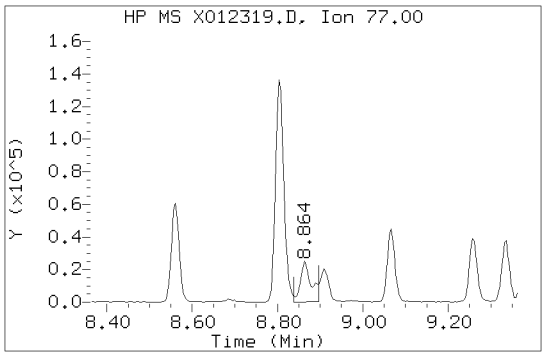

BEFORE

MASS
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AREA
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HEIGHT
25050
13-Feb-2023
13:14
linh
pham




AFTER

MASS
77
AREA
46400
HEIGHT
25050
13-Feb-2023
13:14
linh
pham

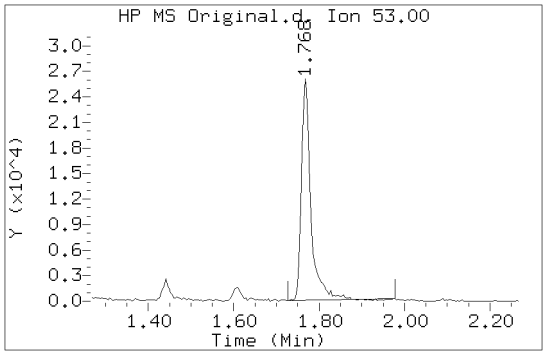



## Chloroprene (126-99-8)

Reason Code:

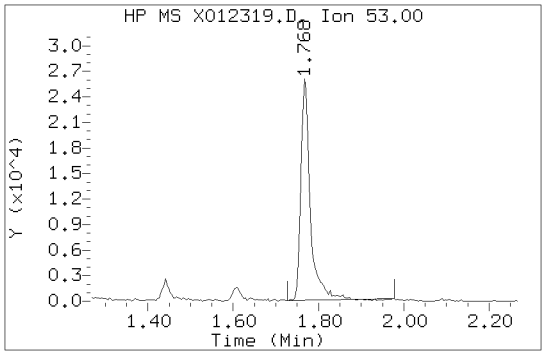
BEFORE

MASS
53
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HEIGHT
25996
13-Feb-2023
13:14
linh
pham



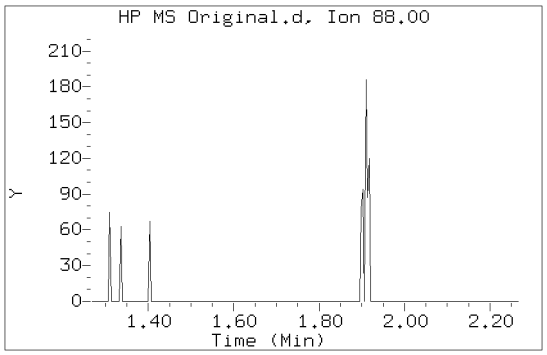

AFTER

MASS
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AREA
40810
HEIGHT
25996
13-Feb-2023
13:14
linh
pham



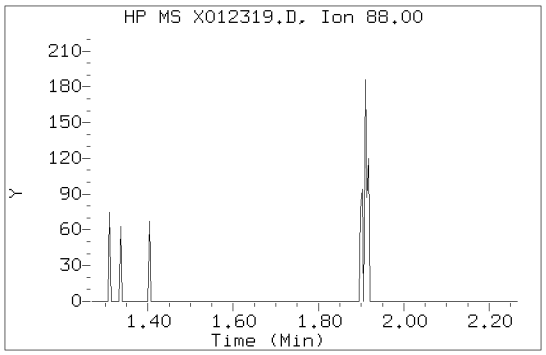

BEFORE

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:14
linh
pham




AFTER

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:14
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012320.D  Page 1
Report Date: 13-Feb-2023 13:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012320.D
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Inj Date  : 23-JAN-2023 17:56
Operator  : PC  Inst ID: voa6.i
Smp Info  : HS23010982-05MSD;HS23010982-05MSD;3;;MSD
Misc Info : V6;WATER;0;2000;
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Method    : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\8260W.m
Meth Date : 13-Feb-2023 13:14 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 19  QC Sample: MSD
Dil Factor: 2000.00000
Integrator: HP RTE  Compound Sublist: 8260_GB.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 2000.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 575104 | 50.0000 | |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.595 | (1.341) | 19254 | 366.251 | 732501.95(a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 69912 | 17.7125 | 35424.99 |
| 25 | Methacrylonitrile | 41 | 3.818 | 3.821 | (0.915) | 74284 | 18.2416 | 36483.27 |
| 12 | Isobutyl Alcohol | 43 | 4.669 | 4.669 | (1.119) | 272992 | 422.023 | 844045.96 |
| 13 | Acetonitrile | 39 | 2.195 | 2.195 | (0.526) | 115774 | 221.189 | 442377.85 |
| 14 | Allyl Chloride | 41 | 2.195 | 2.195 | (0.526) | 198051 | 19.8670 | 39734.07 |
| 4 | Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 109487 | 186.579 | 373158.25(a) |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 33576 | 20.5446 | 41089.17 |
| 194 | Acetaldehyde | 44 | 1.209 | 1.209 | (0.290) | 71001 | 194.301 | 388602.86 |
| 23 | Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 40330 | 20.6246 | 41249.27(M) |
| 40 | Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.343) | 77168 | 19.6788 | 39357.65 |
| 49 | Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.351) | 71692 | 18.3434 | 36686.71 |
| 131 | Methyl Acrylate | 55 | 3.687 | 3.683 | (0.883) | 90496 | 23.1777 | 46355.33 |
| 142 | Tetrahydrofuran | 42 | 3.837 | 3.840 | (0.919) | 27885 | 37.0711 | 74142.23 |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 197541 | 21.2453 | 42490.52 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.997 | (0.718) | 300872 | 20.1674 | 40334.86 |
| 182 | Epichlorohydrin | 57 | 6.093 | 6.089 | (1.227) | 28295 | 77.6729 | 155345.87 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 433419 | 21.4480 | 42896.08 |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 60099 | 15.2168 | 30433.54 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 Chloromethane | 50 | 1.074 | 1.074 (0.257) | 89907 | 18.7262 | 37452.32 |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 (0.274) | 93797 | 18.6703 | 37340.64 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012320.D Page 2
Report Date: 13-Feb-2023 13:14

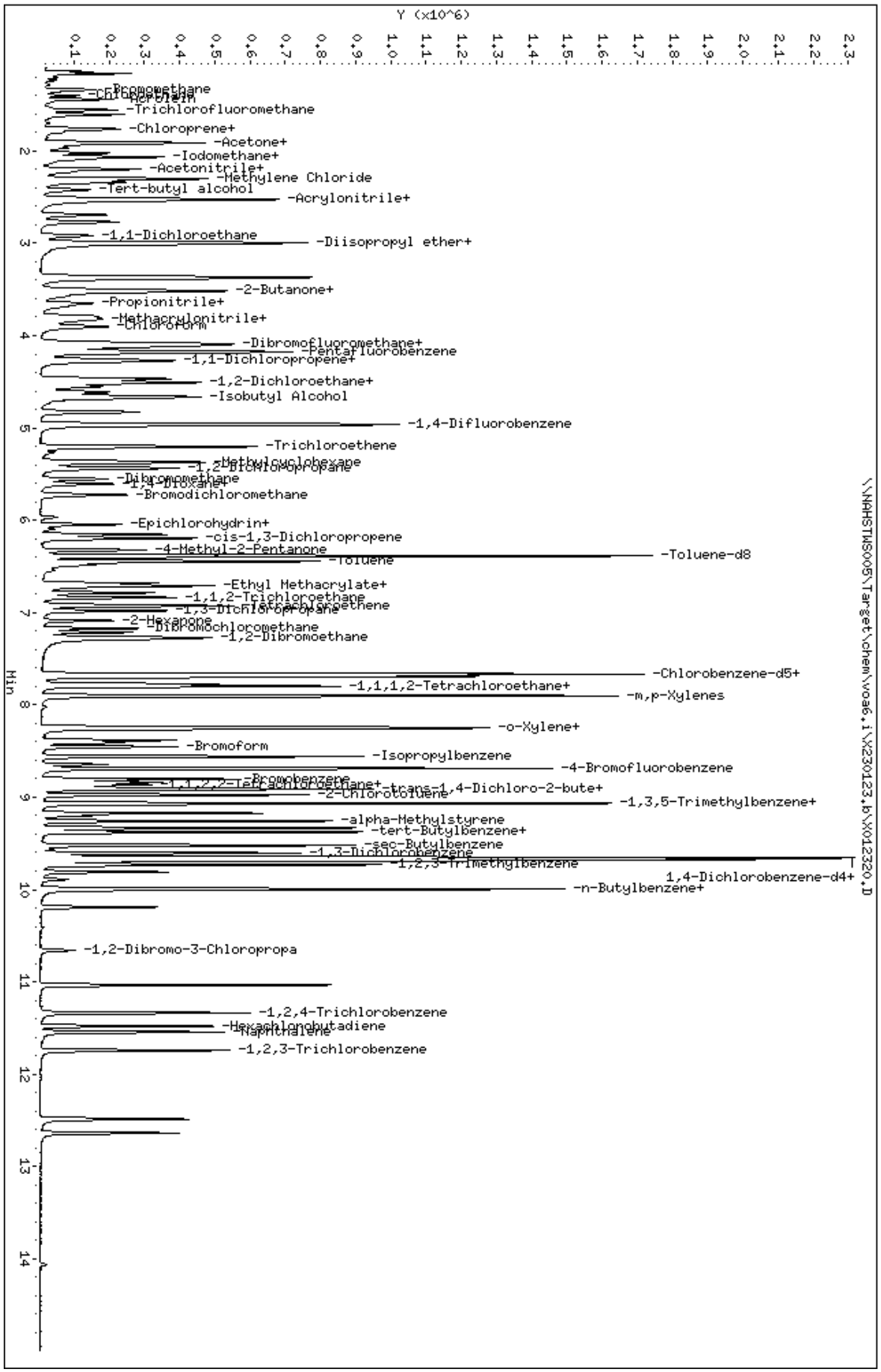
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 70673 | 19.7070 | 39413.95 |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 60500 | 17.3017 | 34603.46 |
| | 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 150806 | 21.4507 | 42901.38 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 15545 | 41.2297 | 82459.30 |
| | 10 Acetone | 43 | 1.966 | 1.966 | (0.471) | 48664 | 30.1330 | 60265.99 |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.458) | 85995 | 19.7020 | 39404.01 |
| | 15 Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 193491 | 36.7346 | 73469.29 |
| | 16 Acrylonitrile | 53 | 2.532 | 2.528 | (0.607) | 61511 | 41.5514 | 83102.71 |
| | 17 Methylene Chloride | 84 | 2.300 | 2.299 | (0.551) | 103756 | 17.3300 | 34660.08 |
| | 18 Methyl tert-butyl ether | 73 | 2.532 | 2.528 | (0.607) | 277800 | 19.4445 | 38888.97 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.063 | (0.495) | 439165 | 38.4563 | 76912.51 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.525 | 2.524 | (0.605) | 92175 | 18.8691 | 37738.12 |
| | 21 Vinyl Acetate | 43 | 2.993 | 2.993 | (0.717) | 511501 | 40.7847 | 81569.46 |
| | 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 160163 | 18.6818 | 37363.54 |
| | 24 2-Butanone | 43 | 3.578 | 3.570 | (0.857) | 55189 | 34.2927 | 68585.49 |
| | 26 2,2-Dichloropropane | 77 | 3.507 | 3.503 | (0.840) | 147306 | 20.2367 | 40473.39 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.844) | 220414 | 37.0759 | 74151.73 |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 178971 | 18.6254 | 37250.74 |
| | 29 Bromochloromethane | 128 | 3.792 | 3.788 | (0.908) | 55486 | 17.0464 | 34092.89 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.091 | (0.981) | 255427 | 46.2427 | 46.24 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.076 | (0.978) | 158670 | 20.8123 | 41624.53 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.279 | (0.861) | 136164 | 23.1088 | 46217.64 |
| | 33 1,2-Dichloroethane | 62 | 4.553 | 4.552 | (0.917) | 141819 | 20.8553 | 41710.59 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 138378 | 21.9922 | 43984.43 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 290334 | 49.8136 | 49.81 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 829960 | 50.0000 | |
| | 37 Benzene | 78 | 4.508 | 4.507 | (0.908) | 391301 | 19.7435 | 39486.96 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 199386 | 35.4692 | 70938.48 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.152) | 140946 | 18.9494 | 37898.79 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.048 | 6.044 | (1.218) | 89730 | 42.4039 | 84807.71 |
| | 42 1,2-Dichloropropane | 63 | 5.437 | 5.433 | (1.095) | 99705 | 18.9121 | 37824.10 |
| | 44 Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 67563 | 18.8544 | 37708.82 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 163604 | 40.4313 | 80862.56 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 169562 | 19.4110 | 38822.00 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 757057 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.386 | 6.385 | (0.833) | 974178 | 52.0744 | 52.07 |
| | 50 Toluene | 91 | 6.446 | 6.445 | (0.841) | 437643 | 20.9146 | 41829.13 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.346) | 142445 | 19.6495 | 39298.91 |
| | 52 2-Hexanone | 43 | 7.087 | 7.083 | (0.924) | 111063 | 40.3413 | 80682.56 |
| | 53 1,1,2-Trichloroethane | 83 | 6.835 | 6.839 | (0.891) | 81998 | 19.5328 | 39065.52 |
| | 54 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 166817 | 20.1885 | 40377.07 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 118302 | 19.5255 | 39050.92 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 97193 | 22.4489 | 44897.80 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 104116 | 19.8365 | 39672.99 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 104471 | 26.0466 | 52093.18 |
| | 59 Chlorobenzene | 112 | 7.690 | 7.690 | (1.003) | 298553 | 20.1152 | 40230.31 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.772 | (1.014) | 112938 | 20.4469 | 40893.71 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 152337 | 21.7891 | 43578.11 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 391458 | 43.4337 | 86867.33 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 184460 | 20.7362 | 41472.49 |
| | 64 Styrene | 104 | 8.260 | 8.256 | (1.077) | 318597 | 21.3680 | 42736.03 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 80098 | 19.0824 | 38164.87 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 67 | Isopropylbenzene | 105 | 8.560 | 8.560 (1.116) | 485620 | 23.8951 | 47790.16 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 (0.915) | 128429 | 19.2015 | 38403.08 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 358728 | 51.2997 | 51.29 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 419641 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 94751 | 20.2919 | 40583.88(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 571592 | 24.5905 | 49181.02 |
| | 74 Bromobenzene | 156 | 8.807 | 8.803 | (0.912) | 142314 | 20.6706 | 41341.25 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 412455 | 24.0199 | 48039.83 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 342017 | 22.4226 | 44845.23 |
| | 77 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 400400 | 23.0267 | 46053.46 |
| | 78 tert-Butylbenzene | 119 | 9.332 | 9.336 | (0.966) | 355321 | 25.2792 | 50558.30 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.377 | (0.971) | 414102 | 22.9194 | 45838.74 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 501838 | 26.8336 | 53667.15 |
| | 82 p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 436045 | 26.0191 | 52038.16 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.602 | (0.994) | 249608 | 21.8432 | 43686.37 |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 266236 | 21.3505 | 42701.09 |
| | 87 n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 390547 | 25.0977 | 50195.30 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 245978 | 20.9008 | 41801.55 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 21074 | 19.7636 | 39527.23 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.338 | 11.334 | (1.173) | 170534 | 22.9608 | 45921.59 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 79251 | 24.1985 | 48397.09 |
| | 92 Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 360997 | 21.3625 | 42724.91 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 154685 | 21.7458 | 43491.69 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 312589 | 55.9449 | 111889.86 |
| M | 95 Xylenes (total) | 106 | | | | 575918 | 64.1699 | 128339.83 |
| | 141 Cyclohexane | 56 | 4.121 | 4.118 | (0.987) | 150557 | 26.5777 | 53155.48 |
| | 138 Freon TF | 101 | 1.910 | 1.910 | (0.458) | 92446 | 21.8982 | 43796.42 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 240245 | 23.6476 | 47295.13 |
| | 146 Methyl Acetate | 43 | 2.228 | 2.224 | (0.534) | 50239 | 19.4135 | 38827.02 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.423 | (0.581) | 156491 | 392.976 | 785951.17 |
| | 149 Isopropyl Alcohol | 45 | 2.090 | 2.086 | (0.501) | 83586 | 401.914 | 803827.28 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




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Client ID: HS230109B2-05HSD
Sample Info: HS230109B2-05HSD;HS230109B2-05HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

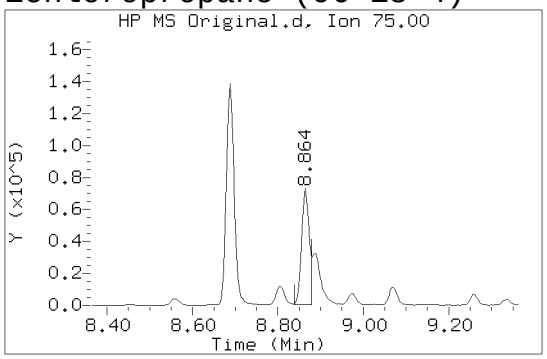
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Inj Date : 23-JAN-2023 17:56
InstruID : voa6.i
LabSampID : HS23010982-05MSD

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

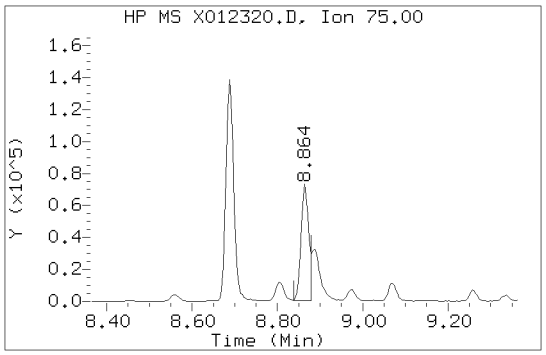
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13-Feb-2023
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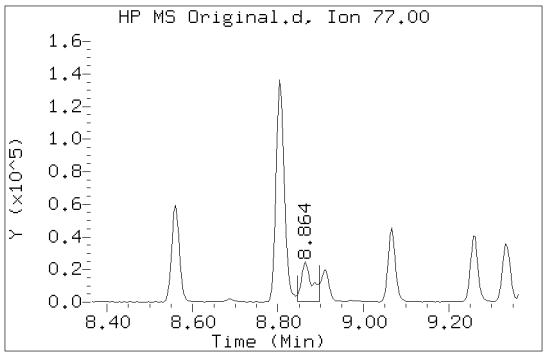

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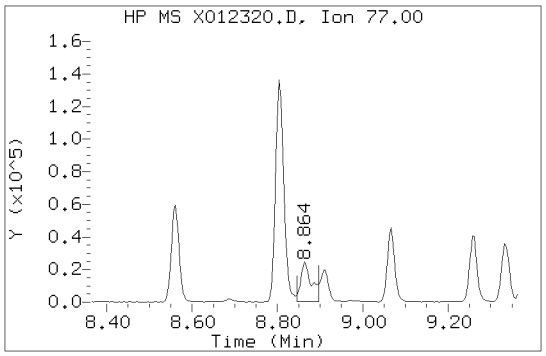

BEFORE

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13-Feb-2023
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AFTER

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13-Feb-2023
13:14
linh
pham

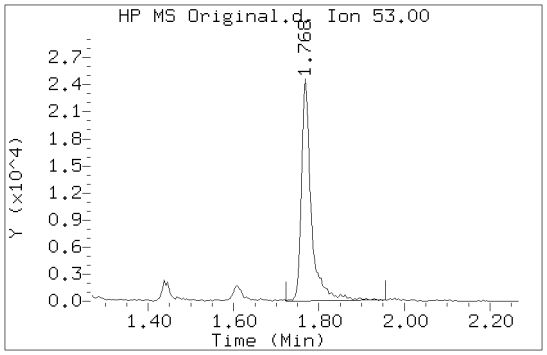



## Chloroprene (126-99-8)

Reason Code:

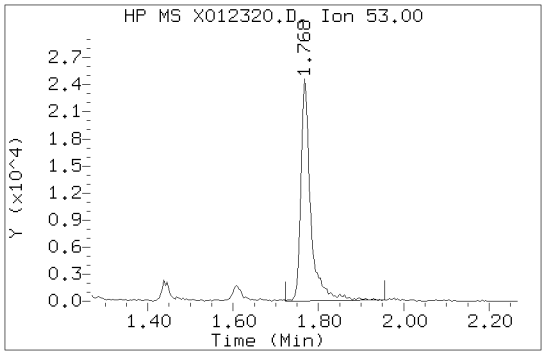
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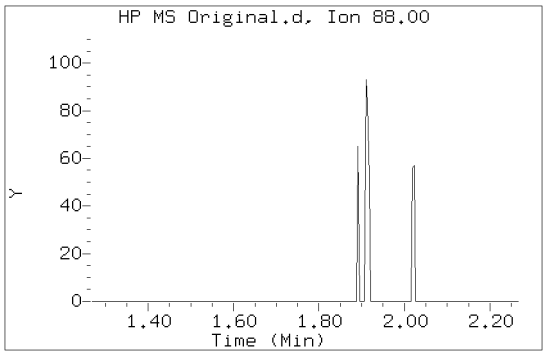

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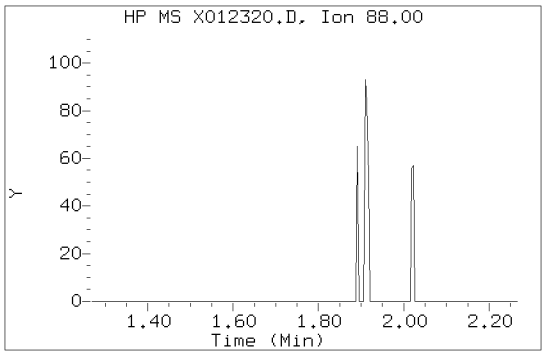

BEFORE

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13-Feb-2023
13:14
linh
pham




AFTER

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HEIGHT
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13-Feb-2023
13:14
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012326.D  Page 1
Report Date: 13-Feb-2023 13:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012326.D
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Inj Date  : 23-JAN-2023 20:02
Operator  : PC  Inst ID: voa6.i
Smp Info  : HS23010991-02;HS23010991-02;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\8260W.m
Meth Date : 13-Feb-2023 13:14 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 0474-dod.sub
Target Version:  4.14
Processing Host: NAHSTW7056

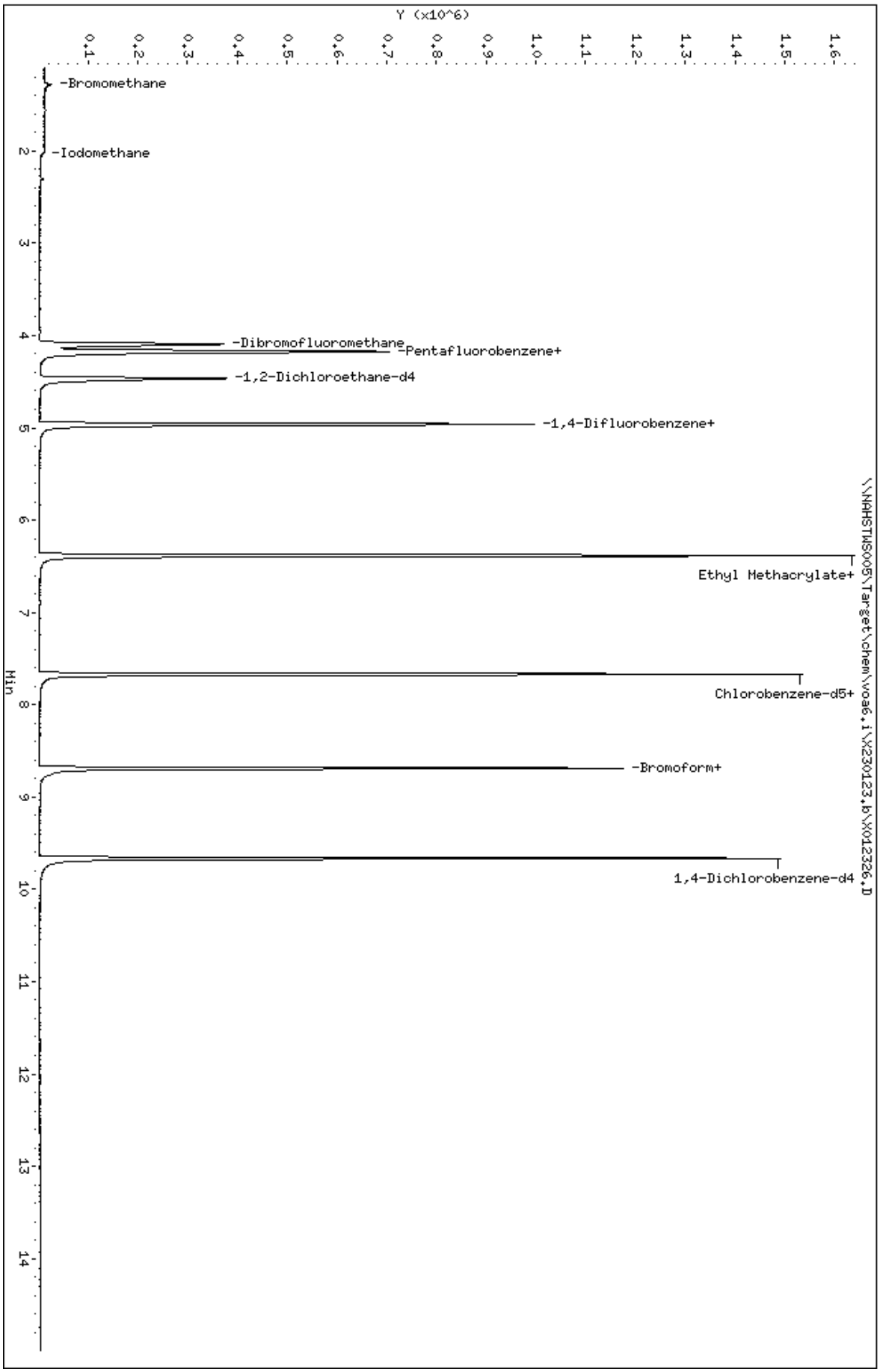
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 578306 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.095 | 4.091 | (0.981) | 259070 | 46.6439 | 46.64 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.466 | (1.071) | 290804 | 49.6191 | 49.61 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.965 | (1.000) | 824111 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 730433 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 960835 | 53.2333 | 53.23 |
| $ 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 327811 | 48.5905 | 48.59 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 361641 | 50.0000 | |

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Sample Info: HS23010991-02;HS23010991-02;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012326.D
Inj Date  : 23-JAN-2023 20:02
InstruID  : voa6.i
LabSampID : HS23010991-02

NO MANUAL INTEGRATIONS

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Report Date: 13-Feb-2023 13:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012331.D
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Inj Date  : 23-JAN-2023 21:47
Operator  : PC  Inst ID: voa6.i
Smp Info  : CCV-END;CCV-END;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\8260W.m
Meth Date : 13-Feb-2023 13:15 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 30  Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 8260_GB.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.177 | 4.177 | (1.000) | 481163 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.594 | 5.594 | (1.339) | 50207 | 1000.00 | 1141.50 |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 155875 | 50.0000 | 47.20 |
| 25 Methacrylonitrile | 41 | 3.818 | 3.818 | (0.914) | 178207 | 50.0000 | 52.30 |
| 12 Isobutyl Alcohol | 43 | 4.669 | 4.669 | (1.118) | 589939 | 1000.00 | 1090.05 |
| 13 Acetonitrile | 39 | 2.194 | 2.194 | (0.525) | 225636 | 500.000 | 515.24 |
| 14 Allyl Chloride | 41 | 2.194 | 2.194 | (0.525) | 409451 | 50.0000 | 49.09 |
| 4 Propionitrile | 54 | 3.649 | 3.649 | (0.873) | 259789 | 500.000 | 529.14 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.886 | 8.886 | (1.159) | 81006 | 50.0000 | 51.50 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 90472 | 200.000 | 308.10 |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 77105 | 50.0000 | 47.12(M) |
| 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 181132 | 50.0000 | 55.20 |
| 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.351) | 189925 | 50.0000 | 53.62 |
| 131 Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 189752 | 50.0000 | 58.08 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 62272 | 100.000 | 104.23 |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 464055 | 50.0000 | 49.13 |
| 156 Diisopropyl ether | 45 | 2.997 | 2.997 | (0.717) | 614958 | 50.0000 | 49.26 |
| 182 Epichlorohydrin | 57 | 6.093 | 6.093 | (1.227) | 70042 | 200.000 | 207.84 |
| 166 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 988201 | 50.0000 | 48.14 |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 141527 | 50.0000 | 42.11 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 Chloromethane | 50 | 1.074 | 1.074 (0.257) | 191729 | 50.0000 | 44.30 |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 (0.273) | 201232 | 50.0000 | 47.87 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 141145 | 50.0000 | 44.59 |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 136896 | 50.0000 | 46.79 |
| | 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 312249 | 50.0000 | 53.08 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 26133 | 100.000 | 79.99 |
| | 10 Acetone | 43 | 1.970 | 1.970 | (0.472) | 118678 | 100.000 | 87.89 |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 181294 | 50.0000 | 49.64 |
| | 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 452711 | 100.000 | 94.47 |
| | 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 135391 | 100.000 | 109.31 |
| | 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 231681 | 50.0000 | 46.25 |
| | 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.605) | 581379 | 50.0000 | 48.63 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 958189 | 100.000 | 100.28 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 203832 | 50.0000 | 49.87 |
| | 21 Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 923257 | 100.000 | 87.98 |
| | 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 359211 | 50.0000 | 50.07 |
| | 24 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 147802 | 100.000 | 103.11 |
| | 26 2,2-Dichloropropane | 77 | 3.506 | 3.506 | (0.839) | 286752 | 50.0000 | 47.08 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.521 | (0.843) | 245075 | 50.0000 | 49.27 |
| | 28 Chloroform | 83 | 3.904 | 3.904 | (0.935) | 413102 | 50.0000 | 51.38 |
| | 29 Bromochloromethane | 128 | 3.788 | 3.788 | (0.907) | 129796 | 50.0000 | 47.66 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 228261 | 50.0000 | 49.40 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 342730 | 50.0000 | 53.73 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.861) | 288679 | 50.0000 | 54.06 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 327400 | 50.0000 | 53.12 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 289549 | 50.0000 | 50.77 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 261639 | 50.0000 | 53.63 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 752129 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.908) | 892477 | 50.0000 | 49.69 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 265695 | 50.0000 | 52.15 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 330587 | 50.0000 | 49.04 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.217) | 211542 | 100.000 | 110.31 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 232745 | 50.0000 | 48.71 |
| | 44 Dibromomethane | 93 | 5.549 | 5.549 | (1.118) | 158391 | 50.0000 | 48.77 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 406482 | 100.000 | 104.38 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 386686 | 50.0000 | 48.84 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 728521 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 864965 | 50.0000 | 48.04 |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 994872 | 50.0000 | 49.40 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.678 | 6.678 | (1.345) | 337337 | 50.0000 | 51.34 |
| | 52 2-Hexanone | 43 | 7.083 | 7.083 | (0.924) | 279856 | 100.000 | 105.63 |
| | 53 1,1,2-Trichloroethane | 83 | 6.835 | 6.835 | (0.891) | 192681 | 50.0000 | 47.69 |
| | 54 1,3-Dichloropropane | 76 | 6.978 | 6.978 | (0.910) | 386925 | 50.0000 | 48.66 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 284999 | 50.0000 | 48.88 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 213245 | 50.0000 | 51.18 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 254445 | 50.0000 | 50.37 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 196877 | 50.0000 | 54.16 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 693756 | 50.0000 | 48.57 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 264994 | 50.0000 | 49.85 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 349011 | 50.0000 | 51.87 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 887217 | 100.000 | 102.29 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 429320 | 50.0000 | 50.15 |
| | 64 Styrene | 104 | 8.256 | 8.256 | (1.077) | 756662 | 50.0000 | 52.73 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 199996 | 50.0000 | 49.51 |

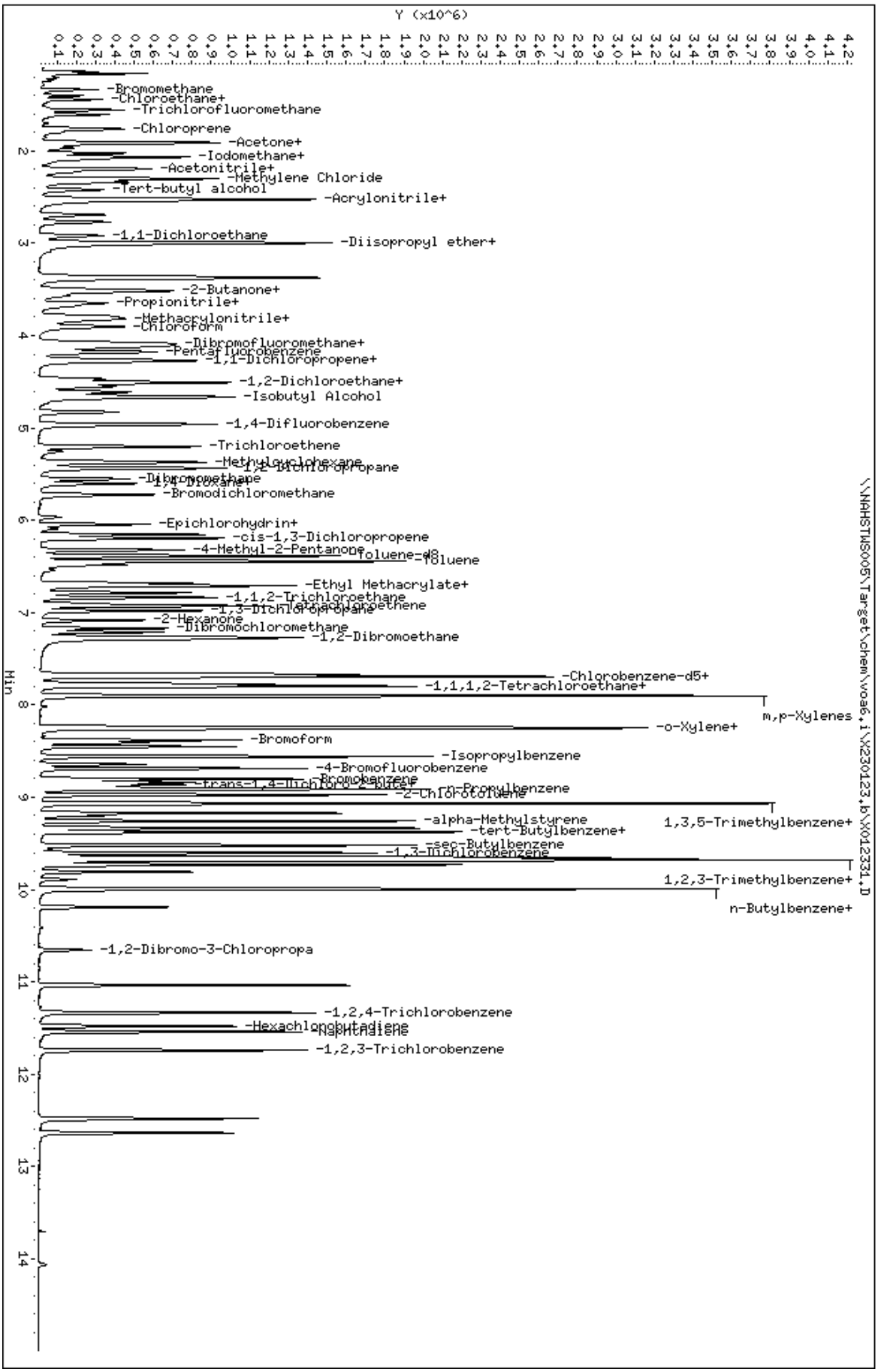
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 67 | Isopropylbenzene | 105 | 8.560 | 8.560 (1.116) | 1082876 | 50.0000 | 55.37 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 (0.915) | 301896 | 50.0000 | 44.43 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012331.D Page 3
Report Date: 13-Feb-2023 13:15

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 346174 | 50.0000 | 51.44 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 426275 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 237685 | 50.0000 | 50.11(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1275234 | 50.0000 | 54.00 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 337785 | 50.0000 | 48.29 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 944012 | 50.0000 | 54.12 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 789476 | 50.0000 | 50.95 |
| | 77 4-Chlorotoluene | 91 | 9.069 | 9.069 | (0.939) | 923872 | 50.0000 | 52.30 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 786835 | 50.0000 | 55.10 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 965745 | 50.0000 | 52.61 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1094503 | 50.0000 | 57.61 |
| | 82 p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 968030 | 50.0000 | 56.86 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 591626 | 50.0000 | 50.96 |
| | 84 1,4-Dichlorobenzene | 146 | 9.680 | 9.680 | (1.002) | 621840 | 50.0000 | 49.09 |
| | 87 n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 844556 | 50.0000 | 51.42 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 597360 | 50.0000 | 49.96 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 54216 | 50.0000 | 49.91 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 401035 | 50.0000 | 53.15 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 168565 | 50.0000 | 50.40 |
| | 92 Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 914642 | 50.0000 | 53.28 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.738 | 11.738 | (1.215) | 374448 | 50.0000 | 51.82 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 448907 | 100.000 | (a) |
| | 141 Cyclohexane | 56 | 4.117 | 4.117 | (0.986) | 269580 | 50.0000 | 55.44 |
| | 138 Freon TF | 101 | 1.913 | 1.913 | (0.458) | 178953 | 50.0000 | 50.66 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 478491 | 50.0000 | 51.97 |
| | 146 Methyl Acetate | 43 | 2.224 | 2.224 | (0.533) | 117488 | 50.0000 | 54.26 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.423 | (0.580) | 371117 | 1000.00 | 1113.88 |
| | 149 Isopropyl Alcohol | 45 | 2.086 | 2.086 | (0.499) | 199919 | 1000.00 | 1148.96 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012331.D
Date : 23-JAN-2023 21:47
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

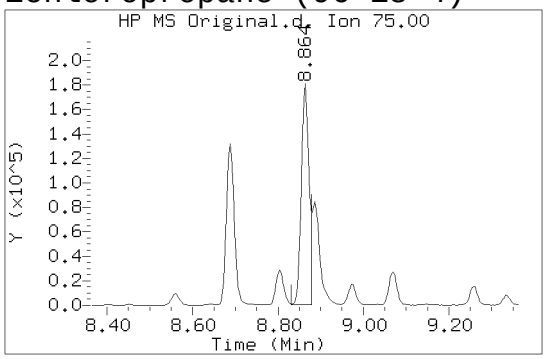
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230123.b\X012331.D
Inj Date : 23-JAN-2023 21:47
InstruID : voa6.i
LabSampID : CCV-END

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

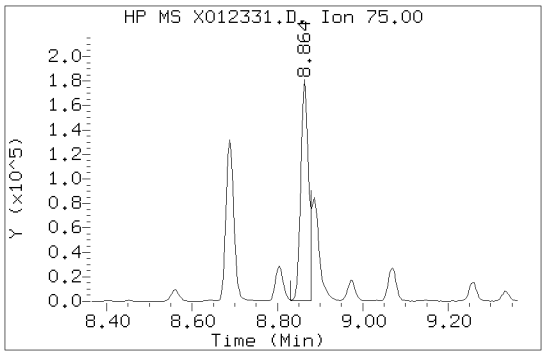
BEFORE

MASS
75
AREA
237685
HEIGHT
180693
13-Feb-2023
13:14
linh
pham



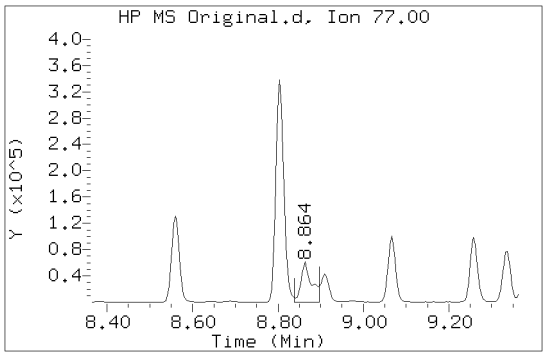

AFTER

MASS
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AREA
237685
HEIGHT
180693
13-Feb-2023
13:14
linh
pham



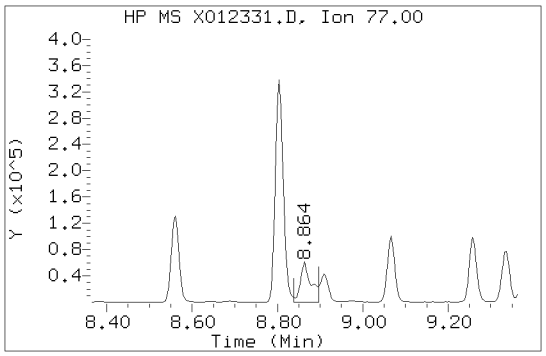

BEFORE

MASS
77
AREA
110185
HEIGHT
60761
13-Feb-2023
13:14
linh
pham




AFTER

MASS
77
AREA
110185
HEIGHT
60761
13-Feb-2023
13:14
linh
pham

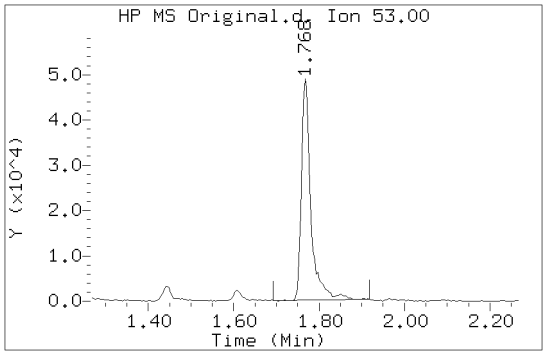



## Chloroprene (126-99-8)

Reason Code:

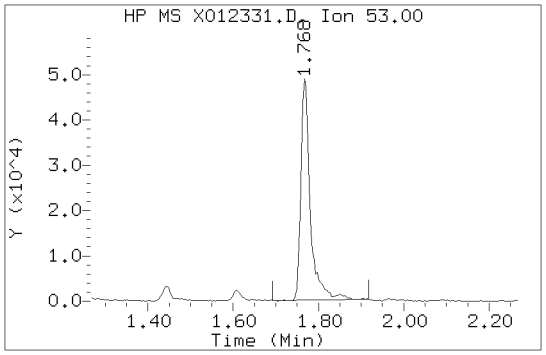
BEFORE

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AREA
77105
HEIGHT
48853
13-Feb-2023
13:14
linh
pham



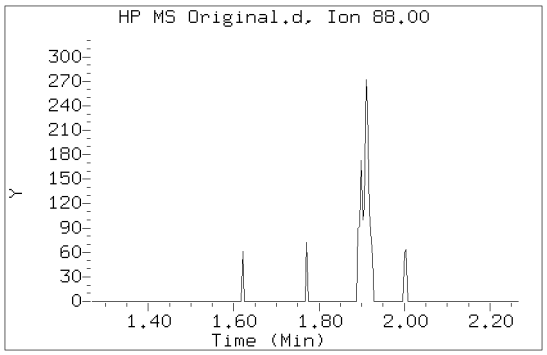

AFTER

MASS
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AREA
77105
HEIGHT
48853
13-Feb-2023
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linh
pham



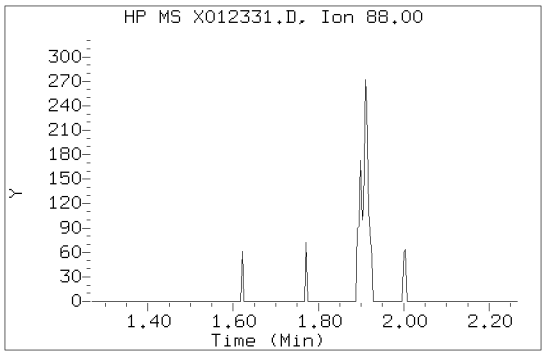

BEFORE

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:14
linh
pham




AFTER

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:14
linh
pham



right solutions.
right partner.

# Raw Data VOA6 426355

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\nahstws005\Target\chem\voa6.i\X230124.b\X012401.D  Page 1
Report Date: 24-Jan-2023 07:49

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X230124.b\X012401.D
Lab Smp Id: BFB  Client Smp ID: BFB
Inj Date  : 24-JAN-2023 07:31
Operator  : PC  Inst ID: voa6.i
Smp Info  : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\nahstws005\Target\chem\voa6.i\X230124.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham  Quant Type: ISTD
Cal Date  :  Cal File:
Als bottle: 1  QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: all.sub
Target Version:  4.14  Sample Matrix: WATER
Processing Host: NAHSTW7066

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vf | 1.000 | Volumetric correction factor |
| Vi | 2.000 | Injection Volume |
| Cpnd Variable | | Local Compound Variable |

| RT | EXP RT | REL RT | MASS | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | CONCENTRATIONS FINAL ( ug/l) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.889 | ( 0.000) | 95 | 139072 | | | 0.00- 100.00 | 100.00 |
| 8.687 | 8.889 | ( 0.000) | 50 | 26840 | | | 15.00- 40.00 | 19.30 |
| 8.687 | 8.889 | ( 0.000) | 75 | 69504 | | | 30.00- 60.00 | 49.98 |
| 8.687 | 8.889 | ( 0.000) | 96 | 9797 | | | 5.00- 9.00 | 7.04 |
| 8.687 | 8.889 | ( 0.000) | 173 | 989 | | | 0.00- 2.00 | 0.82 |
| 8.687 | 8.889 | ( 0.000) | 174 | 120704 | | | 50.00- 0.00 | 86.79 |
| 8.687 | 8.889 | ( 0.000) | 175 | 8511 | | | 5.00- 9.00 | 7.05 |
| 8.687 | 8.889 | ( 0.000) | 176 | 116088 | | | 95.00- 101.00 | 96.18 |
| 8.687 | 8.889 | ( 0.000) | 177 | 8022 | | | 5.00- 9.00 | 6.91 |

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 19.30 |
| 75 | 30.00 - 60.00% of mass 95 | 49.98 |
| 96 | 5.00 - 9.00% of mass 95 | 7.04 |
| 173 | Less than 2.00% of mass 174 | 0.71 ( 0.82) |
| 174 | Greater than 50.00% of mass 95 | 86.79 |
| 175 | 5.00 - 9.00% of mass 174 | 6.12 ( 7.05) |
| 176 | 95.00 - 101.00% of mass 174 | 83.47 ( 96.18) |
| 177 | 5.00 - 9.00% of mass 176 | 5.77 ( 6.91) |

Data File: X012401.D
Spectrum: Scan 2159 ( 8.68)
Location of Maximum: 95.00
Number of points: 122

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1469 | 67.00 | 455 | 103.90 | 611 | 143.00 | 1332 |
| 37.00 | 7593 | 68.00 | 14524 | 104.80 | 454 | 143.80 | 82 |
| 38.00 | 6223 | 69.00 | 15791 | 105.90 | 587 | 145.00 | 82 |
| 39.00 | 3440 | 70.00 | 2012 | 106.80 | 329 | 145.70 | 99 |
| 40.00 | 1590 | 71.10 | 369 | 109.00 | 233 | 147.00 | 245 |
| 41.10 | 1911 | 72.00 | 990 | 109.70 | 75 | 147.70 | 379 |
| 42.00 | 2101 | 73.00 | 6057 | 110.80 | 166 | 148.60 | 162 |
| 43.00 | 1244 | 74.00 | 23456 | 111.60 | 207 | 149.80 | 160 |
| 44.00 | 1791 | 75.00 | 69504 | 112.80 | 165 | 152.80 | 56 |
| 44.90 | 1484 | 76.00 | 6011 | 114.80 | 179 | 153.90 | 122 |
| 46.00 | 138 | 77.00 | 1159 | 115.80 | 418 | 154.80 | 380 |
| 47.00 | 1373 | 77.90 | 647 | 116.90 | 982 | 156.80 | 71 |
| 48.00 | 896 | 78.90 | 5122 | 117.90 | 358 | 157.80 | 62 |
| 49.00 | 6948 | 79.90 | 1309 | 118.90 | 817 | 158.90 | 131 |
| 50.00 | 26840 | 80.90 | 5225 | 120.00 | 71 | 160.90 | 81 |
| 51.00 | 8739 | 81.80 | 1151 | 120.90 | 74 | 170.00 | 148 |
| 51.90 | 461 | 83.00 | 540 | 123.70 | 123 | 170.70 | 72 |
| 52.90 | 307 | 84.80 | 158 | 125.90 | 100 | 171.50 | 138 |
| 54.00 | 239 | 85.90 | 308 | 127.00 | 151 | 173.00 | 989 |
| 55.00 | 3454 | 86.90 | 5872 | 127.80 | 720 | 173.90 | 120704 |
| 56.00 | 2550 | 87.90 | 5682 | 128.90 | 256 | 174.90 | 8511 |
| 57.00 | 4809 | 90.80 | 583 | 129.80 | 318 | 175.90 | 116088 |
| 57.90 | 516 | 91.20 | 485 | 130.80 | 202 | 176.90 | 8022 |
| 59.10 | 73 | 92.00 | 4175 | 134.80 | 297 | 177.90 | 156 |
| 59.90 | 976 | 93.00 | 5899 | 136.10 | 58 | 186.10 | 274 |
| 61.00 | 7256 | 94.00 | 15180 | 136.80 | 292 | 187.00 | 67 |
| 62.00 | 7128 | 95.00 | 139072 | 138.60 | 115 | 207.00 | 62 |
| 63.00 | 5118 | 96.00 | 9797 | 139.20 | 52 | 235.60 | 52 |
| 64.10 | 378 | 97.00 | 514 | 140.00 | 120 | 277.80 | 50 |
| 64.70 | 203 | 97.90 | 1400 | 140.90 | 1536 | | |
| 65.80 | 65 | 98.90 | 105 | 141.90 | 89 | | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012401.D



Date : 24-JAN-2023 07:31

Client ID: BFB

Instrument: voa6.i

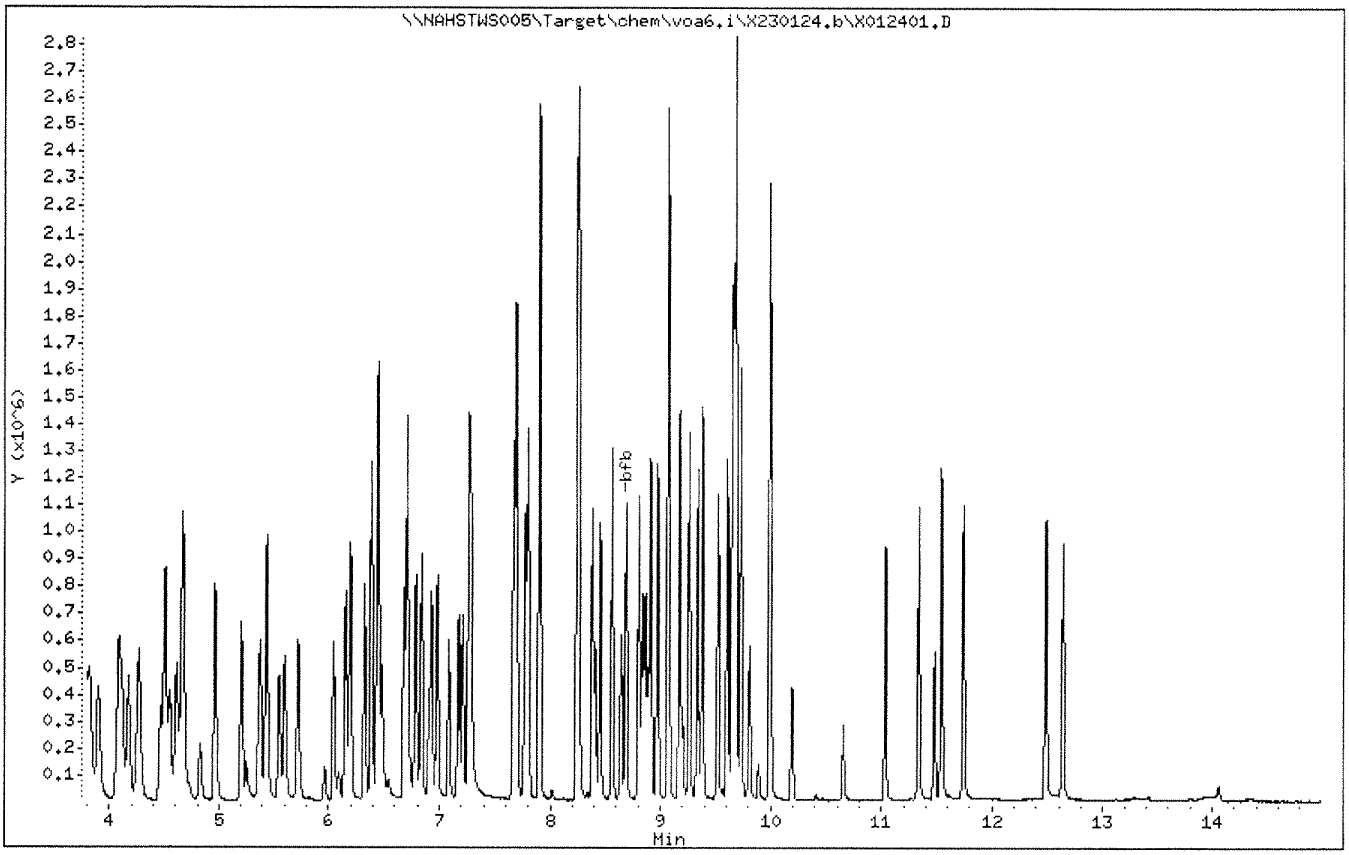
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012401.D Page 2

Date : 24-JAN-2023 07:31

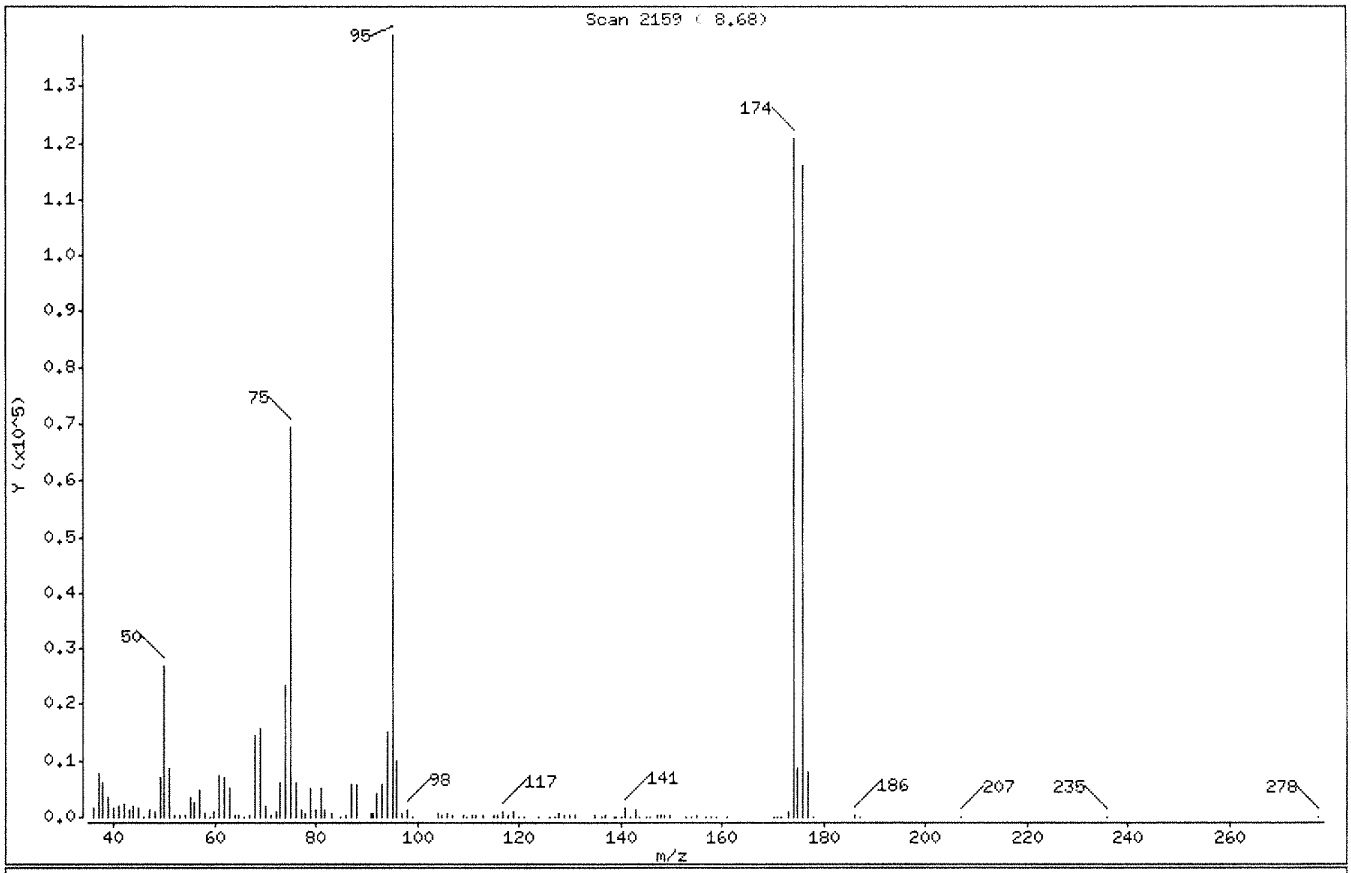
Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 19.30 |
| 75 | 30.00 - 60.00% of mass 95 | 49.98 |
| 96 | 5.00 - 9.00% of mass 95 | 7.04 |
| 173 | Less than 2.00% of mass 174 | 0.71 ( 0.82) |
| 174 | Greater than 50.00% of mass 95 | 86.79 |
| 175 | 5.00 - 9.00% of mass 174 | 6.12 ( 7.05) |
| 176 | 95.00 - 101.00% of mass 174 | 83.47 ( 96.18) |
| 177 | 5.00 - 9.00% of mass 176 | 5.77 ( 6.91) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012401.D

Date : 24-JAN-2023 07:31

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X012401.D
Spectrum: Scan 2159 ( 8.68)
Location of Maximum: 95.00
Number of points: 122

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1469 | 67.00 | 455 | 103.90 | 611 | 143.00 | 1332 |
| 37.00 | 7593 | 68.00 | 14524 | 104.80 | 454 | 143.80 | 82 |
| 38.00 | 6223 | 69.00 | 15791 | 105.90 | 587 | 145.00 | 82 |
| 39.00 | 3440 | 70.00 | 2012 | 106.80 | 329 | 145.70 | 99 |
| 40.00 | 1590 | 71.10 | 369 | 109.00 | 233 | 147.00 | 245 |
| 41.10 | 1911 | 72.00 | 990 | 109.70 | 75 | 147.70 | 379 |
| 42.00 | 2101 | 73.00 | 6057 | 110.80 | 166 | 148.60 | 162 |
| 43.00 | 1244 | 74.00 | 23456 | 111.60 | 207 | 149.80 | 160 |
| 44.00 | 1791 | 75.00 | 69504 | 112.80 | 165 | 152.80 | 56 |
| 44.90 | 1484 | 76.00 | 6011 | 114.80 | 179 | 153.90 | 122 |
| 46.00 | 138 | 77.00 | 1159 | 115.80 | 418 | 154.80 | 380 |
| 47.00 | 1373 | 77.90 | 647 | 116.90 | 982 | 156.80 | 71 |
| 48.00 | 896 | 78.90 | 5122 | 117.90 | 358 | 157.80 | 62 |
| 49.00 | 6948 | 79.90 | 1309 | 118.90 | 817 | 158.90 | 131 |
| 50.00 | 26840 | 80.90 | 5225 | 120.00 | 71 | 160.90 | 81 |
| 51.00 | 8739 | 81.80 | 1151 | 120.90 | 74 | 170.00 | 148 |
| 51.90 | 461 | 83.00 | 540 | 123.70 | 123 | 170.70 | 72 |
| 52.90 | 307 | 84.80 | 158 | 125.90 | 100 | 171.50 | 138 |
| 54.00 | 239 | 85.90 | 308 | 127.00 | 151 | 173.00 | 989 |
| 55.00 | 3454 | 86.90 | 5872 | 127.80 | 720 | 173.90 | 120704 |
| 56.00 | 2550 | 87.90 | 5682 | 128.90 | 256 | 174.90 | 8511 |
| 57.00 | 4809 | 90.80 | 583 | 129.80 | 318 | 175.90 | 116088 |
| 57.90 | 516 | 91.20 | 485 | 130.80 | 202 | 176.90 | 8022 |
| 59.10 | 73 | 92.00 | 4175 | 134.80 | 297 | 177.90 | 156 |
| 59.90 | 976 | 93.00 | 5899 | 136.10 | 58 | 186.10 | 274 |
| 61.00 | 7256 | 94.00 | 15180 | 136.80 | 292 | 187.00 | 67 |
| 62.00 | 7128 | 95.00 | 139072 | 138.60 | 115 | 207.00 | 62 |
| 63.00 | 5118 | 96.00 | 9797 | 139.20 | 52 | 235.60 | 52 |
| 64.10 | 378 | 97.00 | 514 | 140.00 | 120 | 277.80 | 50 |
| 64.70 | 203 | 97.90 | 1400 | 140.90 | 1536 | | |
| 65.80 | 65 | 98.90 | 105 | 141.90 | 89 | | |

Data File : \\nahstws005\Target\chem\voa6.i\X230124.b\X012401.D
Inj Date  : 24-JAN-2023 07:31
InstruID  : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012402.D Page 1
Report Date: 09-Feb-2023 13:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012402.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 24-JAN-2023 07:52
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\8260W.m
Meth Date : 09-Feb-2023 13:42 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 507505 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 154092 | 50.0000 | 43.46 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 215373 | 50.0000 | 47.04 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 287139 | 500.000 | 554.49 |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 215871 | 50.0000 | 48.69 |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 155067 | 50.0000 | 46.37 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 145676 | 50.0000 | 47.20 |
| 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 338394 | 50.0000 | 54.54 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 35688 | 100.000 | 102.74 |
| 10 Acetone | 43 | 1.966 | 1.966 | (0.471) | 156002 | 100.000 | 109.55 |
| 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 192989 | 50.0000 | 50.10 |
| 12 Isobutyl Alcohol | 43 | 4.669 | 4.669 | (1.118) | 669687 | 1000.00 | 1173.17 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 274083 | 500.000 | 593.39 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 488047 | 50.0000 | 55.47 |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 520197 | 100.000 | 102.28 |
| 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 150701 | 100.000 | 115.35 |
| 17 Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 246625 | 50.0000 | 46.67 |
| 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.605) | 676851 | 50.0000 | 53.68 |
| 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 1066793 | 100.000 | 105.85 |
| 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 222607 | 50.0000 | 51.63 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.716) | 1291106 | 100.000 | 116.65 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 389464 | 50.0000 | 51.47 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012402.D Page 2
Report Date: 09-Feb-2023 13:42

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 23 | Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 83208 | 50.0000 | 48.22(M) |
| 24 | 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 168134 | 100.000 | 110.97 |
| 25 | Methacrylonitrile | 41 | 3.818 | 3.818 | (0.914) | 199583 | 50.0000 | 55.53(a) |
| 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 374403 | 50.0000 | 58.28 |
| 27 | cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.843) | 256499 | 50.0000 | 48.89 |
| 28 | Chloroform | 83 | 3.900 | 3.900 | (0.934) | 435864 | 50.0000 | 51.40 |
| 29 | Bromochloromethane | 128 | 3.788 | 3.788 | (0.907) | 134366 | 50.0000 | 46.77 |
| $ 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 246285 | 50.0000 | 50.54 |
| 31 | 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 381342 | 50.0000 | 56.68 |
| 32 | 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 322539 | 50.0000 | 59.27 |
| 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 349665 | 50.0000 | 55.68 |
| 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 321681 | 50.0000 | 55.36 |
| $ 35 | 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 282664 | 50.0000 | 54.92 |
| * 36 | 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 766430 | 50.0000 | |
| 37 | Benzene | 78 | 4.508 | 4.508 | (0.909) | 944565 | 50.0000 | 51.60 |
| 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 275087 | 50.0000 | 52.99 |
| 39 | Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 349078 | 50.0000 | 50.82 |
| 40 | Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 202573 | 50.0000 | 58.53 |
| 41 | 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.218) | 227973 | 100.000 | 116.66 |
| 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 245818 | 50.0000 | 50.49 |
| 43 | 2-Nitropropane | 43 | 5.966 | 5.966 | (1.428) | 79809 | 50.0000 | 62.27 |
| 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.119) | 165976 | 50.0000 | 50.15 |
| 45 | 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 436226 | 100.000 | 110.79 |
| 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 430559 | 50.0000 | 53.37 |
| * 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 736604 | 50.0000 | |
| $ 48 | Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 913964 | 50.0000 | 50.21 |
| 49 | Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 205272 | 50.0000 | 56.87 |
| 50 | Toluene | 91 | 6.446 | 6.446 | (0.841) | 1058771 | 50.0000 | 52.00 |
| 51 | trans-1,3-Dichloropropene | 75 | 6.678 | 6.678 | (1.346) | 376785 | 50.0000 | 56.28 |
| 52 | 2-Hexanone | 43 | 7.083 | 7.083 | (0.924) | 307039 | 100.000 | 114.62 |
| 53 | 1,1,2-Trichloroethane | 83 | 6.835 | 6.835 | (0.891) | 200761 | 50.0000 | 49.15 |
| 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 412114 | 50.0000 | 51.25 |
| 55 | Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 299820 | 50.0000 | 50.85 |
| 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 236453 | 50.0000 | 56.13 |
| 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 266396 | 50.0000 | 52.16 |
| 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 227635 | 50.0000 | 61.45 |
| 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 724465 | 50.0000 | 50.16 |
| 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.773 | (1.014) | 276223 | 50.0000 | 51.39 |
| 61 | Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 374007 | 50.0000 | 54.98 |
| 62 | m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 953775 | 100.000 | 108.76 |
| 63 | o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 453186 | 50.0000 | 52.35 |
| 64 | Styrene | 104 | 8.256 | 8.256 | (1.077) | 789506 | 50.0000 | 54.42 |
| 66 | Bromoform | 173 | 8.410 | 8.410 | (1.097) | 210442 | 50.0000 | 51.52 |
| 67 | Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 1172710 | 50.0000 | 59.30 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 329440 | 50.0000 | 48.57 |
| $ 69 | 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 362762 | 50.0000 | 53.31 |
| * 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 425473 | 50.0000 | |
| 71 | 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 251028 | 50.0000 | 53.02(M) |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.886 | 8.886 | (1.159) | 91108 | 50.0000 | 57.29 |
| 73 | n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1400792 | 50.0000 | 59.43 |
| 74 | Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 346094 | 50.0000 | 49.57 |
| 75 | 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1015822 | 50.0000 | 58.34 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 847551 | 50.0000 | 54.80 |
| 77 | 4-Chlorotoluene | 91 | 9.070 | 9.070 (0.939) | 993651 | 50.0000 | 56.36 |

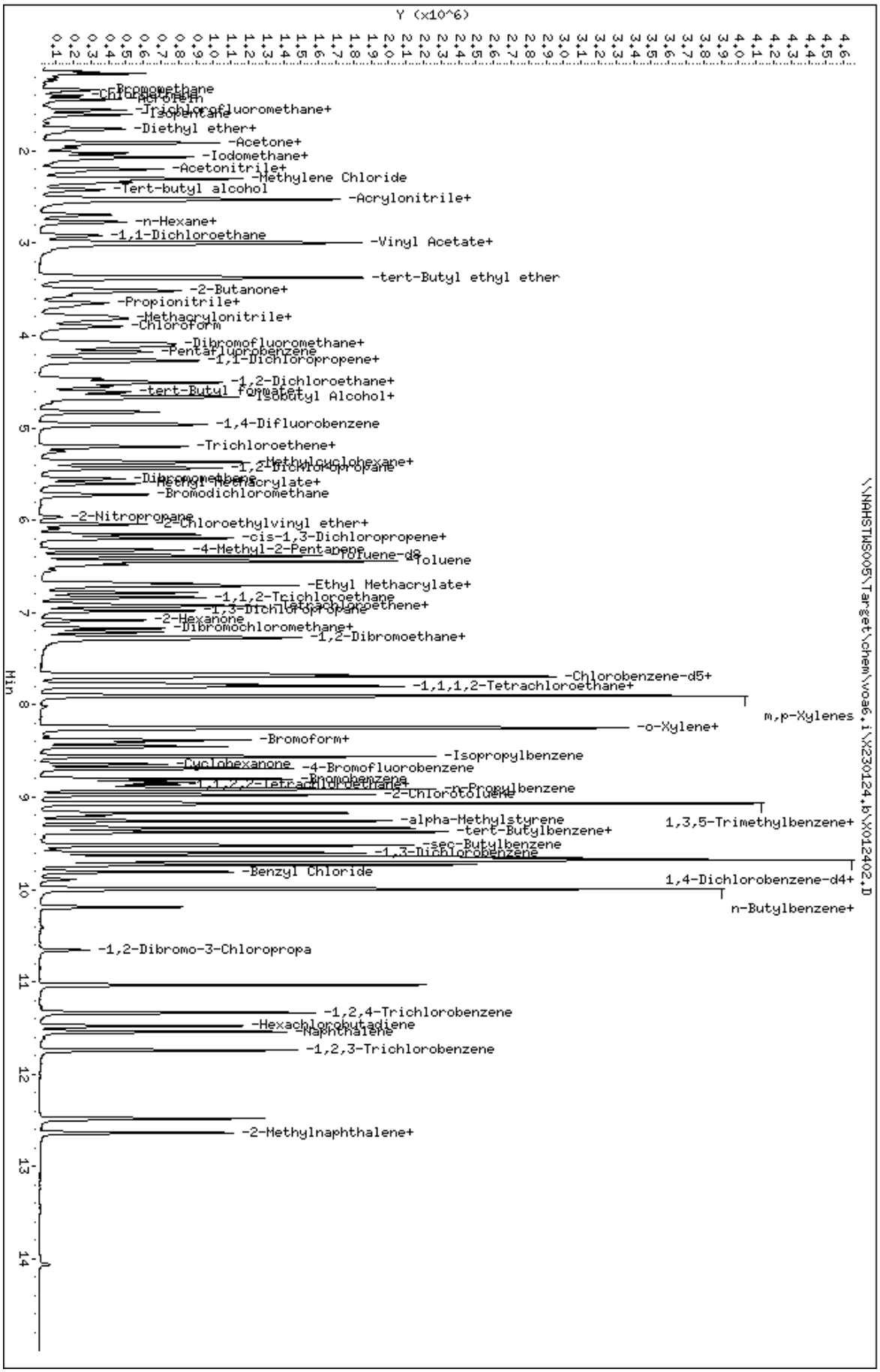
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) | |
|---|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 846915 | 50.0000 | 59.42 | |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 1031770 | 50.0000 | 56.32 | |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1201894 | 50.0000 | 63.38 | |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 1073554 | 50.0000 | 63.18 | |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 624301 | 50.0000 | 53.88 | |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 658068 | 50.0000 | 52.04 | |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 634707 | 50.0000 | 54.78 | |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 976563 | 50.0000 | 59.29 | |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 617170 | 50.0000 | 51.72 | |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 57313 | 50.0000 | 52.85 | |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.338 | 11.338 | (1.173) | 448754 | 50.0000 | 59.59 | |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 197414 | 50.0000 | 59.03 | |
| 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 960961 | 50.0000 | 56.08 | |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.215) | 407820 | 50.0000 | 56.54 | |
| 146 | Methyl acetate | 43 | 2.225 | 2.225 | (0.533) | 130422 | 50.0000 | 57.11 | |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.457) | 199870 | 50.0000 | 53.65 | |
| 141 | Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 307391 | 50.0000 | 59.83 | |
| 142 | Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 66643 | 100.000 | 105.80 | |
| 147 | Methylcyclohexane | 55 | 5.373 | 5.373 | (1.083) | 598166 | 50.0000 | 63.75 | |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 51736 | 1000.00 | 1115.21 | |
| 132 | n-Butanol | 56 | 5.250 | 5.250 | (1.257) | 77147 | 1000.00 | 1170.23 | |
| 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 221779 | 50.0000 | 64.36 | |
| 133 | Ethyl Acrylate | 55 | 5.373 | 5.373 | (1.286) | 598166 | 50.0000 | 59.78 | |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 236946 | 50.0000 | 64.84 | |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 161298 | 50.0000 | 47.56 | |
| 148 | Tert-butyl alcohol | 59 | 2.420 | 2.420 | (0.579) | 414531 | 1000.00 | 1179.61 | |
| 149 | Isopropyl alcohol | 45 | 2.086 | 2.086 | (0.499) | 222964 | 1000.00 | 1214.89 | |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.997 | (0.717) | 716198 | 50.0000 | 54.40 | |
| 160 | 2-Methylnaphthalene | 142 | 12.635 | 12.635 | (1.308) | 455715 | 50.0000 | 55.20 | |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 1124346 | 50.0000 | 54.87 | |
| 167 | Ethanol | 45 | 1.700 | 1.700 | (0.407) | 36596 | 1000.00 | 1107.27 | |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.104) | 325988 | 100.000 | 121.05 | |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 422127 | 1000.00 | 1211.21 | |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.116) | 768539 | 50.0000 | 52.53 | |
| 175 | tert-Butyl ethyl ether | 59 | 3.372 | 3.372 | (0.807) | 750478 | 50.0000 | 53.64 | |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.104) | 325988 | 1000.00 | 1195.99 | |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 874340 | 1000.00 | 1205.29 | |
| 180 | 1-Methylnaphthalene | 142 | 12.635 | 12.635 | (1.308) | 455715 | 50.0000 | (a) | |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 169233 | 50.0000 | 48.58 | |
| 152 | Amyl alcohol | 42 | 6.899 | 6.899 | (0.900) | 86783 | 1000.00 | 1191.41 | |
| 158 | Dichlorofluoromethane | 67 | 1.531 | 1.531 | (0.367) | 31804 | 50.0000 | 48.39 | |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 32591 | 100.000 | 102.12 | |
| 161 | 3-Methyl-1-butanol | 55 | 6.903 | 6.903 | (0.900) | 93010 | 1000.00 | 1277.14 | |
| 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 559568 | 50.0000 | 58.15 | |
| 182 | Epichlorohydrin | 57 | 6.089 | 6.089 | (1.227) | 78561 | 200.000 | 228.51 | |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 479106 | 100.000 | (a) | |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 491428 | 50.0000 | 52.12 | |
| 130 | Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 227429 | 50.0000 | 57.42 | |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 229738 | 1000.00 | 1294.43 | |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 76442 | 50.0000 | 56.53 | |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 146038 | 50.0000 | (a) | |
| 188 | Isopropyl acetate | 43 | 4.669 | 4.669 | (0.941) | 671984 | 50.0000 | 56.43 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 453988 | 50.0000 | 52.85 |
| 189 n-Butyl acetate | 43 | 7.210 | 7.210 (0.940) | 374785 | 50.0000 | 59.23 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 236946 | 1000.00 | 1270.23 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 64437 | 200.000 | 200.48 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 554067 | 50.0000 | 56.57 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 535809 | 50.0000 | 53.74 |
| 168 1-Propanol | 59 | 2.993 | 2.993 | (0.716) | 82662 | 1000.00 | 996.66 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




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Date : 24-JAN-2023 07:52
Client ID: CCV
Sample Info: CCV;CCV;2;;
Purge Volume: 5.0
Column phase: DB624

\\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012402.D

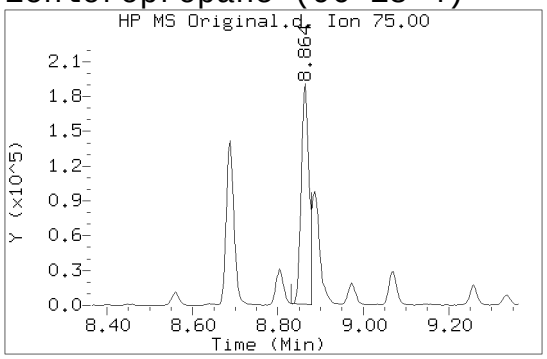
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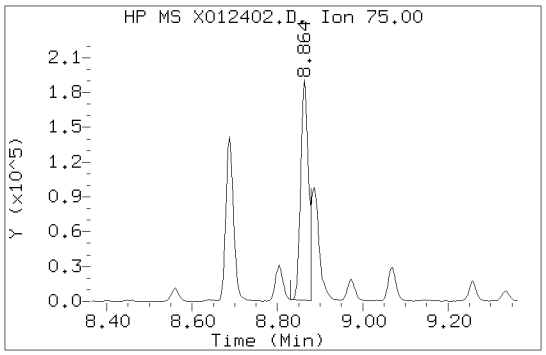
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Reason Code:

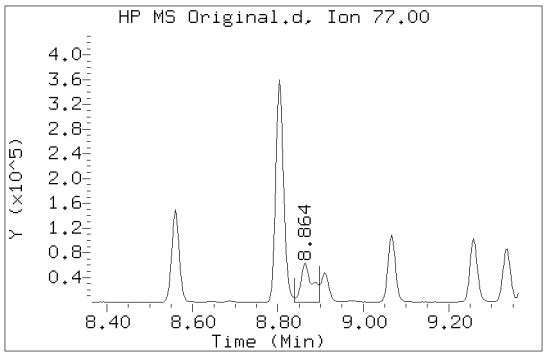
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AREA
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HEIGHT
190268
03-Feb-2023
10:50
linh
pham



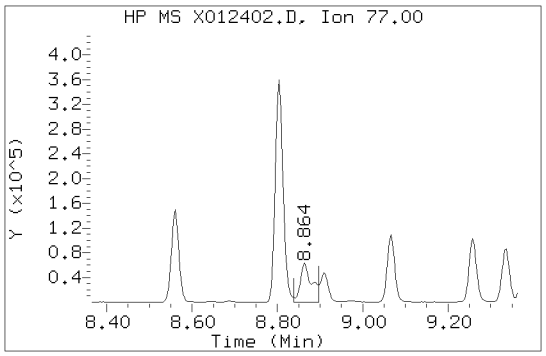

**AFTER**
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AREA
251028
HEIGHT
190268
09-Feb-2023
13:42




**BEFORE**
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AREA
123107
HEIGHT
63069
03-Feb-2023
10:50
linh
pham



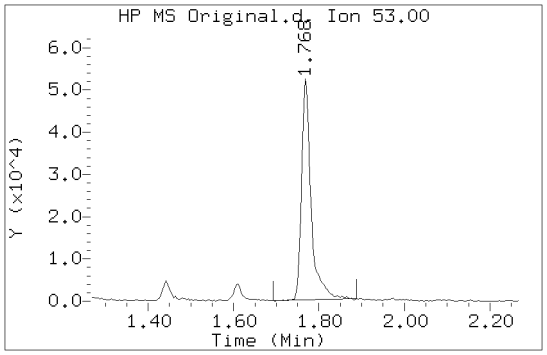

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09-Feb-2023
13:42



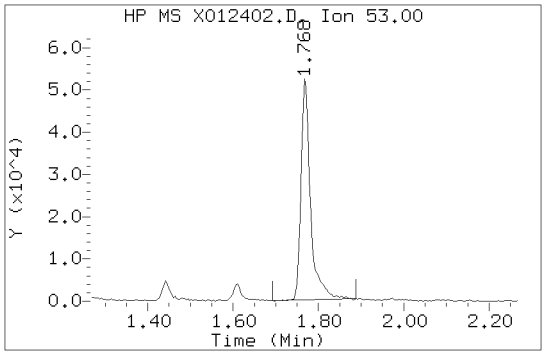

## Chloroprene (126-99-8)

Reason Code:

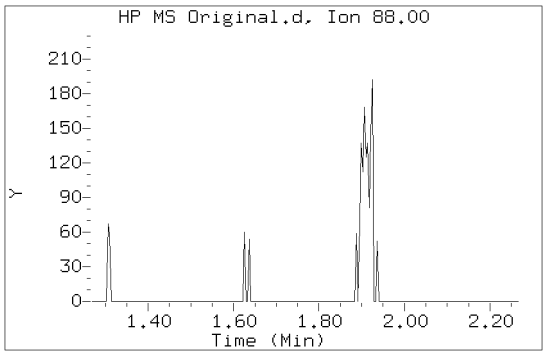
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83208
HEIGHT
52273
03-Feb-2023
10:50
linh
pham



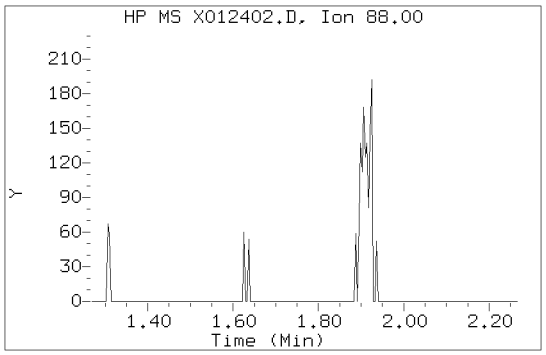

**AFTER**
MASS
53
AREA
83208
HEIGHT
52273
09-Feb-2023
13:42




**BEFORE**
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88
AREA
0
HEIGHT
0
03-Feb-2023
10:50
linh
pham




**AFTER**
MASS
88
AREA
0
HEIGHT
0
09-Feb-2023
13:42



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012404.D  Page 1
Report Date: 09-Feb-2023 13:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012404.D
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Inj Date  : 24-JAN-2023 08:55
Operator  : PC  Inst ID: voa6.i
Smp Info  : VLCSW-230124;VLCSW-230124;3;;LCS
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\8260W.m
Meth Date : 09-Feb-2023 13:42 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 5  QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 506288 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 62469 | 17.8957 | 17.89 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 90079 | 21.0067 | 21.00 |
| 4 Propionitrile | 54 | 3.649 | 3.645 | (0.873) | 110314 | 213.540 | 213.54(a) |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 88747 | 20.0662 | 20.06 |
| 6 Bromomethane | 94 | 1.340 | 1.336 | (0.321) | 67045 | 21.0995 | 21.09 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 60209 | 19.5589 | 19.55 |
| 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 135266 | 21.8555 | 21.85 |
| 9 Acrolein | 56 | 1.445 | 1.441 | (0.346) | 15269 | 45.6755 | 45.67 |
| 10 Acetone | 43 | 1.970 | 1.966 | (0.472) | 67482 | 47.4845 | 47.48 |
| 11 1,1-Dichloroethene | 96 | 1.913 | 1.910 | (0.458) | 81077 | 21.1001 | 21.10 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.669 | (1.118) | 273658 | 480.555 | 480.55(a) |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 111916 | 242.881 | 242.88(a) |
| 14 Allyl Chloride | 41 | 2.198 | 2.195 | (0.526) | 199817 | 22.7686 | 22.76(a) |
| 15 Iodomethane | 142 | 2.026 | 2.022 | (0.485) | 196355 | 41.7582 | 41.75 |
| 16 Acrylonitrile | 53 | 2.532 | 2.528 | (0.606) | 62715 | 48.1230 | 48.12 |
| 17 Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 106774 | 20.2582 | 20.25 |
| 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.605) | 275936 | 21.9392 | 21.93 |
| 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 430725 | 42.8438 | 42.84 |
| 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 91611 | 21.3026 | 21.30 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.716) | 523654 | 47.4290 | 47.42 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 158089 | 20.9462 | 20.94 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012404.D Page 2
Report Date: 09-Feb-2023 13:42

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 23 | Chloroprene | 53 | 1.771 | 1.767 | (0.424) | 32496 | 18.8772 | 18.87(M) |
| 24 | 2-Butanone | 43 | 3.578 | 3.570 | (0.856) | 67501 | 46.4662 | 46.46 |
| 25 | Methacrylonitrile | 41 | 3.818 | 3.818 | (0.914) | 79502 | 22.1766 | 22.17(a) |
| 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 147532 | 23.0226 | 23.02 |
| 27 | cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.843) | 106823 | 20.4111 | 20.41 |
| 28 | Chloroform | 83 | 3.900 | 3.900 | (0.934) | 178133 | 21.0579 | 21.05 |
| 29 | Bromochloromethane | 128 | 3.791 | 3.788 | (0.908) | 56511 | 19.7211 | 19.72 |
| $ 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 243009 | 49.9878 | 49.98 |
| 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.076 | (0.977) | 152525 | 22.7255 | 22.72 |
| 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.275 | (0.862) | 125127 | 22.9406 | 22.94 |
| 33 | 1,2-Dichloroethane | 62 | 4.556 | 4.552 | (0.918) | 144499 | 22.9554 | 22.95 |
| 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 125520 | 21.5503 | 21.55 |
| $ 35 | 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 282777 | 55.0828 | 55.08 |
| * 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.961 | (1.000) | 768279 | 50.0000 | |
| 37 | Benzene | 78 | 4.511 | 4.508 | (0.909) | 387650 | 21.1296 | 21.12 |
| 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 109813 | 21.1032 | 21.10 |
| 39 | Bromodichloromethane | 83 | 5.726 | 5.722 | (1.153) | 142462 | 20.6909 | 20.69 |
| 40 | Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.342) | 83692 | 24.2435 | 24.24(a) |
| 41 | 2-Chloroethylvinyl ether | 63 | 6.048 | 6.044 | (1.218) | 90415 | 46.1579 | 46.15 |
| 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 98874 | 20.2601 | 20.26 |
| 43 | 2-Nitropropane | 43 | 5.966 | 5.966 | (1.428) | 31524 | 24.6570 | 24.65 |
| 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 68046 | 20.5137 | 20.51 |
| 45 | 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 176568 | 45.2486 | 45.24 |
| 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 170594 | 21.0970 | 21.09 |
| * 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 730061 | 50.0000 | |
| $ 48 | Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 895066 | 49.6147 | 49.61 |
| 49 | Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.351) | 85092 | 23.5199 | 23.51(a) |
| 50 | Toluene | 91 | 6.446 | 6.446 | (0.841) | 422989 | 20.9617 | 20.96 |
| 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.346) | 146584 | 21.8438 | 21.84 |
| 52 | 2-Hexanone | 43 | 7.087 | 7.083 | (0.924) | 127418 | 47.9933 | 47.99 |
| 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.835 | (0.892) | 80110 | 19.7887 | 19.78 |
| 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 163805 | 20.5571 | 20.55 |
| 55 | Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 117422 | 20.0969 | 20.09 |
| 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 89643 | 21.4707 | 21.47 |
| 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 106098 | 20.9616 | 20.96 |
| 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 86825 | 23.3850 | 23.38 |
| 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 284874 | 19.9033 | 19.90 |
| 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.773 | (1.014) | 108445 | 20.3594 | 20.35 |
| 61 | Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 146027 | 21.6589 | 21.65 |
| 62 | m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 370485 | 42.6267 | 42.62 |
| 63 | o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 177616 | 20.7052 | 20.70 |
| 64 | Styrene | 104 | 8.260 | 8.256 | (1.077) | 307584 | 21.3922 | 21.39 |
| 66 | Bromoform | 173 | 8.410 | 8.410 | (1.097) | 82508 | 20.3834 | 20.38 |
| 67 | Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 442744 | 22.5909 | 22.59 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 134625 | 20.2630 | 20.26 |
| $ 69 | 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 343904 | 50.9987 | 50.99 |
| * 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 416844 | 50.0000 | |
| 71 | 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 99436 | 21.4382 | 21.43(M) |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 35433 | 22.4826 | 22.48(a) |
| 73 | n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 521108 | 22.5691 | 22.56 |
| 74 | Bromobenzene | 156 | 8.807 | 8.803 | (0.912) | 135925 | 19.8751 | 19.87 |
| 75 | 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 382078 | 22.4002 | 22.40 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 327457 | 21.6121 | 21.61 |
| 77 | 4-Chlorotoluene | 91 | 9.070 | 9.070 (0.939) | 383169 | 22.1837 | 22.18 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012404.D Page 3
Report Date: 09-Feb-2023 13:42

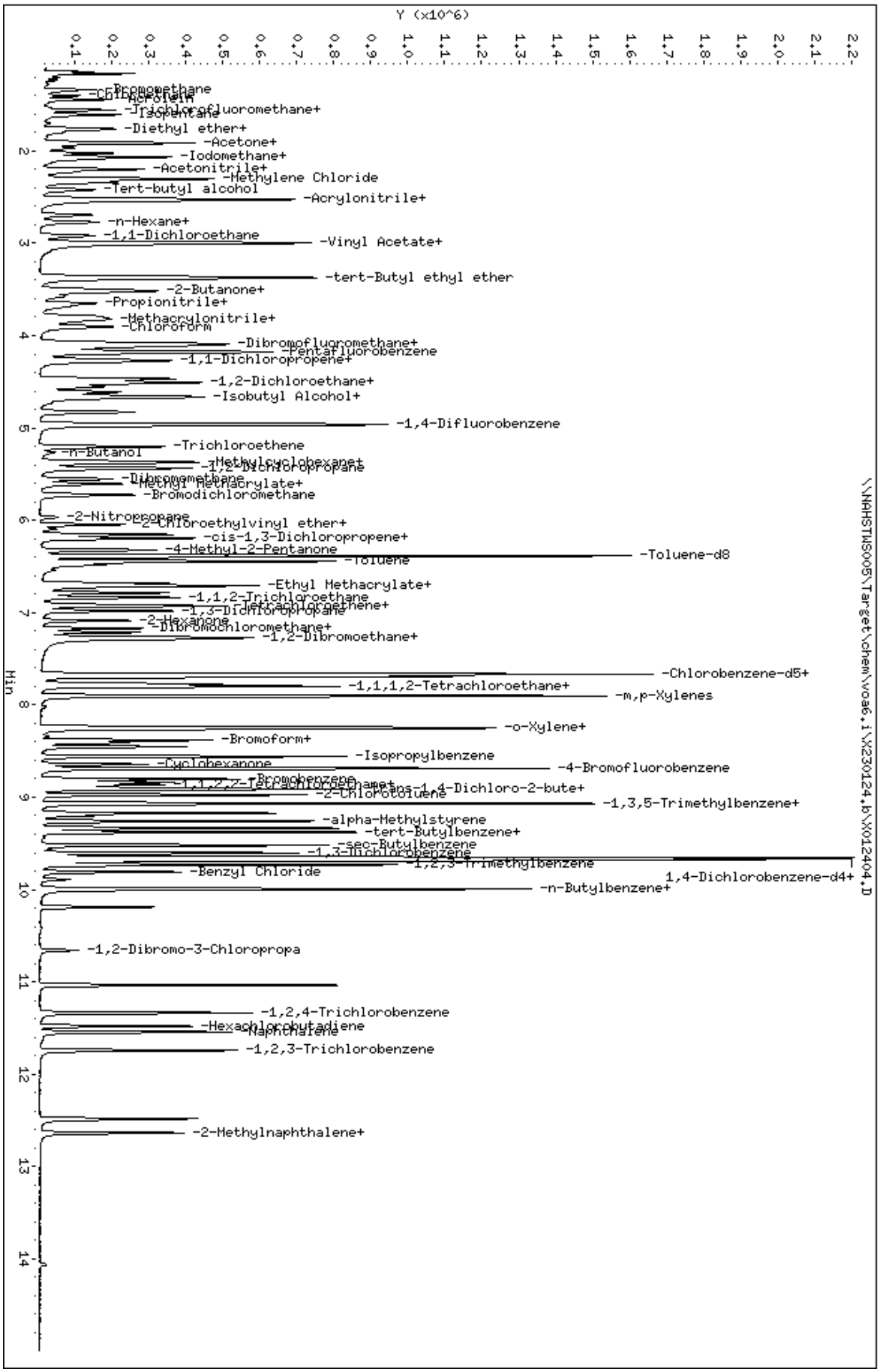
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 311579 | 22.3159 | 22.31 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.377 | (0.971) | 387355 | 21.5829 | 21.58 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 426433 | 22.9546 | 22.95 |
| 82 | p-Isopropyltoluene | 119 | 9.651 | 9.647 | (0.999) | 388385 | 23.3307 | 23.33 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 241951 | 21.3152 | 21.31 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 254276 | 20.5283 | 20.52 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 224941 | 21.3216 | 21.32 |
| 87 | n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 332820 | 21.7838 | 21.78 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 239107 | 20.4533 | 20.45 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 22979 | 21.6858 | 21.68 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.338 | (1.173) | 163245 | 22.1269 | 22.12 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 66796 | 20.5422 | 20.54 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 376622 | 22.4366 | 22.43 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 152265 | 21.5493 | 21.54 |
| 146 | Methyl acetate | 43 | 2.228 | 2.225 | (0.533) | 51445 | 22.5816 | 22.58 |
| 138 | Freon TF | 101 | 1.913 | 1.910 | (0.458) | 74921 | 20.1592 | 20.15 |
| 141 | Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 114430 | 23.1183 | 23.11 |
| 142 | Tetrahydrofuran | 42 | 3.844 | 3.840 | (0.920) | 29275 | 44.8187 | 44.81 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.373 | (1.083) | 236865 | 25.1867 | 25.18 |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 19936 | 430.769 | 430.76 |
| 132 | n-Butanol | 56 | 5.261 | 5.250 | (1.259) | 24436 | 413.771 | 413.77(a) |
| 131 | Methyl Acrylate | 55 | 3.690 | 3.683 | (0.883) | 85607 | 24.9057 | 24.90 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.287) | 236865 | 24.8338 | 24.83 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 76818 | 21.0730 | 21.07 |
| 139 | Diethyl ether | 59 | 1.756 | 1.752 | (0.420) | 66426 | 19.6357 | 19.63 |
| 148 | Tert-butyl alcohol | 59 | 2.419 | 2.420 | (0.579) | 170769 | 487.118 | 487.11 |
| 149 | Isopropyl alcohol | 45 | 2.090 | 2.086 | (0.500) | 91141 | 497.808 | 497.80 |
| 156 | Diisopropyl ether | 45 | 2.993 | 2.997 | (0.716) | 287962 | 21.9257 | 21.92 |
| 160 | 2-Methylnaphthalene | 142 | 12.635 | 12.635 | (1.308) | 176642 | 21.8418 | 21.84 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 441927 | 22.0158 | 22.01 |
| 167 | Ethanol | 45 | 1.700 | 1.700 | (0.407) | 14764 | 445.819 | 445.81 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.104) | 129200 | 48.0920 | 48.09 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 164161 | 475.252 | 475.25 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.116) | 320910 | 21.9892 | 21.98 |
| 175 | tert-Butyl ethyl ether | 59 | 3.372 | 3.372 | (0.807) | 302902 | 21.7047 | 21.70 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.104) | 129200 | 475.154 | 475.15 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.351) | 352283 | 484.462 | 484.46 |
| 180 | 1-Methylnaphthalene | 142 | 12.635 | 12.635 | (1.308) | 176642 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.164 | 1.160 | (0.279) | 68482 | 19.7085 | 19.70 |
| 152 | Amyl alcohol | 42 | 6.907 | 6.899 | (0.901) | 29470 | 408.211 | 408.21 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.531 | (0.366) | 13453 | 20.5217 | 20.52 |
| 159 | Propylene oxide | 43 | 1.756 | 1.752 | (0.420) | 13824 | 43.4204 | 43.42 |
| 161 | 3-Methyl-1-butanol | 55 | 6.907 | 6.903 | (0.901) | 33775 | 467.930 | 467.93 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 217697 | 22.8275 | 22.82 |
| 182 | Epichlorohydrin | 57 | 6.097 | 6.089 | (1.228) | 33208 | 97.8089 | 97.80 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 198434 | 41.7137 | 41.71 |
| M 95 | Xylenes (total) | 106 | | | | 548101 | 63.3319 | 63.33 |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 183108 | 19.8252 | 19.82 |
| 130 | Ethyl Acetate | 43 | 3.653 | 3.649 | (0.874) | 93094 | 23.5642 | 23.56 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 95712 | 550.442 | 550.44 |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 31441 | 23.3110 | 23.31 |
| 186 | Isopentane | 42 | 1.610 | 1.606 | (0.385) | 55668 | | (a) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 188 Isopropyl acetate | 43 | 4.672 | 4.669 (0.941) | 274060 | 22.9603 | 22.96 |
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 185654 | 21.8083 | 21.80 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 189 n-Butyl acetate | 43 | 7.210 | 7.210 | (0.940) | 153357 | 24.4534 | 24.45 |
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 76818 | 412.802 | 412.80 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 52740 | 160.308 | 160.30 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 228908 | 23.5829 | 23.58 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 206858 | 20.9355 | 20.93 |
| 168 1-Propanol | 59 | 2.997 | 2.993 | (0.717) | 31848 | 384.917 | 384.91 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012404.D
Date : 24-JAN-2023 08:55
Client ID: VLCSW-230124
Sample Info: VLCSW-230124;VLCSW-230124;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

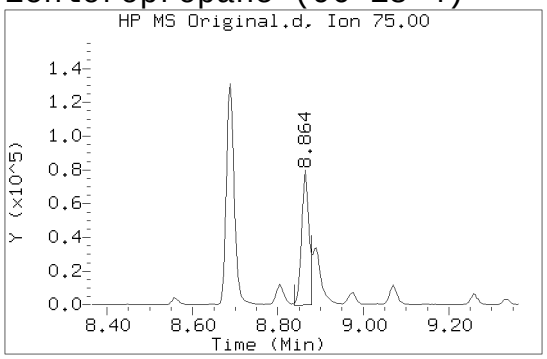
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Inj Date : 24-JAN-2023 08:55
InstruID : voa6.i
LabSampID : VLCSW-230124

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

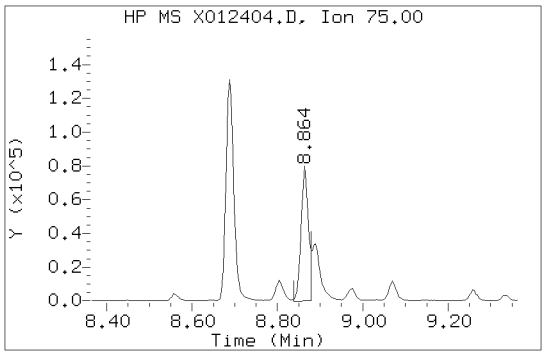
**BEFORE**

MASS
75
AREA
99436
HEIGHT
79950
03-Feb-2023
10:50
linh
pham



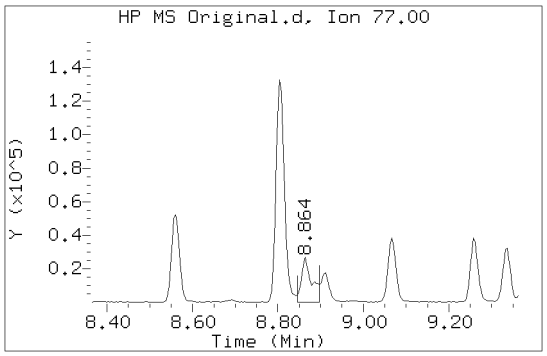

**AFTER**

MASS
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AREA
99436
HEIGHT
79950
09-Feb-2023
13:42



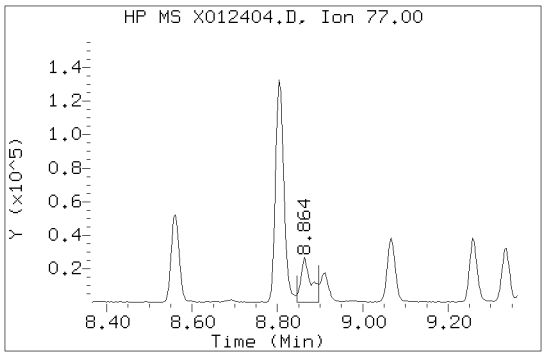

**BEFORE**

MASS
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AREA
46690
HEIGHT
26695
03-Feb-2023
10:50
linh
pham




**AFTER**

MASS
77
AREA
46690
HEIGHT
26695
09-Feb-2023
13:42

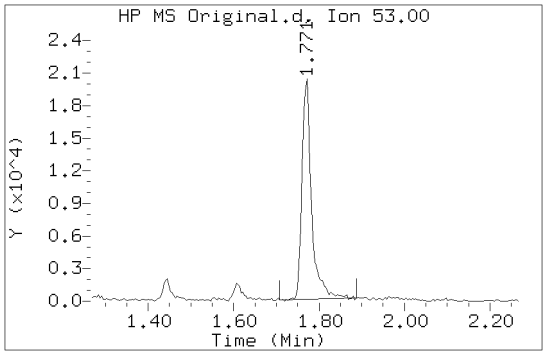



## Chloroprene (126-99-8)

Reason Code:

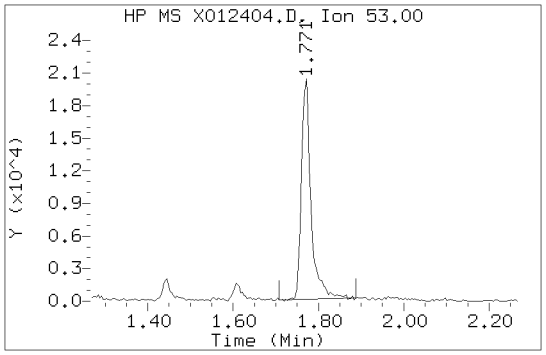
**BEFORE**

MASS
53
AREA
32496
HEIGHT
20292
03-Feb-2023
10:50
linh
pham



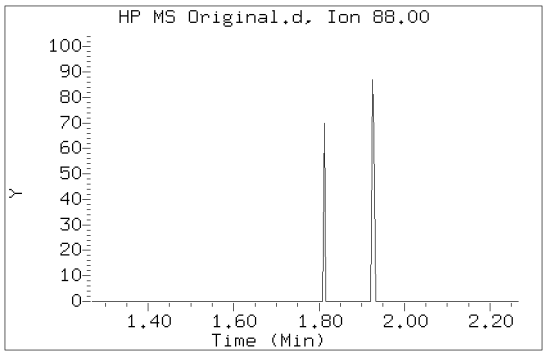

**AFTER**

MASS
53
AREA
32496
HEIGHT
20292
09-Feb-2023
13:42



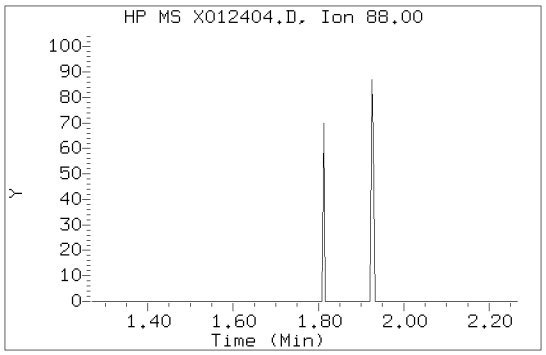

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
03-Feb-2023
10:50
linh
pham




**AFTER**

MASS
88
AREA
0
HEIGHT
0
09-Feb-2023
13:42



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012406.D  Page 1
Report Date: 03-Feb-2023 10:51

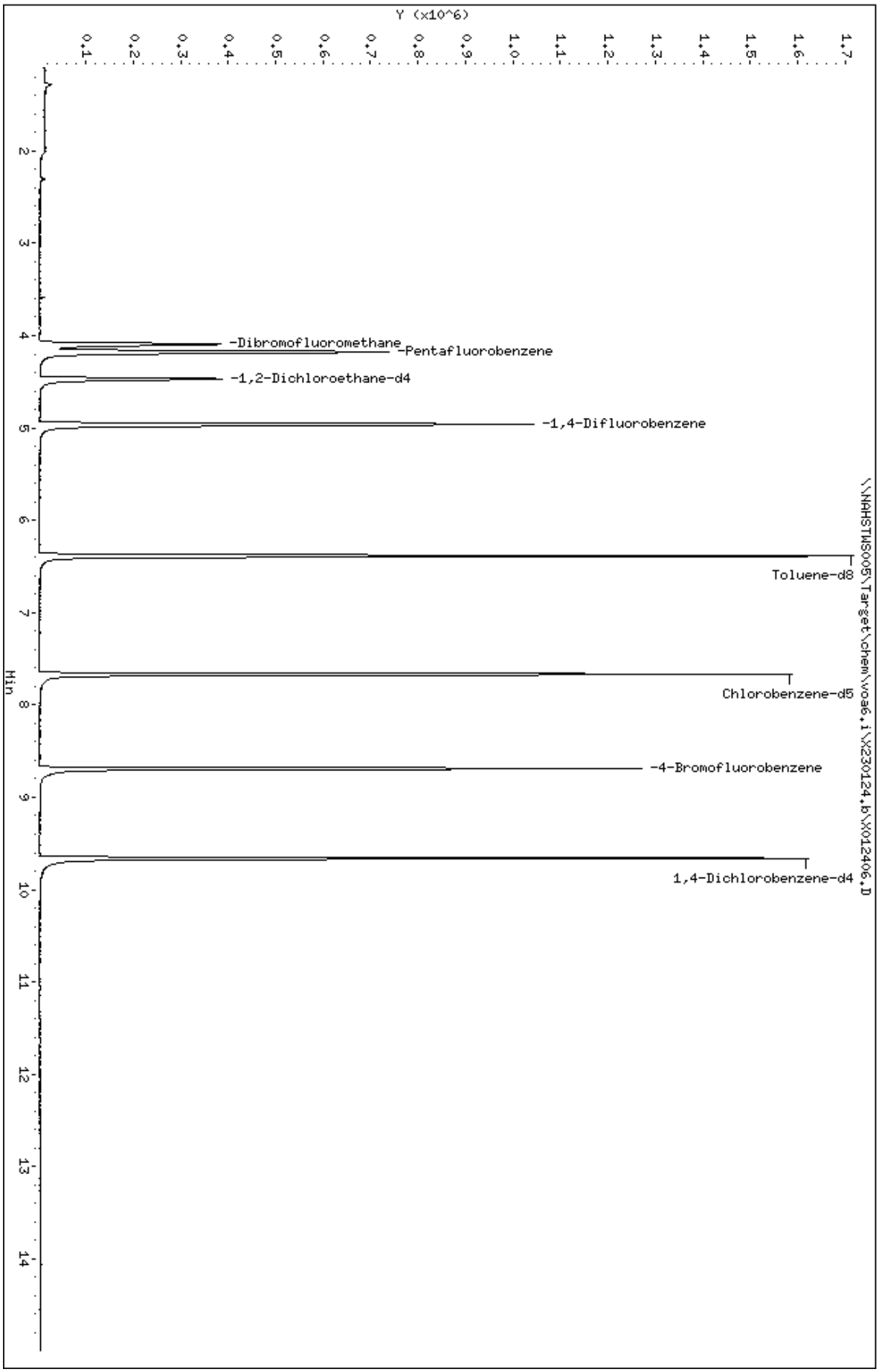
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012406.D
Lab Smp Id: VBLKW-230124  Client Smp ID: VBLKW-230124
Inj Date  : 24-JAN-2023 09:37
Operator  : PC  Inst ID: voa6.i
Smp Info  : VBLKW-230124;VBLKW-230124;3;;BLANK
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\8260W.m
Meth Date : 03-Feb-2023 10:51 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 7  QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.178 | (1.000) | 599102 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.091 | 4.095 | (0.980) | 270280 | 46.9742 | 46.97 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.466 | (1.071) | 299130 | 49.2700 | 49.26 |
| * 36 1,4-Difluorobenzene | 114 | 4.965 | 4.961 | (1.000) | 853587 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 761276 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.385 | 6.386 | (0.833) | 993783 | 52.8280 | 52.82 |
| $ 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 352821 | 50.1767 | 50.17 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 394519 | 50.0000 | |


Data File: \\NAHSTWS005\Target\chem\voa6,i\X230124,b\X012406.D
Date : 24-JAN-2023 09:37
Client ID: VBLKW-230124
Sample Info: VBLKW-230124;VBLKW-230124;3;;BLANK
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6,i
Operator: PC
Column diameter: 0.18
Page 1
Y (x10^6)
Min
-Dibromofluoromethane
-Pentafluorobenzene
-1,2-Dichloroethane-d4
-1,4-Difluorobenzene
Toluene-d8
Chlorobenzene-d5
-4-Bromofluorobenzene
1,4-Dichlorobenzene-d4
\\NAHSTWS005\Target\chem\voa6,i\X230124,b\X012406.D

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012406.D
Inj Date  : 24-JAN-2023 09:37
InstruID  : voa6.i
LabSampID : VBLKW-230124

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012410.D  Page 1
Report Date: 09-Feb-2023 13:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012410.D
Lab Smp Id: HS23010982-05MS  Client Smp ID: HS23010982-05MS
Inj Date  : 24-JAN-2023 11:01
Operator  : PC  Inst ID: voa6.i
Smp Info  : HS23010982-05MS;HS23010982-05MS;3;;MS
Misc Info : V6;WATER;0;100;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\8260W.m
Meth Date : 09-Feb-2023 13:42 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 11  QC Sample: MS
Dil Factor: 100.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 100.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.178 | (1.000) | 607736 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 63839 | 15.2938 | 1529.37 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 94253 | 18.5949 | 1859.48 |
| 4 Propionitrile | 54 | 3.653 | 3.645 | (0.875) | 105024 | 169.364 | 16936.37(a) |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 1272140 | 239.623 | 23962.34(A) |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 71217 | 18.8743 | 1887.42 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 60898 | 16.4804 | 1648.04 |
| 8 Trichlorofluoromethane | 101 | 1.561 | 1.557 | (0.374) | 160520 | 21.6064 | 2160.64 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 15280 | 38.5478 | 3854.77 |
| 10 Acetone | 43 | 1.970 | 1.966 | (0.472) | 48073 | 28.1665 | 2816.64 |
| 11 1,1-Dichloroethene | 96 | 1.913 | 1.910 | (0.458) | 222585 | 48.2575 | 4825.74 |
| 12 Isobutyl Alcohol | 43 | 4.676 | 4.669 | (1.120) | 258586 | 378.288 | 37828.80(a) |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.526) | 75258 | 136.062 | 13606.18(a) |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.526) | 152934 | 14.5175 | 1451.74(a) |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 175286 | 32.0211 | 3202.10 |
| 16 Acrylonitrile | 53 | 2.532 | 2.528 | (0.607) | 59913 | 38.2988 | 3829.87 |
| 17 Methylene Chloride | 84 | 2.299 | 2.300 | (0.551) | 99223 | 15.6830 | 1568.30 |
| 18 Methyl tert-butyl ether | 73 | 2.532 | 2.528 | (0.607) | 256835 | 17.0118 | 1701.17 |
| 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 483921 | 40.1001 | 4010.00 |
| 20 trans-1,2-Dichloroethene | 96 | 2.528 | 2.524 | (0.606) | 267626 | 51.8438 | 5184.38 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.997 | 2.993 (0.718) | 489724 | 36.9517 | 3695.16 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 166414 | 18.3686 | 1836.86 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012410.D Page 2
Report Date: 09-Feb-2023 13:42

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 24 | 2-Butanone | 43 | 3.581 | 3.570 | (0.858) | 56884 | 33.5226 | 3352.26 |
| 25 | Methacrylonitrile | 41 | 3.829 | 3.818 | (0.917) | 69739 | 16.2060 | 1620.59(a) |
| 26 | 2,2-Dichloropropane | 77 | 3.510 | 3.507 | (0.841) | 143661 | 18.6762 | 1867.62 |
| 27 | cis-1,2-Dichloroethene | 96 | 3.510 | 3.522 | (0.841) | 30205762 | 4808.10 | 480809.85(A) |
| 28 | Chloroform | 83 | 3.904 | 3.900 | (0.935) | 193523 | 19.0584 | 1905.83 |
| 29 | Bromochloromethane | 128 | 3.795 | 3.788 | (0.909) | 47186 | 13.7181 | 1371.81 |
| $ 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 274190 | 46.9768 | 46.97 |
| 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.076 | (0.978) | 160319 | 19.8994 | 1989.94 |
| 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.275 | (0.862) | 142155 | 22.8753 | 2287.53 |
| 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 207703 | 28.9611 | 2896.10 |
| 34 | Carbon Tetrachloride | 117 | 4.264 | 4.260 | (0.859) | 139402 | 21.0068 | 2100.68 |
| $ 35 | 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.466 | (1.071) | 307933 | 49.9953 | 49.99 |
| * 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.961 | (1.000) | 875321 | 50.0000 | |
| 37 | Benzene | 78 | 4.511 | 4.508 | (0.909) | 397213 | 19.0032 | 1900.31 |
| 38 | Trichloroethene | 130 | 5.201 | 5.205 | (1.048) | 23800730 | 4014.55 | 401455.44(A) |
| 39 | Bromodichloromethane | 83 | 5.726 | 5.722 | (1.153) | 140738 | 17.9409 | 1794.08 |
| 40 | Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.343) | 72689 | 17.5413 | 1754.13(a) |
| 42 | 1,2-Dichloropropane | 63 | 5.437 | 5.433 | (1.095) | 97082 | 17.4602 | 1746.02 |
| 43 | 2-Nitropropane | 43 | 5.969 | 5.966 | (1.430) | 29442 | 19.1844 | 1918.44 |
| 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 65115 | 17.2296 | 1722.95 |
| 45 | 4-Methyl-2-Pentanone | 43 | 6.326 | 6.322 | (0.825) | 165040 | 38.1745 | 3817.45 |
| 46 | cis-1,3-Dichloropropene | 75 | 6.157 | 6.153 | (1.240) | 166637 | 18.0876 | 1808.75 |
| * 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 808850 | 50.0000 | |
| $ 48 | Toluene-d8 | 98 | 6.385 | 6.386 | (0.833) | 1026971 | 51.3813 | 51.38 |
| 49 | Ethyl Methacrylate | 69 | 6.712 | 6.708 | (1.352) | 73884 | 17.9246 | 1792.45(a) |
| 50 | Toluene | 91 | 6.445 | 6.446 | (0.841) | 445312 | 19.9184 | 1991.83 |
| 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.346) | 144790 | 18.9379 | 1893.78 |
| 52 | 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 115698 | 39.3339 | 3933.38 |
| 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.835 | (0.892) | 87259 | 19.4550 | 1945.50 |
| 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 161517 | 18.2955 | 1829.54 |
| 55 | Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 119349 | 18.4369 | 1843.69 |
| 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 103090 | 22.2863 | 2228.62 |
| 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 105515 | 18.8158 | 1881.57 |
| 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 105100 | 24.8455 | 2484.54 |
| 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 303897 | 19.1641 | 1916.41 |
| 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.773 | (1.014) | 110510 | 18.7262 | 1872.61 |
| 61 | Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 154500 | 20.6834 | 2068.34 |
| 62 | m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 392379 | 40.7481 | 4074.81 |
| 63 | o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 189624 | 19.9518 | 1995.17 |
| 64 | Styrene | 104 | 8.260 | 8.256 | (1.077) | 311845 | 19.5759 | 1957.59 |
| 66 | Bromoform | 173 | 8.410 | 8.410 | (1.097) | 81837 | 18.2483 | 1824.83 |
| 67 | Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 488309 | 22.4889 | 2248.88 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 131408 | 18.3413 | 1834.12 |
| $ 69 | 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 387349 | 51.8450 | 51.84 |
| * 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 449514 | 50.0000 | |
| 71 | 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 143855 | 28.7607 | 2876.06 |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 36869 | 21.1150 | 2111.49(a) |
| 73 | n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 585836 | 23.5284 | 2352.83 |
| 74 | Bromobenzene | 156 | 8.807 | 8.803 | (0.912) | 141994 | 19.2535 | 1925.35 |
| 75 | 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 413268 | 22.4678 | 2246.78 |
| 76 | 2-Chlorotoluene | 91 | 8.976 | 8.972 | (0.929) | 347562 | 21.2719 | 2127.18 |
| 77 | 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 402553 | 21.6121 | 2161.20 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 (0.966) | 356978 | 23.7092 | 2370.92 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 (0.971) | 414397 | 21.4115 | 2141.14 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012410.D Page 3
Report Date: 09-Feb-2023 13:42

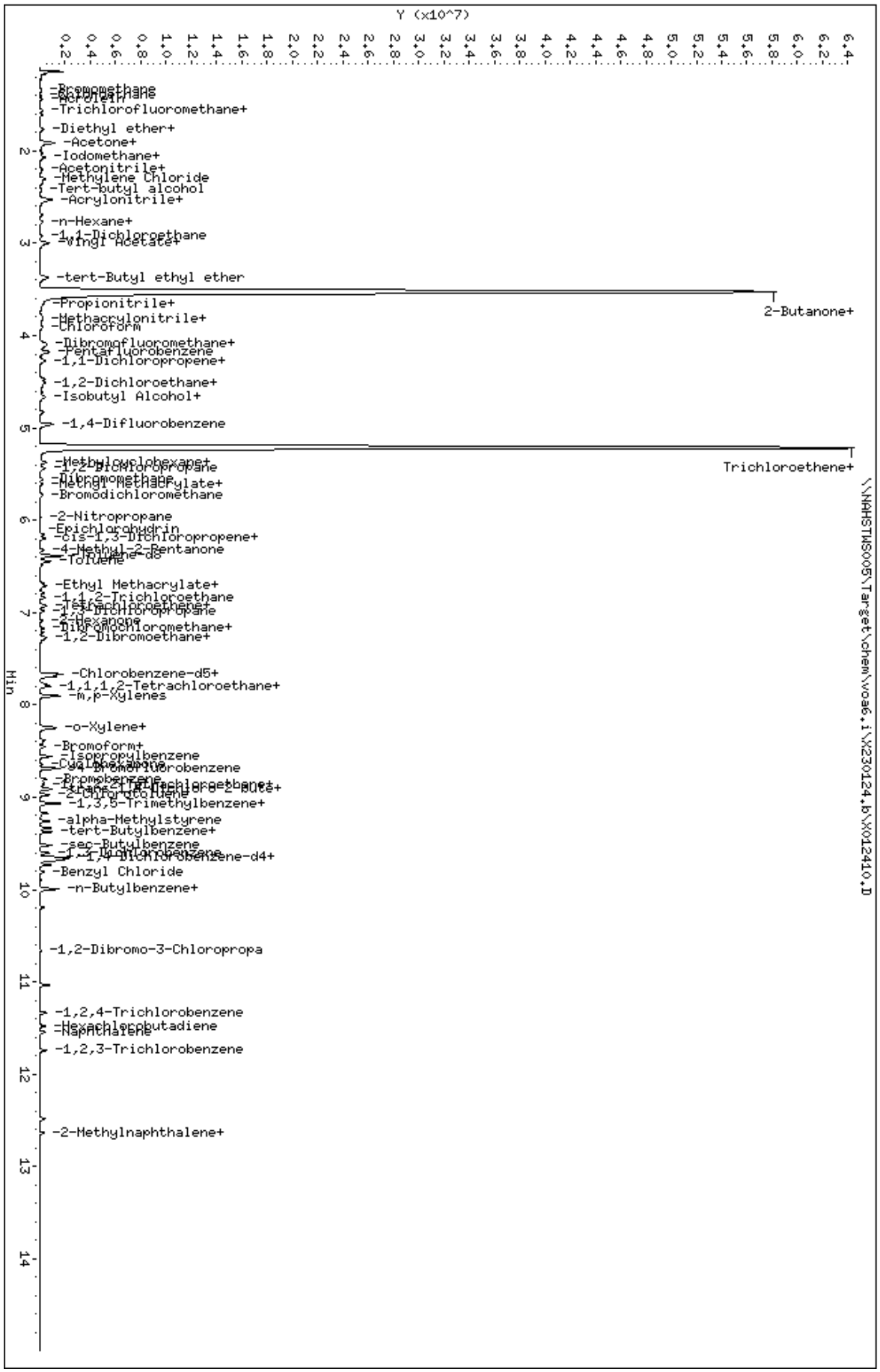
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 504375 | 25.1770 | 2517.69 |
| 82 | p-Isopropyltoluene | 119 | 9.651 | 9.647 | (0.999) | 440200 | 24.5214 | 2452.14 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 249385 | 20.3734 | 2037.33 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 260169 | 19.4775 | 1947.74 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 224825 | 19.4984 | 1949.83 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 391872 | 23.6216 | 2362.16 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 245160 | 19.4469 | 1944.69 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.659 | 10.655 | (1.103) | 21473 | 18.8040 | 1880.40 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.338 | (1.173) | 161081 | 20.2467 | 2024.67 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 78648 | 22.4241 | 2242.40 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 355445 | 19.6361 | 1963.60 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 146487 | 19.2248 | 1922.48 |
| 146 | Methyl acetate | 43 | 2.232 | 2.225 | (0.535) | 46737 | 17.0905 | 1709.05 |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.458) | 254373 | 57.0194 | 5701.94 |
| 141 | Cyclohexane | 56 | 4.118 | 4.121 | (0.987) | 151141 | 25.3113 | 2531.13 |
| 142 | Tetrahydrofuran | 42 | 3.848 | 3.840 | (0.922) | 25122 | 31.1377 | 3113.76 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.373 | (1.083) | 223790 | 20.8864 | 2088.63 |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.341) | 20403 | 367.268 | 36726.81 |
| 132 | n-Butanol | 56 | 5.265 | 5.250 | (1.261) | 22363 | 326.259 | 32625.87(a) |
| 131 | Methyl Acrylate | 55 | 3.686 | 3.683 | (0.883) | 88101 | 21.3527 | 2135.26 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.288) | 223790 | 19.9361 | 1993.60 |
| 136 | n-Hexane | 57 | 2.772 | 2.768 | (0.664) | 113585 | 25.9577 | 2595.77 |
| 139 | Diethyl ether | 59 | 1.756 | 1.752 | (0.421) | 62652 | 15.4286 | 1542.85 |
| 148 | Tert-butyl alcohol | 59 | 2.427 | 2.420 | (0.582) | 165187 | 392.540 | 39253.96 |
| 149 | Isopropyl alcohol | 45 | 2.090 | 2.086 | (0.501) | 85537 | 389.211 | 38921.05 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.997 | (0.718) | 273189 | 17.3286 | 1732.85 |
| 160 | 2-Methylnaphthalene | 142 | 12.638 | 12.635 | (1.308) | 163116 | 18.7034 | 1870.34 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 405271 | 18.7223 | 1872.23 |
| 167 | Ethanol | 45 | 1.696 | 1.700 | (0.406) | 15468 | 388.689 | 38868.94 |
| 172 | tert-Butyl formate | 59 | 4.616 | 4.612 | (1.106) | 128364 | 39.8049 | 3980.48 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 142090 | 371.286 | 37128.62 |
| 174 | tert-Amyl methyl ether | 73 | 4.665 | 4.661 | (1.118) | 298060 | 17.0143 | 1701.42 |
| 175 | tert-Butyl ethyl ether | 59 | 3.375 | 3.372 | (0.809) | 283988 | 16.9525 | 1695.24 |
| 176 | tert-Amyl alcohol | 59 | 4.616 | 4.612 | (1.106) | 128364 | 393.276 | 39327.60 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.351) | 286518 | 345.837 | 34583.68 |
| 180 | 1-Methylnaphthalene | 142 | 12.638 | 12.635 | (1.308) | 163116 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.164 | 1.160 | (0.279) | 74588 | 17.8825 | 1788.25 |
| 152 | Amyl alcohol | 42 | 6.907 | 6.899 | (0.901) | 26849 | 335.679 | 33567.85 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.531 | (0.366) | 14184 | 18.0250 | 1802.50 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 12809 | 33.5164 | 3351.64 |
| 161 | 3-Methyl-1-butanol | 55 | 6.907 | 6.903 | (0.901) | 30137 | 376.857 | 37685.71 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 199804 | 18.9104 | 1891.03 |
| 182 | Epichlorohydrin | 57 | 6.097 | 6.089 | (1.228) | 27127 | 70.8350 | 7083.49 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 30473388 | 4859.94 | 485994.23 |
| M 95 | Xylenes (total) | 106 | | | | 582003 | 60.6999 | 6069.99 |
| 145 | alpha-Methylstyrene | 118 | 9.261 | 9.257 | (0.958) | 199435 | 20.0235 | 2002.35 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 61501 | 327.988 | 32798.78(a) |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 31098 | 19.2079 | 1920.78 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 59091 | | (a) |
| 188 | Isopropyl acetate | 43 | 4.676 | 4.669 | (0.942) | 261483 | 19.2277 | 1922.76 |
| 187 | n-Amyl acetate | 43 | 8.451 | 8.451 | (1.102) | 184173 | 19.5270 | 1952.69 |
| 189 | n-Butyl acetate | 43 | 7.214 | 7.210 | (0.941) | 148488 | 21.3707 | 2137.07 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.772 | 2.768 (0.664) | 113585 | 508.490 | 50849.02 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 (0.290) | 78004 | 202.927 | 20292.70 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 191863 | 17.8410 | 1784.09 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 200857 | 18.3480 | 1834.80 |
| 168 1-Propanol | 59 | 2.997 | 2.993 | (0.718) | 32059 | 322.788 | 32278.79 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.


Y (x10^7)
Min
-Bromomethane
-Acrolein
-Trichlorofluoromethane+
-Diethyl ether+
-Acetone+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
2-Butanone+
-Propionitrile+
-Methacrylonitrile+
-Chloroform
-Dibromofluoromethane+
-Pentafluorobenzene
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
Trichloroethene+
-Methylcyclohexane+
-1,2-Dichloropropane
-Nitromethane
-Methyl Methacrylate+
-Bromodichloromethane
-2-Nitropropane
-Epichlorohydrin
-cis-1,3-Dichloropropene+
-4-Methyl-2-Pentanone
-Toluene-d8
-Toluene
-Ethyl Methacrylate+
-1,1,2-Trichloroethane
-Tetrachloroethene+
-1,3-Dichloropropane
-2-Hexanone
-Dibromochloromethane+
-1,2-Dibromoethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
-o-Xylene+
-Bromoform+
-Isopropylbenzene
-Cyclohexanone
-4-Bromofluorobenzene
-Bromobenzene
-trans-1,4-Dichloro-2-Butene+
-2-Chlorotoluene
-1,3,5-Trimethylbenzene+
-alpha-Methylstyrene
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
-Benzyl Chloride
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene+
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Date : 24-JAN-2023 11:01
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Instrument: voa6.i
Operator: PC
Column diameter: 0.18
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Page 1

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InstruID  : voa6.i
LabSampID : HS23010982-05MS

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012411.D  Page 1
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ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012411.D
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Inj Date  : 24-JAN-2023 11:22
Operator  : PC  Inst ID: voa6.i
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Misc Info : V6;WATER;0;100;
Comment   :
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Meth Date : 09-Feb-2023 13:42 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 11  QC Sample: MSD
Dil Factor: 100.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 100.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 616157 | 50.0000 | |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 58398 | 13.8375 | 1383.74 |
| 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 94499 | 18.4131 | 1841.31 |
| 4 | Propionitrile | 54 | 3.653 | 3.645 | (0.874) | 106644 | 169.626 | 16962.58(a) |
| 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 1215141 | 225.759 | 22575.87(A) |
| 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 64947 | 17.1546 | 1715.46 |
| 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 56224 | 15.0076 | 1500.75 |
| 8 | Trichlorofluoromethane | 101 | 1.561 | 1.557 | (0.374) | 151743 | 20.1459 | 2014.58 |
| 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 13622 | 34.2359 | 3423.59 |
| 10 | Acetone | 43 | 1.970 | 1.966 | (0.472) | 47027 | 27.1758 | 2717.58 |
| 11 | 1,1-Dichloroethene | 96 | 1.917 | 1.910 | (0.459) | 211816 | 45.2951 | 4529.50 |
| 12 | Isobutyl Alcohol | 43 | 4.672 | 4.669 | (1.118) | 257308 | 371.274 | 37127.39(a) |
| 13 | Acetonitrile | 39 | 2.198 | 2.195 | (0.526) | 75516 | 134.662 | 13466.23(a) |
| 14 | Allyl Chloride | 41 | 2.198 | 2.195 | (0.526) | 147729 | 13.8317 | 1383.17(a) |
| 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 157844 | 28.8451 | 2884.51 |
| 16 | Acrylonitrile | 53 | 2.532 | 2.528 | (0.606) | 58941 | 37.1625 | 3716.25 |
| 17 | Methylene Chloride | 84 | 2.299 | 2.300 | (0.550) | 96317 | 15.0157 | 1501.56 |
| 18 | Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.605) | 252853 | 16.5191 | 1651.91 |
| 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 458023 | 37.4353 | 3743.53 |
| 20 | trans-1,2-Dichloroethene | 96 | 2.528 | 2.524 | (0.605) | 243811 | 46.5849 | 4658.49 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.716) | 480993 | 35.7969 | 3579.68 |
| 22 1,1-Dichloroethane | 63 | 2.922 | 2.918 (0.699) | 163434 | 17.7932 | 1779.31 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012411.D Page 2
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| | | | QUANT SIG | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN ( ug/l) | FINAL ( ug/l) |
| | 24 | 2-Butanone | 43 | 3.578 | 3.570 | (0.856) | 55880 | 32.5749 | 3257.48 |
| | 25 | Methacrylonitrile | 41 | 3.825 | 3.818 | (0.916) | 69559 | 15.9433 | 1594.32(a) |
| | 26 | 2,2-Dichloropropane | 77 | 3.514 | 3.507 | (0.841) | 133881 | 17.1670 | 1716.69 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.510 | 3.522 | (0.840) | 29981128 | 4707.12 | 470711.82(A) |
| | 28 | Chloroform | 83 | 3.900 | 3.900 | (0.934) | 188888 | 18.3477 | 1834.77 |
| | 29 | Bromochloromethane | 128 | 3.791 | 3.788 | (0.908) | 45981 | 13.1851 | 1318.51 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 277416 | 46.8796 | 46.87 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 153674 | 18.8140 | 1881.39 |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.275 | (0.862) | 133698 | 21.3251 | 2132.51 |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 204626 | 28.2809 | 2828.09 |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.260 | (0.859) | 133810 | 19.9867 | 1998.67 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 314528 | 50.3661 | 50.36 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 883093 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.508 | (0.909) | 380187 | 18.0285 | 1802.85 |
| | 38 | Trichloroethene | 130 | 5.201 | 5.205 | (1.048) | 23418906 | 3915.39 | 391538.60(A) |
| | 39 | Bromodichloromethane | 83 | 5.726 | 5.722 | (1.154) | 137789 | 17.4104 | 1741.03 |
| | 40 | Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.342) | 71262 | 16.9619 | 1696.19(a) |
| | 42 | 1,2-Dichloropropane | 63 | 5.437 | 5.433 | (1.096) | 92999 | 16.5787 | 1657.87 |
| | 43 | 2-Nitropropane | 43 | 5.969 | 5.966 | (1.429) | 29804 | 19.1549 | 1915.49 |
| | 44 | Dibromomethane | 93 | 5.553 | 5.550 | (1.119) | 63984 | 16.7813 | 1678.13 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.326 | 6.322 | (0.825) | 162783 | 37.3450 | 3734.50 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.157 | 6.153 | (1.241) | 161896 | 17.4183 | 1741.83 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 815509 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 1034287 | 51.3248 | 51.32 |
| | 49 | Ethyl Methacrylate | 69 | 6.712 | 6.708 | (1.353) | 69578 | 16.7313 | 1673.13(a) |
| | 50 | Toluene | 91 | 6.445 | 6.446 | (0.841) | 432199 | 19.1740 | 1917.39 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.347) | 141642 | 18.3631 | 1836.31 |
| | 52 | 2-Hexanone | 43 | 7.087 | 7.083 | (0.924) | 114493 | 38.6064 | 3860.63 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.835 | (0.892) | 84670 | 18.7236 | 1872.36 |
| | 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 158836 | 17.8449 | 1784.48 |
| | 55 | Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 116772 | 17.8915 | 1789.15 |
| | 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 98823 | 21.1894 | 2118.93 |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 103386 | 18.2856 | 1828.55 |
| | 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 100956 | 23.6558 | 2365.58 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 292362 | 18.2862 | 1828.61 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.773 | (1.014) | 106586 | 17.9137 | 1791.37 |
| | 61 | Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 148954 | 19.7781 | 1977.81 |
| | 62 | m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 372076 | 38.3242 | 3832.41 |
| | 63 | o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 181286 | 18.9187 | 1891.87 |
| | 64 | Styrene | 104 | 8.260 | 8.256 | (1.077) | 298926 | 18.6117 | 1861.17 |
| | 66 | Bromoform | 173 | 8.410 | 8.410 | (1.097) | 79284 | 17.5347 | 1753.46 |
| | 67 | Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 465819 | 21.2779 | 2127.79 |
| | 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 130175 | 18.2200 | 1822.00 |
| $ | 69 | 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 387636 | 51.4602 | 51.46 |
| * | 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 448260 | 50.0000 | |
| | 71 | 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 139149 | 27.8977 | 2789.76 |
| | 72 | trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 35874 | 20.3774 | 2037.73(a) |
| | 73 | n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 557187 | 22.4404 | 2244.03 |
| | 74 | Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 134703 | 18.3160 | 1831.60 |
| | 75 | 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 391646 | 21.3519 | 2135.19 |
| | 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 331421 | 20.3407 | 2034.07 |
| | 77 | 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 382720 | 20.6048 | 2060.47 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 (0.966) | 336739 | 22.4276 | 2242.76 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 (0.971) | 393541 | 20.3908 | 2039.07 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012411.D Page 3
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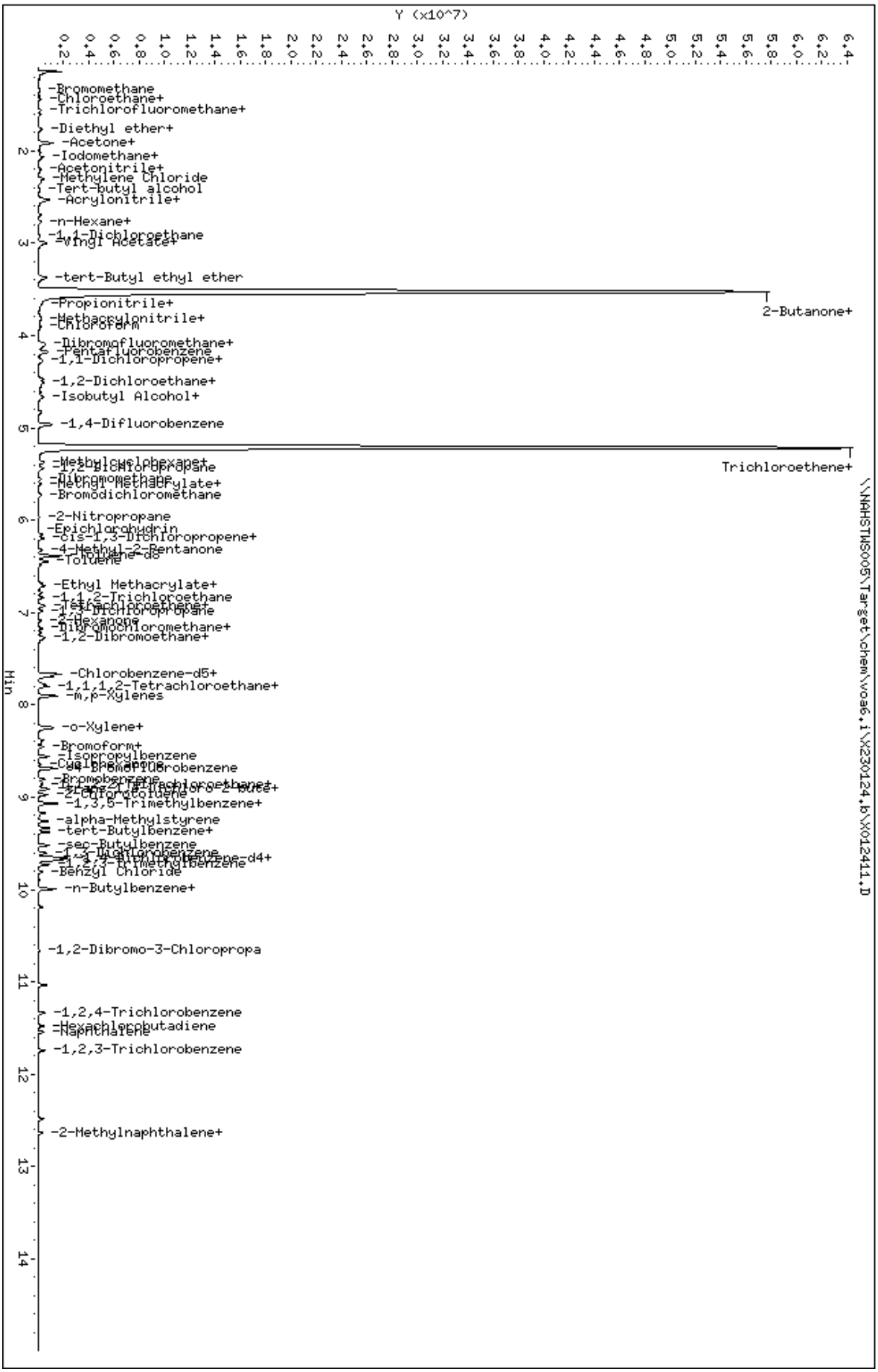
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 479175 | 23.9860 | 2398.59 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 421084 | 23.5222 | 2352.21 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 241201 | 19.7599 | 1975.98 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 253748 | 19.0499 | 1904.99 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 216542 | 18.7471 | 1874.70 |
| 87 | n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 376976 | 22.8500 | 2284.99 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 233459 | 18.5705 | 1857.05 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.659 | 10.655 | (1.103) | 20133 | 17.6854 | 1768.54 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.338 | (1.173) | 160721 | 20.2580 | 2025.79 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 76806 | 21.9615 | 2196.14 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 352319 | 19.5178 | 1951.78 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 147095 | 19.3586 | 1935.86 |
| 146 | Methyl acetate | 43 | 2.228 | 2.225 | (0.533) | 46990 | 16.9482 | 1694.81 |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.457) | 243829 | 53.9090 | 5390.89 |
| 141 | Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 144119 | 23.8805 | 2388.05 |
| 142 | Tetrahydrofuran | 42 | 3.844 | 3.840 | (0.920) | 26547 | 32.5881 | 3258.80 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.373 | (1.084) | 215219 | 19.9096 | 1990.96 |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 21123 | 375.032 | 37503.20 |
| 132 | n-Butanol | 56 | 5.268 | 5.250 | (1.261) | 21282 | 308.941 | 30894.13(a) |
| 131 | Methyl Acrylate | 55 | 3.690 | 3.683 | (0.883) | 75700 | 18.0964 | 1809.63 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.287) | 215219 | 19.0047 | 1900.46 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 102574 | 23.1210 | 2312.10 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 61554 | 14.9510 | 1495.10 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.420 | (0.580) | 163620 | 383.502 | 38350.19 |
| 149 | Isopropyl alcohol | 45 | 2.090 | 2.086 | (0.500) | 83172 | 373.277 | 37327.71 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.997 | (0.717) | 264208 | 16.5299 | 1652.98 |
| 160 | 2-Methylnaphthalene | 142 | 12.638 | 12.635 | (1.308) | 164086 | 18.8673 | 1886.72 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 384553 | 17.8149 | 1781.49 |
| 167 | Ethanol | 45 | 1.700 | 1.700 | (0.407) | 15239 | 377.608 | 37760.82 |
| 172 | tert-Butyl formate | 59 | 4.616 | 4.612 | (1.105) | 125940 | 38.5195 | 3851.94 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 128576 | 333.230 | 33323.03 |
| 174 | tert-Amyl methyl ether | 73 | 4.665 | 4.661 | (1.117) | 301177 | 16.9572 | 1695.72 |
| 175 | tert-Butyl ethyl ether | 59 | 3.379 | 3.372 | (0.809) | 278519 | 16.3988 | 1639.88 |
| 176 | tert-Amyl alcohol | 59 | 4.616 | 4.612 | (1.105) | 125940 | 380.576 | 38057.60 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 258826 | 309.662 | 30966.22 |
| 180 | 1-Methylnaphthalene | 142 | 12.638 | 12.635 | (1.308) | 164086 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.164 | 1.160 | (0.279) | 70837 | 16.7511 | 1675.10 |
| 152 | Amyl alcohol | 42 | 6.910 | 6.899 | (0.901) | 25499 | 316.197 | 31619.71 |
| 158 | Dichlorofluoromethane | 67 | 1.524 | 1.531 | (0.365) | 13142 | 16.4726 | 1647.25 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.419) | 14174 | 36.5813 | 3658.12 |
| 161 | 3-Methyl-1-butanol | 55 | 6.907 | 6.903 | (0.901) | 28225 | 350.066 | 35006.60 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 190074 | 17.8426 | 1784.26 |
| 182 | Epichlorohydrin | 57 | 6.097 | 6.089 | (1.229) | 27000 | 69.9165 | 6991.64 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 30224939 | 4753.70 | 475370.31 |
| M 95 | Xylenes (total) | 106 | | | | 553362 | 57.2429 | 5724.29 |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 189184 | 19.0475 | 1904.74 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 58846 | 314.707 | 31470.65(a) |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 27928 | 17.0142 | 1701.41 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 54097 | | (a) |
| 188 | Isopropyl acetate | 43 | 4.672 | 4.669 | (0.942) | 259211 | 18.8929 | 1889.28 |
| 187 | n-Amyl acetate | 43 | 8.451 | 8.451 | (1.102) | 179919 | 18.9202 | 1892.01 |
| 189 | n-Butyl acetate | 43 | 7.214 | 7.210 | (0.941) | 145559 | 20.7781 | 2077.81 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 102574 | 452.921 | 45292.10 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 (1.093) | 184794 | 17.0433 | 1704.33 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 197589 | 17.9021 | 1790.21 |
| 168 1-Propanol | 59 | 2.997 | 2.993 | (0.717) | 31639 | 314.205 | 31420.54 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012411.D
Date : 24-JAN-2023 11:22
Client ID: HS230109B2-05HSD
Sample Info: HS230109B2-05HSD;HS230109B2-05HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012411.D
Inj Date  : 24-JAN-2023 11:22
InstruID  : voa6.i
LabSampID : HS23010982-05MSD

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012425.D  Page 1
Report Date: 03-Feb-2023 10:51

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012425.D
Lab Smp Id: HS23010991-01  Client Smp ID: HS23010991-01
Inj Date  : 24-JAN-2023 16:17
Operator  : PC  Inst ID: voa6.i
Smp Info  : HS23010991-01;HS23010991-01;;;
Misc Info : V6;WATER;0;5;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\8260W.m
Meth Date : 03-Feb-2023 10:51 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 25
Dil Factor: 5.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 5.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * | 1 Pentafluorobenzene | 168 | 4.174 | 4.178 | (1.000) | 569275 | 50.0000 | |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 1029947 | 207.110 | 1035.55(A) |
| | 11 1,1-Dichloroethene | 96 | 1.906 | 1.910 | (0.457) | 24504 | 5.67151 | 28.35 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.528 | 2.524 | (0.606) | 17804 | 3.68196 | 18.40 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.518 | 3.522 | (0.843) | 9342664 | 1587.62 | 7938.11(A) |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 239557 | 43.8049 | 43.80 |
| | 33 1,2-Dichloroethane | 62 | 4.560 | 4.552 | (0.919) | 23512 | 3.50679 | 17.53 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 275509 | 47.7653 | 47.76 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 818311 | 50.0000 | |
| | 38 Trichloroethene | 130 | 5.201 | 5.205 | (1.048) | 3092243 | 557.917 | 2789.58(A) |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 734264 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.386 | (0.833) | 947776 | 52.2358 | 52.23 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.691 | 8.687 | (1.133) | 338291 | 49.8806 | 49.88 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 381164 | 50.0000 | |
| | 138 Freon TF | 101 | 1.909 | 1.910 | (0.458) | 35314 | 8.45068 | 42.25 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 9360468 | 1591.30 | 7956.52 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012425.D



Date : 24-JAN-2023 16:17

Client ID: HS23010991-01

Instrument: voa6.i

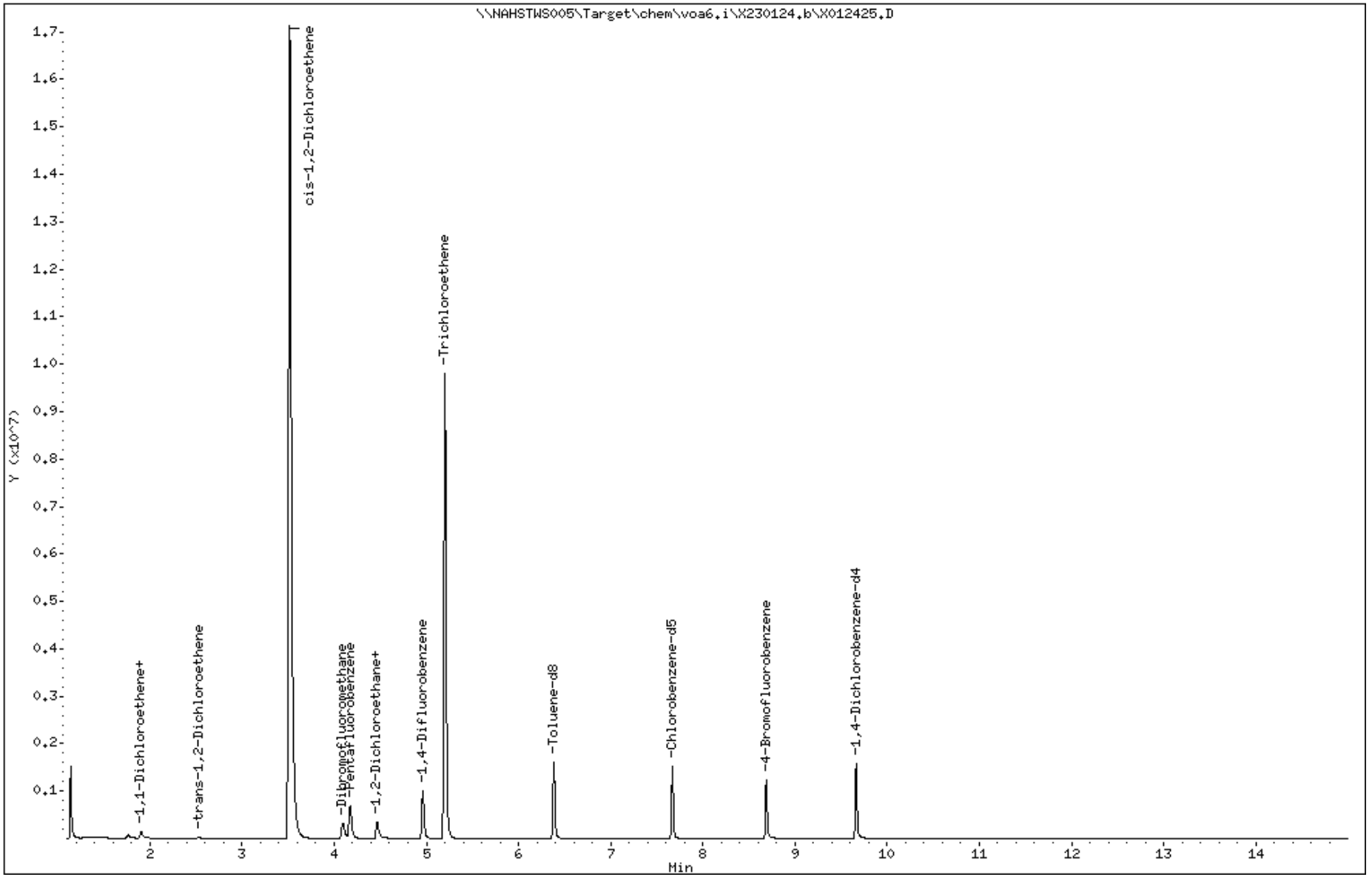
Sample Info: HS23010991-01;HS23010991-01;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012425.D Page 2

Date : 24-JAN-2023 16:17

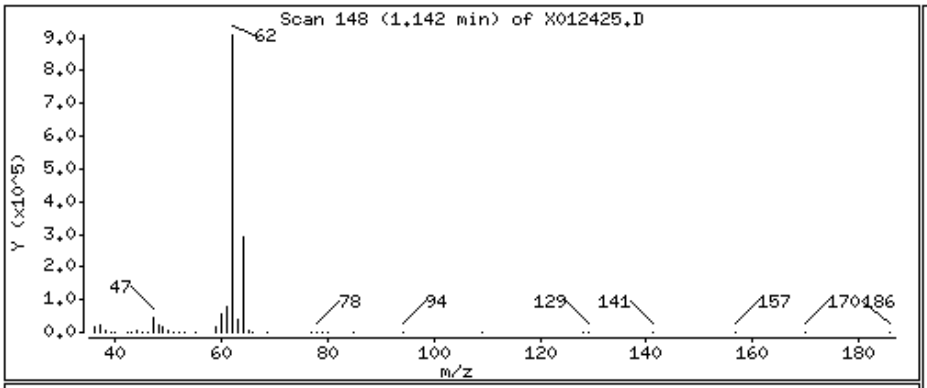
Client ID: HS23010991-01 Instrument: voa6.i

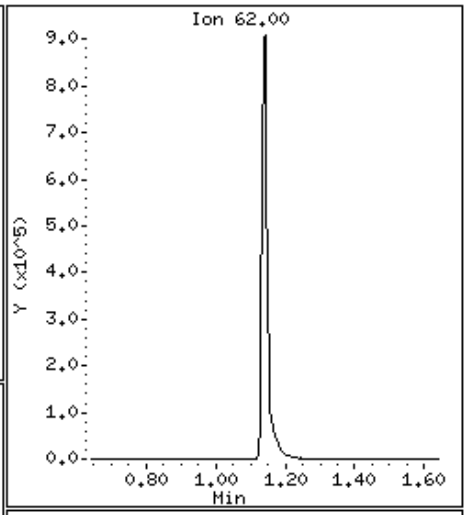
Sample Info: HS23010991-01;HS23010991-01;;;

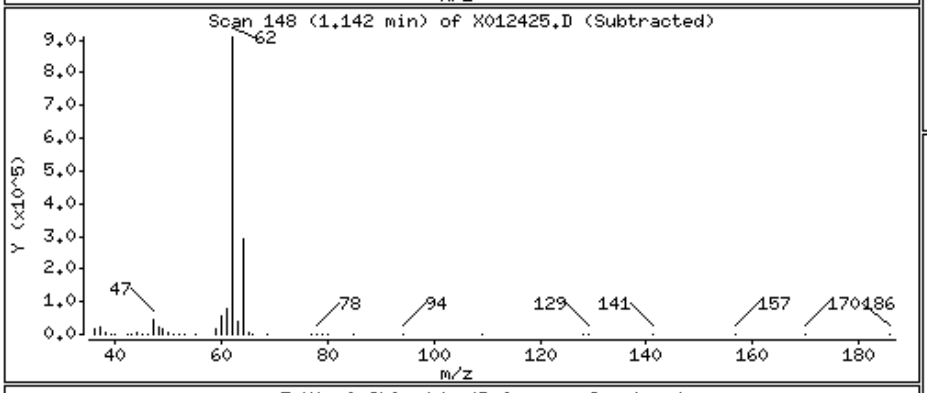
Purge Volume: 5.0 Operator: PC

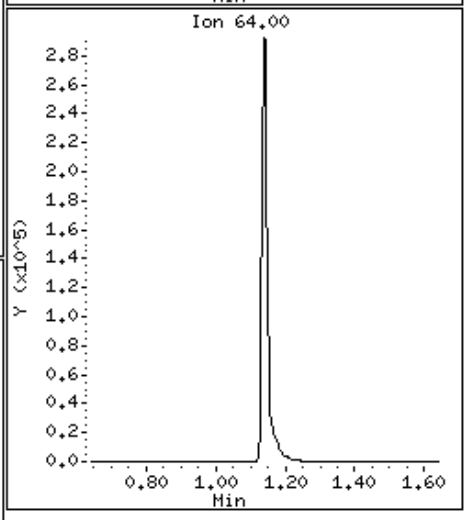
Column phase: DB624 Column diameter: 0.18

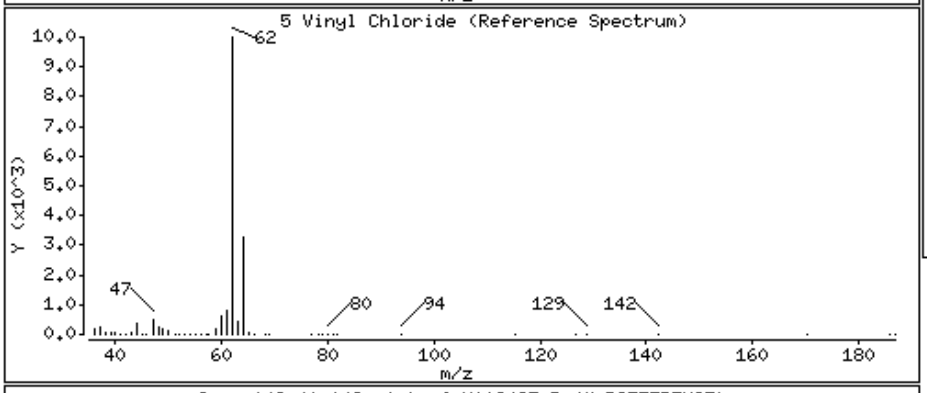
5 Vinyl Chloride Concentration: 1035.55 ug/l

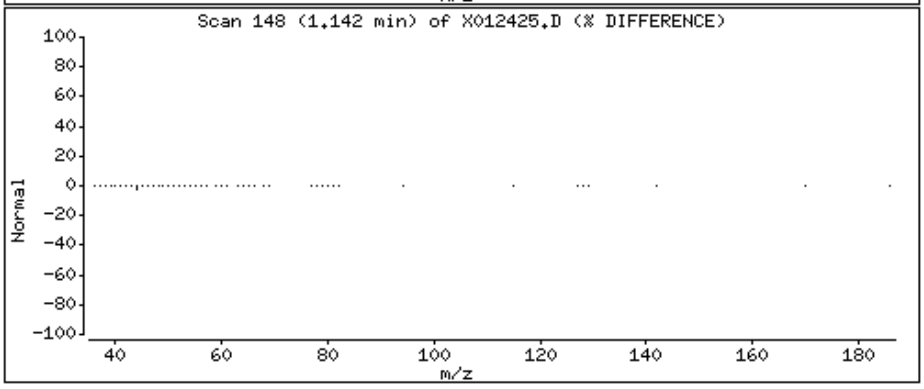


Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012425.D Page 3

Date : 24-JAN-2023 16:17

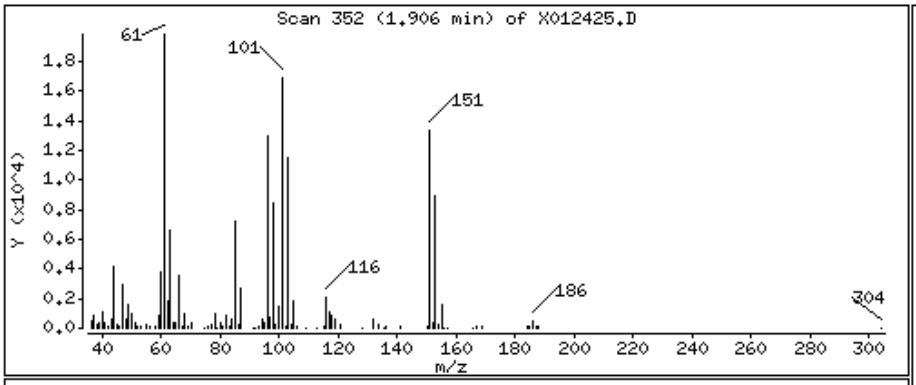
Client ID: HS23010991-01 Instrument: voa6.i

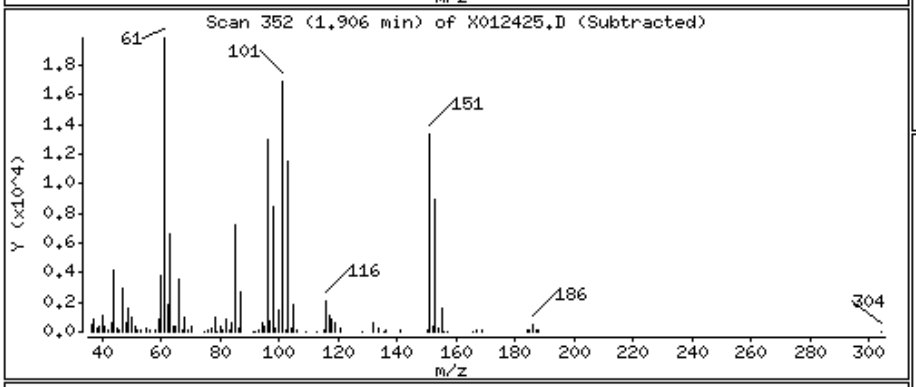
Sample Info: HS23010991-01;HS23010991-01;;;

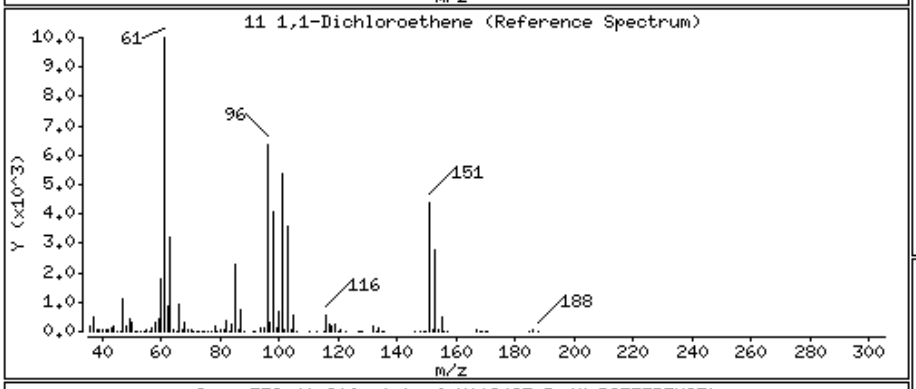
Purge Volume: 5.0 Operator: PC

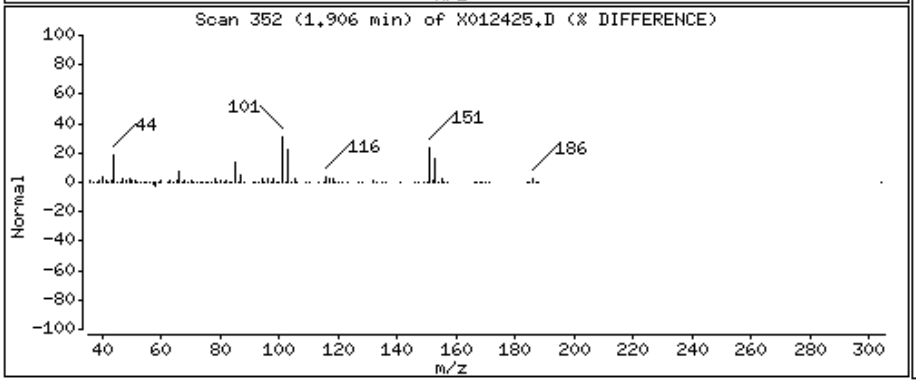
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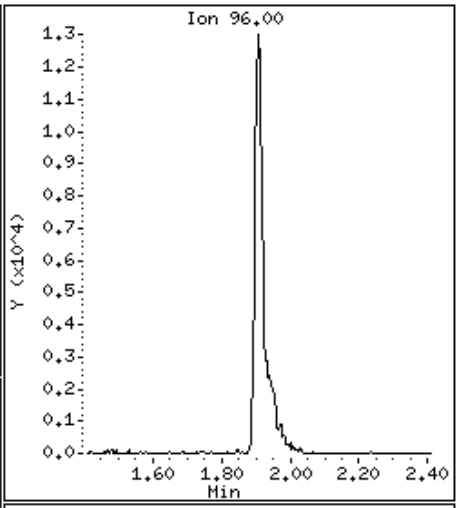
11 1,1-Dichloroethene Concentration: 28.35 ug/l

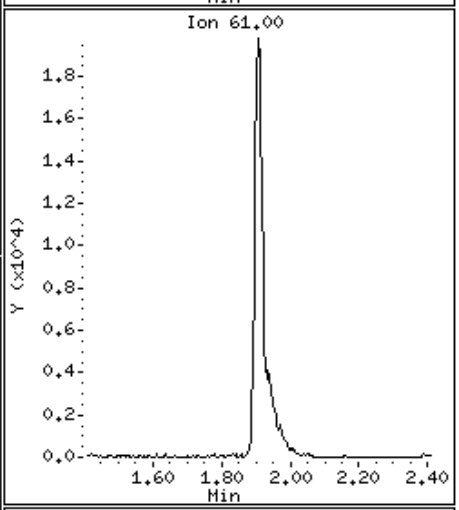


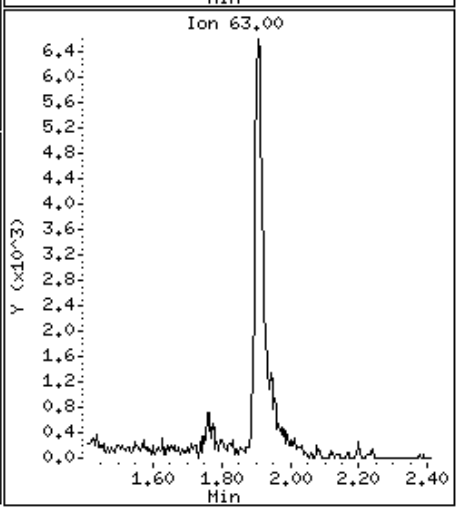



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012425.D Page 4

Date : 24-JAN-2023 16:17

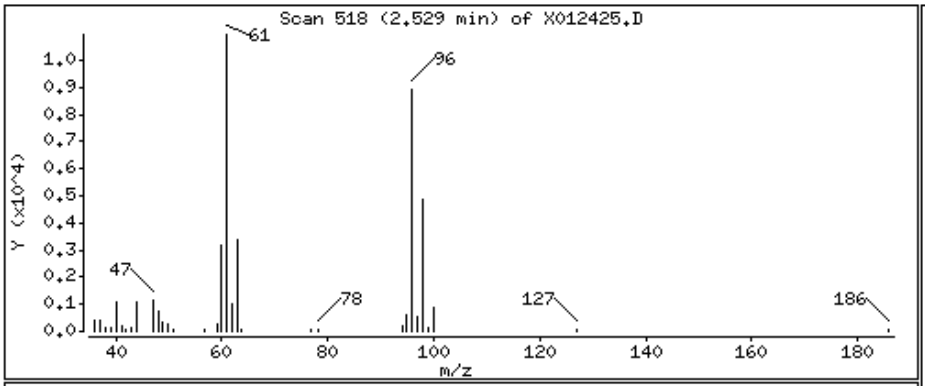
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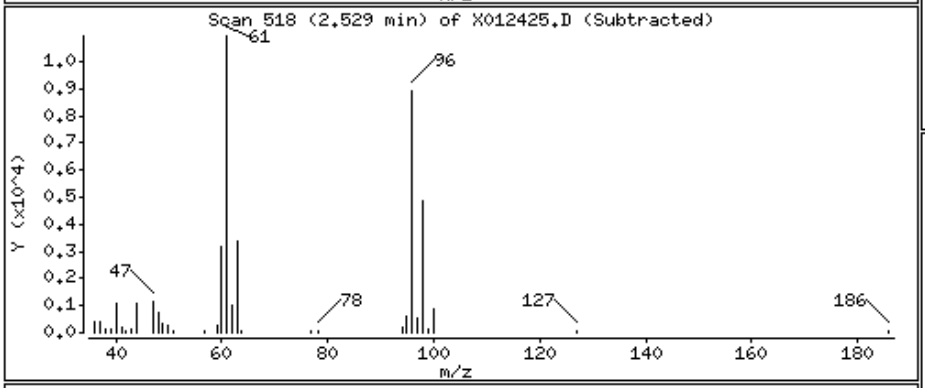
Sample Info: HS23010991-01;HS23010991-01;;;

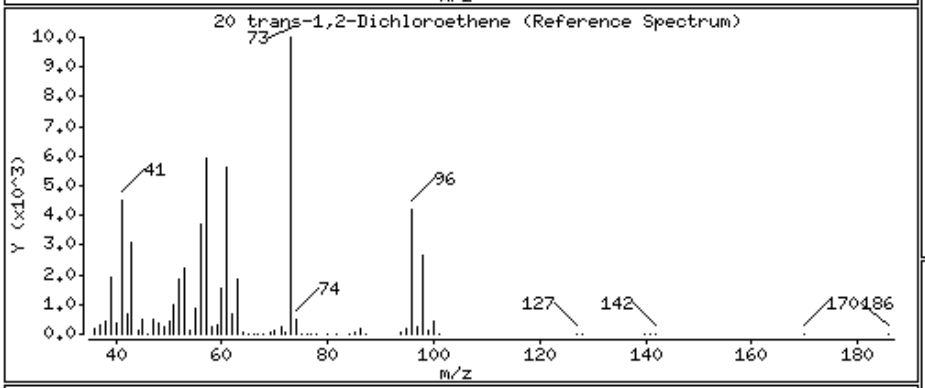
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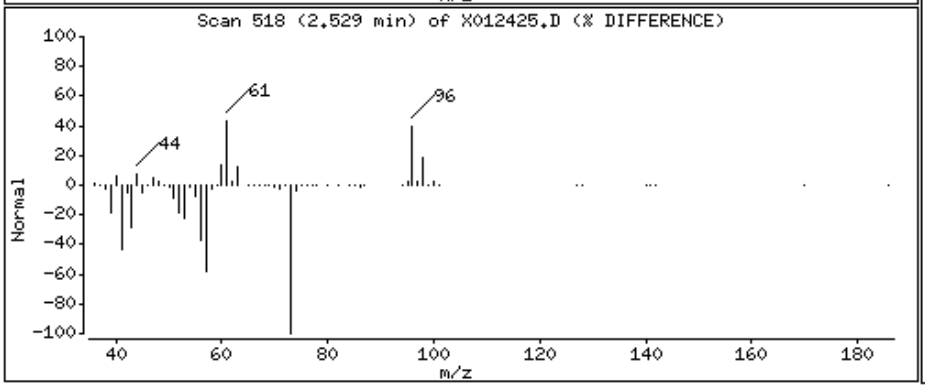
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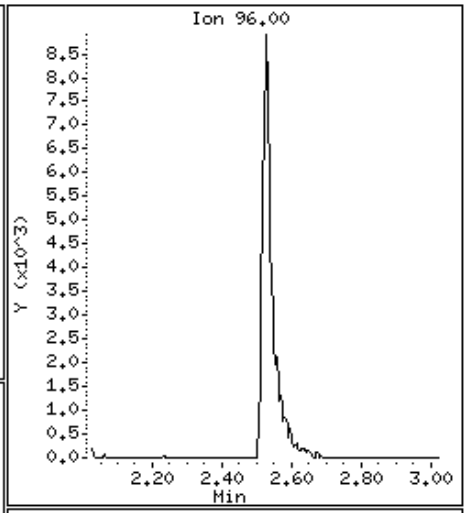
20 trans-1,2-Dichloroethene Concentration: 18.40 ug/l

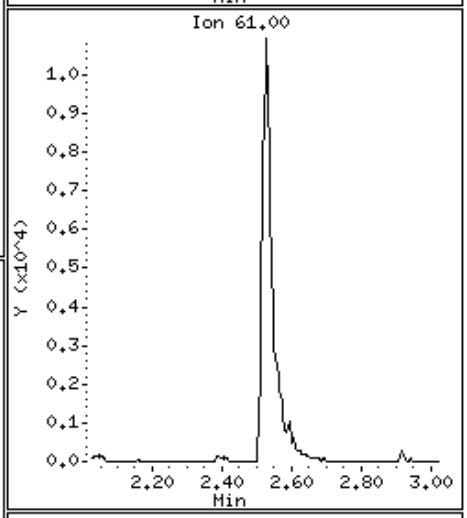


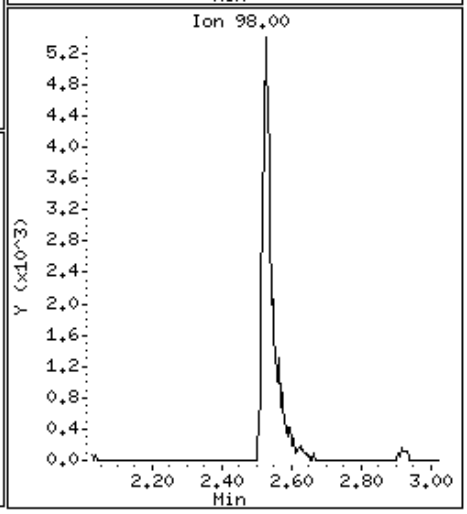



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012425.D Page 5

Date : 24-JAN-2023 16:17

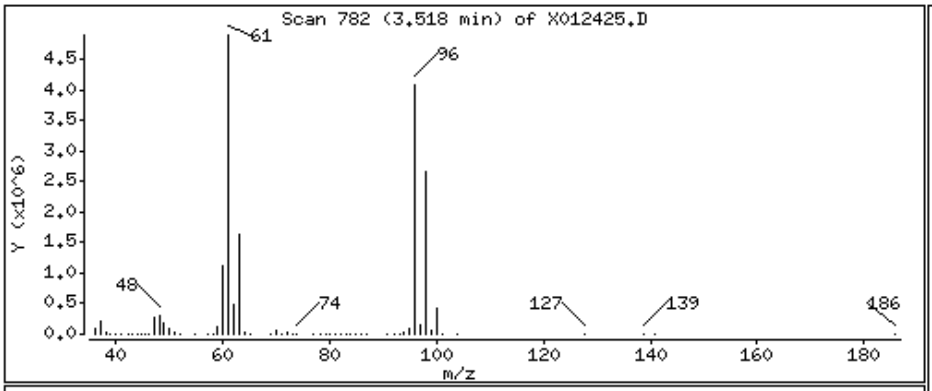
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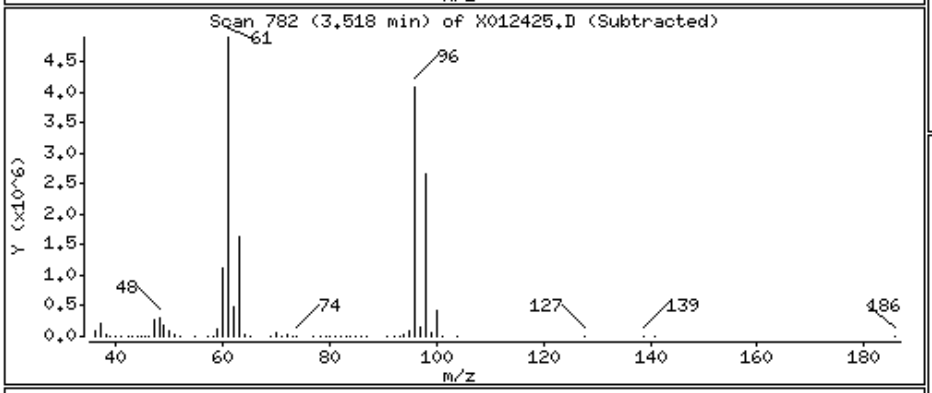
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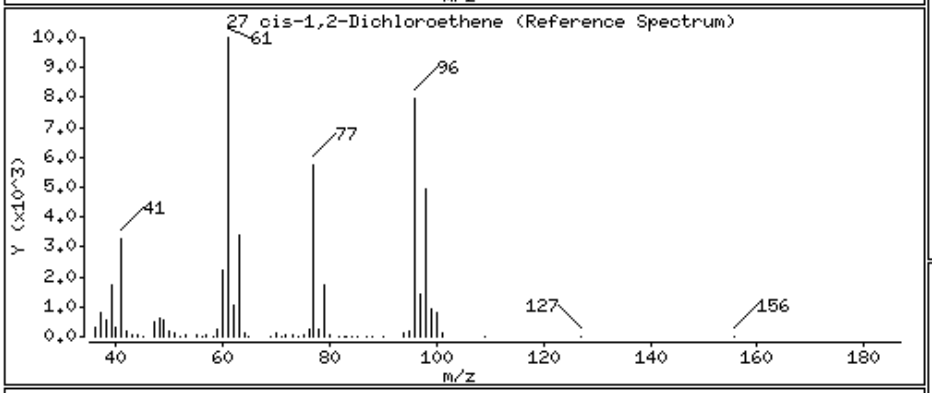
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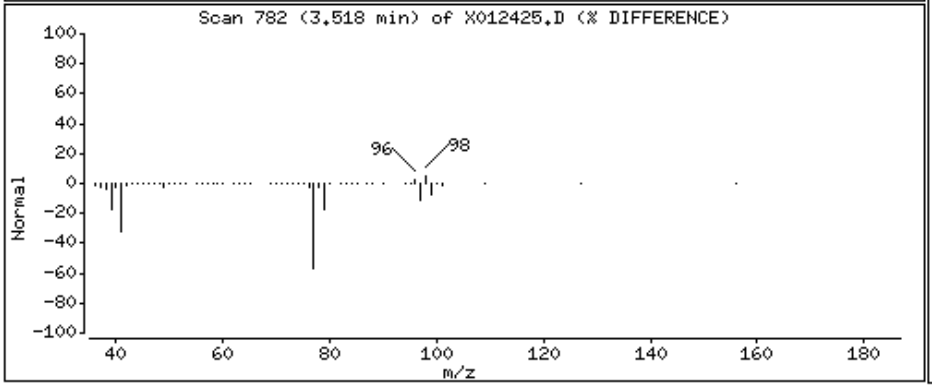
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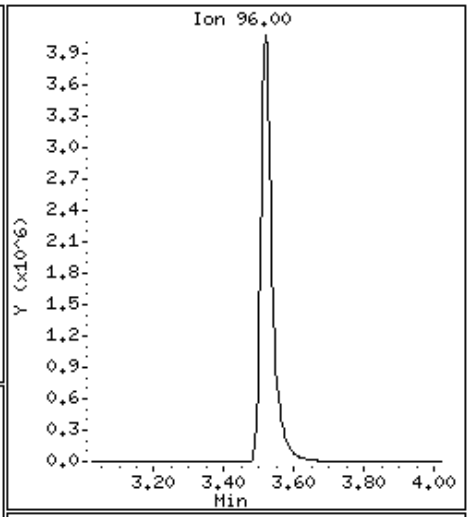
27 cis-1,2-Dichloroethene Concentration: 7938.11 ug/l

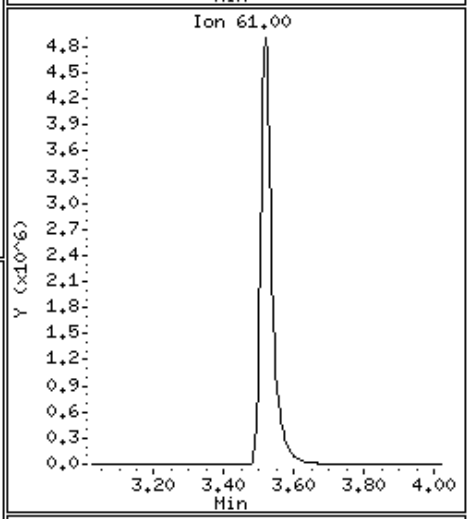


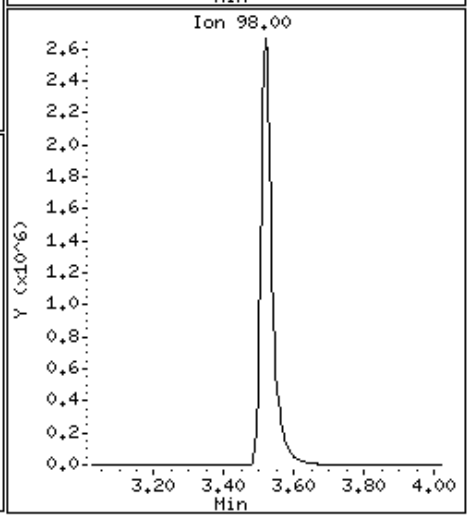



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012425.D Page 6

Date : 24-JAN-2023 16:17

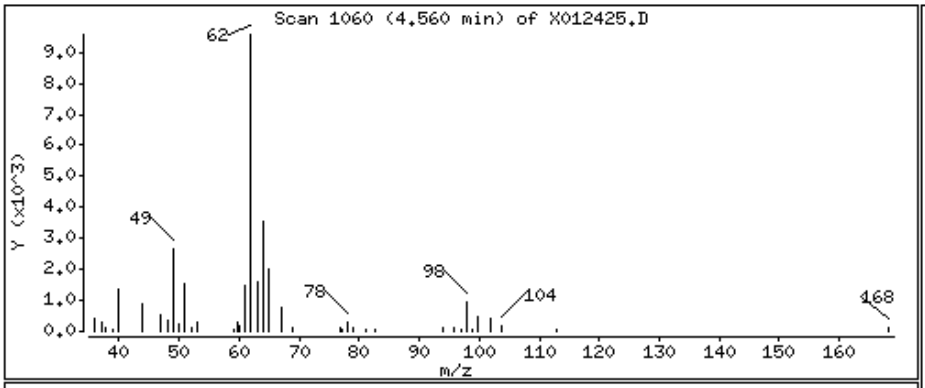
Client ID: HS23010991-01 Instrument: voa6.i

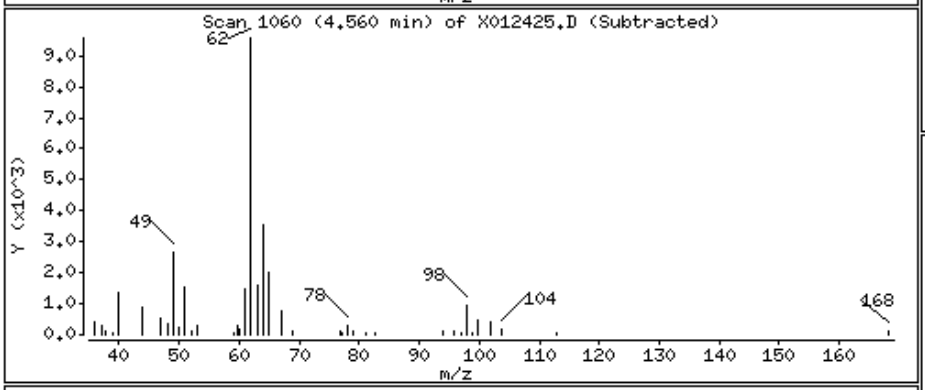
Sample Info: HS23010991-01;HS23010991-01;;;

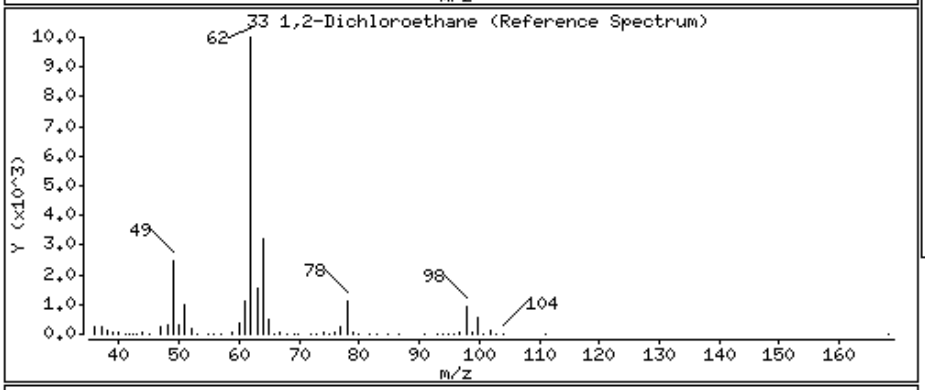
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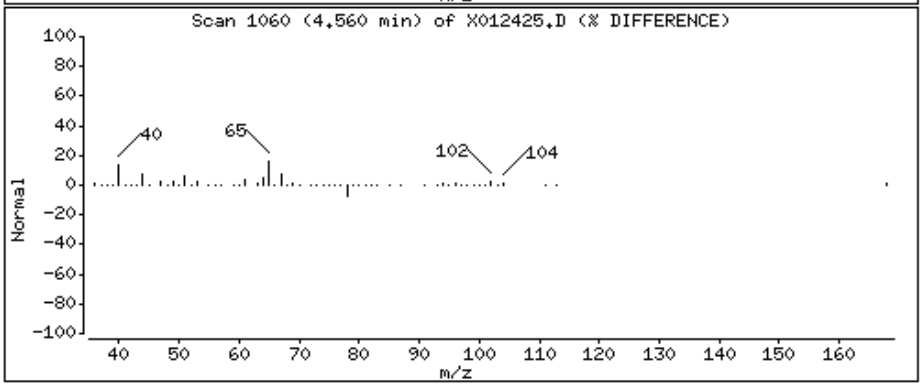
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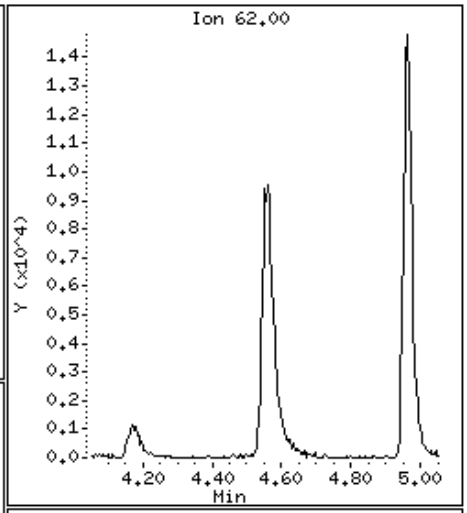
33 1,2-Dichloroethane Concentration: 17.53 ug/l

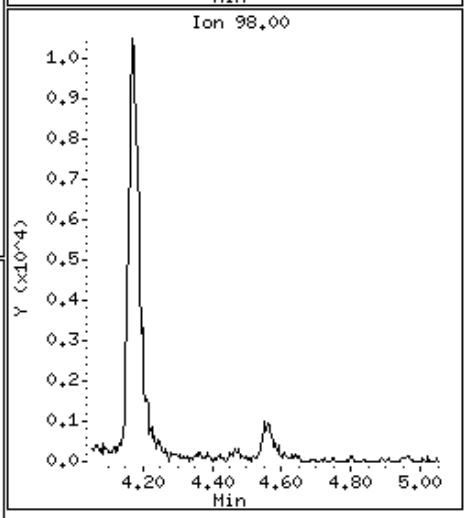


Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012425.D Page 7

Date : 24-JAN-2023 16:17

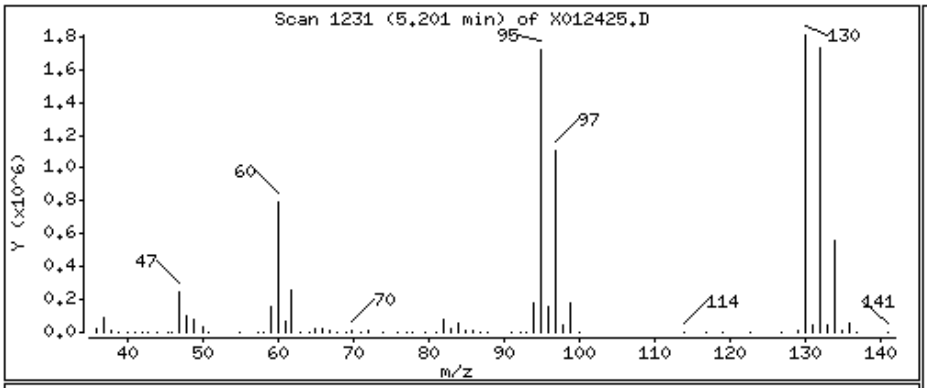
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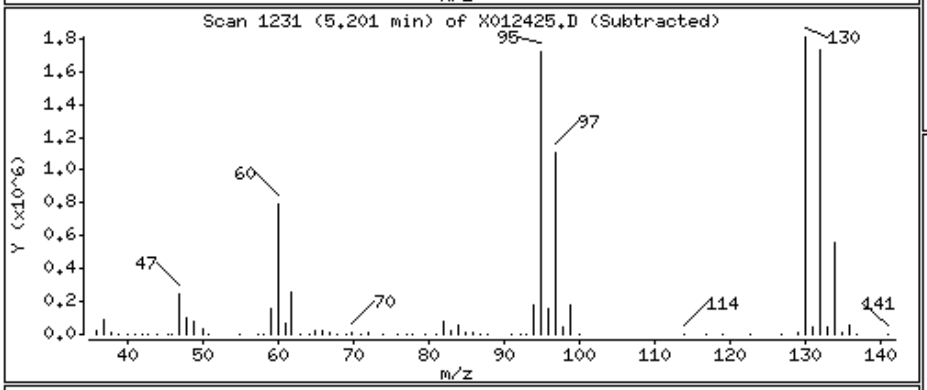
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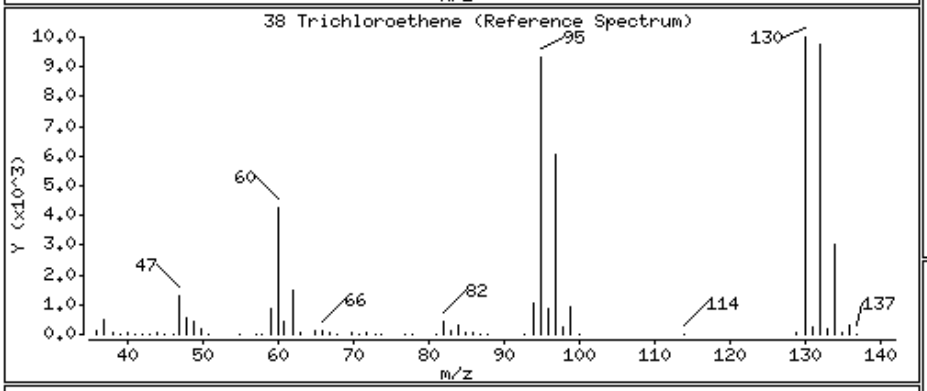
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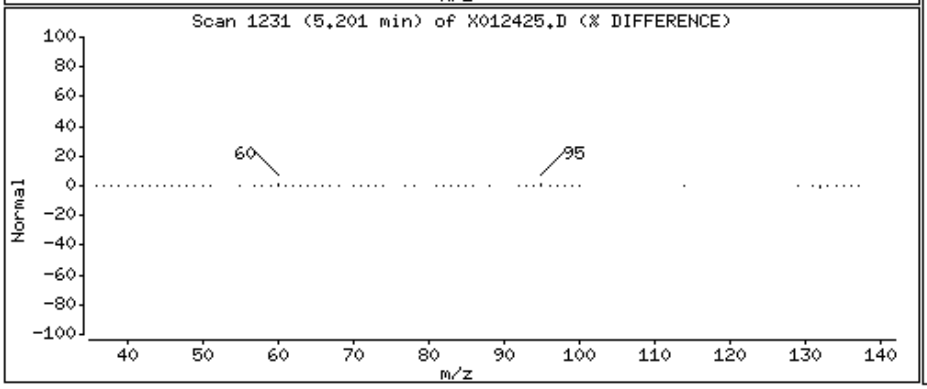
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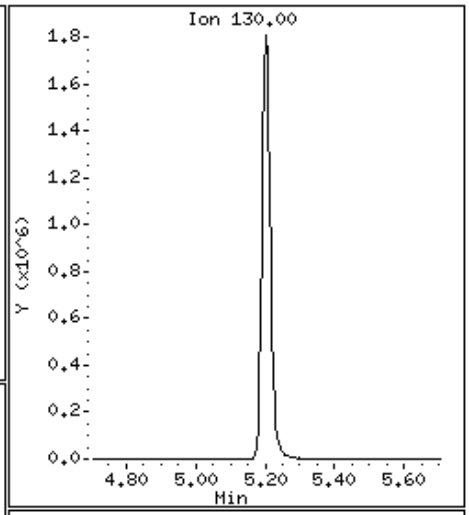
38 Trichloroethene Concentration: 2789.58 ug/l

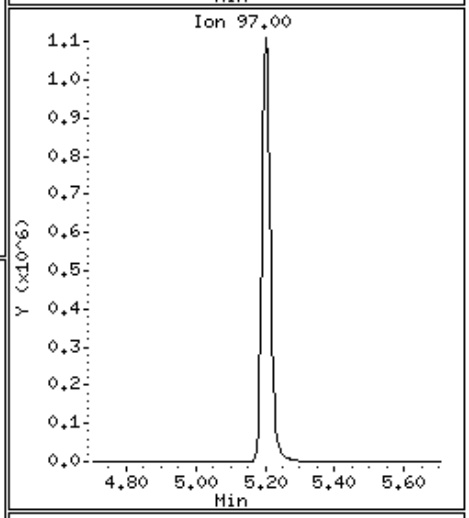


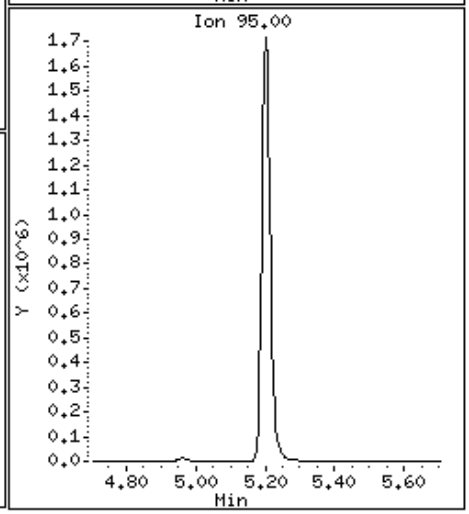



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012425.D Page 8

Date : 24-JAN-2023 16:17

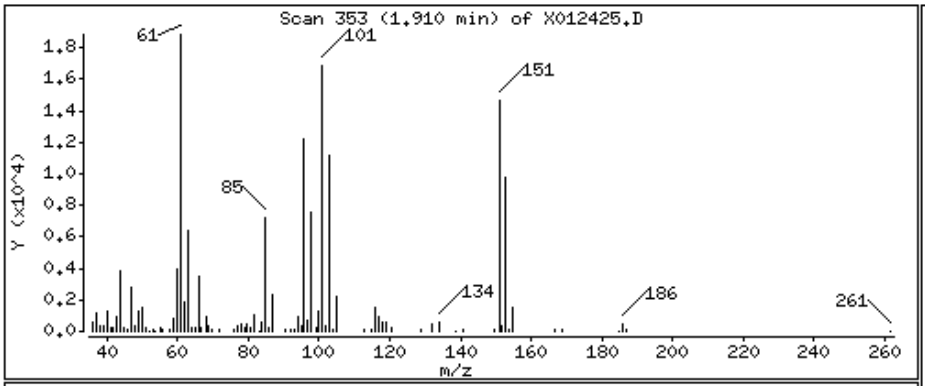
Client ID: HS23010991-01 Instrument: voa6.i

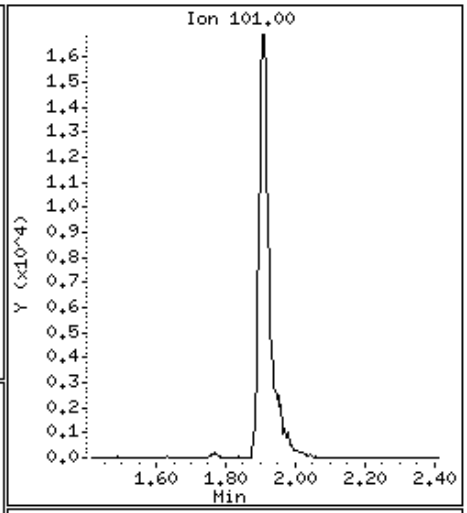
Sample Info: HS23010991-01;HS23010991-01;;;

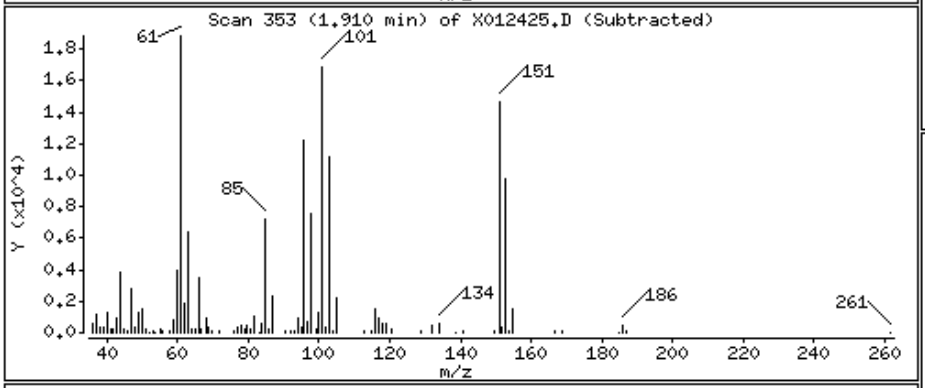
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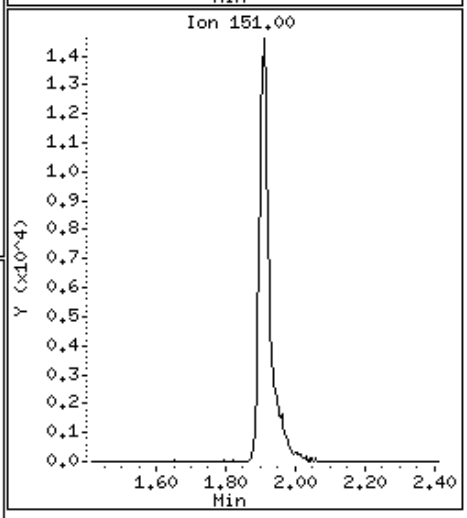
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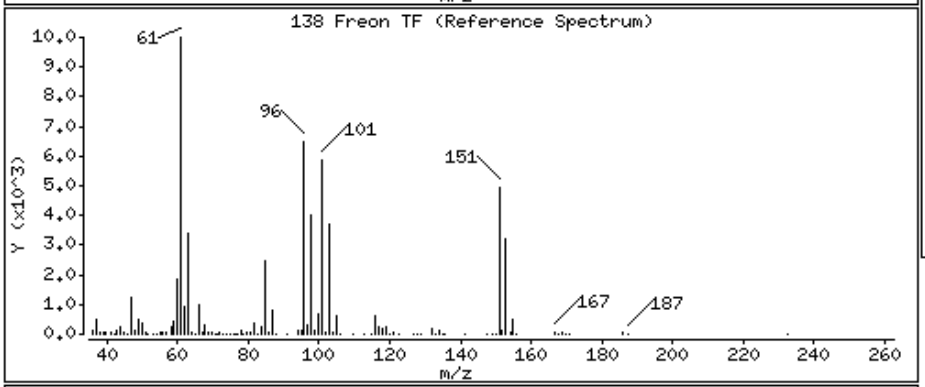
138 Freon TF Concentration: 42.25 ug/l

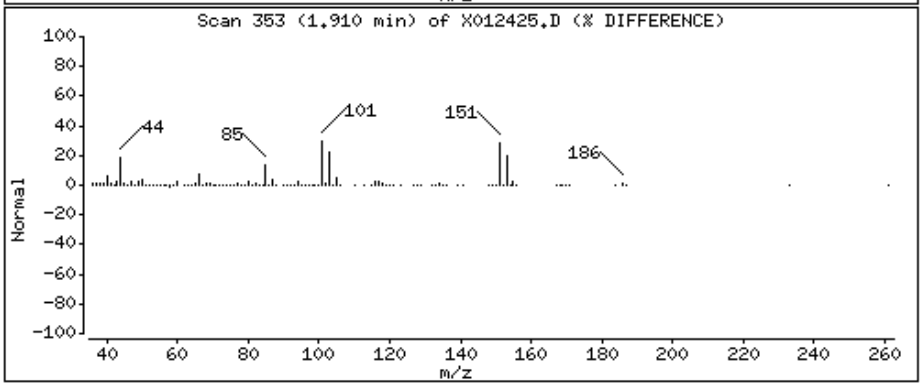


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Inj Date  : 24-JAN-2023 16:17
InstruID  : voa6.i
LabSampID : HS23010991-01

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012431.D  Page 1
Report Date: 03-Feb-2023 10:52

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012431.D
Lab Smp Id: HS23010986-05MS  Client Smp ID: HS23010986-05MS
Inj Date  : 24-JAN-2023 18:23
Operator  : PC  Inst ID: voa6.i
Smp Info  : HS23010986-05MS;HS23010986-05MS;3;;MS
Misc Info : V6;WATER;0;100;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\8260W.m
Meth Date : 03-Feb-2023 10:51 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 31  QC Sample: MS
Dil Factor: 100.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 100.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 609595 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 52571 | 12.6262 | 1262.62 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 79015 | 15.9043 | 1590.42 |
| 4 Propionitrile | 54 | 3.649 | 3.645 | (0.873) | 103274 | 166.034 | 16603.37(a) |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 86395 | 16.2239 | 1622.39 |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 64302 | 17.1658 | 1716.58 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 52078 | 14.0506 | 1405.05 |
| 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 131672 | 17.6694 | 1766.93 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 12959 | 33.0287 | 3302.86 |
| 10 Acetone | 43 | 1.970 | 1.966 | (0.472) | 45518 | 26.5862 | 2658.62 |
| 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 80062 | 17.3049 | 1730.48 |
| 12 Isobutyl Alcohol | 43 | 4.676 | 4.669 | (1.119) | 232885 | 339.651 | 33965.08(a) |
| 13 Acetonitrile | 39 | 2.194 | 2.195 | (0.525) | 99650 | 179.612 | 17961.17(a) |
| 14 Allyl Chloride | 41 | 2.194 | 2.195 | (0.525) | 172786 | 16.3520 | 1635.19(a) |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 133340 | 25.1476 | 2514.76 |
| 16 Acrylonitrile | 53 | 2.532 | 2.528 | (0.606) | 47952 | 30.5594 | 3055.93 |
| 17 Methylene Chloride | 84 | 2.299 | 2.300 | (0.550) | 87198 | 13.7404 | 1374.03 |
| 18 Methyl tert-butyl ether | 73 | 2.532 | 2.528 | (0.606) | 242479 | 16.0119 | 1601.19 |
| 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 378497 | 31.2685 | 3126.84 |
| 20 trans-1,2-Dichloroethene | 96 | 2.528 | 2.524 | (0.605) | 80435 | 15.5341 | 1553.41 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.997 | 2.993 (0.717) | 439018 | 33.0247 | 3302.46 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 138184 | 15.2061 | 1520.61 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012431.D Page 2
Report Date: 03-Feb-2023 10:52

| | | | QUANT SIG | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN ( ug/l) | FINAL ( ug/l) |
| | 24 | 2-Butanone | 43 | 3.578 | 3.570 | (0.856) | 46981 | 28.1365 | 2813.64 |
| | 25 | Methacrylonitrile | 41 | 3.821 | 3.818 | (0.915) | 69811 | 16.1733 | 1617.32(a) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 115977 | 15.0313 | 1503.12 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.843) | 602582 | 95.6254 | 9562.54 |
| | 28 | Chloroform | 83 | 3.904 | 3.900 | (0.935) | 153946 | 15.1146 | 1511.45 |
| | 29 | Bromochloromethane | 128 | 3.791 | 3.788 | (0.908) | 46261 | 13.4082 | 1340.81 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 266061 | 45.4396 | 45.43 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.084 | 4.076 | (0.978) | 137532 | 17.0190 | 1701.89 |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.275 | (0.862) | 119732 | 19.5607 | 1956.07 |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 122058 | 17.2785 | 1727.85 |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.260 | (0.859) | 117898 | 18.0371 | 1803.71 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.466 | (1.070) | 307719 | 49.8092 | 49.80 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 862181 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.508 | (0.909) | 338611 | 16.4465 | 1644.64 |
| | 38 | Trichloroethene | 130 | 5.201 | 5.205 | (1.048) | 1058028 | 181.181 | 18118.12 |
| | 39 | Bromodichloromethane | 83 | 5.726 | 5.722 | (1.154) | 119994 | 15.5296 | 1552.96 |
| | 40 | Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.342) | 69666 | 16.7605 | 1676.05(a) |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.048 | 6.044 | (1.219) | 27352 | 12.4427 | 1244.27(a) |
| | 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 83903 | 15.3200 | 1531.99 |
| | 43 | 2-Nitropropane | 43 | 5.969 | 5.966 | (1.429) | 26158 | 16.9926 | 1699.26 |
| | 44 | Dibromomethane | 93 | 5.553 | 5.550 | (1.119) | 57214 | 15.3697 | 1536.96 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 146239 | 34.5348 | 3453.48 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.157 | 6.153 | (1.241) | 139200 | 15.3397 | 1533.97 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 792242 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.385 | 6.386 | (0.833) | 1012685 | 51.7287 | 51.72 |
| | 49 | Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 67724 | 16.6805 | 1668.05(a) |
| | 50 | Toluene | 91 | 6.445 | 6.446 | (0.841) | 375362 | 17.1415 | 1714.15 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.347) | 118991 | 15.8007 | 1580.06 |
| | 52 | 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 100396 | 34.8472 | 3484.71 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.835 | (0.892) | 70113 | 15.9599 | 1595.98 |
| | 54 | 1,3-Dichloropropane | 76 | 6.978 | 6.982 | (0.910) | 139834 | 16.1714 | 1617.14 |
| | 55 | Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 98942 | 15.6049 | 1560.48 |
| | 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 84240 | 18.5930 | 1859.29 |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 91328 | 16.6273 | 1662.73 |
| | 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 90908 | 21.8181 | 2181.80 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 253528 | 16.3229 | 1632.29 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.773 | (1.014) | 92972 | 16.0846 | 1608.45 |
| | 61 | Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 131892 | 18.0270 | 1802.69 |
| | 62 | m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 329625 | 34.9488 | 3494.87 |
| | 63 | o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 158801 | 17.0589 | 1705.89 |
| | 64 | Styrene | 104 | 8.260 | 8.256 | (1.077) | 267913 | 17.1707 | 1717.06 |
| | 66 | Bromoform | 173 | 8.410 | 8.410 | (1.097) | 67317 | 15.3253 | 1532.52 |
| | 67 | Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 412384 | 19.3903 | 1939.03 |
| | 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 112159 | 15.9367 | 1593.67 |
| $ | 69 | 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 373998 | 51.1083 | 51.10 |
| * | 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 441556 | 50.0000 | |
| | 71 | 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 120118 | 24.4478 | 2444.78 |
| | 72 | trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 28611 | 16.7291 | 1672.90(a) |
| | 73 | n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 482800 | 19.7397 | 1973.97 |
| | 74 | Bromobenzene | 156 | 8.807 | 8.803 | (0.912) | 118118 | 16.3048 | 1630.47 |
| | 75 | 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 346054 | 19.1527 | 1915.27 |
| | 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 290916 | 18.1258 | 1812.58 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 77 4-Chlorotoluene | 91 | 9.069 | 9.070 (0.939) | 336516 | 18.3923 | 1839.23 |
| 78 tert-Butylbenzene | 119 | 9.336 | 9.336 (0.966) | 300890 | 20.3442 | 2034.42 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012431.D Page 3
Report Date: 03-Feb-2023 10:52

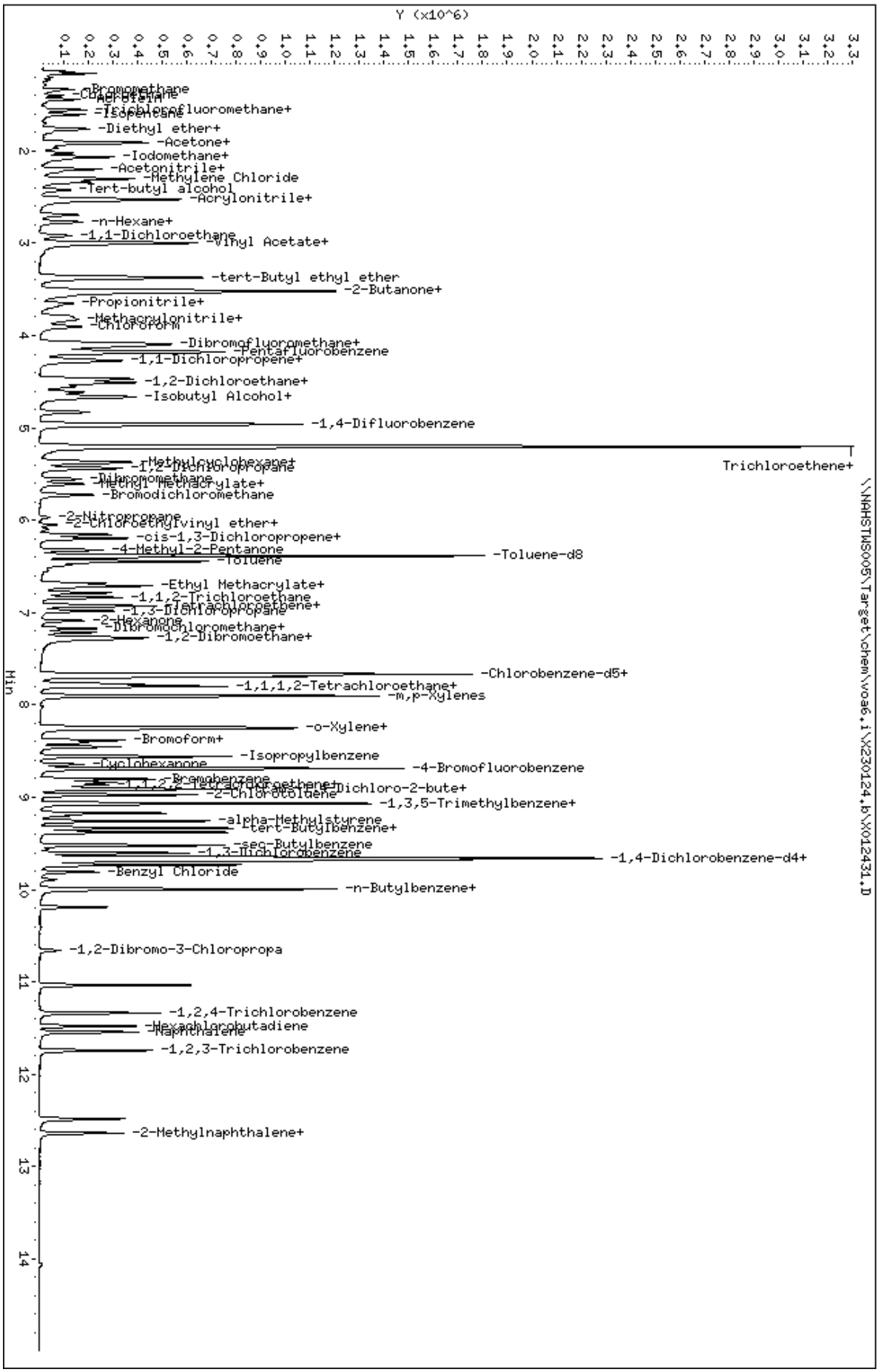
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.377 | (0.971) | 345204 | 18.1578 | 1815.78 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 418811 | 21.2826 | 2128.26 |
| 82 | p-Isopropyltoluene | 119 | 9.651 | 9.647 | (0.999) | 365192 | 20.7097 | 2070.97 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 207367 | 17.2460 | 1724.60 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 221520 | 16.8829 | 1688.29 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 143113 | 13.6149 | 1361.48 |
| 87 | n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 316978 | 19.7649 | 1976.49 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 203138 | 16.4040 | 1640.39 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.659 | 10.655 | (1.103) | 18026 | 16.0834 | 1608.33 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.338 | (1.173) | 134286 | 17.1830 | 1718.29 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 65079 | 18.8972 | 1889.71 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 306846 | 17.2568 | 1725.67 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 127555 | 17.0419 | 1704.18 |
| 146 | Methyl acetate | 43 | 2.228 | 2.225 | (0.533) | 45894 | 16.7311 | 1673.10 |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.457) | 90731 | 20.2760 | 2027.59 |
| 141 | Cyclohexane | 56 | 4.118 | 4.121 | (0.986) | 133101 | 22.3761 | 2237.61 |
| 142 | Tetrahydrofuran | 42 | 3.844 | 3.840 | (0.920) | 24361 | 29.9971 | 2999.70 |
| 147 | Methylcyclohexane | 55 | 5.381 | 5.373 | (1.085) | 202770 | 19.2130 | 1921.29 |
| 135 | 1,4-Dioxane | 88 | 5.602 | 5.598 | (1.341) | 18766 | 336.771 | 33677.08 |
| 132 | n-Butanol | 56 | 5.268 | 5.250 | (1.261) | 16496 | 251.348 | 25134.83(a) |
| 131 | Methyl Acrylate | 55 | 3.686 | 3.683 | (0.882) | 74003 | 17.8811 | 1788.11 |
| 133 | Ethyl Acrylate | 55 | 5.381 | 5.373 | (1.288) | 202770 | 18.1854 | 1818.54 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 83256 | 18.9686 | 1896.85 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 59684 | 14.6529 | 1465.28 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.420 | (0.580) | 141675 | 335.641 | 33564.05 |
| 149 | Isopropyl alcohol | 45 | 2.090 | 2.086 | (0.500) | 76271 | 345.990 | 34599.00 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.997 | (0.717) | 254386 | 16.0867 | 1608.67 |
| 160 | 2-Methylnaphthalene | 142 | 12.638 | 12.635 | (1.308) | 137685 | 16.0719 | 1607.19 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 364936 | 17.1628 | 1716.28 |
| 167 | Ethanol | 45 | 1.700 | 1.700 | (0.407) | 14390 | 360.259 | 36025.89 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.104) | 108287 | 33.4767 | 3347.67 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.289 | 7.285 | (0.951) | 131018 | 349.532 | 34953.15 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.116) | 287181 | 16.3433 | 1634.32 |
| 175 | tert-Butyl ethyl ether | 59 | 3.372 | 3.372 | (0.807) | 267874 | 15.9418 | 1594.18 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.104) | 108287 | 330.753 | 33075.32 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 263100 | 322.410 | 32241.04 |
| 180 | 1-Methylnaphthalene | 142 | 12.638 | 12.635 | (1.308) | 137685 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 62633 | 14.9705 | 1497.05 |
| 152 | Amyl alcohol | 42 | 6.910 | 6.899 | (0.901) | 19301 | 246.369 | 24636.86 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.531 | (0.366) | 12087 | 15.3133 | 1531.33 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.419) | 12190 | 31.7995 | 3179.94 |
| 161 | 3-Methyl-1-butanol | 55 | 6.914 | 6.903 | (0.902) | 25523 | 325.851 | 32585.06 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 178181 | 17.2174 | 1721.74 |
| 182 | Epichlorohydrin | 57 | 6.097 | 6.089 | (1.229) | 24771 | 65.8510 | 6585.09 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 683017 | 111.160 | 11115.95 |
| M 95 | Xylenes (total) | 106 | | | | 488426 | 52.0077 | 5200.77 |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 164425 | 16.8060 | 1680.60 |
| 130 | Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 80530 | 16.9295 | 1692.95 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 58569 | 317.981 | 31798.07(a) |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 29390 | 18.0976 | 1809.75 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 45872 | | (a) |
| 188 | Isopropyl acetate | 43 | 4.676 | 4.669 | (0.943) | 232885 | 17.3858 | 1738.57 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.455 | 8.451 (1.103) | 154662 | 16.7418 | 1674.18 |
| 189 n-Butyl acetate | 43 | 7.214 | 7.210 (0.941) | 127844 | 18.7853 | 1878.53 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 83256 | 371.579 | 37157.86 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 171647 | 16.2957 | 1629.57 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 180842 | 16.8660 | 1686.59 |
| 168 1-Propanol | 59 | 3.000 | 2.993 | (0.718) | 32439 | 325.618 | 32561.79 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012431.D
Date : 24-JAN-2023 18:23
Client ID: HS23010986-05MS
Sample Info: HS23010986-05MS;HS23010986-05MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012431.D
Inj Date  : 24-JAN-2023 18:23
InstruID  : voa6.i
LabSampID : HS23010986-05MS

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012432.D  Page 1
Report Date: 03-Feb-2023 10:52

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012432.D
Lab Smp Id: HS23010986-05MSD  Client Smp ID: HS23010986-05MSD
Inj Date  : 24-JAN-2023 18:44
Operator  : PC  Inst ID: voa6.i
Smp Info  : HS23010986-05MSD;HS23010986-05MSD;3;;MSD
Misc Info : V6;WATER;0;100;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\8260W.m
Meth Date : 03-Feb-2023 10:51 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 31  QC Sample: MSD
Dil Factor: 100.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 100.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.174 | 4.178 | (1.000) | 615830 | 50.0000 | |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 44671 | 10.6826 | 1068.26 |
| 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 74094 | 14.9215 | 1492.15 |
| 4 | Propionitrile | 54 | 3.649 | 3.645 | (0.874) | 102161 | 162.582 | 16258.15(a) |
| 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 78653 | 14.6206 | 1462.05 |
| 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 57074 | 15.2962 | 1529.61 |
| 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 48788 | 13.0297 | 1302.96 |
| 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 120649 | 16.0263 | 1602.62 |
| 9 | Acrolein | 56 | 1.437 | 1.441 | (0.344) | 12003 | 30.5170 | 3051.70 |
| 10 | Acetone | 43 | 1.970 | 1.966 | (0.472) | 42236 | 24.4167 | 2441.67 |
| 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.458) | 73243 | 15.6707 | 1567.07 |
| 12 | Isobutyl Alcohol | 43 | 4.672 | 4.669 | (1.119) | 229439 | 331.237 | 33123.70(a) |
| 13 | Acetonitrile | 39 | 2.194 | 2.195 | (0.526) | 90346 | 161.193 | 16119.32(a) |
| 14 | Allyl Chloride | 41 | 2.194 | 2.195 | (0.526) | 169469 | 15.8757 | 1587.56(a) |
| 15 | Iodomethane | 142 | 2.026 | 2.022 | (0.485) | 141796 | 26.2862 | 2628.61 |
| 16 | Acrylonitrile | 53 | 2.536 | 2.528 | (0.608) | 48469 | 30.5761 | 3057.60 |
| 17 | Methylene Chloride | 84 | 2.299 | 2.300 | (0.551) | 84473 | 13.1762 | 1317.61 |
| 18 | Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.606) | 233744 | 15.2788 | 1527.88 |
| 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 351023 | 28.7052 | 2870.51 |
| 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 75371 | 14.4088 | 1440.87 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.717) | 421837 | 31.4110 | 3141.09 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 130914 | 14.2603 | 1426.02 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012432.D Page 2
Report Date: 03-Feb-2023 10:52

| | | | QUANT SIG | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN ( ug/l) | FINAL ( ug/l) |
| | 24 | 2-Butanone | 43 | 3.574 | 3.570 | (0.856) | 48423 | 28.6452 | 2864.51 |
| | 25 | Methacrylonitrile | 41 | 3.821 | 3.818 | (0.916) | 69168 | 15.8621 | 1586.20(a) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.840) | 107613 | 13.8061 | 1380.60 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.844) | 587806 | 92.3361 | 9233.61 |
| | 28 | Chloroform | 83 | 3.900 | 3.900 | (0.934) | 146571 | 14.2448 | 1424.47 |
| | 29 | Bromochloromethane | 128 | 3.791 | 3.788 | (0.908) | 46403 | 13.3132 | 1331.31 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 266608 | 45.0707 | 45.07 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.076 | (0.978) | 130469 | 15.9815 | 1598.14 |
| | 32 | 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.861) | 110424 | 17.8492 | 1784.91 |
| | 33 | 1,2-Dichloroethane | 62 | 4.556 | 4.552 | (0.918) | 120201 | 16.8356 | 1683.56 |
| | 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 112307 | 16.9999 | 1699.99 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 307369 | 49.2519 | 49.25 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.961 | (1.000) | 871402 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.508 | (0.909) | 319169 | 15.3381 | 1533.81 |
| | 38 | Trichloroethene | 130 | 5.201 | 5.205 | (1.048) | 1016699 | 172.262 | 17226.15 |
| | 39 | Bromodichloromethane | 83 | 5.726 | 5.722 | (1.153) | 114676 | 14.6843 | 1468.43 |
| | 40 | Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.343) | 65283 | 15.5470 | 1554.70(a) |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.052 | 6.044 | (1.219) | 25024 | 11.2632 | 1126.32(a) |
| | 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 80800 | 14.5973 | 1459.72 |
| | 43 | 2-Nitropropane | 43 | 5.969 | 5.966 | (1.430) | 24854 | 15.9820 | 1598.20 |
| | 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 56804 | 15.0981 | 1509.80 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 141080 | 33.1140 | 3311.39 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 134575 | 14.6731 | 1467.31 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 797088 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.385 | 6.386 | (0.833) | 1014868 | 51.5250 | 51.52 |
| | 49 | Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.351) | 64879 | 15.8107 | 1581.06(a) |
| | 50 | Toluene | 91 | 6.445 | 6.446 | (0.841) | 355185 | 16.1215 | 1612.15 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.346) | 113677 | 14.9353 | 1493.53 |
| | 52 | 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 98276 | 33.9039 | 3390.39 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.835 | (0.892) | 65782 | 14.8830 | 1488.29 |
| | 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 135788 | 15.6080 | 1560.80 |
| | 55 | Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 96593 | 15.1418 | 1514.17 |
| | 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 77523 | 17.0064 | 1700.64 |
| | 57 | 1,2-Dibromoethane | 107 | 7.263 | 7.259 | (0.947) | 87804 | 15.8885 | 1588.85 |
| | 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 84818 | 20.1410 | 2014.10 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 241082 | 15.4273 | 1542.72 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.773 | (1.014) | 89566 | 15.4011 | 1540.11 |
| | 61 | Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 123766 | 16.8134 | 1681.34 |
| | 62 | m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 313660 | 33.0539 | 3305.39 |
| | 63 | o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 150394 | 16.0576 | 1605.76 |
| | 64 | Styrene | 104 | 8.260 | 8.256 | (1.077) | 251612 | 16.0279 | 1602.78 |
| | 66 | Bromoform | 173 | 8.410 | 8.410 | (1.097) | 65794 | 14.8875 | 1488.74 |
| | 67 | Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 391713 | 18.3064 | 1830.63 |
| | 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 111816 | 15.9052 | 1590.52 |
| $ | 69 | 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 376614 | 51.1528 | 51.15 |
| * | 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 441078 | 50.0000 | |
| | 71 | 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 116977 | 23.8343 | 2383.43 |
| | 72 | trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 28717 | 16.6890 | 1668.89(a) |
| | 73 | n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 457389 | 18.7210 | 1872.10 |
| | 74 | Bromobenzene | 156 | 8.807 | 8.803 | (0.912) | 114795 | 15.8632 | 1586.32 |
| | 75 | 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 325604 | 18.0404 | 1804.04 |
| | 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 276385 | 17.2391 | 1723.91 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 77 4-Chlorotoluene | 91 | 9.070 | 9.070 (0.939) | 318285 | 17.4147 | 1741.47 |
| 78 tert-Butylbenzene | 119 | 9.336 | 9.336 (0.966) | 283715 | 19.2038 | 1920.37 |

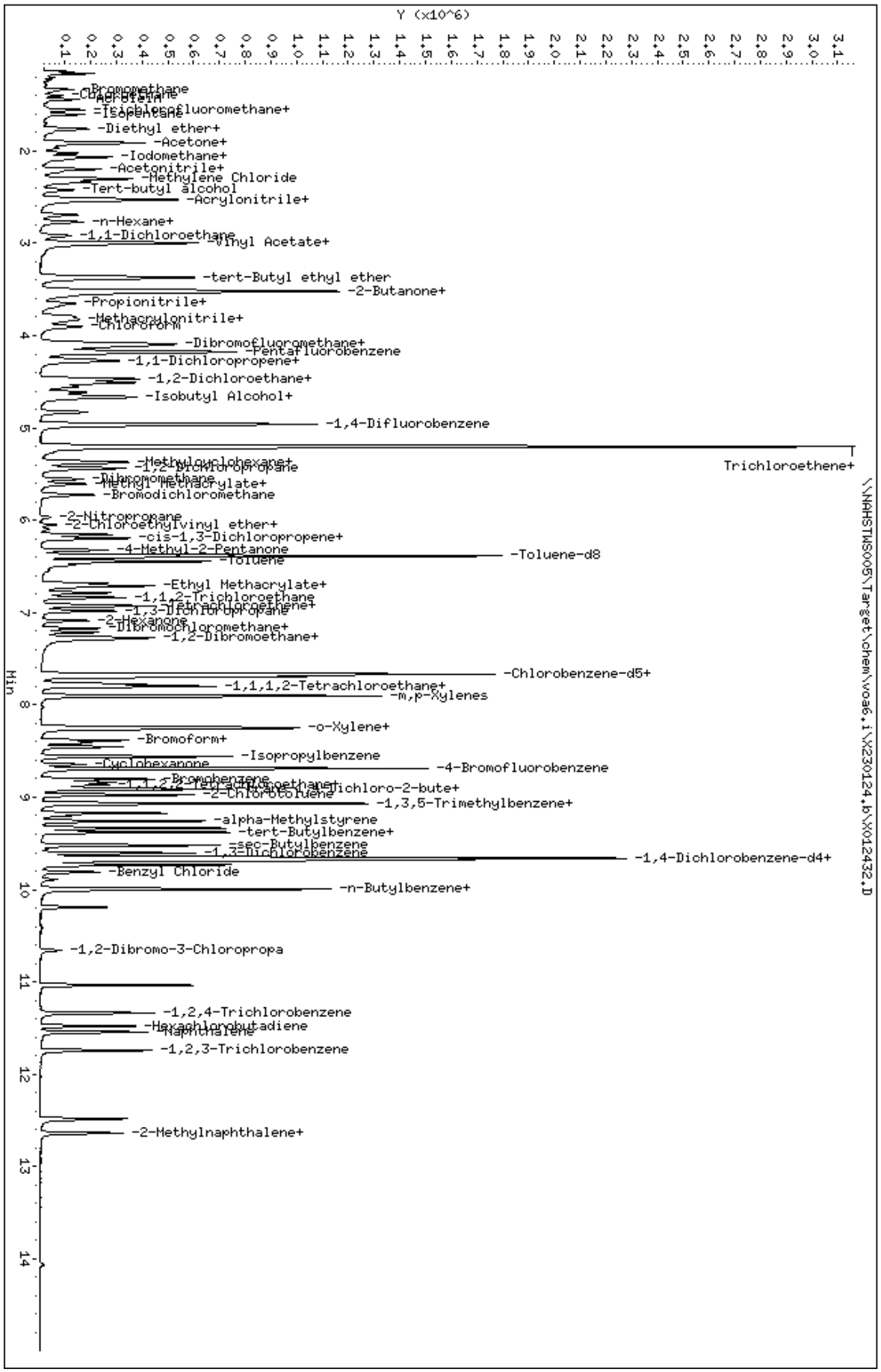
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.377 | (0.971) | 328729 | 17.3100 | 1730.99 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 393792 | 20.0329 | 2003.29 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 345349 | 19.6057 | 1960.56 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 199714 | 16.6276 | 1662.75 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 212890 | 16.2428 | 1624.27 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 138294 | 13.1830 | 1318.29 |
| 87 | n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 296997 | 18.6492 | 1864.91 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.995 | 9.992 | (1.035) | 200636 | 16.2195 | 1621.95 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.659 | 10.655 | (1.103) | 17683 | 15.7961 | 1579.60 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.338 | (1.173) | 134903 | 17.2806 | 1728.06 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 63787 | 18.5427 | 1854.26 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 302313 | 17.0203 | 1702.02 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 125325 | 16.7621 | 1676.20 |
| 146 | Methyl acetate | 43 | 2.232 | 2.225 | (0.535) | 42763 | 15.4318 | 1543.18 |
| 138 | Freon TF | 101 | 1.913 | 1.910 | (0.458) | 84052 | 18.5932 | 1859.32 |
| 141 | Cyclohexane | 56 | 4.118 | 4.121 | (0.987) | 123539 | 20.6608 | 2066.07 |
| 142 | Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.920) | 25277 | 30.8957 | 3089.56 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.373 | (1.083) | 190732 | 17.8811 | 1788.11 |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.341) | 18121 | 321.903 | 32190.33 |
| 132 | n-Butanol | 56 | 5.265 | 5.250 | (1.261) | 18309 | 271.946 | 27194.61(a) |
| 131 | Methyl Acrylate | 55 | 3.690 | 3.683 | (0.884) | 68971 | 16.4965 | 1649.65 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.288) | 190732 | 17.0587 | 1705.86 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 77657 | 17.5138 | 1751.38 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 55982 | 13.6048 | 1360.48 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.420 | (0.581) | 141836 | 332.620 | 33261.99 |
| 149 | Isopropyl alcohol | 45 | 2.090 | 2.086 | (0.501) | 76836 | 345.024 | 34502.41 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.997 | (0.718) | 236008 | 14.7734 | 1477.34 |
| 160 | 2-Methylnaphthalene | 142 | 12.638 | 12.635 | (1.308) | 137592 | 16.0785 | 1607.84 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 338455 | 15.9347 | 1593.46 |
| 167 | Ethanol | 45 | 1.700 | 1.700 | (0.407) | 14490 | 359.079 | 35907.89 |
| 172 | tert-Butyl formate | 59 | 4.616 | 4.612 | (1.106) | 109382 | 33.4729 | 3347.28 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 129542 | 343.493 | 34349.28 |
| 174 | tert-Amyl methyl ether | 73 | 4.665 | 4.661 | (1.118) | 268413 | 15.1205 | 1512.05 |
| 175 | tert-Butyl ethyl ether | 59 | 3.372 | 3.372 | (0.808) | 255180 | 15.0326 | 1503.26 |
| 176 | tert-Amyl alcohol | 59 | 4.616 | 4.612 | (1.106) | 109382 | 330.715 | 33071.52 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.351) | 246226 | 298.540 | 29853.97 |
| 180 | 1-Methylnaphthalene | 142 | 12.638 | 12.635 | (1.308) | 137592 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 56223 | 13.3023 | 1330.23 |
| 152 | Amyl alcohol | 42 | 6.910 | 6.899 | (0.901) | 20636 | 261.808 | 26180.79 |
| 158 | Dichlorofluoromethane | 67 | 1.531 | 1.531 | (0.367) | 11146 | 13.9782 | 1397.81 |
| 159 | Propylene oxide | 43 | 1.756 | 1.752 | (0.421) | 12109 | 31.2684 | 3126.83 |
| 161 | 3-Methyl-1-butanol | 55 | 6.910 | 6.903 | (0.901) | 19640 | 249.218 | 24921.83 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 171160 | 16.4384 | 1643.84 |
| 182 | Epichlorohydrin | 57 | 6.097 | 6.089 | (1.228) | 24515 | 64.5328 | 6453.28 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 663177 | 106.745 | 10674.49 |
| M 95 | Xylenes (total) | 106 | | | | 464054 | 49.1115 | 4911.15 |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 158194 | 16.1867 | 1618.66 |
| 130 | Ethyl Acetate | 43 | 3.653 | 3.649 | (0.875) | 79929 | 16.6331 | 1663.30 |
| 134 | Cyclohexanone | 55 | 8.646 | 8.642 | (0.895) | 57876 | 314.559 | 31455.88(a) |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 25410 | 15.4884 | 1548.83 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 43366 | | (a) |
| 188 | Isopropyl acetate | 43 | 4.672 | 4.669 | (0.941) | 229100 | 16.9222 | 1692.22 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.455 | 8.451 (1.103) | 148175 | 15.9421 | 1594.20 |
| 189 n-Butyl acetate | 43 | 7.214 | 7.210 (0.941) | 126654 | 18.4973 | 1849.72 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 77657 | 343.081 | 34308.07 |
| 195 Methyl Amyl Ketone | 43 | 8.384 | 8.380 | (1.093) | 166173 | 15.6801 | 1568.01 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 169858 | 15.7453 | 1574.52 |
| 168 1-Propanol | 59 | 3.000 | 2.993 | (0.719) | 29960 | 297.689 | 29768.93 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).




Data File: \\NAHSTMS005\Target\chem\voa6.i\X230124.b\X012432.D
Date : 24-JAN-2023 18:44
Client ID: HS230109B6-05MSD
Sample Info: HS230109B6-05MSD;HS230109B6-05MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012432.D
Inj Date  : 24-JAN-2023 18:44
InstruID  : voa6.i
LabSampID : HS23010986-05MSD

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012433.D  Page 1
Report Date: 09-Feb-2023 13:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012433.D
Lab Smp Id: CCV-END  Client Smp ID: CCV-END
Inj Date  : 24-JAN-2023 19:05
Operator  : PC  Inst ID: voa6.i
Smp Info  : CCV-END;CCV-END;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230124.b\8260W.m
Meth Date : 09-Feb-2023 13:42 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 32  Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 503782 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 155587 | 50.0000 | 44.20 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 209947 | 50.0000 | 46.23 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 274093 | 500.000 | 533.21 |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 213553 | 50.0000 | 48.52 |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 153086 | 50.0000 | 46.13 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 140773 | 50.0000 | 45.95 |
| 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 339865 | 50.0000 | 55.18 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 33743 | 100.000 | 97.99 |
| 10 Acetone | 43 | 1.966 | 1.966 | (0.471) | 139467 | 100.000 | 98.66 |
| 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 190648 | 50.0000 | 49.86 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 642833 | 1000.00 | 1134.45 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 264439 | 500.000 | 576.74 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 469871 | 50.0000 | 53.80 |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 490438 | 100.000 | 97.51 |
| 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 145809 | 100.000 | 112.43 |
| 17 Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 241058 | 50.0000 | 45.96 |
| 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.605) | 651878 | 50.0000 | 52.08 |
| 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 1016362 | 100.000 | 101.59 |
| 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 217769 | 50.0000 | 50.89 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.716) | 1095602 | 100.000 | 99.72 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 372985 | 50.0000 | 49.66 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230124.b\X012433.D Page 2
Report Date: 09-Feb-2023 13:42

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 23 | Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 83627 | 50.0000 | 48.82(M) |
| 24 | 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 158138 | 100.000 | 105.30 |
| 25 | Methacrylonitrile | 41 | 3.814 | 3.814 | (0.913) | 191557 | 50.0000 | 53.69(a) |
| 26 | 2,2-Dichloropropane | 77 | 3.503 | 3.503 | (0.839) | 311773 | 50.0000 | 48.89 |
| 27 | cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.843) | 254424 | 50.0000 | 48.85 |
| 28 | Chloroform | 83 | 3.900 | 3.900 | (0.934) | 430391 | 50.0000 | 51.13 |
| 29 | Bromochloromethane | 128 | 3.791 | 3.791 | (0.908) | 133040 | 50.0000 | 46.65 |
| $ 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 241236 | 50.0000 | 49.86 |
| 31 | 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 373247 | 50.0000 | 55.88 |
| 32 | 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 313963 | 50.0000 | 56.63 |
| 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 339174 | 50.0000 | 53.01 |
| 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 318093 | 50.0000 | 53.72 |
| $ 35 | 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 276867 | 50.0000 | 54.20 |
| * 36 | 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 780908 | 50.0000 | |
| 37 | Benzene | 78 | 4.507 | 4.507 | (0.909) | 928937 | 50.0000 | 49.81 |
| 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 282221 | 50.0000 | 53.35 |
| 39 | Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 338735 | 50.0000 | 48.40 |
| 40 | Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 200840 | 50.0000 | 58.46 |
| 41 | 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.218) | 217478 | 100.000 | 109.22 |
| 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 238077 | 50.0000 | 47.99 |
| 43 | 2-Nitropropane | 43 | 5.966 | 5.966 | (1.428) | 72632 | 50.0000 | 57.09 |
| 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.119) | 162130 | 50.0000 | 48.08 |
| 45 | 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 412674 | 100.000 | 102.70 |
| 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 403901 | 50.0000 | 49.14 |
| * 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 751713 | 50.0000 | |
| $ 48 | Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 897577 | 50.0000 | 48.32 |
| 49 | Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 200213 | 50.0000 | 54.44 |
| 50 | Toluene | 91 | 6.446 | 6.446 | (0.841) | 1040120 | 50.0000 | 50.05 |
| 51 | trans-1,3-Dichloropropene | 75 | 6.678 | 6.678 | (1.346) | 348574 | 50.0000 | 51.10 |
| 52 | 2-Hexanone | 43 | 7.083 | 7.083 | (0.924) | 288329 | 100.000 | 105.47 |
| 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 197286 | 50.0000 | 47.32 |
| 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 396598 | 50.0000 | 48.33 |
| 55 | Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 290272 | 50.0000 | 48.24 |
| 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 231192 | 50.0000 | 53.77 |
| 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 256750 | 50.0000 | 49.26 |
| 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 220382 | 50.0000 | 58.39 |
| 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 707893 | 50.0000 | 48.03 |
| 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.773 | (1.014) | 270655 | 50.0000 | 49.34 |
| 61 | Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 370235 | 50.0000 | 53.33 |
| 62 | m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 933389 | 100.000 | 104.29 |
| 63 | o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 445953 | 50.0000 | 50.48 |
| 64 | Styrene | 104 | 8.260 | 8.260 | (1.077) | 773042 | 50.0000 | 52.21 |
| 66 | Bromoform | 173 | 8.410 | 8.410 | (1.097) | 202668 | 50.0000 | 48.62 |
| 67 | Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 1165982 | 50.0000 | 57.78 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 312718 | 50.0000 | 44.80 |
| $ 69 | 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 352722 | 50.0000 | 50.80 |
| * 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 437932 | 50.0000 | |
| 71 | 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 345607 | 50.0000 | 70.92 |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.890 | (1.159) | 83894 | 50.0000 | 51.69 |
| 73 | n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1367431 | 50.0000 | 56.37 |
| 74 | Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 343000 | 50.0000 | 47.73 |
| 75 | 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1005922 | 50.0000 | 56.13 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 831166 | 50.0000 | 52.21 |
| 77 | 4-Chlorotoluene | 91 | 9.070 | 9.070 (0.939) | 974416 | 50.0000 | 53.69 |

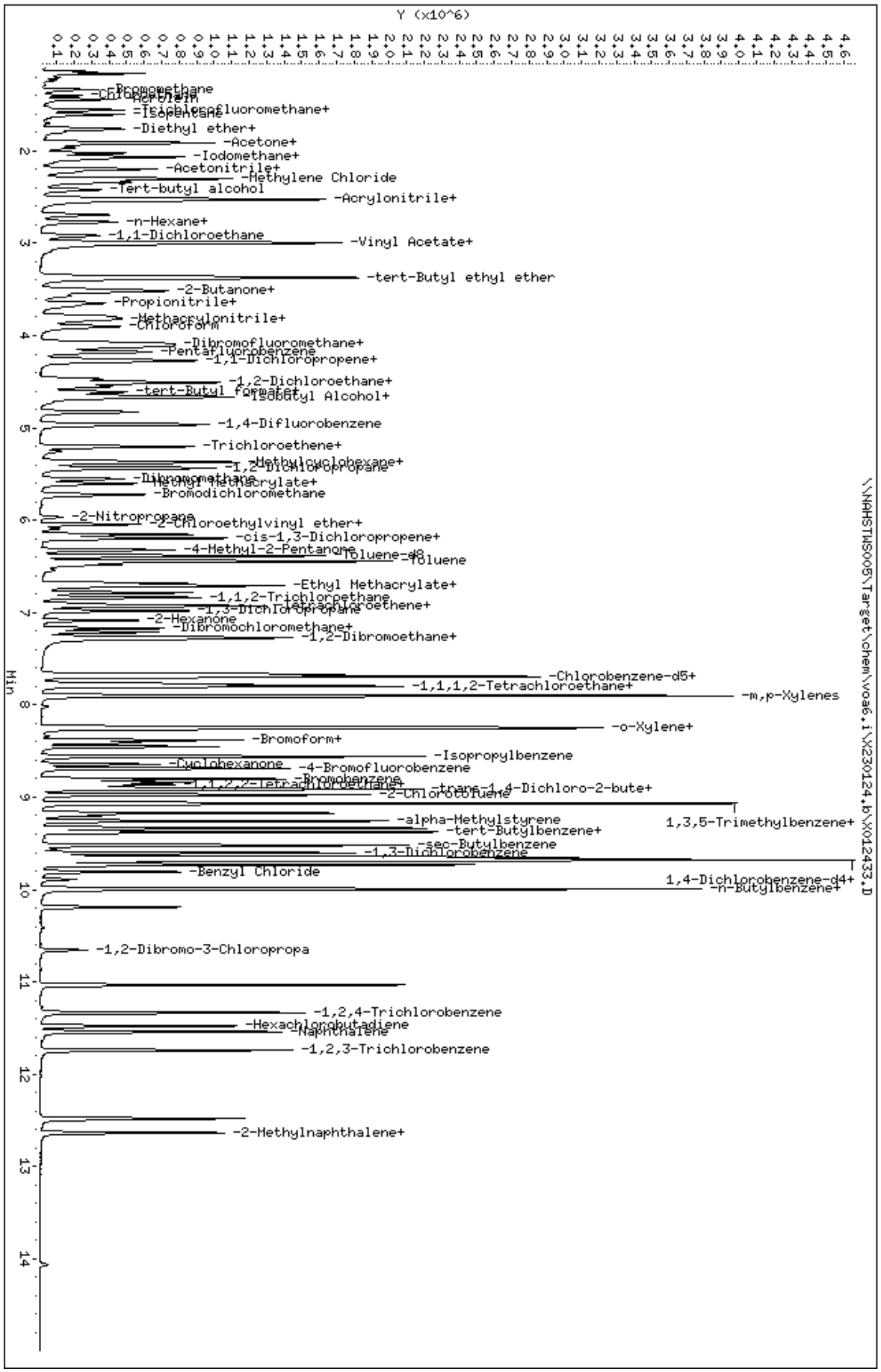
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 844813 | 50.0000 | 57.59 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 1012381 | 50.0000 | 53.69 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1186719 | 50.0000 | 60.80 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 1049404 | 50.0000 | 60.00 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 608094 | 50.0000 | 50.99 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 643687 | 50.0000 | 49.46 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 451031 | 50.0000 | 38.96 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 921964 | 50.0000 | 54.53 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 610219 | 50.0000 | 49.68 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 54384 | 50.0000 | 48.73 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 424924 | 50.0000 | 54.82 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 186823 | 50.0000 | 54.33 |
| 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 928291 | 50.0000 | 52.63 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.215) | 395312 | 50.0000 | 53.25 |
| 146 | Methyl acetate | 43 | 2.225 | 2.225 | (0.533) | 121601 | 50.0000 | 53.64 |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.457) | 199808 | 50.0000 | 54.03 |
| 141 | Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 307059 | 50.0000 | 60.20 |
| 142 | Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 67162 | 100.000 | 107.46 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.377 | (1.084) | 573848 | 50.0000 | 60.03 |
| 135 | 1,4-Dioxane | 88 | 5.595 | 5.595 | (1.339) | 54529 | 1000.00 | 1184.10 |
| 132 | n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 68388 | 1000.00 | 1055.84 |
| 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 232484 | 50.0000 | 67.97 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.377 | (1.287) | 573848 | 50.0000 | 57.83 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 206505 | 50.0000 | 56.93 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 157362 | 50.0000 | 46.74 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.423 | (0.580) | 388001 | 1000.00 | 1112.27 |
| 149 | Isopropyl alcohol | 45 | 2.086 | 2.086 | (0.499) | 209841 | 1000.00 | 1151.84 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.997 | (0.717) | 693396 | 50.0000 | 53.05 |
| 160 | 2-Methylnaphthalene | 142 | 12.635 | 12.635 | (1.308) | 435417 | 50.0000 | 51.24 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 1120380 | 50.0000 | 53.12 |
| 167 | Ethanol | 45 | 1.696 | 1.696 | (0.406) | 35439 | 1000.00 | 1080.10 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.104) | 301899 | 100.000 | 112.93 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 387089 | 1000.00 | 1088.35 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.116) | 760202 | 50.0000 | 52.34 |
| 175 | tert-Butyl ethyl ether | 59 | 3.372 | 3.372 | (0.807) | 726073 | 50.0000 | 52.28 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.104) | 301899 | 1000.00 | 1115.80 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 737901 | 1000.00 | 998.35 |
| 180 | 1-Methylnaphthalene | 142 | 12.635 | 12.635 | (1.308) | 435417 | 50.0000 | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 165206 | 50.0000 | 47.78 |
| 152 | Amyl alcohol | 42 | 6.903 | 6.903 | (0.900) | 80519 | 1000.00 | 1083.20 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 33117 | 50.0000 | 50.76 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 30911 | 100.000 | 97.57 |
| 161 | 3-Methyl-1-butanol | 55 | 6.899 | 6.899 | (0.900) | 82085 | 1000.00 | 1104.47 |
| 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 533492 | 50.0000 | 54.33 |
| 182 | Epichlorohydrin | 57 | 6.093 | 6.093 | (1.228) | 73843 | 200.000 | 211.00 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 472193 | 100.000 | (a) |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 476649 | 50.0000 | 49.12 |
| 130 | Ethyl Acetate | 43 | 3.653 | 3.653 | (0.874) | 210655 | 50.0000 | 53.58 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 218179 | 1000.00 | 1194.33 |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 72921 | 50.0000 | 54.33 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 130208 | 50.0000 | (a) |
| 188 | Isopropyl acetate | 43 | 4.672 | 4.672 | (0.942) | 642833 | 50.0000 | 52.98 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 432768 | 50.0000 | 49.37 |
| 189 n-Butyl acetate | 43 | 7.210 | 7.210 (0.940) | 362030 | 50.0000 | 56.06 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 206505 | 1000.00 | 1115.23 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 79653 | 200.000 | 255.37 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 525143 | 50.0000 | 52.54 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 520675 | 50.0000 | 51.17 |
| 168 1-Propanol | 59 | 2.997 | 2.997 | (0.717) | 80072 | 1000.00 | 972.56 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X230124.b\X012433.D
Date : 24-JAN-2023 19:05
Client ID: CCV-END
Sample Info: CCV-END,CCV-END,2,,
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

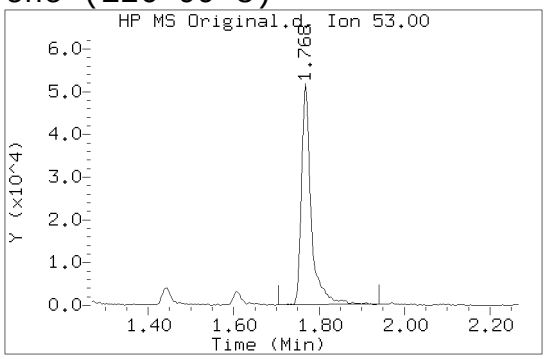
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Inj Date : 24-JAN-2023 19:05
InstruID : voa6.i
LabSampID : CCV-END

Chloroprene (126-99-8)

Reason Code:

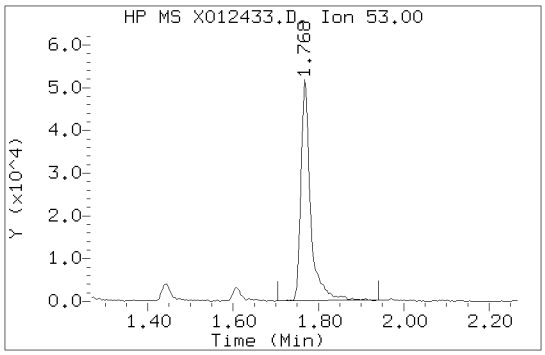
BEFORE

MASS
53
AREA
83627
HEIGHT
51683
03-Feb-2023
10:50
linh
pham



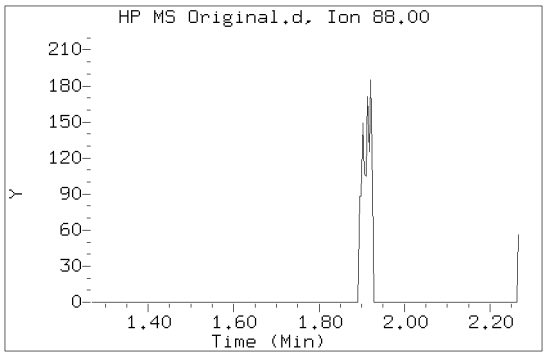

AFTER

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AREA
83627
HEIGHT
51683
09-Feb-2023
13:42



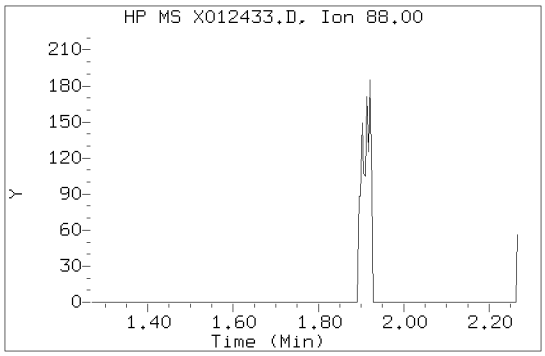

BEFORE

MASS
88
AREA
0
HEIGHT
0
03-Feb-2023
10:50
linh
pham




AFTER

MASS
88
AREA
0
HEIGHT
0
09-Feb-2023
13:42



right solutions.
right partner.

# Raw Data VOA6 426481

## Volatiles by  by EPA 8260

Workorder

HS23010991

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\nahstws005\Target\chem\voa6.i\X230125.b\X012501.D  Page 1
Report Date: 25-Jan-2023 08:05

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X230125.b\X012501.D
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Inj Date  : 25-JAN-2023 07:18
Operator  : FT  Inst ID: voa6.i
Smp Info  : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\nahstws005\Target\chem\voa6.i\X230125.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham  Quant Type: ISTD
Cal Date  :  Cal File:
Als bottle: 1  QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: all.sub
Target Version:  4.14  Sample Matrix: WATER
Processing Host: NAHSTW7066

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vf | 1.000 | Volumetric correction factor |
| Vi | 2.000 | Injection Volume |
| Cpnd Variable | | Local Compound Variable |

| | | | | | CONCENTRATIONS ON-COL ( ug/L) | CONCENTRATIONS FINAL ( ug/l) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | | CAS #: 460-00-4 | |
| 8.687 | 8.889 | ( 0.000) | 95 | 177600 | | | 0.00- 100.00 | 100.00 |
| 8.687 | 8.889 | ( 0.000) | 50 | 33896 | | | 15.00- 40.00 | 19.09 |
| 8.687 | 8.889 | ( 0.000) | 75 | 90328 | | | 30.00- 60.00 | 50.86 |
| 8.687 | 8.889 | ( 0.000) | 96 | 12967 | | | 5.00- 9.00 | 7.30 |
| 8.687 | 8.889 | ( 0.000) | 173 | 1382 | | | 0.00- 2.00 | 0.92 |
| 8.687 | 8.889 | ( 0.000) | 174 | 149824 | | | 50.00- 0.00 | 84.36 |
| 8.687 | 8.889 | ( 0.000) | 175 | 10828 | | | 5.00- 9.00 | 7.23 |
| 8.687 | 8.889 | ( 0.000) | 176 | 146240 | | | 95.00- 101.00 | 97.61 |
| 8.687 | 8.889 | ( 0.000) | 177 | 9470 | | | 5.00- 9.00 | 6.48 |

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| | | |
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 19.09 |
| 75 | 30.00 - 60.00% of mass 95 | 50.86 |
| 96 | 5.00 - 9.00% of mass 95 | 7.30 |
| 173 | Less than 2.00% of mass 174 | 0.78 ( 0.92) |
| 174 | Greater than 50.00% of mass 95 | 84.36 |
| 175 | 5.00 - 9.00% of mass 174 | 6.10 ( 7.23) |
| 176 | 95.00 - 101.00% of mass 174 | 82.34 ( 97.61) |
| 177 | 5.00 - 9.00% of mass 176 | 5.33 ( 6.48) |

Data File: X012501.D
Spectrum: Scan 2159 ( 8.68)
Location of Maximum: 95.00
Number of points: 119

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 2253 | 66.00 | 174 | 99.10 | 245 | 141.90 | 248 |
| 37.00 | 9333 | 67.00 | 577 | 103.00 | 121 | 142.90 | 2055 |
| 38.00 | 8745 | 68.00 | 17944 | 103.90 | 773 | 144.00 | 77 |
| 39.00 | 4614 | 69.00 | 19064 | 105.00 | 707 | 144.70 | 115 |
| 40.00 | 1694 | 70.00 | 2308 | 105.90 | 1053 | 146.00 | 246 |
| 41.10 | 1835 | 70.90 | 286 | 106.90 | 427 | 147.00 | 182 |
| 42.00 | 2387 | 72.00 | 811 | 108.80 | 285 | 147.80 | 464 |
| 42.90 | 1385 | 73.00 | 8213 | 109.80 | 75 | 148.60 | 136 |
| 44.00 | 2114 | 74.00 | 30976 | 110.70 | 192 | 149.70 | 208 |
| 45.00 | 1992 | 75.00 | 90328 | 111.80 | 142 | 151.80 | 71 |
| 46.00 | 178 | 76.00 | 7743 | 112.80 | 107 | 152.90 | 79 |
| 47.00 | 1843 | 77.10 | 1385 | 115.00 | 315 | 153.80 | 136 |
| 47.90 | 1119 | 77.90 | 856 | 115.80 | 659 | 154.80 | 627 |
| 49.00 | 7069 | 78.90 | 5965 | 117.00 | 996 | 155.80 | 54 |
| 50.00 | 33896 | 80.00 | 1711 | 117.90 | 576 | 156.80 | 419 |
| 51.00 | 10700 | 80.90 | 5857 | 118.90 | 973 | 158.70 | 178 |
| 52.00 | 661 | 81.90 | 1216 | 120.10 | 99 | 160.70 | 417 |
| 52.90 | 240 | 83.00 | 488 | 123.90 | 103 | 170.00 | 91 |
| 54.10 | 239 | 84.90 | 161 | 125.00 | 124 | 170.80 | 82 |
| 55.00 | 3786 | 85.80 | 187 | 125.90 | 115 | 171.10 | 82 |
| 56.00 | 3409 | 86.90 | 7194 | 126.90 | 142 | 171.80 | 90 |
| 57.00 | 5992 | 88.00 | 6349 | 127.90 | 760 | 173.00 | 1382 |
| 58.00 | 578 | 91.00 | 928 | 128.70 | 328 | 173.90 | 149824 |
| 58.90 | 124 | 91.90 | 4866 | 129.80 | 643 | 174.90 | 10828 |
| 60.00 | 1756 | 93.00 | 7041 | 130.80 | 146 | 175.90 | 146240 |
| 61.00 | 8161 | 94.00 | 19792 | 134.70 | 192 | 176.90 | 9470 |
| 62.00 | 8719 | 95.00 | 177600 | 136.70 | 297 | 177.90 | 291 |
| 63.10 | 6615 | 96.00 | 12967 | 138.90 | 68 | 233.70 | 60 |
| 63.90 | 815 | 97.00 | 516 | 139.80 | 126 | 235.70 | 81 |
| 64.80 | 119 | 97.90 | 1674 | 140.90 | 1426 | | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012501.D Page 1

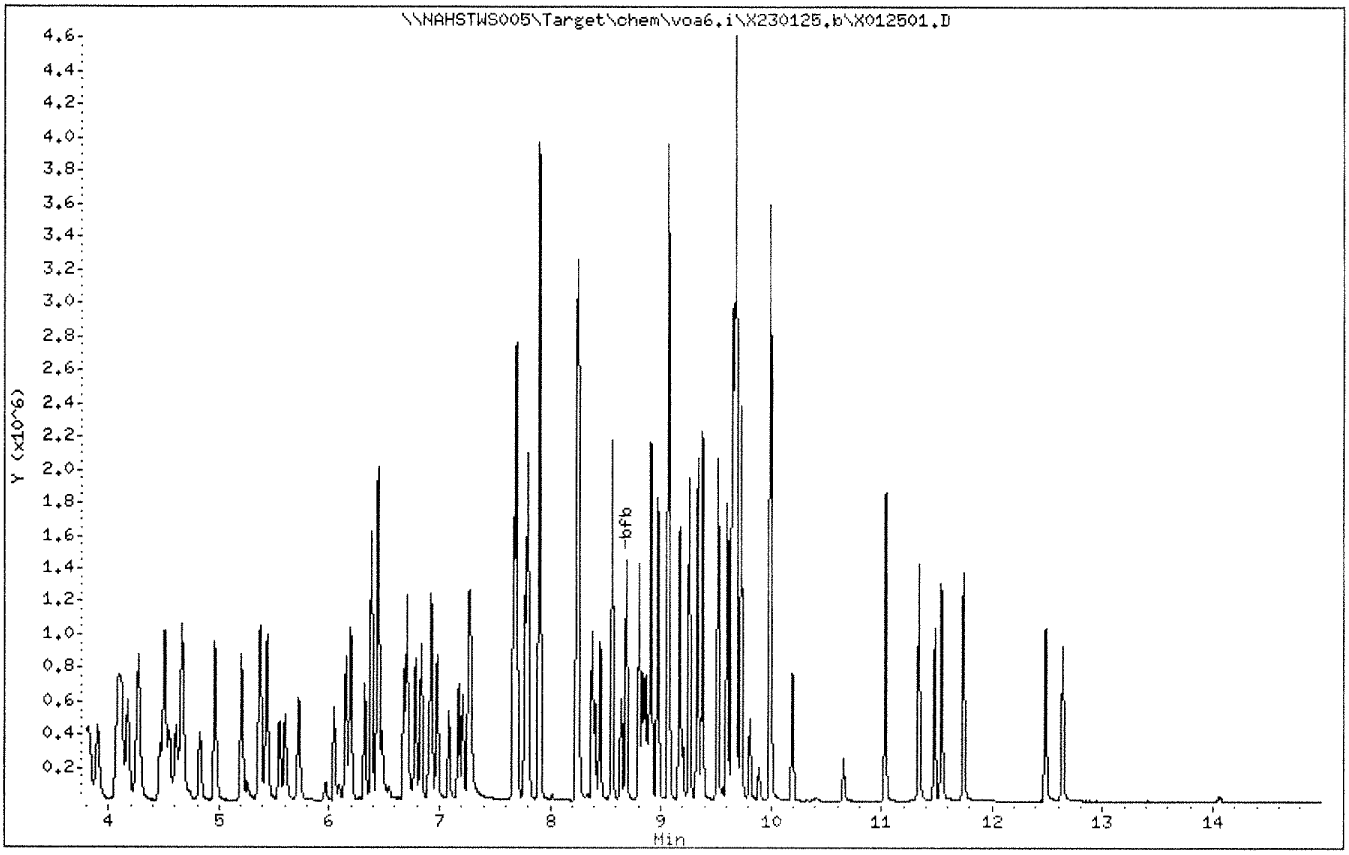
Date : 25-JAN-2023 07:18

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012501.D



Date : 25-JAN-2023 07:18

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

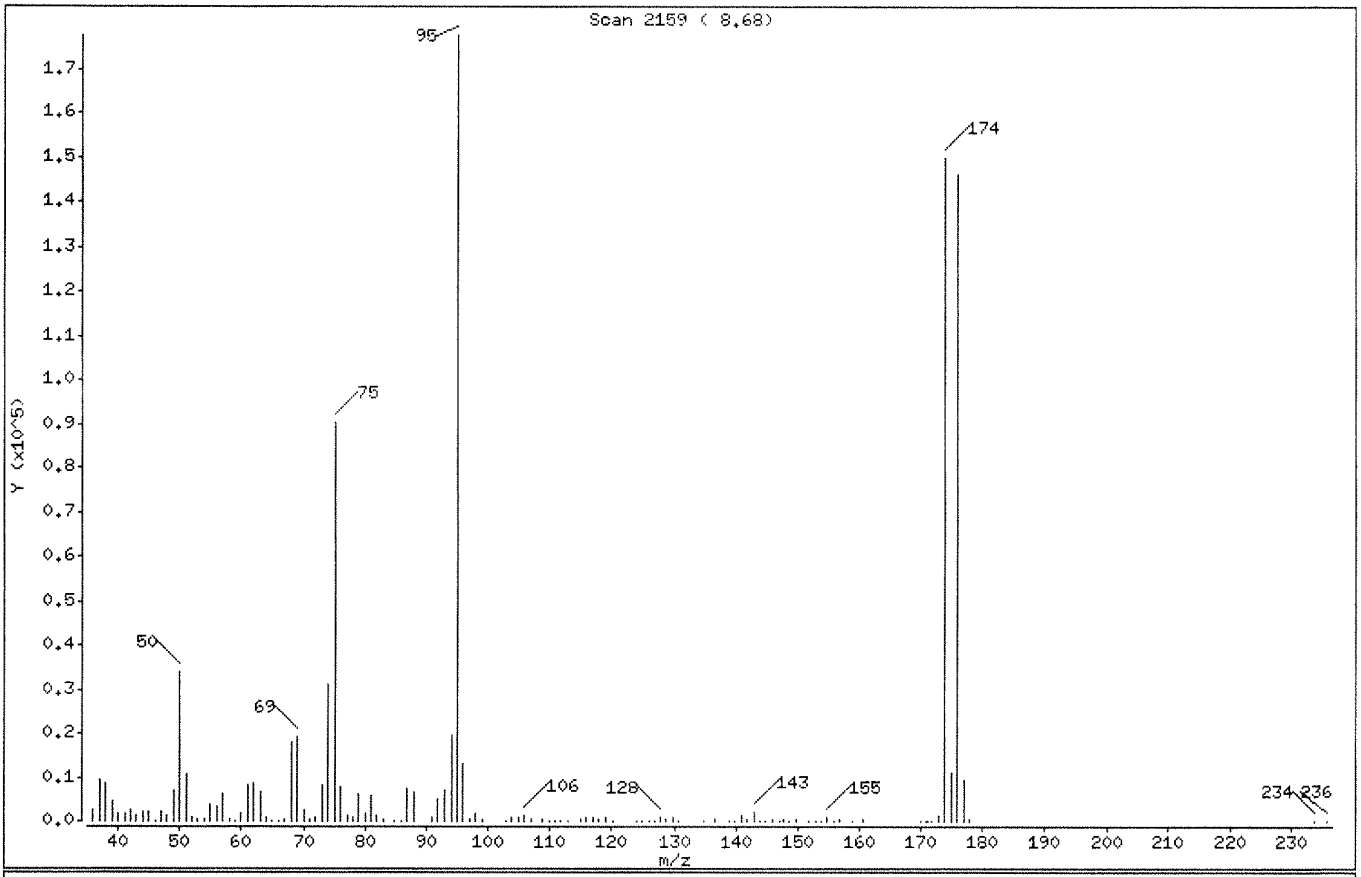
Volume Injected (uL): 2.0

Operator: FT

Column phase: DB624

Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 19.09 |
| 75 | 30.00 - 60.00% of mass 95 | 50.86 |
| 96 | 5.00 - 9.00% of mass 95 | 7.30 |
| 173 | Less than 2.00% of mass 174 | 0.78 ( 0.92) |
| 174 | Greater than 50.00% of mass 95 | 84.36 |
| 175 | 5.00 - 9.00% of mass 174 | 6.10 ( 7.23) |
| 176 | 95.00 - 101.00% of mass 174 | 82.34 ( 97.61) |
| 177 | 5.00 - 9.00% of mass 176 | 5.33 ( 6.48) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012501.D Page 3

Date : 25-JAN-2023 07:18

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25

Data File: X012501.D
Spectrum: Scan 2159 ( 8.68)
Location of Maximum: 95.00
Number of points: 119

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 2253 | 66.00 | 174 | 99.10 | 245 | 141.90 | 248 |
| 37.00 | 9333 | 67.00 | 577 | 103.00 | 121 | 142.90 | 2055 |
| 38.00 | 8745 | 68.00 | 17944 | 103.90 | 773 | 144.00 | 77 |
| 39.00 | 4614 | 69.00 | 19064 | 105.00 | 707 | 144.70 | 115 |
| 40.00 | 1694 | 70.00 | 2308 | 105.90 | 1053 | 146.00 | 246 |
| 41.10 | 1835 | 70.90 | 286 | 106.90 | 427 | 147.00 | 182 |
| 42.00 | 2387 | 72.00 | 811 | 108.80 | 285 | 147.80 | 464 |
| 42.90 | 1385 | 73.00 | 8213 | 109.80 | 75 | 148.60 | 136 |
| 44.00 | 2114 | 74.00 | 30976 | 110.70 | 192 | 149.70 | 208 |
| 45.00 | 1992 | 75.00 | 90328 | 111.80 | 142 | 151.80 | 71 |
| 46.00 | 178 | 76.00 | 7743 | 112.80 | 107 | 152.90 | 79 |
| 47.00 | 1843 | 77.10 | 1385 | 115.00 | 315 | 153.80 | 136 |
| 47.90 | 1119 | 77.90 | 856 | 115.80 | 659 | 154.80 | 627 |
| 49.00 | 7069 | 78.90 | 5965 | 117.00 | 996 | 155.80 | 54 |
| 50.00 | 33896 | 80.00 | 1711 | 117.90 | 576 | 156.80 | 419 |
| 51.00 | 10700 | 80.90 | 5857 | 118.90 | 973 | 158.70 | 178 |
| 52.00 | 661 | 81.90 | 1216 | 120.10 | 99 | 160.70 | 417 |
| 52.90 | 240 | 83.00 | 488 | 123.90 | 103 | 170.00 | 91 |
| 54.10 | 239 | 84.90 | 161 | 125.00 | 124 | 170.80 | 82 |
| 55.00 | 3786 | 85.80 | 187 | 125.90 | 115 | 171.10 | 82 |
| 56.00 | 3409 | 86.90 | 7194 | 126.90 | 142 | 171.80 | 90 |
| 57.00 | 5992 | 88.00 | 6349 | 127.90 | 760 | 173.00 | 1382 |
| 58.00 | 578 | 91.00 | 928 | 128.70 | 328 | 173.90 | 149824 |
| 58.90 | 124 | 91.90 | 4866 | 129.80 | 643 | 174.90 | 10828 |
| 60.00 | 1756 | 93.00 | 7041 | 130.80 | 146 | 175.90 | 146240 |
| 61.00 | 8161 | 94.00 | 19792 | 134.70 | 192 | 176.90 | 9470 |
| 62.00 | 8719 | 95.00 | 177600 | 136.70 | 297 | 177.90 | 291 |
| 63.10 | 6615 | 96.00 | 12967 | 138.90 | 68 | 233.70 | 60 |
| 63.90 | 815 | 97.00 | 516 | 139.80 | 126 | 235.70 | 81 |
| 64.80 | 119 | 97.90 | 1674 | 140.90 | 1426 | | |

Data File : \\nahstws005\Target\chem\voa6.i\X230125.b\X012501.D
Inj Date  : 25-JAN-2023 07:18
InstruID  : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012502.D  Page 1
Report Date: 03-Feb-2023 10:54

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012502.D
Lab Smp Id: CCV  Client Smp ID: CCV
Inj Date  : 25-JAN-2023 07:39
Operator  : FT  Inst ID: voa6.i
Smp Info  : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\8260W.m
Meth Date : 03-Feb-2023 10:54 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 2  Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 518521 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 155523 | 50.0000 | 42.94 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 204825 | 50.0000 | 43.94 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 262037 | 500.000 | 495.27 |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 212431 | 50.0000 | 46.89 |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 144856 | 50.0000 | 42.55 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 138239 | 50.0000 | 43.84 |
| 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 345506 | 50.0000 | 54.50 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 34347 | 100.000 | 96.94 |
| 10 Acetone | 43 | 1.966 | 1.966 | (0.471) | 136741 | 100.000 | 93.98 |
| 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 192302 | 50.0000 | 48.86 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 627349 | 1000.00 | 1075.66 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 262169 | 500.000 | 555.53 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 452650 | 50.0000 | 50.36 |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 504847 | 100.000 | 97.52 |
| 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 141286 | 100.000 | 105.85 |
| 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 239078 | 50.0000 | 44.29 |
| 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.605) | 625481 | 50.0000 | 48.55 |
| 19 Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 1039906 | 100.000 | 100.99 |
| 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 220813 | 50.0000 | 50.13 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.716) | 1213272 | 100.000 | 107.29 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 376145 | 50.0000 | 48.66 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 83955 | 50.0000 | 47.61(M) |
| | 24 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 157641 | 100.000 | 102.08 |
| | 25 Methacrylonitrile | 41 | 3.814 | 3.814 | (0.913) | 182615 | 50.0000 | 49.73(a) |
| | 26 2,2-Dichloropropane | 77 | 3.503 | 3.503 | (0.839) | 361772 | 50.0000 | 55.12 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.518 | 3.518 | (0.842) | 254143 | 50.0000 | 47.41 |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 431364 | 50.0000 | 49.79 |
| | 29 Bromochloromethane | 128 | 3.791 | 3.791 | (0.908) | 131464 | 50.0000 | 44.79 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 243385 | 50.0000 | 48.88 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 378394 | 50.0000 | 55.04 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 317381 | 50.0000 | 58.77(M) |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 337549 | 50.0000 | 54.16 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 322670 | 50.0000 | 55.95 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 277015 | 50.0000 | 52.69 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 760669 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.909) | 933643 | 50.0000 | 51.39 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 276303 | 50.0000 | 53.62 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 339233 | 50.0000 | 49.76 |
| | 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 189231 | 50.0000 | 53.52 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.218) | 215903 | 100.000 | 111.32 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 237004 | 50.0000 | 49.04 |
| | 43 2-Nitropropane | 43 | 5.966 | 5.966 | (1.428) | 70071 | 50.0000 | 53.51 |
| | 44 Dibromomethane | 93 | 5.550 | 5.550 | (1.119) | 159966 | 50.0000 | 48.70 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 408675 | 100.000 | 104.20 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 414815 | 50.0000 | 51.81 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 733760 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 899442 | 50.0000 | 49.60 |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 185118 | 50.0000 | 51.67 |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 1040804 | 50.0000 | 51.31 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.347) | 359516 | 50.0000 | 54.11 |
| | 52 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 283240 | 100.000 | 106.14 |
| | 53 1,1,2-Trichloroethane | 83 | 6.835 | 6.835 | (0.891) | 195678 | 50.0000 | 48.09 |
| | 54 1,3-Dichloropropane | 76 | 6.978 | 6.978 | (0.910) | 396641 | 50.0000 | 49.52 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 289849 | 50.0000 | 49.35 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 239078 | 50.0000 | 56.97 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 257178 | 50.0000 | 50.55 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 216487 | 50.0000 | 58.89(M) |
| | 59 Chlorobenzene | 112 | 7.690 | 7.690 | (1.003) | 716434 | 50.0000 | 49.80 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 271898 | 50.0000 | 50.78 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 374972 | 50.0000 | 55.33 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 944872 | 100.000 | 108.16 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 450159 | 50.0000 | 52.21 |
| | 64 Styrene | 104 | 8.256 | 8.256 | (1.077) | 780573 | 50.0000 | 54.01 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 201206 | 50.0000 | 49.45 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 1175500 | 50.0000 | 59.67 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 319045 | 50.0000 | 47.31 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 355286 | 50.0000 | 52.41 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 423046 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 241260 | 50.0000 | 51.25(M) |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.886 | 8.886 | (1.159) | 86551 | 50.0000 | 54.64 |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1402243 | 50.0000 | 59.84 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 346006 | 50.0000 | 49.85 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1018794 | 50.0000 | 58.85 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 845832 | 50.0000 | 55.00 |
| 77 | 4-Chlorotoluene | 91 | 9.070 | 9.070 (0.939) | 985999 | 50.0000 | 56.24 |

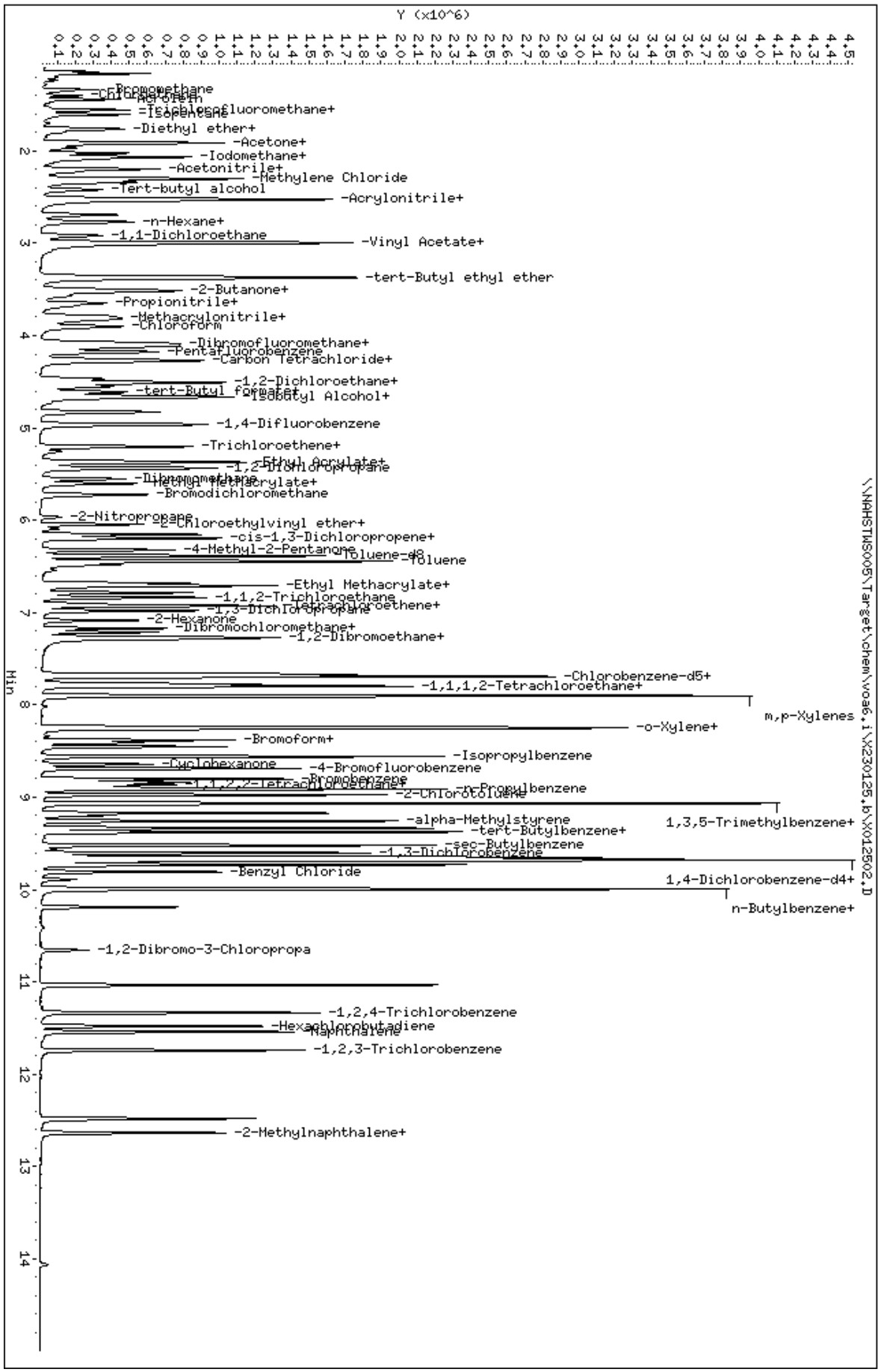
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 857670 | 50.0000 | 60.52 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 1031275 | 50.0000 | 56.61 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1219683 | 50.0000 | 64.69 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 1079764 | 50.0000 | 63.91 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.602 | 9.602 | (0.994) | 616324 | 50.0000 | 53.50 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 653904 | 50.0000 | 52.01 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 577645 | 50.0000 | 50.28 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 972004 | 50.0000 | 59.35 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 608551 | 50.0000 | 51.29 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 54578 | 50.0000 | 50.62 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 441529 | 50.0000 | 58.96 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 207290 | 50.0000 | 62.29 |
| 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 930814 | 50.0000 | 54.63 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.215) | 394678 | 50.0000 | 55.03 |
| 146 | Methyl acetate | 43 | 2.225 | 2.225 | (0.533) | 116654 | 50.0000 | 49.99 |
| 138 | Freon TF | 101 | 1.913 | 1.913 | (0.458) | 208429 | 50.0000 | 54.75 |
| 141 | Cyclohexane | 56 | 4.118 | 4.118 | (0.986) | 313337 | 50.0000 | 59.69 |
| 142 | Tetrahydrofuran | 42 | 3.836 | 3.836 | (0.918) | 60342 | 100.000 | 93.40 |
| 147 | Methylcyclohexane | 55 | 5.373 | 5.373 | (1.083) | 553206 | 50.0000 | 59.41(M) |
| 135 | 1,4-Dioxane | 88 | 5.595 | 5.595 | (1.339) | 51276 | 1000.00 | 1081.81 |
| 132 | n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 66754 | 1000.00 | 1006.06 |
| 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 222447 | 50.0000 | 63.18 |
| 133 | Ethyl Acrylate | 55 | 5.373 | 5.373 | (1.286) | 568929 | 50.0000 | 55.77 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 247408 | 50.0000 | 66.26 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 148169 | 50.0000 | 42.76 |
| 148 | Tert-butyl alcohol | 59 | 2.419 | 2.419 | (0.579) | 377965 | 1000.00 | 1052.70 |
| 149 | Isopropyl alcohol | 45 | 2.090 | 2.090 | (0.500) | 204601 | 1000.00 | 1091.15 |
| 156 | Diisopropyl ether | 45 | 2.993 | 2.993 | (0.716) | 669544 | 50.0000 | 49.77 |
| 160 | 2-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 431512 | 50.0000 | 52.57 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 1084628 | 50.0000 | 53.24 |
| 167 | Ethanol | 45 | 1.696 | 1.696 | (0.406) | 34024 | 1000.00 | 1007.28 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.104) | 296380 | 100.000 | 107.71 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 365985 | 1000.00 | 1054.19 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.116) | 722423 | 50.0000 | 48.33 |
| 175 | tert-Butyl ethyl ether | 59 | 3.368 | 3.368 | (0.806) | 703116 | 50.0000 | 49.19 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.104) | 296380 | 1000.00 | 1064.26 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 761954 | 1000.00 | 1058.32 |
| 180 | 1-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 431512 | 50.0000 | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 171209 | 50.0000 | 48.10 |
| 152 | Amyl alcohol | 42 | 6.903 | 6.903 | (0.900) | 74779 | 1000.00 | 1030.59 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 29038 | 50.0000 | 43.25 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.419) | 30303 | 100.000 | 92.93 |
| 161 | 3-Methyl-1-butanol | 55 | 6.903 | 6.903 | (0.900) | 81625 | 1000.00 | 1125.15 |
| 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 514604 | 50.0000 | 53.68 |
| 182 | Epichlorohydrin | 57 | 6.093 | 6.093 | (1.228) | 71930 | 200.000 | 211.00 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 474956 | 100.000 | (a) |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 485289 | 50.0000 | 51.77 |
| 130 | Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 202944 | 50.0000 | 50.15 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 209208 | 1000.00 | 1185.52 |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 72538 | 50.0000 | 52.51 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 136194 | 50.0000 | (a) |
| 188 | Isopropyl acetate | 43 | 4.672 | 4.672 | (0.942) | 627349 | 50.0000 | 53.08 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 434896 | 50.0000 | 50.82 |
| 189 n-Butyl acetate | 43 | 7.210 | 7.210 (0.940) | 351609 | 50.0000 | 55.78 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | AMOUNTS ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 247408 | 1000.00 | 1298.14 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 59193 | 200.000 | 177.91 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 500691 | 50.0000 | 51.32 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 494411 | 50.0000 | 49.78 |
| 168 1-Propanol | 59 | 2.993 | 2.993 | (0.716) | 77882 | 1000.00 | 919.07 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X230125.b\X012502.D
Date : 25-JAN-2023 07:39
Client ID: CCV
Sample Info: CCV,CCV,2,,
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

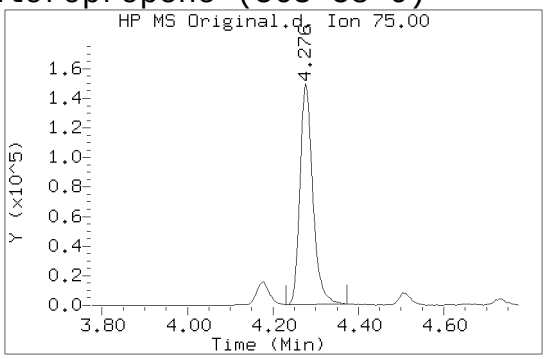
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Inj Date : 25-JAN-2023 07:39
InstruID : voa6.i
LabSampID : CCV

## 1,1-Dichloropropene (563-58-6)

Reason Code:

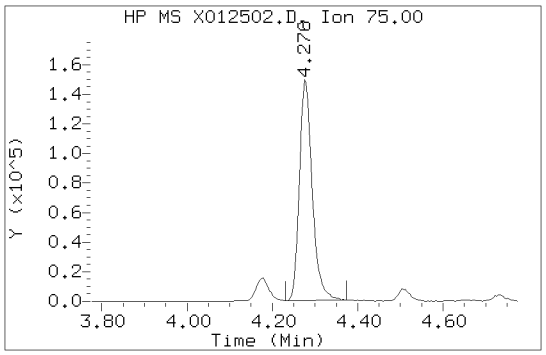
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HEIGHT
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03-Feb-2023
10:53
linh
pham



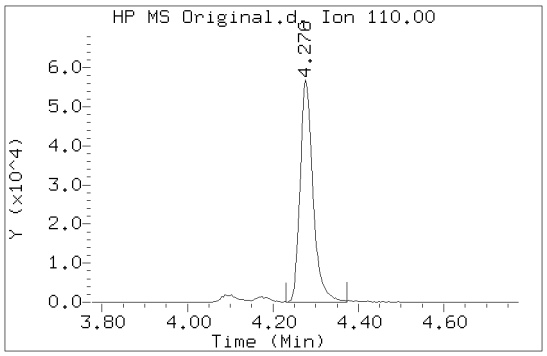

AFTER

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pham



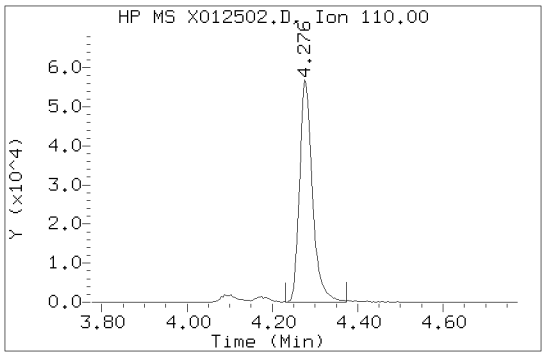

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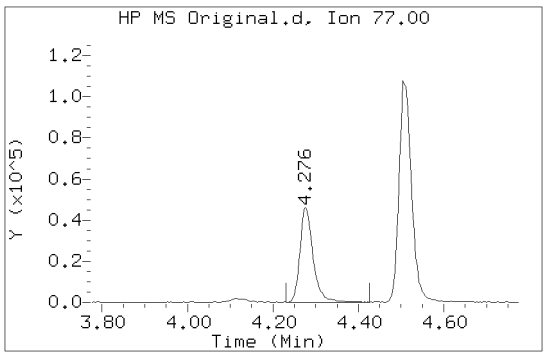

AFTER

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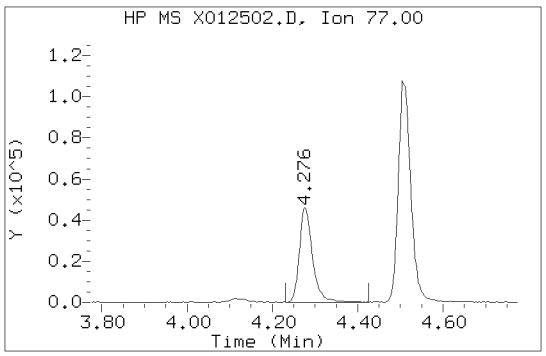

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03-Feb-2023
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AFTER

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HEIGHT
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03-Feb-2023
10:53
linh
pham

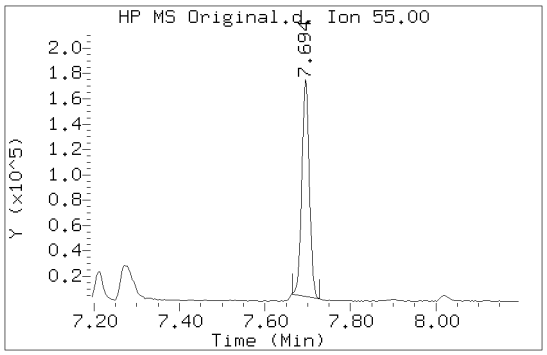



## 1-Chlorohexane (544-10-5)

Reason Code:

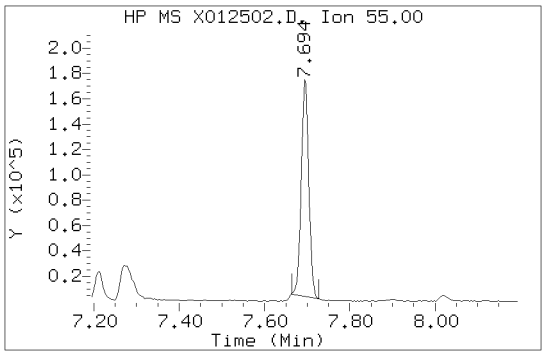
BEFORE

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HEIGHT
171036
03-Feb-2023
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AFTER

MASS
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216487
HEIGHT
171036
03-Feb-2023
10:53
linh
pham



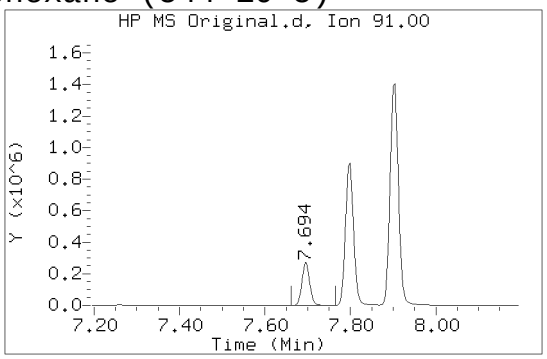
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Inj Date : 25-JAN-2023 07:39
InstruID : voa6.i
LabSampID : CCV

## 1-Chlorohexane (544-10-5)

Reason Code:

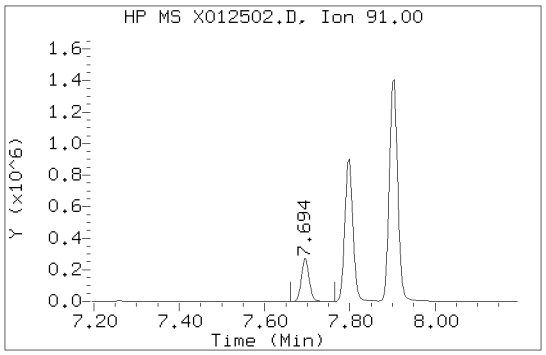
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03-Feb-2023
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AFTER

MASS
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HEIGHT
273036
03-Feb-2023
10:53
linh
pham

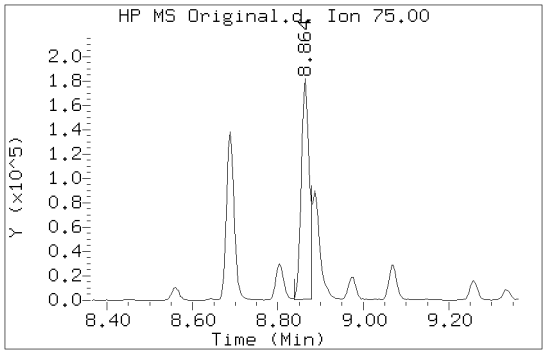



## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

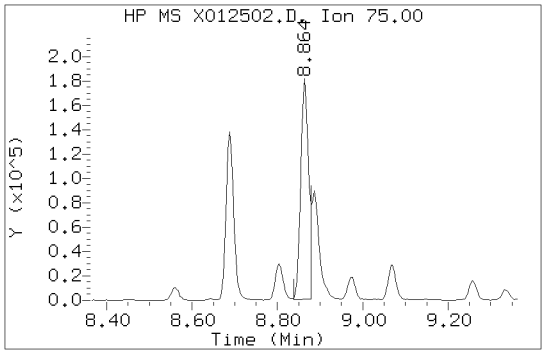
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HEIGHT
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03-Feb-2023
10:53
linh
pham



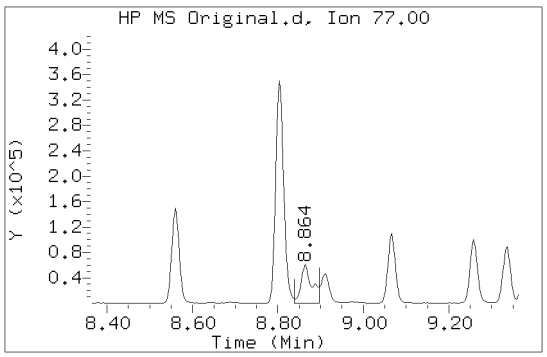

AFTER

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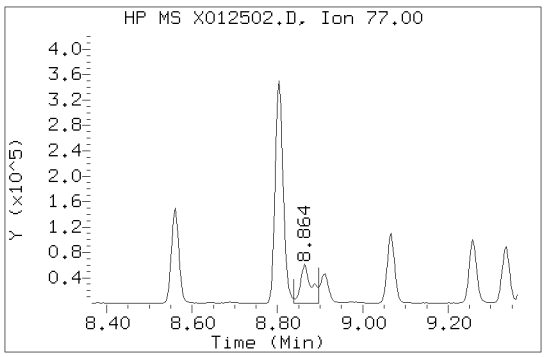

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AFTER

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03-Feb-2023
10:53
linh
pham

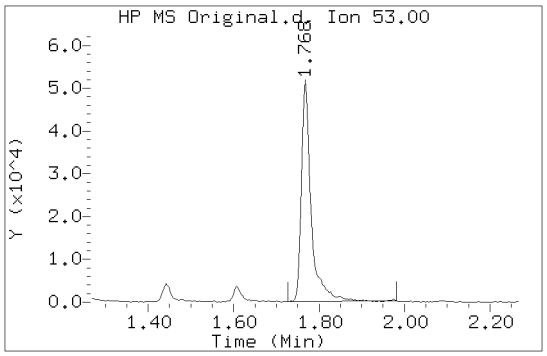



## Chloroprene (126-99-8)

Reason Code:

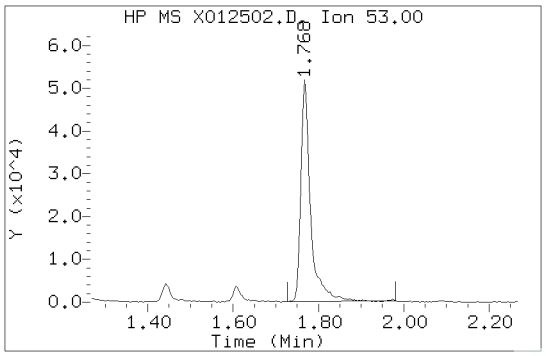
BEFORE

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HEIGHT
51795
03-Feb-2023
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AFTER

MASS
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HEIGHT
51795
03-Feb-2023
10:53
linh
pham



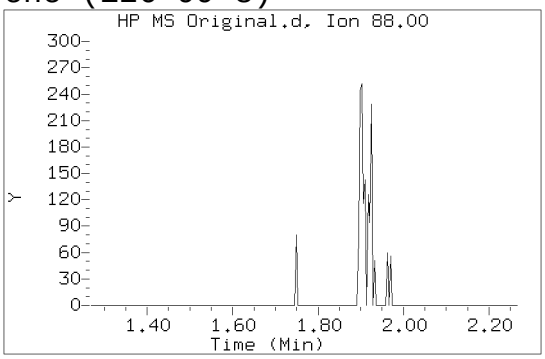
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Inj Date : 25-JAN-2023 07:39
InstruID : voa6.i
LabSampID : CCV

## Chloroprene (126-99-8)

Reason Code:

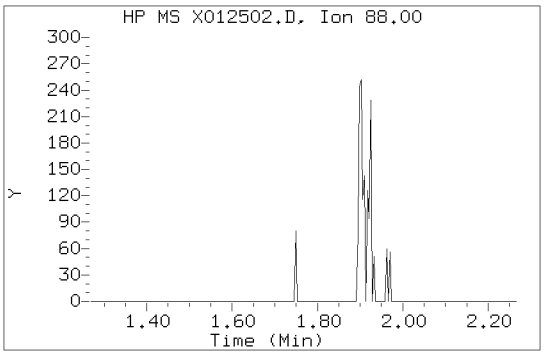
**BEFORE**

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03-Feb-2023
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pham




**AFTER**

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HEIGHT
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03-Feb-2023
10:53
linh
pham

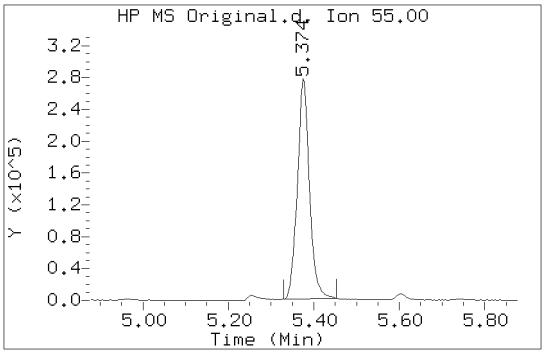



## Methylcyclohexane (108-87-2)

Reason Code:

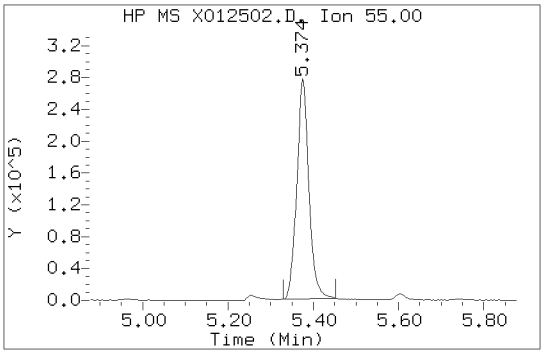
**BEFORE**

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03-Feb-2023
10:53
linh
pham



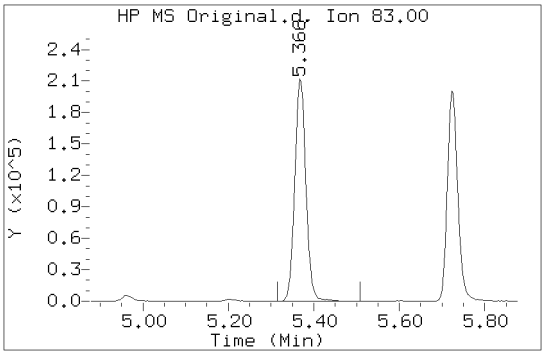

**AFTER**

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03-Feb-2023
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linh
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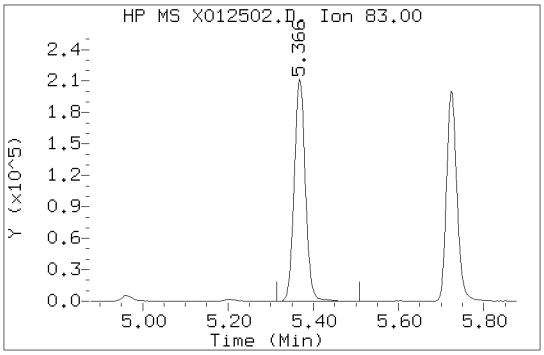

**BEFORE**

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212032
03-Feb-2023
10:53
linh
pham




**AFTER**

MASS
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HEIGHT
212032
03-Feb-2023
10:53
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012504.D  Page 1
Report Date: 03-Feb-2023 10:54

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012504.D
Lab Smp Id: VLCSW-230125  Client Smp ID: VLCSW-230125
Inj Date  : 25-JAN-2023 08:42
Operator  : FT  Inst ID: voa6.i
Smp Info  : VLCSW-230125;VLCSW-230125;3;;LCS
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\8260W.m
Meth Date : 03-Feb-2023 10:54 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 5  QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.178 | (1.000) | 500560 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 58102 | 16.8584 | 16.85 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 77964 | 18.6651 | 18.66 |
| 4 Propionitrile | 54 | 3.649 | 3.645 | (0.874) | 94823 | 185.654 | 185.65(a) |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 80772 | 18.4720 | 18.47 |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 60028 | 19.2740 | 19.27 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 53237 | 17.4919 | 17.49 |
| 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 128371 | 20.9788 | 20.97 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 11817 | 36.3667 | 36.36 |
| 10 Acetone | 43 | 1.969 | 1.966 | (0.472) | 56289 | 40.0563 | 40.05 |
| 11 1,1-Dichloroethene | 96 | 1.909 | 1.910 | (0.458) | 71528 | 18.8280 | 18.82 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.119) | 241151 | 428.317 | 428.31(a) |
| 13 Acetonitrile | 39 | 2.194 | 2.195 | (0.526) | 89588 | 196.649 | 196.64(a) |
| 14 Allyl Chloride | 41 | 2.194 | 2.195 | (0.526) | 162924 | 18.7772 | 18.77(a) |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 172604 | 37.5550 | 37.55 |
| 16 Acrylonitrile | 53 | 2.532 | 2.528 | (0.607) | 51527 | 39.9906 | 39.99 |
| 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.551) | 95857 | 18.3950 | 18.39 |
| 18 Methyl tert-butyl ether | 73 | 2.532 | 2.528 | (0.607) | 224063 | 18.0188 | 18.01 |
| 19 Carbon Disulfide | 76 | 2.067 | 2.063 | (0.495) | 385111 | 38.7450 | 38.74 |
| 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 81438 | 19.1538 | 19.15 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.717) | 454083 | 41.5984 | 41.59 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 143741 | 19.2631 | 19.26 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012504.D Page 2
Report Date: 03-Feb-2023 10:54

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 31586 | 18.5585 | 18.55(M) |
| | 24 2-Butanone | 43 | 3.581 | 3.570 | (0.858) | 56646 | 39.8975 | 39.89 |
| | 25 Methacrylonitrile | 41 | 3.825 | 3.814 | (0.916) | 67374 | 19.0086 | 19.00(a) |
| | 26 2,2-Dichloropropane | 77 | 3.503 | 3.503 | (0.839) | 133716 | 21.1054 | 21.10 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.518 | (0.844) | 90823 | 17.5525 | 17.55 |
| | 28 Chloroform | 83 | 3.904 | 3.900 | (0.935) | 159752 | 19.1011 | 19.10 |
| | 29 Bromochloromethane | 128 | 3.791 | 3.791 | (0.908) | 49642 | 17.5223 | 17.52 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 240632 | 50.0655 | 50.06 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.076 | (0.978) | 138918 | 20.9350 | 20.93 |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.275 | (0.862) | 119854 | 22.5685 | 22.56 |
| | 33 1,2-Dichloroethane | 62 | 4.556 | 4.552 | (0.918) | 123151 | 20.0935 | 20.09 |
| | 34 Carbon Tetrachloride | 117 | 4.264 | 4.260 | (0.859) | 118780 | 20.9450 | 20.94 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.466 | (1.071) | 290294 | 57.1837 | 57.18 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 748036 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.909) | 346195 | 19.3806 | 19.38 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 102547 | 20.2402 | 20.24 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 126582 | 18.8821 | 18.88 |
| | 40 Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.343) | 65230 | 19.1117 | 19.11(a) |
| | 41 2-Chloroethylvinyl ether | 63 | 6.048 | 6.044 | (1.219) | 80217 | 42.0600 | 42.05 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 88209 | 18.5639 | 18.56 |
| | 43 2-Nitropropane | 43 | 5.969 | 5.966 | (1.430) | 24703 | 19.5430 | 19.54 |
| | 44 Dibromomethane | 93 | 5.553 | 5.550 | (1.119) | 61297 | 18.9792 | 18.97 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.325 | 6.322 | (0.825) | 155646 | 41.3057 | 41.30 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 150359 | 19.0978 | 19.09 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 704985 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 902781 | 51.8224 | 51.82 |
| | 49 Ethyl Methacrylate | 69 | 6.712 | 6.708 | (1.353) | 70323 | 19.9637 | 19.96(a) |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 385056 | 19.7607 | 19.76 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.347) | 130343 | 19.9492 | 19.94 |
| | 52 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 112836 | 44.0126 | 44.01 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.835 | (0.892) | 75254 | 19.2504 | 19.25 |
| | 54 1,3-Dichloropropane | 76 | 6.981 | 6.978 | (0.911) | 148834 | 19.3426 | 19.34 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 107999 | 19.1416 | 19.14 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 87789 | 21.7745 | 21.77 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 95798 | 19.5998 | 19.59 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 74809 | 20.6940 | 20.69(M) |
| | 59 Chlorobenzene | 112 | 7.694 | 7.690 | (1.003) | 266989 | 19.3172 | 19.31 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 97688 | 18.9923 | 18.99 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 137251 | 21.0813 | 21.08 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 345150 | 41.1242 | 41.12 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 167192 | 20.1833 | 20.18 |
| | 64 Styrene | 104 | 8.260 | 8.256 | (1.077) | 279485 | 20.1294 | 20.12 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 71875 | 18.3882 | 18.38 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 432601 | 22.8585 | 22.85 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 121485 | 18.8726 | 18.87 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 348912 | 53.5785 | 53.57 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 403871 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 91194 | 20.2928 | 20.29(M) |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.889 | 8.886 | (1.159) | 31311 | 20.5738 | 20.57(a) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 508543 | 22.7324 | 22.73 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 127167 | 19.1918 | 19.19 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 369105 | 22.3347 | 22.33 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.976 | 8.972 (0.929) | 307477 | 20.9453 | 20.94 |
| 77 | 4-Chlorotoluene | 91 | 9.069 | 9.070 (0.939) | 353351 | 21.1145 | 21.11 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012504.D Page 3
Report Date: 03-Feb-2023 10:54

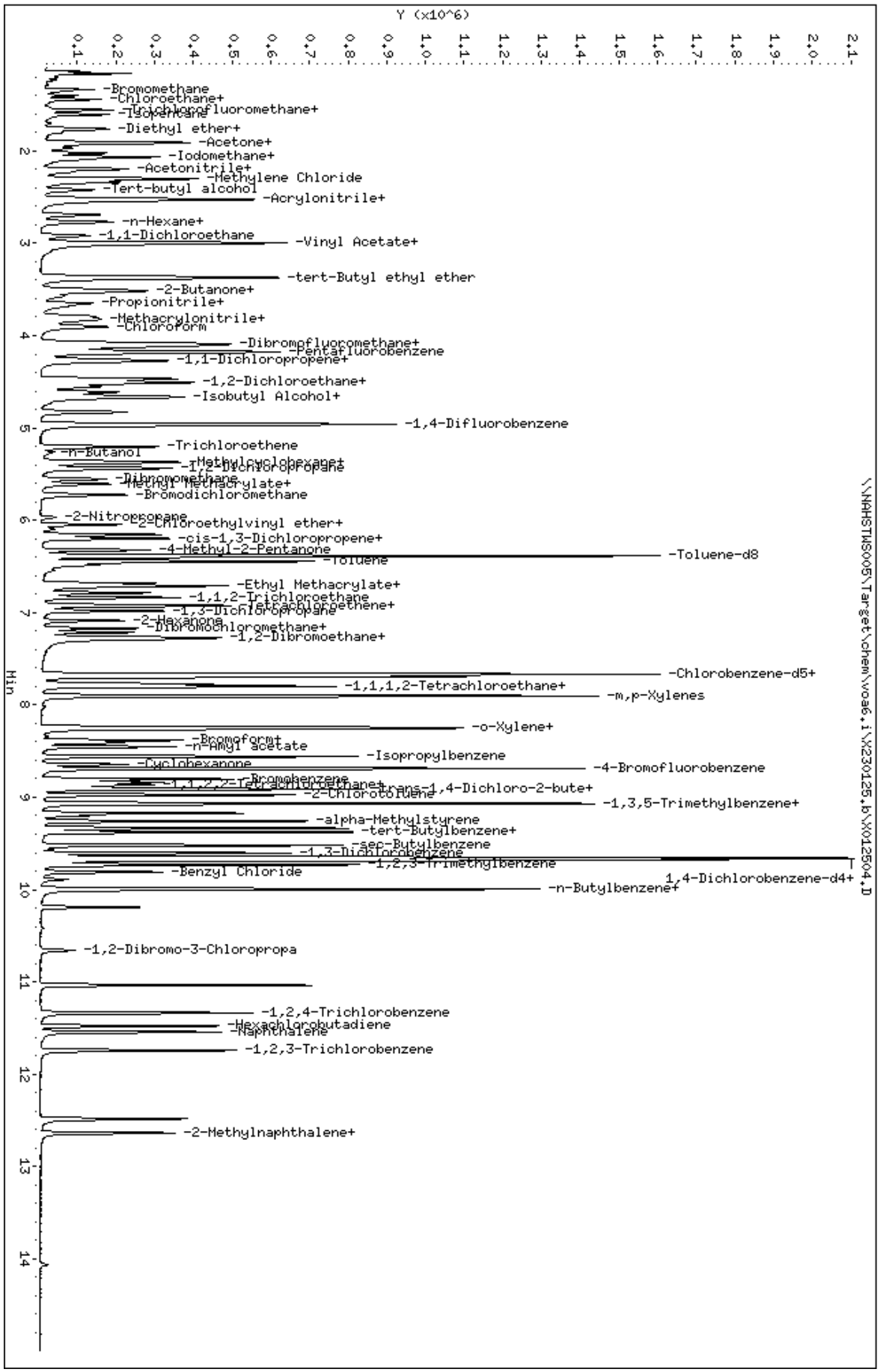
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 312563 | 23.1055 | 23.10 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 369439 | 21.2458 | 21.24 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 440103 | 24.4515 | 24.45 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 388937 | 24.1143 | 24.11 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.605 | 9.602 | (0.994) | 223225 | 20.2972 | 20.29 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.680 | 9.681 | (1.002) | 239001 | 19.9149 | 19.91 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 188980 | 18.9002 | 18.90 |
| 87 | n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 345863 | 23.2357 | 23.23 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 221634 | 19.5676 | 19.56 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 19712 | 19.2107 | 19.21 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 157201 | 21.9921 | 21.99 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 76005 | 24.1139 | 24.11 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 340798 | 20.9546 | 20.95 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 142560 | 20.8239 | 20.82 |
| 146 | Methyl acetate | 43 | 2.228 | 2.225 | (0.534) | 44007 | 19.5378 | 19.53 |
| 138 | Freon TF | 101 | 1.909 | 1.913 | (0.458) | 79786 | 21.7139 | 21.71 |
| 141 | Cyclohexane | 56 | 4.117 | 4.118 | (0.987) | 124391 | 25.2928 | 25.29 |
| 142 | Tetrahydrofuran | 42 | 3.836 | 3.836 | (0.919) | 23654 | 36.0489 | 36.04 |
| 147 | Methylcyclohexane | 55 | 5.381 | 5.373 | (1.085) | 199934 | 21.8350 | 21.83 |
| 135 | 1,4-Dioxane | 88 | 5.606 | 5.595 | (1.343) | 18241 | 398.655 | 398.65 |
| 132 | n-Butanol | 56 | 5.265 | 5.253 | (1.261) | 20794 | 362.557 | 362.55(a) |
| 131 | Methyl Acrylate | 55 | 3.690 | 3.683 | (0.884) | 80680 | 23.7409 | 23.74 |
| 133 | Ethyl Acrylate | 55 | 5.381 | 5.373 | (1.289) | 199934 | 21.4694 | 21.46 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 89810 | 24.9189 | 24.91 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 52897 | 15.8154 | 15.81 |
| 148 | Tert-butyl alcohol | 59 | 2.419 | 2.419 | (0.580) | 160526 | 463.140 | 463.13 |
| 149 | Isopropyl alcohol | 45 | 2.089 | 2.090 | (0.501) | 84296 | 465.689 | 465.68 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.993 | (0.718) | 232079 | 17.8729 | 17.87 |
| 160 | 2-Methylnaphthalene | 142 | 12.638 | 12.634 | (1.308) | 158438 | 20.2201 | 20.22 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 365806 | 18.8090 | 18.80 |
| 167 | Ethanol | 45 | 1.696 | 1.696 | (0.406) | 14417 | 440.282 | 440.28 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.105) | 123453 | 46.4786 | 46.47 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 142490 | 427.187 | 427.18 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.117) | 270138 | 18.7221 | 18.72 |
| 175 | tert-Butyl ethyl ether | 59 | 3.371 | 3.368 | (0.808) | 246515 | 17.8664 | 17.86 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.105) | 123453 | 459.214 | 459.21 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 295694 | 417.645 | 417.64 |
| 180 | 1-Methylnaphthalene | 142 | 12.638 | 12.634 | (1.308) | 158438 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 63631 | 18.5220 | 18.52 |
| 152 | Amyl alcohol | 42 | 6.906 | 6.903 | (0.901) | 24526 | 351.812 | 351.81 |
| 158 | Dichlorofluoromethane | 67 | 1.531 | 1.527 | (0.367) | 11582 | 17.8698 | 17.86 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 11215 | 35.6288 | 35.62 |
| 161 | 3-Methyl-1-butanol | 55 | 6.906 | 6.903 | (0.901) | 26789 | 384.345 | 384.34 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 179243 | 19.4638 | 19.46 |
| 182 | Epichlorohydrin | 57 | 6.097 | 6.093 | (1.229) | 26494 | 80.5970 | 80.59 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 172261 | 36.7063 | 36.70 |
| M 95 | Xylenes (total) | 106 | | | | 512342 | 61.3075 | 61.30 |
| 145 | alpha-Methylstyrene | 118 | 9.261 | 9.257 | (0.958) | 170664 | 19.0714 | 19.07 |
| 130 | Ethyl Acetate | 43 | 3.649 | 3.649 | (0.874) | 86826 | 22.2291 | 22.22 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 73448 | 435.970 | 435.96(a) |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 29172 | 21.8762 | 21.87 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 47504 | | (a) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 188 Isopropyl acetate | 43 | 4.672 | 4.672 (0.942) | 241722 | 20.7991 | 20.79 |
| 187 n-Amyl acetate | 43 | 8.455 | 8.451 (1.103) | 167448 | 20.3693 | 20.36 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 189 n-Butyl acetate | 43 | 7.214 | 7.210 | (0.941) | 135699 | 22.4074 | 22.40 |
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 89810 | 488.141 | 488.14 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.290) | 70479 | 224.867 | 224.86 |
| 195 Methyl Amyl Ketone | 43 | 8.383 | 8.380 | (1.093) | 180161 | 19.2210 | 19.22 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.194 | (0.808) | 164007 | 17.1891 | 17.18 |
| 168 1-Propanol | 59 | 2.993 | 2.993 | (0.717) | 26745 | 326.941 | 326.94 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




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Sample Info: VLCSW-230125;VLCSW-230125;3;3;LCS
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Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

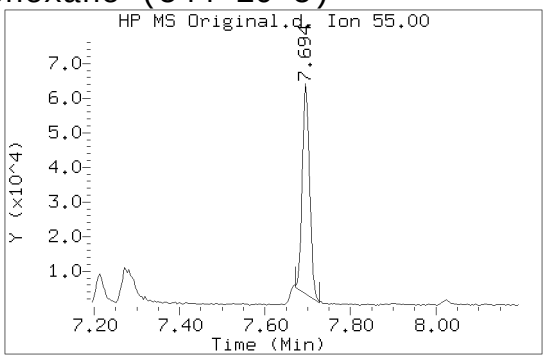
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InstruID : voa6.i
LabSampID : VLCSW-230125

## 1-Chlorohexane (544-10-5)

Reason Code:

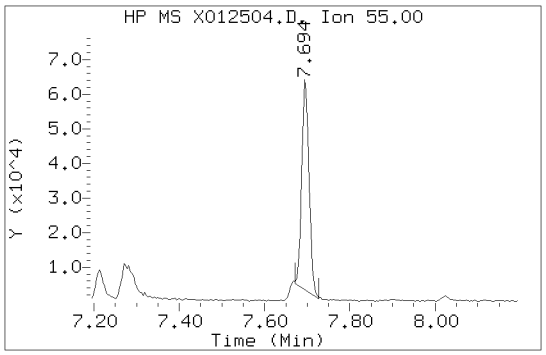
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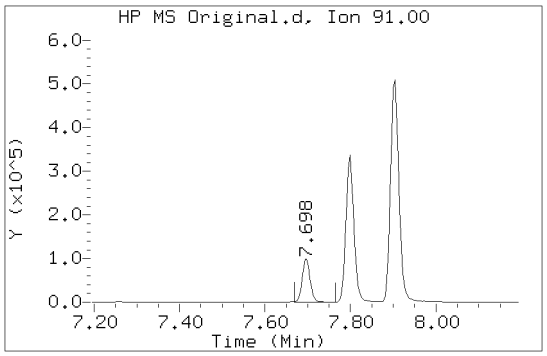

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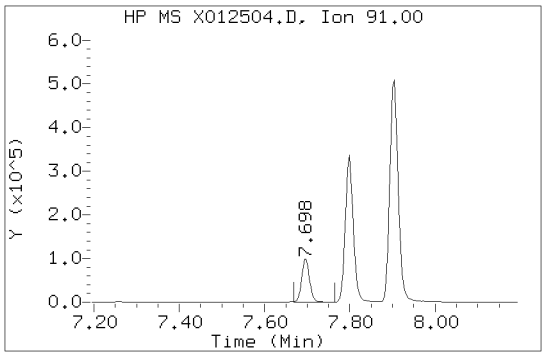

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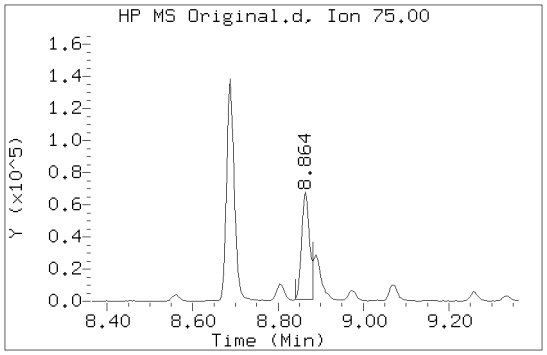



## 1,2,3-Trichloropropane (96-18-4)

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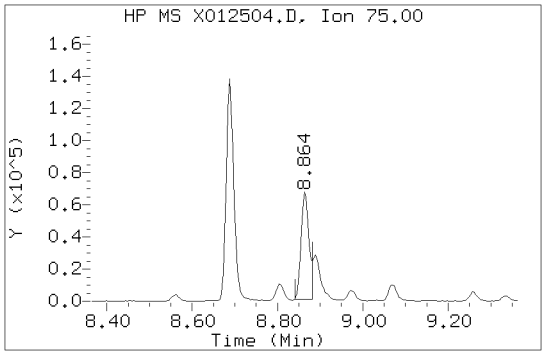
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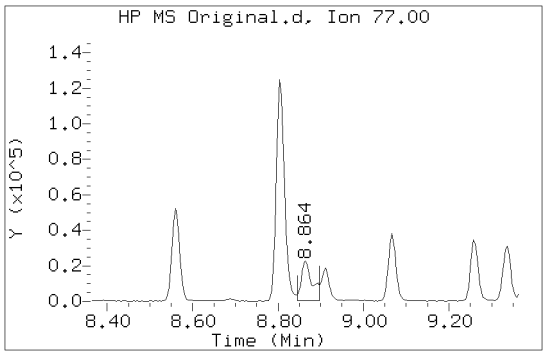

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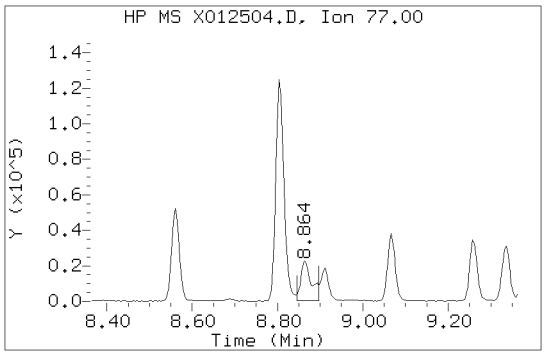

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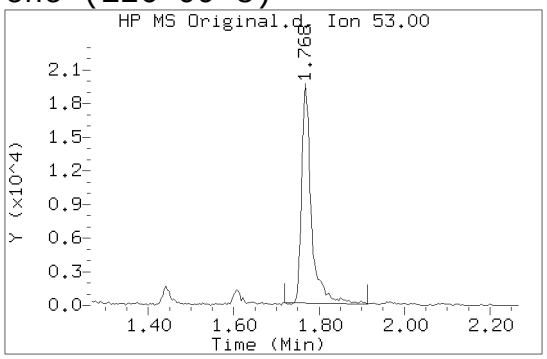
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InstruID : voa6.i
LabSampID : VLCSW-230125

Chloroprene (126-99-8)

Reason Code:

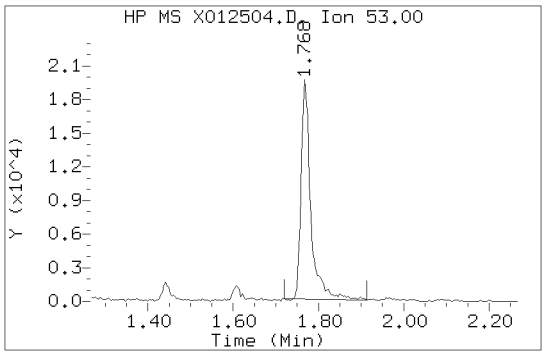
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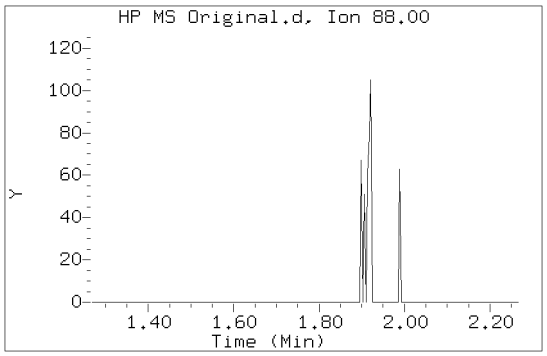

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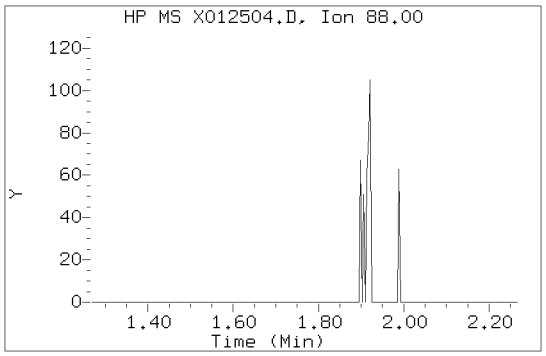

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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012506.D  Page 1
Report Date: 03-Feb-2023 10:54

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012506.D
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Operator  : FT  Inst ID: voa6.i
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Meth Date : 03-Feb-2023 10:54 voa6.i  Quant Type: ISTD
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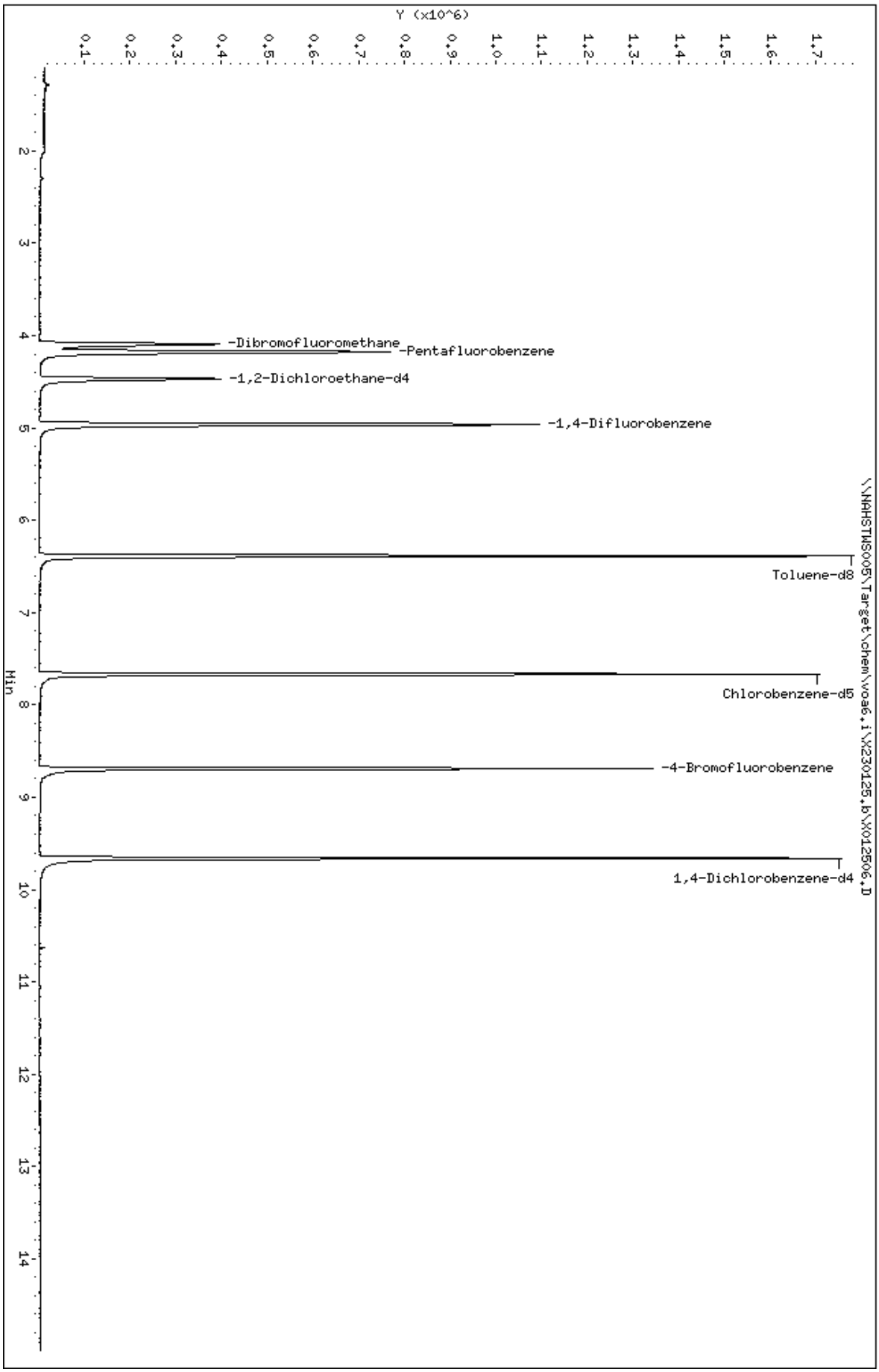
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
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| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.178 | (1.000) | 637607 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 279017 | 45.5593 | 45.55 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 314418 | 48.6639 | 48.66 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 893865 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 802467 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.386 | 6.385 | (0.833) | 1042794 | 52.5879 | 52.58 |
| $ 69 4-Bromofluorobenzene | 95 | 8.691 | 8.687 | (1.133) | 372513 | 50.2578 | 50.25 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 420093 | 50.0000 | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012506.D
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Sample Info: VBLKW-230125;VBLKW-230125;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012506.D
Inj Date  : 25-JAN-2023 09:24
InstruID  : voa6.i
LabSampID : VBLKW-230125

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012509.D  Page 1
Report Date: 03-Feb-2023 10:54

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012509.D
Lab Smp Id: HS23010982-02MS  Client Smp ID: HS23010982-02MS
Inj Date  : 25-JAN-2023 10:27
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23010982-02MS;HS23010982-02MS;3;;MS
Misc Info : V6;WATER;0;100;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\8260W.m
Meth Date : 03-Feb-2023 10:54 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 10  QC Sample: MS
Dil Factor: 100.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 100.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.178 | (1.000) | 626410 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 58311 | 13.5977 | 1359.77 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 77240 | 15.2374 | 1523.73 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 111110 | 173.837 | 17383.66(a) |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 84724 | 15.4831 | 1548.30 |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 63753 | 16.6244 | 1662.44 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 54181 | 14.2255 | 1422.55 |
| 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 141816 | 18.5198 | 1851.97 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 16423 | 40.0755 | 4007.55 |
| 10 Acetone | 43 | 1.970 | 1.966 | (0.472) | 43279 | 24.5974 | 2459.73 |
| 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.458) | 77833 | 16.3715 | 1637.15 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.119) | 249489 | 354.099 | 35409.94(a) |
| 13 Acetonitrile | 39 | 2.194 | 2.195 | (0.526) | 115716 | 202.971 | 20297.07(a) |
| 14 Allyl Chloride | 41 | 2.194 | 2.195 | (0.526) | 198552 | 18.2860 | 1828.59(a) |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 165580 | 29.6492 | 2964.92 |
| 16 Acrylonitrile | 53 | 2.532 | 2.528 | (0.607) | 54651 | 33.8936 | 3389.36 |
| 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.551) | 92265 | 14.1485 | 1414.85 |
| 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.606) | 270567 | 17.3871 | 1738.70 |
| 19 Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 412065 | 33.1278 | 3312.78 |
| 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 87056 | 16.3615 | 1636.15 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.717) | 472551 | 34.5929 | 3459.29 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 141489 | 15.1519 | 1515.18 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 36667 | 17.2156 | 1721.55(M) |
| | 24 2-Butanone | 43 | 3.574 | 3.570 | (0.856) | 49346 | 28.6925 | 2869.25 |
| | 25 Methacrylonitrile | 41 | 3.818 | 3.814 | (0.915) | 73869 | 16.6540 | 1665.39(a) |
| | 26 2,2-Dichloropropane | 77 | 3.506 | 3.503 | (0.840) | 139883 | 17.6430 | 1764.29 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.518 | (0.844) | 104263 | 16.1016 | 1610.16 |
| | 28 Chloroform | 83 | 3.904 | 3.900 | (0.935) | 164111 | 15.6801 | 1568.00 |
| | 29 Bromochloromethane | 128 | 3.788 | 3.791 | (0.907) | 50653 | 14.2871 | 1428.70 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 267502 | 44.4558 | 44.45 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.076 | (0.978) | 149190 | 17.9660 | 1796.60 |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.275 | (0.862) | 124689 | 20.1273 | 2012.72 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 127874 | 17.8857 | 1788.56 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 129292 | 19.5441 | 1954.40 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.466 | (1.071) | 309465 | 48.7530 | 48.75 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 872602 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.909) | 359547 | 17.2548 | 1725.47 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 309209 | 52.3179 | 5231.79 |
| | 39 Bromodichloromethane | 83 | 5.726 | 5.722 | (1.154) | 128172 | 16.3899 | 1638.99 |
| | 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.342) | 76130 | 17.8240 | 1782.40(a) |
| | 41 2-Chloroethylvinyl ether | 63 | 6.048 | 6.044 | (1.219) | 62675 | 28.1710 | 2817.10 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 90573 | 16.3404 | 1634.03 |
| | 43 2-Nitropropane | 43 | 5.966 | 5.966 | (1.429) | 26071 | 16.4815 | 1648.14 |
| | 44 Dibromomethane | 93 | 5.549 | 5.550 | (1.119) | 62046 | 16.4687 | 1646.86 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 145959 | 34.2330 | 3423.30 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 152472 | 16.6016 | 1660.16 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 797697 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.382 | 6.385 | (0.832) | 1026458 | 52.0736 | 52.07 |
| | 49 Ethyl Methacrylate | 69 | 6.712 | 6.708 | (1.353) | 68211 | 16.5998 | 1659.98(a) |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 404282 | 18.3360 | 1833.59 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.347) | 128081 | 16.8046 | 1680.46 |
| | 52 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 96285 | 33.1917 | 3319.17 |
| | 53 1,1,2-Trichloroethane | 83 | 6.835 | 6.835 | (0.891) | 72710 | 16.4379 | 1643.78 |
| | 54 1,3-Dichloropropane | 76 | 6.981 | 6.978 | (0.911) | 148922 | 17.1046 | 1710.46 |
| | 55 Dibromochloromethane | 129 | 7.176 | 7.173 | (0.936) | 105925 | 16.5920 | 1659.19 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 93665 | 20.5319 | 2053.18 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 95245 | 17.2219 | 1722.18 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 100828 | 23.9099 | 2390.98 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.690 | (1.003) | 274218 | 17.5343 | 1753.43 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 99237 | 17.0510 | 1705.10 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 142652 | 19.3643 | 1936.42 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 361570 | 38.0736 | 3807.36 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 171317 | 18.2776 | 1827.75 |
| | 64 Styrene | 104 | 8.260 | 8.256 | (1.077) | 287098 | 18.2744 | 1827.44 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 70090 | 15.8474 | 1584.74 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 450574 | 21.0411 | 2104.11 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 118286 | 16.6484 | 1664.83 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 380141 | 51.5919 | 51.59 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 445771 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 125906 | 25.3835 | 2538.35 |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.889 | 8.886 | (1.159) | 29802 | 17.3063 | 1730.63(a) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 530723 | 21.4939 | 2149.39 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 129497 | 17.7065 | 1770.64 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 382531 | 20.9714 | 2097.14 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 321393 | 19.8354 | 1983.54 |
| 77 | 4-Chlorotoluene | 91 | 9.069 | 9.070 (0.939) | 368587 | 19.9547 | 1995.46 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012509.D Page 3
Report Date: 03-Feb-2023 10:54

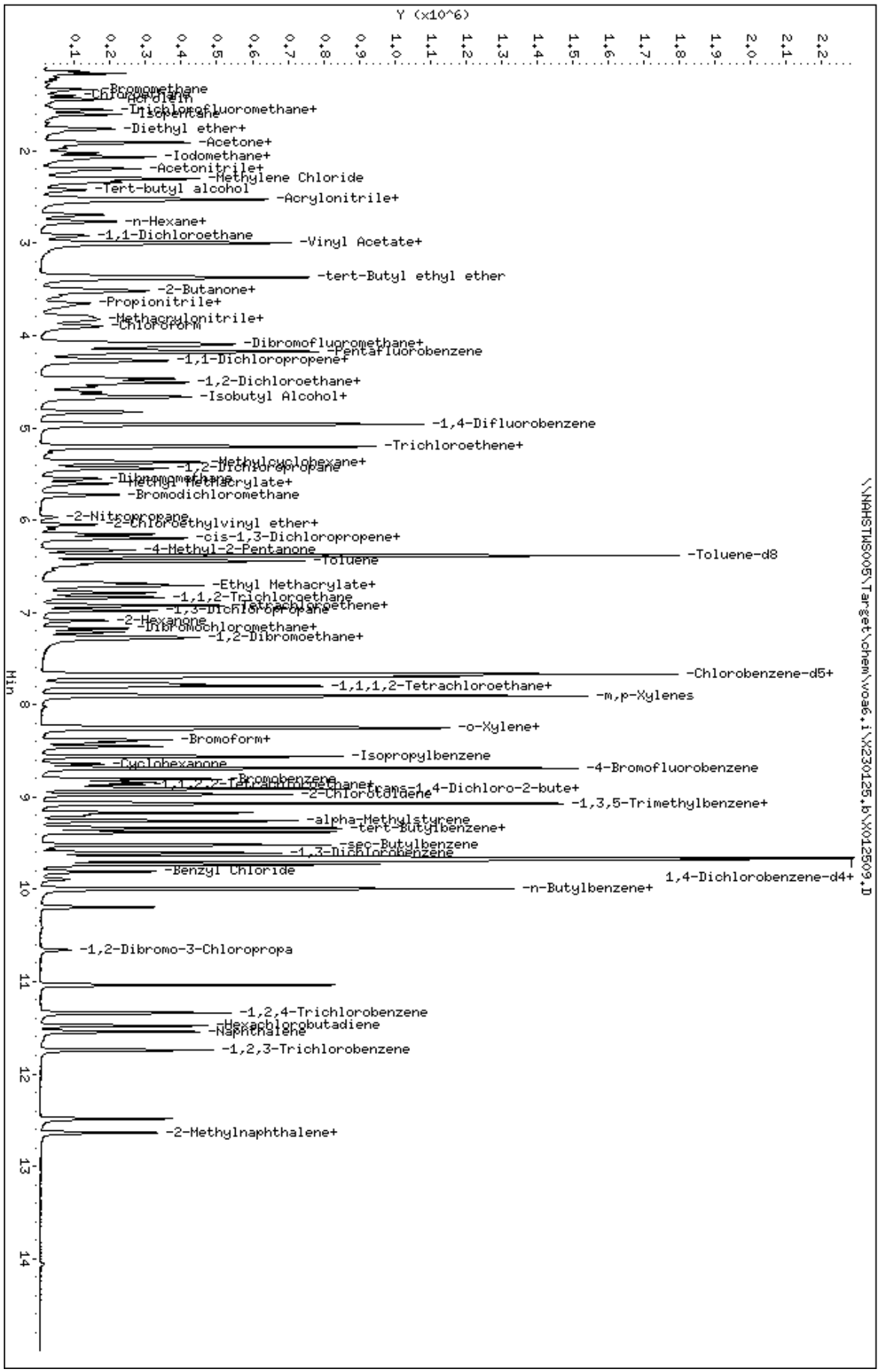
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 325176 | 21.7784 | 2177.84 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 381672 | 19.8862 | 1988.61 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 463660 | 23.3389 | 2333.89 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 406021 | 22.8074 | 2280.73 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.605 | 9.602 | (0.994) | 227898 | 18.7743 | 1877.43 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.680 | 9.681 | (1.002) | 241824 | 18.2561 | 1825.60 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 185241 | 16.7332 | 1673.31 |
| 87 | n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 360426 | 22.0373 | 2203.72 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 223454 | 17.8739 | 1787.39 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.659 | 10.655 | (1.103) | 18561 | 16.4023 | 1640.22 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 159274 | 20.1877 | 2018.77 |
| 91 | Hexachlorobutadiene | 225 | 11.476 | 11.480 | (1.188) | 76456 | 21.9834 | 2198.34 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 321623 | 17.9168 | 1791.68 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 141439 | 18.7182 | 1871.81 |
| 146 | Methyl acetate | 43 | 2.228 | 2.225 | (0.534) | 44452 | 15.7704 | 1577.03 |
| 138 | Freon TF | 101 | 1.910 | 1.913 | (0.458) | 88921 | 19.3380 | 1933.80 |
| 141 | Cyclohexane | 56 | 4.117 | 4.118 | (0.987) | 141893 | 23.1666 | 2316.66 |
| 142 | Tetrahydrofuran | 42 | 3.844 | 3.836 | (0.921) | 27078 | 32.7063 | 3270.63 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.373 | (1.084) | 238673 | 22.3448 | 2234.47 |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.595 | (1.341) | 18376 | 320.920 | 32091.97 |
| 132 | n-Butanol | 56 | 5.265 | 5.253 | (1.261) | 18418 | 269.417 | 26941.70(a) |
| 131 | Methyl Acrylate | 55 | 3.686 | 3.683 | (0.883) | 67558 | 15.8856 | 1588.56 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.288) | 238673 | 20.5645 | 2056.45 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 104178 | 23.0982 | 2309.82 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 65763 | 15.7119 | 1571.19 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.419 | (0.581) | 142924 | 329.510 | 32951.03 |
| 149 | Isopropyl alcohol | 45 | 2.089 | 2.090 | (0.501) | 75912 | 335.118 | 33511.76 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.993 | (0.718) | 287410 | 17.6872 | 1768.71 |
| 160 | 2-Methylnaphthalene | 142 | 12.638 | 12.634 | (1.308) | 148430 | 17.1624 | 1716.23 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 424374 | 19.7695 | 1976.94 |
| 167 | Ethanol | 45 | 1.700 | 1.696 | (0.407) | 11888 | 288.985 | 28898.48 |
| 172 | tert-Butyl formate | 59 | 4.616 | 4.612 | (1.106) | 104539 | 31.4505 | 3145.04 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 127279 | 337.235 | 33723.46 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.117) | 312908 | 17.3293 | 1732.93 |
| 175 | tert-Butyl ethyl ether | 59 | 3.371 | 3.368 | (0.808) | 300701 | 17.4151 | 1741.50 |
| 176 | tert-Amyl alcohol | 59 | 4.616 | 4.612 | (1.106) | 104539 | 310.734 | 31073.40 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.712 | 6.708 | (1.353) | 245618 | 297.393 | 29739.30 |
| 180 | 1-Methylnaphthalene | 142 | 12.638 | 12.634 | (1.308) | 148430 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 64921 | 15.1008 | 1510.08 |
| 152 | Amyl alcohol | 42 | 6.906 | 6.903 | (0.901) | 19876 | 251.973 | 25197.33 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 13540 | 16.6937 | 1669.36 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 13277 | 33.7054 | 3370.53 |
| 161 | 3-Methyl-1-butanol | 55 | 6.910 | 6.903 | (0.901) | 22134 | 280.651 | 28065.10 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 198091 | 19.0104 | 1901.03 |
| 182 | Epichlorohydrin | 57 | 6.097 | 6.093 | (1.229) | 27198 | 71.2273 | 7122.73 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 191319 | 32.4632 | 3246.31 |
| M 95 | Xylenes (total) | 106 | | | | 532887 | 56.3512 | 5635.12 |
| 145 | alpha-Methylstyrene | 118 | 9.261 | 9.257 | (0.958) | 181870 | 18.4133 | 1841.33 |
| 130 | Ethyl Acetate | 43 | 3.656 | 3.649 | (0.876) | 80368 | 16.4419 | 1644.19 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 58798 | 316.206 | 31620.56(a) |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 31738 | 19.0188 | 1901.87 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 61743 | | (a) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 188 Isopropyl acetate | 43 | 4.672 | 4.672 (0.942) | 250591 | 18.4842 | 1848.41 |
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 159497 | 17.1471 | 1714.71 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 189 n-Butyl acetate | 43 | 7.214 | 7.210 | (0.941) | 130084 | 18.9837 | 1898.37 |
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 104178 | 452.474 | 45247.43 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.290) | 36110 | 78.3117 | 7831.16 |
| 195 Methyl Amyl Ketone | 43 | 8.383 | 8.380 | (1.093) | 184039 | 17.3527 | 1735.26 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 204932 | 18.9820 | 1898.19 |
| 168 1-Propanol | 59 | 2.993 | 2.993 | (0.717) | 31924 | 311.847 | 31184.65 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X230125.b\X012509.D
Date : 25-JAN-2023 10:27
Client ID: HS23010982-02MS
Sample Info: HS23010982-02MS;HS23010982-02MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

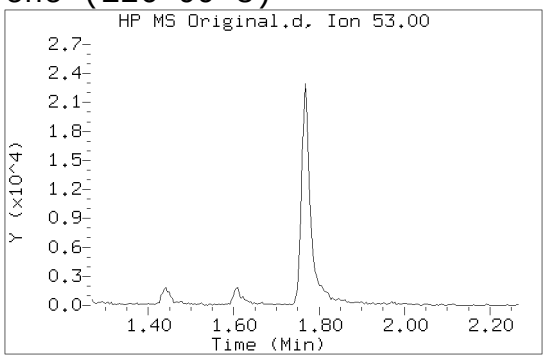
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Inj Date : 25-JAN-2023 10:27
InstruID : voa6.i
LabSampID : HS23010982-02MS

## Chloroprene (126-99-8)

Reason Code:

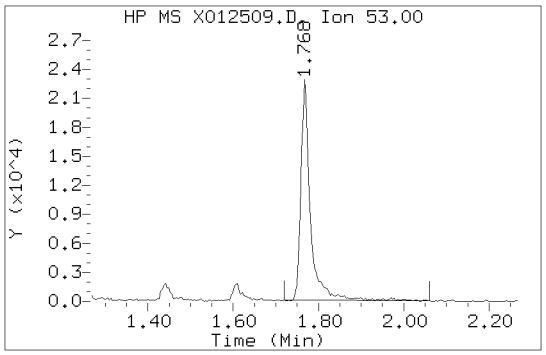
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25-Jan-2023
10:43
ALSHS
Server



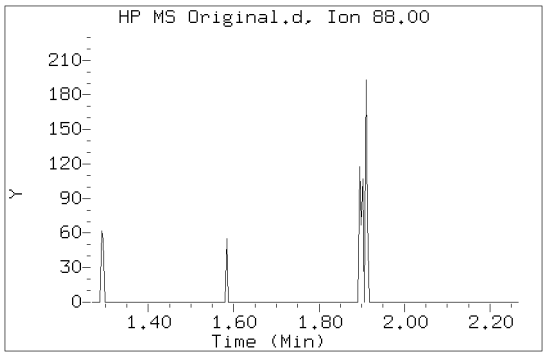

### AFTER

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03-Feb-2023
10:53
ALSHS
Ser



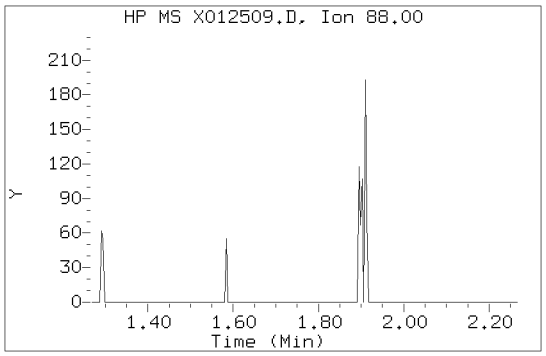

### BEFORE

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HEIGHT
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25-Jan-2023
10:43
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Server




### AFTER

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HEIGHT
0
03-Feb-2023
10:53
ALSHS
Ser



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Report Date: 03-Feb-2023 10:54

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012510.D
Lab Smp Id: HS23010982-02MSD  Client Smp ID: HS23010982-02MSD
Inj Date  : 25-JAN-2023 10:48
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23010982-02MSD;HS23010982-02MSD;3;;MSD
Misc Info : V6;WATER;0;100;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\8260W.m
Meth Date : 03-Feb-2023 10:54 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 10  QC Sample: MSD
Dil Factor: 100.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 100.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.177 | 4.178 | (1.000) | 632455 | 50.0000 | |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 50356 | 11.6872 | 1168.72 |
| 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 72365 | 14.2986 | 1429.86 |
| 4 | Propionitrile | 54 | 3.649 | 3.645 | (0.873) | 103989 | 161.140 | 16114.04(a) |
| 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 75145 | 13.6013 | 1360.12 |
| 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 57240 | 14.9788 | 1497.87 |
| 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 50290 | 13.0777 | 1307.77 |
| 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 125840 | 16.2764 | 1627.63 |
| 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 13732 | 33.6736 | 3367.35 |
| 10 | Acetone | 43 | 1.970 | 1.966 | (0.472) | 40961 | 23.0553 | 2305.52 |
| 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 69366 | 14.4511 | 1445.10 |
| 12 | Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 235824 | 331.506 | 33150.56(a) |
| 13 | Acetonitrile | 39 | 2.194 | 2.195 | (0.525) | 101610 | 176.525 | 17652.47(a) |
| 14 | Allyl Chloride | 41 | 2.194 | 2.195 | (0.525) | 179427 | 16.3667 | 1636.66(a) |
| 15 | Iodomethane | 142 | 2.026 | 2.022 | (0.485) | 162412 | 28.9064 | 2890.63 |
| 16 | Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 50045 | 30.7404 | 3074.04 |
| 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 86384 | 13.1201 | 1312.00 |
| 18 | Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.605) | 251787 | 16.0256 | 1602.56 |
| 19 | Carbon Disulfide | 76 | 2.067 | 2.063 | (0.495) | 374618 | 29.8294 | 2982.94 |
| 20 | trans-1,2-Dichloroethene | 96 | 2.528 | 2.524 | (0.605) | 78709 | 14.6514 | 1465.13 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.716) | 443804 | 32.1780 | 3217.80 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 137617 | 14.5964 | 1459.63 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012510.D Page 2
Report Date: 03-Feb-2023 10:54

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 33173 | 15.4262 | 1542.62(M) |
| | 24 2-Butanone | 43 | 3.578 | 3.570 | (0.856) | 43625 | 25.4999 | 2549.98 |
| | 25 Methacrylonitrile | 41 | 3.825 | 3.814 | (0.916) | 68886 | 15.3821 | 1538.21(a) |
| | 26 2,2-Dichloropropane | 77 | 3.506 | 3.503 | (0.839) | 131279 | 16.3995 | 1639.95 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.518 | (0.843) | 98349 | 15.0432 | 1504.31 |
| | 28 Chloroform | 83 | 3.904 | 3.900 | (0.935) | 155081 | 14.6757 | 1467.56 |
| | 29 Bromochloromethane | 128 | 3.795 | 3.791 | (0.908) | 47646 | 13.3105 | 1331.04 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 271287 | 44.6546 | 44.65 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 139045 | 16.5843 | 1658.42 |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.275 | (0.862) | 116522 | 18.5516 | 1855.16 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 126431 | 17.4419 | 1744.18 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 118310 | 17.6393 | 1763.93 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.466 | (1.070) | 310087 | 48.3861 | 48.38 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 884706 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.909) | 332700 | 15.7479 | 1574.79 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 292146 | 48.7546 | 4875.45 |
| | 39 Bromodichloromethane | 83 | 5.726 | 5.722 | (1.154) | 121126 | 15.2770 | 1527.70 |
| | 40 Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.342) | 67421 | 15.6341 | 1563.41(a) |
| | 41 2-Chloroethylvinyl ether | 63 | 6.048 | 6.044 | (1.219) | 55168 | 24.4576 | 2445.75 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 85609 | 15.2335 | 1523.34 |
| | 43 2-Nitropropane | 43 | 5.969 | 5.966 | (1.429) | 24143 | 15.1168 | 1511.67 |
| | 44 Dibromomethane | 93 | 5.549 | 5.550 | (1.119) | 58076 | 15.2040 | 1520.40 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 138341 | 32.1056 | 3210.56 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 145914 | 15.6702 | 1567.02 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 806161 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 1038595 | 52.1362 | 52.13 |
| | 49 Ethyl Methacrylate | 69 | 6.712 | 6.708 | (1.353) | 61598 | 14.7854 | 1478.53(a) |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 371749 | 16.6834 | 1668.34 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.347) | 123452 | 15.9757 | 1597.56 |
| | 52 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 93546 | 31.9089 | 3190.89 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.835 | (0.892) | 70094 | 15.6801 | 1568.00 |
| | 54 1,3-Dichloropropane | 76 | 6.981 | 6.978 | (0.911) | 140924 | 16.0161 | 1601.60 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 100143 | 15.5216 | 1552.16 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 85300 | 18.5019 | 1850.18 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 91103 | 16.3000 | 1629.99 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 91685 | 21.4443 | 2144.42 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.690 | (1.003) | 253762 | 16.0559 | 1605.59 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 93672 | 15.9259 | 1592.58 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 132598 | 17.8105 | 1781.05 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 336613 | 35.0735 | 3507.34 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 158693 | 16.7530 | 1675.29 |
| | 64 Styrene | 104 | 8.260 | 8.256 | (1.077) | 265706 | 16.7352 | 1673.51 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 66572 | 14.8940 | 1489.39 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 415139 | 19.1828 | 1918.28 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 111821 | 15.9223 | 1592.23 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 379681 | 50.9892 | 50.98 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 440623 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 116021 | 23.6639 | 2366.39 |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 29035 | 16.6839 | 1668.38(a) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 495046 | 20.2833 | 2028.32 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 120020 | 16.6024 | 1660.23 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 353139 | 19.5863 | 1958.62 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 295544 | 18.4532 | 1845.31 |
| 77 | 4-Chlorotoluene | 91 | 9.069 | 9.070 (0.939) | 343139 | 18.7940 | 1879.39 |

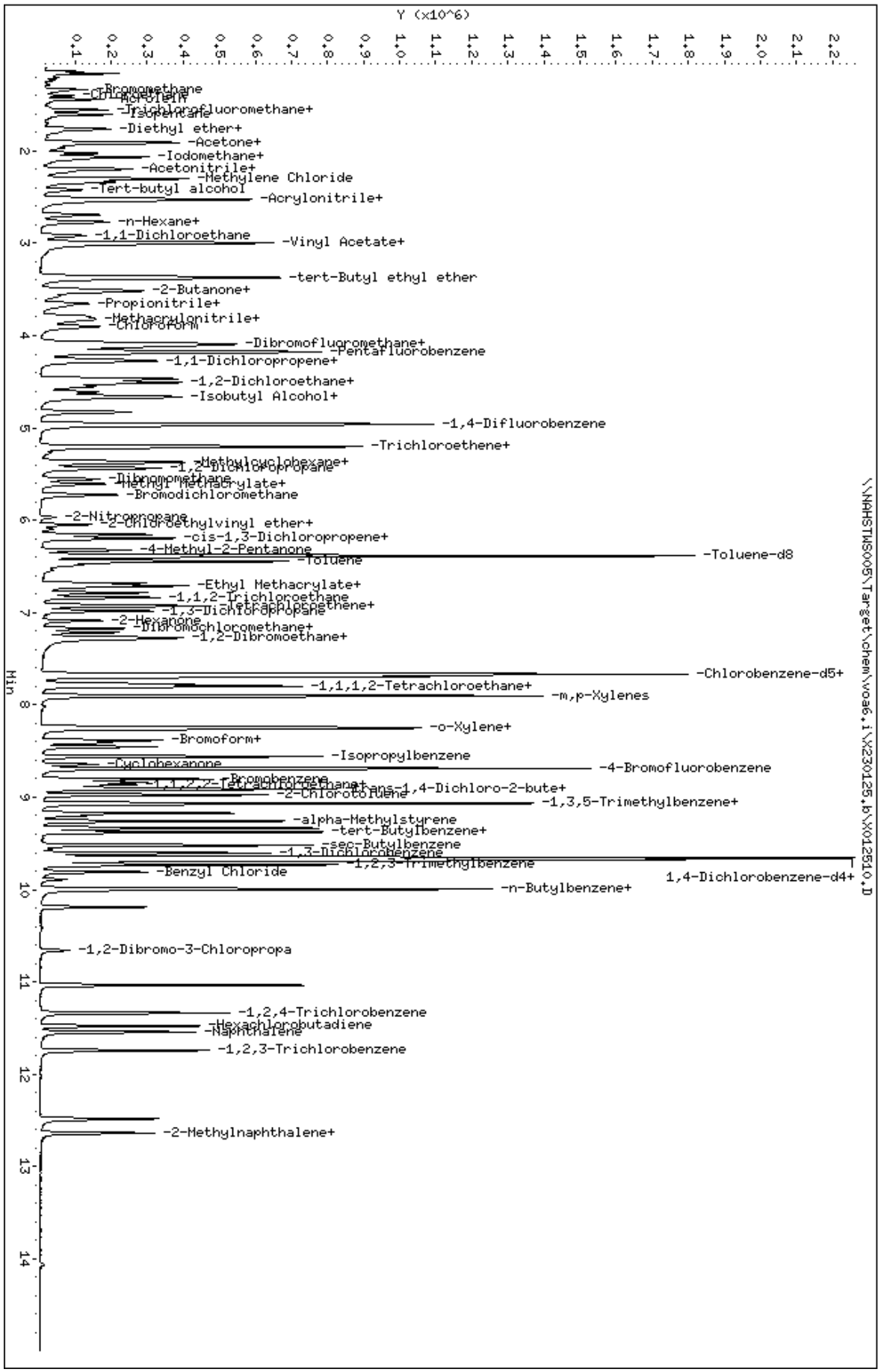
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 302910 | 20.5242 | 2052.41 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 352954 | 18.6048 | 1860.47 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 425079 | 21.6469 | 2164.68 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 376663 | 21.4055 | 2140.54 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.602 | (0.994) | 214019 | 17.8369 | 1783.69 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.680 | 9.681 | (1.002) | 228023 | 17.4153 | 1741.53 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 174440 | 15.7757 | 1577.57 |
| 87 | n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 333958 | 20.7687 | 2076.86 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 212806 | 17.2211 | 1722.10 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.659 | 10.655 | (1.103) | 18031 | 16.1217 | 1612.16 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 145358 | 18.6391 | 1863.91 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 71697 | 20.8588 | 2085.87 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 306540 | 17.2761 | 1727.60 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 133231 | 17.8379 | 1783.79 |
| 146 | Methyl acetate | 43 | 2.228 | 2.225 | (0.533) | 42423 | 14.9067 | 1490.66 |
| 138 | Freon TF | 101 | 1.913 | 1.913 | (0.458) | 79143 | 17.0471 | 1704.70 |
| 141 | Cyclohexane | 56 | 4.121 | 4.118 | (0.987) | 128815 | 20.9575 | 2095.75 |
| 142 | Tetrahydrofuran | 42 | 3.848 | 3.836 | (0.921) | 23991 | 28.3129 | 2831.28 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.373 | (1.084) | 213209 | 19.6877 | 1968.77 |
| 135 | 1,4-Dioxane | 88 | 5.602 | 5.595 | (1.341) | 16834 | 291.180 | 29118.02 |
| 132 | n-Butanol | 56 | 5.272 | 5.253 | (1.262) | 16509 | 243.951 | 24395.11(a) |
| 131 | Methyl Acrylate | 55 | 3.686 | 3.683 | (0.882) | 67448 | 15.7082 | 1570.81 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.287) | 213209 | 18.4058 | 1840.58 |
| 136 | n-Hexane | 57 | 2.772 | 2.768 | (0.664) | 92585 | 20.3316 | 2033.16 |
| 139 | Diethyl ether | 59 | 1.756 | 1.752 | (0.420) | 60245 | 14.2560 | 1425.59 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.419 | (0.580) | 130243 | 297.404 | 29740.43 |
| 149 | Isopropyl alcohol | 45 | 2.089 | 2.090 | (0.500) | 72113 | 315.304 | 31530.40 |
| 156 | Diisopropyl ether | 45 | 2.993 | 2.993 | (0.716) | 262805 | 16.0184 | 1601.84 |
| 160 | 2-Methylnaphthalene | 142 | 12.638 | 12.634 | (1.308) | 138918 | 16.2502 | 1625.02 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 381219 | 17.9666 | 1796.65 |
| 167 | Ethanol | 45 | 1.703 | 1.696 | (0.408) | 12630 | 304.260 | 30425.99 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.104) | 97750 | 29.1269 | 2912.69 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.289 | 7.285 | (0.951) | 110013 | 288.427 | 28842.67 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.116) | 287932 | 15.7937 | 1579.37 |
| 175 | tert-Butyl ethyl ether | 59 | 3.368 | 3.368 | (0.806) | 272437 | 15.6273 | 1562.73 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.104) | 97750 | 287.777 | 28777.71 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 224228 | 267.780 | 26777.96 |
| 180 | 1-Methylnaphthalene | 142 | 12.638 | 12.634 | (1.308) | 138918 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 59453 | 13.6968 | 1369.67 |
| 152 | Amyl alcohol | 42 | 6.910 | 6.903 | (0.901) | 18742 | 235.103 | 23510.27 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 11777 | 14.3813 | 1438.12 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.419) | 11473 | 28.8473 | 2884.72 |
| 161 | 3-Methyl-1-butanol | 55 | 6.910 | 6.903 | (0.901) | 22658 | 284.279 | 28427.88 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 176886 | 16.7972 | 1679.71 |
| 182 | Epichlorohydrin | 57 | 6.093 | 6.093 | (1.228) | 26808 | 69.3150 | 6931.50 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 177058 | 29.6945 | 2969.45 |
| M 95 | Xylenes (total) | 106 | | | | 495306 | 51.8265 | 5182.64 |
| 145 | alpha-Methylstyrene | 118 | 9.261 | 9.257 | (0.958) | 172091 | 17.6268 | 1762.68 |
| 130 | Ethyl Acetate | 43 | 3.653 | 3.649 | (0.874) | 84036 | 17.0280 | 1702.80 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 53284 | 289.900 | 28990.01(a) |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 28626 | 16.9900 | 1698.99 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.384) | 55659 | | (a) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 188 Isopropyl acetate | 43 | 4.672 | 4.672 (0.942) | 236539 | 17.2090 | 1720.89 |
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 150389 | 15.9982 | 1599.81 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 189 n-Butyl acetate | 43 | 7.214 | 7.210 | (0.941) | 122436 | 17.6800 | 1768.00 |
| 150 Allyl alcohol | 57 | 2.772 | 2.768 | (0.664) | 92585 | 398.279 | 39827.91 |
| 195 Methyl Amyl Ketone | 43 | 8.383 | 8.380 | (1.093) | 168599 | 15.7300 | 1572.99 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 190098 | 17.4231 | 1742.31 |
| 168 1-Propanol | 59 | 2.993 | 2.993 | (0.716) | 28203 | 272.865 | 27286.50 |

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X230125.b\X012510.D
Date : 25-JAN-2023 10:48
Client ID: HS230109B2-02MSD
Sample Info: HS230109B2-02MSD;HS230109B2-02MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

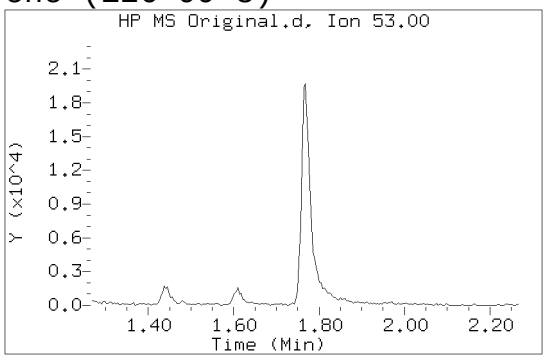
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012510.D
Inj Date : 25-JAN-2023 10:48
InstruID : voa6.i
LabSampID : HS23010982-02MSD

Chloroprene (126-99-8)

Reason Code:

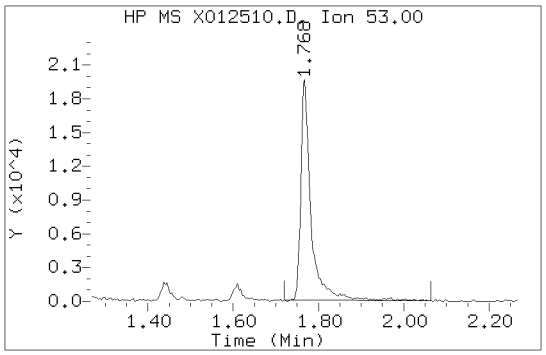
BEFORE

MASS
53
AREA
0
HEIGHT
0
25-Jan-2023
11:05
ALSHS
Server



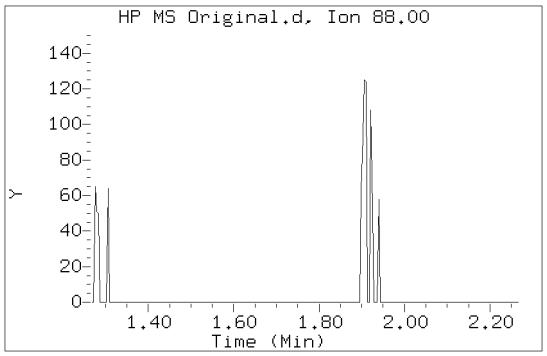

AFTER

MASS
53
AREA
33173
HEIGHT
19586
03-Feb-2023
10:53
ALSHS
Ser



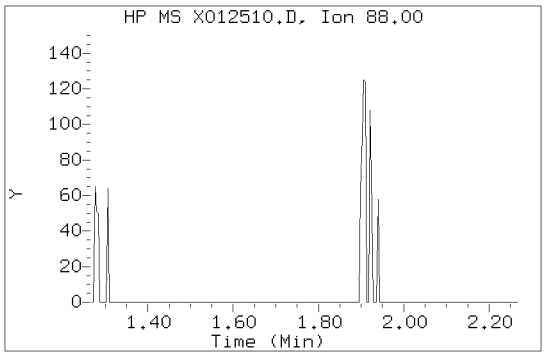

BEFORE

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
11:05
ALSHS
Server




AFTER

MASS
88
AREA
0
HEIGHT
0
03-Feb-2023
10:53
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012518.D  Page 1
Report Date: 03-Feb-2023 10:54

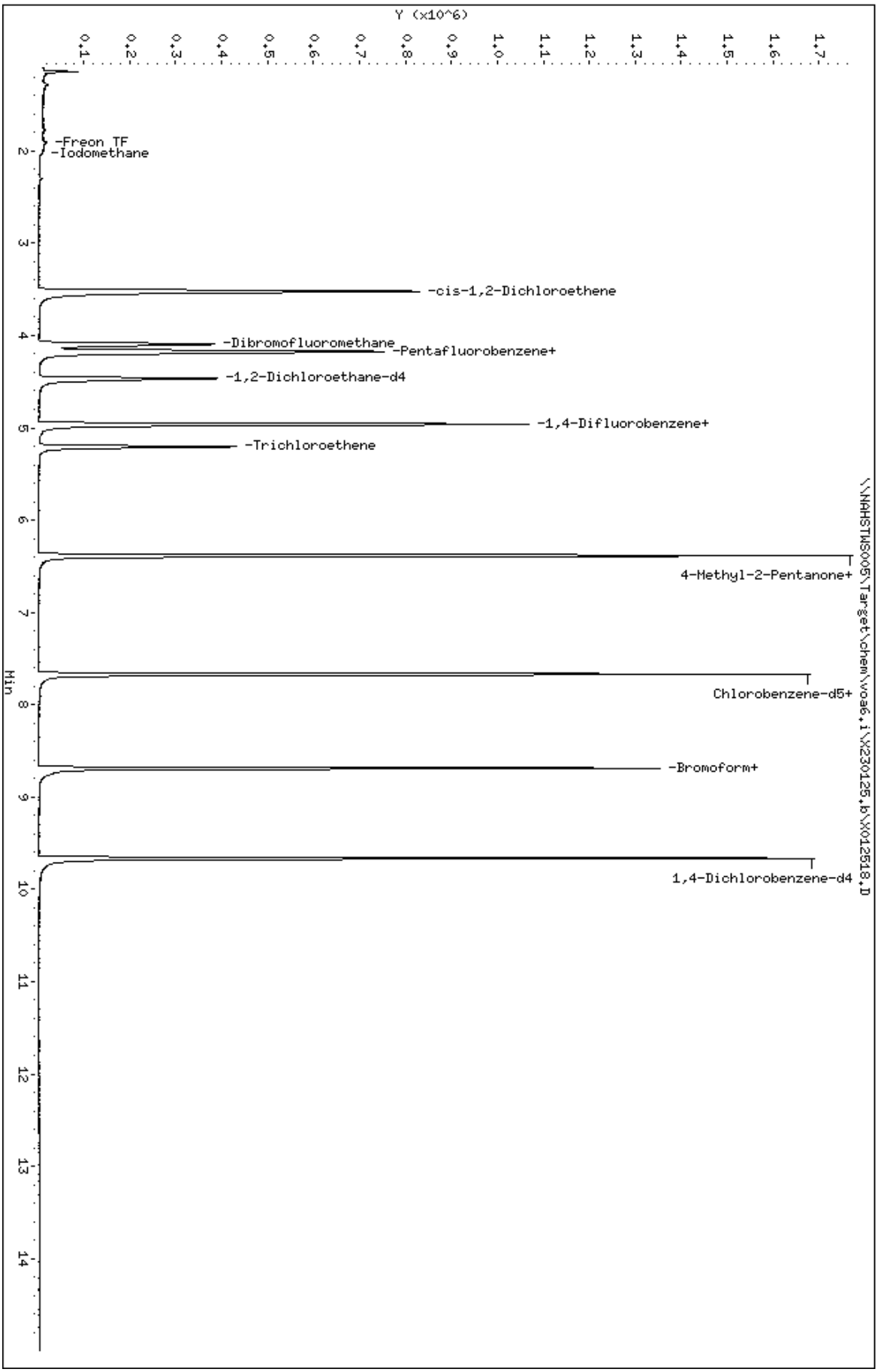
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012518.D
Lab Smp Id: HS23010991-01  Client Smp ID: HS23010991-01
Inj Date  : 25-JAN-2023 13:36
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23010991-01;HS23010991-01;;;
Misc Info : V6;WATER;0;100;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\8260W.m
Meth Date : 03-Feb-2023 10:54 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 18
Dil Factor: 100.00000
Integrator: HP RTE  Compound Sublist: 8260-dryclean.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 100.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.177 | 4.178 | (1.000) | 628487 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 273998 | 45.3883 | 45.38 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 311919 | 48.9760 | 48.97 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 886806 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 799349 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 1028095 | 52.0489 | 52.04 |
| $ 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 371866 | 50.3661 | 50.36 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 414897 | 50.0000 | |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 48834 | 8.89478 | 889.47 |
| 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.518 | (0.843) | 454956 | 70.0280 | 7002.79 |
| 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 145088 | 24.1556 | 2415.55 |




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012518.D
Date : 25-JAN-2023 13:36
Client ID: HS23010991-01
Sample Info: HS23010991-01;HS23010991-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012518.D Page 2

Date : 25-JAN-2023 13:36

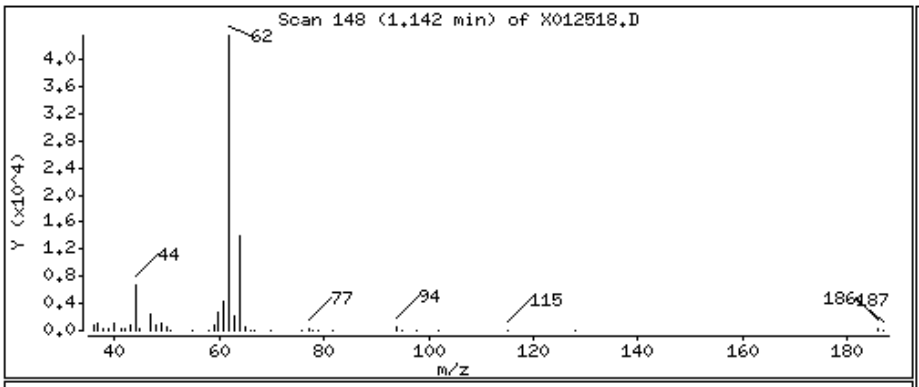
Client ID: HS23010991-01 Instrument: voa6.i

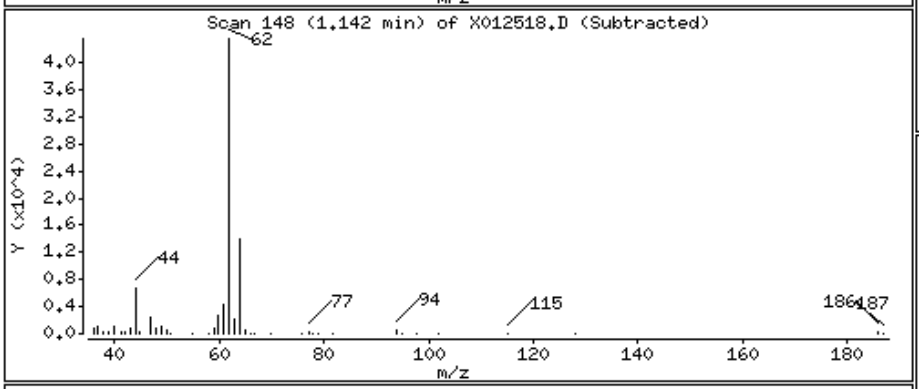
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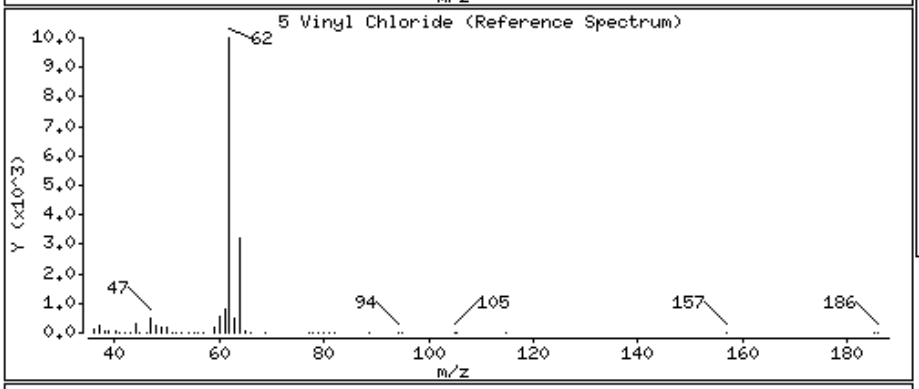
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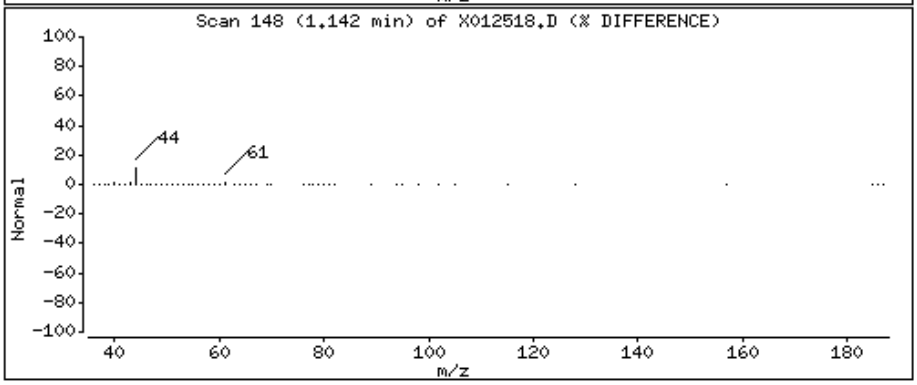
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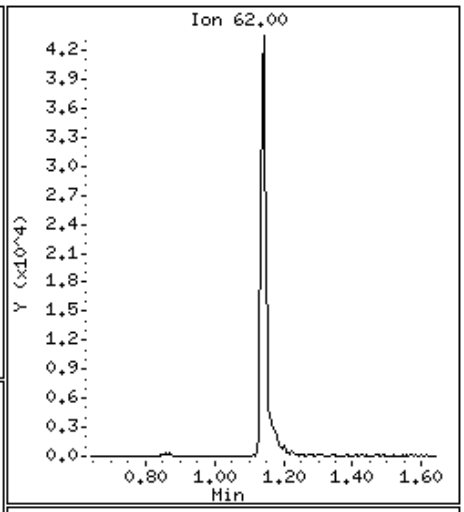
5 Vinyl Chloride Concentration: 889.47 ug/l

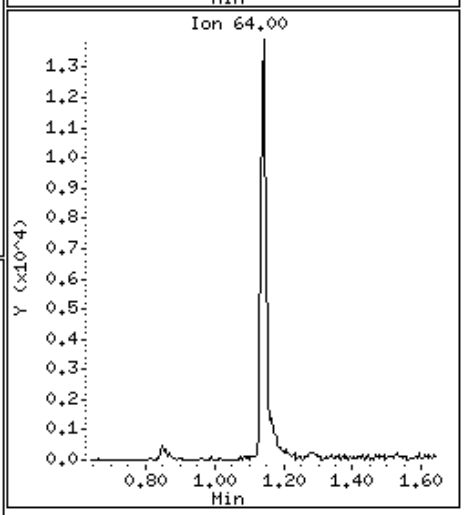


Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012518.D Page 3

Date : 25-JAN-2023 13:36

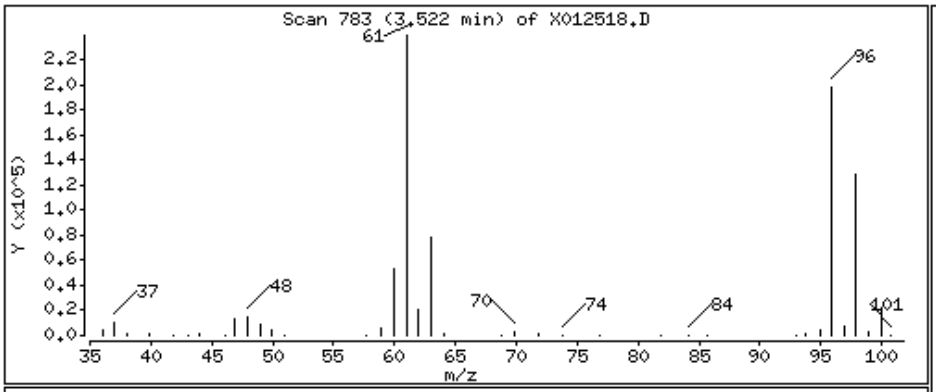
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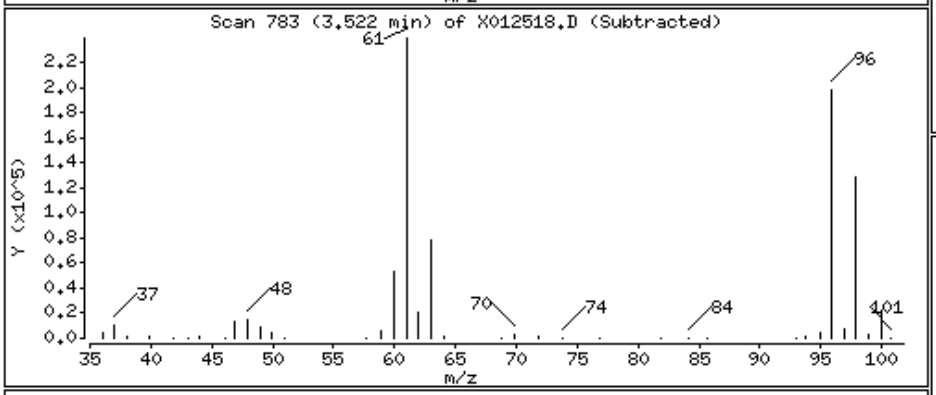
Sample Info: HS23010991-01;HS23010991-01;;;

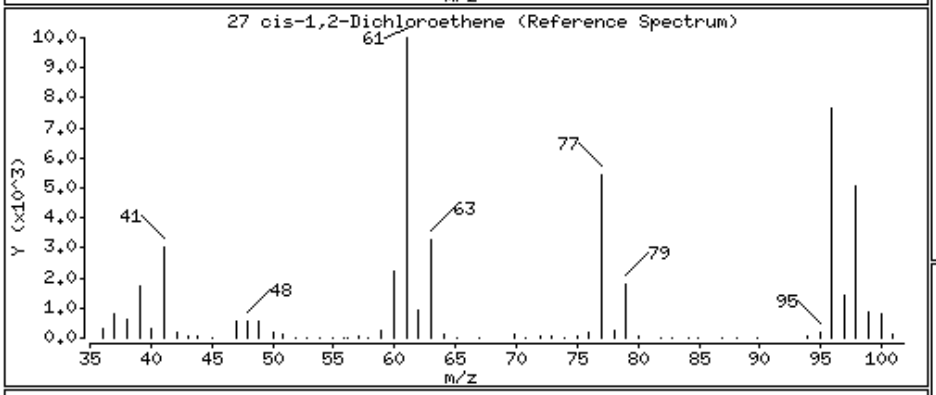
Purge Volume: 5.0 Operator: FT

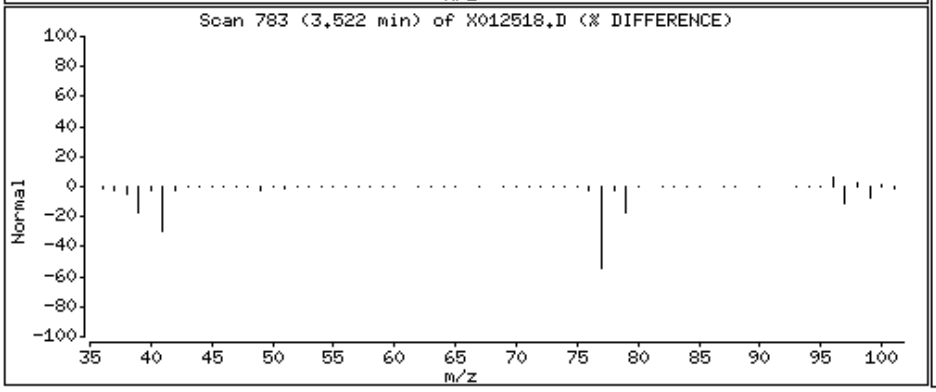
Column phase: DB624 Column diameter: 0.18

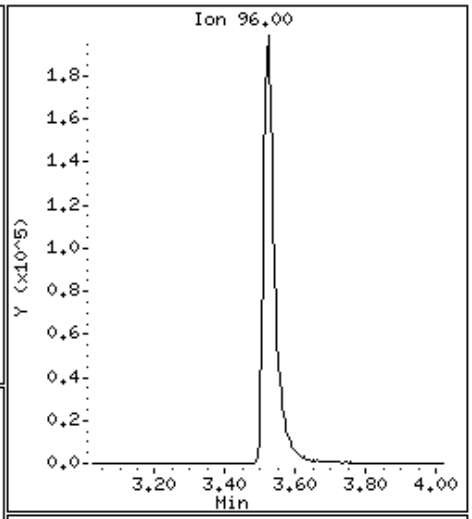
27 cis-1,2-Dichloroethene Concentration: 7002.79 ug/l

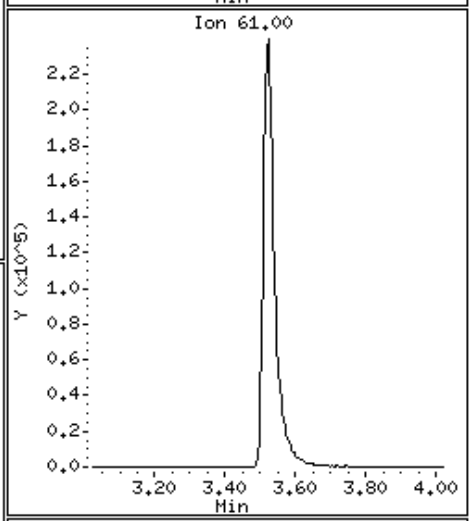


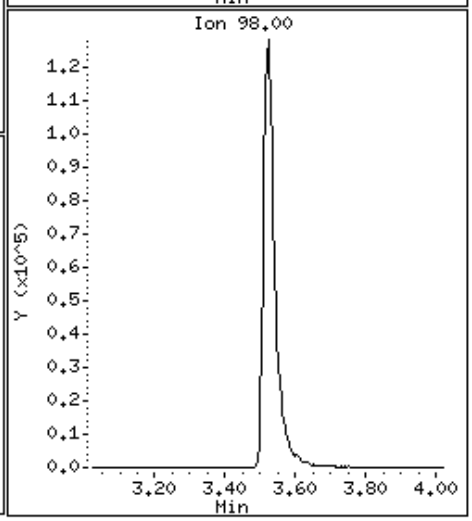



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012518.D Page 4

Date : 25-JAN-2023 13:36

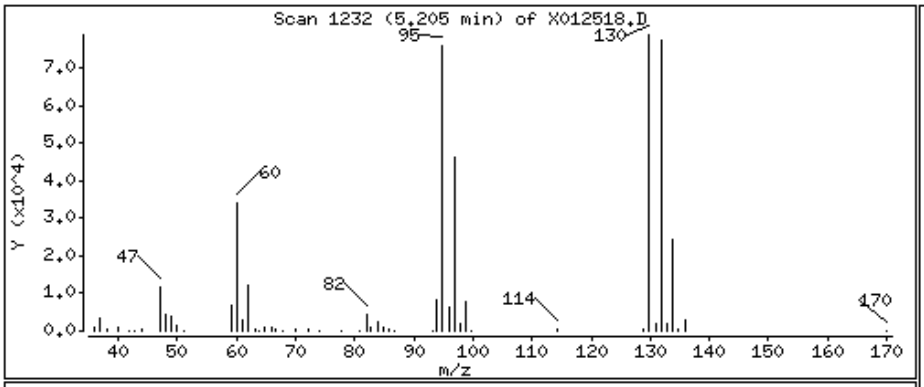
Client ID: HS23010991-01 Instrument: voa6.i

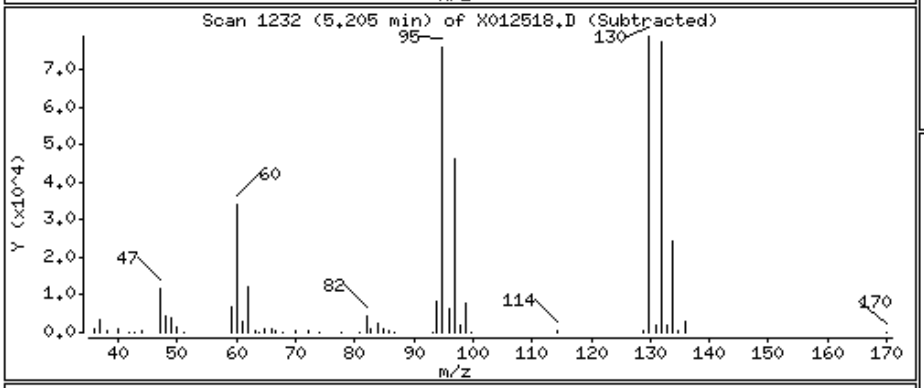
Sample Info: HS23010991-01;HS23010991-01;;;

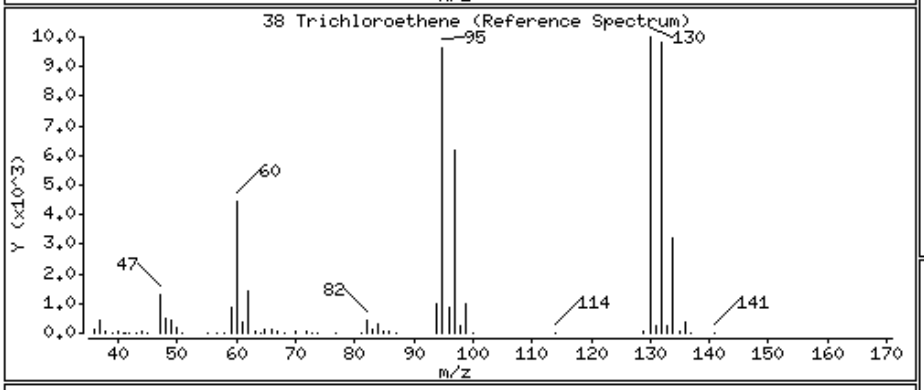
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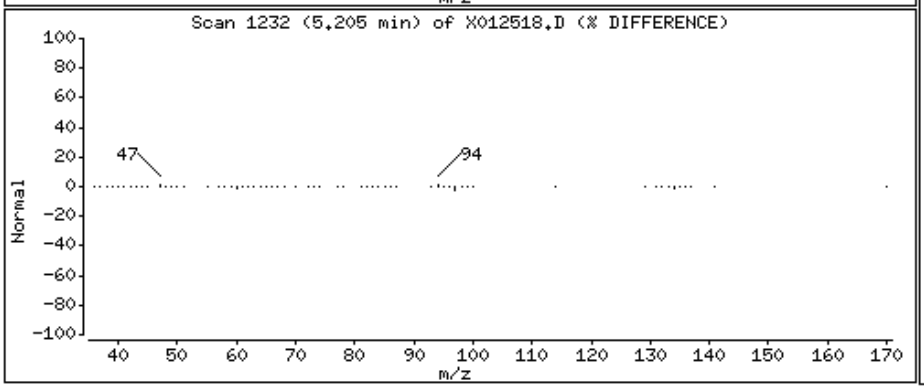
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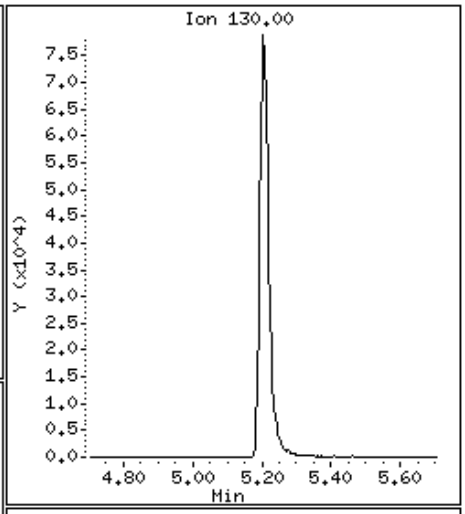
38 Trichloroethene Concentration: 2415.55 ug/l

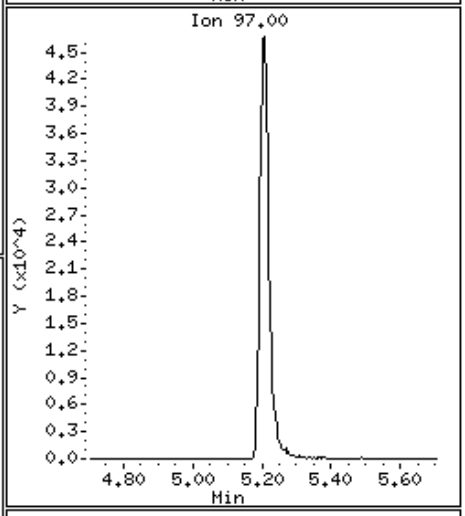


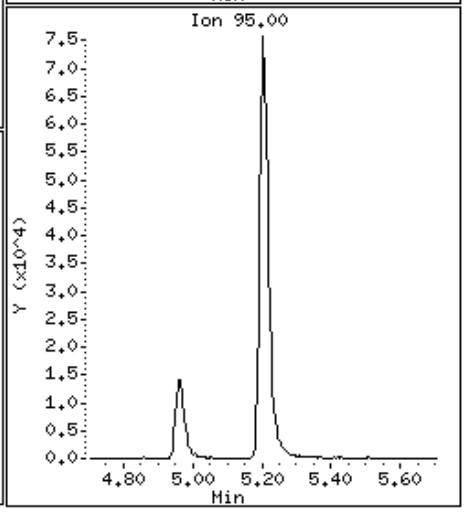



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012518.D
Inj Date  : 25-JAN-2023 13:36
InstruID  : voa6.i
LabSampID : HS23010991-01

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012522.D  Page 1
Report Date: 03-Feb-2023 10:54

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012522.D
Lab Smp Id: CCV-END  Client Smp ID: CCV-END
Inj Date  : 25-JAN-2023 15:00
Operator  : FT  Inst ID: voa6.i
Smp Info  : CCV-END;CCV-END;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\8260W.m
Meth Date : 03-Feb-2023 10:54 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 22  Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 525517 | 50.0000 | |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 156191 | 50.0000 | 42.55 |
| 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 205461 | 50.0000 | 43.51 |
| 4 | Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 270829 | 500.000 | 505.07 |
| 5 | Vinyl Chloride | 62 | 1.137 | 1.137 | (0.273) | 217588 | 50.0000 | 47.39 |
| 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 158291 | 50.0000 | 45.74 |
| 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 140405 | 50.0000 | 43.94 |
| 8 | Trichlorofluoromethane | 101 | 1.553 | 1.553 | (0.372) | 337654 | 50.0000 | 52.55 |
| 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 31844 | 100.000 | 88.92 |
| 10 | Acetone | 43 | 1.966 | 1.966 | (0.471) | 129779 | 100.000 | 88.00 |
| 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.458) | 188946 | 50.0000 | 47.37 |
| 12 | Isobutyl Alcohol | 43 | 4.669 | 4.669 | (1.119) | 651619 | 1000.00 | 1102.40 |
| 13 | Acetonitrile | 39 | 2.191 | 2.191 | (0.525) | 255778 | 500.000 | 534.77 |
| 14 | Allyl Chloride | 41 | 2.194 | 2.194 | (0.526) | 455184 | 50.0000 | 49.96 |
| 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 477326 | 100.000 | 91.44 |
| 16 | Acrylonitrile | 53 | 2.528 | 2.528 | (0.606) | 144106 | 100.000 | 106.53 |
| 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.551) | 245424 | 50.0000 | 44.86 |
| 18 | Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.606) | 632732 | 50.0000 | 48.46 |
| 19 | Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 1027017 | 100.000 | 98.41 |
| 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 218048 | 50.0000 | 48.84 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.717) | 1168425 | 100.000 | 101.95 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 371416 | 50.0000 | 47.41 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 82584 | 50.0000 | 46.21(M) |
| | 24 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 156320 | 100.000 | 99.94 |
| | 25 Methacrylonitrile | 41 | 3.814 | 3.814 | (0.914) | 191622 | 50.0000 | 51.49(a) |
| | 26 2,2-Dichloropropane | 77 | 3.503 | 3.503 | (0.839) | 331850 | 50.0000 | 49.89 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.521 | (0.844) | 249841 | 50.0000 | 45.99 |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 427491 | 50.0000 | 48.68 |
| | 29 Bromochloromethane | 128 | 3.788 | 3.788 | (0.907) | 133341 | 50.0000 | 44.83 |
| $ | 30 Dibromofluoromethane | 113 | 4.091 | 4.091 | (0.980) | 238645 | 50.0000 | 47.28 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.978) | 379778 | 50.0000 | 54.51 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 323614 | 50.0000 | 58.17 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 339716 | 50.0000 | 52.91 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 321188 | 50.0000 | 54.06 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.071) | 277434 | 50.0000 | 52.07 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 783584 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.909) | 948708 | 50.0000 | 50.70 |
| | 38 Trichloroethene | 130 | 5.201 | 5.201 | (1.048) | 281442 | 50.0000 | 53.02 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 345955 | 50.0000 | 49.26 |
| | 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.342) | 197004 | 50.0000 | 54.97 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.218) | 222087 | 100.000 | 111.16 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 239880 | 50.0000 | 48.19 |
| | 43 2-Nitropropane | 43 | 5.966 | 5.966 | (1.429) | 70843 | 50.0000 | 53.38 |
| | 44 Dibromomethane | 93 | 5.549 | 5.549 | (1.119) | 161557 | 50.0000 | 47.75 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 426745 | 100.000 | 104.90 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 413082 | 50.0000 | 50.08 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 761044 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 908604 | 50.0000 | 48.31 |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 200079 | 50.0000 | 54.22 |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 1071178 | 50.0000 | 50.92 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.678 | 6.678 | (1.346) | 357102 | 50.0000 | 52.17 |
| | 52 2-Hexanone | 43 | 7.083 | 7.083 | (0.924) | 296476 | 100.000 | 107.12 |
| | 53 1,1,2-Trichloroethane | 83 | 6.835 | 6.835 | (0.891) | 201667 | 50.0000 | 47.78 |
| | 54 1,3-Dichloropropane | 76 | 6.981 | 6.981 | (0.911) | 404206 | 50.0000 | 48.66 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 298385 | 50.0000 | 48.98 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 241757 | 50.0000 | 55.54 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 265533 | 50.0000 | 50.32 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 235733 | 50.0000 | 62.25 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 733713 | 50.0000 | 49.17 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 280573 | 50.0000 | 50.53 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 379869 | 50.0000 | 54.04 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 969089 | 100.000 | 106.96 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 459925 | 50.0000 | 51.43 |
| | 64 Styrene | 104 | 8.256 | 8.256 | (1.077) | 796355 | 50.0000 | 53.13 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 209153 | 50.0000 | 49.56 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 1206352 | 50.0000 | 59.04 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 326084 | 50.0000 | 46.10 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 358449 | 50.0000 | 50.99 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 443732 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 360102 | 50.0000 | 72.93 |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.886 | 8.886 | (1.159) | 88679 | 50.0000 | 53.97 |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1417870 | 50.0000 | 57.68 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 354733 | 50.0000 | 48.72 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1037753 | 50.0000 | 57.15 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 854846 | 50.0000 | 53.00 |
| 77 | 4-Chlorotoluene | 91 | 9.069 | 9.069 (0.939) | 1005978 | 50.0000 | 54.71 |

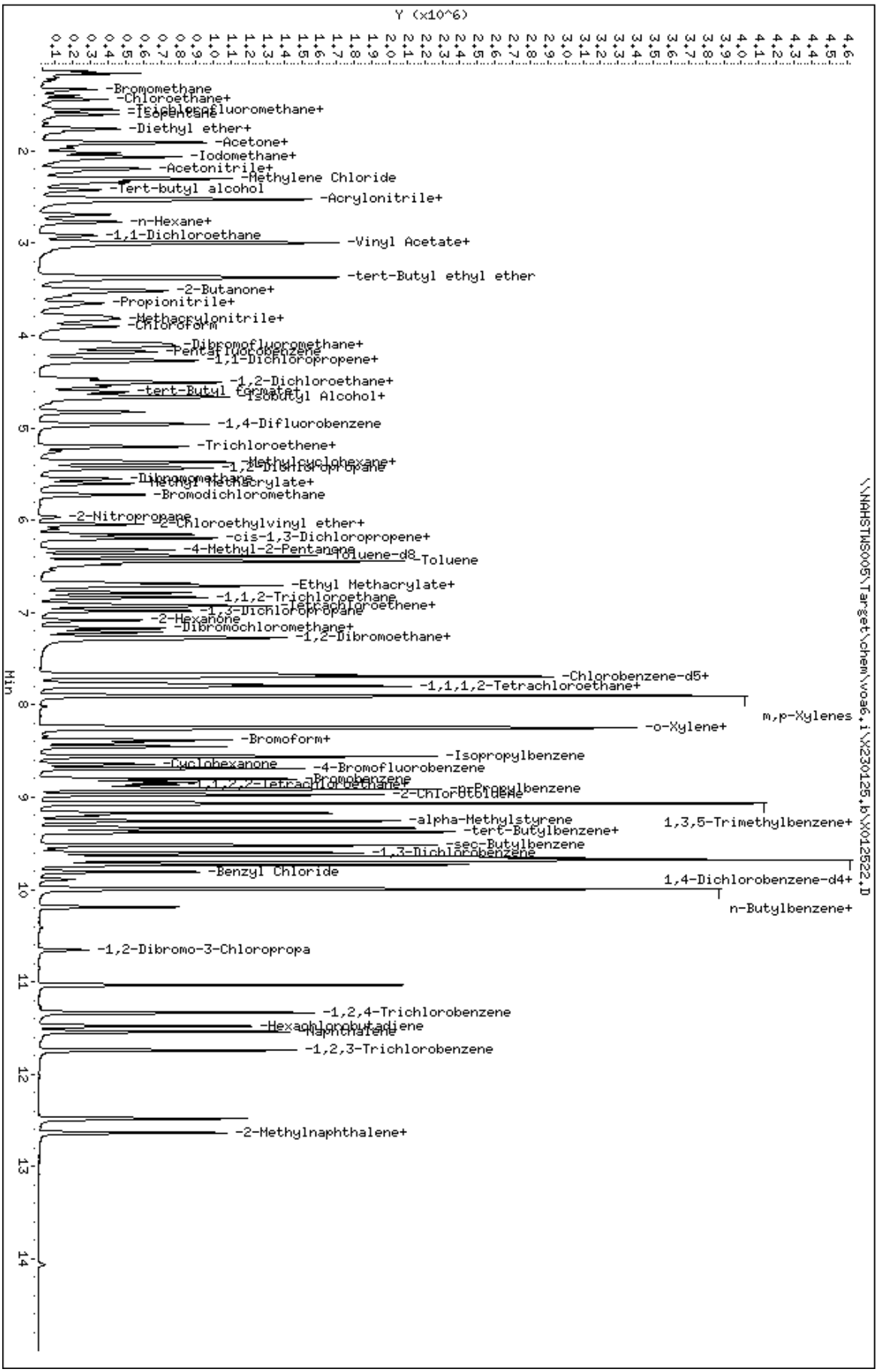
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 876537 | 50.0000 | 58.97 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 1046266 | 50.0000 | 54.76 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1237087 | 50.0000 | 62.55 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 1095465 | 50.0000 | 61.81 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 630434 | 50.0000 | 52.17 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.680 | 9.680 | (1.002) | 658929 | 50.0000 | 49.97 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 524192 | 50.0000 | 44.33 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 966372 | 50.0000 | 56.35 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 625563 | 50.0000 | 50.26 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 57255 | 50.0000 | 50.63 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.334 | 11.334 | (1.173) | 442748 | 50.0000 | 56.37 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 200047 | 50.0000 | 57.37 |
| 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 969360 | 50.0000 | 54.24 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.742 | (1.215) | 403182 | 50.0000 | 53.60 |
| 146 | Methyl acetate | 43 | 2.224 | 2.224 | (0.533) | 122147 | 50.0000 | 51.65 |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.458) | 200241 | 50.0000 | 51.90 |
| 141 | Cyclohexane | 56 | 4.118 | 4.118 | (0.987) | 312817 | 50.0000 | 58.82 |
| 142 | Tetrahydrofuran | 42 | 3.836 | 3.836 | (0.919) | 62570 | 100.000 | 95.64 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.377 | (1.084) | 578316 | 50.0000 | 60.29 |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.341) | 52032 | 1000.00 | 1083.14 |
| 132 | n-Butanol | 56 | 5.253 | 5.253 | (1.259) | 68180 | 1000.00 | 1013.18 |
| 131 | Methyl Acrylate | 55 | 3.679 | 3.679 | (0.881) | 228607 | 50.0000 | 64.07 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.377 | (1.288) | 578316 | 50.0000 | 55.93 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 231122 | 50.0000 | 61.08 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 150266 | 50.0000 | 42.79 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.423 | (0.581) | 400450 | 1000.00 | 1100.48 |
| 149 | Isopropyl alcohol | 45 | 2.089 | 2.089 | (0.501) | 215815 | 1000.00 | 1135.63 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.997 | (0.718) | 678230 | 50.0000 | 49.75 |
| 160 | 2-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 440976 | 50.0000 | 51.22 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 1107096 | 50.0000 | 51.81 |
| 167 | Ethanol | 45 | 1.696 | 1.696 | (0.406) | 36519 | 1000.00 | 1066.95 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.105) | 313235 | 100.000 | 112.32 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 374018 | 1000.00 | 1038.71 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.117) | 741947 | 50.0000 | 48.97 |
| 175 | tert-Butyl ethyl ether | 59 | 3.372 | 3.372 | (0.808) | 712689 | 50.0000 | 49.19 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.105) | 313235 | 1000.00 | 1109.82 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 803207 | 1000.00 | 1083.00 |
| 180 | 1-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 440976 | 50.0000 | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 166071 | 50.0000 | 46.04 |
| 152 | Amyl alcohol | 42 | 6.903 | 6.903 | (0.900) | 81207 | 1000.00 | 1079.06 |
| 158 | Dichlorofluoromethane | 67 | 1.523 | 1.523 | (0.365) | 30377 | 50.0000 | 44.64 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 31347 | 100.000 | 94.85 |
| 161 | 3-Methyl-1-butanol | 55 | 6.903 | 6.903 | (0.900) | 84936 | 1000.00 | 1128.82 |
| 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 527701 | 50.0000 | 53.08 |
| 182 | Epichlorohydrin | 57 | 6.093 | 6.093 | (1.228) | 76000 | 200.000 | 216.36 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 467889 | 100.000 | (a) |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 494264 | 50.0000 | 50.27 |
| 130 | Ethyl Acetate | 43 | 3.649 | 3.649 | (0.874) | 225131 | 50.0000 | 54.90 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 204665 | 1000.00 | 1105.71 |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 72615 | 50.0000 | 51.86 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 127688 | 50.0000 | (a) |
| 188 | Isopropyl acetate | 43 | 4.669 | 4.669 | (0.941) | 653036 | 50.0000 | 53.64 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 448604 | 50.0000 | 50.55 |
| 189 n-Butyl acetate | 43 | 7.210 | 7.210 (0.940) | 366571 | 50.0000 | 56.07 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | AMOUNTS ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 231122 | 1000.00 | 1196.55 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.290) | 69519 | 200.000 | 209.86 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 512676 | 50.0000 | 50.66 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 509010 | 50.0000 | 49.41 |
| 168 1-Propanol | 59 | 2.993 | 2.993 | (0.717) | 78026 | 1000.00 | 908.52 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTWS005\Target\chem\voa6.i\x230125.b\X012522.D
Date : 25-JAN-2023 15:00
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

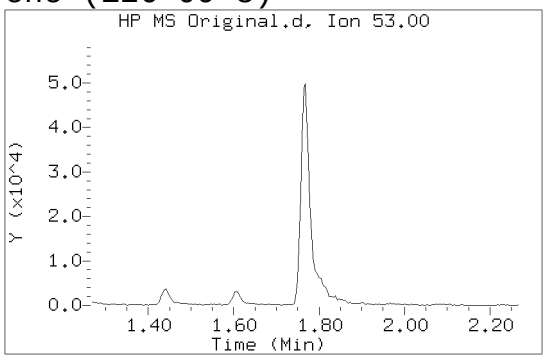
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230125.b\X012522.D
Inj Date : 25-JAN-2023 15:00
InstruID : voa6.i
LabSampID : CCV-END

Chloroprene (126-99-8)

Reason Code:

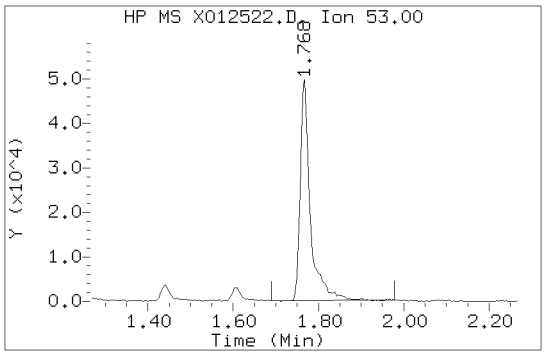
BEFORE

MASS
53
AREA
0
HEIGHT
0
25-Jan-2023
15:16
ALSHS
Server



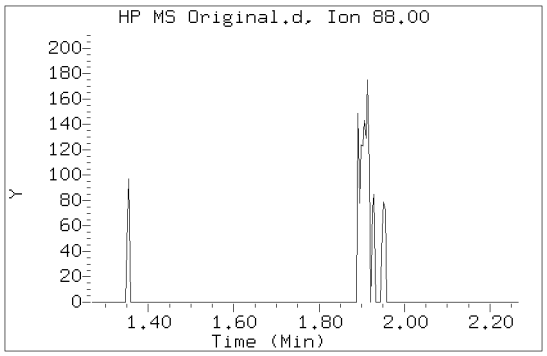

AFTER

MASS
53
AREA
82584
HEIGHT
49606
03-Feb-2023
10:54
ALSHS
Ser



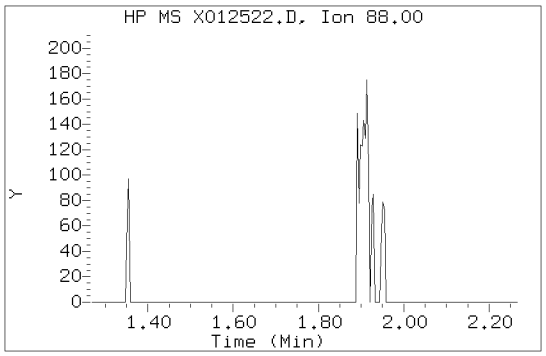

BEFORE

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
15:16
ALSHS
Server




AFTER

MASS
88
AREA
0
HEIGHT
0
03-Feb-2023
10:54
ALSHS
Ser



# HS23010991 Wet Chemistry

ALS WO# HS23010991

C:\TOC-L\Data\2022_12_22_001_CAL.tlx

HS 23010991

| | Type | Analysis | Sample Name | Sample ID | Origin | Manual Diluti | Result | Notes |
|---|---|---|---|---|---|---|---|---|
| 1 | Standard | NPOC | CAL | 3100606518 | 12_22_2022 | 1.000 | | |
| 2 | Unknown | NPOC | ICV | 3100606203 | 12_22_2022 | 1.000 | NPOC:10.45mg/L | |
| 3 | Unknown | NPOC | ICB | | 12_22_2022 | 1.000 | NPOC:0.3762mg/ | |

| | Status | Date / Time | Vial |
|---|---|---|---|
| 1 | Completed | 12/22/2022 1:40:24 | 1, 2, 3, 4, 5, |
| 2 | Completed | 12/22/2022 1:53:55 | 8 |
| 3 | Completed | 12/22/2022 2:06:25 | 1 |

# TOC-Control L Report

2022_12_22_001_CAL.tlx

**Instr.Information**

| | |
|---|---|
| Instrument Options | TOC/ASI/IC Unit/ |
| Catalyst | Regular Sensitivity |

**Cal. Curve**

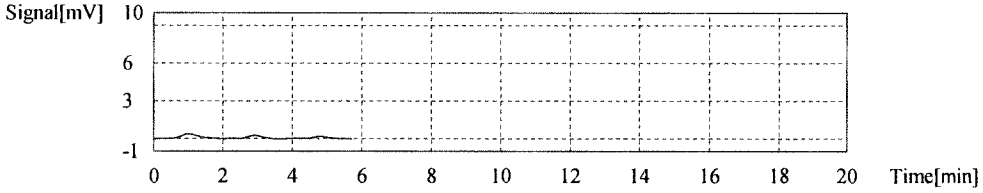
| | |
|---|---|
| Sample Name: | CAL |
| Sample ID: | 3100606518 |
| Cal. Curve: | 12_22_2022_CAL.2022_12_22_12_06_45.cal |
| Status | Completed |

| Type | Anal. |
|---|---|
| Standard | NPOC |

Conc: 0.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 0.9953 | 50uL | 1.000 | ******* | | 12/22/2022 12:15:19 PM |
| 2 | 0.6996 | 50uL | 1.000 | ******* | | 12/22/2022 12:17:28 PM |
| 3 | 0.3943 | 50uL | 1.000 | ******* | | 12/22/2022 12:19:35 PM |

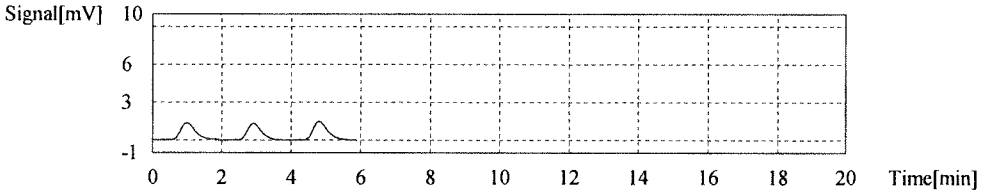
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 0.6964 |




Conc: 1.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 3.828 | 50uL | 1.000 | ******* | | 12/22/2022 12:27:39 PM |
| 2 | 3.692 | 50uL | 1.000 | ******* | | 12/22/2022 12:29:46 PM |
| 3 | 4.395 | 50uL | 1.000 | ******* | | 12/22/2022 12:32:03 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 3.972 |



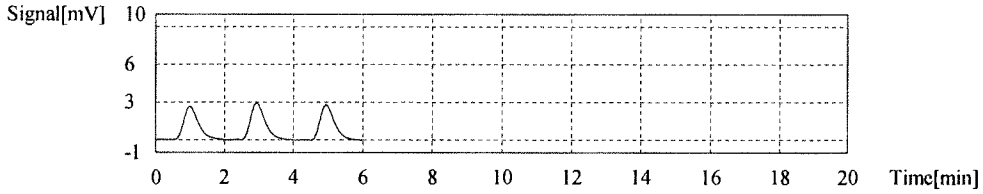

Conc: 2.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 7.632 | 50uL | 1.000 | ******* | | 12/22/2022 12:40:09 PM |
| 2 | 8.569 | 50uL | 1.000 | ******* | | 12/22/2022 12:42:24 PM |
| 3 | 8.142 | 50uL | 1.000 | ******* | | 12/22/2022 12:44:38 PM |

# TOC-Control L Report

2022_12_22_001_CAL.tlx

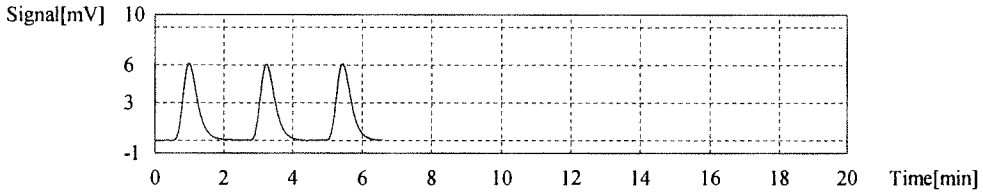
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 8.114 |




Conc: 5.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 18.24 | 50uL | 1.000 | ******* | | 12/22/2022 12:53:02 PM |
| 2 | 18.17 | 50uL | 1.000 | ******* | | 12/22/2022 12:55:30 PM |
| 3 | 18.13 | 50uL | 1.000 | ******* | | 12/22/2022 12:57:50 PM |

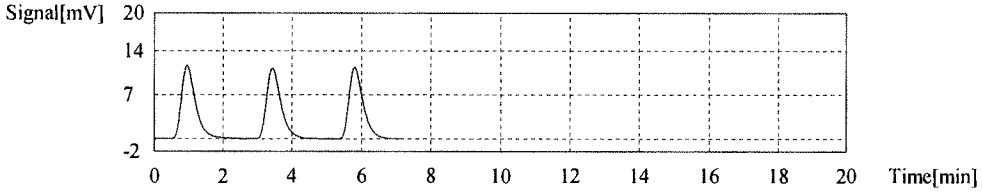
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 18.18 |




Conc: 10.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 33.16 | 50uL | 1.000 | ******* | | 12/22/2022 1:06:28 PM |
| 2 | 32.94 | 50uL | 1.000 | ******* | | 12/22/2022 1:09:05 PM |
| 3 | 32.73 | 50uL | 1.000 | ******* | | 12/22/2022 1:11:32 PM |

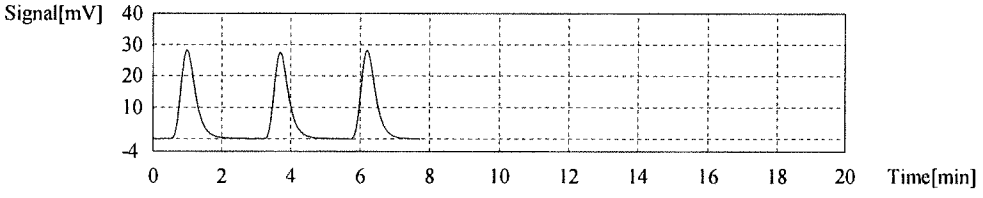
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 32.94 |




Conc: 25.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 85.96 | 50uL | 1.000 | ******* | | 12/22/2022 1:20:24 PM |
| 2 | 82.23 | 50uL | 1.000 | ******* | | 12/22/2022 1:23:09 PM |
| 3 | 84.99 | 50uL | 1.000 | ******* | | 12/22/2022 1:25:54 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 84.39 |



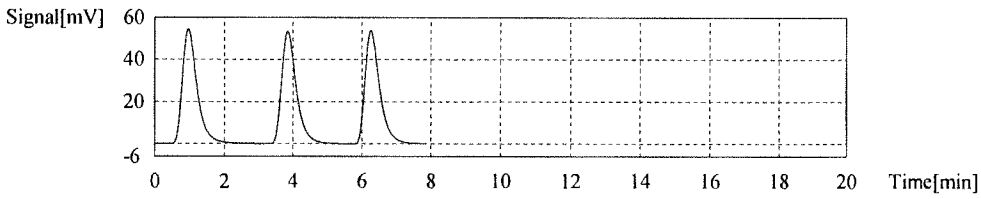

Conc: 50.00mg/L

# TOC-Control L Report

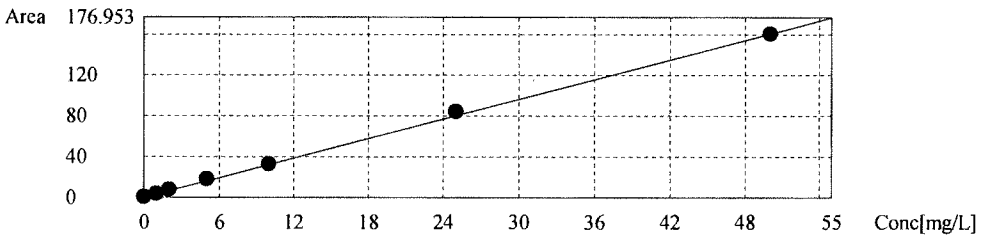
2022_12_22_001_CAL.tlx

| No. | Area | Inj. Vol | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 162.0 | 50uL | 1.000 | ******* | | 12/22/2022 1:34:55 PM |
| 2 | 160.0 | 50uL | 1.000 | ******* | | 12/22/2022 1:37:37 PM |
| 3 | 160.6 | 50uL | 1.000 | ******* | | 12/22/2022 1:40.24 PM |

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 160.9




Slope: 3.212
Intercept 0.000
r^2 0.9995
r 0.9998
RSE(%) N/A
Zero Shift Yes




**Sample**

Sample Name: ICV
Sample ID: 3100606203
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

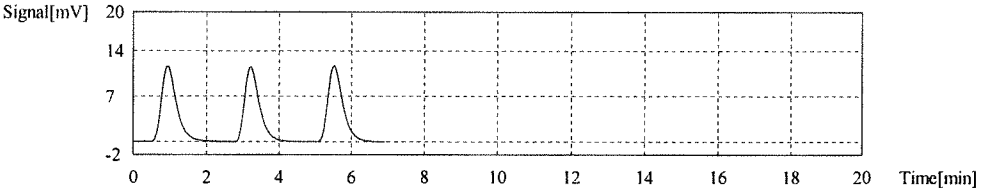
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:10.45mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 33.43 | 10.41mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 12/22/2022 1:48:50 PM |
| 2 | 33.28 | 10.36mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 12/22/2022 1:51:22 PM |
| 3 | 33.98 | 10.58mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 12/22/2022 1:53:55 PM |

Mean Area 33.56
Mean Conc. 10.45mg/L




**Sample**

# TOC-Control L Report

2022_12_22_001_CAL.tlx

Sample Name: ICB
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

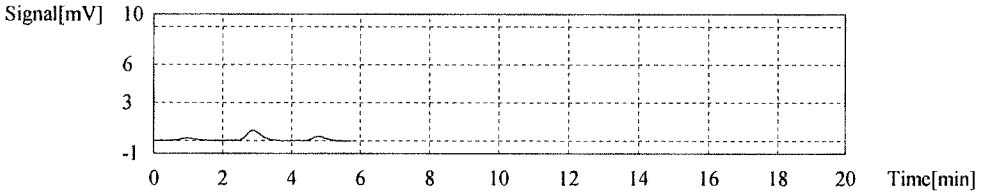
| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.3762mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.3846 | 0.1197mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 12/22/2022 2:02:10 PM |
| 2 | 2.321 | 0.7226mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 12/22/2022 2:04:18 PM |
| 3 | 0.9197 | 0.2863mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 12/22/2022 2:06:25 PM |

Mean Area 1.208
Mean Conc. 0.3762mg/L



C:\TOC-L\Data\2023_01_30_001.tlx

| | Type | Analysis | Sample Name | Sample ID | Origin | Manual Diluti | Result |
|---|---|---|---|---|---|---|---|
| 1 | Unknown | NPOC | CCV | 321101806 | 12_22_2022_CAL.cal | 1.000 | NPOC:24.95mg/L |
| 2 | Unknown | NPOC | CCB | | 12_22_2022_CAL.cal | 1.000 | NPOC:0.2868mg/ |
| 3 | Unknown | NPOC | MBLK-01302023 | | 12_22_2022_CAL.cal | 1.000 | NPOC:0.1758mg/ |
| 4 | Unknown | NPOC | LCS-01302023 | 3100606203 | 12_22_2022_CAL.cal | 1.000 | NPOC:10.44mg/L |
| 5 | Unknown | NPOC | LCSD-01302023 | | 12_22_2022_CAL.cal | 1.000 | NPOC:10.41mg/L |
| 6 | Unknown | NPOC | HS23011256-04 | | 12_22_2022_CAL.cal | 1.000 | NPOC:90.54mg/L |
| 7 | Unknown | NPOC | HS23011192-04DF10 | | 12_22_2022_CAL.cal | 1.000 | NPOC:35.25mg/L |
| 8 | Unknown | NPOC | HS23011210-01 | | 12_22_2022_CAL.cal | 1.000 | NPOC:8.447mg/L |
| 9 | Unknown | NPOC | HS23011437-01 | | 12_22_2022_CAL.cal | 1.000 | NPOC:0.9185mg/ |
| 10 | Unknown | NPOC | HS23011437-02 | | 12_22_2022_CAL.cal | 1.000 | NPOC:1.320mg/L |
| 11 | Unknown | NPOC | HS23011437-03 | | 12_22_2022_CAL.cal | 1.000 | NPOC:4.003mg/L |
| 12 | Unknown | NPOC | HS23010982-03 | | 12_22_2022_CAL.cal | 1.000 | NPOC:114.1mg/L |
| 13 | Unknown | NPOC | CCV | 321101806 | 12_22_2022_CAL.cal | 1.000 | NPOC:26.52mg/L |
| 14 | Unknown | NPOC | CCB | | 12_22_2022_CAL.cal | 1.000 | NPOC:0.4401mg/ |
| 15 | Unknown | NPOC | HS23010982-04 | | 12_22_2022_CAL.cal | 1.000 | NPOC:8.996mg/L |
| 16 | Unknown | NPOC | HS23010982-05 | | 12_22_2022_CAL.cal | 1.000 | NPOC:10.94mg/L |
| 17 | Unknown | NPOC | HS23010982-05MS | | 12_22_2022_CAL.cal | 1.000 | NPOC:22.11mg/L |
| 18 | Unknown | NPOC | HS23010982-06 | | 12_22_2022_CAL.cal | 1.000 | NPOC:15.69mg/L |
| 19 | Unknown | NPOC | CCV | 321101806 | 12_22_2022_CAL.cal | 1.000 | NPOC:26.02mg/L |
| 20 | Unknown | NPOC | CCB | | 12_22_2022_CAL.cal | 1.000 | NPOC:0.4919mg/ |
| 21 | Unknown | NPOC | MBLK-01302023 | | 12_22_2022_CAL.cal | 1.000 | NPOC:0.3309mg/ |
| 22 | Unknown | NPOC | LCS-01302023 | 3100606203 | 12_22_2022_CAL.cal | 1.000 | NPOC:10.43mg/L |
| 23 | Unknown | NPOC | LCSD-01302023 | | 12_22_2022_CAL.cal | 1.000 | NPOC:10.36mg/L |
| 24 | Unknown | NPOC | HS23010986-01 | | 12_22_2022_CAL.cal | 1.000 | NPOC:48.39mg/L |
| 25 | Unknown | NPOC | HS23010986-04 | | 12_22_2022_CAL.cal | 1.000 | NPOC:5.565mg/L |
| 26 | Unknown | NPOC | HS23010986-05 | | 12_22_2022_CAL.cal | 1.000 | NPOC:42.78mg/L |
| 27 | Unknown | NPOC | HS23010986-05MS | | 12_22_2022_CAL.cal | 1.000 | NPOC:53.03mg/L |
| 28 | Unknown | NPOC | HS23010986-06 | | 12_22_2022_CAL.cal | 1.000 | NPOC:5.174mg/L |
| 29 | Unknown | NPOC | HS23010986-07 | | 12_22_2022_CAL.cal | 1.000 | NPOC:5.053mg/L |
| 30 | Unknown | NPOC | HS23010991-01 | | 12_22_2022_CAL.cal | 1.000 | NPOC:17.31mg/L |
| 31 | Unknown | NPOC | CCV | 321101806 | 12_22_2022_CAL.cal | 1.000 | NPOC:25.67mg/L |
| 32 | Unknown | NPOC | CCB | | 12_22_2022_CAL.cal | 1.000 | NPOC:0.6257mg/ |
| 33 | Unknown | NPOC | HS23011352-01 | | 12_22_2022_CAL.cal | 1.000 | NPOC:8.713mg/L |
| 34 | Unknown | NPOC | HS23011389-01 | | 12_22_2022_CAL.cal | 1.000 | NPOC:3.734mg/L |
| 35 | Unknown | NPOC | HS23011389-02 | | 12_22_2022_CAL.cal | 1.000 | NPOC:2.577mg/L |
| 36 | Unknown | NPOC | HS23011389-03 | | 12_22_2022_CAL.cal | 1.000 | NPOC:1.459mg/L |
| 37 | Unknown | NPOC | CCV | 321101806 | 12_22_2022_CAL.cal | 1.000 | NPOC:25.21mg/L |
| 38 | Unknown | NPOC | CCB | | 12_22_2022_CAL.cal | 1.000 | NPOC:0.3784mg/ |

| | Notes | Status | Date / Time | Vial |
|---|---|---|---|---|
| 1 | | Completed | 1/30/2023 3:12:35 | 1 |
| 2 | | Completed | 1/30/2023 3:24:52 | 2 |
| 3 | | Completed | 1/30/2023 3:37:09 | 3 |
| 4 | | Completed | 1/30/2023 3:51:12 | 4 |
| 5 | | Completed | 1/30/2023 4:05:00 | 5 |
| 6 | | Completed | 1/30/2023 4:20:12 | 6 |
| 7 | | Completed | 1/30/2023 4:34:41 | 7 |
| 8 | | Completed | 1/30/2023 4:48:36 | 8 |
| 9 | | Completed | 1/30/2023 5:01:06 | 9 |
| 10 | | Completed | 1/30/2023 5:13:49 | 10 |
| 11 | | Completed | 1/30/2023 5:27:10 | 11 |
| 12 | | Completed | 1/30/2023 5:42:28 | 12 |
| 13 | | Completed | 1/30/2023 5:57:09 | 1 |
| 14 | | Completed | 1/30/2023 6:09:26 | 2 |
| 15 | | Completed | 1/30/2023 6:23:28 | 13 |
| 16 | | Completed | 1/30/2023 6:37:51 | 14 |
| 17 | | Completed | 1/30/2023 6:52:25 | 15 |
| 18 | | Completed | 1/30/2023 7:06:52 | 16 |
| 19 | | Completed | 1/30/2023 7:21:39 | 1 |
| 20 | | Completed | 1/30/2023 7:33:56 | 2 |
| 21 | | Completed | 1/30/2023 7:46:13 | 3 |
| 22 | | Completed | 1/30/2023 8:00:13 | 4 |
| 23 | | Completed | 1/30/2023 8:13:54 | 5 |
| 24 | | Completed | 1/30/2023 8:28:50 | 17 |
| 25 | | Completed | 1/30/2023 8:42:25 | 18 |
| 26 | | Completed | 1/30/2023 8:57:27 | 19 |
| 27 | | Completed | 1/30/2023 9:12:24 | 20 |
| 28 | | Completed | 1/30/2023 9:26:03 | 21 |
| 29 | | Completed | 1/30/2023 9:39:30 | 22 |
| 30 | | Completed | 1/30/2023 9:53:58 | 23 |
| 31 | | Completed | 1/30/2023 10:08:34 | 24 |
| 32 | | Completed | 1/30/2023 10:20:54 | 25 |
| 33 | | Completed | 1/30/2023 10:34:54 | 26 |
| 34 | | Completed | 1/30/2023 10:48:25 | 27 |
| 35 | | Completed | 1/30/2023 11:01:27 | 28 |
| 36 | | Completed | 1/30/2023 11:14:02 | 29 |
| 37 | | Completed | 1/30/2023 11:29:11 | 24 |
| 38 | | Completed | 1/30/2023 11:41:46 | 25 |

# TOC-Control L Report

2023_01_30_001.tlx

**Instr.Information**

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

**Sample**

Sample Name: CCV
Sample ID: 321101806
Origin: 12_22_2022_CAL.cal
Status: Completed
Chk. Result

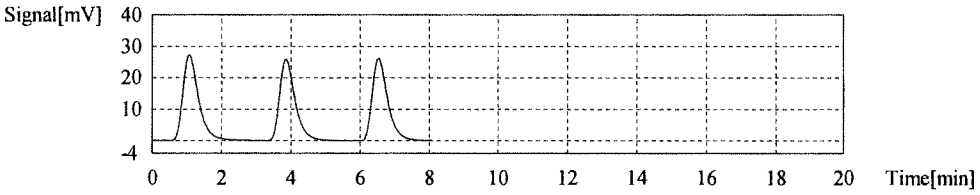
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:26.02mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 86.27 | 26.86mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 7:15:55 PM |
| 2 | 81.72 | 25.44mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 7:18:52 PM |
| 3 | 82.69 | 25.74mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 7:21:39 PM |

Mean Area: 83.56
Mean Conc.: 26.02mg/L




**Sample**

Sample Name: CCB
Sample ID:
Origin: 12_22_2022_CAL.cal
Status: Completed
Chk. Result

| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.4919mg/L |

1. Det

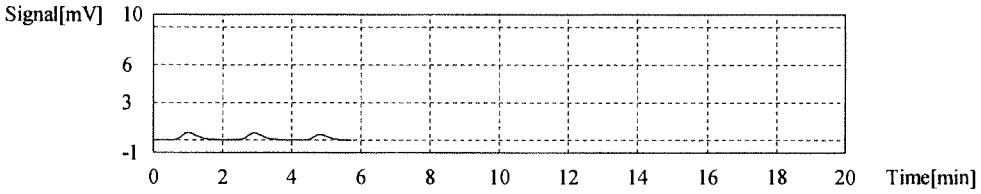
Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.793 | 0.5582mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 7:29:42 PM |
| 2 | 1.651 | 0.5140mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 7:31:49 PM |
| 3 | 1.296 | 0.4035mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 7:33:56 PM |

# TOC-Control L Report

2023_01_30_001.tlx

Mean Area 1.580
Mean Conc. 0.4919mg/L




**Sample**

Sample Name: MBLK-01302023
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

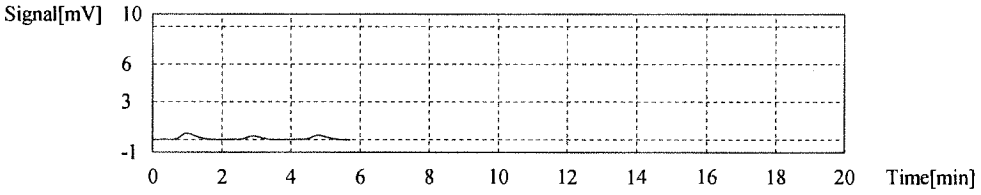
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.3309mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol | Aut. Dil. | Ex | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.448 | 0.4508mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 7:41:59 PM |
| 2 | 0.7615 | 0.2371mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 7:44:06 PM |
| 3 | 0.9792 | 0.3049mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 7:46:13 PM |

Mean Area 1.063
Mean Conc. 0.3309mg/L




**Sample**

Sample Name: LCS-01302023
Sample ID: 3100606203
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:10.43mg/L |

1. Det

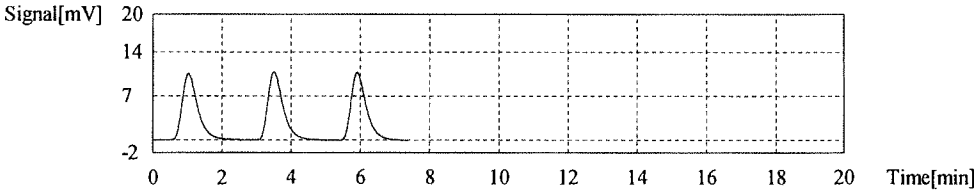
Anal.: NPOC

# TOC-Control L Report

2023_01_30_001.tlx

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 33.21 | 10.34mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 7:54:52 PM |
| 2 | 33.45 | 10.41mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 7:57:31 PM |
| 3 | 33.82 | 10.53mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 8:00:13 PM |

Mean Area 33.49
Mean Conc. 10.43mg/L




**Sample**

Sample Name: LCSD-01302023
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

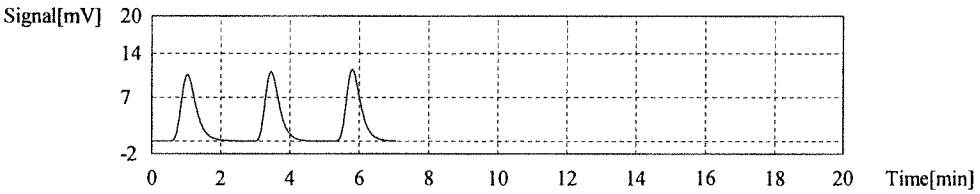
| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:10.36mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 32.84 | 10.22mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 8:08:48 PM |
| 2 | 32.86 | 10.23mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 8:11:24 PM |
| 3 | 34.16 | 10.64mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 8:13:54 PM |

Mean Area 33.29
Mean Conc. 10.36mg/L




**Sample**

Sample Name: HS23010986-05
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:42.78mg/L |

1. Det

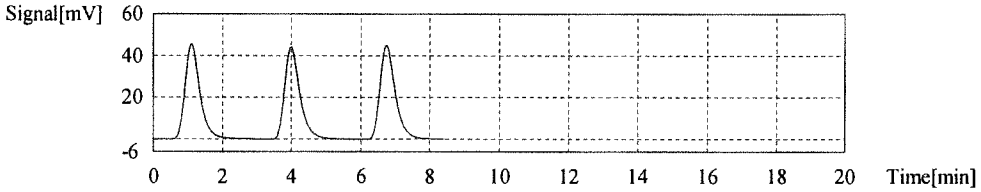
# TOC-Control L Report



Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 136.9 | 42.62mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 8:51:29 PM |
| 2 | 136.0 | 42.34mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 8:54:29 PM |
| 3 | 139.3 | 43.37mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 8:57:27 PM |

Mean Area 137.4
Mean Conc. 42.78mg/L




**Sample**

Sample Name: HS23010986-05MS
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

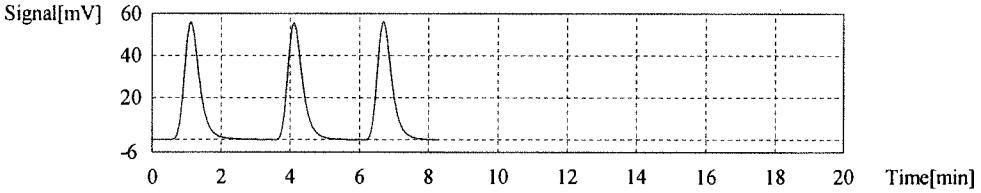
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:53.03mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 174.1 | 54.20mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 9:06:39 PM |
| 2 | 167.8 | 52.24mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 9:09:31 PM |
| 3 | 169.1 | 52.65mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 9:12:24 PM |

Mean Area 170.3
Mean Conc. 53.03mg/L




**Sample**

Sample Name: HS23010991-01
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:17.31mg/L |

# TOC-Control L Report

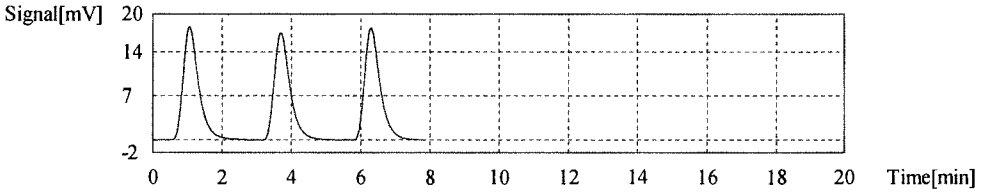
2023_01_30_001.tlx

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 56.42 | 17.57mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 9:48:19 PM |
| 2 | 54.61 | 17.00mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 9:51:10 PM |
| 3 | 55.76 | 17.36mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 9:53:58 PM |

Mean Area 55.60
Mean Conc. 17.31mg/L




**Sample**

Sample Name: CCV
Sample ID: 321101806
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

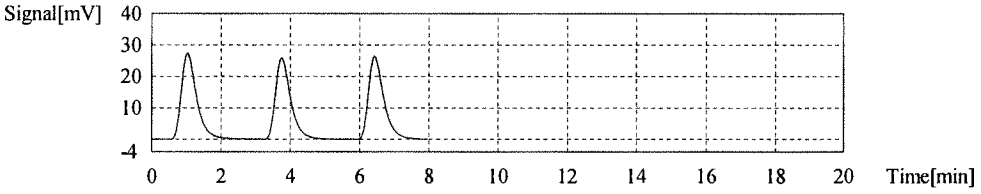
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.67mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 84.60 | 26.34mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 10:02:50 PM |
| 2 | 80.98 | 25.21mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 10:05:47 PM |
| 3 | 81.77 | 25.46mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 10:08:34 PM |

Mean Area 82.45
Mean Conc. 25.67mg/L




**Sample**

Sample Name: CCB
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

# TOC-Control L Report

2023_01_30_001.tlx

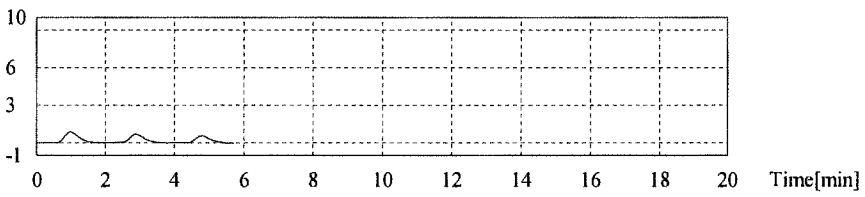
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.6257mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 2.510 | 0.7815mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 10:16:38 PM |
| 2 | 1.863 | 0.5800mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 10:18:46 PM |
| 3 | 1.656 | 0.5156mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 10:20:54 PM |

Mean Area 2.010
Mean Conc. 0.6257mg/L




**Sample**

Sample Name: CCV
Sample ID: 321101806
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

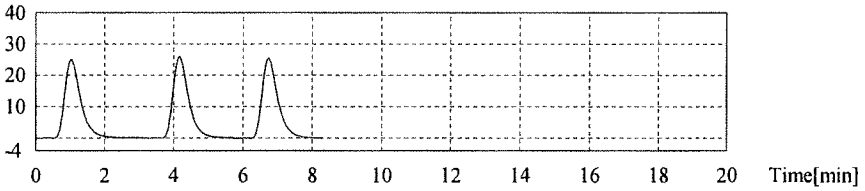
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.21mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 80.85 | 25.17mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 11:23:32 PM |
| 2 | 80.54 | 25.08mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 11:26:22 PM |
| 3 | 81.54 | 25.39mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 11:29:11 PM |

Mean Area 80.98
Mean Conc. 25.21mg/L




**Sample**

# TOC-Control L Report

2023_01_30_001.tlx

Sample Name: CCB
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

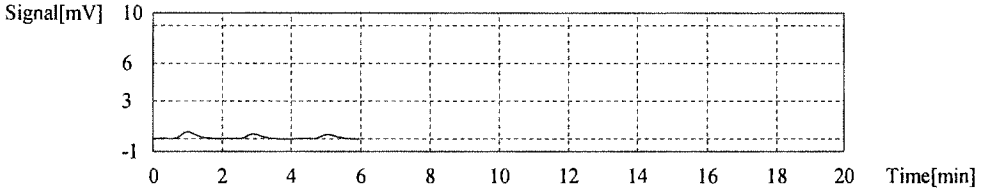
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.3784mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date/Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.592 | 0.4957mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 11:37:15 PM |
| 2 | 1.092 | 0.3400mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 11:39:38 PM |
| 3 | 0.9624 | 0.2996mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 1/30/2023 11:41:46 PM |

Mean Area 1.215
Mean Conc. 0.3784mg/L



# HS23010991-E2300057 Perchlorate Level IV

ALS WO# HS23010991

January 30, 2023 Service Request No:E2300057

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

**Laboratory Results for: HS23010991**

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory January 23, 2023
For your reference, these analyses have been assigned our service request number **E2300057.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

# Certificate of Analysis

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Environmental**

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request No.:** | E2300057 |
| **Project:** | HS23010991 | **Date Received:** | 01/23/23 |
| **Sample Matrix:** | Ground Water | | |

## CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

### Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 01/23/23.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

### Data Validation Notes and Discussion

**Precision and Accuracy:**

EQ2300029: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

**Client:** ALS Environmental - US **Service Request:**E2300057
**Project:** HS23010991

## SAMPLE CROSS-REFERENCE

| SAMPLE # | CLIENT SAMPLE ID | DATE | TIME |
|---|---|---|---|
| E2300057-001 | 16EW01-230119 | 1/19/2023 | 1325 |

# Service Request Summary

**Folder #:** **E2300057**
Client Name: ALS Environmental - US
Project Name: HS23010991
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/23/23
Internal Due Date: 2/3/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23010991
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

| Lab Samp No. | Client Samp No | Matrix | Collected | HOUSTON ClO4 DOD/6850 |
|---|---|---|---|---|
| E2300057-001 | 16EW01-230119 | Ground Water | 01/19/23 1325 | IV |

# Service Request Summary

**Folder #:** **E2300057**
Client Name: ALS Environmental - US
Project Name: HS23010991
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/23/23
Internal Due Date: 2/3/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23010991
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

## Test Comments:

| Group | Test/Method | Samples | Comments |
|---|---|---|---|
| Semivoa GCMS | ClO4 DOD/6850 | 1 | IV Due 2/10 |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| + | Possible Tedlar bag artifact. |
| A | TIC is a suspected aldol-condensation product |
| B | Analyte found in the associated method blank as well as in the sample. |
| BC | Reported results are not blank corrected. |
| BH | The back section of the tube yielded higher results than the front. |
| BT | Results indicated possible breakthrough; back section >=10% front section. |
| C | Result identification confirmed. |
| D | Compound identified in an analysis at a secondary dilution factor |
| D | Spike was diluted out |
| DE | Reported results are corrected for desorption efficiency. |
| E | Estimated value. Concentration above calibration range |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| H1 | Sample analysis performed past holding time. See case narrative. |
| H2 | Initial analysis within holding time. Reanalysis for the required dilution was past holding time. |
| H3 | Sample was received and analyzed past holding time. |
| H4 | Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative. |
| I | (Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| I | Internal standard not within the specified limits. See case narrative. |
| I | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| J | Estimated Value. Concentration found below MRL. |
| K | A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate. |
| K | Analyte was detected above the method reporting limit prior to normalization. |
| K | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| L1 | Laboratory control sample recovery outside the specified limits; results may be biased high. |
| L2 | Laboratory control sample recovery outside the specified limits; results may be biased low. |
| L3 | Laboratory control sample recovery outside the specified limits. |
| M | Matrix interference; results may be biased high. |
| M | The duplicate injection precision not met. |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| M1 | Matrix interference due to coelution with a non-target compound; results may be biased high. |
| N | Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| P | Indicates chlorodiphenyl ether interference present at the retention time of the target compound. |
| P | Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns |
| Q | Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria. |
| R | Duplicate Precision not met. |
| R1 | Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated. |
| S | Surrogate recovery not within specified limits. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| T | Analyte is a tentatively identified compound, result is estimated. |
| U | Compound was analyzed for, but was not detected (ND). |
| V1 | The continuing calibration verification standard was outside (biased high) the specified limits for this compound. |
| V2 | The continuing calibration verification standard was outside (biased low) the specified limits for this compound. |
| W | Result quantified, but the corresponding peak was detected outside the generated retention time window. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| X | See case narrative. |
| Y | Recovery outside limits |
| Y | The chromatogram resembles a petroleum product but does not match the calibration standard. |
| Z | The chromatogram does not resemble a petroleum product. |
| i | The MRL/MDL has been elevated due to a matrix interference. |

# ALS Laboratory Group

**Acronyms**

| | |
|---|---|
| Cal | Calibration |
| Conc | CONCentration |
| Dioxin(s) | Polychlorinated dibenzo-p-dioxin(s) |
| EDL | Estimated Detection Limit |
| EMPC | Estimated Maximum Possible Concentration |
| Flags | Data qualifiers |
| Furan(s) | Polychlorinated dibenzofuran(s) |
| g | Grams |
| ICAL | Initial CALibration |
| ID | IDentifier |
| Ions | Masses monitored for the analyte during data acquisition |
| L | Liter (s) |
| LCS | Laboratory Control Sample |
| DLCS | Duplicate Laboratory Control Sample |
| MB | Method Blank |
| MCL | Method Calibration Limit |
| MDL | Method Detection Limit |
| mL | Milliliters |
| MS | Matrix Spiked sample |
| DMS | Duplicate Matrix Spiked sample |
| NO | Number of peaks meeting all identification criteria |
| PCDD(s) | Polychlorinated dibenzo-p-dioxin(s) |
| PCDF(s) | Polychlorinated dibenzofuran(s) |
| ppb | Parts per billion |
| ppm | Parts per million |
| ppq | Parts per quadrillion |
| ppt | Parts per trillion |
| QA | Quality Assurance |
| QC | Quality Control |
| Ratio | Ratio of areas from monitored ions for an analyte |
| % Rec. | Percent recovery |
| RPD | Relative Percent Difference |
| RRF | Relative Response Factor |
| RT | Retention Time |
| SDG | Sample Delivery Group |
| S/N | Signal-to-noise ratio |
| TEF | Toxicity Equivalence Factor |
| TEQ | Toxicity Equivalence Quotient |

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ALS Environmental

## State Certifications, Accreditations, and Licenses

| Agency | Number | Expire Date |
|---|---|---|
| Arizona Department of Health Services | AZ0793 | 5/27/2023 |
| Arkansas Department of Environmental Quality | 22-041-0 | 3/27/2023 |
| California Department of Health Services | 2919-2023 | 4/30/2023 |
| Department of Defense | L22-90 | 3/31/2024 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Hawaii Department of Health | 2022 | 4/30/2023 |
| Illinois Environmental Protection Agency | 2000322022-9 | 5/9/2023 |
| Kansas Department of Health and Environment | E-10352 2022-2023 | 7/31/2023 |
| Louisiana Department of Environmental Quality | 03087-2022 | 6/30/2023 |
| Louisiana Department of Health and Hospitals | LA028-2023 | 12/31/2023 |
| Maine Department of Health and Human Services | 2022017 | 6/5/2024 |
| Maryland Department of the Environment | 343 | 6/30/2023 |
| Michigan Depratment of Environmental Quality | 9971-2022 | 4/30/2023 |
| Minnesota Department of Health | 2368363 | 12/31/2023 |
| Nebraska Department of Health and Human Services | NE-OS-25-13 | 4/30/2023 |
| Nevada Department of Conservation and Natural Resources | TX026932023-1 | 7/31/2023 |
| New Hampshire Environmental Laboratory Accreditation Program | 209422 | 4/24/2023 |
| New Jersey Department of Environmental Protection | TX008-2023 | 6/30/2023 |
| New York Department of Health | 11707 | 3/31/2023 |
| Oklahoma Department of Environmental Quality | 2022-141 | 8/31/2023 |
| Oregon Environmental Laboratory Accreditation Program | TX200002 | 5/15/2023 |
| Pennsylvania Department of Environmental Protection | 68-03441-016 | 6/30/2023 |
| Perry Johnson Laboratory Accreditation | L22-91 | 3/31/2024 |
| Tennessee Department of Environment and Concervation | 04016-2022 | 4/30/2023 |
| Texas Commision on Environmental Quality | T104704231-22-29 | 4/30/2023 |
| Utah Department of Health Environmental Laboratory Certification | TX026932022-13 | 7/31/2023 |
| Washington Department of Ecology | C819-22 | 11/14/2023 |

# Chain of Custody

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
**T:** +1 281 530 5656
**F:** +1 281 530 5887
**www.alsglobal.com**

# Subcontract Chain of Custody

**SAMPLING STATE:** Dept of Defense **COC ID:** 20797

**SUBCONTRACT TO:**

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

**Phone:** +1 281 530 5656

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | HS23010991 |
| **TSR:** | Ron Martino |

| | LAB SAMPLE ID | CLIENT SAMPLE ID | MATRIX | COLLECT DATE |
|---|---|---|---|---|
| | ANALYSIS REQUESTED | | | DUE DATE |
| 1. | HS23010991-01 | **16EW01-230119** | **Groundwater** | **19 Jan 2023 13:25** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 03 Feb 2023 |

**Comments:** Please analyze for the analysis listed above.
Send report to the emails shown above.

**QC Level:** DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 1-23-23 1120

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

# Cooler Receipt Form

Project Chemist JH

Client/Project ALS

Thermometer ID IR31

Date/Time Received: 1-23-23 Initials: CG Date/Time Logged in: 1-23-23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ⊗ ALS Courier ○ Client

2. Samples received in: ⊗ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ⊗ No If yes, how many and where?

Were they intact? ○ Yes ○ No ⊗ N/A

Were they signed and dated? ○ Yes ○ No ⊗ N/A

4. Packing Material: ○ Inserts ⊗ Baggies ○ Bubble Wrap ○ Gel Packs ⊗ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

| Cooler Tracking Number | COC ID | Date Opened | Time Opened | Opened By | Temp. °C | Temp Blank? |
|---|---|---|---|---|---|---|
| NA | | 1-23-23 | 1100 | CG | 3.7 | ☑ |
| | | | | | | ☐ |
| | | | | | | ☐ |
| | | | | | | ☐ |

6. Were custody papers properly filled out (ink, signed, dated, etc)? ⊗ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ⊗ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ⊗ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ⊗ Yes ○ No

10. Did sample labels and tags agree with custody documents? ⊗ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
**T:** +1 713 266 1599
**F:** +1 713 266 1599
**www.alsglobal.com**

# SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

**Cooler Custody Seals (desirable, mandatory if specified in SAP):**

- ✓ Intact on outside of cooler, signed and dated

**Chain-of-Custody (COC) documentation (mandatory):**

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

**Sample Integrity (mandatory):**

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

**Temperature Requirement (varies by sample matrix):**

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

# Preparation Information Benchsheets

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

# *Preparation Information Benchsheet*

**Prep Run#:** 413589 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/26/23 15:12

| # | Lab Code | Client ID | B# | Method /Test | pH | Cl | Matrix | Amt. Ext. | Sample Description |
|---|---|---|---|---|---|---|---|---|---|
| 1 | E2300057-001 | 16EW01-230119 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 2 | E2300060-001 | MC-4_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 3 | E2300060-002 | MC-3_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 4 | E2300060-003 | MC-2_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 5 | E2300060-004 | Pit Lake_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 6 | E2300060-005 | CTC-38_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 7 | E2300060-006 | CTC-34_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 8 | E2300060-007 | EA-20_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 9 | E2300060-008 | EA-50_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 10 | E2300060-009 | CTC-36_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 11 | E2300060-010 | CTC-5_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 12 | E2300065-001 | MN-2_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 13 | E2300065-002 | 1100-1_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 14 | E2300065-003 | 1100-2_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 15 | E2300065-004 | MN-1_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 16 | E2300065-005 | CTC-17_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 17 | E2300065-006 | CTC-40_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 18 | E2300065-007 | CTC-39_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 19 | E2300065-008 | EA-16_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 20 | E2300065-009 | EA-44_0123 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 21 | EQ2300029-01 | MB | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 22 | EQ2300029-02 | LCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 23 | EQ2300029-03 | DLCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |

## Spiking Solutions

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E2300060-001 | 100.00µL | E2300060-002 | 100.00µL | E2300060-003 | 100.00µL | E2300060-004 | 100.00µL | E2300060-005 | 100.00µL | E2300060-006 | 100.00µL |
| E2300060-007 | 100.00µL | E2300060-008 | 100.00µL | E2300060-009 | 100.00µL | E2300060-010 | 100.00µL | E2300065-001 | 100.00µL | E2300065-002 | 100.00µL |
| E2300065-003 | 100.00µL | E2300065-004 | 100.00µL | E2300065-005 | 100.00µL | E2300065-006 | 100.00µL | E2300065-007 | 100.00µL | E2300065-008 | 100.00µL |
| E2300065-009 | 100.00µL | EQ2300029-01 | 100.00µL | EQ2300029-02 | 100.00µL | EQ2300029-03 | 100.00µL | | | | |

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

| | | | |
|---|---|---|---|
| EQ2300029-02 | 1.00µL | EQ2300029-03 | 1.00µL |

# *Preparation Information Benchsheet*

**Prep Run#:** 413589 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/26/23 15:12

## Preparation Materials

| | | | | | |
|---|---|---|---|---|---|
| Water HPLC Grade | 01/04/2023 Water (226857) | 6850 Amber Glass screw vial | 2mL Screw Top Vial (221894) | 6850 0.45um syringe filters | 6850 Syringe Filters (224414) |
| 6850 Luer-Lok Syringes | Luer-Lok Syringes (221305) | 6850 Pipette Tips 50-1000 uL | 6850 Pipette Tips (221929) | | |

## Preparation Steps

Step: Preparation
Started: 1/26/23 15:12
Finished: 1/26/23 16:50
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 01/26/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

# Analytical Results

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Collected:** | 1/19/23 1325 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/23/23 |
| **Sample Name:** | 16EW01-230119 | **Units:** | µg/L |
| **Lab Code:** | E2300057-001 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **30.7** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/27/23 14:37 | 413589 | 792859 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Units:** | µg/L |
| **Lab Code:** | EQ2300029-01 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/27/23 12:36 | 413589 | 792859 | |

# Accuracy & Precision

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010991
**Sample Matrix:** Ground Water

**Service Request:** E2300057
**Date Analyzed:** 1/27/23

## Lab Control Sample Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**Prep Method:** Method

**Units:** µg/L
**Basis:** NA

**Extraction Lot:** 413589

| | Lab Control Sample EQ2300029-02 | | | Duplicate Lab Control Sample EQ2300029-03 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Perchlorate | 0.0855 | 0.100 | 86 | 0.0889 | 0.100 | 89 | 84 - 119 | 4 | 15 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300029-02 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0855** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/27/23 12:47 | 413589 | 792859 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Duplicate Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300029-03 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0889** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/26/23 | 1/27/23 12:53 | 413589 | 792859 | |

# Initial Calibration

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**20221214**

# Injection Log

LCMS01 -Shimadzu 8050

**1st Review:** XMI
**2nd Review:** Kneir

**ICAL Date:** 12/14/2022
**Cal. Std. xp:** 01/31/2023
**ICAL ID:** EC2200016

**Mobile Phases :** **A:**0.10% Formic Acid/Water 3210301-08 **B:**MeOH 224417

| | Sample Name | | File Name | Acquisition Method | Dilution | R | Comments | Date/Time |
|---|---|---|---|---|---|---|---|---|
| 1 | IB | | 20221214_001 | Perchlorate6850c.lcm | 1x | ☒ | | 12/14/2022 15:12 |
| 2 | ICS | | 20221214_002 | Perchlorate6850c.lcm | 1x | ☒ | | 12/14/2022 15:29 |
| 3 | LODV | | 20221214_003 | Perchlorate6850c.lcm | 1x | ☒ | | 12/14/2022 15:35 |
| 4 | PERCHLORATE1 | | 20221214_004 | Perchlorate6850c.lcm | 1x | ☒ | 226061 | 12/14/2022 15:40 |
| 5 | PERCHLORATE2 | | 20221214_005 | Perchlorate6850c.lcm | 1x | ☒ | 226062 | 12/14/2022 15:46 |
| 6 | PERCHLORATE3 | | 20221214_006 | Perchlorate6850c.lcm | 1x | ☒ | 226063 | 12/14/2022 15:51 |
| 7 | PERCHLORATE4 | | 20221214_007 | Perchlorate6850c.lcm | 1x | ☒ | 226064 | 12/14/2022 15:57 |
| 8 | PERCHLORATE5 | | 20221214_008 | Perchlorate6850c.lcm | 1x | ☒ | 226065 | 12/14/2022 16:02 |
| 9 | PERCHLORATE6 | | 20221214_009 | Perchlorate6850c.lcm | 1x | ☒ | 226066 | 12/14/2022 16:09 |
| 10 | PERCHLORATE7 | | 20221214_010 | Perchlorate6850c.lcm | 1x | ☒ | 225881 | 12/14/2022 16:15 |
| 11 | PERCHLORATE8 | | 20221214_011 | Perchlorate6850c.lcm | 1x | ☒ | 226068 | 12/14/2022 16:20 |
| 12 | PERCHLORATE9 | | 20221214_012 | Perchlorate6850c.lcm | 1x | ☒ | 226069 | 12/14/2022 16:25 |
| 13 | PERCHLORATE10 | | 20221214_013 | Perchlorate6850c.lcm | 1x | ☒ | 226070 | 12/14/2022 16:31 |
| 14 | PERCHLORATEICV | | 20221214_014 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 12/14/2022 16:37 |

# *Initial Calibration - Detailed Report*

**Calibration ID:** EC2200016 **Instrument ID:** E-LCMS-01
**Column Name:** 1

| # | Lab Code | Sample Name | File Location | Aquisition Date |
|---|---|---|---|---|
| 01 | EC2200016-01 | PERCHLORATE1 | 20221214_004 | 12/14/2022 15:40 |
| 02 | EC2200016-02 | PERCHLORATE2 | 20221214_005 | 12/14/2022 15:46 |
| 03 | EC2200016-03 | PERCHLORATE3 | 20221214_006 | 12/14/2022 15:51 |
| 04 | EC2200016-04 | PERCHLORATE4 | 20221214_007 | 12/14/2022 15:57 |
| 05 | EC2200016-05 | PERCHLORATE5 | 20221214_008 | 12/14/2022 16:02 |
| 06 | EC2200016-06 | PERCHLORATE6 | 20221214_009 | 12/14/2022 16:09 |
| 07 | EC2200016-07 | PERCHLORATE7 | 20221214_010 | 12/14/2022 16:15 |
| 08 | EC2200016-08 | PERCHLORATE8 | 20221214_011 | 12/14/2022 16:20 |
| 09 | EC2200016-09 | PERCHLORATE9 | 20221214_012 | 12/14/2022 16:25 |
| 10 | EC2200016-10 | PERCHLORATE10 | 20221214_013 | 12/14/2022 16:31 |

**Analyte** **Curve Fit** **Weighting**

**Perchlorate** **Average RF** **RSD = 2.927** **Average RF = 0.1567**

| # | Amount | RF | # | Amount | RF | # | Amount | RF | # | Amount | RF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 0.1000 | 0.1615 | 02 | 0.5000 | 0.1479 | 03 | 0.7000 | 0.1579 | 04 | 1.0000 | 0.1573 |
| 05 | 2.0000 | 0.1505 | 06 | 5.0000 | 0.1573 | 07 | 10.0000 | 0.1541 | 08 | 20.0000 | 0.162 |
| 09 | 30.0000 | 0.1598 | 10 | 50.0000 | 0.1587 | | | | | | |

**Analyte**

**Perchlorate** RSE = 2.93

| # | Amount | Calculated Conc | %D | # | Amount | Calculated Conc | %D | # | Amount | Calculated Conc | %D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 0.1000 | 0.103 | 3.1 | 02 | 0.5000 | 0.472 | -5.6 | 03 | 0.7000 | 0.705 | 0.8 |
| 04 | 1.0000 | 1.00 | 0.4 | 05 | 2.0000 | 1.92 | -3.9 | 06 | 5.0000 | 5.02 | 0.4 |
| 07 | 10.0000 | 9.83 | -1.7 | 08 | 20.0000 | 20.7 | 3.4 | 09 | 30.0000 | 30.6 | 2.0 |
| 10 | 50.0000 | 50.6 | 1.3 | | | | | | | | |

# *Initial Calibration Verification Summary Report*

| | | | |
|---|---|---|---|
| **Calibration ID:** | EC2200016 | **Instrument ID:** | E-LCMS-01 |
| **Datafile ID:** | 20221214_014 | **Column Name:** | 1 |

| Analyte | Lab Code | Type | Curve Fit | True Value | Calc Conc | Units | Result | Criteria |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | EC2200016-11 | T | Average RF | 10 | 9.359 | ng/mL | -6.4 | <= 15 |

# Insight Report

Printed at 12/15/2022 10:55:51 AM

Method File: I:\LCMS01\DATA\20221013ICAL\20221013ICAL.lcm
Project File: I:\LCMS01\DATA\20221214\12142022 ICAL.damlp

## PERCHLORATE1

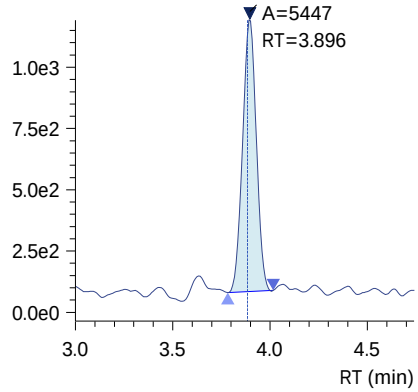
Sample ID: PERCHLORATE1
Date Acquired: 12/14/2022 3:40:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_004.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.896 | 5447 | 337240 | 0.1031 | ng/mL | 101.00<br>>85.00 | 35.31 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.889 | 337240 | 337240 | 1.0000 | ng/mL | ---- | ---- | |

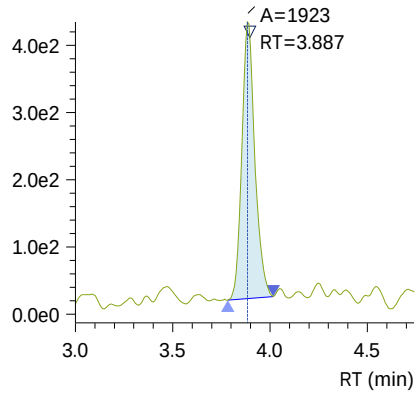
### Perchlorate

Conc 0.1031
R#1 35.31 (34.02)

Q 99.00>83.00 (-) 1.19e3



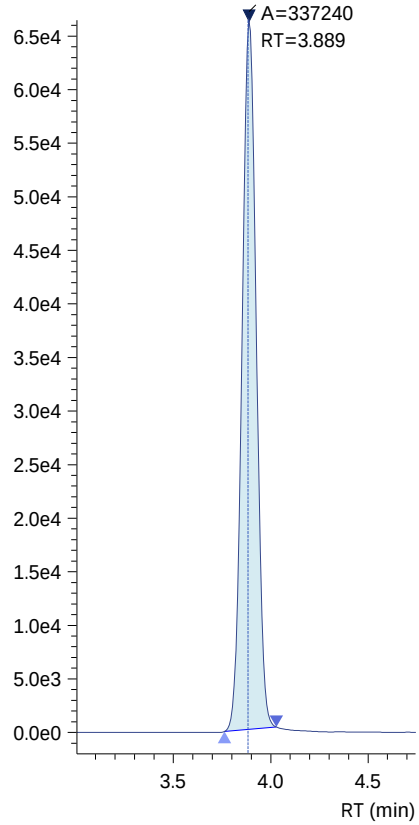

R1 101.00>85.00 (-) 4.35e2




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.65e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

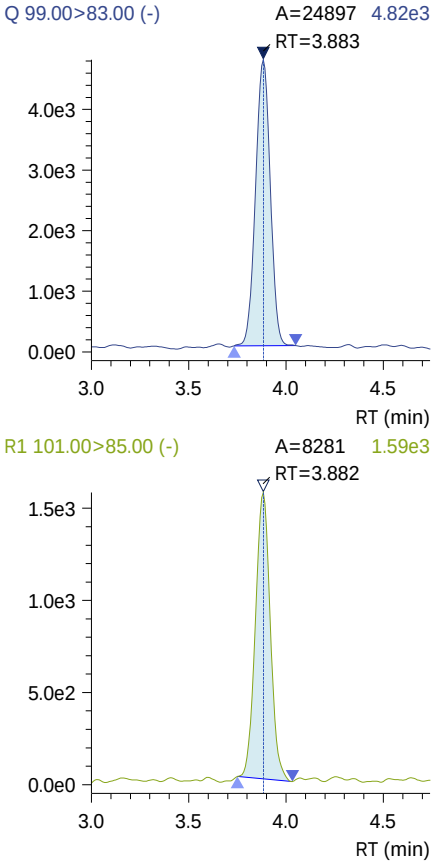
## PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 12/14/2022 3:46:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_005.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.883 | 24897 | 336620 | 0.4720 | ng/mL | 101.00<br>>85.00 | 33.26 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.878 | 336620 | 336620 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc 0.4720
R#1 33.26 (34.02)

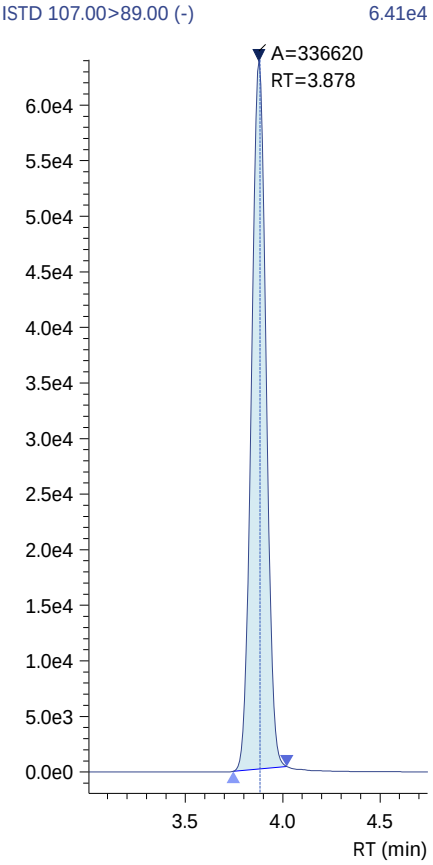






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 12/15/2022 10:55:51 AM

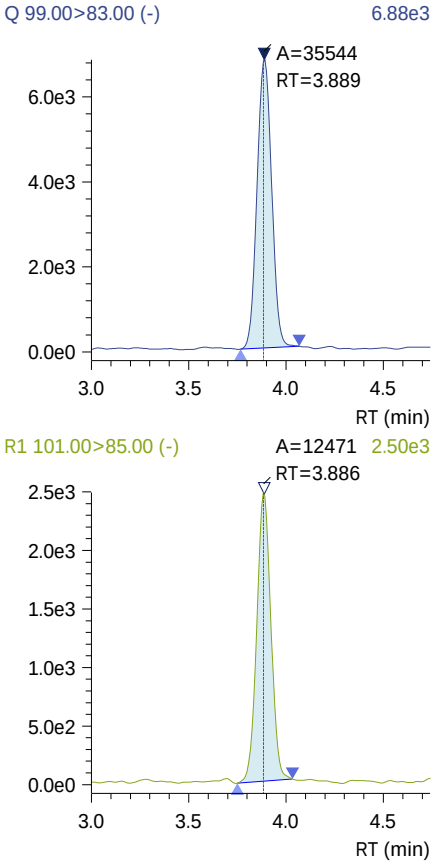
## PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 12/14/2022 3:51:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_006.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.889 | 35544 | 321596 | 0.7053 | ng/mL | 101.00<br>>85.00 | 35.09 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.885 | 321596 | 321596 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc 0.7053
R#1 35.09 (34.02)

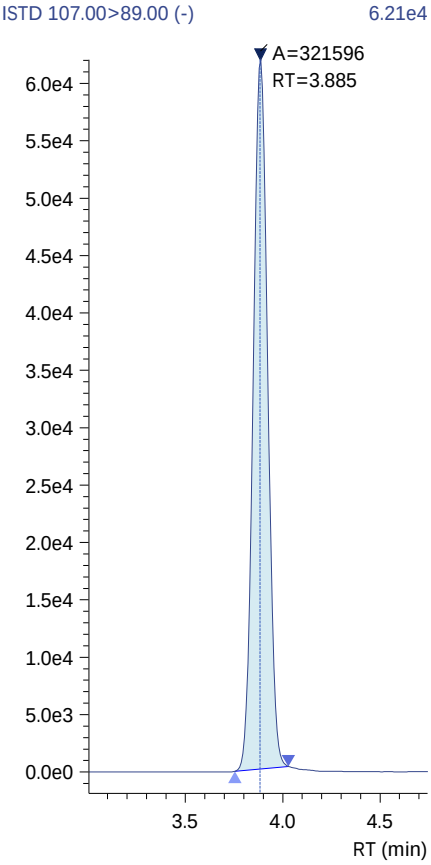






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE4

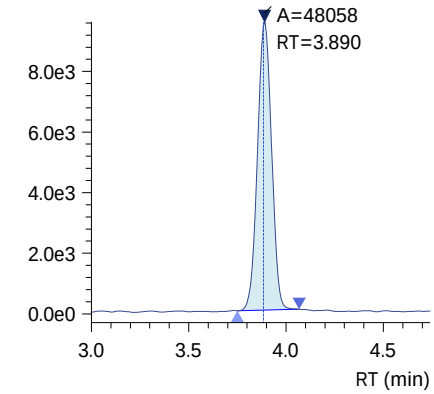
Sample ID: PERCHLORATE4
Date Acquired: 12/14/2022 3:57:06 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_007.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.890 | 48058 | 305584 | 1.0036 | ng/mL | 101.00<br>>85.00 | 33.87 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.886 | 305584 | 305584 | 1.0000 | ng/mL | ---- | ---- | |

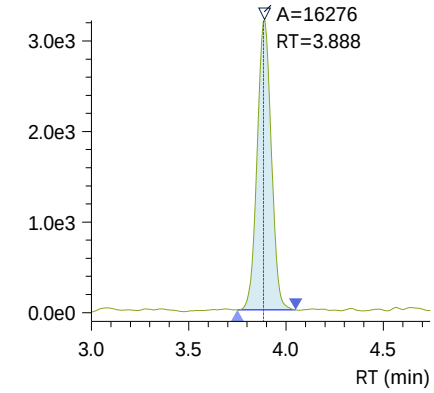
### Perchlorate

Conc 1.0036
R#1 33.87 (34.02)

Q 99.00>83.00 (-) 9.64e3



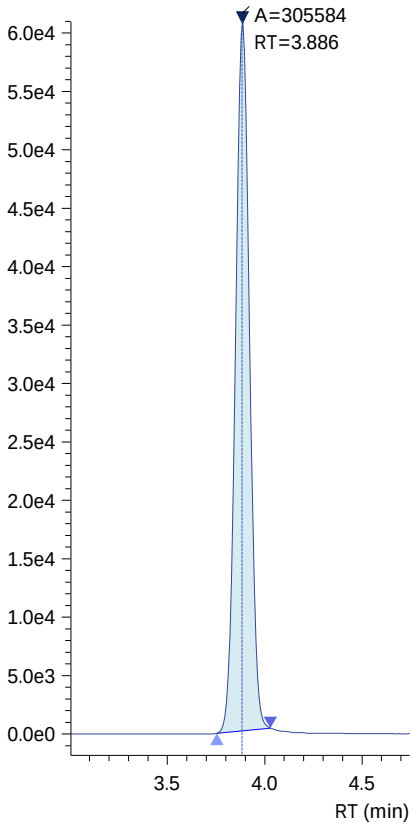

R1 101.00>85.00 (-) 3.23e3




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.10e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE5

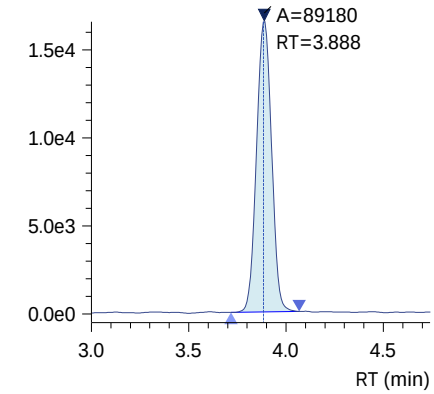
Sample ID: PERCHLORATE5
Date Acquired: 12/14/2022 4:02:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_008.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.888 | 89180 | 296200 | 1.9213 | ng/mL | 101.00<br>>85.00 | 32.32 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.885 | 296200 | 296200 | 1.0000 | ng/mL | ---- | ---- | |

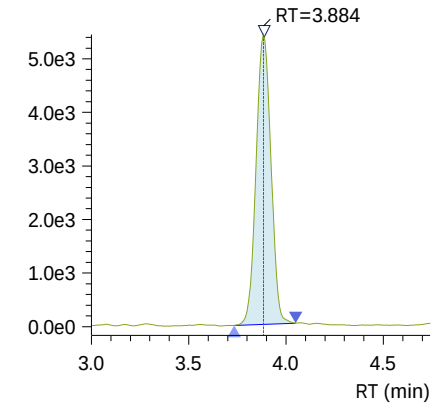
### Perchlorate

Conc 1.9213
R#1 32.32 (34.02)

Q 99.00>83.00 (-) 1.66e4



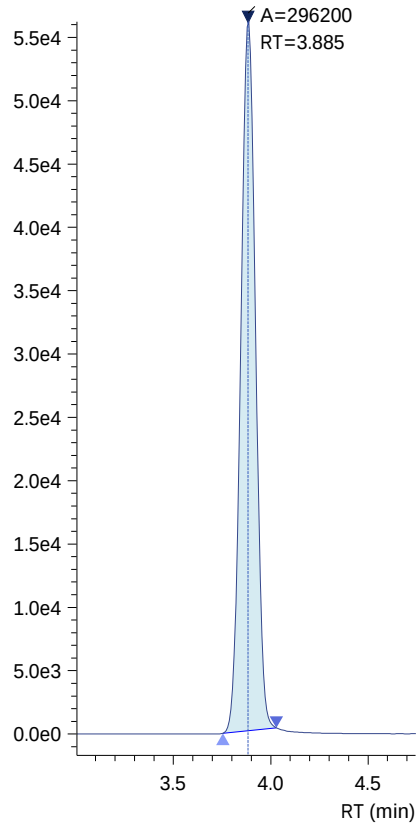

R1 101.00>85.00 (-) A=28822 5.45e3




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.62e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE6

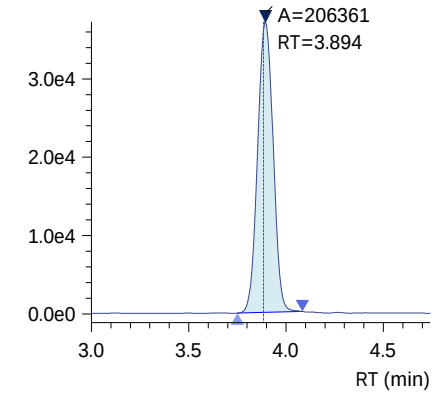
Sample ID: PERCHLORATE6
Date Acquired: 12/14/2022 4:09:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_009.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.894 | 206361 | 262312 | 5.0202 | ng/mL | 101.00 >85.00 | 33.93 | 23.94 -44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.889 | 262312 | 262312 | 1.0000 | ng/mL | ---- | ---- | |

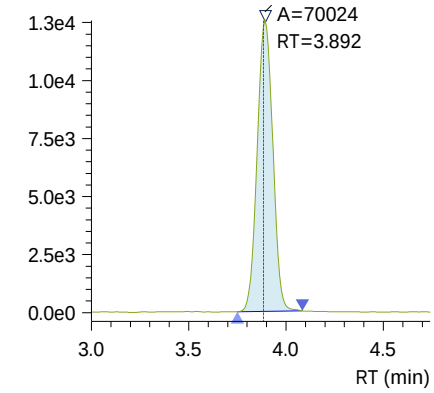
### Perchlorate

Conc 5.0202
R#1 33.93 (34.02)

Q 99.00>83.00 (-) 3.73e4



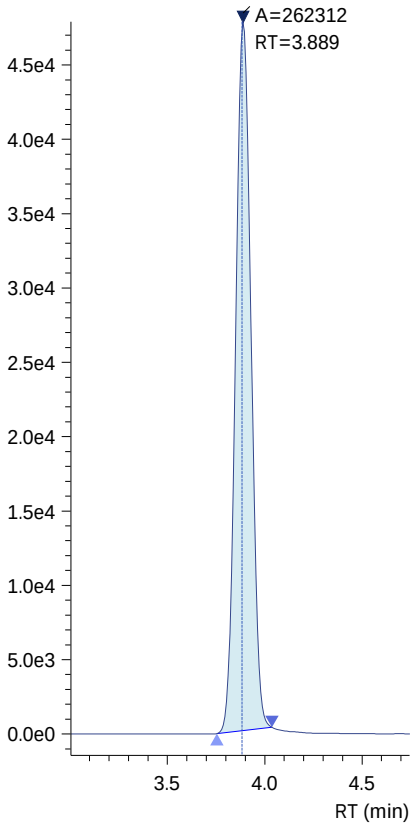

R1 101.00>85.00 (-) 1.26e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.79e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE7

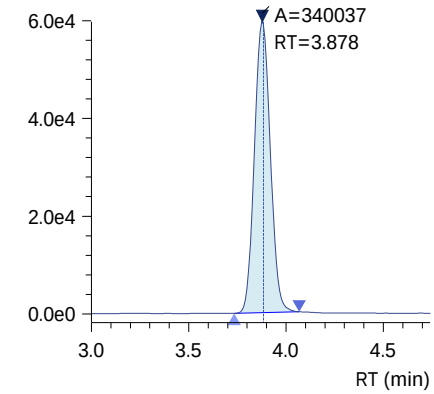
Sample ID: PERCHLORATE7
Date Acquired: 12/14/2022 4:15:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_010.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.878 | 340037 | 220702 | 9.8317 | ng/mL | 101.00 >85.00 | 34.05 | 23.94 -44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.875 | 220702 | 220702 | 1.0000 | ng/mL | ---- | ---- | |

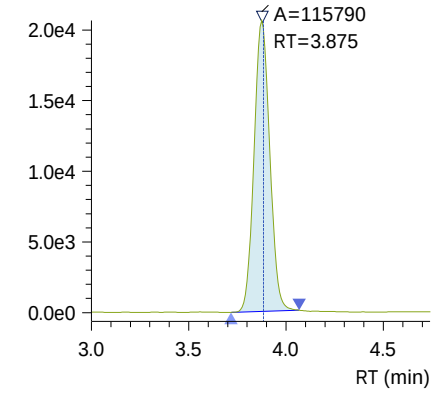
### Perchlorate

Conc 9.8317
R#1 34.05 (34.02)

Q 99.00>83.00 (-) 5.98e4



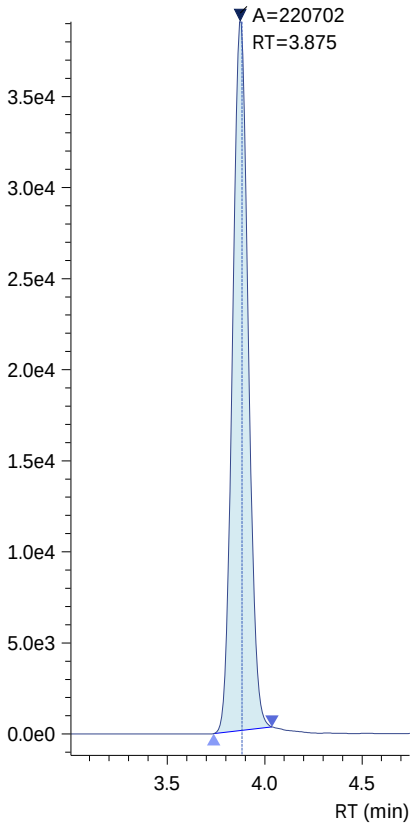

R1 101.00>85.00 (-) 2.07e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.91e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE8

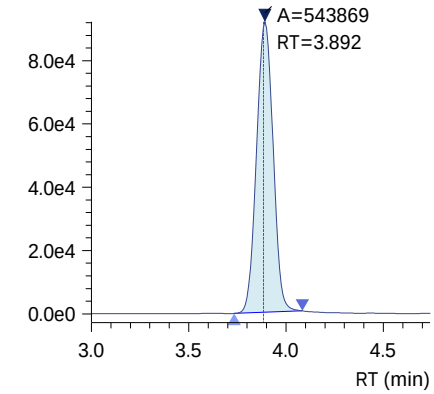
Sample ID: PERCHLORATE8
Date Acquired: 12/14/2022 4:20:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_011.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.892 | 543869 | 167819 | 20.6806 | ng/mL | 101.00 >85.00 | 33.45 | 23.94 -44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.888 | 167819 | 167819 | 1.0000 | ng/mL | ---- | ---- | |

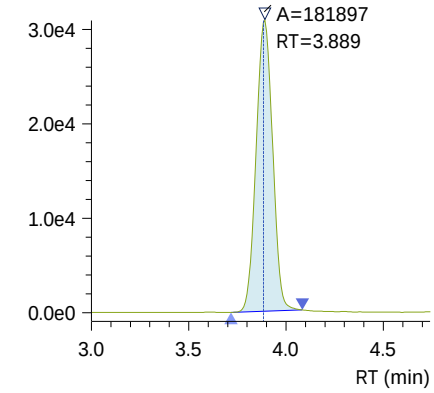
### Perchlorate

Conc 20.6806
R#1 33.45 (34.02)

Q 99.00>83.00 (-) 9.23e4



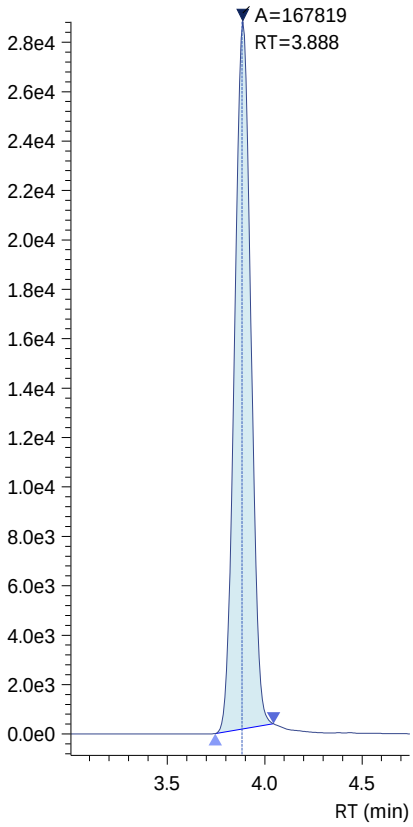

R1 101.00>85.00 (-) 3.09e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.88e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE9

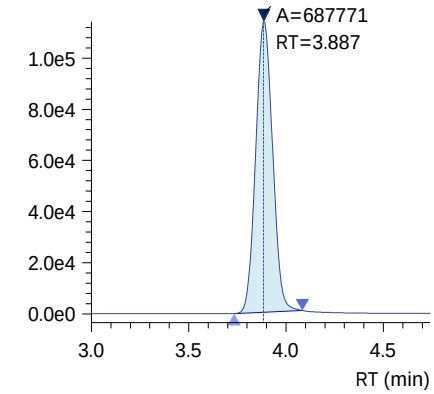
Sample ID: PERCHLORATE9
Date Acquired: 12/14/2022 4:25:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_012.lcd
Vial: 9 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.887 | 687771 | 143493 | 30.5860 | ng/mL | 101.00 >85.00 | 33.79 | 23.94 -44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.883 | 143493 | 143493 | 1.0000 | ng/mL | ---- | ---- | |

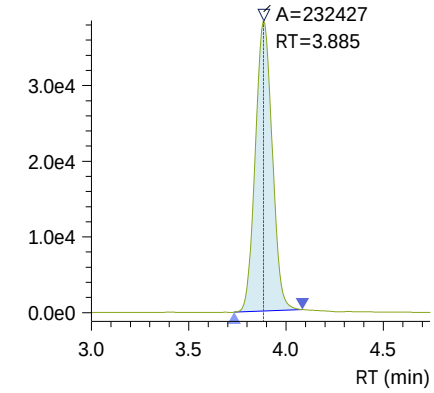
### Perchlorate

Conc 30.5860
R#1 33.79 (34.02)

Q 99.00>83.00 (-) 1.14e5



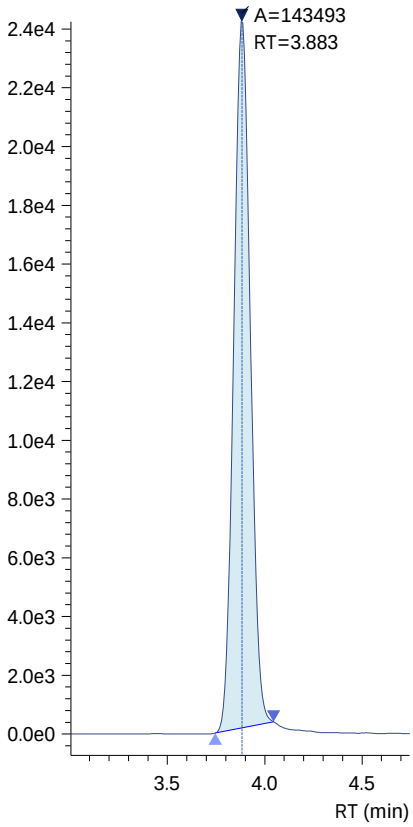

R1 101.00>85.00 (-) 3.86e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.43e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE10

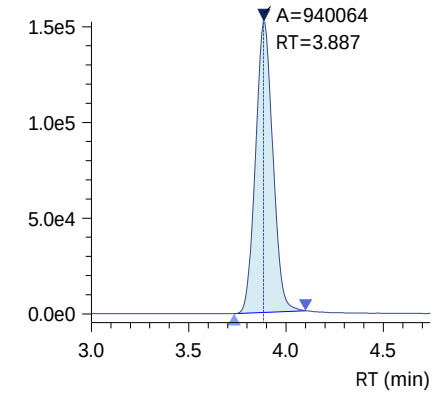
Sample ID: PERCHLORATE10
Date Acquired: 12/14/2022 4:31:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_013.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.887 | 9400<br>64 | 118445 | 50.6<br>464 | ng/mL | 101.00<br>>85.00 | 33.39 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.883 | 1184<br>45 | 118445 | 1.0000 | ng/mL | ---- | ---- | |

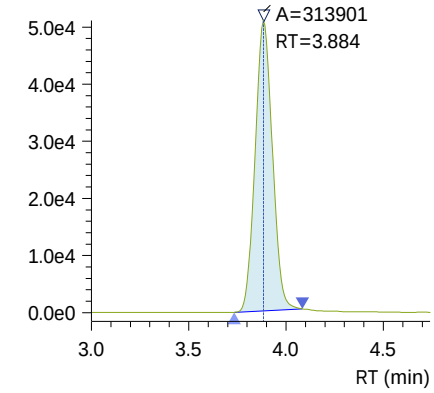
### Perchlorate

Conc 50.6464
R#1 33.39 (34.02)

Q 99.00>83.00 (-) 1.53e5



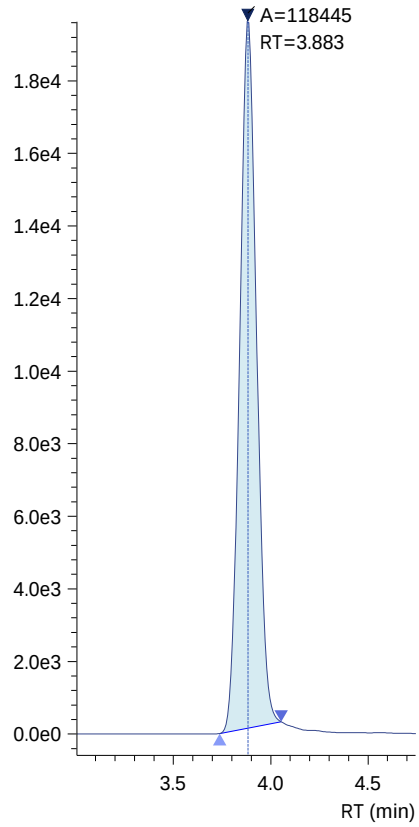

R1 101.00>85.00 (-) 5.12e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.96e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATEICV

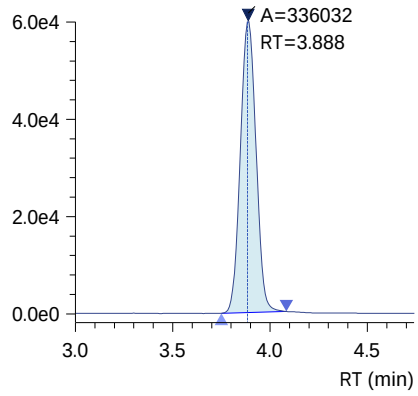
Sample ID: PERCHLORATEICV
Date Acquired: 12/14/2022 4:37:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_014.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.888 | 3360<br>32 | 229124 | 9.3588 | ng/mL | 101.00<br>>85.00 | 33.58 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4 _IS | Auto | 3.884 | 2291<br>24 | 229124 | 1.0000 | ng/mL | ---- | ---- | |

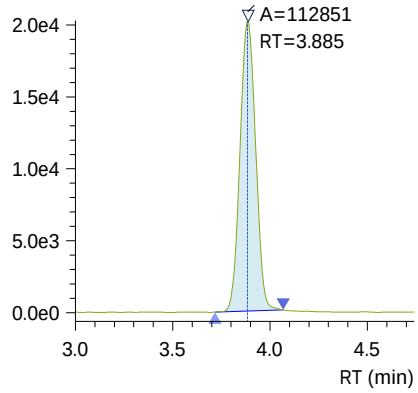
### Perchlorate

Conc 9.3588
R#1 33.58 (34.02)

Q 99.00>83.00 (-) 6.01e4



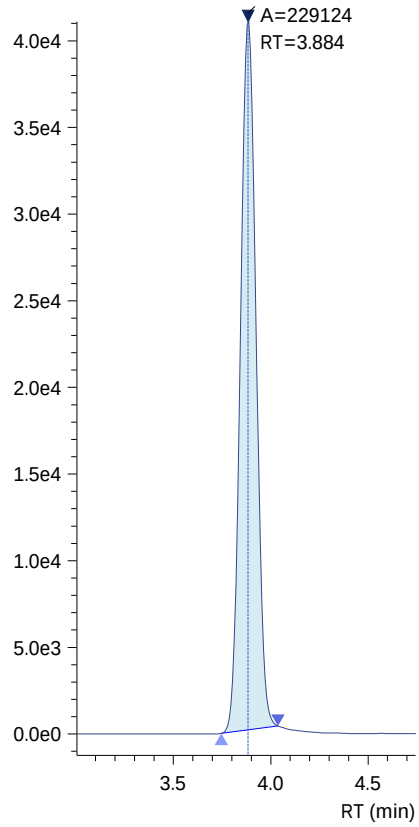

R1 101.00>85.00 (-) 2.03e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.11e4



# Chromatograms and Selected Ion Monitoring

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**20230127-792859**

# Injection Log

LCMS01 -Shimadzu 8050

**1st Review:** XMI
**2nd Review:** Kneir

**ICAL Date:** 12/14/2022
**Cal. Std. xp:** 01/31/2023
**ICAL ID:** EC2200016

**Mobile Phases : A:**0.10% Formic Acid/Water 3210303-02 **B:**MeOH 224417

| | Sample Name | | File Name | Acquisition Method | Dilution | R | Comments | Date/Time |
|---|---|---|---|---|---|---|---|---|
| 1 | ICS | | 20230127-033 | Perchlorate6850c.lcm | 1x | ☒ | 32103024 | 1/27/2023 12:09 |
| 2 | LODV | | 20230127-034 | Perchlorate6850c.lcm | 1x | ☒ | 225199 | 1/27/2023 12:23 |
| 3 | PERCHLORATE7 | | 20230127-035 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/27/2023 12:30 |
| 4 | EQ2300029-01 | | 20230127-036 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 12:36 |
| 5 | EQ2300029-02 | | 20230127-037 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 12:47 |
| 6 | EQ2300029-03 | | 20230127-038 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 12:53 |
| 7 | E2300060-001 | | 20230127-039 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 13:00 |
| 8 | E2300060-002 | | 20230127-040 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 13:06 |
| 9 | E2300060-003 | | 20230127-041 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 13:11 |
| 10 | E2300060-005 | | 20230127-042 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 13:17 |
| 11 | E2300060-006 | | 20230127-043 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 13:23 |
| 12 | E2300060-007 | | 20230127-044 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 13:29 |
| 13 | E2300060-008 | | 20230127-045 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 13:35 |
| 14 | PERCHLORATE7 | | 20230127-046 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/27/2023 13:40 |
| 15 | E2300060-009 | | 20230127-047 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 13:46 |
| 16 | E2300060-010 | | 20230127-048 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 13:52 |
| 17 | E2300065-001 | | 20230127-049 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 13:58 |
| 18 | E2300065-004 | | 20230127-050 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 14:04 |
| 19 | E2300065-005 | | 20230127-051 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 14:09 |
| 20 | E2300065-007 | | 20230127-052 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 14:15 |
| 21 | E2300065-008 | | 20230127-053 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 14:21 |
| 22 | E2300065-009 | | 20230127-054 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 14:27 |
| 23 | E2300057-001 | | 20230127-055 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 14:37 |
| 24 | PERCHLORATE7 | | 20230127-056 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/27/2023 14:43 |
| 25 | E2300060-004 | | 20230127-057 | Perchlorate6850c.lcm | 100x | ☒ | | 1/27/2023 14:49 |
| 26 | E2300065-002 | | 20230127-058 | Perchlorate6850c.lcm | 500x | ☒ | | 1/27/2023 14:54 |
| 27 | E2300065-003 | | 20230127-059 | Perchlorate6850c.lcm | 500x | ☒ | | 1/27/2023 15:00 |
| 28 | E2300065-006 | | 20230127-060 | Perchlorate6850c.lcm | 10x | ☒ | | 1/27/2023 15:06 |
| 29 | EQ2300030-01 | | 20230127-061 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 15:12 |
| 30 | EQ2300030-02 | | 20230127-062 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 15:23 |
| 31 | EQ2300030-03 | | 20230127-063 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 15:37 |
| 32 | E2300067-001 | | 20230127-064 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 15:45 |
| 33 | E2300067-002 | | 20230127-065 | Perchlorate6850c.lcm | 1x | ☒ | DNU-IR | 1/27/2023 15:51 |
| 34 | E2300067-003 | | 20230127-066 | Perchlorate6850c.lcm | 1x | ☒ | DNU-IR | 1/27/2023 15:57 |
| 35 | PERCHLORATE7 | | 20230127-067 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/27/2023 16:03 |
| 36 | E2300067-004 | | 20230127-068 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 16:08 |
| 37 | EQ2300030-04 | | 20230127-069 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 16:14 |
| 38 | EQ2300030-05 | | 20230127-070 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 16:20 |
| 39 | E2300068-005 | | 20230127-071 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 16:27 |
| 40 | E2300068-006 | | 20230127-072 | Perchlorate6850c.lcm | 1x | ☒ | DNU-OUT OF ICAL RANGE | 1/27/2023 16:33 |

**20230127-792859**

# Injection Log

LCMS01 -Shimadzu 8050

**1st Review:** XMI
**2nd Review:** Kneir

**ICAL Date:** 12/14/2022
**Cal. Std. xp:** 01/31/2023
**ICAL ID:** EC2200016

**Mobile Phases : A:**0.10% Formic Acid/Water 3210303-02 **B:**MeOH 224417

| | Sample Name | | File Name | Acquisition Method | Dilution | R | Comments | Date/Time |
|---|---|---|---|---|---|---|---|---|
| 41 | E2300068-007 | | 20230127-073 | Perchlorate6850c.lcm | 1x | ☒ | DNU-OUT OF ICAL RANGE | 1/27/2023 16:38 |
| 42 | E2300068-008 | | 20230127-074 | Perchlorate6850c.lcm | 1x | ☒ | DNU-CONFIRM PEAK | 1/27/2023 16:44 |
| 43 | E2300068-009 | | 20230127-075 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 16:50 |
| 44 | E2300068-010 | | 20230127-076 | Perchlorate6850c.lcm | 1x | ☒ | | 1/27/2023 16:56 |
| 45 | PERCHLORATE7 | | 20230127-077 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/27/2023 17:02 |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Analyzed:** | 1/27/23 12:30 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230127\20230127-035 | **Lab Code:** | EQ2300038-01 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792859 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300038-01 | 172,432 | 3.45 |
| Method Blank | EQ2300029-01 | 235,401 | 3.45 |
| Lab Control Sample | EQ2300029-02 | 226,884 | 3.45 |
| Duplicate Lab Control Sample | EQ2300029-03 | 234,422 | 3.45 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Analyzed:** | 1/27/23 13:40 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230127\20230127-046 | **Lab Code:** | EQ2300038-02 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792859 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300038-02 | 183,149 | 3.45 |
| 16EW01-230119 | E2300057-001 | 150,494 | 3.45 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Analyzed:** | 1/27/23 14:43 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230127\20230127-056 | **Lab Code:** | EQ2300038-03 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792859 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300038-03 | 192,322 | 3.45 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300057 |
| **Project:** | HS23010991 | **Date Analyzed:** | 1/27/23 16:03 |

**Internal Standard Area and RT Summary**
**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230127\20230127-067 | **Lab Code:** | EQ2300038-04 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792859 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300038-04 | 164,585 | 3.46 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010991

**Service Request:** E2300057
**Date Analyzed:** 1/27/23 17:02

**Internal Standard Area and RT Summary**
**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**File ID:** I:\LCMS01\DATA\20230127\20230127-077
**Instrument ID:** E-LCMS-01
**Analytical Method:** 6850

**Lab Code:** EQ2300038-05
**Analysis Lot:** 792859
**Signal ID:** 1

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300038-05 | 161,420 | 3.46 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010991

**Service Request:** E2300057
**Date Analyzed:** 1/27/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230127\20230127-035

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792859
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 10.0 | 0.1567 | 0.1572 | 0.3 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010991

**Service Request:** E2300057
**Date Analyzed:** 1/27/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230127\20230127-046

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792859
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.78 | 0.1567 | 0.1533 | -2.2 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010991

**Service Request:** E2300057
**Date Analyzed:** 1/27/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230127\20230127-056

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792859
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.71 | 0.1567 | 0.1521 | -2.9 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010991

**Service Request:** E2300057
**Date Analyzed:** 1/27/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230127\20230127-067

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792859
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.44 | 0.1567 | 0.1479 | -5.6 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23010991

**Service Request:** E2300057
**Date Analyzed:** 1/27/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230127\20230127-077

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792859
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.52 | 0.1567 | 0.1493 | -4.8 | NA | ± 15 % | Average RF |

# Insight Report

Printed at 1/30/2023 11:53:37 AM

Method File: I:\LCMS01\DATA\20230127\20230127-792859.lcm
Project File: I:\LCMS01\DATA\20230127\20230127-792859.damlp

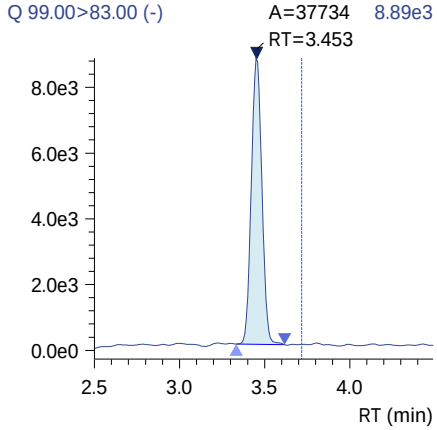
## ICS

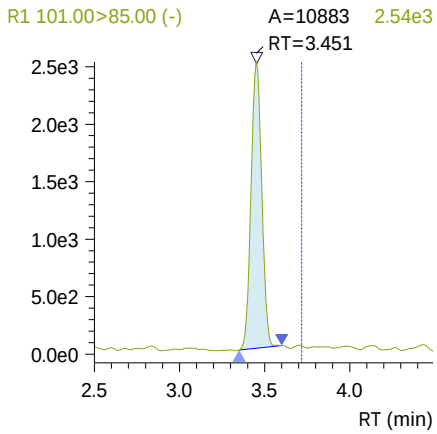
Sample ID: ICS
Date Acquired: 1/27/2023 12:09:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230127\20230127-033.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.453 | 37734 | 241802 | 0.9958 | ng/mL | 101.00<br>>85.00 | 28.84 | 22.07<br>-40.99 |
| Sodium Perchlorate-18O4_IS | Auto | 3.451 | 241802 | 241802 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

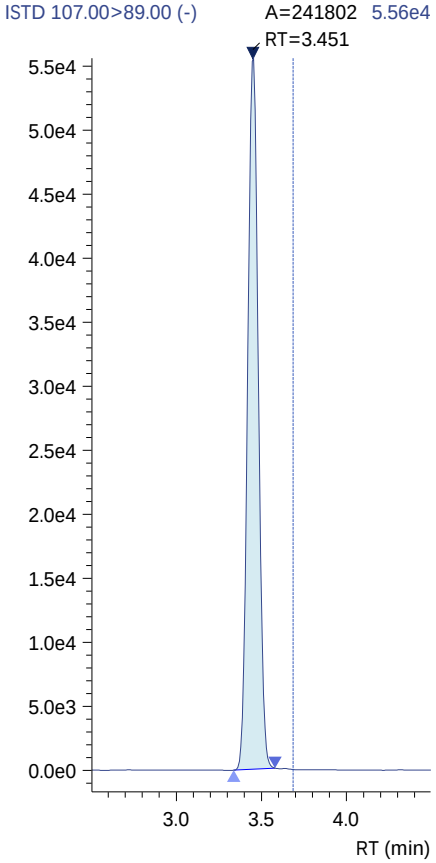
Conc 0.9958
R#1 28.84 (31.53)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/30/2023 11:53:37 AM

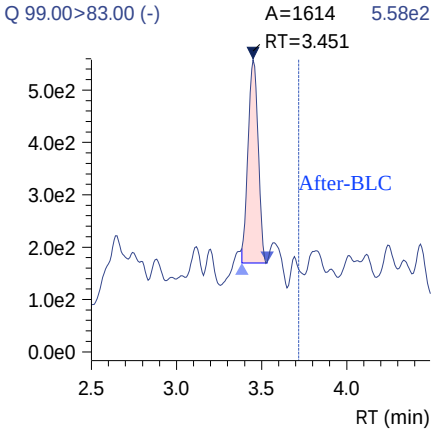
## LODV

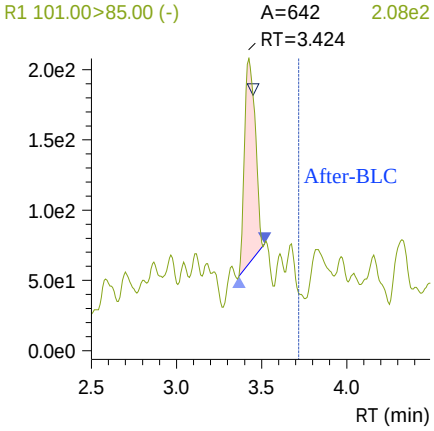
Sample ID: LODV
Date Acquired: 1/27/2023 12:23:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230127\20230127-034.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | M | 3.451 | 1614 | 220056 | 0.0468 | ng/mL | 101.00<br>>85.00 | 39.79 | 22.07<br>-40.99 |
| Sodium Perchlorate-18O4_IS | Auto | 3.447 | 220056 | 220056 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

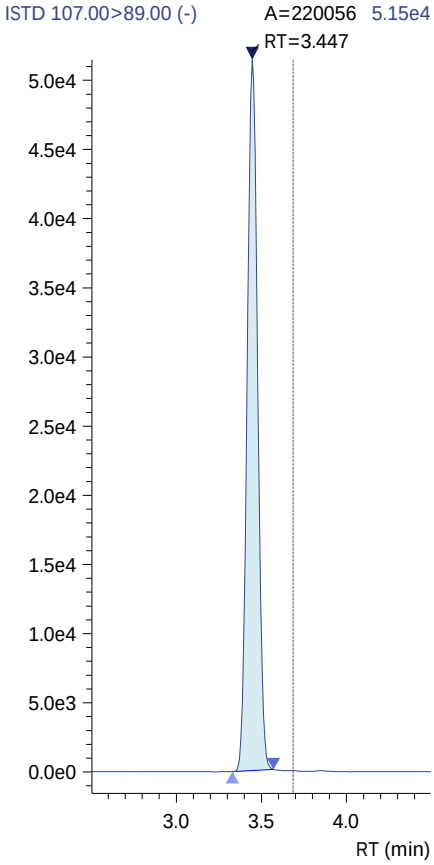
Conc 0.0468
R#1 39.79 (31.53)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/30/2023 11:55:26 AM

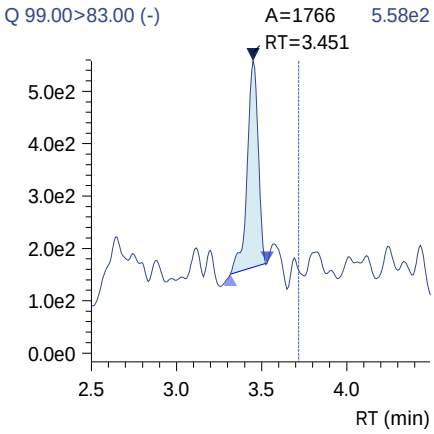
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Project File: I:\LCMS01\DATA\20230127\20230127-792859.damlp

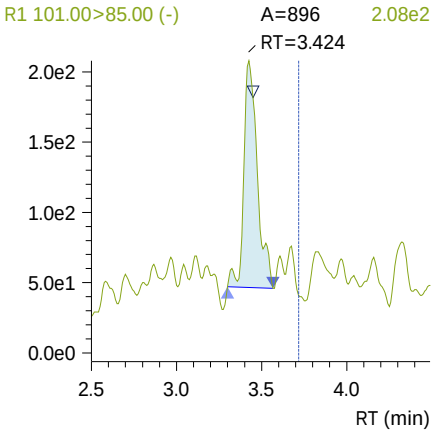
## LODV

Sample ID: LODV
Date Acquired: 1/27/2023 12:23:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230127\20230127-034.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 0

### Perchlorate

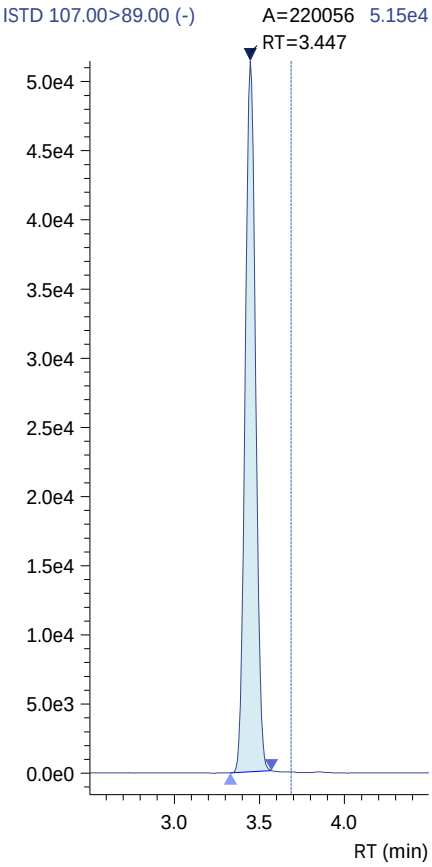
Conc 0.0512
R#1 50.72 (31.53)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/30/2023 11:53:37 AM

## PERCHLORATE7

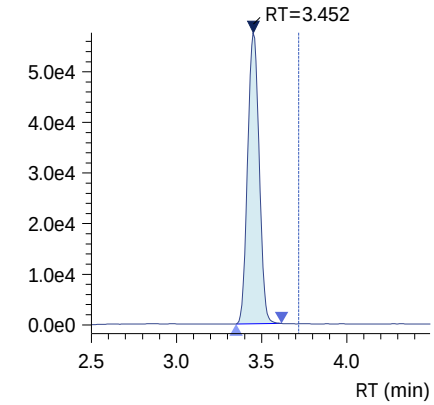
Sample ID: PERCHLORATE7
Date Acquired: 1/27/2023 12:30:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230127\20230127-035.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.452 | 2710<br>15 | 172432 | 10.0<br>296 | ng/mL | 101.00<br>>85.00 | 32.53 | 22.07<br>-40.99 |
| Sodium Perchlorate-18O4_IS | Auto | 3.447 | 1724<br>32 | 172432 | 1.0000 | ng/mL | ---- | ---- | |

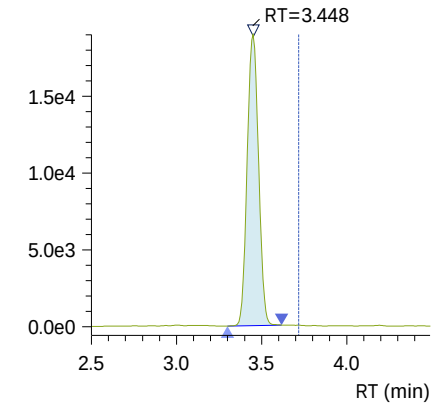
### Perchlorate

Conc 10.0296
R#1 32.53 (31.53)

Q 99.00>83.00 (-) A=271015 5.77e4
RT=3.452



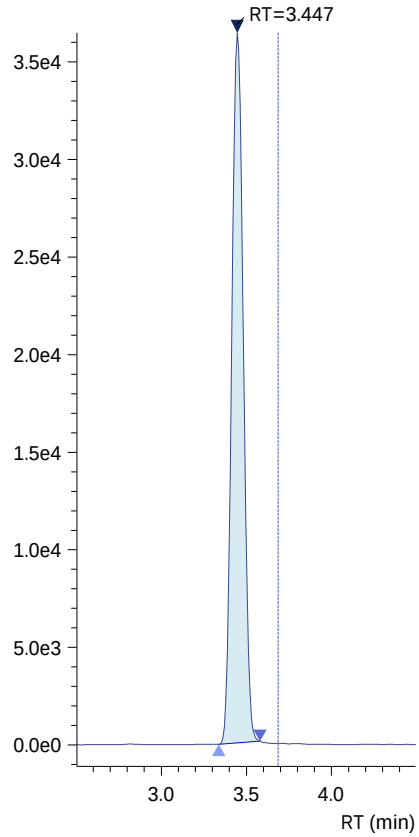

R1 101.00>85.00 (-) A=88176 1.90e4
RT=3.448




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=172432 3.65e4
RT=3.447



# Insight Report

Printed at 1/30/2023 11:53:37 AM

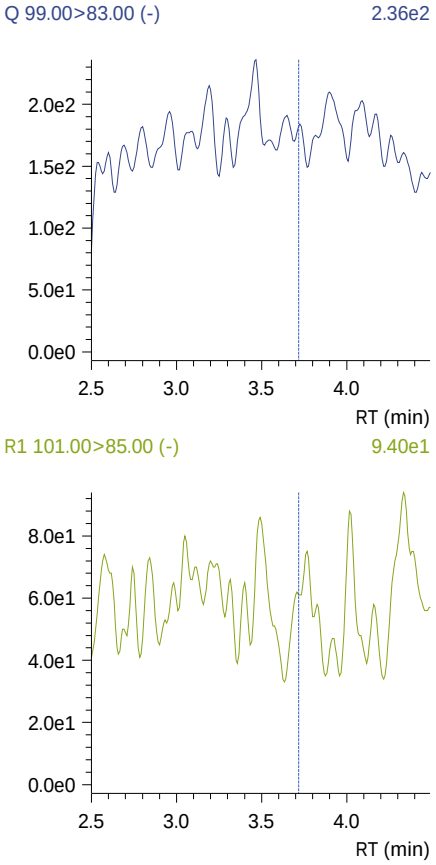
## EQ2300029-01

Sample ID: EQ2300029-01
Date Acquired: 1/27/2023 12:36:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230127\20230127-036.lcd
Vial: 33 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND(W/B) | ---- | ---- | 235401 | ---- | ng/mL | 101.00<br>>85.00 | 0.00 | 22.07<br>-40.99 |
| Sodium Perchlorate-18O4_IS | Auto | 3.451 | 235401 | 235401 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc ----
R#1 0.00 (31.53)

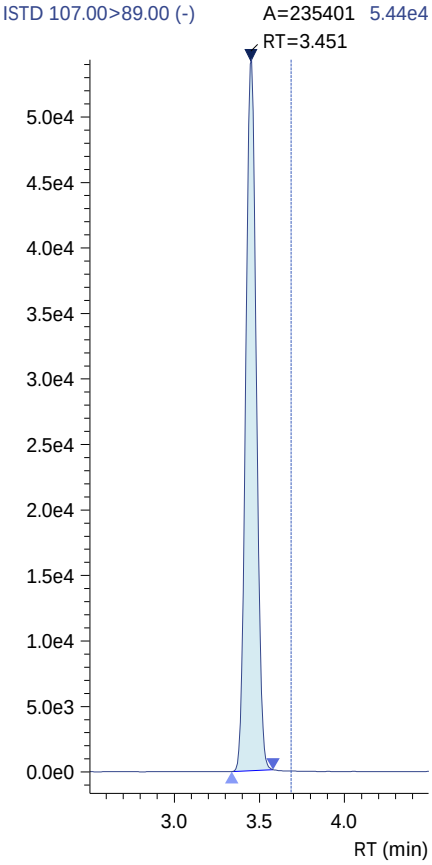






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/30/2023 11:53:37 AM

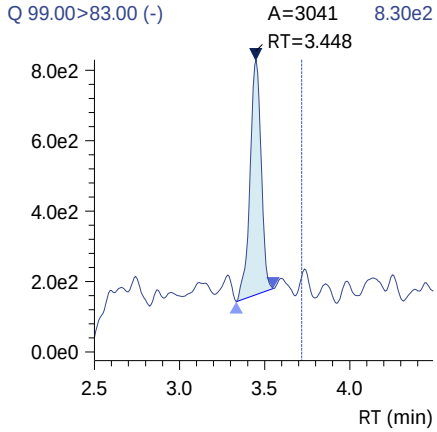
## EQ2300029-02

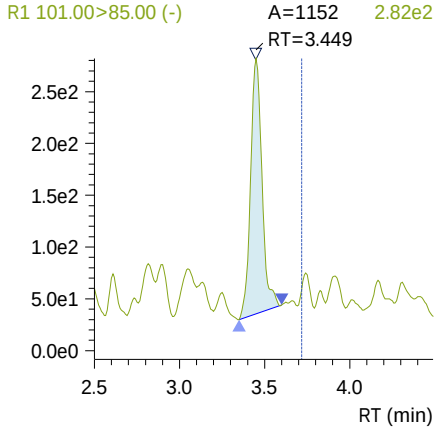
Sample ID: EQ2300029-02
Date Acquired: 1/27/2023 12:47:42 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230127\20230127-037.lcd
Vial: 35 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.448 | 3041 | 226884 | 0.0855 | ng/mL | 101.00<br>>85.00 | 37.87 | 22.07<br>-40.99 |
| Sodium Perchlorate-18O4_IS | Auto | 3.448 | 226884 | 226884 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

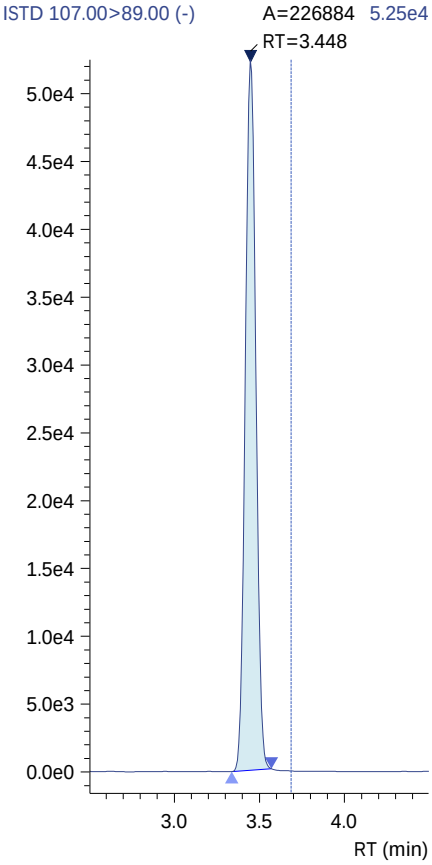
Conc 0.0855
R#1 37.87 (31.53)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/30/2023 11:53:37 AM

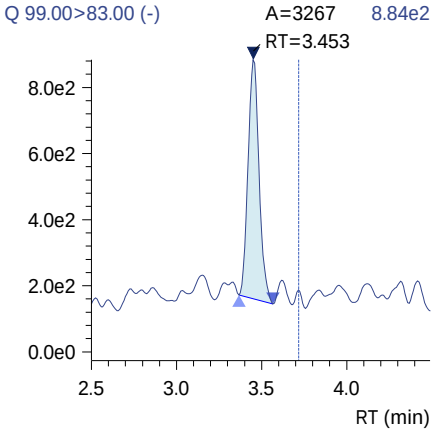
## EQ2300029-03

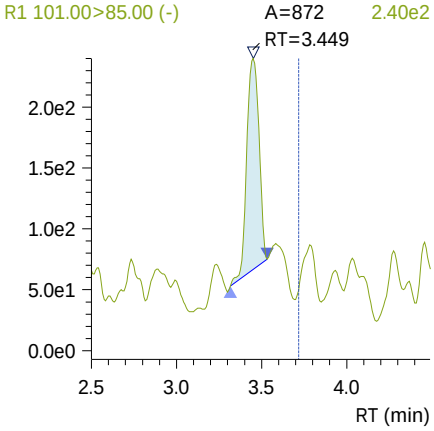
Sample ID: EQ2300029-03
Date Acquired: 1/27/2023 12:53:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230127\20230127-038.lcd
Vial: 34 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.453 | 3267 | 234422 | 0.0889 | ng/mL | 101.00<br>>85.00 | 26.68 | 22.07<br>-40.99 |
| Sodium Perchlorate-18O4_IS | Auto | 3.449 | 2344<br>22 | 234422 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

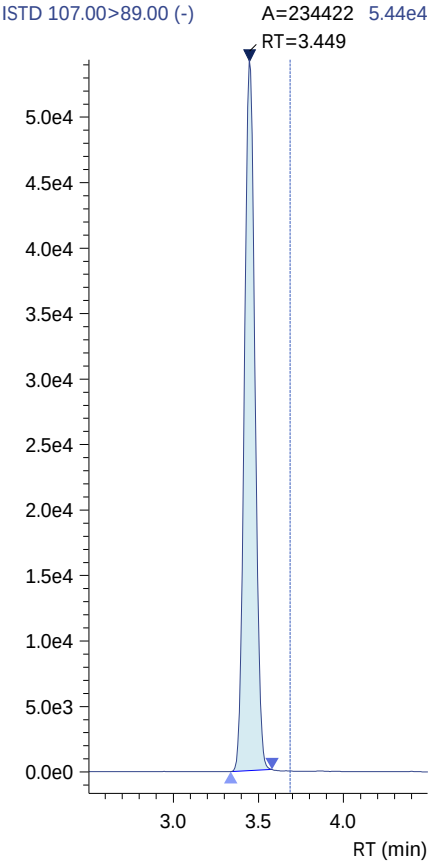
Conc 0.0889
R#1 26.68 (31.53)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/30/2023 11:53:37 AM

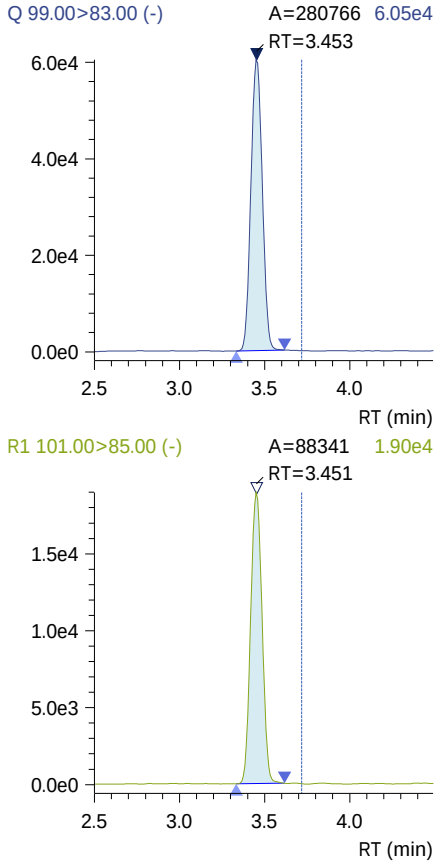
## PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 1/27/2023 1:40:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230127\20230127-046.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.453 | 280766 | 183149 | 9.7825 | ng/mL | 101.00 >85.00 | 31.46 | 22.07 -40.99 |
| Sodium Perchlorate-18O4_IS | Auto | 3.449 | 183149 | 183149 | 1.0000 | ng/mL | ---- | ---- | |

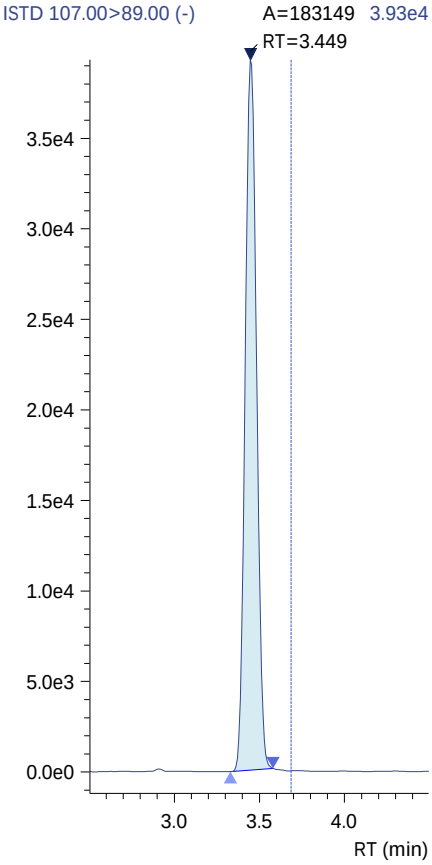
### Perchlorate

Conc 9.7825
R#1 31.46 (31.53)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/30/2023 11:53:37 AM

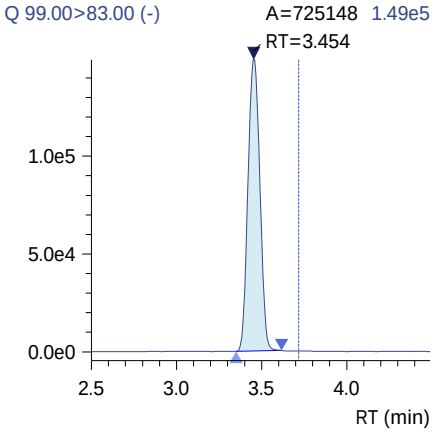
## E2300057-001

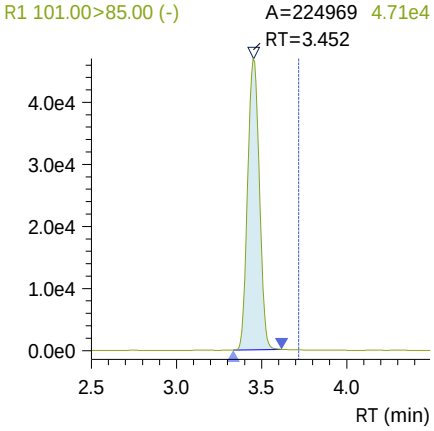
Sample ID: E2300057-001
Date Acquired: 1/27/2023 2:37:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230127\20230127-055.lcd
Vial: 32 | Inj. Volume: 25.0000uL | Tray: 3

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.454 | 7251<br>48 | 150494 | 30.7<br>480 | ng/mL | 101.00<br>>85.00 | 31.02 | 22.07<br>-40.99 |
| Sodium Perchlorate-18O4_IS | Auto | 3.448 | 1504<br>94 | 150494 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

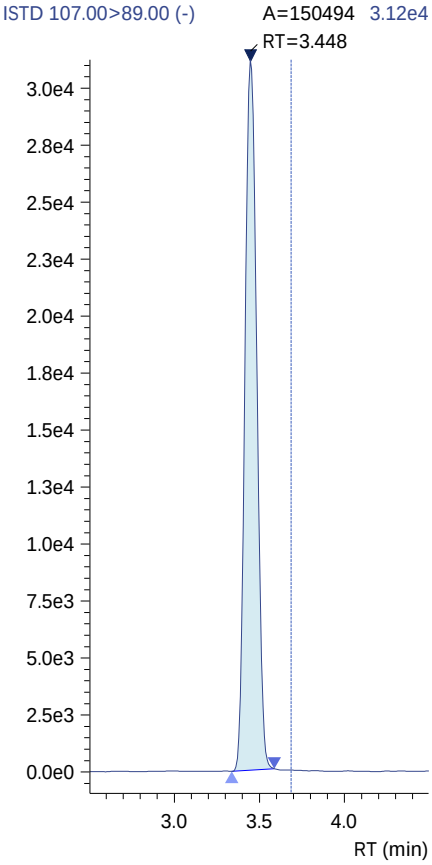
Conc 30.7480
R#1 31.02 (31.53)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/30/2023 11:53:37 AM

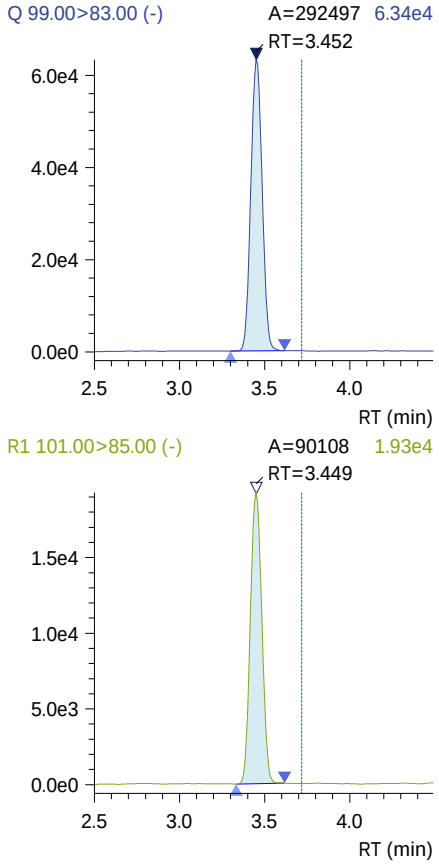
## PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 1/27/2023 2:43:21 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230127\20230127-056.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.452 | 292497 | 192322 | 9.7051 | ng/mL | 101.00 >85.00 | 30.81 | 22.07 -40.99 |
| Sodium Perchlorate-18O4_IS | Auto | 3.448 | 192322 | 192322 | 1.0000 | ng/mL | ---- | ---- | |

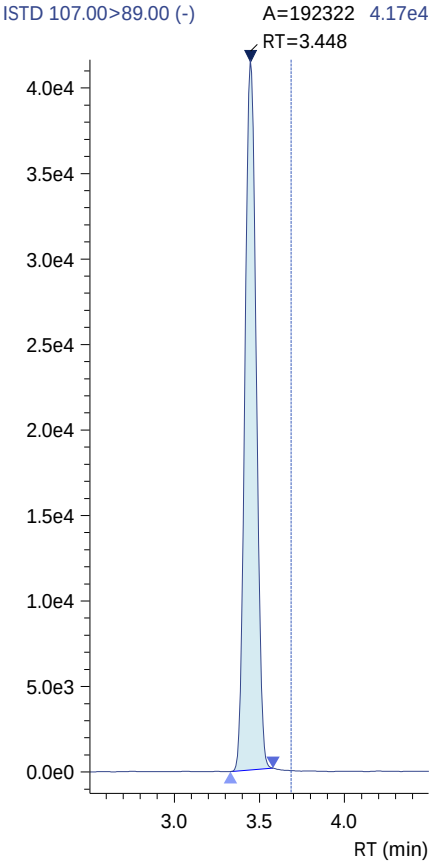
### Perchlorate

Conc 9.7051
R#1 30.81 (31.53)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# HS23011136 LHAAP 16 January 2023 Cover Page

ALS WO# HS23011136

ALS Environmental
ALS Group USA, Corp
10450 Stancliff Road, Suite 210
Houston, TX 77099
**T :** +1 281 530 5656
**F :** +1 281 530 5887
**www.alsglobal.com**

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- Raw Data VOA6 426583
- Raw Data VOA6 426682

HS23011136-GCSEMI-RSK-175

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- CoverLetter

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
alsglobal.com

# WorkOrder: HS23011136

**LHAAP 16 January 2023**

**Aptim Environmental & Infrastucture, Inc.**

Vicki Graves
10333 Richmond Ave Ste 1030
Houston TX 77042

**16-Feb-2023**

# HS23011136 LHAAP 16 January 2023 Final REV01

ALS WO# HS23011136

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 20, 2023

Vicki Graves
Aptim Environmental & Infrastucture, Inc.
10333 Richmond Ave
Ste 1030
Houston, TX 77042

Work Order: **HS23011136**

Laboratory Results for: **LHAAP 16 January 2023**

Dear Vicki Graves ,

ALS Environmental received 7 sample(s) on Jan 24, 2023 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

**Generated By: JUMOKE.LAWAL**
Dane J. Wacasey

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**Work Order:** HS23011136

## SAMPLE SUMMARY

| Lab Samp ID | Client Sample ID | Matrix | TagNo | Collection Date | Date Received | Hold |
|---|---|---|---|---|---|---|
| HS23011136-01 | 16WW58-230123 | Water | | 23-Jan-2023 08:50 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-02 | 16WW57-230123 | Water | | 23-Jan-2023 09:40 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-03 | 16IW26-230123 | Water | | 23-Jan-2023 10:40 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-04 | 16IW10-230123 | Water | | 23-Jan-2023 11:35 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-05 | 16IW03-230123 | Water | | 23-Jan-2023 12:35 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-06 | 16IW03-230123-FD | Water | | 23-Jan-2023 12:35 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-07 | Trip Blank-230123 | Water | CG-090622-793 | 23-Jan-2023 00:00 | 24-Jan-2023 09:50 | ☐ |

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
**Project:** LHAAP 16 January 2023
**Work Order:** HS23011136

## Work Order Comments

• Revised Eurofins report to include ICAL/ICV/CCV. for CO2 from Eurofins.

## Work Order Comments

• The analysis for CO2 by RSK175 was subcontracted to Eurofins in Lancaster, PA. The final report is appended.

• The analysis for Perchlorate was performed by ALS Houston Specialty Lab. The final report is appended.

## GC Semivolatiles by Method RSK-175

### Batch ID: R427362

**Sample ID: 16IW10-230123 (HS23011136-04MS)**

• The recovery of the Matrix Spike (MS) associated to select analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MS may be due to sample matrix interference.

**Sample ID: 16IW10-230123 (HS23011136-04MSD)**

• The recovery of the Matrix Spike Duplicate (MSD) associated to select analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

## GCMS Volatiles by Method SW8260

### Batch ID: R426583

**Sample ID: 16IW26-230123 (HS23011136-03)**

• Dilution required due to high concentrations of non target analytes and sample matrix.

**Sample ID: 16WW57-230123 (HS23011136-02)**

• Dilution required due to sample matrix.

**Sample ID: 16WW58-230123 (HS23011136-01)**

• Dilution required due to high concentrations of target analytes.

**Sample ID: 16IW10-230123 (HS23011136-04MS)**

• The recovery of the Matrix Spike (MS) and the Matrix Spike Duplicate (MSD) associated to these analytes were outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MS/MSD may be due to sample matrix interference. cis-1,2-Dichloroethene, Methylene chloride

### Batch ID: R426682

**Sample ID: HS23011212-02MSD**

• MSD was performed on unrelated sample

## WetChemistry by Method SM5310B

### Batch ID: R427016

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**Work Order:** HS23011136

**CASE NARRATIVE**

## WetChemistry by Method SM5310B

### Batch ID: R427492

**Sample ID: 16IW10-230123 (HS23011136-04MS)**

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

## WetChemistry by Method SW9056

### Batch ID: R426450

**Sample ID: 16IW03-230123 (HS23011136-05)**

- The reporting limit is elevated due to dilution for high concentrations of non-target analytes. (Sulfate)

**Sample ID: 16IW10-230123 (HS23011136-04)**

- The reporting limit is elevated due to dilution for high concentrations of non-target analytes. (Nitrogen, Nitrate (As N),Sulfate)

**ALS Houston, US** Date: 20-Jun-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16WW58-230123
Collection Date: 23-Jan-2023 08:50

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-01
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 50 | U | 15 | 50 | 50 | ug/L | 50 | 26-Jan-2023 16:27 |
| 1,1-Dichloroethene | 25 | U | 10 | 25 | 50 | ug/L | 50 | 26-Jan-2023 16:27 |
| 1,2-Dichloroethane | 25 | U | 10 | 25 | 50 | ug/L | 50 | 26-Jan-2023 16:27 |
| **cis-1,2-Dichloroethene** | **200** | | **10** | **25** | **50** | **ug/L** | 50 | 26-Jan-2023 16:27 |
| Methylene chloride | 100 | U | 20 | 100 | 100 | ug/L | 50 | 26-Jan-2023 16:27 |
| **Trichloroethene** | **7,000** | | **10** | **25** | **50** | **ug/L** | 50 | 26-Jan-2023 16:27 |
| Vinyl chloride | 25 | U | 10 | 25 | 50 | ug/L | 50 | 26-Jan-2023 16:27 |
| *Surr: 1,2-Dichloroethane-d4* | *99.3* | | | **0** | *81-118* | *%REC* | *50* | *26-Jan-2023 16:27* |
| *Surr: 4-Bromofluorobenzene* | *99.9* | | | **0** | *85-114* | *%REC* | *50* | *26-Jan-2023 16:27* |
| *Surr: Dibromofluoromethane* | *91.7* | | | **0** | *80-119* | *%REC* | *50* | *26-Jan-2023 16:27* |
| *Surr: Toluene-d8* | *104* | | | **0** | *89-112* | *%REC* | *50* | *26-Jan-2023 16:27* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 10:22 |
| Ethene | 0.000500 | U | 0.000234 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 10:22 |
| **Methane** | **0.00747** | | **0.000107** | **0.000500** | **0.000500** | **mg/L** | 1 | 30-Jan-2023 10:22 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **6.48** | | **0.500** | **1.00** | **1.00** | **mg/L** | 1 | 30-Jan-2023 16:52 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| Nitrogen, Nitrate (As N) | 0.250 | U | 0.150 | 0.250 | 0.500 | mg/L | 5 | 25-Jan-2023 00:57 |
| **Sulfate** | **758** | | **10.0** | **12.5** | **25.0** | **mg/L** | 50 | 25-Jan-2023 01:03 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Revision:** 1

**ALS Houston, US** Date: 20-Jun-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16WW57-230123
Collection Date: 23-Jan-2023 09:40

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-02
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 5.0 | U | 1.5 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 16:48 |
| 1,1-Dichloroethene | 2.5 | U | 1.0 | 2.5 | 5.0 | ug/L | 5 | 26-Jan-2023 16:48 |
| 1,2-Dichloroethane | 2.5 | U | 1.0 | 2.5 | 5.0 | ug/L | 5 | 26-Jan-2023 16:48 |
| cis-1,2-Dichloroethene | 2.5 | U | 1.0 | 2.5 | 5.0 | ug/L | 5 | 26-Jan-2023 16:48 |
| Methylene chloride | 10 | U | 2.0 | 10 | 10 | ug/L | 5 | 26-Jan-2023 16:48 |
| **Trichloroethene** | **160** | | **1.0** | **2.5** | **5.0** | **ug/L** | 5 | 26-Jan-2023 16:48 |
| Vinyl chloride | 2.5 | U | 1.0 | 2.5 | 5.0 | ug/L | 5 | 26-Jan-2023 16:48 |
| *Surr: 1,2-Dichloroethane-d4* | *96.0* | | | **0** | *81-118* | *%REC* | *5* | *26-Jan-2023 16:48* |
| *Surr: 4-Bromofluorobenzene* | *102* | | | **0** | *85-114* | *%REC* | *5* | *26-Jan-2023 16:48* |
| *Surr: Dibromofluoromethane* | *85.1* | | | **0** | *80-119* | *%REC* | *5* | *26-Jan-2023 16:48* |
| *Surr: Toluene-d8* | *104* | | | **0** | *89-112* | *%REC* | *5* | *26-Jan-2023 16:48* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 10:48 |
| **Ethene** | **0.00110** | | **0.000234** | **0.000500** | **0.00100** | **mg/L** | 1 | 30-Jan-2023 10:48 |
| **Methane** | **0.00335** | | **0.000107** | **0.000500** | **0.000500** | **mg/L** | 1 | 30-Jan-2023 10:48 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **19.9** | | **0.500** | **1.00** | **1.00** | **mg/L** | 1 | 30-Jan-2023 17:06 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| Nitrogen, Nitrate (As N) | 0.250 | U | 0.150 | 0.250 | 0.500 | mg/L | 5 | 25-Jan-2023 01:09 |
| **Sulfate** | **3,140** | | **20.0** | **25.0** | **50.0** | **mg/L** | 100 | 25-Jan-2023 01:14 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Revision:** 1

**ALS Houston, US** Date: 20-Jun-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16IW26-230123
Collection Date: 23-Jan-2023 10:40

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-03
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 5.0 | U | 1.5 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 17:09 |
| 1,1-Dichloroethene | 2.5 | U | 1.0 | 2.5 | 5.0 | ug/L | 5 | 26-Jan-2023 17:09 |
| 1,2-Dichloroethane | 2.5 | U | 1.0 | 2.5 | 5.0 | ug/L | 5 | 26-Jan-2023 17:09 |
| cis-1,2-Dichloroethene | 2.5 | U | 1.0 | 2.5 | 5.0 | ug/L | 5 | 26-Jan-2023 17:09 |
| Methylene chloride | 10 | U | 2.0 | 10 | 10 | ug/L | 5 | 26-Jan-2023 17:09 |
| Trichloroethene | 2.5 | U | 1.0 | 2.5 | 5.0 | ug/L | 5 | 26-Jan-2023 17:09 |
| **Vinyl chloride** | **2.0** | J | **1.0** | **2.5** | **5.0** | **ug/L** | 5 | 26-Jan-2023 17:09 |
| *Surr: 1,2-Dichloroethane-d4* | *98.1* | | | **0** | *81-118* | *%REC* | *5* | *26-Jan-2023 17:09* |
| *Surr: 4-Bromofluorobenzene* | *102* | | | **0** | *85-114* | *%REC* | *5* | *26-Jan-2023 17:09* |
| *Surr: Dibromofluoromethane* | *88.6* | | | **0** | *80-119* | *%REC* | *5* | *26-Jan-2023 17:09* |
| *Surr: Toluene-d8* | *103* | | | **0** | *89-112* | *%REC* | *5* | *26-Jan-2023 17:09* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 10:55 |
| **Ethene** | **0.0523** | | **0.000234** | **0.000500** | **0.00100** | **mg/L** | 1 | 30-Jan-2023 10:55 |
| **Methane** | **5.78** | | **0.0428** | **0.200** | **0.200** | **mg/L** | 400 | 30-Jan-2023 11:55 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **110** | | **5.00** | **10.0** | **10.0** | **mg/L** | 10 | 07-Feb-2023 13:46 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| Nitrogen, Nitrate (As N) | 0.250 | U | 0.150 | 0.250 | 0.500 | mg/L | 5 | 25-Jan-2023 01:49 |
| **Sulfate** | **3.50** | | **1.00** | **1.25** | **2.50** | **mg/L** | 5 | 25-Jan-2023 01:49 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Revision:** 1

**ALS Houston, US** Date: 20-Jun-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16IW10-230123
Collection Date: 23-Jan-2023 11:35

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-04
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 1.0 | U | 0.30 | 1.0 | 1.0 | ug/L | 1 | 26-Jan-2023 10:30 |
| 1,1-Dichloroethene | 0.50 | U | 0.20 | 0.50 | 1.0 | ug/L | 1 | 26-Jan-2023 10:30 |
| 1,2-Dichloroethane | 0.50 | U | 0.20 | 0.50 | 1.0 | ug/L | 1 | 26-Jan-2023 10:30 |
| **cis-1,2-Dichloroethene** | **1.9** | | **0.20** | **0.50** | **1.0** | **ug/L** | 1 | 26-Jan-2023 10:30 |
| Methylene chloride | 2.0 | U | 0.40 | 2.0 | 2.0 | ug/L | 1 | 26-Jan-2023 10:30 |
| **Trichloroethene** | **1.6** | | **0.20** | **0.50** | **1.0** | **ug/L** | 1 | 26-Jan-2023 10:30 |
| **Vinyl chloride** | **4.2** | | **0.20** | **0.50** | **1.0** | **ug/L** | 1 | 26-Jan-2023 10:30 |
| *Surr: 1,2-Dichloroethane-d4* | *97.9* | | | **0** | *81-118* | *%REC* | *1* | *26-Jan-2023 10:30* |
| *Surr: 4-Bromofluorobenzene* | *102* | | | **0** | *85-114* | *%REC* | *1* | *26-Jan-2023 10:30* |
| *Surr: Dibromofluoromethane* | *91.4* | | | **0** | *80-119* | *%REC* | *1* | *26-Jan-2023 10:30* |
| *Surr: Toluene-d8* | *105* | | | **0** | *89-112* | *%REC* | *1* | *26-Jan-2023 10:30* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 11:20 |
| Ethene | 0.000500 | U | 0.000234 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 11:20 |
| **Methane** | **5.35** | | **0.0428** | **0.200** | **0.200** | **mg/L** | 400 | 30-Jan-2023 12:08 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **122** | | **5.00** | **10.0** | **10.0** | **mg/L** | 10 | 07-Feb-2023 14:00 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| Nitrogen, Nitrate (As N) | 0.250 | U | 0.150 | 0.250 | 0.500 | mg/L | 5 | 25-Jan-2023 00:34 |
| **Sulfate** | **1.47** | J | **1.00** | **1.25** | **2.50** | **mg/L** | 5 | 25-Jan-2023 00:34 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Revision:** 1

**ALS Houston, US** Date: 20-Jun-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16IW03-230123
Collection Date: 23-Jan-2023 12:35

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-05
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 50 | U | 15 | 50 | 50 | ug/L | 50 | 26-Jan-2023 17:31 |
| **1,1-Dichloroethene** | **48** | J | **10** | **25** | **50** | **ug/L** | 50 | 26-Jan-2023 17:31 |
| 1,2-Dichloroethane | 25 | U | 10 | 25 | 50 | ug/L | 50 | 26-Jan-2023 17:31 |
| **cis-1,2-Dichloroethene** | **18,000** | | **40** | **100** | **200** | **ug/L** | 200 | 27-Jan-2023 11:00 |
| Methylene chloride | 100 | U | 20 | 100 | 100 | ug/L | 50 | 26-Jan-2023 17:31 |
| **Trichloroethene** | **3,600** | | **10** | **25** | **50** | **ug/L** | 50 | 26-Jan-2023 17:31 |
| **Vinyl chloride** | **1,600** | | **10** | **25** | **50** | **ug/L** | 50 | 26-Jan-2023 17:31 |
| *Surr: 1,2-Dichloroethane-d4* | *101* | | **0** | *81-118* | | *%REC* | *50* | *26-Jan-2023 17:31* |
| *Surr: 1,2-Dichloroethane-d4* | *99.6* | | **0** | *81-118* | | *%REC* | *200* | *27-Jan-2023 11:00* |
| *Surr: 4-Bromofluorobenzene* | *102* | | **0** | *85-114* | | *%REC* | *50* | *26-Jan-2023 17:31* |
| *Surr: 4-Bromofluorobenzene* | *98.7* | | **0** | *85-114* | | *%REC* | *200* | *27-Jan-2023 11:00* |
| *Surr: Dibromofluoromethane* | *91.6* | | **0** | *80-119* | | *%REC* | *50* | *26-Jan-2023 17:31* |
| *Surr: Dibromofluoromethane* | *91.4* | | **0** | *80-119* | | *%REC* | *200* | *27-Jan-2023 11:00* |
| *Surr: Toluene-d8* | *104* | | **0** | *89-112* | | *%REC* | *50* | *26-Jan-2023 17:31* |
| *Surr: Toluene-d8* | *104* | | **0** | *89-112* | | *%REC* | *200* | *27-Jan-2023 11:00* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 11:03 |
| **Ethene** | **0.816** | | **0.0468** | **0.100** | **0.200** | **mg/L** | 200 | 30-Jan-2023 12:16 |
| **Methane** | **4.28** | | **0.0214** | **0.100** | **0.100** | **mg/L** | 200 | 30-Jan-2023 12:16 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **1,930** | | **50.0** | **100** | **100** | **mg/L** | 100 | 07-Feb-2023 14:29 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| **Nitrogen, Nitrate (As N)** | **3.54** | | **0.150** | **0.250** | **0.500** | **mg/L** | 5 | 25-Jan-2023 02:01 |
| **Sulfate** | **2.30** | J | **1.00** | **1.25** | **2.50** | **mg/L** | 5 | 25-Jan-2023 02:01 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Revision:** 1

**ALS Houston, US** Date: 20-Jun-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16IW03-230123-FD
Collection Date: 23-Jan-2023 12:35

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-06
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 50 | U | 15 | 50 | 50 | ug/L | 50 | 26-Jan-2023 17:52 |
| 1,1-Dichloroethene | 25 | U | 10 | 25 | 50 | ug/L | 50 | 26-Jan-2023 17:52 |
| 1,2-Dichloroethane | 25 | U | 10 | 25 | 50 | ug/L | 50 | 26-Jan-2023 17:52 |
| **cis-1,2-Dichloroethene** | **16,000** | | **40** | **100** | **200** | **ug/L** | 200 | 27-Jan-2023 11:21 |
| Methylene chloride | 100 | U | 20 | 100 | 100 | ug/L | 50 | 26-Jan-2023 17:52 |
| **Trichloroethene** | **1,200** | | **10** | **25** | **50** | **ug/L** | 50 | 26-Jan-2023 17:52 |
| **Vinyl chloride** | **1,300** | | **10** | **25** | **50** | **ug/L** | 50 | 26-Jan-2023 17:52 |
| *Surr: 1,2-Dichloroethane-d4* | *99.9* | | **0** | *81-118* | | *%REC* | *50* | *26-Jan-2023 17:52* |
| *Surr: 1,2-Dichloroethane-d4* | *99.3* | | **0** | *81-118* | | *%REC* | *200* | *27-Jan-2023 11:21* |
| *Surr: 4-Bromofluorobenzene* | *102* | | **0** | *85-114* | | *%REC* | *50* | *26-Jan-2023 17:52* |
| *Surr: 4-Bromofluorobenzene* | *101* | | **0** | *85-114* | | *%REC* | *200* | *27-Jan-2023 11:21* |
| *Surr: Dibromofluoromethane* | *91.2* | | **0** | *80-119* | | *%REC* | *50* | *26-Jan-2023 17:52* |
| *Surr: Dibromofluoromethane* | *91.1* | | **0** | *80-119* | | *%REC* | *200* | *27-Jan-2023 11:21* |
| *Surr: Toluene-d8* | *105* | | **0** | *89-112* | | *%REC* | *50* | *26-Jan-2023 17:52* |
| *Surr: Toluene-d8* | *104* | | **0** | *89-112* | | *%REC* | *200* | *27-Jan-2023 11:21* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 11:46 |
| **Ethene** | **1.59** | | **0.0936** | **0.200** | **0.400** | **mg/L** | 400 | 30-Jan-2023 12:26 |
| **Methane** | **5.08** | | **0.0428** | **0.200** | **0.200** | **mg/L** | 400 | 30-Jan-2023 12:26 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **1,660** | | **50.0** | **100** | **100** | **mg/L** | 100 | 07-Feb-2023 14:43 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| **Nitrogen, Nitrate (As N)** | **2.29** | | **0.150** | **0.250** | **0.500** | **mg/L** | 5 | 25-Jan-2023 02:12 |
| **Sulfate** | **2.59** | | **1.00** | **1.25** | **2.50** | **mg/L** | 5 | 25-Jan-2023 02:12 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Revision:** 1

**ALS Houston, US**

Date: 20-Jun-23

Client: Aptim Environmental & Infrastucture, Inc.

**ANALYTICAL REPORT**

Project: LHAAP 16 January 2023

WorkOrder:HS23011136

Sample ID: Trip Blank-230123

Lab ID:HS23011136-07

Collection Date: 23-Jan-2023 00:00

Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | **Method:SW8260** | | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 1.0 | U | 0.30 | 1.0 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| 1,1-Dichloroethene | 0.50 | U | 0.20 | 0.50 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| 1,2-Dichloroethane | 0.50 | U | 0.20 | 0.50 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| cis-1,2-Dichloroethene | 0.50 | U | 0.20 | 0.50 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| Methylene chloride | 2.0 | U | 0.40 | 2.0 | 2.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| Trichloroethene | 0.50 | U | 0.20 | 0.50 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| Vinyl chloride | 0.50 | U | 0.20 | 0.50 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| *Surr: 1,2-Dichloroethane-d4* | *99.1* | | | **0** | *81-118* | *%REC* | *1* | *26-Jan-2023 11:33* |
| *Surr: 4-Bromofluorobenzene* | *100* | | | **0** | *85-114* | *%REC* | *1* | *26-Jan-2023 11:33* |
| *Surr: Dibromofluoromethane* | *92.4* | | | **0** | *80-119* | *%REC* | *1* | *26-Jan-2023 11:33* |
| *Surr: Toluene-d8* | *105* | | | **0** | *89-112* | *%REC* | *1* | *26-Jan-2023 11:33* |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Revision:** 1

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

## DATES REPORT

| Sample ID | Client Samp ID | Collection Date | Leachate Date | Prep Date | Analysis Date | DF |
|---|---|---|---|---|---|---|
| **Batch ID:** R426450 ( 0 ) | **Test Name :** ANIONS BY SW9056A | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 25 Jan 2023 01:03 | 50 |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 25 Jan 2023 00:57 | 5 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 25 Jan 2023 01:14 | 100 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 25 Jan 2023 01:09 | 5 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 25 Jan 2023 01:49 | 5 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 25 Jan 2023 00:34 | 5 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 25 Jan 2023 02:01 | 5 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 25 Jan 2023 02:12 | 5 |
| **Batch ID:** R426583 ( 0 ) | **Test Name :** VOLATILES ORGANICS BY METHOD 8260C | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 26 Jan 2023 16:27 | 50 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 26 Jan 2023 16:48 | 5 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 26 Jan 2023 17:09 | 5 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 26 Jan 2023 10:30 | 1 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 26 Jan 2023 17:31 | 50 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 26 Jan 2023 17:52 | 50 |
| HS23011136-07 | Trip Blank-230123 | 23 Jan 2023 00:00 | | | 26 Jan 2023 11:33 | 1 |
| **Batch ID:** R426682 ( 0 ) | **Test Name :** VOLATILES ORGANICS BY METHOD 8260C | | | | **Matrix:** Water | |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 27 Jan 2023 11:00 | 200 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 27 Jan 2023 11:21 | 200 |
| **Batch ID:** R426969 ( 0 ) | **Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850) | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 31 Jan 2023 15:57 | 1 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 31 Jan 2023 15:57 | 1 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 31 Jan 2023 15:57 | 1 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 31 Jan 2023 15:57 | 1 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 31 Jan 2023 15:57 | 1 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 31 Jan 2023 15:57 | 1 |
| **Batch ID:** R427010 ( 0 ) | **Test Name :** SUBCONTRACT ANALYSIS - RSK | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 01 Feb 2023 09:58 | 1 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 01 Feb 2023 09:58 | 1 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 01 Feb 2023 09:58 | 1 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 01 Feb 2023 09:58 | 1 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 01 Feb 2023 09:58 | 1 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 01 Feb 2023 09:58 | 1 |
| **Batch ID:** R427016 ( 0 ) | **Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011 | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 30 Jan 2023 16:52 | 1 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 30 Jan 2023 17:06 | 1 |

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**DATES REPORT**

| Sample ID | Client Samp ID | Collection Date | Leachate Date | Prep Date | Analysis Date | DF |
|---|---|---|---|---|---|---|
| **Batch ID:** R427362 ( 0 ) | **Test Name :** DISSOLVED GASES BY RSK-175 | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 30 Jan 2023 10:22 | 1 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 30 Jan 2023 10:48 | 1 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 30 Jan 2023 11:55 | 400 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 30 Jan 2023 10:55 | 1 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 30 Jan 2023 12:08 | 400 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 30 Jan 2023 11:20 | 1 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 30 Jan 2023 12:16 | 200 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 30 Jan 2023 11:03 | 1 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 30 Jan 2023 12:26 | 400 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 30 Jan 2023 11:46 | 1 |
| **Batch ID:** R427492 ( 0 ) | **Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011 | | | | **Matrix:** Water | |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 07 Feb 2023 13:46 | 10 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 07 Feb 2023 14:00 | 10 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 07 Feb 2023 14:29 | 100 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 07 Feb 2023 14:43 | 100 |

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R427362 ( 0 ) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

**MBLK** Sample ID: **MBLK-230130** Units: **mg/L** Analysis Date: **30-Jan-2023 09:35**
Client ID: Run ID: **FID-4_427362** SeqNo: **7109613** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | 0.000500 | 0.00100 | | | | | | | | U |
| Ethene | 0.000500 | 0.00100 | | | | | | | | U |
| Methane | 0.000500 | 0.000500 | | | | | | | | U |

**LCS** Sample ID: **LCS-230130** Units: **mg/L** Analysis Date: **30-Jan-2023 09:43**
Client ID: Run ID: **FID-4_427362** SeqNo: **7109614** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | 0.0194 | 0.00100 | 0.01804 | 0 | 107 | 75 - 125 | | | | |
| Ethene | 0.0171 | 0.00100 | 0.0168 | 0 | 102 | 75 - 125 | | | | |
| Methane | 0.00938 | 0.000500 | 0.009647 | 0 | 97.3 | 75 - 125 | | | | |

**MS** Sample ID: **HS23011136-04MS** Units: **mg/L** Analysis Date: **30-Jan-2023 11:28**
Client ID: **16IW10-230123** Run ID: **FID-4_427362** SeqNo: **7109624** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | 0.0316 | 0.00100 | 0.01804 | 0 | 175 | 75 - 125 | | | | S |
| Ethene | 0.0473 | 0.00100 | 0.0168 | 0 | 282 | 75 - 125 | | | | S |
| Methane | 4.87 | 0.000500 | 0.009647 | 5.190 | -3350 | 75 - 125 | | | | SEO |

**MSD** Sample ID: **HS23011136-04MSD** Units: **mg/L** Analysis Date: **30-Jan-2023 11:37**
Client ID: **16IW10-230123** Run ID: **FID-4_427362** SeqNo: **7109625** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | 0.0295 | 0.00100 | 0.01804 | 0 | 163 | 75 - 125 | 0.03159 | 6.91 | 30 | S |
| Ethene | 0.0410 | 0.00100 | 0.0168 | 0 | 244 | 75 - 125 | 0.04729 | 14.3 | 30 | S |
| Methane | 4.81 | 0.000500 | 0.009647 | 5.190 | -3910 | 75 - 125 | 4.867 | 1.12 | 30 | SEO |

**The following samples were analyzed in this batch:** HS23011136-01 HS23011136-02 HS23011136-03 HS23011136-04 HS23011136-05 HS23011136-06

**Revision:** 1

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R426583 ( 0 ) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

**MBLK** Sample ID: **VBLKW-230126** Units: **ug/L** Analysis Date: **26-Jan-2023 10:09**
Client ID: Run ID: **VOA6_426583** SeqNo: **7089740** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1.0 | 1.0 | | | | | | | | U |
| 1,1-Dichloroethene | 0.50 | 1.0 | | | | | | | | U |
| 1,2-Dichloroethane | 0.50 | 1.0 | | | | | | | | U |
| cis-1,2-Dichloroethene | 0.50 | 1.0 | | | | | | | | U |
| Methylene chloride | 2.0 | 2.0 | | | | | | | | U |
| Trichloroethene | 0.50 | 1.0 | | | | | | | | U |
| Vinyl chloride | 0.50 | 1.0 | | | | | | | | U |
| *Surr: 1,2-Dichloroethane-d4* | *49.8* | *1.0* | *50* | *0* | *99.6* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *49.71* | *1.0* | *50* | *0* | *99.4* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *45.67* | *1.0* | *50* | *0* | *91.3* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *52.02* | *1.0* | *50* | *0* | *104* | *89 - 112* | | | | |

**LCS** Sample ID: **VLCSW-230126** Units: **ug/L** Analysis Date: **26-Jan-2023 09:27**
Client ID: Run ID: **VOA6_426583** SeqNo: **7089753** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20.84 | 1.0 | 20 | 0 | 104 | 80 - 119 | | | | |
| 1,1-Dichloroethene | 20.3 | 1.0 | 20 | 0 | 102 | 71 - 131 | | | | |
| 1,2-Dichloroethane | 22.43 | 1.0 | 20 | 0 | 112 | 73 - 128 | | | | |
| cis-1,2-Dichloroethene | 20.04 | 1.0 | 20 | 0 | 100 | 78 - 123 | | | | |
| Methylene chloride | 19.73 | 2.0 | 20 | 0 | 98.7 | 74 - 124 | | | | |
| Trichloroethene | 21.89 | 1.0 | 20 | 0 | 109 | 79 - 123 | | | | |
| Vinyl chloride | 19.56 | 1.0 | 20 | 0 | 97.8 | 58 - 137 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *53.42* | *1.0* | *50* | *0* | *107* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *51.37* | *1.0* | *50* | *0* | *103* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *48.58* | *1.0* | *50* | *0* | *97.2* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *48.94* | *1.0* | *50* | *0* | *97.9* | *89 - 112* | | | | |

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R426583 ( 0 ) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

**MS** Sample ID: **HS23011136-04MS** Units: **ug/L** Analysis Date: **26-Jan-2023 10:51**
Client ID: **16IW10-230123** Run ID: **VOA6_426583** SeqNo: **7089742** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 16.92 | 1.0 | 20 | 0 | 84.6 | 80 - 119 | | | | |
| 1,1-Dichloroethene | 16.95 | 1.0 | 20 | 0 | 84.8 | 71 - 131 | | | | |
| 1,2-Dichloroethane | 19.19 | 1.0 | 20 | 0 | 96.0 | 73 - 128 | | | | |
| cis-1,2-Dichloroethene | 17.04 | 1.0 | 20 | 1.898 | 75.7 | 78 - 123 | | | | S |
| Methylene chloride | 14.31 | 2.0 | 20 | 0 | 71.5 | 74 - 124 | | | | S |
| Trichloroethene | 20.06 | 1.0 | 20 | 1.572 | 92.5 | 79 - 123 | | | | |
| Vinyl chloride | 19.92 | 1.0 | 20 | 4.236 | 78.4 | 58 - 137 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *49.74* | *1.0* | *50* | *0* | *99.5* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *51.78* | *1.0* | *50* | *0* | *104* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *45.57* | *1.0* | *50* | *0* | *91.1* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *52.55* | *1.0* | *50* | *0* | *105* | *89 - 112* | | | | |

**MSD** Sample ID: **HS23011136-04MSD** Units: **ug/L** Analysis Date: **26-Jan-2023 11:12**
Client ID: **16IW10-230123** Run ID: **VOA6_426583** SeqNo: **7089743** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 16.46 | 1.0 | 20 | 0 | 82.3 | 80 - 119 | 16.92 | 2.78 | 20 | |
| 1,1-Dichloroethene | 15.86 | 1.0 | 20 | 0 | 79.3 | 71 - 131 | 16.95 | 6.63 | 20 | |
| 1,2-Dichloroethane | 17.84 | 1.0 | 20 | 0 | 89.2 | 73 - 128 | 19.19 | 7.31 | 20 | |
| cis-1,2-Dichloroethene | 16.53 | 1.0 | 20 | 1.898 | 73.1 | 78 - 123 | 17.04 | 3.05 | 20 | S |
| Methylene chloride | 13.89 | 2.0 | 20 | 0 | 69.5 | 74 - 124 | 14.31 | 2.96 | 20 | S |
| Trichloroethene | 18.87 | 1.0 | 20 | 1.572 | 86.5 | 79 - 123 | 20.06 | 6.15 | 20 | |
| Vinyl chloride | 18.64 | 1.0 | 20 | 4.236 | 72.0 | 58 - 137 | 19.92 | 6.66 | 20 | |
| *Surr: 1,2-Dichloroethane-d4* | *49.79* | *1.0* | *50* | *0* | *99.6* | *81 - 118* | *49.74* | *0.0824* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *51.93* | *1.0* | *50* | *0* | *104* | *85 - 114* | *51.78* | *0.303* | *20* | |
| *Surr: Dibromofluoromethane* | *45.8* | *1.0* | *50* | *0* | *91.6* | *80 - 119* | *45.57* | *0.51* | *20* | |
| *Surr: Toluene-d8* | *52.15* | *1.0* | *50* | *0* | *104* | *89 - 112* | *52.55* | *0.753* | *20* | |

**The following samples were analyzed in this batch:**

| | | | |
|---|---|---|---|
| HS23011136-01 | HS23011136-02 | HS23011136-03 | HS23011136-04 |
| HS23011136-05 | HS23011136-06 | HS23011136-07 | |

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R426682 ( 0 ) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

**MBLK** Sample ID: **VBLKW-230127** Units: **ug/L** Analysis Date: **27-Jan-2023 09:35**
Client ID: Run ID: **VOA6_426682** SeqNo: **7092070** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.50 | 1.0 | | | | | | | | U |
| *Surr: 1,2-Dichloroethane-d4* | *50.56* | *1.0* | *50* | *0* | *101* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *51.69* | *1.0* | *50* | *0* | *103* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *46.1* | *1.0* | *50* | *0* | *92.2* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *52.41* | *1.0* | *50* | *0* | *105* | *89 - 112* | | | | |

**LCS** Sample ID: **VLCSW-230127** Units: **ug/L** Analysis Date: **27-Jan-2023 08:53**
Client ID: Run ID: **VOA6_426682** SeqNo: **7092069** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 20.18 | 1.0 | 20 | 0 | 101 | 78 - 123 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *56.52* | *1.0* | *50* | *0* | *113* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *51.31* | *1.0* | *50* | *0* | *103* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *49.49* | *1.0* | *50* | *0* | *99.0* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *49.59* | *1.0* | *50* | *0* | *99.2* | *89 - 112* | | | | |

**MS** Sample ID: **HS23011212-02MS** Units: **ug/L** Analysis Date: **27-Jan-2023 10:18**
Client ID: Run ID: **VOA6_426682** SeqNo: **7092072** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 15.79 | 1.0 | 20 | 0 | 79.0 | 78 - 123 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *50.98* | *1.0* | *50* | *0* | *102* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *52.03* | *1.0* | *50* | *0* | *104* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *46.29* | *1.0* | *50* | *0* | *92.6* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *51.63* | *1.0* | *50* | *0* | *103* | *89 - 112* | | | | |

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R426682 ( 0 ) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

**MSD** Sample ID: **HS23011212-02MSD** Units: **ug/L** Analysis Date: **27-Jan-2023 10:39**
Client ID: Run ID: **VOA6_426682** SeqNo: **7092073** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 15.22 | 1.0 | 20 | 0 | 76.1 | 78 - 123 | 15.79 | 3.73 | 20 | S |
| *Surr: 1,2-Dichloroethane-d4* | *50.34* | *1.0* | *50* | *0* | *101* | *81 - 118* | *50.98* | *1.28* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *51.8* | *1.0* | *50* | *0* | *104* | *85 - 114* | *52.03* | *0.44* | *20* | |
| *Surr: Dibromofluoromethane* | *45.62* | *1.0* | *50* | *0* | *91.2* | *80 - 119* | *46.29* | *1.45* | *20* | |
| *Surr: Toluene-d8* | *51.69* | *1.0* | *50* | *0* | *103* | *89 - 112* | *51.63* | *0.116* | *20* | |

**The following samples were analyzed in this batch:** HS23011136-05 HS23011136-06

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R426450 ( 0 ) **Instrument:** ICS-Integrion **Method:** ANIONS BY SW9056A

**MBLK** Sample ID: **MBLK** Units: **mg/L** Analysis Date: **25-Jan-2023 00:22**
Client ID: Run ID: **ICS-Integrion_426450** SeqNo: **7086801** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Nitrate (As N) | 0.0500 | 0.100 | | | | | | | | U |
| Sulfate | 0.250 | 0.500 | | | | | | | | U |

**LCS** Sample ID: **LCS** Units: **mg/L** Analysis Date: **25-Jan-2023 00:28**
Client ID: Run ID: **ICS-Integrion_426450** SeqNo: **7086802** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Nitrate (As N) | 3.959 | 0.100 | 4 | 0 | 99.0 | 80 - 120 | | | | |
| Sulfate | 19.58 | 0.500 | 20 | 0 | 97.9 | 80 - 120 | | | | |

**MS** Sample ID: **HS23011136-04MS** Units: **mg/L** Analysis Date: **25-Jan-2023 00:40**
Client ID: **16IW10-230123** Run ID: **ICS-Integrion_426450** SeqNo: **7086804** PrepDate: DF: **5**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Nitrate (As N) | 9.872 | 0.500 | 10 | 0.0125 | 98.6 | 80 - 120 | | | | |
| Sulfate | 49.08 | 2.50 | 50 | 1.47 | 95.2 | 80 - 120 | | | | |

**MSD** Sample ID: **HS23011136-04MSD** Units: **mg/L** Analysis Date: **25-Jan-2023 00:45**
Client ID: **16IW10-230123** Run ID: **ICS-Integrion_426450** SeqNo: **7086805** PrepDate: DF: **5**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Nitrate (As N) | 9.724 | 0.500 | 10 | 0.0125 | 97.1 | 80 - 120 | 9.872 | 1.51 | 20 | |
| Sulfate | 48.28 | 2.50 | 50 | 1.47 | 93.6 | 80 - 120 | 49.08 | 1.64 | 20 | |

**The following samples were analyzed in this batch:** HS23011136-01 HS23011136-02 HS23011136-03 HS23011136-04 HS23011136-05 HS23011136-06

**Revision:** 1

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R427016 ( 0 ) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

**MBLK** Sample ID: **MBLK-01302023** Units: **mg/L** Analysis Date: **30-Jan-2023 15:43**
Client ID: Run ID: **TOC_04_427016** SeqNo: **7100586** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 1.00 | 1.00 | | | | | | | | U |

**LCS** Sample ID: **LCS-01302023** Units: **mg/L** Analysis Date: **30-Jan-2023 15:58**
Client ID: Run ID: **TOC_04_427016** SeqNo: **7100587** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 11.05 | 1.00 | 10 | 0 | 110 | 85 - 115 | | | | |

**LCSD** Sample ID: **LCSD-01302023** Units: **mg/L** Analysis Date: **30-Jan-2023 16:11**
Client ID: Run ID: **TOC_04_427016** SeqNo: **7100588** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 11.18 | 1.00 | 10 | 0 | 112 | 85 - 115 | 11.05 | 1.17 | 20 | |

**MS** Sample ID: **HS23011136-04MS** Units: **mg/L** Analysis Date: **30-Jan-2023 17:51**
Client ID: **16IW10-230123** Run ID: **TOC_04_427016** SeqNo: **7100595** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 177.1 | 1.00 | 10 | 166 | 111 | 80 - 120 | | | | EO |

**The following samples were analyzed in this batch:** HS23011136-01 HS23011136-02

**Revision:** 1

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R427492 ( 0 ) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

**MBLK** Sample ID: **MBLK-02062023** Units: **mg/L** Analysis Date: **07-Feb-2023 13:05**
Client ID: Run ID: **TOC_04_427492** SeqNo: **7112481** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 1.00 | 1.00 | | | | | | | | U |

**LCS** Sample ID: **LCS-02062023** Units: **mg/L** Analysis Date: **07-Feb-2023 13:18**
Client ID: Run ID: **TOC_04_427492** SeqNo: **7112482** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 10.27 | 1.00 | 10 | 0 | 103 | 85 - 115 | | | | |

**LCSD** Sample ID: **LCSD-02062023** Units: **mg/L** Analysis Date: **07-Feb-2023 13:32**
Client ID: Run ID: **TOC_04_427492** SeqNo: **7112483** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 10.39 | 1.00 | 10 | 0 | 104 | 85 - 115 | 10.27 | 1.16 | 20 | |

**MS** Sample ID: **HS23011136-04MS** Units: **mg/L** Analysis Date: **07-Feb-2023 14:15**
Client ID: **16IW10-230123** Run ID: **TOC_04_427492** SeqNo: **7112486** PrepDate: DF: **10**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 253.4 | 10.0 | 100 | 121.6 | 132 | 80 - 120 | | | | S |

**The following samples were analyzed in this batch:** HS23011136-03 HS23011136-04 HS23011136-05 HS23011136-06

**Revision:** 1

**ALS Houston, US** Date: 20-Jun-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** **HS23011136**

**QUALIFIERS, ACRONYMS, UNITS**

| Qualifier | Description |
|---|---|
| * | Value exceeds Regulatory Limit |
| a | Not accredited |
| B | Analyte detected in the associated Method Blank above the Reporting Limit |
| E | Value above quantitation range |
| H | Analyzed outside of Holding Time |
| J | Analyte detected below quantitation limit |
| M | Manually integrated, see raw data for justification |
| n | Not offered for accreditation |
| ND | Not Detected at the Reporting Limit |
| O | Sample amount is > 4 times amount spiked |
| P | Dual Column results percent difference > 40% |
| R | RPD above laboratory control limit |
| S | Spike Recovery outside laboratory control limits |
| U | Analyzed but not detected above the MDL/SDL |

| Acronym | Description |
|---|---|
| DCS | Detectability Check Study |
| DUP | Method Duplicate |
| LCS | Laboratory Control Sample |
| LCSD | Laboratory Control Sample Duplicate |
| MBLK | Method Blank |
| MDL | Method Detection Limit |
| MQL | Method Quantitation Limit |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| PDS | Post Digestion Spike |
| PQL | Practical Quantitaion Limit |
| SD | Serial Dilution |
| SDL | Sample Detection Limit |
| TRRP | Texas Risk Reduction Program |

| Unit Reported | Description |
|---|---|
| mg/L | Milligrams per Liter |

**ALS Houston, US** Date: 20-Jun-23

## CERTIFICATIONS,ACCREDITATIONS & LICENSES

| Agency | Number | Expire Date |
|---|---|---|
| Arkansas | 88-00356 | 27-Mar-2024 |
| Dept of Defense | L23-358 | 31-May-2025 |
| Florida | E87611-37 | 30-Jun-2023 |
| Kansas | E-10352; 2022-2023 | 31-Jul-2023 |
| Louisiana | 03087, 2022-2023 | 30-Jun-2023 |
| Maryland | 343, 2022-2023 | 30-Jun-2023 |
| North Carolina | 624-2023 | 31-Dec-2023 |
| Oklahoma | 2022-141 | 31-Aug-2023 |
| Texas | T104704231-23-31 | 30-Apr-2024 |
| Utah | TX026932022-13 | 31-Jul-2023 |

**ALS Houston, US** Date: 20-Jun-23

## Sample Receipt Checklist

**Work Order ID:** HS23011136 **Date/Time Received:** 24-Jan-2023 09:50

**Client Name:** CBI-Houston **Received by:** Corey Grandits

**Completed By:** /S/ Nelson D. Dusara (eSignature) 24-Jan-2023 12:46 (Date/Time) **Reviewed by:** /S/ Dane J. Wacasey (eSignature) 07-Feb-2023 16:49 (Date/Time)

Matrices: **WATER** Carrier name: **FedEx**

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on shipping container/cooler? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Present ☑ |
| VOA/TX1005/TX1006 Solids in hermetically sealed vials? | Yes ☐ | No ☐ | Not Present ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | 2 Page(s) |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | |
| Samplers name present on COC? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature in compliance? | Yes ☑ | No ☐ | |

| | | |
|---|---|---|
| Temperature(s)/Thermometer(s): | 3.1/2.6 C UC/C | IR 31 |
| Cooler(s)/Kit(s): | 45314 | |
| Date/Time sample(s) sent to storage: | 01/24/2023 12:00 | |

| | | | |
|---|---|---|---|
| Water - VOA vials have zero headspace? | Yes ☑ | No ☐ | No VOA vials submitted ☐ |
| Water - pH acceptable upon receipt? | Yes ☑ | No ☐ | N/A ☐ |
| pH adjusted? | Yes ☐ | No ☑ | N/A ☐ |
| pH adjusted by: | | | |

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

01240832

HS23011136

Aptim Environmental & Infrastucture, Inc.
LHAAP January 2023

# CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stanciff Rd. Suite 210 Houston, TX. 77099 (281) 575-2190 ATTN: Dane Wacasey

| Project: APTIM<br>LONGHORN ARMY AMMN. PLANT (LHAAP)<br>GROUNDWATER TREATMENT PLANT (GWTP)<br>KARNACK, TEXAS | Project No.<br>501032 |
|---|---|
| Job:<br>**LHAAP 16 January 2023** | |
| Prepared By:<br>Scott Beesinger | P.O. Number |

| Field Sample I.D. / Time | Sample Matrix | Date / | MS / MSD | No. OF CONTAINERS | VOC by SW 8260B | TOC by SM5310C | MEE by RSK 175 | Anions sulfate and nitrate by SW9056 | CO2 by RSK 175 | Perchlorate by SW 6850 | Manganese by SW6020A | | | | Remarks (Preservatives, etc.) | Lab I.D.# |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16WW58-230123 | WG | 1/23/23 0850 | | 13 | X | X | X | X | X | X | | | | | | |
| 16WW57-230123 | WG | 1/23/23 0940 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW26-230123 | WG | 1/23/23 1040 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW10-230123 | WG | 1/23/23 1135 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW10-230123-MS | WG | 1/23/23 1135 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW10-230123-MSD | WG | 1/23/23 1135 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW03-230123 | WG | 1/23/23 1235 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW03-230123-FD | WG | 1/23/23 1235 | | 13 | X | X | X | X | X | X | | | | | | |

**Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com**

| Relinquished By: | Date | Time | Received By: | Date | Time | Relinquished By: | Date | Time | Received By: | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Scott Beesinger | 1/23/23 | 1430 | COURIER | 1-24-23 | 0950 | | | | | | |

**For Lab Use Only**

| Received At Lab By: | Date | Time | Airbill No. | Opened By: | Date | Time | Temp of Container | Seal No. | Condition |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

Remarks:

45314 1021
3.1°

(Word) S:\I-ces\Forms\Chain of Custody - BiWeekly

**HS23011136**

Aptim Environmental & Infrastucture, Inc.
LHAAP January 2023

# CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 575-2190 ATTN: Dane Wacasey

| Project: APTIM<br>LONGHORN ARMY AMMN. PLANT (LHAAP)<br>GROUNDWATER TREATMENT PLANT (GWTP)<br>KARNACK, TEXAS | Project No.<br>501032 |
|---|---|
| Job:<br>**LHAAP 16 January 2023** | |
| Prepared By:<br>Scott Beesinger | P.O. Number |

| Field Sample I.D. / Time | Sample Matrix | Date / | MS / MSD | No. OF CONTAINERS | Analyses: VOC by SW 8260B | TOC by SM5310C | MEE by RSK 175 | Anions sulfate and nitrate by SW9056 | CO2 by RSK 175 | Perchlorate by SW 6850 | Manganese by SW6020A | | | | Remarks (Preservatives, etc.) | Lab I.D.# |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRIP BLANK-230123 | W | 1/23/23 | | 2 | X | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

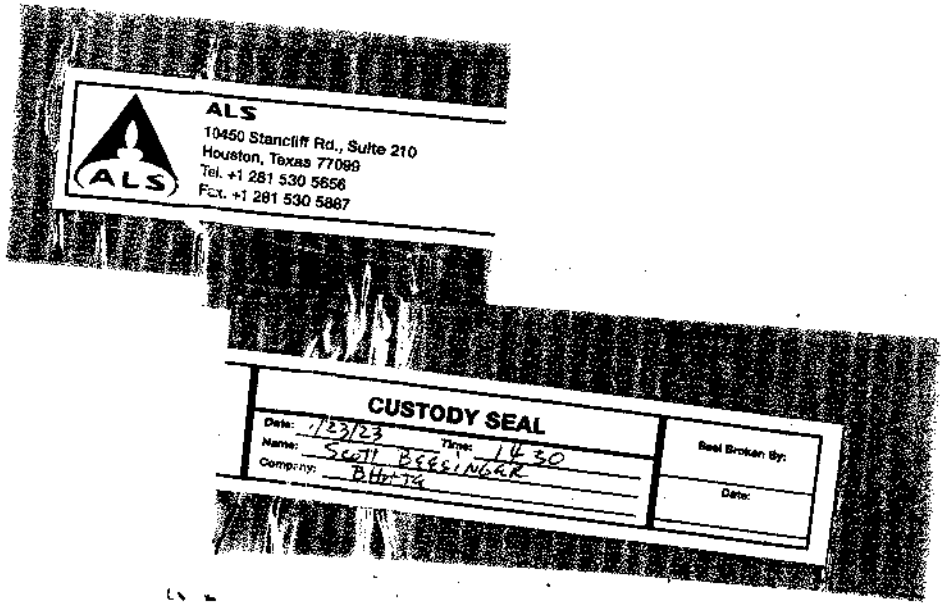
**Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com**

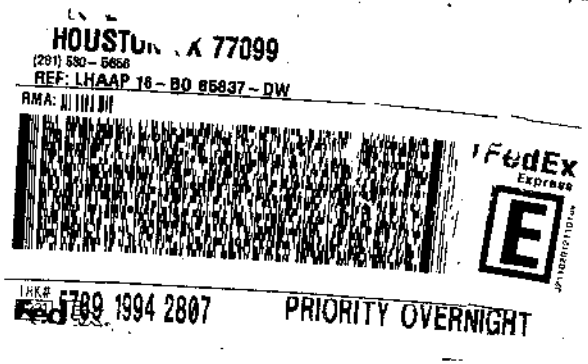
| Relinquished By: | Date | Time | Received By: | Date | Time | Relinquished By: | Date | Time | Received By: | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Scott Beesinger | 1/23/23 | 1430 | COLE TG | 1-24-23 | 0940 | | | | | | |

**For Lab Use Only**

| Received At Lab By: | Date | Time | Airbill No. | Opened By: | Date | Time | Temp of Container | Seal No. | Condition |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

Remarks:


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
CUSTODY SEAL
Date: 1/23/23
Time: 1430
Name: SCOTT BEGGINGER
Company: BHGE
Seal Broken By:
Date:


HOUSTON, TX 77099
(281) 530-5656
REF: LHAAP 16 - BO 65837 - DW
RMA:
FedEx Express
TRK# 5789 1994 2807
PRIORITY OVERNIGHT

eurofins | Environment Testing

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dane Wacasey
ALS Group USA, Corp
10450 Stancliff Rd.
Suite 210
Houston, Texas 77099

Generated 2/1/2023 10:19:09 AM

## JOB DESCRIPTION

HS23011136

## JOB NUMBER

410-113311-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.



my EOL

# Eurofins Lancaster Laboratories Environment Testing, LLC



## Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated
2/1/2023 10:19:09 AM

Authorized for release by
Kelly Bauer, Project Manager
Kelly.Bauer@et.eurofinsus.com
(717)556-7262

# Eurofins Lancaster Laboratories Environment Testing, LLC

## Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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# Definitions/Glossary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| cn | Refer to Case Narrative for further detail |
| D | The reported value is from a dilution. |
| J1 | Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria. |
| M | Manual integrated compound. |
| U | Undetected at the Limit of Detection. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

# Case Narrative

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Job ID: 410-113311-1

### Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

**Narrative**

**Job Narrative**
**410-113311-1**

**Receipt**
The samples were received on 1/25/2023 9:58 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C

**GC VOA**
Method RSK_175_CO2_D5: The method requirement for no headspace was not met. The following volatile sample was analyzed with significant headspace in the sample container(s): HS23011136-05 (410-113311-5). Significant headspace is defined as a bubble greater than 6 mm in diameter.

Method RSK_175_CO2_D5: The following sample(s) were collected in unpreserved vials for analysis of Carbon dioxide. However, the pH at the time of analysis was 5. HS23011136-05 (410-113311-5) and HS23011136-06 (410-113311-6).

Method RSK_175_CO2_D5: The following sample(s) were collected in unpreserved vials for analysis of Carbon dioxide. However, the pH at the time of analysis was 6.5. HS23011136-02 (410-113311-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Detection Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Client Sample ID: HS23011136-01 — Lab Sample ID: 410-113311-1

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 120000 | | 12000 | 2600 | ug/L | 1 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-02 — Lab Sample ID: 410-113311-2

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 170000 | M cn | 12000 | 2600 | ug/L | 1 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-03 — Lab Sample ID: 410-113311-3

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 490000 | D | 120000 | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-04 — Lab Sample ID: 410-113311-4

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 120000 | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-05 — Lab Sample ID: 410-113311-5

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 670000 | D cn | 120000 | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-06 — Lab Sample ID: 410-113311-6

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 480000 | D cn | 120000 | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

This Detection Summary does not include radiochemical test results.

# Client Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Client Sample ID: HS23011136-01
**Lab Sample ID: 410-113311-1**
**Date Collected: 01/23/23 08:50**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 120000 | | 12000 | 2600 | ug/L | | 01/26/23 08:16 | 01/26/23 09:29 | 1 |

## Client Sample ID: HS23011136-02
**Lab Sample ID: 410-113311-2**
**Date Collected: 01/23/23 09:40**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 170000 | M cn | 12000 | 2600 | ug/L | | 01/26/23 08:16 | 01/26/23 09:37 | 1 |

## Client Sample ID: HS23011136-03
**Lab Sample ID: 410-113311-3**
**Date Collected: 01/23/23 10:04**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 490000 | D | 120000 | 26000 | ug/L | | 01/26/23 10:46 | 01/26/23 11:08 | 10 |

## Client Sample ID: HS23011136-04
**Lab Sample ID: 410-113311-4**
**Date Collected: 01/23/23 11:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 120000 | 26000 | ug/L | | 01/26/23 10:46 | 01/26/23 11:16 | 10 |

## Client Sample ID: HS23011136-05
**Lab Sample ID: 410-113311-5**
**Date Collected: 01/23/23 12:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 670000 | D cn | 120000 | 26000 | ug/L | | 01/26/23 10:46 | 01/26/23 11:39 | 10 |

## Client Sample ID: HS23011136-06
**Lab Sample ID: 410-113311-6**
**Date Collected: 01/23/23 12:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 480000 | D cn | 120000 | 26000 | ug/L | | 01/26/23 10:46 | 01/26/23 11:47 | 10 |

# QC Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Method: RSK-175 - Dissolved Gases (GC)

**Lab Sample ID: MB 410-338826/1-A**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | MB Result | MB Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 2600 | U | 12000 | 2600 | ug/L | | 01/26/23 08:16 | 01/26/23 08:50 | 1 |

**Lab Sample ID: LCS 410-338826/2-A**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | | | 35800 | 31400 | | ug/L | | 88 | 80 - 122 | | |

**Lab Sample ID: 410-113311-4 MS**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: HS23011136-04**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 35800 | 785000 | D 4 | ug/L | | 551 | 80 - 122 | | |

**Lab Sample ID: 410-113311-4 MSD**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: HS23011136-04**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 35800 | 807000 | D 4 | ug/L | | 613 | 80 - 122 | 3 | 30 |

# QC Association Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## GC VOA

### Analysis Batch: 338795

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 410-113311-1 | HS23011136-01 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-2 | HS23011136-02 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-3 | HS23011136-03 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-4 | HS23011136-04 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-5 | HS23011136-05 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-6 | HS23011136-06 | Total/NA | Water | RSK-175 | 338826 |
| MB 410-338826/1-A | Method Blank | Total/NA | Water | RSK-175 | 338826 |
| LCS 410-338826/2-A | Lab Control Sample | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-4 MS | HS23011136-04 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-4 MSD | HS23011136-04 | Total/NA | Water | RSK-175 | 338826 |

### Prep Batch: 338826

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 410-113311-1 | HS23011136-01 | Total/NA | Water | RSK-175 | |
| 410-113311-2 | HS23011136-02 | Total/NA | Water | RSK-175 | |
| 410-113311-3 | HS23011136-03 | Total/NA | Water | RSK-175 | |
| 410-113311-4 | HS23011136-04 | Total/NA | Water | RSK-175 | |
| 410-113311-5 | HS23011136-05 | Total/NA | Water | RSK-175 | |
| 410-113311-6 | HS23011136-06 | Total/NA | Water | RSK-175 | |
| MB 410-338826/1-A | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 410-338826/2-A | Lab Control Sample | Total/NA | Water | RSK-175 | |
| 410-113311-4 MS | HS23011136-04 | Total/NA | Water | RSK-175 | |
| 410-113311-4 MSD | HS23011136-04 | Total/NA | Water | RSK-175 | |

# Lab Chronicle

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Client Sample ID: HS23011136-01
**Date Collected: 01/23/23 08:50**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-1
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 08:16 |
| Total/NA | Analysis | RSK-175 | | 1 | 338795 | WN7O | ELLE | 01/26/23 09:29 |

## Client Sample ID: HS23011136-02
**Date Collected: 01/23/23 09:40**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-2
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 08:16 |
| Total/NA | Analysis | RSK-175 | | 1 | 338795 | WN7O | ELLE | 01/26/23 09:37 |

## Client Sample ID: HS23011136-03
**Date Collected: 01/23/23 10:04**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:08 |

## Client Sample ID: HS23011136-04
**Date Collected: 01/23/23 11:35**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:16 |

## Client Sample ID: HS23011136-05
**Date Collected: 01/23/23 12:35**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-5
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:39 |

## Client Sample ID: HS23011136-06
**Date Collected: 01/23/23 12:35**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-6
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:47 |

**Laboratory References:**
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| A2LA | Dept. of Defense ELAP | 0001.01 | 11-30-24 |

# Method Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| RSK-175 | Dissolved Gases (GC) | RSK | ELLE |
| RSK-175 | Dissolved Gases Prep | RSK | ELLE |

**Protocol References:**

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

**Laboratory References:**

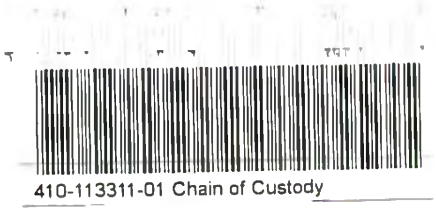
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Sample Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 410-113311-1 | HS23011136-01 | Water | 01/23/23 08:50 | 01/25/23 09:58 |
| 410-113311-2 | HS23011136-02 | Water | 01/23/23 09:40 | 01/25/23 09:58 |
| 410-113311-3 | HS23011136-03 | Water | 01/23/23 10:04 | 01/25/23 09:58 |
| 410-113311-4 | HS23011136-04 | Water | 01/23/23 11:35 | 01/25/23 09:58 |
| 410-113311-5 | HS23011136-05 | Water | 01/23/23 12:35 | 01/25/23 09:58 |
| 410-113311-6 | HS23011136-06 | Water | 01/23/23 12:35 | 01/25/23 09:58 |




10450 Stancliff Rd, Ste 210
Houston, TX 77099
**T:** +1 281 530 5656
**F:** +1 281 530 5887
**www.alsglobal.com**

# Subcontract Chain of Custody

**SAMPLING STATE:** **Dept of Defense** **COC ID:** **20820**

**SUBCONTRACT TO:**

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

**Phone:** +1 717 656 2300

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | HS23011136 |
| **TSR:** | Ron Martino |

| | LAB SAMPLE ID | CLIENT SAMPLE ID | MATRIX | COLLECT DATE |
|---|---|---|---|---|
| | ANALYSIS REQUESTED | | | DUE DATE |
| 1. | **HS23011136-01** | **16WW58-230123** | **Water** | **23 Jan 2023 08:50** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 2. | **HS23011136-02** | **16WW57-230123** | **Water** | **23 Jan 2023 09:40** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 3. | **HS23011136-03** | **16IW26-230123** | **Water** | **23 Jan 2023 10:40** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 4. | **HS23011136-04** | **16IW10-230123** | **Water** | **23 Jan 2023 11:35** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 5. | **HS23011136-05** | **16IW03-230123** | **Water** | **23 Jan 2023 12:35** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 6. | **HS23011136-06** | **16IW03-230123-FD** | **Water** | **23 Jan 2023 12:35** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |

**Comments:** HS23011136-04 MS/MSD

Please analyze for the analysis listed above.
Send report to the emails shown above.

**QC Level:** DOD IV (DoD Data Package)

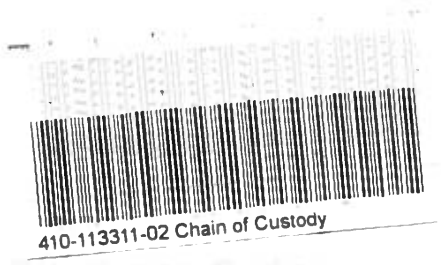
# Subcontract Chain of Custody

**SAMPLING STATE:** Dept of Defense **COC ID:** 20820

Relinquished By: _____ Date/Time: 1/24/23 18:00

Received By: _____ Date/Time: 1/25/23 0958

Cooler ID(s): _____ Temperature(s): _____




10450 Stancliff Rd, Ste 210
Houston, TX 77099
**T:** +1 281 530 5656
**F:** +1 281 530 5887
**www.alsglobal.com**

# Purchase Order

**PO: HS23011136**

**VENDOR:**

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

**Phone:** +1 717 656 2300

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | 20820 |
| **TSR:** | Ron Martino |

| | Item | Catalog No | Unit Price | Quantity | Ext Price |
|---|---|---|---|---|---|
| 1. | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | NA | | 6 | |

**Order Total:**

# Login Sample Receipt Checklist

Client: ALS Group USA, Corp

Job Number: 410-113311-1

**Login Number: 113311**
**List Number: 1**
**Creator: Ballard, Megan**

**List Source: Eurofins Lancaster Laboratories Environment Testing, LLC**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal is intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable (</=6C, not frozen). | True | |
| Cooler Temperature is recorded. | True | |
| WV: Container Temperature is acceptable (</=6C, not frozen). | N/A | |
| WV:  Container Temperature is recorded. | N/A | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| There is sufficient vol. for all requested analyses. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| Sample custody seals are intact. | N/A | |
| VOA sample vials do not have headspace >6mm in diameter (none, if from WV)? | True | |

January 31, 2023 Service Request No:E2300079

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

**Laboratory Results for: HS23011136**

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory January 24, 2023
For your reference, these analyses have been assigned our service request number **E2300079.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**



James Guin

# Certificate of Analysis

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Environmental**

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request No.:** | E2300079 |
| **Project:** | HS23011136 | **Date Received:** | 01/24/23 |
| **Sample Matrix:** | Ground Water | | |

## CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

### Sample Receipt

Six samples were received for analysis at ALS Environmental in Houston on 01/24/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

### Data Validation Notes and Discussion

**Precision and Accuracy:**

EQ2300031: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch.

*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

**Client:** ALS Environmental - US **Service Request:**E2300079
**Project:** HS23011136

## SAMPLE CROSS-REFERENCE

| SAMPLE # | CLIENT SAMPLE ID | DATE | TIME |
|---|---|---|---|
| E2300079-001 | 16WW58-230123 | 1/23/2023 | 0850 |
| E2300079-002 | 16WW57-230123 | 1/23/2023 | 0940 |
| E2300079-003 | 16IW26-230123 | 1/23/2023 | 1040 |
| E2300079-004 | 16IW10-230123 | 1/23/2023 | 1135 |
| E2300079-005 | 16IW03-230123 | 1/23/2023 | 1235 |
| E2300079-006 | 16IW03-230123-FD | 1/23/2023 | 1235 |

# Service Request Summary

**Folder #:** **E2300079**
Client Name: ALS Environmental - US
Project Name: HS23011136
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/24/23
Internal Due Date: 2/7/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23011136
EDD: EQUIS
EFWEDD_LHAAP

8 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

| Lab Samp No. | Client Samp No | Matrix | Collected | HOUSTON<br>ClO4 DOD/6850 |
|---|---|---|---|---|
| E2300079-001 | 16WW58-230123 | Ground Water | 01/23/23 0850 | **IV** |
| E2300079-002 | 16WW57-230123 | Ground Water | 01/23/23 0940 | **IV** |
| E2300079-003 | 16IW26-230123 | Ground Water | 01/23/23 1040 | **IV** |
| E2300079-004 | 16IW10-230123 | Ground Water | 01/23/23 1135 | **IV** |
| E2300079-005 | 16IW03-230123 | Ground Water | 01/23/23 1235 | **IV** |
| E2300079-006 | 16IW03-230123-FD | Ground Water | 01/23/23 1235 | **IV** |

# Service Request Summary

**Folder #:** **E2300079**
Client Name: ALS Environmental - US
Project Name: HS23011136
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/24/23
Internal Due Date: 2/7/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23011136
EDD: EQUIS
EFWEDD_LHAAP

8 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

## Test Comments:

| Group | Test/Method | Samples | Comments |
|---|---|---|---|
| Semivoa GCMS | ClO4 DOD/6850 | 5 | IV Due 2/14 |
| Semivoa GCMS | ClO4 DOD/6850 | 1 | ms/msd |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| + | Possible Tedlar bag artifact. |
| A | TIC is a suspected aldol-condensation product |
| B | Analyte found in the associated method blank as well as in the sample. |
| BC | Reported results are not blank corrected. |
| BH | The back section of the tube yielded higher results than the front. |
| BT | Results indicated possible breakthrough; back section >=10% front section. |
| C | Result identification confirmed. |
| D | Compound identified in an analysis at a secondary dilution factor |
| D | Spike was diluted out |
| DE | Reported results are corrected for desorption efficiency. |
| E | Estimated value. Concentration above calibration range |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| H1 | Sample analysis performed past holding time. See case narrative. |
| H2 | Initial analysis within holding time. Reanalysis for the required dilution was past holding time. |
| H3 | Sample was received and analyzed past holding time. |
| H4 | Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative. |
| I | (Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| I | Internal standard not within the specified limits. See case narrative. |
| I | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| J | Estimated Value. Concentration found below MRL. |
| K | A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate. |
| K | Analyte was detected above the method reporting limit prior to normalization. |
| K | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| L1 | Laboratory control sample recovery outside the specified limits; results may be biased high. |
| L2 | Laboratory control sample recovery outside the specified limits; results may be biased low. |
| L3 | Laboratory control sample recovery outside the specified limits. |
| M | Matrix interference; results may be biased high. |
| M | The duplicate injection precision not met. |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| M1 | Matrix interference due to coelution with a non-target compound; results may be biased high. |
| N | Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| P | Indicates chlorodiphenyl ether interference present at the retention time of the target compound. |
| P | Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns |
| Q | Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria. |
| R | Duplicate Precision not met. |
| R1 | Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated. |
| S | Surrogate recovery not within specified limits. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| T | Analyte is a tentatively identified compound, result is estimated. |
| U | Compound was analyzed for, but was not detected (ND). |
| V1 | The continuing calibration verification standard was outside (biased high) the specified limits for this compound. |
| V2 | The continuing calibration verification standard was outside (biased low) the specified limits for this compound. |
| W | Result quantified, but the corresponding peak was detected outside the generated retention time window. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| X | See case narrative. |
| Y | Recovery outside limits |
| Y | The chromatogram resembles a petroleum product but does not match the calibration standard. |
| Z | The chromatogram does not resemble a petroleum product. |
| i | The MRL/MDL has been elevated due to a matrix interference. |

# ALS Laboratory Group

**Acronyms**

| | |
|---|---|
| Cal | Calibration |
| Conc | CONCentration |
| Dioxin(s) | Polychlorinated dibenzo-p-dioxin(s) |
| EDL | Estimated Detection Limit |
| EMPC | Estimated Maximum Possible Concentration |
| Flags | Data qualifiers |
| Furan(s) | Polychlorinated dibenzofuran(s) |
| g | Grams |
| ICAL | Initial CALibration |
| ID | IDentifier |
| Ions | Masses monitored for the analyte during data acquisition |
| L | Liter (s) |
| LCS | Laboratory Control Sample |
| DLCS | Duplicate Laboratory Control Sample |
| MB | Method Blank |
| MCL | Method Calibration Limit |
| MDL | Method Detection Limit |
| mL | Milliliters |
| MS | Matrix Spiked sample |
| DMS | Duplicate Matrix Spiked sample |
| NO | Number of peaks meeting all identification criteria |
| PCDD(s) | Polychlorinated dibenzo-p-dioxin(s) |
| PCDF(s) | Polychlorinated dibenzofuran(s) |
| ppb | Parts per billion |
| ppm | Parts per million |
| ppq | Parts per quadrillion |
| ppt | Parts per trillion |
| QA | Quality Assurance |
| QC | Quality Control |
| Ratio | Ratio of areas from monitored ions for an analyte |
| % Rec. | Percent recovery |
| RPD | Relative Percent Difference |
| RRF | Relative Response Factor |
| RT | Retention Time |
| SDG | Sample Delivery Group |
| S/N | Signal-to-noise ratio |
| TEF | Toxicity Equivalence Factor |
| TEQ | Toxicity Equivalence Quotient |

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ALS Environmental

## State Certifications, Accreditations, and Licenses

| Agency | Number | Expire Date |
|---|---|---|
| Arizona Department of Health Services | AZ0793 | 5/27/2023 |
| Arkansas Department of Environmental Quality | 22-041-0 | 3/27/2023 |
| California Department of Health Services | 2919-2023 | 4/30/2023 |
| Department of Defense | L22-90 | 3/31/2024 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Hawaii Department of Health | 2022 | 4/30/2023 |
| Illinois Environmental Protection Agency | 2000322022-9 | 5/9/2023 |
| Kansas Department of Health and Environment | E-10352 2022-2023 | 7/31/2023 |
| Louisiana Department of Environmental Quality | 03087-2022 | 6/30/2023 |
| Louisiana Department of Health and Hospitals | LA028-2023 | 12/31/2023 |
| Maine Department of Health and Human Services | 2022017 | 6/5/2024 |
| Maryland Department of the Environment | 343 | 6/30/2023 |
| Michigan Depratment of Environmental Quality | 9971-2022 | 4/30/2023 |
| Minnesota Department of Health | 2368363 | 12/31/2023 |
| Nebraska Department of Health and Human Services | NE-OS-25-13 | 4/30/2023 |
| Nevada Department of Conservation and Natural Resources | TX026932023-1 | 7/31/2023 |
| New Hampshire Environmental Laboratory Accreditation Program | 209422 | 4/24/2023 |
| New Jersey Department of Environmental Protection | TX008-2023 | 6/30/2023 |
| New York Department of Health | 11707 | 3/31/2023 |
| Oklahoma Department of Environmental Quality | 2022-141 | 8/31/2023 |
| Oregon Environmental Laboratory Accreditation Program | TX200002 | 5/15/2023 |
| Pennsylvania Department of Environmental Protection | 68-03441-016 | 6/30/2023 |
| Perry Johnson Laboratory Accreditation | L22-91 | 3/31/2024 |
| Tennessee Department of Environment and Concervation | 04016-2022 | 4/30/2023 |
| Texas Commision on Environmental Quality | T104704231-22-29 | 4/30/2023 |
| Utah Department of Health Environmental Laboratory Certification | TX026932022-13 | 7/31/2023 |
| Washington Department of Ecology | C819-22 | 11/14/2023 |



ALS

# Chain of Custody

**ALS Environmental - Houston HRMS**
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Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
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# Subcontract Chain of Custody

**SAMPLING STATE:** Dept of Defense **COC ID:** 20818

**SUBCONTRACT TO:**

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

**Phone:** +1 281 530 5656

ALS copy

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | HS23011136 |
| **TSR:** | Ron Martino |

| | LAB SAMPLE ID | CLIENT SAMPLE ID | MATRIX | COLLECT DATE |
|---|---|---|---|---|
| | ANALYSIS REQUESTED | | | DUE DATE |
| 1. | **HS23011136-01** | **16WW58-230123** | **Water** | **23 Jan 2023 08:50** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 2. | **HS23011136-02** | **16WW57-230123** | **Water** | **23 Jan 2023 09:40** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 3. | **HS23011136-03** | **16IW26-230123** | **Water** | **23 Jan 2023 10:40** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 4. | **HS23011136-04** | **16IW10-230123** | **Water** | **23 Jan 2023 11:35** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 5. | **HS23011136-05** | **16IW03-230123** | **Water** | **23 Jan 2023 12:35** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 6. | **HS23011136-06** | **16IW03-230123-FD** | **Water** | **23 Jan 2023 12:35** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |

**Comments:** HS23011136-04 MS/MSD

Please analyze for the analysis listed above.
Send report to the emails shown above.

# Subcontract Chain of Custody

**SAMPLING STATE:** **Dept of Defense** **COC ID:** **20818**

**QC Level:** DOD IV (DoD Data Package)

Relinquished By: NR Date/Time:

Received By: Date/Time: 1-29-25 1740

Cooler ID(s): Temperature(s):

ALS Environmental

# Cooler Receipt Form

Project Chemist JG

Client/Project ALS

Thermometer ID 1124

Date/Time Received: 1-24-23 Initials: CG

Date/Time Logged in: 1-24-23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ⊗ Courier (ALS) ○ Client

2. Samples received in: ⊗ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ⊗ No
   Were they intact? ○ Yes ○ No ⊗ N/A
   Were they signed and dated? ○ Yes ○ No ⊗ N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ⊗ Baggies ○ Bubble Wrap ○ Gel Packs ⊗ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

| Cooler Tracking Number | COC ID | Date Opened | Time Opened | Opened By | Temp. °C | Temp Blank? |
|---|---|---|---|---|---|---|
| NA | | 1-24-23 | 1700 | CG | 3.3 | ☒ |
| | | | | | | ☐ |
| | | | | | | ☐ |
| | | | | | | ☐ |

6. Were custody papers properly filled out (ink, signed, dated, etc)? ⊗ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ⊗ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ⊗ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ⊗ Yes ○ No
10. Did sample labels and tags agree with custody documents? ⊗ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
**T:** +1 713 266 1599
**F:** +1 713 266 1599
**www.alsglobal.com**

# SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

**Cooler Custody Seals (desirable, mandatory if specified in SAP):**

- ✓ Intact on outside of cooler, signed and dated

**Chain-of-Custody (COC) documentation (mandatory):**

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

**Sample Integrity (mandatory):**

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

**Temperature Requirement (varies by sample matrix):**

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

# Preparation Information Benchsheets

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

# *Preparation Information Benchsheet*

**Prep Run#:** 413623 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/27/23 09:20

| # | Lab Code | Client ID | B# | Method /Test | pH | Cl | Matrix | Amt. Ext. | Sample Description |
|---|---|---|---|---|---|---|---|---|---|
| 1 | E2300079-001 | 16WW58-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 2 | E2300079-002 | 16WW57-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 3 | E2300079-003 | 16IW26-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 4 | E2300079-004 | 16IW10-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 5 | E2300079-005 | 16IW03-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 6 | E2300079-006 | 16IW03-230123-FD | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 7 | E2300081-001 | RSA-195-OVB-02-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 8 | E2300081-002 | RSA-195-OVB-01-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 9 | E2300081-003 | RSA-EB-01-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 10 | E2300081-004 | RSA-FB-01-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 11 | E2300082-001 | RSA-095-OVB-01 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 12 | E2300082-002 | RSA-095-OVB-02 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 13 | E2300082-003 | RSA-095-OVB-03 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 14 | E2300082-004 | RSA-DB-01 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 15 | E2300084-001 | MOSA-23-267966 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 16 | E2300084-002 | MOSA-23-267971 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 17 | E2300084-003 | MOSA-23-267967 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 18 | E2300084-004 | MOSA-23-267972 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 19 | EQ2300031-01 | MB | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 20 | EQ2300031-02 | LCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 21 | EQ2300031-03 | DLCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 22 | EQ2300031-04 | 16IW10-230123 MS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 23 | EQ2300031-05 | 16IW10-230123 DMS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 24 | EQ2300031-06 | RSA-095-OVB-01 MS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 25 | EQ2300031-07 | RSA-095-OVB-01 DMS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 26 | R2300559-004 | 2301190900 B655-EFF-2 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 27 | R2300559-009 | 2301190920 B655-INF-2 | .01 | 6850/ClO4 | | | Water | 10mL | |

**Spiking Solutions**

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EQ2300031-01 | 100.00µL | EQ2300031-01 | 100.00µL | EQ2300031-02 | 100.00µL | EQ2300031-02 | 100.00µL | EQ2300031-03 | 100.00µL | EQ2300031-03 | 100.00µL |
| EQ2300031-04 | 100.00µL | EQ2300031-05 | 100.00µL | EQ2300031-06 | 100.00µL | EQ2300031-07 | 100.00µL | | | | |

# *Preparation Information Benchsheet*

**Prep Run#:** 413623 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/27/23 09:20

| Name: | Perchlorate Intermediate Stock1 | Inventory ID | 227236 | Logbook Ref: | Perchlorate (1st Source) | Expires On: | 07/31/2023 |
|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EQ2300031-02 | 1.00µL | EQ2300031-02 | 1.00µL | EQ2300031-03 | 1.00µL | EQ2300031-03 | 1.00µL | EQ2300031-04 | 1.00µL | EQ2300031-05 | 1.00µL |
| EQ2300031-06 | 1.00µL | EQ2300031-07 | 1.00µL | | | | | | | | |

## Preparation Materials

| | | | | | |
|---|---|---|---|---|---|
| Water HPLC Grade | 01/04/2023 Water (226857) | 6850 Amber Glass screw vial | 2mL Screw Top Vial (221894) | 6850 0.45um syringe filters | 6850 Syringe Filters (224414) |
| 6850 Luer-Lok Syringes | Luer-Lok Syringes (221305) | 6850 Pipette Tips 50-1000 uL | 6850 Pipette Tips (221929) | | |

## Preparation Steps

Step: Preparation
Started: 1/27/23 09:20
Finished: 1/30/23 11:50
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 01/27/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

# Analytical Results

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 0850 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16WW58-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-001 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0371** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:48 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 0940 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16WW57-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-002 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:53 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1040 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW26-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-003 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:59 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1135 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-004 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 13:05 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1235 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW03-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-005 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 13:11 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1235 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW03-230123-FD | **Units:** | µg/L |
| **Lab Code:** | E2300079-006 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 15:06 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-01 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 11:47 | 413623 | 792992 | |

# Accuracy & Precision

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23011136
**Sample Matrix:** Ground Water

**Service Request:** E2300079
**Date Analyzed:** 1/30/23

## Lab Control Sample Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**Prep Method:** Method

**Units:** µg/L
**Basis:** NA

**Extraction Lot:** 413623

| | Lab Control Sample EQ2300031-02 | | | Duplicate Lab Control Sample EQ2300031-03 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Perchlorate | 0.118 | 0.100 | 118 | 0.118 | 0.100 | 118 | 84 - 119 | <1 | 15 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-02 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.118** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 11:52 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Duplicate Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-03 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.118** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:07 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| | | **Date Analyzed:** | 1/30/23 |

**Matrix Spike Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-004 | **Basis:** | NA |

**Analytical Method:** 6850
**Prep Method:** Method

| | | 16IW10-230123MS | | | 16IW10-230123DMS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **Matrix Spike** | | | **Duplicate Matrix Spike** | | | | | |
| | | EQ2300031-04 | | | EQ2300031-05 | | | | | |
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Perchlorate | ND | 0.0916 | 0.100 | 92 | 0.104 | 0.100 | 104 | 84 - 119 | 13 | 15 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1135 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-04 | **Basis:** | NA |
| **Run Type:** | Matrix Spike | | |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0916** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:36 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1135 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-05 | **Basis:** | NA |
| **Run Type:** | Duplicate Matrix Spike | | |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.104** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:42 | 413623 | 792992 | |

# HS23011136-MSVOA-SW8260

ALS WO# HS23011136

01240887

right solutions.
right partner.

Form 1

# Organic Analysis Data Sheet

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-01 | | | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|---|---|
| **16WW58-230123** | | | | 01/23/23 08:50 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 50 | U | 15 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| 1,1-Dichloroethene | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| 1,2-Dichloroethane | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| cis-1,2-Dichloroethene | ug/L | 200 | | 10 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| Methylene chloride | ug/L | 100 | U | 20 | 100 | 100 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| Trichloroethene | ug/L | 7,000 | | 10 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| Vinyl chloride | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-02 | | | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|---|---|
| **16WW57-230123** | | | | 01/23/23 09:40 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 5.0 | U | 1.5 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| 1,1-Dichloroethene | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| 1,2-Dichloroethane | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| cis-1,2-Dichloroethene | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| Methylene chloride | ug/L | 10 | U | 2.0 | 10 | 10 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| Trichloroethene | ug/L | 160 | | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| Vinyl chloride | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-03 | | | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|---|---|
| **16IW26-230123** | | | | 01/23/23 10:40 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 5.0 | U | 1.5 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| 1,1-Dichloroethene | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| 1,2-Dichloroethane | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| cis-1,2-Dichloroethene | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| Methylene chloride | ug/L | 10 | U | 2.0 | 10 | 10 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| Trichloroethene | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| Vinyl chloride | ug/L | 2.0 | J | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-04 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **16IW10-230123** | 01/23/23 11:35 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 1.0 | U | 0.30 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| 1,1-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| 1,2-Dichloroethane | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| cis-1,2-Dichloroethene | ug/L | 1.9 | | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| Methylene chloride | ug/L | 2.0 | U | 0.40 | 2.0 | 2.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| Trichloroethene | ug/L | 1.6 | | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| Vinyl chloride | ug/L | 4.2 | | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-05 | | | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|---|---|
| **16IW03-230123** | | | | 01/23/23 12:35 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 50 | U | 15 | 50 | 50 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |
| 1,1-Dichloroethene | ug/L | 48 | J | 10 | 50 | 50 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |
| 1,2-Dichloroethane | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |
| cis-1,2-Dichloroethene | ug/L | 18,000 | | 40 | 200 | 200 | 200 | 01/27/23 11:00 | VOA6_426682 | X012710 |
| Methylene chloride | ug/L | 100 | U | 20 | 100 | 100 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |
| Trichloroethene | ug/L | 3,600 | | 10 | 50 | 50 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |
| Vinyl chloride | ug/L | 1,600 | | 10 | 50 | 50 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-06 | | | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|---|---|
| **16IW03-230123-FD** | | | | 01/23/23 12:35 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 50 | U | 15 | 50 | 50 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |
| 1,1-Dichloroethene | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |
| 1,2-Dichloroethane | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |
| cis-1,2-Dichloroethene | ug/L | 16,000 | | 40 | 200 | 200 | 200 | 01/27/23 11:21 | VOA6_426682 | X012711 |
| Methylene chloride | ug/L | 100 | U | 20 | 100 | 100 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |
| Trichloroethene | ug/L | 1,200 | | 10 | 50 | 50 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |
| Vinyl chloride | ug/L | 1,300 | | 10 | 50 | 50 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-07 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **Trip Blank-230123** | 01/23/23 00:00 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 1.0 | U | 0.30 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| 1,1-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| 1,2-Dichloroethane | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| cis-1,2-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| Methylene chloride | ug/L | 2.0 | U | 0.40 | 2.0 | 2.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| Trichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| Vinyl chloride | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| VBLKW-230126 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **VBLKW-230126** | NA | NA | Aqueous | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 1.0 | U | 0.30 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| 1,1-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| 1,2-Dichloroethane | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| cis-1,2-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| Methylene chloride | ug/L | 2.0 | U | 0.40 | 2.0 | 2.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| Trichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| Vinyl chloride | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| VBLKW-230127 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **VBLKW-230127** | NA | NA | Aqueous | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/27/23 09:35 | VOA6_426682 | X012706 |

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Form 2

# System Monitoring Compound Recovery

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426583

## Volatiles by EPA 8260

| CCV | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 50.59 | 50 | 101 | 80-120 | |
| 4-Bromofluorobenzene | 50.99 | 50 | 102 | 80-120 | |
| Dibromofluoromethane | 46.46 | 50 | 92.9 | 80-120 | |
| Toluene-d8 | 47.95 | 50 | 95.9 | 80-120 | |

| VLCSW-230126 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 53.42 | 50 | 107 | 81-118 | |
| 4-Bromofluorobenzene | 51.37 | 50 | 103 | 85-114 | |
| Dibromofluoromethane | 48.58 | 50 | 97.2 | 80-119 | |
| Toluene-d8 | 48.94 | 50 | 97.9 | 89-112 | |

| VBLKW-230126 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 49.8 | 50 | 99.6 | 81-118 | |
| 4-Bromofluorobenzene | 49.71 | 50 | 99.4 | 85-114 | |
| Dibromofluoromethane | 45.67 | 50 | 91.3 | 80-119 | |
| Toluene-d8 | 52.02 | 50 | 104 | 89-112 | |

| HS23011136-04 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 49 | 50 | 97.9 | 81-118 | |
| 4-Bromofluorobenzene | 51 | 50 | 102 | 85-114 | |
| Dibromofluoromethane | 46 | 50 | 91.4 | 80-119 | |
| Toluene-d8 | 52 | 50 | 105 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426583

## Volatiles by EPA 8260

| HS23011136-04MS | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 49.74 | 50 | 99.5 | 81-118 | |
| 4-Bromofluorobenzene | 51.78 | 50 | 104 | 85-114 | |
| Dibromofluoromethane | 45.57 | 50 | 91.1 | 80-119 | |
| Toluene-d8 | 52.55 | 50 | 105 | 89-112 | |

| HS23011136-04MSD | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 49.79 | 50 | 99.6 | 81-118 | |
| 4-Bromofluorobenzene | 51.93 | 50 | 104 | 85-114 | |
| Dibromofluoromethane | 45.8 | 50 | 91.6 | 80-119 | |
| Toluene-d8 | 52.15 | 50 | 104 | 89-112 | |

| HS23011136-07 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 50 | 50 | 99.1 | 81-118 | |
| 4-Bromofluorobenzene | 50 | 50 | 100 | 85-114 | |
| Dibromofluoromethane | 46 | 50 | 92.4 | 80-119 | |
| Toluene-d8 | 53 | 50 | 105 | 89-112 | |

| HS23011136-01 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 50 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 2,500 | 2500 | 99.3 | 81-118 | |
| 4-Bromofluorobenzene | 2,500 | 2500 | 99.9 | 85-114 | |
| Dibromofluoromethane | 2,300 | 2500 | 91.7 | 80-119 | |
| Toluene-d8 | 2,600 | 2500 | 104 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426583

## Volatiles by EPA 8260

| HS23011136-02 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 5 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 240 | 250 | 96.0 | 81-118 | |
| 4-Bromofluorobenzene | 250 | 250 | 102 | 85-114 | |
| Dibromofluoromethane | 210 | 250 | 85.1 | 80-119 | |
| Toluene-d8 | 260 | 250 | 104 | 89-112 | |

| HS23011136-03 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 5 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 250 | 250 | 98.1 | 81-118 | |
| 4-Bromofluorobenzene | 260 | 250 | 102 | 85-114 | |
| Dibromofluoromethane | 220 | 250 | 88.6 | 80-119 | |
| Toluene-d8 | 260 | 250 | 103 | 89-112 | |

| HS23011136-05 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 50 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 2,500 | 2500 | 101 | 81-118 | |
| 4-Bromofluorobenzene | 2,500 | 2500 | 102 | 85-114 | |
| Dibromofluoromethane | 2,300 | 2500 | 91.6 | 80-119 | |
| Toluene-d8 | 2,600 | 2500 | 104 | 89-112 | |

| HS23011136-06 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 50 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 2,500 | 2500 | 99.9 | 81-118 | |
| 4-Bromofluorobenzene | 2,600 | 2500 | 102 | 85-114 | |
| Dibromofluoromethane | 2,300 | 2500 | 91.2 | 80-119 | |
| Toluene-d8 | 2,600 | 2500 | 105 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426682

## Volatiles by EPA 8260

| CCV | Analyzed 01/27/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 54.07 | 50 | 108 | 80-120 | |
| 4-Bromofluorobenzene | 51.15 | 50 | 102 | 80-120 | |
| Dibromofluoromethane | 49.58 | 50 | 99.2 | 80-120 | |
| Toluene-d8 | 48.68 | 50 | 97.4 | 80-120 | |

| VLCSW-230127 | Analyzed 01/27/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 56.52 | 50 | 113 | 81-118 | |
| 4-Bromofluorobenzene | 51.31 | 50 | 103 | 85-114 | |
| Dibromofluoromethane | 49.49 | 50 | 99.0 | 80-119 | |
| Toluene-d8 | 49.59 | 50 | 99.2 | 89-112 | |

| VBLKW-230127 | Analyzed 01/27/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 50.56 | 50 | 101 | 81-118 | |
| 4-Bromofluorobenzene | 51.69 | 50 | 103 | 85-114 | |
| Dibromofluoromethane | 46.1 | 50 | 92.2 | 80-119 | |
| Toluene-d8 | 52.41 | 50 | 105 | 89-112 | |

| HS23011212-02MS | Analyzed 01/27/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 50.98 | 50 | 102 | 81-118 | |
| 4-Bromofluorobenzene | 52.03 | 50 | 104 | 85-114 | |
| Dibromofluoromethane | 46.29 | 50 | 92.6 | 80-119 | |
| Toluene-d8 | 51.63 | 50 | 103 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426682

## Volatiles by EPA 8260

| HS23011212-02MSD | Analyzed 01/27/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 50.34 | 50 | 101 | 81-118 | |
| 4-Bromofluorobenzene | 51.8 | 50 | 104 | 85-114 | |
| Dibromofluoromethane | 45.62 | 50 | 91.2 | 80-119 | |
| Toluene-d8 | 51.69 | 50 | 103 | 89-112 | |

| HS23011136-05 | Analyzed 01/27/23 | | Conc Units µg/L | | DF 200 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 10,000 | 10000 | 99.6 | 81-118 | |
| 4-Bromofluorobenzene | 9,900 | 10000 | 98.7 | 85-114 | |
| Dibromofluoromethane | 9,100 | 10000 | 91.4 | 80-119 | |
| Toluene-d8 | 10,000 | 10000 | 104 | 89-112 | |

| HS23011136-06 | Analyzed 01/27/23 | | Conc Units µg/L | | DF 200 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 9,900 | 10000 | 99.3 | 81-118 | |
| 4-Bromofluorobenzene | 10,000 | 10000 | 101 | 85-114 | |
| Dibromofluoromethane | 9,100 | 10000 | 91.1 | 80-119 | |
| Toluene-d8 | 10,000 | 10000 | 104 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

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Form 3A

# Matrix Spike/Spike Duplicate Recovery

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 3A - Matrix Spike/Spike Duplicate Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder **HS23011136**

| 16IW10-230123 | | | HS23011136-04 | HS23011136-04MS | | | | HS23011136-04MSD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Matrix** Aqueous | | **Run Date** | 01/26/23 | 01/26/23 | | | | 01/26/23 | | | | | | |
| **Units** µg/L | | **Run Time** | 10:30 | 10:51 | | | | 11:12 | | | | | | |
| | | **Data File** | X012607.D | X012608.D | | | | X012609.D | | | | | | |
| Analyte | %R Limits | DF | Result | MS Result | Spike Added | %R | Q | MSD Result | Spike Added | %R | Q | RPD Limit | RPD | Q |
| 1,1,2-Trichloroethane | 80-119 | 1 | 0 | 16.92 | 20.00 | 85 | | 16.46 | 20.00 | 82 | | 20 | 2.80 | |
| 1,1-Dichloroethene | 71-131 | 1 | 0 | 16.95 | 20.00 | 85 | | 15.86 | 20.00 | 79 | | 20 | 6.60 | |
| 1,2-Dichloroethane | 73-128 | 1 | 0 | 19.19 | 20.00 | 96 | | 17.84 | 20.00 | 89 | | 20 | 7.30 | |
| cis-1,2-Dichloroethene | 78-123 | 1 | 1.898 | 17.04 | 20.00 | 76 | * | 16.53 | 20.00 | 73 | * | 20 | 3.00 | |
| Methylene chloride | 74-124 | 1 | 0 | 14.31 | 20.00 | 72 | * | 13.89 | 20.00 | 70 | * | 20 | 3.00 | |
| Trichloroethene | 79-123 | 1 | 1.572 | 20.06 | 20.00 | 93 | | 18.87 | 20.00 | 87 | | 20 | 6.10 | |
| Vinyl chloride | 58-137 | 1 | 4.236 | 19.92 | 20.00 | 78 | | 18.64 | 20.00 | 72 | | 20 | 6.70 | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits  OL - Outside Limits

# Form 3A - Matrix Spike/Spike Duplicate Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

| | | HS23011212-02 | | HS23011212-02MS | | | | HS23011212-02MSD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Matrix** | Aqueous | **Run Date** | 01/27/23 | 01/27/23 | | | | 01/27/23 | | | | | | |
| **Units** | µg/L | **Run Time** | 09:56 | 10:18 | | | | 10:39 | | | | | | |
| | | **Data File** | X012707.D | X012708.D | | | | X012709.D | | | | | | |
| Analyte | %R Limits | DF | Result | MS Result | Spike Added | %R | Q | MSD Result | Spike Added | %R | Q | RPD Limit | RPD | Q |
| cis-1,2-Dichloroethene | 78-123 | 1 | 0 | 15.79 | 20.00 | 79 | | 15.22 | 20.00 | 76 | * | 20 | 3.70 | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits  OL - Outside Limits

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Form 3B

# Laboratory Control Sample Recovery

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 3B - Laboratory Control Sample Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| VOA6_426583 | | QC ID | VLCSW-230126 | | | |
|---|---|---|---|---|---|---|
| QC Matrix Aqueous | Units | Run Date | 01/26/23 | | | |
| | ug/L | Run Time | 09:27 | | | |
| Analyte | %R Limits | Spike Added | LCS Result | %R | Q | |
| 1,1,2-Trichloroethane | 80-119 | 20 | 20.84 | 104 | | |
| 1,1-Dichloroethene | 71-131 | 20 | 20.3 | 102 | | |
| 1,2-Dichloroethane | 73-128 | 20 | 22.43 | 112 | | |
| 1,2-Dichloroethane-d4 | 81-118 | 50 | 53.42 | 107 | | |
| 4-Bromofluorobenzene | 85-114 | 50 | 51.37 | 103 | | |
| cis-1,2-Dichloroethene | 78-123 | 20 | 20.04 | 100 | | |
| Dibromofluoromethane | 80-119 | 50 | 48.58 | 97 | | |
| Methylene chloride | 74-124 | 20 | 19.73 | 99 | | |
| Toluene-d8 | 89-112 | 50 | 48.94 | 98 | | |
| Trichloroethene | 79-123 | 20 | 21.89 | 109 | | |
| Vinyl chloride | 58-137 | 20 | 19.56 | 98 | | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits

# Form 3B - Laboratory Control Sample Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| VOA6_426682 | | QC ID | VLCSW-230127 | | | |
|---|---|---|---|---|---|---|
| QC Matrix Aqueous | Units | Run Date | 01/27/23 | | | |
| | %REC | Run Time | 08:53 | | | |
| Analyte | %R Limits | Spike Added | LCS Result | %R | Q | |
| 1,2-Dichloroethane-d4 | 81-118 | 50 | 56.52 | 113 | | |
| 4-Bromofluorobenzene | 85-114 | 50 | 51.31 | 103 | | |
| cis-1,2-Dichloroethene | 78-123 | 20 | 20.18 | 101 | | |
| Dibromofluoromethane | 80-119 | 50 | 49.49 | 99 | | |
| Toluene-d8 | 89-112 | 50 | 49.59 | 99 | | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits

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Form 4

# Method Blank Summary

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 4 - Method Blank Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| Client Sample ID | Type | Lab Sample ID | File ID | Date Analyzed | Run ID |
|---|---|---|---|---|---|
| METHOD BLANK | MBLK | VBLKW-230126 | X012606.D | 01/26/23 10:09 | VOA6_426583 |
| VLCSW-230126 | LCS | VLCSW-230126 | X012604.D | 01/26/23 09:27 | VOA6_426583 |
| 16IW10-230123 | SAMP | HS23011136-04 | X012607.D | 01/26/23 10:30 | VOA6_426583 |
| 16IW10-230123 | MS | HS23011136-04MS | X012608.D | 01/26/23 10:51 | VOA6_426583 |
| 16IW10-230123 | MSD | HS23011136-04MSD | X012609.D | 01/26/23 11:12 | VOA6_426583 |
| Trip Blank-230123 | SAMP | HS23011136-07 | X012610.D | 01/26/23 11:33 | VOA6_426583 |
| 16WW58-230123 | SAMP | HS23011136-01 | X012624.D | 01/26/23 16:27 | VOA6_426583 |
| 16WW57-230123 | SAMP | HS23011136-02 | X012625.D | 01/26/23 16:48 | VOA6_426583 |
| 16IW26-230123 | SAMP | HS23011136-03 | X012626.D | 01/26/23 17:09 | VOA6_426583 |
| 16IW03-230123 | SAMP | HS23011136-05 | X012627.D | 01/26/23 17:31 | VOA6_426583 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | X012628.D | 01/26/23 17:52 | VOA6_426583 |

# Form 4 - Method Blank Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| Client Sample ID | Type | Lab Sample ID | File ID | Date Analyzed | Run ID |
|---|---|---|---|---|---|
| METHOD BLANK | MBLK | VBLKW-230127 | X012706.D | 01/27/23 09:35 | VOA6_426682 |
| VLCSW-230127 | LCS | VLCSW-230127 | X012704.D | 01/27/23 08:53 | VOA6_426682 |
| BatchQC | MS | HS23011212-02MS | X012708.D | 01/27/23 10:18 | VOA6_426682 |
| BatchQC | MSD | HS23011212-02MSD | X012709.D | 01/27/23 10:39 | VOA6_426682 |
| 16IW03-230123 | SAMP | HS23011136-05 | X012710.D | 01/27/23 11:00 | VOA6_426682 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | X012711.D | 01/27/23 11:21 | VOA6_426682 |

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right partner.

Form 5

# Instrument Performance Check

# Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 5 - Instrument Performance Check

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_424237

Tune File X121601.D 12/16/22 11:17

| m / e | Ion Abundance Criterion | %RA |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 18.3 (18.4) |
| 75 | 30.0 - 60.0% of mass 95 | 46.1 (46.1) |
| 95 | Base peak, 100% RA | 100 (100) |
| 96 | 5.0 - 9.0% of mass 95 | 7.2 (7.16) |
| 173 | Less than 2.0% of mass 174 | 0.8 (0.897) 1 |
| 174 | 50.0 - 120.0% of mass 95 | 89 (89) |
| 175 | 4.0 - 9.0% of mass 174 | 7 (7.82) 1 |
| 176 | 93.0 - 101.0% of mass 174 | 87.4 (98.2) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.8 (6.59) 2 |

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

| | Type | Date Analyzed | Lab File ID | Sample ID |
|---|---|---|---|---|
| 1 | ICAL1 | 12/16/22 11:38 | X121602 | VSTD000.25 |
| 2 | ICAL2 | 12/16/22 12:20 | X121603 | VSTD000.5 |
| 3 | ICAL3 | 12/16/22 12:41 | X121604 | VSTD001 |
| 4 | ICAL4 | 12/16/22 13:02 | X121605 | VSTD002 |
| 5 | ICAL5 | 12/16/22 13:23 | X121606 | VSTD005 |
| 6 | ICAL6 | 12/16/22 13:43 | X121607 | VSTD020 |
| 7 | ICAL7 | 12/16/22 14:04 | X121608 | VSTD050 |
| 8 | ICAL8 | 12/16/22 14:25 | X121609 | VSTD100 |
| 9 | ICAL9 | 12/16/22 14:46 | X121610 | VSTD150 |
| 10 | ICAL | 12/16/22 15:07 | X121611 | VSTD200 |
| 11 | ICV | 12/16/22 15:49 | X121613 | CCV |

# Form 5 - Instrument Performance Check

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426583

**Tune File** X012601.D 01/26/23 08:03

| m / e | Ion Abundance Criterion | %RA |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 18.4 (18.4) |
| 75 | 30.0 - 60.0% of mass 95 | 49.1 (49.1) |
| 95 | Base peak, 100% RA | 100 (100) |
| 96 | 5.0 - 9.0% of mass 95 | 6.9 (6.92) |
| 173 | Less than 2.0% of mass 174 | 0.7 (0.768) 1 |
| 174 | 50.0 - 120.0% of mass 95 | 90.1 (90.1) |
| 175 | 4.0 - 9.0% of mass 174 | 6.1 (6.78) 1 |
| 176 | 93.0 - 101.0% of mass 174 | 85.7 (95.2) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.6 (6.58) 2 |

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

| | Type | Date Analyzed | Lab File ID | Sample ID |
|---|---|---|---|---|
| 1 | CCV | 01/26/23 08:24 | X012602 | CCV |
| 2 | LCS | 01/26/23 09:27 | X012604 | VLCSW-230126 |
| 3 | MBLK | 01/26/23 10:09 | X012606 | VBLKW-230126 |
| 4 | SAMP | 01/26/23 10:30 | X012607 | 16IW10-230123 |
| 5 | MS | 01/26/23 10:51 | X012608 | HS23011136-04MS |
| 6 | MSD | 01/26/23 11:12 | X012609 | HS23011136-04MSD |
| 7 | SAMP | 01/26/23 11:33 | X012610 | Trip Blank-230123 |
| 8 | SAMP | 01/26/23 16:27 | X012624 | 16WW58-230123 |
| 9 | SAMP | 01/26/23 16:48 | X012625 | 16WW57-230123 |
| 10 | SAMP | 01/26/23 17:09 | X012626 | 16IW26-230123 |
| 11 | SAMP | 01/26/23 17:31 | X012627 | 16IW03-230123 |
| 12 | SAMP | 01/26/23 17:52 | X012628 | 16IW03-230123-FD |
| 13 | CCV_EN | 01/26/23 18:12 | X012629 | CCV-END |

# Form 5 - Instrument Performance Check

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426682

Tune File X012701.D 01/27/23 07:29

| m / e | Ion Abundance Criterion | %RA |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 19.7 (19.7) |
| 75 | 30.0 - 60.0% of mass 95 | 49 (49) |
| 95 | Base peak, 100% RA | 100 (100) |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 (6.75) |
| 173 | Less than 2.0% of mass 174 | 0.9 (1.02) 1 |
| 174 | 50.0 - 120.0% of mass 95 | 84.1 (84.1) |
| 175 | 4.0 - 9.0% of mass 174 | 6.7 (7.92) 1 |
| 176 | 93.0 - 101.0% of mass 174 | 79.9 (95.1) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.3 (6.69) 2 |

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

| | Type | Date Analyzed | Lab File ID | Sample ID |
|---|---|---|---|---|
| 1 | CCV | 01/27/23 07:50 | X012702 | CCV |
| 2 | LCS | 01/27/23 08:53 | X012704 | VLCSW-230127 |
| 3 | MBLK | 01/27/23 09:35 | X012706 | VBLKW-230127 |
| 4 | MS | 01/27/23 10:18 | X012708 | ZZZZZZMS |
| 5 | MSD | 01/27/23 10:39 | X012709 | ZZZZZZMSD |
| 6 | SAMP | 01/27/23 11:00 | X012710 | 16IW03-230123 |
| 7 | SAMP | 01/27/23 11:21 | X012711 | 16IW03-230123-FD |
| 8 | CCV_EN | 01/27/23 17:39 | X012729 | CCV-END |

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Form 6

# Initial Calibration Data

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138
**ICAL End Date** 16-DEC-2022 1507

**Calibration Files**

**Level 1** ..voa6.i\X221216.b\X121602.D
**Level 2** ..voa6.i\X221216.b\X121603.D
**Level 3** ..voa6.i\X221216.b\X121604.D
**Level 4** ..voa6.i\X221216.b\X121605.D
**Level 5** ..voa6.i\X221216.b\X121606.D
**Level 6** ..voa6.i\X221216.b\X121607.D
**Level 7** ..voa6.i\X221216.b\X121608.D
**Level 8** ..voa6.i\X221216.b\X121609.D
**Level 9** ..voa6.i\X221216.b\X121610.D
**Level 10** ..voa6.i\X221216.b\X121611.D

| Compound | Level 1<br>0.250<br>Level 7<br>50.0 | Level 2<br>0.500<br>Level 8<br>100.0 | Level 3<br>1.00<br>Level 9<br>150.0 | Level 4<br>2.00<br>Level 10<br>200.0 | Level 5<br>5.00 | Level 6<br>20.00 | Curve | b | m1 | m2 | %RSD<br>or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | NE<br>160392 | 1990<br>309019 | 2911<br>476130 | 6239<br>635808 | 15008 | 63382 | LINR | 0.00786 | 0.35247 | | 0.99971 | |
| Chloromethane | NE<br>192710 | 2466<br>388163 | 3670<br>621048 | 8057<br>865151 | 19623 | 72324 | LINR | 0.04423 | 0.47332 | | 0.99747 | |
| Propionitrile | NE<br>0.04851 | 0.06018<br>0.04917 | 0.05265<br>0.05178 | 0.04739<br>0.05178 | 0.05114 | 0.04656 | AVRG | | 0.05102 | | 7.91502 | |
| Vinyl Chloride | NE<br>0.44103 | 0.52268<br>0.42953 | 0.40472<br>0.44923 | 0.39786<br>0.45909 | 0.42164 | 0.40520 | AVRG | | 0.43678 | | 8.81916 | |
| Bromomethane | NE<br>139689 | 1893<br>284165 | 3293<br>470318 | 5996<br>NE | 15112 | 52034 | LINR | 0.03529 | 0.34244 | | 0.99519 | |
| Chloroethane | NE<br>0.29447 | 0.35820<br>0.28714 | 0.27936<br>0.30494 | 0.31044<br>0.30410 | 0.31436 | 0.28309 | AVRG | | 0.30401 | | 7.80750 | |
| Trichlorofluoromethane | NE<br>0.60756 | 0.71207<br>0.59817 | 0.54474<br>0.64605 | 0.57316<br>0.65074 | 0.59068 | 0.57785 | AVRG | | 0.61122 | | 8.28859 | |
| Acrolein | NE<br>27445 | 440<br>60756 | 761<br>96139 | 1317<br>125874 | 2699 | 12279 | LINR | 0.05644 | 0.03519 | | 0.99833 | |
| Acetone | NE<br>124798 | 2669<br>243517 | 4787<br>373504 | 7041<br>514105 | 17632 | 50987 | LINR | -0.00069 | 0.14025 | | 0.99910 | |
| 1,1-Dichloroethene | NE<br>0.36912 | 0.44142<br>0.36226 | 0.35953<br>0.38517 | 0.37590<br>0.39076 | 0.37389 | 0.35725 | AVRG | | 0.37948 | | 6.80558 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Isobutyl Alcohol | NE<br>0.05462 | 0.05610<br>0.05559 | 0.05239<br>0.05946 | 0.05650<br>0.05952 | 0.05728 | 0.05469 | AVRG | | 0.05624 | | 4.10209 | |
| Acetonitrile | NE<br>0.04430 | 0.04776<br>0.04552 | 0.04645<br>0.04791 | 0.04253<br>0.04736 | 0.04357 | 0.04417 | AVRG | | 0.04551 | | 4.32823 | |
| Allyl Chloride | NE<br>0.81324 | 0.99118<br>0.83169 | 0.95202<br>0.86799 | 0.81682<br>0.86396 | 0.84304 | 0.82034 | AVRG | | 0.86670 | | 7.30464 | |
| Iodomethane | NE<br>455792 | 2397<br>958603 | 3865<br>1554547 | 8702<br>2193685 | 26708 | 143457 | QUAD | 0.06641 | 2.01333 | -0.08031 | 0.99956 | |
| Acrylonitrile | NE<br>0.12970 | 0.12113<br>0.12956 | 0.12536<br>0.13857 | 0.12482<br>0.13997 | 0.12256 | 0.12666 | AVRG | | 0.12870 | | 5.15060 | |
| Methylene Chloride | NE<br>0.49311 | 0.63666<br>0.46611 | 0.59459<br>0.48892 | 0.50364<br>0.47907 | 0.50885 | 0.51372 | AVRG | | 0.52052 | | 10.92514 | |
| Methyl tert-butyl ether | NE<br>1.16844 | 1.26574<br>1.18584 | 1.39027<br>1.23813 | 1.27259<br>1.24075 | 1.24993 | 1.16729 | AVRG | | 1.24211 | | 5.52745 | |
| Carbon Disulfide | NE<br>0.97542 | 1.07494<br>0.97088 | 1.00609<br>1.02392 | 0.95722<br>1.06178 | 0.94769 | 0.91773 | AVRG | | 0.99285 | | 5.32584 | |
| trans-1,2-Dichloroethene | NE<br>0.41851 | 0.48064<br>0.41454 | 0.42427<br>0.43221 | 0.38965<br>0.43554 | 0.42173 | 0.40526 | AVRG | | 0.42470 | | 5.92187 | |
| Vinyl Acetate | NE<br>1.07506 | 1.09845<br>1.07519 | 0.99054<br>1.16529 | 1.06368<br>1.16741 | 1.12321 | 1.05445 | AVRG | | 1.09037 | | 5.13969 | |
| 1,1-Dichloroethane | NE<br>0.72125 | 0.83949<br>0.70504 | 0.80145<br>0.74074 | 0.69997<br>0.74459 | 0.75023 | 0.70550 | AVRG | | 0.74536 | | 6.34771 | |
| Chloroprene | NE<br>0.16145 | 0.19503<br>0.16116 | 0.18721<br>0.16823 | 0.17124<br>0.17481 | 0.15874 | 0.15219 | AVRG | | 0.17001 | | 8.17551 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Butanone | NE | 1292 | 2498 | 5418 | 11771 | 47830 | | | | | | |
| | 130179 | 264221 | 407629 | 555896 | | | LINR | 0.06050 | 0.15346 | | 0.99924 | |
| Methacrylonitrile | NE | 0.44770 | 0.36475 | 0.34993 | 0.34840 | 0.34235 | | | | | | |
| | 0.32328 | 0.32565 | 0.34081 | 0.34351 | | | AVRG | | 0.35404 | | 10.52608 | |
| 2,2-Dichloropropane | NE | 0.70167 | 0.65466 | 0.60521 | 0.61866 | 0.59289 | | | | | | |
| | 0.62063 | 0.61027 | 0.64008 | 0.65162 | | | AVRG | | 0.63286 | | 5.25207 | |
| cis-1,2-Dichloroethene | NE | 0.61803 | 0.49622 | 0.52999 | 0.50446 | 0.48374 | | | | | | |
| | 0.49985 | 0.48778 | 0.51710 | 0.51455 | | | AVRG | | 0.51686 | | 7.86616 | |
| Chloroform | NE | 0.87547 | 0.86252 | 0.85352 | 0.84666 | 0.79238 | | | | | | |
| | 0.81023 | 0.78725 | 0.84612 | 0.84457 | | | AVRG | | 0.83541 | | 3.73708 | |
| Bromochloromethane | NE | 0.32093 | 0.29857 | 0.28124 | 0.29319 | 0.26077 | | | | | | |
| | 0.26364 | 0.26287 | 0.28290 | 0.28282 | | | AVRG | | 0.28299 | | 6.91423 | |
| 1,1,1-Trichloroethane | NE | 0.76105 | 0.65666 | 0.60049 | 0.64387 | 0.63152 | | | | | | |
| | 0.65703 | 0.64156 | 0.67604 | 0.69720 | | | AVRG | | 0.66283 | | 6.90392 | |
| 1,1-Dichloropropene | NE | 0.35889 | 0.34245 | 0.33027 | 0.34789 | 0.34406 | | | | | | |
| | 0.37084 | 0.35979 | 0.36734 | 0.37324 | | | AVRG | | 0.35497 | | 4.12237 | |
| 1,2-Dichloroethane | NE | 0.45501 | 0.40587 | 0.39492 | 0.41104 | 0.39842 | | | | | | |
| | 0.39909 | 0.40154 | 0.41082 | 0.41030 | | | AVRG | | 0.40967 | | 4.39762 | |
| Carbon Tetrachloride | NE | 0.40179 | 0.45347 | 0.40515 | 0.35265 | 0.34370 | | | | | | |
| | 0.36348 | 0.35355 | 0.36349 | 0.37429 | | | AVRG | | 0.37906 | | 9.25223 | |
| Benzene | NE | 1.34410 | 1.19304 | 1.18322 | 1.19608 | 1.14722 | | | | | | |
| | 1.17241 | 1.15323 | 1.17461 | 1.18197 | | | AVRG | | 1.19399 | | 4.90945 | |
| Trichloroethene | NE | 0.37562 | 0.31723 | 0.33885 | 0.33109 | 0.33079 | | | | | | |
| | 0.33750 | 0.33140 | 0.33891 | 0.34649 | | | AVRG | | 0.33865 | | 4.73809 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | NE<br>0.42913 | 0.53078<br>0.42602 | 0.45893<br>0.44706 | 0.43689<br>0.45009 | 0.42833 | 0.42563 | AVRG | | 0.44810 | | 7.41292 | |
| Methyl Methacrylate | NE<br>0.32238 | 0.38746<br>0.32465 | 0.34921<br>0.34726 | 0.33881<br>0.35704 | 0.33548 | 0.30606 | AVRG | | 0.34093 | | 6.87301 | |
| 2-Chloroethylvinyl ether | NE<br>0.13057 | 0.13531<br>0.12541 | 0.11670<br>0.12799 | 0.12141<br>0.12973 | 0.12912 | 0.13108 | AVRG | | 0.12748 | | 4.37734 | |
| 1,2-Dichloropropane | NE<br>0.31044 | 0.35613<br>0.30521 | 0.33560<br>0.31542 | 0.29692<br>0.31856 | 0.31629 | 0.30391 | AVRG | | 0.31761 | | 5.71516 | |
| 2-Nitropropane | NE<br>0.73644 | 1.05598<br>0.73807 | 0.76159<br>0.78445 | 0.80915<br>0.80253 | 0.77468 | 0.75211 | AVRG | | 0.80167 | | 12.32619 | |
| Dibromomethane | NE<br>0.20672 | 0.25085<br>0.20317 | 0.21183<br>0.21324 | 0.22317<br>0.21357 | 0.21081 | 0.20954 | AVRG | | 0.21588 | | 6.58330 | |
| 4-Methyl-2-Pentanone | NE<br>0.25814 | 0.28987<br>0.25156 | 0.26418<br>0.26114 | 0.28502<br>0.26166 | 0.26684 | 0.26684 | AVRG | | 0.26725 | | 4.64865 | |
| cis-1,3-Dichloropropene | NE<br>0.52860 | 0.53732<br>0.53368 | 0.47650<br>0.55605 | 0.50179<br>0.56353 | 0.51804 | 0.52075 | AVRG | | 0.52625 | | 5.04185 | |
| Ethyl Methacrylate | NE<br>0.20804 | 0.28138<br>0.22619 | 0.24077<br>0.24786 | 0.23910<br>0.26163 | 0.20135 | 0.21276 | AVRG | | 0.23545 | | 11.14205 | |
| Toluene | NE<br>1.36202 | 1.60765<br>1.32088 | 1.37997<br>1.35198 | 1.37463<br>1.35870 | 1.36957 | 1.31273 | AVRG | | 1.38201 | | 6.34459 | |
| trans-1,3-Dichloropropene | NE<br>0.44682 | 0.44236<br>0.44877 | 0.39493<br>0.47075 | 0.40065<br>0.48573 | 0.41433 | 0.42619 | AVRG | | 0.43673 | | 7.01005 | |
| 2-Hexanone | NE<br>0.17839 | 0.19991<br>0.17192 | 0.17409<br>0.18312 | 0.17972<br>0.18566 | 0.18386 | 0.17978 | AVRG | | 0.18183 | | 4.45920 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | NE<br>0.26479 | 0.32419<br>0.25654 | 0.26954<br>0.26825 | 0.29087<br>0.26649 | 0.28491 | 0.26973 | AVRG | | 0.27726 | | 7.37510 | |
| 1,3-Dichloropropane | NE<br>0.53007 | 0.62065<br>0.51166 | 0.55587<br>0.53587 | 0.54217<br>0.53590 | 0.54663 | 0.53274 | AVRG | | 0.54573 | | 5.60982 | |
| Dibromochloromethane | NE<br>0.39906 | 0.43810<br>0.39075 | 0.38701<br>0.40792 | 0.39402<br>0.40793 | 0.38762 | 0.38903 | AVRG | | 0.40016 | | 4.08851 | |
| Tetrachloroethene | NE<br>0.29836 | 0.33024<br>0.28012 | 0.25660<br>0.28506 | 0.28292<br>0.28889 | 0.26322 | 0.28810 | AVRG | | 0.28594 | | 7.36821 | |
| 1,2-Dibromoethane | NE<br>0.35151 | 0.36263<br>0.33998 | 0.33509<br>0.35512 | 0.32714<br>0.35096 | 0.35422 | 0.34322 | AVRG | | 0.34665 | | 3.22017 | |
| 1-Chlorohexane | NE<br>0.24556 | 0.26597<br>0.23682 | 0.22998<br>0.25047 | 0.21386<br>0.26558 | 0.22191 | 0.24457 | AVRG | | 0.24163 | | 7.44215 | |
| Chlorobenzene | NE<br>0.95622 | 1.20054<br>0.92158 | 0.96715<br>0.96470 | 0.94773<br>0.97511 | 0.95913 | 0.93014 | AVRG | | 0.98026 | | 8.61127 | |
| 1,1,1,2-Tetrachloroethane | NE<br>0.36060 | 0.42477<br>0.35457 | 0.34549<br>0.36940 | 0.36191<br>0.37188 | 0.34596 | 0.34861 | AVRG | | 0.36480 | | 6.70616 | |
| Ethylbenzene | NE<br>0.47797 | 0.47482<br>0.45902 | 0.43893<br>0.46986 | 0.45503<br>0.47447 | 0.45171 | 0.45394 | AVRG | | 0.46175 | | 2.86128 | |
| m,p-Xylenes | NE<br>0.60205 | 0.69860<br>0.58346 | 0.55710<br>0.60071 | 0.56286<br>0.61493 | 0.56012 | 0.57743 | AVRG | | 0.59525 | | 7.35638 | |
| o-Xylene | NE<br>0.59049 | 0.68372<br>0.57562 | 0.51381<br>0.60058 | 0.56977<br>0.61516 | 0.56849 | 0.56994 | AVRG | | 0.58751 | | 7.79066 | |
| Styrene | NE<br>1.03116 | 1.02806<br>1.01266 | 0.79991<br>1.07651 | 0.88633<br>1.09594 | 0.95404 | 0.97800 | AVRG | | 0.98473 | | 9.52837 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromoform | NE | 0.31195 | 0.25221 | 0.26817 | 0.25683 | 0.26696 | | | | | | |
| | 0.27805 | 0.27584 | 0.29222 | 0.29278 | | | AVRG | | 0.27722 | | 6.87336 | |
| Isopropylbenzene | NE | 1.35706 | 1.16805 | 1.25967 | 1.30607 | 1.32939 | | | | | | |
| | 1.41077 | 1.36357 | 1.42773 | 1.45784 | | | AVRG | | 1.34224 | | 6.69875 | |
| 1,1,2,2-Tetrachloroethane | NE | 0.91828 | 0.84470 | 0.83187 | 0.83648 | 0.79018 | | | | | | |
| | 0.74007 | 0.71754 | 0.75363 | 0.73962 | | | AVRG | | 0.79693 | | 8.24435 | |
| 1,2,3-Trichloropropane | NE | 0.58047 | 0.56626 | 0.53238 | 0.58048 | 0.54015 | | | | | | |
| | 0.53505 | 0.52761 | 0.60583 | 0.53897 | | | AVRG | | 0.55636 | | 4.97536 | |
| trans-1,4-Dichloro-2-butene | NE | 0.12274 | 0.09213 | 0.10381 | 0.10162 | 0.10094 | | | | | | |
| | 0.10800 | 0.10845 | 0.11623 | 0.11751 | | | AVRG | | 0.10794 | | 8.88299 | |
| n-Propylbenzene | NE | 3.20938 | 2.13608 | 2.47845 | 2.73904 | 2.83806 | | | | | | |
| | 2.90611 | 2.78733 | 2.90643 | 2.92515 | | | AVRG | | 2.76956 | | 11.03336 | |
| Bromobenzene | NE | 0.90477 | 0.79060 | 0.83045 | 0.81066 | 0.82521 | | | | | | |
| | 0.80056 | 0.78064 | 0.82147 | 0.81857 | | | AVRG | | 0.82033 | | 4.35370 | |
| 1,3,5-Trimethylbenzene | NE | 2.06484 | 1.68256 | 1.97796 | 2.03460 | 2.07048 | | | | | | |
| | 2.12398 | 2.07652 | 2.18148 | 2.20122 | | | AVRG | | 2.04596 | | 7.47801 | |
| 2-Chlorotoluene | NE | 1.93144 | 1.77508 | 1.90257 | 1.85141 | 1.80074 | | | | | | |
| | 1.79455 | 1.71779 | 1.79669 | 1.78644 | | | AVRG | | 1.81741 | | 3.65582 | |
| 4-Chlorotoluene | NE | 2.19766 | 1.72811 | 1.99610 | 2.10678 | 2.06499 | | | | | | |
| | 2.09570 | 2.05624 | 2.19099 | 2.20989 | | | AVRG | | 2.07183 | | 7.13984 | |
| tert-Butylbenzene | NE | 1.83685 | 1.33195 | 1.56610 | 1.66625 | 1.69957 | | | | | | |
| | 1.74647 | 1.66742 | 1.77236 | 1.78580 | | | AVRG | | 1.67475 | | 9.03914 | |
| 1,2,4-Trimethylbenzene | NE | 2.44261 | 1.84882 | 2.01055 | 2.12502 | 2.14371 | | | | | | |
| | 2.18278 | 2.12445 | 2.25368 | 2.24326 | | | AVRG | | 2.15277 | | 7.66012 | |

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# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | NE<br>2.38144 | 2.28219<br>2.30322 | 1.76441<br>2.43114 | 1.95855<br>2.46321 | 2.17705 | 2.29365 | AVRG | | 2.22832 | | 10.32115 | |
| p-Isopropyltoluene | NE<br>2.16946 | 2.11113<br>2.07989 | 1.42476<br>2.19272 | 1.76888<br>2.20460 | 1.95504 | 2.06459 | AVRG | | 1.99679 | | 12.72950 | |
| 1,3-Dichlorobenzene | NE<br>1.39279 | 1.34465<br>1.34586 | 1.21323<br>1.42324 | 1.32549<br>1.42237 | 1.40186 | 1.38449 | AVRG | | 1.36155 | | 4.82043 | |
| 1,4-Dichlorobenzene | NE<br>1.45712 | 1.63128<br>1.44362 | 1.40441<br>1.52301 | 1.45614<br>1.52190 | 1.47766 | 1.45673 | AVRG | | 1.48576 | | 4.44368 | |
| Benzyl Chloride | NE<br>472387 | 3642<br>1009234 | 4632<br>1650494 | 12783<br>2286488 | 35254 | 163895 | LINR | 0.05387 | 0.82700 | | 0.99832 | |
| n-Butylbenzene | NE<br>696355 | 5149<br>1425779 | 8459<br>2293126 | 19853<br>3216534 | 54831 | 248190 | LINR | 0.03551 | 1.99525 | | 0.99890 | |
| 1,2-Dichlorobenzene | NE<br>1.39065 | 1.58241<br>1.36532 | 1.22790<br>1.44207 | 1.34058<br>1.43128 | 1.42827 | 1.41177 | AVRG | | 1.40225 | | 6.73504 | |
| 1,2-Dibromo-3-Chloropropane | NE<br>48660 | 441<br>94321 | 778<br>149691 | 1619<br>205063 | 4911 | 18635 | LINR | 0.00184 | 0.12764 | | 0.99948 | |
| 1,2,4-Trichlorobenzene | NE<br>0.95146 | 0.91627<br>0.90293 | 0.65608<br>0.94400 | 0.83350<br>0.95022 | 0.89445 | 0.91558 | AVRG | | 0.88494 | | 10.53488 | |
| Hexachlorobutadiene | NE<br>155390 | 1477<br>299042 | 1928<br>466452 | 3970<br>654615 | 13454 | 55912 | QUAD | -0.00107 | 2.58308 | -0.07816 | 0.99966 | |
| Naphthalene | NE<br>2.14094 | 2.01970<br>2.06230 | 1.60683<br>2.15450 | 1.85985<br>2.12714 | 2.04153 | 2.10842 | AVRG | | 2.01347 | | 8.78393 | |
| 1,2,3-Trichlorobenzene | NE<br>0.85880 | 1.02696<br>0.83163 | 0.68341<br>0.85478 | 0.79977<br>0.84995 | 0.84958 | 0.87304 | AVRG | | 0.84755 | | 10.42886 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethyl Acetate | NE<br>0.37280 | 0.44748<br>0.34980 | 0.34909<br>0.38488 | 0.40657<br>0.39192 | 0.39985 | 0.40902 | AVRG | | 0.39016 | | 7.92750 | |
| Methyl Acrylate | NE<br>0.33014 | 0.38247<br>0.33914 | 0.34243<br>0.35741 | 0.29817<br>0.35867 | 0.33173 | 0.31494 | AVRG | | 0.33946 | | 7.36740 | |
| n-Butanol | NE<br>54418 | 622<br>124057 | 1171<br>210842 | 2004<br>297334 | 4891 | 15012 | QUAD | 0.80435 | 158 | -58.97368 | 0.99813 | * |
| Ethyl Acrylate | NE<br>420886 | NE<br>862071 | NE<br>1358300 | 9825<br>1836030 | 26414 | 172044 | LINR | 0.05859 | 1.02468 | | 0.99901 | * |
| Cyclohexanone | NE<br>0.01934 | 0.07093<br>0.01945 | 0.03374<br>0.01993 | 0.02556<br>0.01966 | 0.01884 | 0.01912 | AVRG | | 0.02740 | | 62.21369 | * |
| 1,4-Dioxane | 0.00463<br>0.00443 | 0.00501<br>0.00442 | 0.00455<br>0.00480 | 0.00386<br>0.00497 | 0.00466 | 0.00438 | AVRG | | 0.00457 | | 7.29408 | |
| n-Hexane | NE<br>0.39852 | 0.41368<br>0.36338 | 0.26016<br>0.39788 | 0.32309<br>0.40267 | 0.32437 | 0.35631 | AVRG | | 0.36001 | | 13.97418 | |
| Freon TF | NE<br>0.37622 | 0.40111<br>0.36030 | 0.37263<br>0.38547 | 0.33005<br>0.39624 | 0.32940 | 0.35185 | AVRG | | 0.36703 | | 7.16337 | |
| Methyl Acetate | NE<br>0.21071 | 0.27499<br>0.21615 | 0.23617<br>0.22455 | 0.22728<br>0.22667 | 0.19900 | 0.20937 | AVRG | | 0.22499 | | 9.73149 | |
| Methylcyclohexane | NE<br>0.60749 | 0.69525<br>0.62521 | 0.49917<br>0.65111 | 0.58500<br>0.65095 | 0.56389 | 0.63030 | AVRG | | 0.61204 | | 9.36456 | |
| Isopropyl alcohol | NE<br>0.01716 | 0.02240<br>0.01767 | 0.01652<br>0.01919 | 0.01536<br>0.01934 | 0.01833 | 0.01677 | AVRG | | 0.01808 | | 11.41496 | |
| Amyl alcohol | NE<br>0.00433 | NE<br>0.00498 | NE<br>0.00582 | NE<br>0.00605 | 0.00196 | 0.00315 | AVRG | | 0.00438 | | 36.19033 | * |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Allyl alcohol | NE<br>0.01993 | 0.03347<br>0.01817 | 0.01301<br>0.01989 | 0.01615<br>0.02013 | 0.01622 | 0.01782 | AVRG | | 0.01942 | | 29.60962 | * |
| 4-Methyl-2-pentanol | NE<br>0.04191 | 0.13977<br>0.04448 | 0.06768<br>0.05120 | 0.05740<br>0.05444 | 0.04467 | 0.04137 | AVRG | | 0.06032 | | 51.38639 | * |
| Tert-butyl alcohol | NE<br>0.03307 | 0.04145<br>0.03257 | 0.03359<br>0.03586 | 0.03291<br>0.03628 | 0.03387 | 0.03199 | AVRG | | 0.03462 | | 8.48705 | |
| Diethyl ether | NE<br>0.30968 | 0.40393<br>0.31674 | 0.33122<br>0.33062 | 0.34807<br>0.33029 | 0.33548 | 0.30080 | AVRG | | 0.33409 | | 8.92652 | |
| 1,3-Butadiene | NE<br>0.33288 | 0.38854<br>0.32994 | 0.38107<br>0.34951 | 0.31405<br>0.35836 | 0.31693 | 0.31715 | AVRG | | 0.34316 | | 8.15203 | |
| Cyclohexane | NE<br>237699 | 2803<br>432198 | 4003<br>682728 | 7375<br>943314 | 19859 | 84355 | LINR | 0.02522 | 0.51703 | | 0.99847 | |
| Tetrahydrofuran | NE<br>58181 | 900<br>109518 | 1361<br>162133 | 2867<br>219995 | 7598 | 28221 | LINR | -0.06333 | 0.06025 | | 0.99942 | |
| alpha-Methylstyrene | NE<br>1.13399 | 1.35155<br>1.10993 | 0.85865<br>1.16502 | 1.02359<br>1.17184 | 1.06165 | 1.09458 | AVRG | | 1.10787 | | 11.89593 | |
| Diisopropyl ether | NE<br>1.21127 | 1.41201<br>1.25239 | 1.35074<br>1.32366 | 1.30436<br>1.33324 | 1.25459 | 1.23114 | AVRG | | 1.29704 | | 5.00179 | |
| Dichlorofluoromethane | NE<br>0.05734 | NE<br>0.05842 | NE<br>0.06234 | NE<br>0.06214 | 0.06484 | 0.06089 | AVRG | | 0.06099 | | 4.51209 | * |
| Propylene oxide | NE<br>0.03071 | NE<br>0.03174 | 0.05613<br>0.03407 | 0.03062<br>0.03228 | 0.03687 | 0.02961 | AVRG | | 0.03525 | | 24.79698 | * |
| 3-Methyl-1-butanol | NE<br>0.00489 | NE<br>0.00483 | NE<br>0.00601 | NE<br>0.00612 | 0.00211 | 0.00438 | AVRG | | 0.00472 | | 30.80128 | * |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Butyl acrylate | NE<br>0.63698 | 0.73114<br>0.67566 | 0.58907<br>0.72950 | 0.57945<br>0.74630 | 0.58578 | 0.60437 | AVRG | | 0.65314 | | 10.52624 | |
| 1,2,3-Trimethylbenzene | NE<br>2.21302 | 2.76749<br>2.29498 | 2.61167<br>2.36627 | 2.52848<br>2.30685 | 2.25428 | 2.32678 | AVRG | | 2.40776 | | 7.74526 | |
| Ethanol | NE<br>29714 | 458<br>56794 | 787<br>87890 | 1703<br>117751 | 3072 | 12594 | LINR | -0.06594 | 0.00325 | | 0.99956 | |
| 1-Propanol | NE<br>0.00727 | 0.00862<br>0.00784 | 0.00964<br>0.00802 | 0.00852<br>0.00816 | 0.00825 | 0.00721 | AVRG | | 0.00817 | | 9.04495 | |
| tert-Butyl formate | NE<br>0.24908 | NE<br>0.25521 | NE<br>0.29218 | 0.25634<br>0.29283 | 0.33766 | 0.24706 | AVRG | | 0.27577 | | 12.14219 | * |
| 3,3-Dimethyl-1-butanol | NE<br>0.02235 | NE<br>0.02388 | NE<br>0.02628 | NE<br>0.02679 | 0.01912 | 0.02169 | AVRG | | 0.02335 | | 12.46791 | * |
| tert-Amyl methyl ether | NE<br>1.32775 | 2.53777<br>1.35994 | 1.82297<br>1.44272 | 1.67155<br>1.43312 | 1.55575 | 1.35887 | AVRG | | 1.61227 | | 23.79383 | * |
| tert-Butyl ethyl ether | NE<br>1.27589 | 1.81984<br>1.30743 | 1.44501<br>1.37993 | 1.35004<br>1.39745 | 1.35223 | 1.28319 | AVRG | | 1.40122 | | 11.86386 | |
| tert-Amyl alcohol | NE<br>0.02491 | 0.03129<br>0.02552 | 0.02457<br>0.02922 | 0.02972<br>0.02928 | 0.03377 | 0.02471 | AVRG | | 0.02811 | | 11.82574 | |
| Epichlorohydrin | NE<br>58515 | 926<br>126478 | 1242<br>183469 | 2483<br>257397 | 5941 | 23842 | LINR | 0.04999 | 0.02268 | | 0.99921 | |
| Isoprene | NE<br>0.13550 | 0.20890<br>0.13652 | 0.10782<br>0.14294 | 0.12769<br>0.14612 | 0.14811 | 0.13210 | AVRG | | 0.14286 | | 19.27805 | * |
| n-Amyl acetate | NE<br>0.52035 | NE<br>0.54240 | NE<br>0.59479 | NE<br>0.61078 | NE | 0.53118 | AVRG | | 0.55990 | | 7.20069 | * |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Isopropyl acetate | NE<br>0.72227 | 1.34716<br>0.73275 | 0.78367<br>0.76494 | 0.79130<br>0.76466 | 0.77391 | 0.74796 | AVRG | | 0.82540 | | 23.86221 | * |
| n-Butyl acetate | NE<br>0.19856 | 0.47947<br>0.20815 | 0.28533<br>0.21762 | 0.15799<br>0.22438 | 0.22627 | 0.22783 | AVRG | | 0.24729 | | 37.68114 | * |
| Acetaldehyde | NE<br>67188 | NE<br>107798 | 3384<br>161053 | 5661<br>205547 | 6161 | 32393 | LINR | -0.46573 | 0.02837 | | 0.99553 | |
| Methyl Amyl Ketone | NE<br>0.62641 | 1.24254<br>0.65992 | 0.68451<br>0.69377 | 0.63815<br>0.71197 | 0.57607 | 0.60726 | AVRG | | 0.71562 | | 28.26825 | * |
| Dimethyl Disulfide | NE<br>0.67210 | 0.79855<br>0.68414 | 0.63899<br>0.70500 | 0.61608<br>0.69777 | 0.61366 | 0.66406 | AVRG | | 0.67671 | | 8.32695 | |
| 1,2-Dichloroethylene (total) | NE<br>0.45918 | 0.54933<br>0.45116 | 0.46024<br>0.47466 | 0.45982<br>0.47504 | 0.46309 | 0.44450 | AVRG | | 0.47078 | | 6.59168 | |
| Xylenes (total) | NE<br>0.56357 | 0.65089<br>0.56191 | 0.51351<br>0.58028 | 0.53491<br>0.60523 | 0.53725 | 0.54549 | AVRG | | 0.56589 | | 7.37687 | |
| Dibromofluoromethane | NE<br>211939 | 2321<br>438954 | 4769<br>652724 | 9050<br>856027 | 24255 | 90108 | LINR | -0.00333 | 0.47851 | | 0.99972 | |
| 1,2-Dichloroethane-d4 | NE<br>222293 | 2849<br>455890 | 5559<br>686218 | 9783<br>919752 | 24938 | 92990 | LINR | 0.00543 | 0.50950 | | 0.99982 | |
| Toluene-d8 | NE<br>1.18347 | 1.47608<br>1.20166 | 1.31472<br>1.16429 | 1.20749<br>1.10711 | 1.24798 | 1.21701 | AVRG | | 1.23554 | | 8.62469 | |
| 4-Bromofluorobenzene | NE<br>292753 | 3870<br>615584 | 7790<br>936681 | 13631<br>1277239 | 32501 | 116878 | LINR | 0.00128 | 0.46242 | | 0.99992 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

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Form 6I

# Initial Calibration Verification (ICV)

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Initial Calibration Verification (ICV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder**
**HS23011136**

**RunID**
VOA6_424237

## Volatiles by by EPA 8260

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

| Compound | Amount Added | Amount Recovered | % Recovered | Limits | Q |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachlor | 50.00 | 48.61 | 97.24 | 80-120 | |
| 1,1,1-Trichloroeth | 50.00 | 50.16 | 100.33 | 80-120 | |
| 1,1,2,2-Tetrachlor | 50.00 | 46.75 | 93.50 | 80-120 | |
| Freon TF | 50.00 | 52.90 | 105.81 | 80-120 | |
| Methyl Acetate | 50.00 | 48.17 | 96.35 | 80-120 | |
| Cyclohexane | 50.00 | 51.73 | 103.47 | 80-120 | |
| Methylcyclohexane | 50.00 | 50.89 | 101.79 | 80-120 | |
| Carbon Disulfide | 100.00 | 98.50 | 98.50 | 80-120 | |
| 2-Hexanone | 100.00 | 96.73 | 96.74 | 80-120 | |
| 1,1,2-Trichloroeth | 50.00 | 47.91 | 95.83 | 80-120 | |
| 1,1-Dichloroethane | 50.00 | 48.19 | 96.39 | 80-120 | |
| 1,1-Dichloroethene | 50.00 | 49.34 | 98.68 | 80-120 | |
| 1,1-Dichloropropen | 50.00 | 52.11 | 104.24 | 80-120 | |
| 1,2,3-Trichloroben | 50.00 | 52.79 | 105.58 | 80-120 | |
| 1,2,3-Trichloropro | 50.00 | 48.07 | 96.16 | 80-120 | |
| 1,2,4-Trichloroben | 50.00 | 54.66 | 109.32 | 80-120 | |
| 1,2,4-Trimethylben | 50.00 | 51.32 | 102.65 | 80-120 | |
| 1,2-Dibromo-3-Chlo | 50.00 | 50.53 | 101.07 | 80-120 | |
| 1,2-Dibromoethane | 50.00 | 50.24 | 100.49 | 80-120 | |
| Acrolein | 100.00 | 95.06 | 95.07 | 80-120 | |
| Acrylonitrile | 100.00 | 101.42 | 101.43 | 80-120 | |
| 1,2-Dichlorobenzen | 50.00 | 49.52 | 99.05 | 80-120 | |
| 1,2-Dichloroethane | 50.00 | 49.52 | 99.05 | 80-120 | |
| 1,2-Dichloropropan | 50.00 | 49.60 | 99.22 | 80-120 | |
| 1,3,5-Trimethylben | 50.00 | 52.30 | 104.61 | 80-120 | |
| 1,3-Dichlorobenzen | 50.00 | 51.21 | 102.43 | 80-120 | |
| 1,3-Dichloropropan | 50.00 | 47.82 | 95.66 | 80-120 | |
| 1,4-Dichlorobenzen | 50.00 | 49.71 | 99.44 | 80-120 | |
| 1-Chlorohexane | 50.00 | 51.98 | 103.97 | 80-120 | |
| 2,2-Dichloropropan | 50.00 | 50.98 | 101.98 | 80-120 | |
| 2-Butanone | 100.00 | 97.74 | 97.74 | 80-120 | |
| 2-Chloroethylvinyl | 100.00 | 104.19 | 104.19 | 80-120 | |
| 2-Chlorotoluene | 50.00 | 49.94 | 99.89 | 80-120 | |
| 4-Chlorotoluene | 50.00 | 51.25 | 102.51 | 80-120 | |

# Initial Calibration Verification (ICV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

| Compound | Amount Added | Amount Recovered | % Recovered | Limits | Q |
|---|---|---|---|---|---|
| p-Isopropyltoluene | 50.00 | 54.75 | 109.51 | 80-120 | |
| 4-Methyl-2-Pentano | 100.00 | 94.03 | 94.03 | 80-120 | |
| Acetone | 100.00 | 101.89 | 101.90 | 80-120 | |
| Acetonitrile | 500.00 | 475.59 | 95.12 | 80-120 | |
| Allyl Chloride | 50.00 | 47.31 | 94.63 | 80-120 | |
| Benzene | 50.00 | 50.29 | 100.58 | 80-120 | |
| Bromobenzene | 50.00 | 49.62 | 99.25 | 80-120 | |
| Bromochloromethane | 50.00 | 47.25 | 94.51 | 80-120 | |
| Bromodichlorometha | 50.00 | 49.22 | 98.45 | 80-120 | |
| Bromoform | 50.00 | 49.33 | 98.66 | 80-120 | |
| Bromomethane | 50.00 | 50.78 | 101.58 | 80-120 | |
| Carbon Tetrachlori | 50.00 | 49.06 | 98.12 | 80-120 | |
| Chlorobenzene | 50.00 | 48.34 | 96.68 | 80-120 | |
| Chloroethane | 50.00 | 48.32 | 96.64 | 80-120 | |
| Chloroform | 50.00 | 48.45 | 96.91 | 80-120 | |
| Chloromethane | 50.00 | 50.17 | 100.35 | 80-120 | |
| Chloroprene | 50.00 | 47.74 | 95.50 | 80-120 | |
| cis-1,2-Dichloroet | 50.00 | 48.25 | 96.51 | 80-120 | |
| cis-1,3-Dichloropr | 50.00 | 52.11 | 104.22 | 80-120 | |
| Dibromochlorometha | 50.00 | 49.50 | 99.02 | 80-120 | |
| Dibromomethane | 50.00 | 49.19 | 98.38 | 80-120 | |
| Dichlorodifluorome | 50.00 | 52.19 | 104.38 | 80-120 | |
| Ethylbenzene | 50.00 | 51.31 | 102.63 | 80-120 | |
| Ethyl Methacrylate | 50.00 | 44.07 | 88.15 | 80-120 | |
| Iodomethane | 100.00 | 96.48 | 96.49 | 80-120 | |
| Isobutyl Alcohol | 1000.00 | 982.15 | 98.22 | 70-130 | |
| Propionitrile | 500.00 | 486.89 | 97.38 | 70-130 | |
| Hexachlorobutadien | 50.00 | 57.73 | 115.48 | 80-120 | |
| Isopropylbenzene | 50.00 | 52.09 | 104.19 | 80-120 | |
| m,p-Xylenes | 100.00 | 100.17 | 100.17 | 80-120 | |
| Methyl tert-butyl | 50.00 | 48.12 | 96.25 | 80-120 | |
| Methylene Chloride | 50.00 | 47.56 | 95.14 | 80-120 | |
| Methacrylonitrile | 50.00 | 46.73 | 93.48 | 80-120 | |
| Methyl Methacrylat | 50.00 | 47.71 | 95.43 | 80-120 | |

# Initial Calibration Verification (ICV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

| Compound | Amount Added | Amount Recovered | % Recovered | Limits | Q |
|---|---|---|---|---|---|
| n-Butylbenzene | 50.00 | 50.66 | 101.33 | 80-120 | |
| n-Propylbenzene | 50.00 | 52.67 | 105.35 | 80-120 | |
| Naphthalene | 50.00 | 52.67 | 105.35 | 80-120 | |
| o-Xylene | 50.00 | 49.75 | 99.51 | 80-120 | |
| sec-Butylbenzene | 50.00 | 54.16 | 108.34 | 80-120 | |
| Styrene | 50.00 | 52.09 | 104.20 | 80-120 | |
| tert-Butylbenzene | 50.00 | 52.83 | 105.67 | 80-120 | |
| Tetrachloroethene | 50.00 | 50.99 | 101.99 | 80-120 | |
| Toluene | 50.00 | 49.20 | 98.42 | 80-120 | |
| trans-1,2-Dichloro | 50.00 | 49.99 | 99.98 | 80-120 | |
| trans-1,3-Dichloro | 50.00 | 52.50 | 105.01 | 80-120 | |
| trans-1,4-Dichloro | 50.00 | 49.73 | 99.47 | 80-120 | |
| Trichloroethene | 50.00 | 51.28 | 102.56 | 80-120 | |
| Trichlorofluoromet | 50.00 | 51.00 | 102.02 | 80-120 | |
| Vinyl Acetate | 100.00 | 104.75 | 104.76 | 80-120 | |
| Vinyl Chloride | 50.00 | 50.57 | 101.15 | 80-120 | |
| 1,2-Dichloroethyle | 100.00 | 98.24 | 98.25 | 80-120 | |
| Xylenes (total) | 150.00 | 149.92 | 99.95 | 80-120 | |
| 1,4-Dioxane | 1000.00 | 1021.76 | 102.18 | 80-120 | |
| Dibromofluorometha | 50.00 | 50.91 | 101.84 | 71-125 | |
| 1,2-Dichloroethane | 50.00 | 50.36 | 100.73 | 70-125 | |
| Toluene-d8 | 50.00 | 49.50 | 99.00 | 75-125 | |
| 4-Bromofluorobenze | 50.00 | 49.98 | 99.97 | 72-125 | |

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Form 7

# Continuing Calibration Verification (CCV)

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 0824
Lab File ID X012602.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 42.29552 | 0.29539 | 0.100 | 15.40897 | 20.0 | Linear | |
| Chloromethane | 50.0 | 43.75326 | 0.39325 | 0.100 | 12.49348 | 20.0 | Linear | |
| Propionitrile | 0.05102 | 0.04959 | 0.04959 | 0.010 | 2.79809 | 20.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.40952 | 0.40952 | 0.100 | 6.23957 | 20.0 | Averaged | |
| Bromomethane | 50.0 | 42.06902 | 0.27604 | 0.100 | 15.86196 | 20.0 | Linear | |
| Chloroethane | 0.30401 | 0.25706 | 0.25706 | 0.100 | 15.44419 | 20.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.62013 | 0.62013 | 0.100 | -1.45613 | 20.0 | Averaged | |
| Acrolein | 100 | 88.68840 | 0.03021 | 0.010 | 11.31160 | 20.0 | Linear | |
| Acetone | 100 | 80.68339 | 0.11320 | 0.100 | 19.31661 | 20.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.35928 | 0.35928 | 0.100 | 5.32212 | 20.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06030 | 0.06030 | 0.005 | -7.22012 | 20.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.04759 | 0.04759 | 0.005 | -4.57839 | 20.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.85588 | 0.85588 | 0.100 | 1.24811 | 20.0 | Averaged | |
| Iodomethane | 100 | 99 | 0.49501 | 0.100 | 0.95253 | 20.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.13178 | 0.13178 | 0.050 | -2.39072 | 20.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.46257 | 0.46257 | 0.100 | 11.13259 | 20.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.19381 | 1.19381 | 0.100 | 3.88816 | 20.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.00312 | 1.00312 | 0.100 | -1.03396 | 20.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.42317 | 0.42317 | 0.100 | 0.36165 | 20.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.14986 | 1.14986 | 0.010 | -5.45674 | 20.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.72980 | 0.72980 | 0.200 | 2.08802 | 20.0 | Averaged | |
| Chloroprene | 0.17001 | 0.15844 | 0.15844 | 0.100 | 6.80394 | 20.0 | Averaged | |
| 2-Butanone | 100 | 94.91203 | 0.14101 | 0.100 | 5.08797 | 20.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.34154 | 0.34154 | 0.100 | 3.53205 | 20.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.70484 | 0.70484 | 0.100 | -11.37443 | 20.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.48334 | 0.48334 | 0.100 | 6.48494 | 20.0 | Averaged | |
| Chloroform | 0.83541 | 0.82145 | 0.82145 | 0.200 | 1.67149 | 20.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.25429 | 0.25429 | 0.100 | 10.14185 | 20.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 46.46093 | 0.44623 | 0.100 | 7.07814 | 20.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.73124 | 0.73124 | 0.100 | -10.32202 | 20.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.42442 | 0.42442 | 0.100 | -19.56229 | 20.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.43909 | 0.43909 | 0.100 | -7.18192 | 20.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.41918 | 0.41918 | 0.100 | -10.58446 | 20.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 50.59043 | 0.51275 | 0.100 | -1.18085 | 20.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

RunID VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 0824
Lab File ID X012602.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.21322 | 1.21322 | 0.500 | -1.61036 | 20.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.35936 | 0.35936 | 0.200 | -6.11559 | 20.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.44514 | 0.44514 | 0.200 | 0.65971 | 20.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.35637 | 0.35637 | 0.100 | -4.52948 | 20.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.14090 | 0.14090 | 0.001 | -10.52376 | 20.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.31273 | 0.31273 | 0.100 | 1.53492 | 20.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.13394 | 0.13394 | 0.000 | -6.07878 | 20.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.20799 | 0.20799 | 0.100 | 3.65550 | 20.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.27897 | 0.27897 | 0.100 | -4.38540 | 20.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.54631 | 0.54631 | 0.200 | -3.81205 | 20.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.18485 | 1.18485 | 0.100 | 4.10235 | 20.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.23407 | 0.23407 | 0.100 | 0.58604 | 20.0 | Averaged | |
| Toluene | 1.38201 | 1.42211 | 1.42211 | 0.400 | -2.90121 | 20.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.47120 | 0.47120 | 0.100 | -7.89390 | 20.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.19373 | 0.19373 | 0.100 | -6.54412 | 20.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.26493 | 0.26493 | 0.100 | 4.44600 | 20.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.53941 | 0.53941 | 0.100 | 1.15840 | 20.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.40145 | 0.40145 | 0.100 | -0.32319 | 20.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.32250 | 0.32250 | 0.200 | -12.78592 | 20.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.35227 | 0.35227 | 0.100 | -1.62152 | 20.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.27437 | 0.27437 | 0.100 | -13.54889 | 20.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.97590 | 0.97590 | 0.500 | 0.44387 | 20.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.37157 | 0.37157 | 0.100 | -1.85502 | 20.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.50774 | 0.50774 | 0.100 | -9.95873 | 20.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.63981 | 0.63981 | 0.100 | -7.48544 | 20.0 | Averaged | |
| o-Xylene | 0.58751 | 0.61406 | 0.61406 | 0.300 | -4.52016 | 20.0 | Averaged | |
| Styrene | 0.98473 | 1.05733 | 1.05733 | 0.300 | -7.37168 | 20.0 | Averaged | |
| Bromoform | 0.27722 | 0.27640 | 0.27640 | 0.100 | 0.29839 | 20.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.59119 | 1.59119 | 0.100 | -18.54761 | 20.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.75640 | 0.75640 | 0.300 | 5.08515 | 20.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 50.98603 | 0.47094 | 0.100 | -1.97207 | 20.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.57286 | 0.57286 | 0.100 | -2.96619 | 20.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11554 | 0.11554 | 0.050 | -7.04259 | 20.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.27719 | 3.27719 | 0.100 | -18.32910 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

RunID VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 0824
Lab File ID X012602.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.82078 | 0.82078 | 0.100 | -0.05543 | 20.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.42737 | 2.42737 | 0.100 | -18.64225 | 20.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 2.00768 | 2.00768 | 0.100 | -10.46920 | 20.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.35482 | 2.35482 | 0.100 | -13.65911 | 20.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 1.98556 | 1.98556 | 0.100 | -18.55849 | 20.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.44290 | 2.44290 | 0.100 | -13.47738 | 20.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.87075 | 2.87075 | 0.100 | -28.83022 | 20.0 | Averaged | <- |
| p-Isopropyltoluene | 1.99679 | 2.56533 | 2.56533 | 0.100 | -28.47289 | 20.0 | Averaged | <- |
| 1,3-Dichlorobenzene | 1.36155 | 1.46414 | 1.46414 | 0.600 | -7.53438 | 20.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.52950 | 1.52950 | 0.400 | -2.94362 | 20.0 | Averaged | |
| Benzyl Chloride | 50.0 | 50.41923 | 0.78939 | 0.010 | -0.83845 | 20.0 | Linear | |
| n-Butylbenzene | 50.0 | 59.60555 | 2.30771 | 0.500 | -19.21111 | 20.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.43927 | 1.43927 | 0.400 | -2.63995 | 20.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 50.03656 | 0.12750 | 0.040 | -0.07312 | 20.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 1.03877 | 1.03877 | 0.100 | -17.38289 | 20.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 59.13016 | 0.46478 | 0.100 | -18.26032 | 20.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.19322 | 2.19322 | 0.200 | -8.92731 | 20.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.92627 | 0.92627 | 0.010 | -9.28788 | 20.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.23681 | 0.23681 | 0.100 | -5.25384 | 20.0 | Averaged | |
| Freon TF | 0.36703 | 0.38624 | 0.38624 | 0.100 | -5.23468 | 20.0 | Averaged | |
| Cyclohexane | 50.0 | 58.98619 | 0.59691 | 0.100 | -17.97237 | 20.0 | Linear | |
| Tetrahydrofuran | 100 | 90.37306 | 0.05636 | 0.001 | 9.62694 | 20.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.72971 | 0.72971 | 0.100 | -19.22511 | 20.0 | Averaged | |
| 1,4-Dioxane | 0.00457 | 0.00485 | 0.00485 | 0.001 | -6.15112 | 20.0 | Averaged | |
| n-Butanol | 1000 | 1008 | 0.00645 | 0.005 | -0.83678 | 20.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.36259 | 0.36259 | 0.100 | -6.81437 | 20.0 | Averaged | |
| Ethyl Acrylate | 50.0 | 54.65320 | 1.07431 | 0.100 | -9.30640 | 20.0 | Linear | |
| n-Hexane | 0.36001 | 0.48128 | 0.48128 | 0.100 | -33.68608 | 20.0 | Averaged | <- |
| Diethyl ether | 0.33409 | 0.27711 | 0.27711 | 0.100 | 17.05397 | 20.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03789 | 0.03789 | 0.005 | -9.45458 | 20.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02032 | 0.02032 | 0.005 | -12.39872 | 20.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.24871 | 1.24871 | 0.100 | 3.72681 | 20.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 1.01255 | 1.01255 | 0.100 | -4.37880 | 20.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.48304 | 2.48304 | 0.100 | -3.12667 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

RunID VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 0824
Lab File ID X012602.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 970 | 0.00316 | 0.001 | 2.97056 | 20.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.28947 | 0.28947 | 0.100 | -9.10317 | 20.0 | Averaged | |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02440 | 0.02440 | 0.005 | -3.15391 | 20.0 | Averaged | |
| tert-Amyl methyl ether | 1.44127 | 1.35888 | 1.35888 | 0.005 | 5.71680 | 20.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.33113 | 1.33113 | 0.100 | 3.41761 | 20.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.02895 | 0.02895 | 0.005 | -7.79502 | 20.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.04863 | 0.04863 | 0.005 | -2.76844 | 20.0 | Averaged | |
| 1-Methylnaphthalene | ++++ | 1.01255 | 1.01255 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.32284 | 0.32284 | 0.100 | 5.92024 | 20.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00514 | 0.00514 | 0.005 | -3.98570 | 20.0 | Averaged | <- |
| Dichlorofluoromethane | 0.06474 | 0.05373 | 0.05373 | 0.100 | 17.00586 | 20.0 | Averaged | <- |
| Propylene oxide | 0.03144 | 0.02822 | 0.02822 | 0.005 | 10.25946 | 20.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00575 | 0.00575 | 0.005 | -16.38701 | 20.0 | Averaged | <- |
| Butyl acrylate | 0.65314 | 0.68663 | 0.68663 | 0.100 | -5.12754 | 20.0 | Averaged | |
| Epichlorohydrin | 200 | 210 | 0.02347 | 0.001 | -4.76388 | 20.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.45325 | 0.45325 | 0.200 | 3.72295 | 20.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.60396 | 0.60396 | 0.100 | -6.72622 | 20.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.15119 | 1.15119 | 0.100 | -3.91076 | 20.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.41123 | 0.41123 | 0.100 | -5.40068 | 20.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.02262 | 0.02262 | 0.005 | -8.47072 | 20.0 | Averaged | |
| Isoprene | 0.13320 | 0.13611 | 0.13611 | 0.100 | -2.18392 | 20.0 | Averaged | |
| Isopentane | ++++ | 0.23943 | 0.23943 | 0.100 | ++++ | 20.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.81992 | 0.81992 | 0.100 | -5.54804 | 20.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.59091 | 0.59091 | 0.100 | -1.35028 | 20.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.48765 | 0.48765 | 0.100 | -13.53707 | 20.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02406 | 0.02406 | 0.004 | -30.93988 | 20.0 | Averaged | <- |
| Acetaldehyde | 200 | 177 | 0.02836 | 0.001 | 11.68728 | 20.0 | Linear | |
| Methyl Amyl Ketone | 0.66478 | 0.64663 | 0.64663 | 0.100 | 2.72899 | 20.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.66344 | 0.66344 | 0.100 | 1.96030 | 20.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00049 | 0.00049 | 0.001 | ++++ | 20.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 9.389e+63 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00729 | 0.00729 | 0.005 | 10.73738 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 1812
Lab File ID X012629.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 43.64576 | 0.30491 | 0.100 | 12.70848 | 50.0 | Linear | |
| Chloromethane | 50.0 | 44.19085 | 0.39739 | 0.100 | 11.61829 | 50.0 | Linear | |
| Propionitrile | 0.05102 | 0.05082 | 0.05082 | 0.010 | 0.38075 | 50.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.40205 | 0.40205 | 0.100 | 7.95044 | 50.0 | Averaged | |
| Bromomethane | 50.0 | 44.37853 | 0.29186 | 0.100 | 11.24295 | 50.0 | Linear | |
| Chloroethane | 0.30401 | 0.25815 | 0.25815 | 0.100 | 15.08517 | 50.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.63843 | 0.63843 | 0.100 | -4.45112 | 50.0 | Averaged | |
| Acrolein | 100 | 87.32221 | 0.02973 | 0.010 | 12.67779 | 50.0 | Linear | |
| Acetone | 100 | 93.45185 | 0.13111 | 0.100 | 6.54815 | 50.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.37217 | 0.37217 | 0.100 | 1.92555 | 50.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06085 | 0.06085 | 0.005 | -8.20700 | 50.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.04906 | 0.04906 | 0.005 | -7.81373 | 50.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.86751 | 0.86751 | 0.100 | -0.09410 | 50.0 | Averaged | |
| Iodomethane | 100 | 94.87601 | 0.47256 | 0.100 | 5.12399 | 50.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.13437 | 0.13437 | 0.050 | -4.40523 | 50.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.48334 | 0.48334 | 0.100 | 7.14325 | 50.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.21980 | 1.21980 | 0.100 | 1.79585 | 50.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.02239 | 1.02239 | 0.100 | -2.97529 | 50.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.42973 | 0.42973 | 0.100 | -1.18451 | 50.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.06519 | 1.06519 | 0.010 | 2.30932 | 50.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.75107 | 0.75107 | 0.200 | -0.76580 | 50.0 | Averaged | |
| Chloroprene | 0.17001 | 0.16001 | 0.16001 | 0.100 | 5.88275 | 50.0 | Averaged | |
| 2-Butanone | 100 | 100 | 0.14808 | 0.100 | 0.47705 | 50.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.34963 | 0.34963 | 0.100 | 1.24606 | 50.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.64450 | 0.64450 | 0.100 | -1.83928 | 50.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.50716 | 0.50716 | 0.100 | 1.87661 | 50.0 | Averaged | |
| Chloroform | 0.83541 | 0.85666 | 0.85666 | 0.200 | -2.54312 | 50.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.26275 | 0.26275 | 0.100 | 7.15163 | 50.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 47.45779 | 0.45577 | 0.100 | 5.08441 | 50.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.75128 | 0.75128 | 0.100 | -13.34443 | 50.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.41747 | 0.41747 | 0.100 | -17.60419 | 50.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.44792 | 0.44792 | 0.100 | -9.33671 | 50.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.42570 | 0.42570 | 0.100 | -12.30227 | 50.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 52.29395 | 0.53011 | 0.100 | -4.58790 | 50.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 1812
Lab File ID X012629.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.22123 | 1.22123 | 0.500 | -2.28147 | 50.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.36694 | 0.36694 | 0.200 | -8.35246 | 50.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.45023 | 0.45023 | 0.200 | -0.47691 | 50.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.37788 | 0.37788 | 0.100 | -10.83755 | 50.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.13987 | 0.13987 | 0.001 | -9.71791 | 50.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.31211 | 0.31211 | 0.100 | 1.73199 | 50.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.13380 | 0.13380 | 0.000 | -5.96798 | 50.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.21013 | 0.21013 | 0.100 | 2.66348 | 50.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.27937 | 0.27937 | 0.100 | -4.53396 | 50.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.53154 | 0.53154 | 0.200 | -1.00578 | 50.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.16617 | 1.16617 | 0.100 | 5.61400 | 50.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.24125 | 0.24125 | 0.100 | -2.46224 | 50.0 | Averaged | |
| Toluene | 1.38201 | 1.43623 | 1.43623 | 0.400 | -3.92327 | 50.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.46215 | 0.46215 | 0.100 | -5.82029 | 50.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.19553 | 0.19553 | 0.100 | -7.53330 | 50.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.26701 | 0.26701 | 0.100 | 3.69593 | 50.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.54115 | 0.54115 | 0.100 | 0.83863 | 50.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.39979 | 0.39979 | 0.100 | 0.09222 | 50.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.32705 | 0.32705 | 0.200 | -14.37469 | 50.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.35265 | 0.35265 | 0.100 | -1.73105 | 50.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.29315 | 0.29315 | 0.100 | -21.32201 | 50.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.97567 | 0.97567 | 0.500 | 0.46812 | 50.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.37243 | 0.37243 | 0.100 | -2.09264 | 50.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.50832 | 0.50832 | 0.100 | -10.08556 | 50.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.64092 | 0.64092 | 0.100 | -7.67281 | 50.0 | Averaged | |
| o-Xylene | 0.58751 | 0.61573 | 0.61573 | 0.300 | -4.80377 | 50.0 | Averaged | |
| Styrene | 0.98473 | 1.06415 | 1.06415 | 0.300 | -8.06431 | 50.0 | Averaged | |
| Bromoform | 0.27722 | 0.27279 | 0.27279 | 0.100 | 1.60024 | 50.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.59972 | 1.59972 | 0.100 | -19.18274 | 50.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.73518 | 0.73518 | 0.300 | 7.74820 | 50.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 50.37371 | 0.46528 | 0.100 | -0.74741 | 50.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.61371 | 0.61371 | 0.100 | -10.30832 | 50.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11079 | 0.11079 | 0.050 | -2.64512 | 50.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.26776 | 3.26776 | 0.100 | -17.98841 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 1812
Lab File ID X012629.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.81979 | 0.81979 | 0.100 | 0.06563 | 50.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.38096 | 2.38096 | 0.100 | -16.37357 | 50.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 1.97876 | 1.97876 | 0.100 | -8.87782 | 50.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.31028 | 2.31028 | 0.100 | -11.50938 | 50.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 2.02182 | 2.02182 | 0.100 | -20.72372 | 50.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.39767 | 2.39767 | 0.100 | -11.37644 | 50.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.84271 | 2.84271 | 0.100 | -27.57218 | 50.0 | Averaged | |
| p-Isopropyltoluene | 1.99679 | 2.51858 | 2.51858 | 0.100 | -26.13157 | 50.0 | Averaged | |
| 1,3-Dichlorobenzene | 1.36155 | 1.44840 | 1.44840 | 0.600 | -6.37855 | 50.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.51793 | 1.51793 | 0.400 | -2.16516 | 50.0 | Averaged | |
| Benzyl Chloride | 50.0 | 40.31447 | 0.62225 | 0.010 | 19.37106 | 50.0 | Linear | |
| n-Butylbenzene | 50.0 | 56.96510 | 2.20234 | 0.500 | -13.93020 | 50.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.43070 | 1.43070 | 0.400 | -2.02880 | 50.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 48.43865 | 0.12342 | 0.040 | 3.12270 | 50.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 0.98853 | 0.98853 | 0.100 | -11.70570 | 50.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 56.51600 | 0.44396 | 0.100 | -13.03199 | 50.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.10587 | 2.10587 | 0.200 | -4.58947 | 50.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.89053 | 0.89053 | 0.010 | -5.07137 | 50.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.23722 | 0.23722 | 0.100 | -5.43457 | 50.0 | Averaged | |
| Freon TF | 0.36703 | 0.39859 | 0.39859 | 0.100 | -8.59857 | 50.0 | Averaged | |
| Cyclohexane | 50.0 | 61.15786 | 0.61937 | 0.100 | -22.31572 | 50.0 | Linear | |
| Tetrahydrofuran | 100 | 96.96792 | 0.06033 | 0.001 | 3.03208 | 50.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.71285 | 0.71285 | 0.100 | -16.47136 | 50.0 | Averaged | |
| 1,4-Dioxane | 0.00457 | 0.00514 | 0.00514 | 0.001 | -12.42447 | 50.0 | Averaged | |
| n-Butanol | 1000 | 982 | 0.00627 | 0.005 | 1.82811 | 50.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.39873 | 0.39873 | 0.100 | -17.46123 | 50.0 | Averaged | |
| Ethyl Acrylate | 50.0 | 54.77967 | 1.07688 | 0.100 | -9.55934 | 50.0 | Linear | |
| n-Hexane | 0.36001 | 0.44194 | 0.44194 | 0.100 | -22.76031 | 50.0 | Averaged | |
| Diethyl ether | 0.33409 | 0.27288 | 0.27288 | 0.100 | 18.32171 | 50.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03886 | 0.03886 | 0.005 | -12.25126 | 50.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02100 | 0.02100 | 0.005 | -16.12847 | 50.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.28435 | 1.28435 | 0.100 | 0.97834 | 50.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 0.82829 | 0.82829 | 0.100 | 14.61491 | 50.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.47102 | 2.47102 | 0.100 | -2.62754 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder**
**HS23011136**

**RunID**
VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 1812
Lab File ID X012629.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 980 | 0.00319 | 0.001 | 1.96362 | 50.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.29934 | 0.29934 | 0.100 | -12.82421 | 50.0 | Averaged | |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02351 | 0.02351 | 0.005 | 0.64168 | 50.0 | Averaged | |
| tert-Amyl methyl ether | 1.44127 | 1.42039 | 1.42039 | 0.005 | 1.44895 | 50.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.36286 | 1.36286 | 0.100 | 1.11505 | 50.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.02993 | 0.02993 | 0.005 | -11.47145 | 50.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.04832 | 0.04832 | 0.005 | -2.10830 | 50.0 | Averaged | |
| 1-Methylnaphthalene | ++++ | 0.82829 | 0.82829 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.30864 | 0.30864 | 0.100 | 10.06016 | 50.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00486 | 0.00486 | 0.005 | 1.68727 | 50.0 | Averaged | |
| Dichlorofluoromethane | 0.06474 | 0.05424 | 0.05424 | 0.100 | 16.22426 | 50.0 | Averaged | |
| Propylene oxide | 0.03144 | 0.02753 | 0.02753 | 0.005 | 12.42913 | 50.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00559 | 0.00559 | 0.005 | -13.06238 | 50.0 | Averaged | |
| Butyl acrylate | 0.65314 | 0.67599 | 0.67599 | 0.100 | -3.49809 | 50.0 | Averaged | |
| Epichlorohydrin | 200 | 201 | 0.02256 | 0.001 | -0.71857 | 50.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.46845 | 0.46845 | 0.200 | 0.49585 | 50.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.60359 | 0.60359 | 0.100 | -6.66103 | 50.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.14160 | 1.14160 | 0.100 | -3.04500 | 50.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.42108 | 0.42108 | 0.100 | -7.92460 | 50.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.02385 | 0.02385 | 0.005 | -14.37387 | 50.0 | Averaged | |
| Isoprene | 0.13320 | 0.13327 | 0.13327 | 0.100 | -0.05189 | 50.0 | Averaged | |
| Isopentane | ++++ | 0.22971 | 0.22971 | 0.100 | ++++ | 50.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.80812 | 0.80812 | 0.100 | -4.02909 | 50.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.58308 | 0.58308 | 0.100 | -0.00755 | 50.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.48002 | 0.48002 | 0.100 | -11.75995 | 50.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02210 | 0.02210 | 0.004 | -20.23855 | 50.0 | Averaged | |
| Acetaldehyde | 200 | 218 | 0.03424 | 0.001 | -9.05445 | 50.0 | Linear | |
| Methyl Amyl Ketone | 0.66478 | 0.67439 | 0.67439 | 0.100 | -1.44582 | 50.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.67001 | 0.67001 | 0.100 | 0.98888 | 50.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00043 | 0.00043 | 0.001 | ++++ | 50.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 9.389e+63 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00726 | 0.00726 | 0.005 | 11.09128 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 0750
Lab File ID X012702.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 43.09370 | 0.30102 | 0.100 | 13.81259 | 20.0 | Linear | |
| Chloromethane | 50.0 | 43.51984 | 0.39104 | 0.100 | 12.96032 | 20.0 | Linear | |
| Propionitrile | 0.05102 | 0.04920 | 0.04920 | 0.010 | 3.55907 | 20.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.39803 | 0.39803 | 0.100 | 8.87095 | 20.0 | Averaged | |
| Bromomethane | 50.0 | 45.78631 | 0.30150 | 0.100 | 8.42738 | 20.0 | Linear | |
| Chloroethane | 0.30401 | 0.27165 | 0.27165 | 0.100 | 10.64565 | 20.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.62246 | 0.62246 | 0.100 | -1.83813 | 20.0 | Averaged | |
| Acrolein | 100 | 94.03118 | 0.03209 | 0.010 | 5.96882 | 20.0 | Linear | |
| Acetone | 100 | 90.25230 | 0.12662 | 0.100 | 9.74770 | 20.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.36259 | 0.36259 | 0.100 | 4.44979 | 20.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.05932 | 0.05932 | 0.005 | -5.48715 | 20.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.04946 | 0.04946 | 0.005 | -8.68094 | 20.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.87835 | 0.87835 | 0.100 | -1.34440 | 20.0 | Averaged | |
| Iodomethane | 100 | 88.45613 | 0.43818 | 0.100 | 11.54387 | 20.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.13262 | 0.13262 | 0.050 | -3.04650 | 20.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.46749 | 0.46749 | 0.100 | 10.18732 | 20.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.20170 | 1.20170 | 0.100 | 3.25315 | 20.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.02568 | 1.02568 | 0.100 | -3.30610 | 20.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.42695 | 0.42695 | 0.100 | -0.52845 | 20.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.15231 | 1.15231 | 0.010 | -5.68054 | 20.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.74381 | 0.74381 | 0.200 | 0.20842 | 20.0 | Averaged | |
| Chloroprene | 0.17001 | 0.15530 | 0.15530 | 0.100 | 8.65084 | 20.0 | Averaged | |
| 2-Butanone | 100 | 95.33295 | 0.14165 | 0.100 | 4.66705 | 20.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.34418 | 0.34418 | 0.100 | 2.78557 | 20.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.71101 | 0.71101 | 0.100 | -12.34924 | 20.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.49959 | 0.49959 | 0.100 | 3.34081 | 20.0 | Averaged | |
| Chloroform | 0.83541 | 0.83913 | 0.83913 | 0.200 | -0.44527 | 20.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.26054 | 0.26054 | 0.100 | 7.93425 | 20.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 49.57588 | 0.47604 | 0.100 | 0.84823 | 20.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.72703 | 0.72703 | 0.100 | -9.68709 | 20.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.40895 | 0.40895 | 0.100 | -15.20481 | 20.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.44035 | 0.44035 | 0.100 | -7.49015 | 20.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.41385 | 0.41385 | 0.100 | -9.17689 | 20.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 54.07283 | 0.54824 | 0.100 | -8.14565 | 20.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 0750
Lab File ID X012702.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.17806 | 1.17806 | 0.500 | 1.33408 | 20.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.34562 | 0.34562 | 0.200 | -2.05667 | 20.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.43973 | 0.43973 | 0.200 | 1.86584 | 20.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.35797 | 0.35797 | 0.100 | -4.99824 | 20.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.13759 | 0.13759 | 0.001 | -7.92995 | 20.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.30277 | 0.30277 | 0.100 | 4.67146 | 20.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.13406 | 0.13406 | 0.000 | -6.17428 | 20.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.20475 | 0.20475 | 0.100 | 5.15272 | 20.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.26657 | 0.26657 | 0.100 | 0.25267 | 20.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.53784 | 0.53784 | 0.200 | -2.20278 | 20.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.20293 | 1.20293 | 0.100 | 2.63925 | 20.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.23321 | 0.23321 | 0.100 | 0.95395 | 20.0 | Averaged | |
| Toluene | 1.38201 | 1.37273 | 1.37273 | 0.400 | 0.67163 | 20.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.46619 | 0.46619 | 0.100 | -6.74741 | 20.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.18844 | 0.18844 | 0.100 | -3.63723 | 20.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.25848 | 0.25848 | 0.100 | 6.77258 | 20.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.52944 | 0.52944 | 0.100 | 2.98534 | 20.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.39159 | 0.39159 | 0.100 | 2.14040 | 20.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.31360 | 0.31360 | 0.200 | -9.67205 | 20.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.33731 | 0.33731 | 0.100 | 2.69600 | 20.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.28504 | 0.28504 | 0.100 | -17.96512 | 20.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.94982 | 0.94982 | 0.500 | 3.10503 | 20.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.36175 | 0.36175 | 0.100 | 0.83624 | 20.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.48973 | 0.48973 | 0.100 | -6.05856 | 20.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.61385 | 0.61385 | 0.100 | -3.12513 | 20.0 | Averaged | |
| o-Xylene | 0.58751 | 0.58769 | 0.58769 | 0.300 | -0.03160 | 20.0 | Averaged | |
| Styrene | 0.98473 | 1.01490 | 1.01490 | 0.300 | -3.06358 | 20.0 | Averaged | |
| Bromoform | 0.27722 | 0.26794 | 0.26794 | 0.100 | 3.34976 | 20.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.53077 | 1.53077 | 0.100 | -14.04586 | 20.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.73846 | 0.73846 | 0.300 | 7.33697 | 20.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 51.14594 | 0.47242 | 0.100 | -2.29189 | 20.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.56930 | 0.56930 | 0.100 | -2.32586 | 20.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11341 | 0.11341 | 0.050 | -5.07117 | 20.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.24534 | 3.24534 | 0.100 | -17.17889 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

RunID VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 0750
Lab File ID X012702.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.80526 | 0.80526 | 0.100 | 1.83661 | 20.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.34528 | 2.34528 | 0.100 | -14.62966 | 20.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 1.95486 | 1.95486 | 0.100 | -7.56263 | 20.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.28135 | 2.28135 | 0.100 | -10.11272 | 20.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 1.96912 | 1.96912 | 0.100 | -17.57693 | 20.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.36949 | 2.36949 | 0.100 | -10.06728 | 20.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.77983 | 2.77983 | 0.100 | -24.75012 | 20.0 | Averaged | <- |
| p-Isopropyltoluene | 1.99679 | 2.47108 | 2.47108 | 0.100 | -23.75300 | 20.0 | Averaged | <- |
| 1,3-Dichlorobenzene | 1.36155 | 1.41754 | 1.41754 | 0.600 | -4.11162 | 20.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.48462 | 1.48462 | 0.400 | 0.07688 | 20.0 | Averaged | |
| Benzyl Chloride | 50.0 | 48.81905 | 0.76292 | 0.010 | 2.36189 | 20.0 | Linear | |
| n-Butylbenzene | 50.0 | 57.62260 | 2.22858 | 0.500 | -15.24520 | 20.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.38027 | 1.38027 | 0.400 | 1.56789 | 20.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 48.09426 | 0.12254 | 0.040 | 3.81147 | 20.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 0.99879 | 0.99879 | 0.100 | -12.86480 | 20.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 59.85354 | 0.47054 | 0.100 | -19.70709 | 20.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.03883 | 2.03883 | 0.200 | -1.25951 | 20.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.88586 | 0.88586 | 0.010 | -4.51985 | 20.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.23088 | 0.23088 | 0.100 | -2.61928 | 20.0 | Averaged | |
| Freon TF | 0.36703 | 0.38670 | 0.38670 | 0.100 | -5.35978 | 20.0 | Averaged | |
| Cyclohexane | 50.0 | 59.98675 | 0.60726 | 0.100 | -19.97350 | 20.0 | Linear | |
| Tetrahydrofuran | 100 | 95.93010 | 0.05971 | 0.001 | 4.06990 | 20.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.70190 | 0.70190 | 0.100 | -14.68191 | 20.0 | Averaged | |
| 1,4-Dioxane | 0.00457 | 0.00480 | 0.00480 | 0.001 | -5.05952 | 20.0 | Averaged | |
| n-Butanol | 1000 | 1038 | 0.00666 | 0.005 | -3.81101 | 20.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.37894 | 0.37894 | 0.100 | -11.63093 | 20.0 | Averaged | |
| Ethyl Acrylate | 50.0 | 53.40295 | 1.04888 | 0.100 | -6.80591 | 20.0 | Linear | |
| n-Hexane | 0.36001 | 0.46740 | 0.46740 | 0.100 | -29.83247 | 20.0 | Averaged | <- |
| Diethyl ether | 0.33409 | 0.28423 | 0.28423 | 0.100 | 14.92362 | 20.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03801 | 0.03801 | 0.005 | -9.77841 | 20.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02081 | 0.02081 | 0.005 | -15.11087 | 20.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.26640 | 1.26640 | 0.100 | 2.36237 | 20.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 0.83648 | 0.83648 | 0.100 | 13.77134 | 20.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.40177 | 2.40177 | 0.100 | 0.24871 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder**
**HS23011136**

**RunID**
VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 0750
Lab File ID X012702.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 1041 | 0.00339 | 0.001 | -4.11255 | 20.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.29352 | 0.29352 | 0.100 | -10.62955 | 20.0 | Averaged | |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02389 | 0.02389 | 0.005 | -0.97587 | 20.0 | Averaged | |
| tert-Amyl methyl ether | 1.44127 | 1.38645 | 1.38645 | 0.005 | 3.80398 | 20.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.34418 | 1.34418 | 0.100 | 2.47022 | 20.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.02935 | 0.02935 | 0.005 | -9.30310 | 20.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.04803 | 0.04803 | 0.005 | -1.49816 | 20.0 | Averaged | |
| 1-Methylnaphthalene | ++++ | 0.83648 | 0.83648 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.31260 | 0.31260 | 0.100 | 8.90507 | 20.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00518 | 0.00518 | 0.005 | -4.86100 | 20.0 | Averaged | <- |
| Dichlorofluoromethane | 0.06474 | 0.05456 | 0.05456 | 0.100 | 15.72300 | 20.0 | Averaged | <- |
| Propylene oxide | 0.03144 | 0.02692 | 0.02692 | 0.005 | 14.37800 | 20.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00548 | 0.00548 | 0.005 | -10.83630 | 20.0 | Averaged | <- |
| Butyl acrylate | 0.65314 | 0.66894 | 0.66894 | 0.100 | -2.41955 | 20.0 | Averaged | |
| Epichlorohydrin | 200 | 199 | 0.02226 | 0.001 | 0.58513 | 20.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.46327 | 0.46327 | 0.200 | 1.59553 | 20.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.57727 | 0.57727 | 0.100 | -2.01030 | 20.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.11290 | 1.11290 | 0.100 | -0.45408 | 20.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.40583 | 0.40583 | 0.100 | -4.01759 | 20.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.02387 | 0.02387 | 0.005 | -14.43336 | 20.0 | Averaged | |
| Isoprene | 0.13320 | 0.14131 | 0.14131 | 0.100 | -6.08647 | 20.0 | Averaged | |
| Isopentane | ++++ | 0.24061 | 0.24061 | 0.100 | ++++ | 20.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.79709 | 0.79709 | 0.100 | -2.61020 | 20.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.57440 | 0.57440 | 0.100 | 1.48049 | 20.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.46838 | 0.46838 | 0.100 | -9.04961 | 20.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02337 | 0.02337 | 0.004 | -27.16543 | 20.0 | Averaged | <- |
| Acetaldehyde | 200 | 186 | 0.02969 | 0.001 | 6.98303 | 20.0 | Linear | |
| Methyl Amyl Ketone | 0.66478 | 0.64392 | 0.64392 | 0.100 | 3.13717 | 20.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.66676 | 0.66676 | 0.100 | 1.46953 | 20.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00043 | 0.00043 | 0.001 | ++++ | 20.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 9.389e+63 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00717 | 0.00717 | 0.005 | 12.27529 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 1739
Lab File ID X012729.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 41.90548 | 0.29264 | 0.100 | 16.18904 | 50.0 | Linear | |
| Chloromethane | 50.0 | 48.96823 | 0.44261 | 0.100 | 2.06354 | 50.0 | Linear | |
| Propionitrile | 0.05102 | 0.05240 | 0.05240 | 0.010 | -2.71817 | 50.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.39993 | 0.39993 | 0.100 | 8.43657 | 50.0 | Averaged | |
| Bromomethane | 50.0 | 48.98789 | 0.32343 | 0.100 | 2.02423 | 50.0 | Linear | |
| Chloroethane | 0.30401 | 0.26828 | 0.26828 | 0.100 | 11.75211 | 50.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.65748 | 0.65748 | 0.100 | -7.56782 | 50.0 | Averaged | |
| Acrolein | 100 | 87.42835 | 0.02977 | 0.010 | 12.57165 | 50.0 | Linear | |
| Acetone | 100 | 79.34615 | 0.11133 | 0.100 | 20.65385 | 50.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.38468 | 0.38468 | 0.100 | -1.37169 | 50.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06273 | 0.06273 | 0.005 | -11.54493 | 50.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.05171 | 0.05171 | 0.005 | -13.63907 | 50.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.91784 | 0.91784 | 0.100 | -5.90073 | 50.0 | Averaged | |
| Iodomethane | 100 | 82.31867 | 0.40549 | 0.100 | 17.68133 | 50.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.13936 | 0.13936 | 0.050 | -8.27761 | 50.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.50320 | 0.50320 | 0.100 | 3.32666 | 50.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.28048 | 1.28048 | 0.100 | -3.08927 | 50.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.05749 | 1.05749 | 0.100 | -6.51012 | 50.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.45302 | 0.45302 | 0.100 | -6.66707 | 50.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.12975 | 1.12975 | 0.010 | -3.61228 | 50.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.78687 | 0.78687 | 0.200 | -5.56874 | 50.0 | Averaged | |
| Chloroprene | 0.17001 | 0.16109 | 0.16109 | 0.100 | 5.24192 | 50.0 | Averaged | |
| 2-Butanone | 100 | 98.58193 | 0.14664 | 0.100 | 1.41807 | 50.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.35586 | 0.35586 | 0.100 | -0.51293 | 50.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.65419 | 0.65419 | 0.100 | -3.37063 | 50.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.52989 | 0.52989 | 0.100 | -2.52063 | 50.0 | Averaged | |
| Chloroform | 0.83541 | 0.90281 | 0.90281 | 0.200 | -8.06747 | 50.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.28310 | 0.28310 | 0.100 | -0.03835 | 50.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 50.67476 | 0.48656 | 0.100 | -1.34951 | 50.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.77908 | 0.77908 | 0.100 | -17.53901 | 50.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.41952 | 0.41952 | 0.100 | -18.18287 | 50.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.46022 | 0.46022 | 0.100 | -12.34075 | 50.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.42590 | 0.42590 | 0.100 | -12.35658 | 50.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 54.89183 | 0.55658 | 0.100 | -9.78366 | 50.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 1739
Lab File ID X012729.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.23139 | 1.23139 | 0.500 | -3.13270 | 50.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.37641 | 0.37641 | 0.200 | -11.14884 | 50.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.45671 | 0.45671 | 0.200 | -1.92222 | 50.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.37483 | 0.37483 | 0.100 | -9.94312 | 50.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.12317 | 0.12317 | 0.001 | 3.38484 | 50.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.31238 | 0.31238 | 0.100 | 1.64716 | 50.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.13676 | 0.13676 | 0.000 | -8.31253 | 50.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.21446 | 0.21446 | 0.100 | 0.65855 | 50.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.27224 | 0.27224 | 0.100 | -1.86756 | 50.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.53830 | 0.53830 | 0.200 | -2.28927 | 50.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.18930 | 1.18930 | 0.100 | 3.74251 | 50.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.22899 | 0.22899 | 0.100 | 2.74503 | 50.0 | Averaged | |
| Toluene | 1.38201 | 1.43525 | 1.43525 | 0.400 | -3.85189 | 50.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.46017 | 0.46017 | 0.100 | -5.36731 | 50.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.18580 | 0.18580 | 0.100 | -2.18171 | 50.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.26915 | 0.26915 | 0.100 | 2.92261 | 50.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.54830 | 0.54830 | 0.100 | -0.47194 | 50.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.40288 | 0.40288 | 0.100 | -0.68039 | 50.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.32057 | 0.32057 | 0.200 | -12.10776 | 50.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.35582 | 0.35582 | 0.100 | -2.64547 | 50.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.29077 | 0.29077 | 0.100 | -20.33356 | 50.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.98615 | 0.98615 | 0.500 | -0.60175 | 50.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.38019 | 0.38019 | 0.100 | -4.21759 | 50.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.50835 | 0.50835 | 0.100 | -10.09175 | 50.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.64233 | 0.64233 | 0.100 | -7.90972 | 50.0 | Averaged | |
| o-Xylene | 0.58751 | 0.61476 | 0.61476 | 0.300 | -4.63828 | 50.0 | Averaged | |
| Styrene | 0.98473 | 1.06067 | 1.06067 | 0.300 | -7.71123 | 50.0 | Averaged | |
| Bromoform | 0.27722 | 0.27723 | 0.27723 | 0.100 | -0.00276 | 50.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.59818 | 1.59818 | 0.100 | -19.06866 | 50.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.73101 | 0.73101 | 0.300 | 8.27127 | 50.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 51.32737 | 0.47410 | 0.100 | -2.65475 | 50.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.60434 | 0.60434 | 0.100 | -8.62542 | 50.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11101 | 0.11101 | 0.050 | -2.84602 | 50.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.25643 | 3.25643 | 0.100 | -17.57947 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 1739
Lab File ID X012729.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.82692 | 0.82692 | 0.100 | -0.80372 | 50.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.37671 | 2.37671 | 0.100 | -16.16617 | 50.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 1.98117 | 1.98117 | 0.100 | -9.01046 | 50.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.31435 | 2.31435 | 0.100 | -11.70577 | 50.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 2.01217 | 2.01217 | 0.100 | -20.14723 | 50.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.41007 | 2.41007 | 0.100 | -11.95246 | 50.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.80186 | 2.80186 | 0.100 | -25.73862 | 50.0 | Averaged | |
| p-Isopropyltoluene | 1.99679 | 2.48136 | 2.48136 | 0.100 | -24.26777 | 50.0 | Averaged | |
| 1,3-Dichlorobenzene | 1.36155 | 1.45270 | 1.45270 | 0.600 | -6.69464 | 50.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.52519 | 1.52519 | 0.400 | -2.65337 | 50.0 | Averaged | |
| Benzyl Chloride | 50.0 | 39.75504 | 0.61300 | 0.010 | 20.48992 | 50.0 | Linear | |
| n-Butylbenzene | 50.0 | 55.57827 | 2.14700 | 0.500 | -11.15655 | 50.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.43649 | 1.43649 | 0.400 | -2.44137 | 50.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 48.90987 | 0.12463 | 0.040 | 2.18025 | 50.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 0.97915 | 0.97915 | 0.100 | -10.64581 | 50.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 55.28014 | 0.43413 | 0.100 | -10.56027 | 50.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.02881 | 2.02881 | 0.200 | -0.76224 | 50.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.87972 | 0.87972 | 0.010 | -3.79565 | 50.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.24922 | 0.24922 | 0.100 | -10.77040 | 50.0 | Averaged | |
| Freon TF | 0.36703 | 0.39214 | 0.39214 | 0.100 | -6.84174 | 50.0 | Averaged | |
| Cyclohexane | 50.0 | 62.04496 | 0.62854 | 0.100 | -24.08992 | 50.0 | Linear | |
| Tetrahydrofuran | 100 | 97.36433 | 0.06057 | 0.001 | 2.63567 | 50.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.69500 | 0.69500 | 0.100 | -13.55506 | 50.0 | Averaged | |
| 1,4-Dioxane | 0.00457 | 0.00485 | 0.00485 | 0.001 | -6.14097 | 50.0 | Averaged | |
| n-Butanol | 1000 | 964 | 0.00615 | 0.005 | 3.55442 | 50.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.39556 | 0.39556 | 0.100 | -16.52629 | 50.0 | Averaged | |
| Ethyl Acrylate | 50.0 | 54.88559 | 1.07904 | 0.100 | -9.77119 | 50.0 | Linear | |
| n-Hexane | 0.36001 | 0.43038 | 0.43038 | 0.100 | -19.54866 | 50.0 | Averaged | |
| Diethyl ether | 0.33409 | 0.28995 | 0.28995 | 0.100 | 13.21315 | 50.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03822 | 0.03822 | 0.005 | -10.38295 | 50.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02058 | 0.02058 | 0.005 | -13.81622 | 50.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.33859 | 1.33859 | 0.100 | -3.20295 | 50.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 0.76288 | 0.76288 | 0.100 | 21.35820 | 50.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.49249 | 2.49249 | 0.100 | -3.51917 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder**
**HS23011136**

**RunID**
VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 1739
Lab File ID X012729.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 971 | 0.00316 | 0.001 | 2.90098 | 50.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.28649 | 0.28649 | 0.100 | -7.98039 | 50.0 | Averaged | |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02244 | 0.02244 | 0.005 | 5.12556 | 50.0 | Averaged | |
| tert-Amyl methyl ether | 1.44127 | 1.44183 | 1.44183 | 0.005 | -0.03890 | 50.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.41407 | 1.41407 | 0.100 | -2.60071 | 50.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.02865 | 0.02865 | 0.005 | -6.68570 | 50.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.04594 | 0.04594 | 0.005 | 2.92223 | 50.0 | Averaged | |
| 1-Methylnaphthalene | ++++ | 0.76288 | 0.76288 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.30401 | 0.30401 | 0.100 | 11.40818 | 50.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00475 | 0.00475 | 0.005 | 3.95305 | 50.0 | Averaged | |
| Dichlorofluoromethane | 0.06474 | 0.05814 | 0.05814 | 0.100 | 10.19734 | 50.0 | Averaged | |
| Propylene oxide | 0.03144 | 0.02869 | 0.02869 | 0.005 | 8.74532 | 50.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00489 | 0.00489 | 0.005 | 1.11539 | 50.0 | Averaged | |
| Butyl acrylate | 0.65314 | 0.66543 | 0.66543 | 0.100 | -1.88254 | 50.0 | Averaged | |
| Epichlorohydrin | 200 | 201 | 0.02249 | 0.001 | -0.41975 | 50.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.49145 | 0.49145 | 0.200 | -4.39094 | 50.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.60754 | 0.60754 | 0.100 | -7.35991 | 50.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.13782 | 1.13782 | 0.100 | -2.70403 | 50.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.42474 | 0.42474 | 0.100 | -8.86230 | 50.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.01632 | 0.01632 | 0.005 | 21.74509 | 50.0 | Averaged | |
| Isoprene | 0.13320 | 0.14053 | 0.14053 | 0.100 | -5.50208 | 50.0 | Averaged | |
| Isopentane | ++++ | 0.23045 | 0.23045 | 0.100 | ++++ | 50.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.80901 | 0.80901 | 0.100 | -4.14467 | 50.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.56539 | 0.56539 | 0.100 | 3.02649 | 50.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.46774 | 0.46774 | 0.100 | -8.90077 | 50.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02152 | 0.02152 | 0.004 | -17.09287 | 50.0 | Averaged | |
| Acetaldehyde | ++++ | ++++ | 9.389e+63 | 0.001 | ++++ | 50.0 | Linear | <- |
| Methyl Amyl Ketone | 0.66478 | 0.61042 | 0.61042 | 0.100 | 8.17703 | 50.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.68777 | 0.68777 | 0.100 | -1.63487 | 50.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00031 | 0.00031 | 0.001 | ++++ | 50.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 9.389e+63 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00807 | 0.00807 | 0.005 | 1.26351 | 50.0 | Averaged | |

01240949

right solutions.
right partner.

Form 8

# Internal Standard Area and RT Summary

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 8 - Internal Standard Area and RT Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426583

| | | IS1 | | | | IS2 | | | | IS3 | | | | IS4 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | File ID | Area | | RT | | Area | | RT | | Area | | RT | | Area | | RT | |
| 12-HOUR STD (CCV) | X012602 | 555954 | # | 4.17 | # | 818504 | # | 4.96 | # | 783145 | # | 7.67 | # | 449944 | # | 9.66 | # |
| VLCSW-230126 | X012604 | 537171 | | 4.18 | | 803137 | | 4.97 | | 756761 | | 7.67 | | 433848 | | 9.66 | |
| VBLKW-230126 | X012606 | 656022 | | 4.17 | | 934312 | | 4.96 | | 832965 | | 7.67 | | 425726 | | 9.66 | |
| HS23011136-04 | X012607 | 664054 | | 4.17 | | 938183 | | 4.96 | | 844450 | | 7.67 | | 447049 | | 9.66 | |
| HS23011136-04MS | X012608 | 677446 | | 4.17 | | 934883 | | 4.96 | | 846633 | | 7.67 | | 467991 | | 9.66 | |
| HS23011136-04MSD | X012609 | 679614 | | 4.17 | | 955229 | | 4.96 | | 862847 | | 7.67 | | 475607 | | 9.66 | |
| HS23011136-07 | X012610 | 666111 | | 4.17 | | 939656 | | 4.96 | | 833918 | | 7.67 | | 420612 | | 9.66 | |
| HS23011136-01 | X012624 | 658273 | | 4.18 | | 921308 | | 4.96 | | 827734 | | 7.67 | | 421331 | | 9.66 | |
| HS23011136-02 | X012625 | 628011 | | 4.17 | | 888394 | | 4.96 | | 809517 | | 7.67 | | 426466 | | 9.66 | |
| HS23011136-03 | X012626 | 645017 | | 4.17 | | 904573 | | 4.96 | | 816412 | | 7.67 | | 438934 | | 9.66 | |
| HS23011136-05 | X012627 | 664241 | | 4.17 | | 936254 | | 4.96 | | 843424 | | 7.67 | | 449265 | | 9.66 | |
| HS23011136-06 | X012628 | 665295 | | 4.17 | | 931881 | | 4.96 | | 836237 | | 7.67 | | 433846 | | 9.66 | |
| CCV-END | X012629 | 542544 | | 4.17 | | 819604 | | 4.96 | | 782109 | | 7.67 | | 450450 | | 9.66 | |

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

# - Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

# Form 8 - Internal Standard Area and RT Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426682

| | | IS1 | | | | IS2 | | | | IS3 | | | | IS4 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | File ID | Area | | RT | | Area | | RT | | Area | | RT | | Area | | RT | |
| 12-HOUR STD (CCV) | X012702 | 574580 | # | 4.17 | # | 858623 | # | 4.96 | # | 819089 | # | 7.67 | # | 459092 | # | 9.66 | # |
| VLCSW-230127 | X012704 | 559520 | | 4.18 | | 830877 | | 4.97 | | 787598 | | 7.67 | | 441371 | | 9.66 | |
| VBLKW-230127 | X012706 | 682611 | | 4.17 | | 969189 | | 4.96 | | 865426 | | 7.67 | | 464238 | | 9.66 | |
| ZZZZZZMS | X012708 | 684119 | | 4.17 | | 962994 | | 4.96 | | 880296 | | 7.67 | | 488016 | | 9.66 | |
| ZZZZZZMSD | X012709 | 684294 | | 4.17 | | 960426 | | 4.96 | | 876804 | | 7.67 | | 476674 | | 9.66 | |
| HS23011136-05 | X012710 | 674400 | | 4.17 | | 953078 | | 4.96 | | 861103 | | 7.67 | | 432391 | | 9.66 | |
| HS23011136-06 | X012711 | 685696 | | 4.17 | | 967161 | | 4.96 | | 868062 | | 7.67 | | 456343 | | 9.66 | |
| CCV-END | X012729 | 517192 | | 4.18 | | 802974 | | 4.96 | | 770510 | | 7.67 | | 444120 | | 9.66 | |

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

# - Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

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# Analysis Run Log

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# MSVOA06 -Logbook

**Batch:** 52417 **Analyst:** Presenta Cabascango

**Date:** 12-16-2022 **Reviewer:**

**Method:** 8260 **Laboratory:** Houston

**Comments:**

| # | Samp ID | Type | Analyzed | DF | Init Wt/Vol | Final Vol | File ID | Matrix | Status | pH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BFB | TUNE | 12-16-2022 11:17 am | 1.00 | 50 mL | 50 mL | X121601.D | Liquid | Y | NA |
| 2 | VSTD000.25 | ICAL1 | 12-16-2022 11:38 am | 1.00 | 50 mL | 50 mL | X121602.D | Liquid | Y | NA |
| 3 | VSTD000.5 | ICAL2 | 12-16-2022 12:20 pm | 1.00 | 50 mL | 50 mL | X121603.D | Liquid | Y | NA |
| 4 | VSTD001 | ICAL3 | 12-16-2022 12:41 pm | 1.00 | 50 mL | 50 mL | X121604.D | Liquid | Y | NA |
| 5 | VSTD002 | ICAL4 | 12-16-2022 01:02 pm | 1.00 | 50 mL | 50 mL | X121605.D | Liquid | Y | NA |
| 6 | VSTD005 | ICAL5 | 12-16-2022 01:23 pm | 1.00 | 50 mL | 50 mL | X121606.D | Liquid | Y | NA |
| 7 | VSTD020 | ICAL6 | 12-16-2022 01:43 pm | 1.00 | 50 mL | 50 mL | X121607.D | Liquid | Y | NA |
| 8 | VSTD050 | ICAL7 | 12-16-2022 02:04 pm | 1.00 | 50 mL | 50 mL | X121608.D | Liquid | Y | NA |
| 9 | VSTD100 | ICAL8 | 12-16-2022 02:25 pm | 1.00 | 50 mL | 50 mL | X121609.D | Liquid | Y | NA |
| 10 | VSTD150 | ICAL9 | 12-16-2022 02:46 pm | 1.00 | 50 mL | 50 mL | X121610.D | Liquid | Y | NA |
| 11 | VSTD200 | ICAL | 12-16-2022 03:07 pm | 1.00 | 50 mL | 50 mL | X121611.D | Liquid | Y | NA |
| 12 | BLANK | SAMP | 12-16-2022 03:28 pm | 1.00 | 50 mL | 50 mL | X121612.D | Liquid | Y | NA |
| 13 | CCV | CCV | 12-16-2022 03:49 pm | 1.00 | 50 mL | 50 mL | X121613.D | Liquid | Y | NA |
| 14 | BLANK | SAMP | 12-16-2022 04:10 pm | 1.00 | 50 mL | 50 mL | X121614.D | Liquid | Y | NA |
| 15 | CCB | SAMP | 12-16-2022 04:31 pm | 1.00 | 50 mL | 50 mL | X121615.D | Liquid | Y | NA |
| 16 | VLCSW-221216 | LCS | 12-16-2022 04:52 pm | 1.00 | 50 mL | 50 mL | X121616.D | Liquid | Y | NA |
| 17 | BLANK | SAMP | 12-16-2022 05:13 pm | 1.00 | 50 mL | 50 mL | X121617.D | Liquid | Y | NA |
| 18 | VBLKW-221216 | MBLK | 12-16-2022 05:34 pm | 1.00 | 50 mL | 50 mL | X121618.D | Liquid | Y | NA |
| 19 | HS22120648-05 | SAMP | 12-16-2022 05:55 pm | 1.00 | 50 mL | 50 mL | X121619.D | Liquid | Y | NA |
| 20 | HS22120648-09 | SAMP | 12-16-2022 06:16 pm | 1.00 | 50 mL | 50 mL | X121620.D | Liquid | Y | NA |
| 21 | HS22120648-01 | SAMP | 12-16-2022 06:37 pm | 1.00 | 50 mL | 50 mL | X121621.D | Liquid | Y | NA |
| 22 | HS22120648-02 | SAMP | 12-16-2022 06:58 pm | 1.00 | 50 mL | 50 mL | X121622.D | Liquid | Y | NA |
| 23 | HS22120648-03 | SAMP | 12-16-2022 07:19 pm | 1.00 | 50 mL | 50 mL | X121623.D | Liquid | Y | NA |
| 24 | HS22120648-04 | SAMP | 12-16-2022 07:40 pm | 1.00 | 50 mL | 50 mL | X121624.D | Liquid | Y | NA |
| 25 | HS22120648-06 | SAMP | 12-16-2022 08:01 pm | 1.00 | 50 mL | 50 mL | X121625.D | Liquid | Y | NA |
| 26 | HS22120648-07 | SAMP | 12-16-2022 08:22 pm | 1.00 | 50 mL | 50 mL | X121626.D | Liquid | Y | NA |
| 27 | HS22120648-08 | SAMP | 12-16-2022 08:43 pm | 1.00 | 50 mL | 50 mL | X121627.D | Liquid | Y | NA |
| 28 | HS22120648-06MS | MS | 12-16-2022 09:04 pm | 1.00 | 50 mL | 50 mL | X121628.D | Liquid | Y | NA |
| 29 | HS22120648-06MSD | MSD | 12-16-2022 09:25 pm | 1.00 | 50 mL | 50 mL | X121629.D | Liquid | Y | NA |
| 30 | CCV-END | CCV | 12-16-2022 09:46 pm | 1.00 | 50 mL | 50 mL | X121630.D | Liquid | Y | NA |
| 31 | BFB | TUNE | 12-16-2022 10:07 pm | 1.00 | 50 mL | 50 mL | Y121601.D | Liquid | Y | NA |
| 32 | CCV | CCV | 12-16-2022 10:28 pm | 1.00 | 50 mL | 50 mL | Y121602a.D | Liquid | Y | NA |
| 33 | CCV | CCV | 12-16-2022 10:49 pm | 1.00 | 50 mL | 50 mL | Y121603.D | Liquid | Y | NA |
| 34 | CCB | SAMP | 12-16-2022 11:10 pm | 1.00 | 50 mL | 50 mL | Y121604.D | Liquid | Y | NA |
| 35 | VLCSW-221215 | LCS | 12-16-2022 11:31 pm | 1.00 | 50 mL | 50 mL | Y121605.D | Liquid | Y | NA |
| 36 | BLANK | SAMP | 12-16-2022 11:52 pm | 1.00 | 50 mL | 50 mL | Y121606.D | Liquid | Y | NA |
| 37 | VBLKW-221215 | MBLK | 12-17-2022 12:13 am | 1.00 | 50 mL | 50 mL | Y121607.D | Liquid | Y | NA |
| 38 | HS22120974-13 | SAMP | 12-17-2022 12:34 am | 1.00 | 50 mL | 50 mL | Y121608.D | Liquid | Y | NA |
| 39 | HS22120974-01 | SAMP | 12-17-2022 12:55 am | 1.00 | 50 mL | 50 mL | Y121609.D | Liquid | Y | NA |
| 40 | HS22120974-01MS | MS | 12-17-2022 01:16 am | 1.00 | 50 mL | 50 mL | Y121610.D | Liquid | Y | NA |
| 41 | HS22120974-01MSD | MSD | 12-17-2022 01:38 am | 1.00 | 50 mL | 50 mL | Y121611.D | Liquid | Y | NA |

# MSVOA06 -Logbook

| # | Samp ID | Type | Analyzed | DF | Init Wt/Vol | Final Vol | File ID | Matrix | Status | pH |
|---|---|---|---|---|---|---|---|---|---|---|
| 42 | BLANK | SAMP | 12-17-2022 01:59 am | 1.00 | 50 mL | 50 mL | Y121612.D | Liquid | Y | NA |
| 43 | HS22120974-02 | SAMP | 12-17-2022 02:20 am | 1.00 | 50 mL | 50 mL | Y121613.D | Liquid | Y | NA |
| 44 | HS22120974-03 | SAMP | 12-17-2022 02:41 am | 1.00 | 50 mL | 50 mL | Y121614.D | Liquid | Y | NA |
| 45 | HS22120974-04 | SAMP | 12-17-2022 03:02 am | 1.00 | 50 mL | 50 mL | Y121615.D | Liquid | Y | NA |
| 46 | HS22120974-05 | SAMP | 12-17-2022 03:23 am | 1.00 | 50 mL | 50 mL | Y121616.D | Liquid | Y | NA |
| 47 | HS22120974-06 | SAMP | 12-17-2022 03:44 am | 1.00 | 50 mL | 50 mL | Y121617.D | Liquid | Y | NA |
| 48 | HS22120974-07 | SAMP | 12-17-2022 04:05 am | 1.00 | 50 mL | 50 mL | Y121618.D | Liquid | Y | NA |
| 49 | HS22120974-08 | SAMP | 12-17-2022 04:26 am | 1.00 | 50 mL | 50 mL | Y121619.D | Liquid | Y | NA |
| 50 | HS22120974-09 | SAMP | 12-17-2022 04:47 am | 1.00 | 50 mL | 50 mL | Y121620.D | Liquid | Y | NA |
| 51 | HS22120974-10 | SAMP | 12-17-2022 05:08 am | 1.00 | 50 mL | 50 mL | Y121621.D | Liquid | Y | NA |
| 52 | HS22120974-11 | SAMP | 12-17-2022 05:29 am | 1.00 | 50 mL | 50 mL | Y121622.D | Liquid | Y | NA |
| 53 | HS22120974-12 | SAMP | 12-17-2022 05:50 am | 1.00 | 50 mL | 50 mL | Y121623.D | Liquid | Y | NA |
| 54 | HS22120974-14 | SAMP | 12-17-2022 06:11 am | 1.00 | 50 mL | 50 mL | Y121624.D | Liquid | Y | NA |
| 55 | HS22120974-15 | SAMP | 12-17-2022 06:32 am | 1.00 | 50 mL | 50 mL | Y121625.D | Liquid | Y | NA |
| 56 | HS22120574-15 | SAMP | 12-17-2022 06:53 am | 5.00 | 10 mL | 50 mL | Y121626.D | Liquid | Y | NA |
| 57 | HS22120574-17 | SAMP | 12-17-2022 07:14 am | 5.00 | 10 mL | 50 mL | Y121627.D | Liquid | Y | NA |
| 58 | HS22120770-07 | SAMP | 12-17-2022 07:36 am | 10.00 | 5 mL | 50 mL | Y121628.D | Liquid | Y | NA |
| 59 | HS22120770-07 | SAMP | 12-17-2022 07:57 am | 100.0( | 500 µL | 50 mL | Y121629.D | Liquid | Y | NA |
| 60 | HS22120770-10 | SAMP | 12-17-2022 08:18 am | 5.00 | 10 mL | 50 mL | Y121630.D | Liquid | Y | NA |
| 61 | BLANK | SAMP | 12-17-2022 08:39 am | 1.00 | 50 mL | 50 mL | Y121631.D | Liquid | Y | NA |

# Form 13 - Analysis Run Log

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

RUNID
VOA6_426583

**Run ID** VOA6_426583 **Start Date** 01/26/23 **EndDate** 01/26/23 **Matrix** Aqueous

| Client Sample ID | Type | Lab Sample ID | File ID | Analysis Date | DF |
|---|---|---|---|---|---|
| CCV | CCV | CCV | X012602.D | 01/26/23 08:24 | 1 |
| VLCSW-230126 | LCS | VLCSW-230126 | X012604.D | 01/26/23 09:27 | 1 |
| VBLKW-230126 | MBLK | VBLKW-230126 | X012606.D | 01/26/23 10:09 | 1 |
| 16IW10-230123 | SAMP | HS23011136-04 | X012607.D | 01/26/23 10:30 | 1 |
| 16IW10-230123 | MS | HS23011136-04MS | X012608.D | 01/26/23 10:51 | 1 |
| 16IW10-230123 | MSD | HS23011136-04MSD | X012609.D | 01/26/23 11:12 | 1 |
| Trip Blank-230123 | SAMP | HS23011136-07 | X012610.D | 01/26/23 11:33 | 1 |
| 16WW58-230123 | SAMP | HS23011136-01 | X012624.D | 01/26/23 16:27 | 50 |
| 16WW57-230123 | SAMP | HS23011136-02 | X012625.D | 01/26/23 16:48 | 5 |
| 16IW26-230123 | SAMP | HS23011136-03 | X012626.D | 01/26/23 17:09 | 5 |
| 16IW03-230123 | SAMP | HS23011136-05 | X012627.D | 01/26/23 17:31 | 50 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | X012628.D | 01/26/23 17:52 | 50 |

# Form 13 - Analysis Run Log

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

RUNID
VOA6_426682

**Run ID** VOA6_426682 **Start Date** 01/27/23 **EndDate** 01/27/23 **Matrix** Aqueous

| Client Sample ID | Type | Lab Sample ID | File ID | Analysis Date | DF |
|---|---|---|---|---|---|
| CCV | CCV | CCV | X012702.D | 01/27/23 07:50 | 1 |
| VLCSW-230127 | LCS | VLCSW-230127 | X012704.D | 01/27/23 08:53 | 1 |
| VBLKW-230127 | MBLK | VBLKW-230127 | X012706.D | 01/27/23 09:35 | 1 |
| BatchQC | MS | HS23011212-02MS | X012708.D | 01/27/23 10:18 | 1 |
| BatchQC | MSD | HS23011212-02MSD | X012709.D | 01/27/23 10:39 | 1 |
| 16IW03-230123 | SAMP | HS23011136-05 | X012710.D | 01/27/23 11:00 | 200 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | X012711.D | 01/27/23 11:21 | 200 |

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# Raw Data VOA6 424237

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\x221216.b\X121601.D  Page 1
Report Date: 16-Dec-2022 12:08

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\x221216.b\X121601.D
Lab Smp Id: BFB  Client Smp ID: BFB
Inj Date  : 16-DEC-2022 11:17
Operator  : PC  Inst ID: voa6.i
Smp Info  : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\x221216.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham  Quant Type: ISTD
Cal Date  :  Cal File:
Als bottle: 1  QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: all.sub
Target Version:  4.14  Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vf | 1.000 | Volumetric correction factor |
| Vi | 2.000 | Injection Volume |
| Cpnd Variable | | Local Compound Variable |

| RT | EXP RT | REL RT | MASS | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | CONCENTRATIONS FINAL ( ug/l) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 8.691 | 8.889 | ( 0.000) | 95 | 72328 | | | 0.00- 100.00 | 100.00 |
| 8.691 | 8.889 | ( 0.000) | 50 | 13272 | | | 15.00- 40.00 | 18.35 |
| 8.691 | 8.889 | ( 0.000) | 75 | 33368 | | | 30.00- 60.00 | 46.13 |
| 8.691 | 8.889 | ( 0.000) | 96 | 5178 | | | 5.00- 9.00 | 7.16 |
| 8.691 | 8.889 | ( 0.000) | 173 | 577 | | | 0.00- 2.00 | 0.90 |
| 8.691 | 8.889 | ( 0.000) | 174 | 64360 | | | 50.00- 0.00 | 88.98 |
| 8.691 | 8.889 | ( 0.000) | 175 | 5033 | | | 5.00- 9.00 | 7.82 |
| 8.691 | 8.889 | ( 0.000) | 176 | 63184 | | | 95.00- 101.00 | 98.17 |
| 8.691 | 8.889 | ( 0.000) | 177 | 4164 | | | 5.00- 9.00 | 6.59 |

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 18.35 |
| 75 | 30.00 - 60.00% of mass 95 | 46.13 |
| 96 | 5.00 - 9.00% of mass 95 | 7.16 |
| 173 | Less than 2.00% of mass 174 | 0.80 ( 0.90) |
| 174 | Greater than 50.00% of mass 95 | 88.98 |
| 175 | 5.00 - 9.00% of mass 174 | 6.96 ( 7.82) |
| 176 | 95.00 - 101.00% of mass 174 | 87.36 ( 98.17) |
| 177 | 5.00 - 9.00% of mass 176 | 5.76 ( 6.59) |

Data File: X121601.D
Spectrum: Scan 2160 ( 8.68)
Location of Maximum: 95.00
Number of points: 84

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 35.90 | 686 | 63.00 | 2521 | 93.00 | 2705 | 136.90 | 215 |
| 37.00 | 3051 | 64.10 | 316 | 94.00 | 9587 | 140.90 | 735 |
| 38.00 | 2957 | 66.90 | 155 | 95.00 | 72328 | 141.70 | 91 |
| 39.00 | 1321 | 67.90 | 6274 | 96.00 | 5178 | 142.80 | 683 |
| 39.90 | 1146 | 69.00 | 6990 | 96.90 | 213 | 145.60 | 119 |
| 42.00 | 114 | 69.90 | 604 | 103.00 | 58 | 148.00 | 107 |
| 42.90 | 301 | 71.80 | 385 | 104.00 | 313 | 149.80 | 105 |
| 44.00 | 1509 | 72.90 | 2986 | 104.70 | 125 | 153.80 | 54 |
| 45.00 | 716 | 74.00 | 11163 | 105.10 | 132 | 154.80 | 169 |
| 46.80 | 723 | 75.00 | 33368 | 105.90 | 451 | 156.80 | 155 |
| 48.00 | 503 | 76.00 | 3228 | 110.60 | 54 | 160.80 | 71 |
| 49.00 | 3278 | 76.90 | 395 | 113.00 | 74 | 171.60 | 83 |
| 50.00 | 13272 | 77.80 | 187 | 114.80 | 159 | 172.80 | 577 |
| 51.00 | 3648 | 78.90 | 2224 | 115.80 | 342 | 173.90 | 64360 |
| 52.10 | 365 | 79.80 | 718 | 116.90 | 386 | 174.90 | 5033 |
| 54.00 | 52 | 80.90 | 2158 | 117.90 | 425 | 175.90 | 63184 |
| 54.90 | 278 | 81.80 | 420 | 118.80 | 260 | 176.90 | 4164 |
| 56.00 | 1513 | 83.00 | 51 | 127.90 | 191 | 178.00 | 133 |
| 57.00 | 1763 | 86.90 | 2878 | 128.90 | 172 | | |
| 59.90 | 665 | 87.80 | 2342 | 129.80 | 237 | | |
| 61.00 | 3173 | 91.00 | 516 | 130.80 | 156 | | |
| 62.00 | 3572 | 92.00 | 2006 | 134.70 | 222 | | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D Page 1

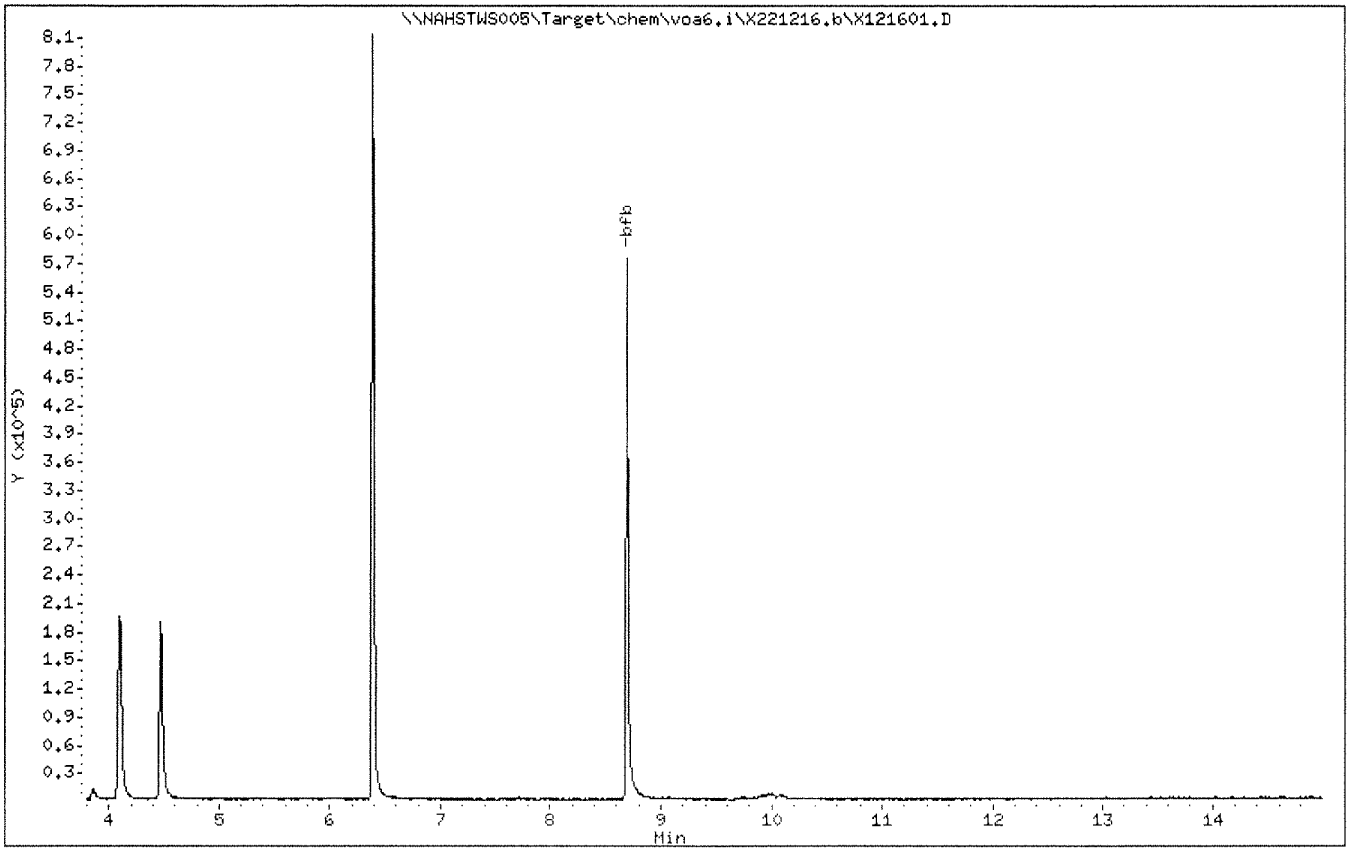
Date : 16-DEC-2022 11:17

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D

Date : 16-DEC-2022 11:17

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

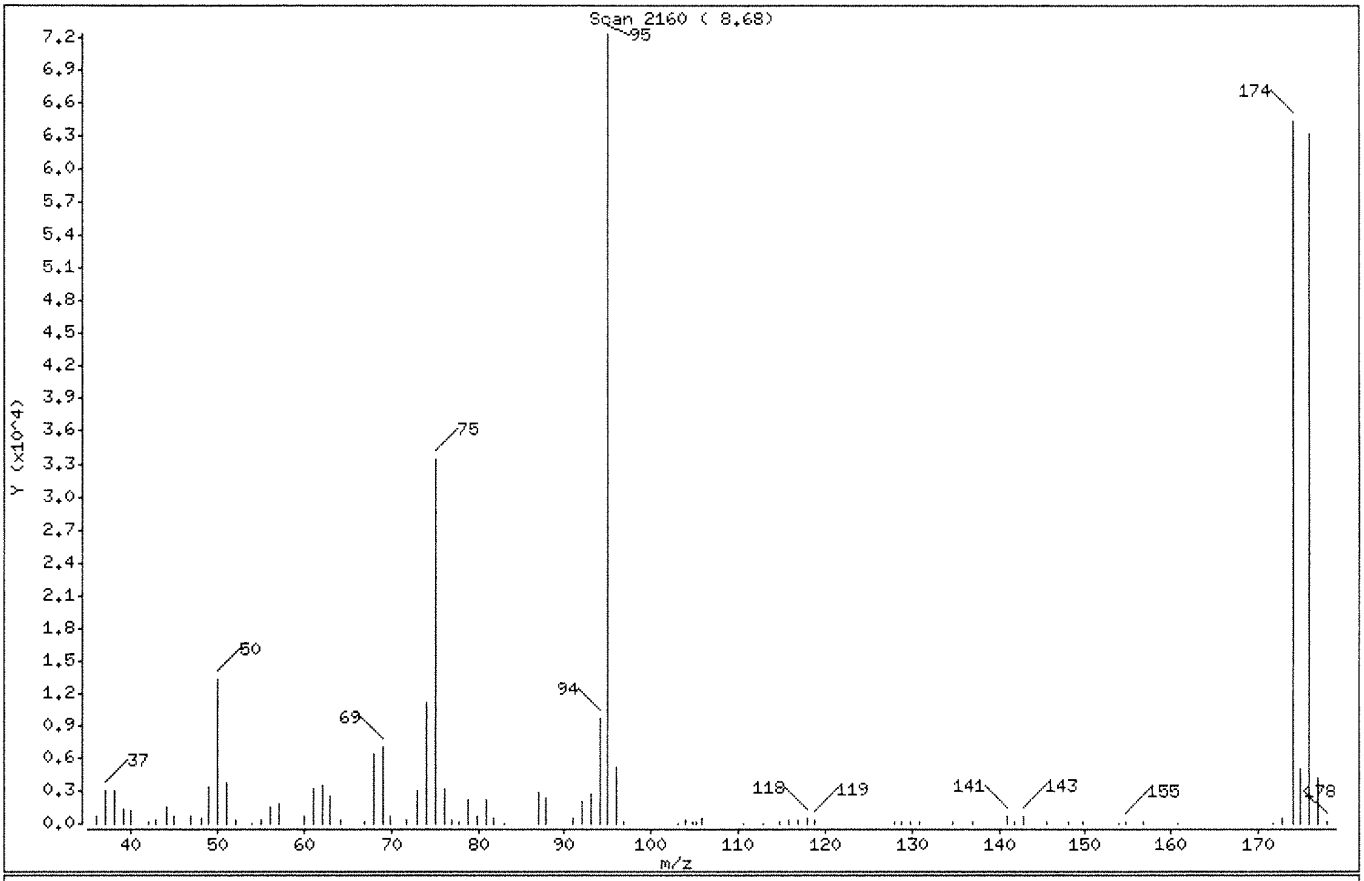
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 18.35 |
| 75 | 30.00 - 60.00% of mass 95 | 46.13 |
| 96 | 5.00 - 9.00% of mass 95 | 7.16 |
| 173 | Less than 2.00% of mass 174 | 0.80 ( 0.90) |
| 174 | Greater than 50.00% of mass 95 | 88.98 |
| 175 | 5.00 - 9.00% of mass 174 | 6.96 ( 7.82) |
| 176 | 95.00 - 101.00% of mass 174 | 87.36 ( 98.17) |
| 177 | 5.00 - 9.00% of mass 176 | 5.76 ( 6.59) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D 

Date : 16-DEC-2022 11:17

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X121601.D
Spectrum: Scan 2160 ( 8.68)
Location of Maximum: 95.00
Number of points: 84

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 35.90 | 686 | 63.00 | 2521 | 93.00 | 2705 | 136.90 | 215 |
| 37.00 | 3051 | 64.10 | 316 | 94.00 | 9587 | 140.90 | 735 |
| 38.00 | 2957 | 66.90 | 155 | 95.00 | 72328 | 141.70 | 91 |
| 39.00 | 1321 | 67.90 | 6274 | 96.00 | 5178 | 142.80 | 683 |
| 39.90 | 1146 | 69.00 | 6990 | 96.90 | 213 | 145.60 | 119 |
| 42.00 | 114 | 69.90 | 604 | 103.00 | 58 | 148.00 | 107 |
| 42.90 | 301 | 71.80 | 385 | 104.00 | 313 | 149.80 | 105 |
| 44.00 | 1509 | 72.90 | 2986 | 104.70 | 125 | 153.80 | 54 |
| 45.00 | 716 | 74.00 | 11163 | 105.10 | 132 | 154.80 | 169 |
| 46.80 | 723 | 75.00 | 33368 | 105.90 | 451 | 156.80 | 155 |
| 48.00 | 503 | 76.00 | 3228 | 110.60 | 54 | 160.80 | 71 |
| 49.00 | 3278 | 76.90 | 395 | 113.00 | 74 | 171.60 | 83 |
| 50.00 | 13272 | 77.80 | 187 | 114.80 | 159 | 172.80 | 577 |
| 51.00 | 3648 | 78.90 | 2224 | 115.80 | 342 | 173.90 | 64360 |
| 52.10 | 365 | 79.80 | 718 | 116.90 | 386 | 174.90 | 5033 |
| 54.00 | 52 | 80.90 | 2158 | 117.90 | 425 | 175.90 | 63184 |
| 54.90 | 278 | 81.80 | 420 | 118.80 | 260 | 176.90 | 4164 |
| 56.00 | 1513 | 83.00 | 51 | 127.90 | 191 | 178.00 | 133 |
| 57.00 | 1763 | 86.90 | 2878 | 128.90 | 172 | | |
| 59.90 | 665 | 87.80 | 2342 | 129.80 | 237 | | |
| 61.00 | 3173 | 91.00 | 516 | 130.80 | 156 | | |
| 62.00 | 3572 | 92.00 | 2006 | 134.70 | 222 | | |

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Inj Date  : 16-DEC-2022 11:17
InstruID  : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Lab Smp Id: VSTD000.25  Client Smp ID: VSTD000.25
Inj Date  : 16-DEC-2022 11:38
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD000.25;VSTD000.25;1;1;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 2  Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 461807 | 50.0000 | |
| 135 | 1,4-Dioxane | 88 | 5.625 | 5.625 | (1.346) | 214 | 5.00000 | 5.06(M) |
| 140 | 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 1172 | 0.25000 | 0.36 |
| 25 | Methacrylonitrile | 41 | 3.855 | 3.855 | (0.923) | 5876 | 0.25000 | 1.79 |
| 12 | Isobutyl Alcohol | 43 | 4.687 | 4.687 | (1.122) | 2537 | 5.00000 | 4.88(TM) |
| 13 | Acetonitrile | 39 | 2.202 | 2.202 | (0.527) | 730 | 2.50000 | 1.73 |
| 14 | Allyl Chloride | 41 | 2.206 | 2.206 | (0.528) | 1591 | 0.25000 | 0.19 |
| 4 | Propionitrile | 54 | 3.702 | 3.702 | (0.886) | 1165 | 2.50000 | 2.47(M) |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.931 | 8.931 | (1.164) | 280 | 0.25000 | 0.19(M) |
| 145 | alpha-Methylstyrene | 118 | 9.268 | 9.268 | (0.959) | 2322 | 0.25000 | 0.30 |
| 200 | Dimethyl Disulfide | 94 | 6.213 | 6.213 | (0.810) | 1870 | 0.25000 | 0.21 |
| 139 | Diethyl ether | 59 | 1.760 | 1.760 | (0.421) | 687 | 0.25000 | 0.22 |
| 49 | Ethyl Methacrylate | 69 | 6.738 | 6.738 | (1.357) | 625 | 0.25000 | 0.19 |
| 142 | Tetrahydrofuran | 42 | 3.836 | 3.836 | (0.918) | 358 | 0.50000 | (M) |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.737 | 9.737 | (1.008) | 4360 | 0.25000 | 0.25 |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 801 | 0.25000 | 0.63(M) |
| 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 1420 | 0.25000 | 2.53 |
| 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 1134 | 0.25000 | 0.28(M) |
| 6 | Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 1009 | 0.25000 | 2.08(M) |
| 8 | Trichlorofluoromethane | 101 | 1.561 | 1.561 | (0.374) | 1468 | 0.25000 | 0.26 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 10 Acetone | 43 | 1.977 | 1.977 (0.473) | 2727 | 0.50000 | 2.07 |
| 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 (0.457) | 1010 | 0.25000 | 0.28(M) |

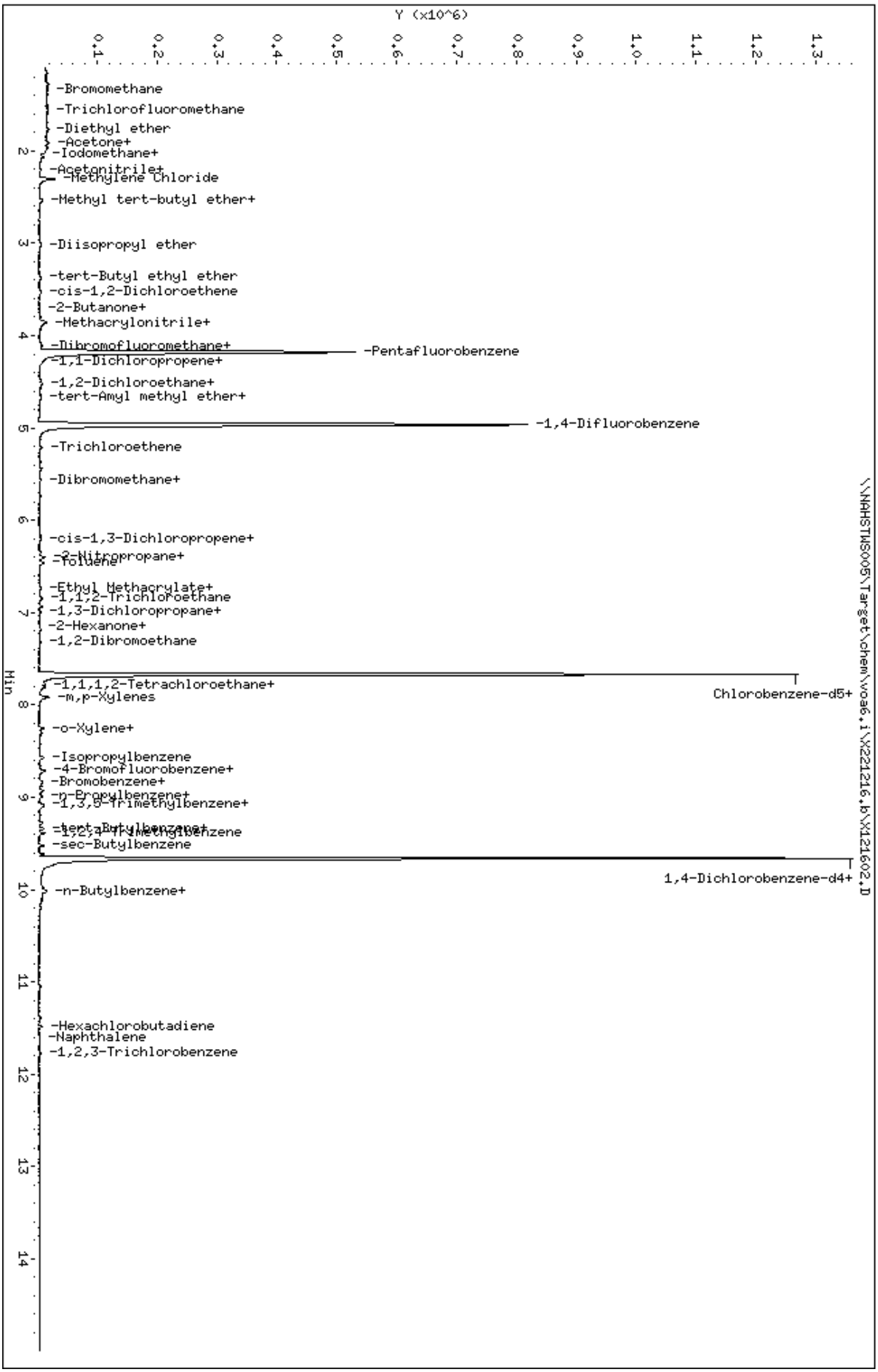
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 15 Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 1106 | 0.50000 | 3.56(T) |
| | 17 Methylene Chloride | 84 | 2.292 | 2.292 | (0.549) | 1436 | 0.25000 | 0.29(M) |
| | 18 Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 2787 | 0.25000 | 0.24 |
| | 19 Carbon Disulfide | 76 | 2.071 | 2.071 | (0.496) | 5999 | 0.50000 | 0.65 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.539 | 2.539 | (0.608) | 1302 | 0.25000 | 0.33 |
| | 24 2-Butanone | 43 | 3.698 | 3.698 | (0.885) | 1014 | 0.50000 | 3.74 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.533 | 3.533 | (0.846) | 1402 | 0.25000 | 0.29 |
| | 28 Chloroform | 83 | 3.908 | 3.908 | (0.935) | 2553 | 0.25000 | 0.33 |
| | 29 Bromochloromethane | 128 | 3.799 | 3.799 | (0.909) | 802 | 0.25000 | 0.30(M) |
| $ | 30 Dibromofluoromethane | 113 | 4.103 | 4.103 | (0.982) | 1706 | 0.25000 | 0.21 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 1648 | 0.25000 | 0.26 |
| | 32 1,1-Dichloropropene | 75 | 4.286 | 4.286 | (0.863) | 2114 | 0.25000 | 0.43 |
| | 33 1,2-Dichloroethane | 62 | 4.571 | 4.571 | (0.921) | 2167 | 0.25000 | 0.38 |
| | 34 Carbon Tetrachloride | 117 | 4.256 | 4.256 | (0.857) | 1685 | 0.25000 | 0.32(M) |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.481 | 4.481 | (1.073) | 2260 | 0.25000 | 0.75(T) |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 690224 | 50.0000 | |
| | 37 Benzene | 78 | 4.522 | 4.522 | (0.911) | 5768 | 0.25000 | 0.34 |
| | 38 Trichloroethene | 130 | 5.212 | 5.212 | (1.050) | 1544 | 0.25000 | 0.33 |
| | 44 Dibromomethane | 93 | 5.565 | 5.565 | (1.121) | 1046 | 0.25000 | 0.35 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.352 | 6.352 | (0.828) | 2297 | 0.50000 | 0.65 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.168 | 6.168 | (1.242) | 1839 | 0.25000 | 0.25 |
| * | 47 Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 653787 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.401 | 6.401 | (0.834) | 6828 | 0.25000 | 0.42(T) |
| | 50 Toluene | 91 | 6.457 | 6.457 | (0.842) | 6778 | 0.25000 | 0.37 |
| | 52 2-Hexanone | 43 | 7.150 | 7.150 | (0.932) | 974 | 0.50000 | 0.40(T) |
| | 53 1,1,2-Trichloroethane | 83 | 6.847 | 6.847 | (0.893) | 1098 | 0.25000 | 0.30 |
| | 54 1,3-Dichloropropane | 76 | 6.993 | 6.993 | (0.912) | 2278 | 0.25000 | 0.31 |
| | 55 Dibromochloromethane | 129 | 7.184 | 7.184 | (0.936) | 1732 | 0.25000 | 0.33 |
| | 56 Tetrachloroethene | 164 | 6.933 | 6.933 | (0.904) | 1051 | 0.25000 | 0.28 |
| | 57 1,2-Dibromoethane | 107 | 7.278 | 7.278 | (0.949) | 1100 | 0.25000 | 0.24 |
| | 58 1-Chlorohexane | 55 | 7.668 | 7.668 | (1.544) | 6570 | 0.25000 | 1.96 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 3981 | 0.25000 | 0.31 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.780 | 7.780 | (1.014) | 1245 | 0.25000 | 0.26 |
| | 61 Ethylbenzene | 106 | 7.810 | 7.810 | (1.018) | 1854 | 0.25000 | 0.30 |
| | 62 m,p-Xylenes | 106 | 7.915 | 7.915 | (1.032) | 5083 | 0.50000 | 0.65 |
| | 63 o-Xylene | 106 | 8.252 | 8.252 | (1.076) | 2471 | 0.25000 | 0.32 |
| | 64 Styrene | 104 | 8.297 | 8.297 | (1.082) | 3214 | 0.25000 | 0.24 |
| | 67 Isopropylbenzene | 105 | 8.575 | 8.575 | (1.118) | 5495 | 0.25000 | 0.31 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.706 | 8.706 | (1.135) | 4271 | 0.25000 | 0.77 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 348702 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.875 | 8.875 | (0.919) | 766 | 0.25000 | 0.19(M) |
| | 73 n-Propylbenzene | 91 | 8.931 | 8.931 | (0.924) | 5570 | 0.25000 | 0.28 |
| | 74 Bromobenzene | 156 | 8.826 | 8.826 | (0.913) | 1517 | 0.25000 | 0.26 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.081 | 9.081 | (0.940) | 4893 | 0.25000 | 0.34 |
| | 76 2-Chlorotoluene | 91 | 8.991 | 8.991 | (0.931) | 4890 | 0.25000 | 0.38 |
| | 77 4-Chlorotoluene | 91 | 9.107 | 9.107 | (0.943) | 3881 | 0.25000 | 0.26 |
| | 78 tert-Butylbenzene | 119 | 9.343 | 9.343 | (0.967) | 4059 | 0.25000 | 0.34 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.392 | 9.392 | (0.972) | 5202 | 0.25000 | 0.34 |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 4818 | 0.25000 | 0.31 |
| | 82 p-Isopropyltoluene | 119 | 9.662 | 9.662 | (1.000) | 4406 | 0.25000 | 0.31 |
| | 83 1,3-Dichlorobenzene | 146 | 9.621 | 9.621 | (0.996) | 3005 | 0.25000 | 0.31 |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 3674 | 0.25000 | 0.35 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 87 | n-Butylbenzene | 91 | 10.033 | 10.033 (1.038) | 1595 | 0.25000 | 1.89 |
| 88 | 1,2-Dichlorobenzene | 146 | 10.010 | 10.010 (1.036) | 2937 | 0.25000 | 0.30 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 91 Hexachlorobutadiene | 225 | 11.484 | 11.484 | (1.189) | 726 | 0.25000 | 0.21(M) |
| | 92 Naphthalene | 128 | 11.607 | 11.607 | (1.201) | 1969 | 0.25000 | 0.14 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.769 | 11.769 | (1.218) | 1816 | 0.25000 | 0.30(M) |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 2704 | 0.50000 | |
| M | 95 Xylenes (total) | 106 | | | | 7554 | 0.75000 | |
| | 141 Cyclohexane | 56 | 4.125 | 4.125 | (0.987) | 1235 | 0.25000 | 1.51(M) |
| | 138 Freon TF | 101 | 1.917 | 1.917 | (0.459) | 765 | 0.25000 | 0.22(M) |

## QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
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Client ID: VSTD000.25
Sample Info: VSTD000.25;VSTD000.25;1;1;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

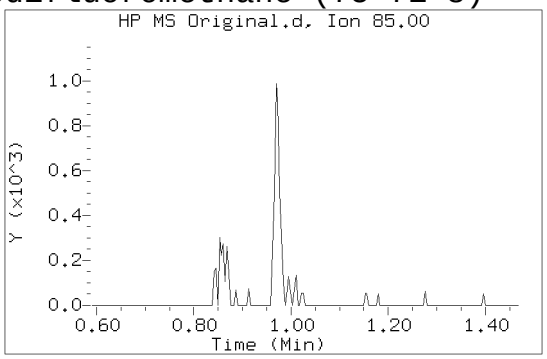
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Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Dichlorodifluoromethane (75-71-8)

Reason Code:

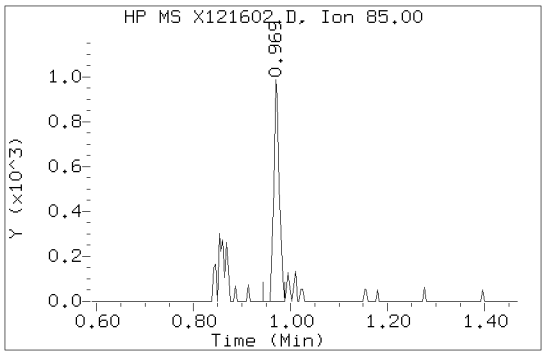
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AREA
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HEIGHT
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16-Dec-2022
11:54
ALSHS
Server



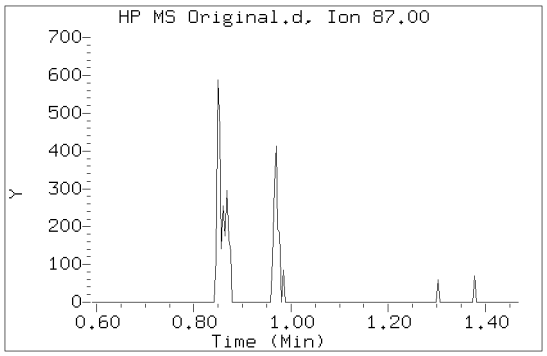

**AFTER**

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HEIGHT
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27-Dec-2022
16:07
ALSHS
Ser



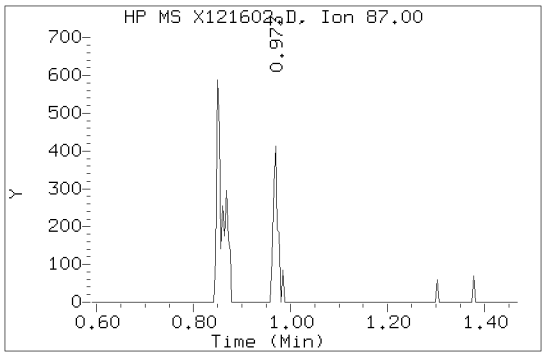

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HEIGHT
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16-Dec-2022
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ALSHS
Server




**AFTER**

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AREA
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HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

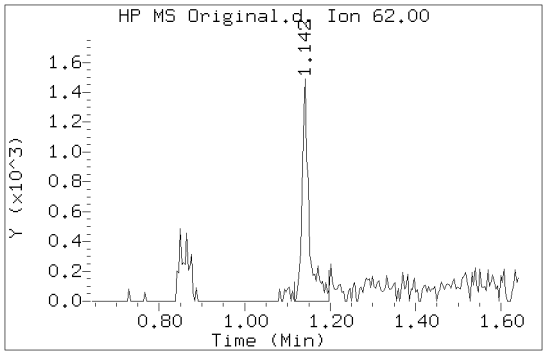



## Vinyl Chloride (75-01-4)

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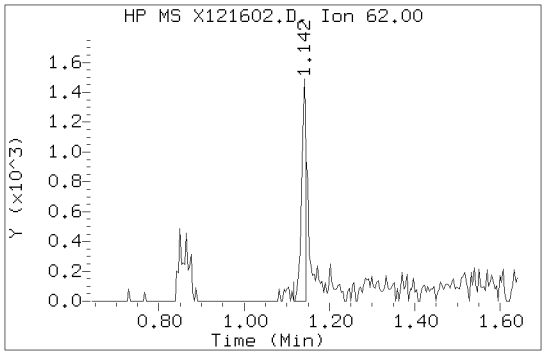
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11:54
ALSHS
Server



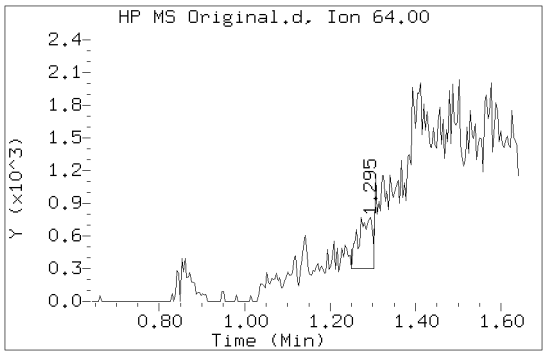

**AFTER**

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27-Dec-2022
16:07
ALSHS
Ser



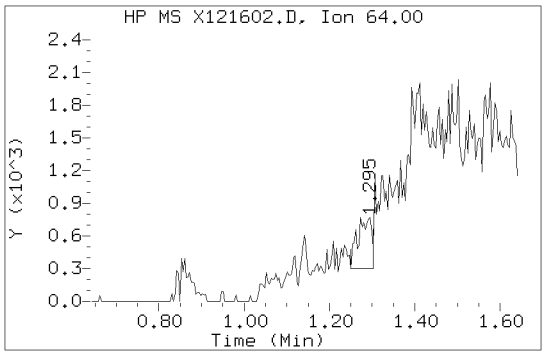

**BEFORE**

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AREA
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HEIGHT
961
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
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AREA
1053
HEIGHT
470
27-Dec-2022
16:07
ALSHS
Ser

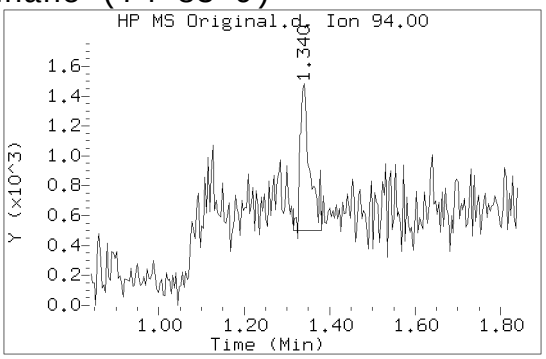


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Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Bromomethane (74-83-9)

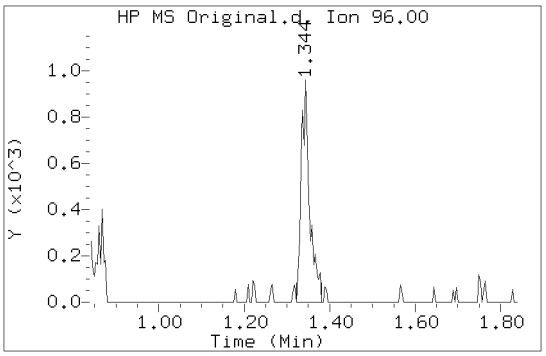
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HEIGHT
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16-Dec-2022
11:54
ALSHS
Server




### BEFORE

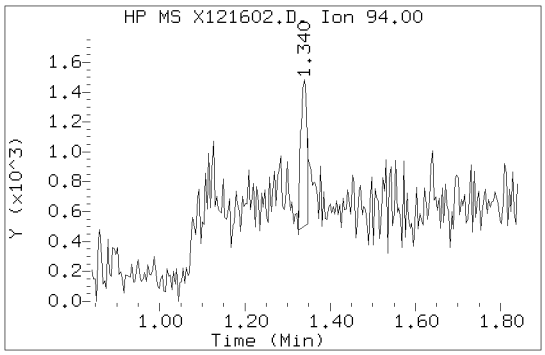
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ALSHS
Server




### Reason Code:

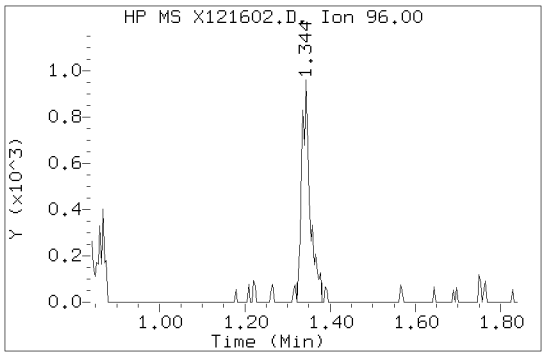
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HEIGHT
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27-Dec-2022
16:07
ALSHS
Ser




### AFTER

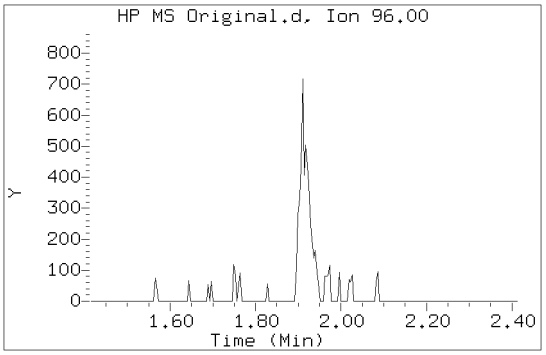
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HEIGHT
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27-Dec-2022
16:07
ALSHS
Ser




## 1,1-Dichloroethene (75-35-4)

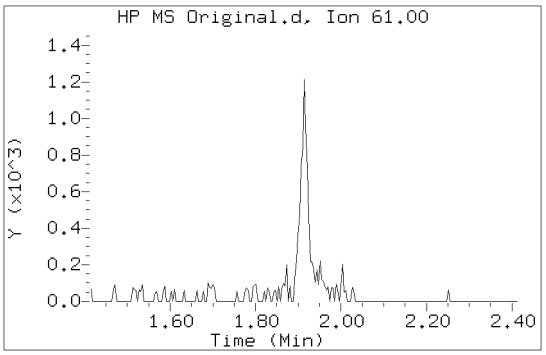
### BEFORE

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AREA
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HEIGHT
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16-Dec-2022
11:54
ALSHS
Server




### BEFORE

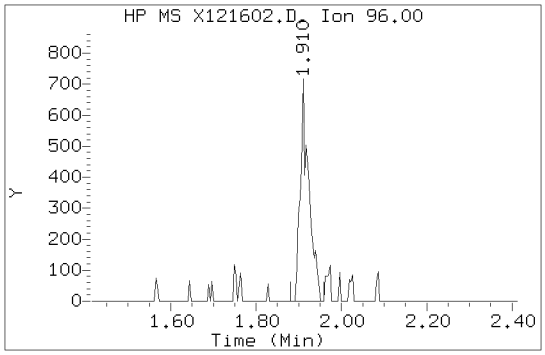
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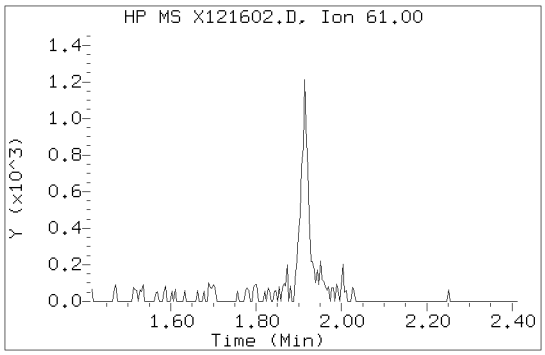
### AFTER

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HEIGHT
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27-Dec-2022
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ALSHS
Ser




### AFTER

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AREA
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HEIGHT
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27-Dec-2022
16:07
ALSHS
Ser



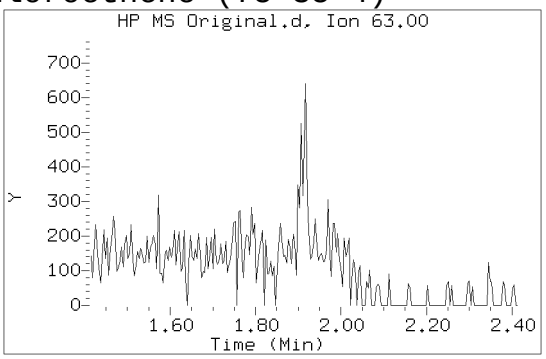
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Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## 1,1-Dichloroethene (75-35-4)

Reason Code:

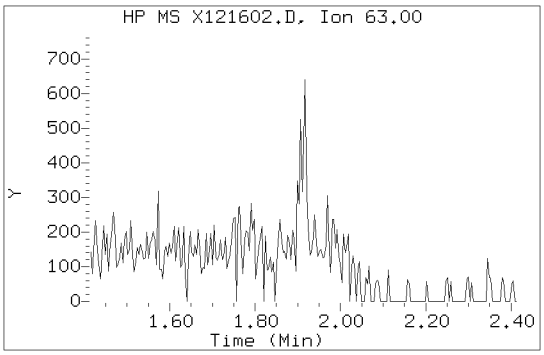
**BEFORE**

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HEIGHT
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16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

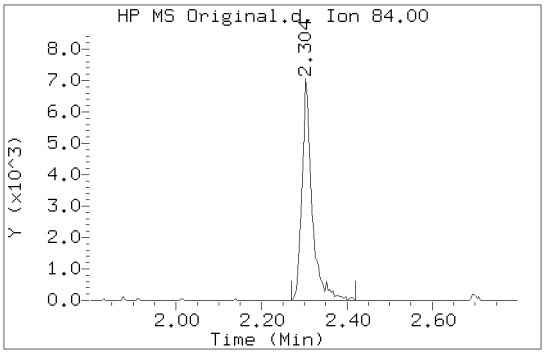



## Methylene Chloride (75-09-2)

Reason Code:

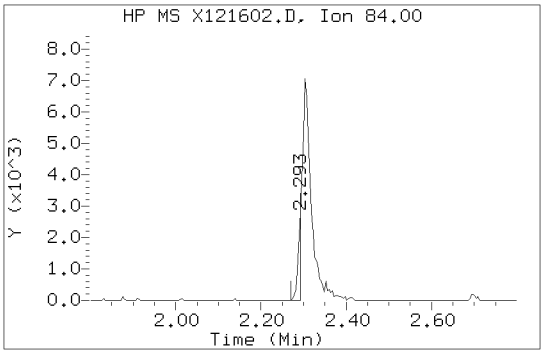
**BEFORE**

MASS
84
AREA
11777
HEIGHT
7057
16-Dec-2022
11:54
ALSHS
Server



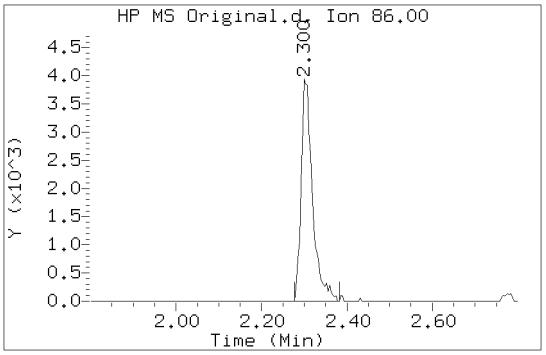

**AFTER**

MASS
84
AREA
1436
HEIGHT
2786
27-Dec-2022
16:07
ALSHS
Ser



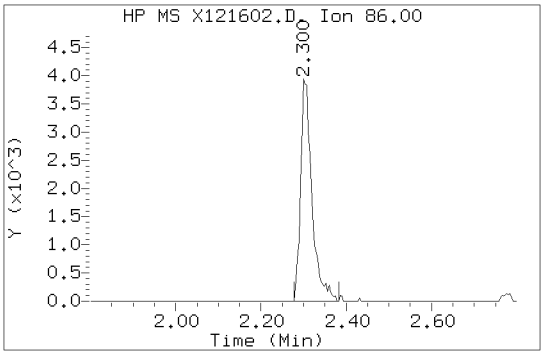

**BEFORE**

MASS
86
AREA
7453
HEIGHT
3944
16-Dec-2022
11:54
ALSHS
Server



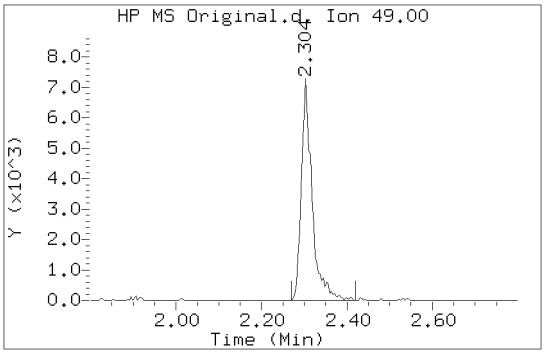

**AFTER**

MASS
86
AREA
7453
HEIGHT
3944
27-Dec-2022
16:07
ALSHS
Ser



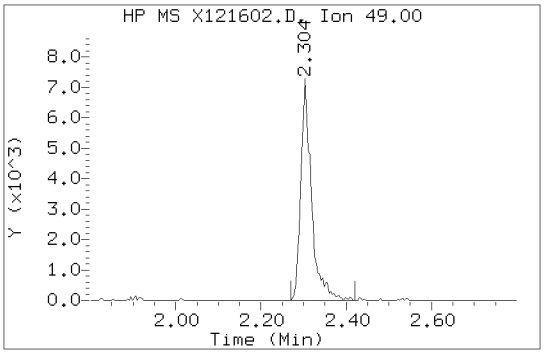

**BEFORE**

MASS
49
AREA
12974
HEIGHT
7289
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
49
AREA
12974
HEIGHT
7289
27-Dec-2022
16:07
ALSHS
Ser

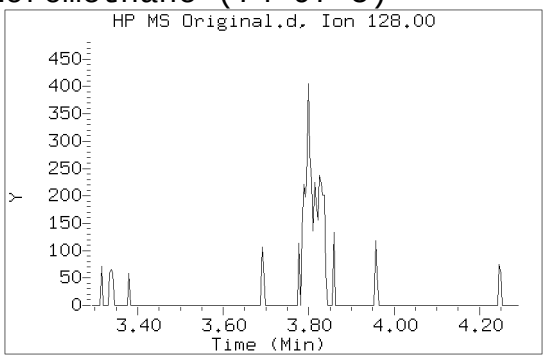


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Bromochloromethane (74-97-5)

### BEFORE

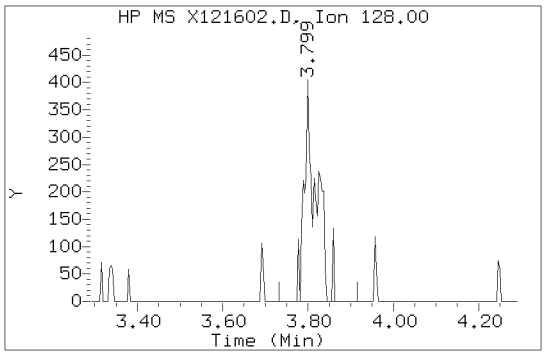
MASS
96
AREA
1402
HEIGHT
854
16-Dec-2022
11:54
ALSHS
Server




### AFTER

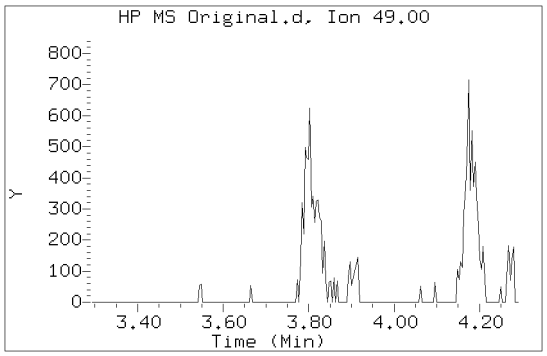
MASS
128
AREA
802
HEIGHT
405
27-Dec-2022
16:07
ALSHS
Ser

Reason Code:



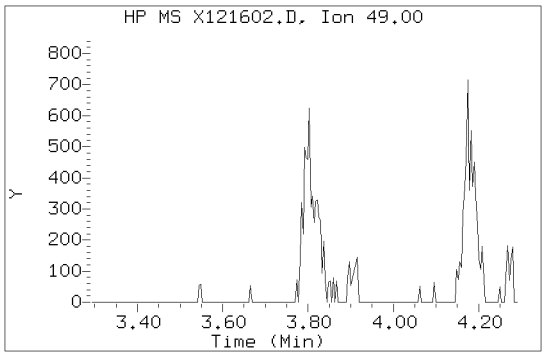

### BEFORE

MASS
61
AREA
1975
HEIGHT
828
16-Dec-2022
11:54
ALSHS
Server



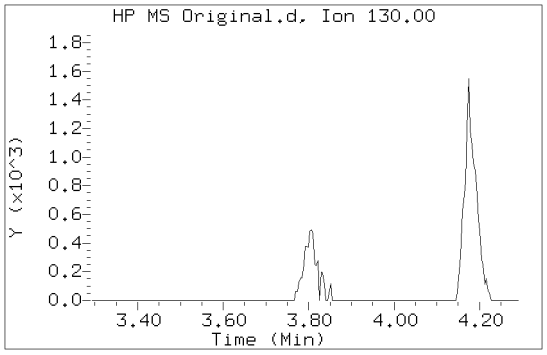

### AFTER

MASS
49
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



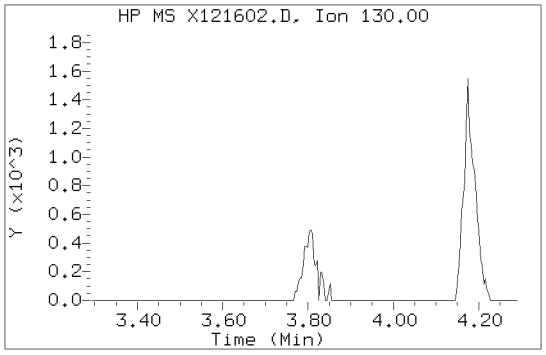

### BEFORE

MASS
98
AREA
1027
HEIGHT
608
16-Dec-2022
11:54
ALSHS
Server




### AFTER

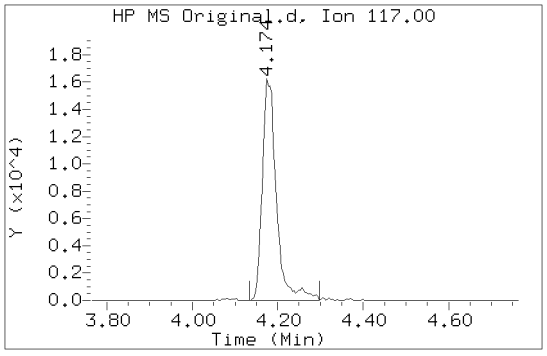
MASS
130
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser




## Carbon Tetrachloride (56-23-5)

### BEFORE

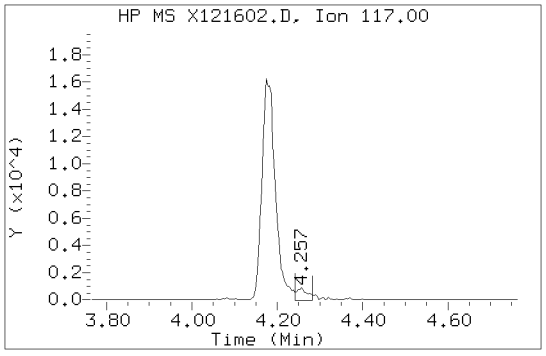
MASS
97
AREA
1700
HEIGHT
1016
16-Dec-2022
11:54
ALSHS
Server




### AFTER

MASS
117
AREA
1685
HEIGHT
944
27-Dec-2022
16:07
ALSHS
Ser

Reason Code:



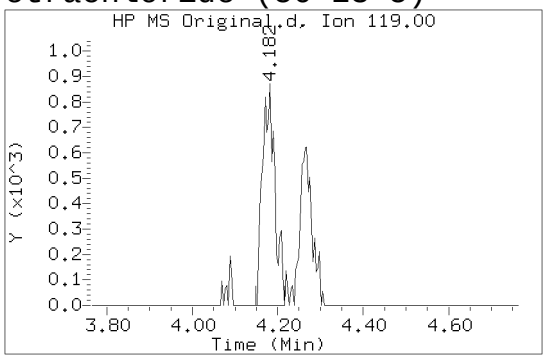
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Carbon Tetrachloride (56-23-5)

Reason Code:

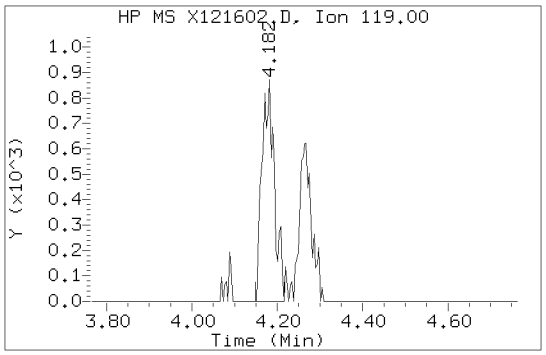
**BEFORE**

MASS
99
AREA
207130
HEIGHT
91368
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
119
AREA
1748
HEIGHT
872
27-Dec-2022
16:07
ALSHS
Ser

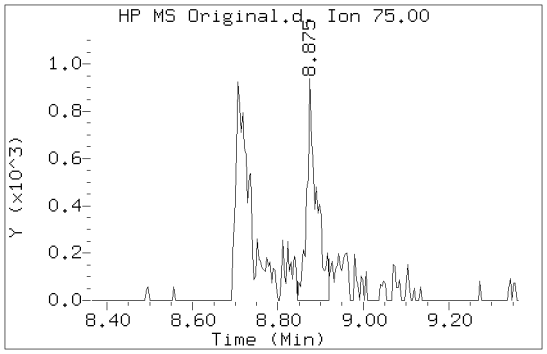



## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

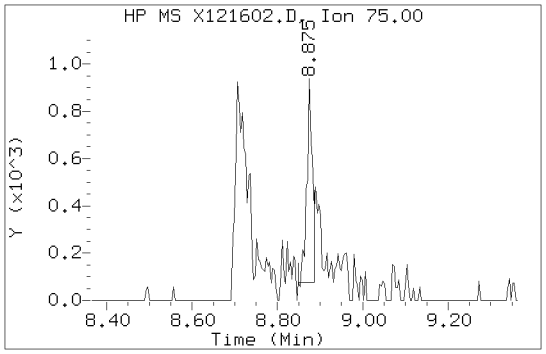
**BEFORE**

MASS
152
AREA
348702
HEIGHT
242350
16-Dec-2022
11:54
ALSHS
Server



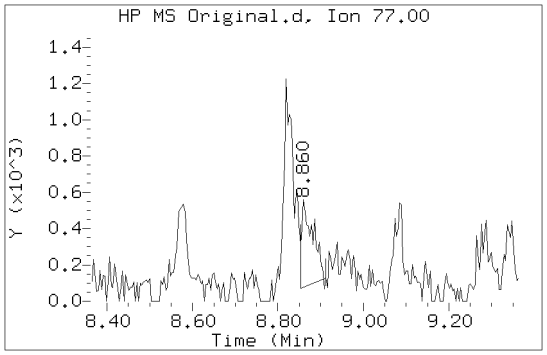

**AFTER**

MASS
75
AREA
766
HEIGHT
862
27-Dec-2022
16:07
ALSHS
Ser



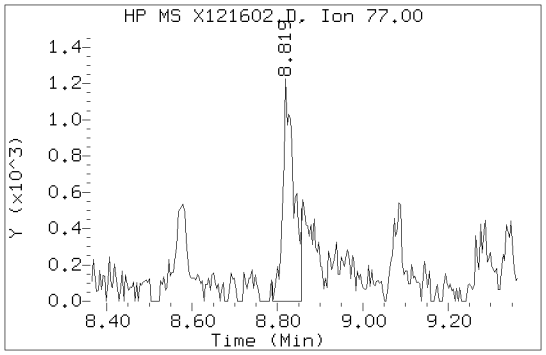

**BEFORE**

MASS
115
AREA
184413
HEIGHT
133835
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
77
AREA
2223
HEIGHT
1225
27-Dec-2022
16:07
ALSHS
Ser

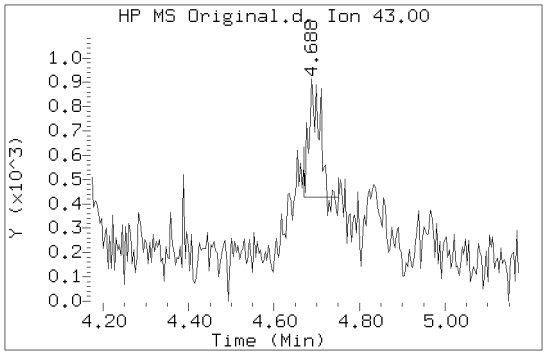



## Isobutyl Alcohol (78-83-1)

Reason Code:

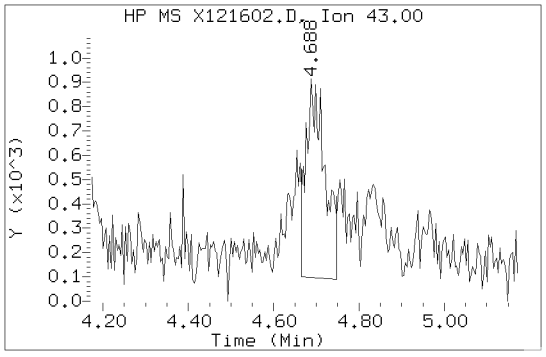
**BEFORE**

MASS
75
AREA
1475
HEIGHT
938
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
43
AREA
2537
HEIGHT
816
27-Dec-2022
16:07
ALSHS
Ser

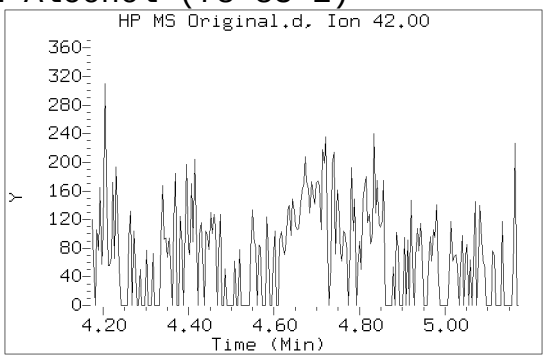


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Isobutyl Alcohol (78-83-1)

**BEFORE**

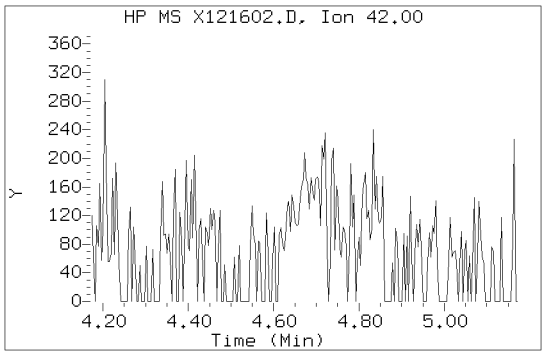
MASS
77
AREA
888
HEIGHT
483
16-Dec-2022
11:54
ALSHS
Server




Reason Code:

**AFTER**

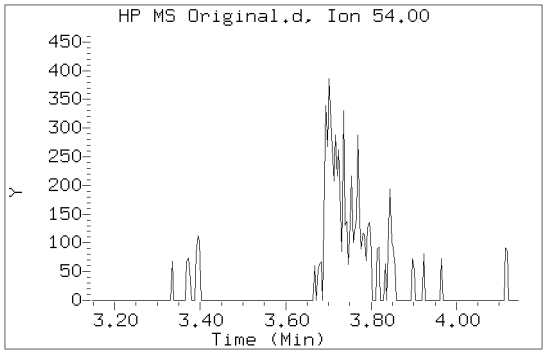
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser




## Propionitrile (107-12-0)

**BEFORE**

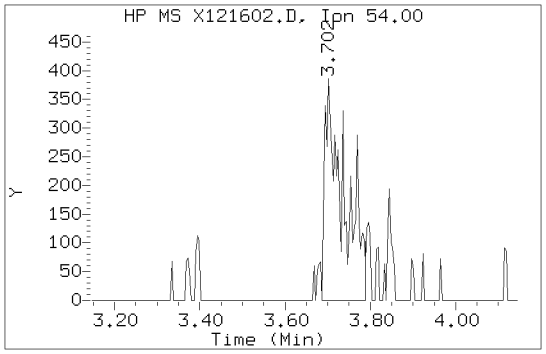
MASS
91
AREA
3881
HEIGHT
1822
16-Dec-2022
11:54
ALSHS
Server




Reason Code:

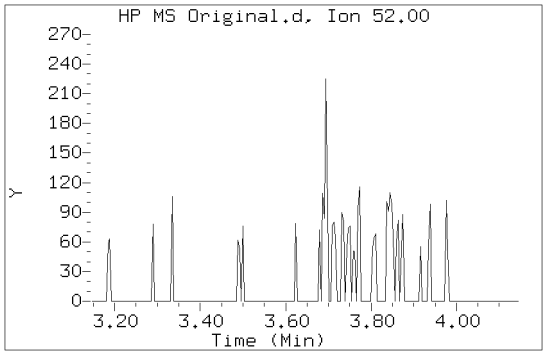
**AFTER**

MASS
54
AREA
1165
HEIGHT
386
27-Dec-2022
16:07
ALSHS
Ser



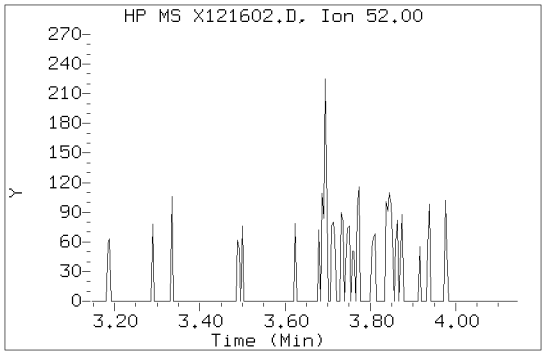

**BEFORE**

MASS
126
AREA
1511
HEIGHT
914
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

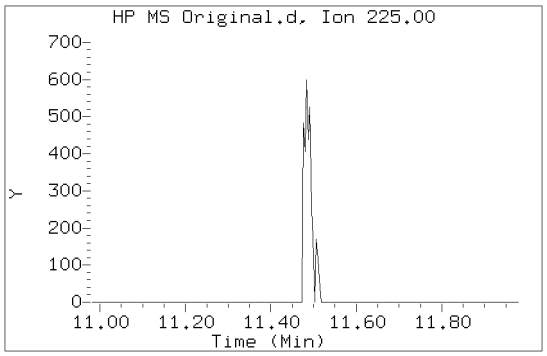
MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser




## Hexachlorobutadiene (87-68-3)

**BEFORE**

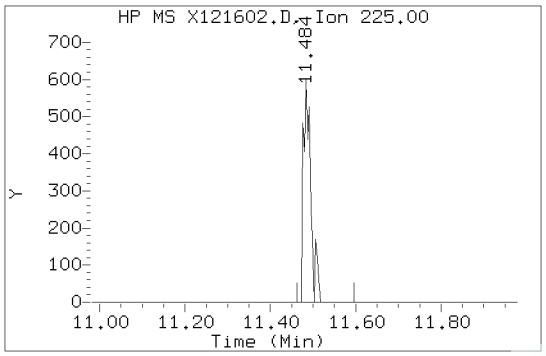
MASS
155
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




Reason Code:

**AFTER**

MASS
225
AREA
726
HEIGHT
599
27-Dec-2022
16:07
ALSHS
Ser

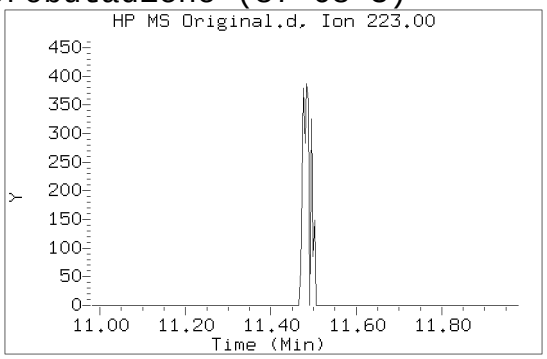


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

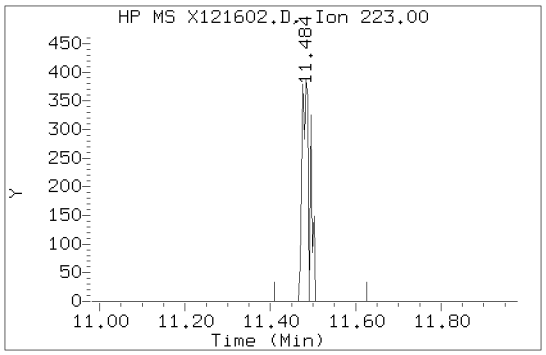
## Hexachlorobutadiene (87-68-3)

Reason Code:

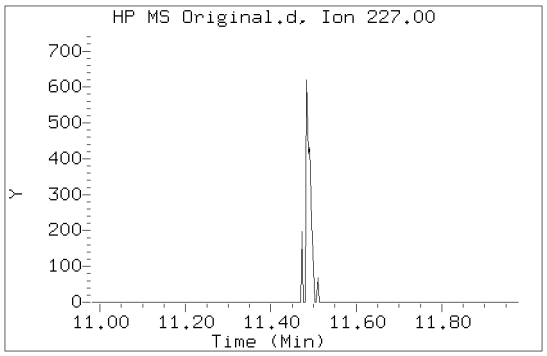
BEFORE
MASS
157
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



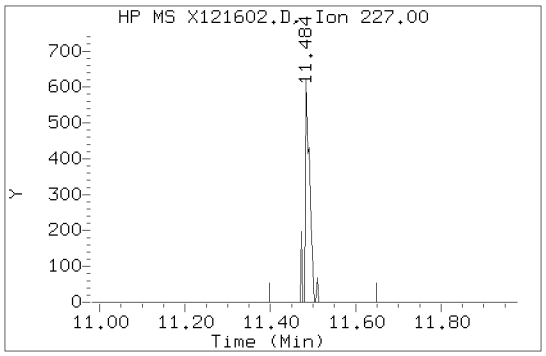

AFTER
MASS
223
AREA
502
HEIGHT
387
27-Dec-2022
16:07
ALSHS
Ser




BEFORE
MASS
75
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



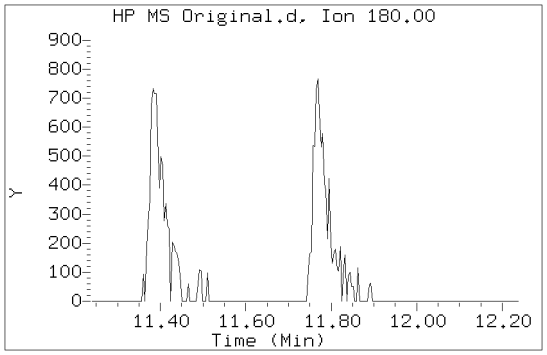

AFTER
MASS
227
AREA
469
HEIGHT
620
27-Dec-2022
16:07
ALSHS
Ser



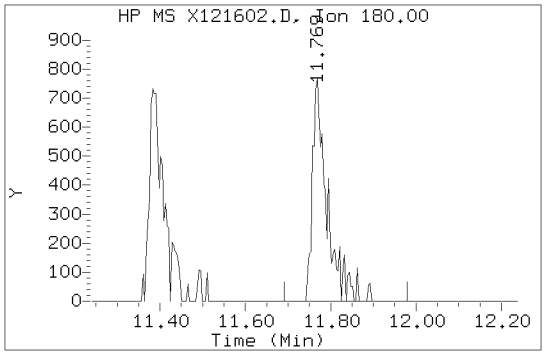

## 1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

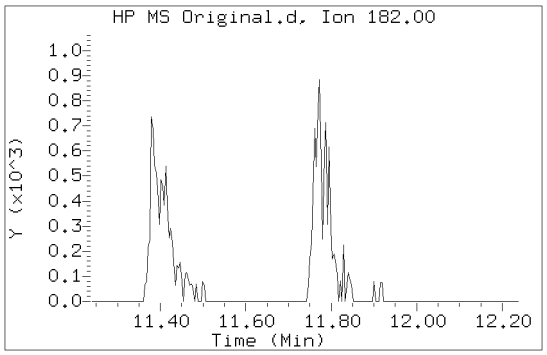
BEFORE
MASS
225
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



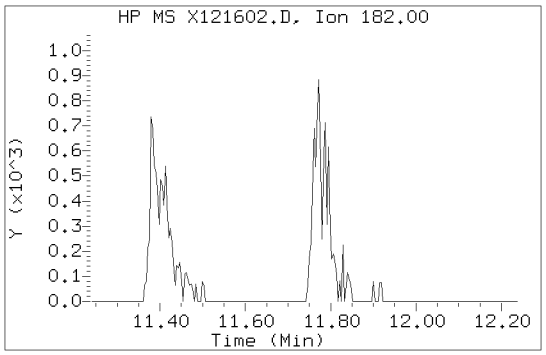

AFTER
MASS
180
AREA
1816
HEIGHT
766
27-Dec-2022
16:07
ALSHS
Ser




BEFORE
MASS
223
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




AFTER
MASS
182
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

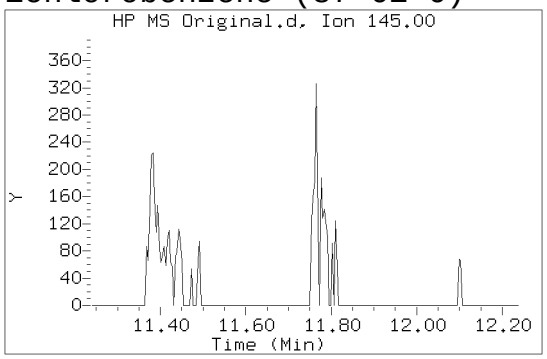


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

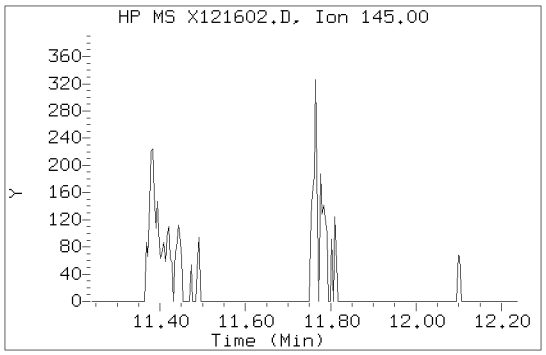
## 1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

BEFORE
MASS
227
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



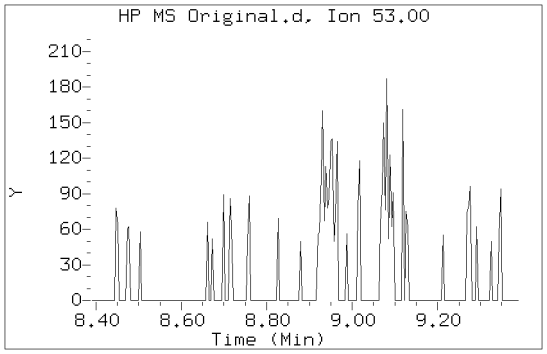

AFTER
MASS
145
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



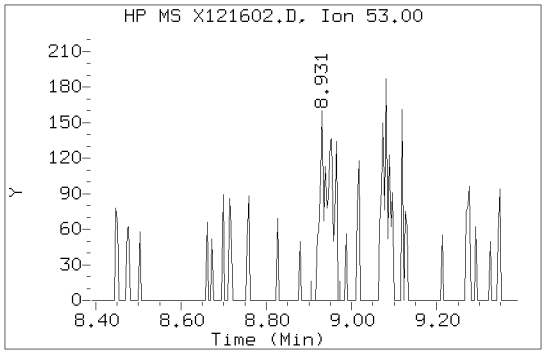

## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

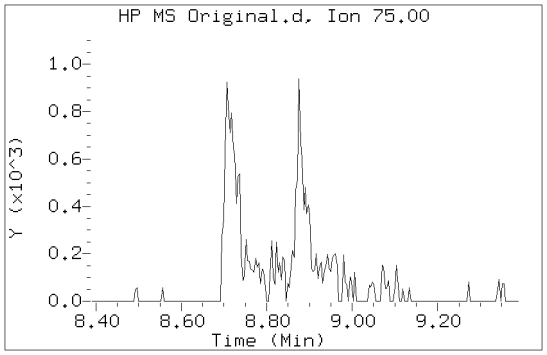
BEFORE
MASS
53
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



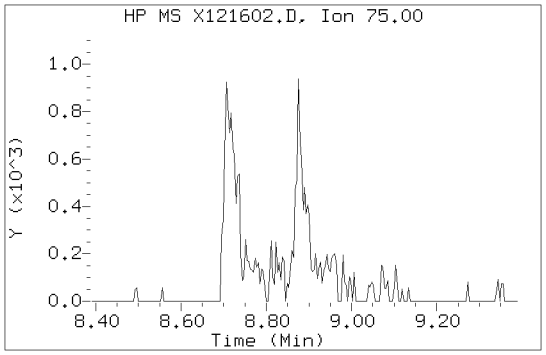

AFTER
MASS
53
AREA
280
HEIGHT
160
27-Dec-2022
16:07
ALSHS
Ser




BEFORE
MASS
88
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



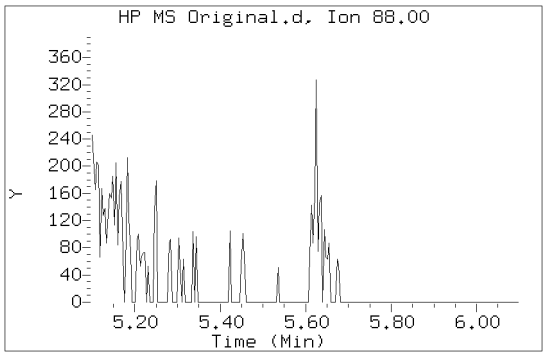

AFTER
MASS
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AREA
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HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



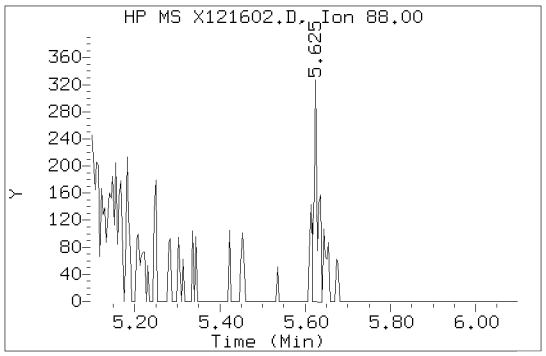

## 1,4-Dioxane ()

Reason Code:

BEFORE
MASS
57
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




AFTER
MASS
88
AREA
214
HEIGHT
327
27-Dec-2022
16:07
ALSHS
Ser



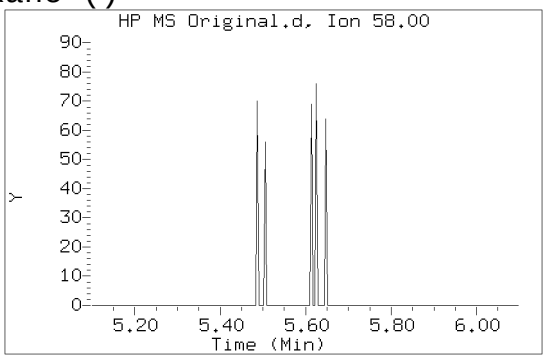
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Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## 1,4-Dioxane ()

Reason Code:

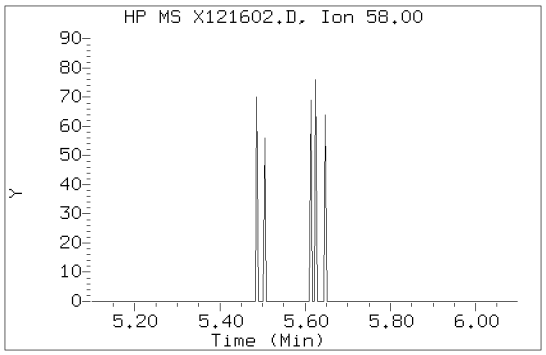
**BEFORE**

MASS
41
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

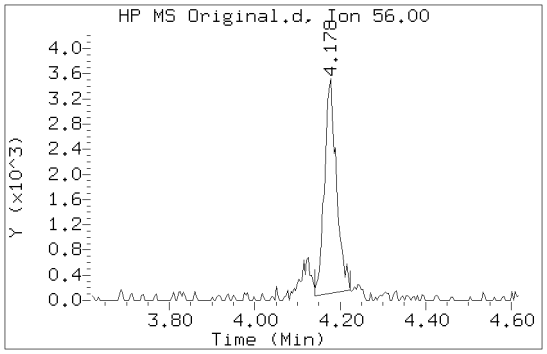



## Cyclohexane (110-82-7)

Reason Code:

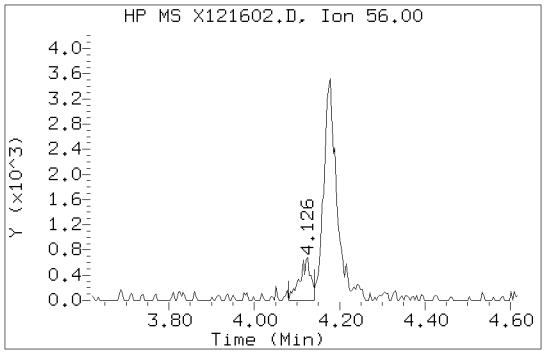
**BEFORE**

MASS
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AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



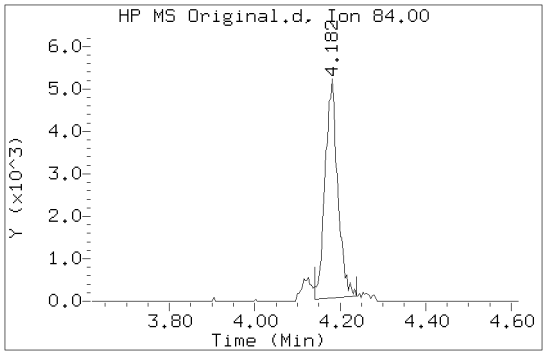

**AFTER**

MASS
56
AREA
1235
HEIGHT
682
27-Dec-2022
16:07
ALSHS
Ser



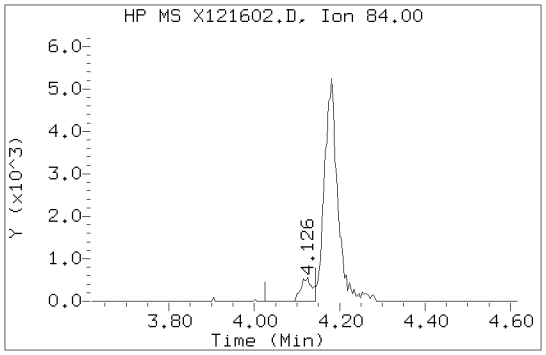

**BEFORE**

MASS
71
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
84
AREA
1062
HEIGHT
557
27-Dec-2022
16:07
ALSHS
Ser

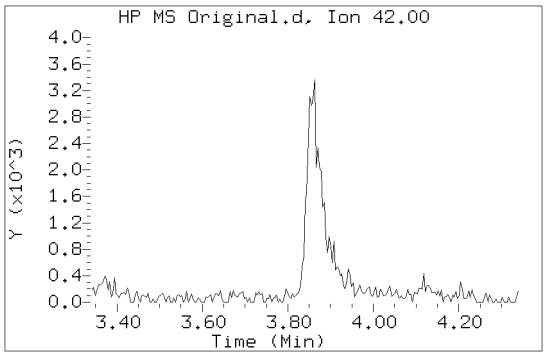



## Tetrahydrofuran (109-99-9)

Reason Code:

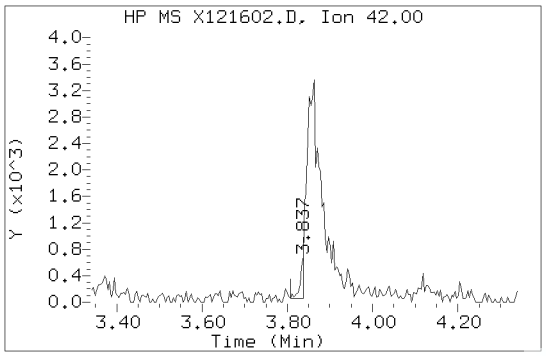
**BEFORE**

MASS
101
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
42
AREA
358
HEIGHT
628
27-Dec-2022
16:07
ALSHS
Ser



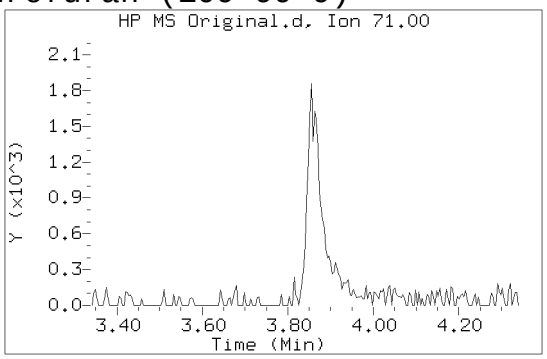
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Tetrahydrofuran (109-99-9)

Reason Code:

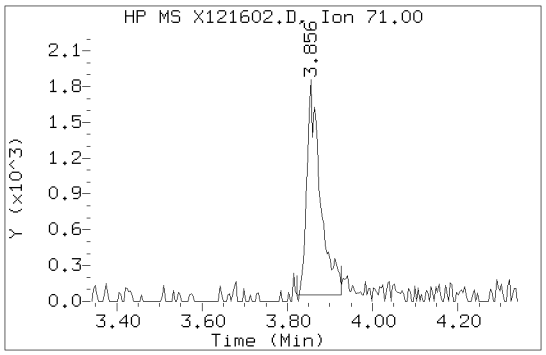
BEFORE

MASS
151
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




AFTER

MASS
71
AREA
3962
HEIGHT
1803
27-Dec-2022
16:07
ALSHS
Ser

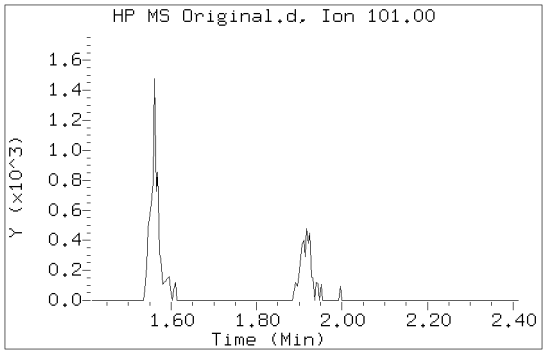



## Freon TF (76-13-1)

Reason Code:

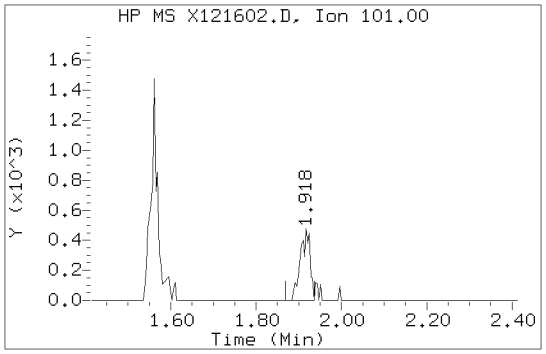
BEFORE

MASS
118
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



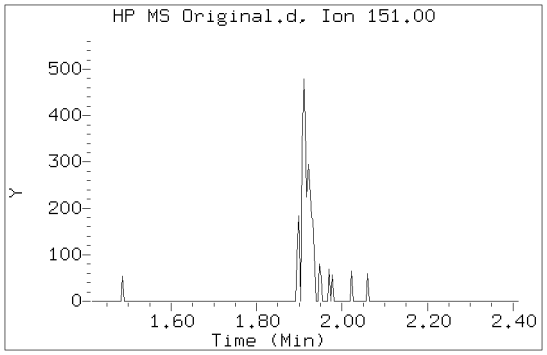

AFTER

MASS
101
AREA
765
HEIGHT
479
27-Dec-2022
16:07
ALSHS
Ser



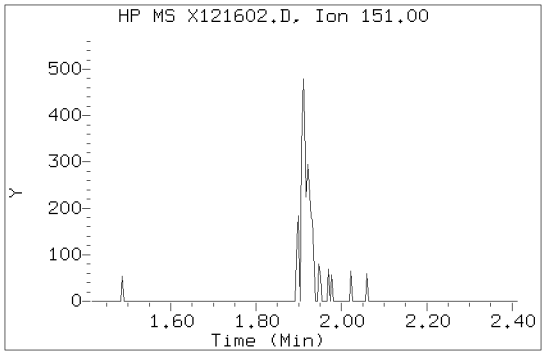

BEFORE

MASS
103
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




AFTER

MASS
151
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Lab Smp Id: VSTD000.5  Client Smp ID: VSTD000.5
Inj Date  : 16-DEC-2022 12:20
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD000.5;VSTD000.5;1;2;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 11:38  Cal File: X121602.D
Als bottle: 4  Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 461469 | 50.0000 | |
| 135 | 1,4-Dioxane | 88 | 5.625 | 5.625 | (1.346) | 462 | 10.0000 | 10.95(M) |
| 140 | 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 1793 | 0.50000 | 0.56(M) |
| 25 | Methacrylonitrile | 41 | 3.848 | 3.848 | (0.921) | 2066 | 0.50000 | 0.63(M) |
| 12 | Isobutyl Alcohol | 43 | 4.695 | 4.695 | (1.124) | 5178 | 10.0000 | 9.97(M) |
| 13 | Acetonitrile | 39 | 2.210 | 2.210 | (0.529) | 2204 | 5.00000 | 5.24(M) |
| 14 | Allyl Chloride | 41 | 2.206 | 2.206 | (0.528) | 4574 | 0.50000 | 0.57(M) |
| 4 | Propionitrile | 54 | 3.686 | 3.686 | (0.882) | 2777 | 5.00000 | 5.89(M) |
| 136 | n-Hexane | 57 | 2.772 | 2.772 | (0.664) | 1909 | 0.50000 | 0.57(M) |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.931 | 8.931 | (1.165) | 792 | 0.50000 | 0.56(M) |
| 23 | Chloroprene | 53 | 1.771 | 1.771 | (0.424) | 900 | 0.50000 | 0.57(M) |
| 145 | alpha-Methylstyrene | 118 | 9.272 | 9.272 | (0.960) | 4701 | 0.50000 | 0.60 |
| 200 | Dimethyl Disulfide | 94 | 6.202 | 6.202 | (0.809) | 5153 | 0.50000 | 0.59(M) |
| 139 | Diethyl ether | 59 | 1.760 | 1.760 | (0.421) | 1864 | 0.50000 | 0.60 |
| 130 | Ethyl Acetate | 43 | 3.679 | 3.679 | (0.881) | 2065 | 0.50000 | 0.57(M) |
| 40 | Methyl Methacrylate | 41 | 5.628 | 5.628 | (1.347) | 1788 | 0.50000 | 0.56(M) |
| 49 | Ethyl Methacrylate | 69 | 6.727 | 6.727 | (1.355) | 1935 | 0.50000 | 0.59(M) |
| 132 | n-Butanol | 56 | 5.291 | 5.291 | (1.266) | 622 | 10.0000 | 50.83(M) |
| 142 | Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 900 | 1.00000 | (M) |
| 150 | Allyl alcohol | 57 | 2.772 | 2.772 | (0.664) | 3089 | 10.0000 | 17.23 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 9626 | 0.50000 | 0.57(M) |
| 131 | Methyl Acrylate | 55 | 3.743 | 3.743 (0.896) | 1765 | 0.50000 | 0.56(M) |

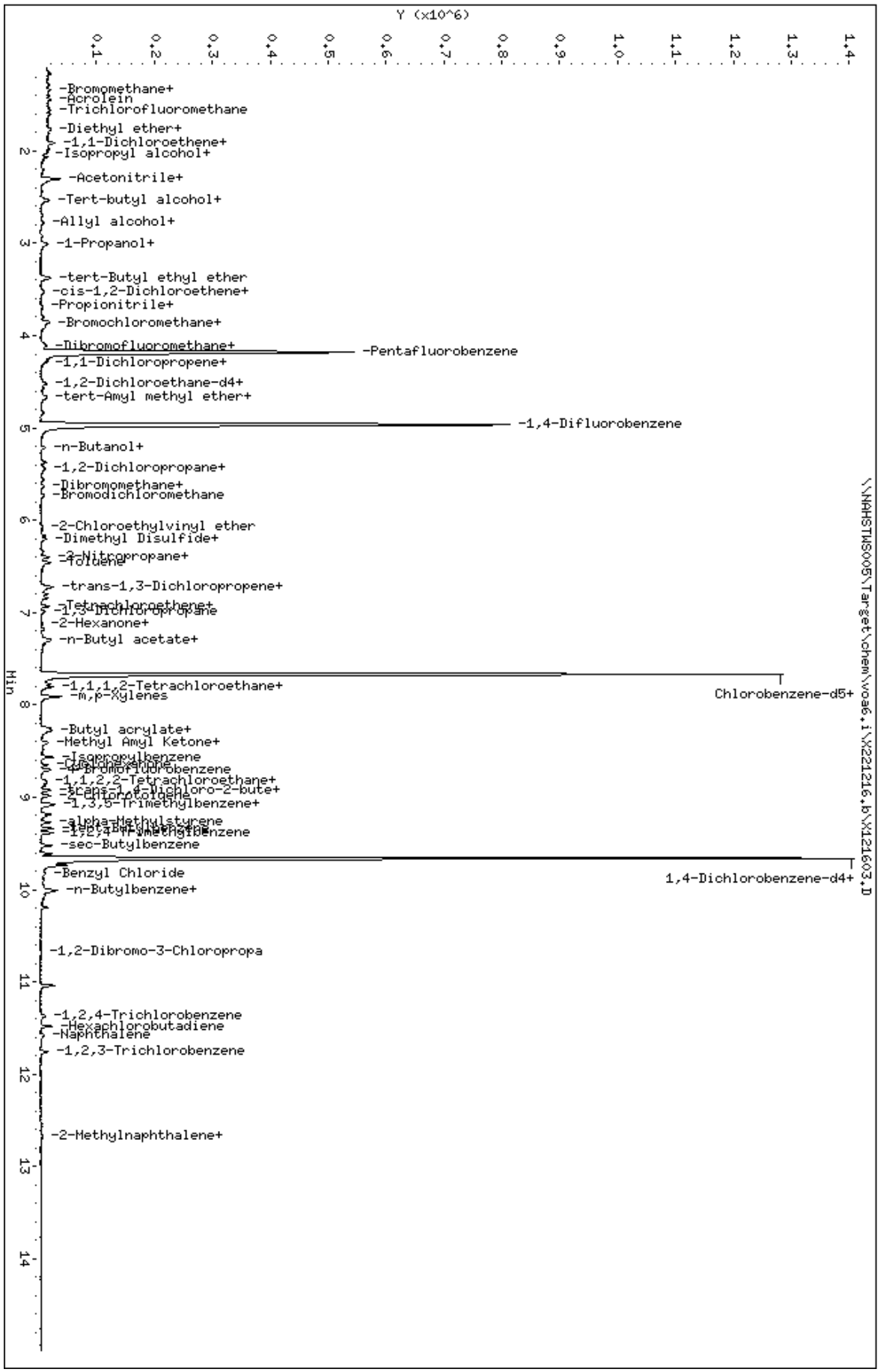
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | CAL-AMT | ON-COL |
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ( ug/l) | ( ug/l) |
| | 162 | Butyl acrylate | 55 | 8.271 | 8.271 | (1.079) | 4718 | 0.50000 | 0.55(M) |
| | 2 | Dichlorodifluoromethane | 85 | 0.972 | 0.972 | (0.233) | 1990 | 0.50000 | 1.00(M) |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 2466 | 0.50000 | 2.77(M) |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 2412 | 0.50000 | 0.59(M) |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 1893 | 0.50000 | 2.36(M) |
| | 7 | Chloroethane | 64 | 1.407 | 1.407 | (0.337) | 1653 | 0.50000 | 0.58(M) |
| | 8 | Trichlorofluoromethane | 101 | 1.561 | 1.561 | (0.374) | 3286 | 0.50000 | 0.58(M) |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 440 | 1.00000 | 4.17(M) |
| | 10 | Acetone | 43 | 1.977 | 1.977 | (0.473) | 2669 | 1.00000 | 2.02(M) |
| | 11 | 1,1-Dichloroethene | 96 | 1.913 | 1.913 | (0.458) | 2037 | 0.50000 | 0.58(M) |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 2397 | 1.00000 | 3.84(TM) |
| | 16 | Acrylonitrile | 53 | 2.566 | 2.566 | (0.614) | 1118 | 1.00000 | 0.94(M) |
| | 17 | Methylene Chloride | 84 | 2.296 | 2.296 | (0.550) | 2938 | 0.50000 | 0.61(M) |
| | 18 | Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 5841 | 0.50000 | 0.50(M) |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 9921 | 1.00000 | 1.08(M) |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.543 | 2.543 | (0.609) | 2218 | 0.50000 | 0.56(M) |
| | 21 | Vinyl Acetate | 43 | 3.023 | 3.023 | (0.724) | 10138 | 1.00000 | 1.00(M) |
| | 22 | 1,1-Dichloroethane | 63 | 2.926 | 2.926 | (0.700) | 3874 | 0.50000 | 0.56(M) |
| | 24 | 2-Butanone | 43 | 3.649 | 3.649 | (0.873) | 1292 | 1.00000 | 3.93(M) |
| | 26 | 2,2-Dichloropropane | 77 | 3.514 | 3.514 | (0.841) | 3238 | 0.50000 | 0.55(M) |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.544 | 3.544 | (0.848) | 2852 | 0.50000 | 0.59 |
| | 28 | Chloroform | 83 | 3.908 | 3.908 | (0.935) | 4040 | 0.50000 | 0.52(M) |
| | 29 | Bromochloromethane | 128 | 3.799 | 3.799 | (0.909) | 1481 | 0.50000 | 0.56 |
| $ | 30 | Dibromofluoromethane | 113 | 4.110 | 4.110 | (0.984) | 2321 | 0.50000 | 0.35 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.084 | 4.084 | (0.978) | 3512 | 0.50000 | 0.57(M) |
| | 32 | 1,1-Dichloropropene | 75 | 4.290 | 4.290 | (0.864) | 2468 | 0.50000 | 0.50(M) |
| | 33 | 1,2-Dichloroethane | 62 | 4.567 | 4.567 | (0.920) | 3129 | 0.50000 | 0.55(M) |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 2763 | 0.50000 | 0.52(MH) |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.481 | 4.481 | (1.073) | 2849 | 0.50000 | 0.87(T) |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 687671 | 50.0000 | |
| | 37 | Benzene | 78 | 4.519 | 4.519 | (0.910) | 9243 | 0.50000 | 0.56 |
| | 38 | Trichloroethene | 130 | 5.216 | 5.216 | (1.051) | 2583 | 0.50000 | 0.55(M) |
| | 39 | Bromodichloromethane | 83 | 5.730 | 5.730 | (1.154) | 3650 | 0.50000 | 0.59(M) |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.071 | 6.071 | (1.223) | 1861 | 1.00000 | 1.06(M) |
| | 42 | 1,2-Dichloropropane | 63 | 5.441 | 5.441 | (1.096) | 2449 | 0.50000 | 0.56(M) |
| | 44 | Dibromomethane | 93 | 5.557 | 5.557 | (1.119) | 1725 | 0.50000 | 0.58 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.337 | 6.337 | (0.826) | 3741 | 1.00000 | 1.08(M) |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.168 | 6.168 | (1.242) | 3695 | 0.50000 | 0.51(M) |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 645291 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.401 | 6.401 | (0.835) | 9525 | 0.50000 | 0.59 |
| | 50 | Toluene | 91 | 6.460 | 6.460 | (0.843) | 10374 | 0.50000 | 0.58(M) |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.697 | 6.697 | (1.349) | 3042 | 0.50000 | 0.50 |
| | 52 | 2-Hexanone | 43 | 7.117 | 7.117 | (0.928) | 2580 | 1.00000 | 1.09 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 2092 | 0.50000 | 0.58(M) |
| | 54 | 1,3-Dichloropropane | 76 | 6.993 | 6.993 | (0.912) | 4005 | 0.50000 | 0.56(M) |
| | 55 | Dibromochloromethane | 129 | 7.180 | 7.180 | (0.936) | 2827 | 0.50000 | 0.54 |
| | 56 | Tetrachloroethene | 164 | 6.933 | 6.933 | (0.904) | 2131 | 0.50000 | 0.57(M) |
| | 57 | 1,2-Dibromoethane | 107 | 7.270 | 7.270 | (0.948) | 2340 | 0.50000 | 0.52(M) |
| | 58 | 1-Chlorohexane | 55 | 7.705 | 7.705 | (1.552) | 1829 | 0.50000 | 0.55(MH) |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 7747 | 0.50000 | 0.61 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.784 | 7.784 | (1.015) | 2741 | 0.50000 | 0.58(M) |
| | 61 | Ethylbenzene | 106 | 7.806 | 7.806 | (1.018) | 3064 | 0.50000 | 0.51(M) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 62 m,p-Xylenes | 106 | 7.911 | 7.911 (1.032) | 9016 | 1.00000 | 1.17(M) |
| 63 o-Xylene | 106 | 8.252 | 8.252 (1.076) | 4412 | 0.50000 | 0.58(M) |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 64 Styrene | 104 | 8.286 | 8.286 | (1.081) | 6634 | 0.50000 | 0.52(M) |
| | 66 Bromoform | 173 | 8.421 | 8.421 | (1.098) | 2013 | 0.50000 | 0.56(TM) |
| | 67 Isopropylbenzene | 105 | 8.567 | 8.567 | (1.117) | 8757 | 0.50000 | 0.50(M) |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.845 | 8.845 | (0.915) | 3194 | 0.50000 | 0.57(M) |
| $ | 69 4-Bromofluorobenzene | 95 | 8.706 | 8.706 | (1.135) | 3870 | 0.50000 | 0.71(M) |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 347824 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.871 | 8.871 | (0.918) | 2019 | 0.50000 | 0.52(M) |
| | 73 n-Propylbenzene | 91 | 8.923 | 8.923 | (0.924) | 11163 | 0.50000 | 0.57(M) |
| | 74 Bromobenzene | 156 | 8.818 | 8.818 | (0.913) | 3147 | 0.50000 | 0.55(M) |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.073 | 9.073 | (0.939) | 7182 | 0.50000 | 0.50(M) |
| | 76 2-Chlorotoluene | 91 | 8.983 | 8.983 | (0.930) | 6718 | 0.50000 | 0.53(M) |
| | 77 4-Chlorotoluene | 91 | 9.088 | 9.088 | (0.941) | 7644 | 0.50000 | 0.53(M) |
| | 78 tert-Butylbenzene | 119 | 9.339 | 9.339 | (0.967) | 6389 | 0.50000 | 0.54(M) |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.384 | 9.384 | (0.971) | 8496 | 0.50000 | 0.56(M) |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 7938 | 0.50000 | 0.51(M) |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 7343 | 0.50000 | 0.52(M) |
| | 83 1,3-Dichlorobenzene | 146 | 9.613 | 9.613 | (0.995) | 4677 | 0.50000 | 0.49(M) |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 5674 | 0.50000 | 0.54(M) |
| | 86 Benzyl Chloride | 91 | 9.831 | 9.831 | (1.282) | 3642 | 0.50000 | 3.03 |
| | 87 n-Butylbenzene | 91 | 10.014 | 10.014 | (1.036) | 5149 | 0.50000 | 2.14(M) |
| | 88 1,2-Dichlorobenzene | 146 | 10.010 | 10.010 | (1.036) | 5504 | 0.50000 | 0.56(M) |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.678 | 10.678 | (1.105) | 441 | 0.50000 | 0.58(M) |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.364 | 11.364 | (1.176) | 3187 | 0.50000 | 0.51(M) |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 1477 | 0.50000 | 0.49(M) |
| | 92 Naphthalene | 128 | 11.581 | 11.581 | (1.199) | 7025 | 0.50000 | 0.50 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.765 | 11.765 | (1.218) | 3572 | 0.50000 | 0.60(M) |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 5070 | 1.00000 | |
| M | 95 Xylenes (total) | 106 | | | | 13428 | 1.50000 | |
| | 141 Cyclohexane | 56 | 4.114 | 4.114 | (0.985) | 2803 | 0.50000 | 1.84(M) |
| | 138 Freon TF | 101 | 1.917 | 1.917 | (0.459) | 1851 | 0.50000 | 0.54(M) |
| | 147 Methylcyclohexane | 55 | 5.415 | 5.415 | (1.091) | 4781 | 0.50000 | 0.56(M) |
| | 146 Methyl Acetate | 43 | 2.240 | 2.240 | (0.536) | 1269 | 0.50000 | 0.61(M) |

## QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121603.D
Date : 16-DEC-2022 12:20
Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

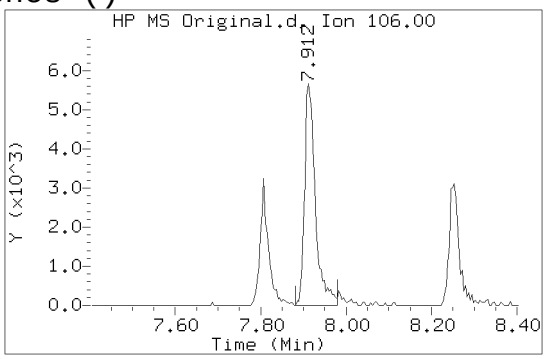
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Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

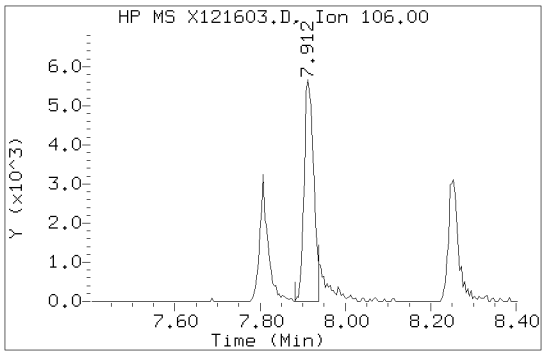
## m,p-Xylenes ()

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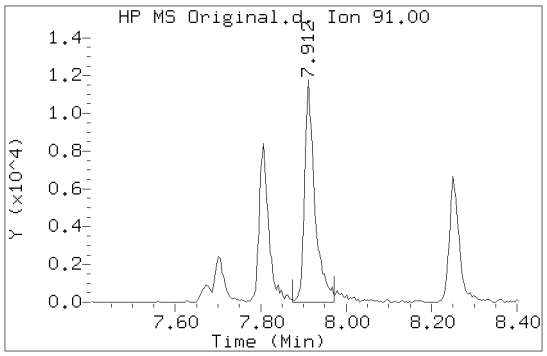
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HEIGHT
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27-Dec-2022
16:03
linh
pham



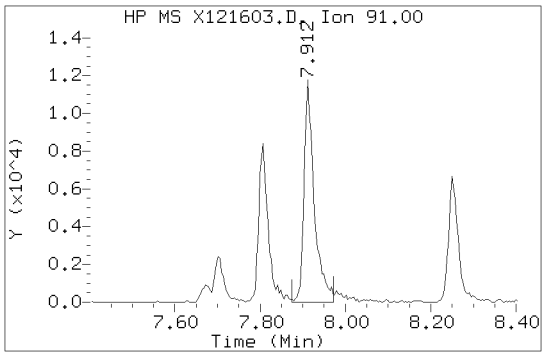

**AFTER**
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AREA
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HEIGHT
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27-Dec-2022
16:07
linh
pham




**BEFORE**
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AREA
19887
HEIGHT
11768
27-Dec-2022
16:03
linh
pham



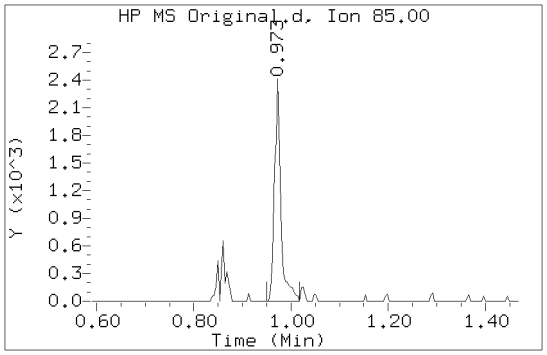

**AFTER**
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AREA
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HEIGHT
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27-Dec-2022
16:07
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pham



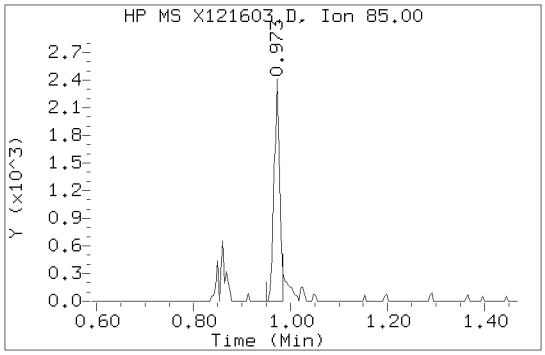

## Dichlorodifluoromethane (75-71-8)

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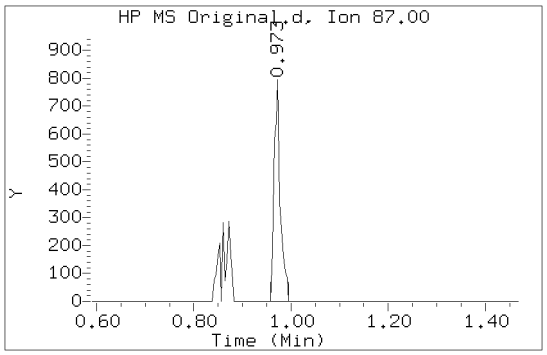
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AREA
2242
HEIGHT
2413
27-Dec-2022
16:03
linh
pham



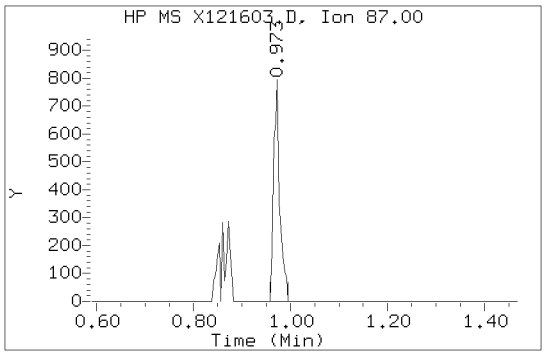

**AFTER**
MASS
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AREA
1990
HEIGHT
2413
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
87
AREA
713
HEIGHT
795
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
87
AREA
713
HEIGHT
795
27-Dec-2022
16:07
linh
pham

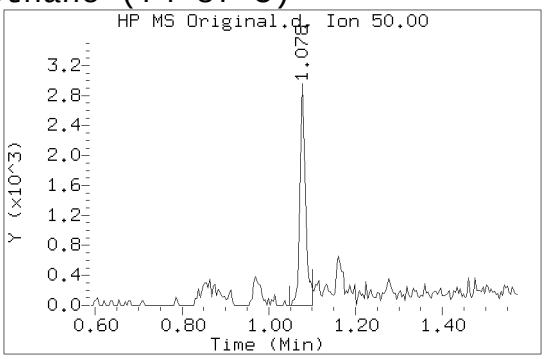


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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Chloromethane (74-87-3)

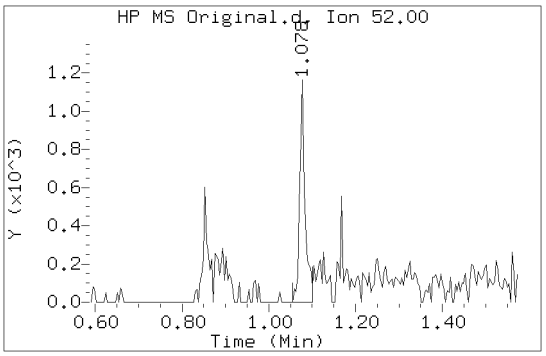
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HEIGHT
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27-Dec-2022
16:03
linh
pham




### BEFORE

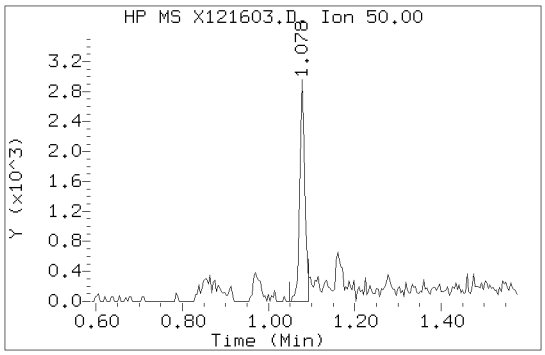
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AREA
985
HEIGHT
1164
27-Dec-2022
16:03
linh
pham




Reason Code:

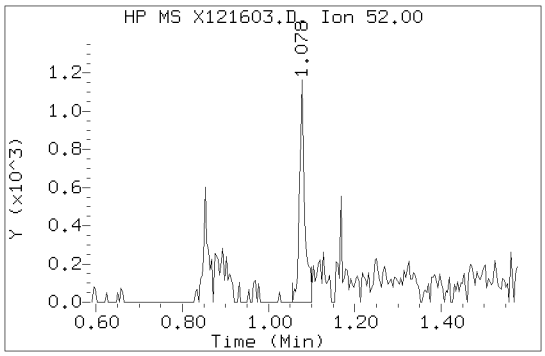
### AFTER

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AREA
2466
HEIGHT
2959
27-Dec-2022
16:07
linh
pham




### AFTER

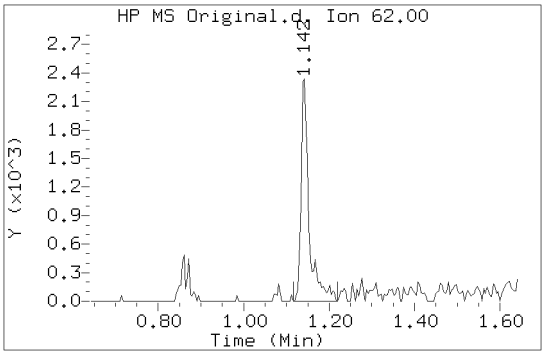
MASS
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AREA
985
HEIGHT
1164
27-Dec-2022
16:07
linh
pham




## Vinyl Chloride (75-01-4)

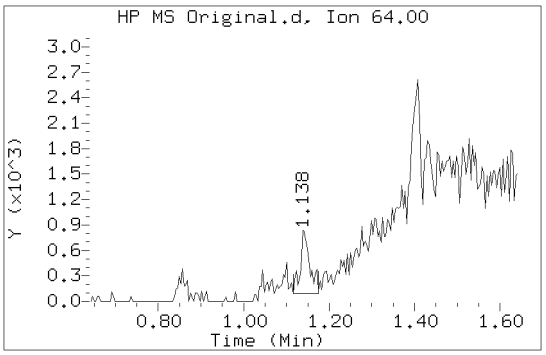
### BEFORE

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HEIGHT
2337
27-Dec-2022
16:03
linh
pham




### BEFORE

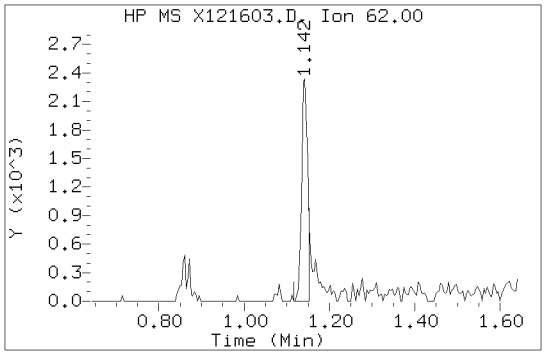
MASS
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750
27-Dec-2022
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pham




Reason Code:

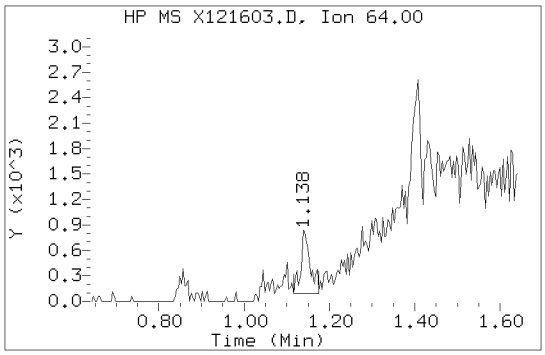
### AFTER

MASS
62
AREA
2412
HEIGHT
2337
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
64
AREA
1174
HEIGHT
750
27-Dec-2022
16:07
linh
pham



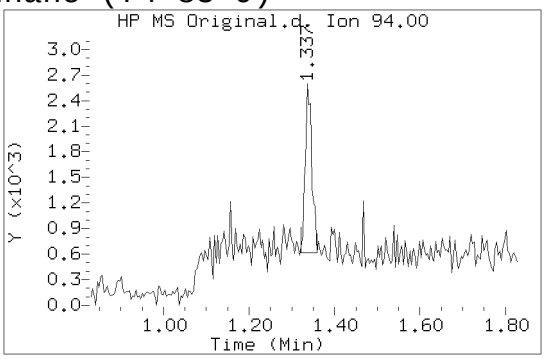
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Bromomethane (74-83-9)

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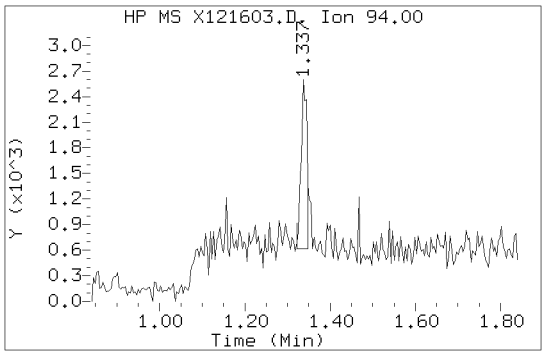
BEFORE

MASS
94
AREA
2146
HEIGHT
1983
27-Dec-2022
16:03
linh
pham



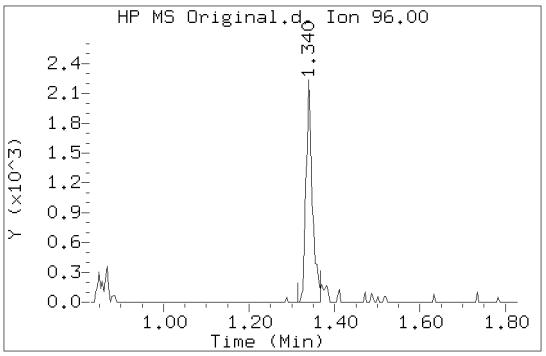

AFTER

MASS
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AREA
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1983
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16:07
linh
pham



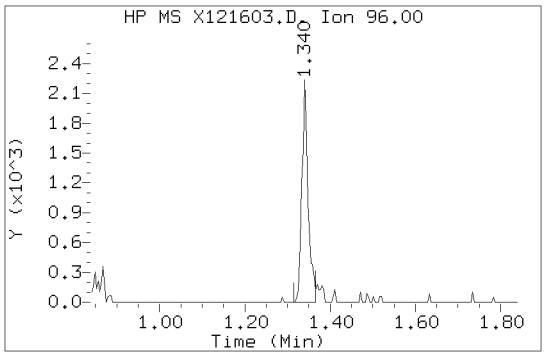

BEFORE

MASS
96
AREA
2304
HEIGHT
2236
27-Dec-2022
16:03
linh
pham




AFTER

MASS
96
AREA
2304
HEIGHT
2236
27-Dec-2022
16:07
linh
pham

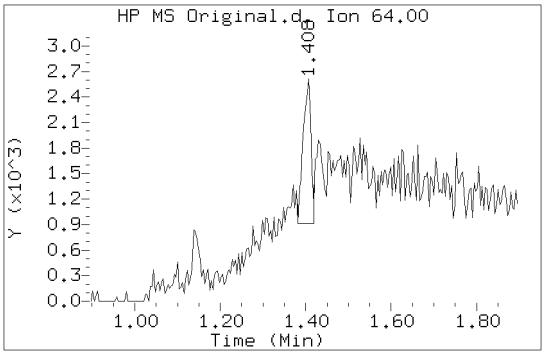



## Chloroethane (75-00-3)

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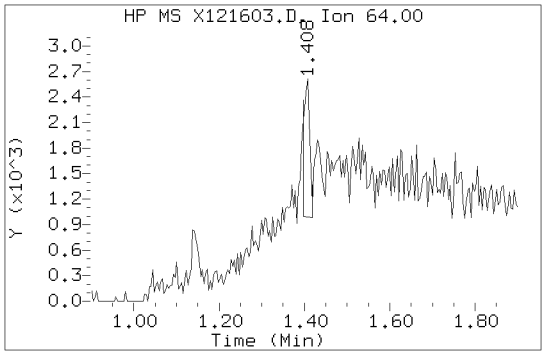
BEFORE

MASS
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AREA
2196
HEIGHT
1702
27-Dec-2022
16:03
linh
pham



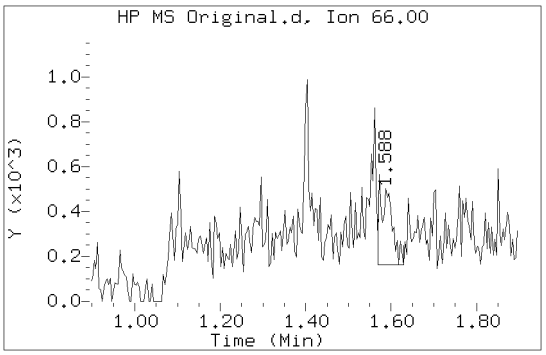

AFTER

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27-Dec-2022
16:07
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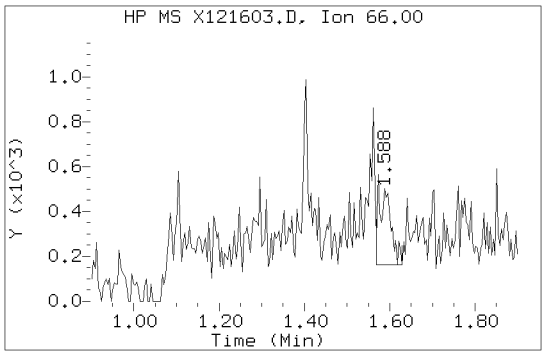

BEFORE

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66
AREA
677
HEIGHT
340
27-Dec-2022
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AFTER

MASS
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AREA
677
HEIGHT
340
27-Dec-2022
16:07
linh
pham



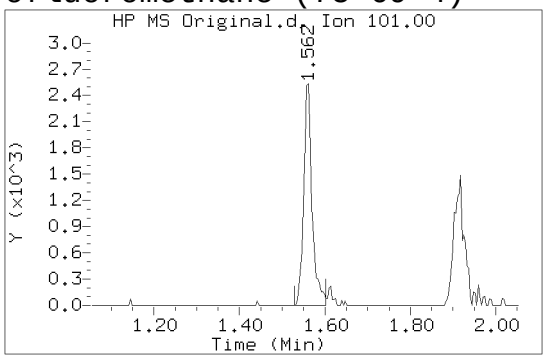
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Trichlorofluoromethane (75-69-4)

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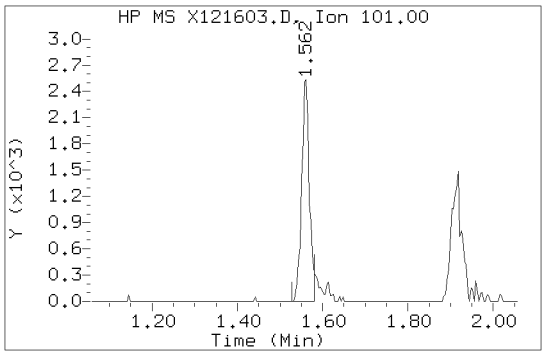
**BEFORE**

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27-Dec-2022
16:03
linh
pham



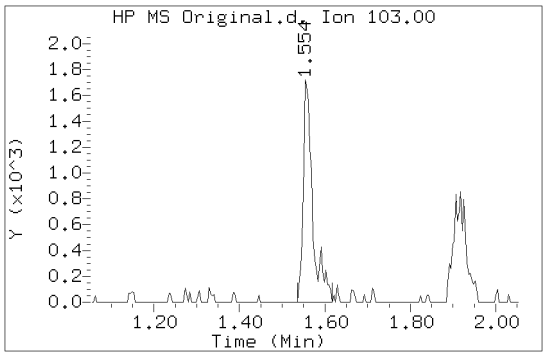

**AFTER**

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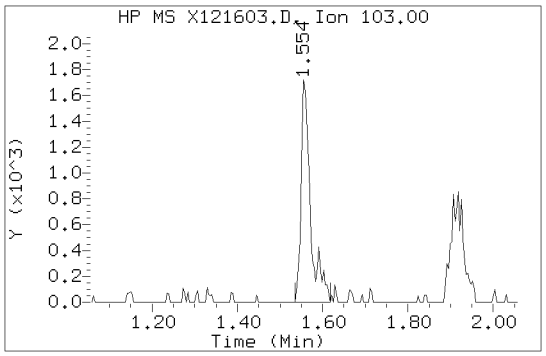

**BEFORE**

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27-Dec-2022
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**AFTER**

MASS
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AREA
2708
HEIGHT
1720
27-Dec-2022
16:07
linh
pham

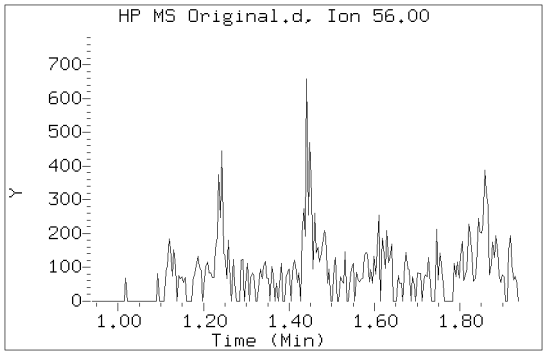



## Acrolein (107-02-8 )

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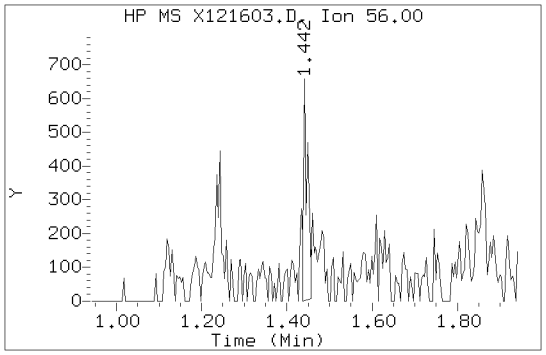
**BEFORE**

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HEIGHT
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27-Dec-2022
16:03
linh
pham



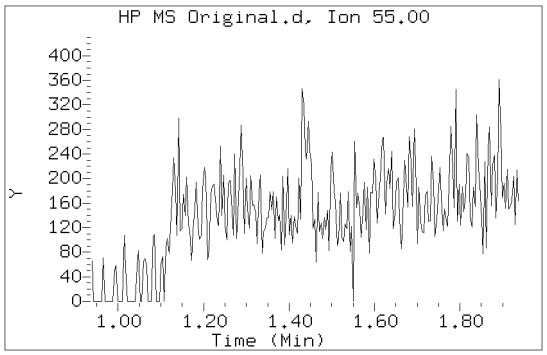

**AFTER**

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16:07
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pham



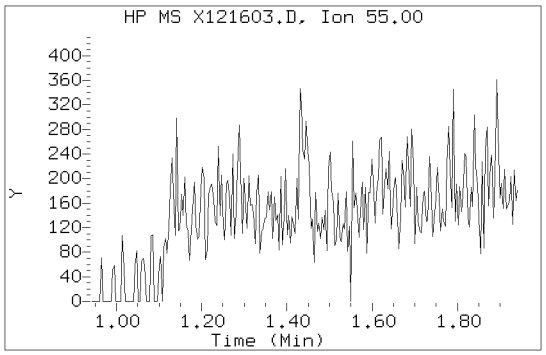

**BEFORE**

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27-Dec-2022
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**AFTER**

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AREA
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HEIGHT
0
27-Dec-2022
16:07
linh
pham

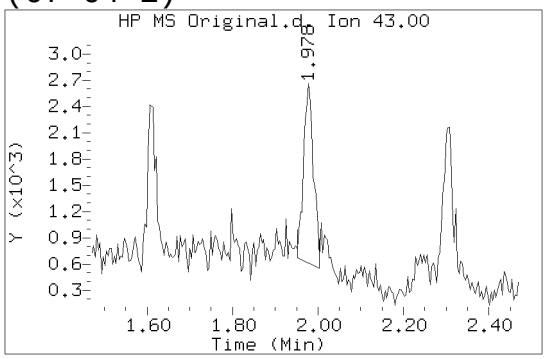


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InstruID : voa6.i
LabSampID : VSTD000.5

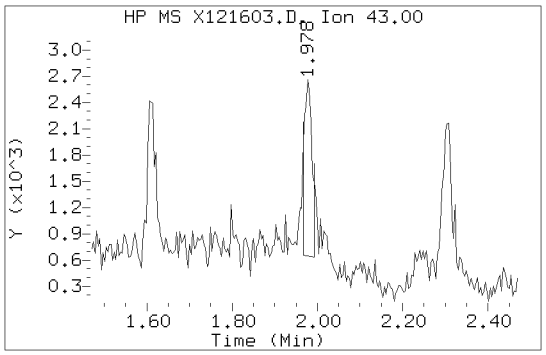
## Acetone (67-64-1)

Reason Code:

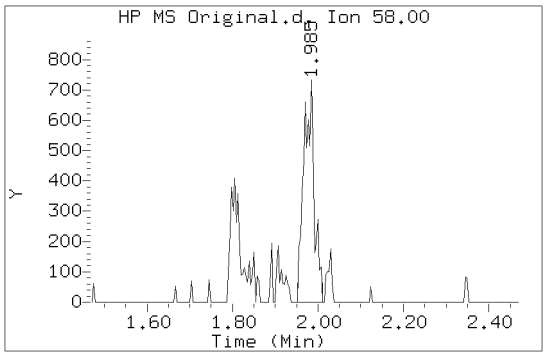
**BEFORE**
MASS
43
AREA
3388
HEIGHT
2046
27-Dec-2022
16:03
linh
pham



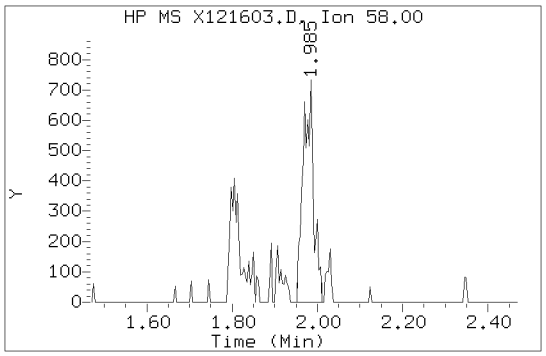

**AFTER**
MASS
43
AREA
2669
HEIGHT
2015
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
58
AREA
1264
HEIGHT
733
27-Dec-2022
16:03
linh
pham



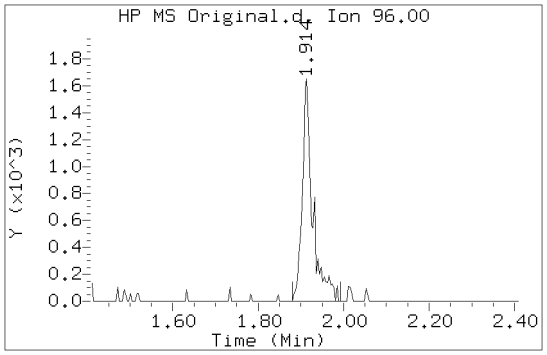

**AFTER**
MASS
58
AREA
1264
HEIGHT
733
27-Dec-2022
16:07
linh
pham



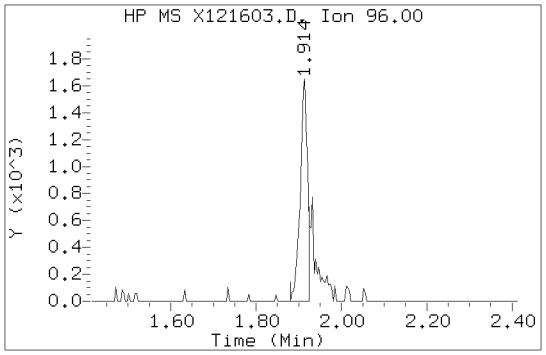

## 1,1-Dichloroethene (75-35-4)

Reason Code:

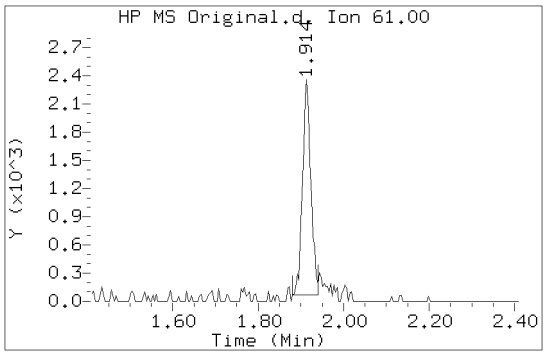
**BEFORE**
MASS
96
AREA
2836
HEIGHT
1651
27-Dec-2022
16:03
linh
pham



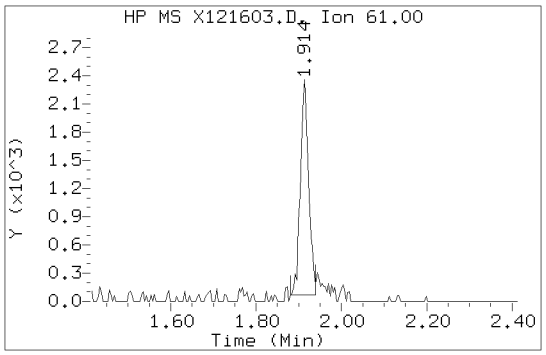

**AFTER**
MASS
96
AREA
2037
HEIGHT
1651
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
61
AREA
3197
HEIGHT
2293
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
61
AREA
3197
HEIGHT
2293
27-Dec-2022
16:07
linh
pham



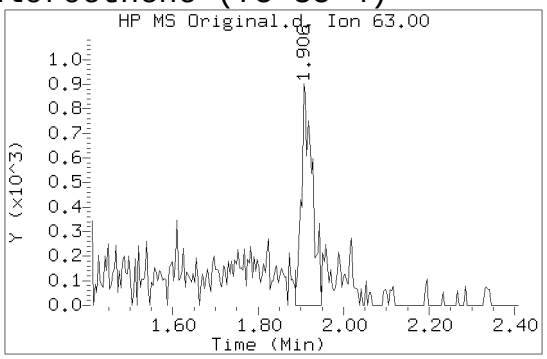
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1-Dichloroethene (75-35-4)

Reason Code:

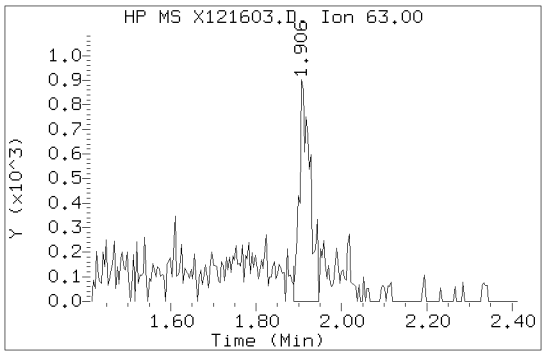
**BEFORE**

MASS
63
AREA
1607
HEIGHT
902
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
63
AREA
1607
HEIGHT
902
27-Dec-2022
16:07
linh
pham

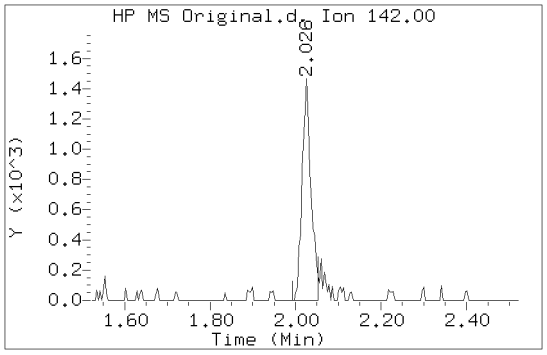



## Iodomethane (74-88-4)

Reason Code:

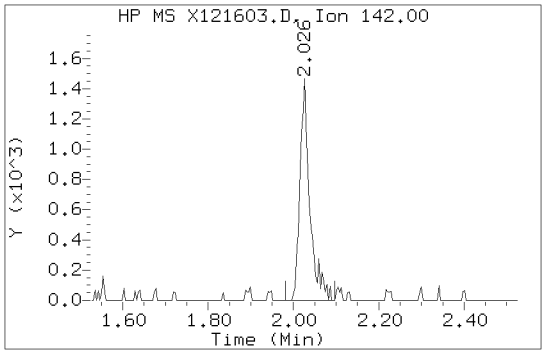
**BEFORE**

MASS
142
AREA
2166
HEIGHT
1466
27-Dec-2022
16:03
linh
pham



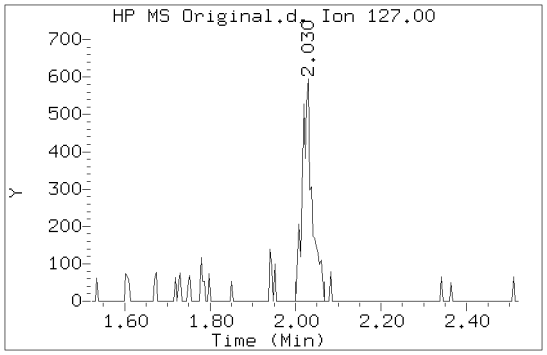

**AFTER**

MASS
142
AREA
2397
HEIGHT
1466
27-Dec-2022
16:07
linh
pham



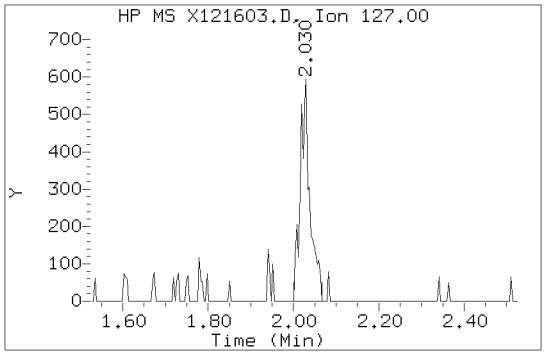

**BEFORE**

MASS
127
AREA
958
HEIGHT
595
27-Dec-2022
16:03
linh
pham



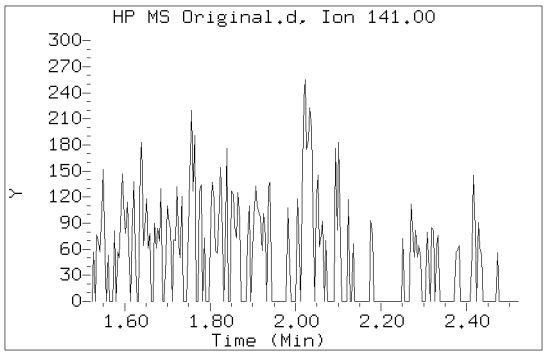

**AFTER**

MASS
127
AREA
958
HEIGHT
595
27-Dec-2022
16:07
linh
pham



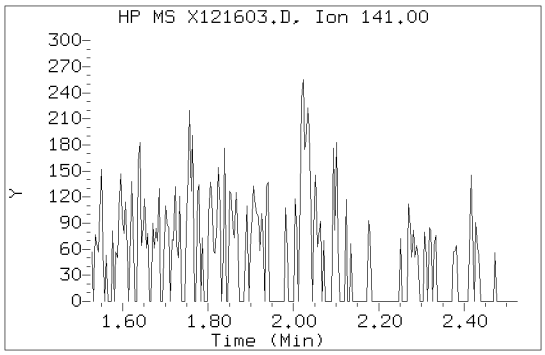

**BEFORE**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



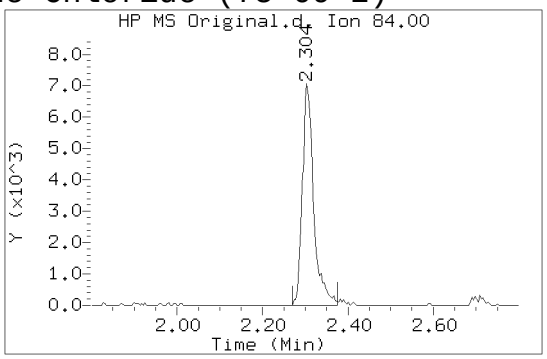
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methylene Chloride (75-09-2)

Reason Code:

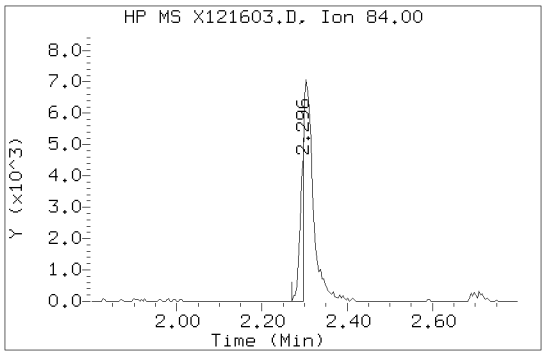
**BEFORE**

MASS
84
AREA
13307
HEIGHT
7067
27-Dec-2022
16:03
linh
pham



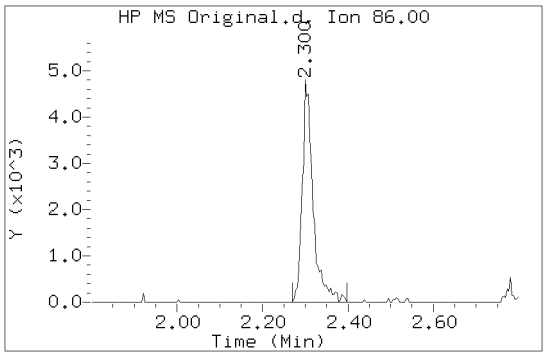

**AFTER**

MASS
84
AREA
2938
HEIGHT
4595
27-Dec-2022
16:07
linh
pham



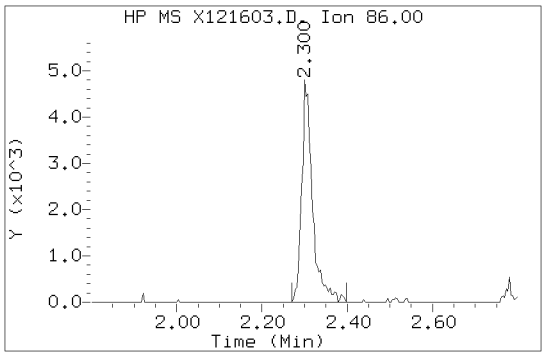

**BEFORE**

MASS
86
AREA
8692
HEIGHT
4802
27-Dec-2022
16:03
linh
pham



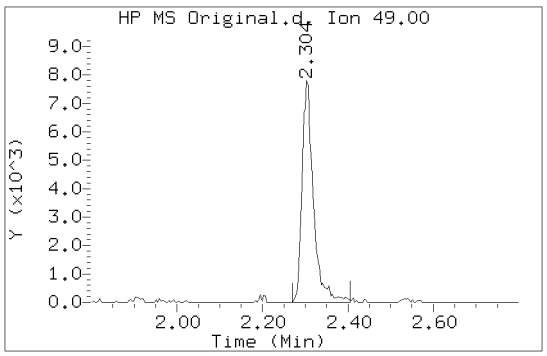

**AFTER**

MASS
86
AREA
8692
HEIGHT
4802
27-Dec-2022
16:07
linh
pham



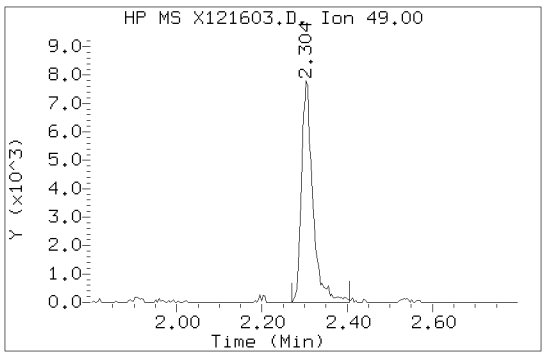

**BEFORE**

MASS
49
AREA
14733
HEIGHT
7803
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
49
AREA
14733
HEIGHT
7803
27-Dec-2022
16:07
linh
pham

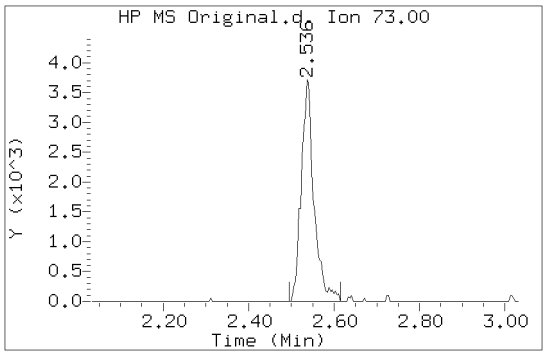



## Methyl tert-butyl ether (1634-04-4)

Reason Code:

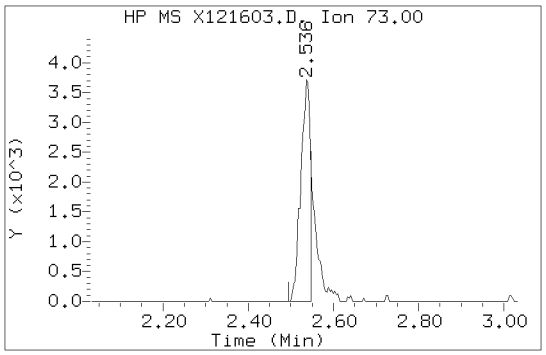
**BEFORE**

MASS
73
AREA
7826
HEIGHT
3716
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
73
AREA
5841
HEIGHT
3716
27-Dec-2022
16:07
linh
pham

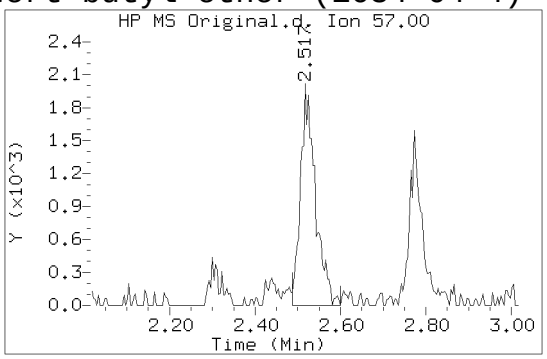


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methyl tert-butyl ether (1634-04-4)

**BEFORE**

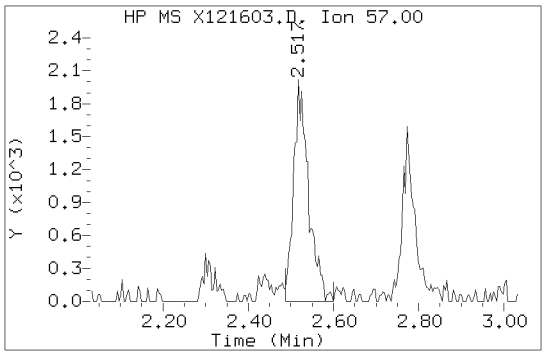
MASS
57
AREA
4915
HEIGHT
2019
27-Dec-2022
16:03
linh
pham




Reason Code:

**AFTER**

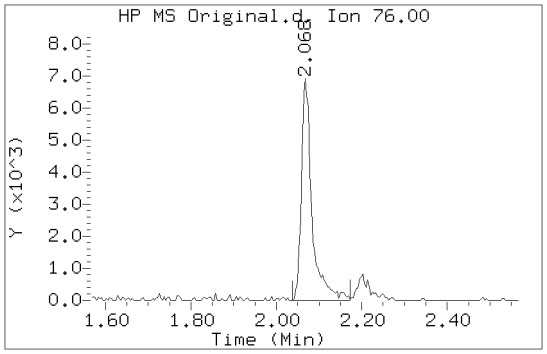
MASS
57
AREA
4915
HEIGHT
2019
27-Dec-2022
16:07
linh
pham




## Carbon Disulfide (75-15-0)

**BEFORE**

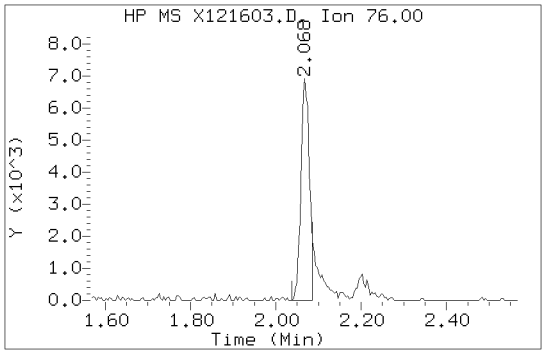
MASS
76
AREA
12313
HEIGHT
6923
27-Dec-2022
16:03
linh
pham




Reason Code:

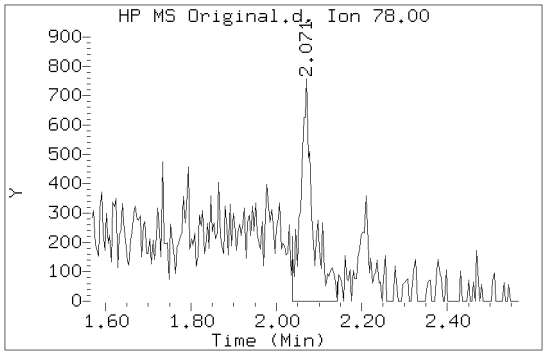
**AFTER**

MASS
76
AREA
9921
HEIGHT
6923
27-Dec-2022
16:07
linh
pham



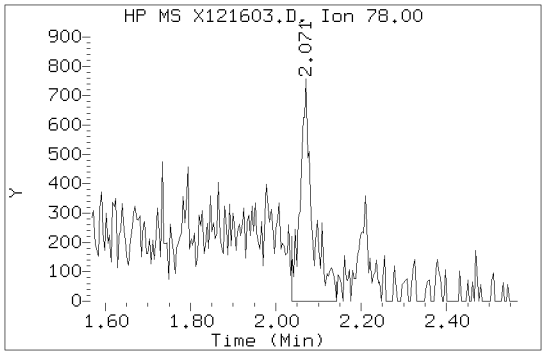

**BEFORE**

MASS
78
AREA
1586
HEIGHT
757
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
78
AREA
1586
HEIGHT
757
27-Dec-2022
16:07
linh
pham

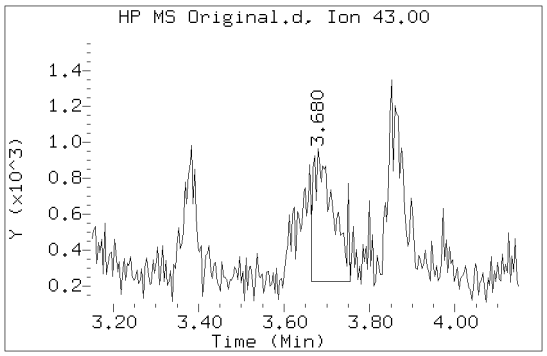



## 2-Butanone (78-93-3)

Reason Code:

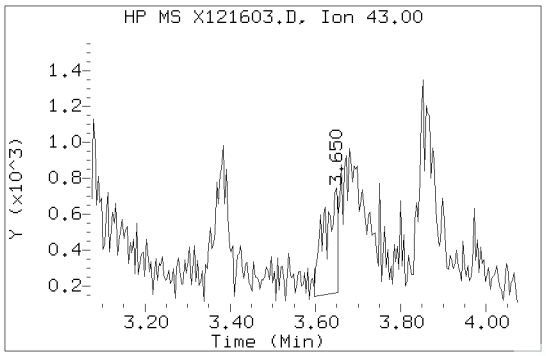
**BEFORE**

MASS
43
AREA
2415
HEIGHT
742
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
43
AREA
1292
HEIGHT
587
27-Dec-2022
16:07
linh
pham



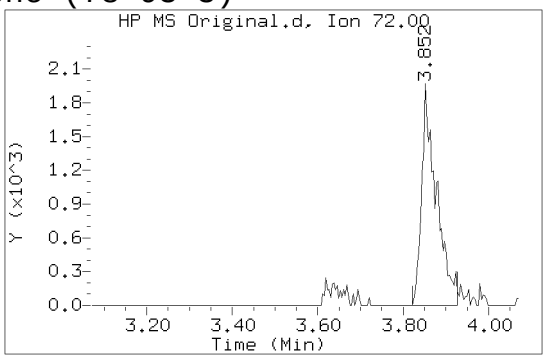
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 2-Butanone (78-93-3)

Reason Code:

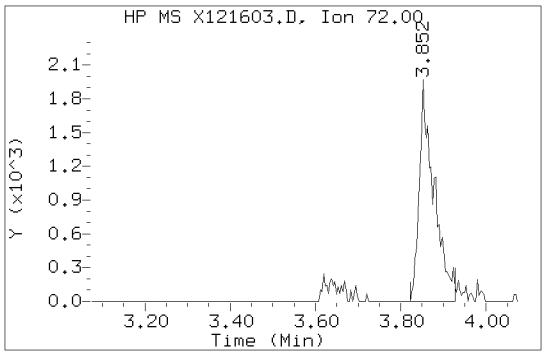
**BEFORE**

MASS
72
AREA
4698
HEIGHT
1970
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
72
AREA
4698
HEIGHT
1970
27-Dec-2022
16:07
linh
pham

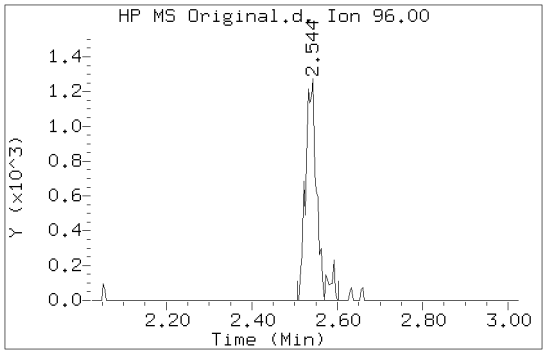



## trans-1,2-Dichloroethene (156-60-5)

Reason Code:

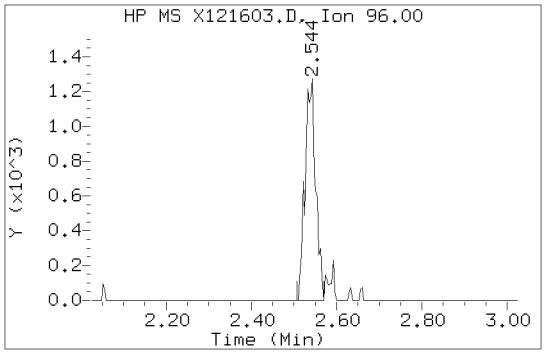
**BEFORE**

MASS
96
AREA
2404
HEIGHT
1274
27-Dec-2022
16:03
linh
pham



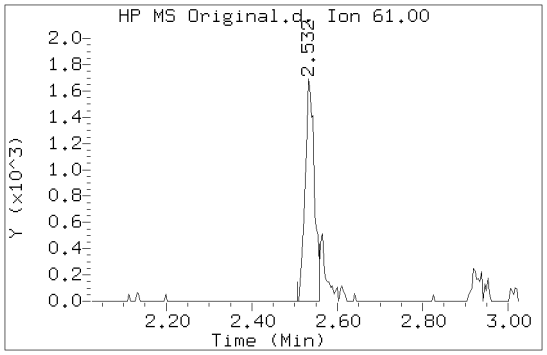

**AFTER**

MASS
96
AREA
2218
HEIGHT
1274
27-Dec-2022
16:07
linh
pham



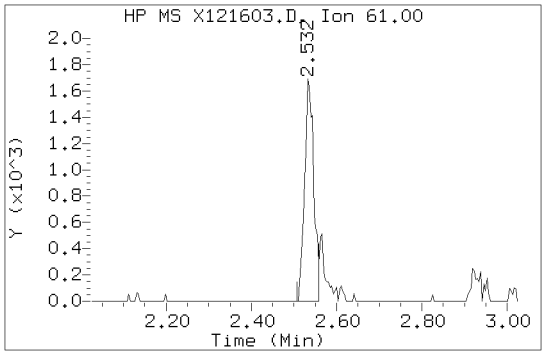

**BEFORE**

MASS
61
AREA
2571
HEIGHT
1692
27-Dec-2022
16:03
linh
pham



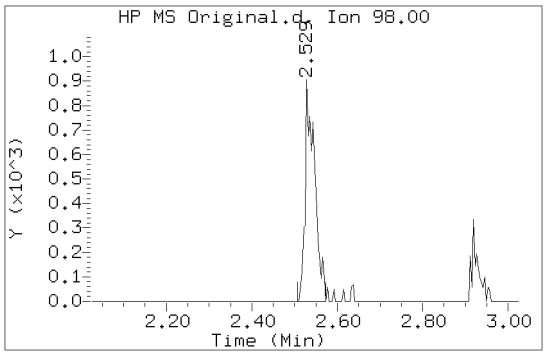

**AFTER**

MASS
61
AREA
2571
HEIGHT
1692
27-Dec-2022
16:07
linh
pham



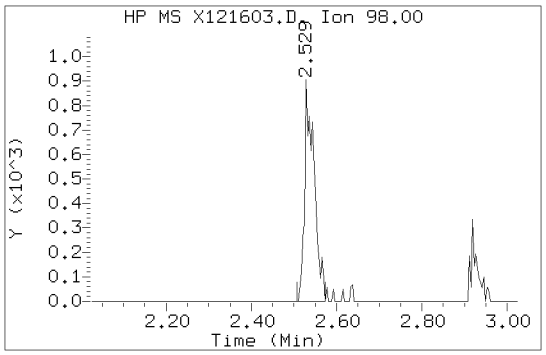

**BEFORE**

MASS
98
AREA
1412
HEIGHT
906
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
98
AREA
1412
HEIGHT
906
27-Dec-2022
16:07
linh
pham



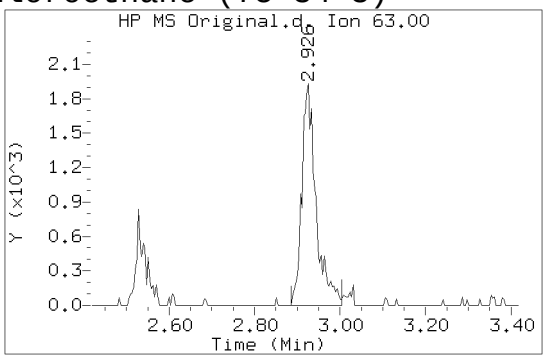
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1-Dichloroethane (75-34-3)

Reason Code:

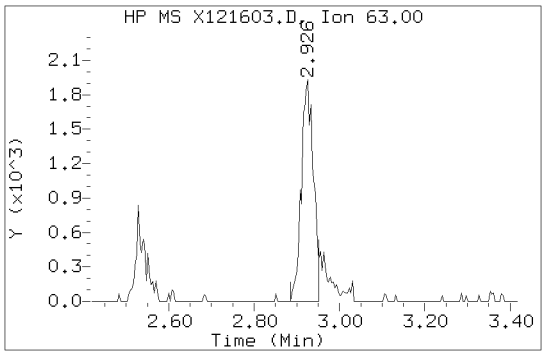
**BEFORE**

MASS
63
AREA
4504
HEIGHT
1931
27-Dec-2022
16:03
linh
pham



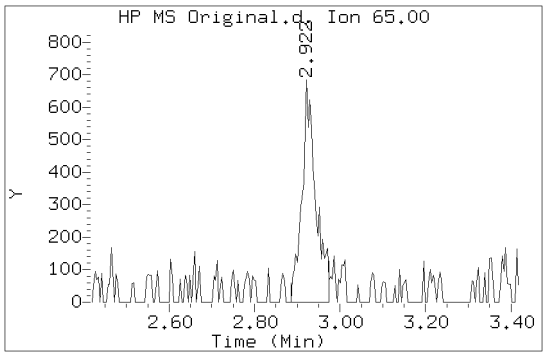

**AFTER**

MASS
63
AREA
3874
HEIGHT
1931
27-Dec-2022
16:07
linh
pham



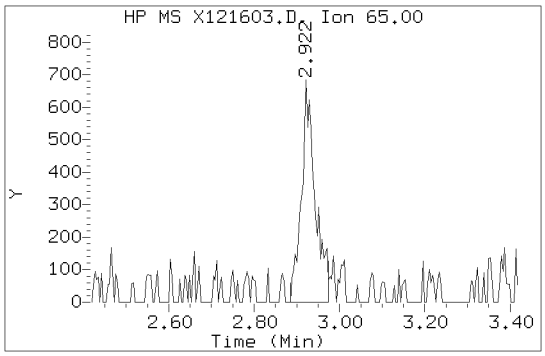

**BEFORE**

MASS
65
AREA
1548
HEIGHT
684
27-Dec-2022
16:03
linh
pham



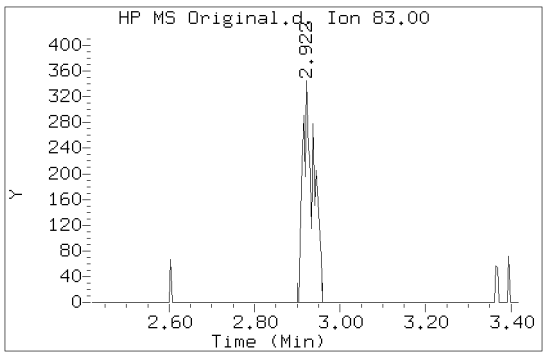

**AFTER**

MASS
65
AREA
1548
HEIGHT
684
27-Dec-2022
16:07
linh
pham



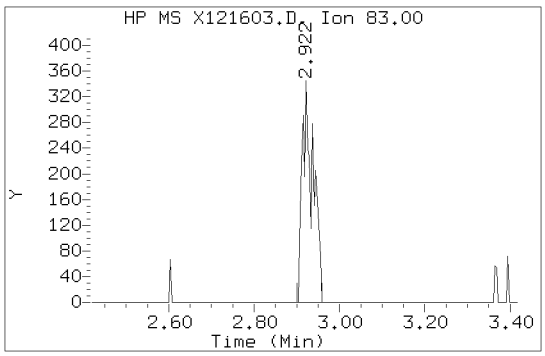

**BEFORE**

MASS
83
AREA
618
HEIGHT
345
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
83
AREA
618
HEIGHT
345
27-Dec-2022
16:07
linh
pham

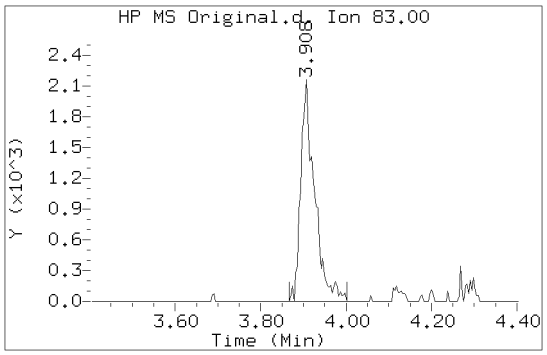



## Chloroform (67-66-3)

Reason Code:

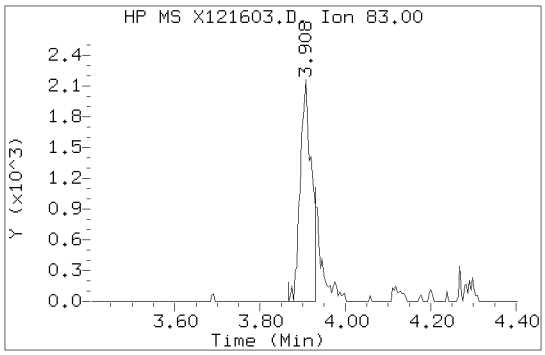
**BEFORE**

MASS
83
AREA
4949
HEIGHT
2160
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
83
AREA
4040
HEIGHT
2160
27-Dec-2022
16:07
linh
pham



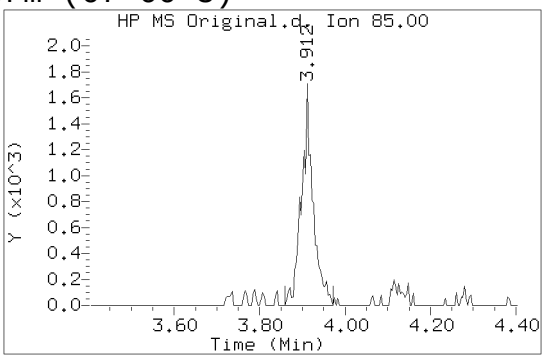
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Chloroform (67-66-3)

Reason Code:

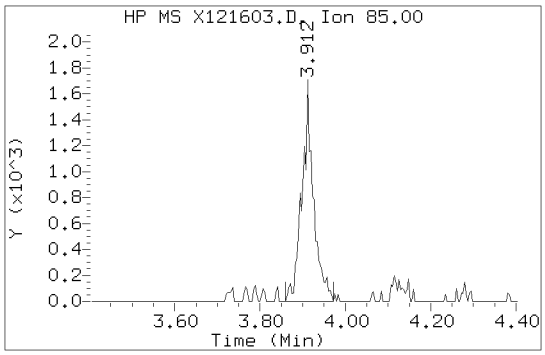
**BEFORE**

MASS
85
AREA
3222
HEIGHT
1709
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
3222
HEIGHT
1709
27-Dec-2022
16:07
linh
pham

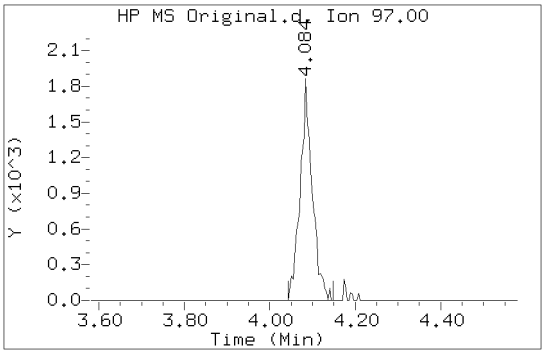



## 1,1,1-Trichloroethane (71-55-6)

Reason Code:

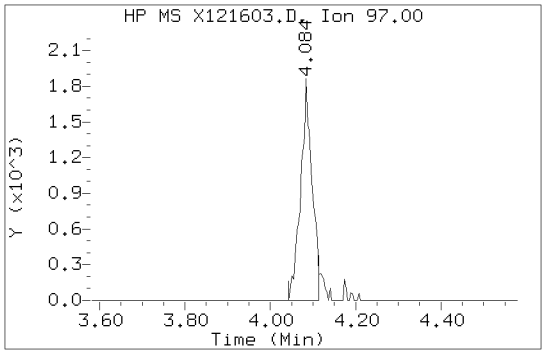
**BEFORE**

MASS
97
AREA
3710
HEIGHT
1863
27-Dec-2022
16:03
linh
pham



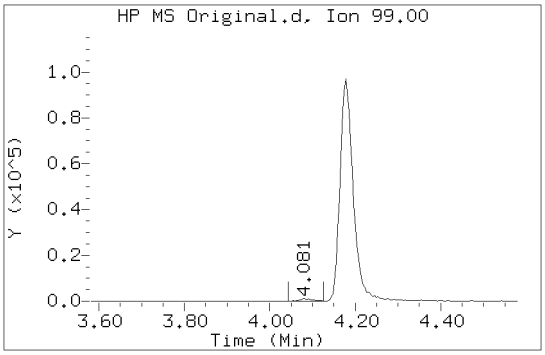

**AFTER**

MASS
97
AREA
3512
HEIGHT
1863
27-Dec-2022
16:07
linh
pham



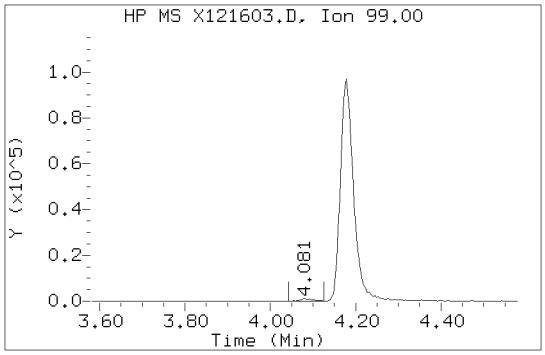

**BEFORE**

MASS
99
AREA
2299
HEIGHT
1029
27-Dec-2022
16:03
linh
pham



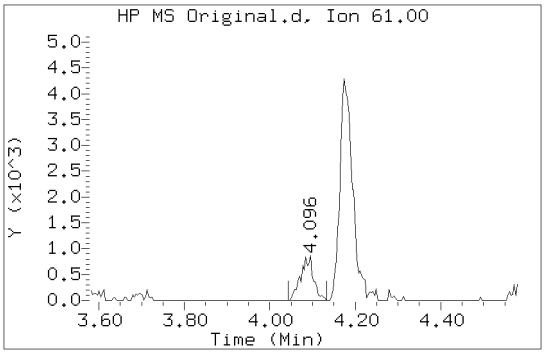

**AFTER**

MASS
99
AREA
2299
HEIGHT
1029
27-Dec-2022
16:07
linh
pham



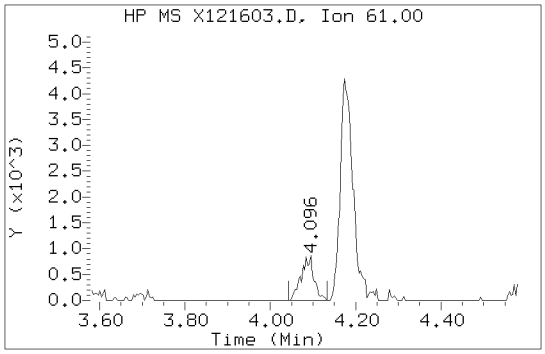

**BEFORE**

MASS
61
AREA
1801
HEIGHT
872
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
61
AREA
1801
HEIGHT
872
27-Dec-2022
16:07
linh
pham



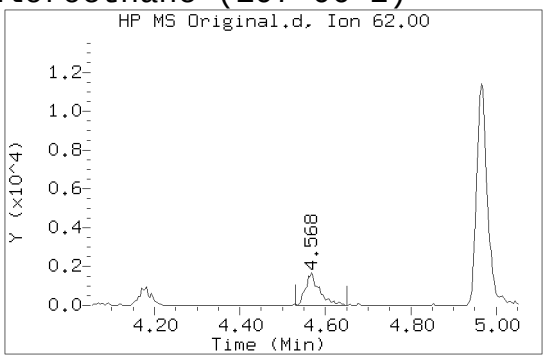
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,2-Dichloroethane (107-06-2)

Reason Code:

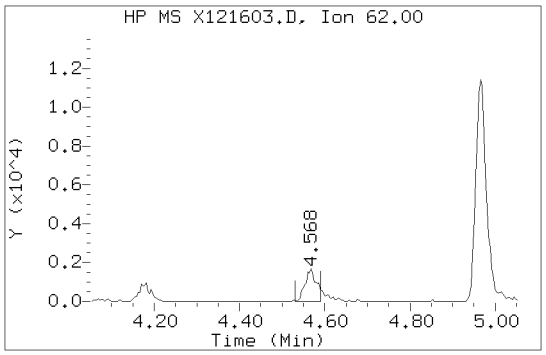
**BEFORE**

MASS
62
AREA
3822
HEIGHT
1678
27-Dec-2022
16:03
linh
pham



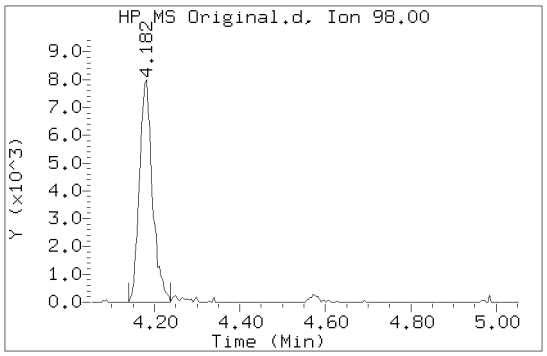

**AFTER**

MASS
62
AREA
3129
HEIGHT
1678
27-Dec-2022
16:07
linh
pham



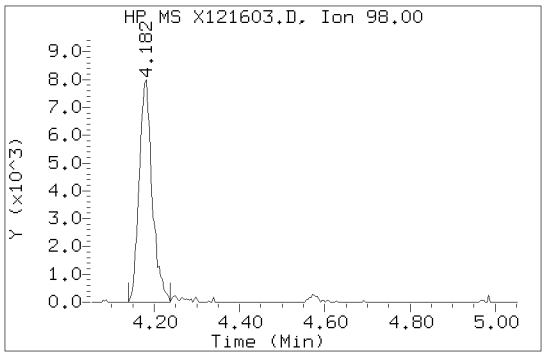

**BEFORE**

MASS
98
AREA
16918
HEIGHT
7987
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
98
AREA
16918
HEIGHT
7987
27-Dec-2022
16:07
linh
pham

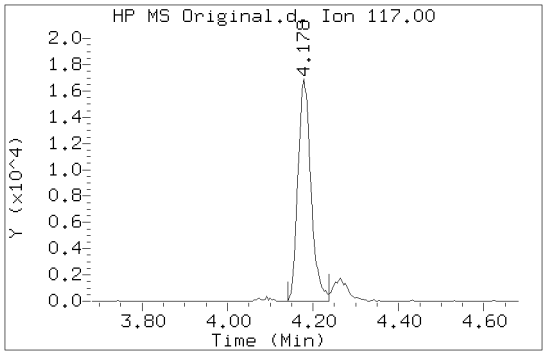



## Carbon Tetrachloride (56-23-5)

Reason Code:

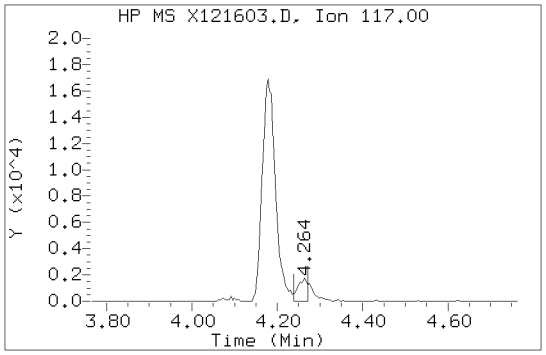
**BEFORE**

MASS
117
AREA
36559
HEIGHT
16920
27-Dec-2022
16:03
linh
pham



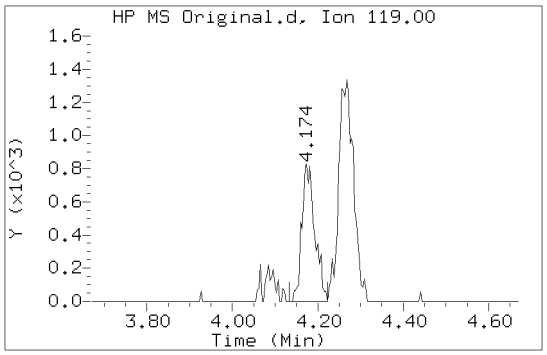

**AFTER**

MASS
117
AREA
2763
HEIGHT
1744
27-Dec-2022
16:07
linh
pham



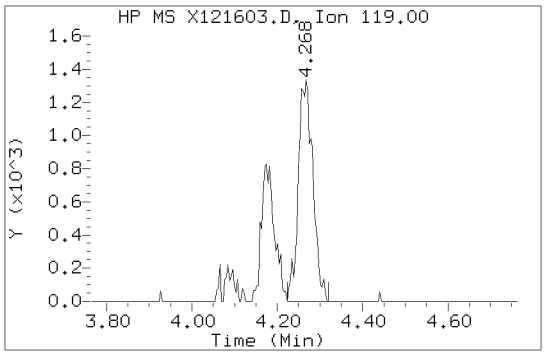

**BEFORE**

MASS
119
AREA
1780
HEIGHT
826
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
119
AREA
3227
HEIGHT
1337
27-Dec-2022
16:07
linh
pham

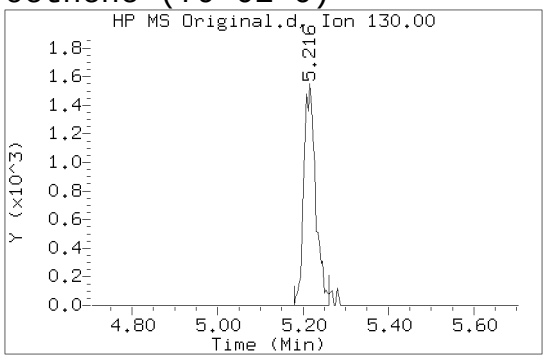


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

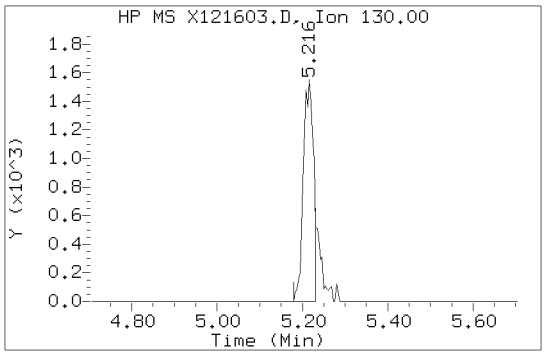
## Trichloroethene (79-01-6)

Reason Code:

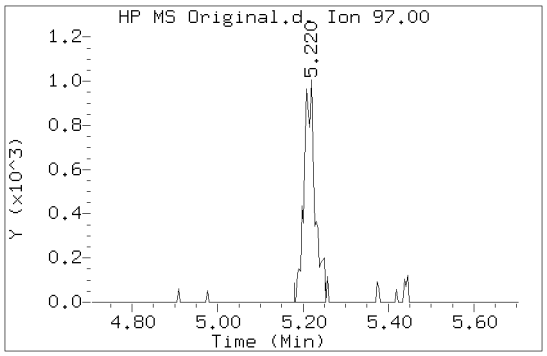
BEFORE
MASS
130
AREA
3011
HEIGHT
1551
27-Dec-2022
16:03
linh
pham



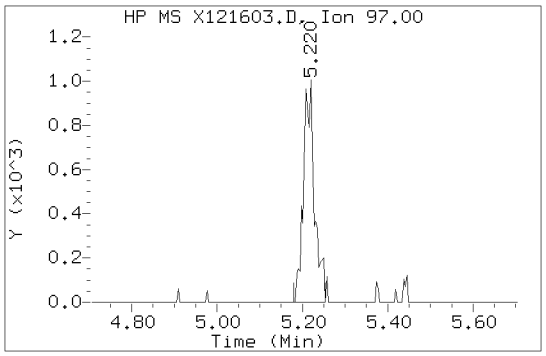

AFTER
MASS
130
AREA
2583
HEIGHT
1551
27-Dec-2022
16:07
linh
pham



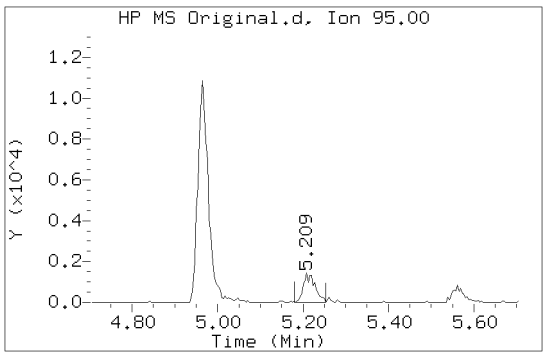

BEFORE
MASS
97
AREA
1808
HEIGHT
1006
27-Dec-2022
16:03
linh
pham



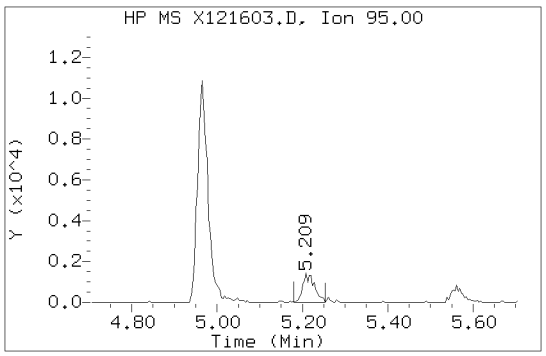

AFTER
MASS
97
AREA
1808
HEIGHT
1006
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
95
AREA
2693
HEIGHT
1431
27-Dec-2022
16:03
linh
pham



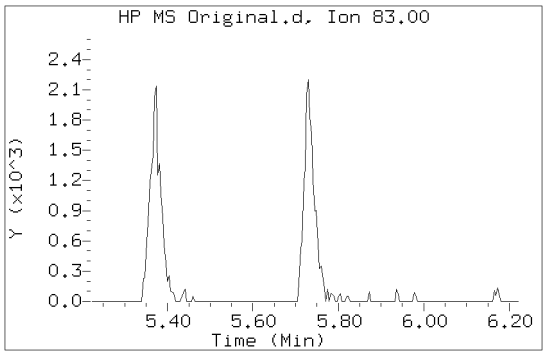

AFTER
MASS
95
AREA
2693
HEIGHT
1431
27-Dec-2022
16:07
linh
pham



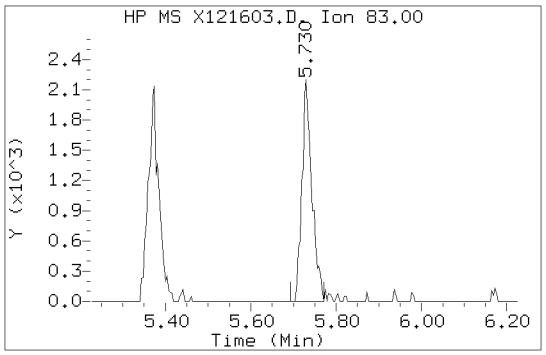

## Bromodichloromethane (75-27-4)

Reason Code:

BEFORE
MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
83
AREA
3650
HEIGHT
2201
27-Dec-2022
16:07
linh
pham

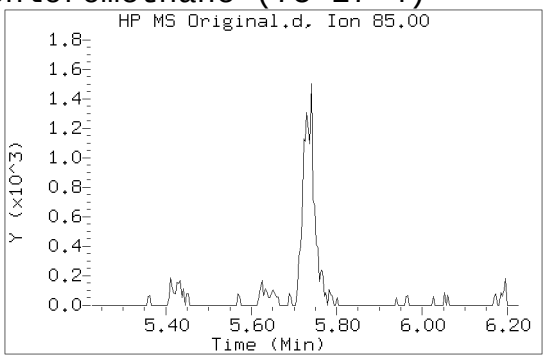


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

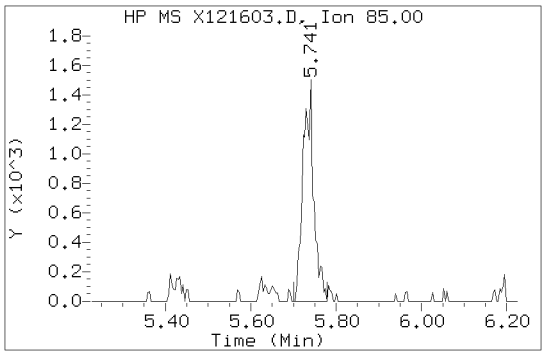
## Bromodichloromethane (75-27-4)

Reason Code:

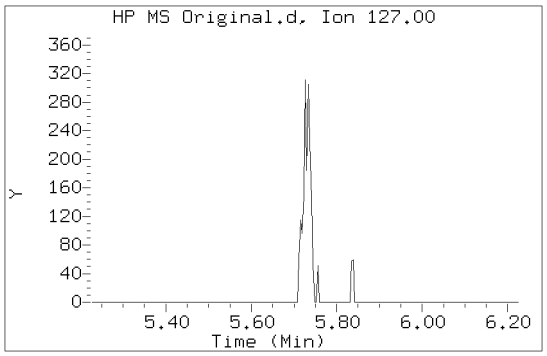
BEFORE
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



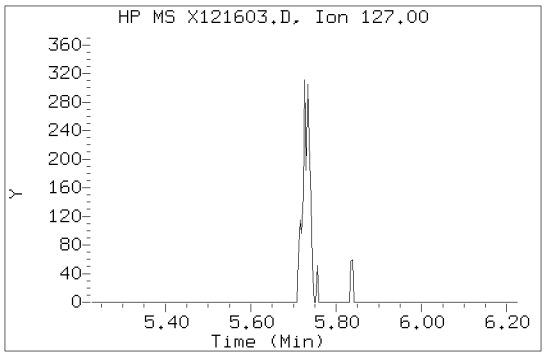

AFTER
MASS
85
AREA
2639
HEIGHT
1503
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



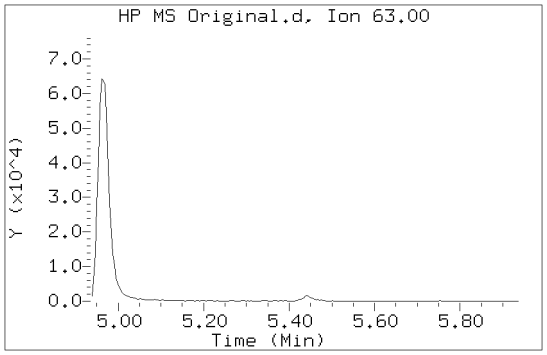

AFTER
MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



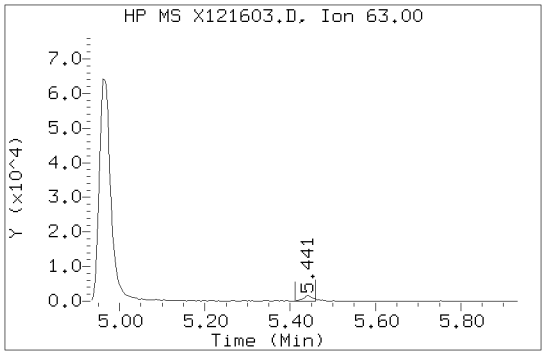

## 1,2-Dichloropropane (78-87-5)

Reason Code:

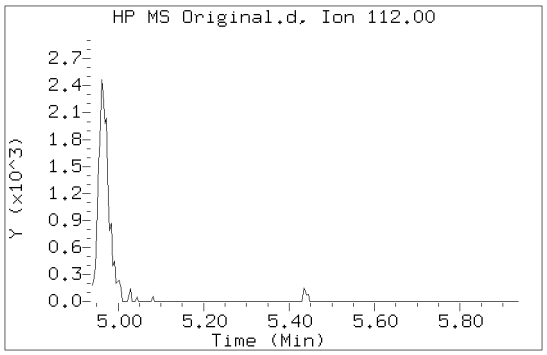
BEFORE
MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



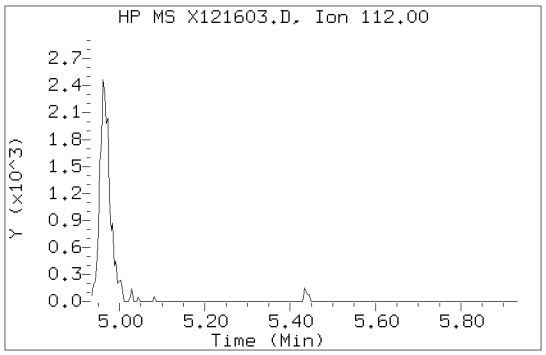

AFTER
MASS
63
AREA
2449
HEIGHT
1587
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



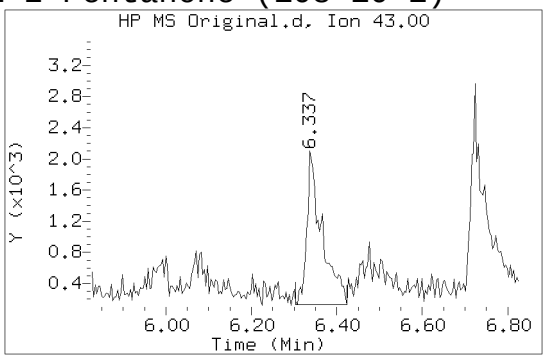
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 4-Methyl-2-Pentanone (108-10-1)

Reason Code:

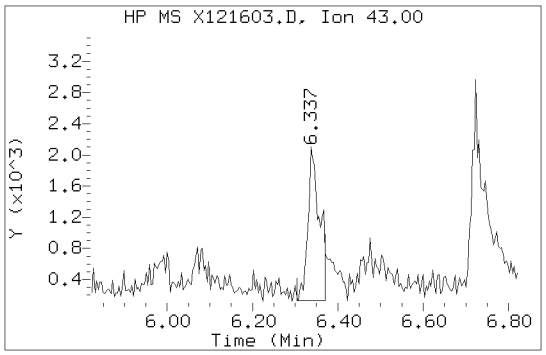
**BEFORE**

MASS
43
AREA
4873
HEIGHT
1970
27-Dec-2022
16:03
linh
pham



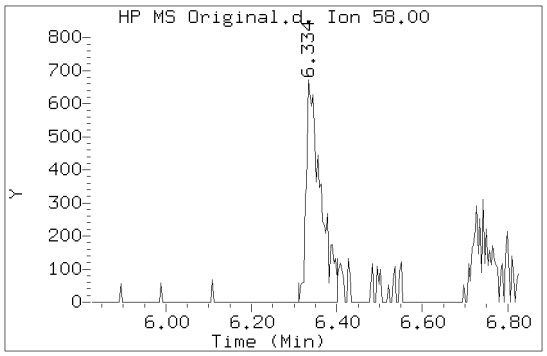

**AFTER**

MASS
43
AREA
3741
HEIGHT
1970
27-Dec-2022
16:07
linh
pham



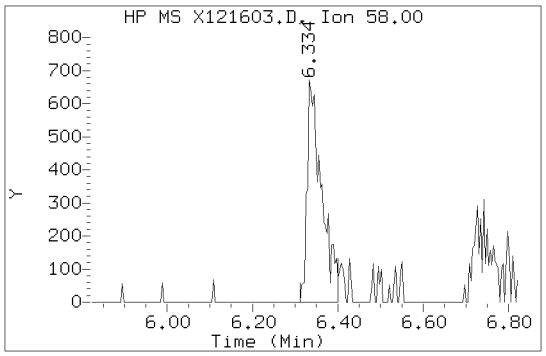

**BEFORE**

MASS
58
AREA
1585
HEIGHT
672
27-Dec-2022
16:03
linh
pham



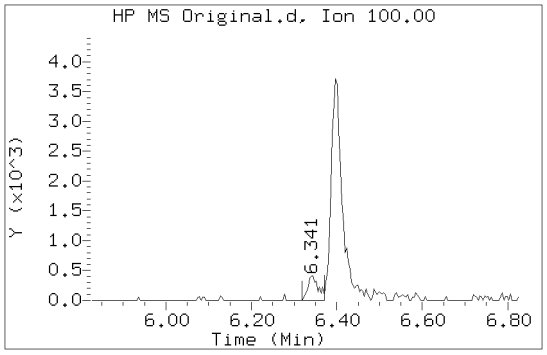

**AFTER**

MASS
58
AREA
1585
HEIGHT
672
27-Dec-2022
16:07
linh
pham



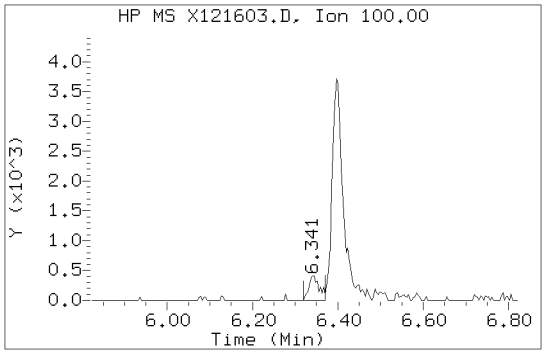

**BEFORE**

MASS
100
AREA
714
HEIGHT
412
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
100
AREA
714
HEIGHT
412
27-Dec-2022
16:07
linh
pham

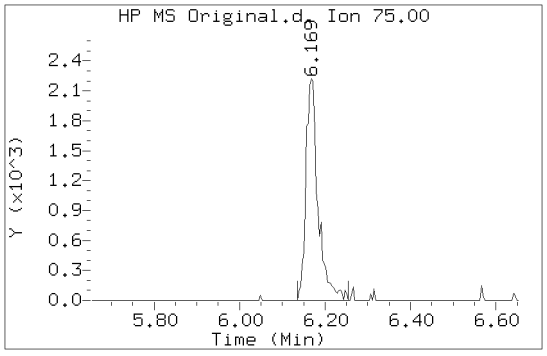



## cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

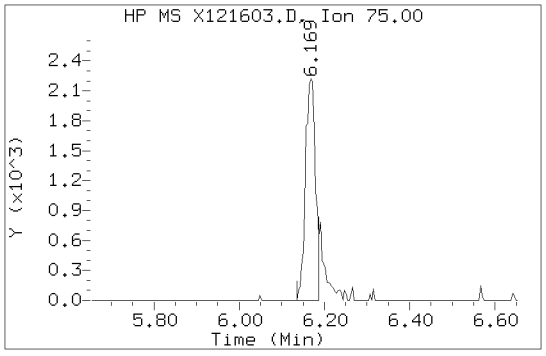
**BEFORE**

MASS
75
AREA
4432
HEIGHT
2222
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
3695
HEIGHT
2222
27-Dec-2022
16:07
linh
pham

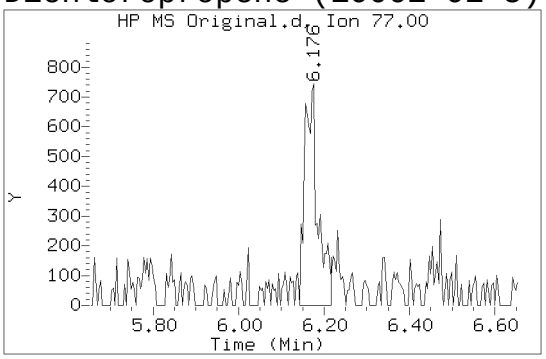


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

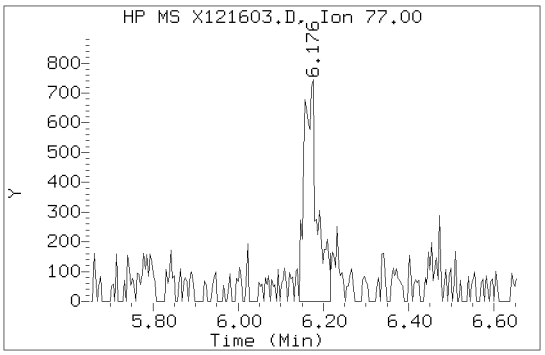
## cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

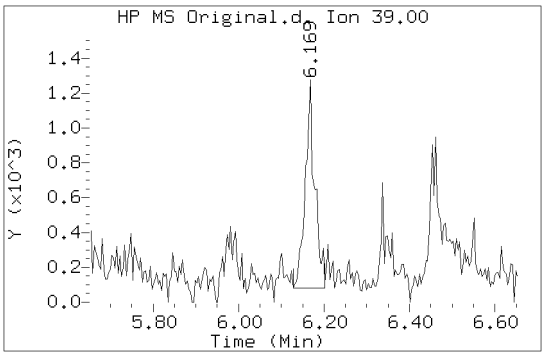
BEFORE
MASS
77
AREA
1607
HEIGHT
745
27-Dec-2022
16:03
linh
pham



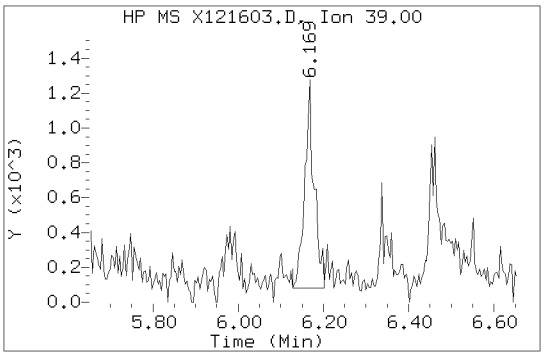

AFTER
MASS
77
AREA
1607
HEIGHT
745
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
39
AREA
1836
HEIGHT
1193
27-Dec-2022
16:03
linh
pham



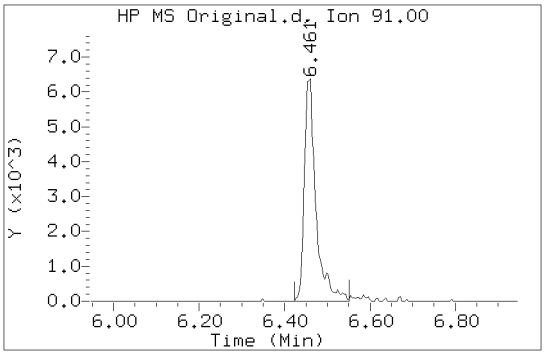

AFTER
MASS
39
AREA
1836
HEIGHT
1193
27-Dec-2022
16:07
linh
pham



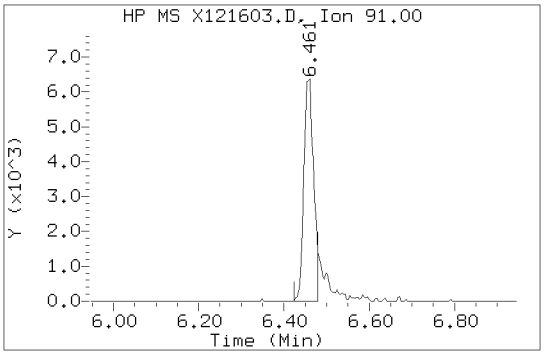

## Toluene (108-88-3)

Reason Code:

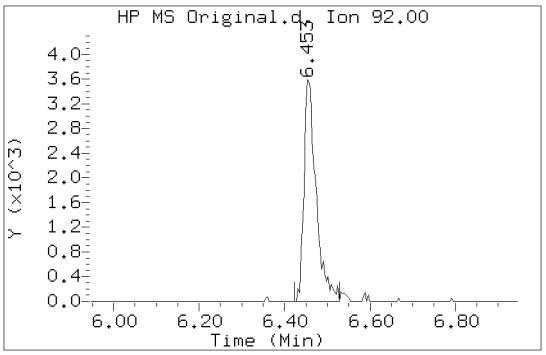
BEFORE
MASS
91
AREA
12225
HEIGHT
6374
27-Dec-2022
16:03
linh
pham



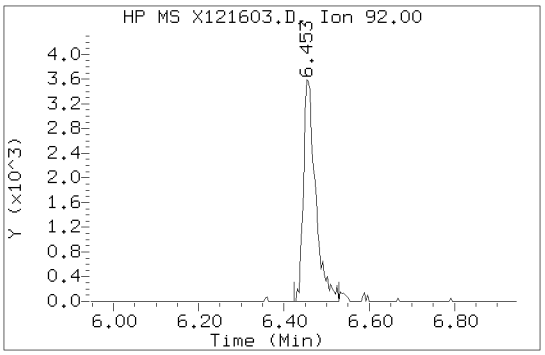

AFTER
MASS
91
AREA
10374
HEIGHT
6374
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
92
AREA
7180
HEIGHT
3591
27-Dec-2022
16:03
linh
pham




AFTER
MASS
92
AREA
7180
HEIGHT
3591
27-Dec-2022
16:07
linh
pham



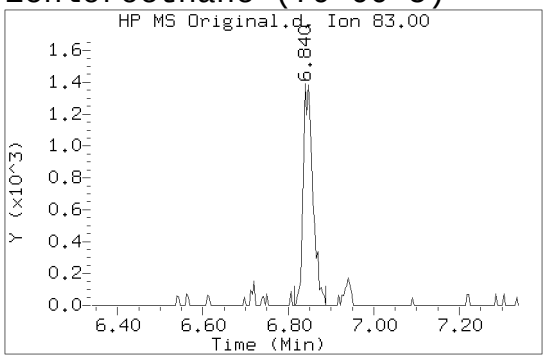
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1,2-Trichloroethane (79-00-5)

Reason Code:

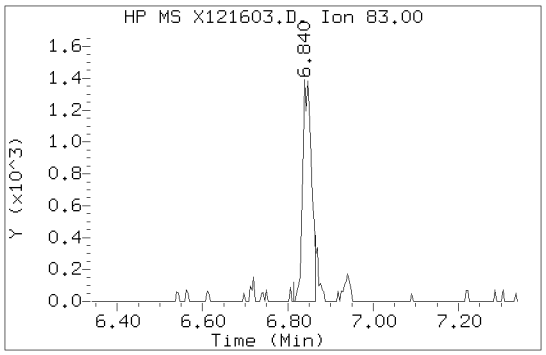
**BEFORE**

MASS
83
AREA
2247
HEIGHT
1391
27-Dec-2022
16:03
linh
pham



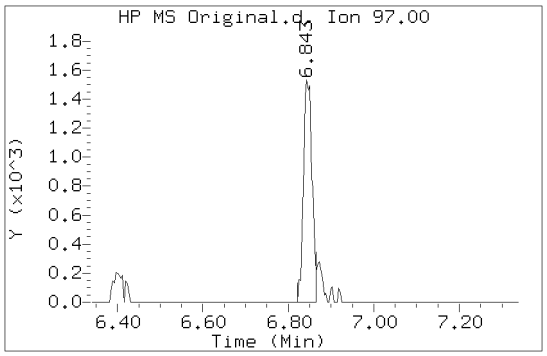

**AFTER**

MASS
83
AREA
2092
HEIGHT
1391
27-Dec-2022
16:07
linh
pham



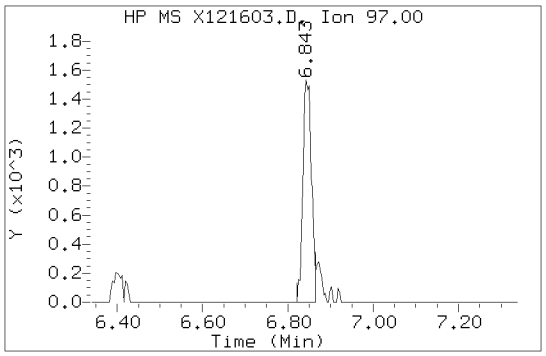

**BEFORE**

MASS
97
AREA
2224
HEIGHT
1532
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
97
AREA
2224
HEIGHT
1532
27-Dec-2022
16:07
linh
pham

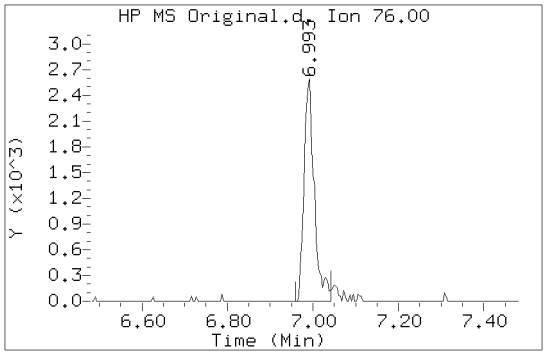



## 1,3-Dichloropropane (142-28-9)

Reason Code:

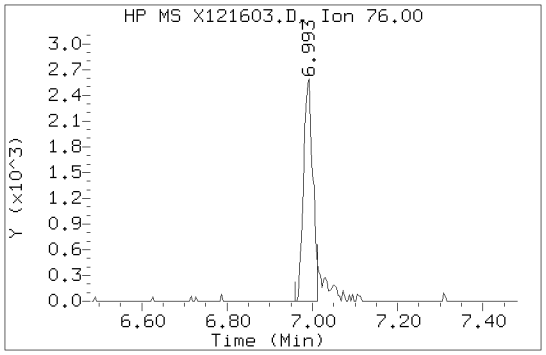
**BEFORE**

MASS
76
AREA
4415
HEIGHT
2592
27-Dec-2022
16:03
linh
pham



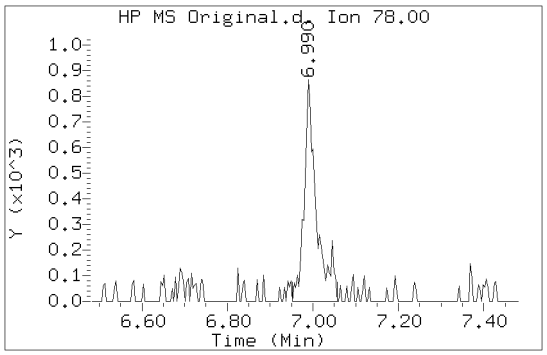

**AFTER**

MASS
76
AREA
4005
HEIGHT
2592
27-Dec-2022
16:07
linh
pham



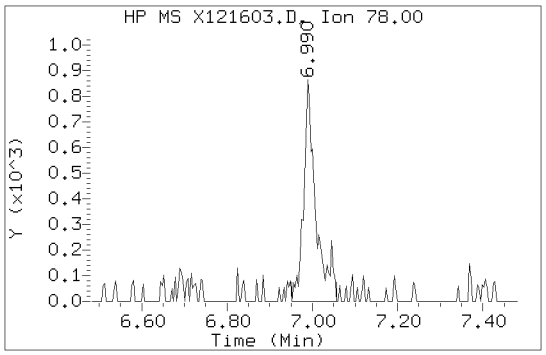

**BEFORE**

MASS
78
AREA
1727
HEIGHT
864
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
78
AREA
1727
HEIGHT
864
27-Dec-2022
16:07
linh
pham



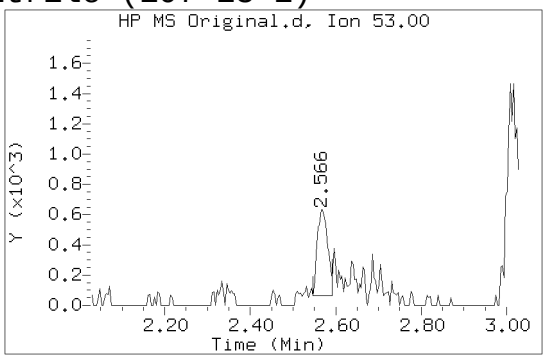
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Acrylonitrile (107-13-1)

Reason Code:

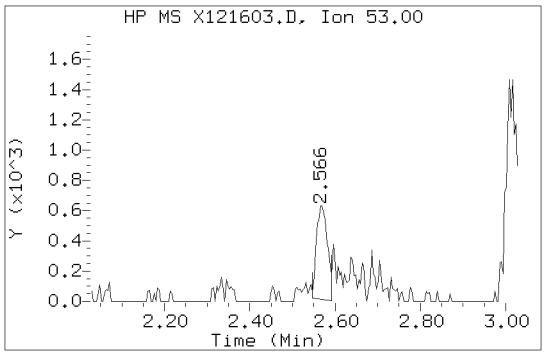
**BEFORE**

MASS
53
AREA
975
HEIGHT
571
27-Dec-2022
16:03
linh
pham



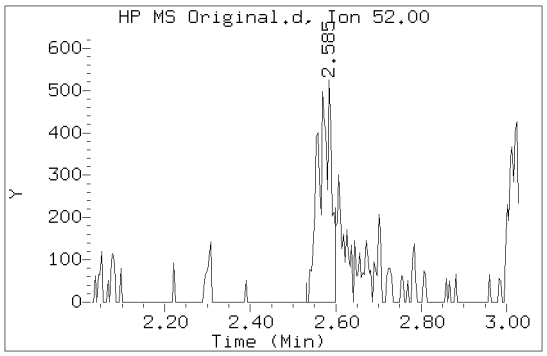

**AFTER**

MASS
53
AREA
1118
HEIGHT
618
27-Dec-2022
16:07
linh
pham



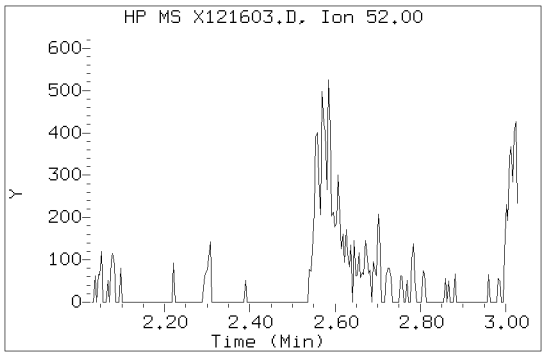

**BEFORE**

MASS
52
AREA
1100
HEIGHT
525
27-Dec-2022
16:03
linh
pham



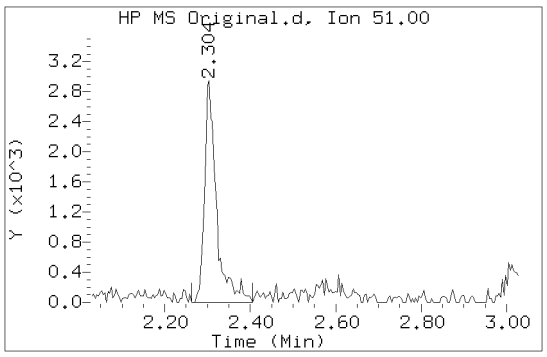

**AFTER**

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



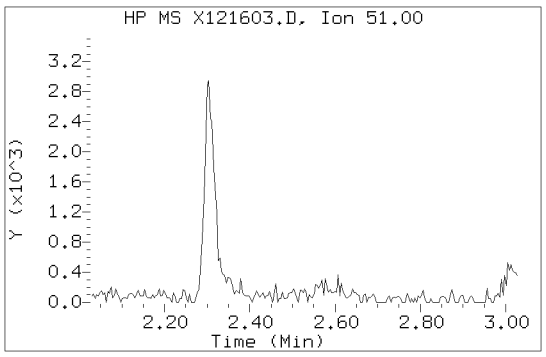

**BEFORE**

MASS
51
AREA
5708
HEIGHT
2946
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
51
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

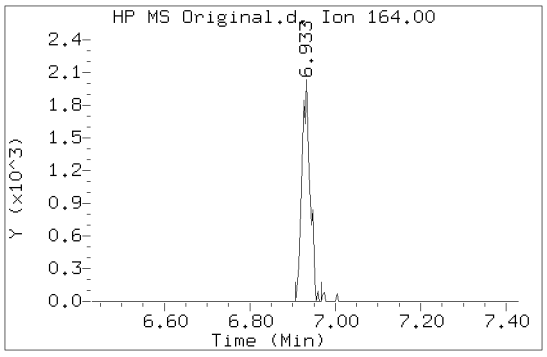



## Tetrachloroethene (127-18-4)

Reason Code:

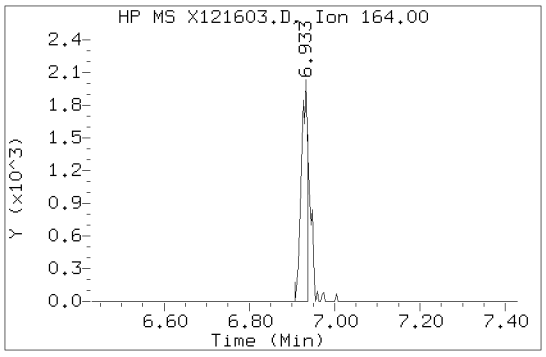
**BEFORE**

MASS
164
AREA
2777
HEIGHT
2036
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
164
AREA
2131
HEIGHT
2036
27-Dec-2022
16:07
linh
pham



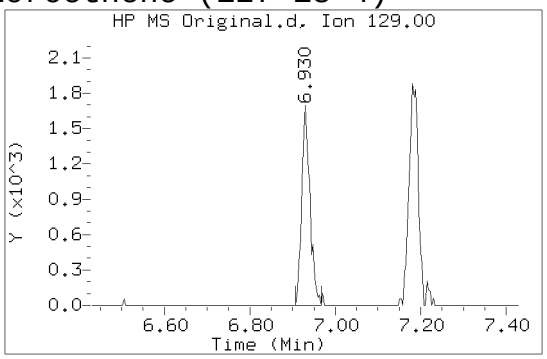
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Tetrachloroethene (127-18-4)

Reason Code:

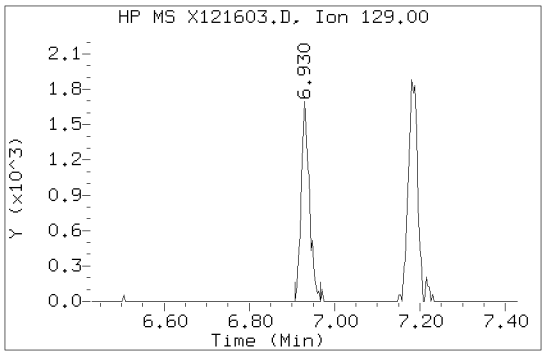
**BEFORE**

MASS
129
AREA
2342
HEIGHT
1697
27-Dec-2022
16:03
linh
pham



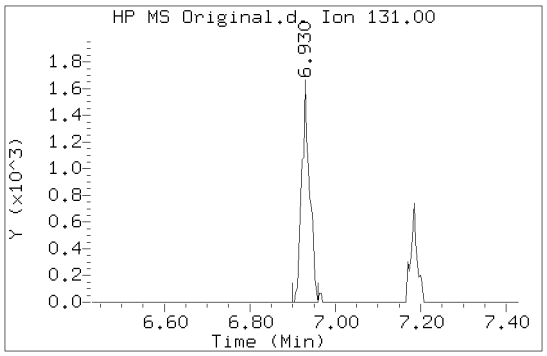

**AFTER**

MASS
129
AREA
2342
HEIGHT
1697
27-Dec-2022
16:07
linh
pham



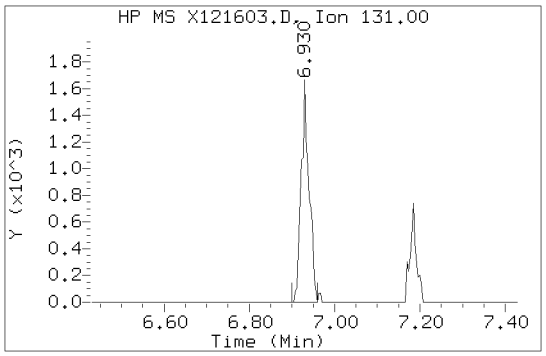

**BEFORE**

MASS
131
AREA
2193
HEIGHT
1665
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
131
AREA
2193
HEIGHT
1665
27-Dec-2022
16:07
linh
pham

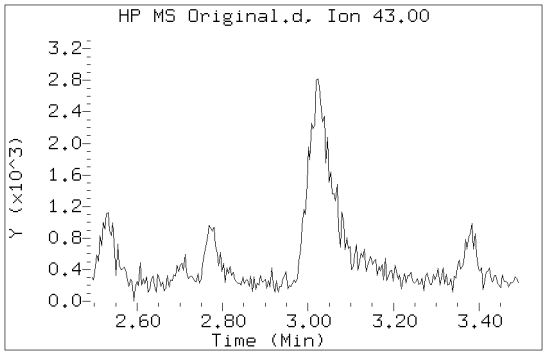



## Vinyl Acetate (108-05-4)

Reason Code:

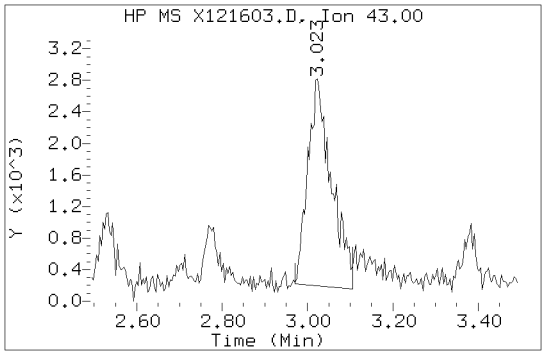
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



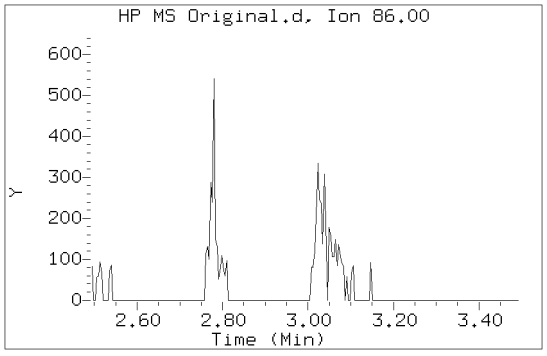

**AFTER**

MASS
43
AREA
10138
HEIGHT
2622
27-Dec-2022
16:07
linh
pham



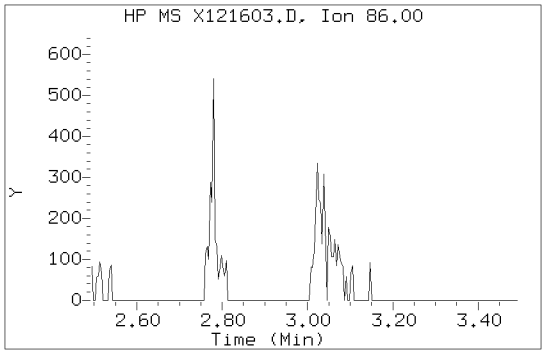

**BEFORE**

MASS
86
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
86
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

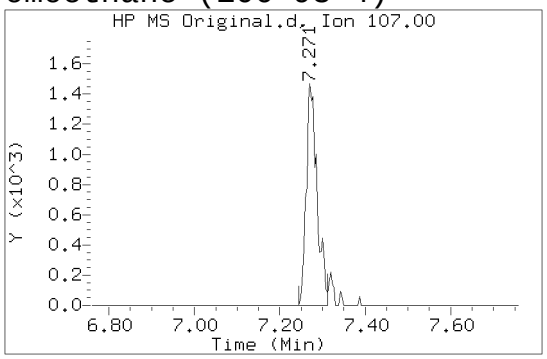


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

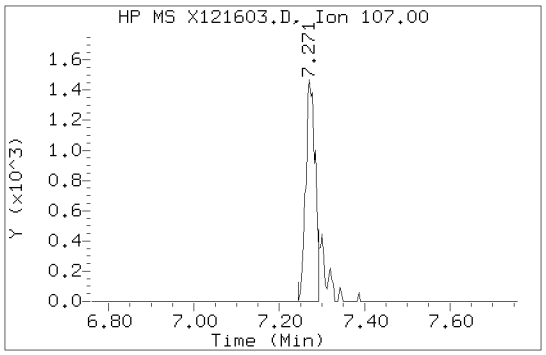
## 1,2-Dibromoethane (106-93-4)

Reason Code:

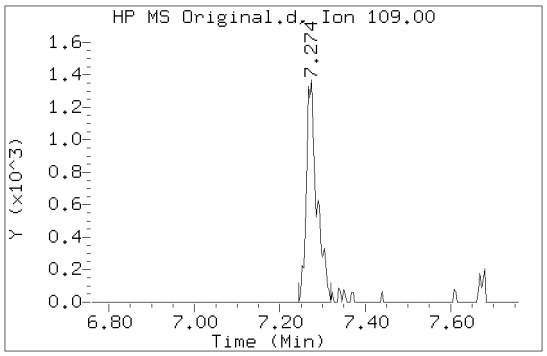
BEFORE
MASS
107
AREA
2627
HEIGHT
1469
27-Dec-2022
16:03
linh
pham



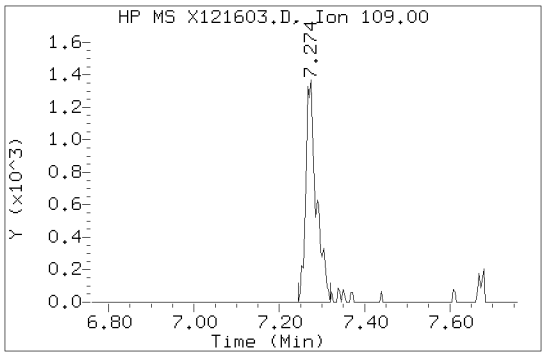

AFTER
MASS
107
AREA
2340
HEIGHT
1469
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
109
AREA
2396
HEIGHT
1369
27-Dec-2022
16:03
linh
pham



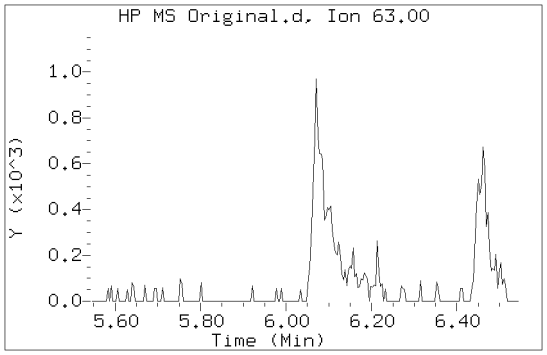

AFTER
MASS
109
AREA
2396
HEIGHT
1369
27-Dec-2022
16:07
linh
pham



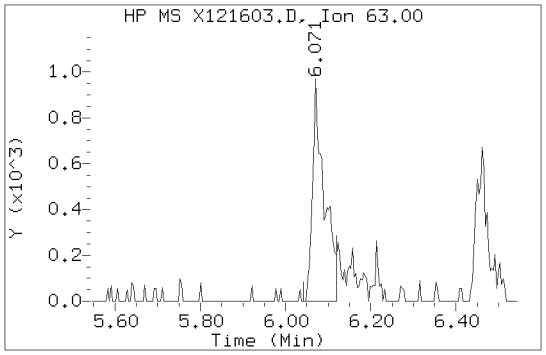

## 2-Chloroethylvinyl ether (110-75-8)

Reason Code:

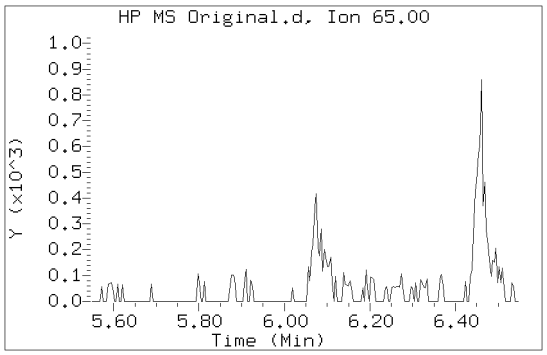
BEFORE
MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



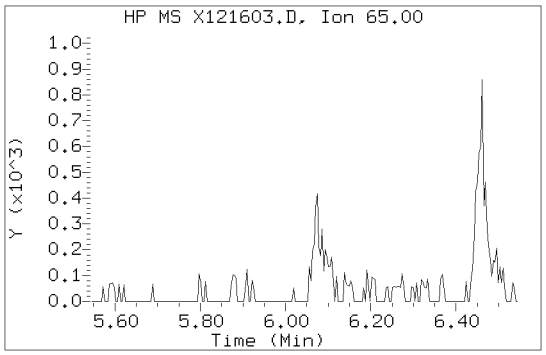

AFTER
MASS
63
AREA
1861
HEIGHT
970
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
65
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
65
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



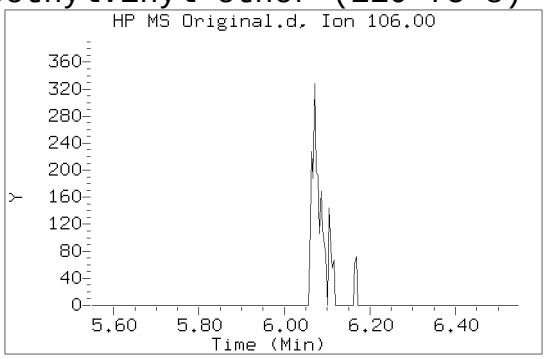
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 2-Chloroethylvinyl ether (110-75-8)

Reason Code:

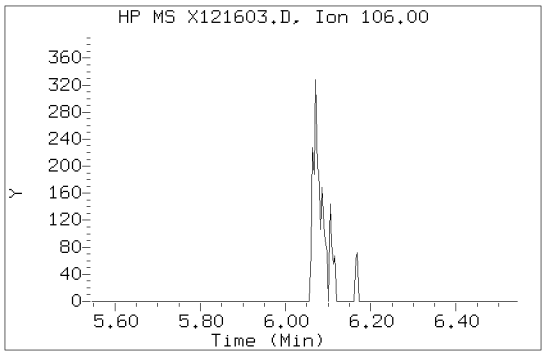
**BEFORE**

MASS
106
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
106
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

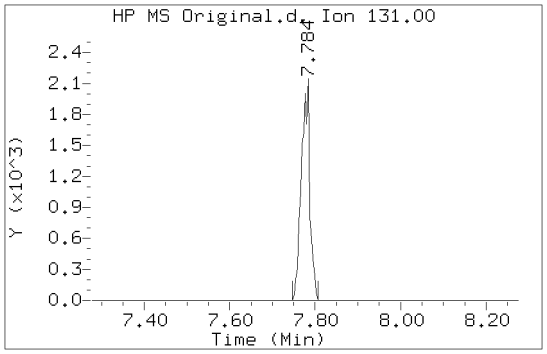



## 1,1,1,2-Tetrachloroethane (630-20-6)

Reason Code:

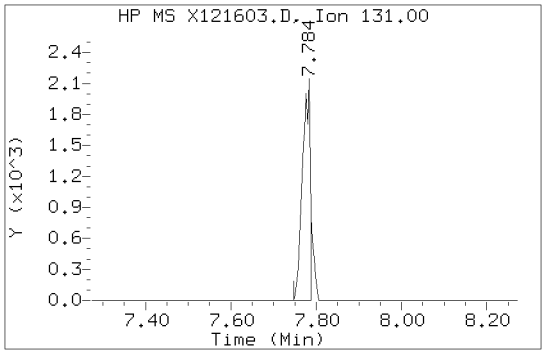
**BEFORE**

MASS
131
AREA
3036
HEIGHT
2146
27-Dec-2022
16:03
linh
pham



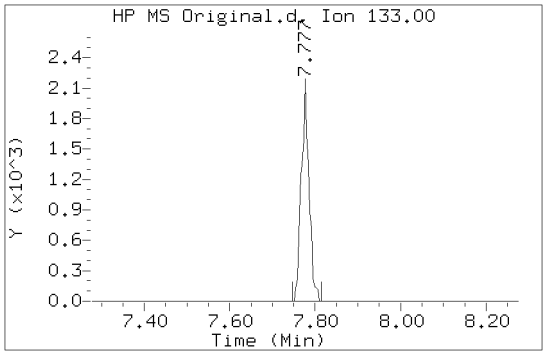

**AFTER**

MASS
131
AREA
2741
HEIGHT
2146
27-Dec-2022
16:07
linh
pham



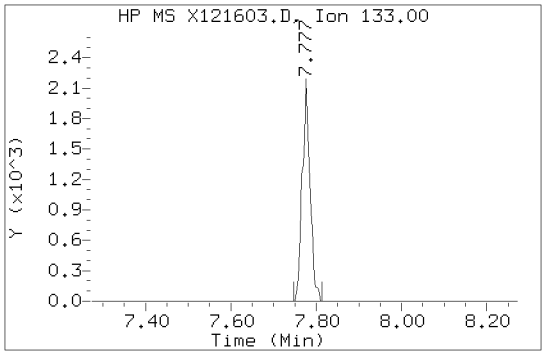

**BEFORE**

MASS
133
AREA
2829
HEIGHT
2191
27-Dec-2022
16:03
linh
pham



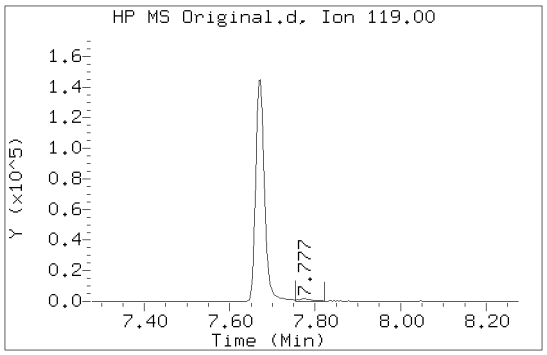

**AFTER**

MASS
133
AREA
2829
HEIGHT
2191
27-Dec-2022
16:07
linh
pham



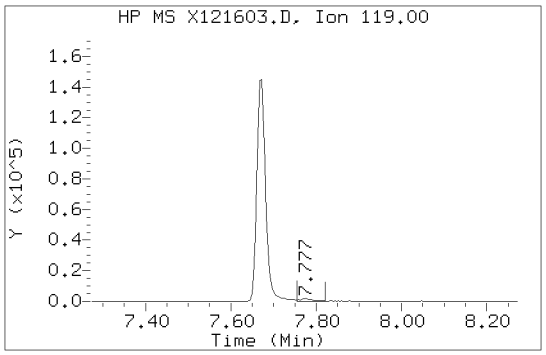

**BEFORE**

MASS
119
AREA
2971
HEIGHT
1971
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
119
AREA
2971
HEIGHT
1971
27-Dec-2022
16:07
linh
pham

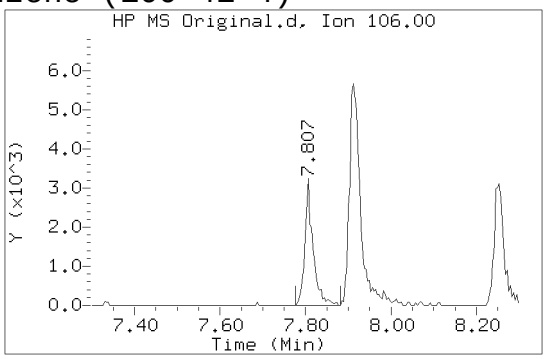


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Ethylbenzene (100-41-4)

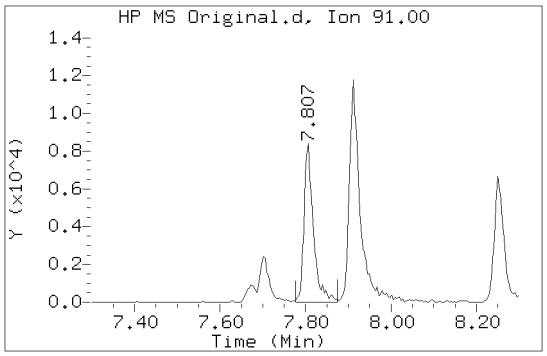
**BEFORE**

MASS
106
AREA
4331
HEIGHT
3242
27-Dec-2022
16:03
linh
pham




**BEFORE**

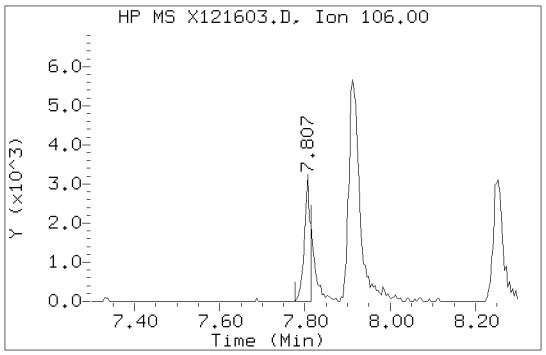
MASS
91
AREA
13136
HEIGHT
8410
27-Dec-2022
16:03
linh
pham




Reason Code:

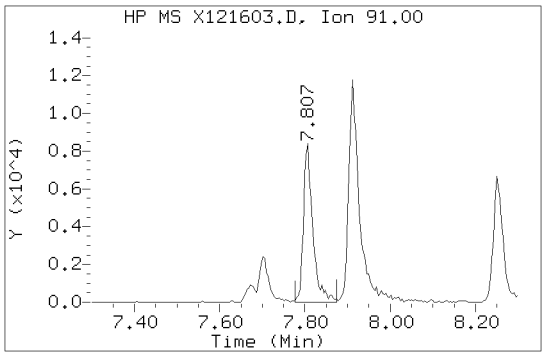
**AFTER**

MASS
106
AREA
3064
HEIGHT
3242
27-Dec-2022
16:07
linh
pham




**AFTER**

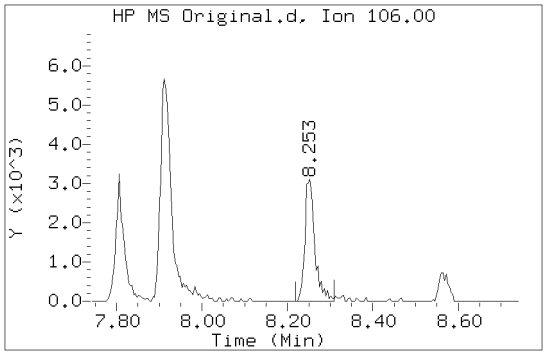
MASS
91
AREA
13136
HEIGHT
8410
27-Dec-2022
16:07
linh
pham




## o-Xylene (95-47-6)

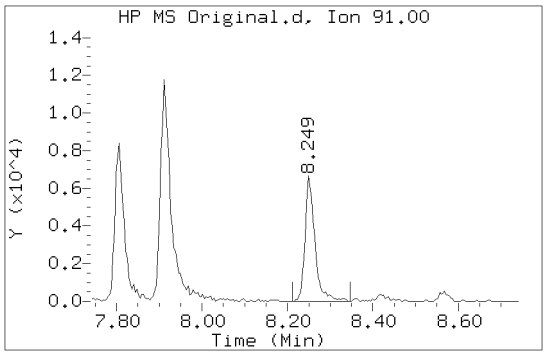
**BEFORE**

MASS
106
AREA
5100
HEIGHT
3111
27-Dec-2022
16:03
linh
pham




**BEFORE**

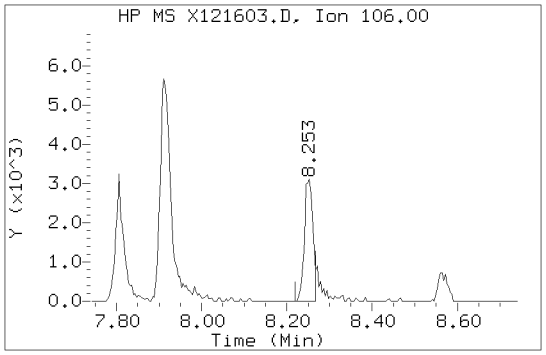
MASS
91
AREA
10808
HEIGHT
6665
27-Dec-2022
16:03
linh
pham




Reason Code:

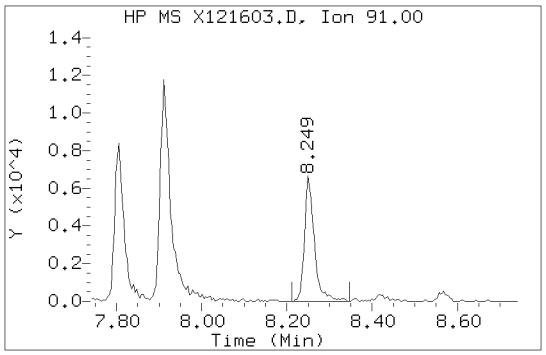
**AFTER**

MASS
106
AREA
4412
HEIGHT
3111
27-Dec-2022
16:07
linh
pham




**AFTER**

MASS
91
AREA
10808
HEIGHT
6665
27-Dec-2022
16:07
linh
pham

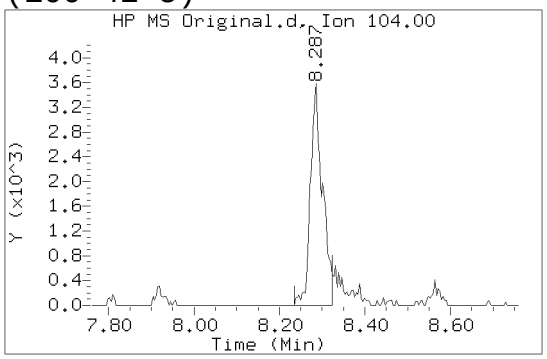


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Styrene (100-42-5)

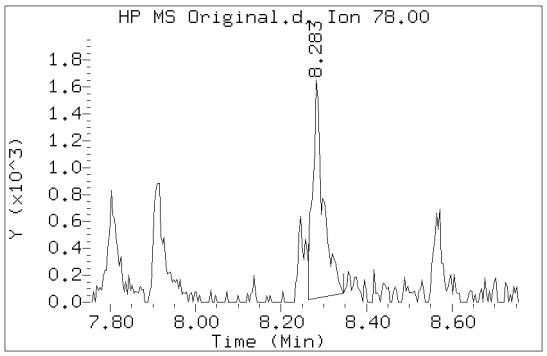
### BEFORE

MASS
104
AREA
7074
HEIGHT
3581
27-Dec-2022
16:03
linh
pham




### BEFORE

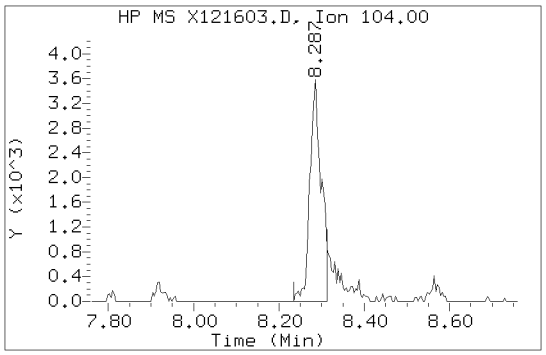
MASS
78
AREA
2827
HEIGHT
1622
27-Dec-2022
16:03
linh
pham




### Reason Code:

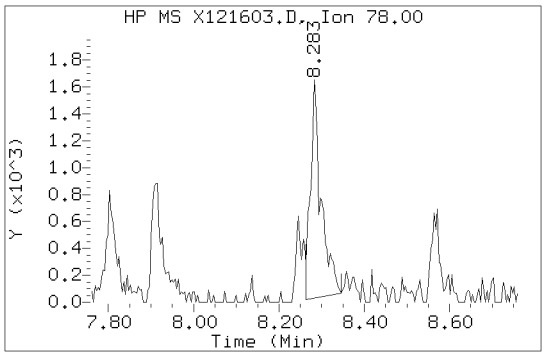
### AFTER

MASS
104
AREA
6634
HEIGHT
3581
27-Dec-2022
16:07
linh
pham




### AFTER

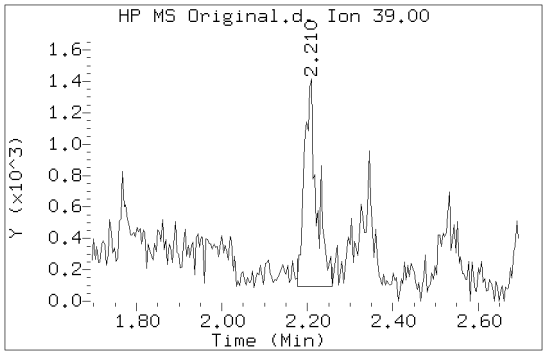
MASS
78
AREA
2827
HEIGHT
1622
27-Dec-2022
16:07
linh
pham




## Acetonitrile (75-05-8)

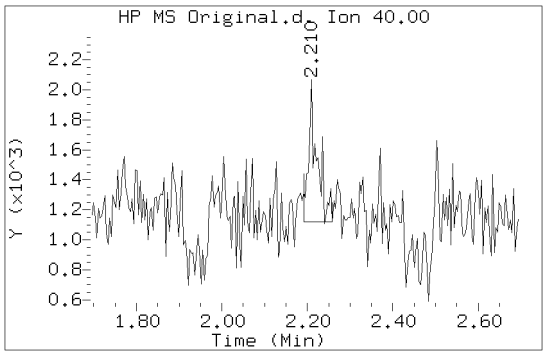
### BEFORE

MASS
39
AREA
2674
HEIGHT
1321
27-Dec-2022
16:03
linh
pham




### BEFORE

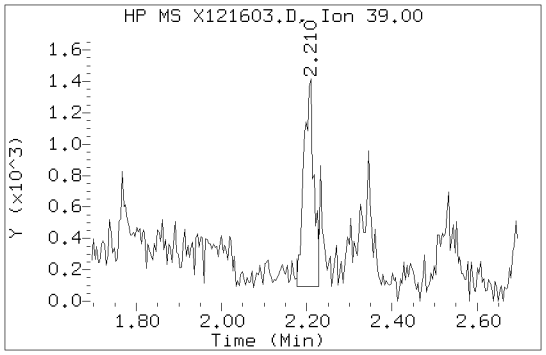
MASS
40
AREA
1296
HEIGHT
946
27-Dec-2022
16:03
linh
pham




### Reason Code:

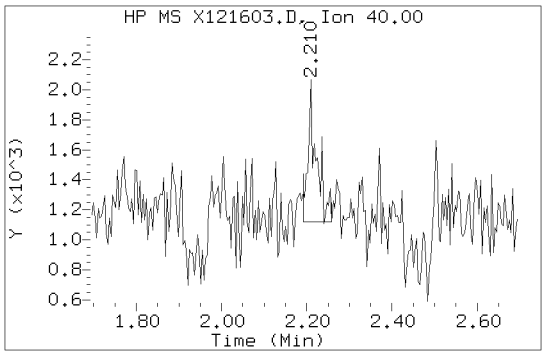
### AFTER

MASS
39
AREA
2204
HEIGHT
1321
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
40
AREA
1296
HEIGHT
946
27-Dec-2022
16:07
linh
pham



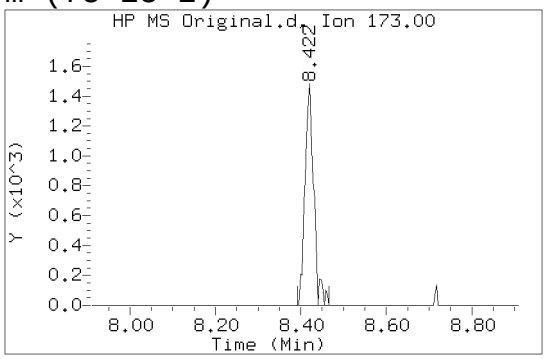
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Bromoform (75-25-2)

Reason Code:

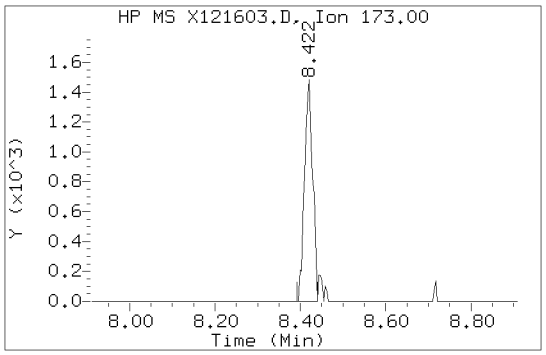
**BEFORE**

MASS
173
AREA
2158
HEIGHT
1483
27-Dec-2022
16:03
linh
pham



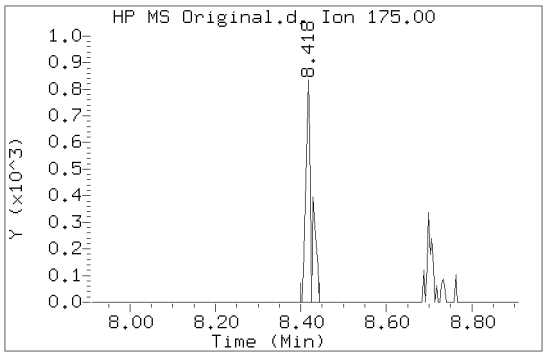

**AFTER**

MASS
173
AREA
2013
HEIGHT
1483
27-Dec-2022
16:07
linh
pham



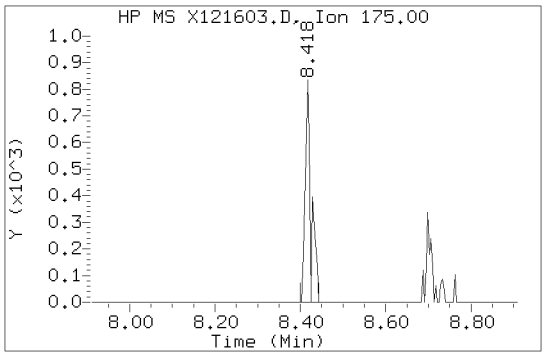

**BEFORE**

MASS
175
AREA
807
HEIGHT
835
27-Dec-2022
16:03
linh
pham



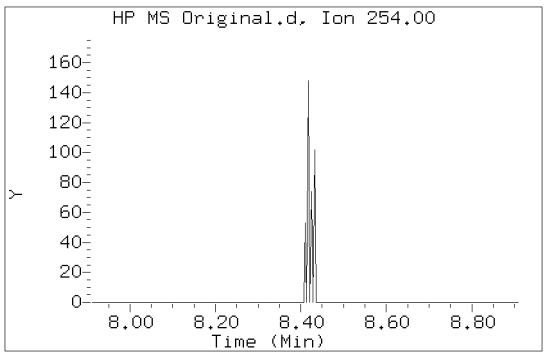

**AFTER**

MASS
175
AREA
807
HEIGHT
835
27-Dec-2022
16:07
linh
pham



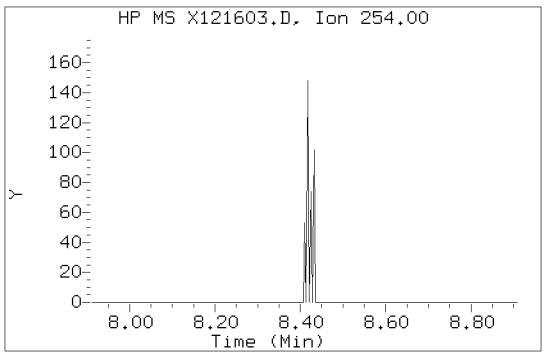

**BEFORE**

MASS
254
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
254
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

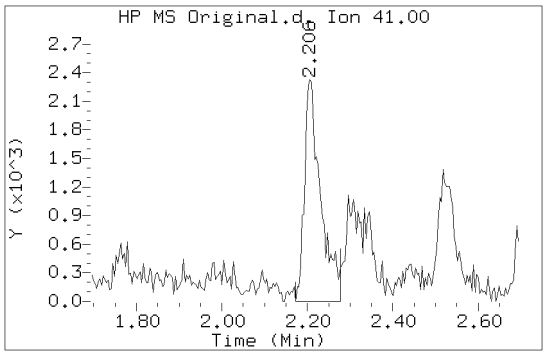



## Allyl Chloride (107-05-1)

Reason Code:

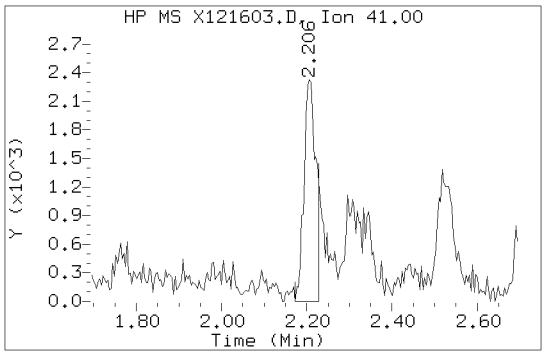
**BEFORE**

MASS
41
AREA
6169
HEIGHT
2326
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
4574
HEIGHT
2326
27-Dec-2022
16:07
linh
pham



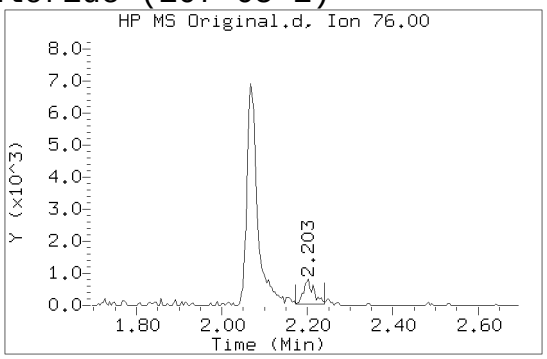
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Allyl Chloride (107-05-1)

Reason Code:

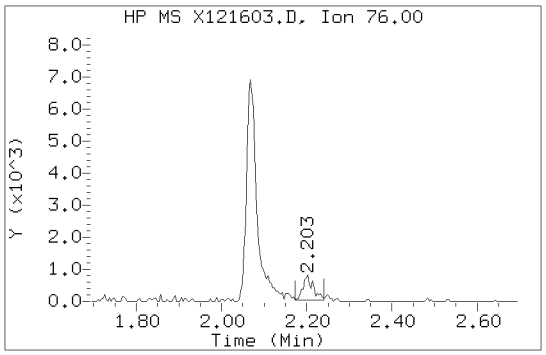
**BEFORE**

MASS
76
AREA
1254
HEIGHT
763
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
76
AREA
1254
HEIGHT
763
27-Dec-2022
16:07
linh
pham

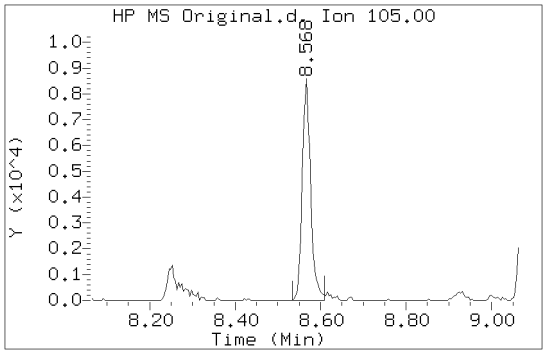



## Isopropylbenzene (98-82-8)

Reason Code:

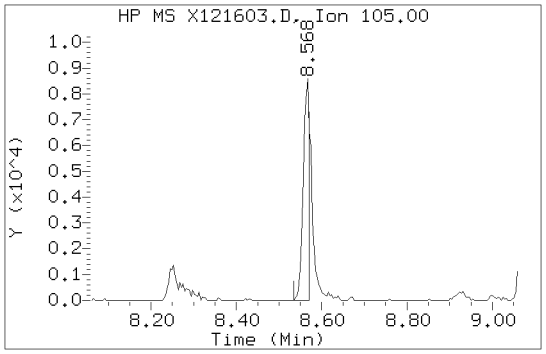
**BEFORE**

MASS
105
AREA
12091
HEIGHT
8588
27-Dec-2022
16:03
linh
pham



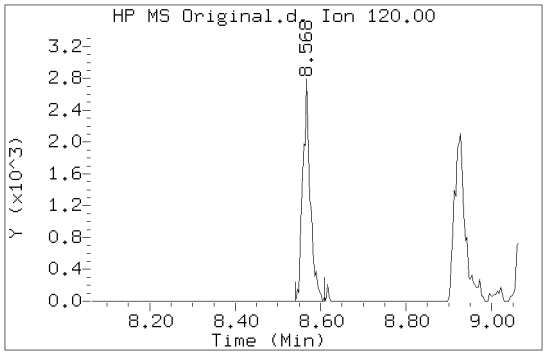

**AFTER**

MASS
105
AREA
8757
HEIGHT
8588
27-Dec-2022
16:07
linh
pham



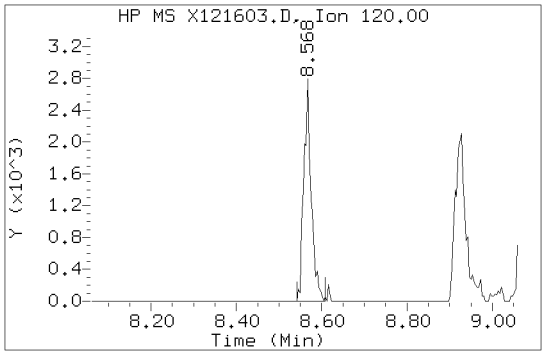

**BEFORE**

MASS
120
AREA
3462
HEIGHT
2793
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
120
AREA
3462
HEIGHT
2793
27-Dec-2022
16:07
linh
pham

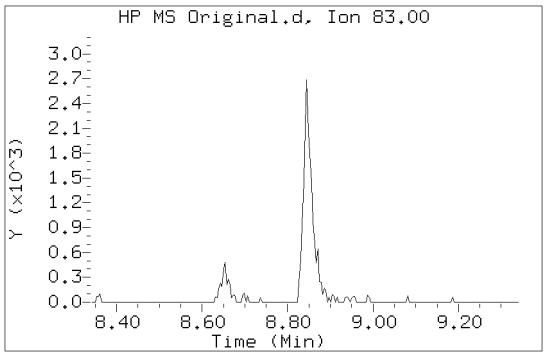



## 1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

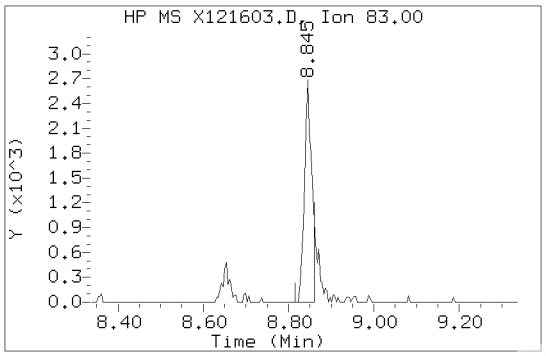
**BEFORE**

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
83
AREA
3194
HEIGHT
2685
27-Dec-2022
16:07
linh
pham



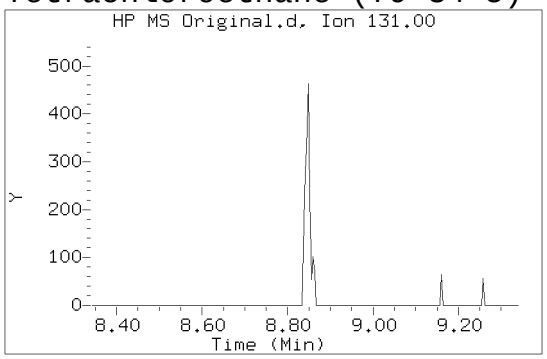
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

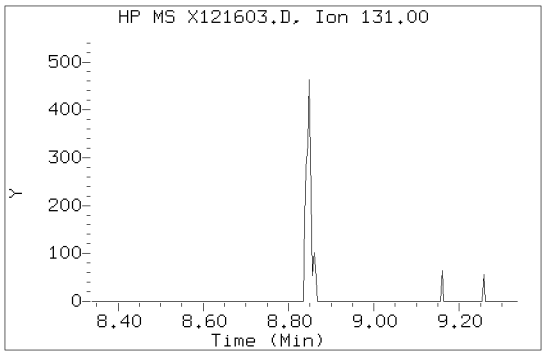
**BEFORE**

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



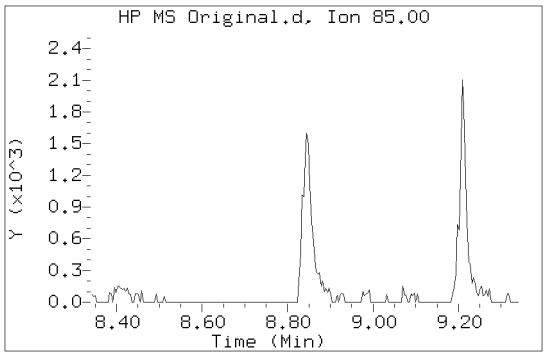

**AFTER**

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



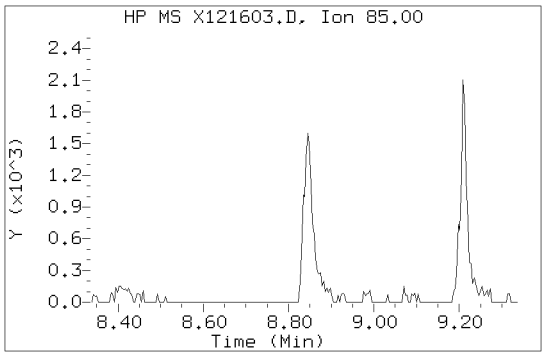

**BEFORE**

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

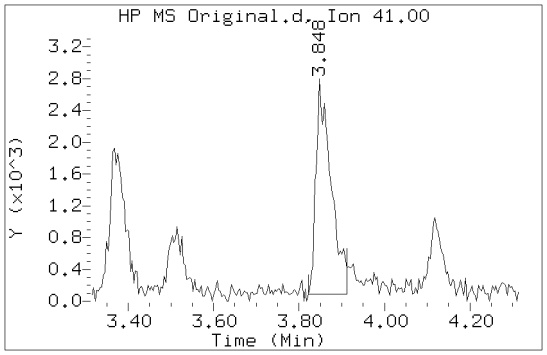



## Methacrylonitrile (126-98-7)

Reason Code:

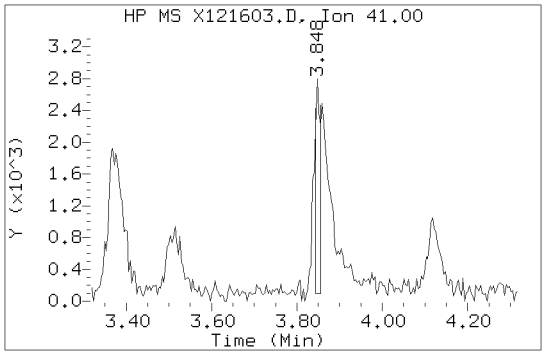
**BEFORE**

MASS
41
AREA
6587
HEIGHT
2708
27-Dec-2022
16:03
linh
pham



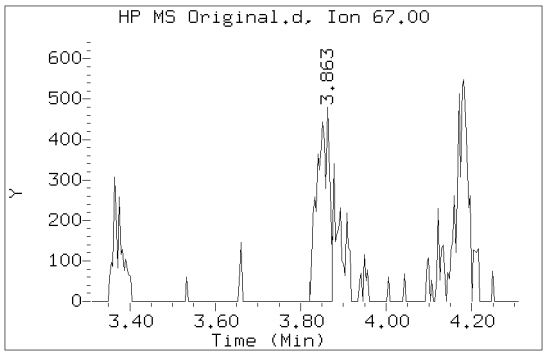

**AFTER**

MASS
41
AREA
2066
HEIGHT
2701
27-Dec-2022
16:07
linh
pham



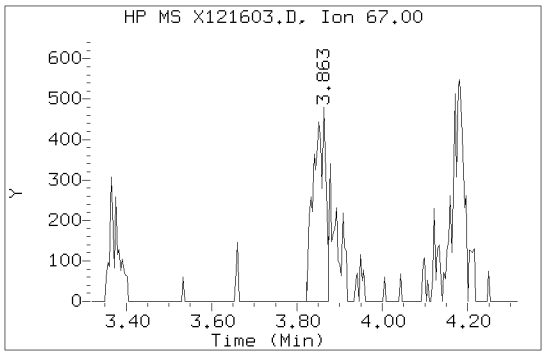

**BEFORE**

MASS
67
AREA
937
HEIGHT
480
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
67
AREA
937
HEIGHT
480
27-Dec-2022
16:07
linh
pham



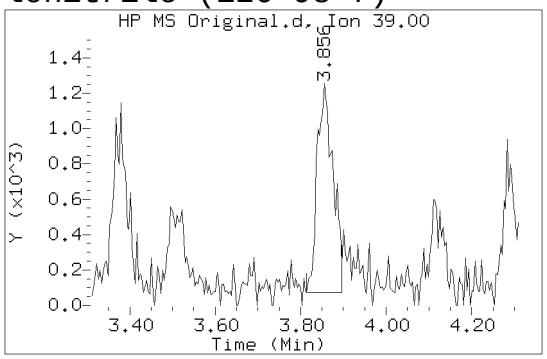
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methacrylonitrile (126-98-7)

Reason Code:

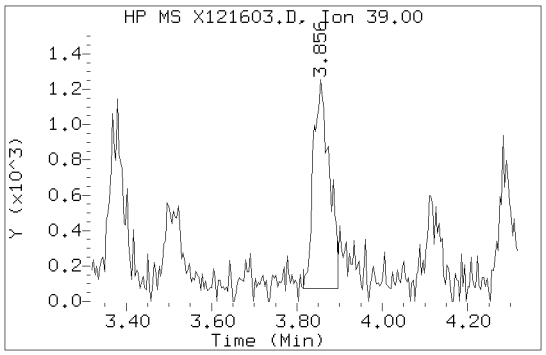
BEFORE

MASS
39
AREA
3048
HEIGHT
1181
27-Dec-2022
16:03
linh
pham




AFTER

MASS
39
AREA
3048
HEIGHT
1181
27-Dec-2022
16:07
linh
pham

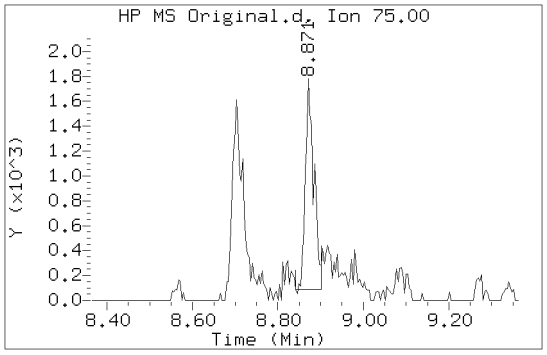



## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

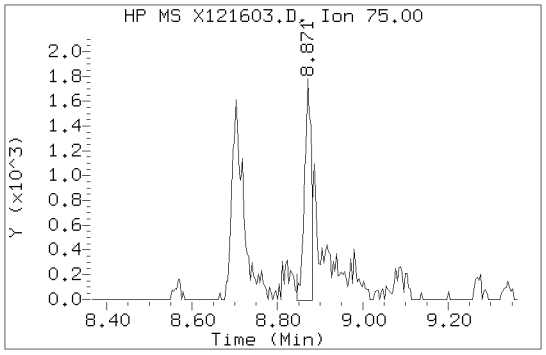
BEFORE

MASS
75
AREA
2351
HEIGHT
1693
27-Dec-2022
16:03
linh
pham



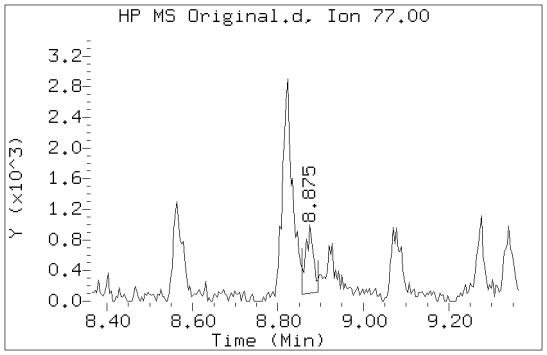

AFTER

MASS
75
AREA
2019
HEIGHT
1788
27-Dec-2022
16:07
linh
pham



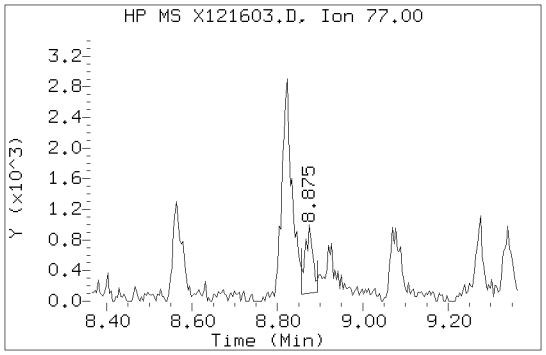

BEFORE

MASS
77
AREA
1161
HEIGHT
895
27-Dec-2022
16:03
linh
pham




AFTER

MASS
77
AREA
1161
HEIGHT
895
27-Dec-2022
16:07
linh
pham

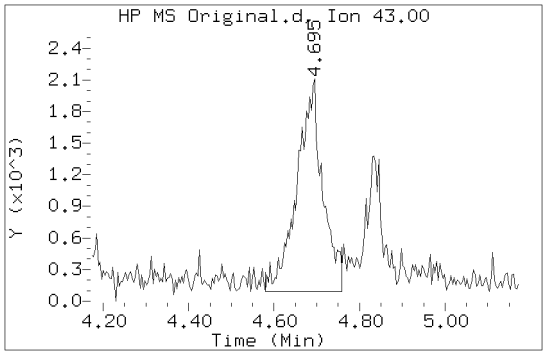



## Isobutyl Alcohol (78-83-1)

Reason Code:

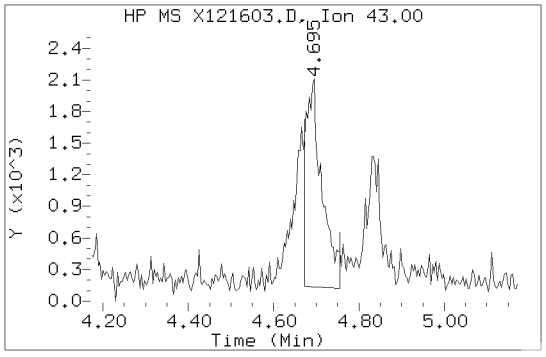
BEFORE

MASS
43
AREA
8478
HEIGHT
2018
27-Dec-2022
16:03
linh
pham




AFTER

MASS
43
AREA
5178
HEIGHT
1973
27-Dec-2022
16:07
linh
pham



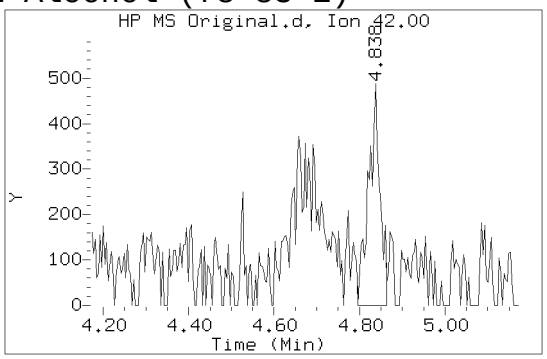
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Isobutyl Alcohol (78-83-1)

Reason Code:

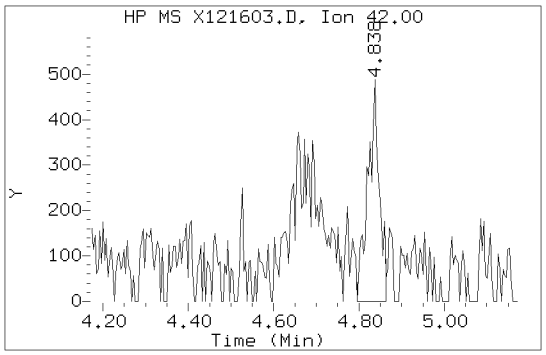
**BEFORE**

MASS
42
AREA
904
HEIGHT
488
27-Dec-2022
16:03
linh
pham



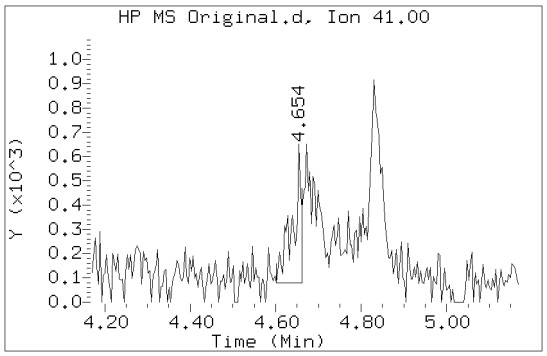

**AFTER**

MASS
42
AREA
904
HEIGHT
488
27-Dec-2022
16:07
linh
pham



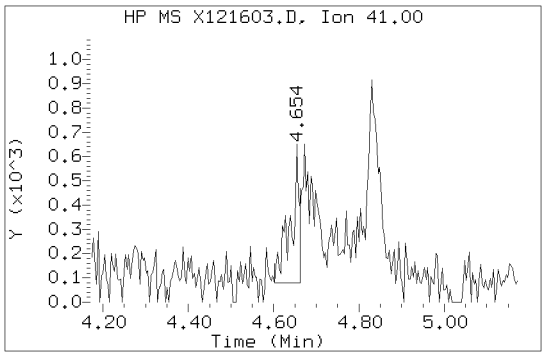

**BEFORE**

MASS
41
AREA
776
HEIGHT
572
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
776
HEIGHT
572
27-Dec-2022
16:07
linh
pham

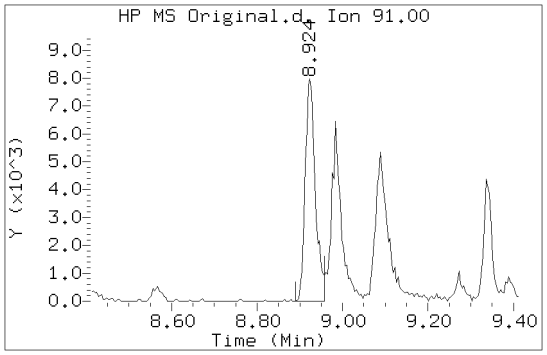



## n-Propylbenzene (106-65-1)

Reason Code:

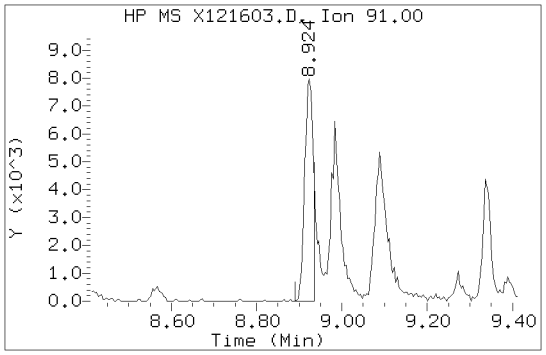
**BEFORE**

MASS
91
AREA
13496
HEIGHT
7972
27-Dec-2022
16:03
linh
pham



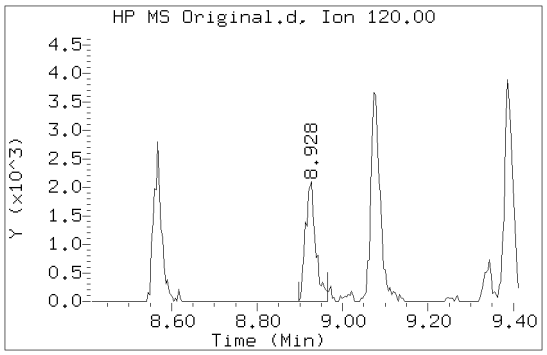

**AFTER**

MASS
91
AREA
11163
HEIGHT
7972
27-Dec-2022
16:07
linh
pham



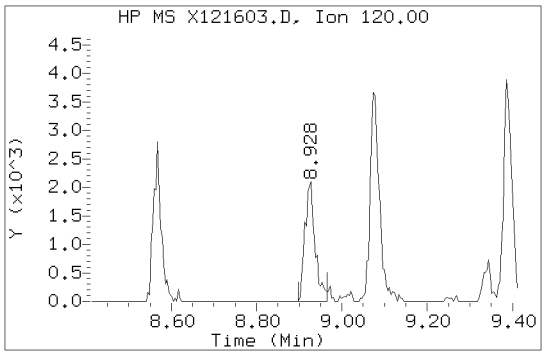

**BEFORE**

MASS
120
AREA
3559
HEIGHT
2104
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
120
AREA
3559
HEIGHT
2104
27-Dec-2022
16:07
linh
pham



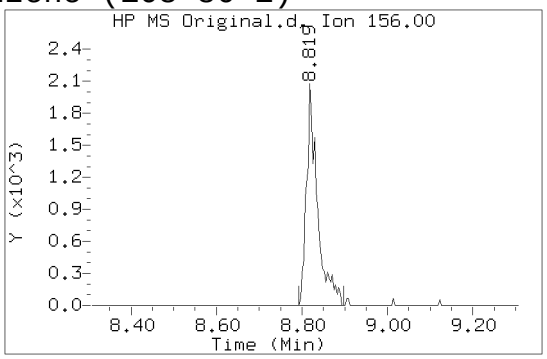
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Bromobenzene (108-86-1)

Reason Code:

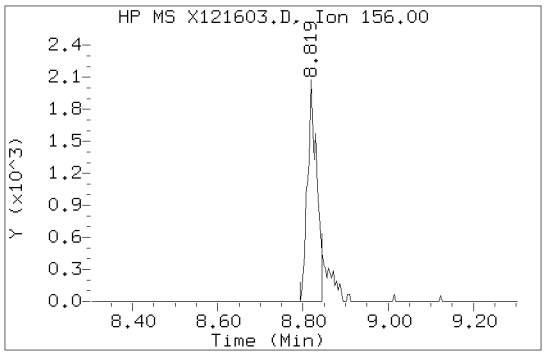
**BEFORE**

MASS
156
AREA
3747
HEIGHT
2077
27-Dec-2022
16:03
linh
pham



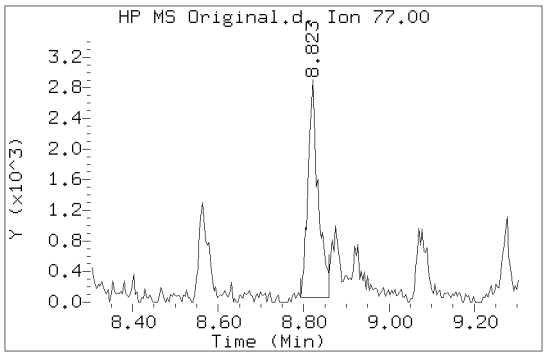

**AFTER**

MASS
156
AREA
3147
HEIGHT
2077
27-Dec-2022
16:07
linh
pham



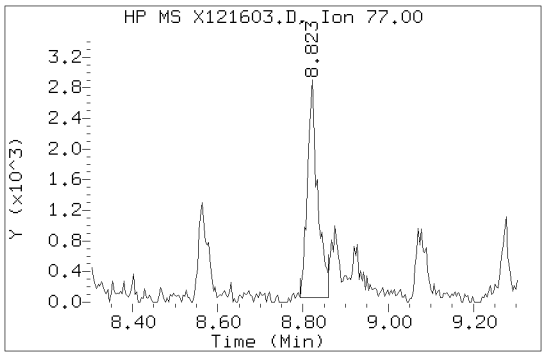

**BEFORE**

MASS
77
AREA
4719
HEIGHT
2841
27-Dec-2022
16:03
linh
pham



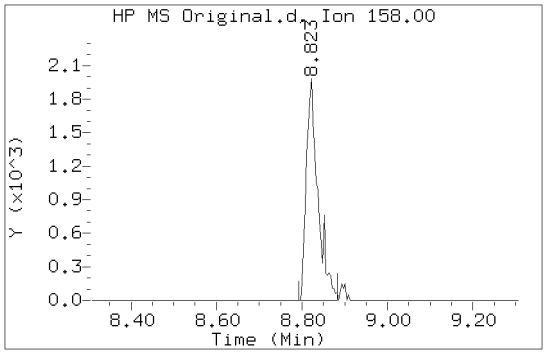

**AFTER**

MASS
77
AREA
4719
HEIGHT
2841
27-Dec-2022
16:07
linh
pham



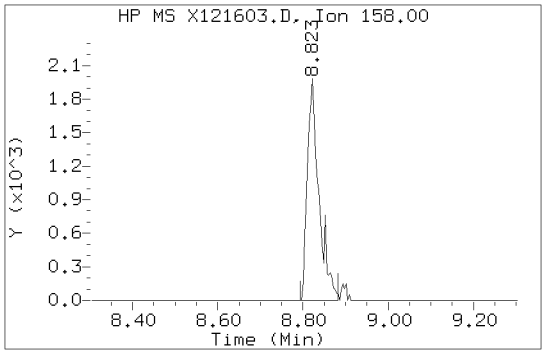

**BEFORE**

MASS
158
AREA
3772
HEIGHT
1983
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
158
AREA
3772
HEIGHT
1983
27-Dec-2022
16:07
linh
pham

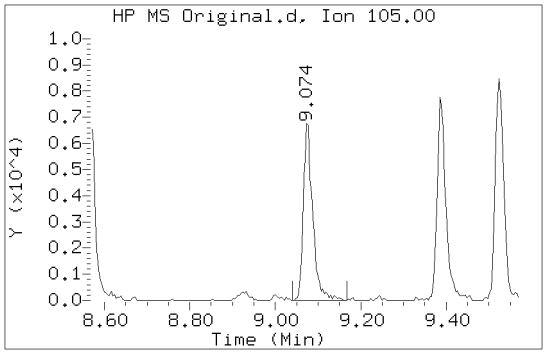



## 1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

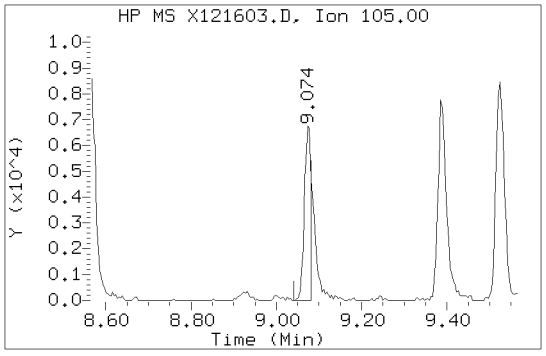
**BEFORE**

MASS
105
AREA
10555
HEIGHT
6758
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
105
AREA
7182
HEIGHT
6758
27-Dec-2022
16:07
linh
pham



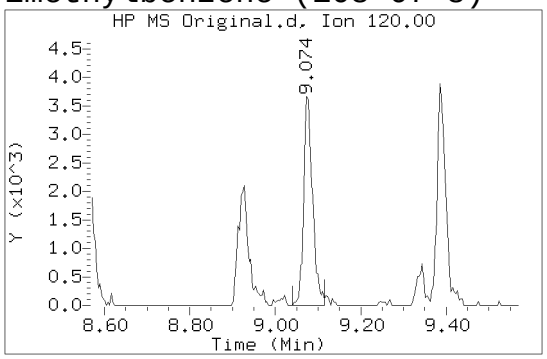
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

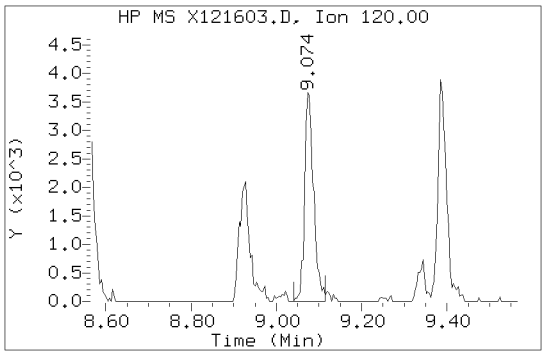
**BEFORE**

MASS
120
AREA
5450
HEIGHT
3663
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
120
AREA
5450
HEIGHT
3663
27-Dec-2022
16:07
linh
pham

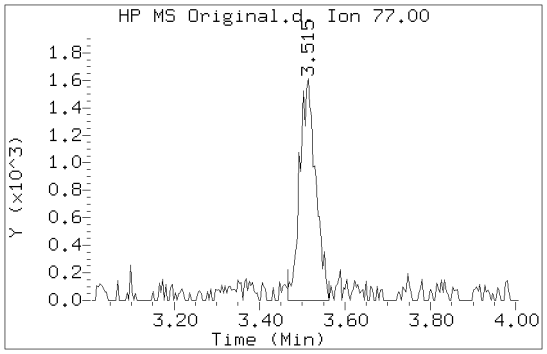



## 2,2-Dichloropropane (594-20-7)

Reason Code:

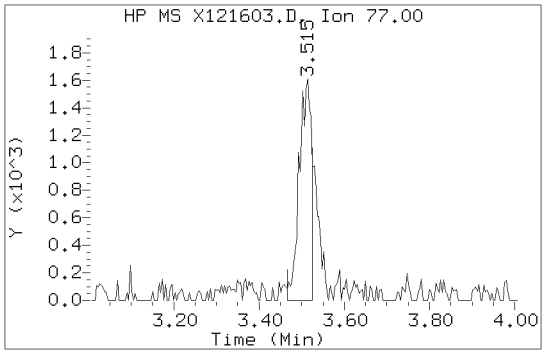
**BEFORE**

MASS
77
AREA
4217
HEIGHT
1612
27-Dec-2022
16:03
linh
pham



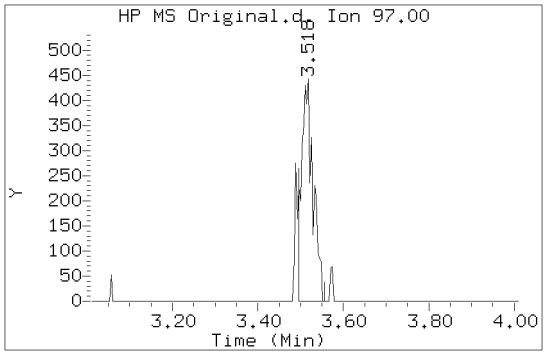

**AFTER**

MASS
77
AREA
3238
HEIGHT
1612
27-Dec-2022
16:07
linh
pham



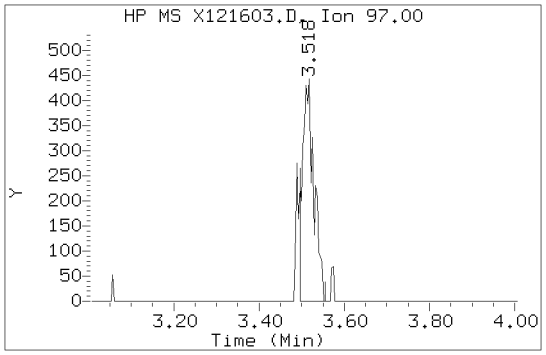

**BEFORE**

MASS
97
AREA
843
HEIGHT
443
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
97
AREA
843
HEIGHT
443
27-Dec-2022
16:07
linh
pham

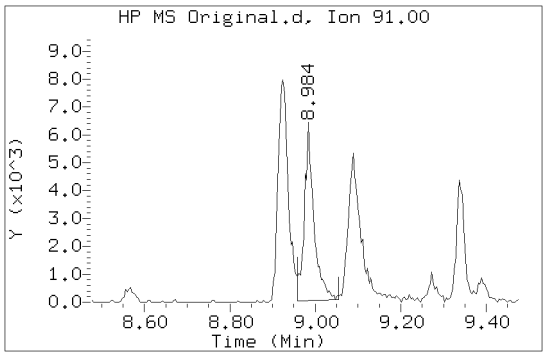



## 2-Chlorotoluene (95-49-8)

Reason Code:

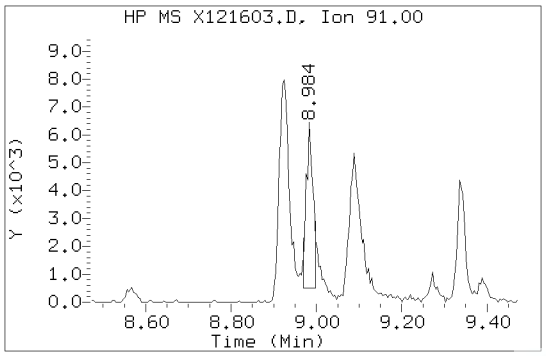
**BEFORE**

MASS
91
AREA
10128
HEIGHT
6401
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
91
AREA
6718
HEIGHT
5942
27-Dec-2022
16:07
linh
pham



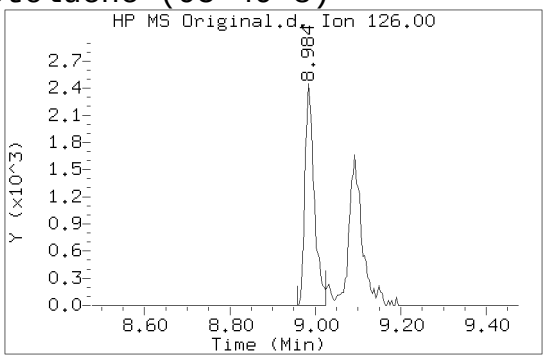
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 2-Chlorotoluene (95-49-8)

Reason Code:

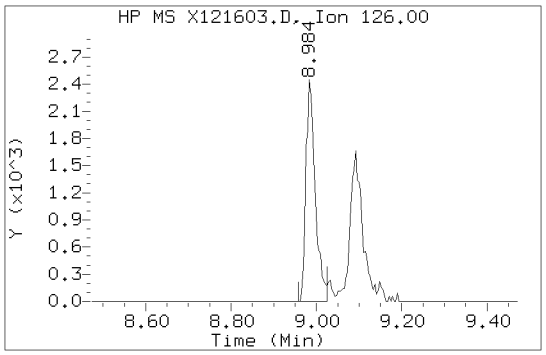
**BEFORE**

MASS
126
AREA
3761
HEIGHT
2450
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
126
AREA
3761
HEIGHT
2450
27-Dec-2022
16:07
linh
pham

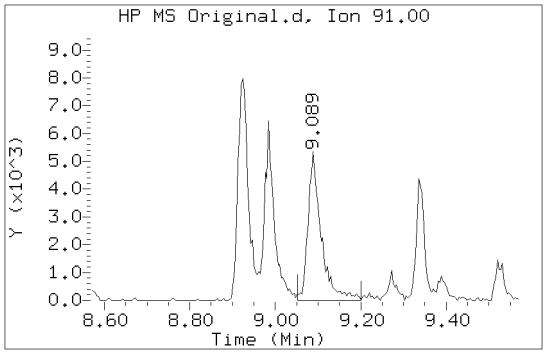



## 4-Chlorotoluene (106-43-4)

Reason Code:

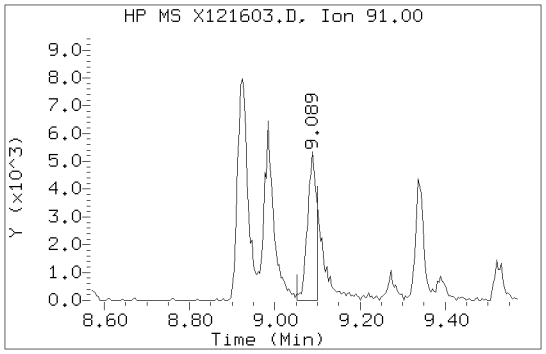
**BEFORE**

MASS
91
AREA
11481
HEIGHT
5337
27-Dec-2022
16:03
linh
pham



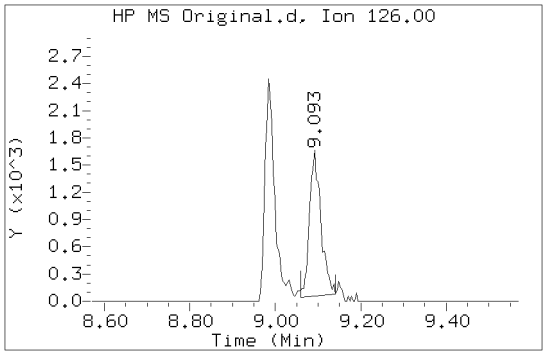

**AFTER**

MASS
91
AREA
7644
HEIGHT
5337
27-Dec-2022
16:07
linh
pham



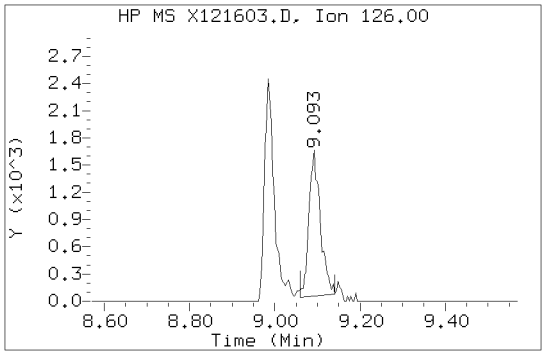

**BEFORE**

MASS
126
AREA
3008
HEIGHT
1612
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
126
AREA
3008
HEIGHT
1612
27-Dec-2022
16:07
linh
pham

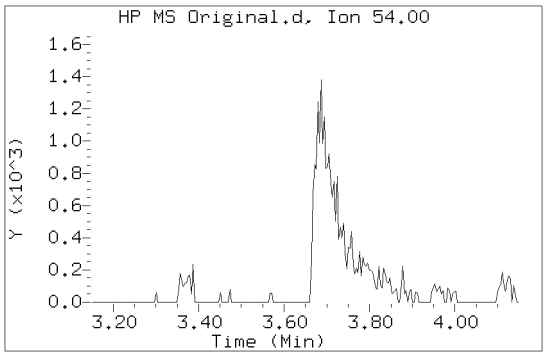



## Propionitrile (107-12-0)

Reason Code:

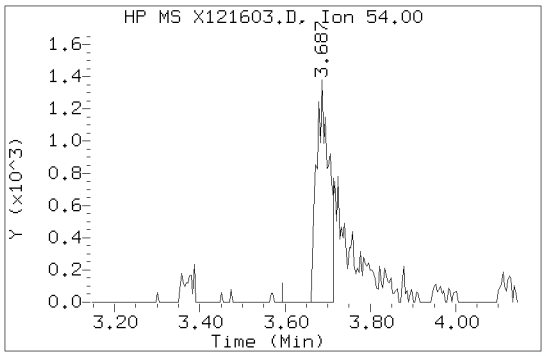
**BEFORE**

MASS
54
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
54
AREA
2777
HEIGHT
1380
27-Dec-2022
16:07
linh
pham

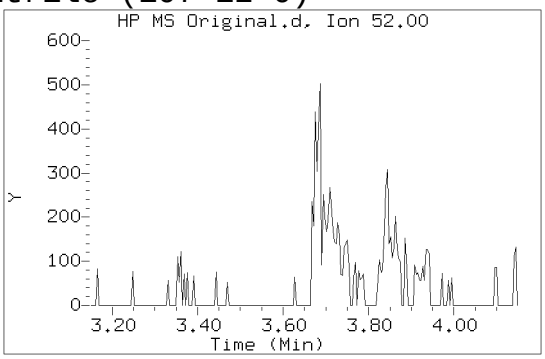


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

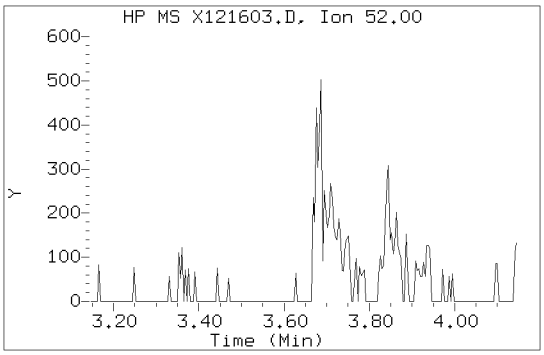
## Propionitrile (107-12-0)

Reason Code:

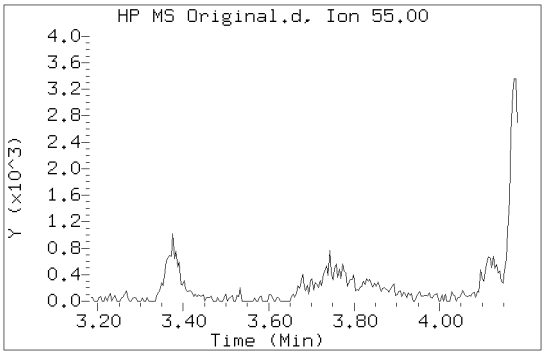
BEFORE
MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



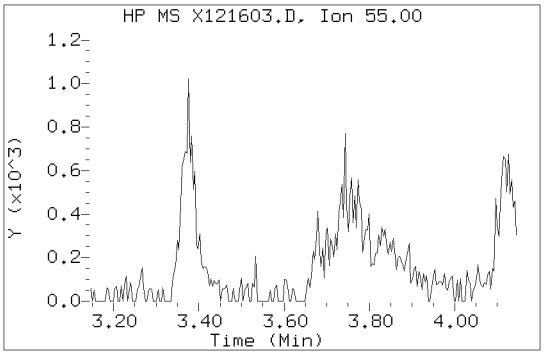

AFTER
MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



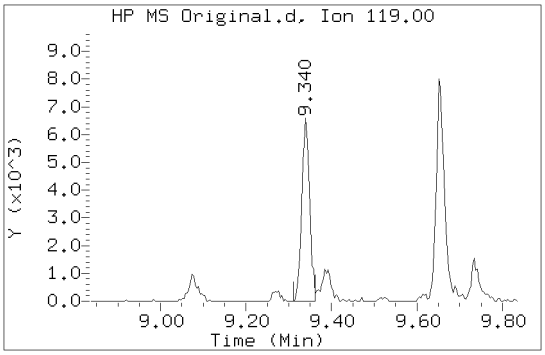

AFTER
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



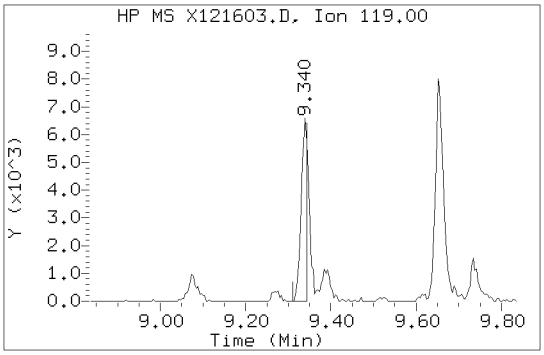

## tert-Butylbenzene (98-06-6)

Reason Code:

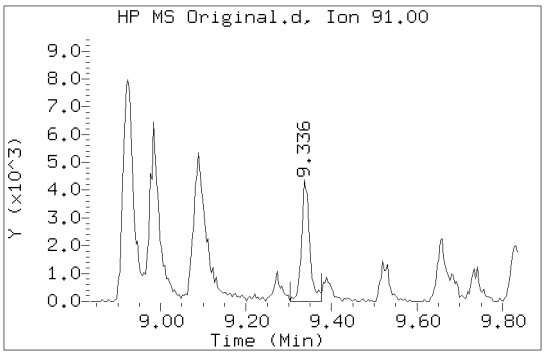
BEFORE
MASS
119
AREA
8660
HEIGHT
6598
27-Dec-2022
16:03
linh
pham



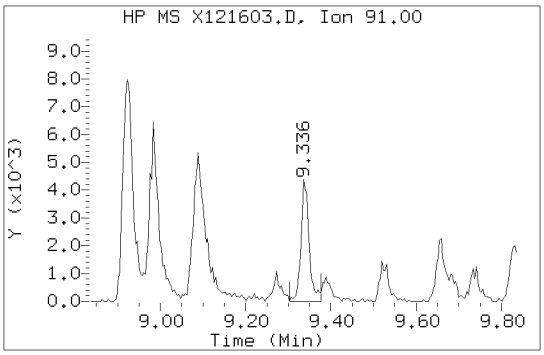

AFTER
MASS
119
AREA
6389
HEIGHT
6598
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
91
AREA
6013
HEIGHT
4378
27-Dec-2022
16:03
linh
pham




AFTER
MASS
91
AREA
6013
HEIGHT
4378
27-Dec-2022
16:07
linh
pham



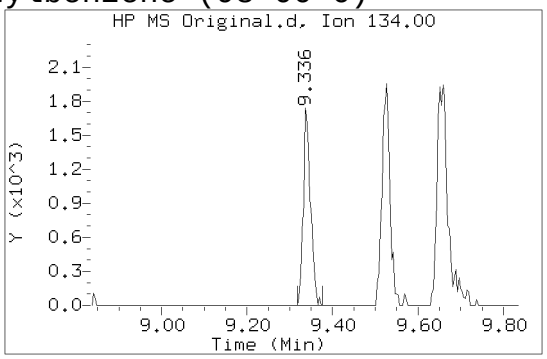
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## tert-Butylbenzene (98-06-6)

Reason Code:

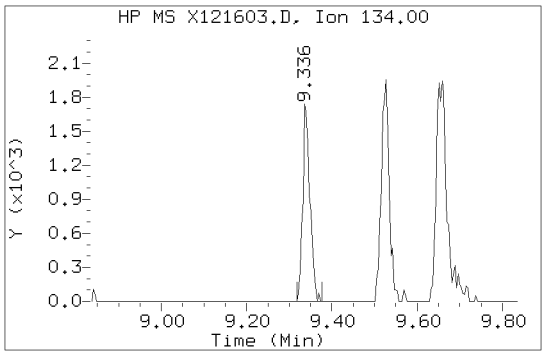
**BEFORE**

MASS
134
AREA
2112
HEIGHT
1740
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
134
AREA
2112
HEIGHT
1740
27-Dec-2022
16:07
linh
pham

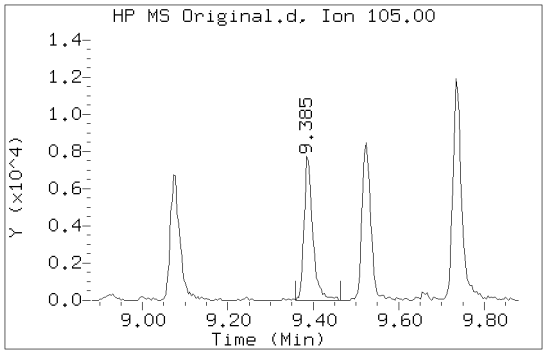



## 1,2,4-Trimethylbenzene (95-63-6)

Reason Code:

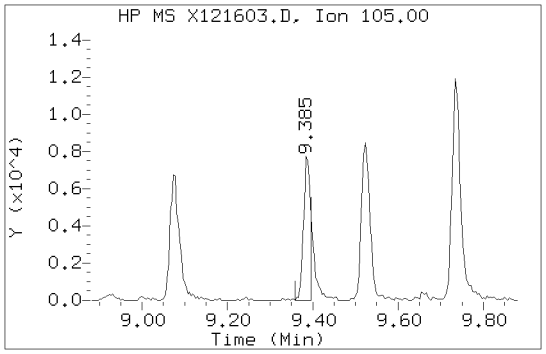
**BEFORE**

MASS
105
AREA
11065
HEIGHT
7775
27-Dec-2022
16:03
linh
pham



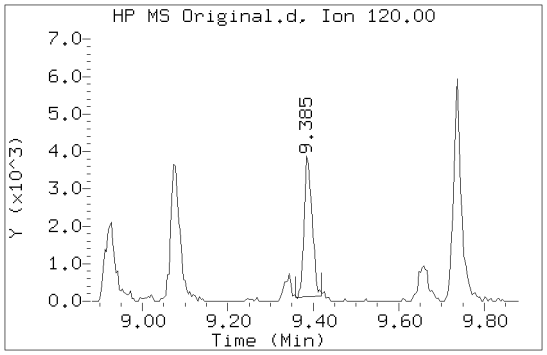

**AFTER**

MASS
105
AREA
8496
HEIGHT
7775
27-Dec-2022
16:07
linh
pham



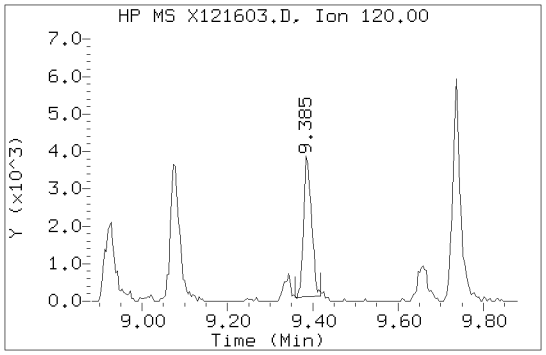

**BEFORE**

MASS
120
AREA
4898
HEIGHT
3773
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
120
AREA
4898
HEIGHT
3773
27-Dec-2022
16:07
linh
pham

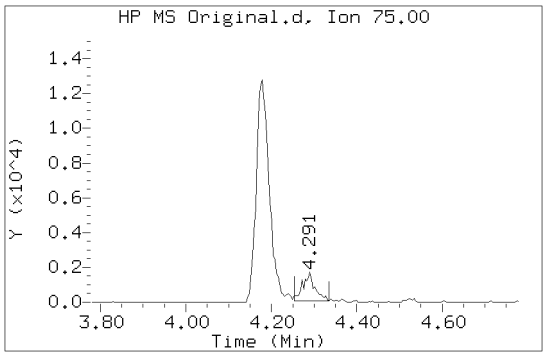



## 1,1-Dichloropropene (563-58-6)

Reason Code:

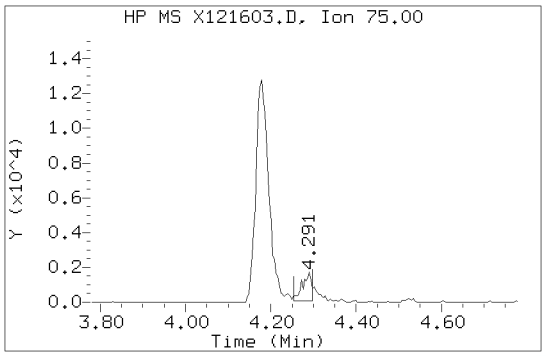
**BEFORE**

MASS
75
AREA
3235
HEIGHT
1674
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
2468
HEIGHT
1674
27-Dec-2022
16:07
linh
pham



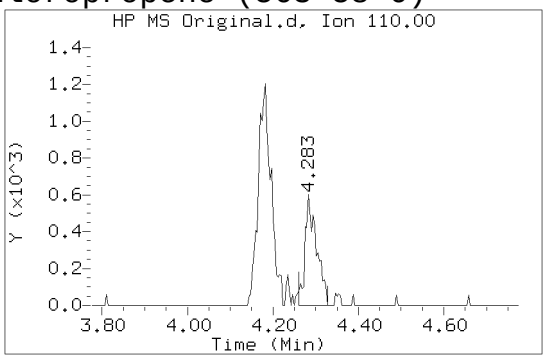
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1-Dichloropropene (563-58-6)

Reason Code:

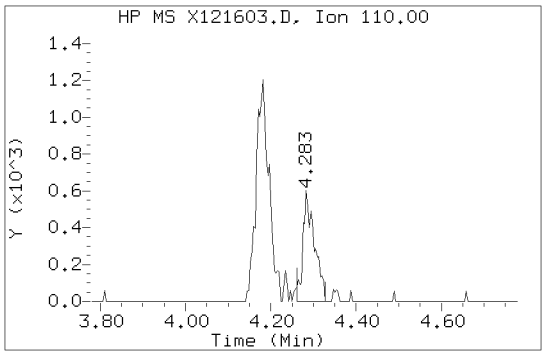
**BEFORE**

MASS
110
AREA
1143
HEIGHT
603
27-Dec-2022
16:03
linh
pham



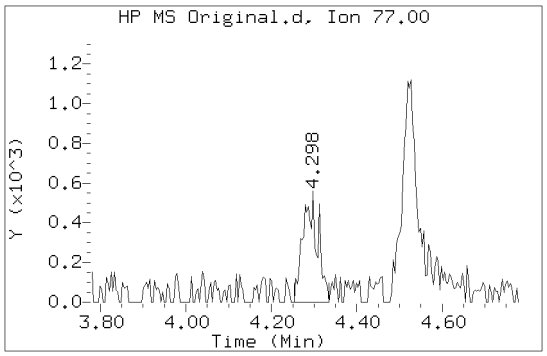

**AFTER**

MASS
110
AREA
1143
HEIGHT
603
27-Dec-2022
16:07
linh
pham



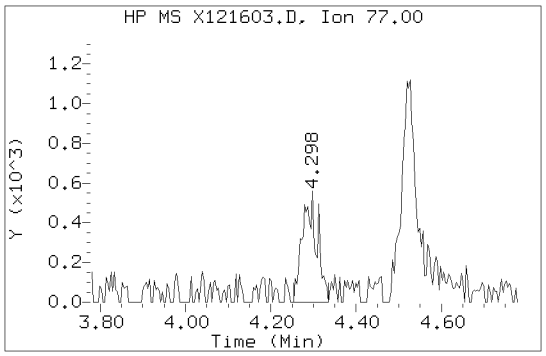

**BEFORE**

MASS
77
AREA
1342
HEIGHT
559
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
77
AREA
1342
HEIGHT
559
27-Dec-2022
16:07
linh
pham

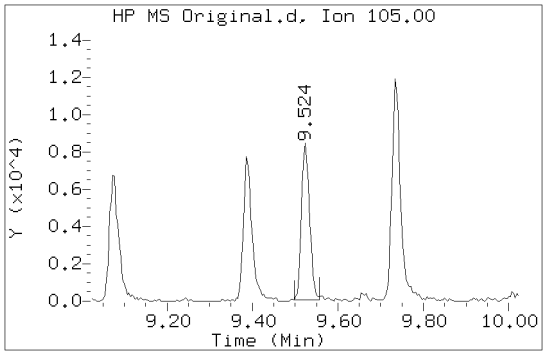



## sec-Butylbenzene (135-98-8)

Reason Code:

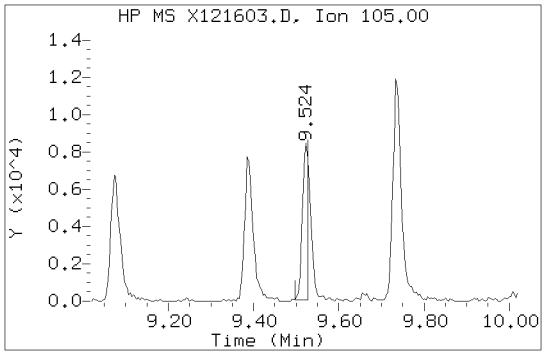
**BEFORE**

MASS
105
AREA
11512
HEIGHT
8394
27-Dec-2022
16:03
linh
pham



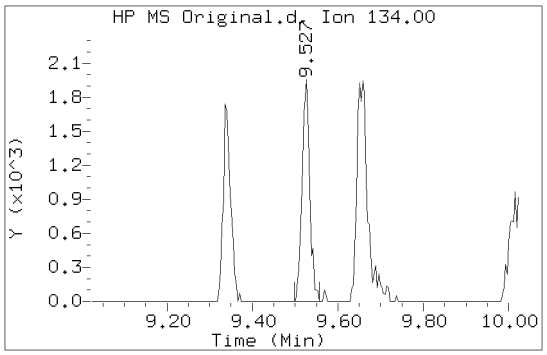

**AFTER**

MASS
105
AREA
7938
HEIGHT
8394
27-Dec-2022
16:07
linh
pham



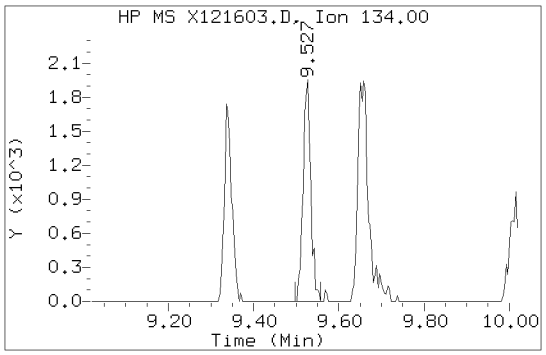

**BEFORE**

MASS
134
AREA
2519
HEIGHT
1955
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
134
AREA
2519
HEIGHT
1955
27-Dec-2022
16:07
linh
pham



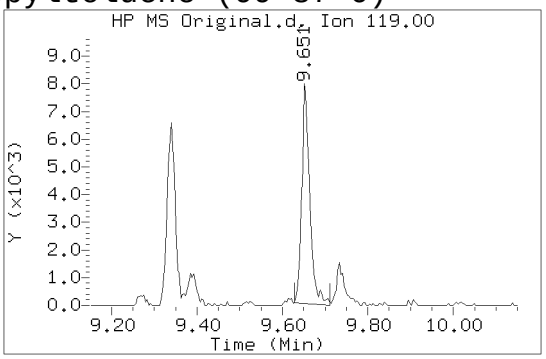
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## p-Isopropyltoluene (99-87-6)

Reason Code:

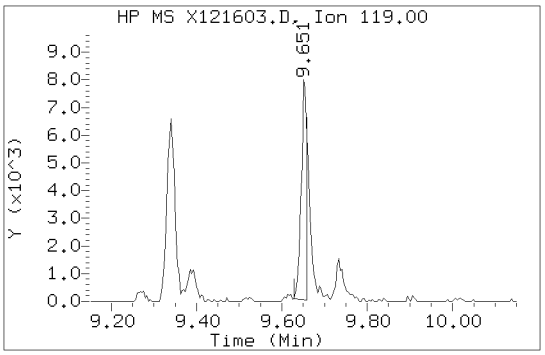
BEFORE

MASS
119
AREA
10660
HEIGHT
7944
27-Dec-2022
16:03
linh
pham



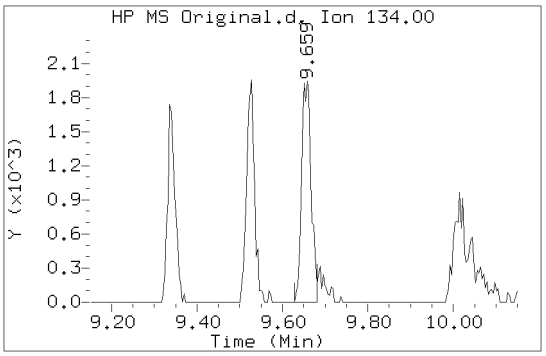

AFTER

MASS
119
AREA
7343
HEIGHT
7944
27-Dec-2022
16:07
linh
pham



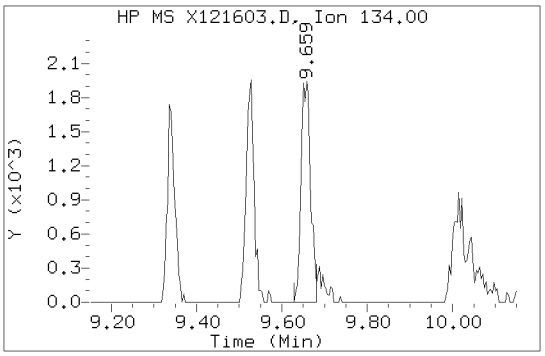

BEFORE

MASS
134
AREA
3102
HEIGHT
1946
27-Dec-2022
16:03
linh
pham



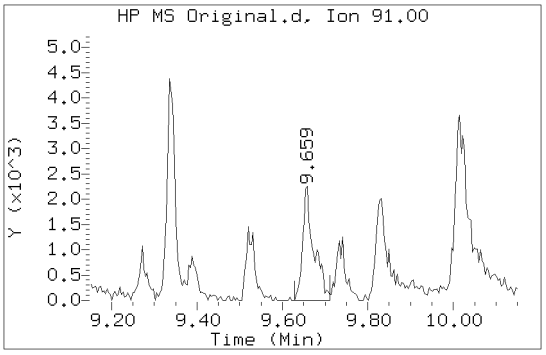

AFTER

MASS
134
AREA
3102
HEIGHT
1946
27-Dec-2022
16:07
linh
pham



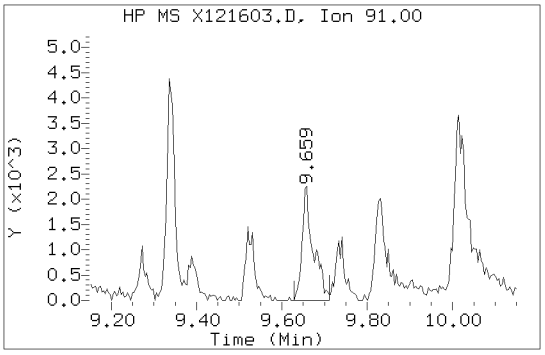

BEFORE

MASS
91
AREA
4191
HEIGHT
2256
27-Dec-2022
16:03
linh
pham




AFTER

MASS
91
AREA
4191
HEIGHT
2256
27-Dec-2022
16:07
linh
pham

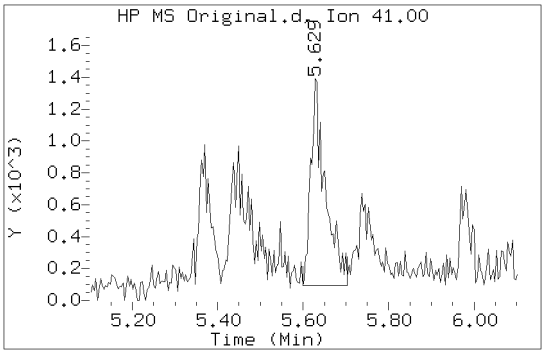



## Methyl Methacrylate (80-62-6)

Reason Code:

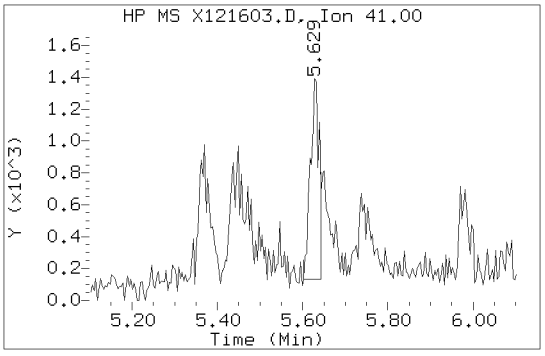
BEFORE

MASS
41
AREA
3067
HEIGHT
1299
27-Dec-2022
16:03
linh
pham




AFTER

MASS
41
AREA
1788
HEIGHT
1257
27-Dec-2022
16:07
linh
pham

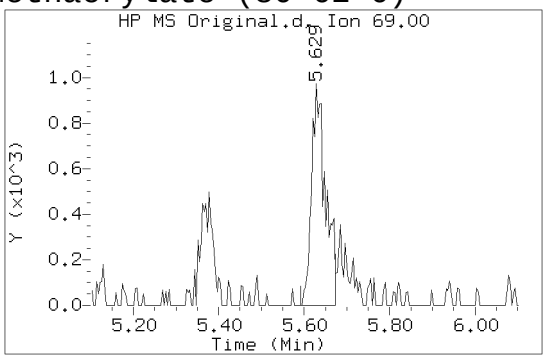


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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

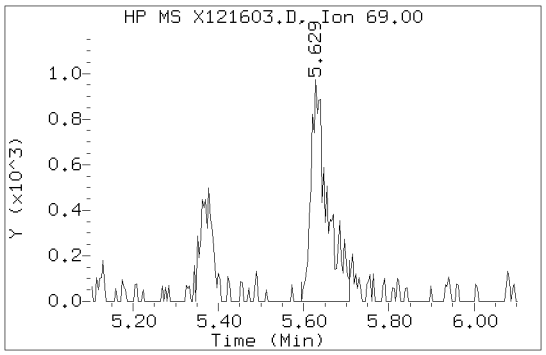
## Methyl Methacrylate (80-62-6)

Reason Code:

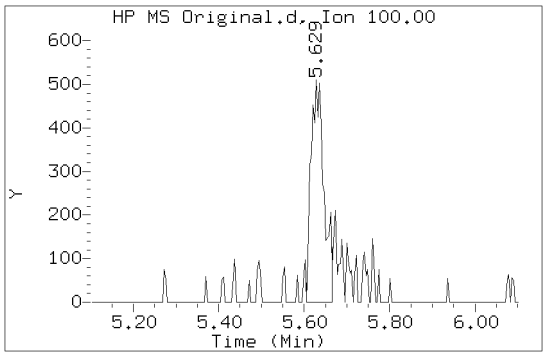
**BEFORE**
MASS
69
AREA
2216
HEIGHT
973
27-Dec-2022
16:03
linh
pham



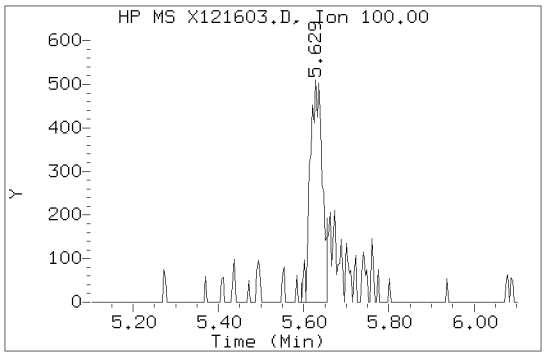

**AFTER**
MASS
69
AREA
2595
HEIGHT
973
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
100
AREA
1074
HEIGHT
510
27-Dec-2022
16:03
linh
pham



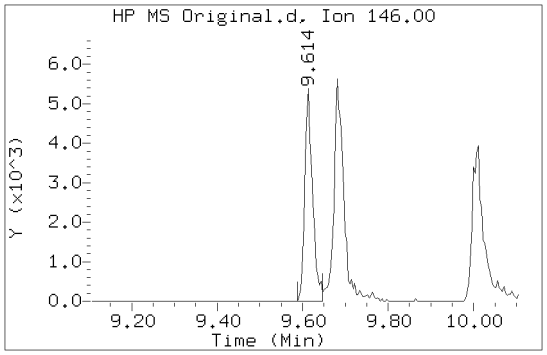

**AFTER**
MASS
100
AREA
1011
HEIGHT
510
27-Dec-2022
16:07
linh
pham



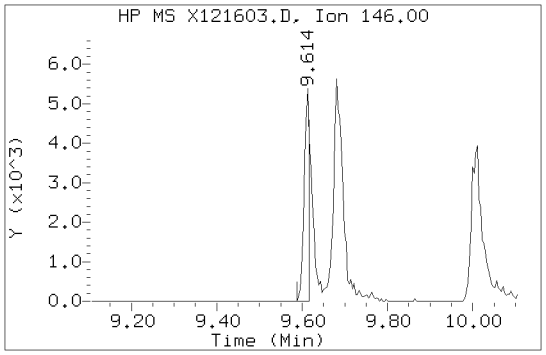

## 1,3-Dichlorobenzene (541-73-1)

Reason Code:

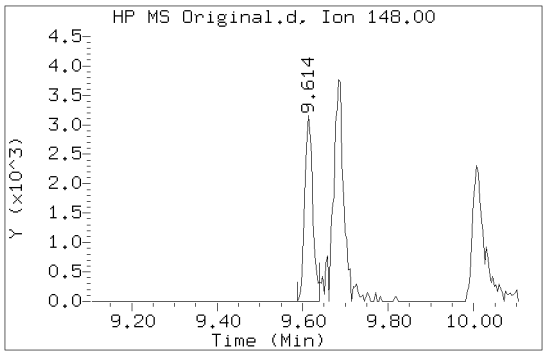
**BEFORE**
MASS
146
AREA
6964
HEIGHT
5387
27-Dec-2022
16:03
linh
pham



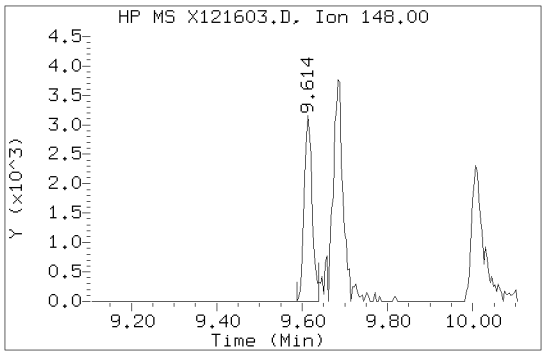

**AFTER**
MASS
146
AREA
4677
HEIGHT
5387
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
148
AREA
4216
HEIGHT
3157
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
148
AREA
4216
HEIGHT
3157
27-Dec-2022
16:07
linh
pham



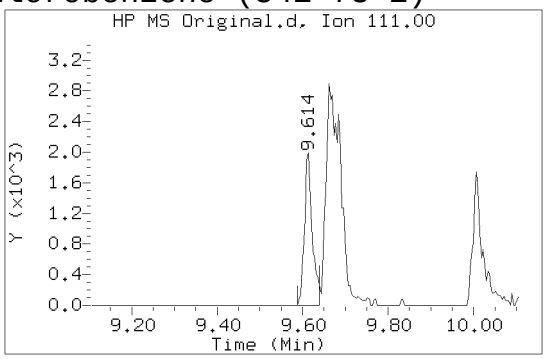
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,3-Dichlorobenzene (541-73-1)

Reason Code:

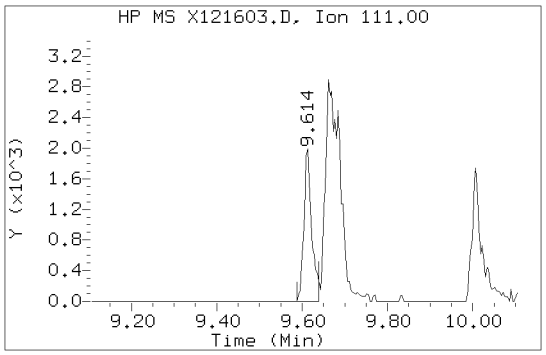
**BEFORE**

MASS
111
AREA
2596
HEIGHT
1995
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
111
AREA
2596
HEIGHT
1995
27-Dec-2022
16:07
linh
pham

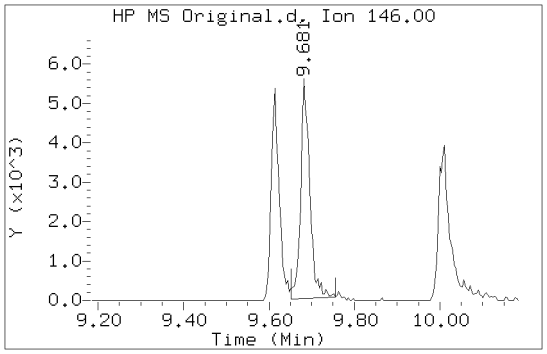



## 1,4-Dichlorobenzene (106-46-7)

Reason Code:

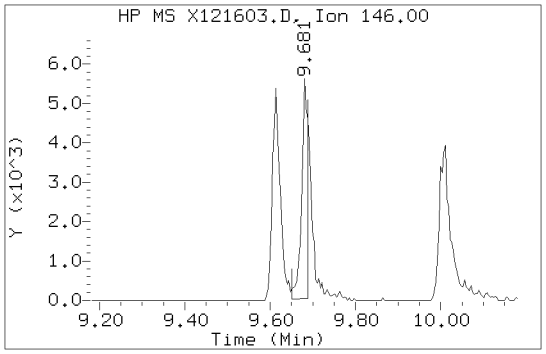
**BEFORE**

MASS
146
AREA
8510
HEIGHT
5586
27-Dec-2022
16:03
linh
pham



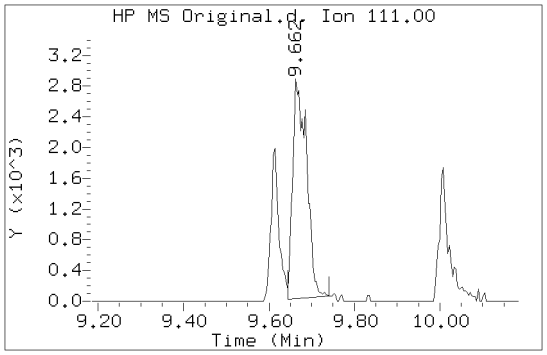

**AFTER**

MASS
146
AREA
5674
HEIGHT
5587
27-Dec-2022
16:07
linh
pham



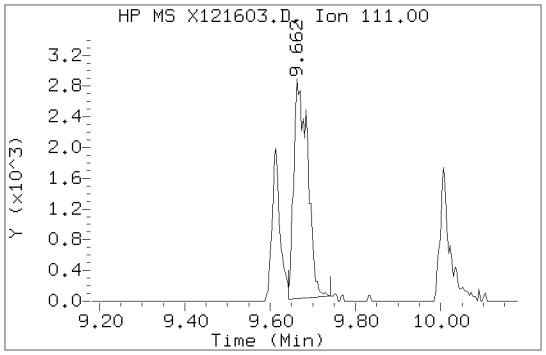

**BEFORE**

MASS
111
AREA
6571
HEIGHT
2862
27-Dec-2022
16:03
linh
pham



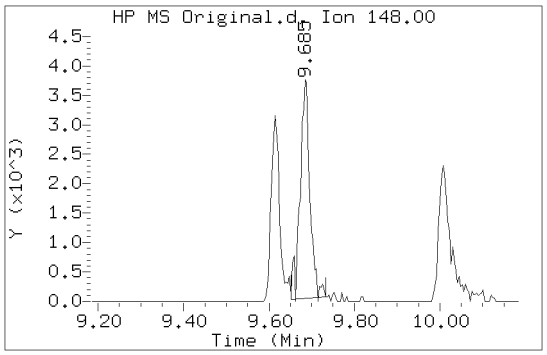

**AFTER**

MASS
111
AREA
6571
HEIGHT
2862
27-Dec-2022
16:07
linh
pham



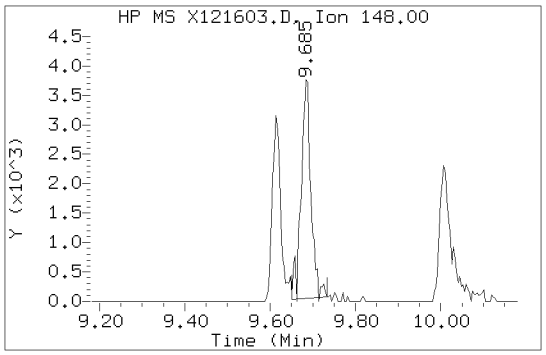

**BEFORE**

MASS
148
AREA
6083
HEIGHT
3714
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
148
AREA
6083
HEIGHT
3714
27-Dec-2022
16:07
linh
pham

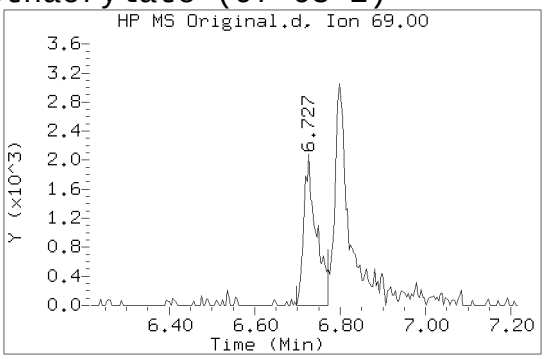


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Ethyl Methacrylate (97-63-2)

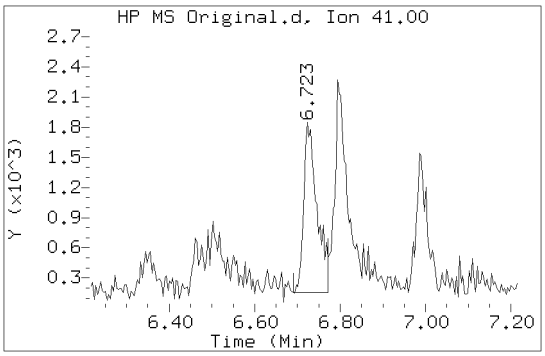
**BEFORE**

MASS
69
AREA
4283
HEIGHT
2083
27-Dec-2022
16:03
linh
pham




**BEFORE**

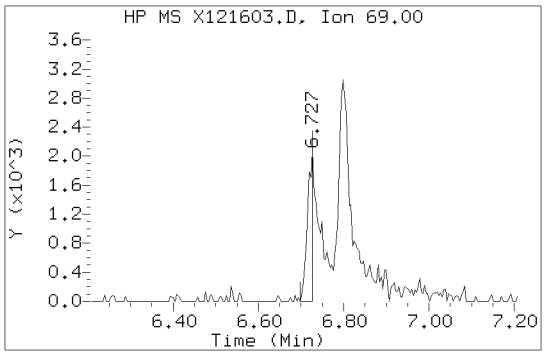
MASS
41
AREA
3701
HEIGHT
1688
27-Dec-2022
16:03
linh
pham




Reason Code:

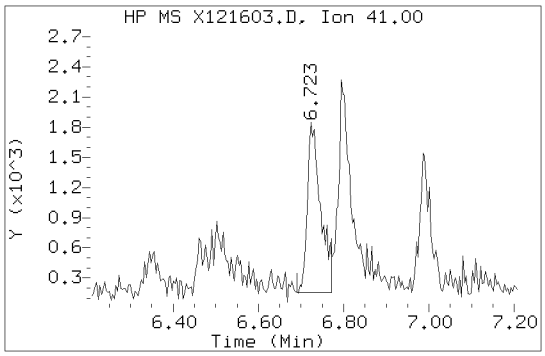
**AFTER**

MASS
69
AREA
1935
HEIGHT
2083
27-Dec-2022
16:07
linh
pham




**AFTER**

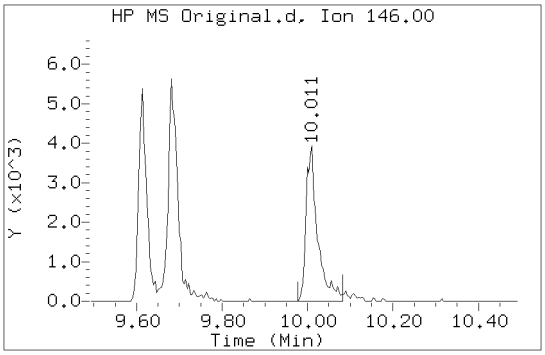
MASS
41
AREA
3701
HEIGHT
1688
27-Dec-2022
16:07
linh
pham




## 1,2-Dichlorobenzene (95-50-1)

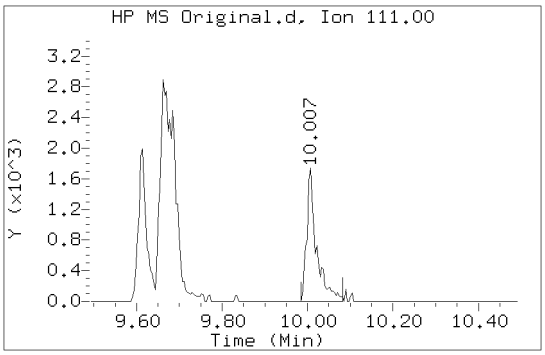
**BEFORE**

MASS
146
AREA
7400
HEIGHT
3934
27-Dec-2022
16:03
linh
pham




**BEFORE**

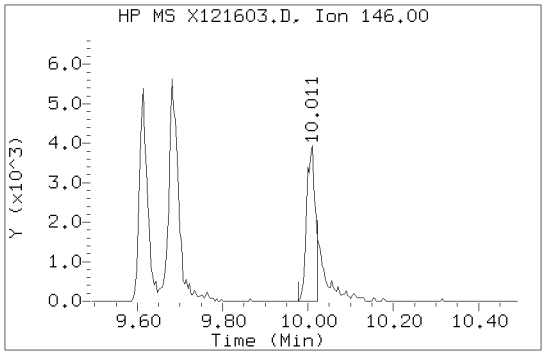
MASS
111
AREA
2768
HEIGHT
1741
27-Dec-2022
16:03
linh
pham




Reason Code:

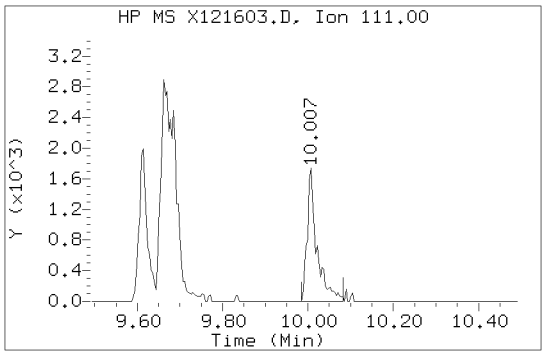
**AFTER**

MASS
146
AREA
5504
HEIGHT
3934
27-Dec-2022
16:07
linh
pham




**AFTER**

MASS
111
AREA
2768
HEIGHT
1741
27-Dec-2022
16:07
linh
pham



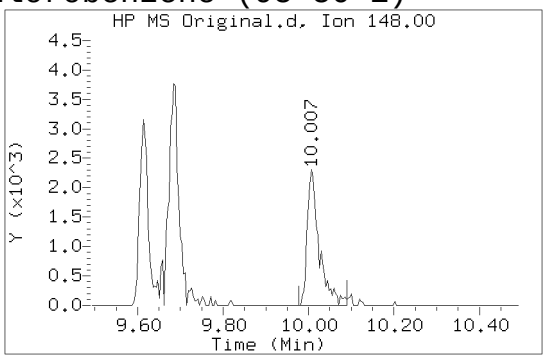
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,2-Dichlorobenzene (95-50-1)

Reason Code:

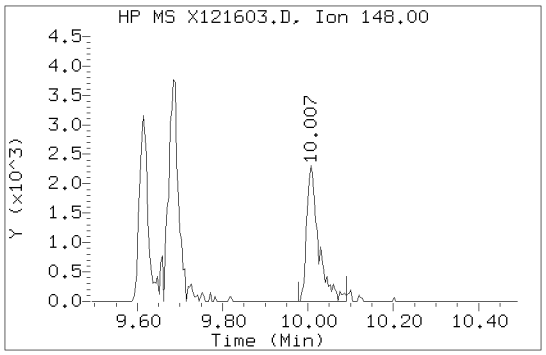
**BEFORE**

MASS
148
AREA
4515
HEIGHT
2306
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
148
AREA
4515
HEIGHT
2306
27-Dec-2022
16:07
linh
pham

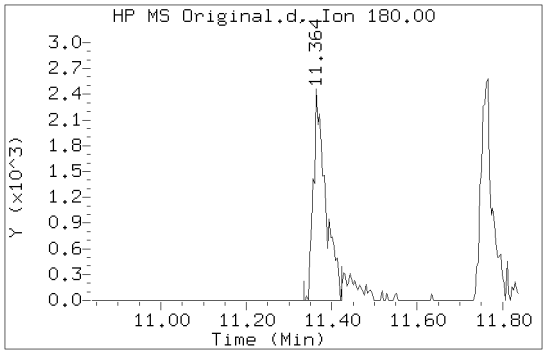



## 1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

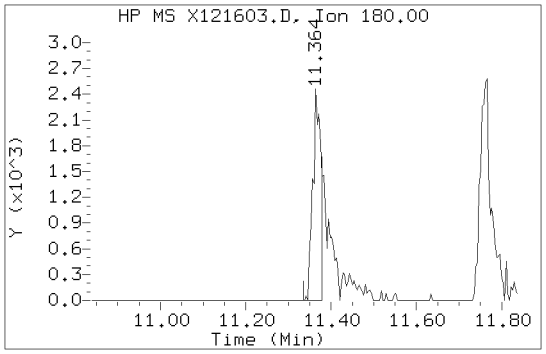
**BEFORE**

MASS
180
AREA
4912
HEIGHT
2459
27-Dec-2022
16:03
linh
pham



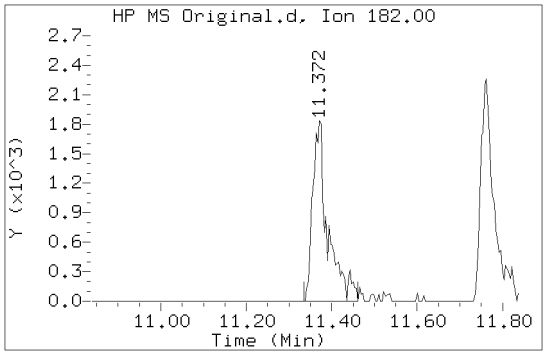

**AFTER**

MASS
180
AREA
3187
HEIGHT
2459
27-Dec-2022
16:07
linh
pham



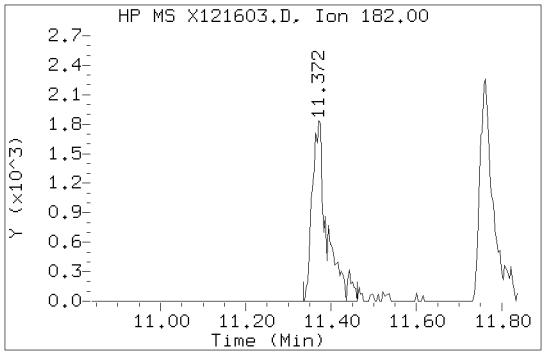

**BEFORE**

MASS
182
AREA
4514
HEIGHT
1835
27-Dec-2022
16:03
linh
pham



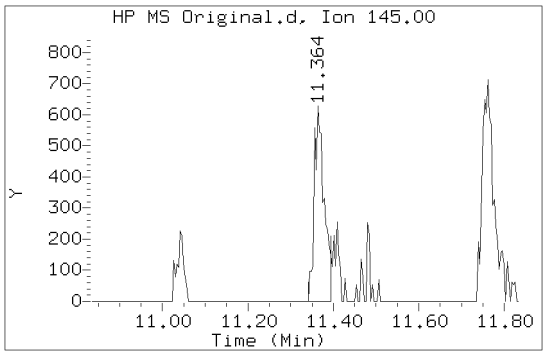

**AFTER**

MASS
182
AREA
4514
HEIGHT
1835
27-Dec-2022
16:07
linh
pham



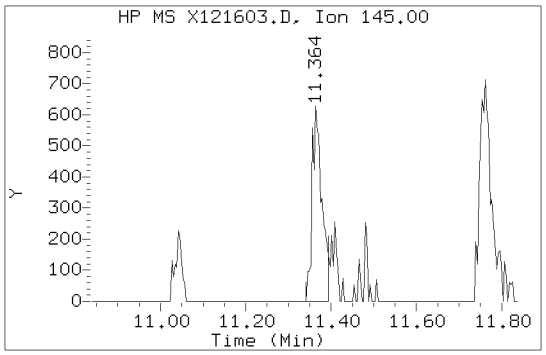

**BEFORE**

MASS
145
AREA
1003
HEIGHT
629
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
145
AREA
1003
HEIGHT
629
27-Dec-2022
16:07
linh
pham

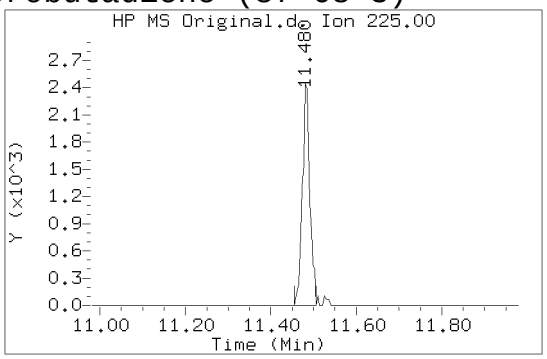


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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

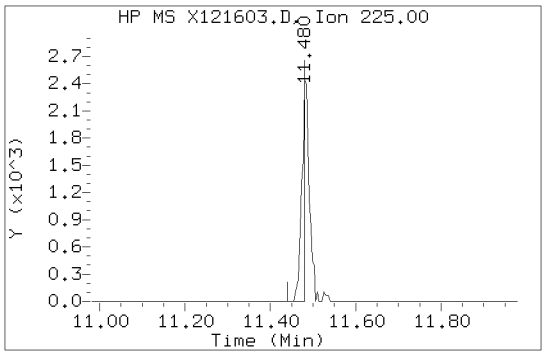
## Hexachlorobutadiene (87-68-3)

Reason Code:

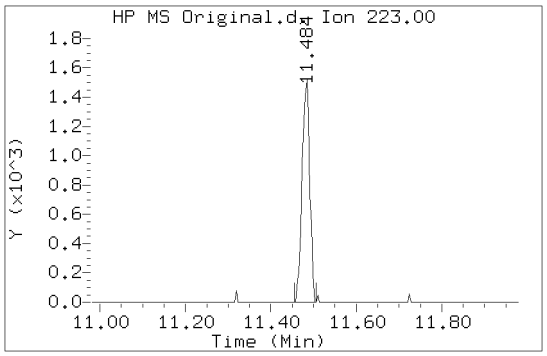
BEFORE
MASS
225
AREA
3038
HEIGHT
2444
27-Dec-2022
16:03
linh
pham



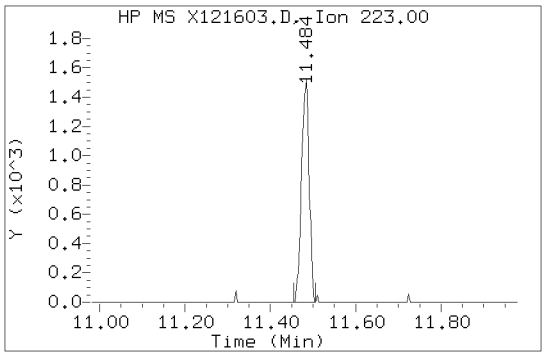

AFTER
MASS
225
AREA
1477
HEIGHT
2444
27-Dec-2022
16:07
linh
pham



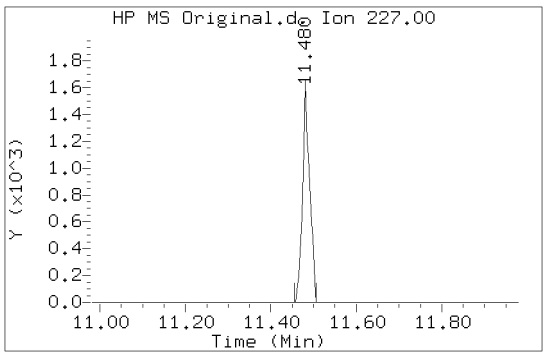

BEFORE
MASS
223
AREA
1952
HEIGHT
1518
27-Dec-2022
16:03
linh
pham



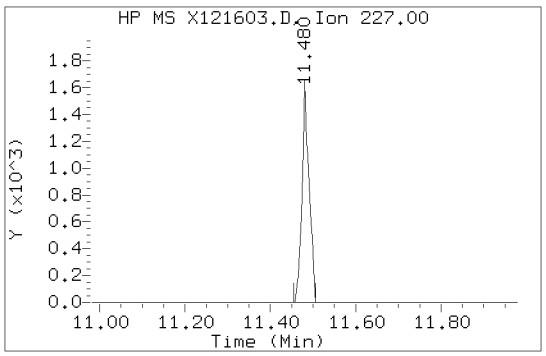

AFTER
MASS
223
AREA
1952
HEIGHT
1518
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
227
AREA
1938
HEIGHT
1652
27-Dec-2022
16:03
linh
pham



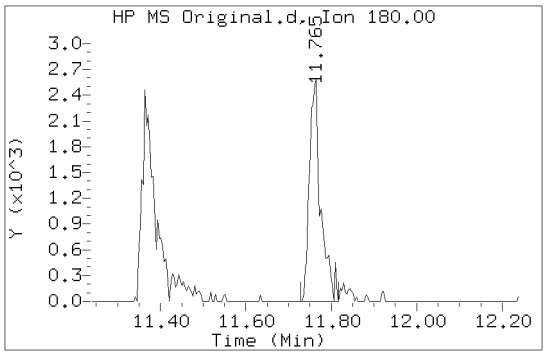

AFTER
MASS
227
AREA
1938
HEIGHT
1652
27-Dec-2022
16:07
linh
pham



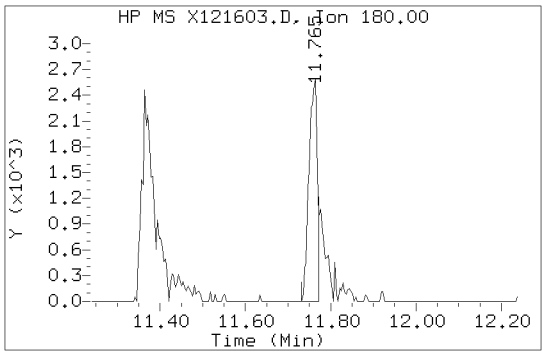

## 1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

BEFORE
MASS
180
AREA
4741
HEIGHT
2580
27-Dec-2022
16:03
linh
pham



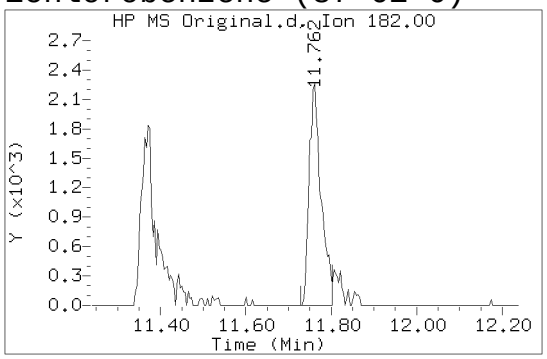

AFTER
MASS
180
AREA
3572
HEIGHT
2580
27-Dec-2022
16:07
linh
pham



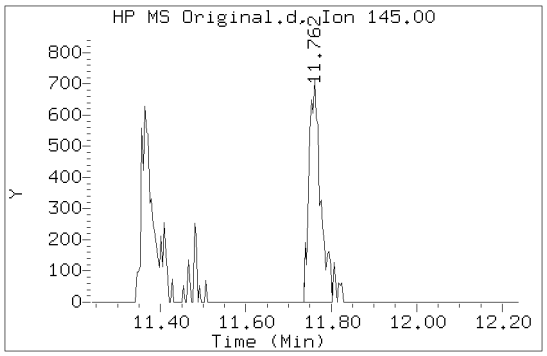
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,2,3-Trichlorobenzene (87-61-6)

**BEFORE**
MASS
182
AREA
4404
HEIGHT
2261
27-Dec-2022
16:03
linh
pham

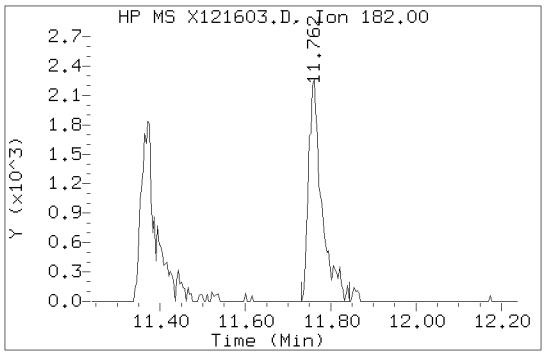



**BEFORE**
MASS
145
AREA
1338
HEIGHT
713
27-Dec-2022
16:03
linh
pham

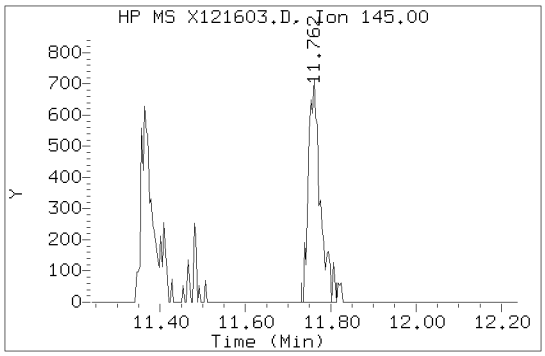



Reason Code:

**AFTER**
MASS
182
AREA
4881
HEIGHT
2261
27-Dec-2022
16:07
linh
pham

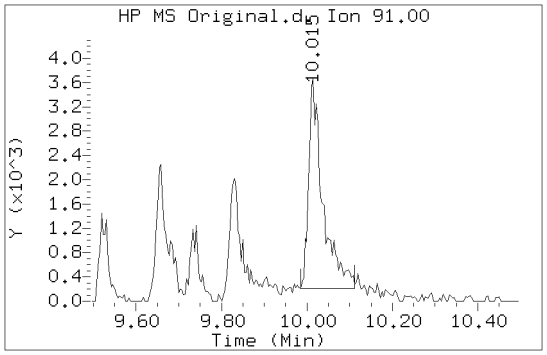



**AFTER**
MASS
145
AREA
1384
HEIGHT
713
27-Dec-2022
16:07
linh
pham

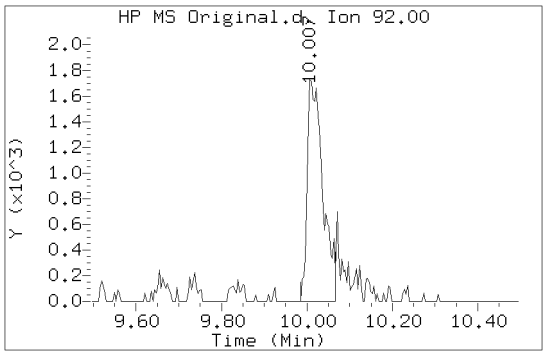



## n-Butylbenzene (104-51-8)

**BEFORE**
MASS
91
AREA
8005
HEIGHT
3451
27-Dec-2022
16:03
linh
pham

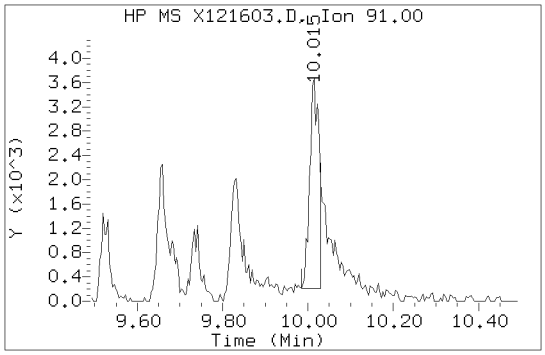



**BEFORE**
MASS
92
AREA
4404
HEIGHT
1727
27-Dec-2022
16:03
linh
pham

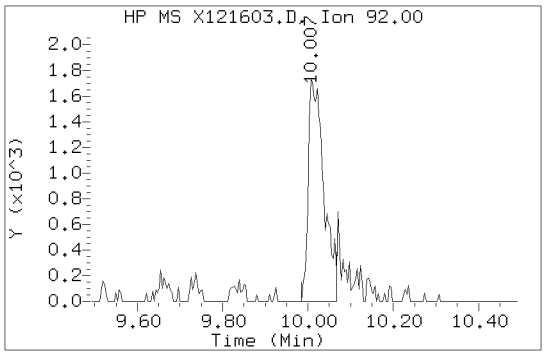



Reason Code:

**AFTER**
MASS
91
AREA
5149
HEIGHT
3451
27-Dec-2022
16:07
linh
pham




**AFTER**
MASS
92
AREA
4404
HEIGHT
1727
27-Dec-2022
16:07
linh
pham



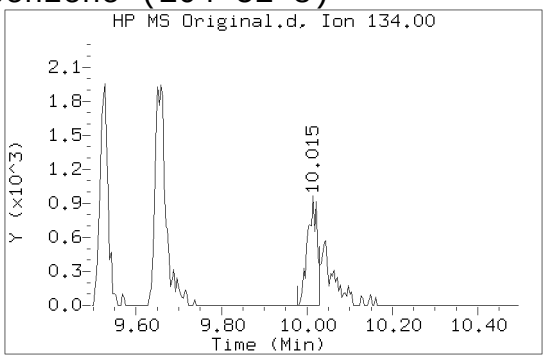
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## n-Butylbenzene (104-51-8)

Reason Code:

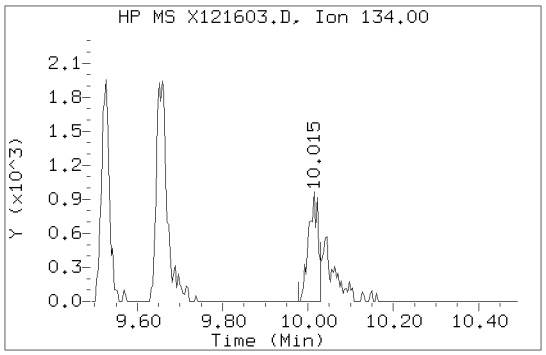
**BEFORE**

MASS
134
AREA
1502
HEIGHT
969
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
134
AREA
1502
HEIGHT
969
27-Dec-2022
16:07
linh
pham

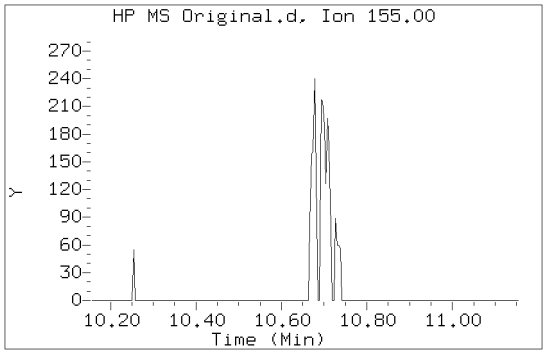



## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

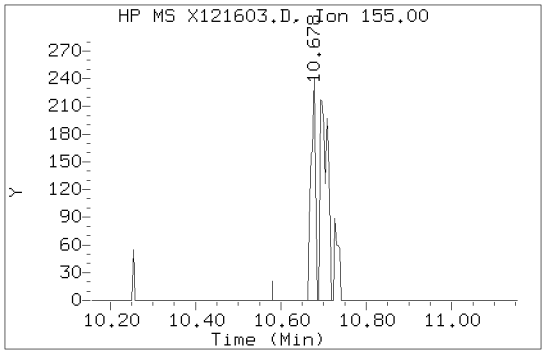
**BEFORE**

MASS
155
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



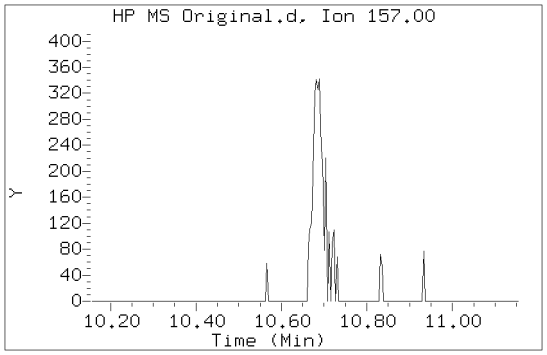

**AFTER**

MASS
155
AREA
441
HEIGHT
240
27-Dec-2022
16:07
linh
pham



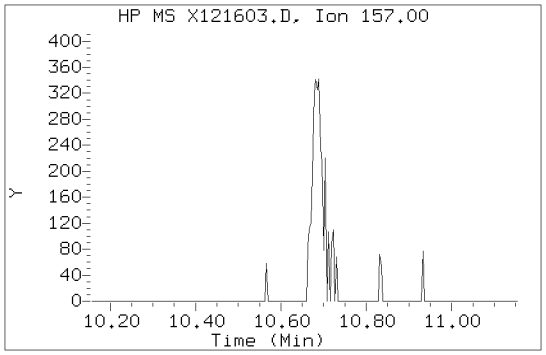

**BEFORE**

MASS
157
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



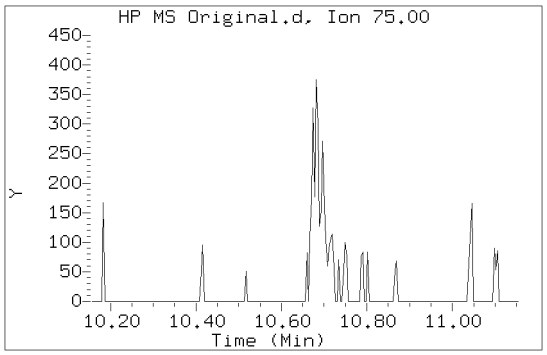

**AFTER**

MASS
157
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



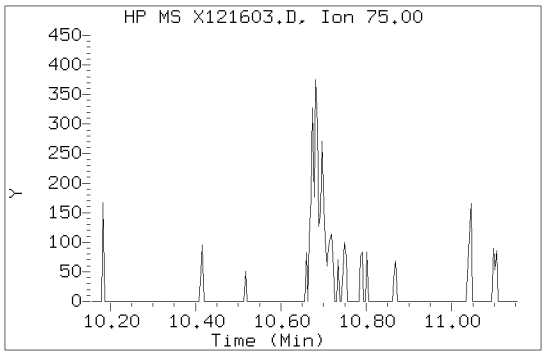

**BEFORE**

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

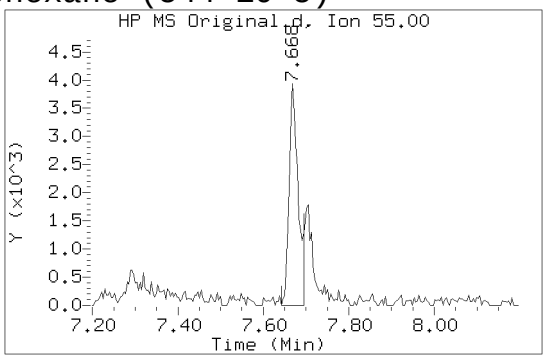


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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

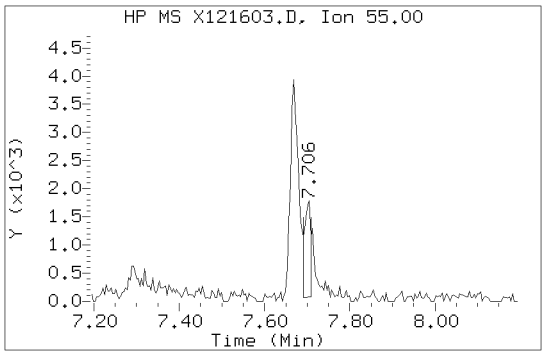
## 1-Chlorohexane (544-10-5)

Reason Code:

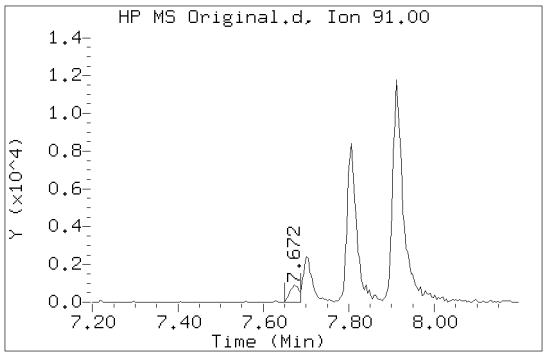
BEFORE
MASS
55
AREA
5785
HEIGHT
3936
27-Dec-2022
16:03
linh
pham



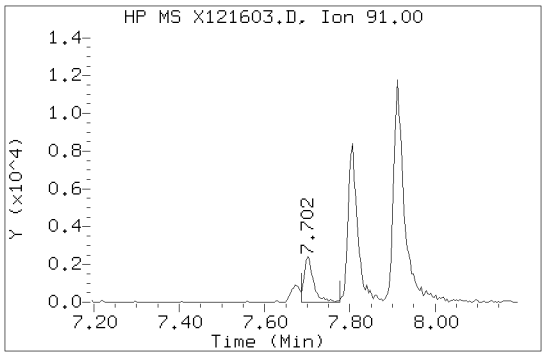

AFTER
MASS
55
AREA
1829
HEIGHT
1707
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
91
AREA
1355
HEIGHT
933
27-Dec-2022
16:03
linh
pham



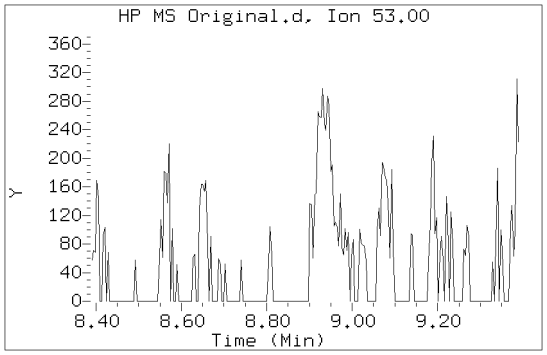

AFTER
MASS
91
AREA
3802
HEIGHT
2430
27-Dec-2022
16:07
linh
pham



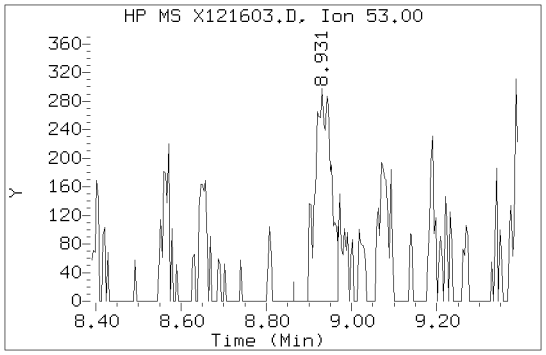

## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

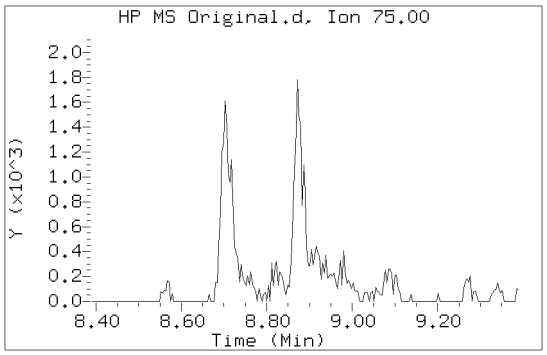
BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



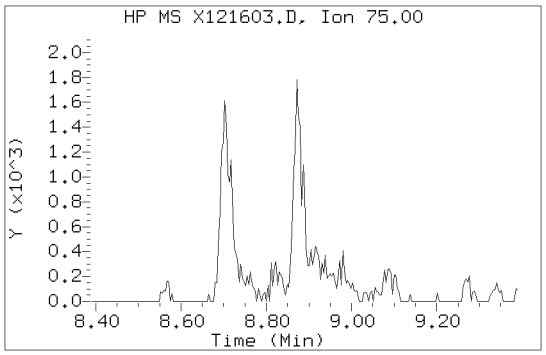

AFTER
MASS
53
AREA
792
HEIGHT
298
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

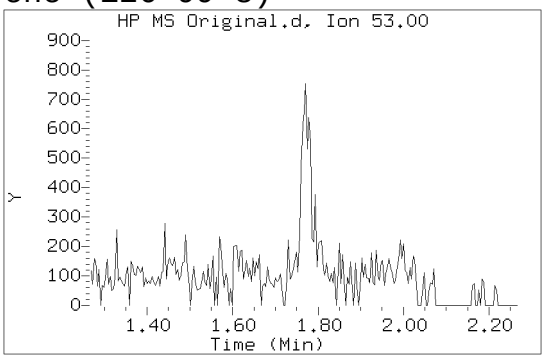


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Chloroprene (126-99-8)

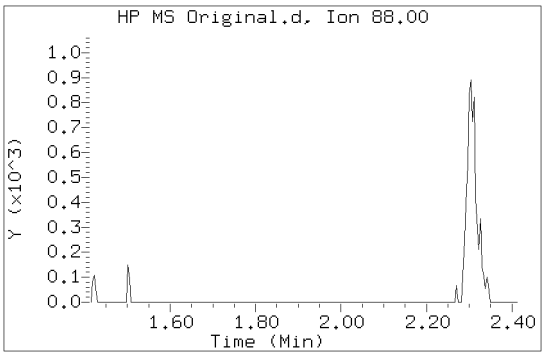
**BEFORE**

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**BEFORE**

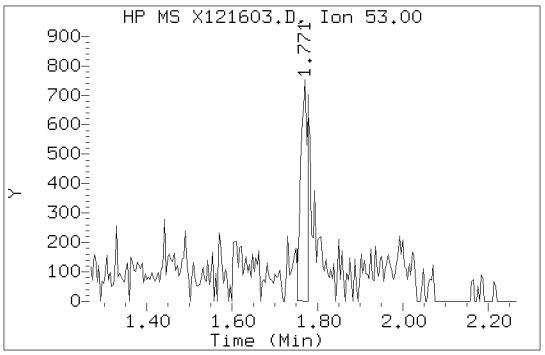
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

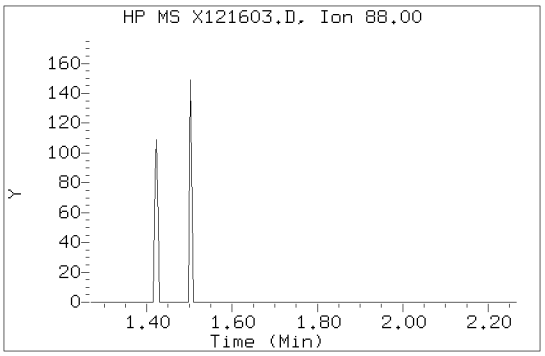
**AFTER**

MASS
53
AREA
900
HEIGHT
751
27-Dec-2022
16:07
linh
pham




**AFTER**

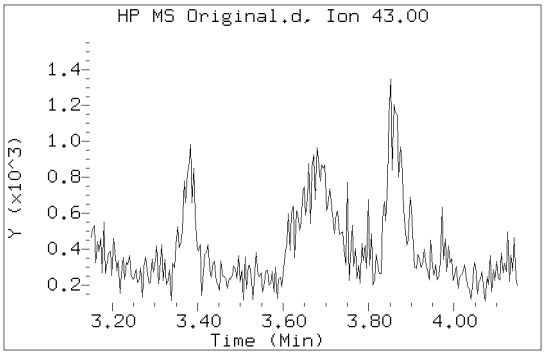
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




## Ethyl Acetate (141-78-6)

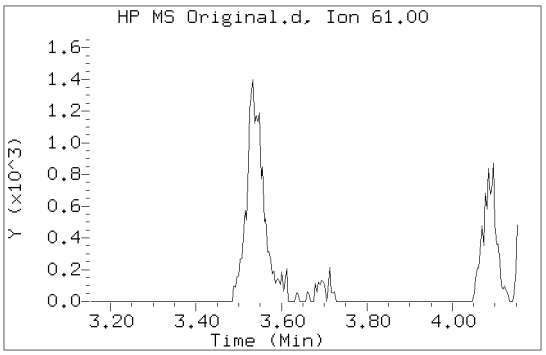
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**BEFORE**

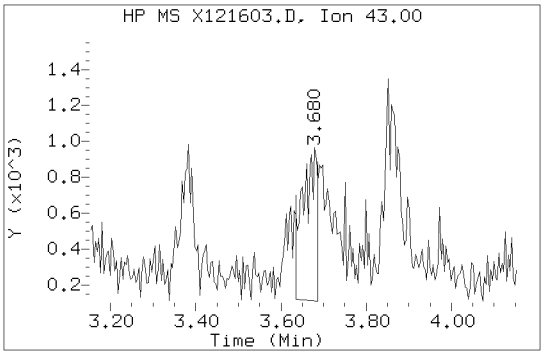
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

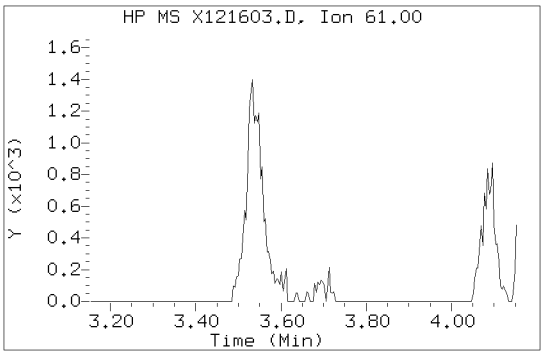
**AFTER**

MASS
43
AREA
2065
HEIGHT
853
27-Dec-2022
16:07
linh
pham




**AFTER**

MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



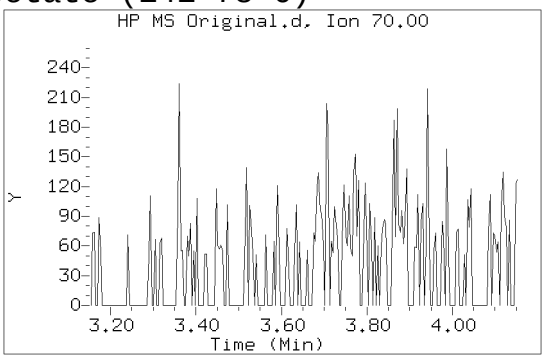
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Ethyl Acetate (141-78-6)

Reason Code:

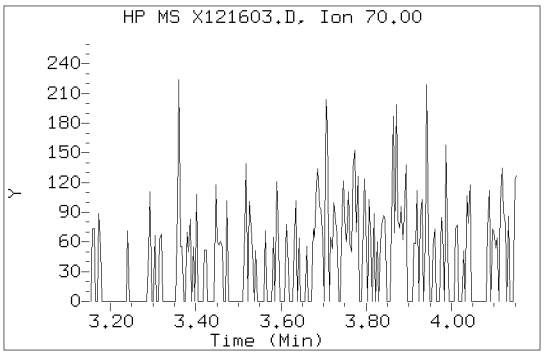
**BEFORE**

MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

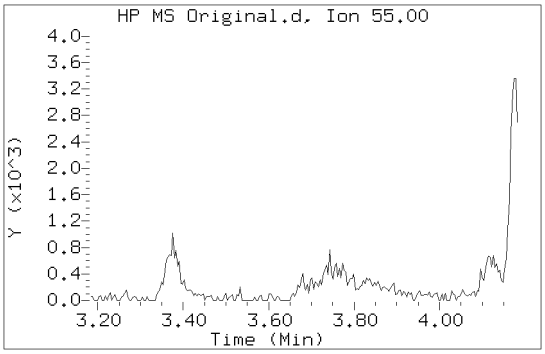



## Methyl Acrylate (96-33-3)

Reason Code:

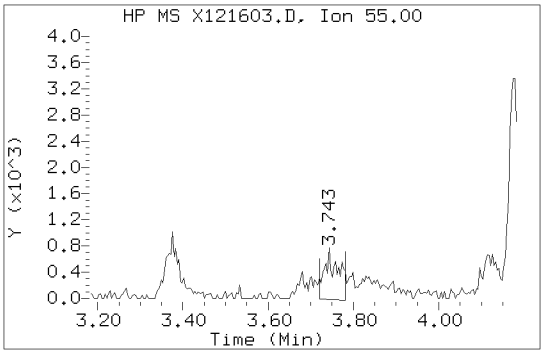
**BEFORE**

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



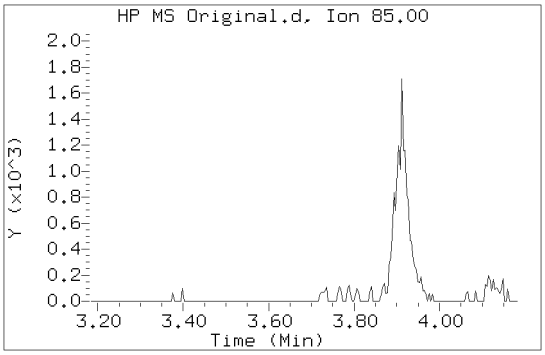

**AFTER**

MASS
55
AREA
1765
HEIGHT
787
27-Dec-2022
16:07
linh
pham



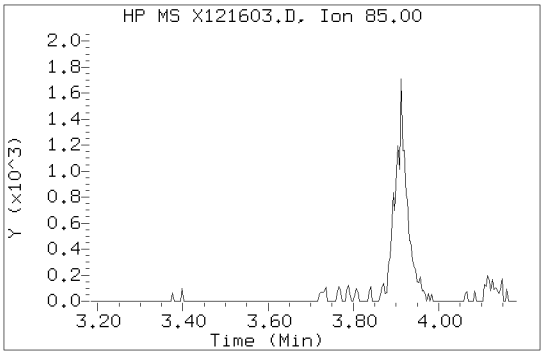

**BEFORE**

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

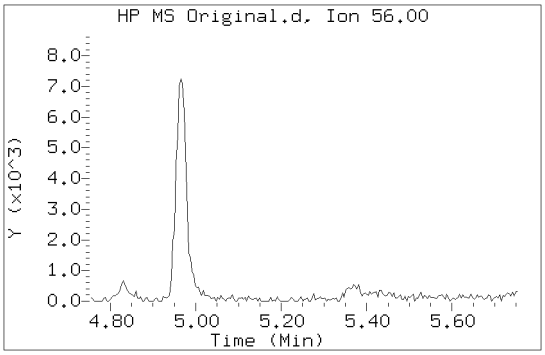



## n-Butanol (71-36-3)

Reason Code:

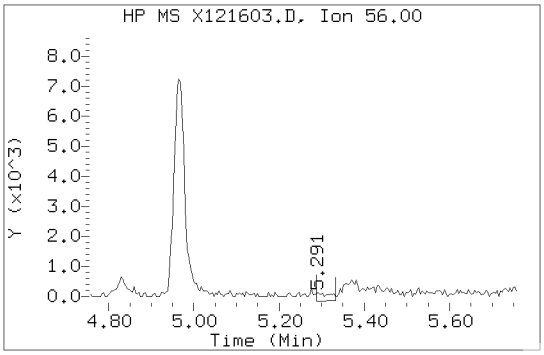
**BEFORE**

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
56
AREA
622
HEIGHT
300
27-Dec-2022
16:07
linh
pham



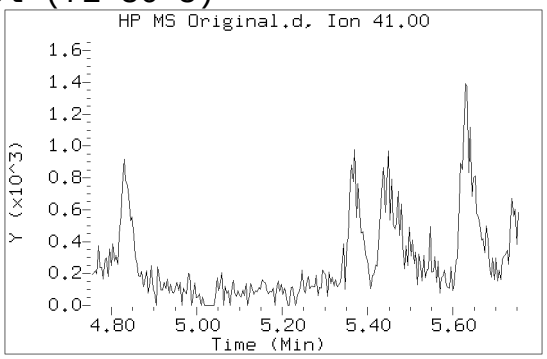
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## n-Butanol (71-36-3)

Reason Code:

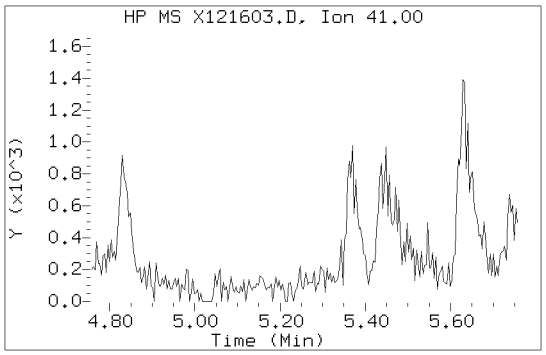
**BEFORE**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

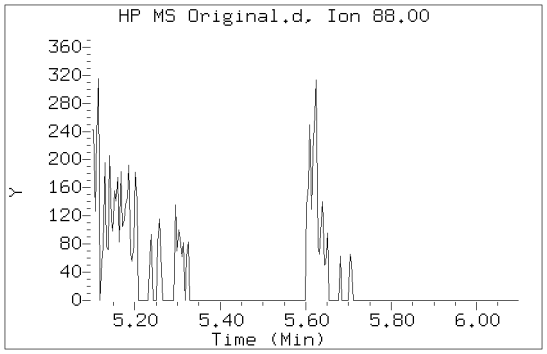



## 1,4-Dioxane ()

Reason Code:

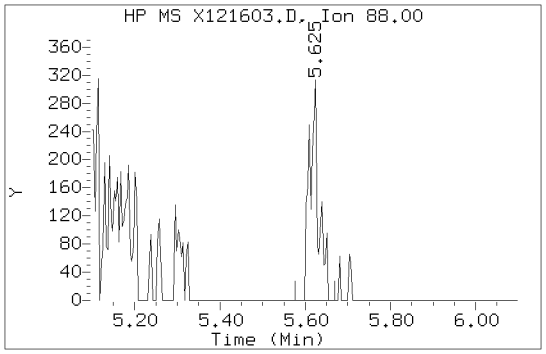
**BEFORE**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



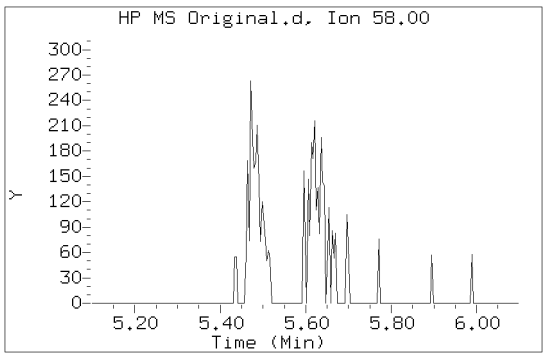

**AFTER**

MASS
88
AREA
462
HEIGHT
313
27-Dec-2022
16:07
linh
pham



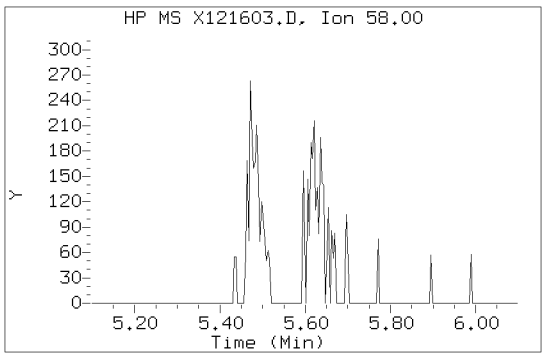

**BEFORE**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

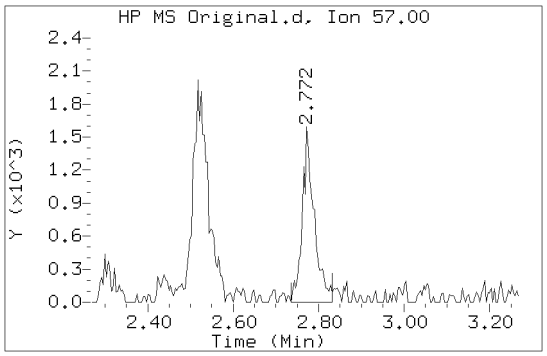



## n-Hexane (110-54-3)

Reason Code:

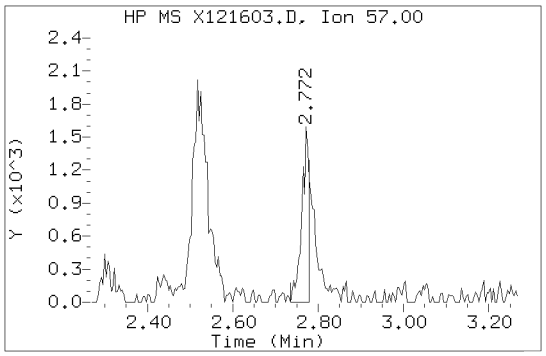
**BEFORE**

MASS
57
AREA
3089
HEIGHT
1591
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
57
AREA
1909
HEIGHT
1591
27-Dec-2022
16:07
linh
pham



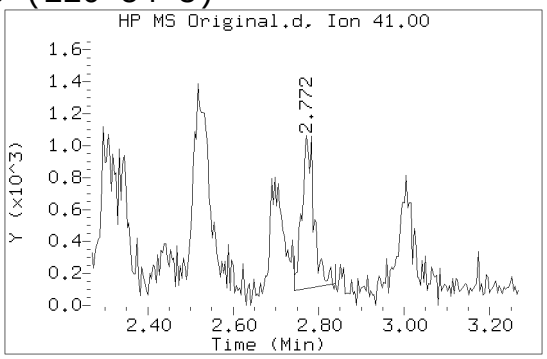
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## n-Hexane (110-54-3)

Reason Code:

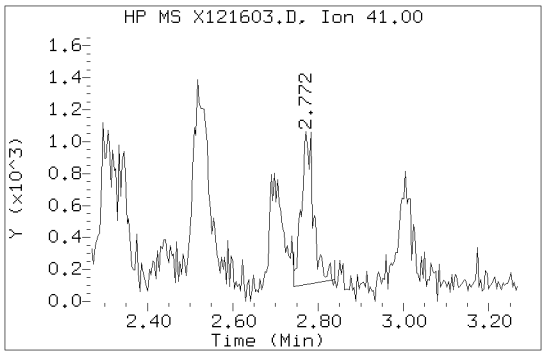
**BEFORE**

MASS
41
AREA
1918
HEIGHT
958
27-Dec-2022
16:03
linh
pham



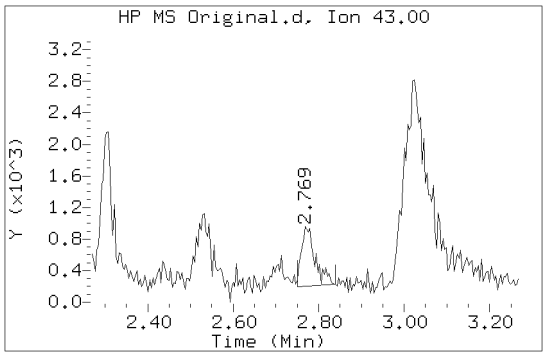

**AFTER**

MASS
41
AREA
1918
HEIGHT
958
27-Dec-2022
16:07
linh
pham



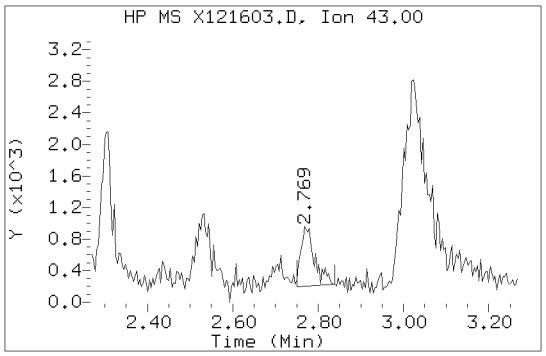

**BEFORE**

MASS
43
AREA
1726
HEIGHT
759
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
43
AREA
1726
HEIGHT
759
27-Dec-2022
16:07
linh
pham

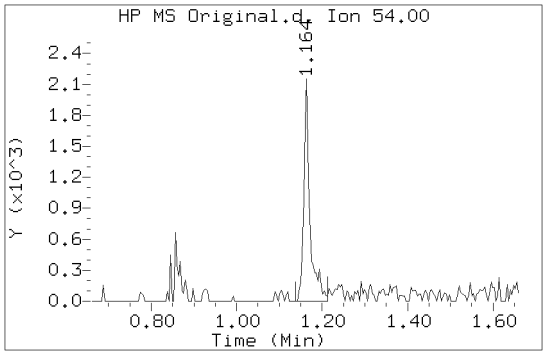



## 1,3-Butadiene (106-99-0)

Reason Code:

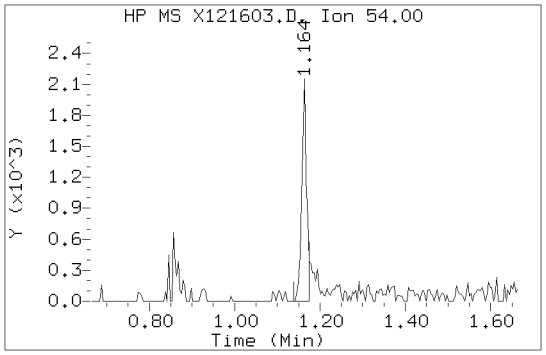
**BEFORE**

MASS
54
AREA
2206
HEIGHT
2153
27-Dec-2022
16:03
linh
pham



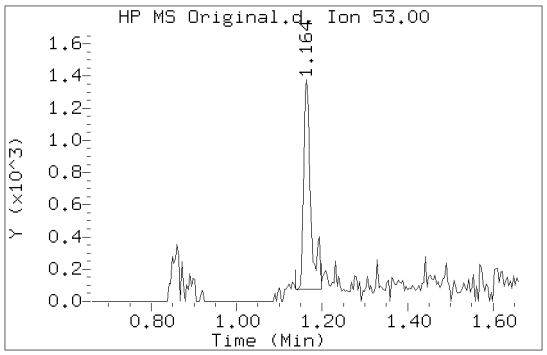

**AFTER**

MASS
54
AREA
1793
HEIGHT
2153
27-Dec-2022
16:07
linh
pham



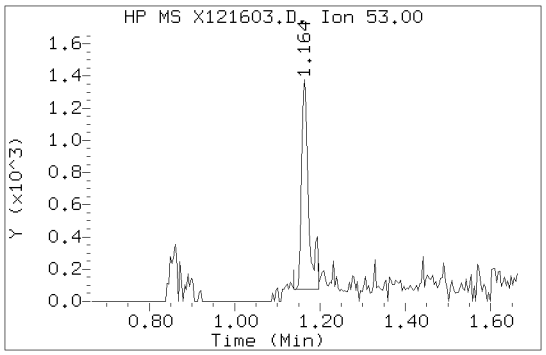

**BEFORE**

MASS
53
AREA
1535
HEIGHT
1301
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
53
AREA
1535
HEIGHT
1301
27-Dec-2022
16:07
linh
pham

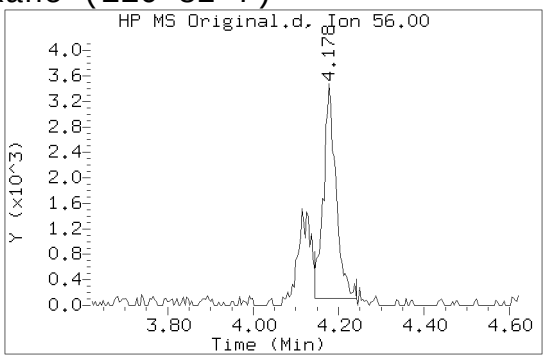


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

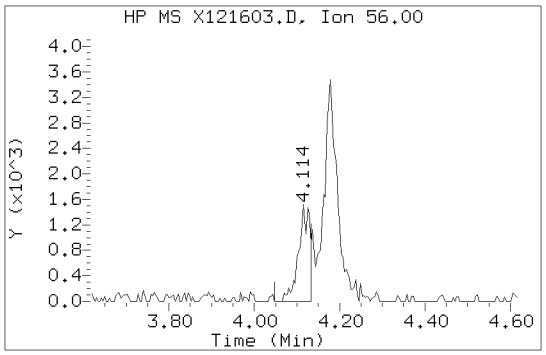
## Cyclohexane (110-82-7)

Reason Code:

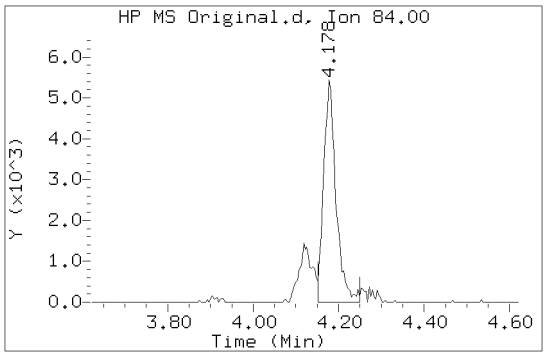
**BEFORE**
MASS
56
AREA
6884
HEIGHT
3363
27-Dec-2022
16:03
linh
pham



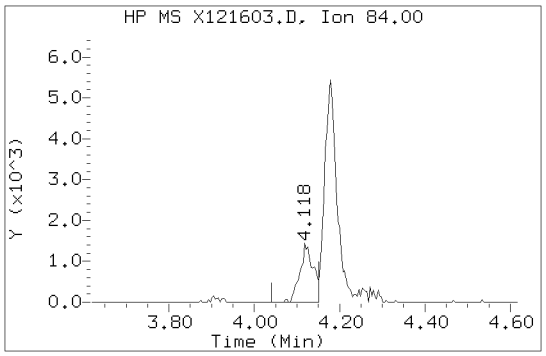

**AFTER**
MASS
56
AREA
2803
HEIGHT
1514
27-Dec-2022
16:07
linh
pham



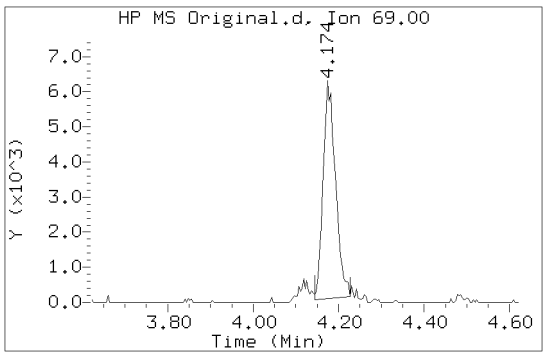

**BEFORE**
MASS
84
AREA
10951
HEIGHT
5440
27-Dec-2022
16:03
linh
pham



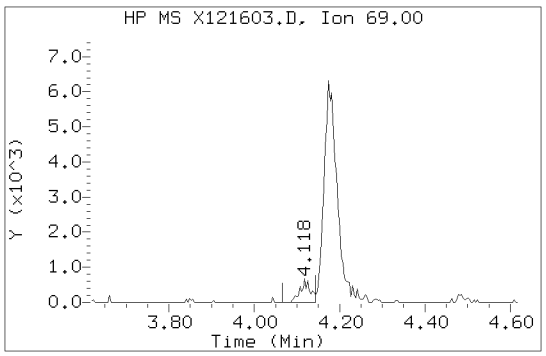

**AFTER**
MASS
84
AREA
3197
HEIGHT
1443
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
69
AREA
12449
HEIGHT
6206
27-Dec-2022
16:03
linh
pham



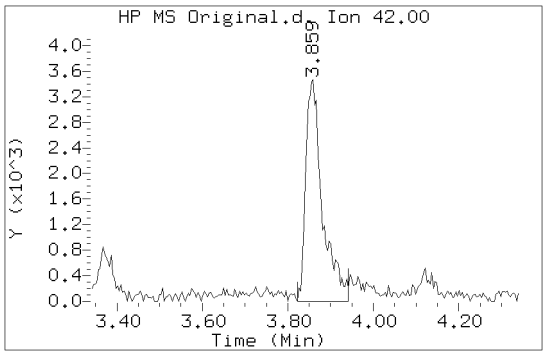

**AFTER**
MASS
69
AREA
1108
HEIGHT
681
27-Dec-2022
16:07
linh
pham



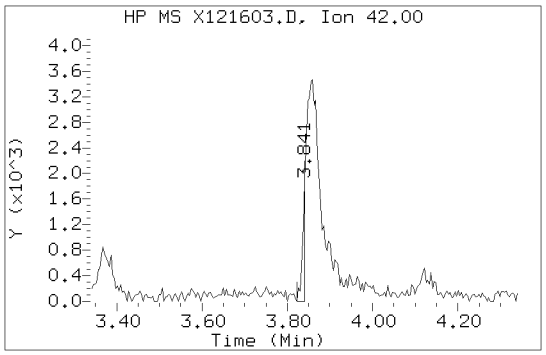

## Tetrahydrofuran (109-99-9)

Reason Code:

**BEFORE**
MASS
42
AREA
9468
HEIGHT
3467
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
42
AREA
900
HEIGHT
1891
27-Dec-2022
16:07
linh
pham



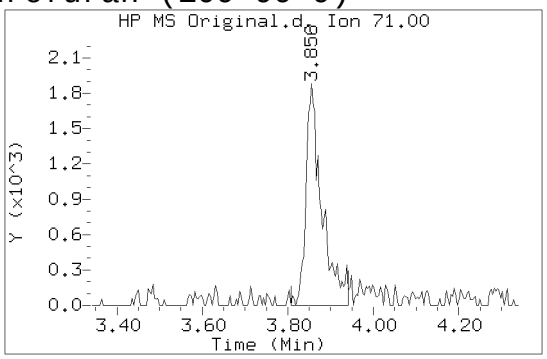
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Tetrahydrofuran (109-99-9)

Reason Code:

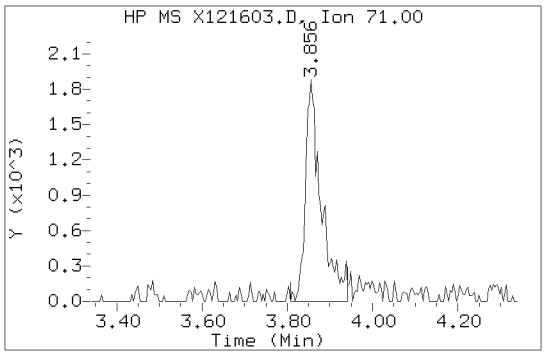
**BEFORE**

MASS
71
AREA
4885
HEIGHT
1881
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
71
AREA
4885
HEIGHT
1881
27-Dec-2022
16:07
linh
pham

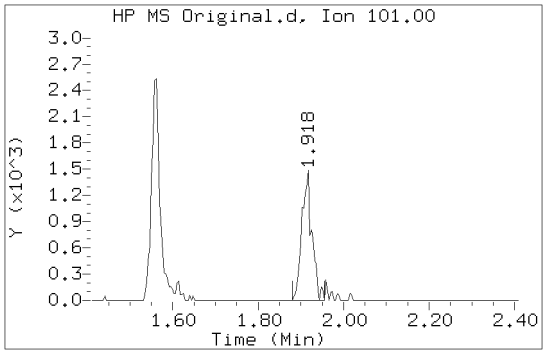



## Freon TF (76-13-1)

Reason Code:

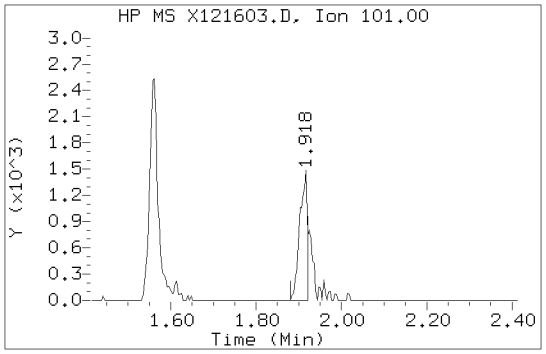
**BEFORE**

MASS
101
AREA
2478
HEIGHT
1484
27-Dec-2022
16:03
linh
pham



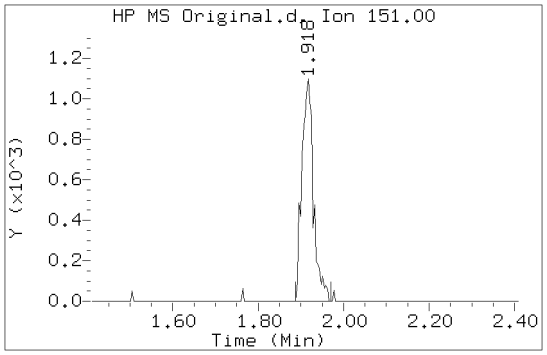

**AFTER**

MASS
101
AREA
1851
HEIGHT
1484
27-Dec-2022
16:07
linh
pham



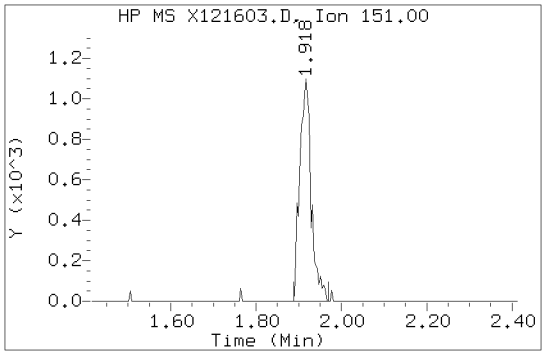

**BEFORE**

MASS
151
AREA
2095
HEIGHT
1098
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
151
AREA
2095
HEIGHT
1098
27-Dec-2022
16:07
linh
pham

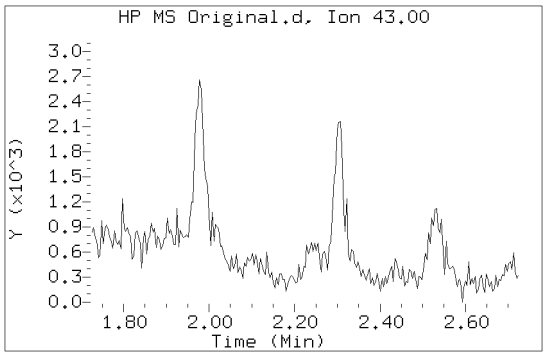



## Methyl Acetate (79-20-9)

Reason Code:

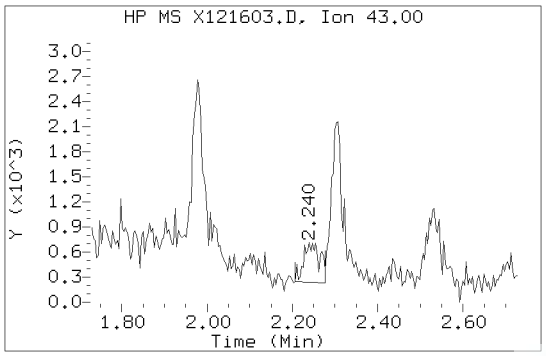
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
43
AREA
1269
HEIGHT
477
27-Dec-2022
16:07
linh
pham

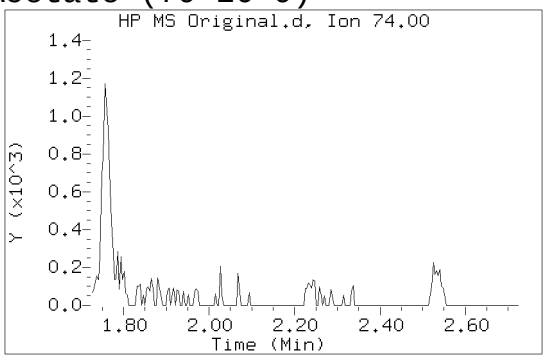


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methyl Acetate (79-20-9)

### BEFORE

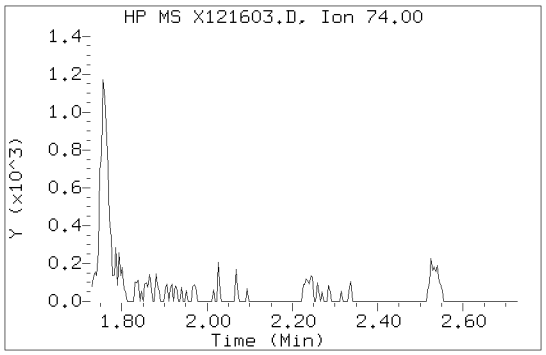
MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

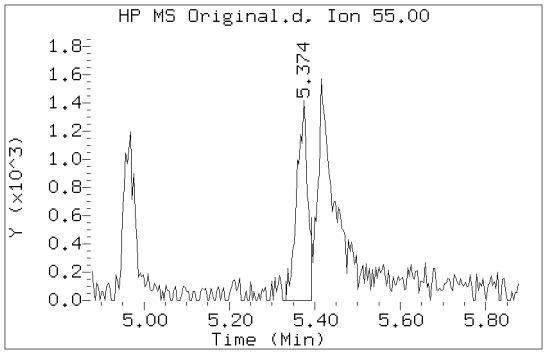
Reason Code:




## Methylcyclohexane (108-87-2)

### BEFORE

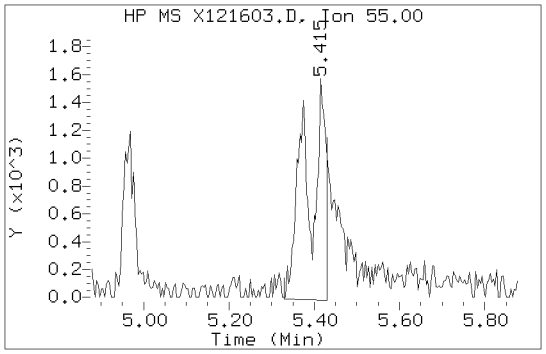
MASS
55
AREA
2505
HEIGHT
1416
27-Dec-2022
16:03
linh
pham




### AFTER

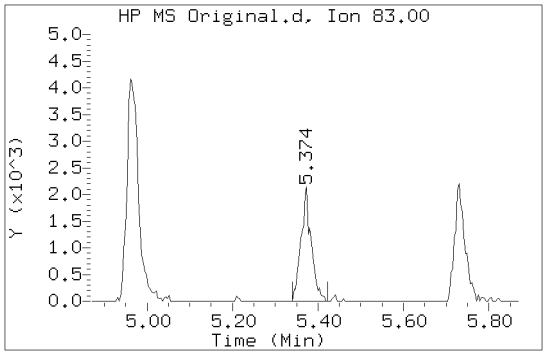
MASS
55
AREA
4781
HEIGHT
1590
27-Dec-2022
16:07
linh
pham

Reason Code:



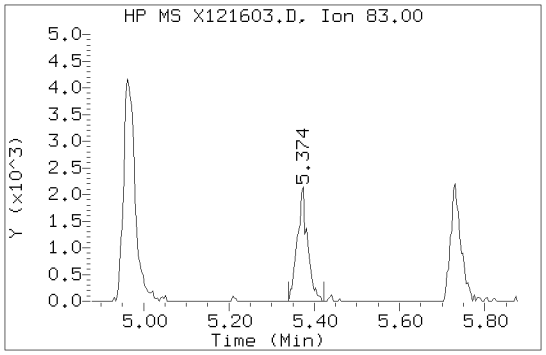

### BEFORE

MASS
83
AREA
3627
HEIGHT
2141
27-Dec-2022
16:03
linh
pham




### AFTER

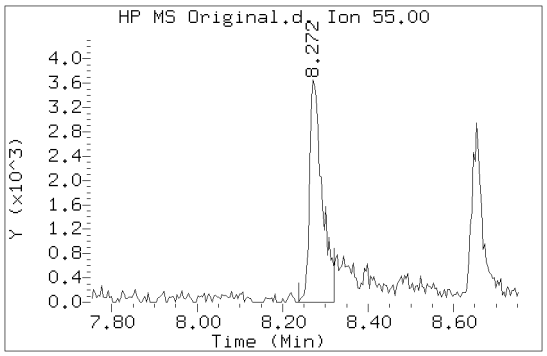
MASS
83
AREA
3627
HEIGHT
2141
27-Dec-2022
16:07
linh
pham




## Butyl acrylate (141-32-2)

### BEFORE

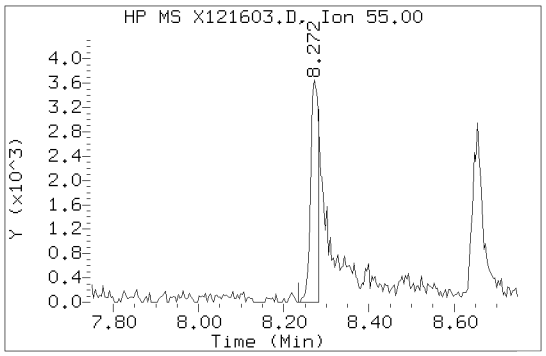
MASS
55
AREA
7480
HEIGHT
3653
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
55
AREA
4718
HEIGHT
3653
27-Dec-2022
16:07
linh
pham

Reason Code:



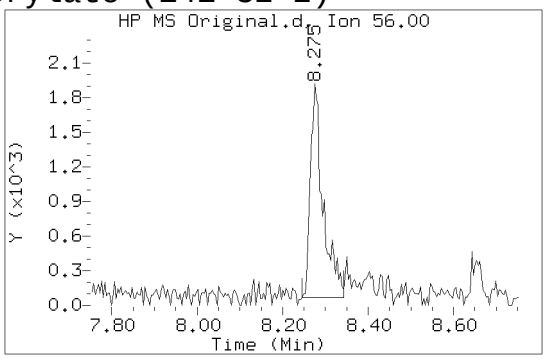
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Butyl acrylate (141-32-2)

Reason Code:

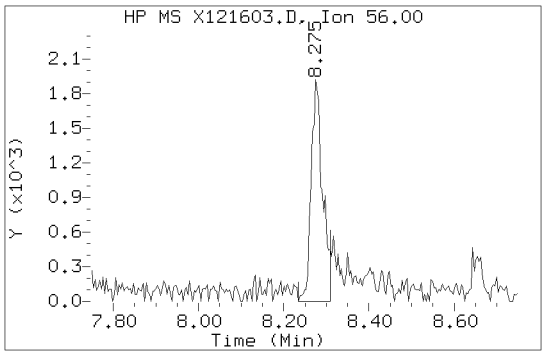
**BEFORE**

MASS
56
AREA
3795
HEIGHT
1858
27-Dec-2022
16:03
linh
pham



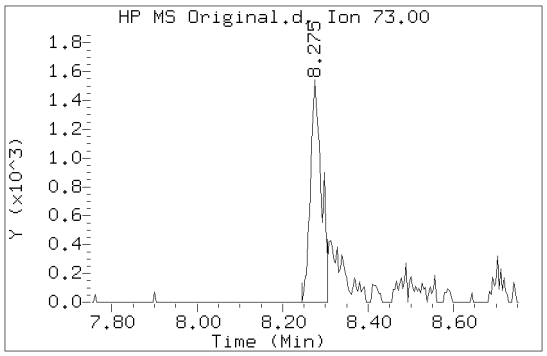

**AFTER**

MASS
56
AREA
3566
HEIGHT
1923
27-Dec-2022
16:07
linh
pham



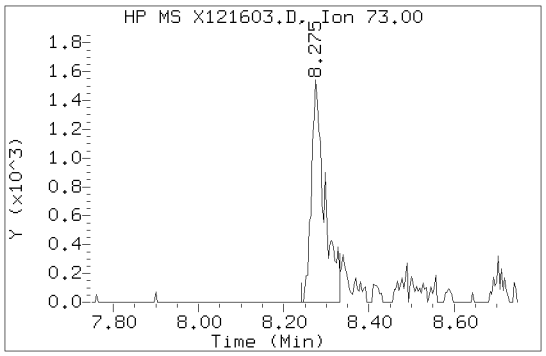

**BEFORE**

MASS
73
AREA
2742
HEIGHT
1542
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
73
AREA
3276
HEIGHT
1542
27-Dec-2022
16:07
linh
pham

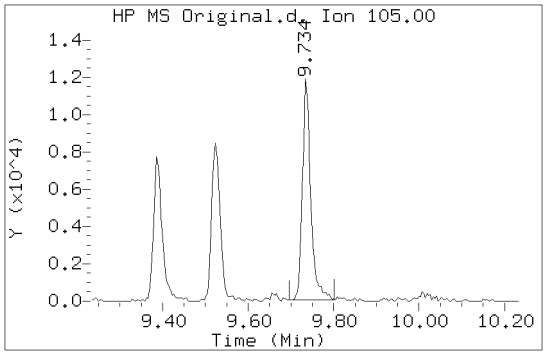



## 1,2,3-Trimethylbenzene (526-73-8)

Reason Code:

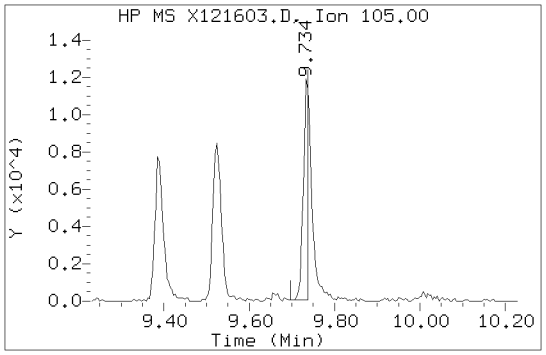
**BEFORE**

MASS
105
AREA
16642
HEIGHT
11860
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
105
AREA
9626
HEIGHT
11860
27-Dec-2022
16:07
linh
pham

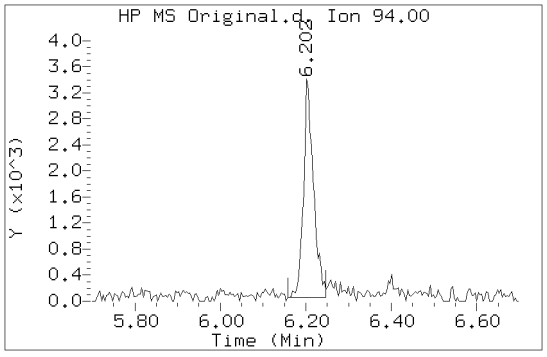



## Dimethyl Disulfide (624-92-0)

Reason Code:

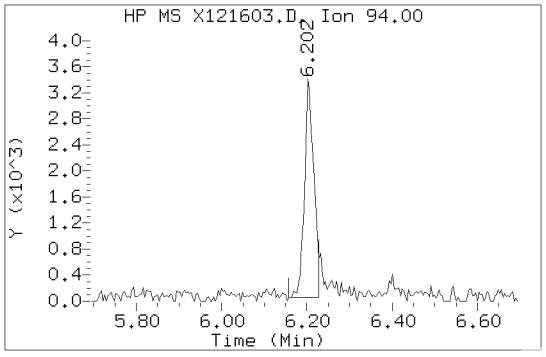
**BEFORE**

MASS
94
AREA
5523
HEIGHT
3352
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
94
AREA
5153
HEIGHT
3352
27-Dec-2022
16:07
linh
pham



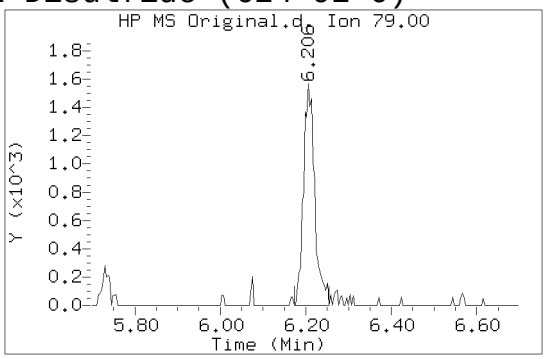
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Dimethyl Disulfide (624-92-0)

Reason Code:

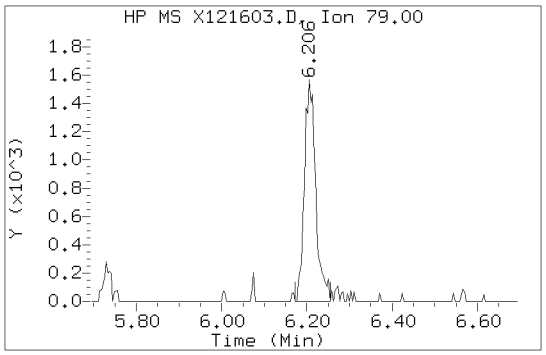
**BEFORE**

MASS
79
AREA
2905
HEIGHT
1568
27-Dec-2022
16:03
linh
pham



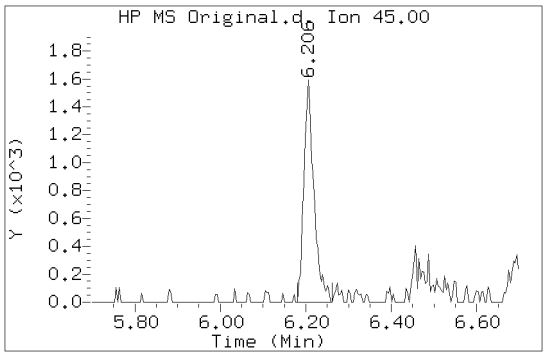

**AFTER**

MASS
79
AREA
2905
HEIGHT
1568
27-Dec-2022
16:07
linh
pham



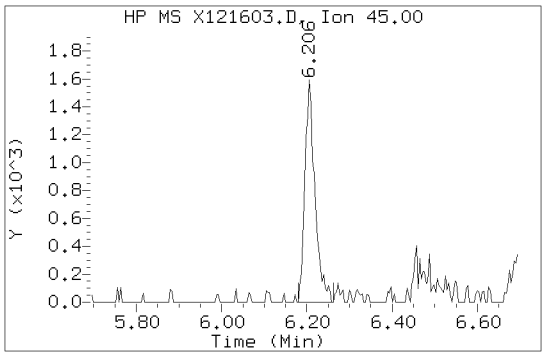

**BEFORE**

MASS
45
AREA
2647
HEIGHT
1593
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
45
AREA
2647
HEIGHT
1593
27-Dec-2022
16:07
linh
pham

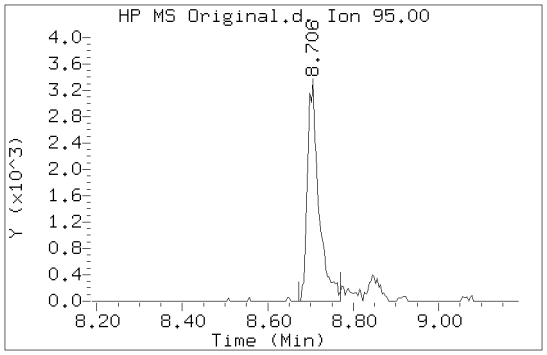



## 4-Bromofluorobenzene (460-00-4)

Reason Code:

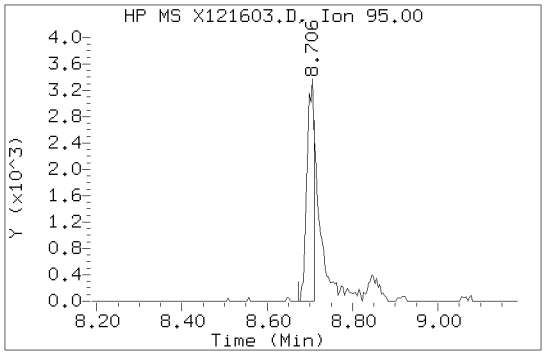
**BEFORE**

MASS
95
AREA
6240
HEIGHT
3372
27-Dec-2022
16:03
linh
pham



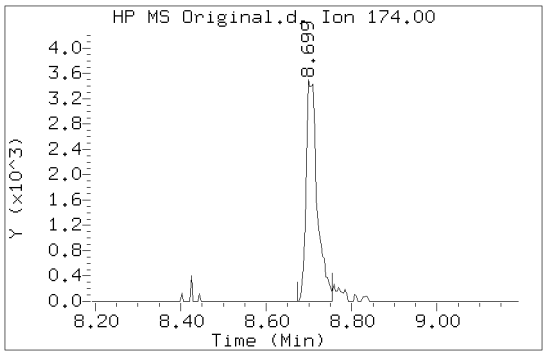

**AFTER**

MASS
95
AREA
3870
HEIGHT
3372
27-Dec-2022
16:07
linh
pham



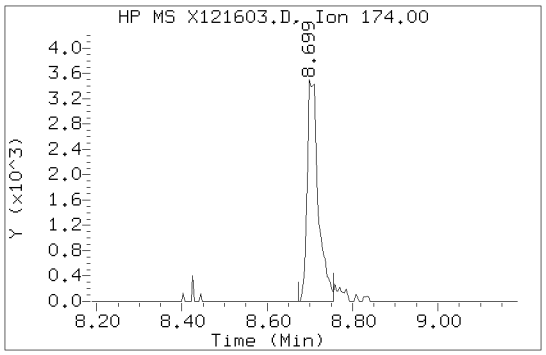

**BEFORE**

MASS
174
AREA
6370
HEIGHT
3502
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
174
AREA
6370
HEIGHT
3502
27-Dec-2022
16:07
linh
pham



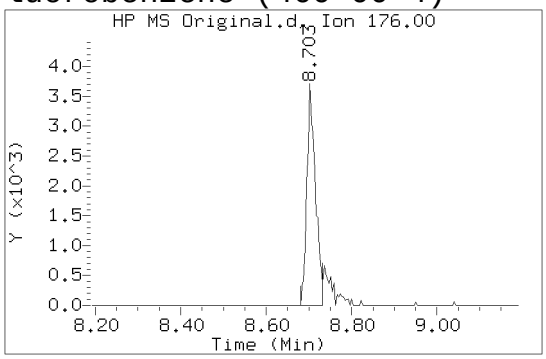
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

4-Bromofluorobenzene (460-00-4)

Reason Code:

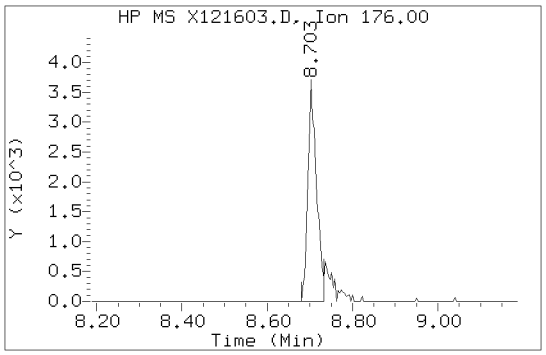
BEFORE

MASS
176
AREA
5204
HEIGHT
3711
27-Dec-2022
16:03
linh
pham




AFTER

MASS
176
AREA
5204
HEIGHT
3711
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Lab Smp Id: VSTD001  Client Smp ID: VSTD001
Inj Date  : 16-DEC-2022 12:41
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD001;VSTD001;1;3;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 12:20  Cal File: X121603.D
Als bottle: 5  Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 450308 | 50.0000 | |
| 135 | 1,4-Dioxane | 88 | 5.610 | 5.610 | (1.343) | 820 | 20.0000 | 19.92(M) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 3432 | 1.00000 | 1.11 |
| 25 | Methacrylonitrile | 41 | 3.852 | 3.852 | (0.922) | 3285 | 1.00000 | 1.03(M) |
| 12 | Isobutyl Alcohol | 43 | 4.695 | 4.695 | (1.124) | 9436 | 20.0000 | 18.62(M) |
| 13 | Acetonitrile | 39 | 2.198 | 2.198 | (0.526) | 4183 | 10.0000 | 10.20 |
| 14 | Allyl Chloride | 41 | 2.202 | 2.202 | (0.527) | 8574 | 1.00000 | 1.09 |
| 4 | Propionitrile | 54 | 3.687 | 3.687 | (0.882) | 4742 | 10.0000 | 10.32(M) |
| 136 | n-Hexane | 57 | 2.776 | 2.776 | (0.664) | 2343 | 1.00000 | 0.72 |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.920 | 8.920 | (1.163) | 1196 | 1.00000 | 0.85(M) |
| 194 | Acetaldehyde | 44 | 1.212 | 1.212 | (0.290) | 3384 | 4.00000 | (M) |
| 23 | Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 1686 | 1.00000 | 1.10(M) |
| 145 | alpha-Methylstyrene | 118 | 9.272 | 9.272 | (0.960) | 6032 | 1.00000 | 0.77 |
| 200 | Dimethyl Disulfide | 94 | 6.206 | 6.206 | (0.809) | 8295 | 1.00000 | 0.94 |
| 139 | Diethyl ether | 59 | 1.760 | 1.760 | (0.421) | 2983 | 1.00000 | 0.99 |
| 130 | Ethyl Acetate | 43 | 3.675 | 3.675 | (0.880) | 3144 | 1.00000 | 0.89(M) |
| 40 | Methyl Methacrylate | 41 | 5.628 | 5.628 | (1.347) | 3145 | 1.00000 | 1.02 |
| 49 | Ethyl Methacrylate | 69 | 6.727 | 6.727 | (1.355) | 3303 | 1.00000 | 1.02(M) |
| 132 | n-Butanol | 56 | 5.239 | 5.239 | (1.254) | 1171 | 20.0000 | 60.69(M) |
| 142 | Tetrahydrofuran | 42 | 3.844 | 3.844 | (0.920) | 1361 | 2.00000 | (M) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.776 | 2.776 (0.664) | 2343 | 20.0000 | 13.39 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 18347 | 1.00000 | 1.08 |

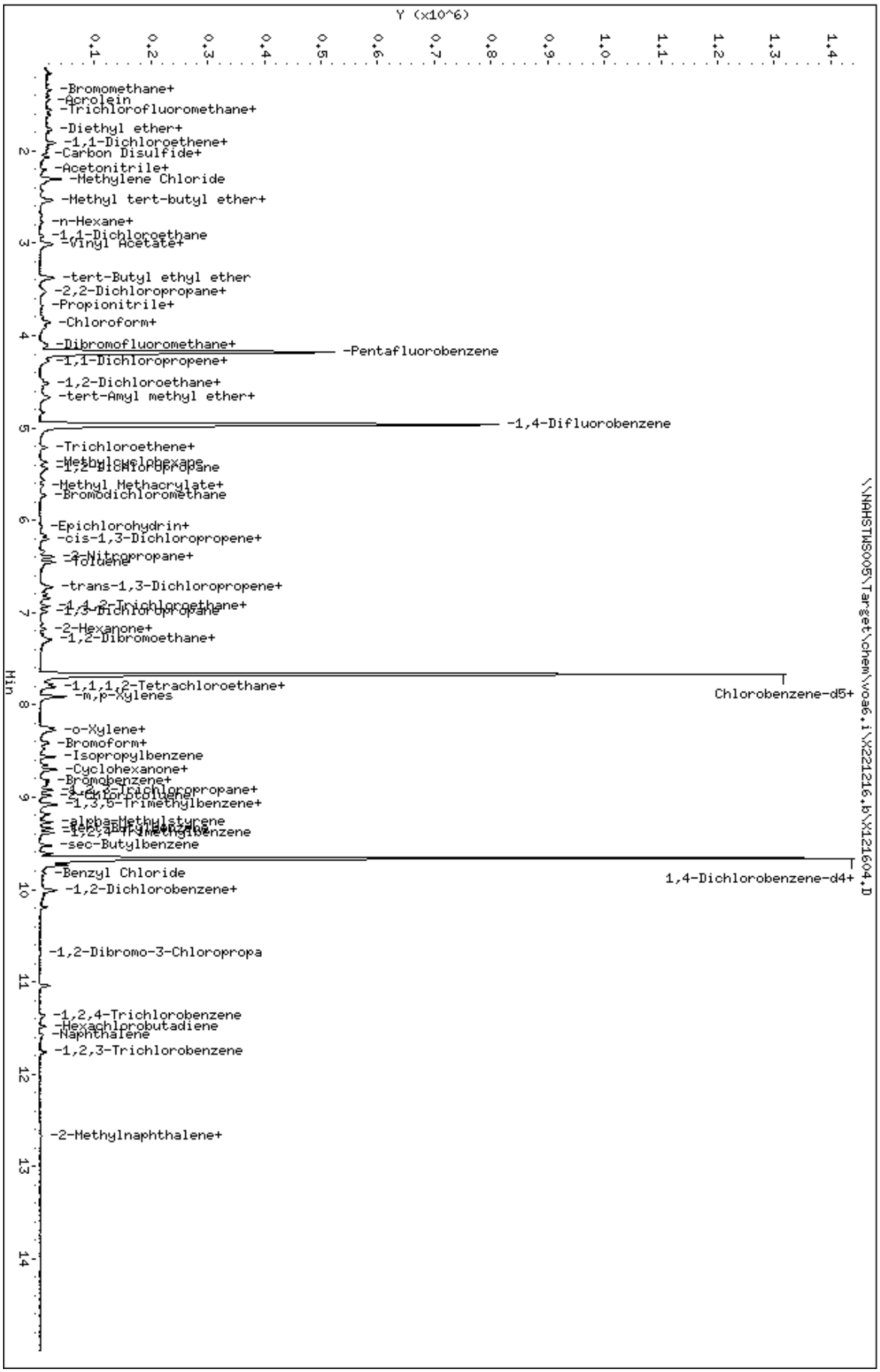
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 131 Methyl Acrylate | 55 | 3.743 | 3.743 | (0.896) | 3084 | 1.00000 | 1.00(M) |
| | 162 Butyl acrylate | 55 | 8.271 | 8.271 | (1.078) | 7647 | 1.00000 | 0.90 |
| | 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 2911 | 1.00000 | 1.30 |
| | 3 Chloromethane | 50 | 1.078 | 1.078 | (0.258) | 3670 | 1.00000 | 3.07 |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 3645 | 1.00000 | 0.92 |
| | 6 Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 3293 | 1.00000 | 2.83 |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 2516 | 1.00000 | 0.91(M) |
| | 8 Trichlorofluoromethane | 101 | 1.554 | 1.554 | (0.372) | 4906 | 1.00000 | 0.89 |
| | 9 Acrolein | 56 | 1.452 | 1.452 | (0.348) | 761 | 2.00000 | 5.22(M) |
| | 10 Acetone | 43 | 1.977 | 1.977 | (0.473) | 4787 | 2.00000 | 3.75(M) |
| | 11 1,1-Dichloroethene | 96 | 1.913 | 1.913 | (0.458) | 3238 | 1.00000 | 0.94 |
| | 15 Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 3865 | 2.00000 | 4.18(TM) |
| | 16 Acrylonitrile | 53 | 2.554 | 2.554 | (0.612) | 2258 | 2.00000 | 1.94(M) |
| | 17 Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 5355 | 1.00000 | 1.14(M) |
| | 18 Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 12521 | 1.00000 | 1.11 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 18122 | 2.00000 | 2.02 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.532 | 2.532 | (0.606) | 3821 | 1.00000 | 0.99 |
| | 21 Vinyl Acetate | 43 | 3.012 | 3.012 | (0.721) | 17842 | 2.00000 | 1.81 |
| | 22 1,1-Dichloroethane | 63 | 2.922 | 2.922 | (0.699) | 7218 | 1.00000 | 1.07 |
| | 24 2-Butanone | 43 | 3.619 | 3.619 | (0.866) | 2498 | 2.00000 | 4.83(M) |
| | 26 2,2-Dichloropropane | 77 | 3.514 | 3.514 | (0.841) | 5896 | 1.00000 | 1.03 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.540 | 3.540 | (0.847) | 4469 | 1.00000 | 0.96 |
| | 28 Chloroform | 83 | 3.908 | 3.908 | (0.935) | 7768 | 1.00000 | 1.03 |
| | 29 Bromochloromethane | 128 | 3.803 | 3.803 | (0.910) | 2689 | 1.00000 | 1.05 |
| $ | 30 Dibromofluoromethane | 113 | 4.103 | 4.103 | (0.982) | 4769 | 1.00000 | 0.94 |
| | 31 1,1,1-Trichloroethane | 97 | 4.088 | 4.088 | (0.978) | 5914 | 1.00000 | 0.99 |
| | 32 1,1-Dichloropropene | 75 | 4.286 | 4.286 | (0.863) | 4698 | 1.00000 | 0.96 |
| | 33 1,2-Dichloroethane | 62 | 4.564 | 4.564 | (0.919) | 5568 | 1.00000 | 0.99 |
| | 34 Carbon Tetrachloride | 117 | 4.271 | 4.271 | (0.860) | 6221 | 1.00000 | 1.19 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.485 | 4.485 | (1.074) | 5559 | 1.00000 | 1.48 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 685937 | 50.0000 | |
| | 37 Benzene | 78 | 4.515 | 4.515 | (0.909) | 16367 | 1.00000 | 0.99 |
| | 38 Trichloroethene | 130 | 5.216 | 5.216 | (1.051) | 4352 | 1.00000 | 0.93 |
| | 39 Bromodichloromethane | 83 | 5.730 | 5.730 | (1.154) | 6296 | 1.00000 | 1.02(M) |
| | 41 2-Chloroethylvinyl ether | 63 | 6.071 | 6.071 | (1.223) | 3202 | 2.00000 | 1.83(M) |
| | 42 1,2-Dichloropropane | 63 | 5.445 | 5.445 | (1.097) | 4604 | 1.00000 | 1.05(M) |
| | 44 Dibromomethane | 93 | 5.557 | 5.557 | (1.119) | 2906 | 1.00000 | 0.98 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.341 | 6.341 | (0.827) | 6859 | 2.00000 | 1.97 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.168 | 6.168 | (1.242) | 6537 | 1.00000 | 0.90 |
| * | 47 Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 649074 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.401 | 6.401 | (0.834) | 17067 | 1.00000 | 1.06 |
| | 50 Toluene | 91 | 6.457 | 6.457 | (0.842) | 17914 | 1.00000 | 0.99 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.693 | 6.693 | (1.348) | 5418 | 1.00000 | 0.90 |
| | 52 2-Hexanone | 43 | 7.109 | 7.109 | (0.927) | 4520 | 2.00000 | 1.91 |
| | 53 1,1,2-Trichloroethane | 83 | 6.843 | 6.843 | (0.892) | 3499 | 1.00000 | 0.97 |
| | 54 1,3-Dichloropropane | 76 | 6.989 | 6.989 | (0.911) | 7216 | 1.00000 | 1.01 |
| | 55 Dibromochloromethane | 129 | 7.177 | 7.177 | (0.936) | 5024 | 1.00000 | 0.96 |
| | 56 Tetrachloroethene | 164 | 6.933 | 6.933 | (0.904) | 3331 | 1.00000 | 0.89 |
| | 57 1,2-Dibromoethane | 107 | 7.270 | 7.270 | (0.948) | 4350 | 1.00000 | 0.96 |
| | 58 1-Chlorohexane | 55 | 7.705 | 7.705 | (1.552) | 3155 | 1.00000 | 0.95(MH) |
| | 59 Chlorobenzene | 112 | 7.698 | 7.698 | (1.003) | 12555 | 1.00000 | 0.98 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.776 | 7.776 | (1.014) | 4485 | 1.00000 | 0.94 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.806 | 7.806 (1.018) | 5698 | 1.00000 | 0.95 |
| 62 m,p-Xylenes | 106 | 7.911 | 7.911 (1.031) | 14464 | 2.00000 | 1.87 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.249 | 8.249 | (1.075) | 6670 | 1.00000 | 0.87 |
| | 64 Styrene | 104 | 8.282 | 8.282 | (1.080) | 10384 | 1.00000 | 0.81 |
| | 66 Bromoform | 173 | 8.417 | 8.417 | (1.097) | 3274 | 1.00000 | 0.90(T) |
| | 67 Isopropylbenzene | 105 | 8.564 | 8.564 | (1.116) | 15163 | 1.00000 | 0.87 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.845 | 8.845 | (0.915) | 5934 | 1.00000 | 1.05(M) |
| $ | 69 4-Bromofluorobenzene | 95 | 8.702 | 8.702 | (1.134) | 7790 | 1.00000 | 1.36(M) |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 351251 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.871 | 8.871 | (0.918) | 3978 | 1.00000 | 1.01 |
| | 73 n-Propylbenzene | 91 | 8.923 | 8.923 | (0.924) | 15006 | 1.00000 | 0.77 |
| | 74 Bromobenzene | 156 | 8.818 | 8.818 | (0.913) | 5554 | 1.00000 | 0.96 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.073 | 9.073 | (0.939) | 11820 | 1.00000 | 0.82 |
| | 76 2-Chlorotoluene | 91 | 8.980 | 8.980 | (0.929) | 12470 | 1.00000 | 0.97 |
| | 77 4-Chlorotoluene | 91 | 9.085 | 9.085 | (0.940) | 12140 | 1.00000 | 0.83 |
| | 78 tert-Butylbenzene | 119 | 9.340 | 9.340 | (0.967) | 9357 | 1.00000 | 0.79 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.385 | 9.385 | (0.971) | 12988 | 1.00000 | 0.85 |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 12395 | 1.00000 | 0.79 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 10009 | 1.00000 | 0.71 |
| | 83 1,3-Dichlorobenzene | 146 | 9.609 | 9.609 | (0.995) | 8523 | 1.00000 | 0.89 |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 9866 | 1.00000 | 0.94 |
| | 86 Benzyl Chloride | 91 | 9.823 | 9.823 | (1.280) | 4632 | 1.00000 | 3.12 |
| | 87 n-Butylbenzene | 91 | 10.014 | 10.014 | (1.036) | 8459 | 1.00000 | 2.37(M) |
| | 88 1,2-Dichlorobenzene | 146 | 10.007 | 10.007 | (1.036) | 8626 | 1.00000 | 0.87 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.689 | 10.689 | (1.106) | 778 | 1.00000 | 0.95(M) |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.371 | 11.371 | (1.177) | 4609 | 1.00000 | 0.74 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 1928 | 1.00000 | 0.65 |
| | 92 Naphthalene | 128 | 11.574 | 11.574 | (1.198) | 11288 | 1.00000 | 0.79(M) |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.754 | 11.754 | (1.216) | 4801 | 1.00000 | 0.80 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 8290 | 2.00000 | |
| M | 95 Xylenes (total) | 106 | | | | 21134 | 3.00000 | |
| | 141 Cyclohexane | 56 | 4.125 | 4.125 | (0.987) | 4003 | 1.00000 | 2.12(H) |
| | 138 Freon TF | 101 | 1.906 | 1.906 | (0.456) | 3356 | 1.00000 | 1.01 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 6848 | 1.00000 | 0.81(M) |
| | 146 Methyl Acetate | 43 | 2.236 | 2.236 | (0.535) | 2127 | 1.00000 | 1.04(M) |
| | 148 Tert-Butyl alcohol | 59 | 2.438 | 2.438 | (0.584) | 6051 | 20.0000 | 19.40(a) |

## QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Date : 16-DEC-2022 12:41
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624

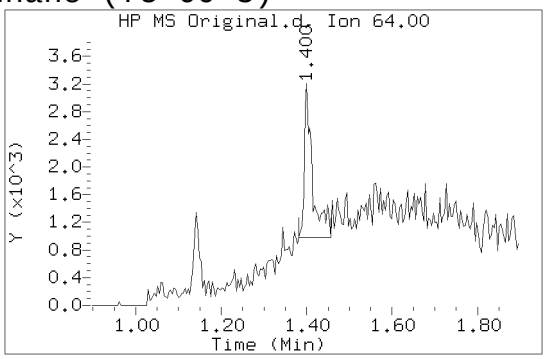
\\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

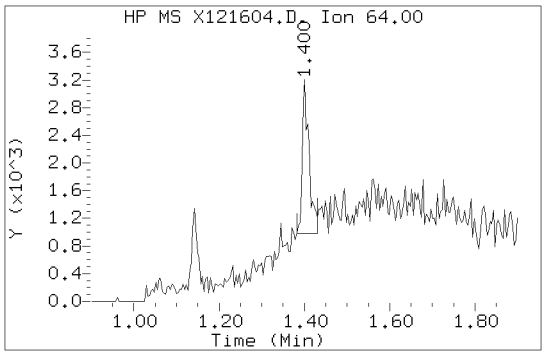
## Chloroethane (75-00-3)

Reason Code:

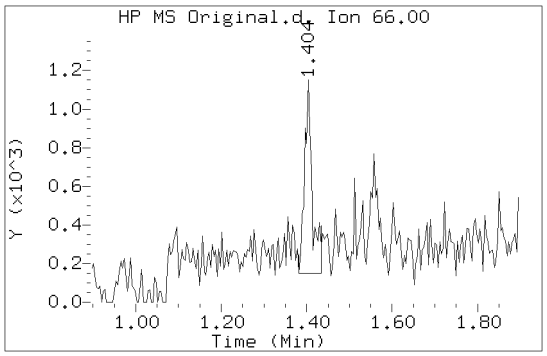
BEFORE
MASS
64
AREA
2984
HEIGHT
2221
27-Dec-2022
16:03
linh
pham



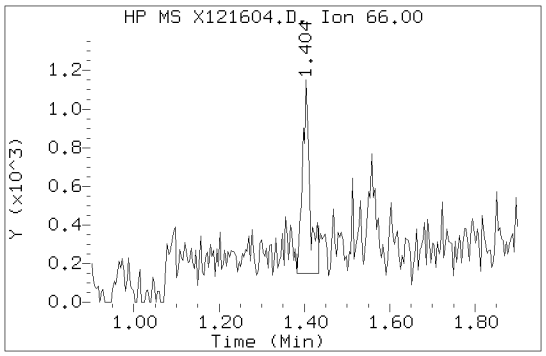

AFTER
MASS
64
AREA
2516
HEIGHT
2221
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
66
AREA
1262
HEIGHT
1002
27-Dec-2022
16:03
linh
pham



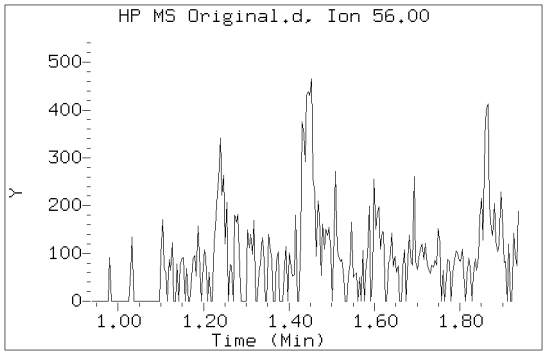

AFTER
MASS
66
AREA
1262
HEIGHT
1002
27-Dec-2022
16:07
linh
pham



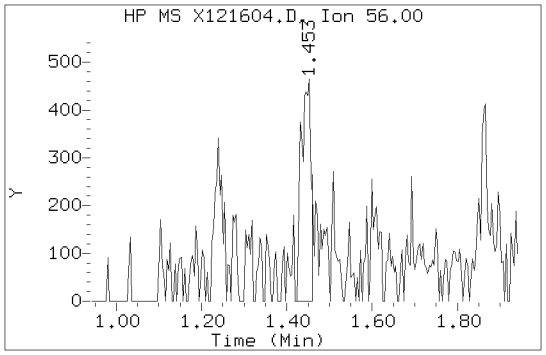

## Acrolein (107-02-8 )

Reason Code:

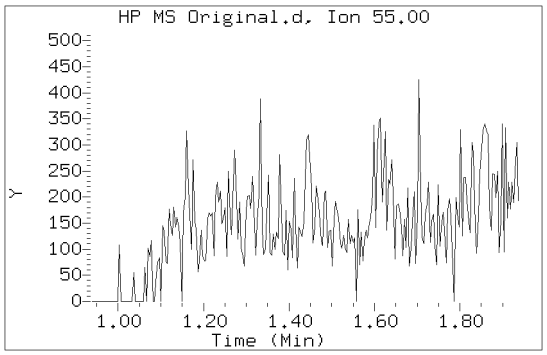
BEFORE
MASS
56
AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham



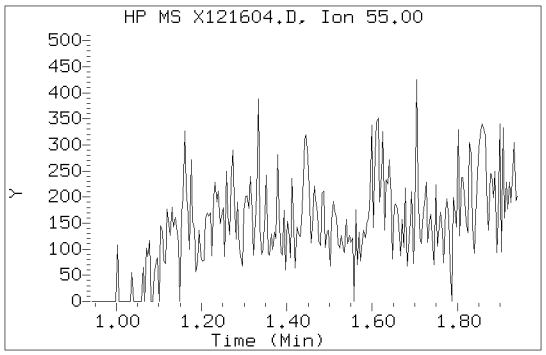

AFTER
MASS
56
AREA
761
HEIGHT
465
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
55
AREA
0
HEIGHT
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27-Dec-2022
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AFTER
MASS
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HEIGHT
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27-Dec-2022
16:07
linh
pham



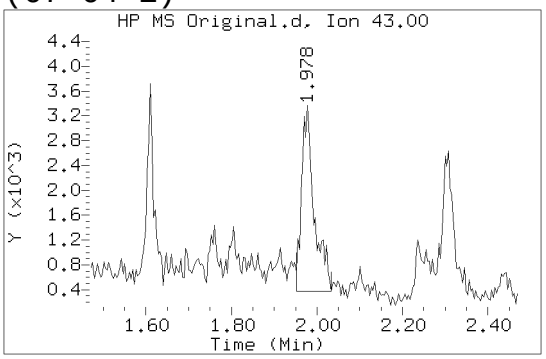
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Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Acetone (67-64-1)

Reason Code:

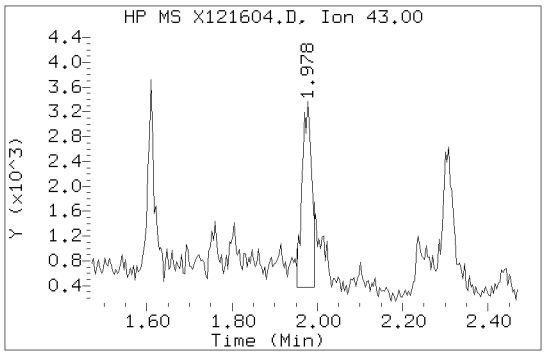
**BEFORE**

MASS
43
AREA
6265
HEIGHT
2993
27-Dec-2022
16:03
linh
pham



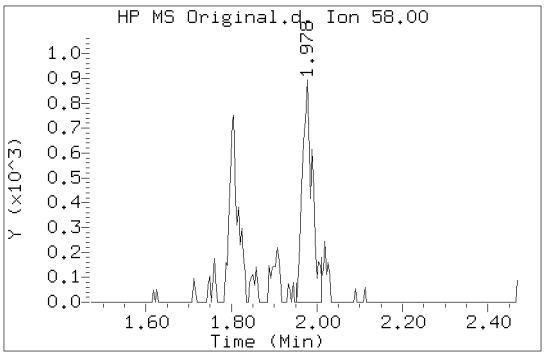

**AFTER**

MASS
43
AREA
4787
HEIGHT
2993
27-Dec-2022
16:07
linh
pham



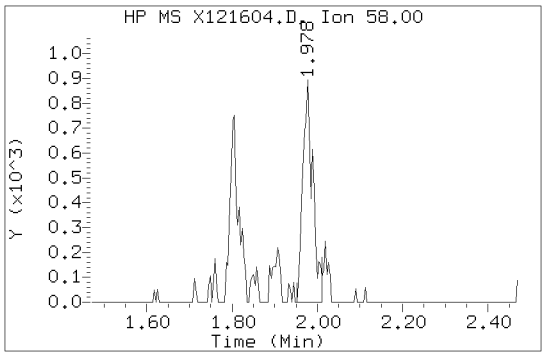

**BEFORE**

MASS
58
AREA
1474
HEIGHT
894
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
1474
HEIGHT
894
27-Dec-2022
16:07
linh
pham

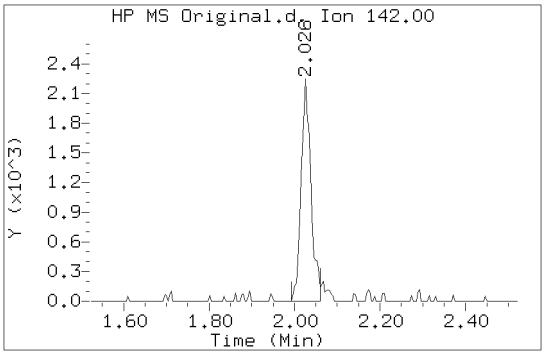



## Iodomethane (74-88-4)

Reason Code:

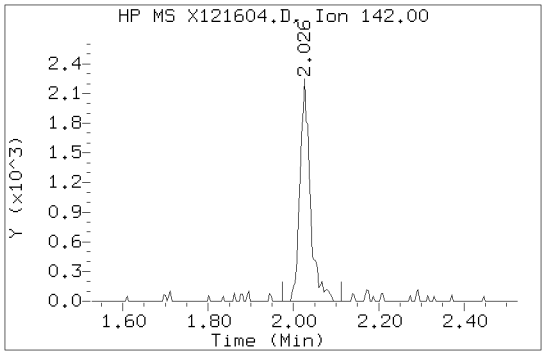
**BEFORE**

MASS
142
AREA
3661
HEIGHT
2248
27-Dec-2022
16:03
linh
pham



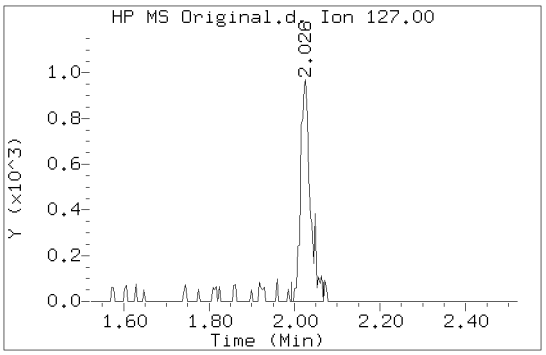

**AFTER**

MASS
142
AREA
3865
HEIGHT
2248
27-Dec-2022
16:07
linh
pham



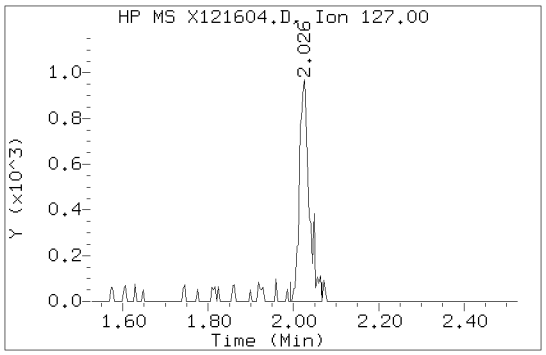

**BEFORE**

MASS
127
AREA
1585
HEIGHT
970
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
127
AREA
1585
HEIGHT
970
27-Dec-2022
16:07
linh
pham



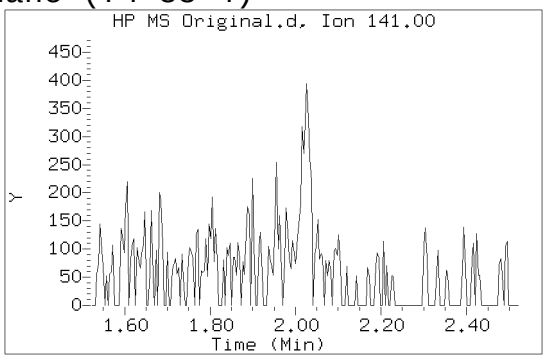
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Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Iodomethane (74-88-4)

Reason Code:

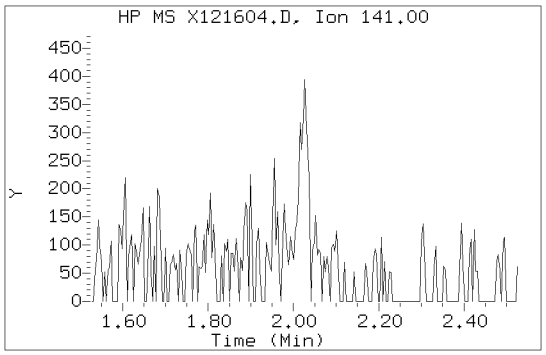
**BEFORE**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

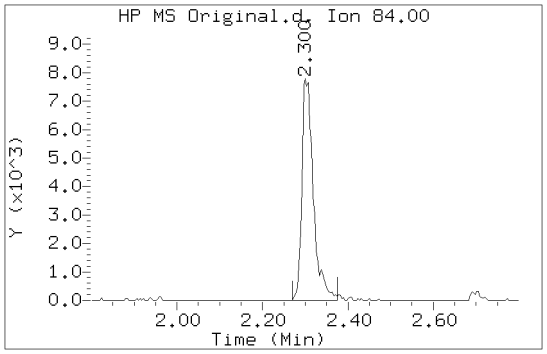



## Methylene Chloride (75-09-2)

Reason Code:

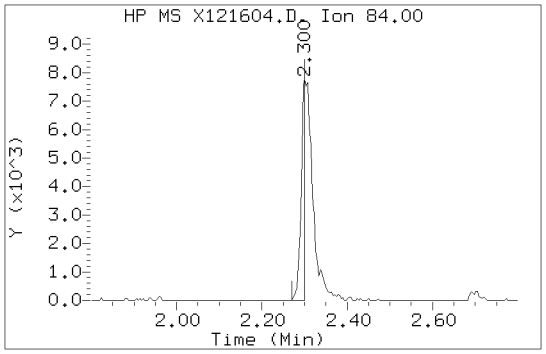
**BEFORE**

MASS
84
AREA
14864
HEIGHT
7788
27-Dec-2022
16:03
linh
pham



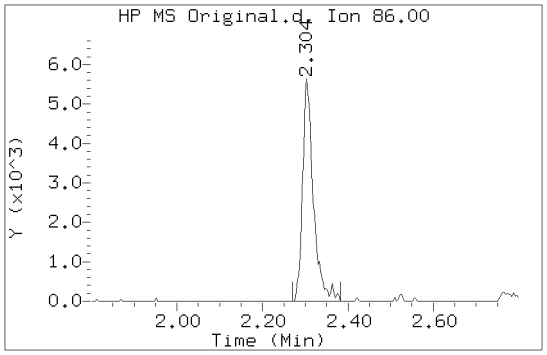

**AFTER**

MASS
84
AREA
5355
HEIGHT
7788
27-Dec-2022
16:07
linh
pham



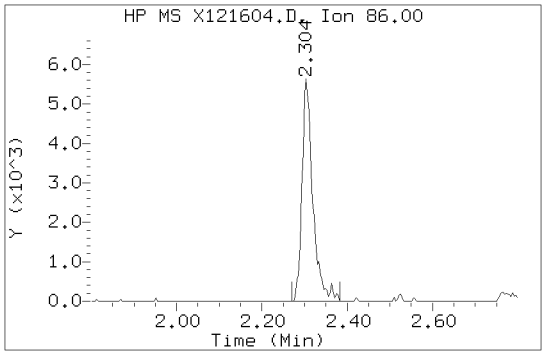

**BEFORE**

MASS
86
AREA
10161
HEIGHT
5637
27-Dec-2022
16:03
linh
pham



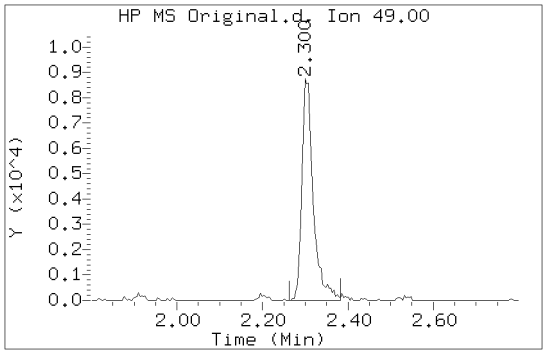

**AFTER**

MASS
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10161
HEIGHT
5637
27-Dec-2022
16:07
linh
pham



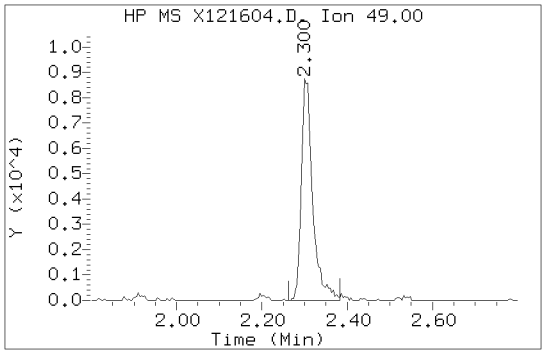

**BEFORE**

MASS
49
AREA
16641
HEIGHT
8752
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
49
AREA
16641
HEIGHT
8752
27-Dec-2022
16:07
linh
pham



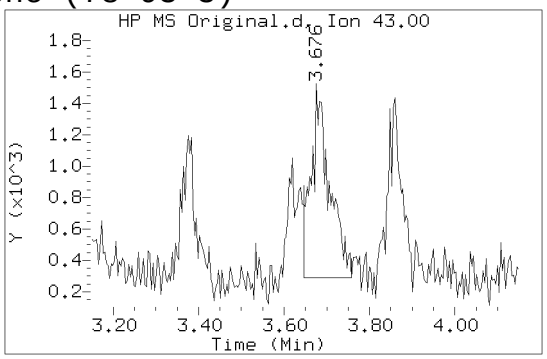
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 2-Butanone (78-93-3)

Reason Code:

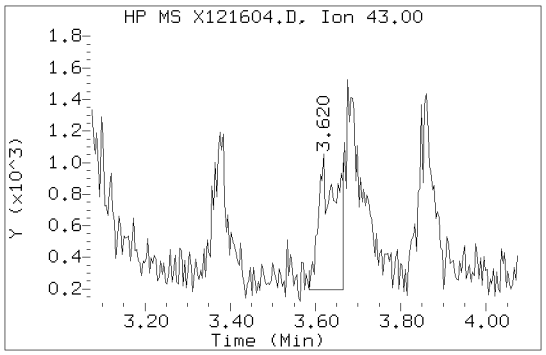
**BEFORE**

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3758
HEIGHT
1236
27-Dec-2022
16:03
linh
pham



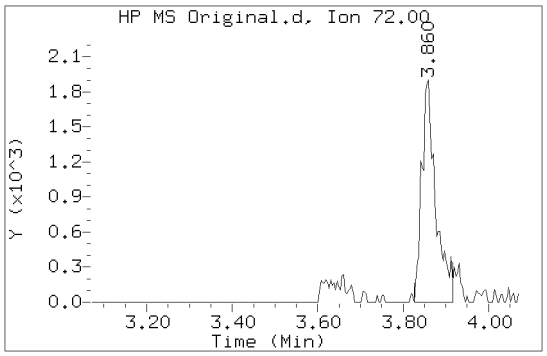

**AFTER**

MASS
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AREA
2498
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859
27-Dec-2022
16:07
linh
pham



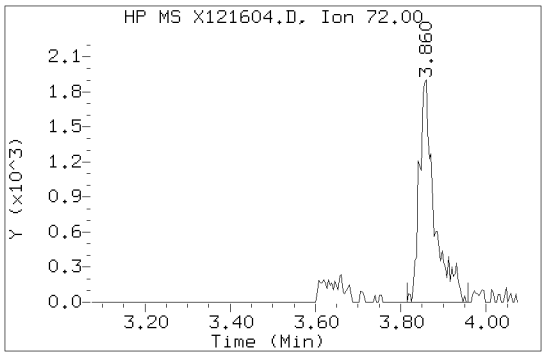

**BEFORE**

MASS
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AREA
4320
HEIGHT
1902
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
72
AREA
4690
HEIGHT
1902
27-Dec-2022
16:07
linh
pham

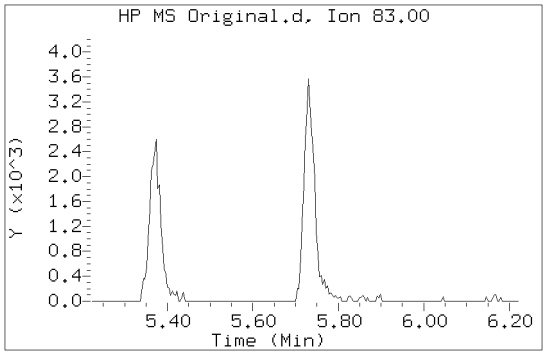



## Bromodichloromethane (75-27-4)

Reason Code:

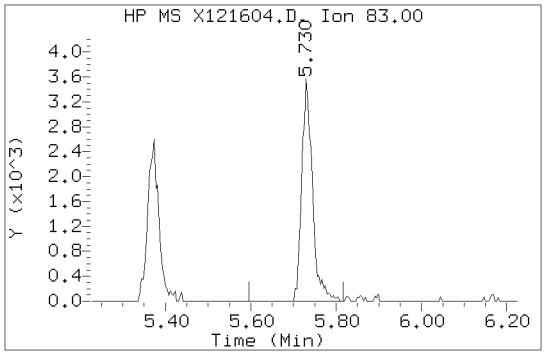
**BEFORE**

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



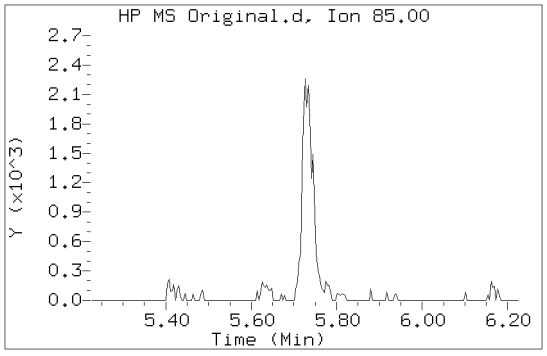

**AFTER**

MASS
83
AREA
6296
HEIGHT
3568
27-Dec-2022
16:07
linh
pham



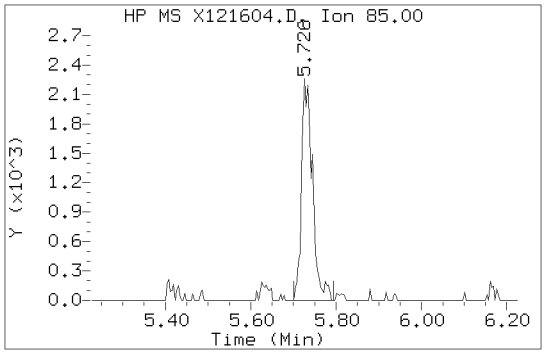

**BEFORE**

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
4084
HEIGHT
2261
27-Dec-2022
16:07
linh
pham



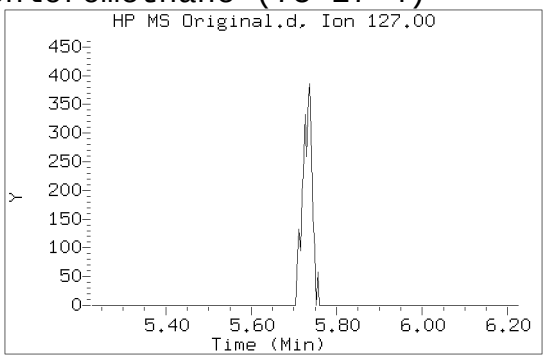
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Bromodichloromethane (75-27-4)

Reason Code:

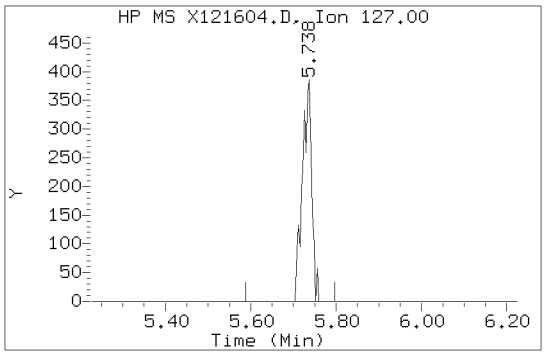
**BEFORE**

MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
127
AREA
595
HEIGHT
386
27-Dec-2022
16:07
linh
pham

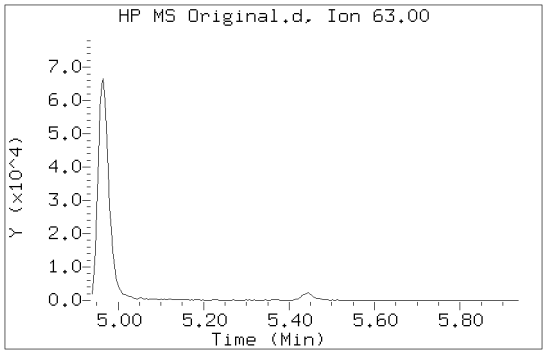



## 1,2-Dichloropropane (78-87-5)

Reason Code:

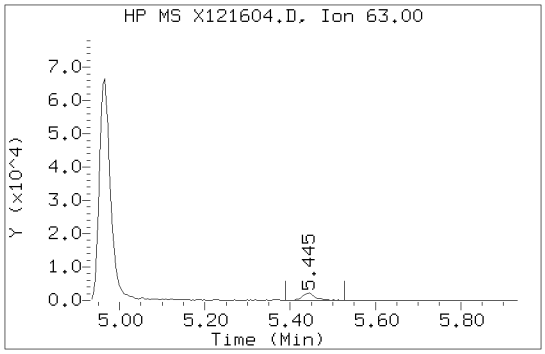
**BEFORE**

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



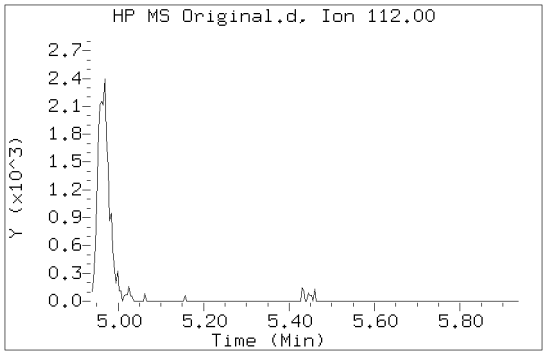

**AFTER**

MASS
63
AREA
4604
HEIGHT
2381
27-Dec-2022
16:07
linh
pham



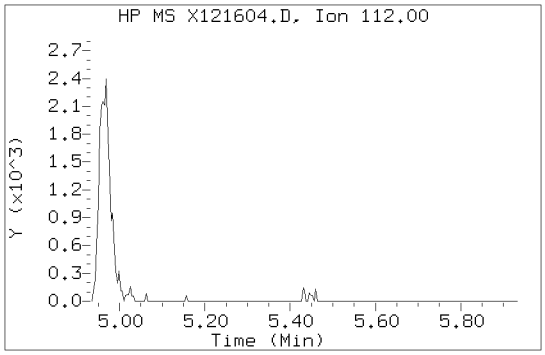

**BEFORE**

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

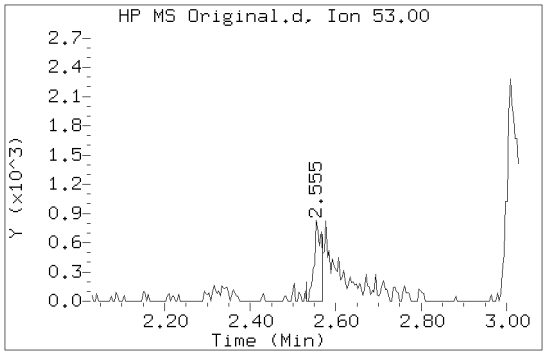



## Acrylonitrile (107-13-1)

Reason Code:

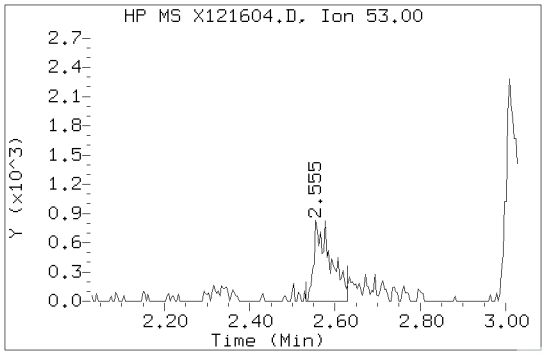
**BEFORE**

MASS
53
AREA
967
HEIGHT
834
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
53
AREA
2258
HEIGHT
834
27-Dec-2022
16:07
linh
pham

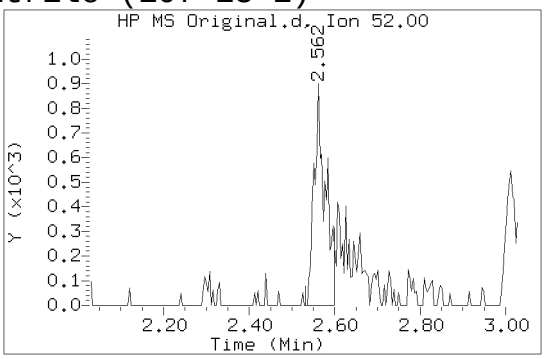


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Acrylonitrile (107-13-1)

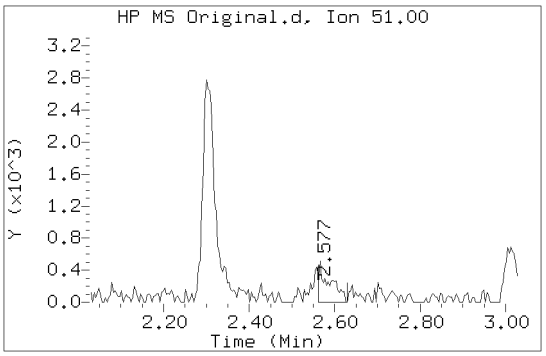
### BEFORE

MASS
52
AREA
1657
HEIGHT
900
27-Dec-2022
16:03
linh
pham




### BEFORE

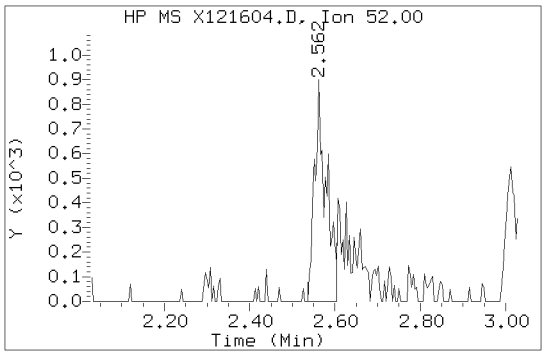
MASS
51
AREA
901
HEIGHT
301
27-Dec-2022
16:03
linh
pham




### Reason Code:

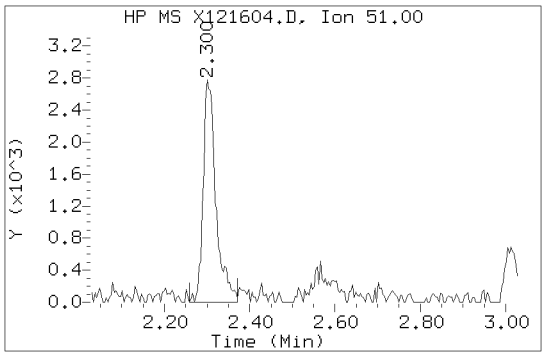
### AFTER

MASS
52
AREA
1692
HEIGHT
900
27-Dec-2022
16:07
linh
pham




### AFTER

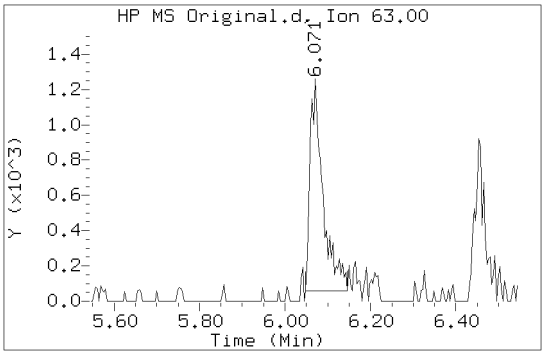
MASS
51
AREA
5757
HEIGHT
2777
27-Dec-2022
16:07
linh
pham




## 2-Chloroethylvinyl ether (110-75-8)

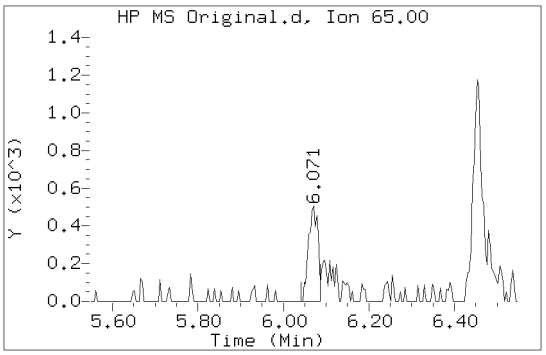
### BEFORE

MASS
63
AREA
2513
HEIGHT
1202
27-Dec-2022
16:03
linh
pham




### BEFORE

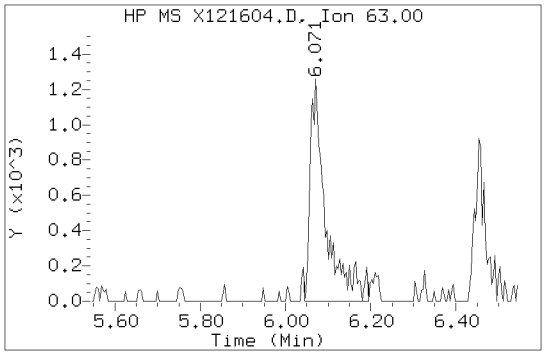
MASS
65
AREA
775
HEIGHT
507
27-Dec-2022
16:03
linh
pham




### Reason Code:

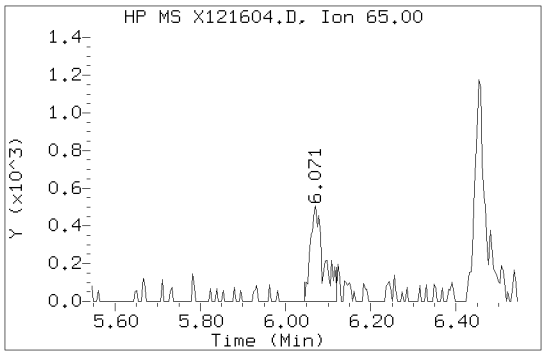
### AFTER

MASS
63
AREA
3202
HEIGHT
1260
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
65
AREA
1093
HEIGHT
507
27-Dec-2022
16:07
linh
pham



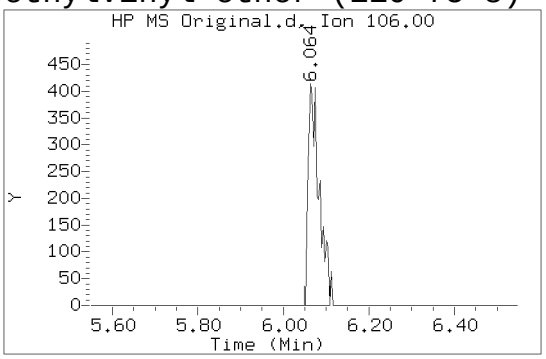
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 2-Chloroethylvinyl ether (110-75-8)

Reason Code:

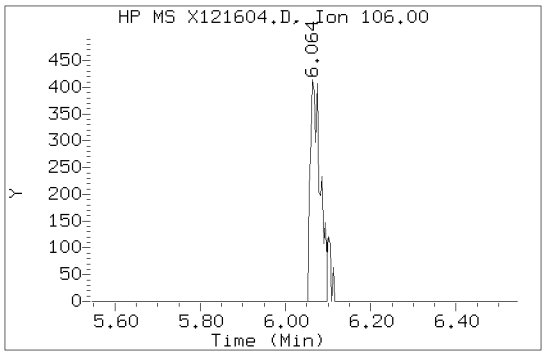
**BEFORE**

MASS
106
AREA
725
HEIGHT
414
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
106
AREA
673
HEIGHT
414
27-Dec-2022
16:07
linh
pham

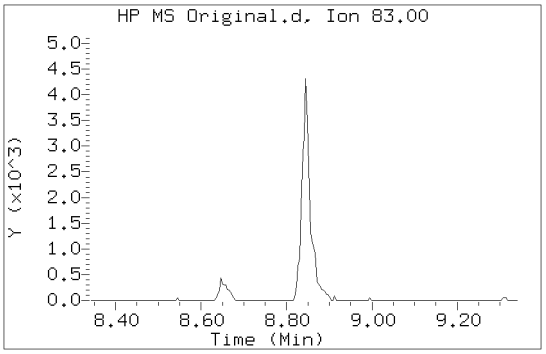



## 1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

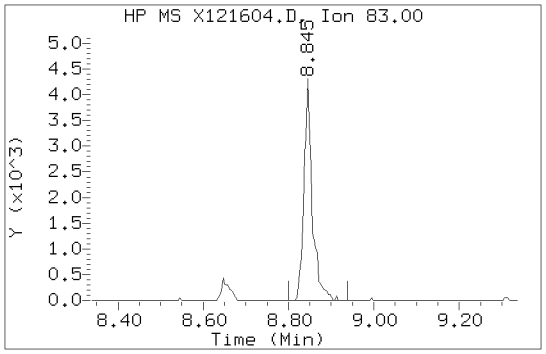
**BEFORE**

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



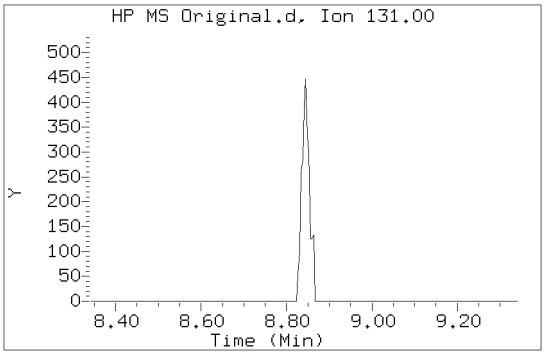

**AFTER**

MASS
83
AREA
5934
HEIGHT
4312
27-Dec-2022
16:07
linh
pham



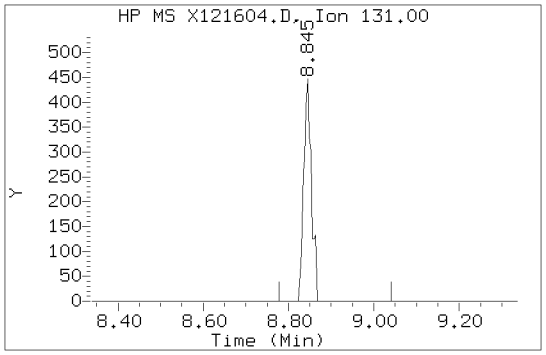

**BEFORE**

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



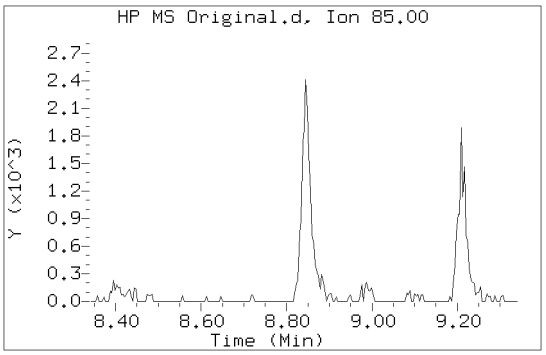

**AFTER**

MASS
131
AREA
574
HEIGHT
447
27-Dec-2022
16:07
linh
pham



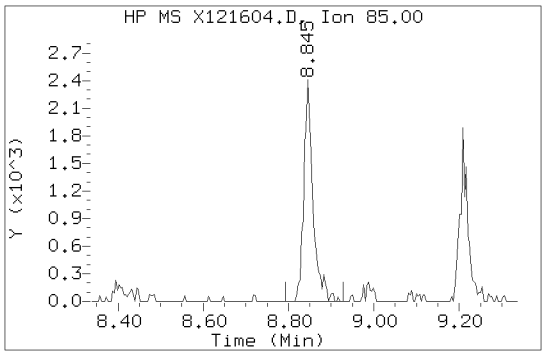

**BEFORE**

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
3682
HEIGHT
2411
27-Dec-2022
16:07
linh
pham



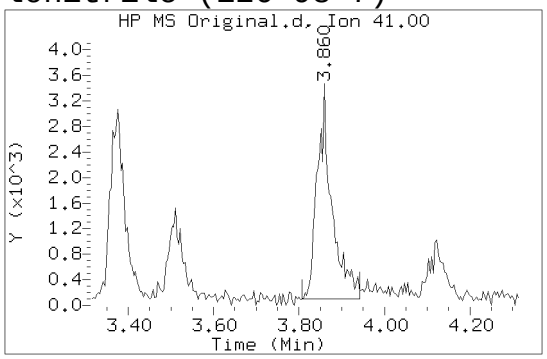
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Methacrylonitrile (126-98-7)

Reason Code:

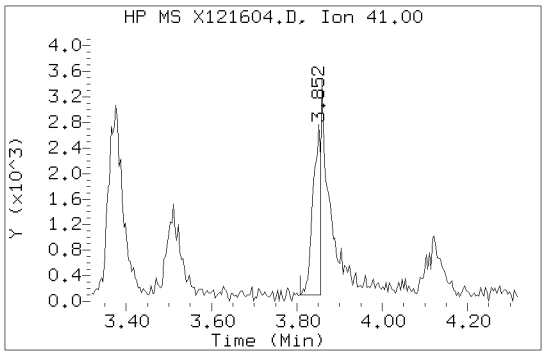
**BEFORE**

MASS
41
AREA
7966
HEIGHT
3370
27-Dec-2022
16:03
linh
pham



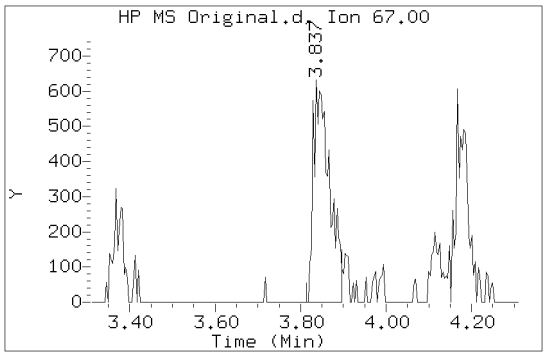

**AFTER**

MASS
41
AREA
3285
HEIGHT
2668
27-Dec-2022
16:07
linh
pham



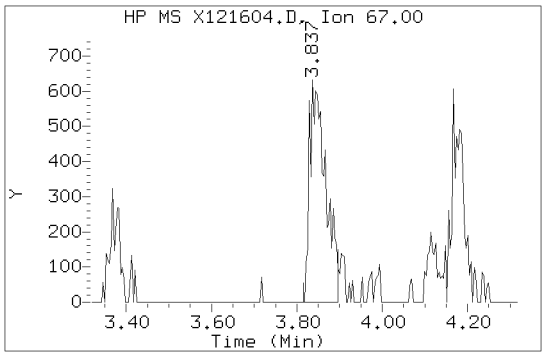

**BEFORE**

MASS
67
AREA
1649
HEIGHT
632
27-Dec-2022
16:03
linh
pham



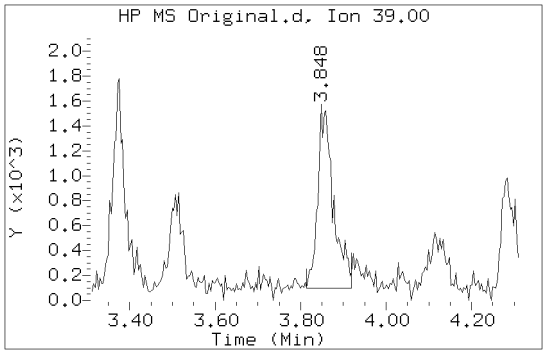

**AFTER**

MASS
67
AREA
1649
HEIGHT
632
27-Dec-2022
16:07
linh
pham



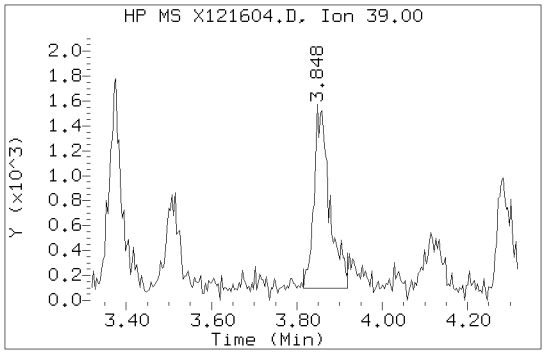

**BEFORE**

MASS
39
AREA
3700
HEIGHT
1473
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
39
AREA
3700
HEIGHT
1473
27-Dec-2022
16:07
linh
pham

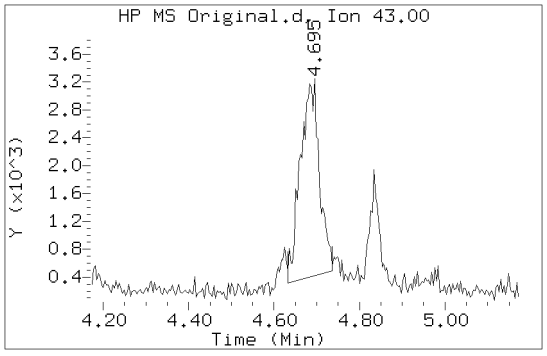



## Isobutyl Alcohol (78-83-1)

Reason Code:

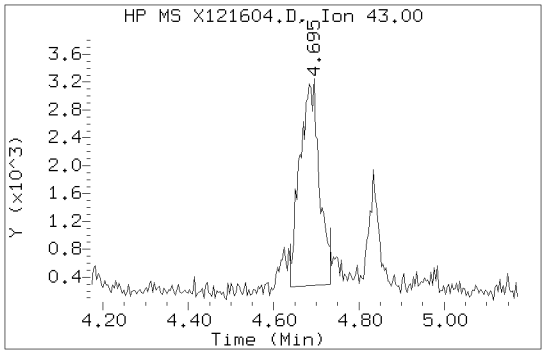
**BEFORE**

MASS
43
AREA
8847
HEIGHT
2826
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
43
AREA
9436
HEIGHT
2966
27-Dec-2022
16:07
linh
pham

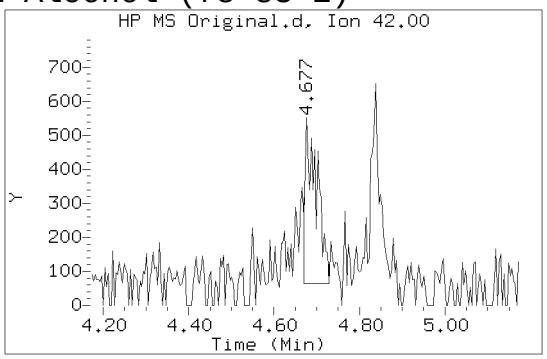


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Isobutyl Alcohol (78-83-1)

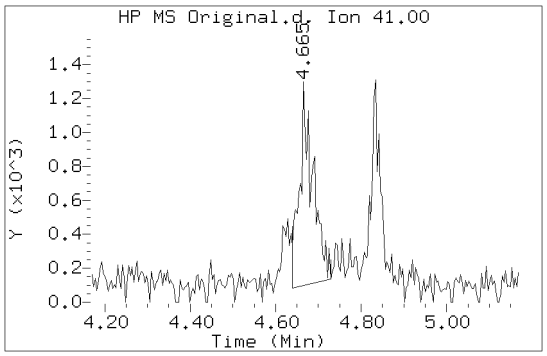
### BEFORE

MASS
42
AREA
953
HEIGHT
488
27-Dec-2022
16:03
linh
pham




### BEFORE

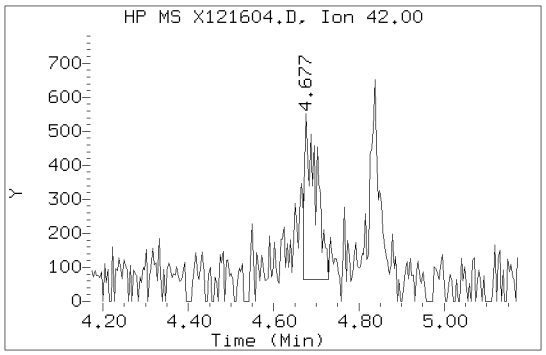
MASS
41
AREA
2650
HEIGHT
1200
27-Dec-2022
16:03
linh
pham




### Reason Code:

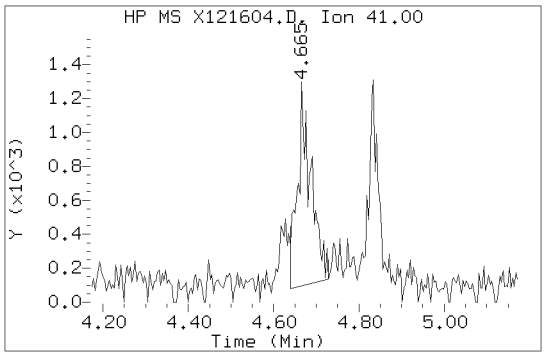
### AFTER

MASS
42
AREA
953
HEIGHT
488
27-Dec-2022
16:07
linh
pham




### AFTER

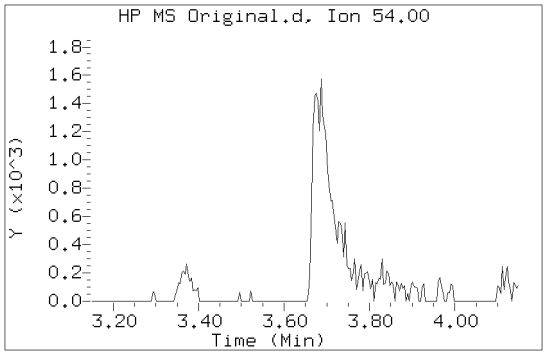
MASS
41
AREA
2656
HEIGHT
1201
27-Dec-2022
16:07
linh
pham




## Propionitrile (107-12-0)

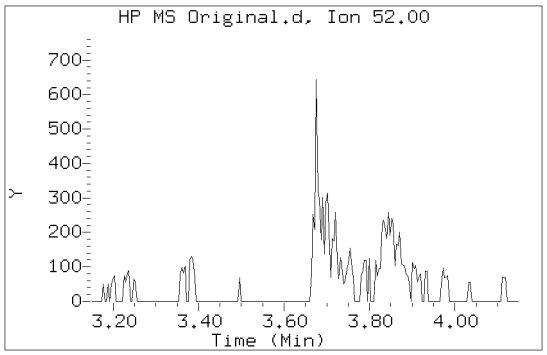
### BEFORE

MASS
54
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### BEFORE

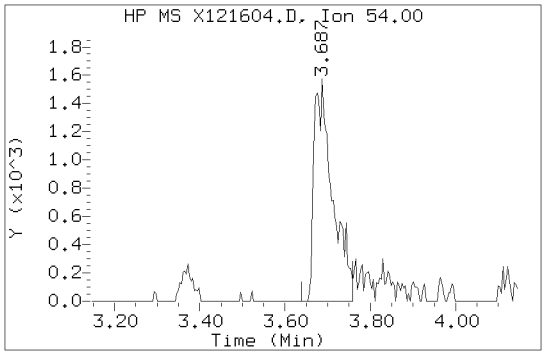
MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### Reason Code:

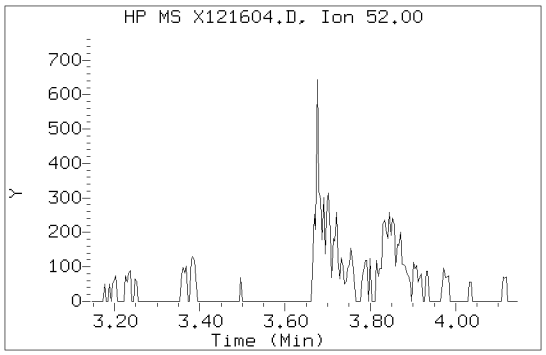
### AFTER

MASS
54
AREA
4742
HEIGHT
1574
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



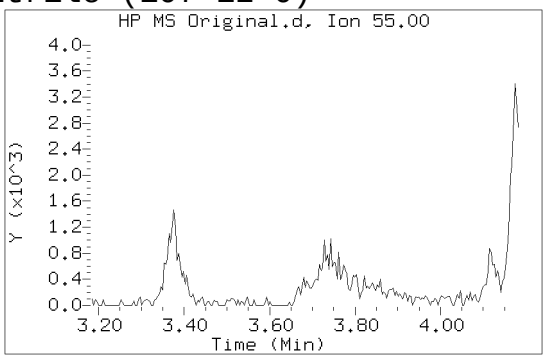
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Propionitrile (107-12-0)

Reason Code:

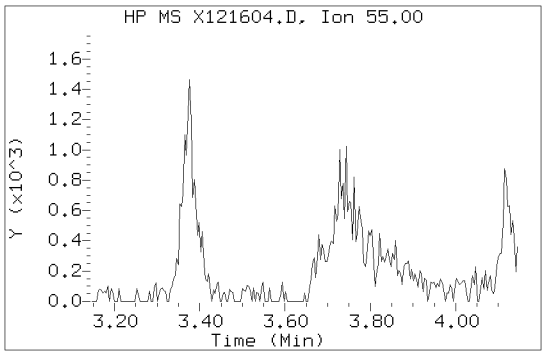
**BEFORE**

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

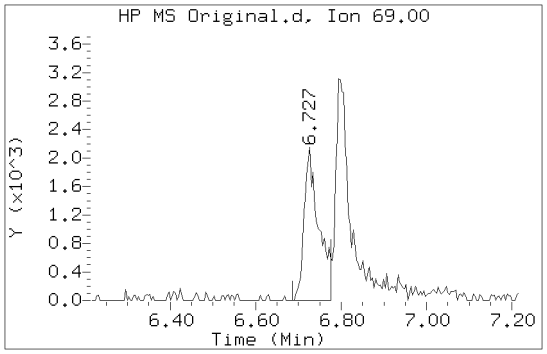



## Ethyl Methacrylate (97-63-2)

Reason Code:

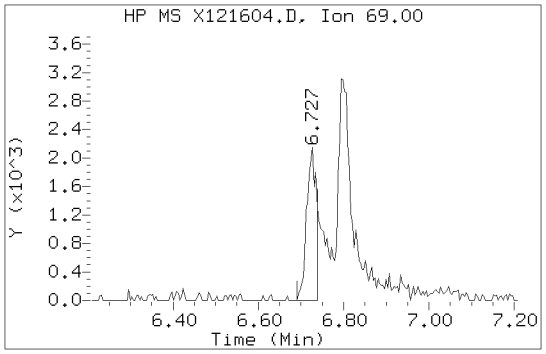
**BEFORE**

MASS
69
AREA
5177
HEIGHT
2156
27-Dec-2022
16:03
linh
pham



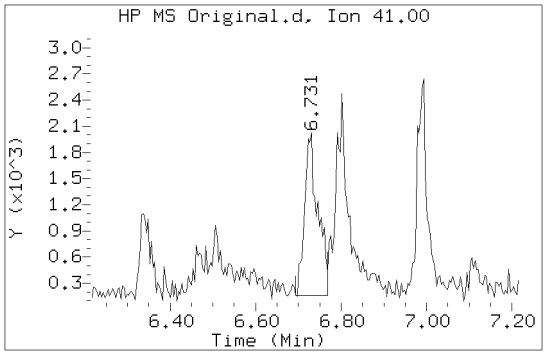

**AFTER**

MASS
69
AREA
3303
HEIGHT
2156
27-Dec-2022
16:07
linh
pham



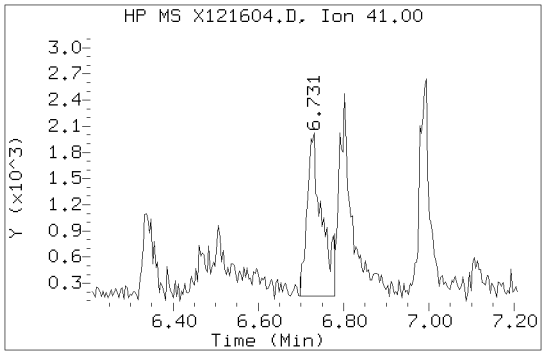

**BEFORE**

MASS
41
AREA
4059
HEIGHT
1867
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
4485
HEIGHT
1872
27-Dec-2022
16:07
linh
pham

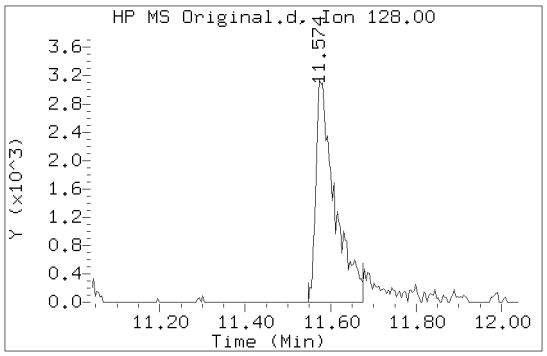



## Naphthalene (91-20-3)

Reason Code:

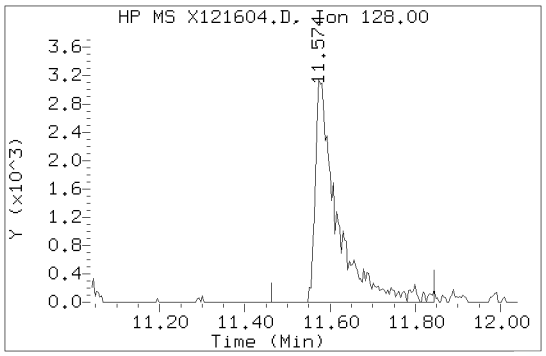
**BEFORE**

MASS
128
AREA
9627
HEIGHT
3139
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
128
AREA
11288
HEIGHT
3139
27-Dec-2022
16:07
linh
pham

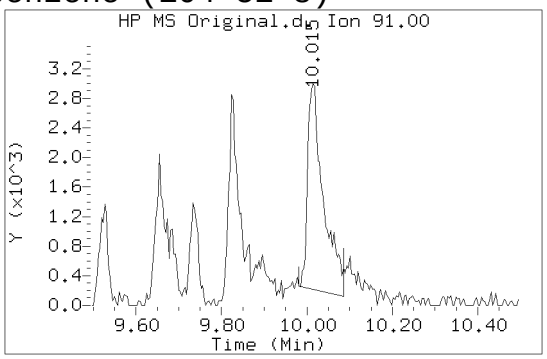


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

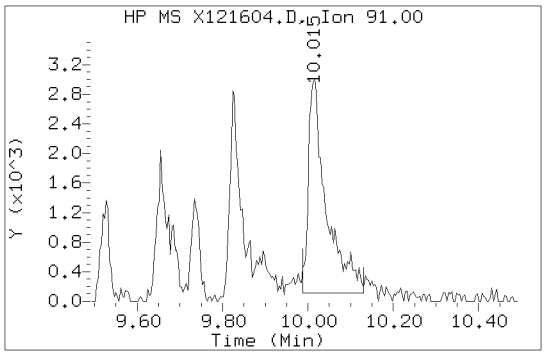
## n-Butylbenzene (104-51-8)

Reason Code:

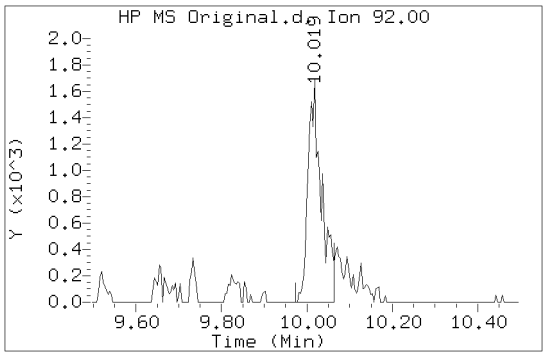
**BEFORE**
MASS
91
AREA
7194
HEIGHT
2783
27-Dec-2022
16:03
linh
pham



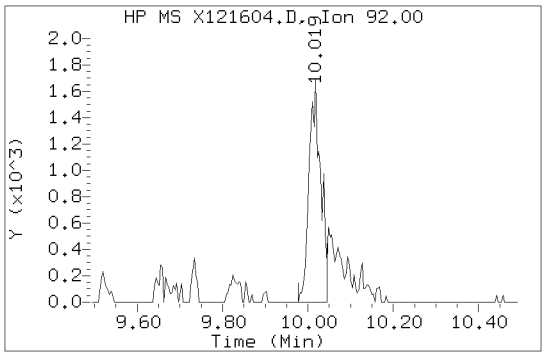

**AFTER**
MASS
91
AREA
8459
HEIGHT
2887
27-Dec-2022
16:07
linh
pham



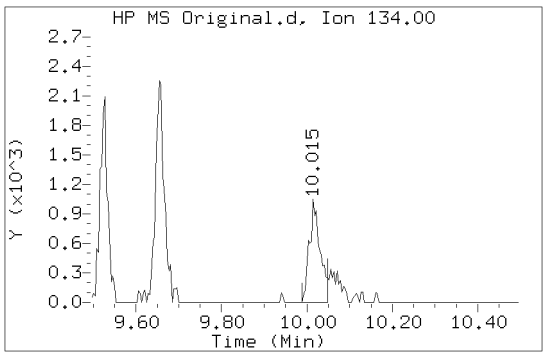

**BEFORE**
MASS
92
AREA
3696
HEIGHT
1686
27-Dec-2022
16:03
linh
pham



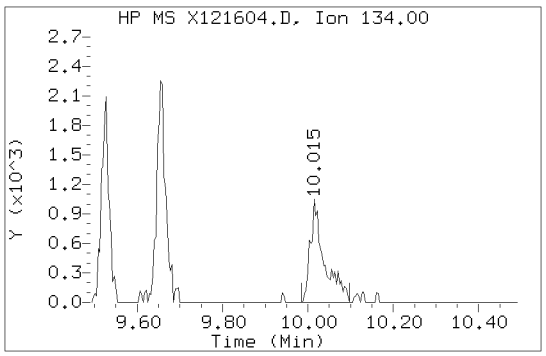

**AFTER**
MASS
92
AREA
3188
HEIGHT
1686
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
134
AREA
1829
HEIGHT
1051
27-Dec-2022
16:03
linh
pham



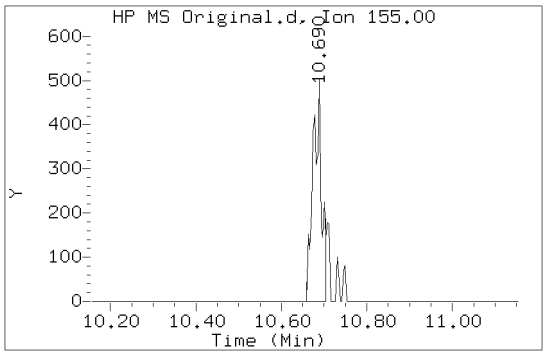

**AFTER**
MASS
134
AREA
2397
HEIGHT
1051
27-Dec-2022
16:07
linh
pham



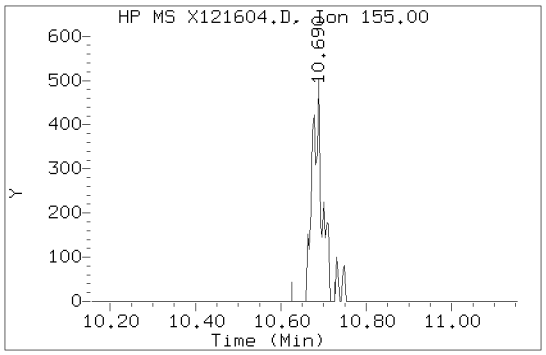

## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

**BEFORE**
MASS
155
AREA
699
HEIGHT
502
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
155
AREA
778
HEIGHT
502
27-Dec-2022
16:07
linh
pham



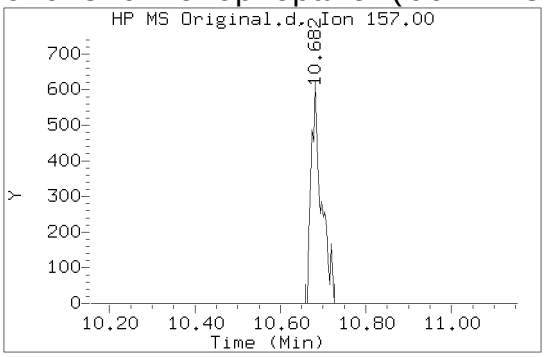
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

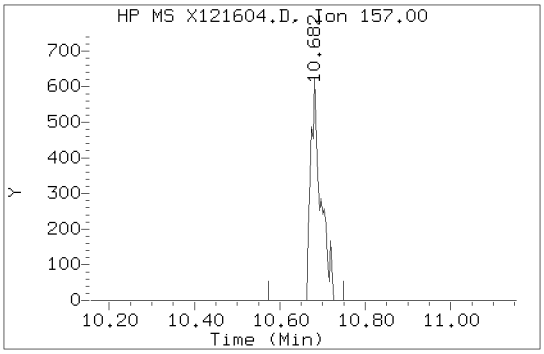
BEFORE

MASS
157
AREA
1023
HEIGHT
622
27-Dec-2022
16:03
linh
pham



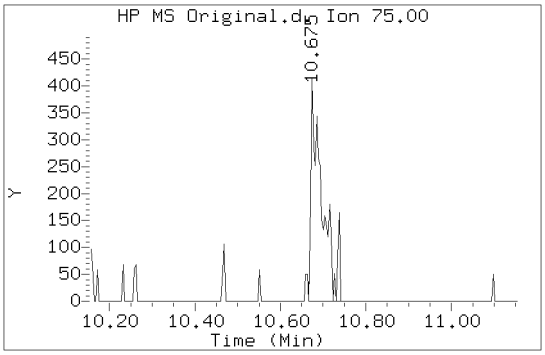

AFTER

MASS
157
AREA
1023
HEIGHT
622
27-Dec-2022
16:07
linh
pham



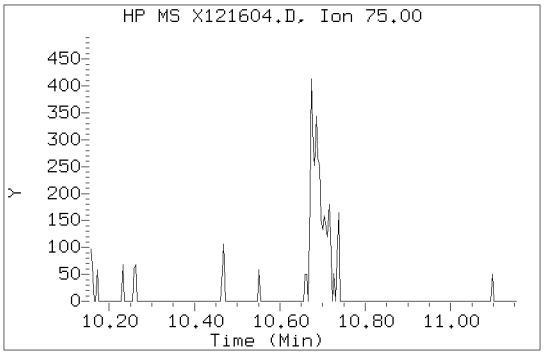

BEFORE

MASS
75
AREA
742
HEIGHT
413
27-Dec-2022
16:03
linh
pham




AFTER

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

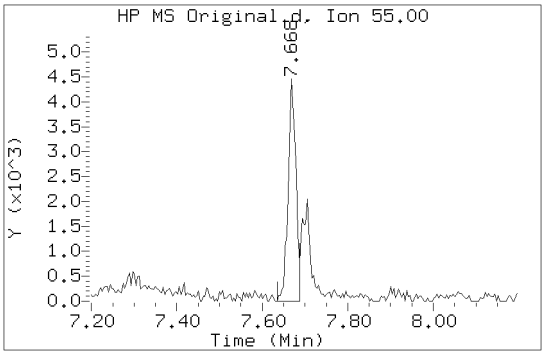



## 1-Chlorohexane (544-10-5)

Reason Code:

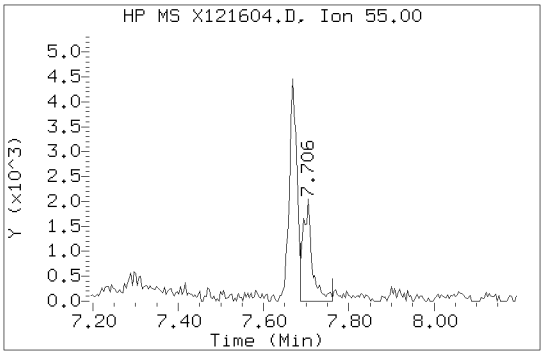
BEFORE

MASS
55
AREA
5660
HEIGHT
4460
27-Dec-2022
16:03
linh
pham



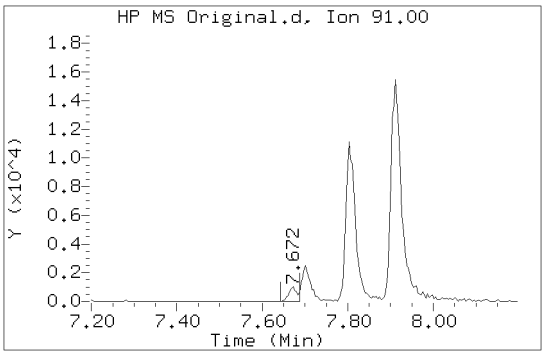

AFTER

MASS
55
AREA
3155
HEIGHT
2048
27-Dec-2022
16:07
linh
pham



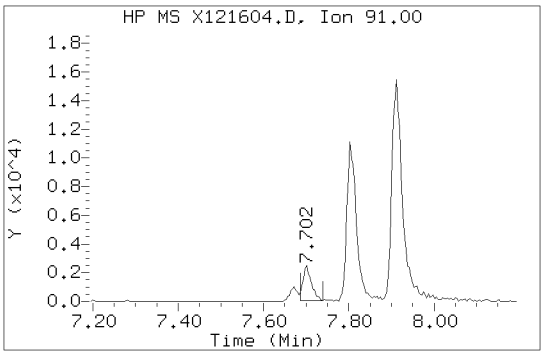

BEFORE

MASS
91
AREA
1392
HEIGHT
1029
27-Dec-2022
16:03
linh
pham




AFTER

MASS
91
AREA
3448
HEIGHT
2478
27-Dec-2022
16:07
linh
pham

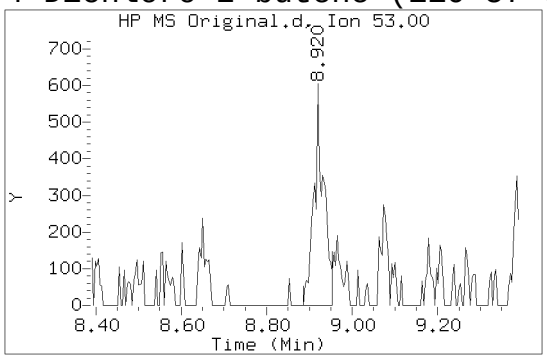


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

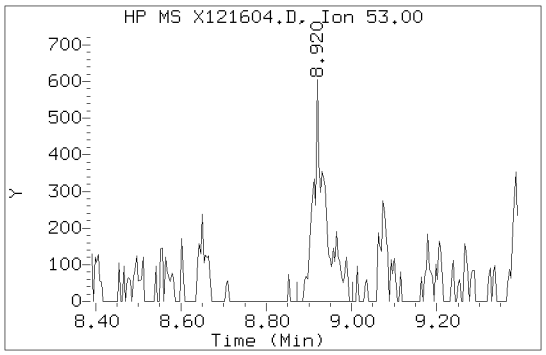
## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

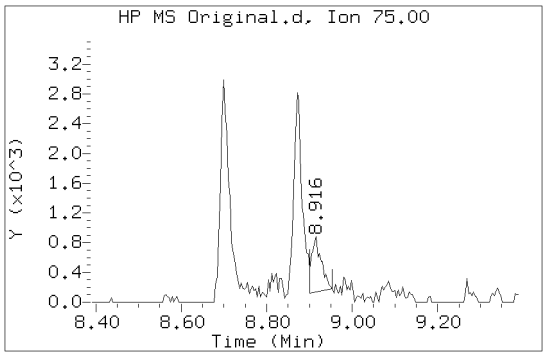
**BEFORE**
MASS
53
AREA
956
HEIGHT
605
27-Dec-2022
16:03
linh
pham



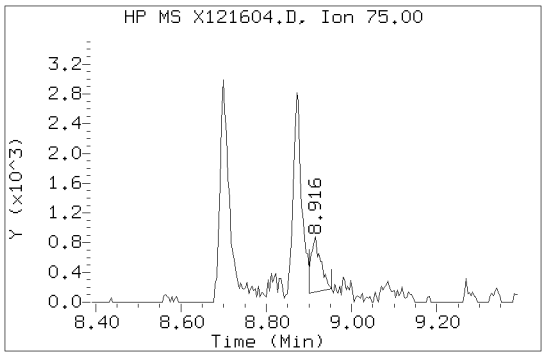

**AFTER**
MASS
53
AREA
1196
HEIGHT
605
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
75
AREA
1166
HEIGHT
745
27-Dec-2022
16:03
linh
pham



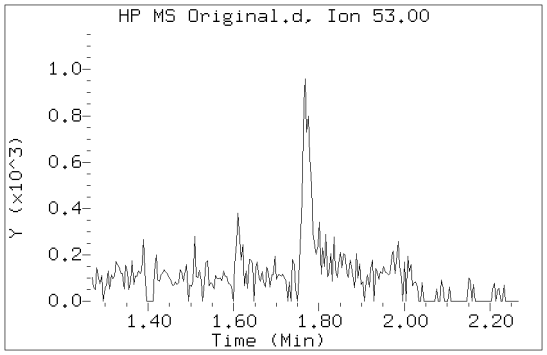

**AFTER**
MASS
75
AREA
1166
HEIGHT
745
27-Dec-2022
16:07
linh
pham



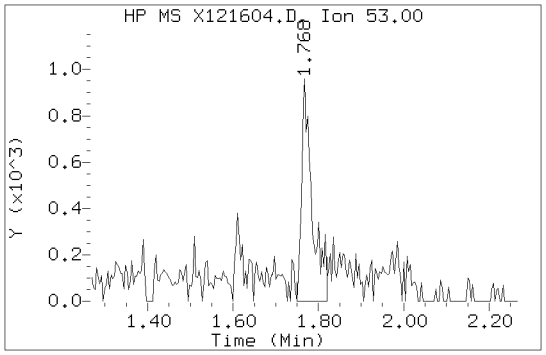

## Chloroprene (126-99-8)

Reason Code:

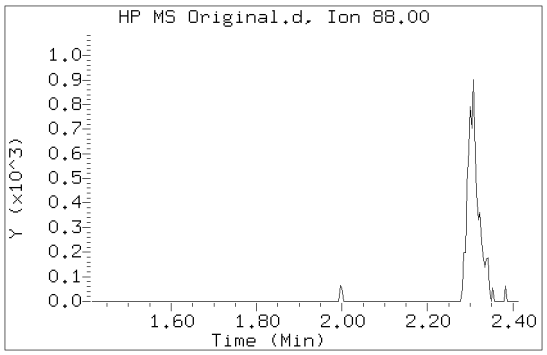
**BEFORE**
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



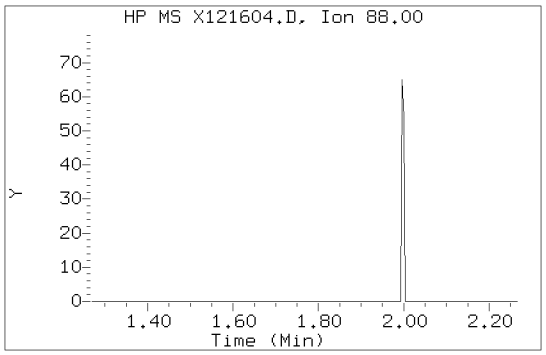

**AFTER**
MASS
53
AREA
1686
HEIGHT
959
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

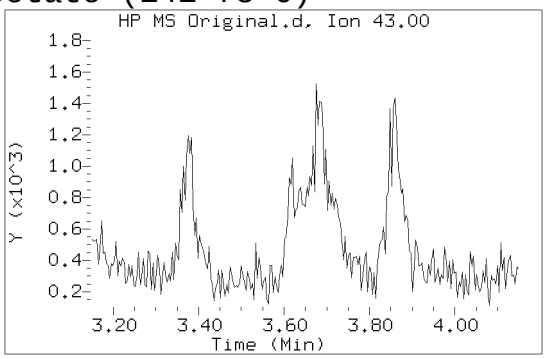


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

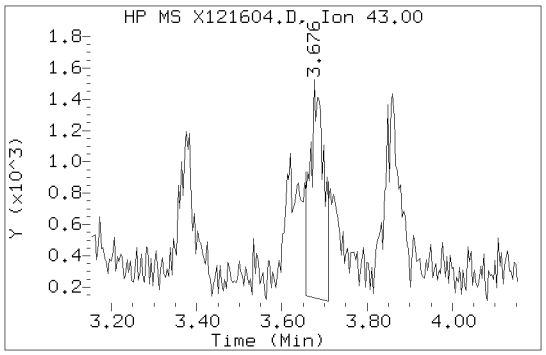
## Ethyl Acetate (141-78-6)

Reason Code:

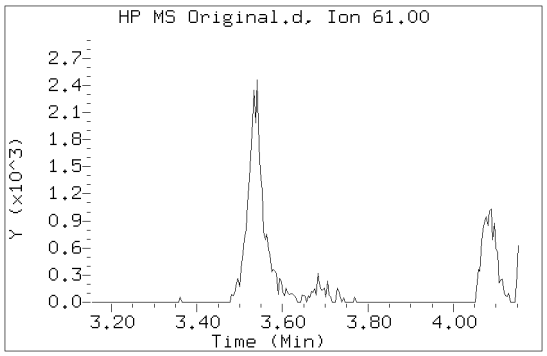
**BEFORE**
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



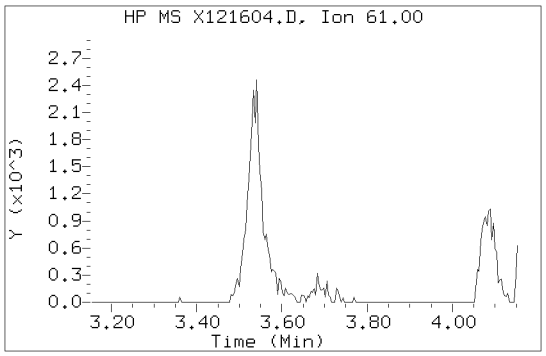

**AFTER**
MASS
43
AREA
3144
HEIGHT
1392
27-Dec-2022
16:07
linh
pham



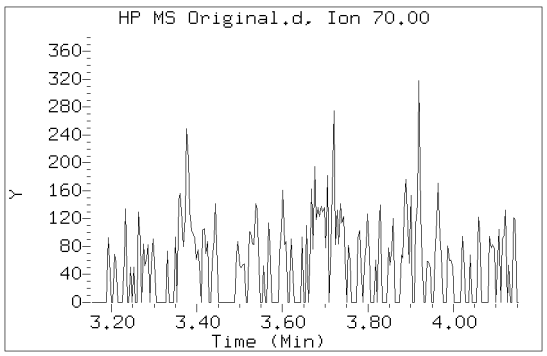

**BEFORE**
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



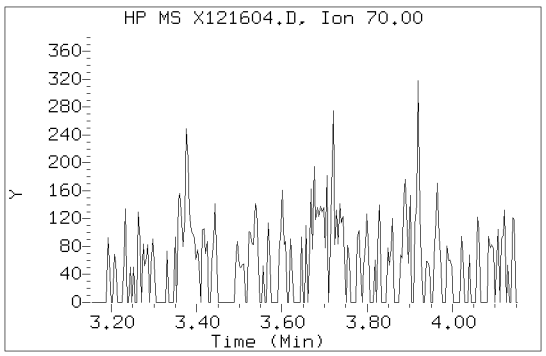

**AFTER**
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



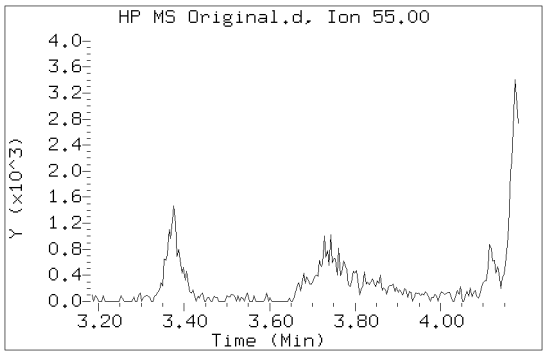

**AFTER**
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



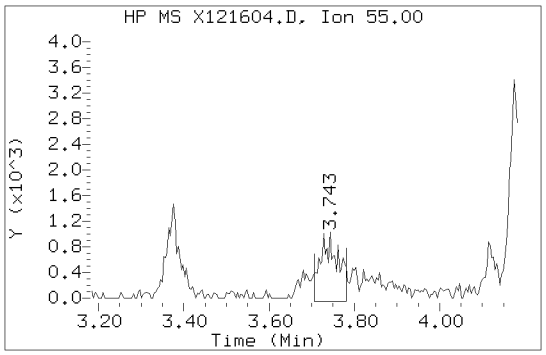

## Methyl Acrylate (96-33-3)

Reason Code:

**BEFORE**
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
55
AREA
3084
HEIGHT
1078
27-Dec-2022
16:07
linh
pham



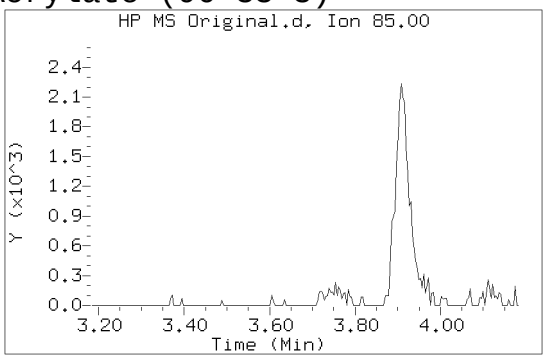
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Methyl Acrylate (96-33-3)

Reason Code:

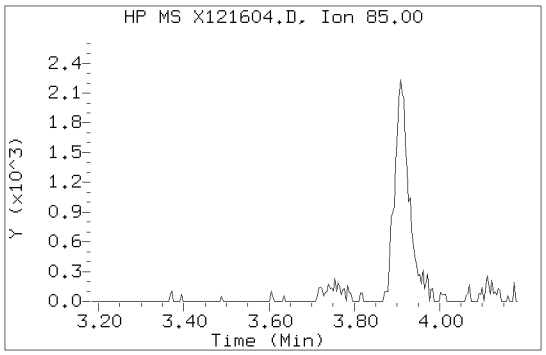
**BEFORE**

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

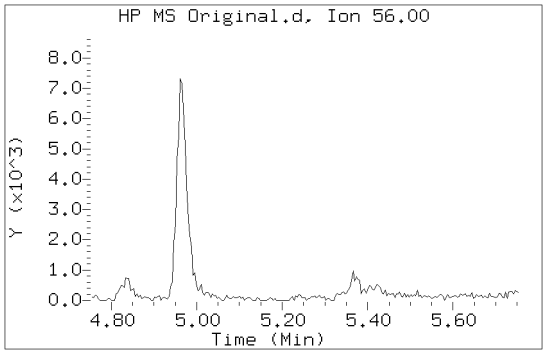



## n-Butanol (71-36-3)

Reason Code:

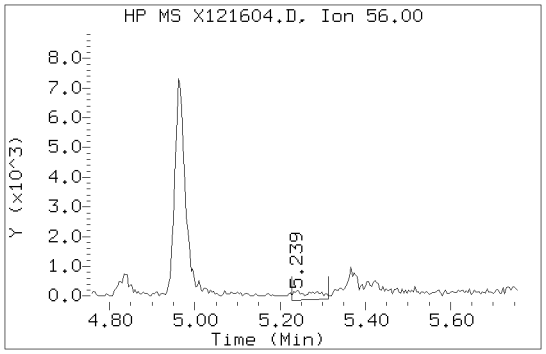
**BEFORE**

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



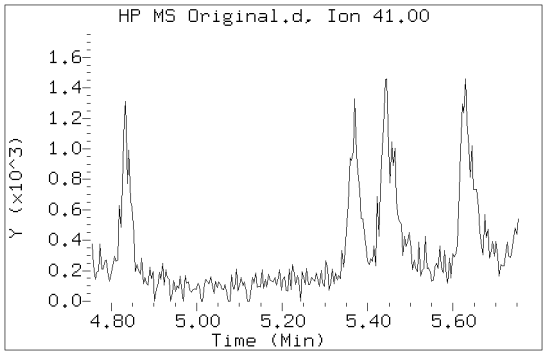

**AFTER**

MASS
56
AREA
1171
HEIGHT
317
27-Dec-2022
16:07
linh
pham



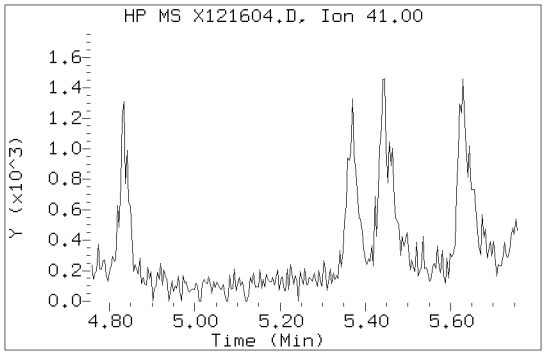

**BEFORE**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

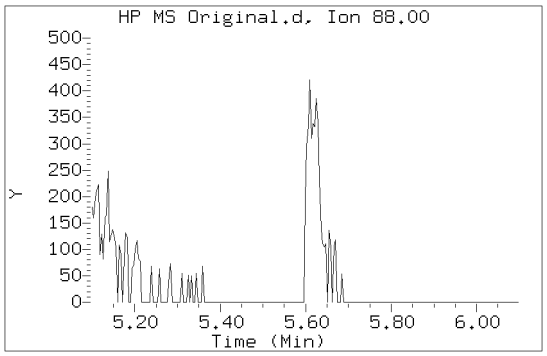



## 1,4-Dioxane ()

Reason Code:

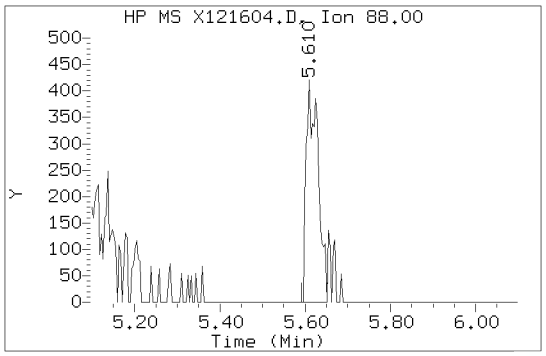
**BEFORE**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
88
AREA
820
HEIGHT
421
27-Dec-2022
16:07
linh
pham



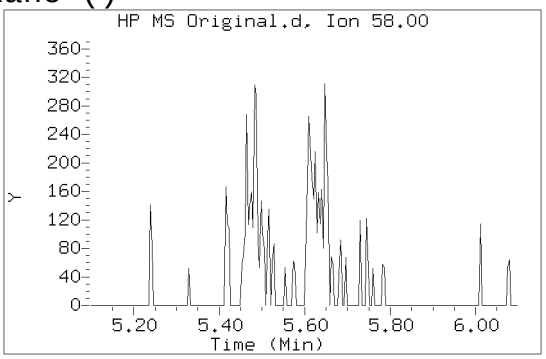
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 1,4-Dioxane ()

Reason Code:

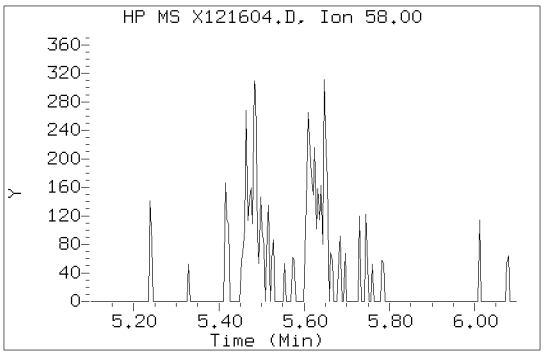
**BEFORE**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

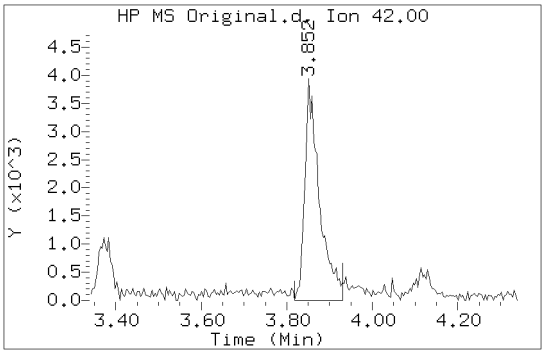



## Tetrahydrofuran (109-99-9)

Reason Code:

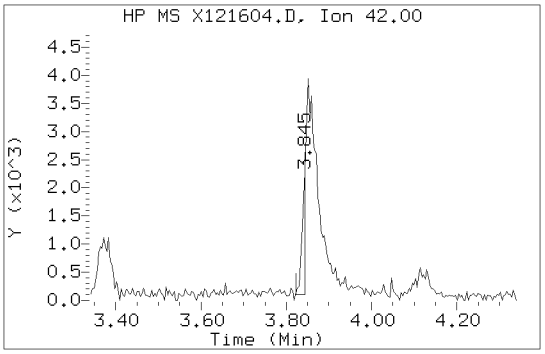
**BEFORE**

MASS
42
AREA
9396
HEIGHT
3939
27-Dec-2022
16:03
linh
pham



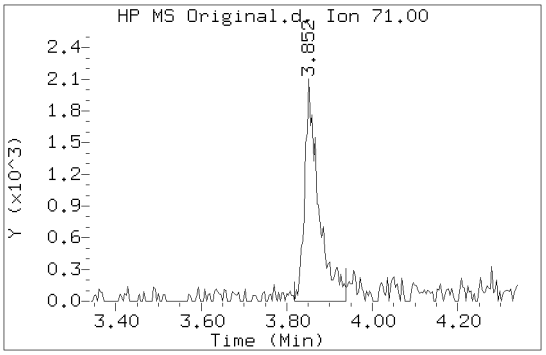

**AFTER**

MASS
42
AREA
1361
HEIGHT
2190
27-Dec-2022
16:07
linh
pham



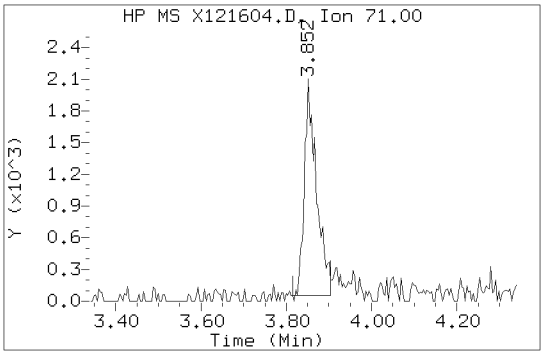

**BEFORE**

MASS
71
AREA
4781
HEIGHT
2103
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
71
AREA
4046
HEIGHT
2046
27-Dec-2022
16:07
linh
pham

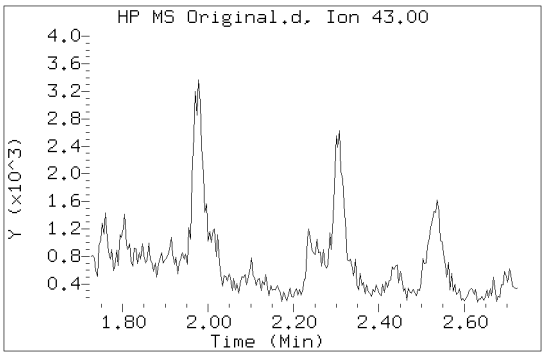



## Methyl Acetate (79-20-9)

Reason Code:

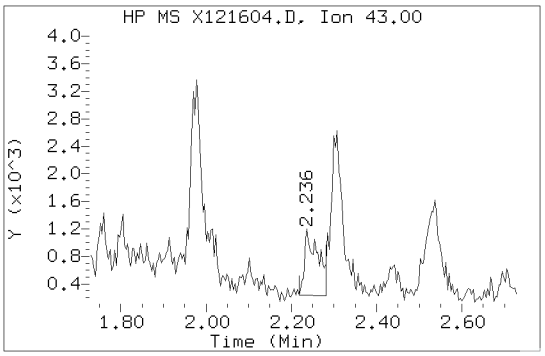
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
43
AREA
2127
HEIGHT
968
27-Dec-2022
16:07
linh
pham



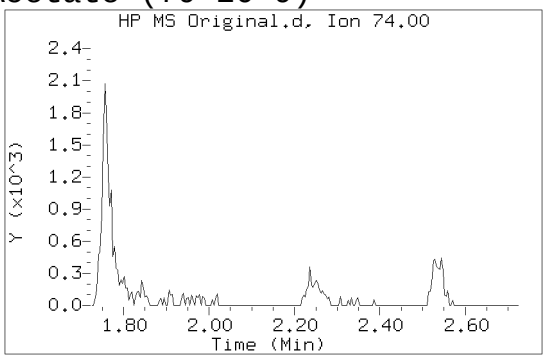
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Methyl Acetate (79-20-9)

Reason Code:

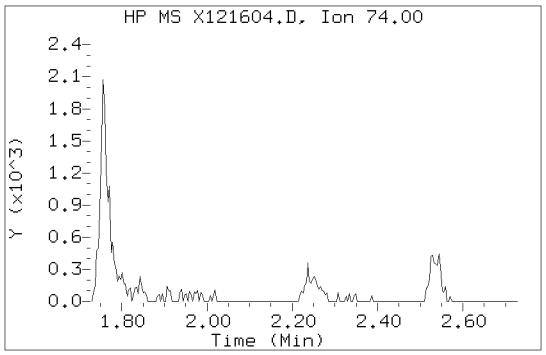
**BEFORE**

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

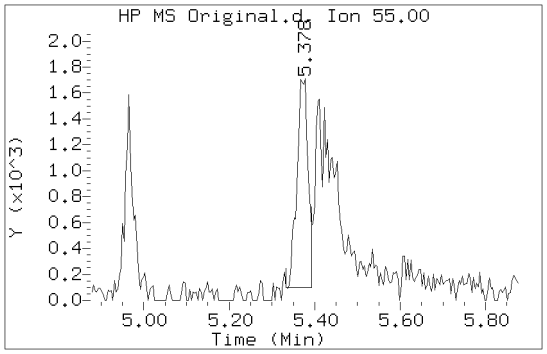



## Methylcyclohexane (108-87-2)

Reason Code:

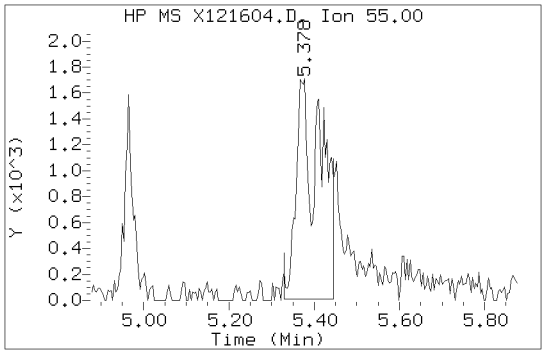
**BEFORE**

MASS
55
AREA
2998
HEIGHT
1612
27-Dec-2022
16:03
linh
pham



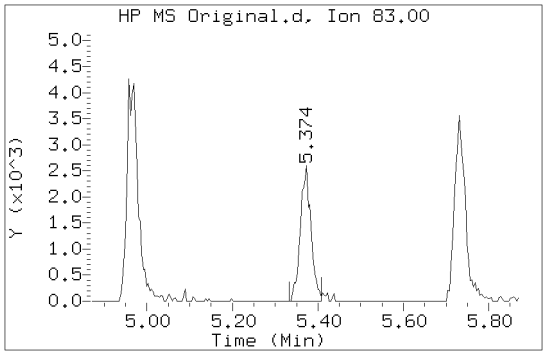

**AFTER**

MASS
55
AREA
6848
HEIGHT
1699
27-Dec-2022
16:07
linh
pham



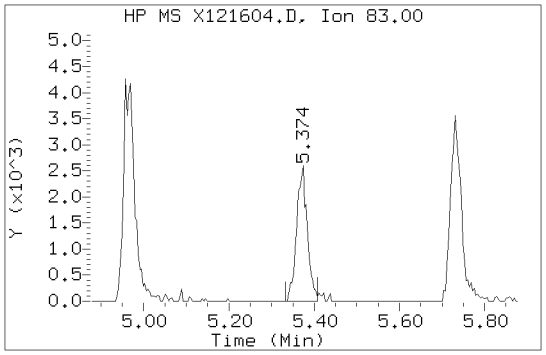

**BEFORE**

MASS
83
AREA
4577
HEIGHT
2601
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
83
AREA
4577
HEIGHT
2601
27-Dec-2022
16:07
linh
pham

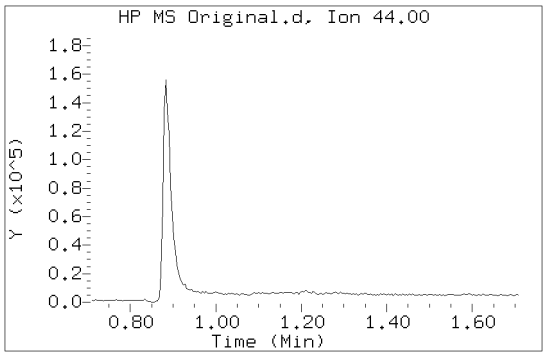



## Acetaldehyde (75-07-0)

Reason Code:

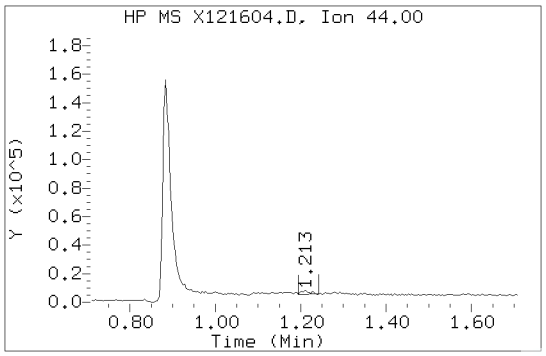
**BEFORE**

MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
44
AREA
3384
HEIGHT
2655
27-Dec-2022
16:07
linh
pham



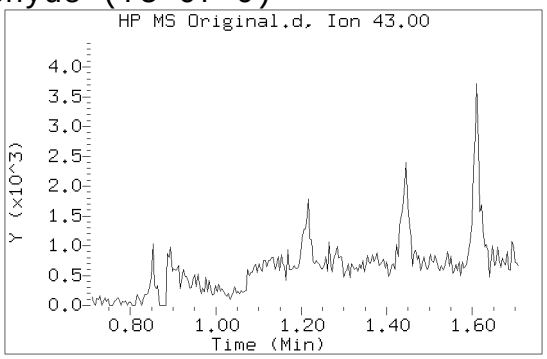
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Acetaldehyde (75-07-0)

Reason Code:

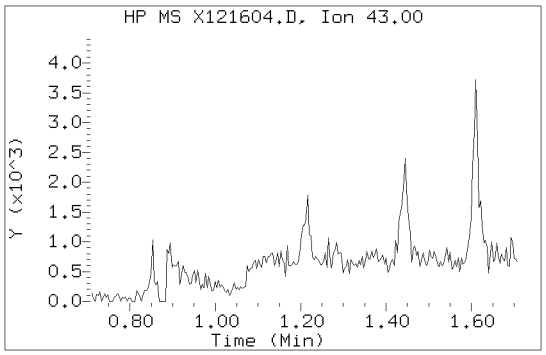
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



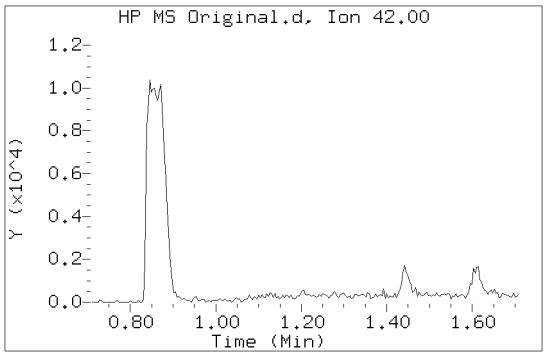

**AFTER**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



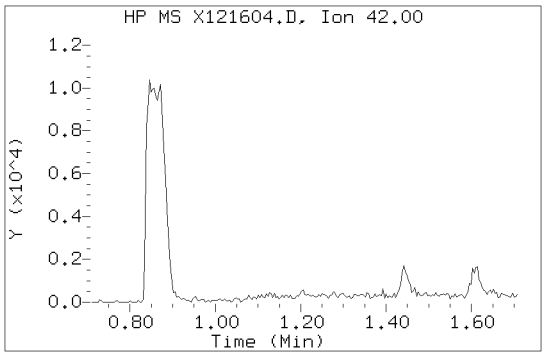

**BEFORE**

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

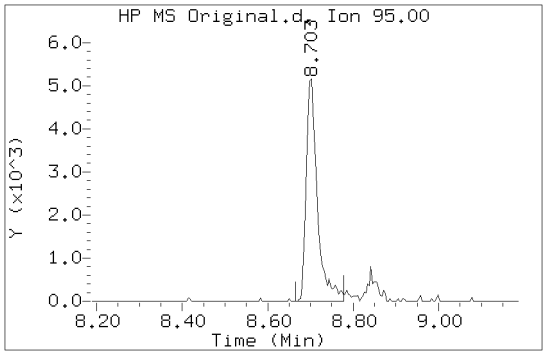



## 4-Bromofluorobenzene (460-00-4)

Reason Code:

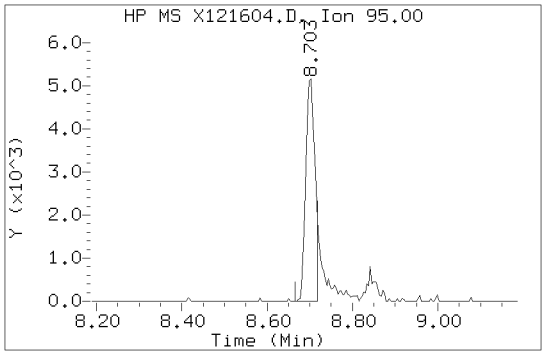
**BEFORE**

MASS
95
AREA
9514
HEIGHT
5159
27-Dec-2022
16:03
linh
pham



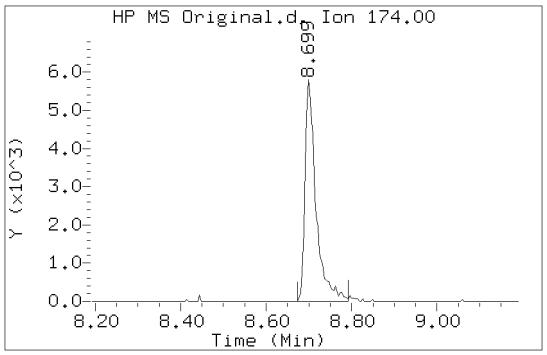

**AFTER**

MASS
95
AREA
7790
HEIGHT
5159
27-Dec-2022
16:07
linh
pham



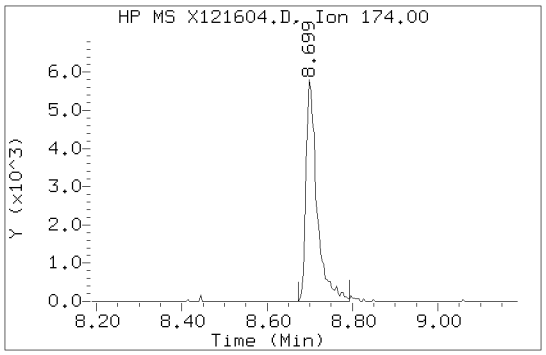

**BEFORE**

MASS
174
AREA
10505
HEIGHT
5802
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
174
AREA
10505
HEIGHT
5802
27-Dec-2022
16:07
linh
pham



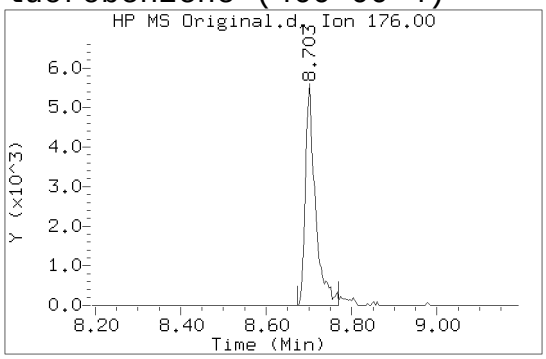
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

4-Bromofluorobenzene (460-00-4)

Reason Code:

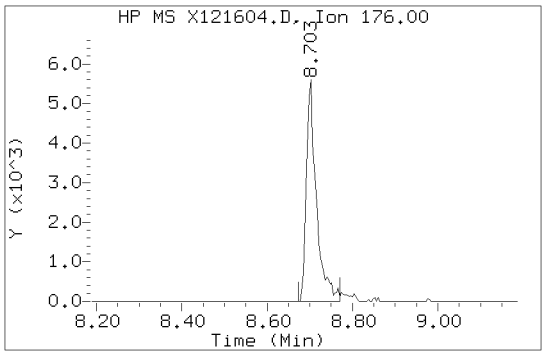
BEFORE

MASS
176
AREA
9226
HEIGHT
5603
27-Dec-2022
16:03
linh
pham




AFTER

MASS
176
AREA
9226
HEIGHT
5603
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Lab Smp Id: VSTD002  Client Smp ID: VSTD002
Inj Date  : 16-DEC-2022 13:02
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD002;VSTD002;1;4;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 12:41  Cal File: X121604.D
Als bottle: 6  Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 456374 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.610 | 5.610 | (1.343) | 1409 | 40.0000 | 33.77(M) |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 5733 | 2.00000 | 1.83 |
| 25 Methacrylonitrile | 41 | 3.859 | 3.859 | (0.924) | 6388 | 2.00000 | 1.97(M) |
| 12 Isobutyl Alcohol | 43 | 4.684 | 4.684 | (1.121) | 20629 | 40.0000 | 40.18(M) |
| 13 Acetonitrile | 39 | 2.198 | 2.198 | (0.526) | 7764 | 20.0000 | 18.69 |
| 14 Allyl Chloride | 41 | 2.206 | 2.206 | (0.528) | 14911 | 2.00000 | 1.88 |
| 4 Propionitrile | 54 | 3.675 | 3.675 | (0.880) | 8651 | 20.0000 | 18.57 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 5898 | 2.00000 | 1.79 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.920 | 8.920 | (1.163) | 2690 | 2.00000 | 1.92(M) |
| 194 Acetaldehyde | 44 | 1.212 | 1.212 | (0.290) | 5661 | 8.00000 | (M) |
| 23 Chloroprene | 53 | 1.771 | 1.771 | (0.424) | 3126 | 2.00000 | 2.01(M) |
| 145 alpha-Methylstyrene | 118 | 9.268 | 9.268 | (0.959) | 14447 | 2.00000 | 1.84 |
| 200 Dimethyl Disulfide | 94 | 6.202 | 6.202 | (0.808) | 15964 | 2.00000 | 1.82 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 6354 | 2.00000 | 2.08 |
| 130 Ethyl Acetate | 43 | 3.675 | 3.675 | (0.880) | 7422 | 2.00000 | 2.08(M) |
| 40 Methyl Methacrylate | 41 | 5.617 | 5.617 | (1.345) | 6185 | 2.00000 | 1.98 |
| 49 Ethyl Methacrylate | 69 | 6.715 | 6.715 | (1.353) | 6546 | 2.00000 | 2.03 |
| 132 n-Butanol | 56 | 5.343 | 5.343 | (1.279) | 2004 | 40.0000 | 74.77(TM) |
| 142 Tetrahydrofuran | 42 | 3.848 | 3.848 | (0.921) | 2867 | 4.00000 | 2.04(M) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 5898 | 40.0000 | 33.27 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 35687 | 2.00000 | 2.10 |

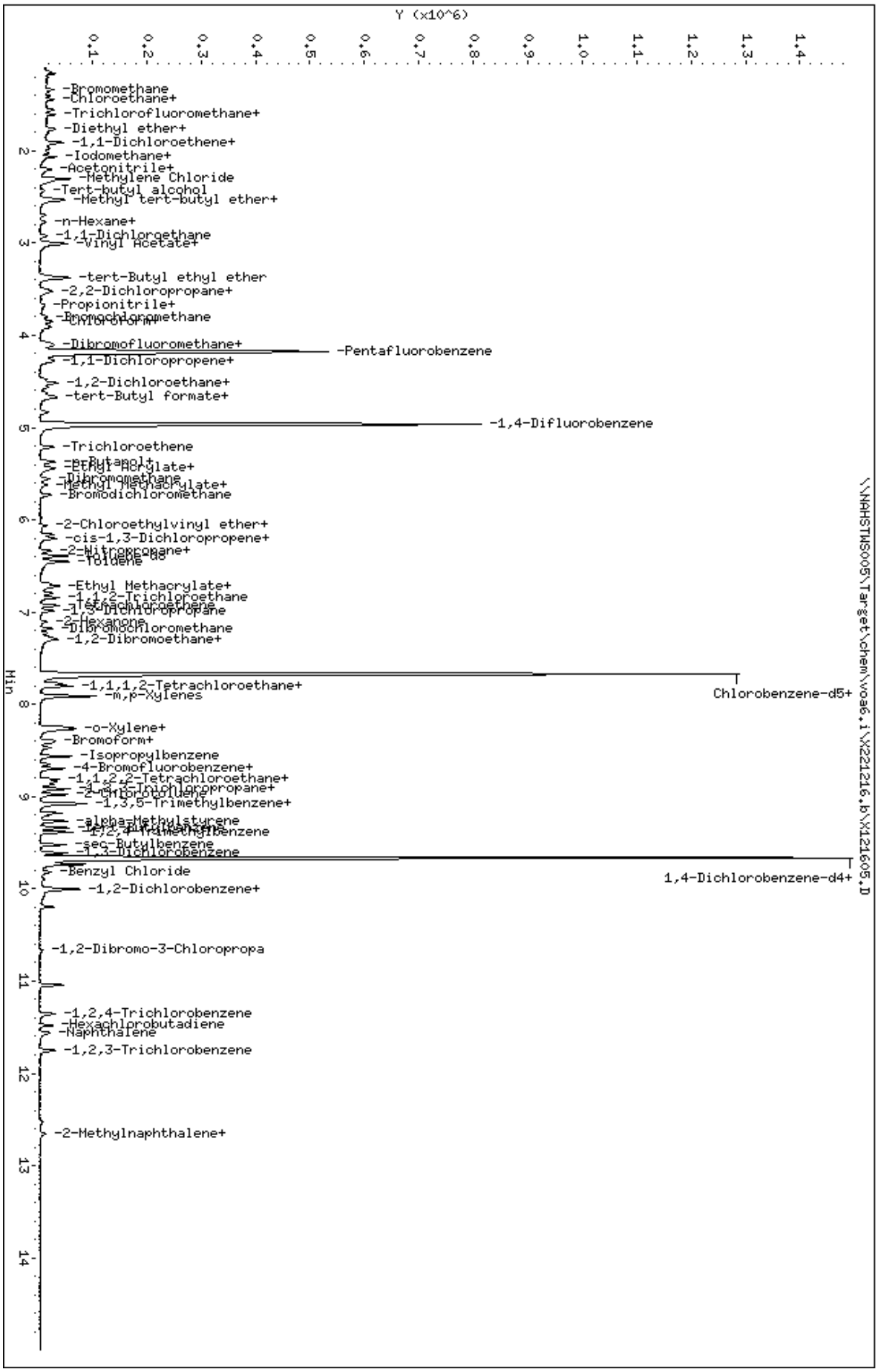
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 131 Methyl Acrylate | 55 | 3.720 | 3.720 | (0.891) | 5443 | 2.00000 | 1.75(M) |
| | 162 Butyl acrylate | 55 | 8.267 | 8.267 | (1.078) | 15015 | 2.00000 | 1.77 |
| | 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 6239 | 2.00000 | 2.33 |
| | 3 Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 8057 | 2.00000 | 4.07 |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 7263 | 2.00000 | 1.82 |
| | 6 Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 5996 | 2.00000 | 3.68(M) |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 5667 | 2.00000 | 2.04(M) |
| | 8 Trichlorofluoromethane | 101 | 1.561 | 1.561 | (0.374) | 10463 | 2.00000 | 1.87 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 1317 | 4.00000 | 6.92(M) |
| | 10 Acetone | 43 | 1.973 | 1.973 | (0.472) | 7041 | 4.00000 | 5.46(M) |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 6862 | 2.00000 | 1.98 |
| | 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 8702 | 4.00000 | 5.23 |
| | 16 Acrylonitrile | 53 | 2.554 | 2.554 | (0.611) | 4557 | 4.00000 | 3.87(M) |
| | 17 Methylene Chloride | 84 | 2.303 | 2.303 | (0.551) | 9194 | 2.00000 | 1.93(M) |
| | 18 Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 23231 | 2.00000 | 2.04 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 34948 | 4.00000 | 3.85 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.532 | 2.532 | (0.606) | 7113 | 2.00000 | 1.83 |
| | 21 Vinyl Acetate | 43 | 3.008 | 3.008 | (0.720) | 38835 | 4.00000 | 3.90 |
| | 22 1,1-Dichloroethane | 63 | 2.922 | 2.922 | (0.699) | 12778 | 2.00000 | 1.87 |
| | 24 2-Butanone | 43 | 3.604 | 3.604 | (0.863) | 5418 | 4.00000 | 6.89(M) |
| | 26 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 11048 | 2.00000 | 1.91 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.529 | 3.529 | (0.845) | 9675 | 2.00000 | 2.05 |
| | 28 Chloroform | 83 | 3.908 | 3.908 | (0.935) | 15581 | 2.00000 | 2.04 |
| | 29 Bromochloromethane | 128 | 3.803 | 3.803 | (0.910) | 5134 | 2.00000 | 1.98 |
| $ | 30 Dibromofluoromethane | 113 | 4.106 | 4.106 | (0.983) | 9050 | 2.00000 | 1.90 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 10962 | 2.00000 | 1.81 |
| | 32 1,1-Dichloropropene | 75 | 4.286 | 4.286 | (0.863) | 9042 | 2.00000 | 1.86 |
| | 33 1,2-Dichloroethane | 62 | 4.560 | 4.560 | (0.918) | 10812 | 2.00000 | 1.92 |
| | 34 Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 11092 | 2.00000 | 2.13(M) |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.477 | 4.477 | (1.072) | 9783 | 2.00000 | 2.37 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 684444 | 50.0000 | |
| | 37 Benzene | 78 | 4.515 | 4.515 | (0.909) | 32394 | 2.00000 | 1.98 |
| | 38 Trichloroethene | 130 | 5.216 | 5.216 | (1.051) | 9277 | 2.00000 | 2.00 |
| | 39 Bromodichloromethane | 83 | 5.733 | 5.733 | (1.155) | 11961 | 2.00000 | 1.94 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.059 | 6.059 | (1.220) | 6648 | 4.00000 | 3.80 |
| | 42 1,2-Dichloropropane | 63 | 5.441 | 5.441 | (1.096) | 8129 | 2.00000 | 1.86(M) |
| | 44 Dibromomethane | 93 | 5.553 | 5.553 | (1.119) | 6110 | 2.00000 | 2.06 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.337 | 6.337 | (0.826) | 14771 | 4.00000 | 4.26 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.161 | 6.161 | (1.241) | 13738 | 2.00000 | 1.90 |
| * | 47 Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 647809 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.393 | 6.393 | (0.833) | 31289 | 2.00000 | 1.95 |
| | 50 Toluene | 91 | 6.453 | 6.453 | (0.841) | 35620 | 2.00000 | 1.98 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.693 | 6.693 | (1.348) | 10969 | 2.00000 | 1.83 |
| | 52 2-Hexanone | 43 | 7.105 | 7.105 | (0.926) | 9314 | 4.00000 | 3.95 |
| | 53 1,1,2-Trichloroethane | 83 | 6.843 | 6.843 | (0.892) | 7537 | 2.00000 | 2.09 |
| | 54 1,3-Dichloropropane | 76 | 6.989 | 6.989 | (0.911) | 14049 | 2.00000 | 1.98 |
| | 55 Dibromochloromethane | 129 | 7.180 | 7.180 | (0.936) | 10210 | 2.00000 | 1.96 |
| | 56 Tetrachloroethene | 164 | 6.929 | 6.929 | (0.903) | 7331 | 2.00000 | 1.97 |
| | 57 1,2-Dibromoethane | 107 | 7.263 | 7.263 | (0.947) | 8477 | 2.00000 | 1.88 |
| | 58 1-Chlorohexane | 55 | 7.697 | 7.697 | (1.550) | 5855 | 2.00000 | 1.77(MH) |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 24558 | 2.00000 | 1.93 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.013) | 9378 | 2.00000 | 1.98 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.802 | 7.802 (1.017) | 11791 | 2.00000 | 1.97 |
| 62 m,p-Xylenes | 106 | 7.911 | 7.911 (1.031) | 29170 | 4.00000 | 3.78 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.249 | 8.249 | (1.075) | 14764 | 2.00000 | 1.93 |
| | 64 Styrene | 104 | 8.271 | 8.271 | (1.078) | 22967 | 2.00000 | 1.80 |
| | 66 Bromoform | 173 | 8.417 | 8.417 | (1.097) | 6949 | 2.00000 | 1.93(T) |
| | 67 Isopropylbenzene | 105 | 8.563 | 8.563 | (1.116) | 32641 | 2.00000 | 1.87 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.841 | 8.841 | (0.915) | 11741 | 2.00000 | 2.08 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.698 | 8.698 | (1.134) | 13631 | 2.00000 | 2.33 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 352851 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.867 | 8.867 | (0.918) | 7514 | 2.00000 | 1.91 |
| | 73 n-Propylbenzene | 91 | 8.916 | 8.916 | (0.923) | 34981 | 2.00000 | 1.78 |
| | 74 Bromobenzene | 156 | 8.815 | 8.815 | (0.912) | 11721 | 2.00000 | 2.02 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.073 | 9.073 | (0.939) | 27917 | 2.00000 | 1.93 |
| | 76 2-Chlorotoluene | 91 | 8.980 | 8.980 | (0.929) | 26853 | 2.00000 | 2.09 |
| | 77 4-Chlorotoluene | 91 | 9.077 | 9.077 | (0.939) | 28173 | 2.00000 | 1.92 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 22104 | 2.00000 | 1.87 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.384 | 9.384 | (0.971) | 28377 | 2.00000 | 1.86 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 27643 | 2.00000 | 1.75 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 24966 | 2.00000 | 1.77 |
| | 83 1,3-Dichlorobenzene | 146 | 9.613 | 9.613 | (0.995) | 18708 | 2.00000 | 1.94 |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 20552 | 2.00000 | 1.96 |
| | 86 Benzyl Chloride | 91 | 9.819 | 9.819 | (1.280) | 12783 | 2.00000 | 3.88 |
| | 87 n-Butylbenzene | 91 | 10.003 | 10.003 | (1.035) | 19853 | 2.00000 | 3.18(M) |
| | 88 1,2-Dichlorobenzene | 146 | 9.999 | 9.999 | (1.035) | 18921 | 2.00000 | 1.91 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.678 | 10.678 | (1.105) | 1619 | 2.00000 | 1.88(M) |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.352 | 11.352 | (1.175) | 11764 | 2.00000 | 1.88(M) |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 3970 | 2.00000 | 1.39 |
| | 92 Naphthalene | 128 | 11.559 | 11.559 | (1.196) | 26250 | 2.00000 | 1.84(M) |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.750 | 11.750 | (1.216) | 11288 | 2.00000 | 1.88 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 16788 | 4.00000 | |
| M | 95 Xylenes (total) | 106 | | | | 43934 | 6.00000 | |
| | 141 Cyclohexane | 56 | 4.125 | 4.125 | (0.987) | 7375 | 2.00000 | 2.82(H) |
| | 138 Freon TF | 101 | 1.917 | 1.917 | (0.459) | 6025 | 2.00000 | 1.79 |
| | 147 Methylcyclohexane | 55 | 5.373 | 5.373 | (1.082) | 16016 | 2.00000 | 1.91(M) |
| | 146 Methyl Acetate | 43 | 2.247 | 2.247 | (0.538) | 4149 | 2.00000 | 2.02 |
| | 148 Tert-Butyl alcohol | 59 | 2.434 | 2.434 | (0.583) | 12015 | 40.0000 | 38.02(a) |
| | 149 Isopropyl Alcohol | 45 | 2.101 | 2.101 | (0.503) | 5607 | 40.0000 | 33.97 |

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




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Sample Info: VSTD002;VSTD002;1;4;
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Column phase: DB624

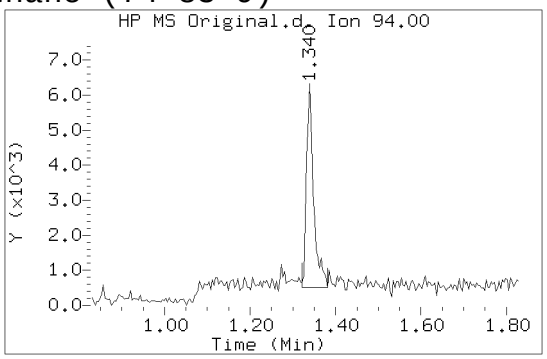
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Instrument: voa6,i
Operator: PC
Column diameter: 0.18

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LabSampID : VSTD002

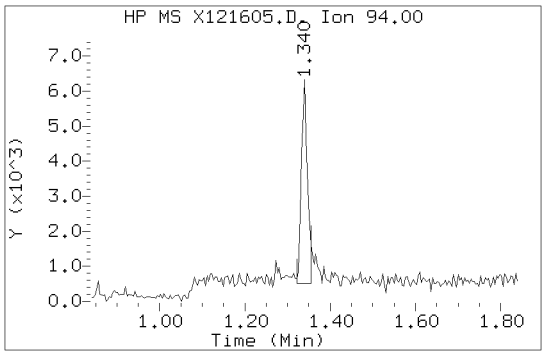
## Bromomethane (74-83-9)

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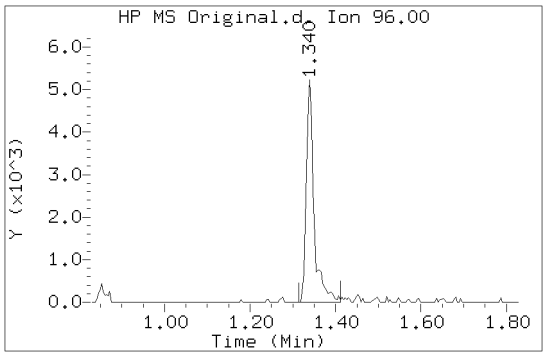



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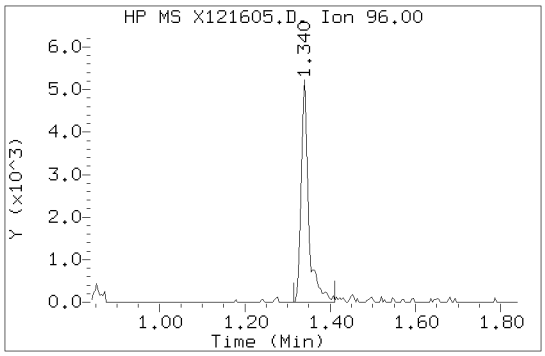
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BEFORE
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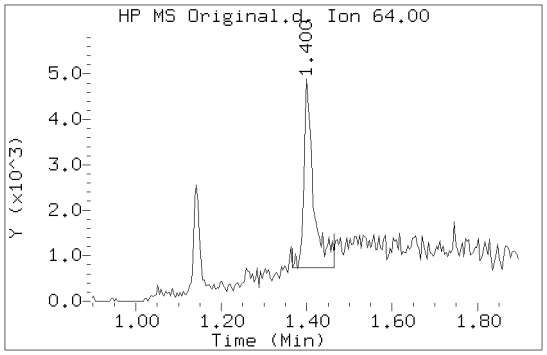



AFTER
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16:07
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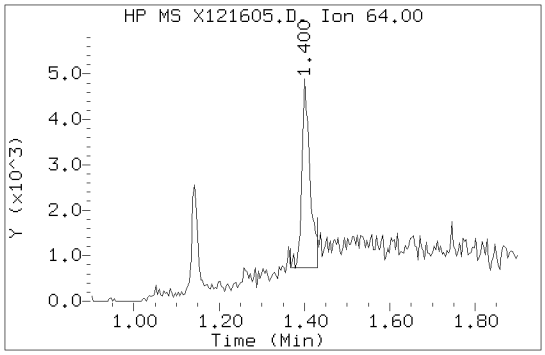

## Chloroethane (75-00-3)

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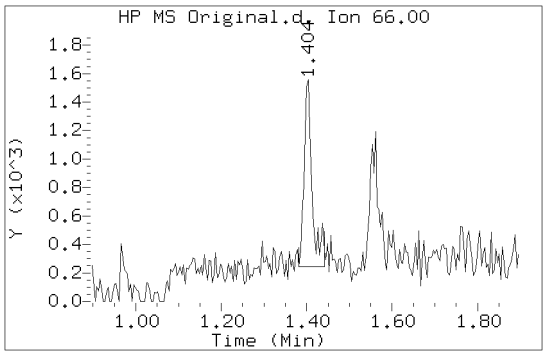



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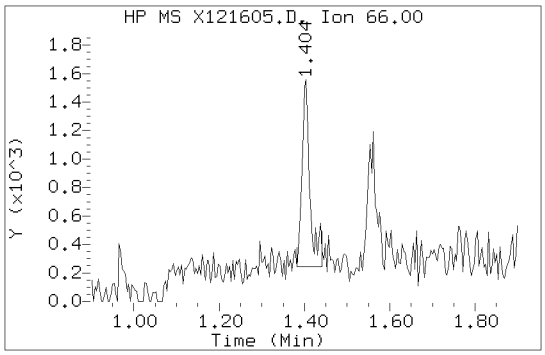
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BEFORE
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1315
27-Dec-2022
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AFTER
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HEIGHT
1315
27-Dec-2022
16:07
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pham



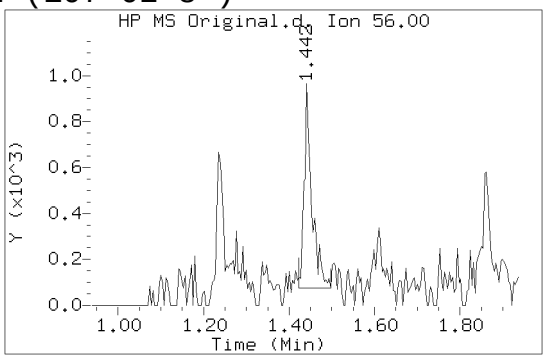
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InstruID : voa6.i
LabSampID : VSTD002

## Acrolein (107-02-8 )

Reason Code:

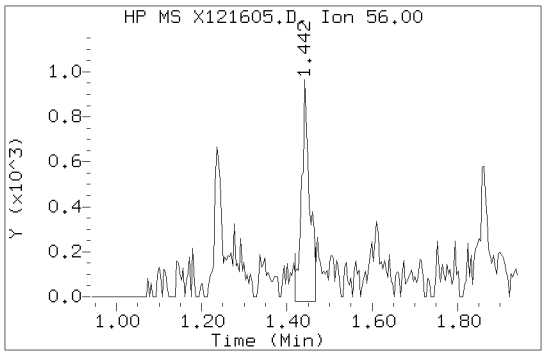
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27-Dec-2022
16:03
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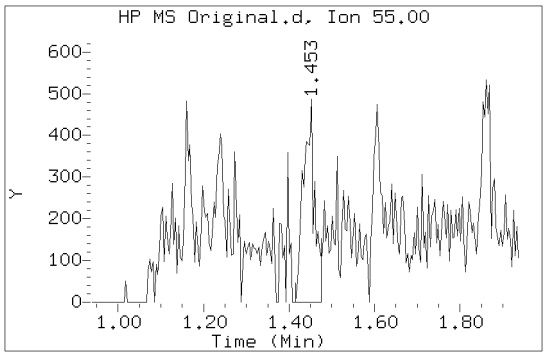

**AFTER**

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27-Dec-2022
16:07
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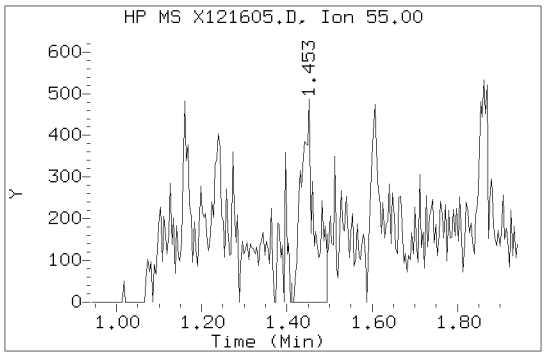

**BEFORE**

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487
27-Dec-2022
16:03
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**AFTER**

MASS
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AREA
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HEIGHT
487
27-Dec-2022
16:07
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pham

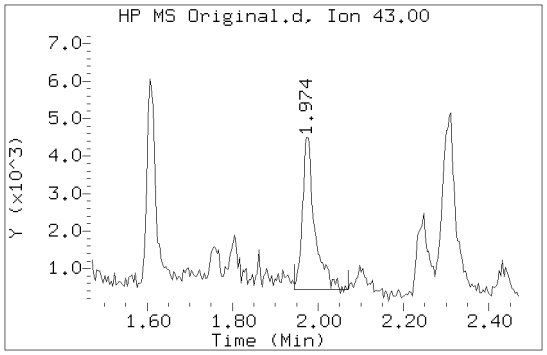



## Acetone (67-64-1)

Reason Code:

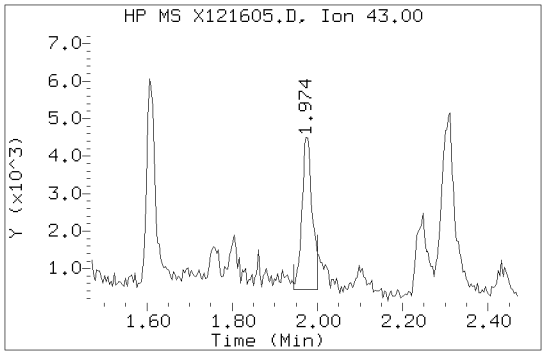
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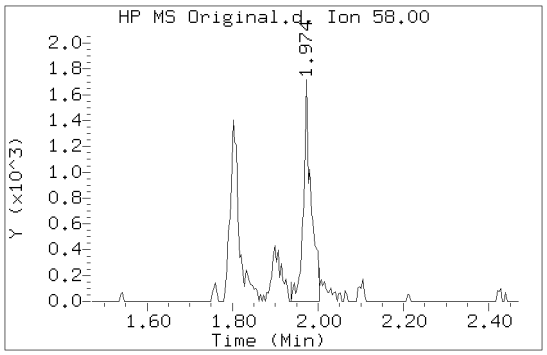

**AFTER**

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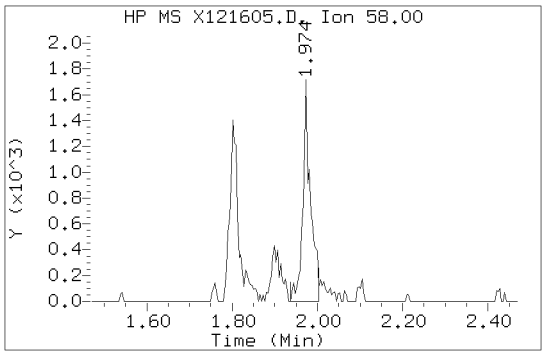

**BEFORE**

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27-Dec-2022
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**AFTER**

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HEIGHT
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27-Dec-2022
16:07
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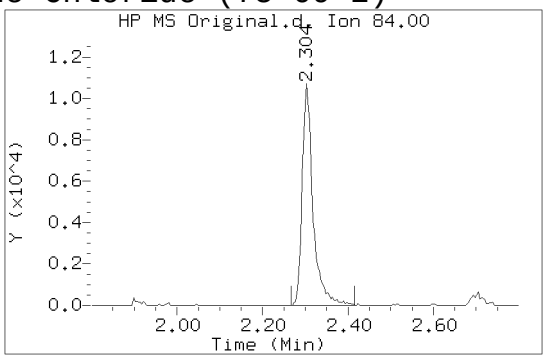


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LabSampID : VSTD002

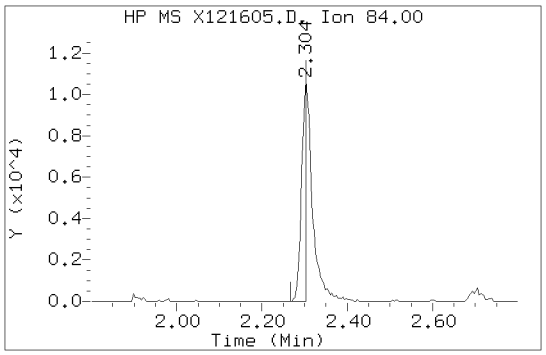
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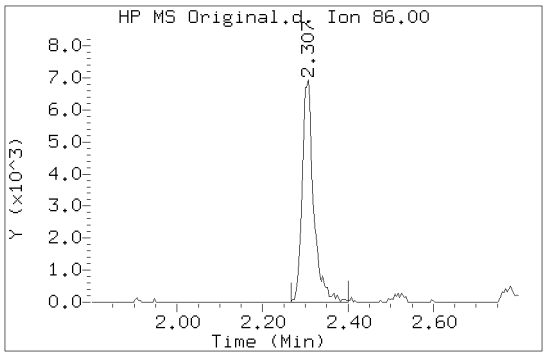
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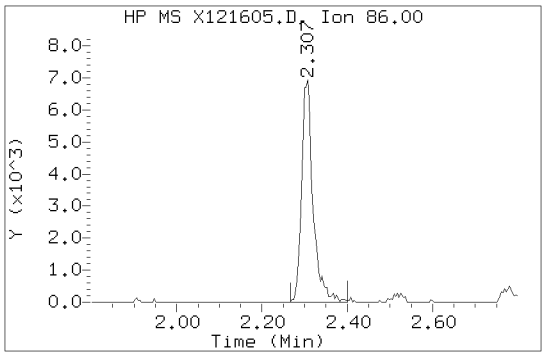

**AFTER**
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linh
pham



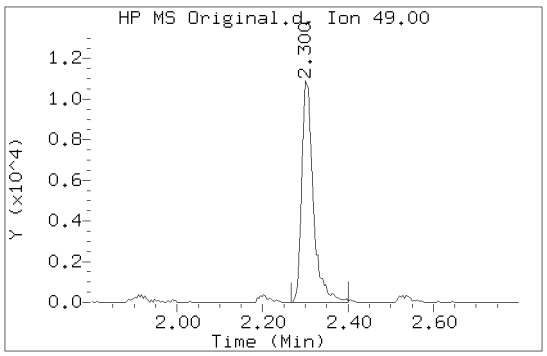

**BEFORE**
MASS
86
AREA
13231
HEIGHT
6936
27-Dec-2022
16:03
linh
pham



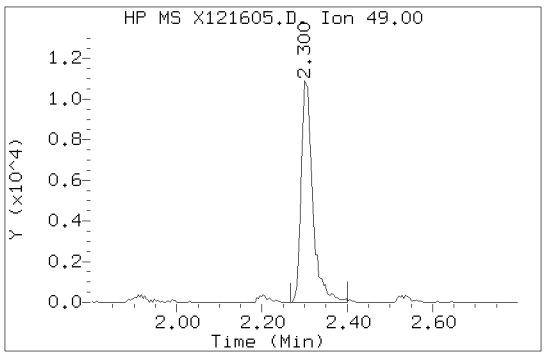

**AFTER**
MASS
86
AREA
13231
HEIGHT
6936
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
49
AREA
21067
HEIGHT
10905
27-Dec-2022
16:03
linh
pham



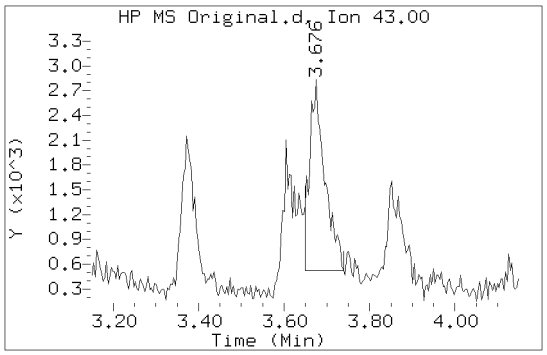

**AFTER**
MASS
49
AREA
21067
HEIGHT
10905
27-Dec-2022
16:07
linh
pham



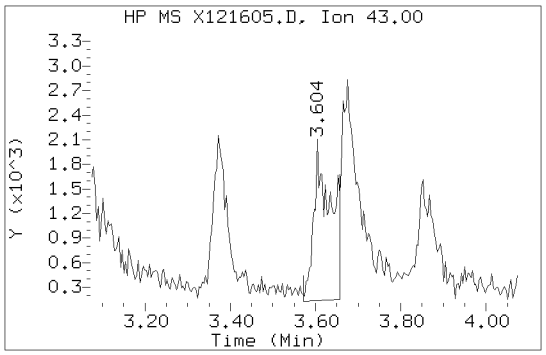

## 2-Butanone (78-93-3)

Reason Code:

**BEFORE**
MASS
43
AREA
5778
HEIGHT
2307
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
43
AREA
5418
HEIGHT
1969
27-Dec-2022
16:07
linh
pham



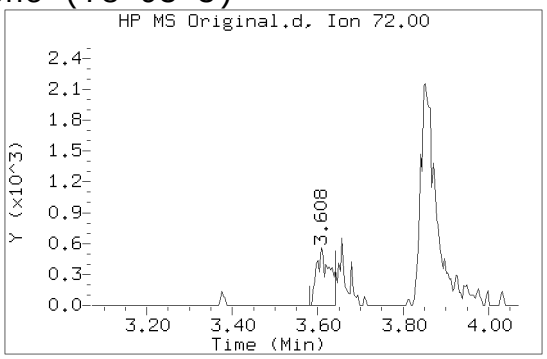
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 2-Butanone (78-93-3)

Reason Code:

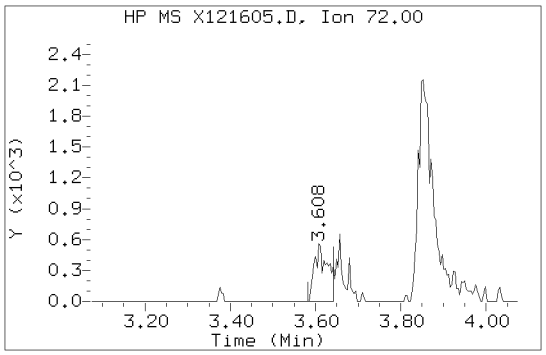
**BEFORE**

MASS
72
AREA
1209
HEIGHT
563
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
72
AREA
1209
HEIGHT
563
27-Dec-2022
16:07
linh
pham

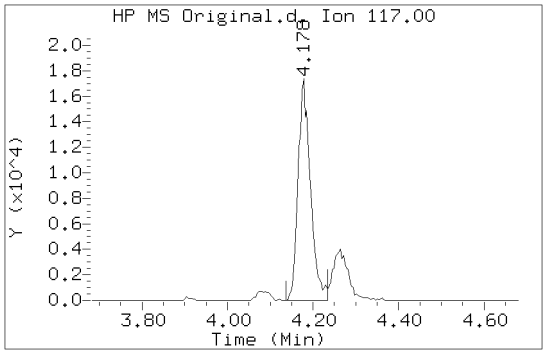



## Carbon Tetrachloride (56-23-5)

Reason Code:

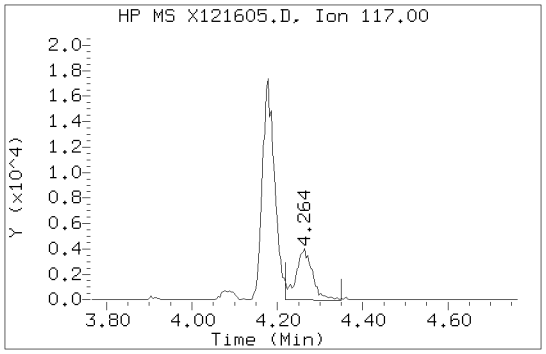
**BEFORE**

MASS
117
AREA
35555
HEIGHT
17376
27-Dec-2022
16:03
linh
pham



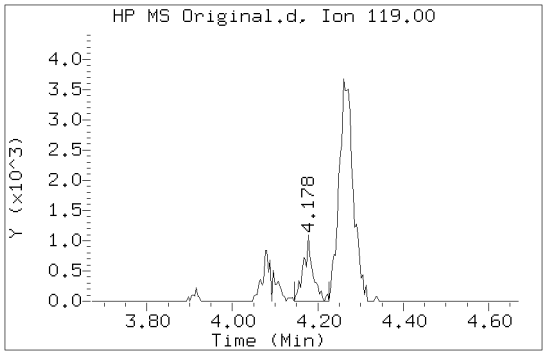

**AFTER**

MASS
117
AREA
11092
HEIGHT
4036
27-Dec-2022
16:07
linh
pham



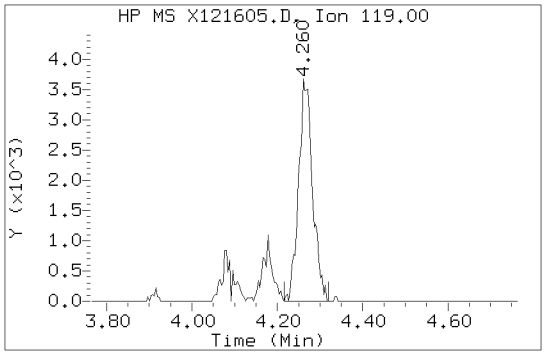

**BEFORE**

MASS
119
AREA
1692
HEIGHT
1100
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
119
AREA
8494
HEIGHT
3676
27-Dec-2022
16:07
linh
pham

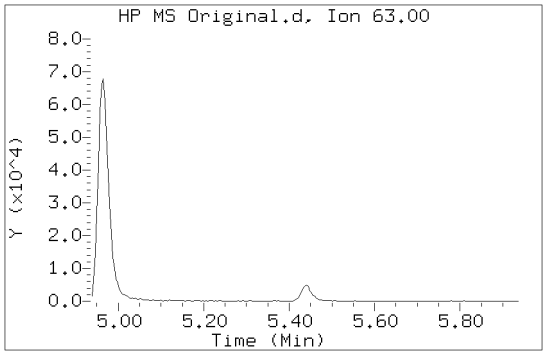



## 1,2-Dichloropropane (78-87-5)

Reason Code:

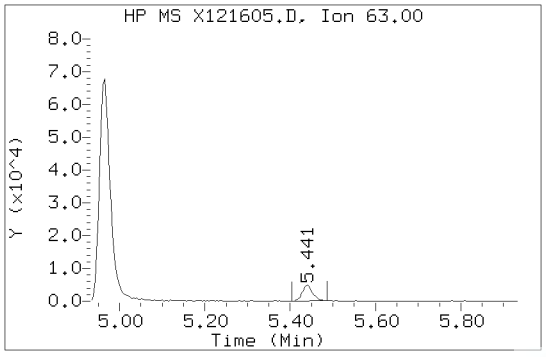
**BEFORE**

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
63
AREA
8129
HEIGHT
4705
27-Dec-2022
16:07
linh
pham



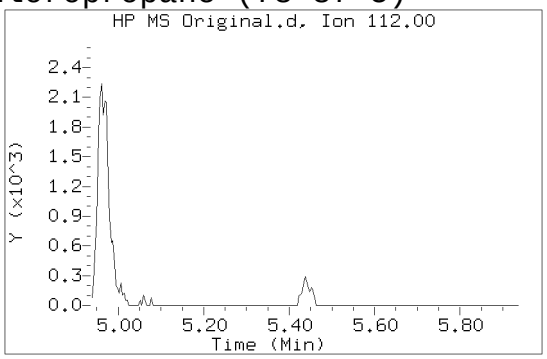
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 1,2-Dichloropropane (78-87-5)

Reason Code:

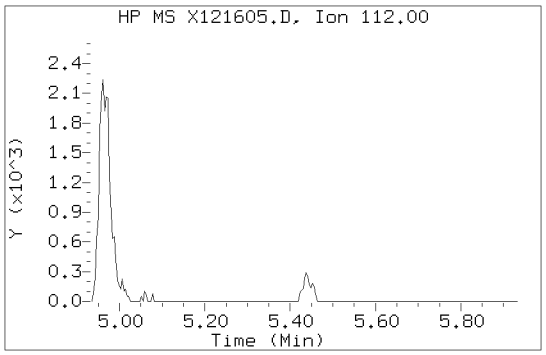
**BEFORE**

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

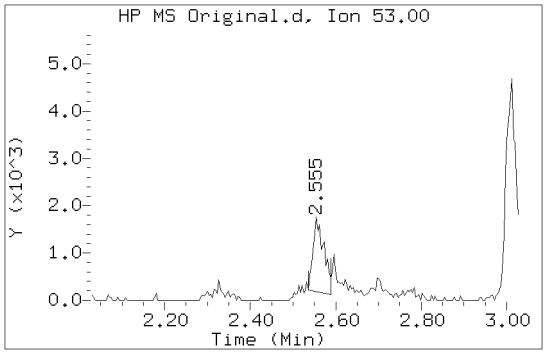



## Acrylonitrile (107-13-1)

Reason Code:

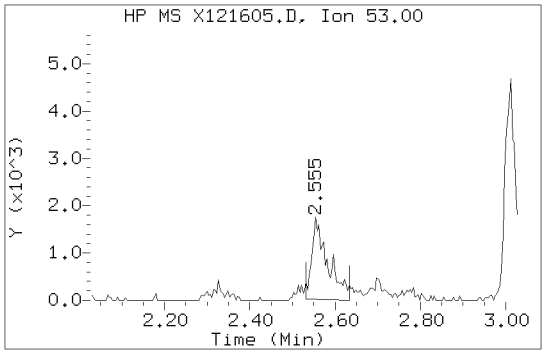
**BEFORE**

MASS
53
AREA
2810
HEIGHT
1577
27-Dec-2022
16:03
linh
pham



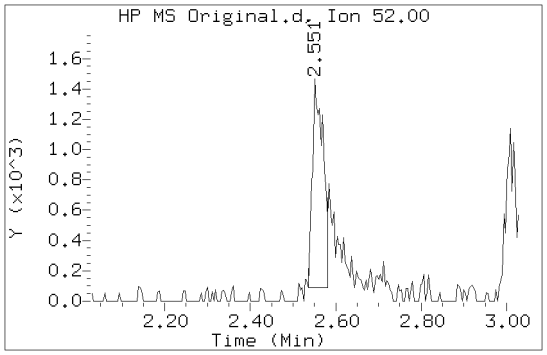

**AFTER**

MASS
53
AREA
4557
HEIGHT
1735
27-Dec-2022
16:07
linh
pham



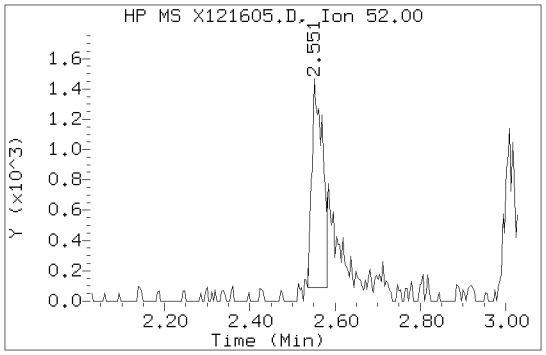

**BEFORE**

MASS
52
AREA
2408
HEIGHT
1379
27-Dec-2022
16:03
linh
pham



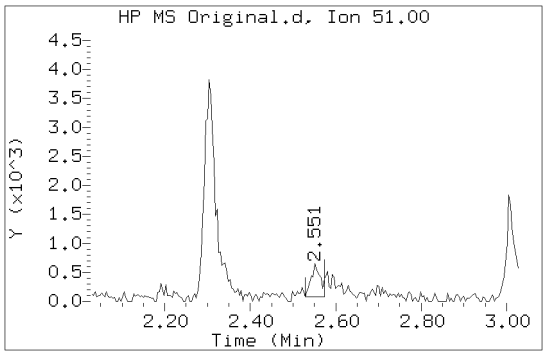

**AFTER**

MASS
52
AREA
2408
HEIGHT
1379
27-Dec-2022
16:07
linh
pham



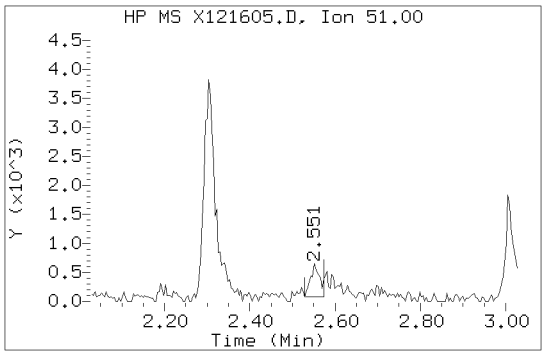

**BEFORE**

MASS
51
AREA
876
HEIGHT
575
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
51
AREA
876
HEIGHT
575
27-Dec-2022
16:07
linh
pham

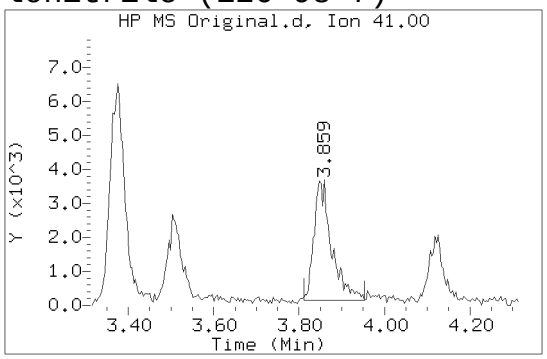


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

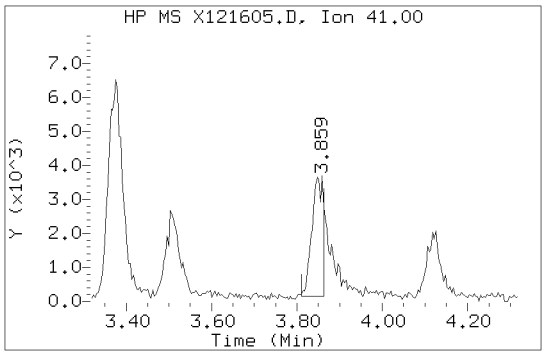
## Methacrylonitrile (126-98-7)

Reason Code:

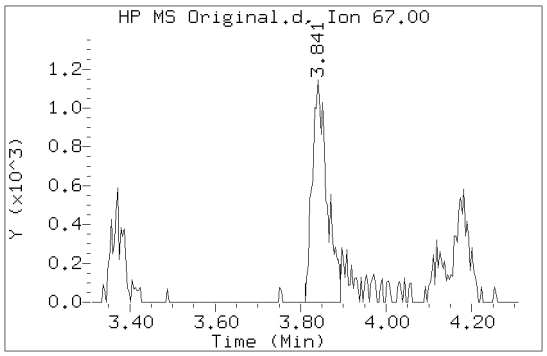
BEFORE
MASS
41
AREA
10013
HEIGHT
3544
27-Dec-2022
16:03
linh
pham



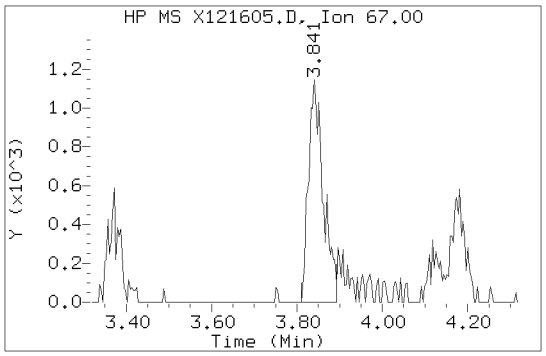

AFTER
MASS
41
AREA
6388
HEIGHT
3544
27-Dec-2022
16:07
linh
pham



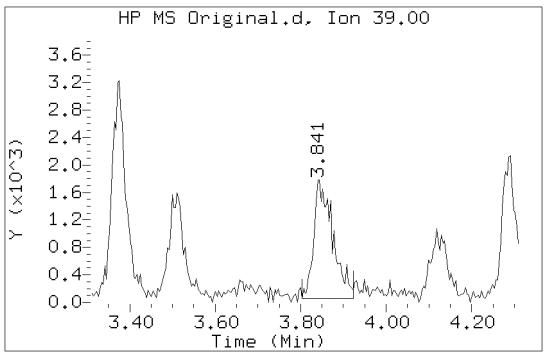

BEFORE
MASS
67
AREA
2751
HEIGHT
1145
27-Dec-2022
16:03
linh
pham



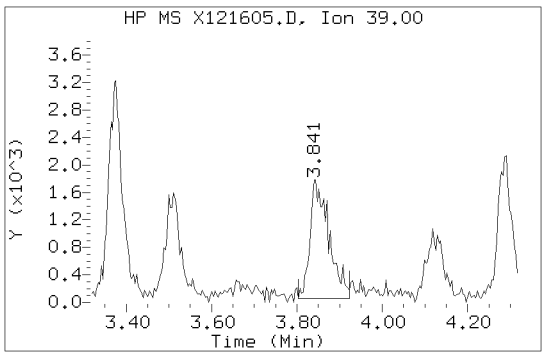

AFTER
MASS
67
AREA
2751
HEIGHT
1145
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
39
AREA
5310
HEIGHT
1724
27-Dec-2022
16:03
linh
pham



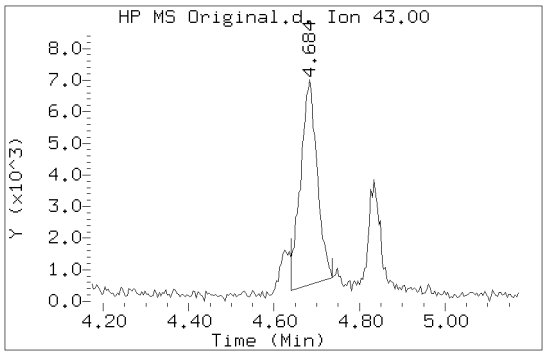

AFTER
MASS
39
AREA
5310
HEIGHT
1724
27-Dec-2022
16:07
linh
pham



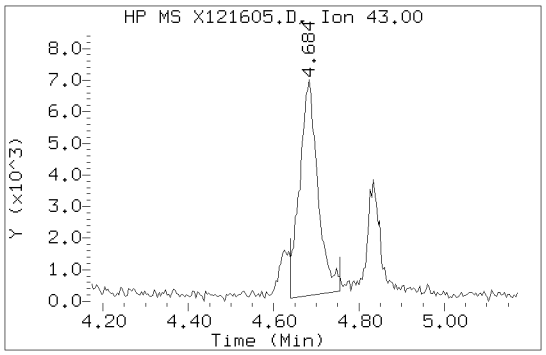

## Isobutyl Alcohol (78-83-1)

Reason Code:

BEFORE
MASS
43
AREA
17811
HEIGHT
6479
27-Dec-2022
16:03
linh
pham




AFTER
MASS
43
AREA
20629
HEIGHT
6832
27-Dec-2022
16:07
linh
pham



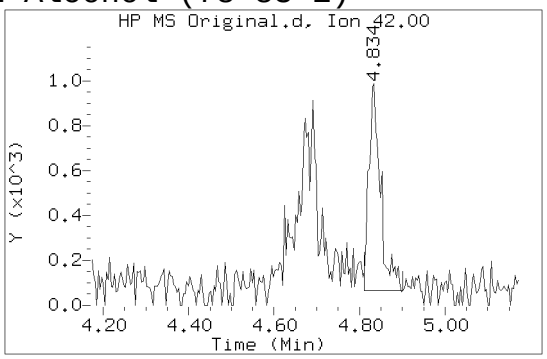
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## Isobutyl Alcohol (78-83-1)

Reason Code:

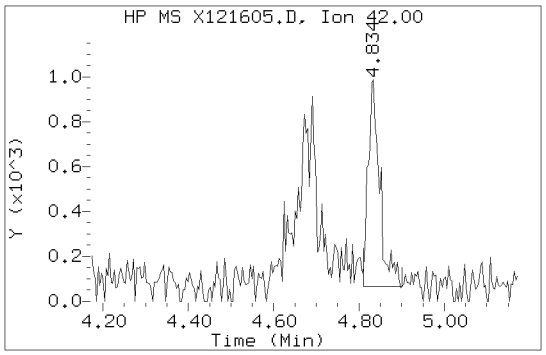
**BEFORE**

MASS
42
AREA
1728
HEIGHT
920
27-Dec-2022
16:03
linh
pham



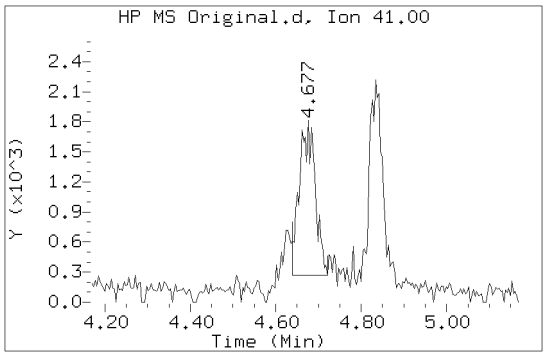

**AFTER**

MASS
42
AREA
1728
HEIGHT
920
27-Dec-2022
16:07
linh
pham



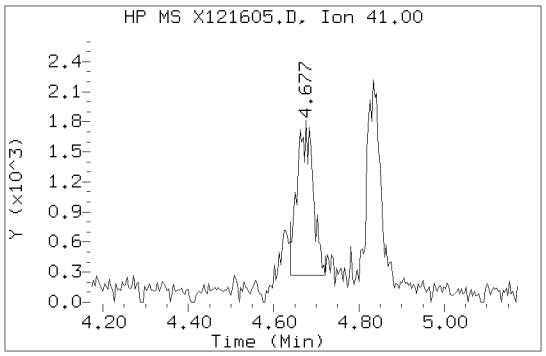

**BEFORE**

MASS
41
AREA
4067
HEIGHT
1547
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
4067
HEIGHT
1547
27-Dec-2022
16:07
linh
pham

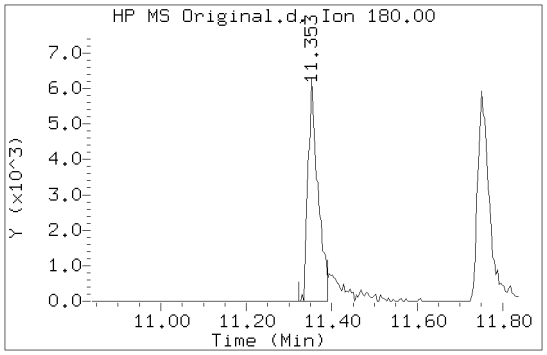



## 1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

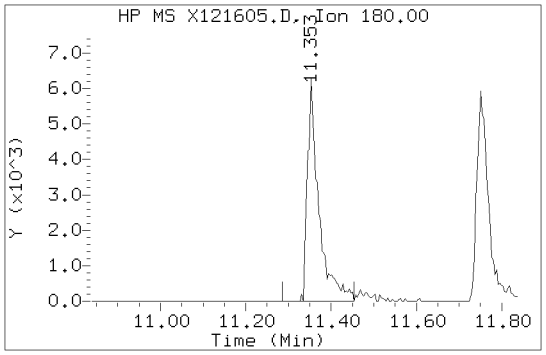
**BEFORE**

MASS
180
AREA
10131
HEIGHT
6269
27-Dec-2022
16:03
linh
pham



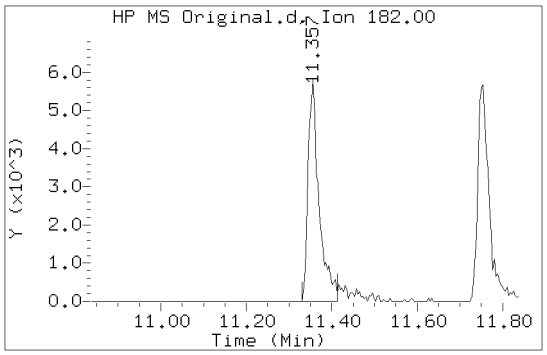

**AFTER**

MASS
180
AREA
11764
HEIGHT
6269
27-Dec-2022
16:07
linh
pham



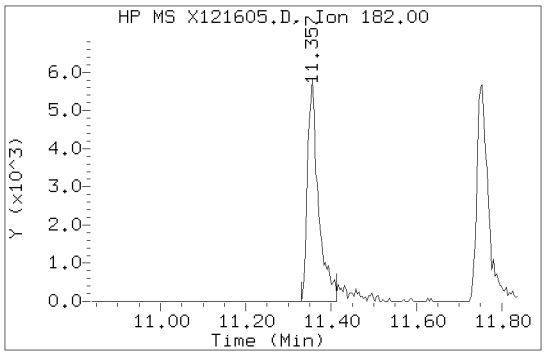

**BEFORE**

MASS
182
AREA
10317
HEIGHT
5807
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
182
AREA
10317
HEIGHT
5807
27-Dec-2022
16:07
linh
pham

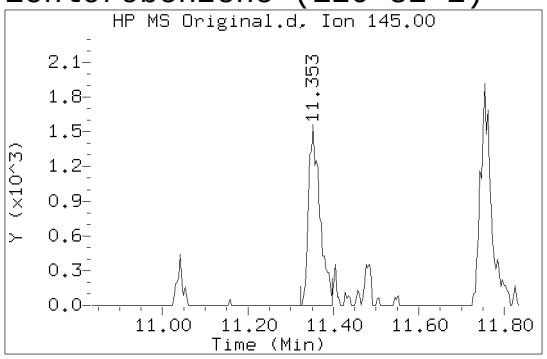


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 1,2,4-Trichlorobenzene (120-82-1)

### BEFORE

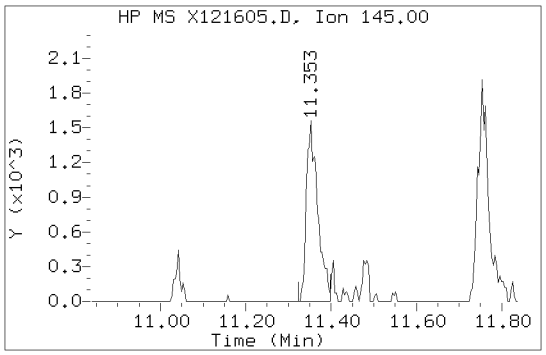
MASS
145
AREA
2887
HEIGHT
1565
27-Dec-2022
16:03
linh
pham




### Reason Code:

### AFTER

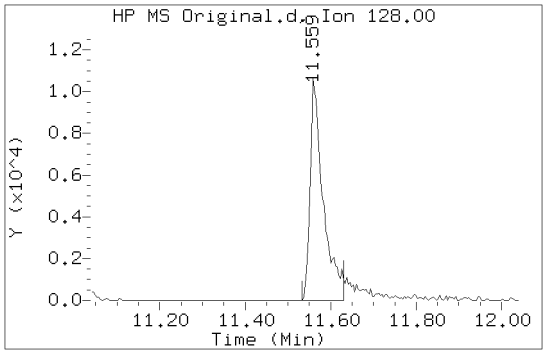
MASS
145
AREA
2887
HEIGHT
1565
27-Dec-2022
16:07
linh
pham




## Naphthalene (91-20-3)

### BEFORE

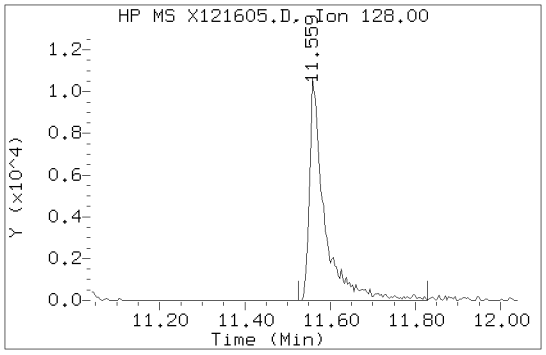
MASS
128
AREA
22581
HEIGHT
10616
27-Dec-2022
16:03
linh
pham




### Reason Code:

### AFTER

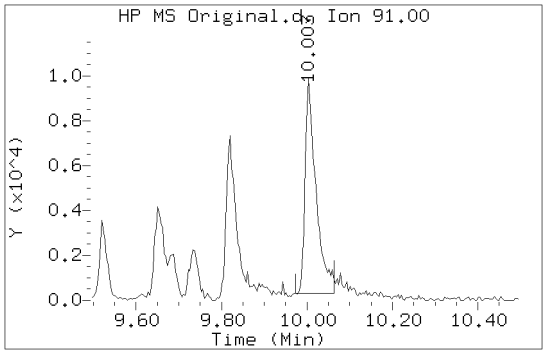
MASS
128
AREA
26250
HEIGHT
10616
27-Dec-2022
16:07
linh
pham




## n-Butylbenzene (104-51-8)

### BEFORE

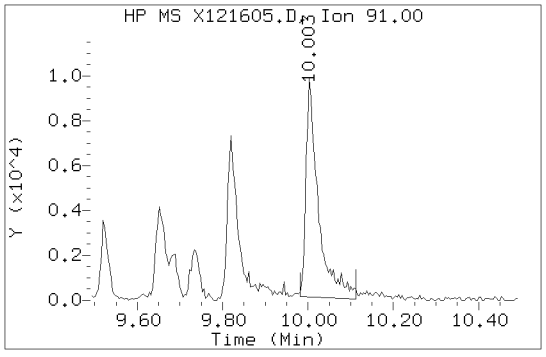
MASS
91
AREA
17181
HEIGHT
9558
27-Dec-2022
16:03
linh
pham




### Reason Code:

### AFTER

MASS
91
AREA
19853
HEIGHT
9720
27-Dec-2022
16:07
linh
pham

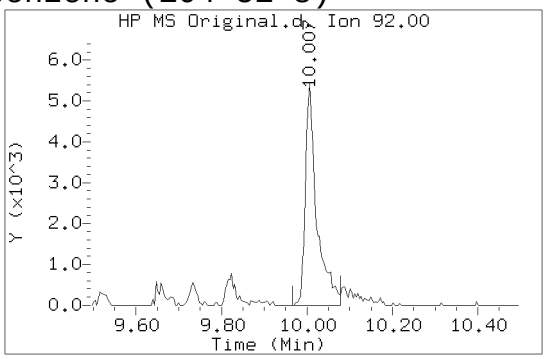


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

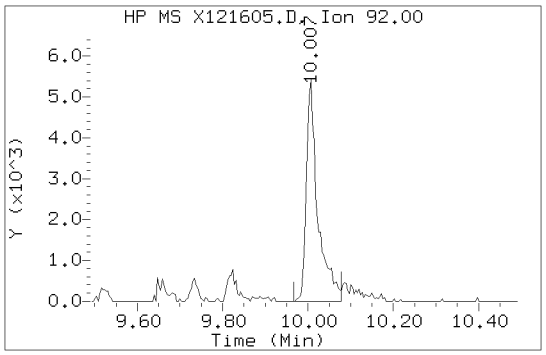
## n-Butylbenzene (104-51-8)

Reason Code:

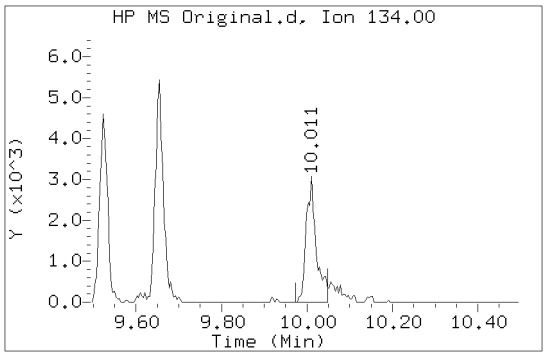
**BEFORE**
MASS
92
AREA
10185
HEIGHT
5422
27-Dec-2022
16:03
linh
pham



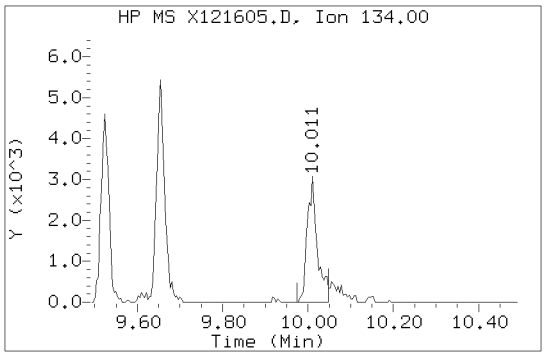

**AFTER**
MASS
92
AREA
10185
HEIGHT
5422
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
134
AREA
5059
HEIGHT
3076
27-Dec-2022
16:03
linh
pham



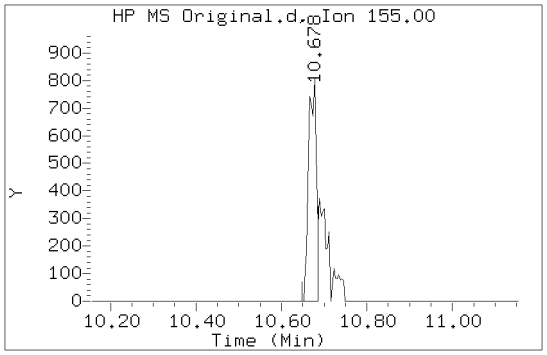

**AFTER**
MASS
134
AREA
5059
HEIGHT
3076
27-Dec-2022
16:07
linh
pham



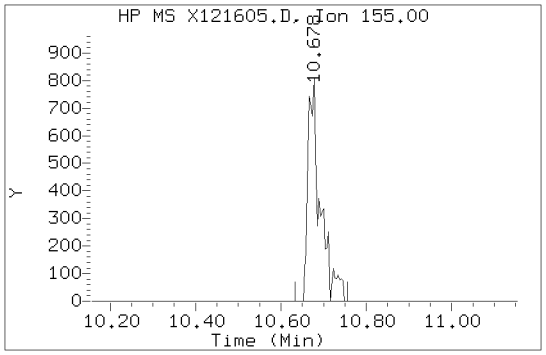

## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

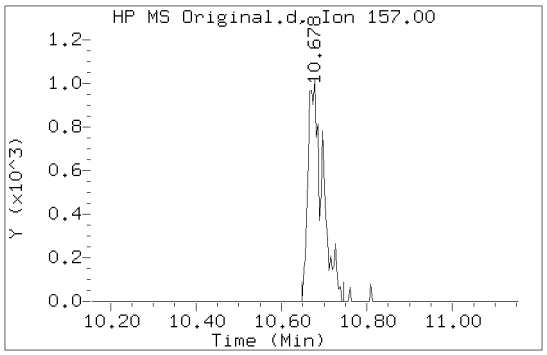
**BEFORE**
MASS
155
AREA
1026
HEIGHT
806
27-Dec-2022
16:03
linh
pham



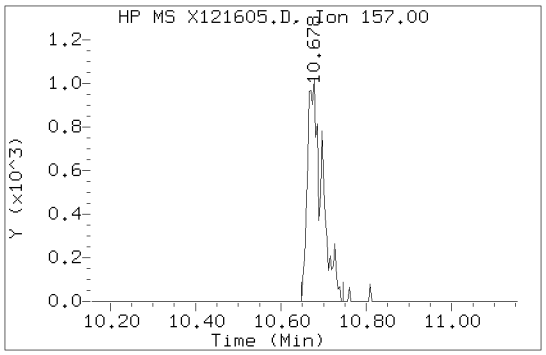

**AFTER**
MASS
155
AREA
1619
HEIGHT
806
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
157
AREA
2422
HEIGHT
1016
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
157
AREA
2422
HEIGHT
1016
27-Dec-2022
16:07
linh
pham



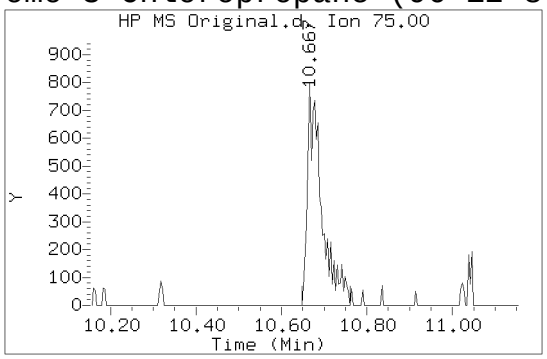
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

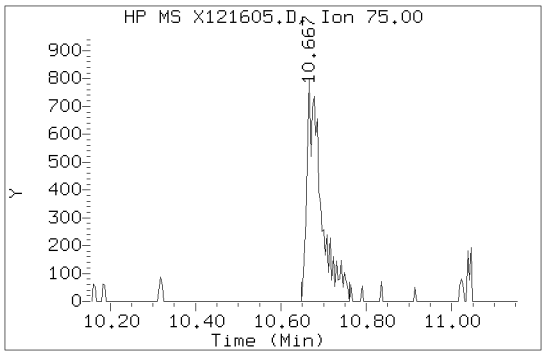
**BEFORE**

MASS
75
AREA
1843
HEIGHT
796
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
1843
HEIGHT
796
27-Dec-2022
16:07
linh
pham

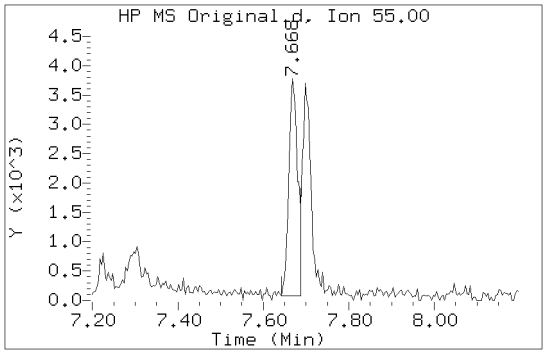



## 1-Chlorohexane (544-10-5)

Reason Code:

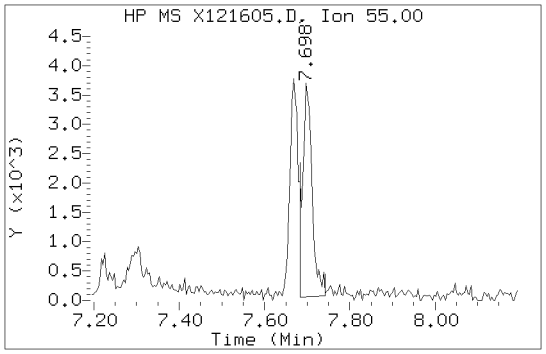
**BEFORE**

MASS
55
AREA
5357
HEIGHT
3703
27-Dec-2022
16:03
linh
pham



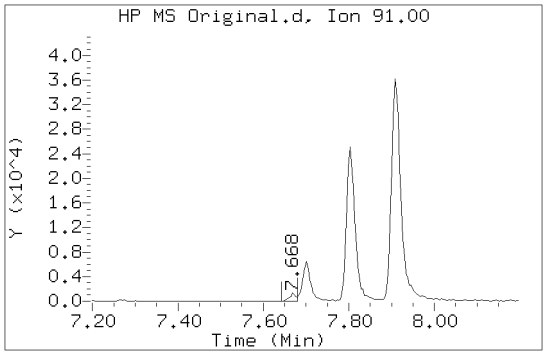

**AFTER**

MASS
55
AREA
5855
HEIGHT
3647
27-Dec-2022
16:07
linh
pham



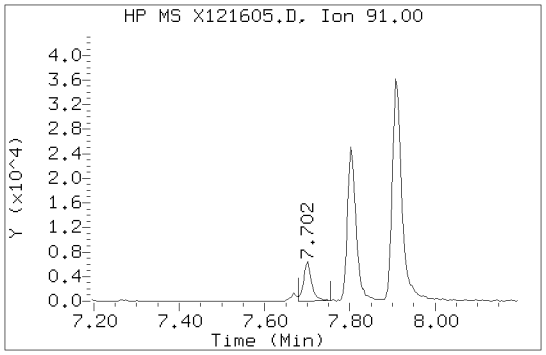

**BEFORE**

MASS
91
AREA
1356
HEIGHT
1324
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
91
AREA
8682
HEIGHT
6440
27-Dec-2022
16:07
linh
pham

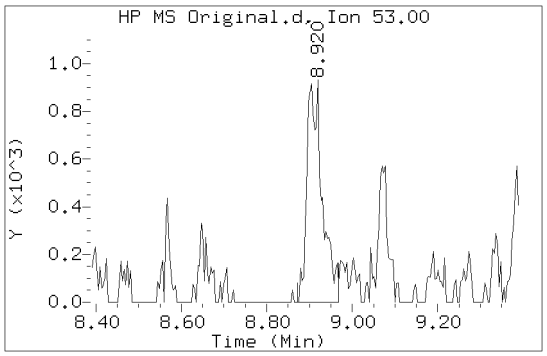



## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

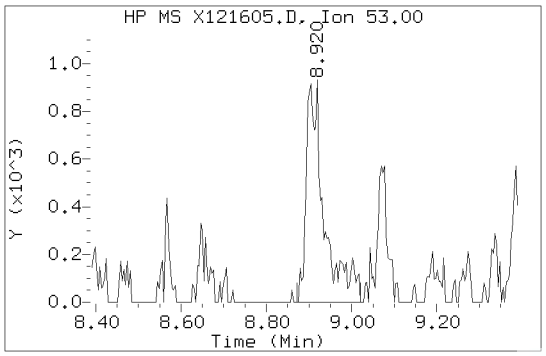
**BEFORE**

MASS
53
AREA
2313
HEIGHT
932
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
53
AREA
2690
HEIGHT
932
27-Dec-2022
16:07
linh
pham



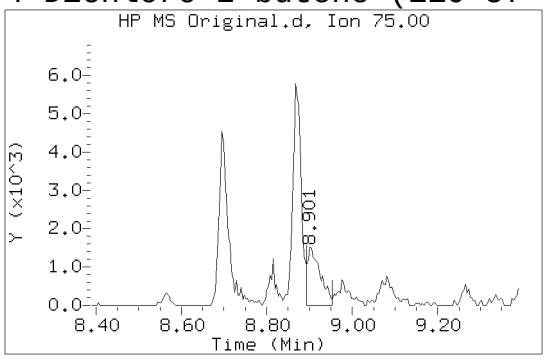
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

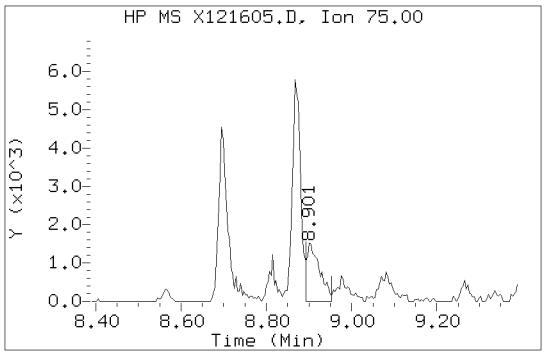
**BEFORE**

MASS
75
AREA
3228
HEIGHT
1526
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
3228
HEIGHT
1526
27-Dec-2022
16:07
linh
pham

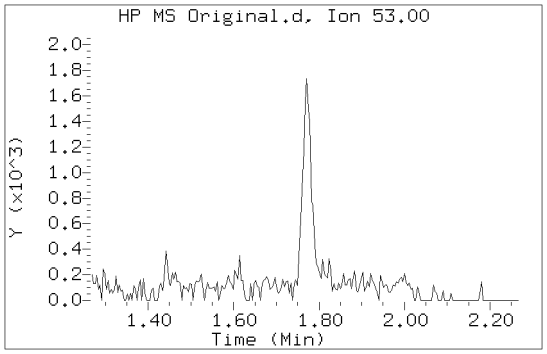



## Chloroprene (126-99-8)

Reason Code:

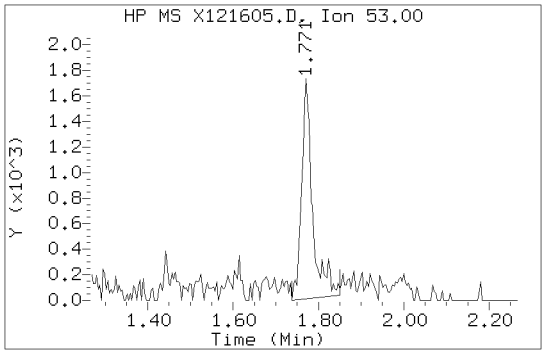
**BEFORE**

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



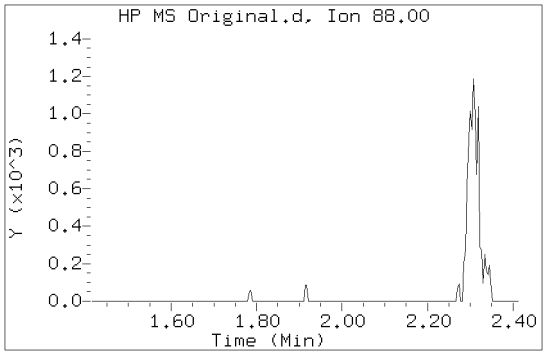

**AFTER**

MASS
53
AREA
3126
HEIGHT
1722
27-Dec-2022
16:07
linh
pham



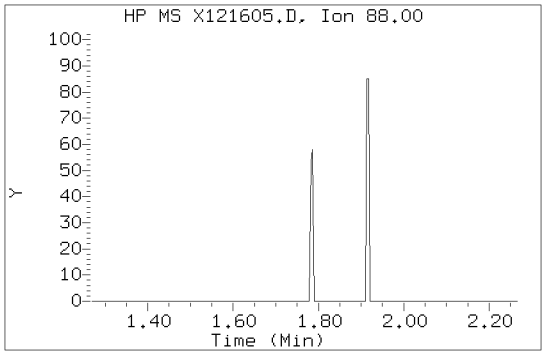

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

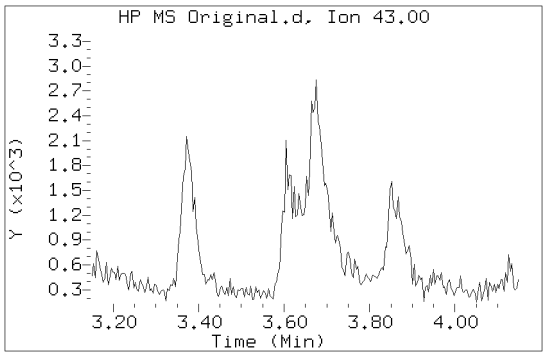



## Ethyl Acetate (141-78-6)

Reason Code:

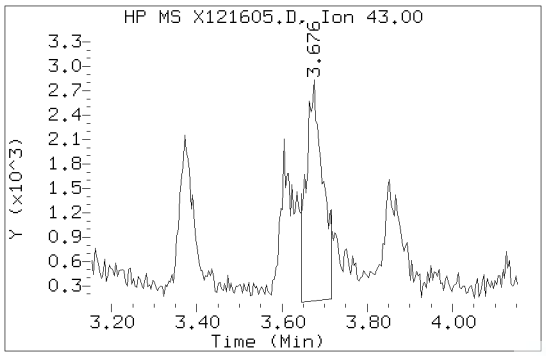
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

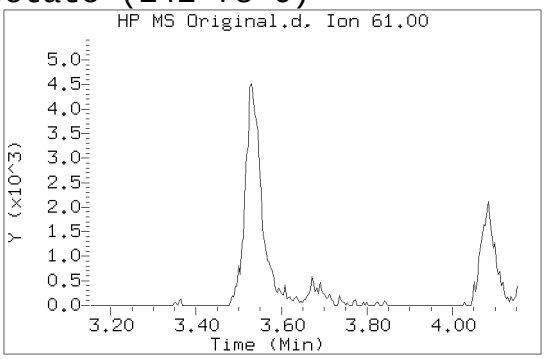
MASS
43
AREA
7422
HEIGHT
2716
27-Dec-2022
16:07
linh
pham



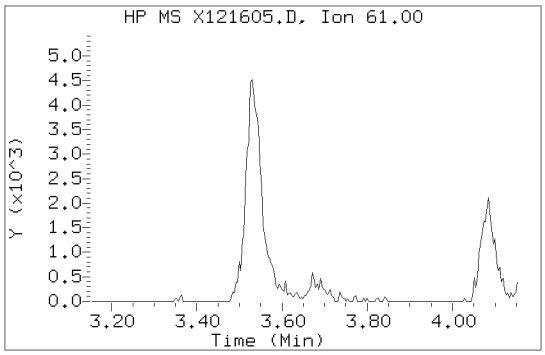
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Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## Ethyl Acetate (141-78-6)

**BEFORE**
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

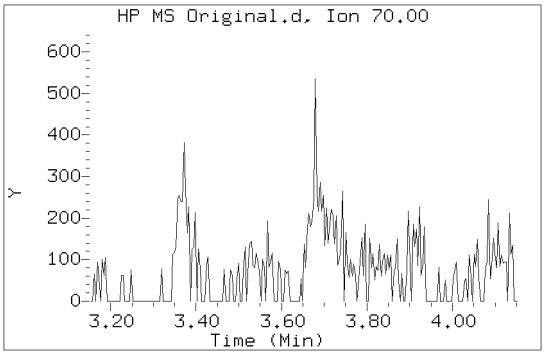



**AFTER**
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

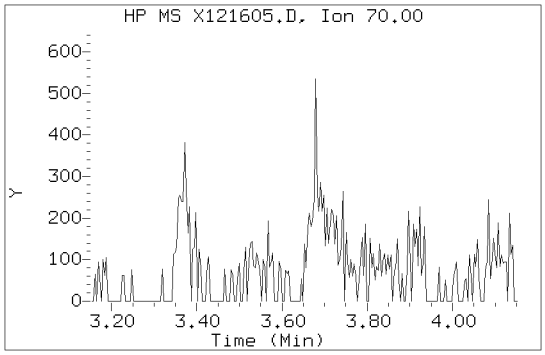



Reason Code:

**BEFORE**
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

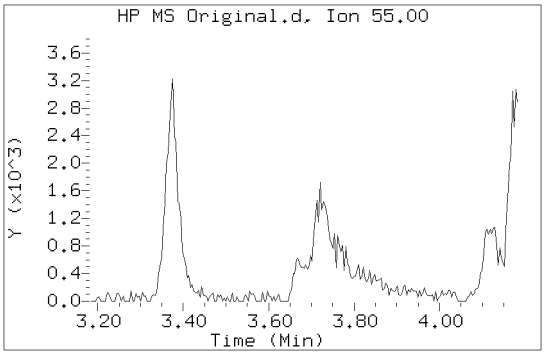



**AFTER**
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

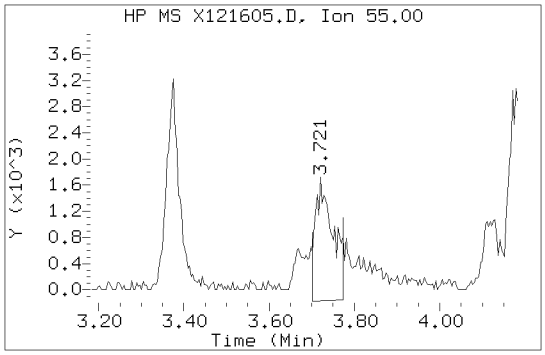



## Methyl Acrylate (96-33-3)

**BEFORE**
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

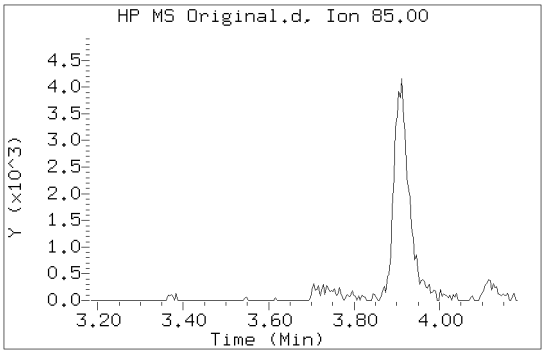



**AFTER**
MASS
55
AREA
5443
HEIGHT
1892
27-Dec-2022
16:07
linh
pham

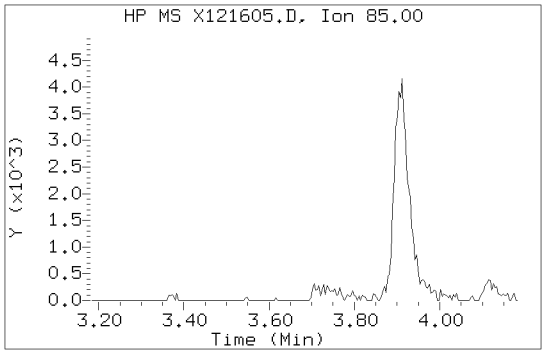



Reason Code:

**BEFORE**
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

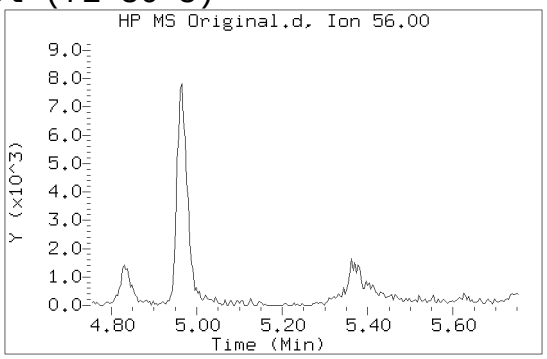


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

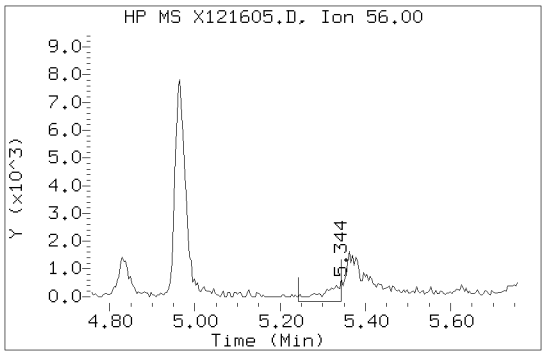
## n-Butanol (71-36-3)

Reason Code:

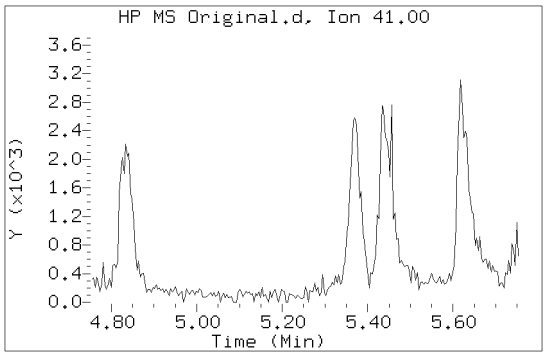
**BEFORE**
MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



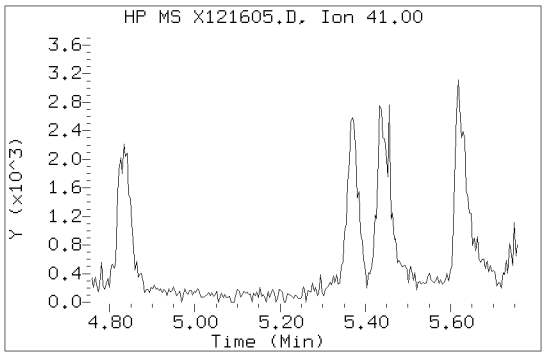

**AFTER**
MASS
56
AREA
2004
HEIGHT
808
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



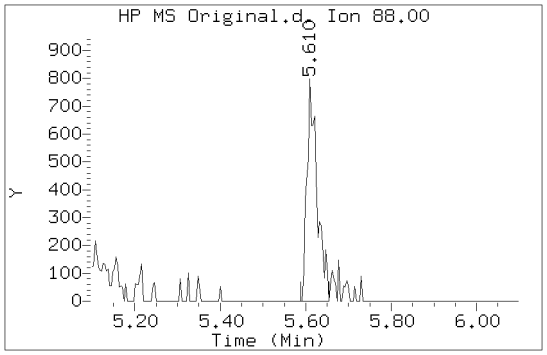

**AFTER**
MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



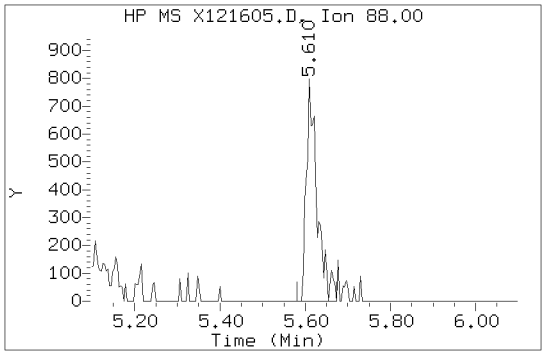

## 1,4-Dioxane ()

Reason Code:

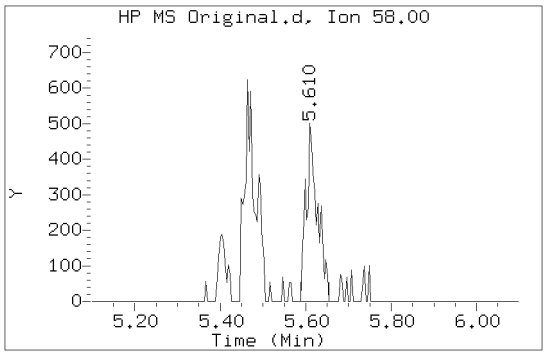
**BEFORE**
MASS
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HEIGHT
798
27-Dec-2022
16:03
linh
pham



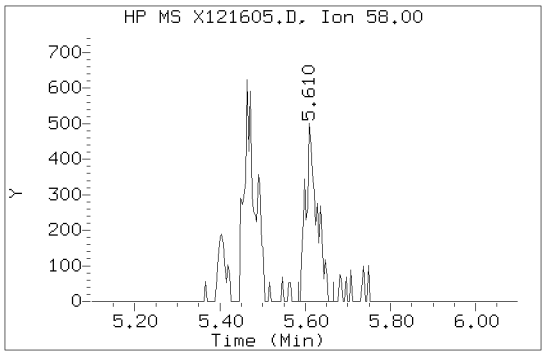

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**BEFORE**
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501
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**AFTER**
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27-Dec-2022
16:07
linh
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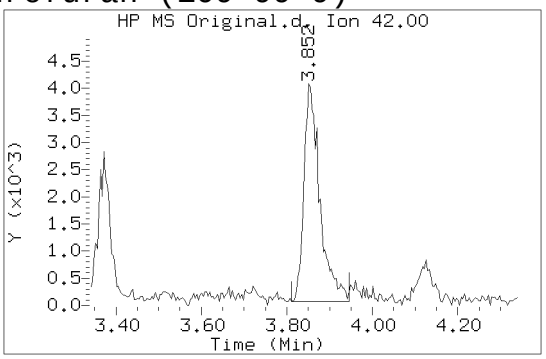
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Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## Tetrahydrofuran (109-99-9)

Reason Code:

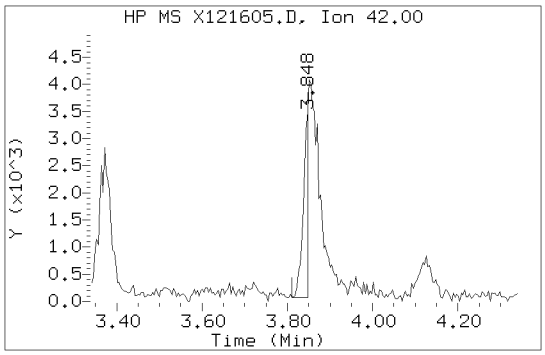
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16:03
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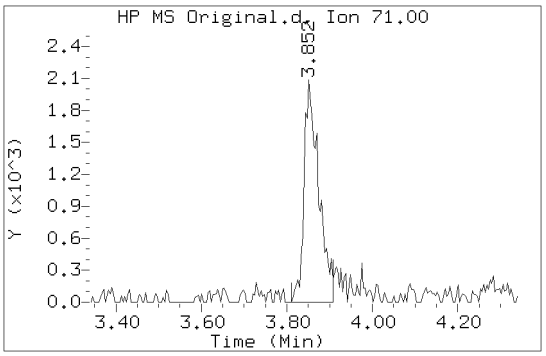

**AFTER**

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3419
27-Dec-2022
16:07
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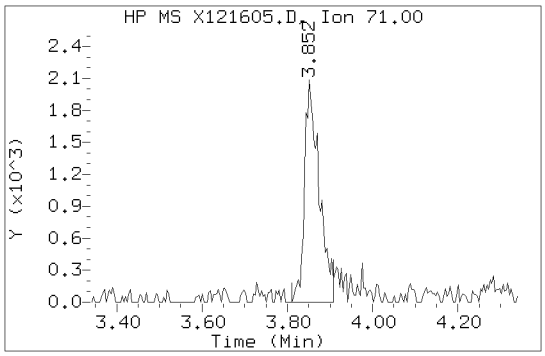

**BEFORE**

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27-Dec-2022
16:03
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pham




**AFTER**

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16:07
linh
pham

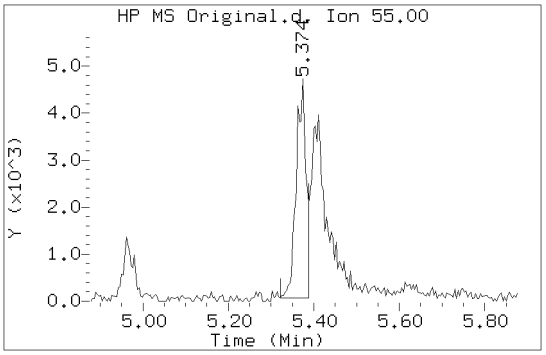



## Methylcyclohexane (108-87-2)

Reason Code:

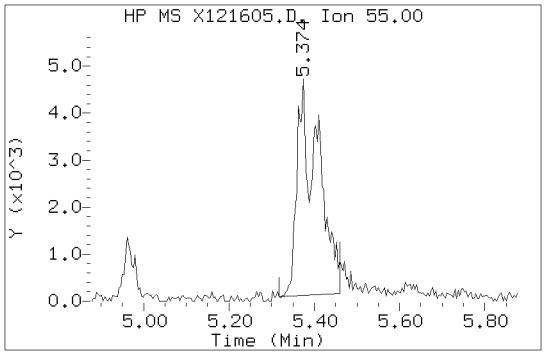
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16:03
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pham



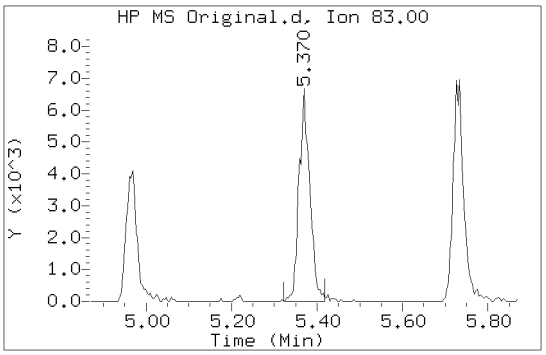

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4611
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16:07
linh
pham



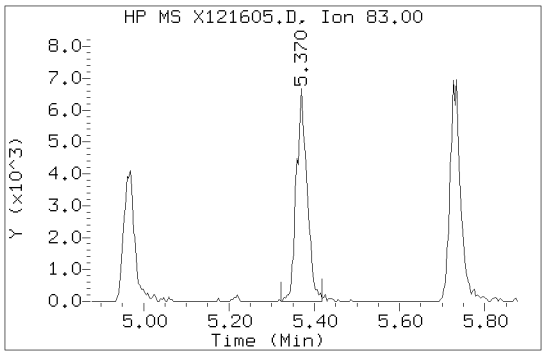

**BEFORE**

MASS
83
AREA
11881
HEIGHT
6672
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
83
AREA
11881
HEIGHT
6672
27-Dec-2022
16:07
linh
pham

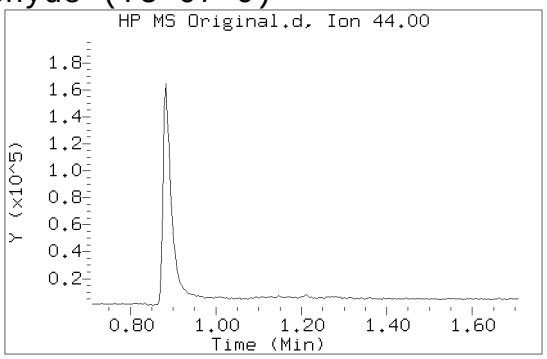


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

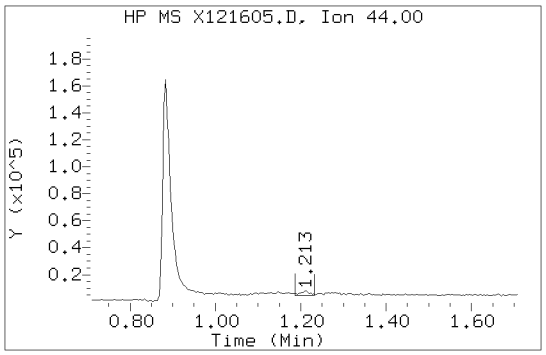
## Acetaldehyde (75-07-0)

Reason Code:

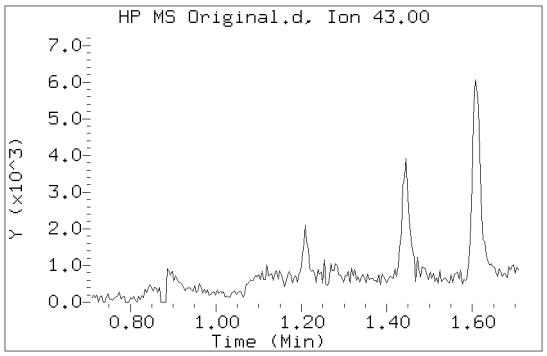
**BEFORE**
MASS
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AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham



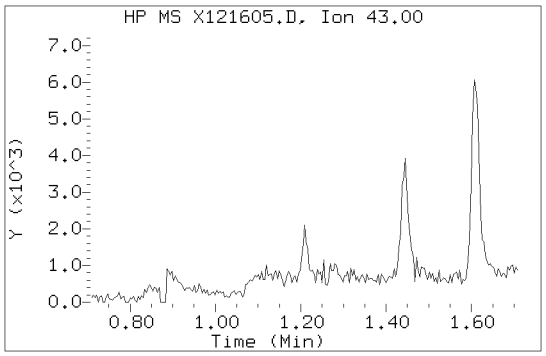

**AFTER**
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AREA
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3463
27-Dec-2022
16:07
linh
pham



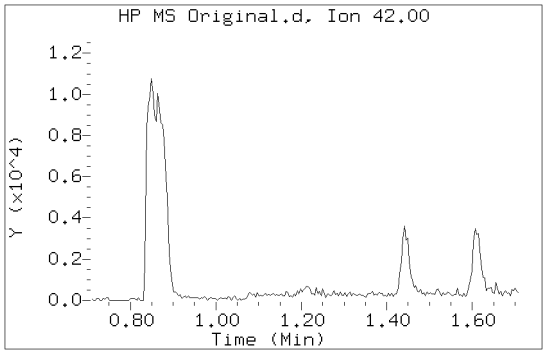

**BEFORE**
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43
AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham



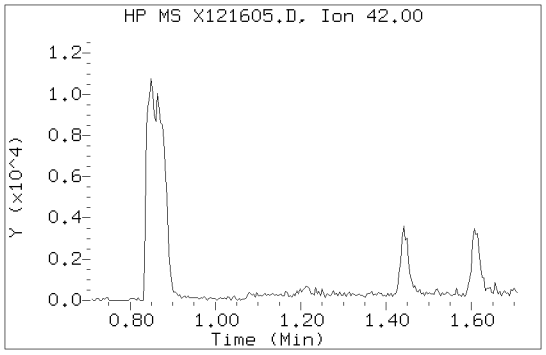

**AFTER**
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AREA
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27-Dec-2022
16:07
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pham




**BEFORE**
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42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
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Inj Date  : 16-DEC-2022 13:23
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD005;VSTD005;1;5;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 13:02  Cal File: X121605.D
Als bottle: 7  Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 450664 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.602 | 5.602 | (1.341) | 4197 | 100.000 | 101.88(M) |
| 140 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 14283 | 5.00000 | 4.61 |
| 25 Methacrylonitrile | 41 | 3.840 | 3.840 | (0.919) | 15701 | 5.00000 | 4.92(M) |
| 12 Isobutyl Alcohol | 43 | 4.680 | 4.680 | (1.120) | 51624 | 100.000 | 101.84 |
| 13 Acetonitrile | 39 | 2.198 | 2.198 | (0.526) | 19635 | 50.0000 | 47.87 |
| 14 Allyl Chloride | 41 | 2.198 | 2.198 | (0.526) | 37993 | 5.00000 | 4.86 |
| 4 Propionitrile | 54 | 3.660 | 3.660 | (0.876) | 23049 | 50.0000 | 50.12 |
| 136 n-Hexane | 57 | 2.772 | 2.772 | (0.664) | 14618 | 5.00000 | 4.50 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.901 | 8.901 | (1.161) | 6648 | 5.00000 | 4.70(M) |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 6161 | 20.0000 | 0.80(M) |
| 23 Chloroprene | 53 | 1.771 | 1.771 | (0.424) | 7154 | 5.00000 | 4.66(M) |
| 145 alpha-Methylstyrene | 118 | 9.261 | 9.261 | (0.958) | 37831 | 5.00000 | 4.79 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 40144 | 5.00000 | 4.53 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 15119 | 5.00000 | 5.02 |
| 130 Ethyl Acetate | 43 | 3.660 | 3.660 | (0.876) | 18020 | 5.00000 | 5.12(M) |
| 40 Methyl Methacrylate | 41 | 5.617 | 5.617 | (1.345) | 15119 | 5.00000 | 4.92 |
| 49 Ethyl Methacrylate | 69 | 6.715 | 6.715 | (1.353) | 13801 | 5.00000 | 4.27 |
| 132 n-Butanol | 56 | 5.287 | 5.287 | (1.266) | 4891 | 100.000 | 125.41(M) |
| 142 Tetrahydrofuran | 42 | 3.848 | 3.848 | (0.921) | 7598 | 10.0000 | 10.82(M) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.772 | 2.772 (0.664) | 14618 | 100.000 | 83.50 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 80329 | 5.00000 | 4.68 |

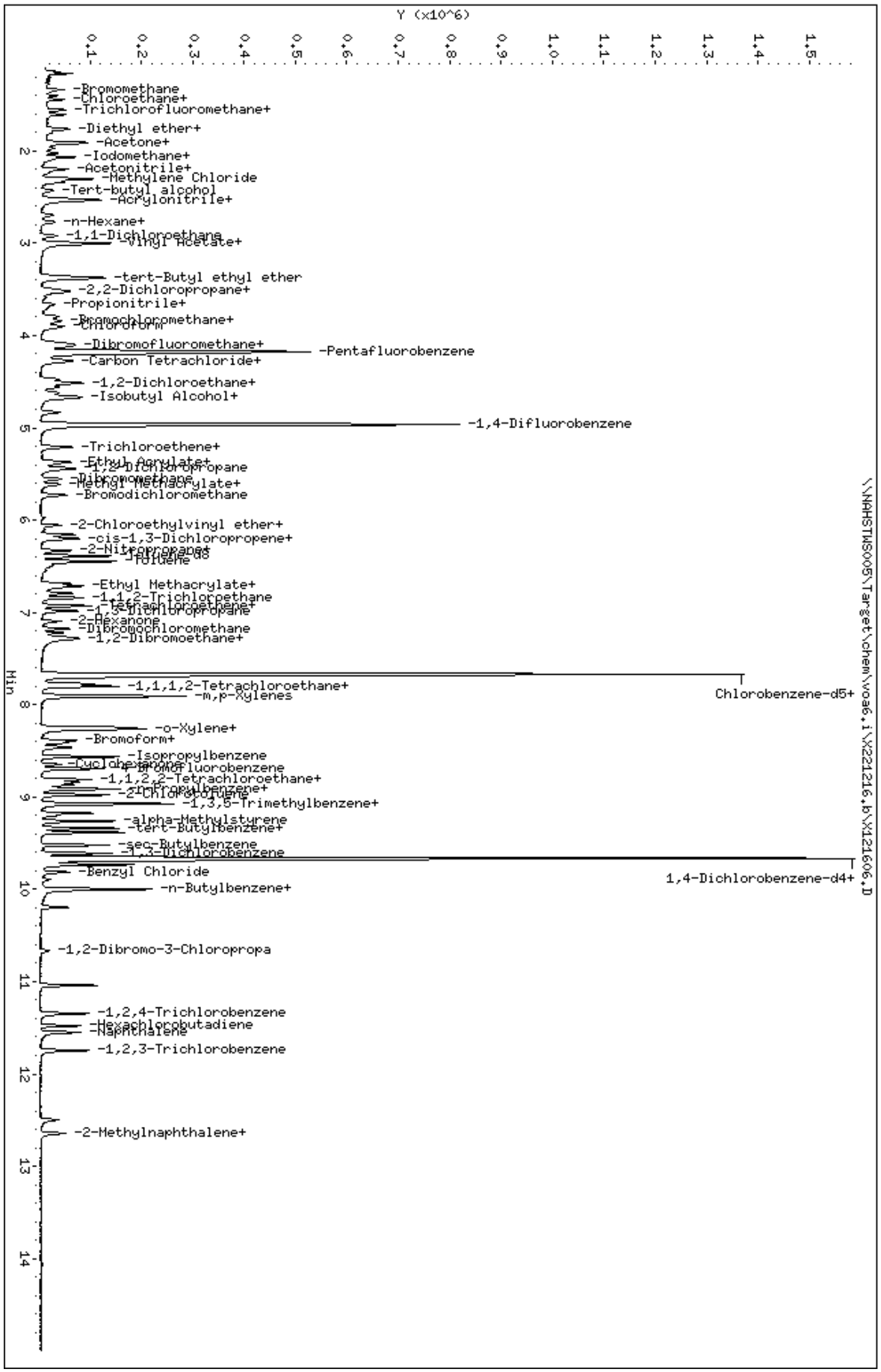
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 131 Methyl Acrylate | 55 | 3.705 | 3.705 | (0.887) | 14950 | 5.00000 | 4.88(M) |
| | 162 Butyl acrylate | 55 | 8.260 | 8.260 | (1.077) | 38320 | 5.00000 | 4.48 |
| | 2 Dichlorodifluoromethane | 85 | 0.972 | 0.972 | (0.233) | 15008 | 5.00000 | 5.11 |
| | 3 Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 19623 | 5.00000 | 6.81 |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 19002 | 5.00000 | 4.82 |
| | 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 15112 | 5.00000 | 6.66 |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 14167 | 5.00000 | 5.17 |
| | 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 26620 | 5.00000 | 4.83 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 2699 | 10.0000 | 11.33 |
| | 10 Acetone | 43 | 1.973 | 1.973 | (0.472) | 17632 | 10.0000 | 13.91 |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 16850 | 5.00000 | 4.92 |
| | 15 Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 26708 | 10.0000 | 9.27 |
| | 16 Acrylonitrile | 53 | 2.551 | 2.551 | (0.611) | 11047 | 10.0000 | 9.52 |
| | 17 Methylene Chloride | 84 | 2.303 | 2.303 | (0.551) | 22932 | 5.00000 | 4.88(M) |
| | 18 Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 56330 | 5.00000 | 5.03 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 85418 | 10.0000 | 9.54 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.532 | 2.532 | (0.606) | 19006 | 5.00000 | 4.96 |
| | 21 Vinyl Acetate | 43 | 3.000 | 3.000 | (0.718) | 101238 | 10.0000 | 10.30 |
| | 22 1,1-Dichloroethane | 63 | 2.922 | 2.922 | (0.699) | 33810 | 5.00000 | 5.03 |
| | 24 2-Butanone | 43 | 3.600 | 3.600 | (0.862) | 11771 | 10.0000 | 11.53(H) |
| | 26 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 27881 | 5.00000 | 4.88 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.533 | 3.533 | (0.846) | 22734 | 5.00000 | 4.88 |
| | 28 Chloroform | 83 | 3.904 | 3.904 | (0.935) | 38156 | 5.00000 | 5.06 |
| | 29 Bromochloromethane | 128 | 3.799 | 3.799 | (0.909) | 13213 | 5.00000 | 5.18 |
| $ | 30 Dibromofluoromethane | 113 | 4.103 | 4.103 | (0.982) | 24255 | 5.00000 | 5.45 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 29017 | 5.00000 | 4.85 |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 23845 | 5.00000 | 4.90(M) |
| | 33 1,2-Dichloroethane | 62 | 4.556 | 4.556 | (0.918) | 28173 | 5.00000 | 5.01 |
| | 34 Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 24171 | 5.00000 | 4.65 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.477 | 4.477 | (1.072) | 24938 | 5.00000 | 5.70(M) |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 685413 | 50.0000 | |
| | 37 Benzene | 78 | 4.511 | 4.511 | (0.909) | 81981 | 5.00000 | 5.00 |
| | 38 Trichloroethene | 130 | 5.208 | 5.208 | (1.049) | 22693 | 5.00000 | 4.88 |
| | 39 Bromodichloromethane | 83 | 5.729 | 5.729 | (1.154) | 29358 | 5.00000 | 4.77 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.056 | 6.056 | (1.220) | 17700 | 10.0000 | 10.12 |
| | 42 1,2-Dichloropropane | 63 | 5.437 | 5.437 | (1.095) | 21679 | 5.00000 | 4.97 |
| | 44 Dibromomethane | 93 | 5.557 | 5.557 | (1.119) | 14449 | 5.00000 | 4.88 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.329 | 6.329 | (0.825) | 34912 | 10.0000 | 9.98 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.161 | 6.161 | (1.241) | 35507 | 5.00000 | 4.92 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 654176 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.389 | 6.389 | (0.833) | 81640 | 5.00000 | 5.05 |
| | 50 Toluene | 91 | 6.449 | 6.449 | (0.841) | 89594 | 5.00000 | 4.95 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.689 | 6.689 | (1.347) | 28399 | 5.00000 | 4.74(M) |
| | 52 2-Hexanone | 43 | 7.094 | 7.094 | (0.925) | 24056 | 10.0000 | 10.11 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 18638 | 5.00000 | 5.13 |
| | 54 1,3-Dichloropropane | 76 | 6.985 | 6.985 | (0.911) | 35759 | 5.00000 | 5.00 |
| | 55 Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 25357 | 5.00000 | 4.84 |
| | 56 Tetrachloroethene | 164 | 6.929 | 6.929 | (0.904) | 17219 | 5.00000 | 4.60 |
| | 57 1,2-Dibromoethane | 107 | 7.263 | 7.263 | (0.947) | 23172 | 5.00000 | 5.10 |
| | 58 1-Chlorohexane | 55 | 7.698 | 7.698 | (1.550) | 15210 | 5.00000 | 4.59(MH) |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 62744 | 5.00000 | 4.89 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.776 | 7.776 | (1.014) | 22632 | 5.00000 | 4.74 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.802 | 7.802 (1.018) | 29550 | 5.00000 | 4.89 |
| 62 m,p-Xylenes | 106 | 7.907 | 7.907 (1.031) | 73283 | 10.0000 | 9.40 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 63 | o-Xylene | 106 | 8.245 | 8.245 | (1.075) | 37189 | 5.00000 | 4.83 |
| 64 | Styrene | 104 | 8.267 | 8.267 | (1.078) | 62411 | 5.00000 | 4.84 |
| 66 | Bromoform | 173 | 8.414 | 8.414 | (1.097) | 16801 | 5.00000 | 4.63 |
| 67 | Isopropylbenzene | 105 | 8.563 | 8.563 | (1.117) | 85440 | 5.00000 | 4.86 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.841 | 8.841 | (0.915) | 29807 | 5.00000 | 5.24 |
| $ 69 | 4-Bromofluorobenzene | 95 | 8.695 | 8.695 | (1.134) | 32501 | 5.00000 | 5.43 |
| * 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 356340 | 50.0000 | |
| 71 | 1,2,3-Trichloropropane | 75 | 8.867 | 8.867 | (0.918) | 20685 | 5.00000 | 5.21(M) |
| 73 | n-Propylbenzene | 91 | 8.916 | 8.916 | (0.923) | 97603 | 5.00000 | 4.94 |
| 74 | Bromobenzene | 156 | 8.811 | 8.811 | (0.912) | 28887 | 5.00000 | 4.94 |
| 75 | 1,3,5-Trimethylbenzene | 105 | 9.070 | 9.070 | (0.939) | 72501 | 5.00000 | 4.97 |
| 76 | 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 65973 | 5.00000 | 5.09 |
| 77 | 4-Chlorotoluene | 91 | 9.077 | 9.077 | (0.939) | 75073 | 5.00000 | 5.08 |
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 59375 | 5.00000 | 4.97 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 75723 | 5.00000 | 4.93 |
| 81 | sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 77577 | 5.00000 | 4.88 |
| 82 | p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 69666 | 5.00000 | 4.89 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.609 | 9.609 | (0.995) | 49954 | 5.00000 | 5.14 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 52655 | 5.00000 | 4.97 |
| 86 | Benzyl Chloride | 91 | 9.816 | 9.816 | (1.280) | 35254 | 5.00000 | 5.95 |
| 87 | n-Butylbenzene | 91 | 9.999 | 9.999 | (1.035) | 54831 | 5.00000 | 5.63 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.995 | 9.995 | (1.035) | 50895 | 5.00000 | 5.09 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.670 | 10.670 | (1.104) | 4911 | 5.00000 | 5.49 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.345 | 11.345 | (1.174) | 31873 | 5.00000 | 5.05 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 13454 | 5.00000 | 4.81 |
| 92 | Naphthalene | 128 | 11.551 | 11.551 | (1.196) | 72748 | 5.00000 | 5.06 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.746 | 11.746 | (1.216) | 30274 | 5.00000 | 5.01 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 41740 | 10.0000 | |
| M 95 | Xylenes (total) | 106 | | | | 110472 | 15.0000 | |
| 141 | Cyclohexane | 56 | 4.118 | 4.118 | (0.986) | 19859 | 5.00000 | 5.52(H) |
| 138 | Freon TF | 101 | 1.913 | 1.913 | (0.458) | 14845 | 5.00000 | 4.48 |
| 147 | Methylcyclohexane | 55 | 5.388 | 5.388 | (1.085) | 38650 | 5.00000 | 4.60(M) |
| 146 | Methyl Acetate | 43 | 2.236 | 2.236 | (0.535) | 8968 | 5.00000 | 4.42 |
| 148 | Tert-Butyl alcohol | 59 | 2.431 | 2.431 | (0.582) | 30525 | 100.000 | 97.81 |
| 149 | Isopropyl Alcohol | 45 | 2.097 | 2.097 | (0.502) | 16518 | 100.000 | 101.35(T) |

## QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121606.D
Date : 16-DEC-2022 13:23
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;
Purge Volume: 5.0
Column phase: DB624

\\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121606.D

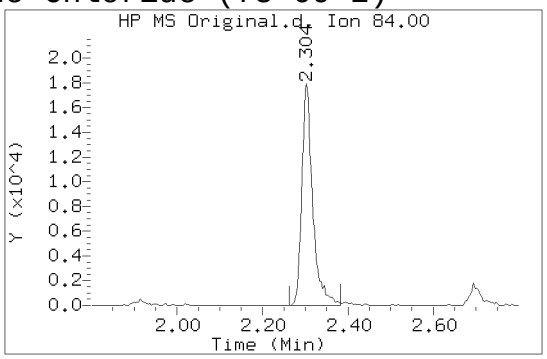
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

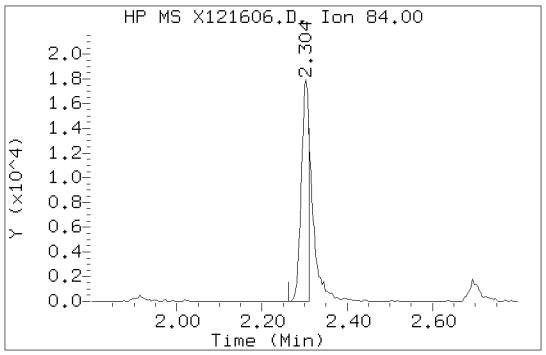
## Methylene Chloride (75-09-2)

Reason Code:

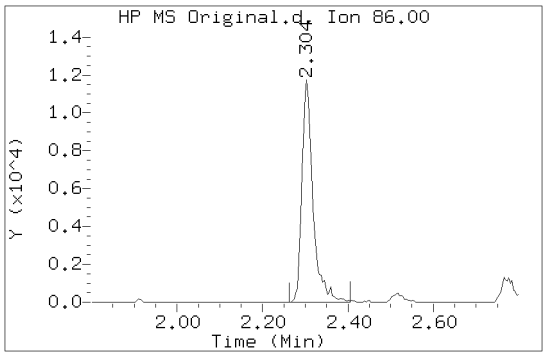
BEFORE
MASS
84
AREA
32325
HEIGHT
17936
27-Dec-2022
16:03
linh
pham



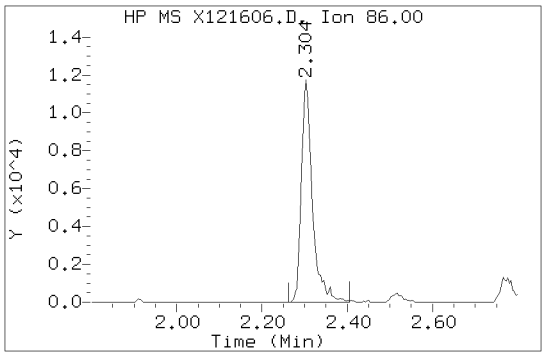

AFTER
MASS
84
AREA
22932
HEIGHT
17936
27-Dec-2022
16:07
linh
pham



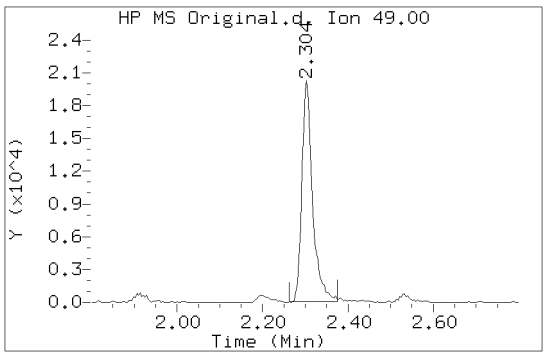

BEFORE
MASS
86
AREA
21691
HEIGHT
11740
27-Dec-2022
16:03
linh
pham



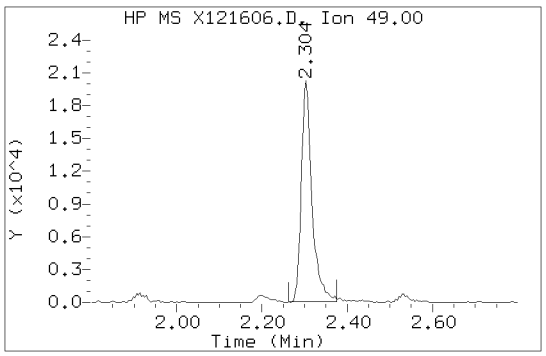

AFTER
MASS
86
AREA
21691
HEIGHT
11740
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
49
AREA
35909
HEIGHT
20222
27-Dec-2022
16:03
linh
pham



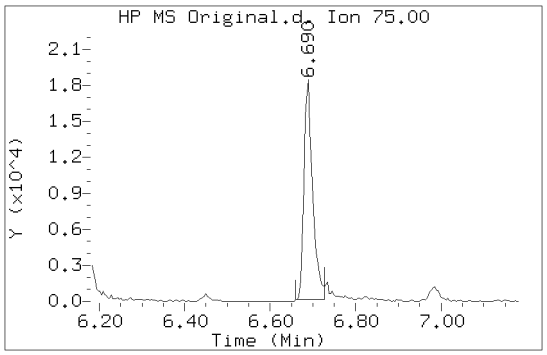

AFTER
MASS
49
AREA
35909
HEIGHT
20222
27-Dec-2022
16:07
linh
pham



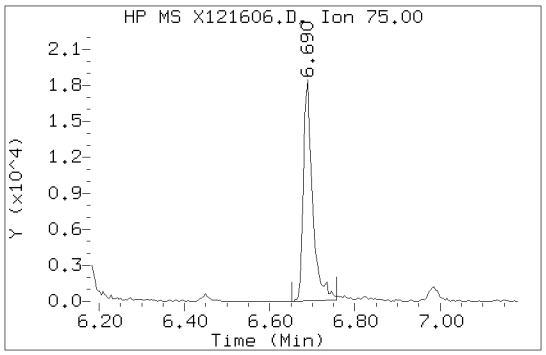

## trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

BEFORE
MASS
75
AREA
26483
HEIGHT
18306
27-Dec-2022
16:03
linh
pham




AFTER
MASS
75
AREA
28399
HEIGHT
18443
27-Dec-2022
16:07
linh
pham



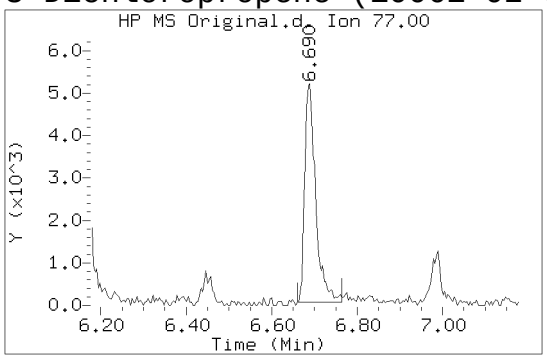
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

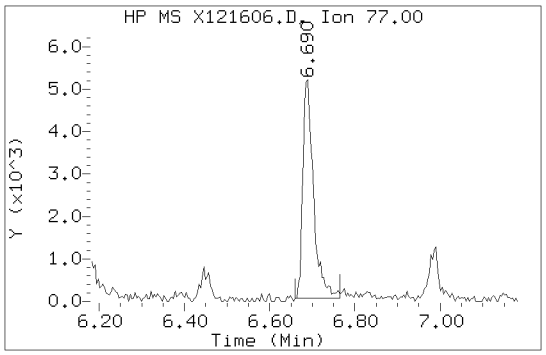
BEFORE

MASS
77
AREA
9244
HEIGHT
5154
27-Dec-2022
16:03
linh
pham



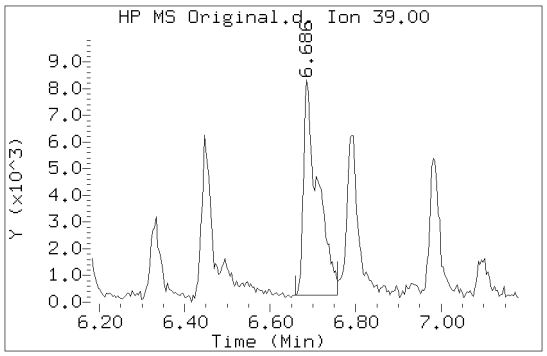

AFTER

MASS
77
AREA
9244
HEIGHT
5154
27-Dec-2022
16:07
linh
pham



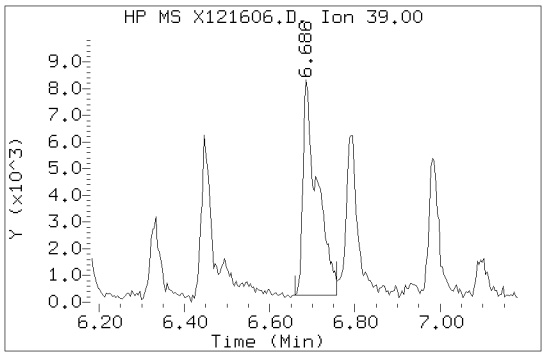

BEFORE

MASS
39
AREA
19092
HEIGHT
8065
27-Dec-2022
16:03
linh
pham




AFTER

MASS
39
AREA
19092
HEIGHT
8065
27-Dec-2022
16:07
linh
pham

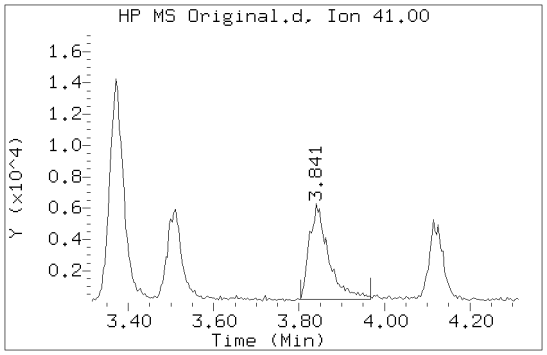



## Methacrylonitrile (126-98-7)

Reason Code:

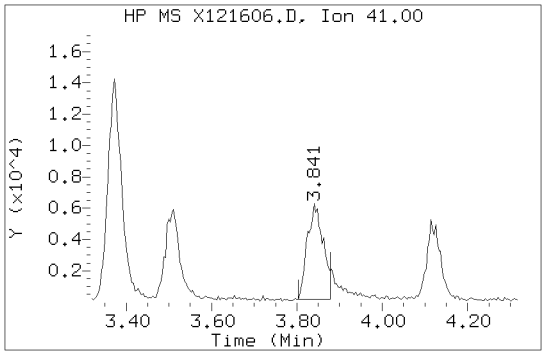
BEFORE

MASS
41
AREA
18790
HEIGHT
6109
27-Dec-2022
16:03
linh
pham



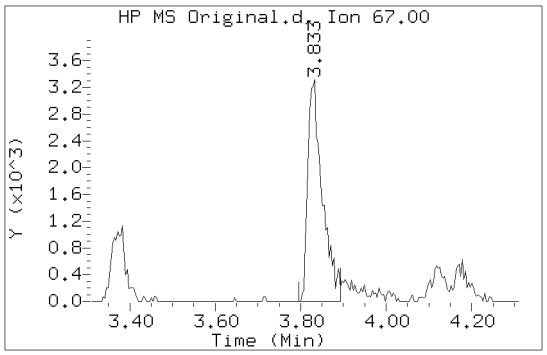

AFTER

MASS
41
AREA
15701
HEIGHT
6109
27-Dec-2022
16:07
linh
pham



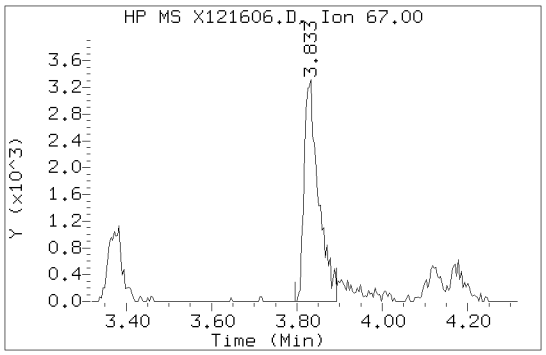

BEFORE

MASS
67
AREA
7866
HEIGHT
3315
27-Dec-2022
16:03
linh
pham




AFTER

MASS
67
AREA
7866
HEIGHT
3315
27-Dec-2022
16:07
linh
pham



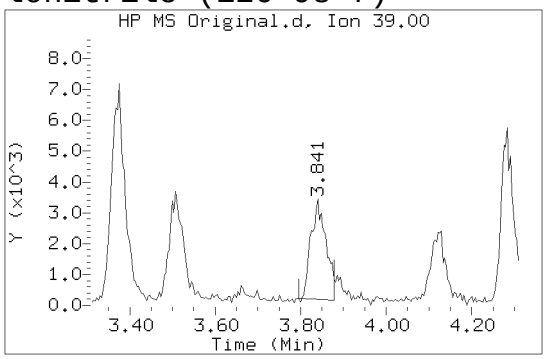
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Methacrylonitrile (126-98-7)

Reason Code:

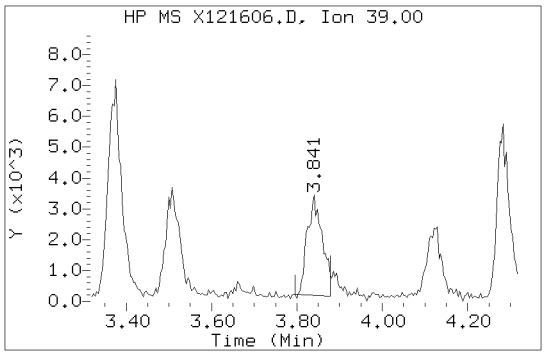
**BEFORE**

MASS
39
AREA
7951
HEIGHT
3252
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
39
AREA
7951
HEIGHT
3252
27-Dec-2022
16:07
linh
pham

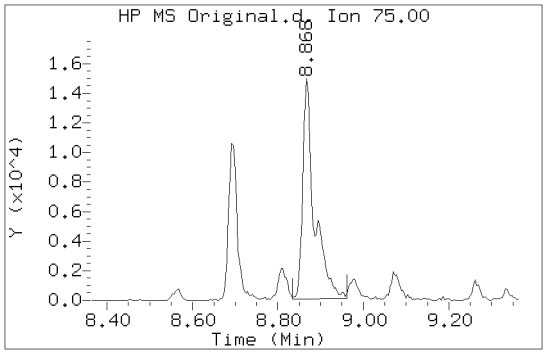



## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

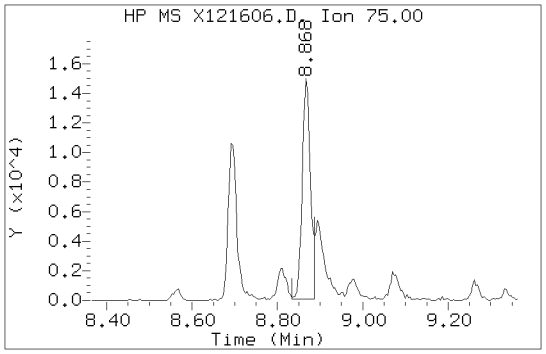
**BEFORE**

MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:03
linh
pham



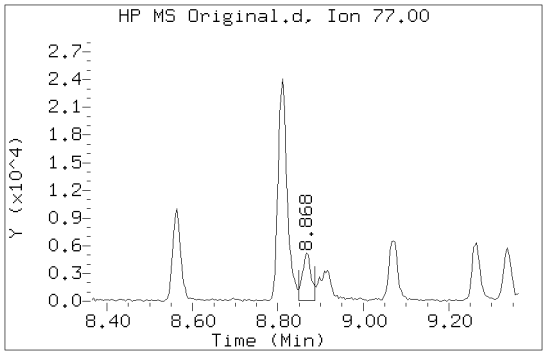

**AFTER**

MASS
75
AREA
20685
HEIGHT
14911
27-Dec-2022
16:07
linh
pham



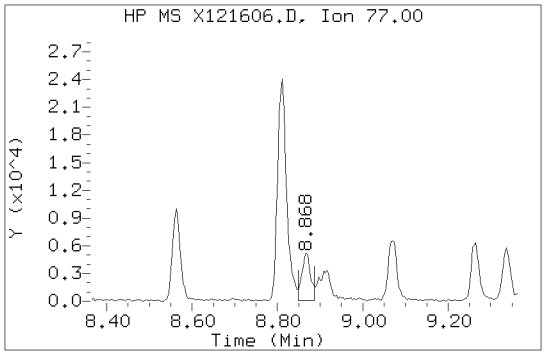

**BEFORE**

MASS
77
AREA
7524
HEIGHT
5143
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
77
AREA
7524
HEIGHT
5143
27-Dec-2022
16:07
linh
pham

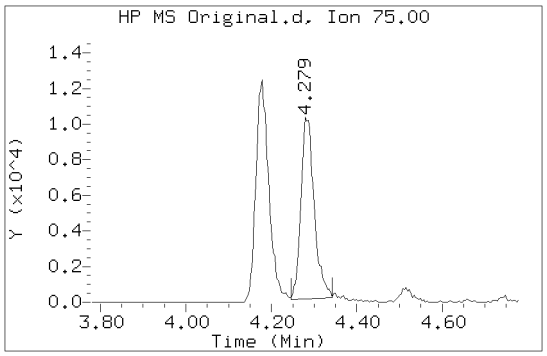



## 1,1-Dichloropropene (563-58-6)

Reason Code:

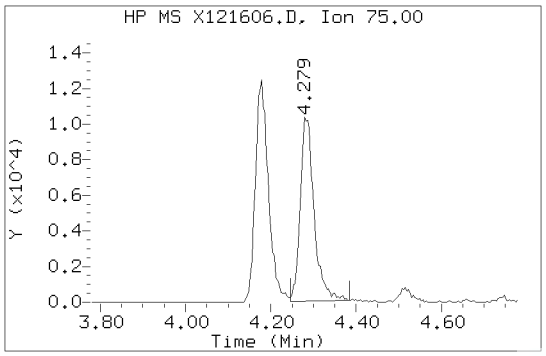
**BEFORE**

MASS
75
AREA
22411
HEIGHT
10201
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
23845
HEIGHT
10354
27-Dec-2022
16:07
linh
pham



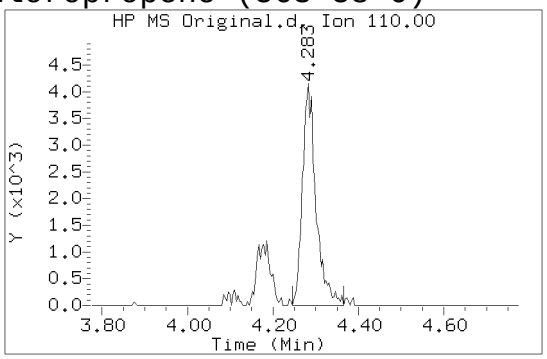
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## 1,1-Dichloropropene (563-58-6)

Reason Code:

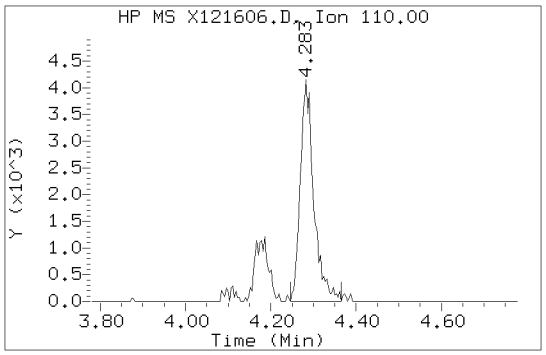
**BEFORE**

MASS
110
AREA
9244
HEIGHT
4151
27-Dec-2022
16:03
linh
pham



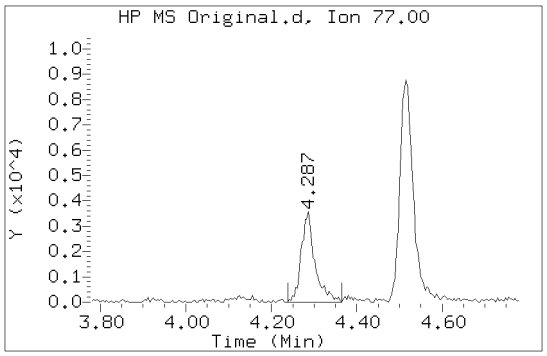

**AFTER**

MASS
110
AREA
9244
HEIGHT
4151
27-Dec-2022
16:07
linh
pham



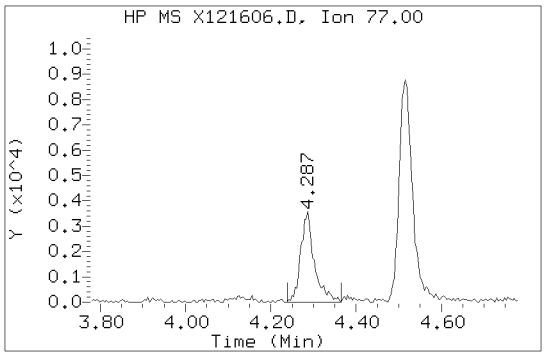

**BEFORE**

MASS
77
AREA
8083
HEIGHT
3567
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
77
AREA
8083
HEIGHT
3567
27-Dec-2022
16:07
linh
pham

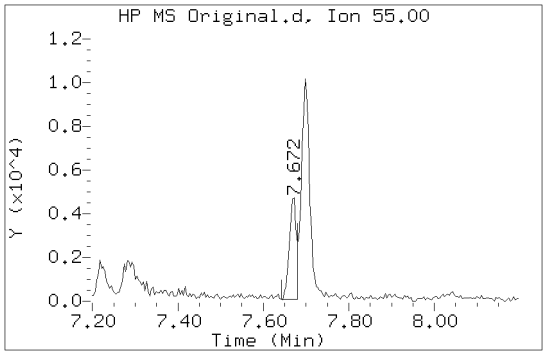



## 1-Chlorohexane (544-10-5)

Reason Code:

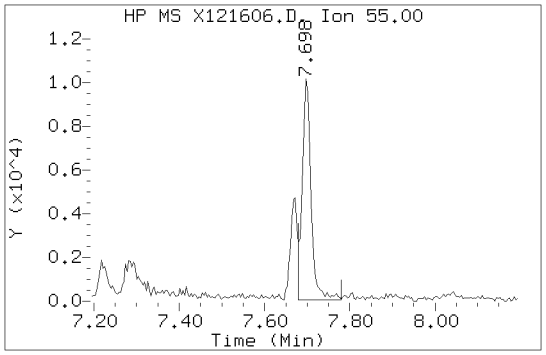
**BEFORE**

MASS
55
AREA
5371
HEIGHT
4660
27-Dec-2022
16:03
linh
pham



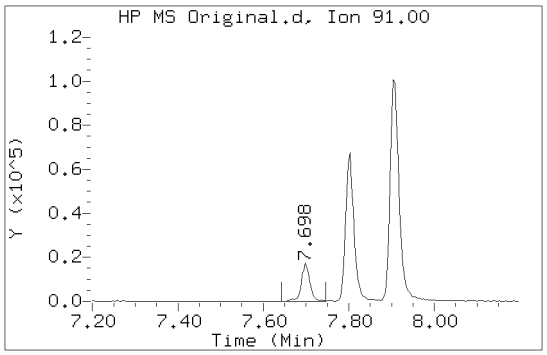

**AFTER**

MASS
55
AREA
15210
HEIGHT
10126
27-Dec-2022
16:07
linh
pham



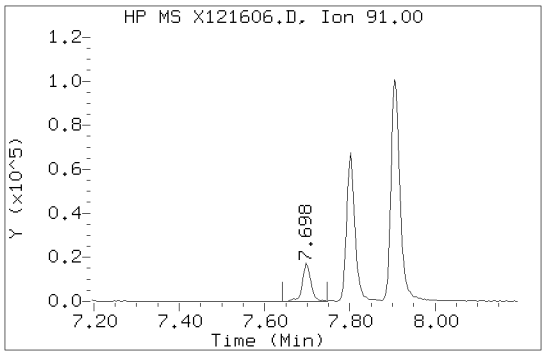

**BEFORE**

MASS
91
AREA
24578
HEIGHT
17336
27-Dec-2022
16:03
linh
pham




**AFTER**

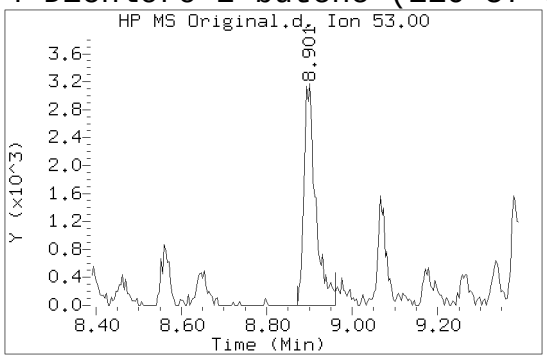
MASS
91
AREA
24578
HEIGHT
17336
27-Dec-2022
16:07
linh
pham



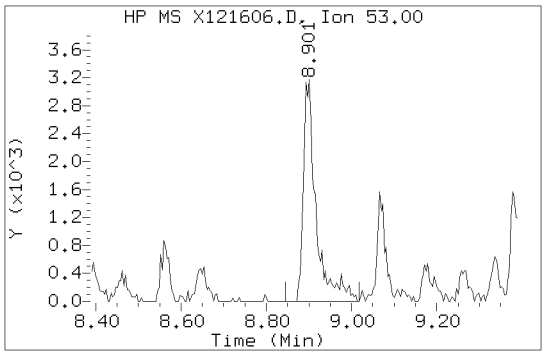
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## trans-1,4-Dichloro-2-butene (110-57-6)

**BEFORE**
MASS
53
AREA
6122
HEIGHT
3172
27-Dec-2022
16:03
linh
pham

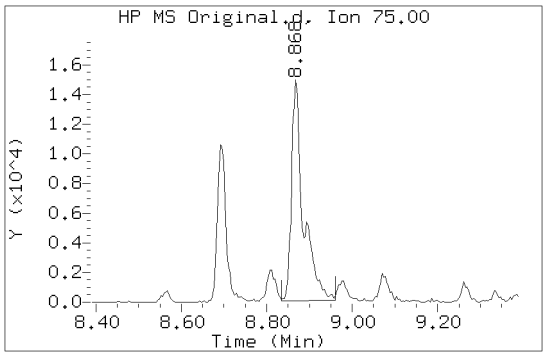



**AFTER**
MASS
53
AREA
6648
HEIGHT
3172
27-Dec-2022
16:07
linh
pham

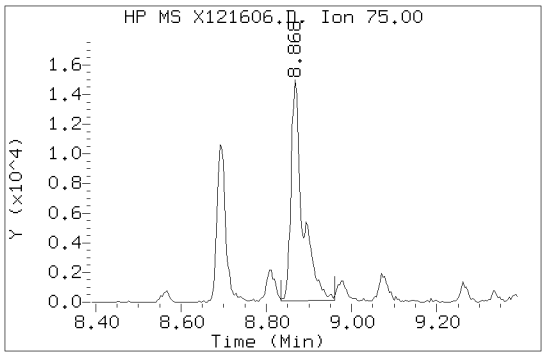



Reason Code:

**BEFORE**
MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:03
linh
pham



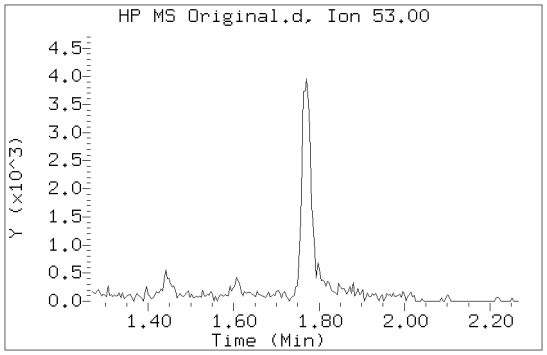

**AFTER**
MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:07
linh
pham



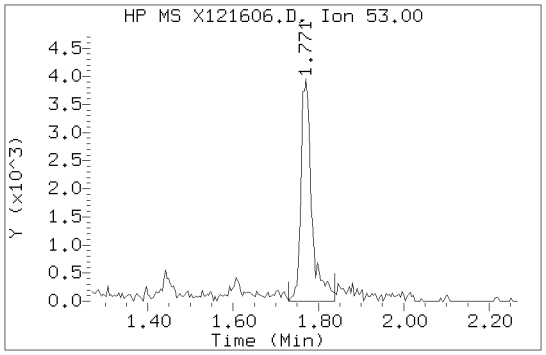

Reason Code:

## Chloroprene (126-99-8)

**BEFORE**
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

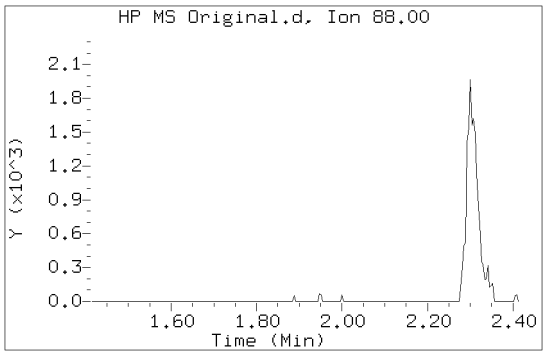



**AFTER**
MASS
53
AREA
7154
HEIGHT
3955
27-Dec-2022
16:07
linh
pham

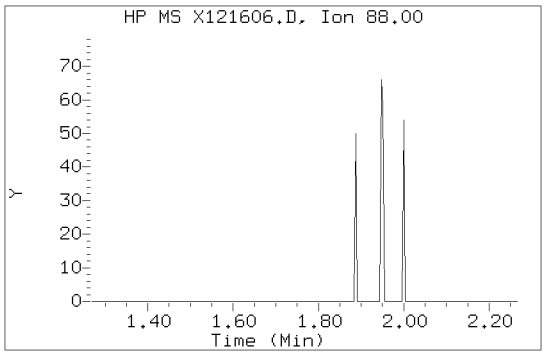



Reason Code:

**BEFORE**
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



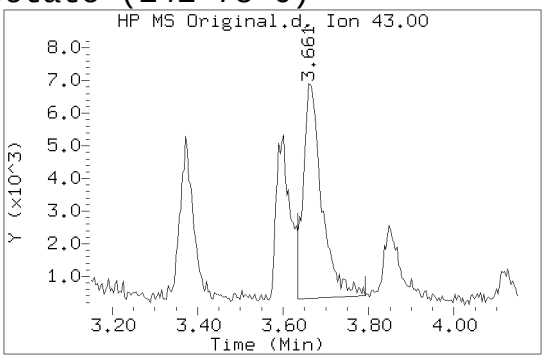
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Ethyl Acetate (141-78-6)

Reason Code:

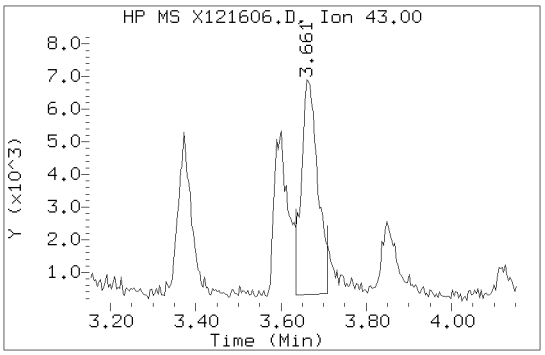
**BEFORE**

MASS
43
AREA
20113
HEIGHT
6576
27-Dec-2022
16:03
linh
pham



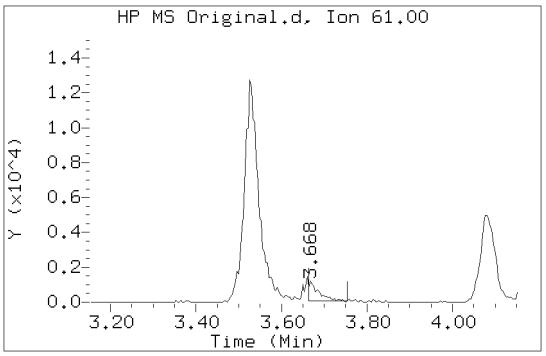

**AFTER**

MASS
43
AREA
18020
HEIGHT
6576
27-Dec-2022
16:07
linh
pham



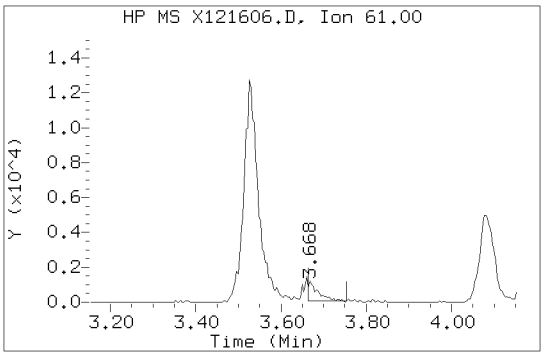

**BEFORE**

MASS
61
AREA
1766
HEIGHT
1155
27-Dec-2022
16:03
linh
pham



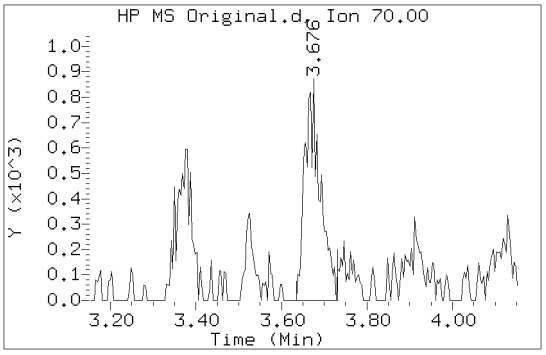

**AFTER**

MASS
61
AREA
1766
HEIGHT
1155
27-Dec-2022
16:07
linh
pham



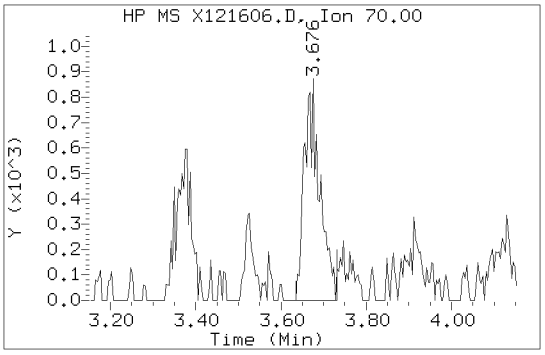

**BEFORE**

MASS
70
AREA
2205
HEIGHT
873
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
70
AREA
2205
HEIGHT
873
27-Dec-2022
16:07
linh
pham

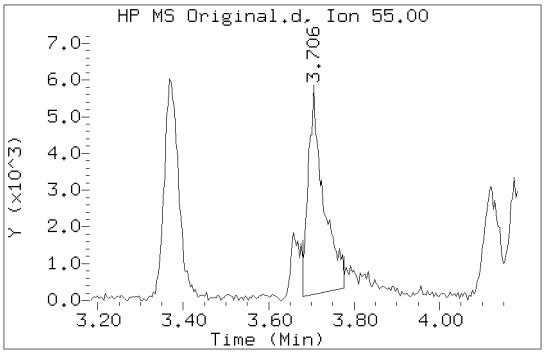



## Methyl Acrylate (96-33-3)

Reason Code:

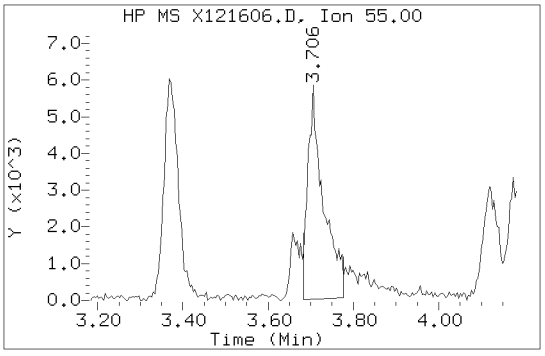
**BEFORE**

MASS
55
AREA
14157
HEIGHT
5696
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
55
AREA
14950
HEIGHT
5831
27-Dec-2022
16:07
linh
pham



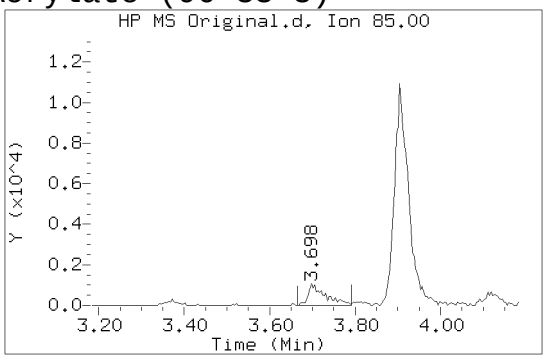
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Methyl Acrylate (96-33-3)

Reason Code:

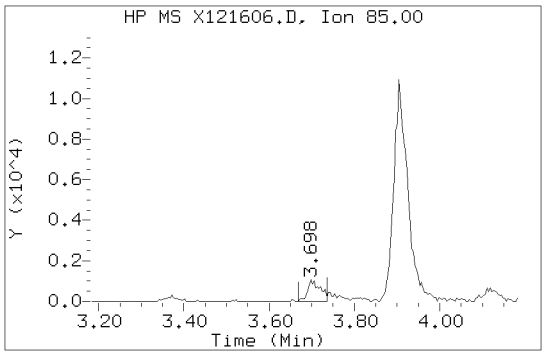
**BEFORE**

MASS
85
AREA
2934
HEIGHT
1073
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
2159
HEIGHT
1073
27-Dec-2022
16:07
linh
pham

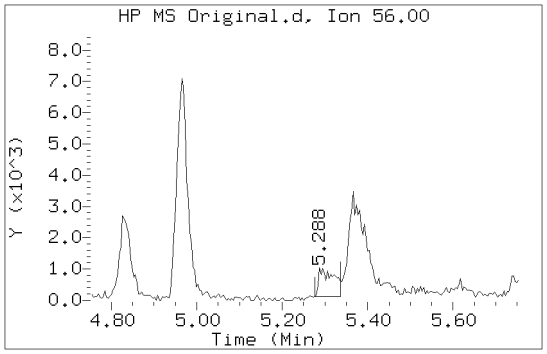



## n-Butanol (71-36-3)

Reason Code:

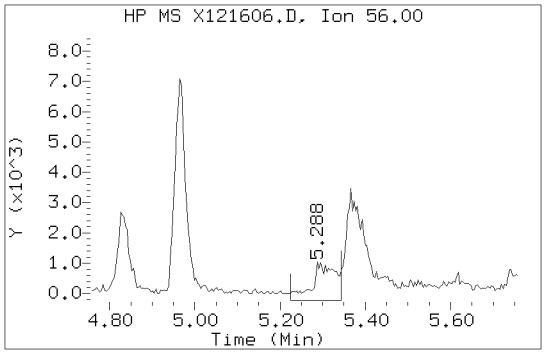
**BEFORE**

MASS
56
AREA
2243
HEIGHT
922
27-Dec-2022
16:03
linh
pham



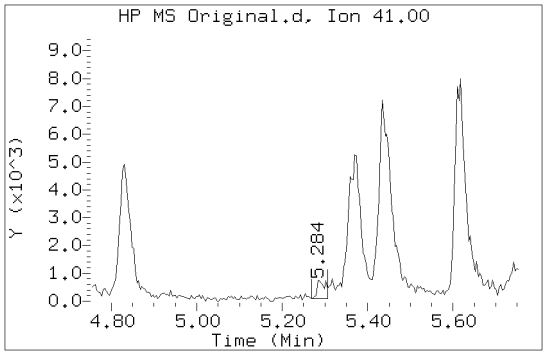

**AFTER**

MASS
56
AREA
4891
HEIGHT
1266
27-Dec-2022
16:07
linh
pham



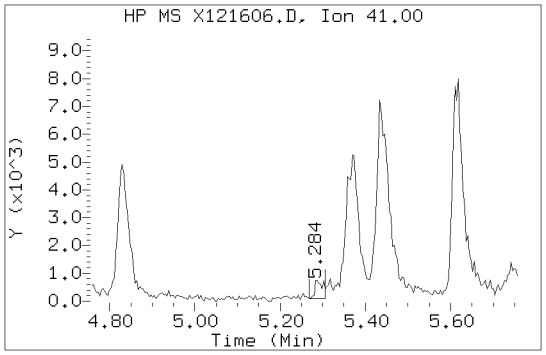

**BEFORE**

MASS
41
AREA
876
HEIGHT
641
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
876
HEIGHT
641
27-Dec-2022
16:07
linh
pham

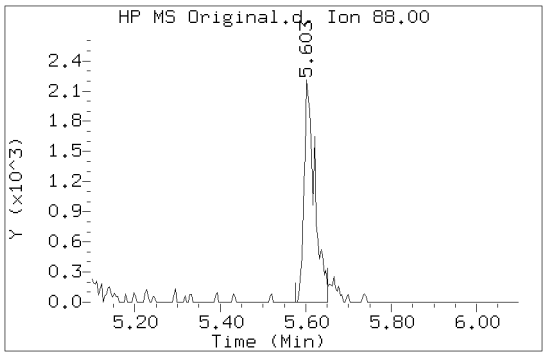



## 1,4-Dioxane ()

Reason Code:

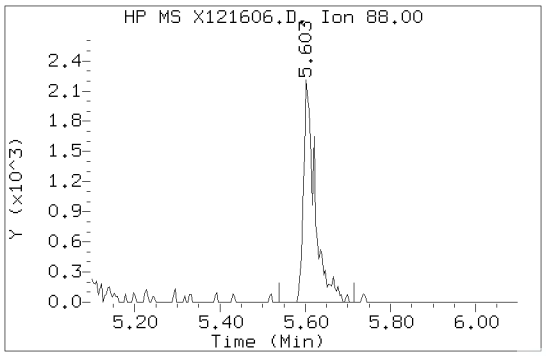
**BEFORE**

MASS
88
AREA
3873
HEIGHT
2211
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
88
AREA
4197
HEIGHT
2211
27-Dec-2022
16:07
linh
pham



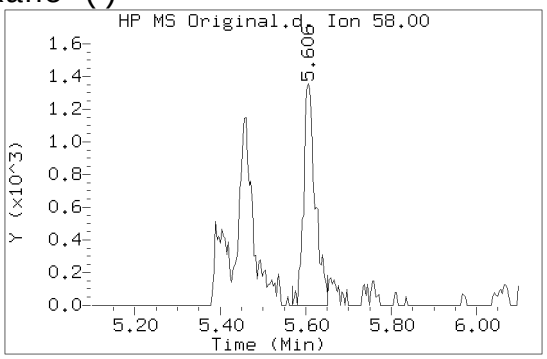
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## 1,4-Dioxane ()

Reason Code:

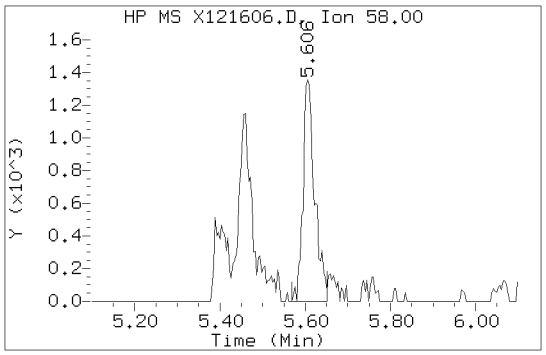
**BEFORE**

MASS
58
AREA
2625
HEIGHT
1356
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
2625
HEIGHT
1356
27-Dec-2022
16:07
linh
pham

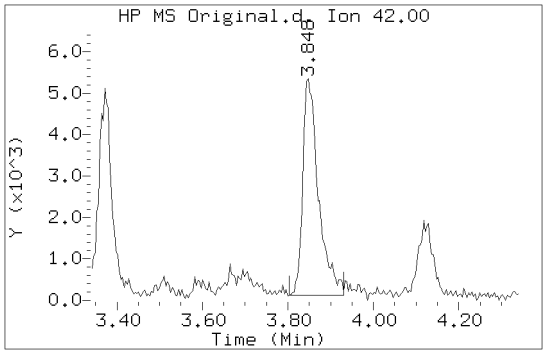



## Tetrahydrofuran (109-99-9)

Reason Code:

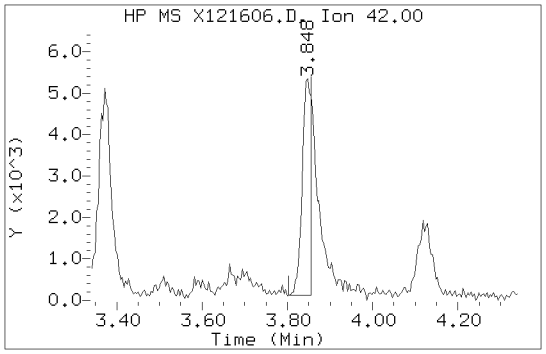
**BEFORE**

MASS
42
AREA
13557
HEIGHT
5225
27-Dec-2022
16:03
linh
pham



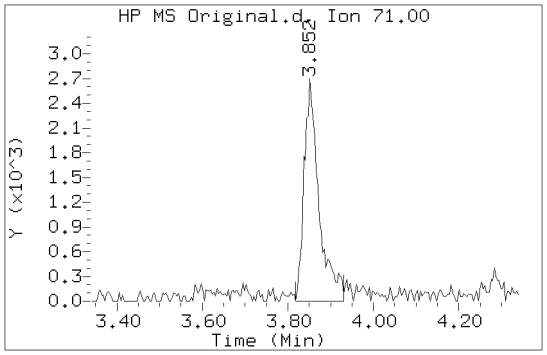

**AFTER**

MASS
42
AREA
7598
HEIGHT
5225
27-Dec-2022
16:07
linh
pham



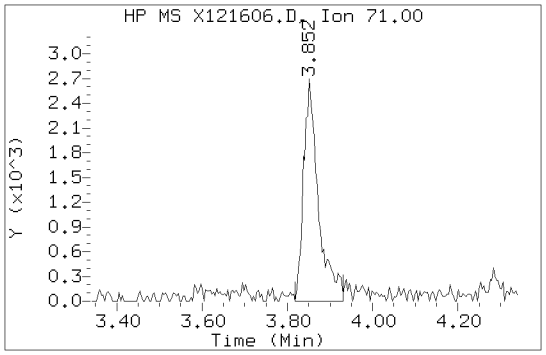

**BEFORE**

MASS
71
AREA
6572
HEIGHT
2695
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
71
AREA
6572
HEIGHT
2695
27-Dec-2022
16:07
linh
pham

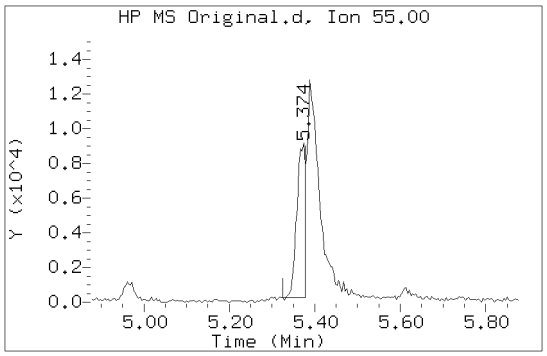



## Methylcyclohexane (108-87-2)

Reason Code:

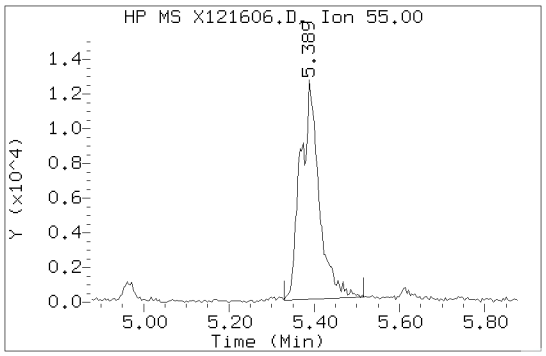
**BEFORE**

MASS
55
AREA
12381
HEIGHT
8941
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
55
AREA
38650
HEIGHT
12647
27-Dec-2022
16:07
linh
pham

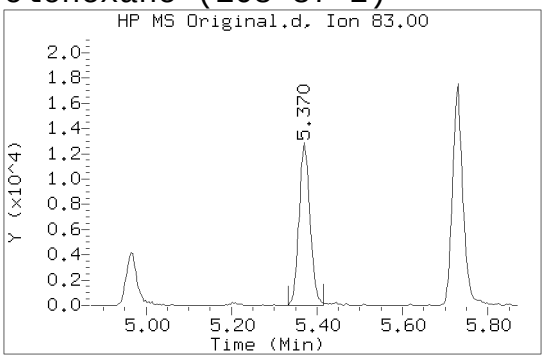


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Methylcyclohexane (108-87-2)

### BEFORE

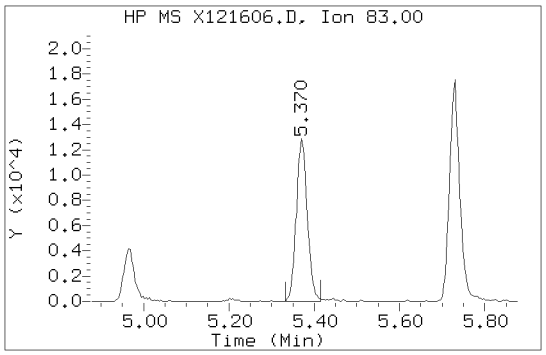
MASS
83
AREA
23564
HEIGHT
12870
27-Dec-2022
16:03
linh
pham




Reason Code:

### AFTER

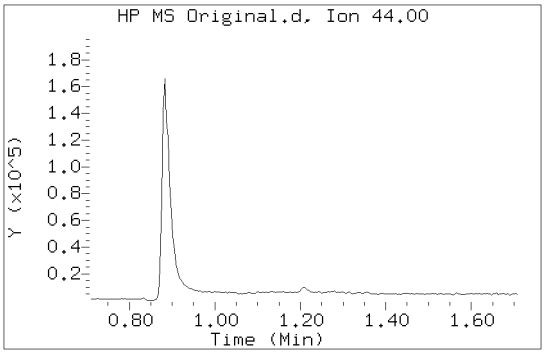
MASS
83
AREA
23564
HEIGHT
12870
27-Dec-2022
16:07
linh
pham




## Acetaldehyde (75-07-0)

### BEFORE

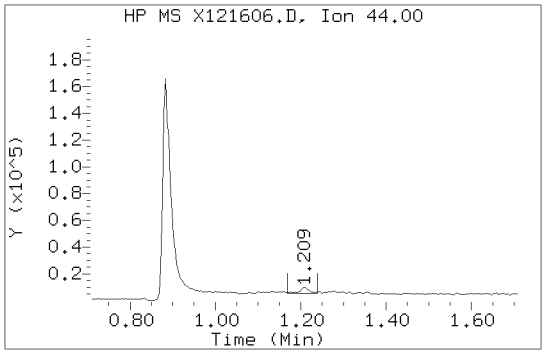
MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

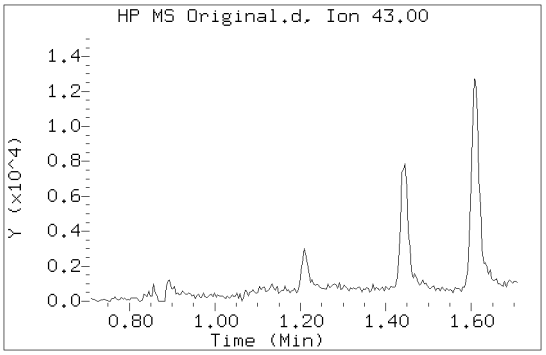
### AFTER

MASS
44
AREA
6161
HEIGHT
4314
27-Dec-2022
16:07
linh
pham



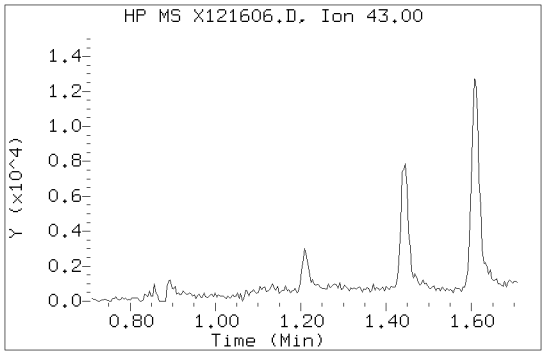

### BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



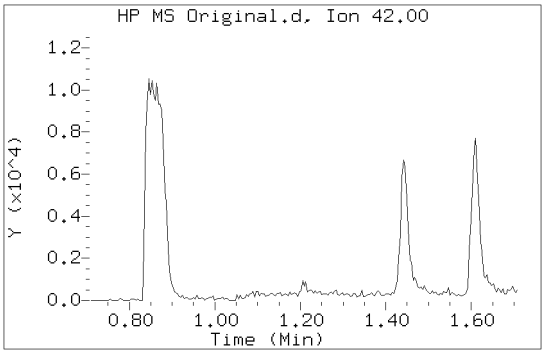

### AFTER

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



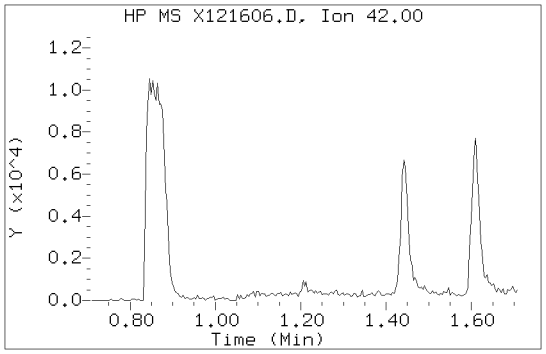

### BEFORE

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



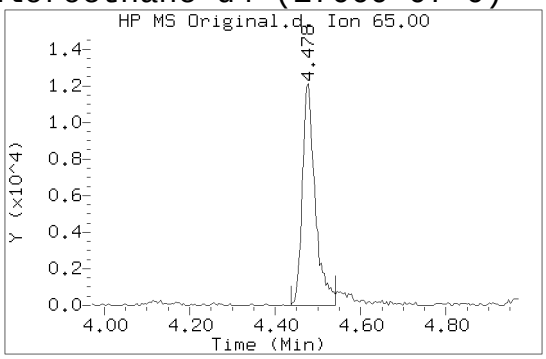
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## 1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

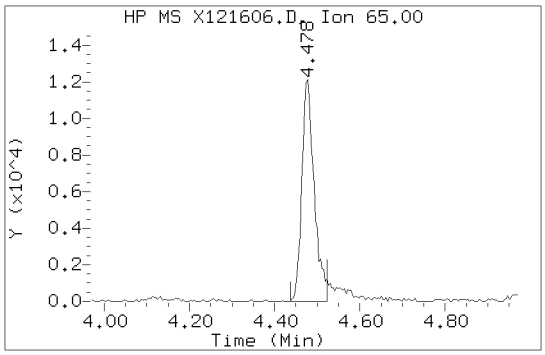
### BEFORE

MASS
65
AREA
25815
HEIGHT
12121
27-Dec-2022
16:03
linh
pham



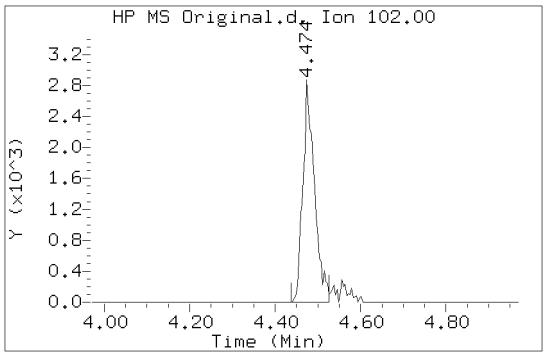

### AFTER

MASS
65
AREA
24938
HEIGHT
12121
27-Dec-2022
16:07
linh
pham



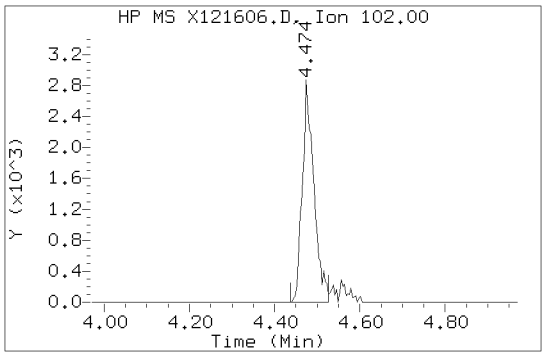

### BEFORE

MASS
102
AREA
5492
HEIGHT
2873
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
102
AREA
5492
HEIGHT
2873
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Lab Smp Id: VSTD020  Client Smp ID: VSTD020
Inj Date  : 16-DEC-2022 13:43
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD020;VSTD020;1;6;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 13:23  Cal File: X121606.D
Als bottle: 8  Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 459407 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 16105 | 400.000 | 383.50(M) |
| 140 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 58280 | 20.0000 | 18.48 |
| 25 Methacrylonitrile | 41 | 3.821 | 3.821 | (0.915) | 62911 | 20.0000 | 19.33 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 201008 | 400.000 | 388.99 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 81163 | 200.000 | 194.11 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 150748 | 20.0000 | 18.93 |
| 4 Propionitrile | 54 | 3.653 | 3.653 | (0.874) | 85562 | 200.000 | 182.52 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 65476 | 20.0000 | 19.79 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.893 | 8.893 | (1.160) | 26140 | 20.0000 | 18.70 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 32393 | 80.0000 | 100.98(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 27967 | 20.0000 | 17.90(M) |
| 145 alpha-Methylstyrene | 118 | 9.261 | 9.261 | (0.958) | 155968 | 20.0000 | 19.76 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 171978 | 20.0000 | 19.62 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 55275 | 20.0000 | 18.00 |
| 130 Ethyl Acetate | 43 | 3.660 | 3.660 | (0.876) | 75163 | 20.0000 | 20.96 |
| 40 Methyl Methacrylate | 41 | 5.606 | 5.606 | (1.342) | 56242 | 20.0000 | 17.95 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 58073 | 20.0000 | 18.07 |
| 132 n-Butanol | 56 | 5.268 | 5.268 | (1.261) | 15012 | 400.000 | 294.62 |
| 142 Tetrahydrofuran | 42 | 3.848 | 3.848 | (0.921) | 28221 | 40.0000 | 47.81 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 65476 | 400.000 | 366.93 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 331546 | 20.0000 | 19.32 |

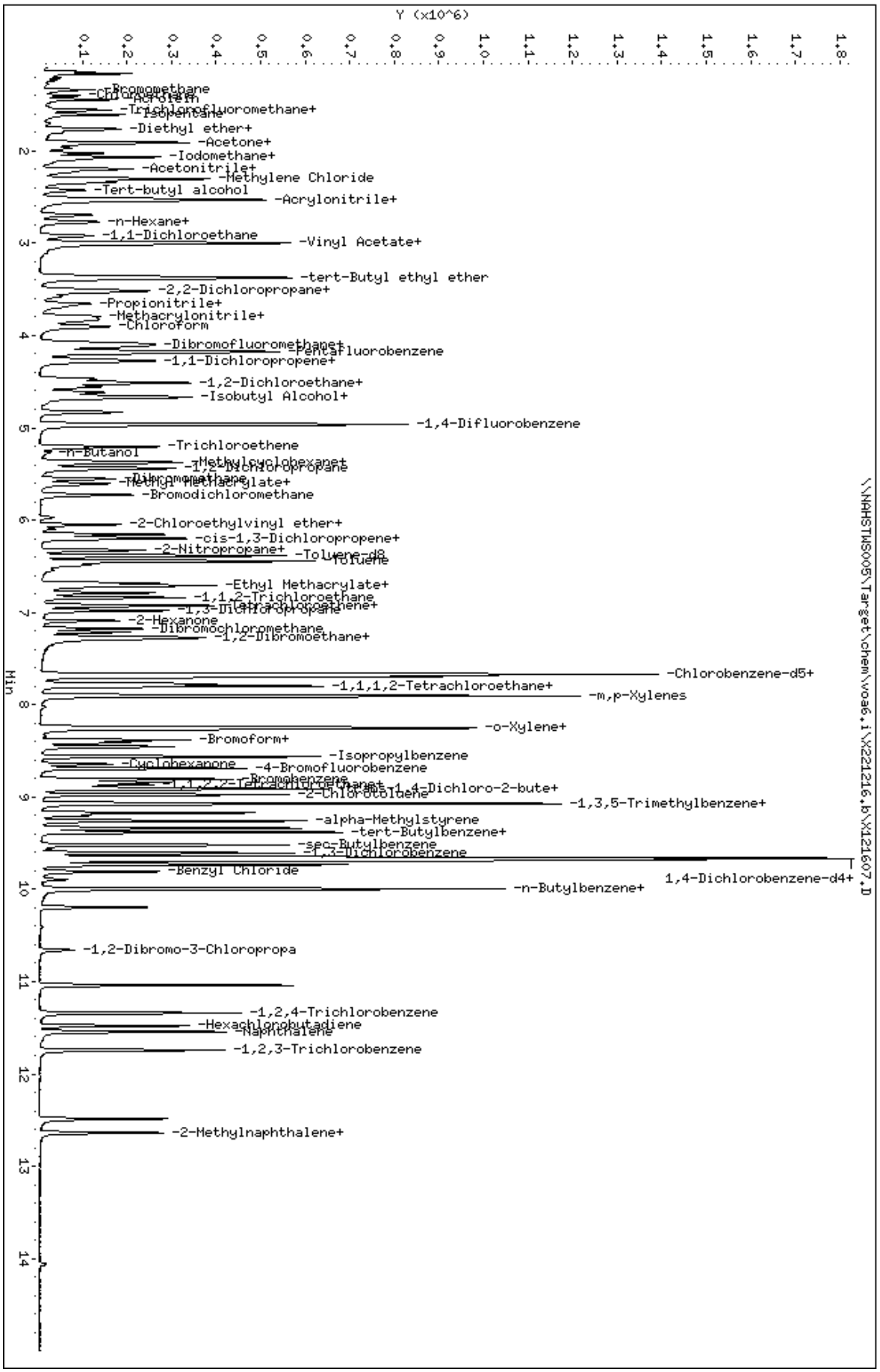
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | CAL-AMT | ON-COL |
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ( ug/l) | ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.690 | 3.690 | (0.883) | 57874 | 20.0000 | 18.55(M) |
| | 162 | Butyl acrylate | 55 | 8.252 | 8.252 | (1.076) | 156518 | 20.0000 | 18.50 |
| | 2 | Dichlorodifluoromethane | 85 | 0.972 | 0.972 | (0.233) | 63382 | 20.0000 | 19.96 |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 72324 | 20.0000 | 18.84 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 74461 | 20.0000 | 18.55 |
| | 6 | Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 52034 | 20.0000 | 18.30 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 52021 | 20.0000 | 18.62 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 106188 | 20.0000 | 18.90 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 12279 | 40.0000 | 40.80 |
| | 10 | Acetone | 43 | 1.973 | 1.973 | (0.472) | 50987 | 40.0000 | 39.53 |
| | 11 | 1,1-Dichloroethene | 96 | 1.913 | 1.913 | (0.458) | 65650 | 20.0000 | 18.82 |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 143457 | 40.0000 | 34.36 |
| | 16 | Acrylonitrile | 53 | 2.532 | 2.532 | (0.606) | 46552 | 40.0000 | 39.36 |
| | 17 | Methylene Chloride | 84 | 2.303 | 2.303 | (0.551) | 94402 | 20.0000 | 19.73 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 214504 | 20.0000 | 18.79 |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 337289 | 40.0000 | 36.97 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 74471 | 20.0000 | 19.08 |
| | 21 | Vinyl Acetate | 43 | 2.997 | 2.997 | (0.717) | 387538 | 40.0000 | 38.68 |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 129644 | 20.0000 | 18.93 |
| | 24 | 2-Butanone | 43 | 3.578 | 3.578 | (0.856) | 47830 | 40.0000 | 36.94(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 108952 | 20.0000 | 18.73 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.525 | 3.525 | (0.844) | 88894 | 20.0000 | 18.71 |
| | 28 | Chloroform | 83 | 3.904 | 3.904 | (0.935) | 145610 | 20.0000 | 18.96 |
| | 29 | Bromochloromethane | 128 | 3.795 | 3.795 | (0.908) | 47919 | 20.0000 | 18.42 |
| $ | 30 | Dibromofluoromethane | 113 | 4.099 | 4.099 | (0.981) | 90108 | 20.0000 | 20.32 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 116049 | 20.0000 | 19.05 |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 93914 | 20.0000 | 19.38 |
| | 33 | 1,2-Dichloroethane | 62 | 4.556 | 4.556 | (0.918) | 108750 | 20.0000 | 19.45 |
| | 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 93815 | 20.0000 | 18.13 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 92990 | 20.0000 | 20.13 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 682389 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.511 | (0.909) | 313141 | 20.0000 | 19.21 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 90292 | 20.0000 | 19.53 |
| | 39 | Bromodichloromethane | 83 | 5.726 | 5.726 | (1.153) | 116178 | 20.0000 | 18.99 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.048 | 6.048 | (1.218) | 71559 | 40.0000 | 41.12 |
| | 42 | 1,2-Dichloropropane | 63 | 5.437 | 5.437 | (1.095) | 82954 | 20.0000 | 19.13 |
| | 44 | Dibromomethane | 93 | 5.553 | 5.553 | (1.119) | 57196 | 20.0000 | 19.41 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.326 | 6.326 | (0.825) | 138209 | 40.0000 | 39.93 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 142141 | 20.0000 | 19.79 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 647445 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 315179 | 20.0000 | 19.70 |
| | 50 | Toluene | 91 | 6.445 | 6.445 | (0.841) | 339968 | 20.0000 | 18.99 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 116330 | 20.0000 | 19.51 |
| | 52 | 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 93119 | 40.0000 | 39.54 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 69855 | 20.0000 | 19.45 |
| | 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 137967 | 20.0000 | 19.52 |
| | 55 | Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 100749 | 20.0000 | 19.44 |
| | 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 74611 | 20.0000 | 20.15 |
| | 57 | 1,2-Dibromoethane | 107 | 7.263 | 7.263 | (0.947) | 88886 | 20.0000 | 19.80 |
| | 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 66757 | 20.0000 | 20.24 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 240885 | 20.0000 | 18.97 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 90283 | 20.0000 | 19.11 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 117560 | 20.0000 | 19.66 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 299082 | 40.0000 | 38.80 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 147602 | 20.0000 | 19.40 |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 253280 | 20.0000 | 19.86 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 69137 | 20.0000 | 19.25 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 344283 | 20.0000 | 19.80 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 112594 | 20.0000 | 19.83 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.691 | 8.691 | (1.133) | 116878 | 20.0000 | 19.58 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 356229 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 76967 | 20.0000 | 19.41 |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 404399 | 20.0000 | 20.49 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 117586 | 20.0000 | 20.11 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.070 | 9.070 | (0.939) | 295026 | 20.0000 | 20.23 |
| | 76 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 256591 | 20.0000 | 19.81 |
| | 77 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 294244 | 20.0000 | 19.93 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 242174 | 20.0000 | 20.29 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 305461 | 20.0000 | 19.91 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 326826 | 20.0000 | 20.58 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 294187 | 20.0000 | 20.67 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 197278 | 20.0000 | 20.33 |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 207572 | 20.0000 | 19.60 |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 163895 | 20.0000 | 17.99 |
| | 87 n-Butylbenzene | 91 | 9.995 | 9.995 | (1.035) | 248190 | 20.0000 | 19.23 |
| | 88 1,2-Dichlorobenzene | 146 | 9.995 | 9.995 | (1.035) | 201166 | 20.0000 | 20.13 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.663 | 10.663 | (1.104) | 18635 | 20.0000 | 20.58 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 130463 | 20.0000 | 20.69 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 55912 | 20.0000 | 20.12 |
| | 92 Naphthalene | 128 | 11.544 | 11.544 | (1.195) | 300432 | 20.0000 | 20.94 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.742 | (1.215) | 124401 | 20.0000 | 20.60 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 163365 | 40.0000 | |
| M | 95 Xylenes (total) | 106 | | | | 446684 | 60.0000 | |
| | 141 Cyclohexane | 56 | 4.118 | 4.118 | (0.986) | 84355 | 20.0000 | 19.01(M) |
| | 138 Freon TF | 101 | 1.910 | 1.910 | (0.457) | 64657 | 20.0000 | 19.17 |
| | 147 Methylcyclohexane | 55 | 5.381 | 5.381 | (1.084) | 172044 | 20.0000 | 20.59 |
| | 146 Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 38475 | 20.0000 | 18.61 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.423 | (0.580) | 117583 | 400.000 | 369.63 |
| | 149 Isopropyl Alcohol | 45 | 2.090 | 2.090 | (0.500) | 61646 | 400.000 | 371.06 |

## QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




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Sample Info: VSTD020;VSTD020;1;6;
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Column phase: DB624

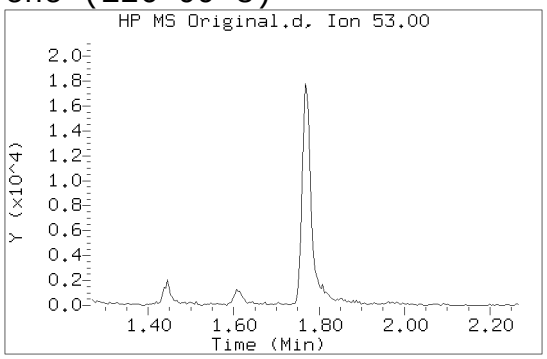
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Operator: PC
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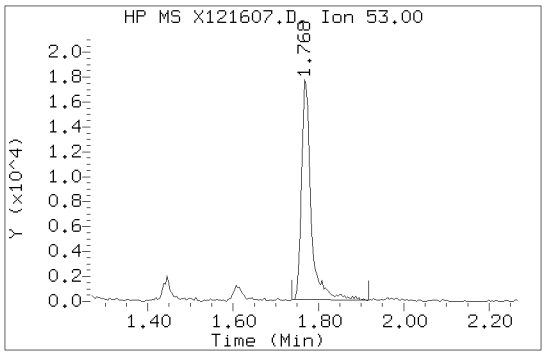
## Chloroprene (126-99-8)

Reason Code:

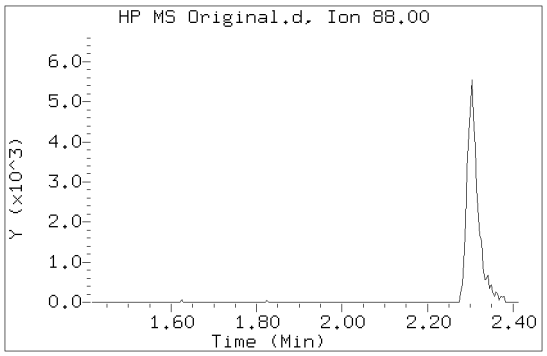
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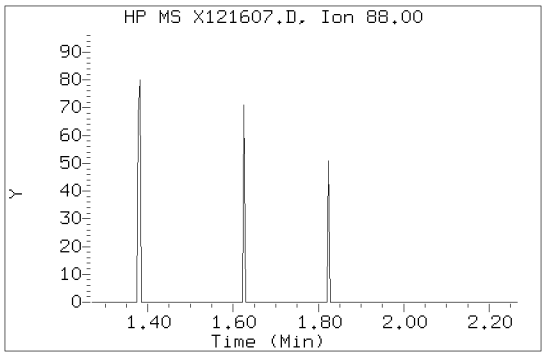

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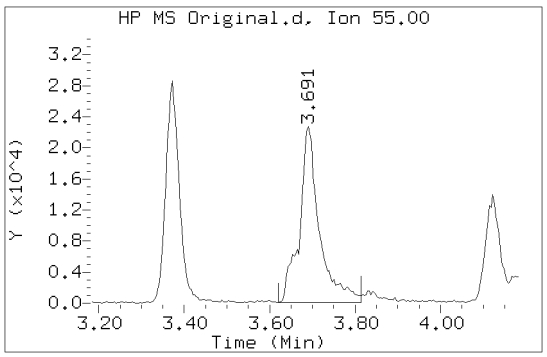

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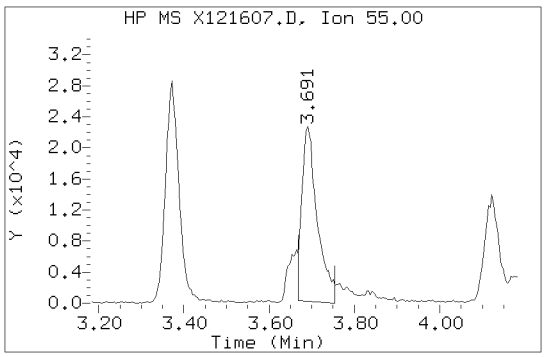

## Methyl Acrylate (96-33-3)

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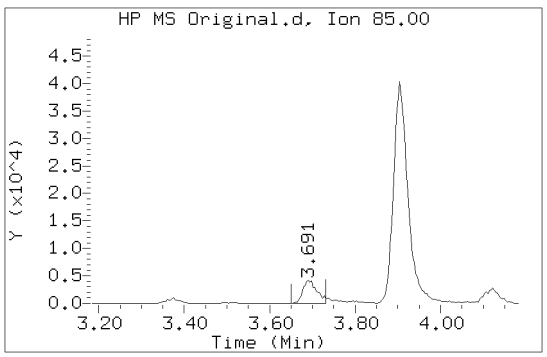
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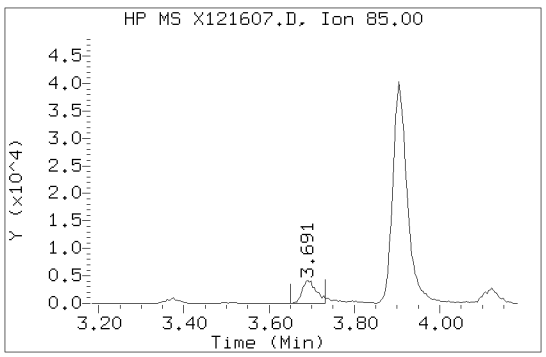

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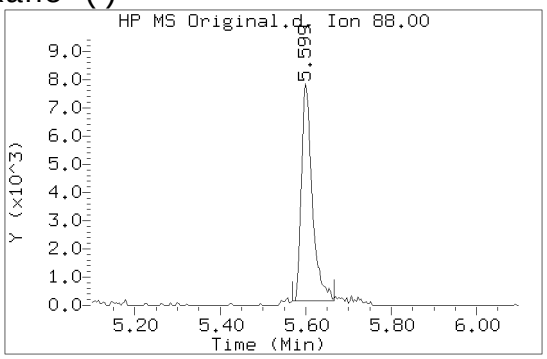
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Inj Date : 16-DEC-2022 13:43
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LabSampID : VSTD020

## 1,4-Dioxane ()

Reason Code:

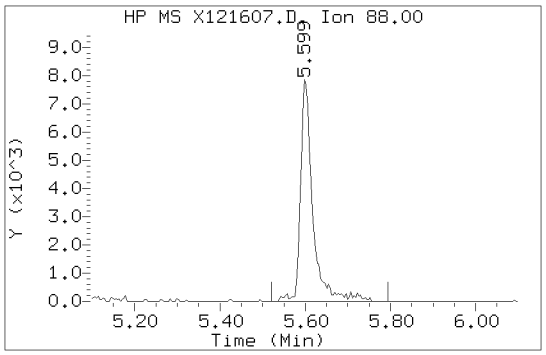
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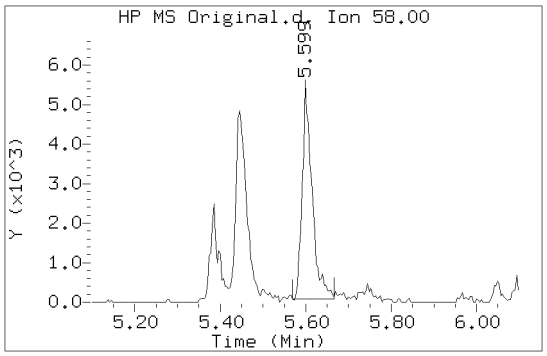

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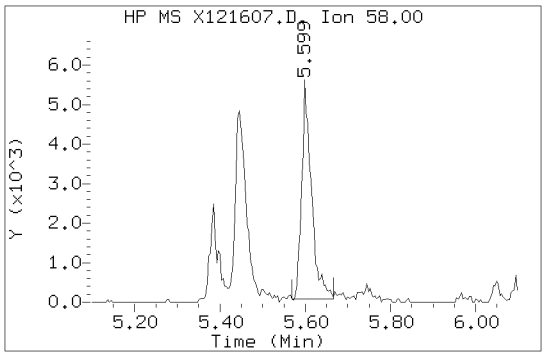

**BEFORE**

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**AFTER**

MASS
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27-Dec-2022
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pham

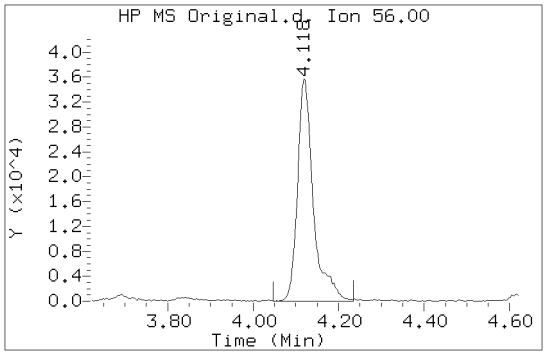



## Cyclohexane (110-82-7)

Reason Code:

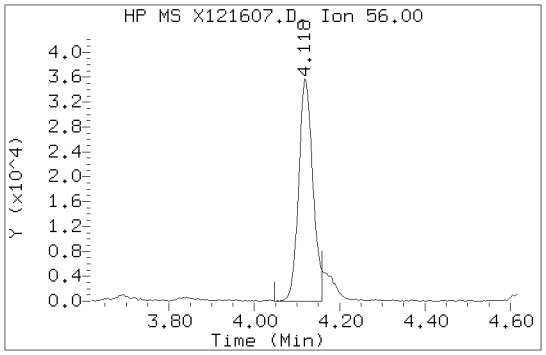
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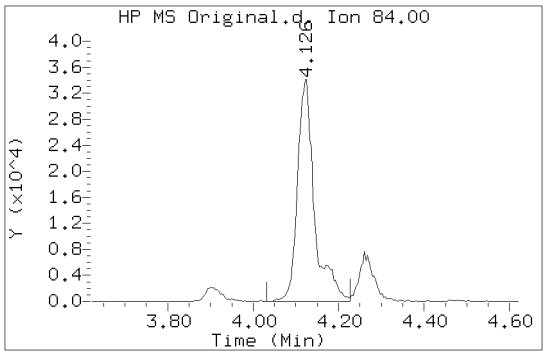

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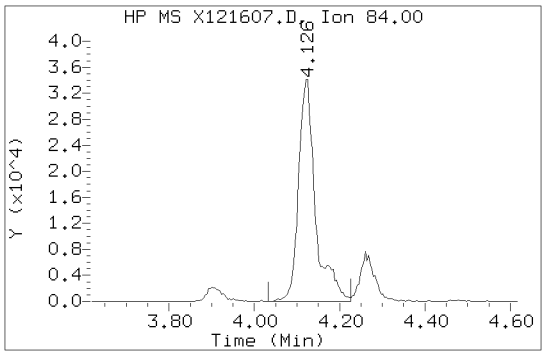

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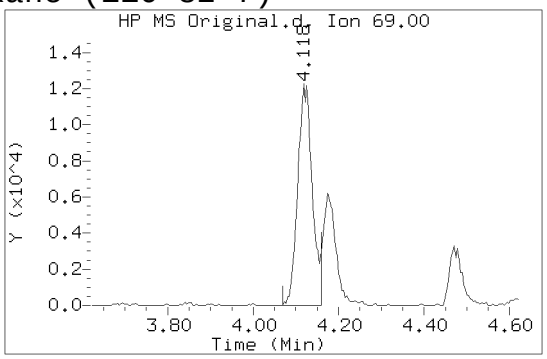

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27-Dec-2022
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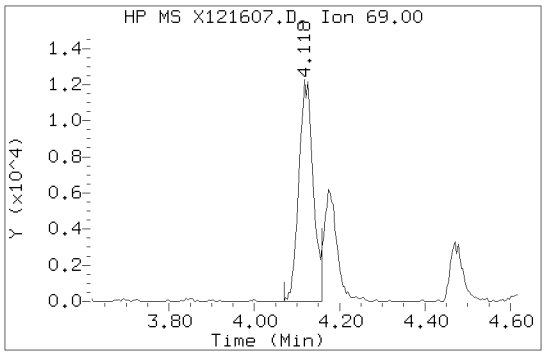
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Inj Date : 16-DEC-2022 13:43
InstruID : voa6.i
LabSampID : VSTD020

## Cyclohexane (110-82-7)



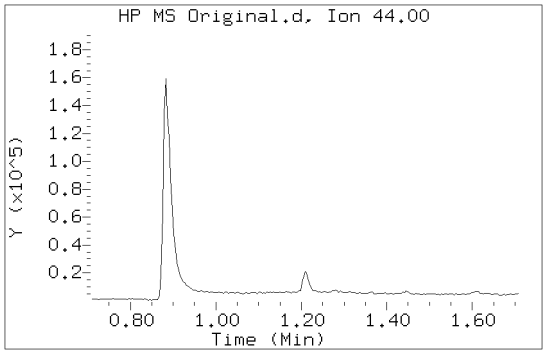

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Reason Code:



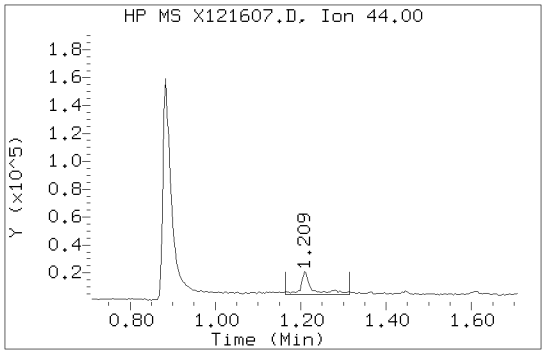

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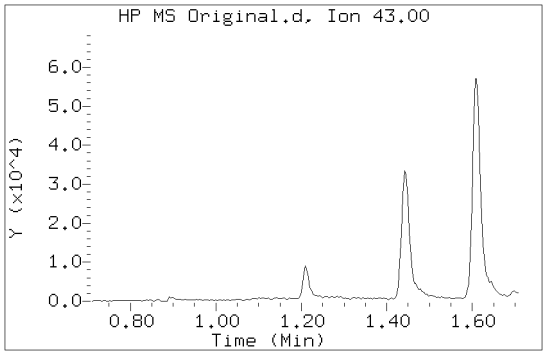



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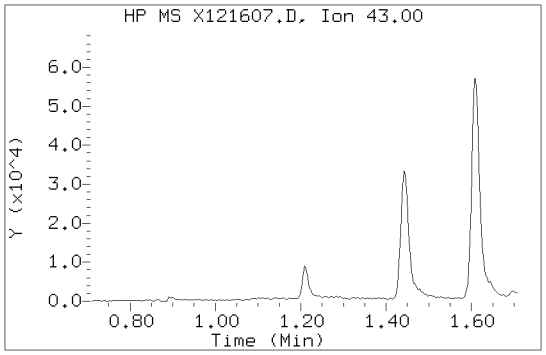
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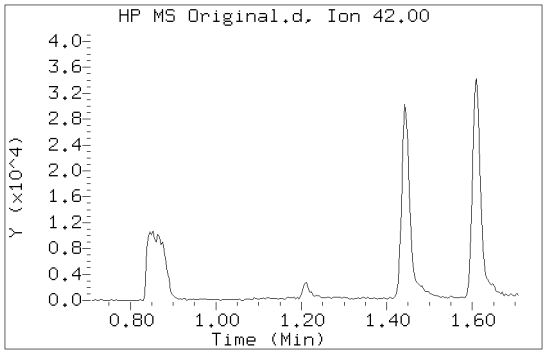

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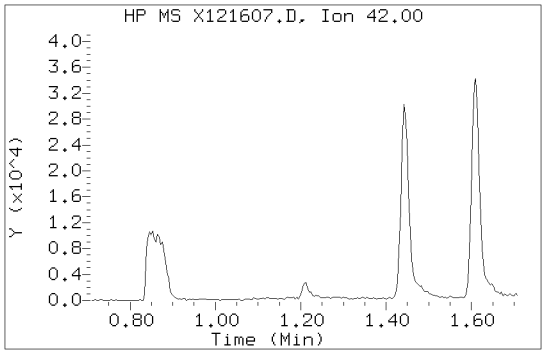

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AFTER
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BEFORE
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27-Dec-2022
16:03
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AFTER
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HEIGHT
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27-Dec-2022
16:06
linh
pham

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
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Inj Date  : 16-DEC-2022 14:04
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD050;VSTD050;1;7;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 13:43  Cal File: X121607.D
Als bottle: 9  Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 457591 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.595 | 5.595 | (1.339) | 40509 | 1000.00 | 968.45 |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 152324 | 50.0000 | 48.50 |
| 25 Methacrylonitrile | 41 | 3.821 | 3.821 | (0.915) | 147931 | 50.0000 | 45.65 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 499872 | 1000.00 | 971.21 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 202696 | 500.000 | 486.70 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 372130 | 50.0000 | 46.91 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 221995 | 500.000 | 475.45 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 182358 | 50.0000 | 55.34 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.890 | (1.159) | 70497 | 50.0000 | 50.03 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 67188 | 200.000 | 235.49(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 73877 | 50.0000 | 47.48(M) |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 423646 | 50.0000 | 51.17 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 438695 | 50.0000 | 49.65 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 141705 | 50.0000 | 46.34 |
| 130 Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 170590 | 50.0000 | 47.77 |
| 40 Methyl Methacrylate | 41 | 5.606 | 5.606 | (1.342) | 147516 | 50.0000 | 47.27 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 144135 | 50.0000 | 44.17 |
| 132 n-Butanol | 56 | 5.253 | 5.253 | (1.257) | 54418 | 1000.00 | 935.85 |
| 142 Tetrahydrofuran | 42 | 3.844 | 3.844 | (0.920) | 58181 | 100.000 | 102.34 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 182358 | 1000.00 | 1026.00 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 826758 | 50.0000 | 45.95 |

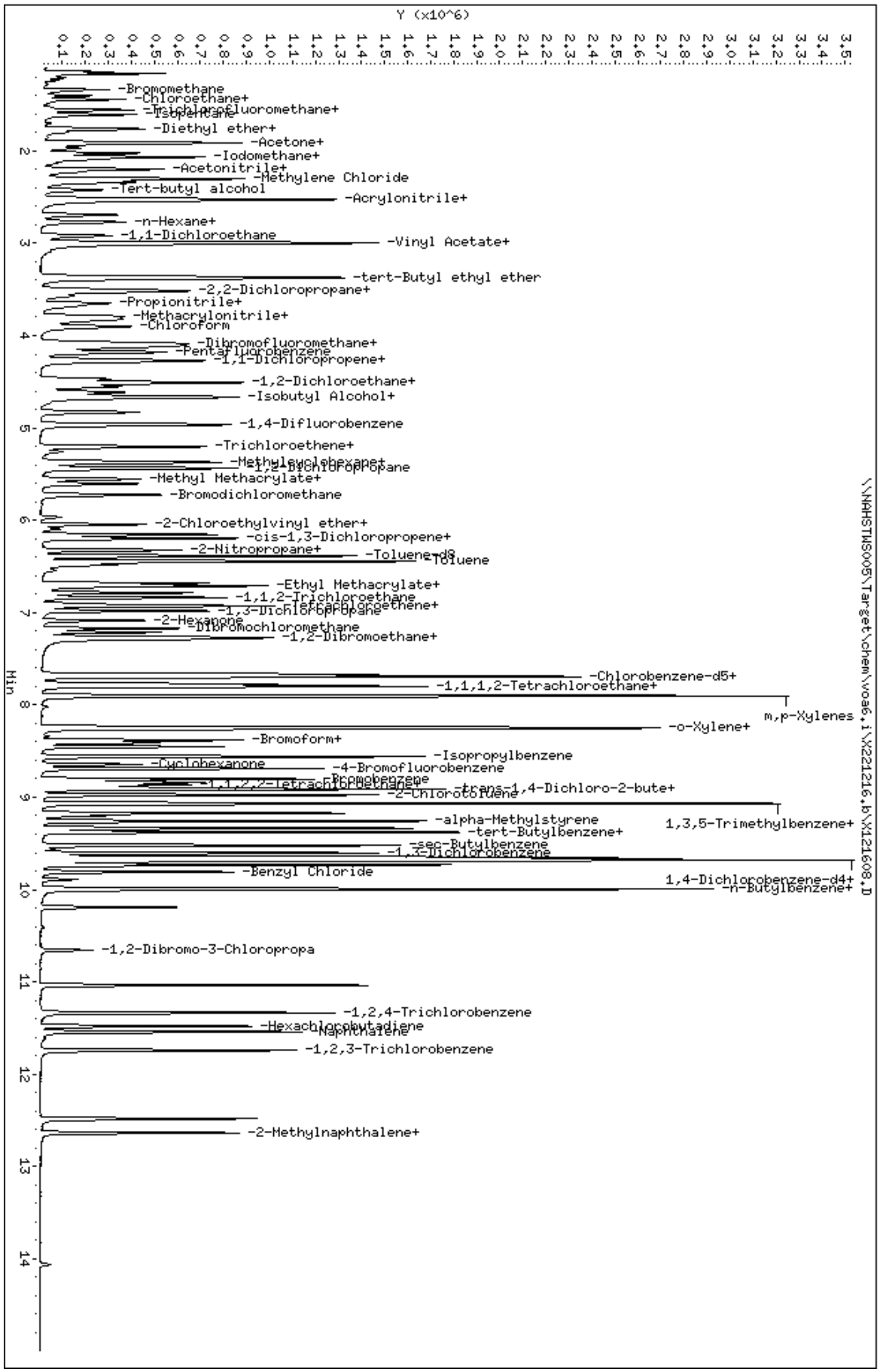
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 131 Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 151068 | 50.0000 | 48.62(M) |
| | 162 Butyl acrylate | 55 | 8.252 | 8.252 | (1.076) | 415774 | 50.0000 | 48.76 |
| | 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 160392 | 50.0000 | 50.11 |
| | 3 Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 192710 | 50.0000 | 46.69 |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 201812 | 50.0000 | 50.48 |
| | 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 139689 | 50.0000 | 46.33 |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 134745 | 50.0000 | 48.43 |
| | 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 278013 | 50.0000 | 49.70 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 27445 | 100.000 | 88.04 |
| | 10 Acetone | 43 | 1.970 | 1.970 | (0.472) | 124798 | 100.000 | 97.19 |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 168905 | 50.0000 | 48.63 |
| | 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 455792 | 100.000 | 99.60 |
| | 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 118697 | 100.000 | 100.77 |
| | 17 Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 225642 | 50.0000 | 47.36 |
| | 18 Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 534667 | 50.0000 | 47.03 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 892690 | 100.000 | 98.24 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 191505 | 50.0000 | 49.27 |
| | 21 Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 983875 | 100.000 | 98.59 |
| | 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 330037 | 50.0000 | 48.38 |
| | 24 2-Butanone | 43 | 3.574 | 3.574 | (0.856) | 130179 | 100.000 | 95.71(H) |
| | 26 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 283996 | 50.0000 | 49.03 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.525 | 3.525 | (0.844) | 228729 | 50.0000 | 48.35 |
| | 28 Chloroform | 83 | 3.904 | 3.904 | (0.935) | 370755 | 50.0000 | 48.49 |
| | 29 Bromochloromethane | 128 | 3.788 | 3.788 | (0.907) | 120638 | 50.0000 | 46.58 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 211939 | 50.0000 | 48.23 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 300650 | 50.0000 | 49.56 |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 256928 | 50.0000 | 52.23 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 276500 | 50.0000 | 48.70 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 251833 | 50.0000 | 47.94 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 222293 | 50.0000 | 47.94 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 692830 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.908) | 812279 | 50.0000 | 49.09 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 233833 | 50.0000 | 49.83 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 297315 | 50.0000 | 47.88 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.048 | 6.048 | (1.218) | 180920 | 100.000 | 102.42 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 215079 | 50.0000 | 48.87 |
| | 44 Dibromomethane | 93 | 5.553 | 5.553 | (1.119) | 143223 | 50.0000 | 47.87 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 336990 | 100.000 | 96.59 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 366231 | 50.0000 | 50.22 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 652727 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 772486 | 50.0000 | 47.89 |
| | 50 Toluene | 91 | 6.446 | 6.446 | (0.841) | 889029 | 50.0000 | 49.27 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 309568 | 50.0000 | 51.15 |
| | 52 2-Hexanone | 43 | 7.087 | 7.087 | (0.924) | 232879 | 100.000 | 98.10 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 172833 | 50.0000 | 47.75 |
| | 54 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 345991 | 50.0000 | 48.56 |
| | 55 Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 260477 | 50.0000 | 49.86 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 194749 | 50.0000 | 52.17 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 229442 | 50.0000 | 50.70 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 170128 | 50.0000 | 50.81 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 624151 | 50.0000 | 48.77 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.773 | (1.014) | 235373 | 50.0000 | 49.42 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 311983 | 50.0000 | 51.75 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 785955 | 100.000 | 101.14 |

| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT ( ug/l) | ON-COL ( ug/l) |
| | 63 | o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 385427 | 50.0000 | 50.25 |
| | 64 | Styrene | 104 | 8.260 | 8.260 | (1.077) | 673066 | 50.0000 | 52.35 |
| | 66 | Bromoform | 173 | 8.410 | 8.410 | (1.097) | 181492 | 50.0000 | 50.14 |
| | 67 | Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 920845 | 50.0000 | 52.55 |
| | 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 276483 | 50.0000 | 46.43 |
| $ | 69 | 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 292753 | 50.0000 | 48.55 |
| * | 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 373588 | 50.0000 | |
| | 71 | 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 199888 | 50.0000 | 48.08(M) |
| | 73 | n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1085689 | 50.0000 | 52.46 |
| | 74 | Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 299078 | 50.0000 | 48.79 |
| | 75 | 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 793494 | 50.0000 | 51.90 |
| | 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 670422 | 50.0000 | 49.37 |
| | 77 | 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 782927 | 50.0000 | 50.57 |
| | 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 652461 | 50.0000 | 52.14 |
| | 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 815460 | 50.0000 | 50.69 |
| | 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 889679 | 50.0000 | 53.43 |
| | 82 | p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 810483 | 50.0000 | 54.32 |
| | 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 520329 | 50.0000 | 51.14 |
| | 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 544362 | 50.0000 | 49.03 |
| | 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 472387 | 50.0000 | 46.44 |
| | 87 | n-Butylbenzene | 91 | 9.995 | 9.995 | (1.035) | 696355 | 50.0000 | 48.48 |
| | 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 519532 | 50.0000 | 49.58 |
| | 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 48660 | 50.0000 | 51.11 |
| | 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 355455 | 50.0000 | 53.75 |
| | 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 155390 | 50.0000 | 52.99 |
| | 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 799829 | 50.0000 | 53.16 |
| | 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.742 | (1.215) | 320836 | 50.0000 | 50.66 |
| M | 94 | 1,2-Dichloroethylene (total) | 96 | | | | 420234 | 100.000 | |
| M | 95 | Xylenes (total) | 106 | | | | 1171382 | 150.000 | |
| | 141 | Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 237699 | 50.0000 | 51.49 |
| | 138 | Freon TF | 101 | 1.913 | 1.913 | (0.458) | 172155 | 50.0000 | 51.25 |
| | 147 | Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 420886 | 50.0000 | 49.62 |
| | 146 | Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 96420 | 50.0000 | 46.82 |
| | 148 | Tert-Butyl alcohol | 59 | 2.423 | 2.423 | (0.580) | 302677 | 1000.00 | 955.26 |
| | 149 | Isopropyl Alcohol | 45 | 2.090 | 2.090 | (0.500) | 157082 | 1000.00 | 949.28 |

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




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Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

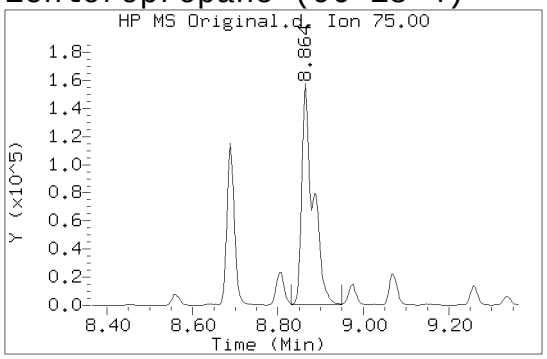
Instrument: voa6,i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

## 1,2,3-Trichloropropane (96-18-4)

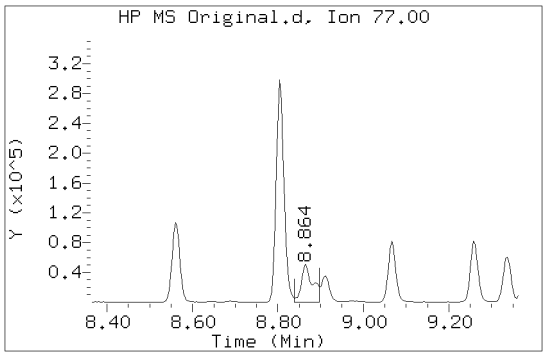
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27-Dec-2022
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linh
pham




### BEFORE

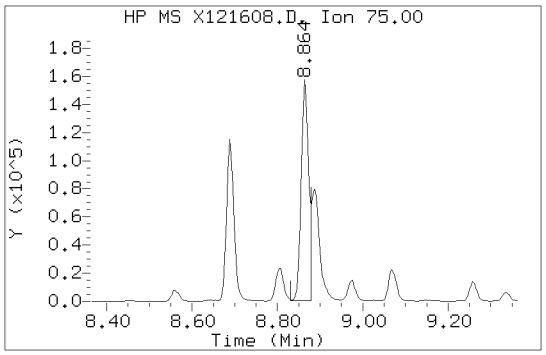
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### Reason Code:

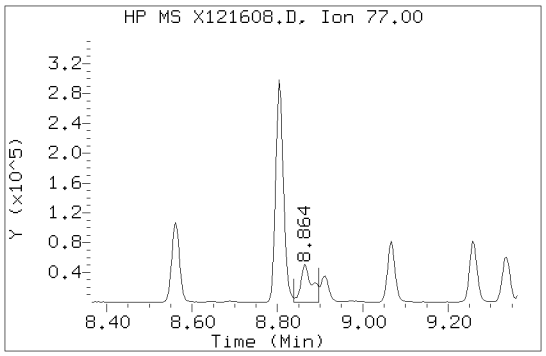
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27-Dec-2022
16:06
linh
pham




### AFTER

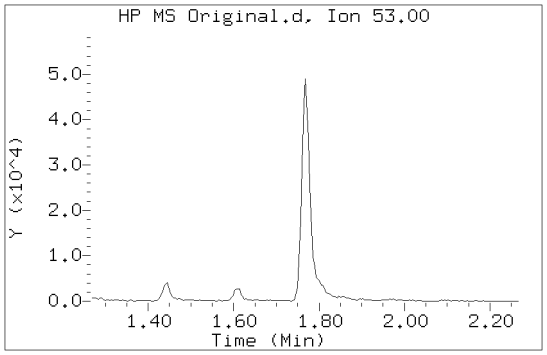
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## Chloroprene (126-99-8)

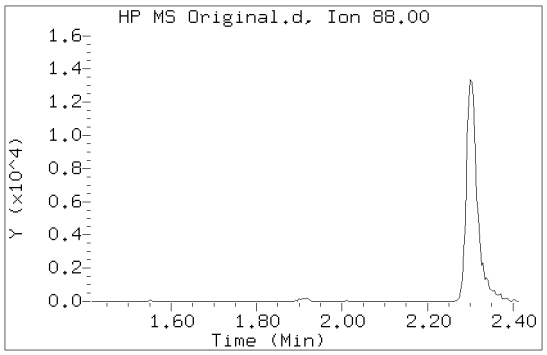
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pham




### BEFORE

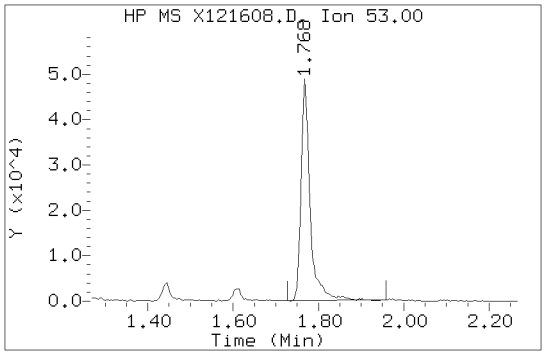
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27-Dec-2022
16:03
linh
pham




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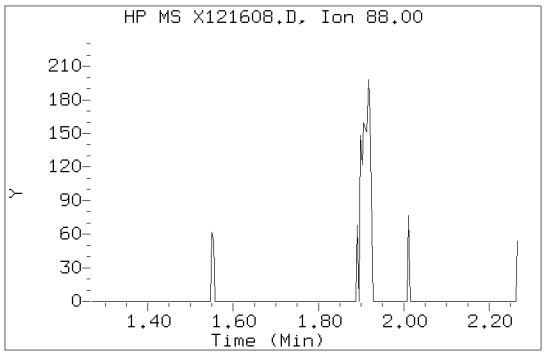
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pham




### AFTER

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HEIGHT
0
27-Dec-2022
16:06
linh
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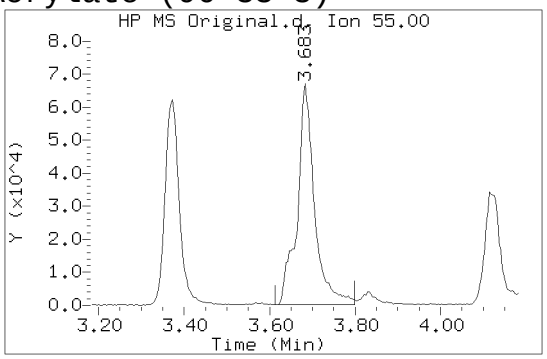


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Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

## Methyl Acrylate (96-33-3)

### BEFORE

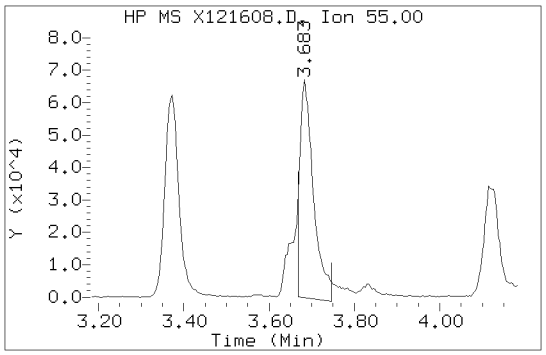
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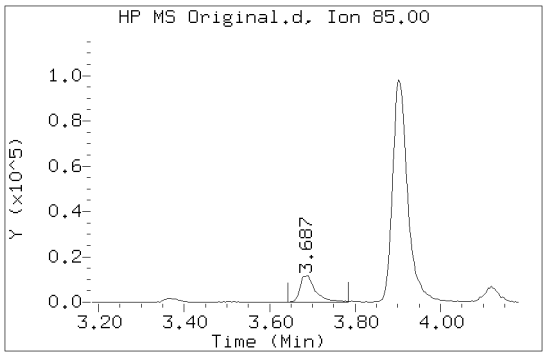
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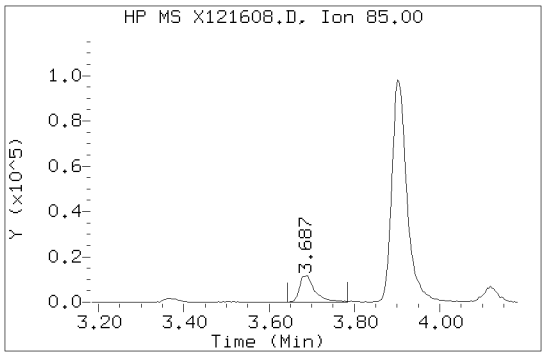

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AREA
29996
HEIGHT
11707
27-Dec-2022
16:03
linh
pham




### AFTER

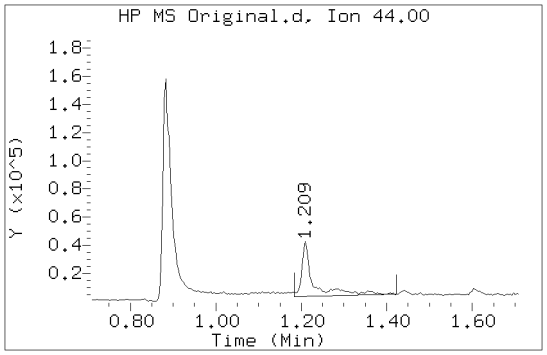
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AREA
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11707
27-Dec-2022
16:06
linh
pham




## Acetaldehyde (75-07-0)

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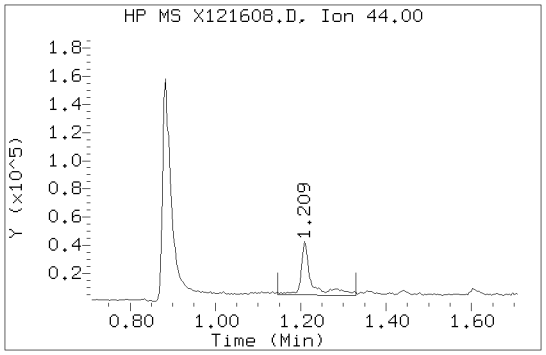
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### Reason Code:

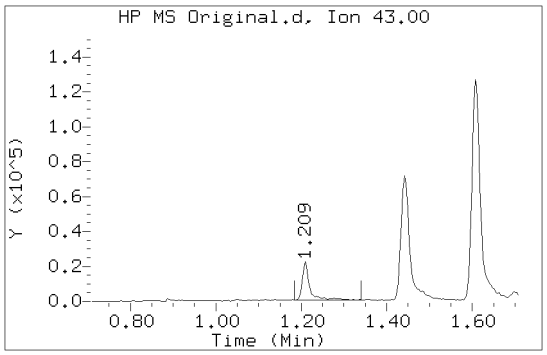
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16:06
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pham



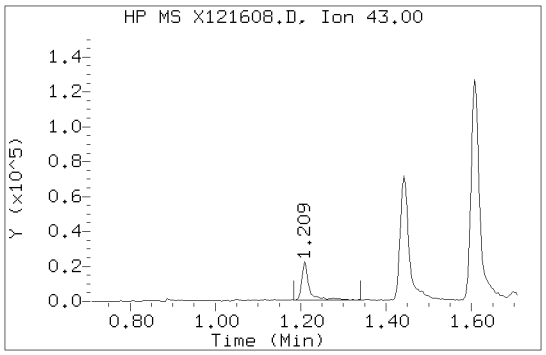

### BEFORE

MASS
43
AREA
28032
HEIGHT
22022
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
43
AREA
28032
HEIGHT
22022
27-Dec-2022
16:06
linh
pham



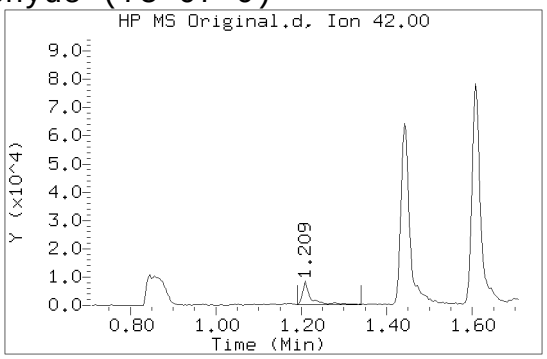
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InstruID : voa6.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

Reason Code:

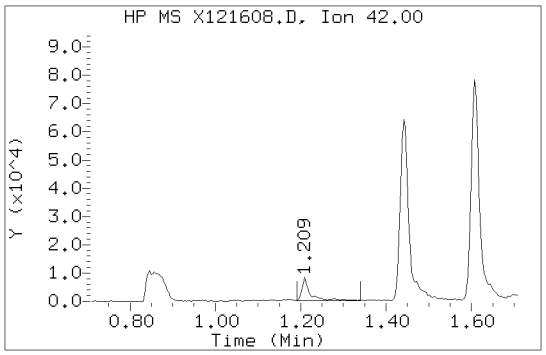
BEFORE

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8504
27-Dec-2022
16:03
linh
pham




AFTER

MASS
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AREA
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HEIGHT
8504
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
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Inj Date  : 16-DEC-2022 14:25
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD100;VSTD100;1;8;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 10  Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 454640 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 80329 | 2000.00 | 1932.89 |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 300004 | 100.000 | 96.14 |
| 25 Methacrylonitrile | 41 | 3.822 | 3.822 | (0.915) | 296105 | 100.000 | 91.97 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 1010956 | 2000.00 | 1976.95 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 413876 | 1000.00 | 1000.23 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 756242 | 100.000 | 95.96 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 447087 | 1000.00 | 963.76 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 330416 | 100.000 | 100.93 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.890 | (1.159) | 144667 | 100.000 | 100.47 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 107798 | 400.000 | 394.60(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 146540 | 100.000 | 94.79(M) |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 857105 | 100.000 | 100.18 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 912573 | 100.000 | 101.09 |
| 139 Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 288002 | 100.000 | 94.80 |
| 130 Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 318062 | 100.000 | 89.65 |
| 40 Methyl Methacrylate | 41 | 5.606 | 5.606 | (1.342) | 295199 | 100.000 | 95.22 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 311883 | 100.000 | 96.06 |
| 132 n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 124057 | 2000.00 | 1971.40 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 109518 | 200.000 | 196.74 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 330416 | 2000.00 | 1871.09 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 1772216 | 100.000 | 95.31 |

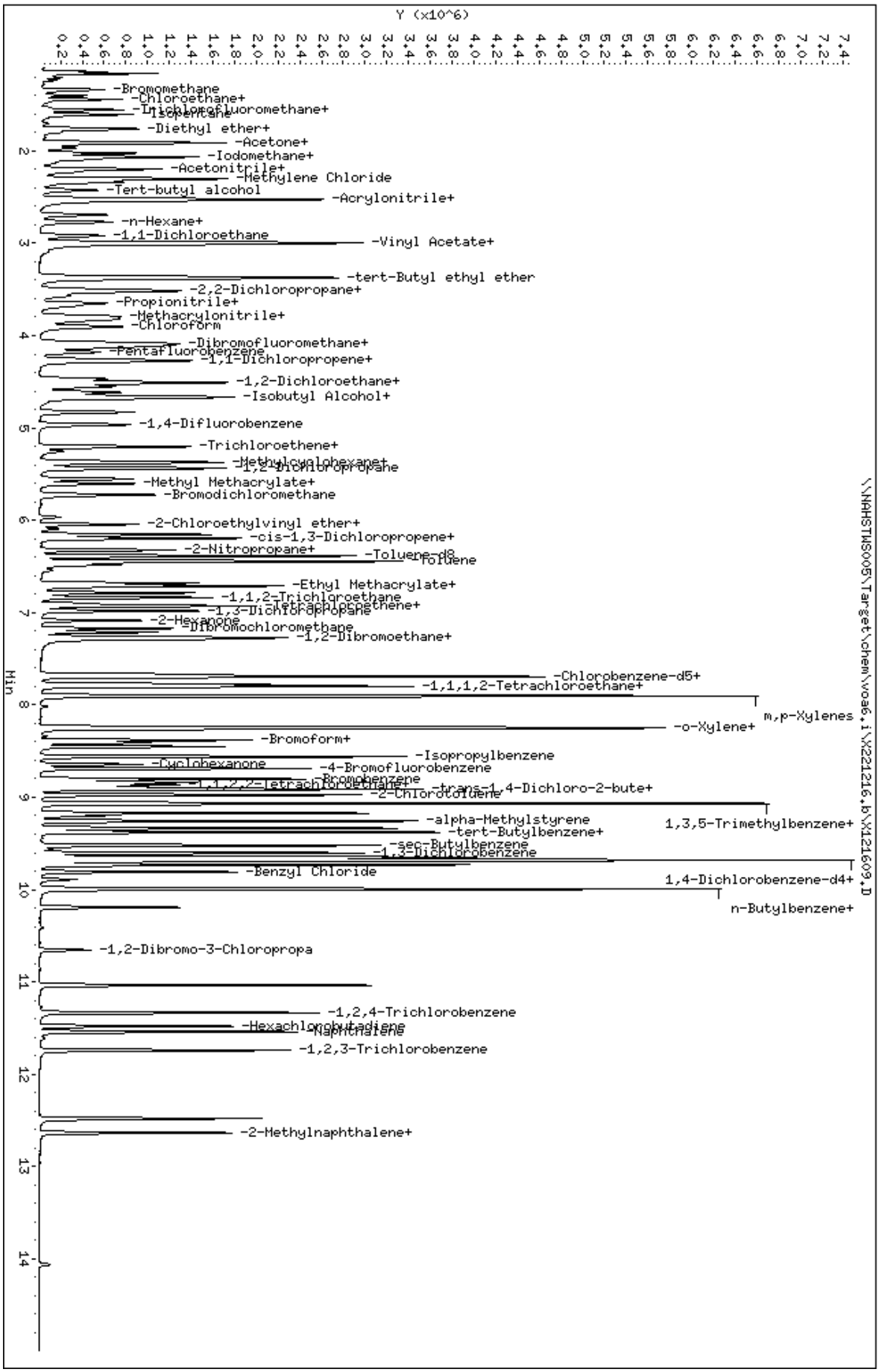
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | CAL-AMT | ON-COL |
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ( ug/l) | ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 308372 | 100.000 | 99.90(M) |
| | 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 901265 | 100.000 | 103.44 |
| | 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 309019 | 100.000 | 96.81 |
| | 3 | Chloromethane | 50 | 1.078 | 1.078 | (0.258) | 388163 | 100.000 | 92.40 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 390567 | 100.000 | 98.34 |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 284165 | 100.000 | 93.02 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 261091 | 100.000 | 94.45 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 543907 | 100.000 | 97.86 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 60756 | 200.000 | 192.70 |
| | 10 | Acetone | 43 | 1.970 | 1.970 | (0.472) | 243517 | 200.000 | 190.92 |
| | 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 329394 | 100.000 | 95.46 |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 958603 | 200.000 | 197.72 |
| | 16 | Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 235604 | 200.000 | 201.32 |
| | 17 | Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 423827 | 100.000 | 89.54 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 1078258 | 100.000 | 95.46 |
| | 19 | Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 1765599 | 200.000 | 195.57 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 376933 | 100.000 | 97.60 |
| | 21 | Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 1955305 | 200.000 | 197.21 |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 641083 | 100.000 | 94.59 |
| | 24 | 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 264221 | 200.000 | 192.38(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 554902 | 100.000 | 96.43 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.843) | 443532 | 100.000 | 94.37 |
| | 28 | Chloroform | 83 | 3.904 | 3.904 | (0.935) | 715830 | 100.000 | 94.23 |
| | 29 | Bromochloromethane | 128 | 3.792 | 3.792 | (0.908) | 239022 | 100.000 | 92.88 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 438954 | 100.000 | 100.72 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 583361 | 100.000 | 96.79 |
| | 32 | 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.861) | 496096 | 100.000 | 101.35 |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 553661 | 100.000 | 98.01 |
| | 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 487488 | 100.000 | 93.26 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 455890 | 100.000 | 98.67 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 689427 | 50.0000 | |
| | 37 | Benzene | 78 | 4.508 | 4.508 | (0.908) | 1590142 | 100.000 | 96.58 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 456948 | 100.000 | 97.85 |
| | 39 | Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 587419 | 100.000 | 95.07 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.217) | 345852 | 200.000 | 196.75 |
| | 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 420835 | 100.000 | 96.09 |
| | 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 280146 | 100.000 | 94.11 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 671115 | 200.000 | 188.25 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 735867 | 100.000 | 101.41 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 666948 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 1602890 | 100.000 | 97.25 |
| | 50 | Toluene | 91 | 6.446 | 6.446 | (0.841) | 1761917 | 100.000 | 95.57 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.678 | 6.678 | (1.345) | 618784 | 100.000 | 102.75 |
| | 52 | 2-Hexanone | 43 | 7.087 | 7.087 | (0.924) | 458639 | 200.000 | 189.09 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 342194 | 100.000 | 92.52 |
| | 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 682500 | 100.000 | 93.75 |
| | 55 | Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 521219 | 100.000 | 97.64 |
| | 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 373651 | 100.000 | 97.96 |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 453499 | 100.000 | 98.07 |
| | 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 326538 | 100.000 | 98.00 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 1229287 | 100.000 | 94.01 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.773 | (1.014) | 472962 | 100.000 | 97.19 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 612289 | 100.000 | 99.40 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 1556563 | 200.000 | 196.03 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 767814 | 100.000 | 97.97 |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 1350780 | 100.000 | 102.83 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 367943 | 100.000 | 99.50 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 1818857 | 100.000 | 101.58 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 554091 | 100.000 | 90.03 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 615584 | 100.000 | 99.86 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 386107 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 407425 | 100.000 | 94.83(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 2152414 | 100.000 | 100.64 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 602819 | 100.000 | 95.16 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1603520 | 100.000 | 101.49 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 1326500 | 100.000 | 94.51 |
| | 77 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 1587855 | 100.000 | 99.24 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 1287608 | 100.000 | 99.56 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 1640529 | 100.000 | 98.68 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1778581 | 100.000 | 103.36 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 1606121 | 100.000 | 104.16 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 1039293 | 100.000 | 98.84 |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 1114780 | 100.000 | 97.16 |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 1009234 | 100.000 | 94.18 |
| | 87 n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 1425779 | 100.000 | 94.31 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 1054319 | 100.000 | 97.36 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 94321 | 100.000 | 95.78 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.338 | 11.338 | (1.173) | 697257 | 100.000 | 102.03 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 299042 | 100.000 | 97.63 |
| | 92 Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 1592534 | 100.000 | 102.42 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.215) | 642199 | 100.000 | 98.12 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 820465 | 200.000 | |
| M | 95 Xylenes (total) | 106 | | | | 2324377 | 300.000 | |
| | 141 Cyclohexane | 56 | 4.118 | 4.118 | (0.986) | 432198 | 100.000 | 93.19 |
| | 138 Freon TF | 101 | 1.913 | 1.913 | (0.458) | 327614 | 100.000 | 98.16 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 862071 | 100.000 | 102.15(A) |
| | 146 Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 196542 | 100.000 | 96.07 |
| | 148 Tert-Butyl alcohol | 59 | 2.427 | 2.427 | (0.581) | 592215 | 2000.00 | 1881.19 |
| | 149 Isopropyl Alcohol | 45 | 2.093 | 2.093 | (0.501) | 321288 | 2000.00 | 1954.21 |

## QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121609.D
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Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;
Purge Volume: 5.0
Column phase: DB624

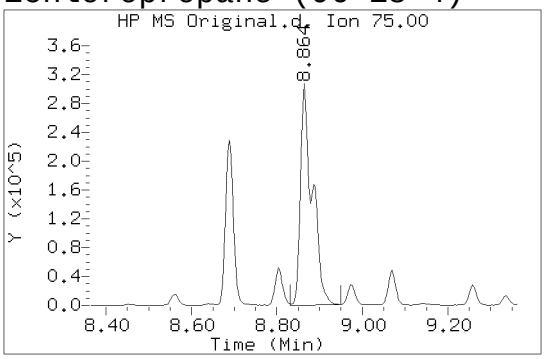
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

## 1,2,3-Trichloropropane (96-18-4)

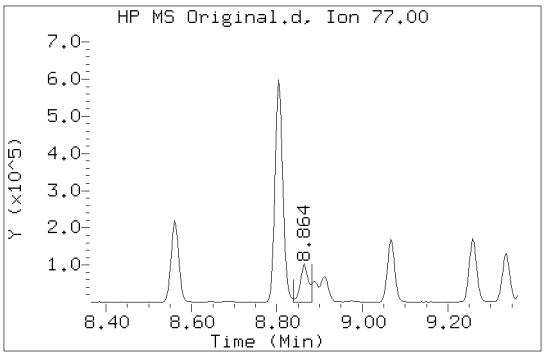
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HEIGHT
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27-Dec-2022
16:03
linh
pham




### BEFORE

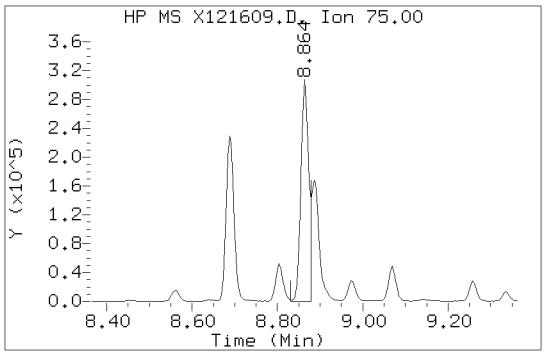
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### Reason Code:

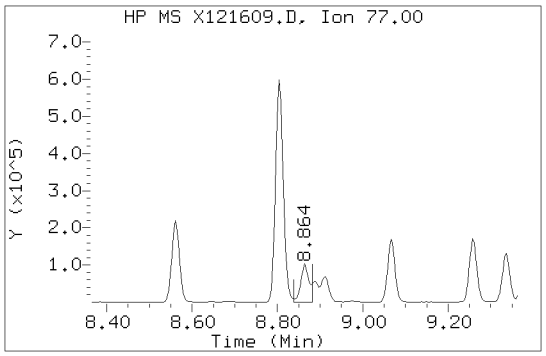
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27-Dec-2022
16:06
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pham




### AFTER

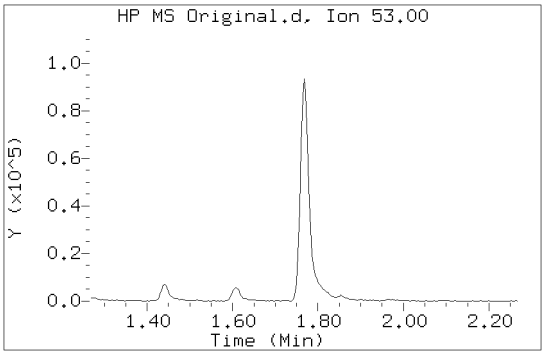
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16:06
linh
pham




## Chloroprene (126-99-8)

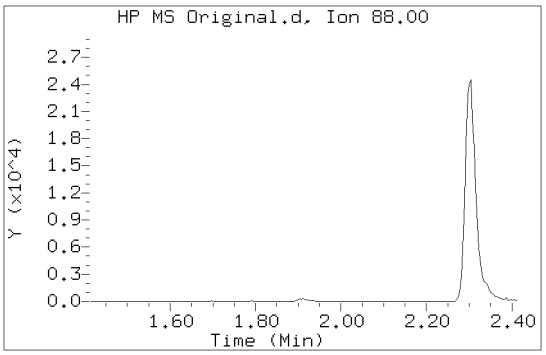
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### BEFORE

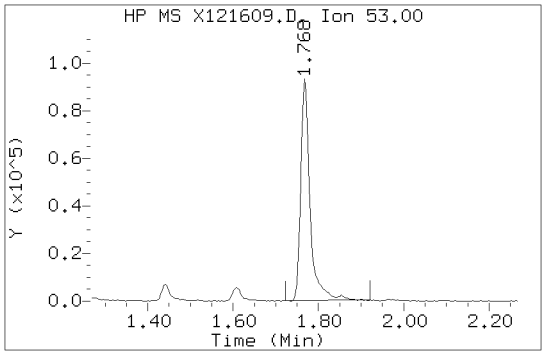
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### Reason Code:

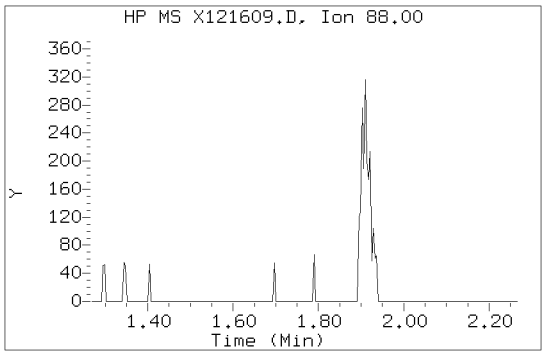
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16:06
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pham




### AFTER

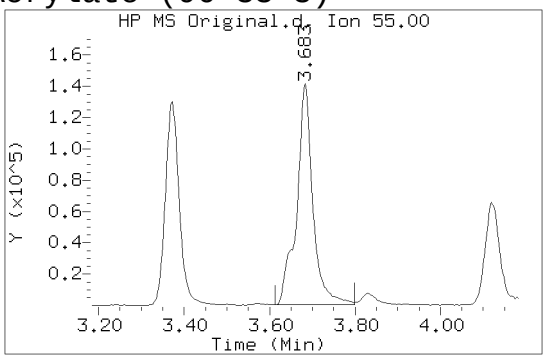
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Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

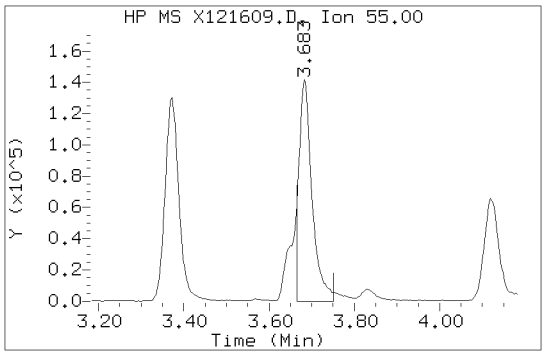
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16:03
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pham

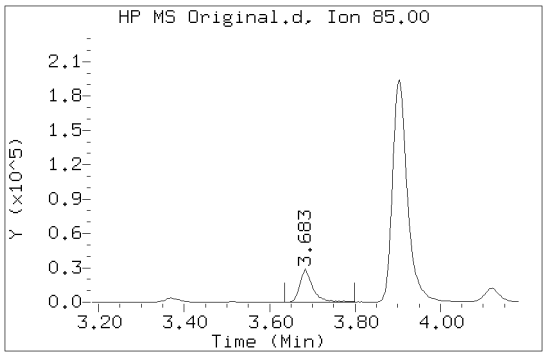



Reason Code:

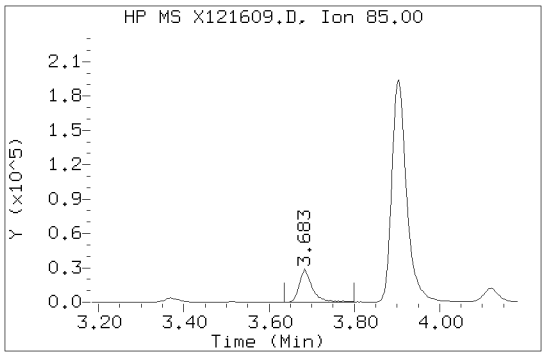
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HEIGHT
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27-Dec-2022
16:06
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BEFORE
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AREA
62241
HEIGHT
29192
27-Dec-2022
16:03
linh
pham

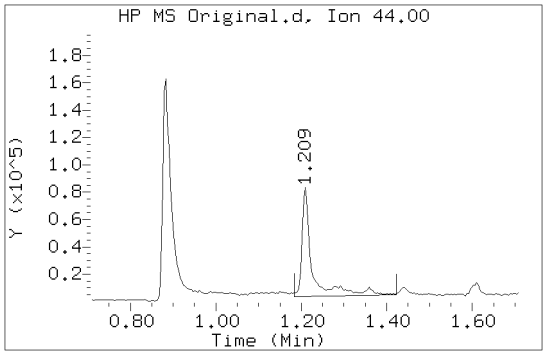



AFTER
MASS
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AREA
62241
HEIGHT
29192
27-Dec-2022
16:06
linh
pham



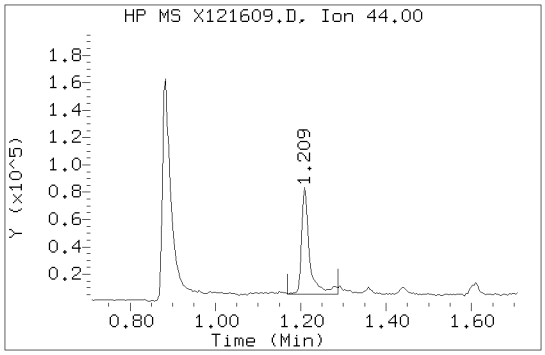

## Acetaldehyde (75-07-0)

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AREA
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HEIGHT
79995
27-Dec-2022
16:03
linh
pham

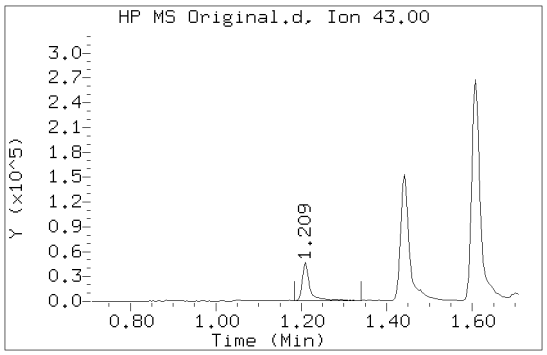



Reason Code:

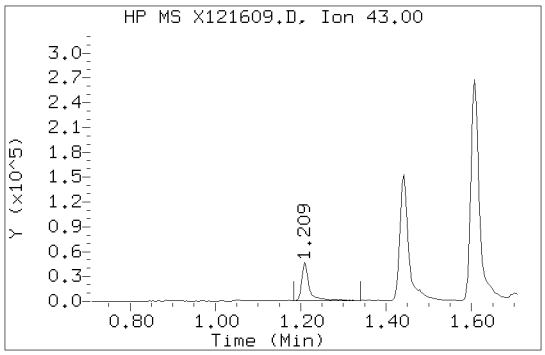
AFTER
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AREA
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HEIGHT
78310
27-Dec-2022
16:06
linh
pham




BEFORE
MASS
43
AREA
58307
HEIGHT
46134
27-Dec-2022
16:03
linh
pham




AFTER
MASS
43
AREA
58307
HEIGHT
46134
27-Dec-2022
16:06
linh
pham



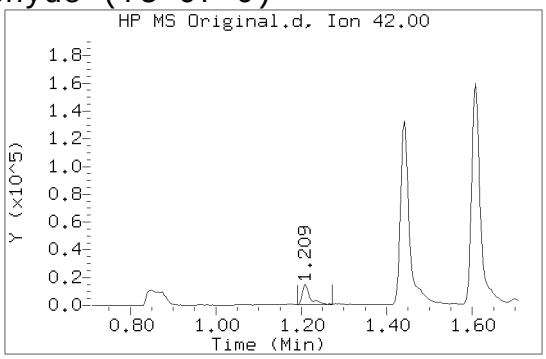
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Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

Acetaldehyde (75-07-0)

Reason Code:

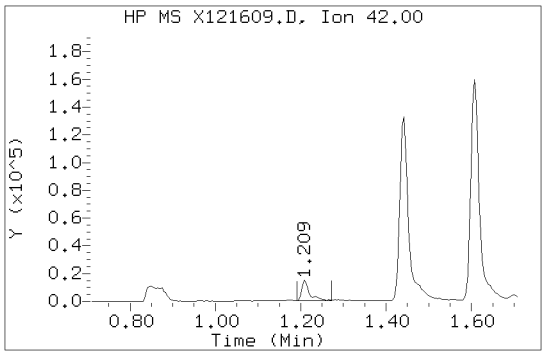
BEFORE

MASS
42
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HEIGHT
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27-Dec-2022
16:03
linh
pham




AFTER

MASS
42
AREA
19613
HEIGHT
14674
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D
Lab Smp Id: VSTD150  Client Smp ID: VSTD150
Inj Date  : 16-DEC-2022 14:46
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD150;VSTD150;1;9;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:25  Cal File: X121609.D
Als bottle: 11  Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.177 | 4.177 | (1.000) | 447266 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 128845 | 3000.00 | 3151.41 |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 468966 | 150.000 | 152.77 |
| 25 Methacrylonitrile | 41 | 3.818 | 3.818 | (0.914) | 457301 | 150.000 | 144.39 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 1595753 | 3000.00 | 3171.99 |
| 13 Acetonitrile | 39 | 2.194 | 2.194 | (0.525) | 642798 | 1500.00 | 1579.09 |
| 14 Allyl Chloride | 41 | 2.194 | 2.194 | (0.525) | 1164663 | 150.000 | 150.22 |
| 4 Propionitrile | 54 | 3.649 | 3.649 | (0.873) | 694740 | 1500.00 | 1522.31 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 533876 | 150.000 | 165.78 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.889 | 8.889 | (1.159) | 234252 | 150.000 | 161.53 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 161053 | 600.000 | 611.34(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 225733 | 150.000 | 148.43 |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 1351001 | 150.000 | 157.73 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 1420820 | 150.000 | 156.27 |
| 139 Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 443624 | 150.000 | 148.44 |
| 130 Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 516433 | 150.000 | 147.97 |
| 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 465959 | 150.000 | 152.78 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 517063 | 150.000 | 157.90 |
| 132 n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 210842 | 3000.00 | 3100.52 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 162133 | 300.000 | 297.65 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 533876 | 3000.00 | 3073.09 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 2744011 | 150.000 | 147.41 |

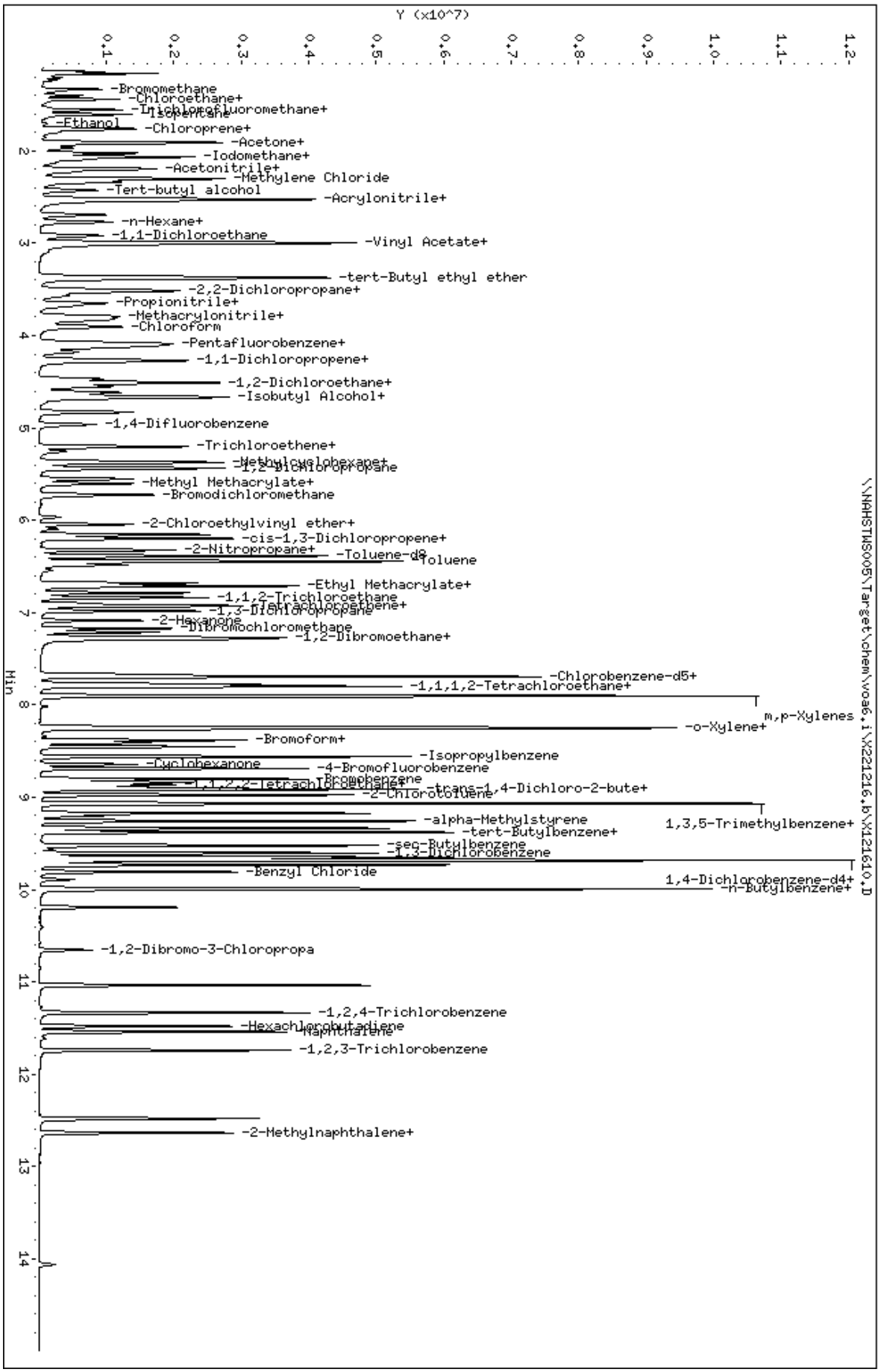
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 131 Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 479571 | 150.000 | 157.93(M) |
| | 162 Butyl acrylate | 55 | 8.248 | 8.248 | (1.076) | 1470193 | 150.000 | 167.53 |
| | 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 476130 | 150.000 | 151.40 |
| | 3 Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 621048 | 150.000 | 148.89 |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 602774 | 150.000 | 154.27 |
| | 6 Bromomethane | 94 | 1.332 | 1.332 | (0.319) | 470318 | 150.000 | 155.29 |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 409168 | 150.000 | 150.45 |
| | 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 866865 | 150.000 | 158.54 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 96139 | 300.000 | 308.25 |
| | 10 Acetone | 43 | 1.969 | 1.969 | (0.472) | 373504 | 300.000 | 297.68 |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 516820 | 150.000 | 152.24 |
| | 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 1554547 | 300.000 | 304.69 |
| | 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 371872 | 300.000 | 323.00 |
| | 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 656037 | 150.000 | 140.89 |
| | 18 Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 1661314 | 150.000 | 149.51 |
| | 19 Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 2747788 | 300.000 | 309.38 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 579939 | 150.000 | 152.65 |
| | 21 Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 3127175 | 300.000 | 320.61 |
| | 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 993924 | 150.000 | 149.06 |
| | 24 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 407629 | 300.000 | 299.97(H) |
| | 26 2,2-Dichloropropane | 77 | 3.506 | 3.506 | (0.839) | 858853 | 150.000 | 151.71 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.521 | (0.843) | 693846 | 150.000 | 150.07 |
| | 28 Chloroform | 83 | 3.904 | 3.904 | (0.935) | 1135322 | 150.000 | 151.92 |
| | 29 Bromochloromethane | 128 | 3.791 | 3.791 | (0.908) | 379595 | 150.000 | 149.95 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 652724 | 150.000 | 152.32 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 907111 | 150.000 | 152.99 |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 766313 | 150.000 | 155.22 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 857022 | 150.000 | 150.42 |
| | 34 Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 758288 | 150.000 | 143.83 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 686218 | 150.000 | 150.83 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 695375 | 50.0000 | |
| | 37 Benzene | 78 | 4.511 | 4.511 | (0.909) | 2450385 | 150.000 | 147.56 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 707016 | 150.000 | 150.11 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 932632 | 150.000 | 149.65 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.217) | 534005 | 300.000 | 301.19 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 658007 | 150.000 | 148.96 |
| | 44 Dibromomethane | 93 | 5.549 | 5.549 | (1.118) | 444851 | 150.000 | 148.16 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.325 | 6.325 | (0.825) | 1052577 | 300.000 | 293.14 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 1159982 | 150.000 | 158.49 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 671780 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 2346444 | 150.000 | 141.35 |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 2724692 | 150.000 | 146.73 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 982044 | 150.000 | 161.68 |
| | 52 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 738082 | 300.000 | 302.12 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 540625 | 150.000 | 145.13 |
| | 54 1,3-Dichloropropane | 76 | 6.981 | 6.981 | (0.911) | 1079961 | 150.000 | 147.29 |
| | 55 Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 822094 | 150.000 | 152.90 |
| | 56 Tetrachloroethene | 164 | 6.929 | 6.929 | (0.904) | 574499 | 150.000 | 149.53 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 715678 | 150.000 | 153.66 |
| | 58 1-Chlorohexane | 55 | 7.697 | 7.697 | (1.550) | 522502 | 150.000 | 155.48 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 1944205 | 150.000 | 147.62 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 744470 | 150.000 | 151.89 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 946928 | 150.000 | 152.63 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 2421267 | 300.000 | 302.75 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 1210374 | 150.000 | 153.33 |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 2169528 | 150.000 | 163.97 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 588916 | 150.000 | 158.11 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 2877359 | 150.000 | 159.55 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 873933 | 150.000 | 141.84 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 936681 | 150.000 | 150.82 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 386546 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 702545 | 150.000 | 163.33 |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 3370402 | 150.000 | 157.41 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 952608 | 150.000 | 150.20 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 2529726 | 150.000 | 159.93 |
| | 76 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 2083510 | 150.000 | 148.28 |
| | 77 4-Chlorotoluene | 91 | 9.069 | 9.069 | (0.939) | 2540753 | 150.000 | 158.62 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 2055293 | 150.000 | 158.74 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 2613455 | 150.000 | 157.03 |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 2819238 | 150.000 | 163.65 |
| | 82 p-Isopropyltoluene | 119 | 9.650 | 9.650 | (0.999) | 2542764 | 150.000 | 164.71 |
| | 83 1,3-Dichlorobenzene | 146 | 9.605 | 9.605 | (0.994) | 1650440 | 150.000 | 156.79 |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 1766146 | 150.000 | 153.76 |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 1650494 | 150.000 | 151.23 |
| | 87 n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 2293126 | 150.000 | 150.43 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 1672283 | 150.000 | 154.25 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 149691 | 150.000 | 151.78 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 1094701 | 150.000 | 160.01 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 466452 | 150.000 | 150.10 |
| | 92 Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 2498440 | 150.000 | 160.50 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.738 | 11.738 | (1.215) | 991236 | 150.000 | 151.28 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 1273785 | 300.000 | |
| M | 95 Xylenes (total) | 106 | | | | 3631641 | 450.000 | |
| | 141 Cyclohexane | 56 | 4.117 | 4.117 | (0.986) | 682728 | 150.000 | 148.87 |
| | 138 Freon TF | 101 | 1.910 | 1.910 | (0.457) | 517229 | 150.000 | 157.53 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 1358300 | 150.000 | 159.57(A) |
| | 146 Methyl Acetate | 43 | 2.224 | 2.224 | (0.533) | 301298 | 150.000 | 149.70 |
| | 148 Tert-Butyl alcohol | 59 | 2.427 | 2.427 | (0.581) | 962267 | 3000.00 | 3107.07 |
| | 149 Isopropyl Alcohol | 45 | 2.093 | 2.093 | (0.501) | 514966 | 3000.00 | 3183.89 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121610.D
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Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
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Column phase: DB624

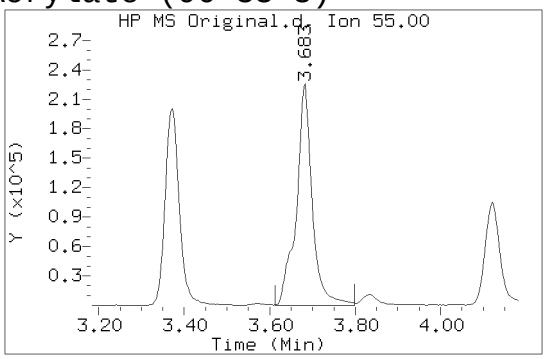
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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InstruID : voa6.i
LabSampID : VSTD150

## Methyl Acrylate (96-33-3)

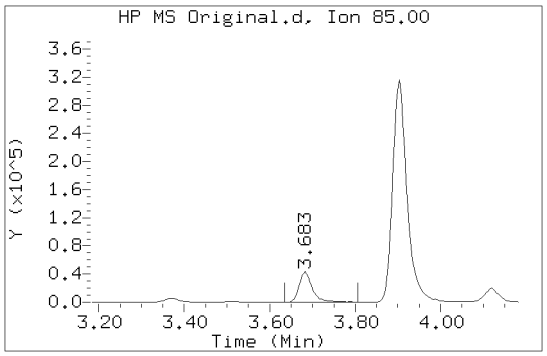
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HEIGHT
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27-Dec-2022
16:04
linh
pham




### BEFORE

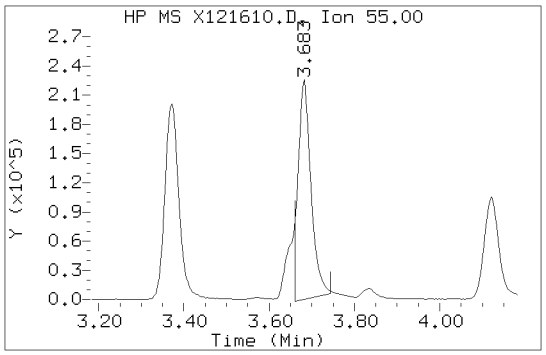
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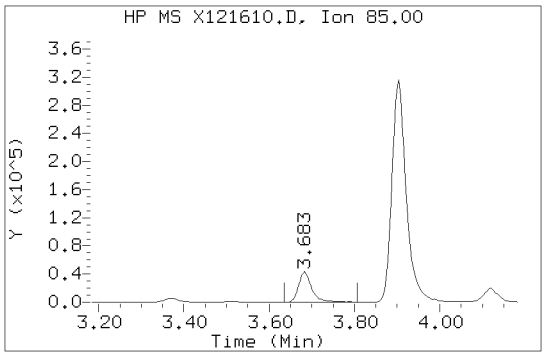
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### AFTER

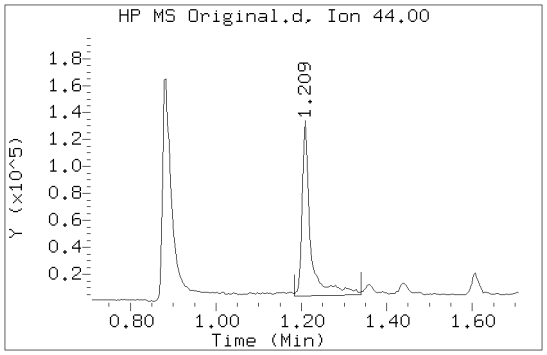
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## Acetaldehyde (75-07-0)

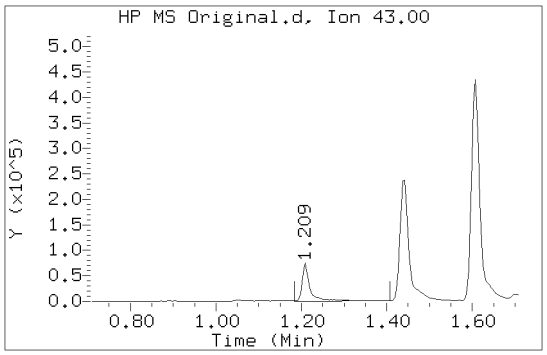
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pham




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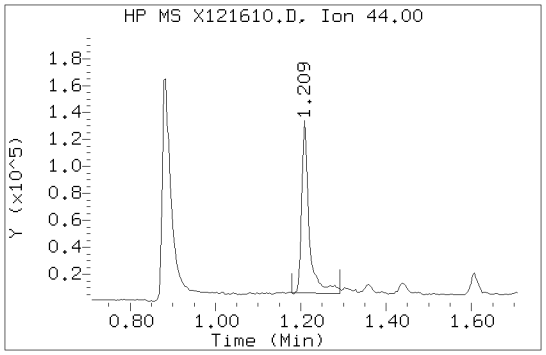
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linh
pham




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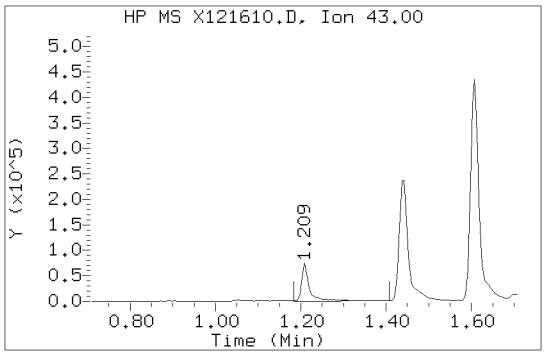
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27-Dec-2022
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pham




### AFTER

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HEIGHT
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27-Dec-2022
16:06
linh
pham



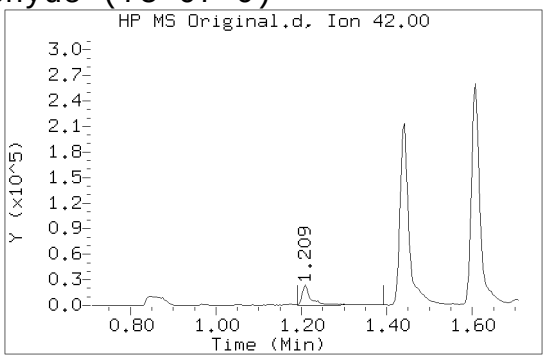
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Acetaldehyde (75-07-0)

Reason Code:

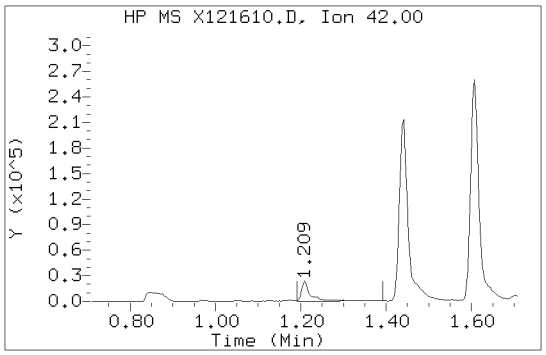
BEFORE

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HEIGHT
23932
27-Dec-2022
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linh
pham




AFTER

MASS
42
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36089
HEIGHT
23932
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
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Inj Date  : 16-DEC-2022 15:07
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD200;VSTD200;1;10;
Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:46  Cal File: X121610.D
Als bottle: 12  Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 450847 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 179280 | 4000.00 | 4350.17(A) |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 646265 | 200.000 | 208.86(A) |
| 25 Methacrylonitrile | 41 | 3.814 | 3.814 | (0.913) | 619479 | 200.000 | 194.04 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 2146631 | 4000.00 | 4233.12(A) |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 854153 | 2000.00 | 2081.63(A) |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 1558053 | 200.000 | 199.36 |
| 4 Propionitrile | 54 | 3.649 | 3.649 | (0.873) | 933721 | 2000.00 | 2029.71(A) |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 726173 | 200.000 | 223.70(A) |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.890 | (1.159) | 324976 | 200.000 | 217.73(A) |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 205547 | 800.000 | 780.23(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 315248 | 200.000 | 205.64(A) |
| 145 alpha-Methylstyrene | 118 | 9.261 | 9.261 | (0.958) | 1880547 | 200.000 | 211.54(A) |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 1929723 | 200.000 | 206.22(A) |
| 139 Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 595638 | 200.000 | 197.72 |
| 130 Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 706790 | 200.000 | 200.90(A) |
| 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 643877 | 200.000 | 209.45(A) |
| 49 Ethyl Methacrylate | 69 | 6.715 | 6.715 | (1.353) | 735246 | 200.000 | 222.23(A) |
| 132 n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 297334 | 4000.00 | 3955.86 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 219995 | 400.000 | 401.77(A) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 726173 | 4000.00 | 4146.79(A) |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 3701988 | 200.000 | 191.61 |

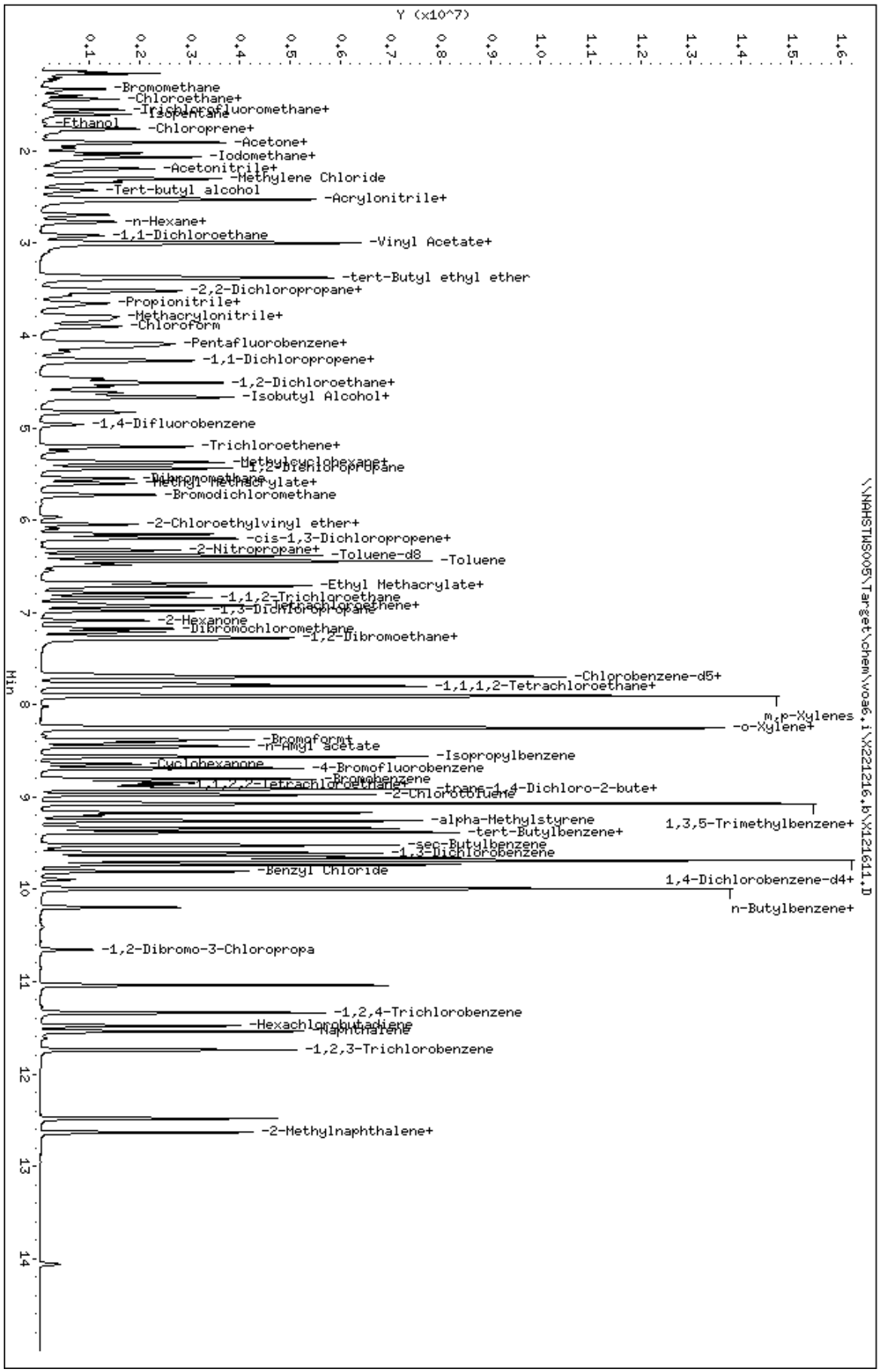
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 131 Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 646827 | 200.000 | 211.32(AM) |
| | 162 Butyl acrylate | 55 | 8.252 | 8.252 | (1.076) | 2063916 | 200.000 | 228.52(A) |
| | 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 635808 | 200.000 | 200.44(A) |
| | 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 865151 | 200.000 | 204.92(A) |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 827926 | 200.000 | 210.21(A) |
| | 6 Bromomethane | 94 | 1.329 | 1.329 | (0.318) | 666705 | 200.000 | 217.67(A) |
| | 7 Chloroethane | 64 | 1.396 | 1.396 | (0.334) | 548415 | 200.000 | 200.06(A) |
| | 8 Trichlorofluoromethane | 101 | 1.553 | 1.553 | (0.372) | 1173529 | 200.000 | 212.92(A) |
| | 9 Acrolein | 56 | 1.437 | 1.437 | (0.344) | 125874 | 400.000 | 399.54 |
| | 10 Acetone | 43 | 1.970 | 1.970 | (0.472) | 514105 | 400.000 | 406.50(A) |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 704695 | 200.000 | 205.94(A) |
| | 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 2193685 | 400.000 | 398.07 |
| | 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 504850 | 400.000 | 435.02(A) |
| | 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 863945 | 200.000 | 184.07 |
| | 18 Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 2237559 | 200.000 | 199.78 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 3829593 | 400.000 | 427.76(A) |
| | 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 785444 | 200.000 | 205.10(A) |
| | 21 Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 4210603 | 400.000 | 428.26(A) |
| | 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 1342786 | 200.000 | 199.79 |
| | 24 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 555896 | 400.000 | 404.77(AH) |
| | 26 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 1175128 | 200.000 | 205.93(A) |
| | 27 cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.843) | 927934 | 200.000 | 199.10 |
| | 28 Chloroform | 83 | 3.904 | 3.904 | (0.935) | 1523082 | 200.000 | 202.19(A) |
| | 29 Bromochloromethane | 128 | 3.791 | 3.791 | (0.908) | 510028 | 200.000 | 199.87 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 856027 | 200.000 | 198.23 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 1257327 | 200.000 | 210.37(A) |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 1048877 | 200.000 | 210.29(A) |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 1153034 | 200.000 | 200.31(A) |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 1051824 | 200.000 | 197.48 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 919752 | 200.000 | 200.47(A) |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 702551 | 50.0000 | |
| | 37 Benzene | 78 | 4.511 | 4.511 | (0.909) | 3321582 | 200.000 | 197.98 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 973709 | 200.000 | 204.62(A) |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 1264834 | 200.000 | 200.88(A) |
| | 41 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.217) | 729151 | 400.000 | 407.06(A) |
| | 42 1,2-Dichloropropane | 63 | 5.437 | 5.437 | (1.095) | 895211 | 200.000 | 200.59(A) |
| | 44 Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 600170 | 200.000 | 197.85 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.326 | 6.326 | (0.825) | 1447268 | 400.000 | 391.63 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 1583645 | 200.000 | 214.16(A) |
| * | 47 Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 691386 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.832) | 3061758 | 200.000 | 179.21 |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.840) | 3757557 | 200.000 | 196.62 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 1365007 | 200.000 | 222.44(A) |
| | 52 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 1026898 | 400.000 | 408.42(A) |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 736981 | 200.000 | 192.23 |
| | 54 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.910) | 1482067 | 200.000 | 196.39 |
| | 55 Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 1128140 | 200.000 | 203.88(A) |
| | 56 Tetrachloroethene | 164 | 6.929 | 6.929 | (0.903) | 798932 | 200.000 | 202.05(A) |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.946) | 970608 | 200.000 | 202.48(A) |
| | 58 1-Chlorohexane | 55 | 7.698 | 7.698 | (1.550) | 746326 | 200.000 | 219.81(A) |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 2696715 | 200.000 | 198.95 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.776 | 7.776 | (1.014) | 1028448 | 200.000 | 203.88(A) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 1312165 | 200.000 | 205.50(A) |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.030) | 3401207 | 400.000 | 413.22(A) |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.074) | 1701245 | 200.000 | 209.41(A) |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 3030858 | 200.000 | 222.58(A) |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.096) | 809693 | 200.000 | 211.22(A) |
| | 67 Isopropylbenzene | 105 | 8.563 | 8.563 | (1.116) | 4031708 | 200.000 | 217.22(A) |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.841 | 8.841 | (0.915) | 1186926 | 200.000 | 185.61 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.132) | 1277239 | 200.000 | 199.81 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.666 | 9.666 | (1.000) | 401196 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 864931 | 200.000 | 193.75(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 4694239 | 200.000 | 211.23(A) |
| | 74 Bromobenzene | 156 | 8.807 | 8.807 | (0.911) | 1313631 | 200.000 | 199.57 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.070 | 9.070 | (0.938) | 3532485 | 200.000 | 215.17(A) |
| | 76 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 2866849 | 200.000 | 196.59 |
| | 77 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.938) | 3546402 | 200.000 | 213.32(A) |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 2865820 | 200.000 | 213.26(A) |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 3599947 | 200.000 | 208.40(A) |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.985) | 3952917 | 200.000 | 221.08(A) |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.998) | 3537904 | 200.000 | 220.81(A) |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 2282597 | 200.000 | 208.93(A) |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 2442324 | 200.000 | 204.86(A) |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 2286488 | 200.000 | 202.63(A) |
| | 87 n-Butylbenzene | 91 | 9.995 | 9.995 | (1.034) | 3216534 | 200.000 | 202.68(A) |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 2296902 | 200.000 | 204.14(A) |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.102) | 205063 | 200.000 | 200.30(A) |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 1524896 | 200.000 | 214.75(A) |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 654615 | 200.000 | 200.27(A) |
| | 92 Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 3413593 | 200.000 | 211.29(A) |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.214) | 1363987 | 200.000 | 200.56(A) |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 1713378 | 400.000 | |
| M | 95 Xylenes (total) | 106 | | | | 5102452 | 600.000 | |
| | 141 Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 943314 | 200.000 | 203.60(A) |
| | 138 Freon TF | 101 | 1.910 | 1.910 | (0.457) | 714577 | 200.000 | 215.91(A) |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 1829310 | 200.000 | 212.71(A) |
| | 146 Methyl Acetate | 43 | 2.224 | 2.224 | (0.533) | 408781 | 200.000 | 201.49(A) |
| | 148 Tert-Butyl alcohol | 59 | 2.431 | 2.431 | (0.582) | 1308623 | 4000.00 | 4191.87(A) |
| | 149 Isopropyl Alcohol | 45 | 2.093 | 2.093 | (0.501) | 697543 | 4000.00 | 4278.45(A) |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
Date : 16-DEC-2022 15:07
Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;
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Column phase: DB624

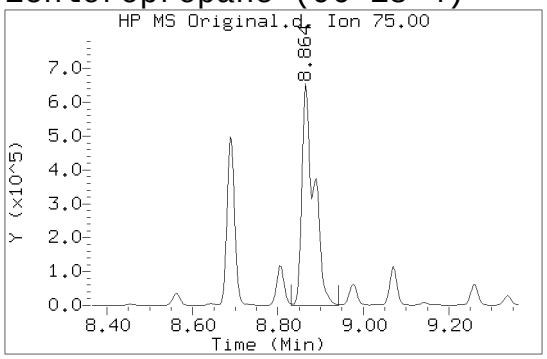
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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Inj Date : 16-DEC-2022 15:07
InstruID : voa6.i
LabSampID : VSTD200

## 1,2,3-Trichloropropane (96-18-4)

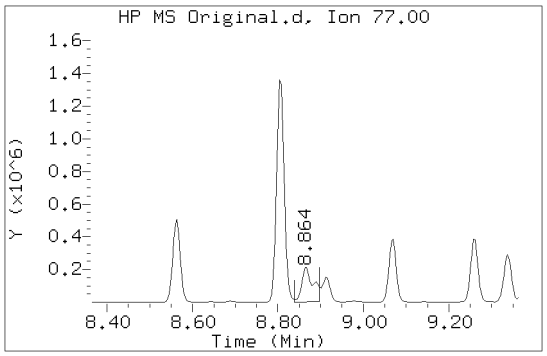
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HEIGHT
654512
27-Dec-2022
16:04
linh
pham




### BEFORE

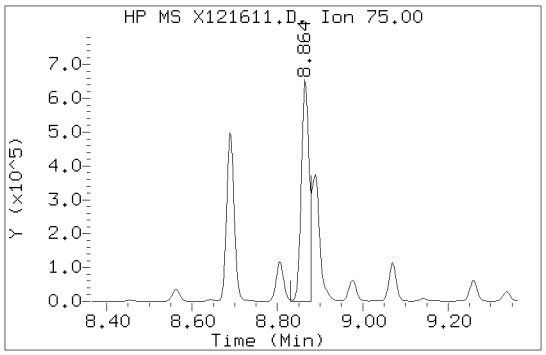
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16:04
linh
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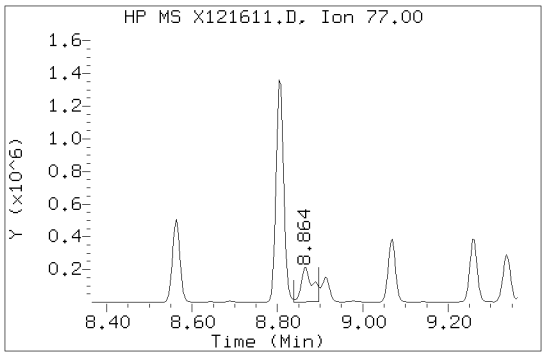
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HEIGHT
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27-Dec-2022
16:06
linh
pham




### AFTER

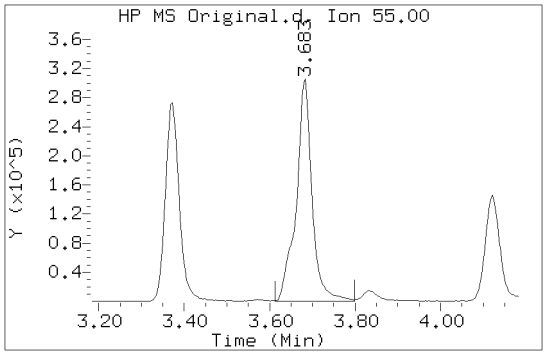
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HEIGHT
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16:06
linh
pham




## Methyl Acrylate (96-33-3)

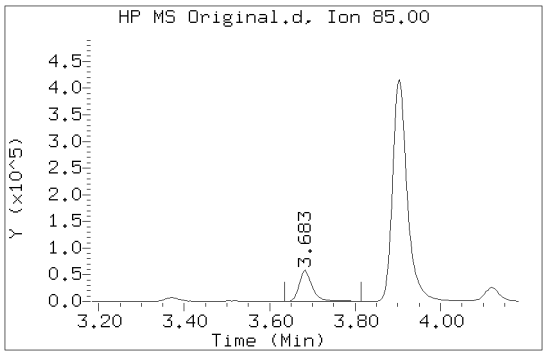
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HEIGHT
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16:04
linh
pham




### BEFORE

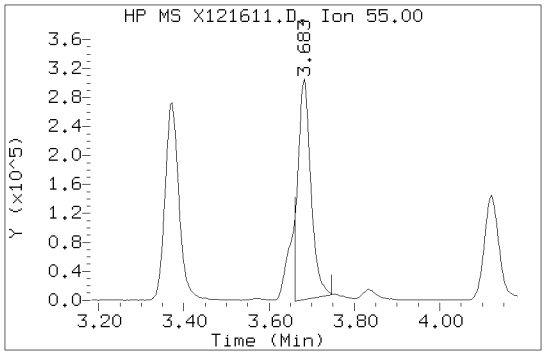
MASS
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AREA
126210
HEIGHT
59160
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16:04
linh
pham




### Reason Code:

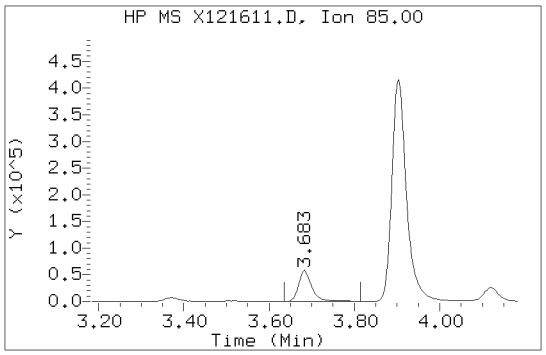
### AFTER

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AREA
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HEIGHT
304558
27-Dec-2022
16:06
linh
pham




### AFTER

MASS
85
AREA
126210
HEIGHT
59160
27-Dec-2022
16:06
linh
pham



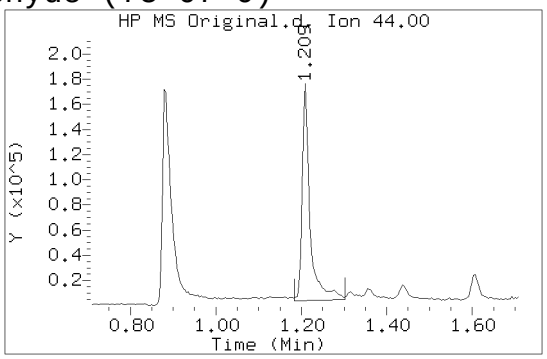
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Inj Date : 16-DEC-2022 15:07
InstruID : voa6.i
LabSampID : VSTD200

## Acetaldehyde (75-07-0)

Reason Code:

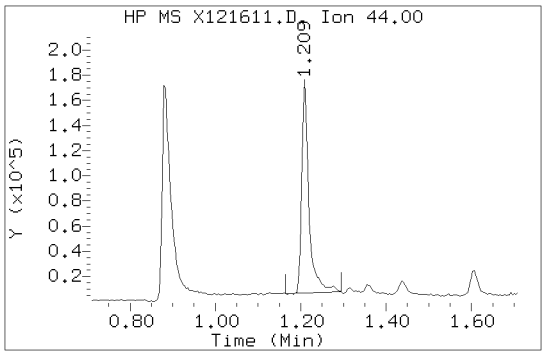
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AREA
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HEIGHT
172187
27-Dec-2022
16:04
linh
pham



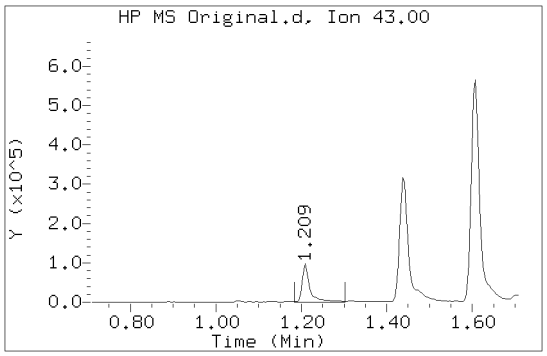

### AFTER

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16:06
linh
pham



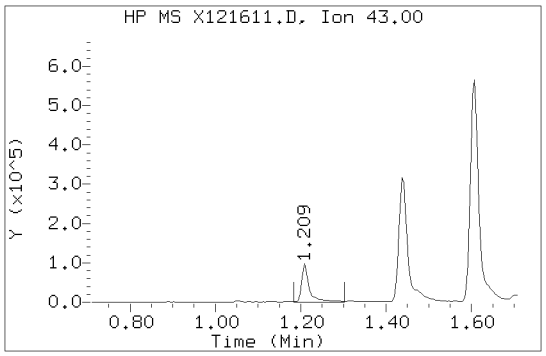

### BEFORE

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AREA
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HEIGHT
97657
27-Dec-2022
16:04
linh
pham



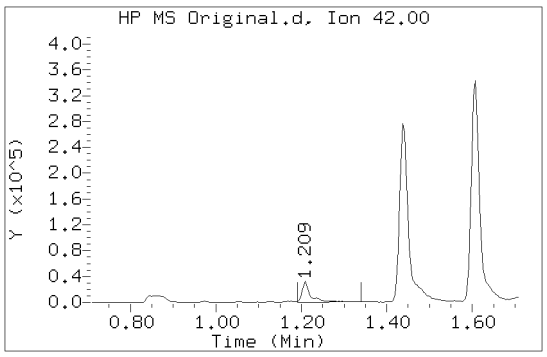

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HEIGHT
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linh
pham



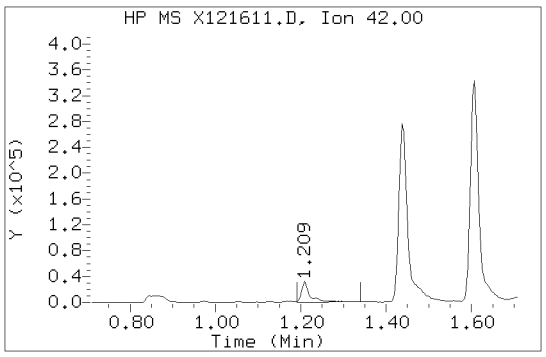

### BEFORE

MASS
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AREA
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HEIGHT
31915
27-Dec-2022
16:04
linh
pham




### AFTER

MASS
42
AREA
43931
HEIGHT
31915
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D  Page 1
Report Date: 13-Feb-2023 13:08

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
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Inj Date  : 16-DEC-2022 15:49
Operator  : PC  Inst ID: voa6.i
Smp Info  : CCV;CCV;2;;ICV
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:38 Linh.Pham  Quant Type: ISTD
Cal Date  : 16-DEC-2022 15:07  Cal File: X121611.D
Als bottle: 14  QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 457291 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 42711 | 1021.77 | 1021.76 |
| 140 1,3-Butadiene | 54 | 1.164 | 1.160 | (0.279) | 155959 | 49.6927 | 49.69 |
| 25 Methacrylonitrile | 41 | 3.818 | 3.818 | (0.914) | 151341 | 46.7389 | 46.73 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 505171 | 982.151 | 982.15 |
| 13 Acetonitrile | 39 | 2.194 | 2.195 | (0.525) | 197937 | 475.590 | 475.59 |
| 14 Allyl Chloride | 41 | 2.194 | 2.195 | (0.525) | 375064 | 47.3168 | 47.31 |
| 4 Propionitrile | 54 | 3.649 | 3.645 | (0.873) | 227186 | 486.896 | 486.89 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 183599 | 55.7620 | 55.76 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 71513 | 49.7372 | 49.73 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 52697 | 179.814 | 179.81(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 74243 | 47.7493 | 47.74(M) |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 428317 | 51.3094 | 51.30 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.194 | (0.808) | 437905 | 48.5791 | 48.57 |
| 139 Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 142672 | 46.6930 | 46.69 |
| 130 Ethyl Acetate | 43 | 3.653 | 3.653 | (0.874) | 171211 | 47.9808 | 47.98 |
| 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 148777 | 47.7146 | 47.71 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.708 | (1.352) | 142471 | 44.0730 | 44.07 |
| 132 n-Butanol | 56 | 5.257 | 5.253 | (1.258) | 56842 | 974.397 | 974.39 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.844 | (0.919) | 61534 | 108.502 | 108.50 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 846843 | 46.6777 | 46.67 |
| 131 | Methyl Acrylate | 55 | 3.683 | 3.683 (0.882) | 162555 | 52.3594 | 52.35 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D Page 2
Report Date: 13-Feb-2023 13:08

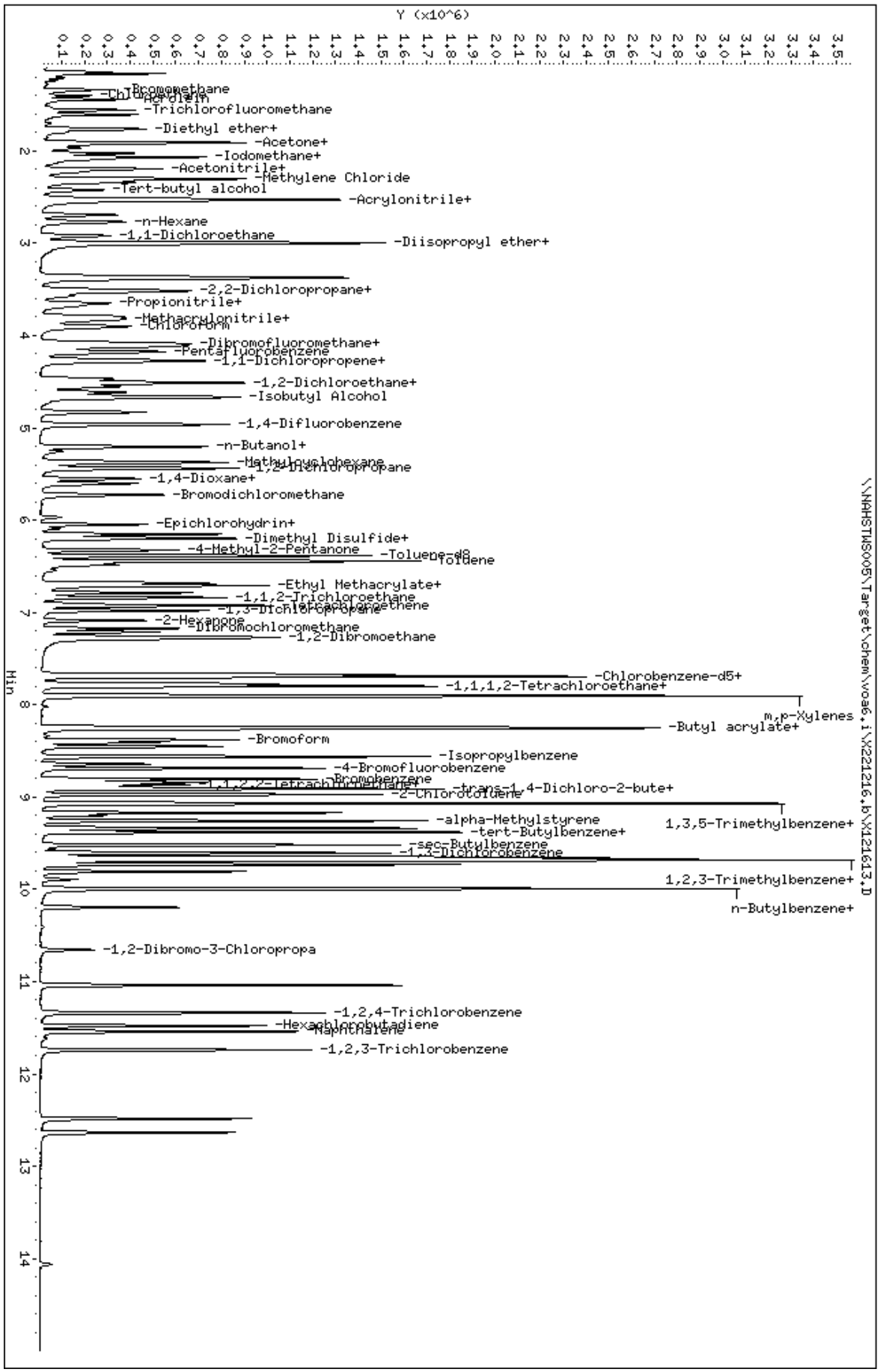
| | | | QUANT SIG | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN ( ug/l) | FINAL ( ug/l) |
| | 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 417137 | 47.9449 | 47.94 |
| | 2 | Dichlorodifluoromethane | 85 | 0.972 | 0.969 | (0.233) | 166984 | 52.1924 | 52.19 |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 207623 | 50.1741 | 50.17 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 202038 | 50.5766 | 50.57 |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 153541 | 50.7886 | 50.78 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 134354 | 48.3213 | 48.32 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 285144 | 51.0083 | 51.00 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 29687 | 95.0682 | 95.06 |
| | 10 | Acetone | 43 | 1.970 | 1.970 | (0.472) | 130747 | 101.899 | 101.89 |
| | 11 | 1,1-Dichloroethene | 96 | 1.913 | 1.910 | (0.458) | 171246 | 49.3414 | 49.34 |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 440111 | 96.4856 | 96.48 |
| | 16 | Acrylonitrile | 53 | 2.532 | 2.528 | (0.606) | 119393 | 101.430 | 101.42 |
| | 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 226449 | 47.5675 | 47.56 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 546711 | 48.1256 | 48.12 |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 894433 | 98.5011 | 98.50 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.528 | 2.524 | (0.605) | 194181 | 49.9917 | 49.99 |
| | 21 | Vinyl Acetate | 43 | 2.997 | 2.993 | (0.717) | 1044658 | 104.756 | 104.75 |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 328530 | 48.1931 | 48.19 |
| | 24 | 2-Butanone | 43 | 3.574 | 3.574 | (0.856) | 132931 | 97.7407 | 97.74(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.503 | (0.839) | 295126 | 50.9895 | 50.98 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.525 | 3.522 | (0.844) | 228100 | 48.2538 | 48.25 |
| | 28 | Chloroform | 83 | 3.904 | 3.900 | (0.935) | 370227 | 48.4556 | 48.45 |
| | 29 | Bromochloromethane | 128 | 3.795 | 3.791 | (0.908) | 122310 | 47.2570 | 47.25 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.099 | (0.980) | 223563 | 50.9182 | 50.91 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 304118 | 50.1673 | 50.16 |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 254008 | 52.1195 | 52.11 |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 278558 | 49.5262 | 49.52 |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.260 | (0.859) | 255322 | 49.0600 | 49.06 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 233432 | 50.3661 | 50.36 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 686467 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.507 | (0.909) | 824422 | 50.2921 | 50.29 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 238429 | 51.2807 | 51.28 |
| | 39 | Bromodichloromethane | 83 | 5.726 | 5.726 | (1.153) | 302844 | 49.2265 | 49.22 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.048 | 6.044 | (1.218) | 182363 | 104.194 | 104.19 |
| | 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 216322 | 49.6089 | 49.60 |
| | 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 145797 | 49.1915 | 49.19 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.325 | 6.322 | (0.825) | 334751 | 94.0316 | 94.03 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 376514 | 52.1120 | 52.11 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 666040 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.385 | 6.386 | (0.833) | 814721 | 49.5021 | 49.50 |
| | 50 | Toluene | 91 | 6.445 | 6.446 | (0.841) | 905906 | 49.2085 | 49.20 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.346) | 314805 | 52.5028 | 52.50 |
| | 52 | 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 234303 | 96.7356 | 96.73 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 176962 | 47.9147 | 47.91 |
| | 54 | 1,3-Dichloropropane | 76 | 6.981 | 6.982 | (0.911) | 347689 | 47.8282 | 47.82 |
| | 55 | Dibromochloromethane | 129 | 7.176 | 7.173 | (0.936) | 263907 | 49.5095 | 49.50 |
| | 56 | Tetrachloroethene | 164 | 6.929 | 6.925 | (0.904) | 194246 | 50.9965 | 50.99 |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 232024 | 50.2468 | 50.24 |
| | 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 172462 | 51.9860 | 51.98 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 631235 | 48.3416 | 48.34 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 236254 | 48.6176 | 48.61 |
| | 61 | Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 315635 | 51.3153 | 51.31 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 794307 | 100.175 | 100.17 |
| 63 o-Xylene | 106 | 8.241 | 8.241 (1.075) | 389371 | 49.7531 | 49.75 |

| | | | QUANT SIG | | | | | CONCENTRATIONS ON-COLUMN | CONCENTRATIONS FINAL |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ( ug/l) | ( ug/l) |
| | 64 | Styrene | 104 | 8.260 | 8.256 | (1.077) | 683415 | 52.0997 | 52.09 |
| | 66 | Bromoform | 173 | 8.410 | 8.410 | (1.097) | 182169 | 49.3304 | 49.33 |
| | 67 | Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 931467 | 52.0964 | 52.09 |
| | 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 280729 | 46.7506 | 46.75 |
| $ | 69 | 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 307493 | 49.9836 | 49.98 |
| * | 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 376748 | 50.0000 | |
| | 71 | 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 201551 | 48.0786 | 48.07(M) |
| | 73 | n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1099273 | 52.6761 | 52.67 |
| | 74 | Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 306751 | 49.6271 | 49.62 |
| | 75 | 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 806374 | 52.3068 | 52.30 |
| | 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 683941 | 49.9441 | 49.94 |
| | 77 | 4-Chlorotoluene | 91 | 9.069 | 9.070 | (0.939) | 800114 | 51.2527 | 51.25 |
| | 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 666730 | 52.8346 | 52.83 |
| | 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 832541 | 51.3249 | 51.32 |
| | 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 909529 | 54.1700 | 54.16 |
| | 82 | p-Isopropyltoluene | 119 | 9.651 | 9.647 | (0.999) | 823827 | 54.7550 | 54.75 |
| | 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 525438 | 51.2160 | 51.21 |
| | 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 556610 | 49.7188 | 49.71 |
| | 87 | n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 735043 | 50.6672 | 50.66 |
| | 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 523296 | 49.5268 | 49.52 |
| | 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 48516 | 50.5353 | 50.53 |
| | 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 364475 | 54.6601 | 54.66 |
| | 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 170927 | 57.7383 | 57.73 |
| | 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 799121 | 52.6729 | 52.67 |
| | 93 | 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.215) | 337140 | 52.7917 | 52.79 |
| M | 94 | 1,2-Dichloroethylene (total) | 96 | | | | 422281 | 98.2454 | 98.24 |
| M | 95 | Xylenes (total) | 106 | | | | 1183678 | 149.928 | 149.92 |
| | 141 | Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 238664 | 51.7326 | 51.73 |
| | 138 | Freon TF | 101 | 1.913 | 1.913 | (0.458) | 177599 | 52.9072 | 52.90 |
| | 147 | Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 427649 | 50.8929 | 50.89 |
| | 146 | Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 99131 | 48.1755 | 48.17 |
| | 148 | Tert-Butyl alcohol | 59 | 2.423 | 2.427 | (0.580) | 311463 | 983.641 | 983.64 |
| | 149 | Isopropyl Alcohol | 45 | 2.090 | 2.090 | (0.500) | 170003 | 1028.04 | 1028.03 |

## QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121613.D
Date : 16-DEC-2022 15:49
Client ID: ICV
Sample Info: CCV;CCV;2;;ICV
Purge Volume: 5.0
Column phase: DB624

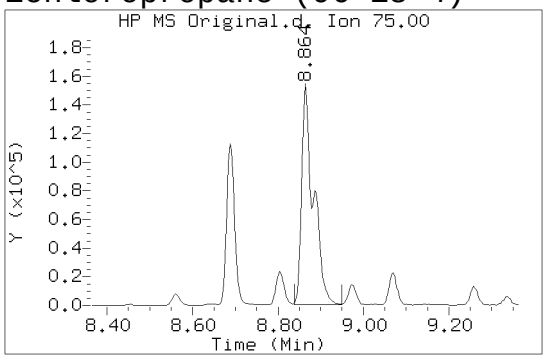
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Inj Date : 16-DEC-2022 15:49
InstruID : voa6.i
LabSampID : ICV

## 1,2,3-Trichloropropane (96-18-4)

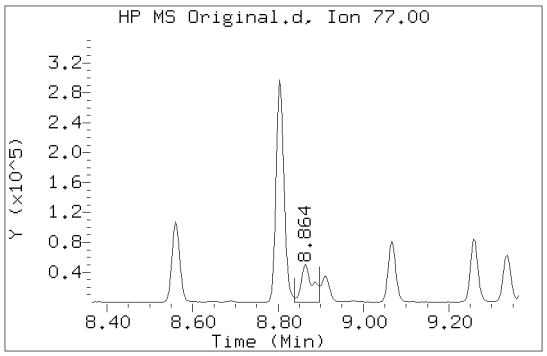
### BEFORE

MASS
75
AREA
301229
HEIGHT
154590
27-Dec-2022
16:04
linh
pham




### BEFORE

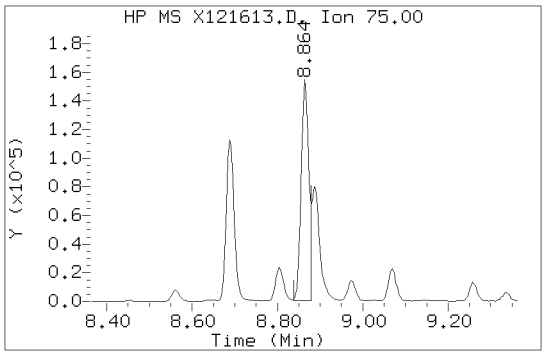
MASS
77
AREA
98445
HEIGHT
50627
27-Dec-2022
16:04
linh
pham




### Reason Code:

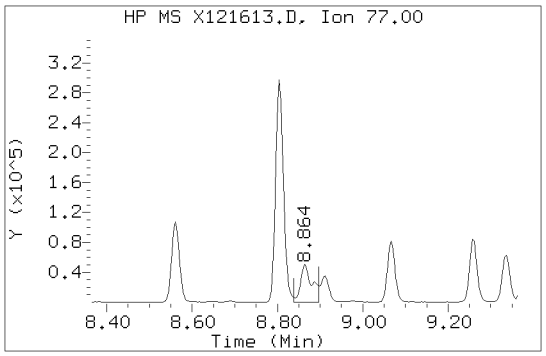
### AFTER

MASS
75
AREA
201551
HEIGHT
154590
13-Feb-2023
13:08
linh
pham




### AFTER

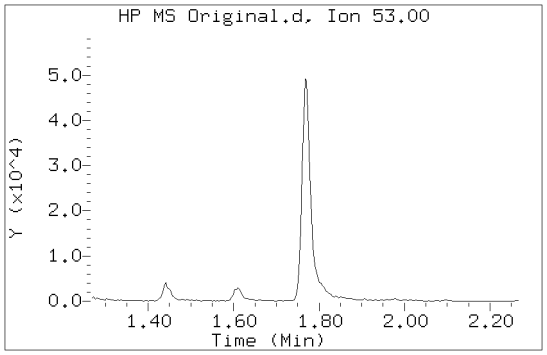
MASS
77
AREA
98445
HEIGHT
50627
13-Feb-2023
13:08
linh
pham




## Chloroprene (126-99-8)

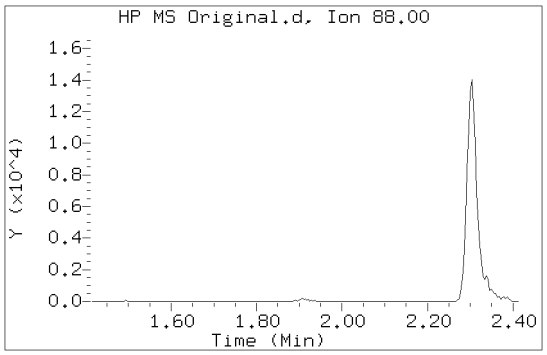
### BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:04
linh
pham




### BEFORE

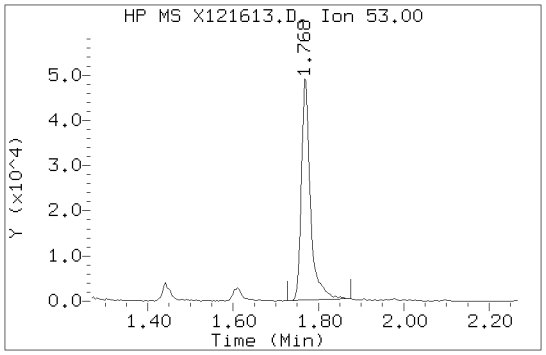
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:04
linh
pham




### Reason Code:

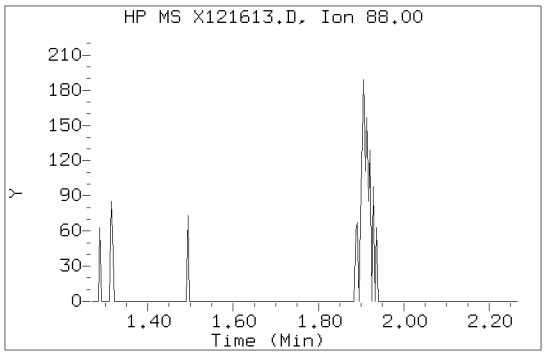
### AFTER

MASS
53
AREA
74243
HEIGHT
48931
13-Feb-2023
13:08
linh
pham




### AFTER

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:08
linh
pham



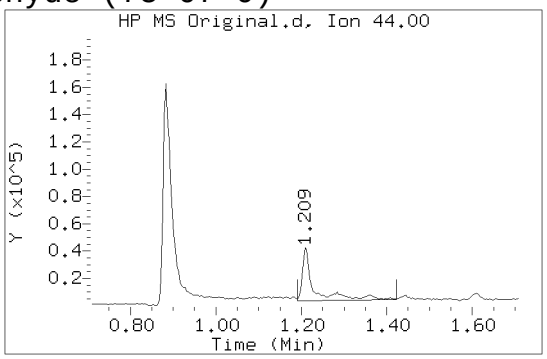
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Inj Date : 16-DEC-2022 15:49
InstruID : voa6.i
LabSampID : ICV

Acetaldehyde (75-07-0)

Reason Code:

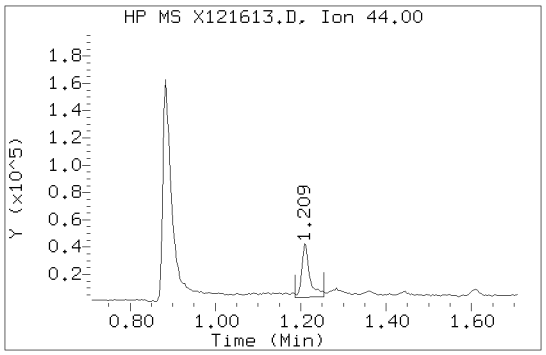
BEFORE

MASS
44
AREA
75387
HEIGHT
39303
27-Dec-2022
16:04
linh
pham



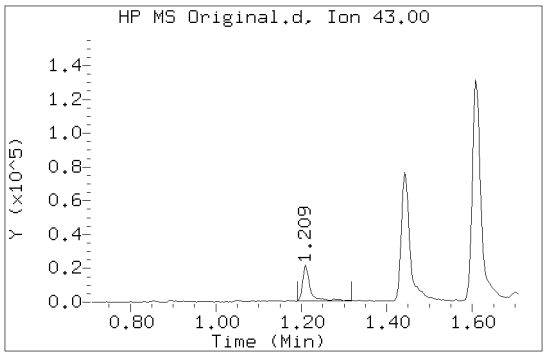

AFTER

MASS
44
AREA
52697
HEIGHT
39303
13-Feb-2023
13:08
linh
pham



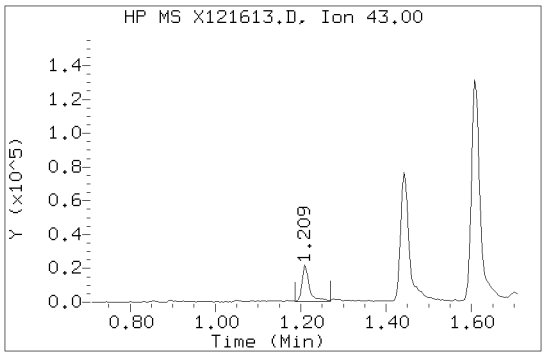

BEFORE

MASS
43
AREA
27778
HEIGHT
21502
27-Dec-2022
16:04
linh
pham



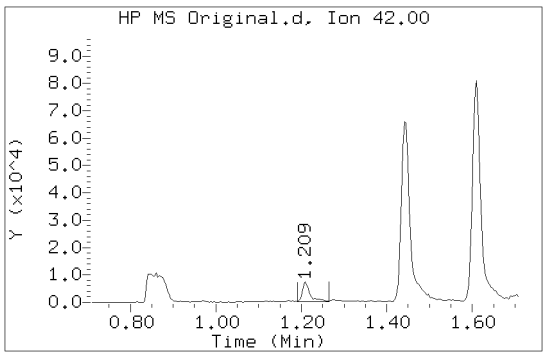

AFTER

MASS
43
AREA
26760
HEIGHT
21664
13-Feb-2023
13:08
linh
pham



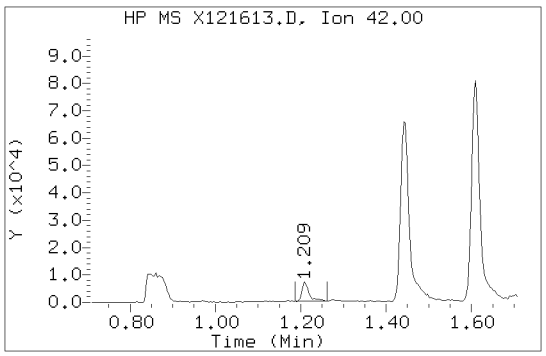

BEFORE

MASS
42
AREA
8969
HEIGHT
7131
27-Dec-2022
16:04
linh
pham




AFTER

MASS
42
AREA
8550
HEIGHT
7027
13-Feb-2023
13:08
linh
pham



01241153

right solutions.
right partner.

# Raw Data VOA6 426583

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\nahstws005\Target\chem\voa6.i\X230126.b\X012601.D  Page 1
Report Date: 26-Jan-2023 09:22

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X230126.b\X012601.D
Lab Smp Id: BFB  Client Smp ID: BFB
Inj Date  : 26-JAN-2023 08:03
Operator  : FT  Inst ID: voa6.i
Smp Info  : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\nahstws005\Target\chem\voa6.i\X230126.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham  Quant Type: ISTD
Cal Date  :  Cal File:
Als bottle: 1  QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: all.sub
Target Version:  4.14  Sample Matrix: WATER
Processing Host: NAHSTW7066

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vf | 1.000 | Volumetric correction factor |
| Vi | 2.000 | Injection Volume |
| Cpnd Variable | | Local Compound Variable |

| | | | | | CONCENTRATIONS ON-COL ( ug/L) | FINAL ( ug/l) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | | CAS #: 460-00-4 | |
| 8.687 | 8.889 | ( 0.000) | 95 | 187456 | | | 0.00- 100.00 | 100.00 |
| 8.687 | 8.889 | ( 0.000) | 50 | 34488 | | | 15.00- 40.00 | 18.40 |
| 8.687 | 8.889 | ( 0.000) | 75 | 92000 | | | 30.00- 60.00 | 49.08 |
| 8.687 | 8.889 | ( 0.000) | 96 | 12978 | | | 5.00- 9.00 | 6.92 |
| 8.687 | 8.889 | ( 0.000) | 173 | 1297 | | | 0.00- 2.00 | 0.77 |
| 8.687 | 8.889 | ( 0.000) | 174 | 168896 | | | 50.00- 0.00 | 90.10 |
| 8.687 | 8.889 | ( 0.000) | 175 | 11458 | | | 5.00- 9.00 | 6.78 |
| 8.687 | 8.889 | ( 0.000) | 176 | 160704 | | | 95.00- 101.00 | 95.15 |
| 8.687 | 8.889 | ( 0.000) | 177 | 10583 | | | 5.00- 9.00 | 6.59 |

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 18.40 |
| 75 | 30.00 - 60.00% of mass 95 | 49.08 |
| 96 | 5.00 - 9.00% of mass 95 | 6.92 |
| 173 | Less than 2.00% of mass 174 | 0.69 ( 0.77) |
| 174 | Greater than 50.00% of mass 95 | 90.10 |
| 175 | 5.00 - 9.00% of mass 174 | 6.11 ( 6.78) |
| 176 | 95.00 - 101.00% of mass 174 | 85.73 ( 95.15) |
| 177 | 5.00 - 9.00% of mass 176 | 5.65 ( 6.59) |

Data File: X012601.D
Spectrum: Scan 2160 ( 8.68)
Location of Maximum: 95.00
Number of points: 117

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1682 | 68.00 | 17920 | 98.80 | 60 | 141.80 | 252 |
| 37.00 | 8977 | 69.00 | 19952 | 103.00 | 191 | 142.90 | 1604 |
| 38.00 | 8846 | 70.00 | 2261 | 103.80 | 959 | 143.70 | 98 |
| 39.00 | 3561 | 71.00 | 291 | 105.10 | 431 | 144.80 | 135 |
| 39.90 | 1481 | 71.80 | 966 | 105.90 | 831 | 145.90 | 379 |
| 41.00 | 1496 | 73.00 | 8394 | 106.70 | 405 | 146.70 | 167 |
| 42.00 | 1623 | 74.00 | 31656 | 109.10 | 208 | 147.00 | 183 |
| 42.90 | 1103 | 75.00 | 92000 | 109.70 | 145 | 147.90 | 508 |
| 43.90 | 2092 | 76.00 | 7794 | 111.00 | 153 | 149.80 | 222 |
| 45.00 | 1902 | 77.00 | 1204 | 111.80 | 123 | 151.70 | 81 |
| 46.00 | 194 | 77.90 | 871 | 112.90 | 193 | 152.70 | 102 |
| 47.00 | 2126 | 78.90 | 6237 | 114.80 | 201 | 153.80 | 195 |
| 47.90 | 1203 | 79.90 | 1894 | 115.70 | 765 | 154.90 | 622 |
| 49.00 | 7889 | 80.90 | 6241 | 116.90 | 853 | 155.80 | 82 |
| 50.00 | 34488 | 81.90 | 1278 | 117.70 | 628 | 156.80 | 397 |
| 51.00 | 11247 | 82.80 | 389 | 118.80 | 786 | 158.70 | 318 |
| 52.00 | 433 | 84.10 | 58 | 119.70 | 61 | 160.90 | 419 |
| 52.90 | 417 | 84.90 | 408 | 122.90 | 76 | 170.00 | 59 |
| 54.10 | 129 | 86.00 | 239 | 123.80 | 161 | 171.70 | 89 |
| 55.00 | 2586 | 86.90 | 7514 | 126.80 | 202 | 172.90 | 1297 |
| 56.00 | 3719 | 87.90 | 6426 | 127.90 | 897 | 173.90 | 168896 |
| 57.00 | 5461 | 90.70 | 664 | 128.90 | 325 | 174.90 | 11458 |
| 58.00 | 486 | 91.00 | 534 | 129.90 | 894 | 175.90 | 160704 |
| 59.90 | 1834 | 92.00 | 5314 | 130.70 | 306 | 176.90 | 10583 |
| 61.00 | 8655 | 93.00 | 7443 | 134.50 | 122 | 177.80 | 276 |
| 62.00 | 9189 | 94.00 | 20576 | 135.10 | 171 | 186.20 | 102 |
| 63.00 | 6761 | 95.00 | 187456 | 136.70 | 373 | 206.90 | 94 |
| 64.00 | 853 | 96.00 | 12978 | 138.80 | 85 | | |
| 65.10 | 74 | 96.90 | 357 | 139.60 | 132 | | |
| 67.10 | 523 | 98.00 | 1151 | 140.80 | 1536 | | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012601.D



Date : 26-JAN-2023 08:03

Client ID: BFB

Instrument: voa6.i

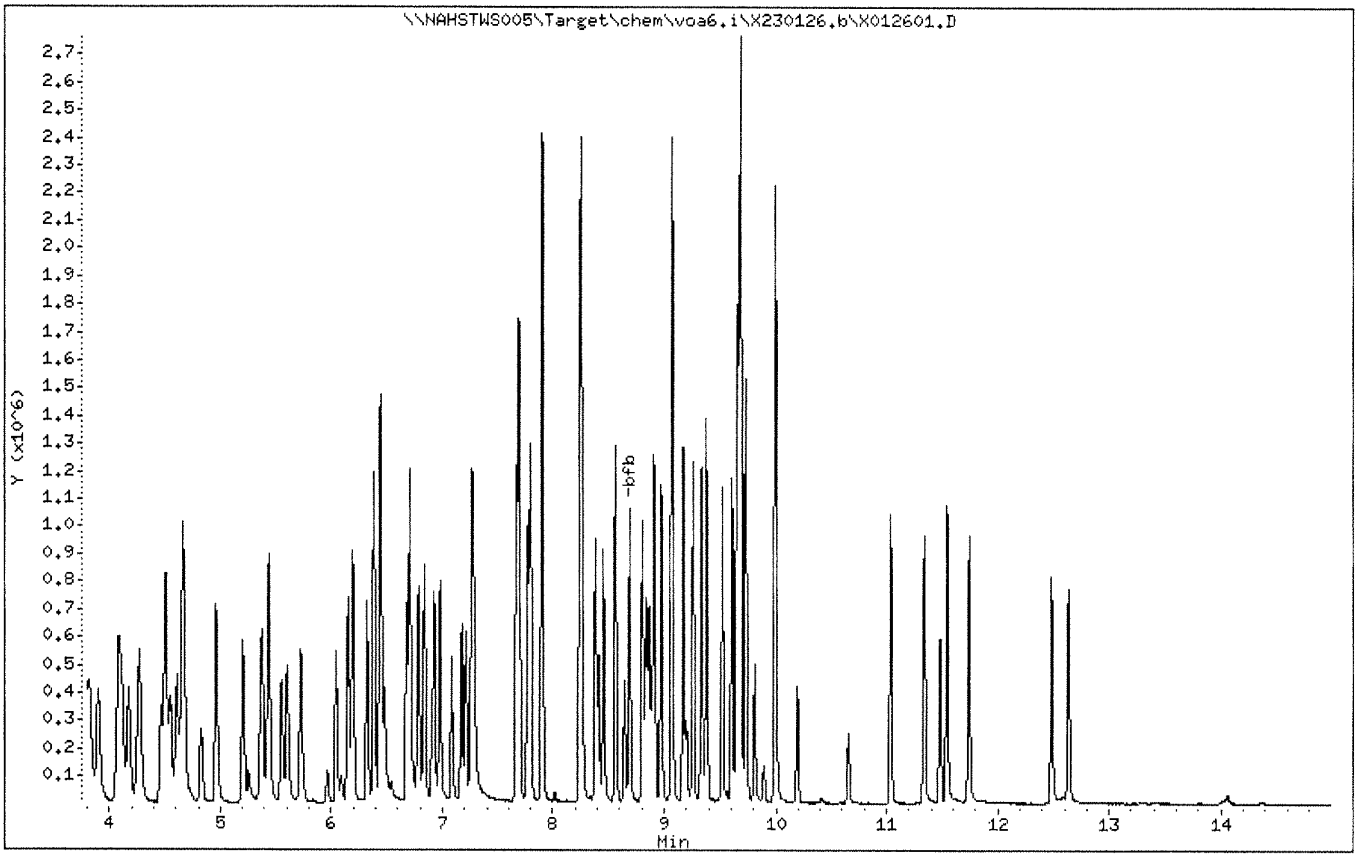
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: FT

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012601.D



Date : 26-JAN-2023 08:03

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

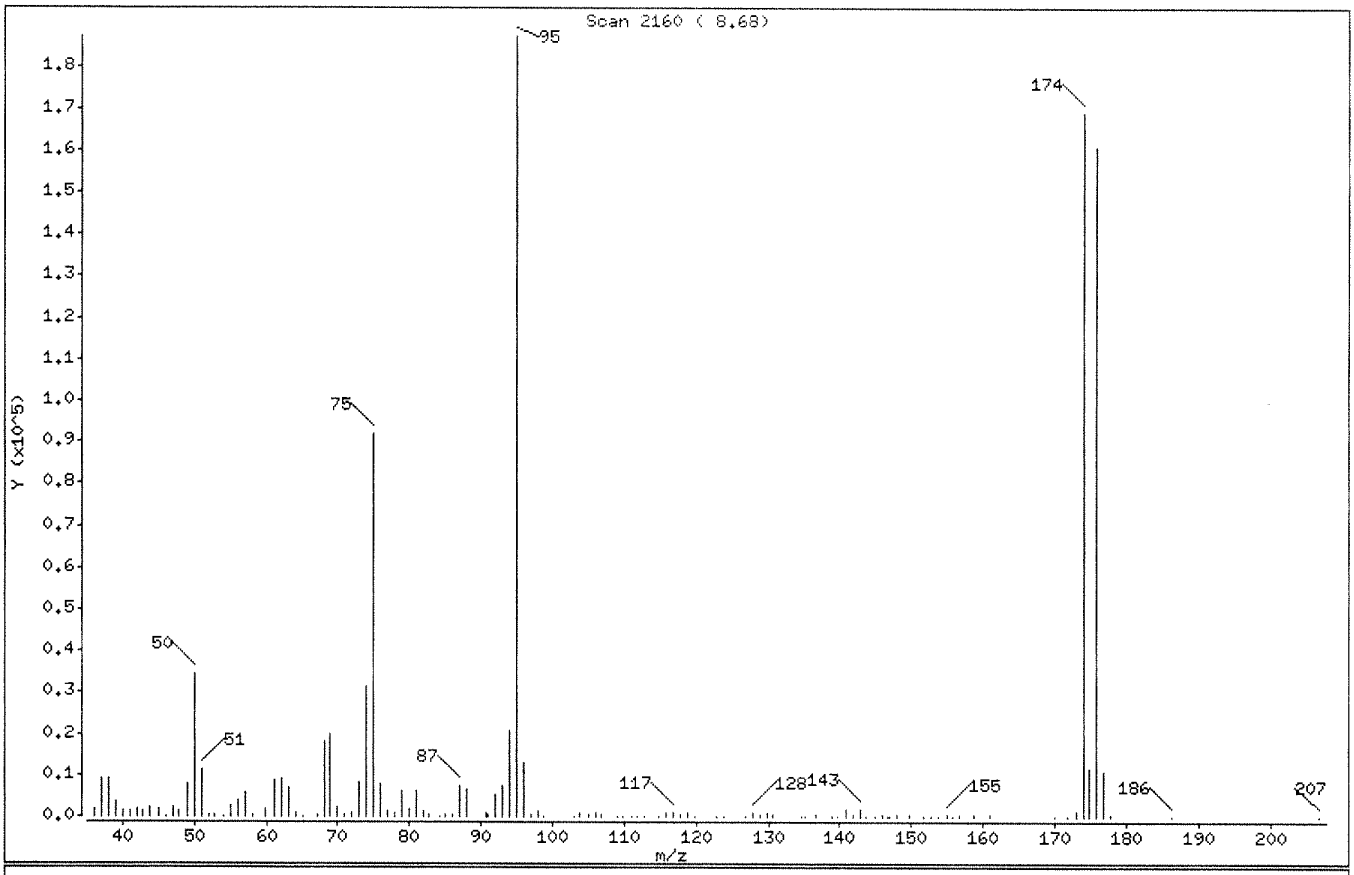
Volume Injected (uL): 2.0

Operator: FT

Column phase: DB624

Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 18.40 |
| 75 | 30.00 - 60.00% of mass 95 | 49.08 |
| 96 | 5.00 - 9.00% of mass 95 | 6.92 |
| 173 | Less than 2.00% of mass 174 | 0.69 ( 0.77) |
| 174 | Greater than 50.00% of mass 95 | 90.10 |
| 175 | 5.00 - 9.00% of mass 174 | 6.11 ( 6.78) |
| 176 | 95.00 - 101.00% of mass 174 | 85.73 ( 95.15) |
| 177 | 5.00 - 9.00% of mass 176 | 5.65 ( 6.59) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012601.D



Date : 26-JAN-2023 08:03

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: FT

Column phase: DB624

Column diameter: 0.25

Data File: X012601.D
Spectrum: Scan 2160 ( 8.68)
Location of Maximum: 95.00
Number of points: 117

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1682 | 68.00 | 17920 | 98.80 | 60 | 141.80 | 252 |
| 37.00 | 8977 | 69.00 | 19952 | 103.00 | 191 | 142.90 | 1604 |
| 38.00 | 8846 | 70.00 | 2261 | 103.80 | 959 | 143.70 | 98 |
| 39.00 | 3561 | 71.00 | 291 | 105.10 | 431 | 144.80 | 135 |
| 39.90 | 1481 | 71.80 | 966 | 105.90 | 831 | 145.90 | 379 |
| 41.00 | 1496 | 73.00 | 8394 | 106.70 | 405 | 146.70 | 167 |
| 42.00 | 1623 | 74.00 | 31656 | 109.10 | 208 | 147.00 | 183 |
| 42.90 | 1103 | 75.00 | 92000 | 109.70 | 145 | 147.90 | 508 |
| 43.90 | 2092 | 76.00 | 7794 | 111.00 | 153 | 149.80 | 222 |
| 45.00 | 1902 | 77.00 | 1204 | 111.80 | 123 | 151.70 | 81 |
| 46.00 | 194 | 77.90 | 871 | 112.90 | 193 | 152.70 | 102 |
| 47.00 | 2126 | 78.90 | 6237 | 114.80 | 201 | 153.80 | 195 |
| 47.90 | 1203 | 79.90 | 1894 | 115.70 | 765 | 154.90 | 622 |
| 49.00 | 7889 | 80.90 | 6241 | 116.90 | 853 | 155.80 | 82 |
| 50.00 | 34488 | 81.90 | 1278 | 117.70 | 628 | 156.80 | 397 |
| 51.00 | 11247 | 82.80 | 389 | 118.80 | 786 | 158.70 | 318 |
| 52.00 | 433 | 84.10 | 58 | 119.70 | 61 | 160.90 | 419 |
| 52.90 | 417 | 84.90 | 408 | 122.90 | 76 | 170.00 | 59 |
| 54.10 | 129 | 86.00 | 239 | 123.80 | 161 | 171.70 | 89 |
| 55.00 | 2586 | 86.90 | 7514 | 126.80 | 202 | 172.90 | 1297 |
| 56.00 | 3719 | 87.90 | 6426 | 127.90 | 897 | 173.90 | 168896 |
| 57.00 | 5461 | 90.70 | 664 | 128.90 | 325 | 174.90 | 11458 |
| 58.00 | 486 | 91.00 | 534 | 129.90 | 894 | 175.90 | 160704 |
| 59.90 | 1834 | 92.00 | 5314 | 130.70 | 306 | 176.90 | 10583 |
| 61.00 | 8655 | 93.00 | 7443 | 134.50 | 122 | 177.80 | 276 |
| 62.00 | 9189 | 94.00 | 20576 | 135.10 | 171 | 186.20 | 102 |
| 63.00 | 6761 | 95.00 | 187456 | 136.70 | 373 | 206.90 | 94 |
| 64.00 | 853 | 96.00 | 12978 | 138.80 | 85 | | |
| 65.10 | 74 | 96.90 | 357 | 139.60 | 132 | | |
| 67.10 | 523 | 98.00 | 1151 | 140.80 | 1536 | | |

Data File : \\nahstws005\Target\chem\voa6.i\X230126.b\X012601.D
Inj Date  : 26-JAN-2023 08:03
InstruID  : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012602.D Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012602.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 26-JAN-2023 08:24
Operator : FT Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 555954 | 50.0000 | |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 164224 | 50.0000 | 42.29 |
| 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 218627 | 50.0000 | 43.75 |
| 4 | Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 275700 | 500.000 | 486.00 |
| 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 227677 | 50.0000 | 46.88 |
| 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 153467 | 50.0000 | 42.06 |
| 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 142913 | 50.0000 | 42.27 |
| 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 344761 | 50.0000 | 50.72 |
| 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 33596 | 100.000 | 88.68 |
| 10 | Acetone | 43 | 1.966 | 1.966 | (0.471) | 125873 | 100.000 | 80.68 |
| 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.458) | 199744 | 50.0000 | 47.33 |
| 12 | Isobutyl Alcohol | 43 | 4.669 | 4.669 | (1.119) | 670475 | 1000.00 | 1072.20 |
| 13 | Acetonitrile | 39 | 2.194 | 2.194 | (0.526) | 264577 | 500.000 | 522.89 |
| 14 | Allyl Chloride | 41 | 2.194 | 2.194 | (0.526) | 475830 | 50.0000 | 49.37 |
| 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 550411 | 100.000 | 99.04 |
| 16 | Acrylonitrile | 53 | 2.528 | 2.528 | (0.606) | 146528 | 100.000 | 102.39 |
| 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.551) | 257169 | 50.0000 | 44.43 |
| 18 | Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.606) | 663705 | 50.0000 | 48.05 |
| 19 | Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 1115374 | 100.000 | 101.03 |
| 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 235262 | 50.0000 | 49.81 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.717) | 1278544 | 100.000 | 105.45 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 405735 | 50.0000 | 48.95 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 88085 | 50.0000 | 46.59(M) |
| | 24 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 156785 | 100.000 | 94.91 |
| | 25 Methacrylonitrile | 41 | 3.814 | 3.814 | (0.914) | 189879 | 50.0000 | 48.23(a) |
| | 26 2,2-Dichloropropane | 77 | 3.506 | 3.506 | (0.840) | 391858 | 50.0000 | 55.68 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.521 | (0.844) | 268715 | 50.0000 | 46.75 |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 456688 | 50.0000 | 49.16 |
| | 29 Bromochloromethane | 128 | 3.788 | 3.788 | (0.907) | 141374 | 50.0000 | 44.92 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 248083 | 50.0000 | 46.46 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.977) | 406537 | 50.0000 | 55.16 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 347386 | 50.0000 | 59.78 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 359396 | 50.0000 | 53.59 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 343104 | 50.0000 | 55.29 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 285067 | 50.0000 | 50.59 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 818504 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.909) | 993022 | 50.0000 | 50.80 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 294141 | 50.0000 | 53.05 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 364348 | 50.0000 | 49.67 |
| | 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.342) | 198125 | 50.0000 | 52.26 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.218) | 230649 | 100.000 | 110.52 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 255973 | 50.0000 | 49.23 |
| | 43 2-Nitropropane | 43 | 5.966 | 5.966 | (1.429) | 74463 | 50.0000 | 53.03 |
| | 44 Dibromomethane | 93 | 5.549 | 5.549 | (1.119) | 170238 | 50.0000 | 48.17 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 436948 | 100.000 | 104.38 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 447159 | 50.0000 | 51.90 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 783145 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 927909 | 50.0000 | 47.94 |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 191590 | 50.0000 | 49.70 |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 1113718 | 50.0000 | 51.45 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.347) | 385680 | 50.0000 | 53.94 |
| | 52 2-Hexanone | 43 | 7.083 | 7.083 | (0.924) | 303433 | 100.000 | 106.54 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 207478 | 50.0000 | 47.77 |
| | 54 1,3-Dichloropropane | 76 | 6.981 | 6.981 | (0.911) | 422434 | 50.0000 | 49.42 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 314395 | 50.0000 | 50.16 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 252568 | 50.0000 | 56.39 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 275881 | 50.0000 | 50.81 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 224575 | 50.0000 | 56.77(M) |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 764275 | 50.0000 | 49.77 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 290991 | 50.0000 | 50.92 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 397631 | 50.0000 | 54.97 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 1002125 | 100.000 | 107.48 |
| | 63 o-Xylene | 106 | 8.237 | 8.237 | (1.074) | 480901 | 50.0000 | 52.26 |
| | 64 Styrene | 104 | 8.256 | 8.256 | (1.077) | 828039 | 50.0000 | 53.68 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 216458 | 50.0000 | 49.85 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 1246133 | 50.0000 | 59.27 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 340339 | 50.0000 | 47.45 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 368818 | 50.0000 | 50.98 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 449944 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 257754 | 50.0000 | 51.48(M) |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.886 | 8.886 | (1.159) | 90484 | 50.0000 | 53.52 |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1474554 | 50.0000 | 59.16(M) |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 369305 | 50.0000 | 50.02 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1092182 | 50.0000 | 59.32 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 903344 | 50.0000 | 55.23 |
| 77 | 4-Chlorotoluene | 91 | 9.069 | 9.069 (0.939) | 1059538 | 50.0000 | 56.82 |

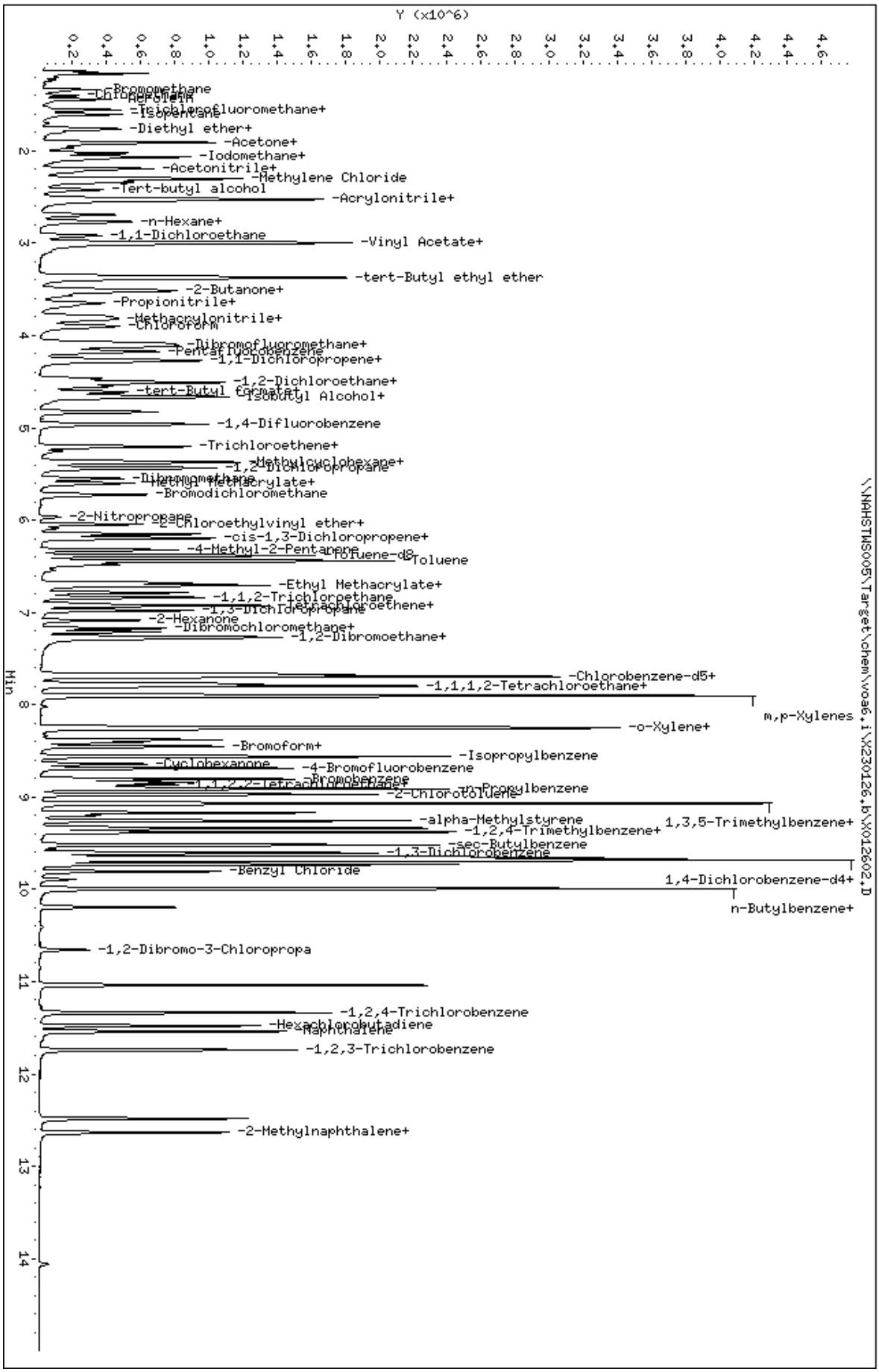
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 893391 | 50.0000 | 59.27(M) |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 1099169 | 50.0000 | 56.73 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1291675 | 50.0000 | 64.41 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 1154254 | 50.0000 | 64.23 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.602 | 9.602 | (0.994) | 658780 | 50.0000 | 53.76 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.680 | 9.680 | (1.002) | 688189 | 50.0000 | 51.47 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 618205 | 50.0000 | 50.41 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 1038339 | 50.0000 | 59.60 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 647591 | 50.0000 | 51.31 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 57369 | 50.0000 | 50.03 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 467390 | 50.0000 | 58.69 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 209123 | 50.0000 | 59.13(M) |
| 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 986824 | 50.0000 | 54.46 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.738 | 11.738 | (1.215) | 416768 | 50.0000 | 54.64 |
| 146 | Methyl acetate | 43 | 2.224 | 2.224 | (0.533) | 131655 | 50.0000 | 52.62 |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.458) | 214734 | 50.0000 | 52.61 |
| 141 | Cyclohexane | 56 | 4.118 | 4.118 | (0.987) | 331857 | 50.0000 | 58.98 |
| 142 | Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.920) | 62665 | 100.000 | 90.37 |
| 147 | Methylcyclohexane | 55 | 5.373 | 5.373 | (1.083) | 597268 | 50.0000 | 59.61 |
| 135 | 1,4-Dioxane | 88 | 5.594 | 5.594 | (1.340) | 53946 | 1000.00 | 1061.51 |
| 132 | n-Butanol | 56 | 5.253 | 5.253 | (1.259) | 71753 | 1000.00 | 1008.36 |
| 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 201582 | 50.0000 | 53.40(M) |
| 133 | Ethyl Acrylate | 55 | 5.373 | 5.373 | (1.287) | 597268 | 50.0000 | 54.65 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 267568 | 50.0000 | 66.84 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 154063 | 50.0000 | 41.47 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.423 | (0.581) | 421357 | 1000.00 | 1094.54 |
| 149 | Isopropyl alcohol | 45 | 2.086 | 2.086 | (0.500) | 225972 | 1000.00 | 1123.98 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.997 | (0.718) | 694223 | 50.0000 | 48.13 |
| 160 | 2-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 455589 | 50.0000 | 52.18 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 1117228 | 50.0000 | 51.56 |
| 167 | Ethanol | 45 | 1.696 | 1.696 | (0.406) | 35145 | 1000.00 | 970.29 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.105) | 321861 | 100.000 | 109.10 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 382221 | 1000.00 | 1031.53 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.117) | 755473 | 50.0000 | 47.14 |
| 175 | tert-Butyl ethyl ether | 59 | 3.372 | 3.372 | (0.808) | 740045 | 50.0000 | 48.29 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.105) | 321861 | 1000.00 | 1077.95 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 796148 | 1000.00 | 1027.68 |
| 180 | 1-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 455589 | 50.0000 | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 179486 | 50.0000 | 47.03 |
| 152 | Amyl alcohol | 42 | 6.903 | 6.903 | (0.900) | 80529 | 1000.00 | 1039.85 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 29872 | 50.0000 | 41.49 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 31374 | 100.000 | 89.74 |
| 161 | 3-Methyl-1-butanol | 55 | 6.903 | 6.903 | (0.900) | 90116 | 1000.00 | 1163.87 |
| 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 537730 | 50.0000 | 52.56 |
| 182 | Epichlorohydrin | 57 | 6.093 | 6.093 | (1.228) | 76849 | 200.000 | 209.52 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 503977 | 100.000 | (a) |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 517972 | 50.0000 | 51.95 |
| 130 | Ethyl Acetate | 43 | 3.649 | 3.649 | (0.874) | 228625 | 50.0000 | 52.70 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 203588 | 1000.00 | 1084.70 |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 75671 | 50.0000 | 51.09 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 133112 | 50.0000 | (a) |
| 188 | Isopropyl acetate | 43 | 4.669 | 4.669 | (0.941) | 671104 | 50.0000 | 52.77 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 462765 | 50.0000 | 50.67 |
| 189 n-Butyl acetate | 43 | 7.210 | 7.210 (0.940) | 381904 | 50.0000 | 56.76 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 267568 | 1000.00 | 1309.39 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.290) | 63061 | 200.000 | 176.62 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 506408 | 50.0000 | 48.63 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 519570 | 50.0000 | 49.01 |
| 168 1-Propanol | 59 | 2.997 | 2.997 | (0.718) | 81101 | 1000.00 | 892.62 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




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Client ID: CCV
Sample Info: CCV;CCV;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

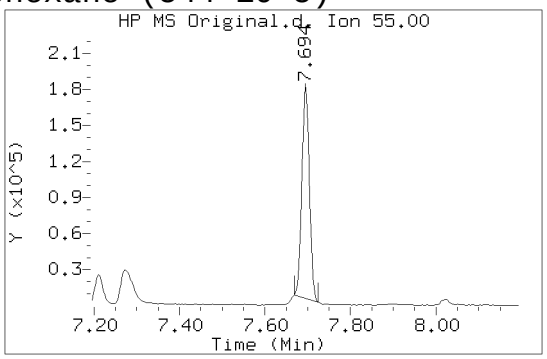
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LabSampID : CCV

## 1-Chlorohexane (544-10-5)

Reason Code:

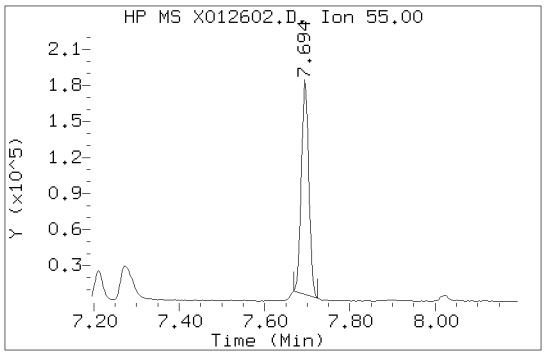
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13-Feb-2023
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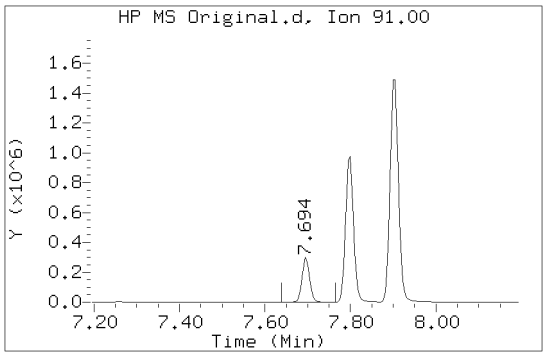

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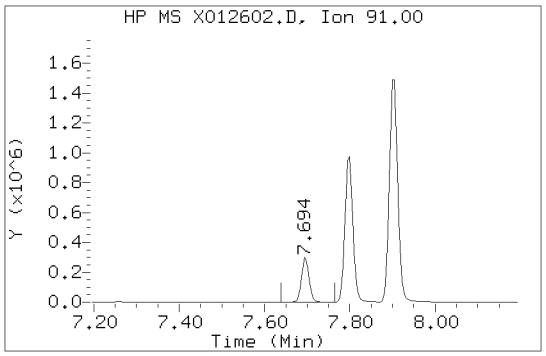

**BEFORE**

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13-Feb-2023
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**AFTER**

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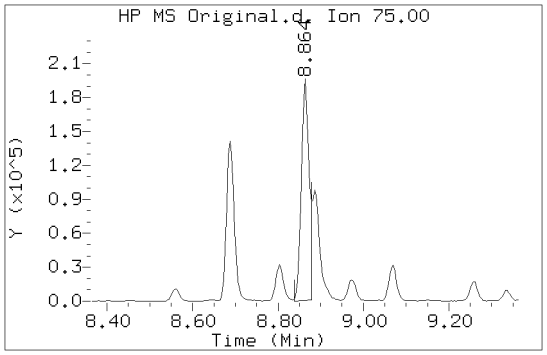



## 1,2,3-Trichloropropane (96-18-4)

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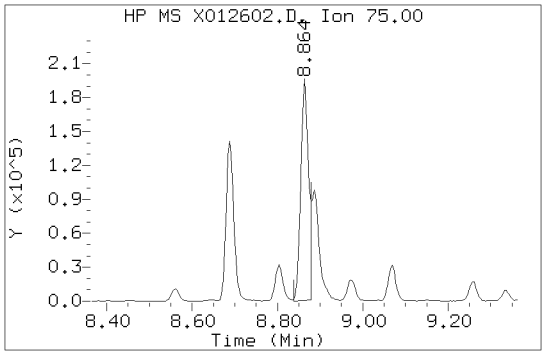
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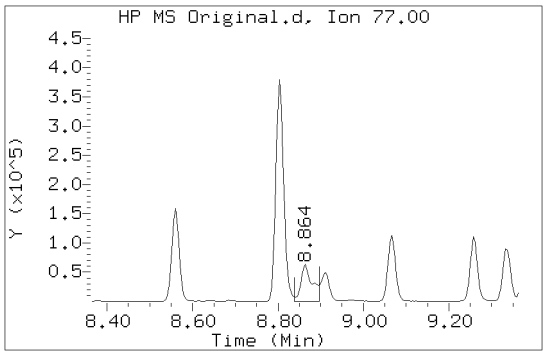

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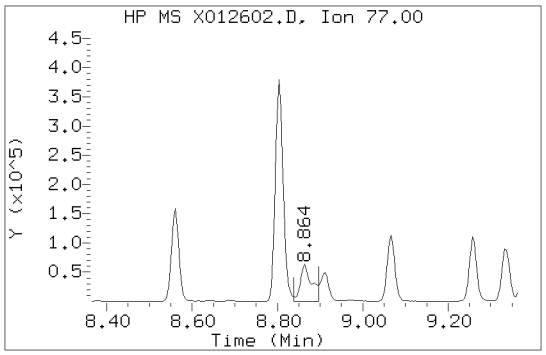

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**AFTER**

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13-Feb-2023
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linh
pham



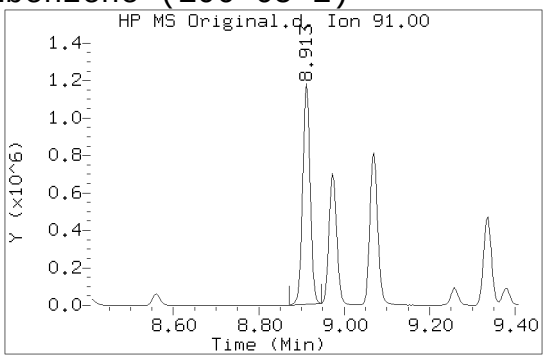
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Inj Date : 26-JAN-2023 08:24
InstruID : voa6.i
LabSampID : CCV

## n-Propylbenzene (106-65-1)

Reason Code:

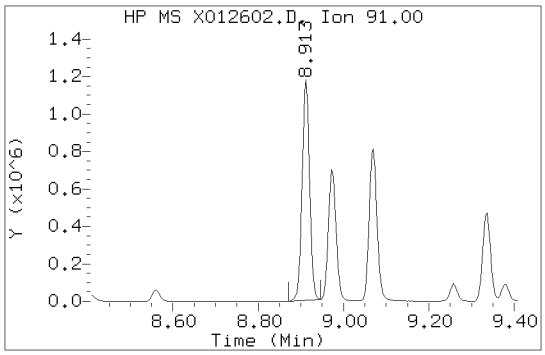
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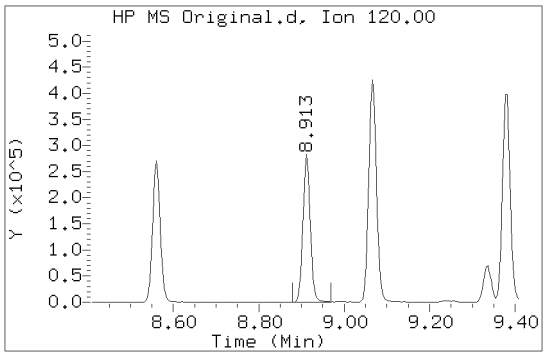

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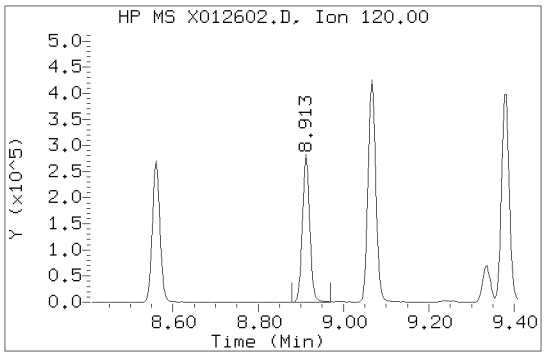

**BEFORE**

MASS
120
AREA
346789
HEIGHT
282955
13-Feb-2023
13:31
linh
pham




**AFTER**

MASS
120
AREA
346789
HEIGHT
282955
13-Feb-2023
13:31
linh
pham

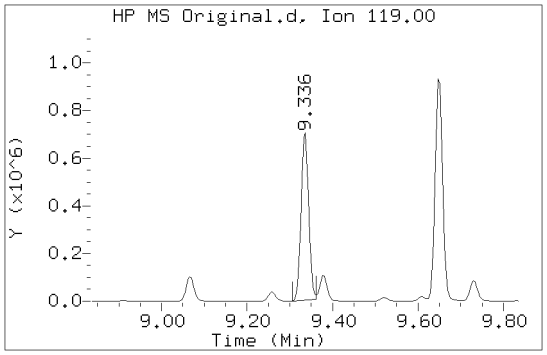



## tert-Butylbenzene (98-06-6)

Reason Code:

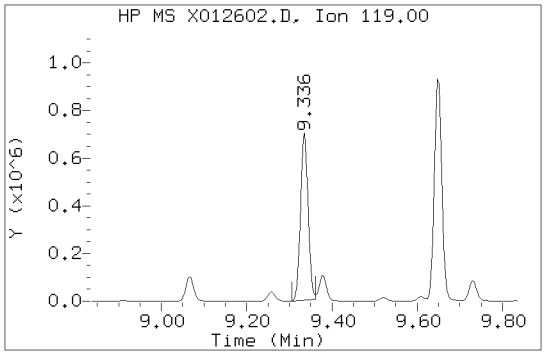
**BEFORE**

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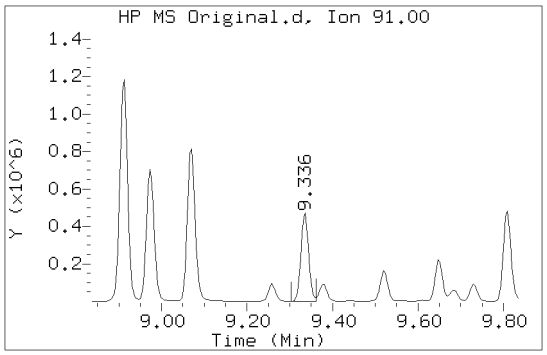

**AFTER**

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13-Feb-2023
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pham



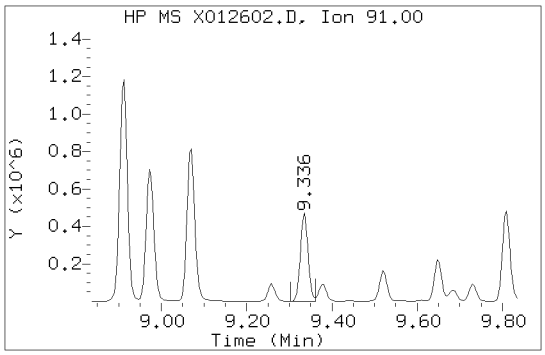

**BEFORE**

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13-Feb-2023
13:31
linh
pham




**AFTER**

MASS
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AREA
608276
HEIGHT
471734
13-Feb-2023
13:31
linh
pham



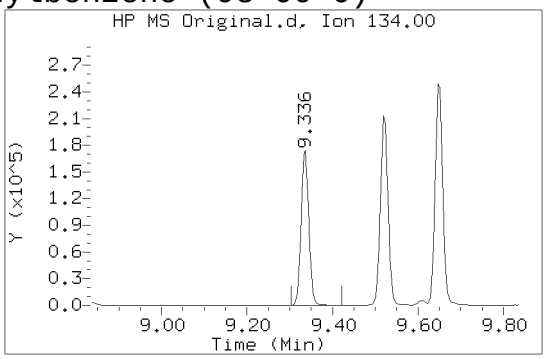
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Inj Date : 26-JAN-2023 08:24
InstruID : voa6.i
LabSampID : CCV

## tert-Butylbenzene (98-06-6)

Reason Code:

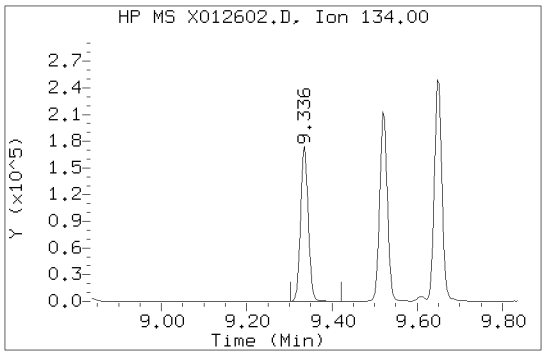
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HEIGHT
174080
13-Feb-2023
13:31
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pham




**AFTER**

MASS
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HEIGHT
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13-Feb-2023
13:31
linh
pham

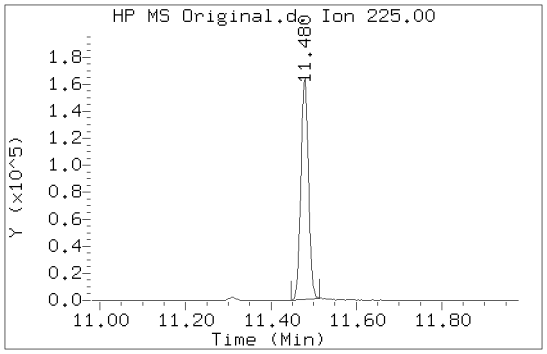



## Hexachlorobutadiene (87-68-3)

Reason Code:

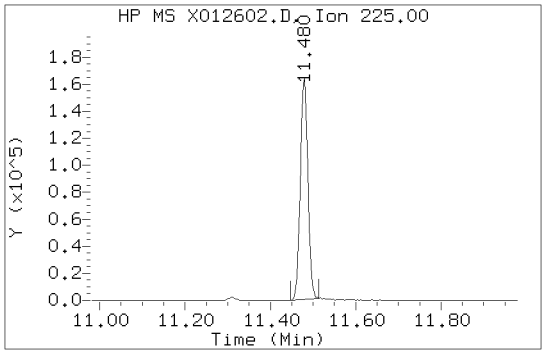
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HEIGHT
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13-Feb-2023
13:31
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pham



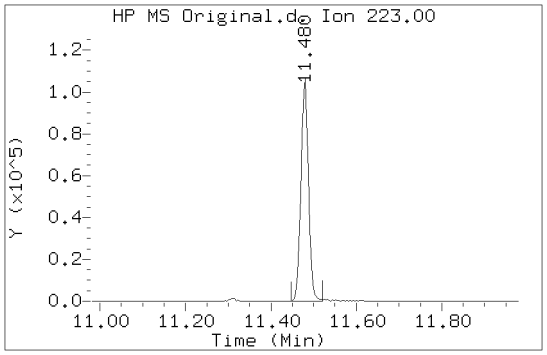

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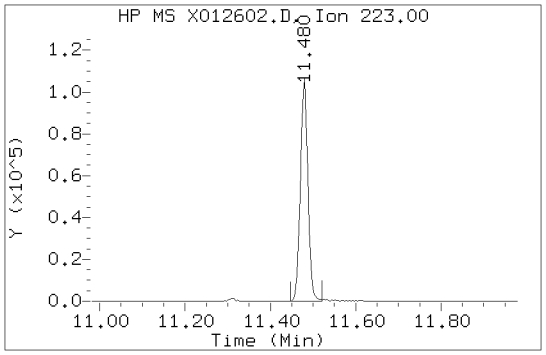

**BEFORE**

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13-Feb-2023
13:31
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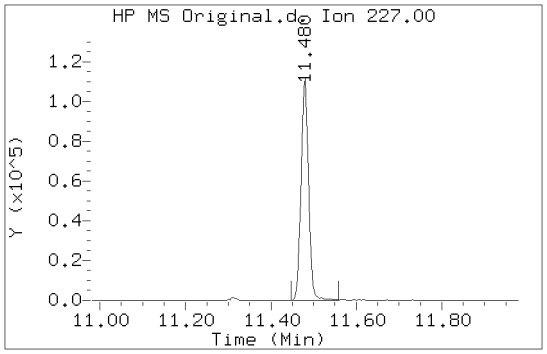

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13-Feb-2023
13:31
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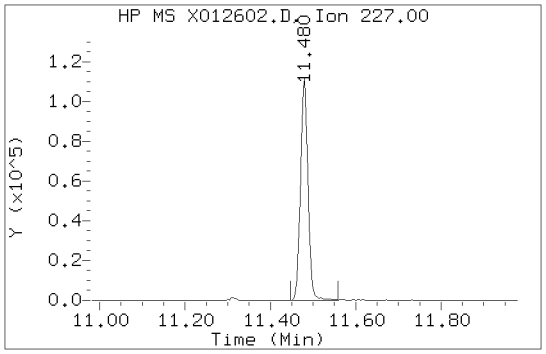

**BEFORE**

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HEIGHT
111432
13-Feb-2023
13:31
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**AFTER**

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13-Feb-2023
13:31
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pham

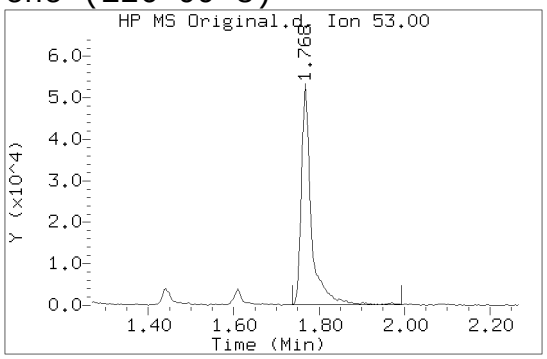


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Inj Date : 26-JAN-2023 08:24
InstruID : voa6.i
LabSampID : CCV

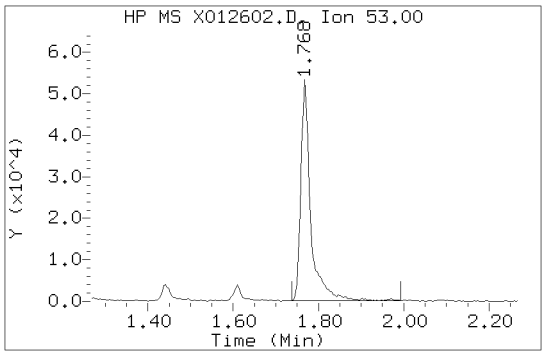
## Chloroprene (126-99-8)

Reason Code:

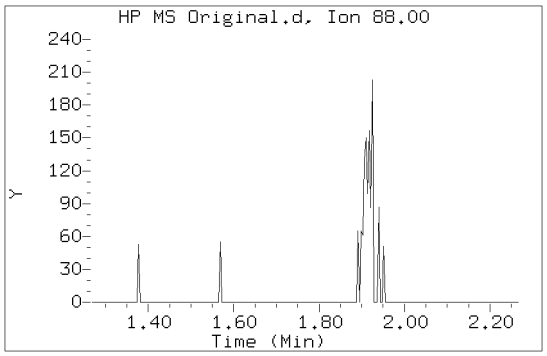
BEFORE
MASS
53
AREA
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HEIGHT
53255
13-Feb-2023
13:31
linh
pham



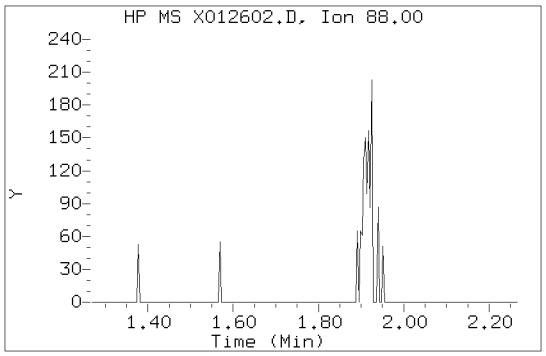

AFTER
MASS
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HEIGHT
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13-Feb-2023
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pham




BEFORE
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HEIGHT
0
13-Feb-2023
13:31
linh
pham



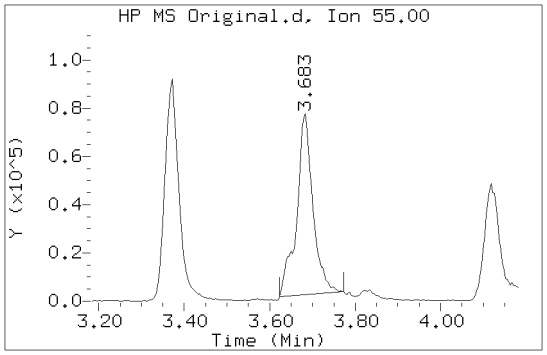

AFTER
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13-Feb-2023
13:31
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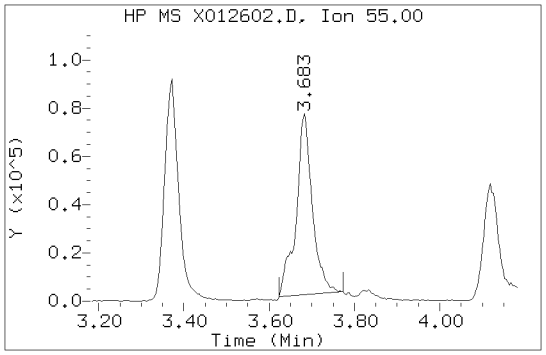

## Methyl Acrylate (96-33-3)

Reason Code:

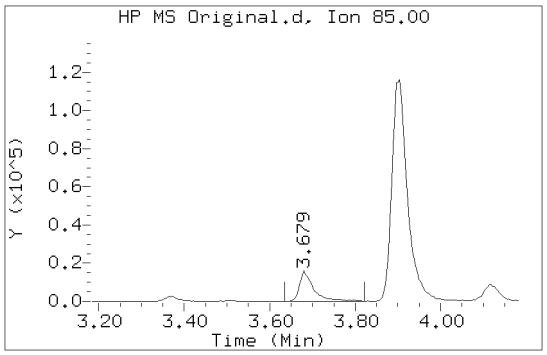
BEFORE
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HEIGHT
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13-Feb-2023
13:31
linh
pham



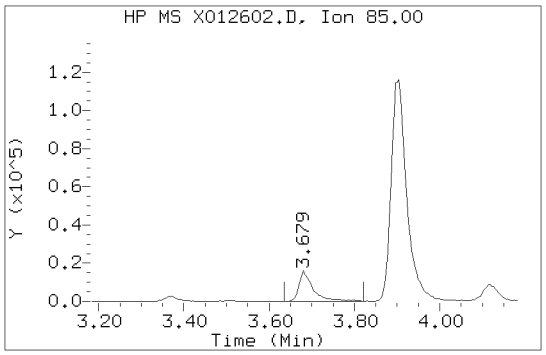

AFTER
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13-Feb-2023
13:31
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pham




BEFORE
MASS
85
AREA
37020
HEIGHT
16282
13-Feb-2023
13:31
linh
pham




AFTER
MASS
85
AREA
37020
HEIGHT
16282
13-Feb-2023
13:31
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012604.D Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012604.D
Lab Smp Id: VLCSW-230126 Client Smp ID: VLCSW-230126
Inj Date : 26-JAN-2023 09:27
Operator : FT Inst ID: voa6.i
Smp Info : VLCSW-230126;VLCSW-230126;3;;LCS
Misc Info : V6;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.177 | 4.174 | (1.000) | 537171 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 67465 | 18.2088 | 18.20 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 91444 | 20.1946 | 20.19 |
| 4 Propionitrile | 54 | 3.649 | 3.645 | (0.873) | 117507 | 214.387 | 214.38(a) |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 91796 | 19.5623 | 19.56 |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 62784 | 18.8297 | 18.82 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 58413 | 17.8845 | 17.88 |
| 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 140315 | 21.3678 | 21.36 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 13282 | 37.9557 | 37.95 |
| 10 Acetone | 43 | 1.970 | 1.966 | (0.472) | 56006 | 37.1361 | 37.13 |
| 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 82777 | 20.3040 | 20.30 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.669 | (1.118) | 277930 | 459.997 | 459.99(a) |
| 13 Acetonitrile | 39 | 2.194 | 2.194 | (0.525) | 110927 | 226.894 | 226.89(a) |
| 14 Allyl Chloride | 41 | 2.194 | 2.194 | (0.525) | 199827 | 21.4607 | 21.46(a) |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 207451 | 41.5981 | 41.59 |
| 16 Acrylonitrile | 53 | 2.532 | 2.528 | (0.606) | 60448 | 43.7168 | 43.71 |
| 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 110346 | 19.7323 | 19.73 |
| 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.605) | 273814 | 20.5189 | 20.51 |
| 19 Carbon Disulfide | 76 | 2.067 | 2.063 | (0.495) | 454935 | 42.6503 | 42.65 |
| 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 97758 | 21.4251 | 21.42 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.716) | 526670 | 44.9597 | 44.95 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 166052 | 20.7364 | 20.73 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 34522 | 18.9011 | 18.90(M) |
| | 24 2-Butanone | 43 | 3.574 | 3.570 | (0.856) | 61825 | 40.5259 | 40.52 |
| | 25 Methacrylonitrile | 41 | 3.818 | 3.814 | (0.914) | 78974 | 20.7628 | 20.76(a) |
| | 26 2,2-Dichloropropane | 77 | 3.506 | 3.506 | (0.839) | 154607 | 22.7396 | 22.73 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.525 | 3.521 | (0.844) | 111254 | 20.0356 | 20.03 |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 189668 | 21.1325 | 21.13 |
| | 29 Bromochloromethane | 128 | 3.795 | 3.788 | (0.908) | 58017 | 19.0827 | 19.08 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 250606 | 48.5821 | 48.58 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 165820 | 23.2860 | 23.28 |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.275 | (0.862) | 136342 | 23.9118 | 23.91 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 147582 | 22.4276 | 22.42 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 142896 | 23.4687 | 23.46 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 290932 | 53.4214 | 53.42 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.961 | (1.000) | 803137 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.908) | 406035 | 21.1711 | 21.17 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 119064 | 21.8880 | 21.88 |
| | 39 Bromodichloromethane | 83 | 5.726 | 5.722 | (1.153) | 147364 | 20.4739 | 20.47 |
| | 40 Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.342) | 83981 | 22.9286 | 22.92(a) |
| | 41 2-Chloroethylvinyl ether | 63 | 6.048 | 6.044 | (1.218) | 93040 | 45.4365 | 45.43 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 103673 | 20.3215 | 20.32 |
| | 43 2-Nitropropane | 43 | 5.969 | 5.966 | (1.429) | 28621 | 21.0994 | 21.09 |
| | 44 Dibromomethane | 93 | 5.549 | 5.549 | (1.118) | 70894 | 20.4447 | 20.44 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.325 | 6.322 | (0.825) | 177452 | 43.8707 | 43.87 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 177591 | 21.0091 | 21.00 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 756761 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 915254 | 48.9438 | 48.94 |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.351) | 81639 | 21.5861 | 21.58(a) |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 455814 | 21.7915 | 21.79 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 150692 | 21.4813 | 21.48 |
| | 52 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 124313 | 45.1717 | 45.17 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 87433 | 20.8356 | 20.83 |
| | 54 1,3-Dichloropropane | 76 | 6.981 | 6.981 | (0.911) | 170458 | 20.6372 | 20.63 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 125228 | 20.6767 | 20.67 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 102993 | 23.7978 | 23.79 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 111979 | 21.3429 | 21.34 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 98267 | 25.3181 | 25.31(M) |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 310640 | 20.9377 | 20.93 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 115115 | 20.8491 | 20.84 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 158612 | 22.6955 | 22.69 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 402861 | 44.7164 | 44.71 |
| | 63 o-Xylene | 106 | 8.241 | 8.237 | (1.075) | 191755 | 21.5648 | 21.56 |
| | 64 Styrene | 104 | 8.260 | 8.256 | (1.077) | 328286 | 22.0265 | 22.02 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 84640 | 20.1724 | 20.17 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 502381 | 24.7295 | 24.72 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 138112 | 19.9731 | 19.97 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 359078 | 51.3697 | 51.36 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 433848 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 105681 | 21.8916 | 21.89(M) |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 34671 | 21.2229 | 21.22(a) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 595429 | 24.7772 | 24.77 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 146536 | 20.5869 | 20.58 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 430228 | 24.2345 | 24.23 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 363965 | 23.0801 | 23.08 |
| 77 | 4-Chlorotoluene | 91 | 9.069 | 9.069 (0.939) | 418511 | 23.2801 | 23.28 |

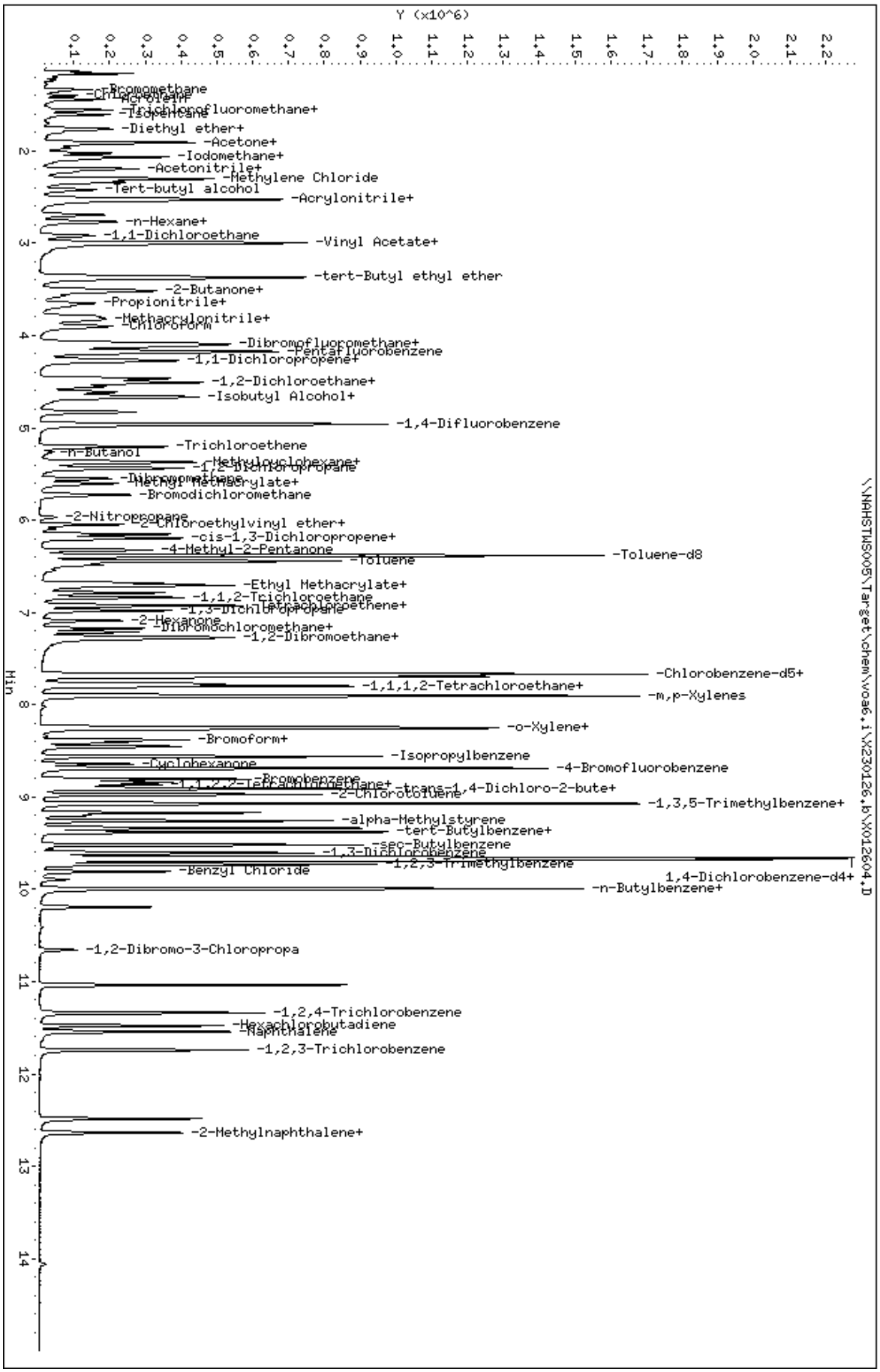
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 362035 | 24.9134 | 24.91 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 431299 | 23.0895 | 23.08 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 511869 | 26.4737 | 26.47 |
| | 82 p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 447621 | 25.8352 | 25.83 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.602 | (0.994) | 258813 | 21.9070 | 21.90 |
| | 84 1,4-Dichlorobenzene | 146 | 9.680 | 9.680 | (1.002) | 276140 | 21.4196 | 21.41 |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 213193 | 19.7258 | 19.72 |
| | 87 n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 396124 | 24.6561 | 24.65 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 255821 | 21.0253 | 21.02 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 22469 | 20.3790 | 20.37 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 182969 | 23.8283 | 23.82 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 84634 | 24.9930 | 24.99 |
| | 92 Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 390628 | 22.3589 | 22.35 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.738 | (1.215) | 168270 | 22.8810 | 22.88 |
| | 146 Methyl acetate | 43 | 2.228 | 2.224 | (0.533) | 52579 | 21.7525 | 21.75 |
| | 138 Freon TF | 101 | 1.913 | 1.910 | (0.458) | 88014 | 22.3206 | 22.32 |
| | 141 Cyclohexane | 56 | 4.121 | 4.118 | (0.987) | 144061 | 27.1961 | 27.19 |
| | 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 28817 | 41.3524 | 41.35 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.373 | (1.083) | 237801 | 24.1887 | 24.18 |
| | 135 1,4-Dioxane | 88 | 5.598 | 5.594 | (1.340) | 21554 | 438.955 | 438.95 |
| | 132 n-Butanol | 56 | 5.261 | 5.253 | (1.259) | 23784 | 383.421 | 383.42(a) |
| | 131 Methyl Acrylate | 55 | 3.686 | 3.683 | (0.882) | 83161 | 22.8031 | 22.80 |
| | 133 Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.287) | 237801 | 23.5970 | 23.59 |
| | 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 103629 | 26.7935 | 26.79 |
| | 139 Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 63502 | 17.6922 | 17.69 |
| | 148 Tert-butyl alcohol | 59 | 2.423 | 2.423 | (0.580) | 177925 | 478.351 | 478.35 |
| | 149 Isopropyl alcohol | 45 | 2.089 | 2.086 | (0.500) | 94858 | 488.323 | 488.32 |
| | 156 Diisopropyl ether | 45 | 2.997 | 2.997 | (0.717) | 287689 | 20.6455 | 20.64 |
| | 160 2-Methylnaphthalene | 142 | 12.638 | 12.634 | (1.308) | 178617 | 21.2204 | 21.22 |
| | 166 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 441842 | 21.1489 | 21.14 |
| | 167 Ethanol | 45 | 1.700 | 1.696 | (0.407) | 15636 | 444.999 | 444.99 |
| | 172 tert-Butyl formate | 59 | 4.612 | 4.612 | (1.104) | 131551 | 46.1519 | 46.15 |
| | 173 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 152954 | 427.184 | 427.18 |
| | 174 tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.116) | 322150 | 20.8051 | 20.80 |
| | 175 tert-Butyl ethyl ether | 59 | 3.372 | 3.372 | (0.807) | 304068 | 20.5356 | 20.53 |
| | 176 tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.104) | 131551 | 455.985 | 455.98 |
| | 151 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.351) | 306723 | 403.500 | 403.49 |
| | 180 1-Methylnaphthalene | 142 | 12.638 | 12.634 | (1.308) | 178617 | | (a) |
| | 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 73321 | 19.8880 | 19.88 |
| | 152 Amyl alcohol | 42 | 6.906 | 6.903 | (0.901) | 26035 | 347.906 | 347.90 |
| | 158 Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 12453 | 17.9041 | 17.90 |
| | 159 Propylene oxide | 43 | 1.752 | 1.752 | (0.419) | 13448 | 39.8110 | 39.81 |
| | 161 3-Methyl-1-butanol | 55 | 6.910 | 6.903 | (0.901) | 31653 | 423.059 | 423.05 |
| | 162 Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 207368 | 20.9772 | 20.97 |
| | 182 Epichlorohydrin | 57 | 6.097 | 6.093 | (1.228) | 30107 | 85.1584 | 85.15 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 209012 | 41.4607 | 41.46 |
| M | 95 Xylenes (total) | 106 | | | | 594616 | 66.2811 | 66.28 |
| | 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 201842 | 20.9970 | 20.99 |
| | 130 Ethyl Acetate | 43 | 3.653 | 3.649 | (0.874) | 94150 | 22.4614 | 22.46 |
| | 134 Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 83808 | 463.091 | 463.09(a) |
| | 185 Isoprene | 39 | 1.767 | 1.767 | (0.423) | 31011 | 21.6703 | 21.67 |
| | 186 Isopentane | 42 | 1.610 | 1.606 | (0.385) | 53078 | | (a) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 188 Isopropyl acetate | 43 | 4.672 | 4.669 (0.941) | 278118 | 22.2890 | 22.28 |
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 185422 | 21.0126 | 21.01 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 189 n-Butyl acetate | 43 | 7.214 | 7.210 | (0.941) | 154531 | 23.7713 | 23.77 |
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 103629 | 524.862 | 524.86 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 68580 | 201.723 | 201.72 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 206149 | 20.4888 | 20.48 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 203138 | 19.8336 | 19.83 |
| 168 1-Propanol | 59 | 2.997 | 2.997 | (0.717) | 32114 | 365.817 | 365.81 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012604.D
Date : 26-JAN-2023 09:27
Client ID: VLCSW-230126
Sample Info: VLCSW-230126;VLCSW-230126;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

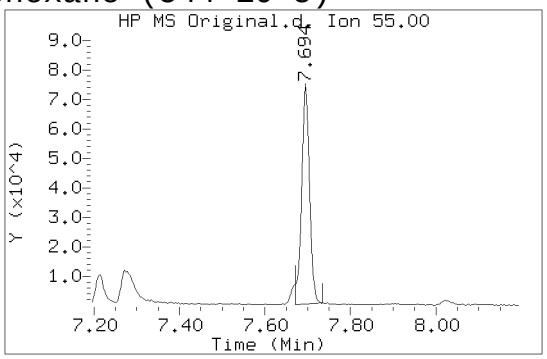
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Inj Date : 26-JAN-2023 09:27
InstruID : voa6.i
LabSampID : VLCSW-230126

## 1-Chlorohexane (544-10-5)

Reason Code:

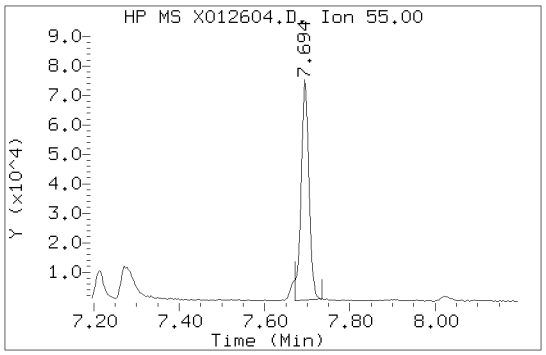
BEFORE

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HEIGHT
74728
13-Feb-2023
13:31
linh
pham



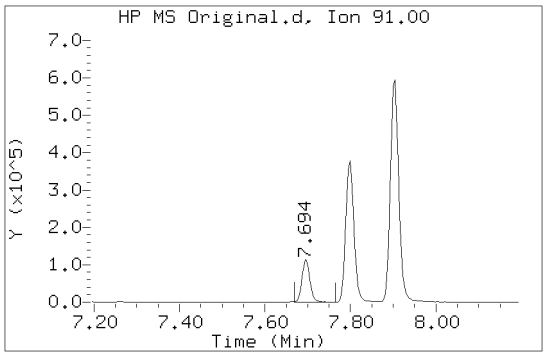

AFTER

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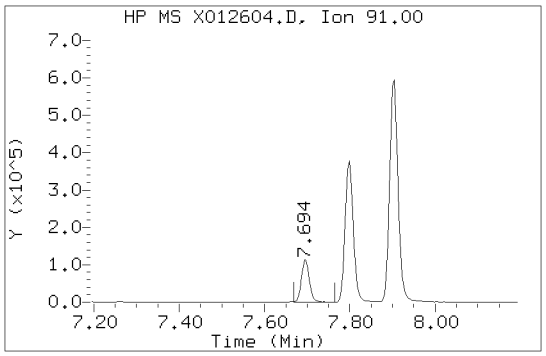

BEFORE

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13-Feb-2023
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linh
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AFTER

MASS
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HEIGHT
112666
13-Feb-2023
13:31
linh
pham

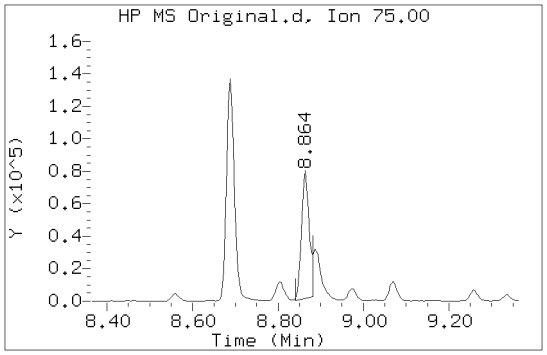



## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

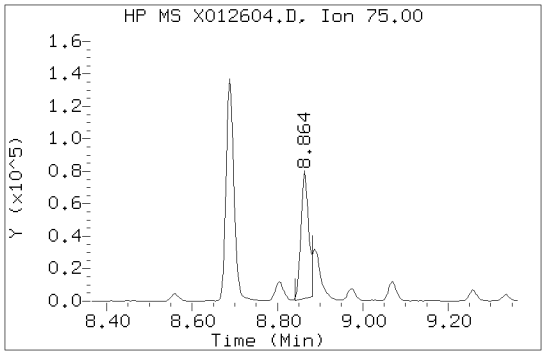
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HEIGHT
79018
13-Feb-2023
13:31
linh
pham



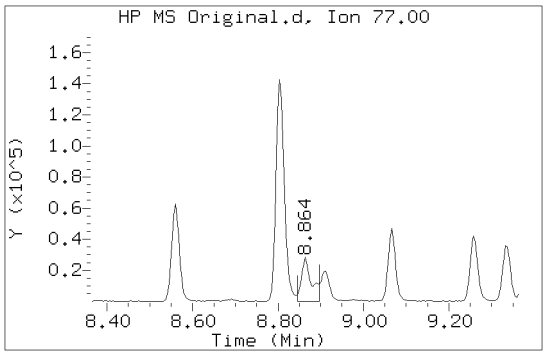

AFTER

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13-Feb-2023
13:31
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pham



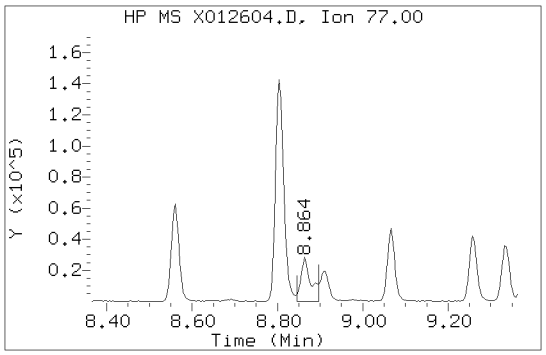

BEFORE

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13-Feb-2023
13:31
linh
pham




AFTER

MASS
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AREA
48125
HEIGHT
28479
13-Feb-2023
13:31
linh
pham



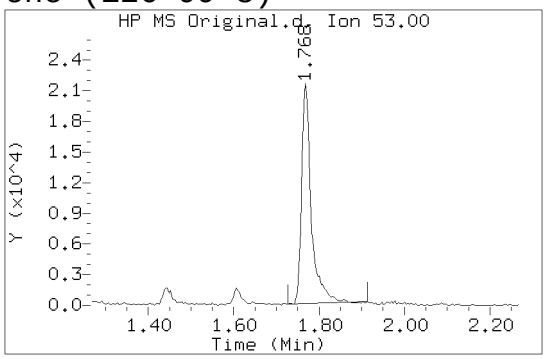
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Inj Date : 26-JAN-2023 09:27
InstruID : voa6.i
LabSampID : VLCSW-230126

Chloroprene (126-99-8)

Reason Code:

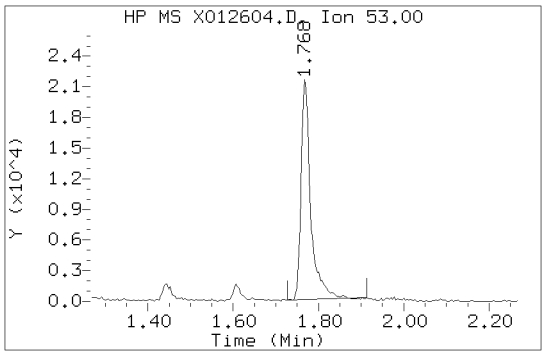
BEFORE

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AREA
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HEIGHT
21518
13-Feb-2023
13:31
linh
pham



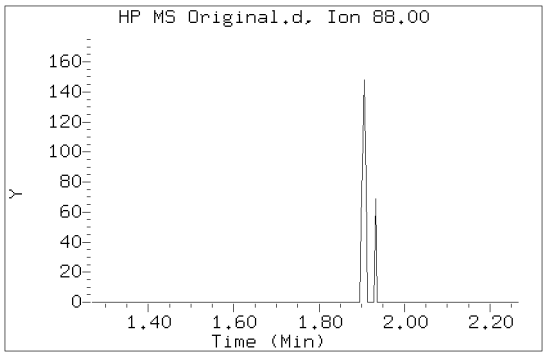

AFTER

MASS
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HEIGHT
21518
13-Feb-2023
13:31
linh
pham



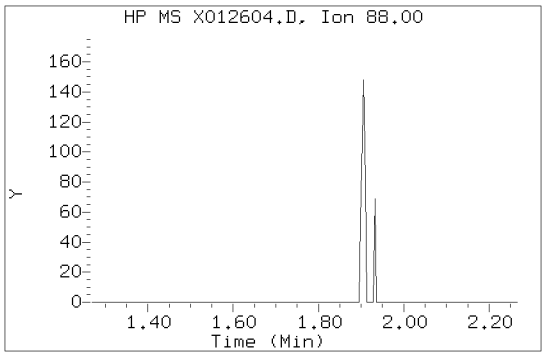

BEFORE

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HEIGHT
0
13-Feb-2023
13:31
linh
pham




AFTER

MASS
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AREA
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HEIGHT
0
13-Feb-2023
13:31
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012606.D  Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012606.D
Lab Smp Id: VBLKW-230126  Client Smp ID: VBLKW-230126
Inj Date  : 26-JAN-2023 10:09
Operator  : FT  Inst ID: voa6.i
Smp Info  : VBLKW-230126;VBLKW-230126;3;;BLANK
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 6  QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 656022 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 287740 | 45.6651 | 45.66 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 331077 | 49.7976 | 49.79 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 934312 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.668 | 7.667 | (1.000) | 832965 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.386 | 6.385 | (0.833) | 1070734 | 52.0199 | 52.01 |
| $ 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 382478 | 49.7136 | 49.71 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 425726 | 50.0000 | |

01241184

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012606.D



Date : 26-JAN-2023 10:09

Client ID: VBLKW-230126

Instrument: voa6.i

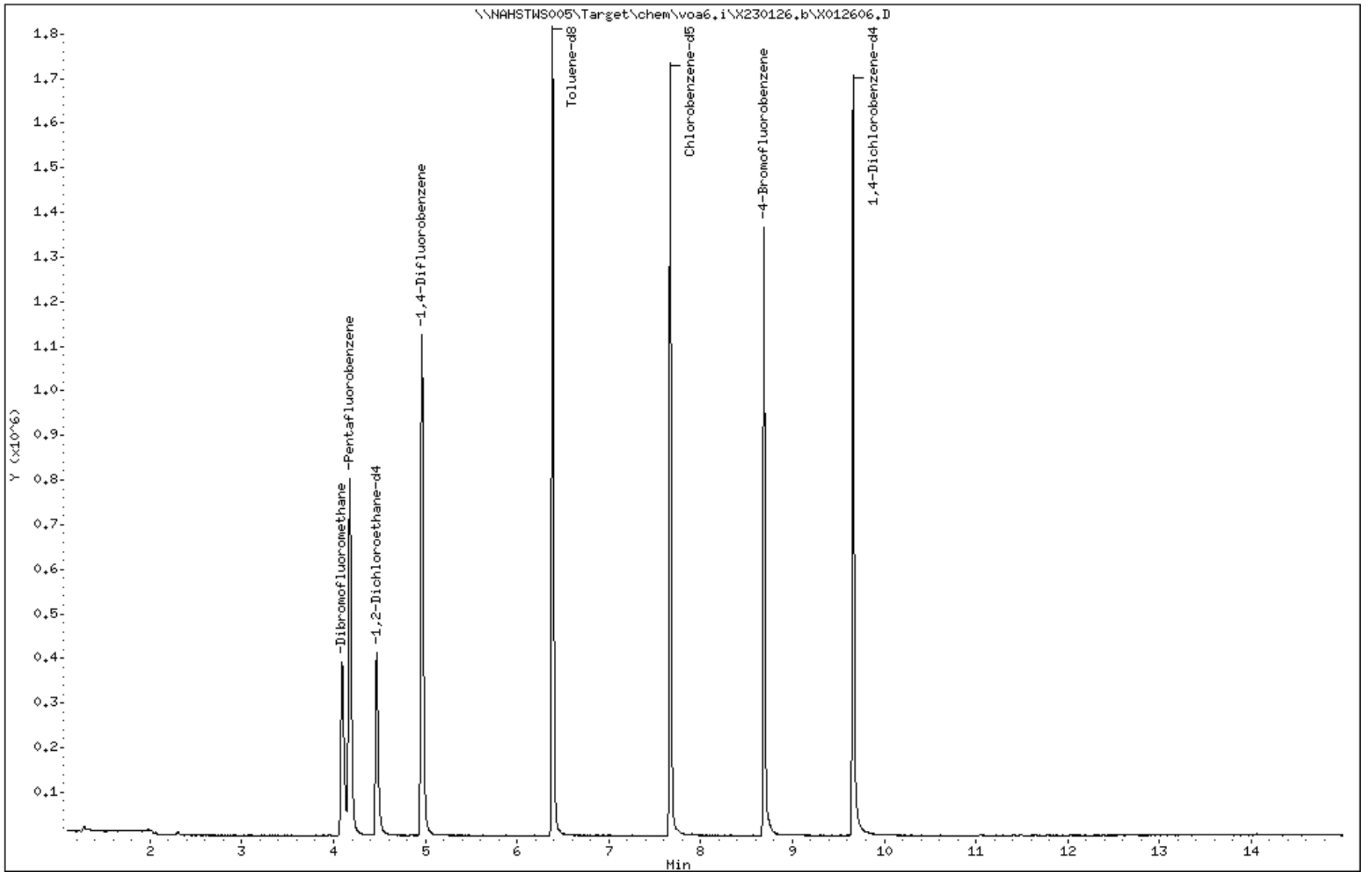
Sample Info: VBLKW-230126;VBLKW-230126;3;;BLANK

Purge Volume: 5.0

Operator: FT

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012606.D
Inj Date  : 26-JAN-2023 10:09
InstruID  : voa6.i
LabSampID : VBLKW-230126

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012607.D  Page 1
Report Date: 16-Feb-2023 14:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012607.D
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Inj Date  : 26-JAN-2023 10:30
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23011136-04;HS23011136-04;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 0474-dod.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 664054 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.095 | 4.091 | (0.981) | 291548 | 45.7100 | 45.70 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 329414 | 48.9528 | 48.95 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 938183 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 844450 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.385 | 6.382 | (0.833) | 1091918 | 52.3276 | 52.32 |
| $ 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 397319 | 50.9386 | 50.93 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 447049 | 50.0000 | |
| 5 Vinyl Chloride | 62 | 1.141 | 1.137 | (0.273) | 24571 | 4.23573 | 4.23(a) |
| 27 cis-1,2-Dichloroethene | 96 | 3.525 | 3.521 | (0.845) | 13032 | 1.89848 | 1.89(a) |
| 38 Trichloroethene | 130 | 5.208 | 5.201 | (1.050) | 9988 | 1.57183 | 1.57(a) |

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

01241187

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012607.D

Page 1

Date : 26-JAN-2023 10:30

Client ID: HS23011136-04

Instrument: voa6.i

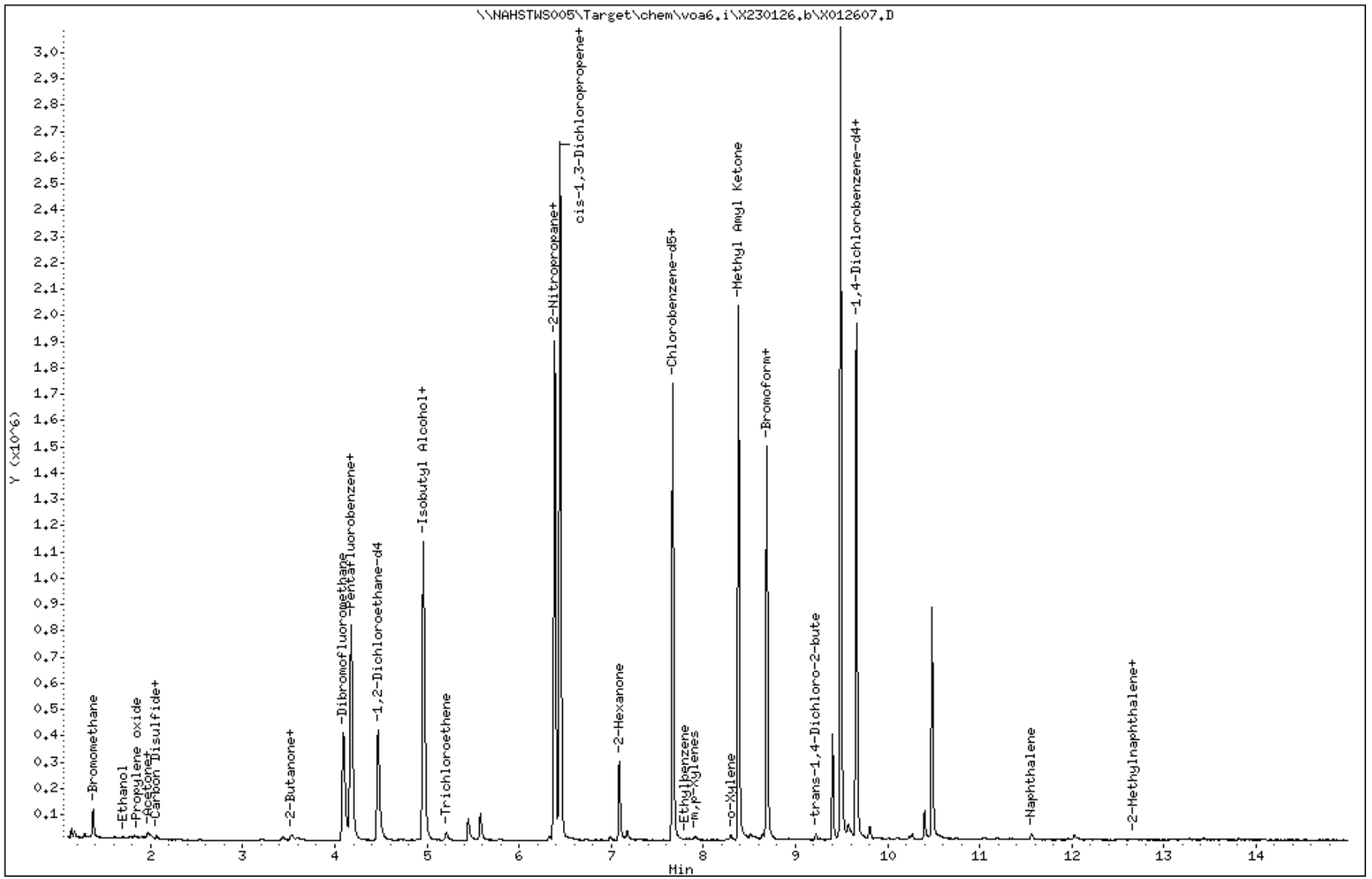
Sample Info: HS23011136-04;HS23011136-04;;;

Purge Volume: 5.0

Operator: FT

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012607.D

Date : 26-JAN-2023 10:30

Client ID: HS23011136-04

Instrument: voa6.i

Sample Info: HS23011136-04;HS23011136-04;;;

Purge Volume: 5.0

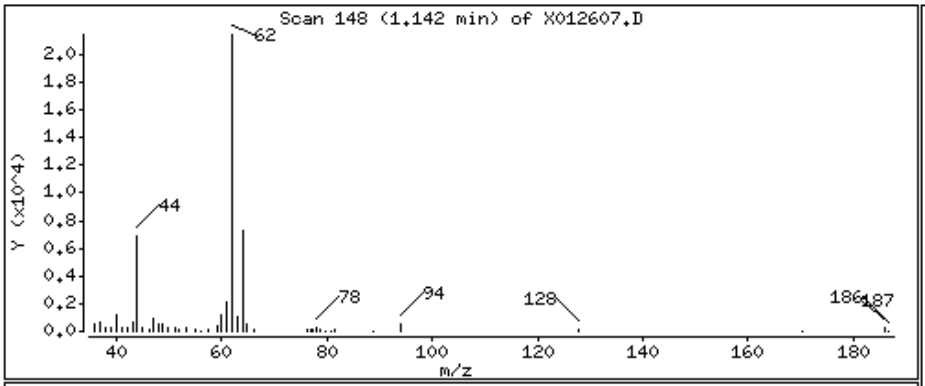
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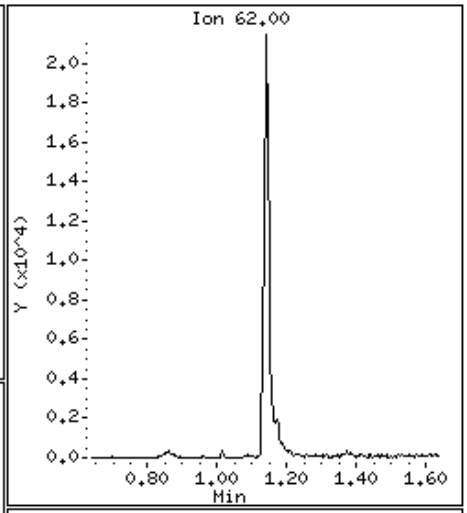
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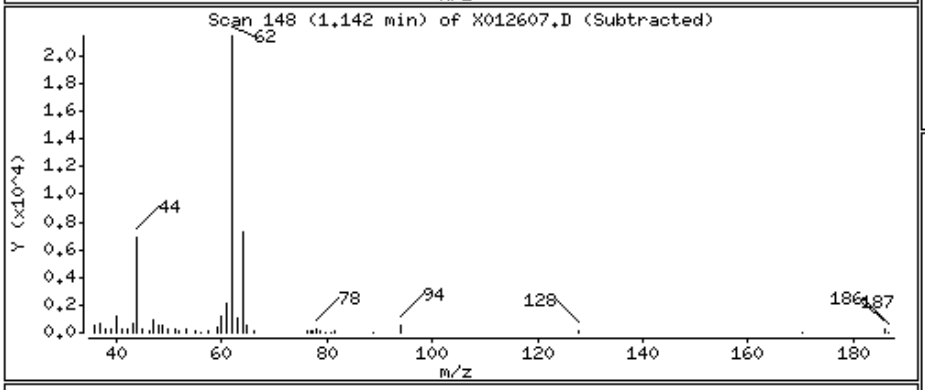
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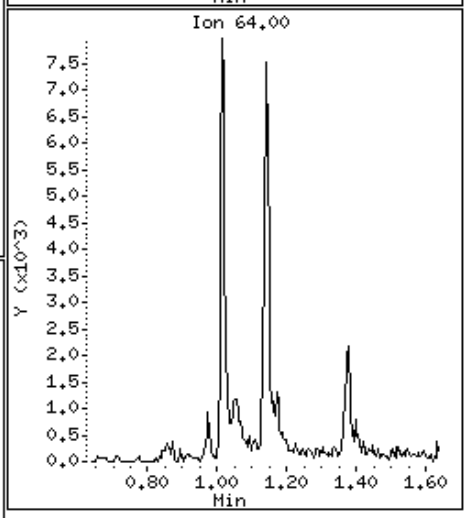
5 Vinyl Chloride

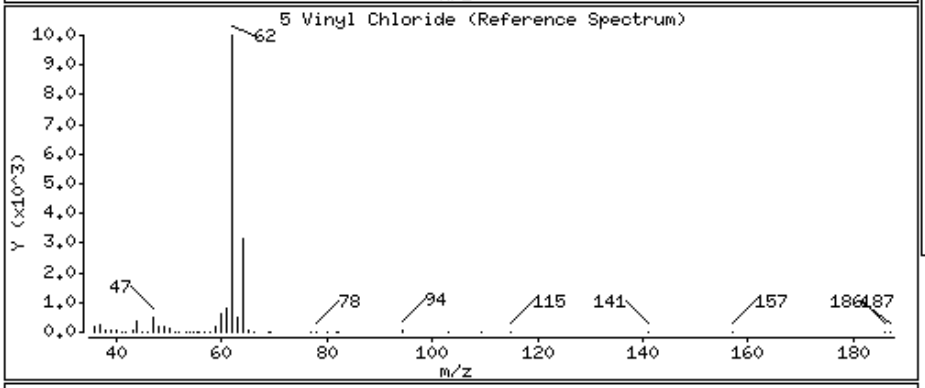
Concentration: 4.23 ug/l

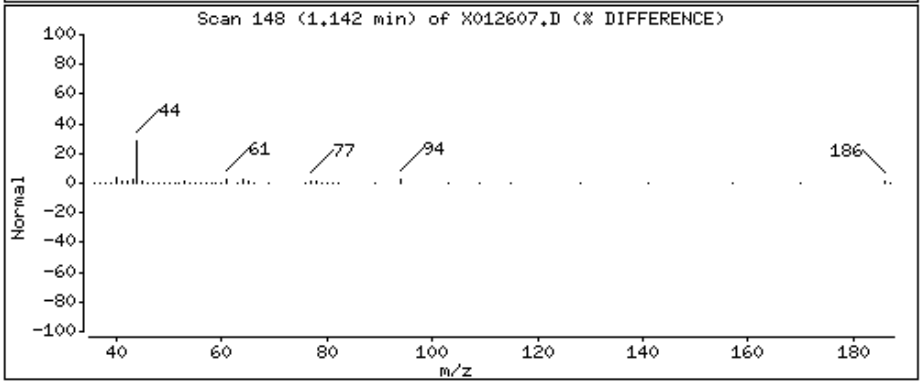


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Date : 26-JAN-2023 10:30

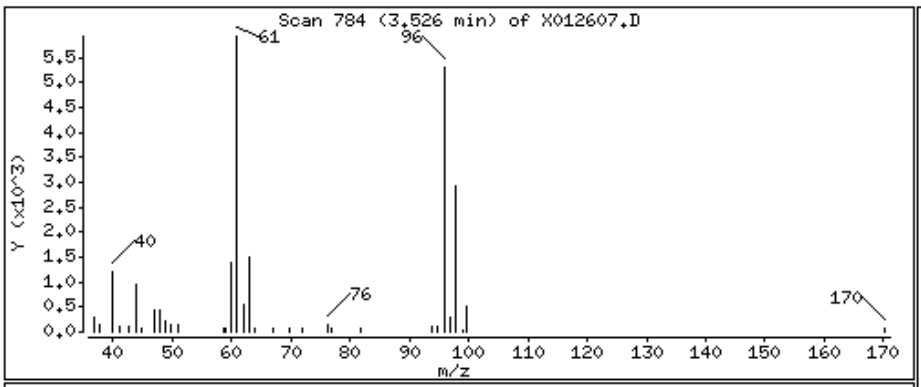
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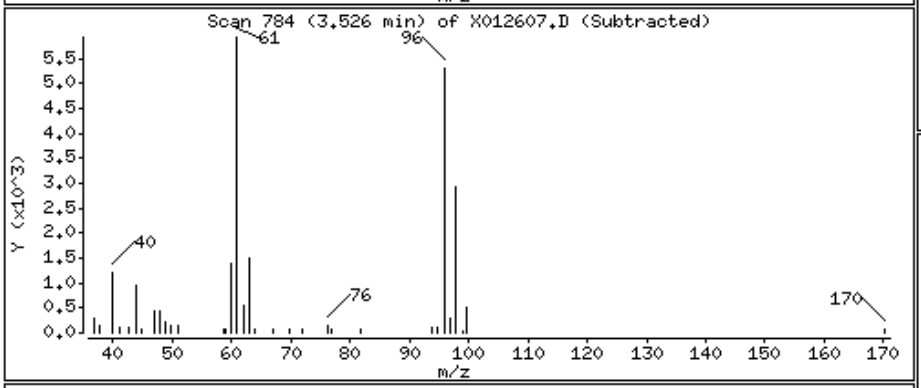
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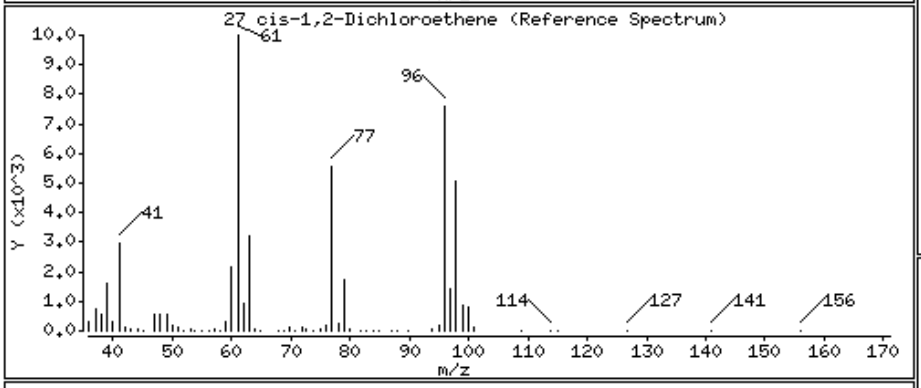
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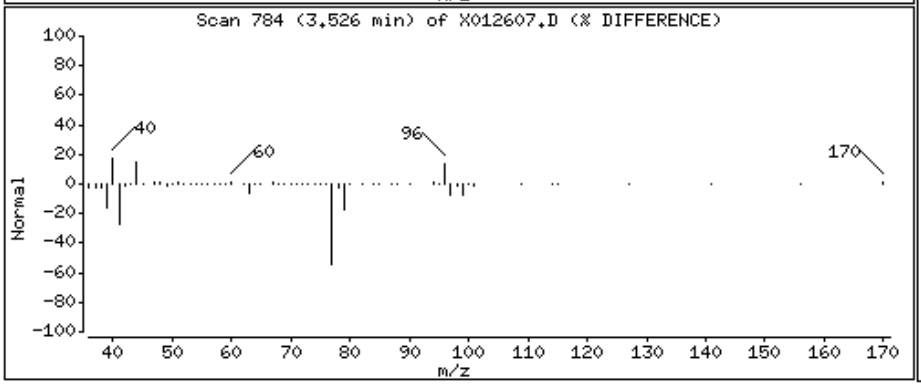
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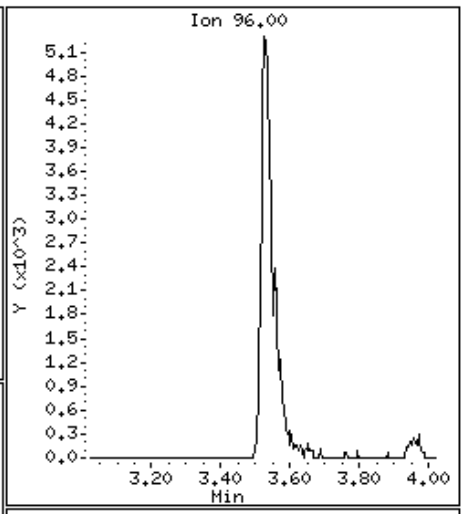
27 cis-1,2-Dichloroethene Concentration: 1.89 ug/l

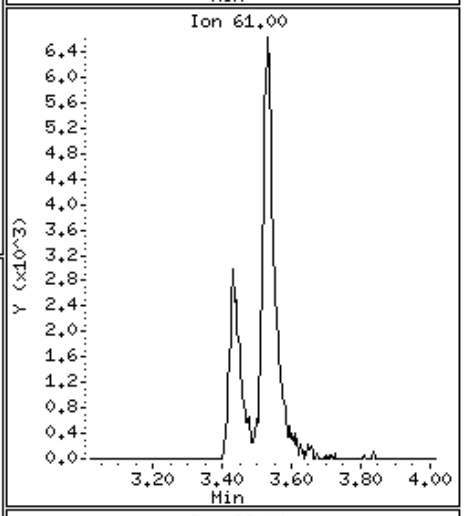


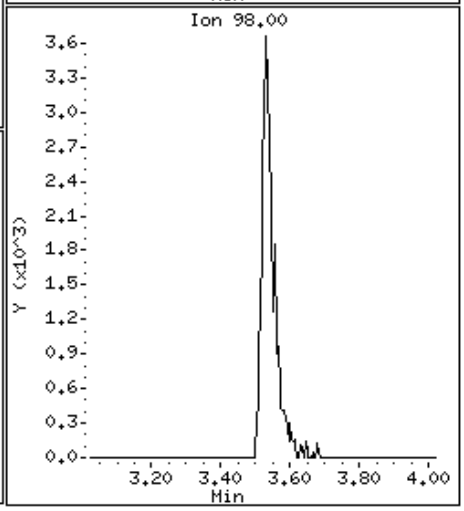



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Date : 26-JAN-2023 10:30

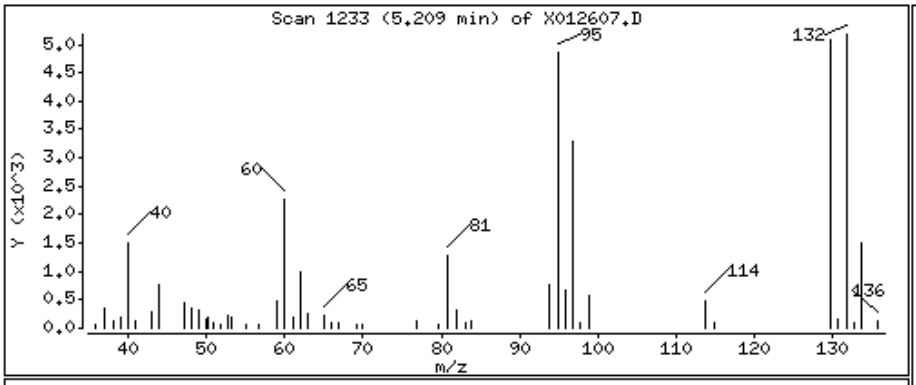
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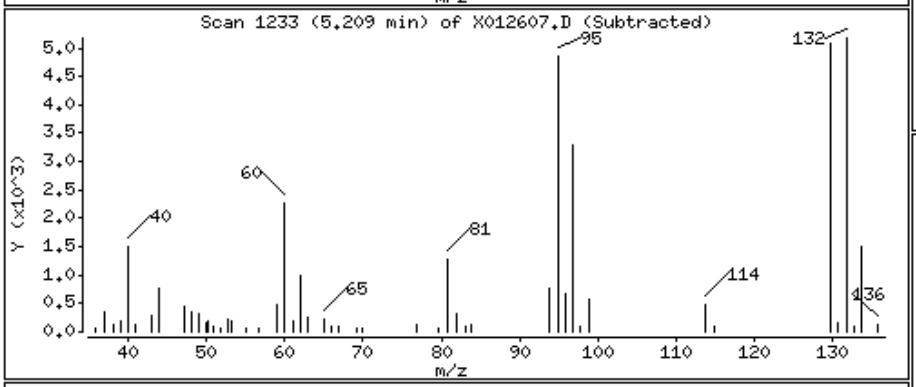
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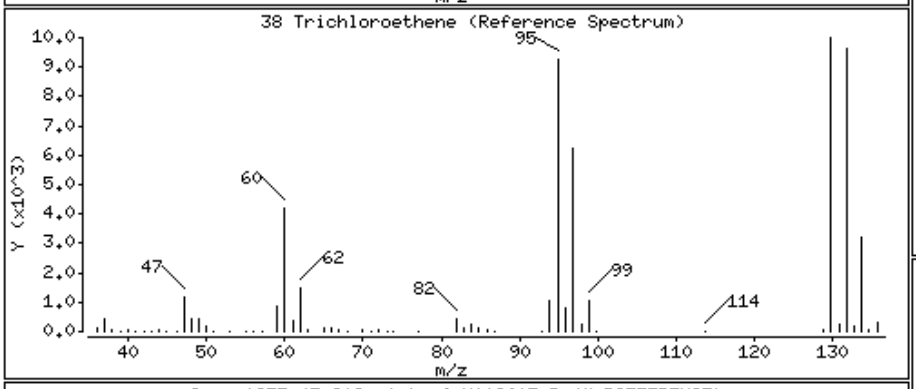
Purge Volume: 5.0 Operator: FT

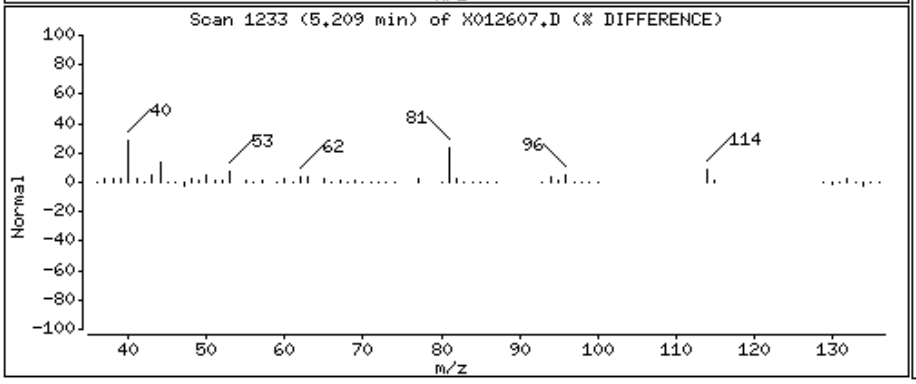
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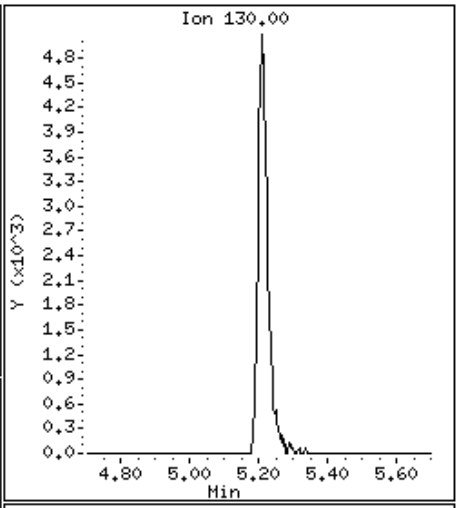
38 Trichloroethene Concentration: 1.57 ug/l

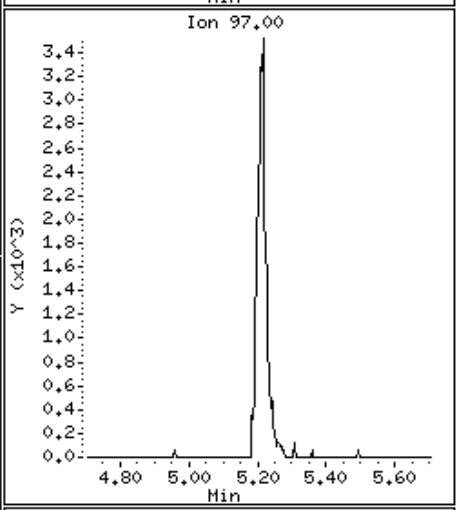


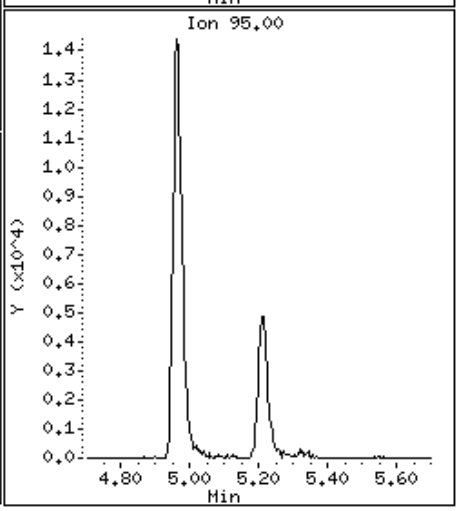



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LabSampID : HS23011136-04

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012608.D  Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012608.D
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Inj Date  : 26-JAN-2023 10:51
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23011136-04MS;HS23011136-04MS;3;;MS
Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 8  QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 677446 | 50.0000 | |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 63045 | 13.5942 | 13.59 |
| 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 85178 | 15.4939 | 15.49 |
| 4 | Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 109202 | 157.980 | 157.98(a) |
| 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.274) | 117902 | 19.9230 | 19.92 |
| 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 63012 | 15.3452 | 15.34 |
| 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 62323 | 15.1305 | 15.13 |
| 8 | Trichlorofluoromethane | 101 | 1.554 | 1.557 | (0.372) | 147068 | 17.7588 | 17.75 |
| 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 15745 | 35.8469 | 35.84 |
| 10 | Acetone | 43 | 1.966 | 1.966 | (0.471) | 62933 | 33.0848 | 33.08 |
| 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.458) | 87151 | 16.9505 | 16.95 |
| 12 | Isobutyl Alcohol | 43 | 4.672 | 4.669 | (1.119) | 254830 | 334.432 | 334.43(a) |
| 13 | Acetonitrile | 39 | 2.195 | 2.194 | (0.526) | 115205 | 186.851 | 186.85(a) |
| 14 | Allyl Chloride | 41 | 2.195 | 2.194 | (0.526) | 203103 | 17.2959 | 17.29(a) |
| 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 201500 | 32.9075 | 32.90 |
| 16 | Acrylonitrile | 53 | 2.532 | 2.528 | (0.607) | 60400 | 34.6371 | 34.63 |
| 17 | Methylene Chloride | 84 | 2.300 | 2.299 | (0.551) | 100902 | 14.3073 | 14.30 |
| 18 | Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.606) | 277206 | 16.4717 | 16.47 |
| 19 | Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 489655 | 36.4000 | 36.39 |
| 20 | trans-1,2-Dichloroethene | 96 | 2.528 | 2.524 | (0.606) | 98412 | 17.1024 | 17.10 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.717) | 499516 | 33.8121 | 33.81 |
| 22 1,1-Dichloroethane | 63 | 2.914 | 2.918 (0.698) | 163240 | 16.1642 | 16.16 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 39081 | 16.9666 | 16.96(M) |
| | 24 2-Butanone | 43 | 3.574 | 3.570 | (0.856) | 75661 | 39.4155 | 39.41 |
| | 25 Methacrylonitrile | 41 | 3.822 | 3.814 | (0.916) | 74558 | 15.5430 | 15.54(a) |
| | 26 2,2-Dichloropropane | 77 | 3.507 | 3.506 | (0.840) | 157962 | 18.4223 | 18.42 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.522 | 3.521 | (0.844) | 119326 | 17.0396 | 17.03 |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 184478 | 16.2982 | 16.29 |
| | 29 Bromochloromethane | 128 | 3.792 | 3.788 | (0.908) | 55969 | 14.5972 | 14.59 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 296519 | 45.5698 | 45.56 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.076 | (0.978) | 166322 | 18.5202 | 18.52 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 139520 | 21.0209 | 21.02 |
| | 33 1,2-Dichloroethane | 62 | 4.553 | 4.552 | (0.918) | 147007 | 19.1920 | 19.19 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 143257 | 20.2124 | 20.21 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 341523 | 49.7445 | 49.74 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 934883 | 50.0000 | |
| | 37 Benzene | 78 | 4.508 | 4.507 | (0.909) | 399837 | 17.9100 | 17.91 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 127035 | 20.0623 | 20.06 |
| | 39 Bromodichloromethane | 83 | 5.726 | 5.722 | (1.154) | 140118 | 16.7239 | 16.72 |
| | 40 Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.343) | 79218 | 17.1497 | 17.14(a) |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 98470 | 16.5816 | 16.58 |
| | 43 2-Nitropropane | 43 | 5.966 | 5.966 | (1.429) | 27117 | 15.8513 | 15.85 |
| | 44 Dibromomethane | 93 | 5.553 | 5.549 | (1.119) | 66732 | 16.5325 | 16.53 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.825) | 168707 | 37.2812 | 37.28 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 166412 | 16.9124 | 16.91 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.667 | (1.000) | 846633 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.382 | 6.385 | (0.832) | 1099361 | 52.5485 | 52.54 |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 80659 | 18.3215 | 18.32(a) |
| | 50 Toluene | 91 | 6.442 | 6.445 | (0.840) | 2132364 | 91.1221 | 91.12 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.347) | 140722 | 17.2332 | 17.23 |
| | 52 2-Hexanone | 43 | 7.083 | 7.083 | (0.924) | 298301 | 96.8876 | 96.88 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 79455 | 16.9245 | 16.92 |
| | 54 1,3-Dichloropropane | 76 | 6.982 | 6.981 | (0.911) | 161084 | 17.4321 | 17.43 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 117068 | 17.2775 | 17.27 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 103619 | 21.4009 | 21.40 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 103412 | 17.6178 | 17.61 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 107654 | 23.8279 | 23.82 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 299616 | 18.0510 | 18.05 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.772 | (1.014) | 108575 | 17.5772 | 17.57 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 157409 | 20.1324 | 20.13 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 393234 | 39.0145 | 39.01 |
| | 63 o-Xylene | 106 | 8.241 | 8.237 | (1.075) | 187245 | 18.8223 | 18.82 |
| | 64 Styrene | 104 | 8.260 | 8.256 | (1.077) | 313845 | 18.8222 | 18.82 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 77136 | 16.4325 | 16.43 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 495716 | 21.8111 | 21.81 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 131829 | 17.6736 | 17.67 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 404900 | 51.7756 | 51.77 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 467991 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 139021 | 26.6969 | 26.69 |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 33537 | 18.3496 | 18.34(a) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 585931 | 22.6031 | 22.60 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 141337 | 18.4078 | 18.40 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 419052 | 21.8828 | 21.88 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 348303 | 20.4756 | 20.47 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 77 | 4-Chlorotoluene | 91 | 9.070 | 9.069 (0.939) | 403687 | 20.8173 | 20.81 |
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 (0.966) | 357855 | 22.8291 | 22.82 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012608.D Page 3
Report Date: 13-Feb-2023 13:32

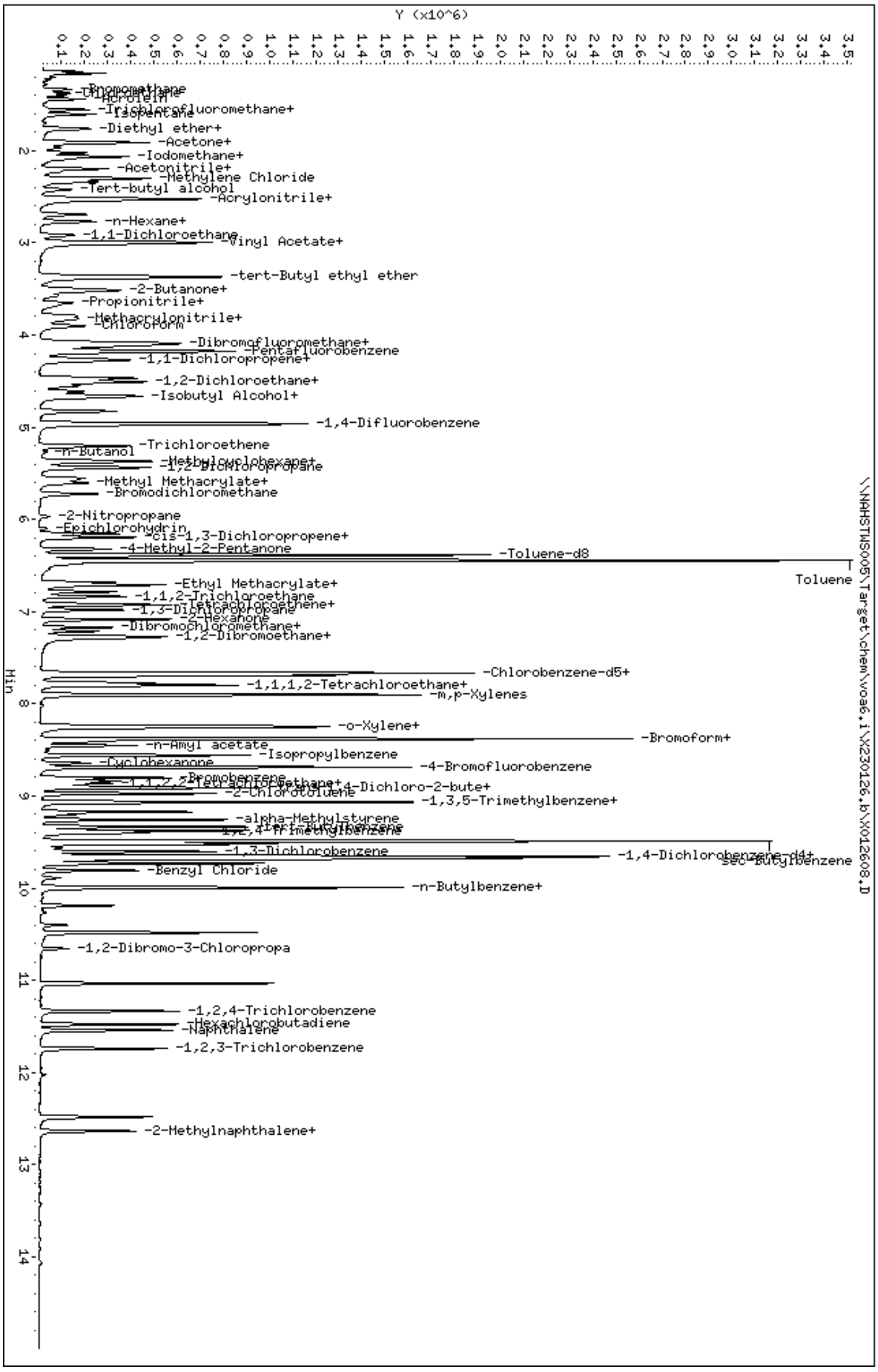
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 418340 | 20.7618 | 20.76 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 528967 | 25.3620 | 25.36 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 458466 | 24.5306 | 24.53 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.602 | (0.994) | 251689 | 19.7498 | 19.74 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.680 | (1.002) | 266660 | 19.1752 | 19.17 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 212327 | 17.8559 | 17.85 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 408249 | 23.6360 | 23.63 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 245230 | 18.6844 | 18.68 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 22929 | 19.2839 | 19.28 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.338 | 11.337 | (1.173) | 174667 | 21.0876 | 21.08 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 98327 | 26.9100 | 26.90 |
| 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 420051 | 22.2890 | 22.28 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.738 | (1.215) | 158689 | 20.0039 | 20.00 |
| 146 | Methyl acetate | 43 | 2.228 | 2.224 | (0.534) | 50888 | 16.6936 | 16.69 |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.458) | 95695 | 19.2434 | 19.24 |
| 141 | Cyclohexane | 56 | 4.118 | 4.118 | (0.987) | 155233 | 23.4206 | 23.42 |
| 142 | Tetrahydrofuran | 42 | 3.844 | 3.840 | (0.921) | 24895 | 27.3296 | 27.32 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.373 | (1.084) | 247170 | 21.5987 | 21.59 |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.594 | (1.341) | 20231 | 326.698 | 326.69 |
| 132 | n-Butanol | 56 | 5.265 | 5.253 | (1.261) | 20514 | 276.190 | 276.18(a) |
| 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 79495 | 17.2843 | 17.28 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.288) | 247170 | 19.7699 | 19.76 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 115451 | 23.6692 | 23.66 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 66086 | 14.5996 | 14.59 |
| 148 | Tert-butyl alcohol | 59 | 2.420 | 2.423 | (0.580) | 155722 | 331.969 | 331.96 |
| 149 | Isopropyl alcohol | 45 | 2.090 | 2.086 | (0.501) | 84144 | 343.474 | 343.47 |
| 156 | Diisopropyl ether | 45 | 2.993 | 2.997 | (0.717) | 295968 | 16.8417 | 16.84 |
| 160 | 2-Methylnaphthalene | 142 | 12.635 | 12.634 | (1.308) | 183724 | 20.2347 | 20.23 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 442689 | 19.6435 | 19.64 |
| 167 | Ethanol | 45 | 1.696 | 1.696 | (0.406) | 15856 | 357.174 | 357.17 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.105) | 116710 | 32.4669 | 32.46 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 160347 | 400.294 | 400.29 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.117) | 321815 | 16.4799 | 16.47 |
| 175 | tert-Butyl ethyl ether | 59 | 3.368 | 3.372 | (0.807) | 312263 | 16.7222 | 16.72 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.105) | 116710 | 320.777 | 320.77 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 298920 | 337.819 | 337.81 |
| 180 | 1-Methylnaphthalene | 142 | 12.635 | 12.634 | (1.308) | 183724 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 73901 | 15.8946 | 15.89 |
| 152 | Amyl alcohol | 42 | 6.910 | 6.903 | (0.901) | 23965 | 286.250 | 286.25 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 13569 | 15.4691 | 15.46 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 14477 | 33.9830 | 33.98 |
| 161 | 3-Methyl-1-butanol | 55 | 6.910 | 6.903 | (0.901) | 29599 | 353.612 | 353.61 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 209364 | 18.9309 | 18.93 |
| 182 | Epichlorohydrin | 57 | 6.093 | 6.093 | (1.228) | 25006 | 61.4787 | 61.47 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 217738 | 34.1420 | 34.14 |
| M 95 | Xylenes (total) | 106 | | | | 580479 | 57.8367 | 57.83 |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 200117 | 19.2988 | 19.29 |
| 130 | Ethyl Acetate | 43 | 3.653 | 3.649 | (0.875) | 86009 | 16.2704 | 16.27 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 61571 | 315.397 | 315.39(a) |
| 185 | Isoprene | 39 | 1.771 | 1.767 | (0.424) | 32535 | 18.0276 | 18.02 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 63620 | | (a) |
| 188 | Isopropyl acetate | 43 | 4.672 | 4.669 | (0.942) | 254830 | 17.5446 | 17.54 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.455 | 8.451 (1.103) | 209358 | 21.2066 | 21.20 |
| 189 n-Butyl acetate | 43 | 7.214 | 7.210 (0.941) | 145449 | 19.9991 | 19.99 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 115451 | 463.660 | 463.66 |
| 194 Acetaldehyde | 44 | 1.205 | 1.209 | (0.289) | 58281 | 128.338 | 128.33 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 1219562 | 108.344 | 108.34 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 206403 | 18.0132 | 18.01 |
| 168 1-Propanol | 59 | 2.997 | 2.997 | (0.718) | 35877 | 324.059 | 324.05 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012608.D
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Client ID: HS23011136-04HS
Sample Info: HS23011136-04HS,HS23011136-04HS,3,,MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

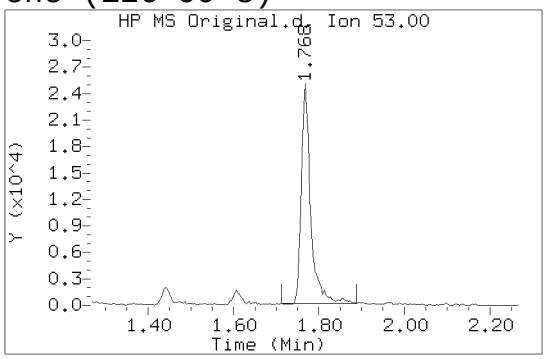
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LabSampID : HS23011136-04MS

## Chloroprene (126-99-8)

Reason Code:

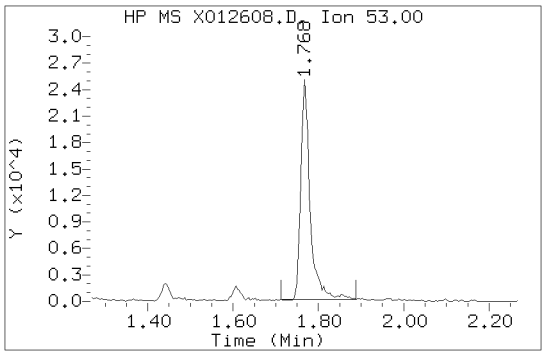
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AREA
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HEIGHT
24935
13-Feb-2023
13:31
linh
pham



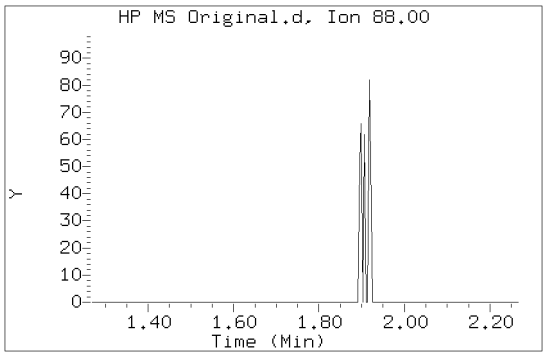

### AFTER

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13-Feb-2023
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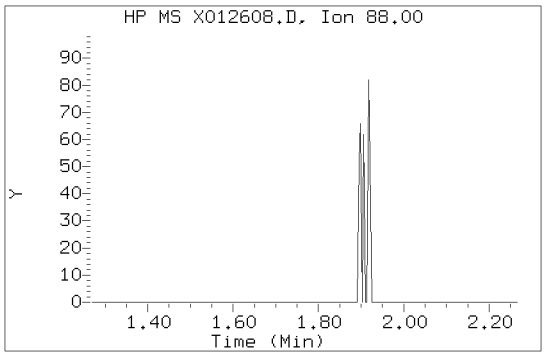

### BEFORE

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### AFTER

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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012609.D  Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012609.D
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Inj Date  : 26-JAN-2023 11:12
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23011136-04MSD;HS23011136-04MSD;3;;MSD
Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
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Als bottle: 8  QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 679614 | 50.0000 | |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 57977 | 12.4942 | 12.49 |
| 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 78709 | 14.4460 | 14.44 |
| 4 | Propionitrile | 54 | 3.649 | 3.645 | (0.874) | 104385 | 150.530 | 150.52(a) |
| 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 110653 | 18.6385 | 18.63 |
| 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 58861 | 14.4101 | 14.41 |
| 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 58624 | 14.1871 | 14.18 |
| 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 139516 | 16.7931 | 16.79 |
| 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 12934 | 29.8643 | 29.86 |
| 10 | Acetone | 43 | 1.970 | 1.966 | (0.472) | 62296 | 32.6450 | 32.64 |
| 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.458) | 81817 | 15.8623 | 15.86 |
| 12 | Isobutyl Alcohol | 43 | 4.672 | 4.669 | (1.119) | 260240 | 340.443 | 340.44(a) |
| 13 | Acetonitrile | 39 | 2.195 | 2.194 | (0.526) | 107190 | 173.297 | 173.29(a) |
| 14 | Allyl Chloride | 41 | 2.195 | 2.194 | (0.526) | 186184 | 15.8046 | 15.80(a) |
| 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 206115 | 33.4815 | 33.48 |
| 16 | Acrylonitrile | 53 | 2.532 | 2.528 | (0.607) | 56872 | 32.5099 | 32.50 |
| 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.551) | 98277 | 13.8906 | 13.89 |
| 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.528 | (0.607) | 264076 | 15.6415 | 15.64 |
| 19 | Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 463346 | 34.3343 | 34.33 |
| 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 93334 | 16.1682 | 16.16 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.717) | 488508 | 32.9615 | 32.96 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 158022 | 15.5976 | 15.59 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 35081 | 15.1815 | 15.18(M) |
| | 24 2-Butanone | 43 | 3.574 | 3.570 | (0.856) | 75743 | 39.3387 | 39.33 |
| | 25 Methacrylonitrile | 41 | 3.821 | 3.814 | (0.916) | 69702 | 14.4843 | 14.48(a) |
| | 26 2,2-Dichloropropane | 77 | 3.503 | 3.506 | (0.839) | 150530 | 17.4995 | 17.49 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.522 | 3.521 | (0.844) | 116113 | 16.5279 | 16.52 |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 177935 | 15.6700 | 15.66 |
| | 29 Bromochloromethane | 128 | 3.795 | 3.788 | (0.909) | 54061 | 14.0546 | 14.05 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 298983 | 45.8028 | 45.80 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.977) | 161068 | 17.8780 | 17.87 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 132722 | 19.5708 | 19.57 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 139610 | 17.8381 | 17.83 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 136828 | 18.8941 | 18.89 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 342900 | 49.7855 | 49.78 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 955229 | 50.0000 | |
| | 37 Benzene | 78 | 4.511 | 4.507 | (0.909) | 388846 | 17.0467 | 17.04 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 122059 | 18.8659 | 18.86 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 137564 | 16.0693 | 16.06 |
| | 40 Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.343) | 73340 | 15.8266 | 15.82(a) |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 97148 | 16.0105 | 16.01 |
| | 43 2-Nitropropane | 43 | 5.969 | 5.966 | (1.430) | 25754 | 15.0065 | 15.00 |
| | 44 Dibromomethane | 93 | 5.550 | 5.549 | (1.119) | 65293 | 15.8314 | 15.83 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 168186 | 36.4677 | 36.46 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 164205 | 16.3326 | 16.33 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.667 | (1.000) | 862847 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.382 | 6.385 | (0.832) | 1112015 | 52.1545 | 52.15 |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 74332 | 16.5247 | 16.52(a) |
| | 50 Toluene | 91 | 6.442 | 6.445 | (0.840) | 2063108 | 86.5059 | 86.50 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.347) | 139431 | 16.7114 | 16.71 |
| | 52 2-Hexanone | 43 | 7.083 | 7.083 | (0.924) | 296635 | 94.5361 | 94.53 |
| | 53 1,1,2-Trichloroethane | 83 | 6.835 | 6.839 | (0.891) | 78755 | 16.4601 | 16.46 |
| | 54 1,3-Dichloropropane | 76 | 6.978 | 6.981 | (0.910) | 158336 | 16.8128 | 16.81 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 113968 | 16.5039 | 16.50 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 100618 | 20.3906 | 20.39 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 102376 | 17.1136 | 17.11 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 104038 | 22.5370 | 22.53 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 287937 | 17.0214 | 17.02 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 106823 | 16.9686 | 16.96 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 149766 | 18.7949 | 18.79 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 381698 | 37.1583 | 37.15 |
| | 63 o-Xylene | 106 | 8.241 | 8.237 | (1.075) | 180656 | 17.8187 | 17.81 |
| | 64 Styrene | 104 | 8.260 | 8.256 | (1.077) | 305939 | 18.0033 | 18.00 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 77175 | 16.1318 | 16.13 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 477833 | 20.6292 | 20.62 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 131544 | 17.3530 | 17.35 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 413910 | 51.9330 | 51.93 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 475607 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 137140 | 25.9139 | 25.91 |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 33106 | 17.7734 | 17.77(a) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 559040 | 21.2204 | 21.22 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 137397 | 17.6081 | 17.60 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 399076 | 20.5060 | 20.50 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 338145 | 19.5601 | 19.56 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 77 | 4-Chlorotoluene | 91 | 9.070 | 9.069 (0.939) | 388583 | 19.7175 | 19.71 |
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 (0.966) | 343062 | 21.5350 | 21.53 |

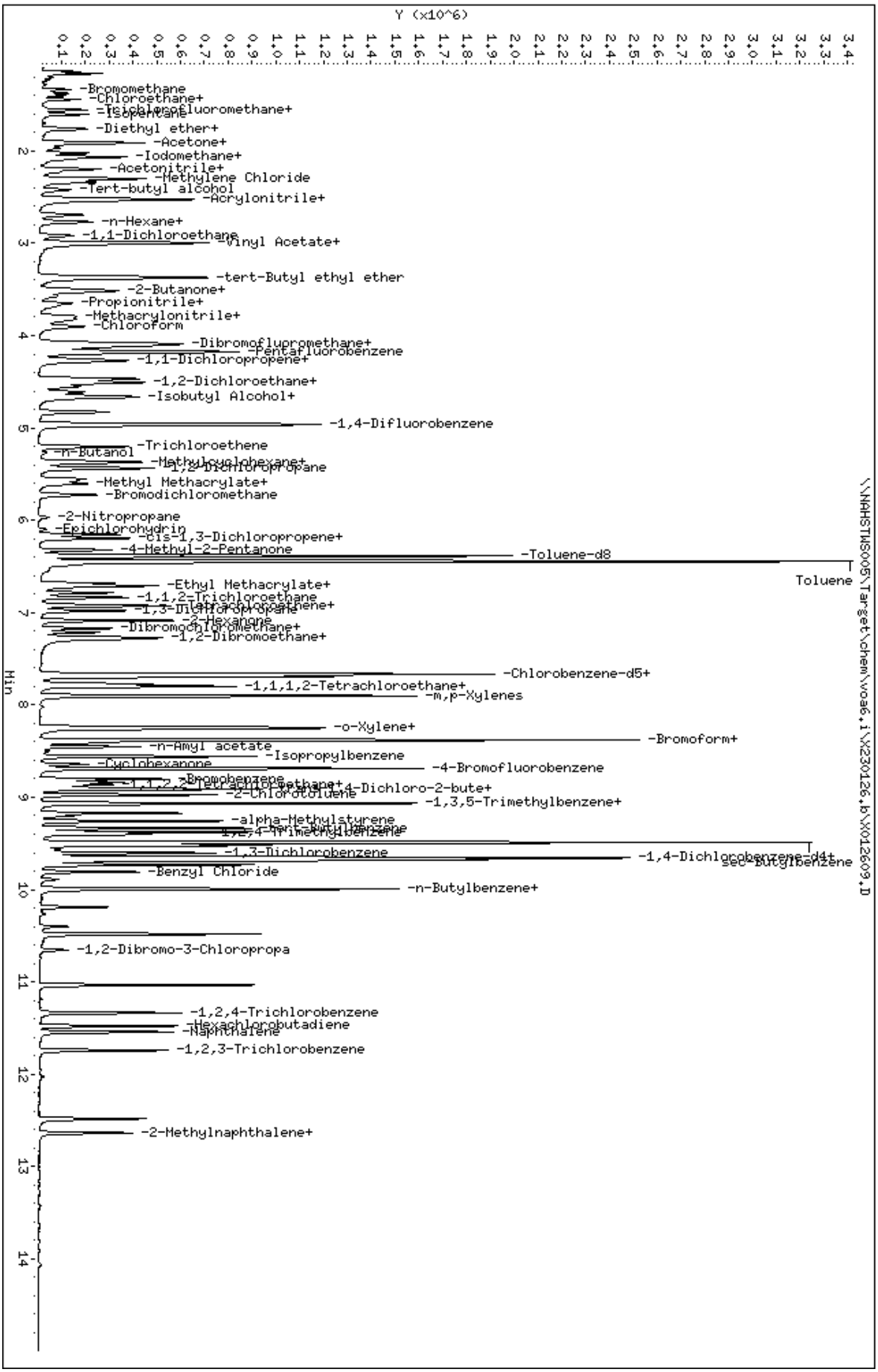
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 403055 | 19.6829 | 19.68 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 501585 | 23.6641 | 23.66 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 438126 | 23.0669 | 23.06 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.602 | (0.994) | 243270 | 18.7835 | 18.78 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.680 | (1.002) | 253512 | 17.9379 | 17.93 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 205777 | 17.1120 | 17.11 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 391881 | 22.4236 | 22.42 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 239008 | 17.9188 | 17.91 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 22222 | 18.3943 | 18.39 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 169528 | 20.1394 | 20.13 |
| 91 | Hexachlorobutadiene | 225 | 11.476 | 11.480 | (1.188) | 94277 | 25.3946 | 25.39 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 401982 | 20.9886 | 20.98 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.738 | (1.215) | 148658 | 18.4394 | 18.43 |
| 146 | Methyl acetate | 43 | 2.228 | 2.224 | (0.534) | 48010 | 15.6992 | 15.69 |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.458) | 88055 | 17.6506 | 17.65 |
| 141 | Cyclohexane | 56 | 4.118 | 4.118 | (0.987) | 148798 | 22.4343 | 22.43 |
| 142 | Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.920) | 24553 | 26.8147 | 26.81 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.373 | (1.084) | 222690 | 19.0451 | 19.04 |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.594 | (1.341) | 19590 | 315.338 | 315.33 |
| 132 | n-Butanol | 56 | 5.265 | 5.253 | (1.261) | 20704 | 277.599 | 277.59(a) |
| 131 | Methyl Acrylate | 55 | 3.686 | 3.683 | (0.883) | 75959 | 16.4628 | 16.46 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.288) | 222690 | 17.9416 | 17.94 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 106193 | 21.7017 | 21.70 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 62186 | 13.6942 | 13.69 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.423 | (0.581) | 154494 | 328.301 | 328.30 |
| 149 | Isopropyl alcohol | 45 | 2.090 | 2.086 | (0.501) | 83725 | 340.674 | 340.67 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.997 | (0.718) | 277621 | 15.7473 | 15.74 |
| 160 | 2-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 168207 | 18.2290 | 18.22 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 405353 | 17.6988 | 17.69 |
| 167 | Ethanol | 45 | 1.696 | 1.696 | (0.406) | 13869 | 310.996 | 310.99 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.105) | 117700 | 32.6379 | 32.63 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 156293 | 382.842 | 382.84 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.117) | 304658 | 15.5516 | 15.55 |
| 175 | tert-Butyl ethyl ether | 59 | 3.372 | 3.372 | (0.808) | 293901 | 15.6887 | 15.68 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.105) | 117700 | 322.466 | 322.46 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 320239 | 354.204 | 354.20 |
| 180 | 1-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 168207 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 68768 | 14.7434 | 14.74 |
| 152 | Amyl alcohol | 42 | 6.907 | 6.903 | (0.901) | 23330 | 273.429 | 273.42 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 11745 | 13.3470 | 13.34 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 14361 | 33.6032 | 33.60 |
| 161 | 3-Methyl-1-butanol | 55 | 6.907 | 6.903 | (0.901) | 26792 | 314.063 | 314.06 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 197819 | 17.5509 | 17.55 |
| 182 | Epichlorohydrin | 57 | 6.101 | 6.093 | (1.230) | 23807 | 57.4547 | 57.45 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 209447 | 32.6961 | 32.69 |
| M 95 | Xylenes (total) | 106 | | | | 562354 | 54.9770 | 54.97 |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 189127 | 17.9468 | 17.94 |
| 130 | Ethyl Acetate | 43 | 3.653 | 3.649 | (0.875) | 87673 | 16.5323 | 16.53 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 58074 | 292.720 | 292.71(a) |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 28592 | 15.7923 | 15.79 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 53711 | | (a) |
| 188 | Isopropyl acetate | 43 | 4.672 | 4.669 | (0.942) | 260240 | 17.5355 | 17.53 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 208200 | 20.6930 | 20.69 |
| 189 n-Butyl acetate | 43 | 7.214 | 7.210 (0.941) | 144436 | 19.4867 | 19.48 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 106193 | 425.119 | 425.11 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.290) | 91400 | 213.742 | 213.74 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 1207217 | 105.232 | 105.23 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.194 | (0.808) | 193158 | 16.5405 | 16.54 |
| 168 1-Propanol | 59 | 2.993 | 2.997 | (0.717) | 31986 | 287.992 | 287.99 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X230126.b\X012609.D
Date : 26-JAN-2023 11:12
Client ID: HS23011136-04HSD
Sample Info: HS23011136-04HSD;HS23011136-04HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

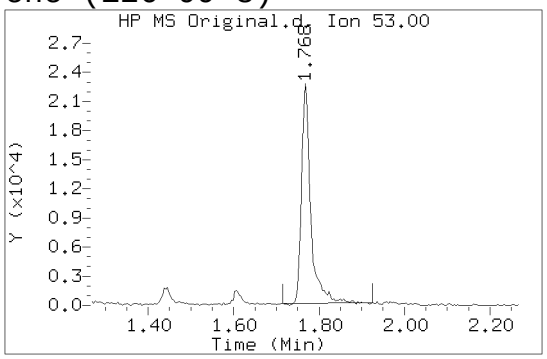
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012609.D
Inj Date : 26-JAN-2023 11:12
InstruID : voa6.i
LabSampID : HS23011136-04MSD

Chloroprene (126-99-8)

Reason Code:

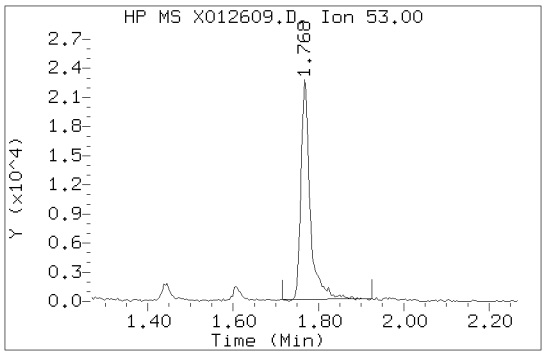
BEFORE

MASS
53
AREA
35081
HEIGHT
22637
13-Feb-2023
13:31
linh
pham



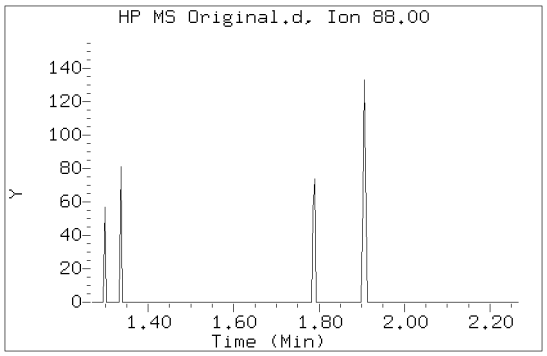

AFTER

MASS
53
AREA
35081
HEIGHT
22637
13-Feb-2023
13:31
linh
pham



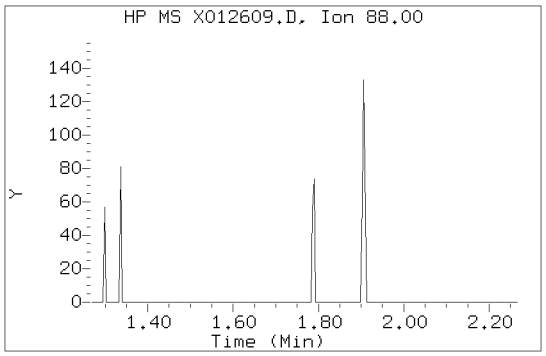

BEFORE

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:31
linh
pham




AFTER

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:31
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012610.D  Page 1
Report Date: 13-Feb-2023 13:32

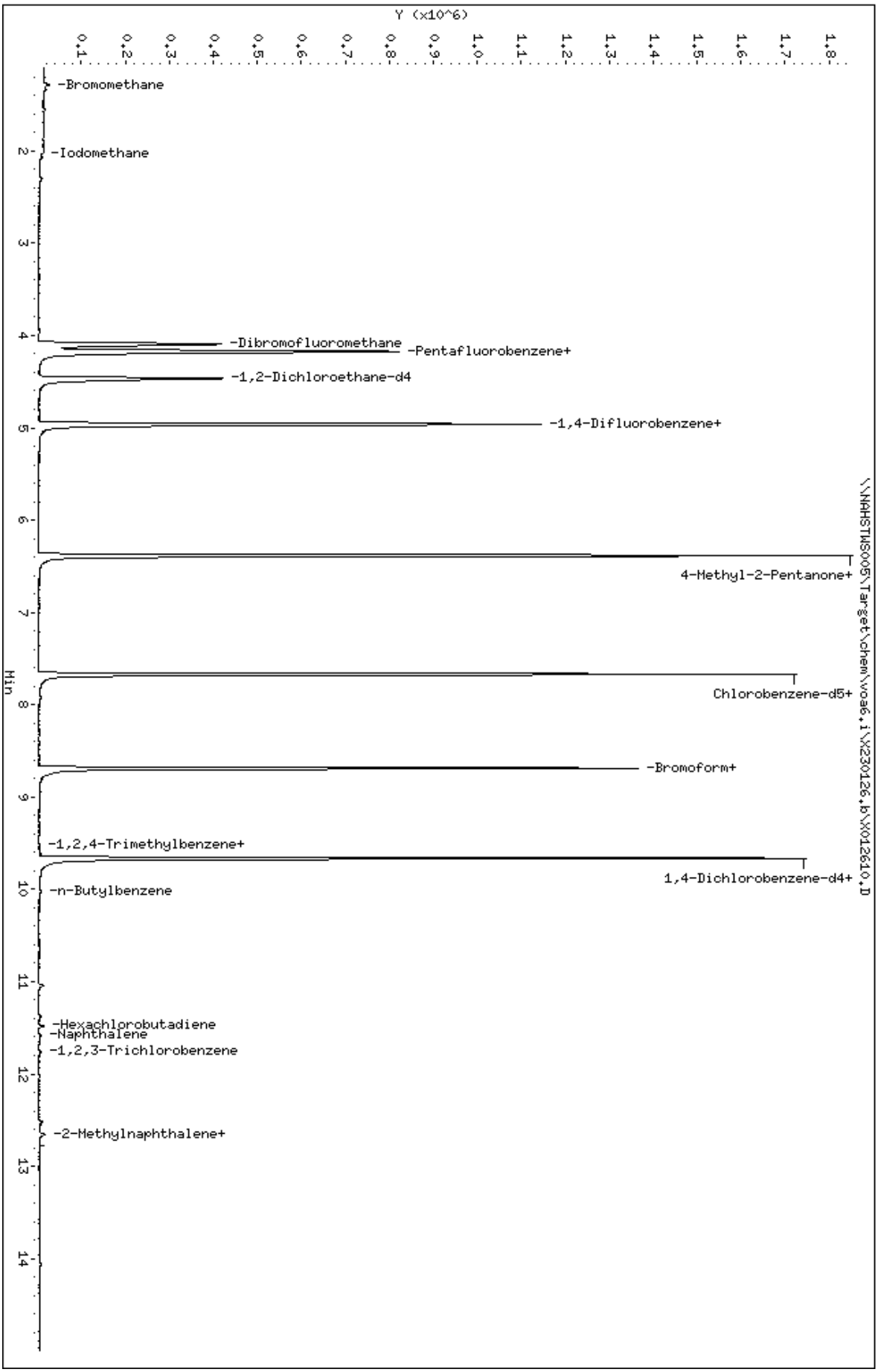
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012610.D
Lab Smp Id: HS23011136-07  Client Smp ID: HS23011136-07
Inj Date  : 26-JAN-2023 11:33
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23011136-07;HS23011136-07;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 0474-dod.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 666111 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 295489 | 46.1865 | 46.18 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 334366 | 49.5320 | 49.53 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 939656 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 833918 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 1083702 | 52.5898 | 52.58 |
| $ 69 4-Bromofluorobenzene | 95 | 8.691 | 8.687 | (1.133) | 386308 | 50.1534 | 50.15 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 420612 | 50.0000 | |




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012610.D
Date : 26-JAN-2023 11:33
Client ID: HS23011136-07
Sample Info: HS23011136-07;HS23011136-07;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012610.D
Inj Date  : 26-JAN-2023 11:33
InstruID  : voa6.i
LabSampID : HS23011136-07

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012624.D  Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012624.D
Lab Smp Id: HS23011136-01  Client Smp ID: HS23011136-01
Inj Date  : 26-JAN-2023 16:27
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23011136-01;HS23011136-01;;;
Misc Info : V6;WATER;0;50;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 23
Dil Factor: 50.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 50.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

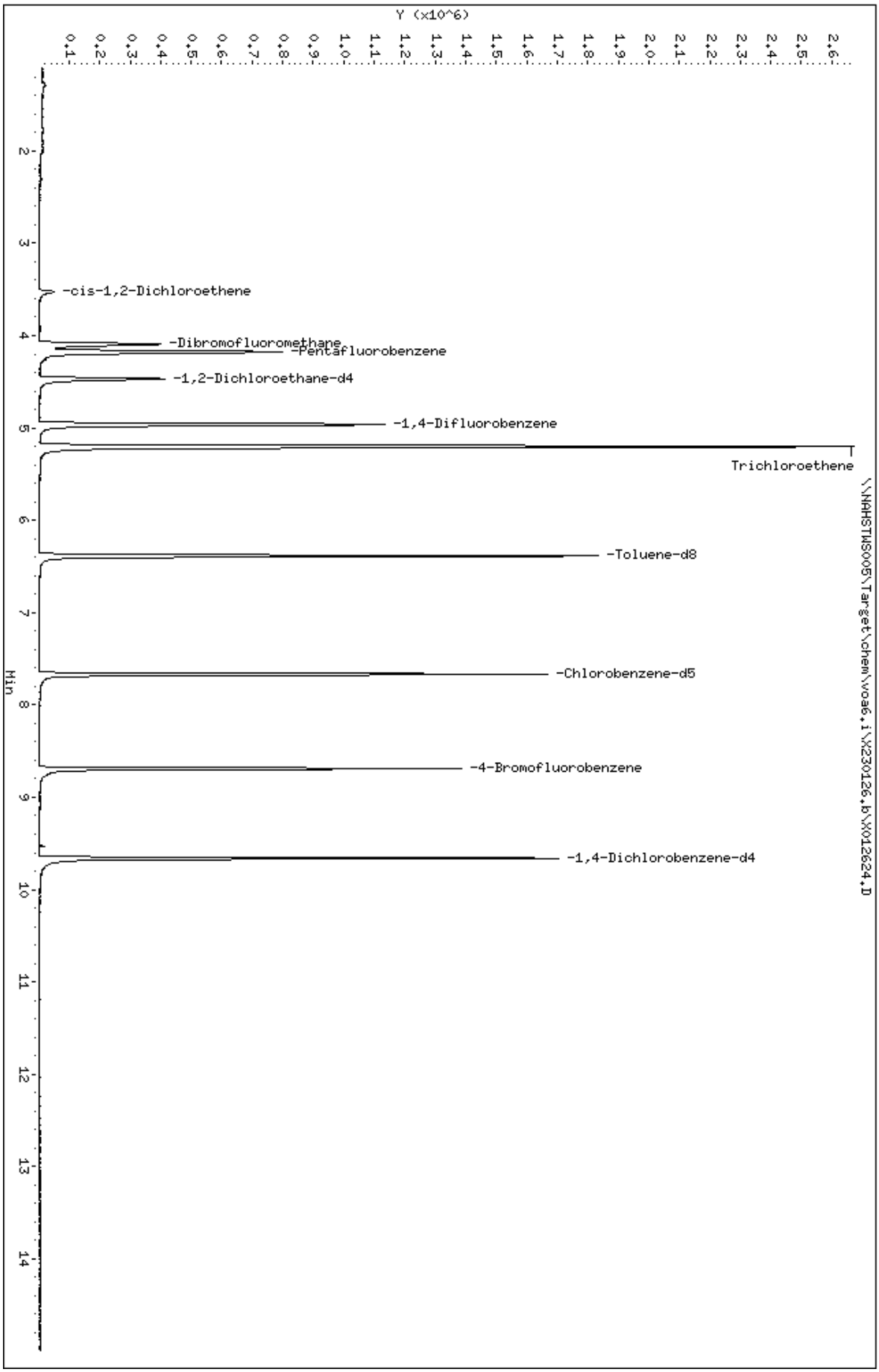
| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.174 | (1.000) | 658273 | 50.0000 | |
| 27 cis-1,2-Dichloroethene | 96 | 3.533 | 3.521 | (0.846) | 27854 | 4.09336 | 204.66 |
| $ 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 289860 | 45.8449 | 45.84 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 331228 | 49.6507 | 49.65 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 921308 | 50.0000 | |
| 38 Trichloroethene | 130 | 5.201 | 5.205 | (1.048) | 872875 | 139.882 | 6994.09 |
| * 47 Chlorobenzene-d5 | 117 | 7.668 | 7.667 | (1.000) | 827734 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.386 | 6.385 | (0.833) | 1068416 | 52.2353 | 52.23 |
| $ 69 4-Bromofluorobenzene | 95 | 8.691 | 8.687 | (1.133) | 382014 | 49.9667 | 49.96 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 421331 | 50.0000 | |
| M 94 1,2-Dichloroethylene (total) | 96 | | | | 27854 | 4.09336 | 204.66(a) |

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012624.D
Date : 26-JAN-2023 16:27
Client ID: HS23011136-01
Sample Info: HS23011136-01;HS23011136-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012624.D Page 2

Date : 26-JAN-2023 16:27

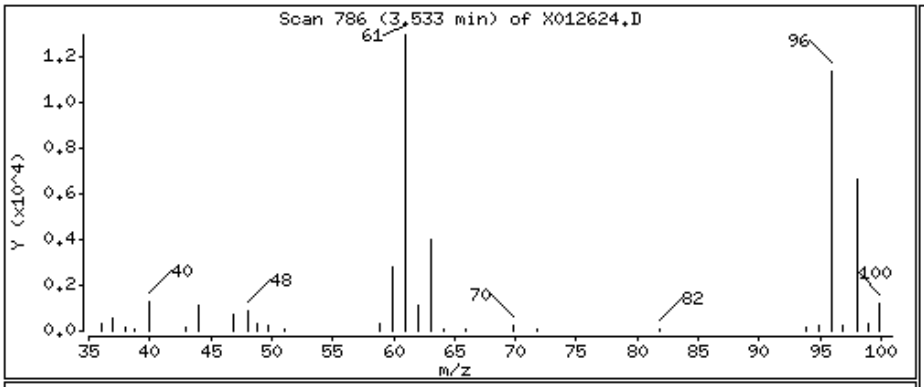
Client ID: HS23011136-01 Instrument: voa6.i

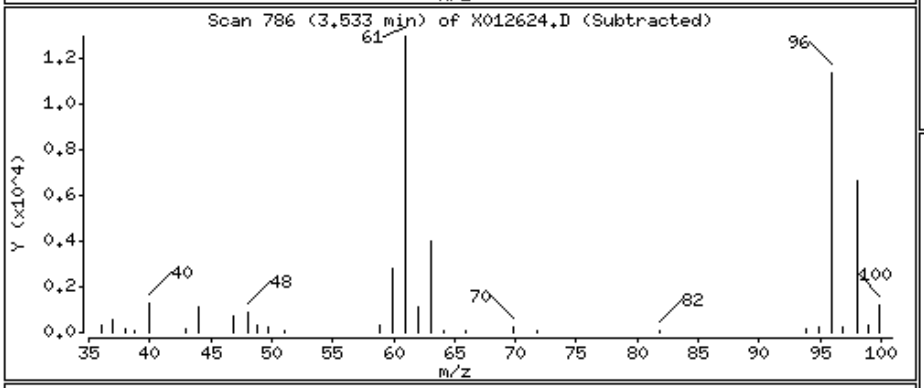
Sample Info: HS23011136-01;HS23011136-01;;;

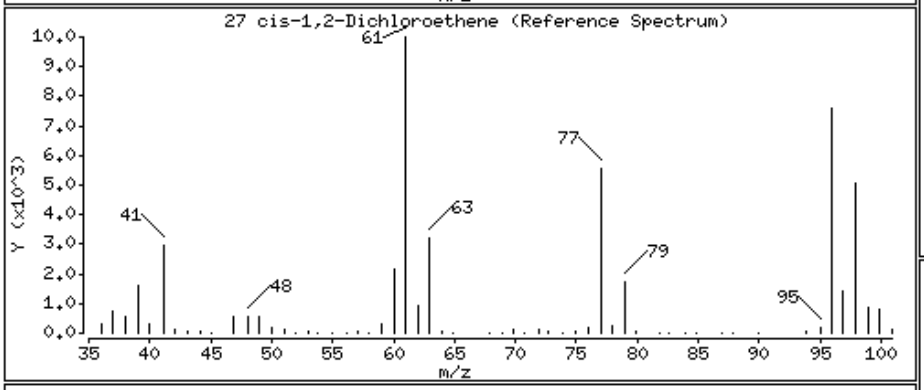
Purge Volume: 5.0 Operator: FT

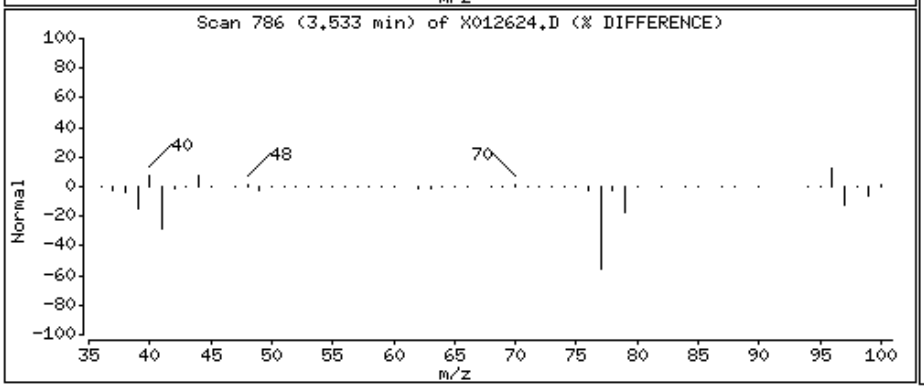
Column phase: DB624 Column diameter: 0.18

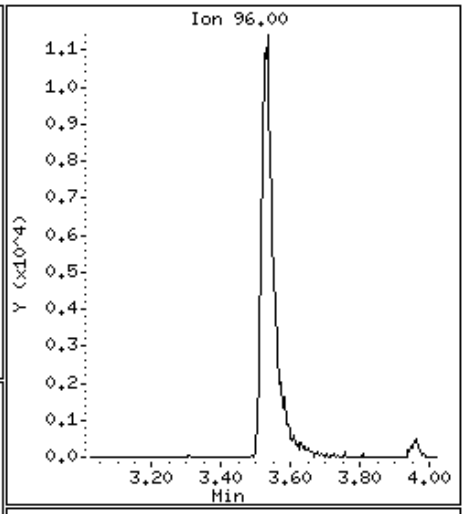
27 cis-1,2-Dichloroethene Concentration: 204.66 ug/l

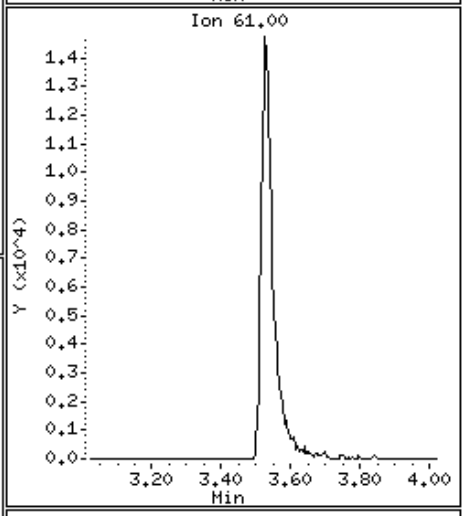


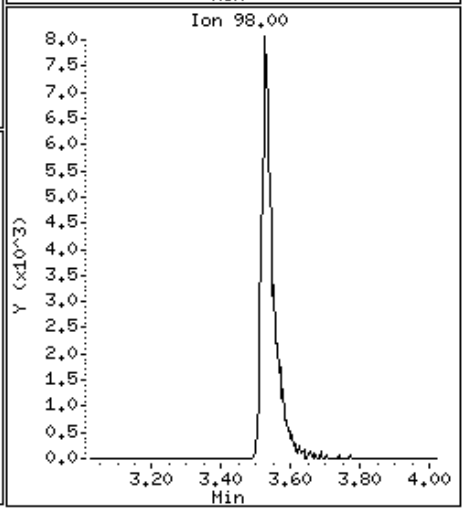



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012624.D Page 3

Date : 26-JAN-2023 16:27

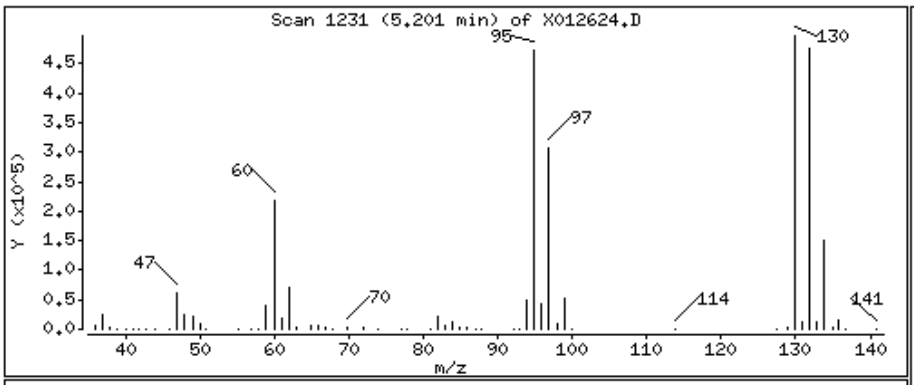
Client ID: HS23011136-01 Instrument: voa6.i

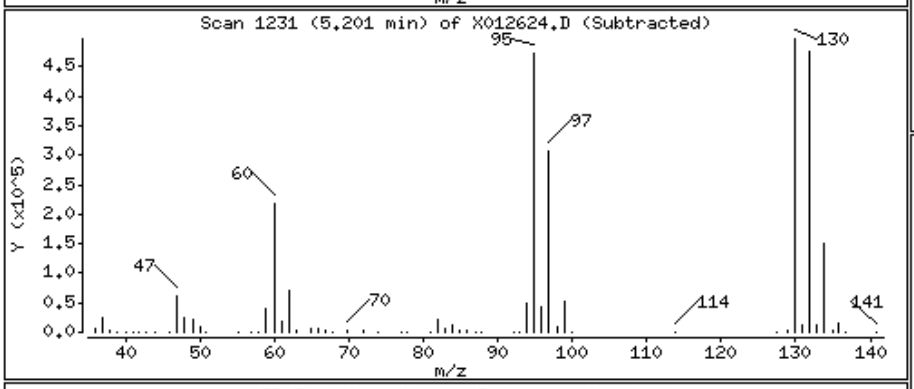
Sample Info: HS23011136-01;HS23011136-01;;;

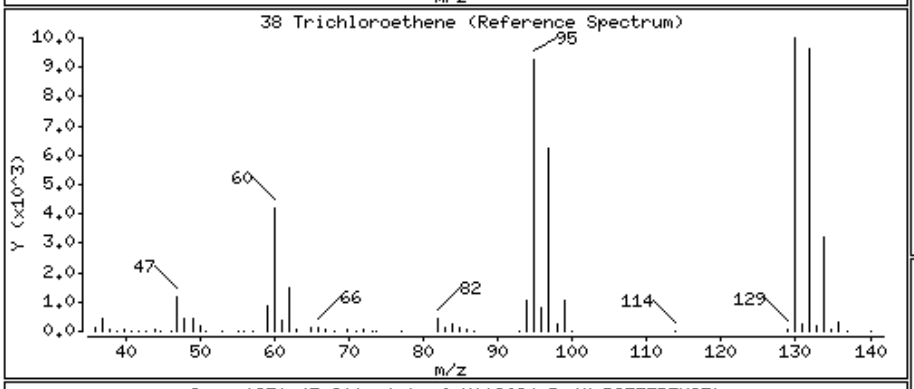
Purge Volume: 5.0 Operator: FT

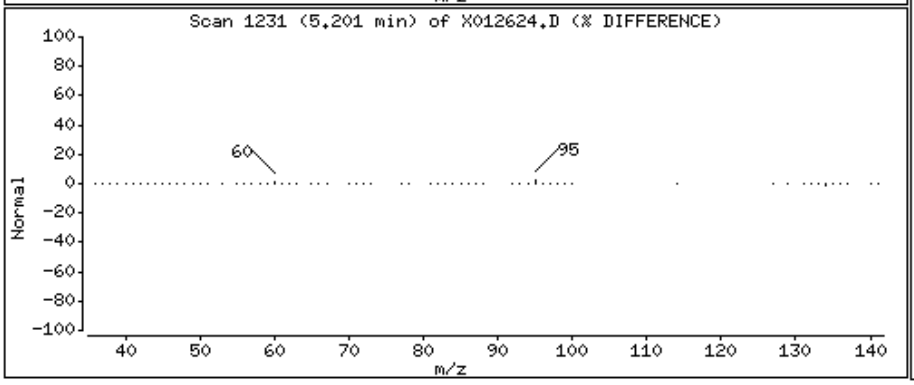
Column phase: DB624 Column diameter: 0.18

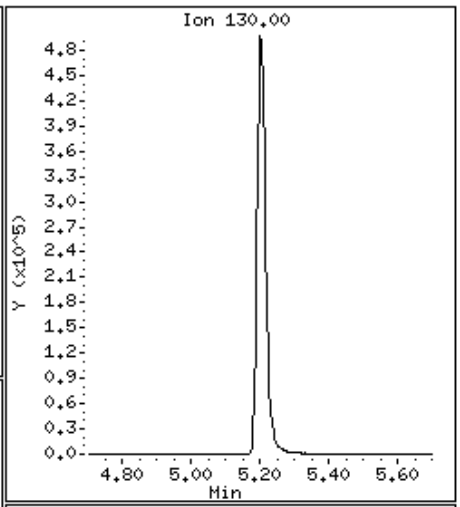
38 Trichloroethene Concentration: 6994.09 ug/l

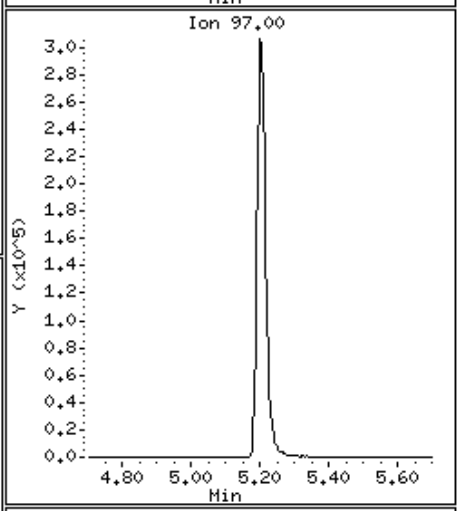


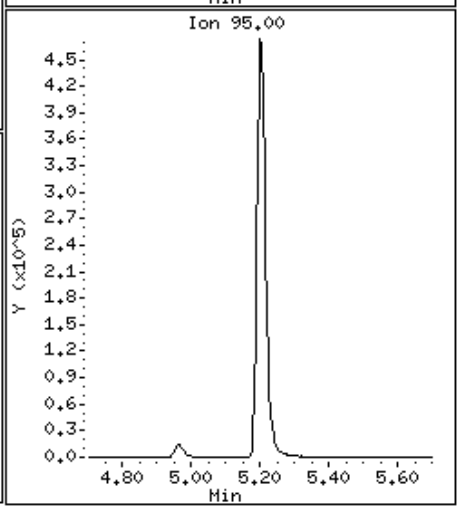



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012624.D
Inj Date  : 26-JAN-2023 16:27
InstruID  : voa6.i
LabSampID : HS23011136-01

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012625.D  Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012625.D
Lab Smp Id: HS23011136-02  Client Smp ID: HS23011136-02
Inj Date  : 26-JAN-2023 16:48
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23011136-02;HS23011136-02;;;
Misc Info : V6;WATER;0;5;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 24
Dil Factor: 5.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 5.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 628011 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 256648 | 42.5361 | 42.53 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 305446 | 48.0014 | 48.00 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 888394 | 50.0000 | |
| 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 188569 | 31.3386 | 156.69 |
| * 47 Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 809517 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.382 | 6.385 | (0.832) | 1037340 | 51.8573 | 51.85 |
| $ 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 381084 | 50.9655 | 50.96 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 426466 | 50.0000 | |

01241219

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012625.D



Date : 26-JAN-2023 16:48

Client ID: HS23011136-02

Instrument: voa6.i

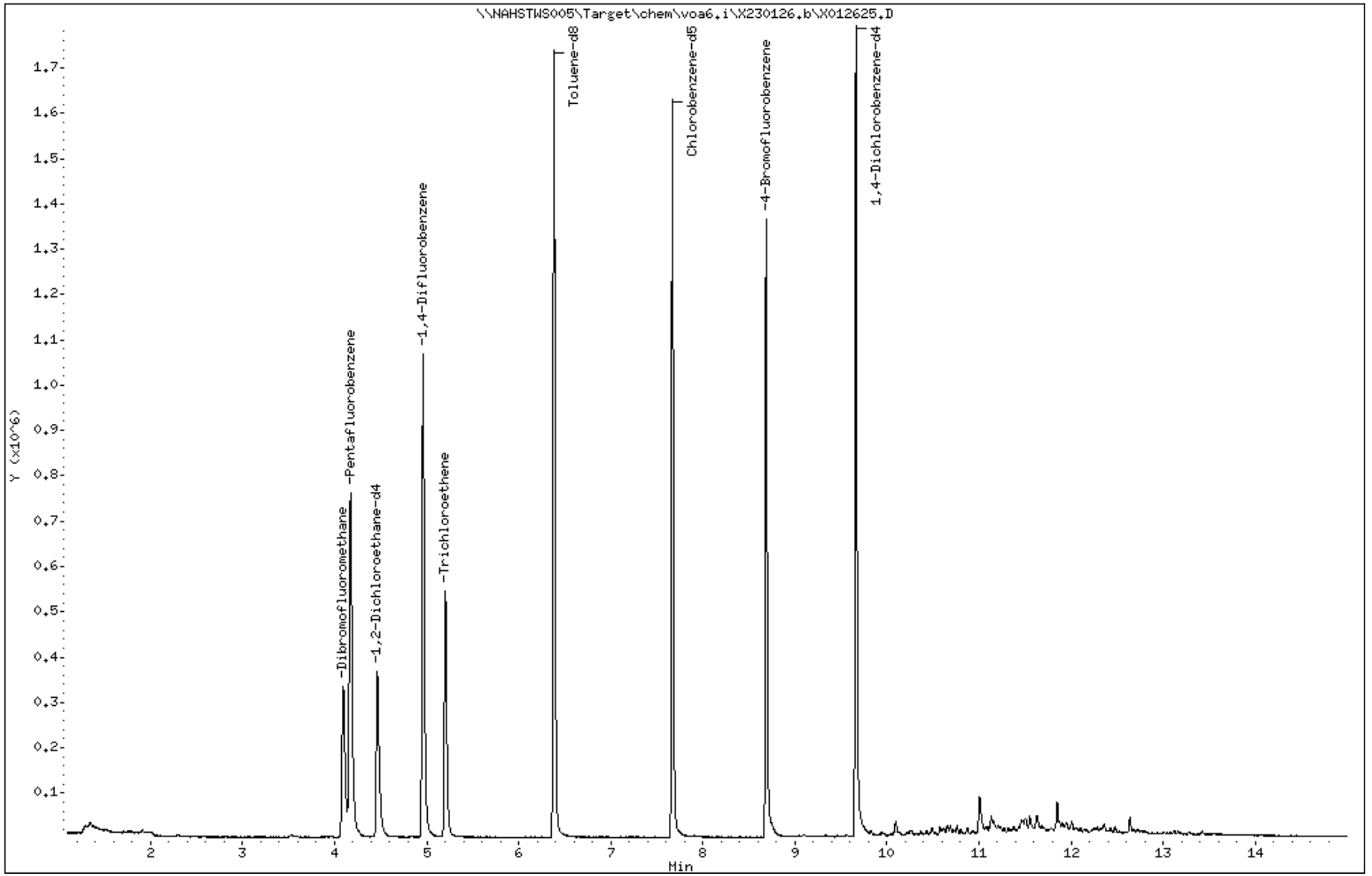
Sample Info: HS23011136-02;HS23011136-02;;;

Purge Volume: 5.0

Operator: FT

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012625.D Page 2

Date : 26-JAN-2023 16:48

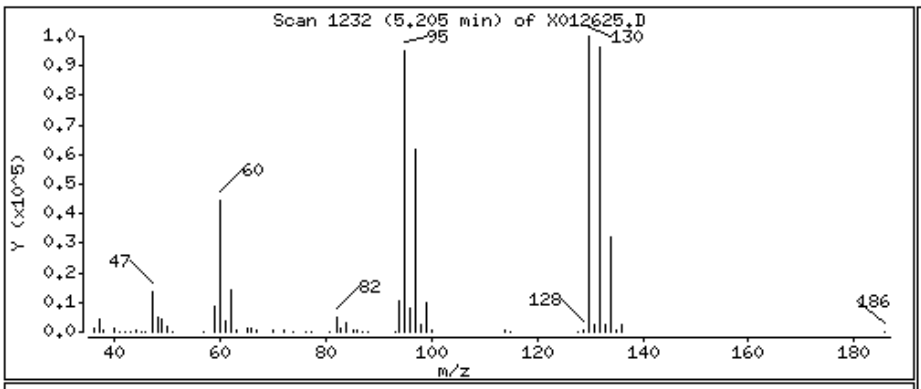
Client ID: HS23011136-02 Instrument: voa6.i

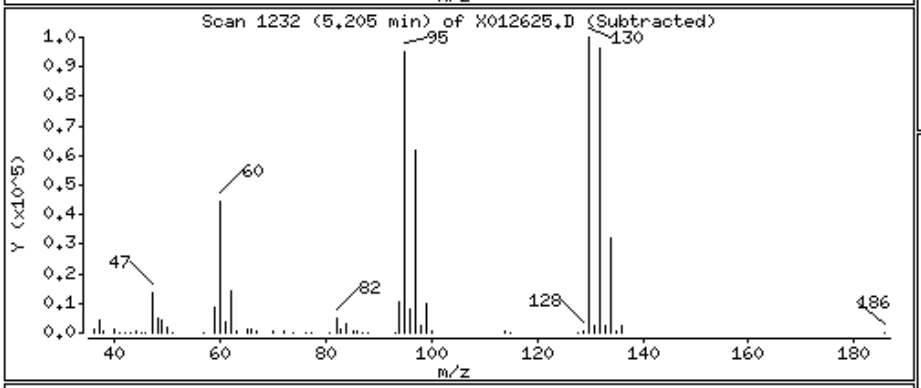
Sample Info: HS23011136-02;HS23011136-02;;;

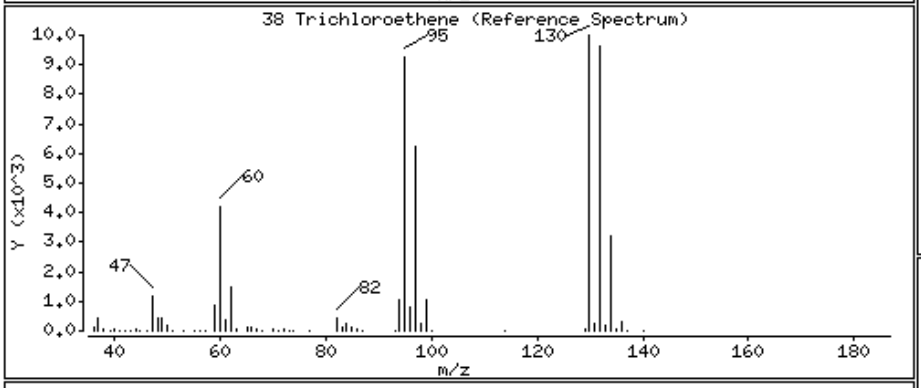
Purge Volume: 5.0 Operator: FT

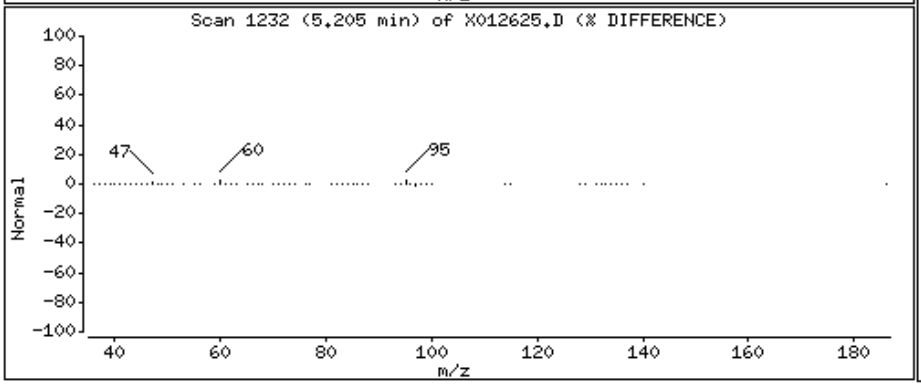
Column phase: DB624 Column diameter: 0.18

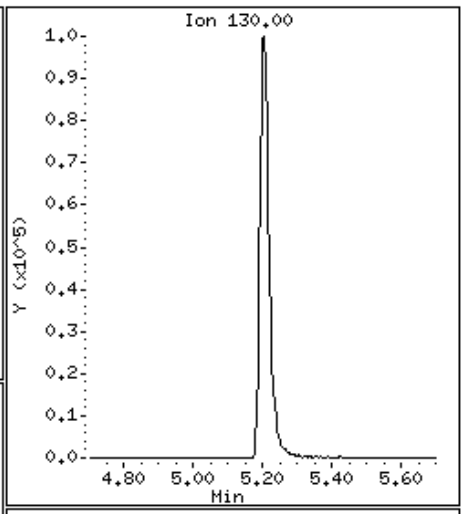
38 Trichloroethene Concentration: 156.69 ug/l

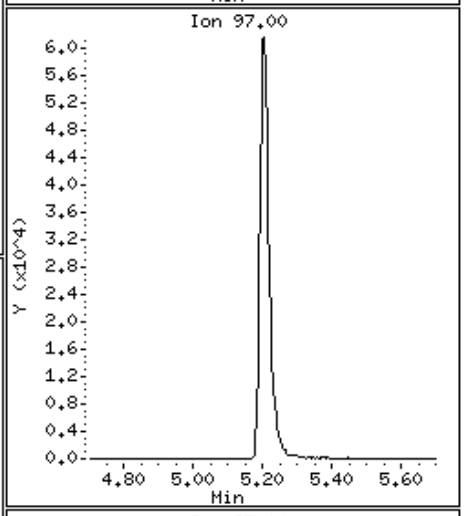


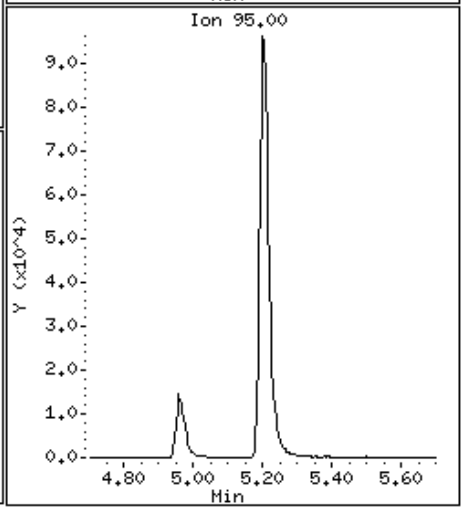



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012625.D
Inj Date  : 26-JAN-2023 16:48
InstruID  : voa6.i
LabSampID : HS23011136-02

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012626.D  Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012626.D
Lab Smp Id: HS23011136-03  Client Smp ID: HS23011136-03
Inj Date  : 26-JAN-2023 17:09
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23011136-03;HS23011136-03;;;
Misc Info : V6;WATER;0;5;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 25
Dil Factor: 5.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 5.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 645017 | 50.0000 | |
| 5 Vinyl Chloride | 62 | 1.137 | 1.141 | (0.273) | 2259 | 0.40092 | 2.00(a) |
| $ 30 Dibromofluoromethane | 113 | 4.091 | 4.095 | (0.980) | 274531 | 44.3072 | 44.30 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.463 | 4.466 | (1.069) | 320549 | 49.0408 | 49.04 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 904573 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.668 | 7.667 | (1.000) | 816412 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.382 | 6.385 | (0.832) | 1043955 | 51.7472 | 51.74 |
| $ 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 384821 | 51.0305 | 51.03 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 438934 | 50.0000 | |
| 175 tert-Butyl ethyl ether | 59 | 3.428 | 3.372 | (0.821) | 4718 | 0.26536 | 1.32(a) |
| 195 Methyl Amyl Ketone | 43 | 8.399 | 8.380 | (1.095) | 7548 | 0.69537 | 3.47(a) |

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

01241223

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012626.D



Date : 26-JAN-2023 17:09

Client ID: HS23011136-03

Instrument: voa6.i

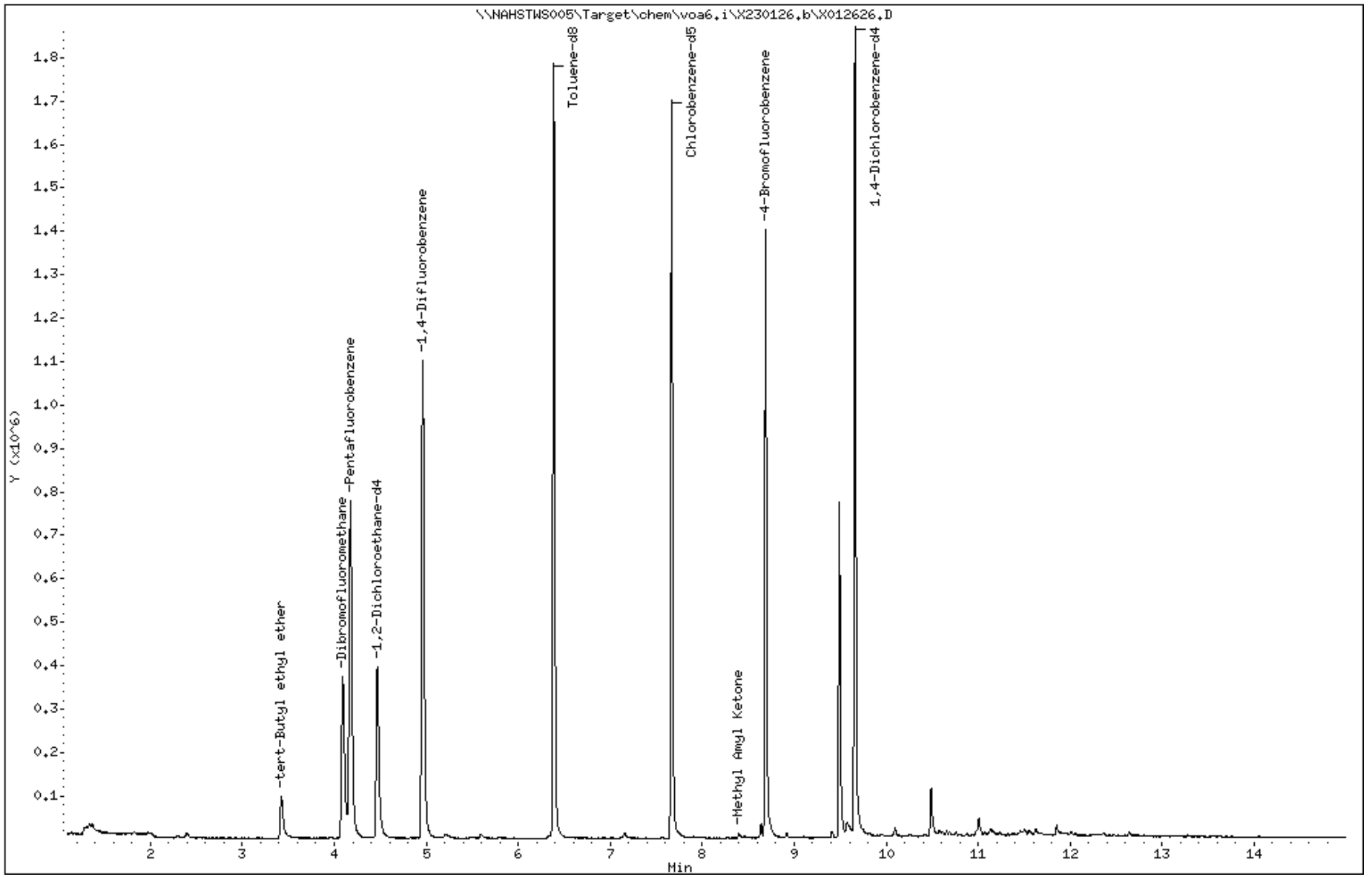
Sample Info: HS23011136-03;HS23011136-03;;;

Purge Volume: 5.0

Operator: FT

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012626.D

Date : 26-JAN-2023 17:09

Client ID: HS23011136-03

Instrument: voa6.i

Sample Info: HS23011136-03;HS23011136-03;;;

Purge Volume: 5.0

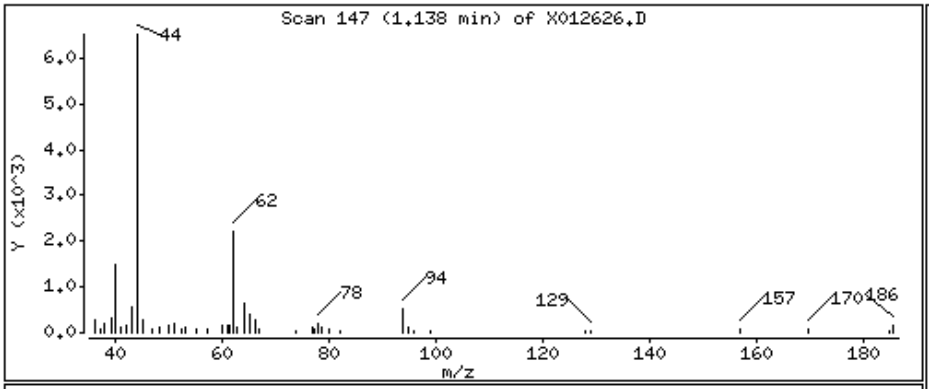
Operator: FT

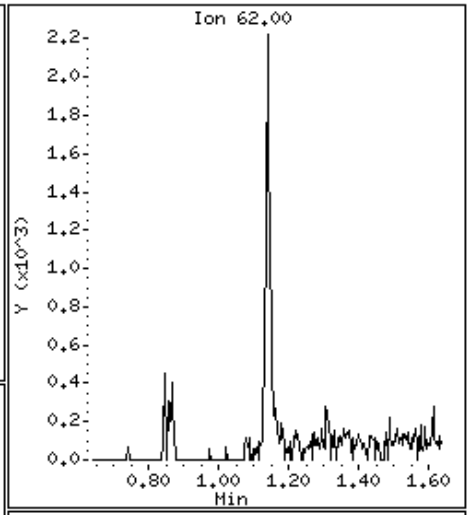
Column phase: DB624

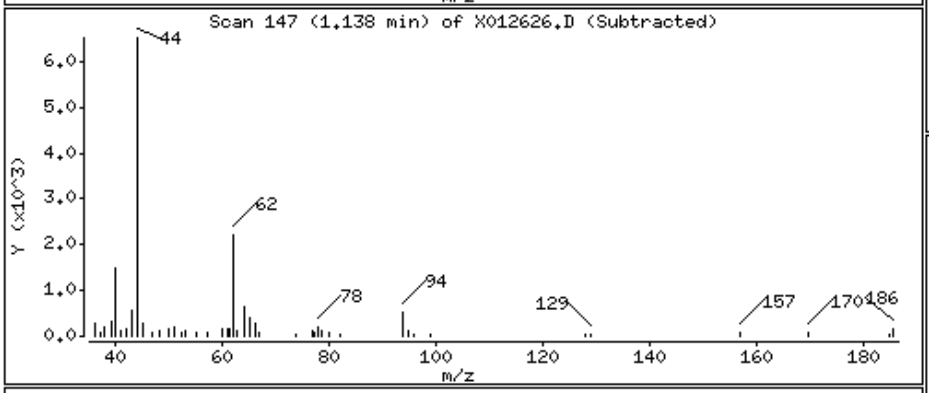
Column diameter: 0.18

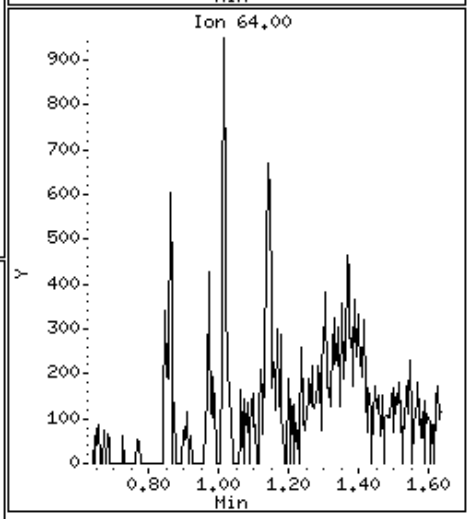
5 Vinyl Chloride

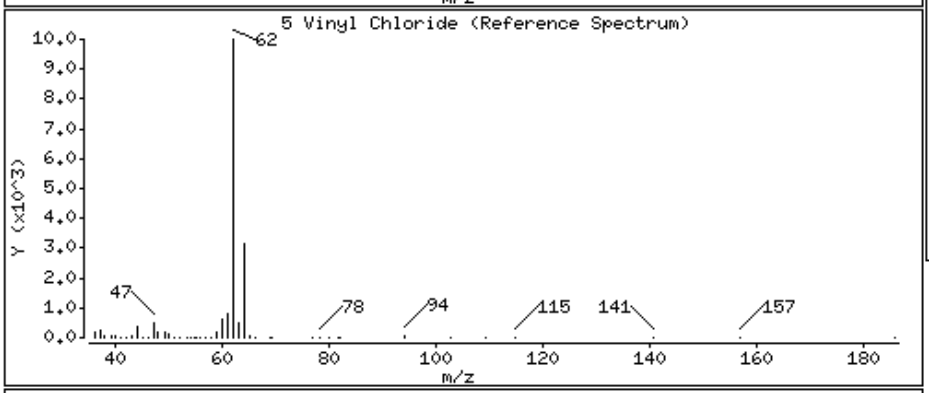
Concentration: 2.00 ug/l

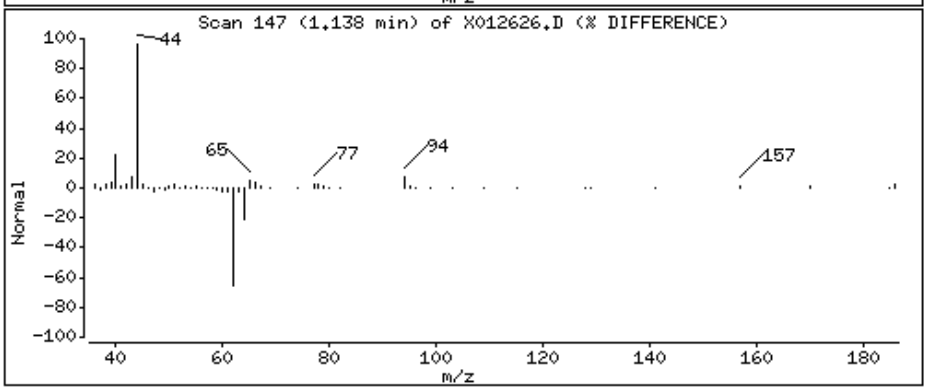


Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012626.D Page 3

Date : 26-JAN-2023 17:09

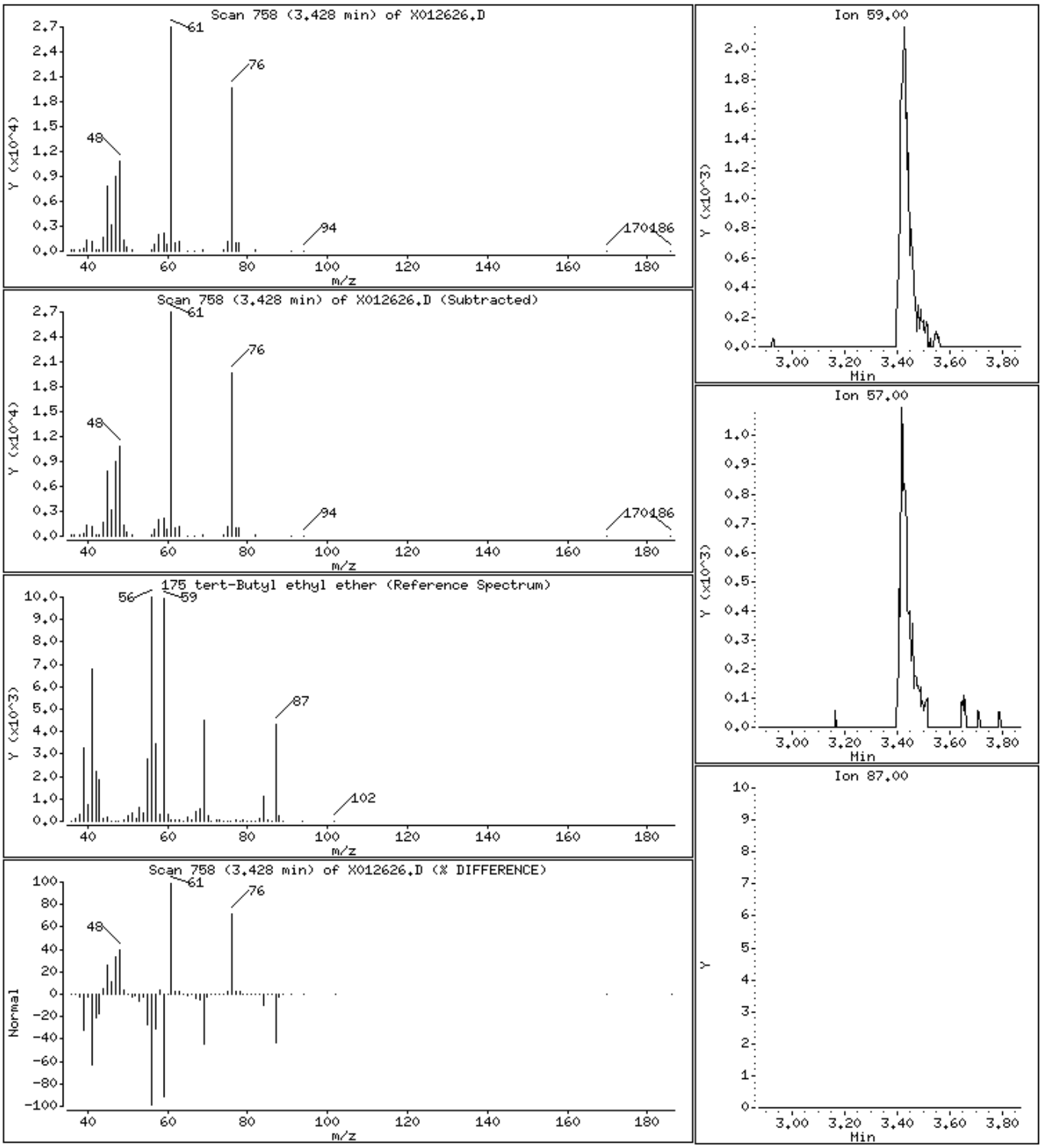
Client ID: HS23011136-03 Instrument: voa6.i

Sample Info: HS23011136-03;HS23011136-03;;;

Purge Volume: 5.0 Operator: FT

Column phase: DB624 Column diameter: 0.18

175 tert-Butyl ethyl ether Concentration: 1.32 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012626.D Page 4

Date : 26-JAN-2023 17:09

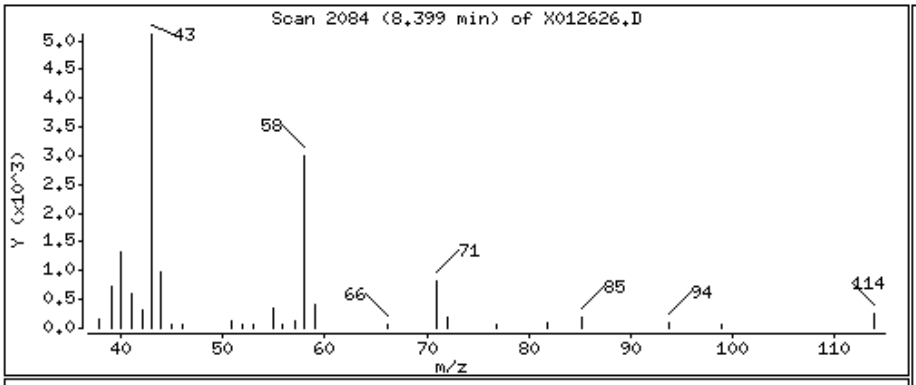
Client ID: HS23011136-03 Instrument: voa6.i

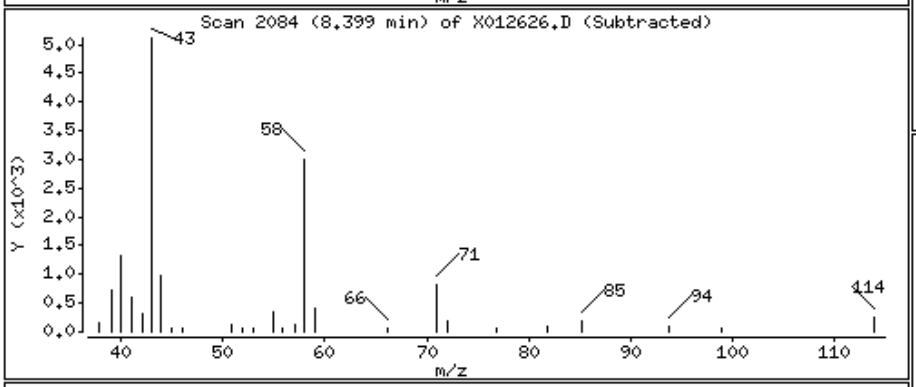
Sample Info: HS23011136-03;HS23011136-03;;;

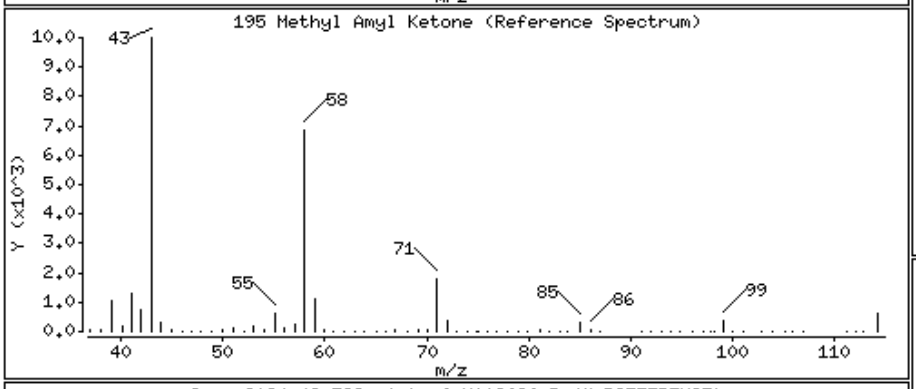
Purge Volume: 5.0 Operator: FT

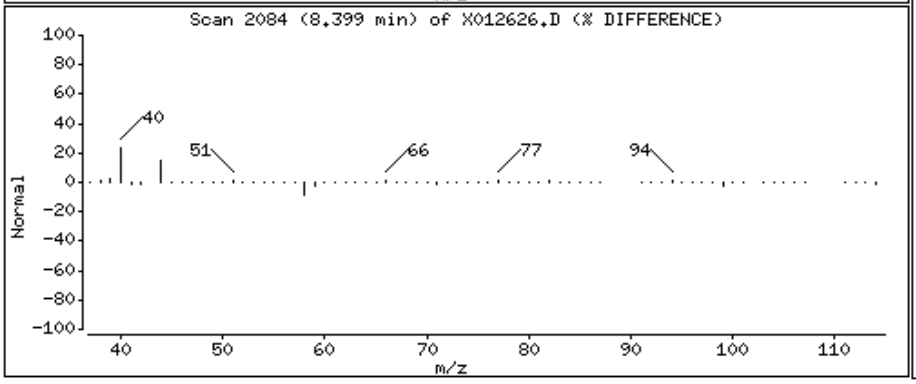
Column phase: DB624 Column diameter: 0.18

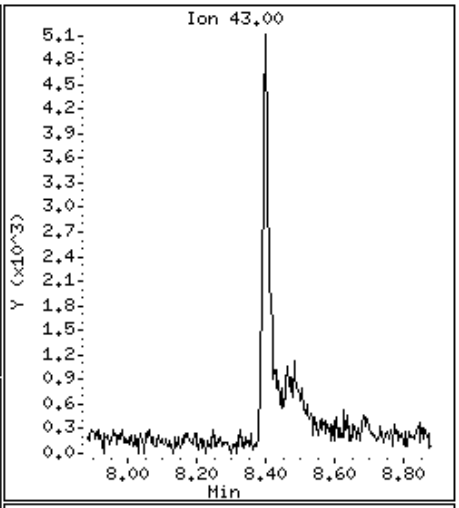
195 Methyl Amyl Ketone Concentration: 3.47 ug/l

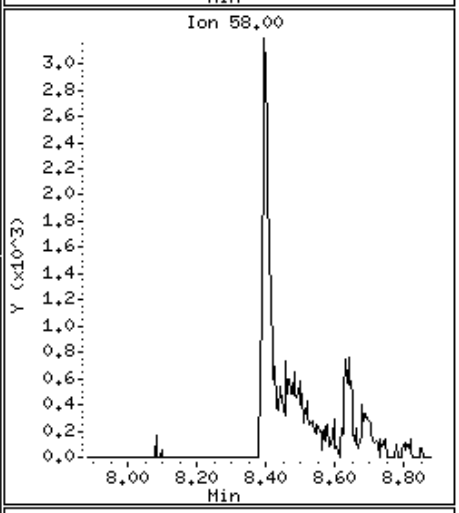


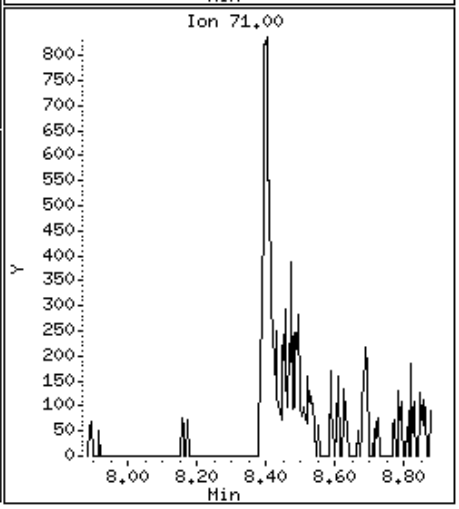



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012626.D
Inj Date  : 26-JAN-2023 17:09
InstruID  : voa6.i
LabSampID : HS23011136-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012627.D  Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012627.D
Lab Smp Id: HS23011136-05  Client Smp ID: HS23011136-05
Inj Date  : 26-JAN-2023 17:31
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23011136-05;HS23011136-05;;;
Misc Info : V6;WATER;0;50;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 26
Dil Factor: 50.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 50.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * | 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 664241 | 50.0000 | |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 186045 | 32.0628 | 1603.14 |
| | 10 Acetone | 43 | 1.966 | 1.966 | (0.471) | 205794 | 110.420 | 5520.99 |
| | 11 1,1-Dichloroethene | 96 | 1.913 | 1.910 | (0.458) | 4832 | 0.95848 | 47.92 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.518 | 3.521 | (0.843) | 2624546 | 382.232 | 19111.59(A) |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.981) | 292264 | 45.8097 | 45.80 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 340098 | 50.5175 | 50.51 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 936254 | 50.0000 | |
| | 38 Trichloroethene | 130 | 5.201 | 5.205 | (1.048) | 462488 | 72.9325 | 3646.62 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.667 | (1.000) | 843424 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 1086768 | 52.1442 | 52.14 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 396071 | 50.8405 | 50.84 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 449265 | 50.0000 | |
| | 175 tert-Butyl ethyl ether | 59 | 3.428 | 3.372 | (0.821) | 1410 | 0.07701 | 3.85(a) |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 2624546 | 382.232 | 19111.59 |
| | 195 Methyl Amyl Ketone | 43 | 8.384 | 8.380 | (1.093) | 217556 | 19.4008 | 970.04 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

01241230

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012627.D



Date : 26-JAN-2023 17:31

Client ID: HS23011136-05

Instrument: voa6.i

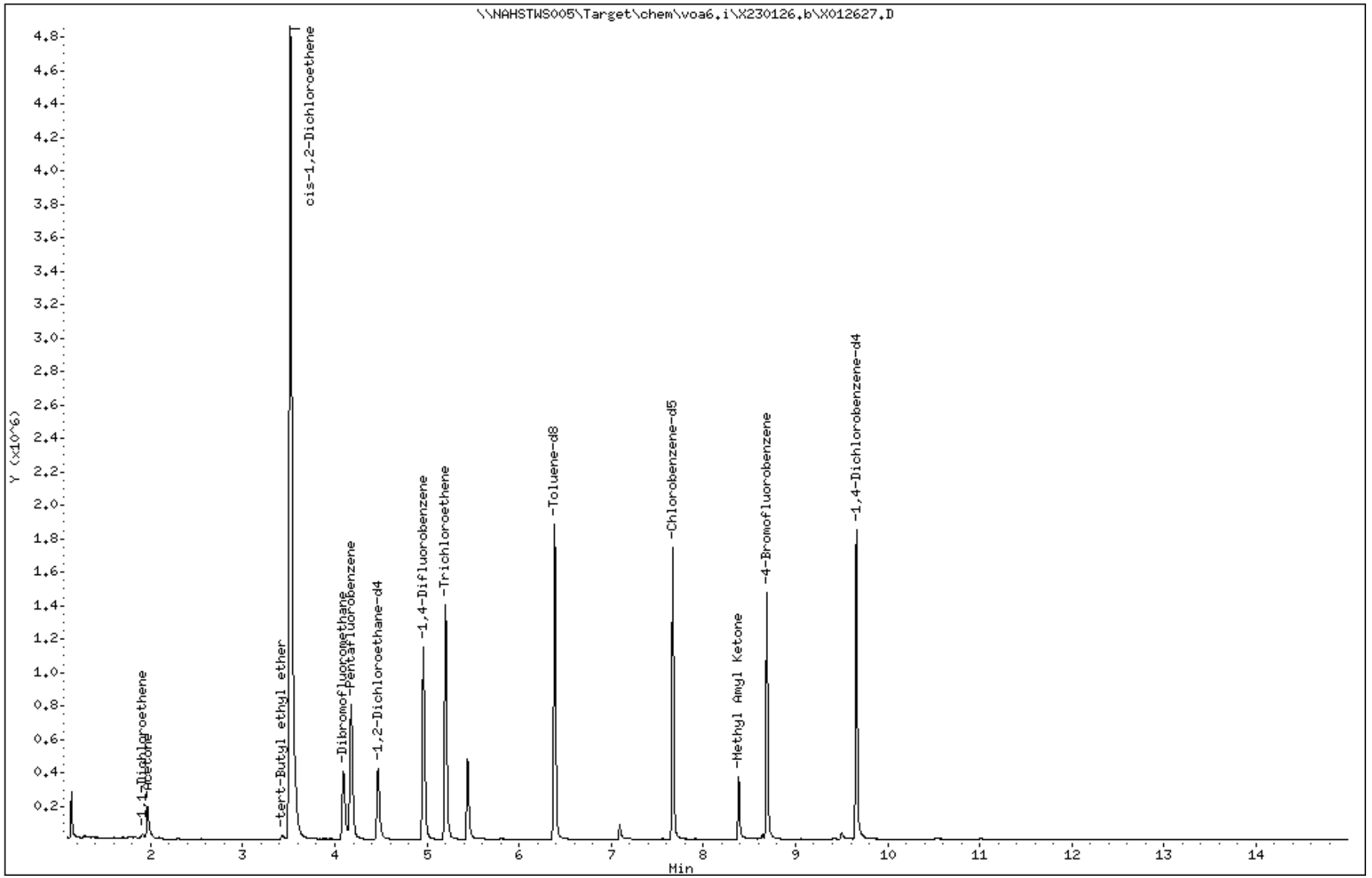
Sample Info: HS23011136-05;HS23011136-05;;;

Purge Volume: 5.0

Operator: FT

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012627.D

Date : 26-JAN-2023 17:31

Client ID: HS23011136-05

Instrument: voa6.i

Sample Info: HS23011136-05;HS23011136-05;;;

Purge Volume: 5.0

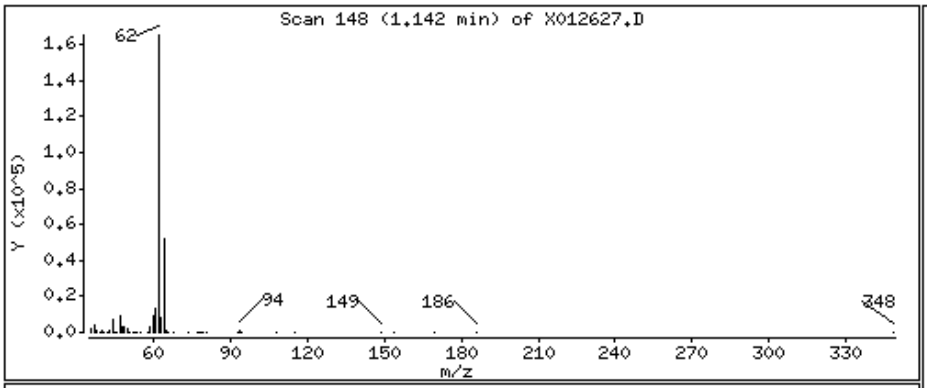
Operator: FT

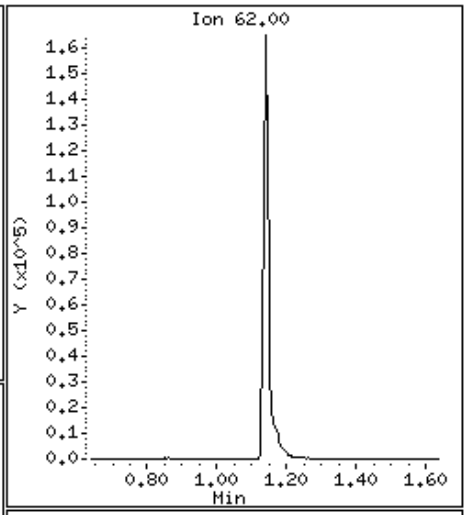
Column phase: DB624

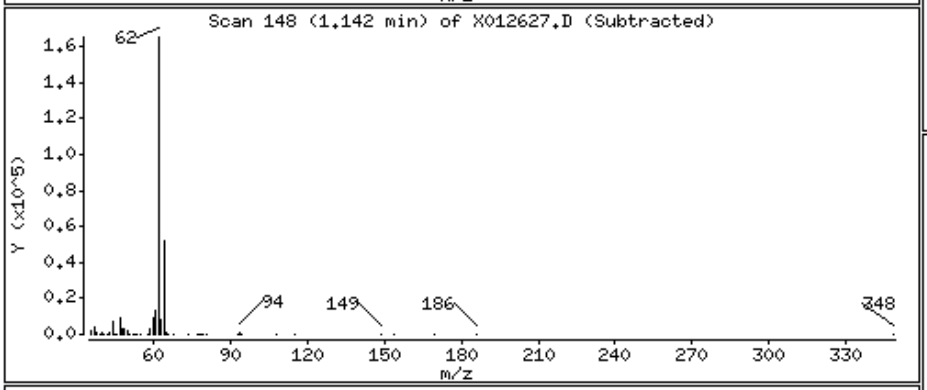
Column diameter: 0.18

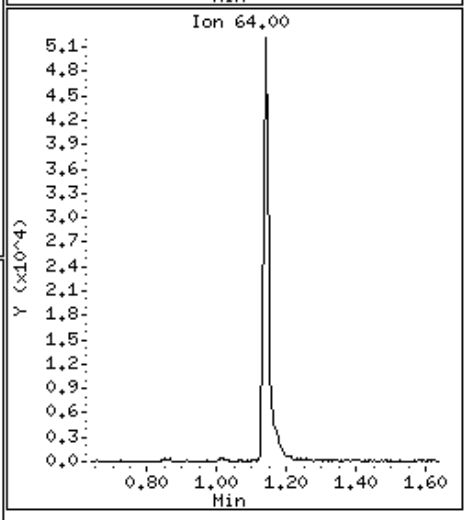
5 Vinyl Chloride

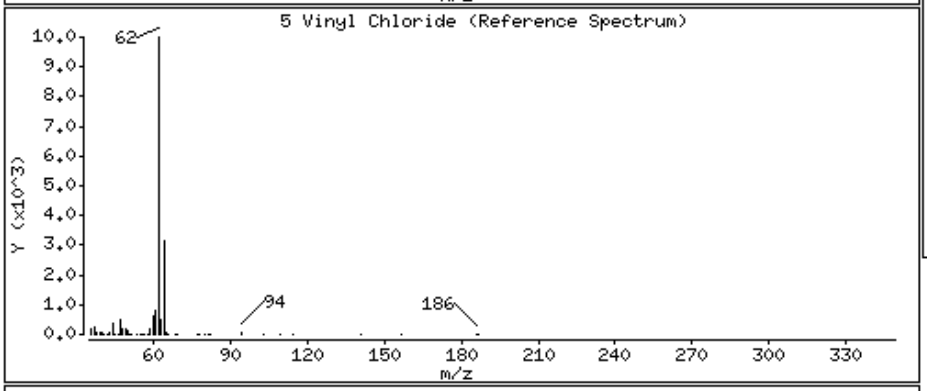
Concentration: 1603.14 ug/l

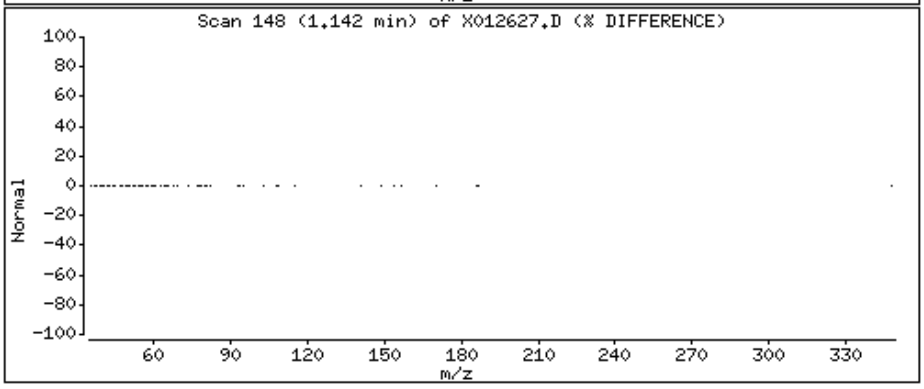


Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012627.D



Date : 26-JAN-2023 17:31

Client ID: HS23011136-05

Instrument: voa6.i

Sample Info: HS23011136-05;HS23011136-05;;;

Purge Volume: 5.0

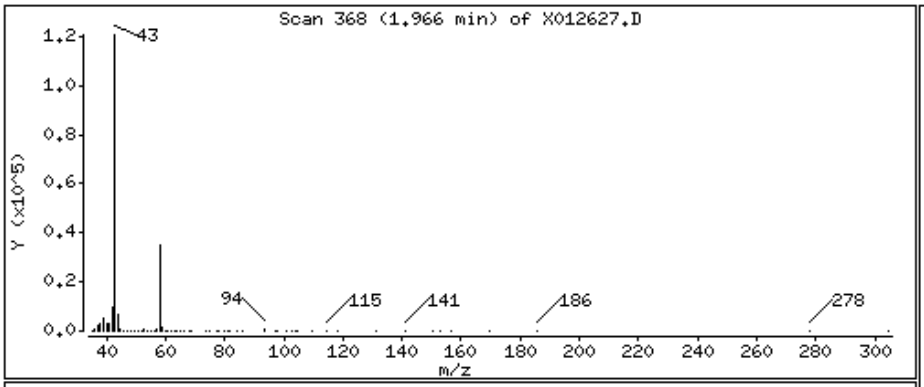
Operator: FT

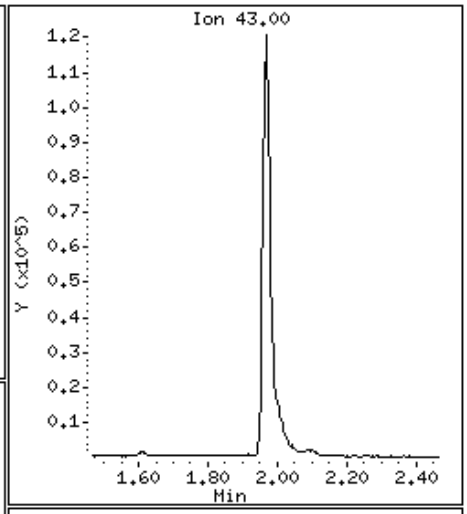
Column phase: DB624

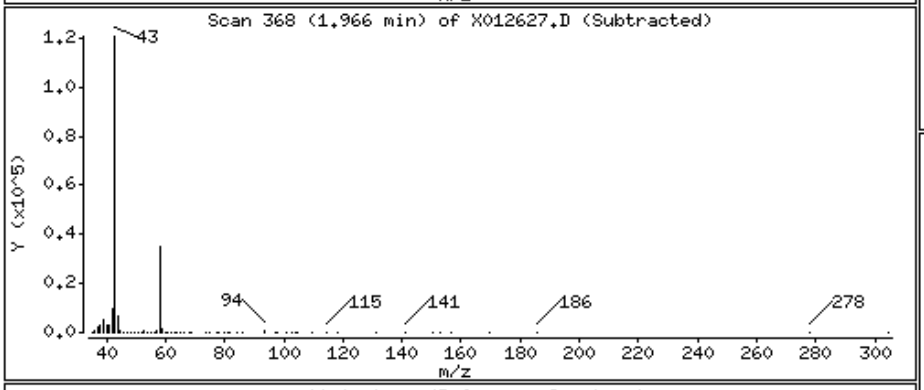
Column diameter: 0.18

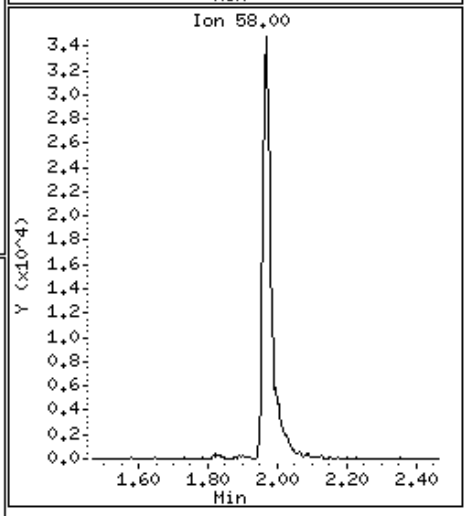
10 Acetone

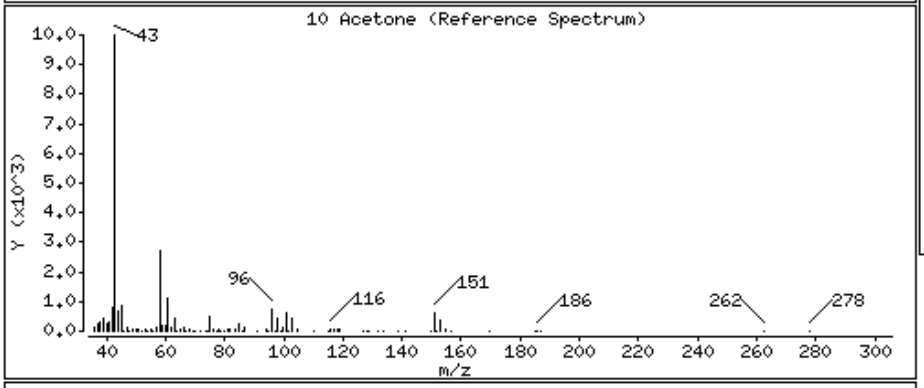
Concentration: 5520.99 ug/l

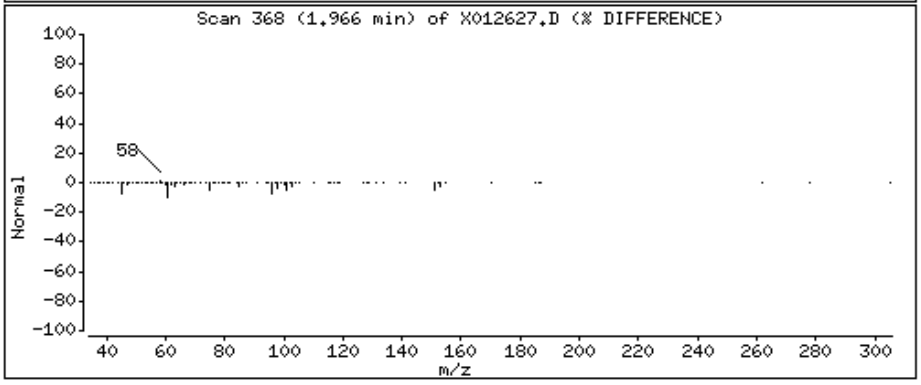


Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012627.D Page 4

Date : 26-JAN-2023 17:31

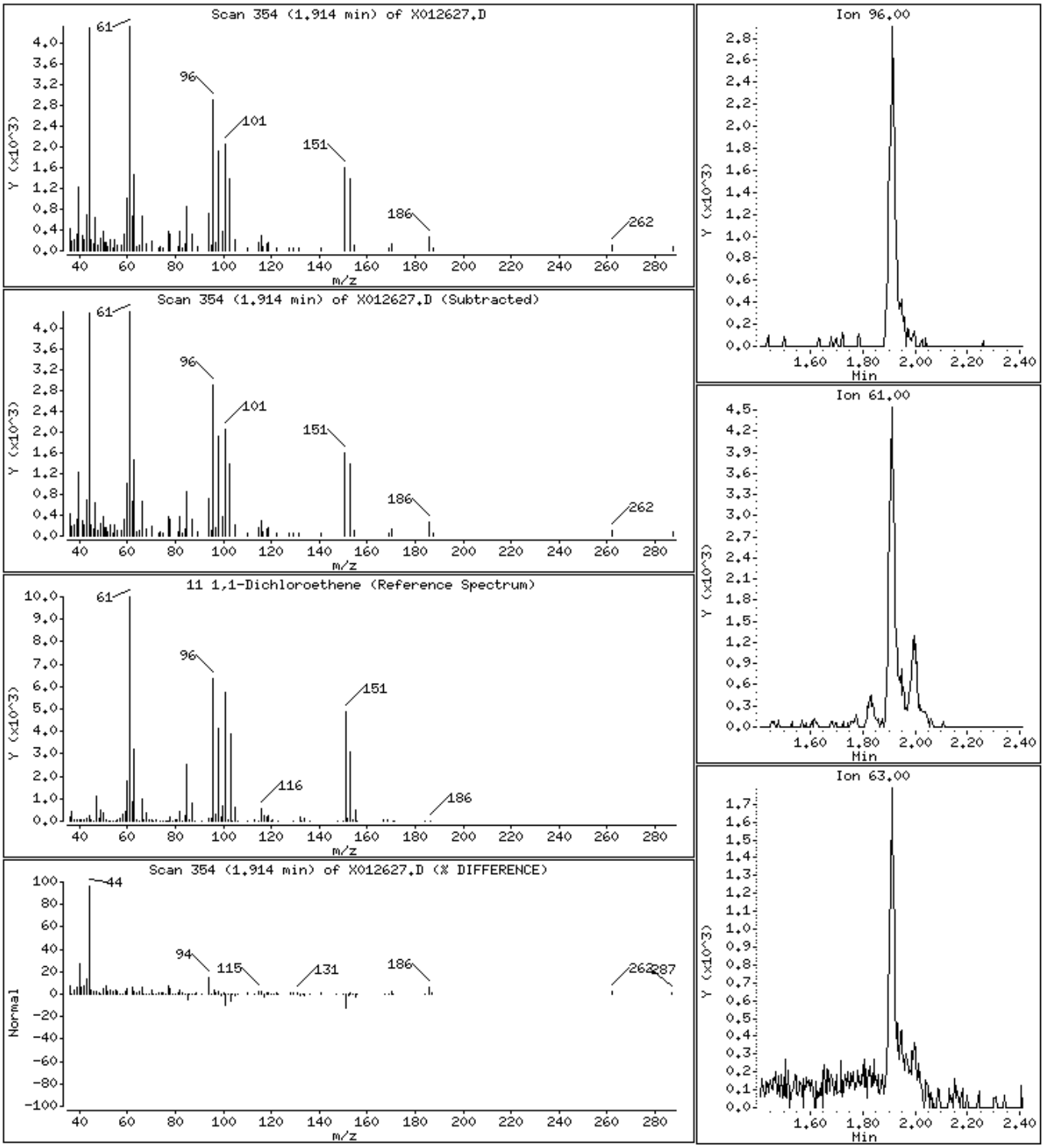
Client ID: HS23011136-05 Instrument: voa6.i

Sample Info: HS23011136-05;HS23011136-05;;;

Purge Volume: 5.0 Operator: FT

Column phase: DB624 Column diameter: 0.18

11 1,1-Dichloroethene Concentration: 47.92 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012627.D Page 5

Date : 26-JAN-2023 17:31

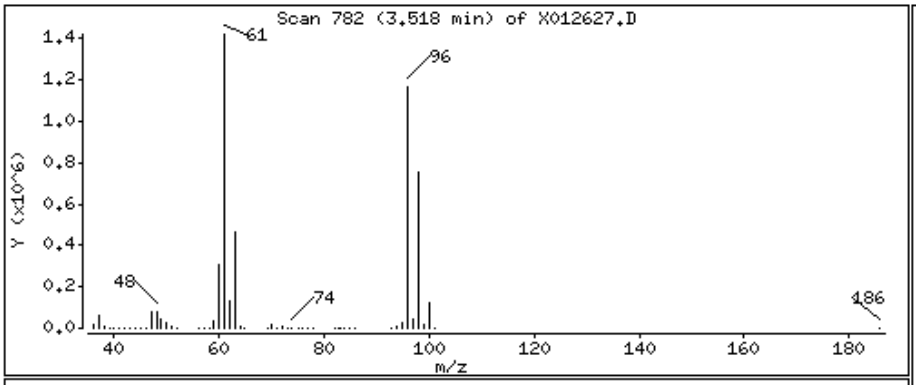
Client ID: HS23011136-05 Instrument: voa6.i

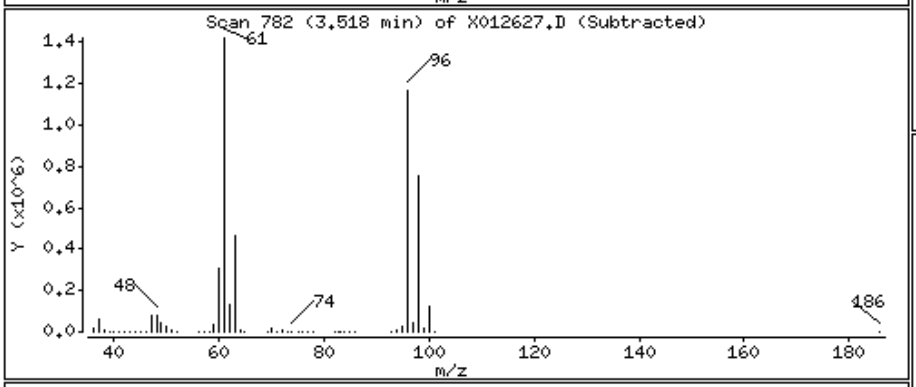
Sample Info: HS23011136-05;HS23011136-05;;;

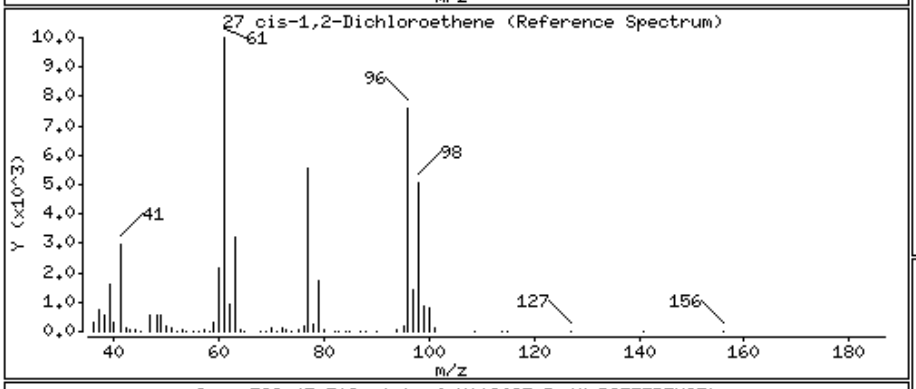
Purge Volume: 5.0 Operator: FT

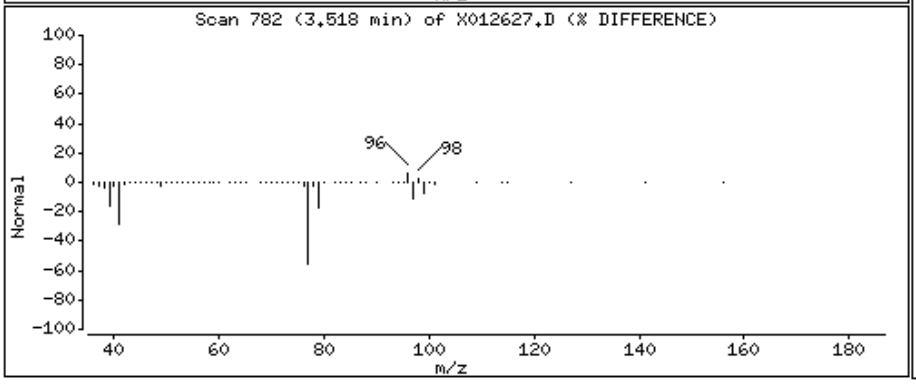
Column phase: DB624 Column diameter: 0.18

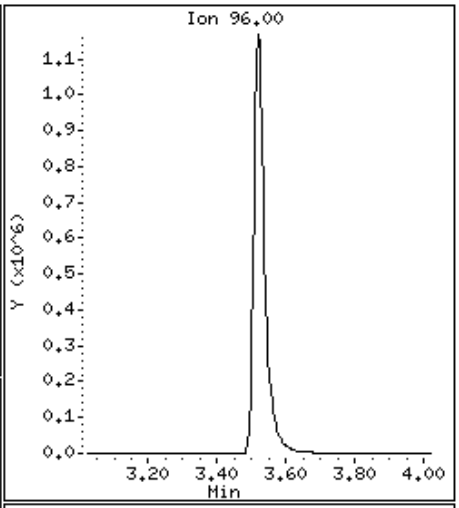
27 cis-1,2-Dichloroethene Concentration: 19111.59 ug/l

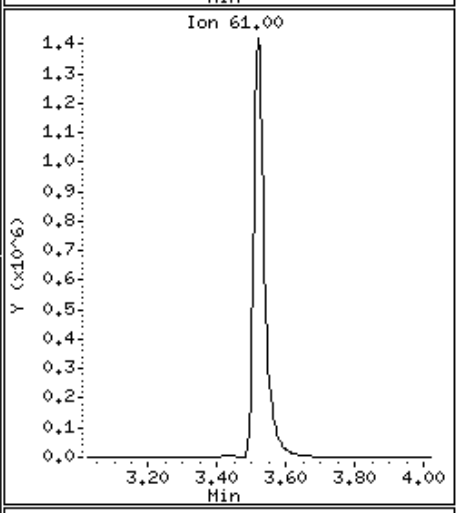


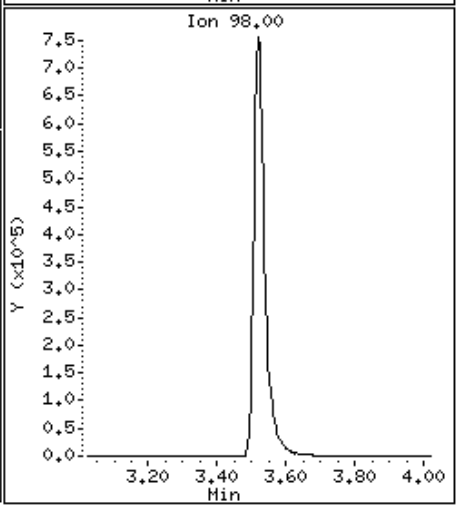



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012627.D Page 6

Date : 26-JAN-2023 17:31

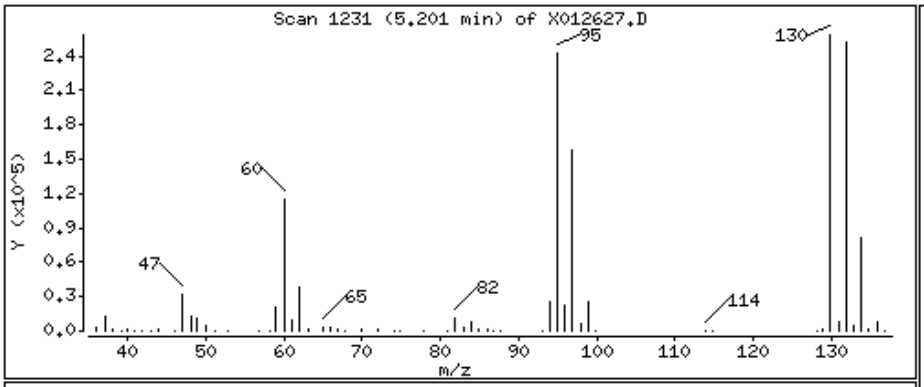
Client ID: HS23011136-05 Instrument: voa6.i

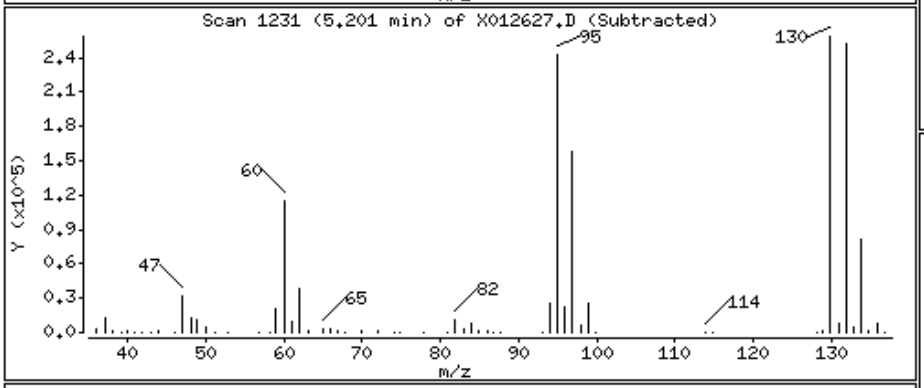
Sample Info: HS23011136-05;HS23011136-05;;;

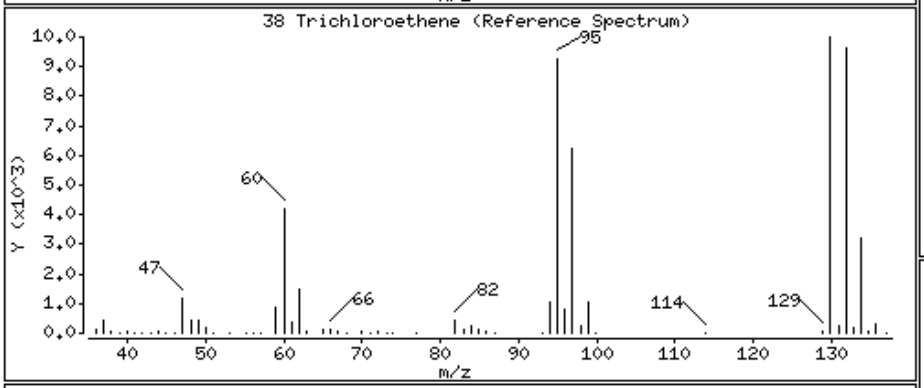
Purge Volume: 5.0 Operator: FT

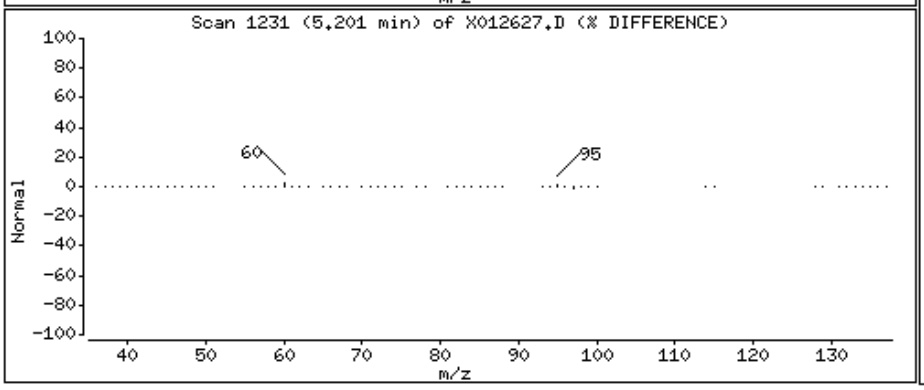
Column phase: DB624 Column diameter: 0.18

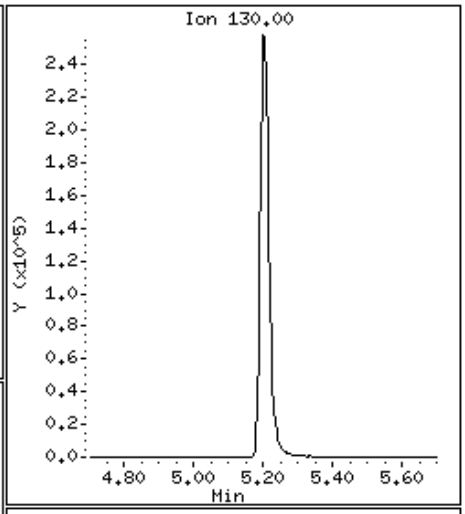
38 Trichloroethene Concentration: 3646.62 ug/l

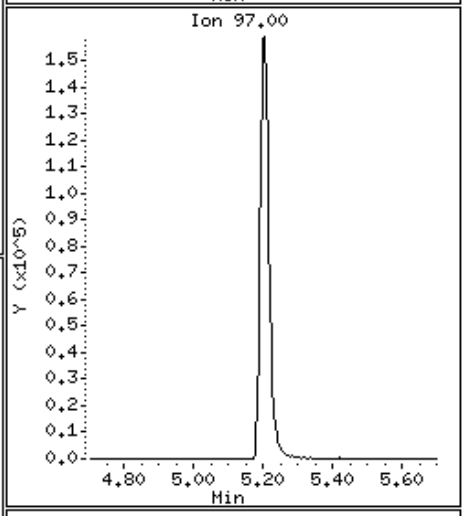


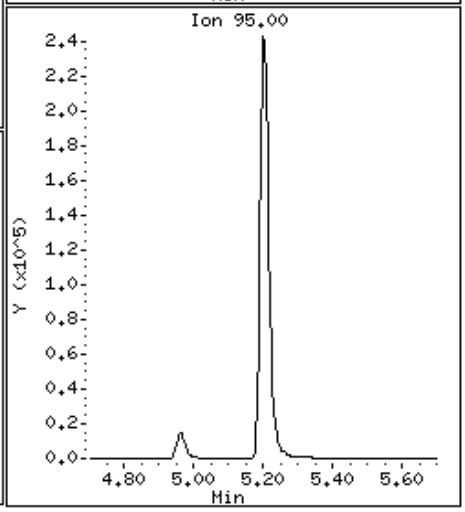



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012627.D Page 7

Date : 26-JAN-2023 17:31

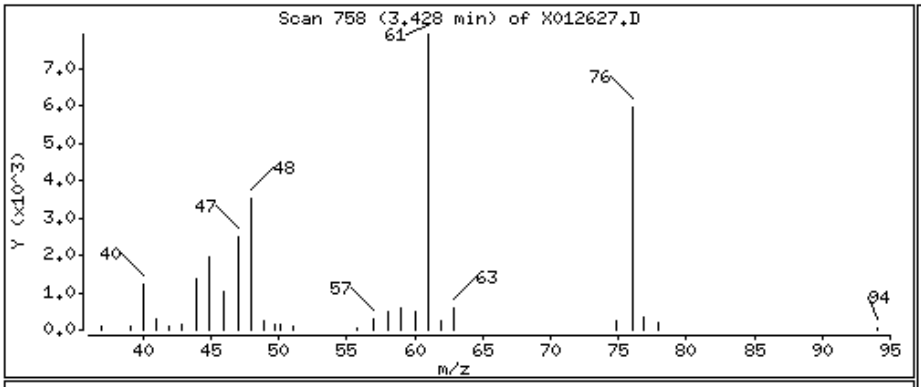
Client ID: HS23011136-05 Instrument: voa6.i

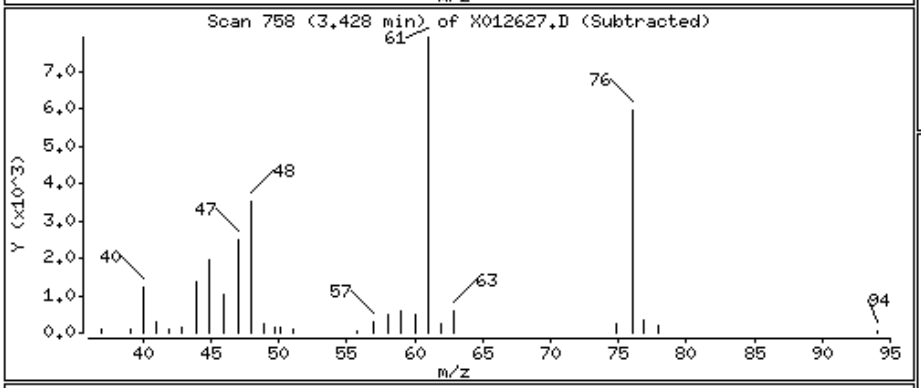
Sample Info: HS23011136-05;HS23011136-05;;;

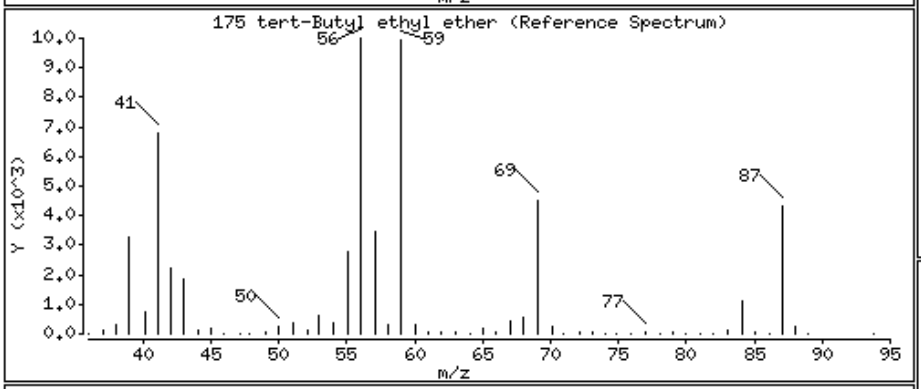
Purge Volume: 5.0 Operator: FT

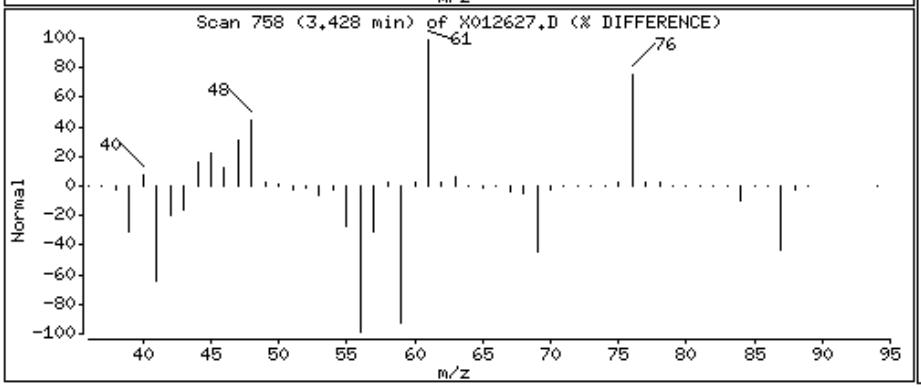
Column phase: DB624 Column diameter: 0.18

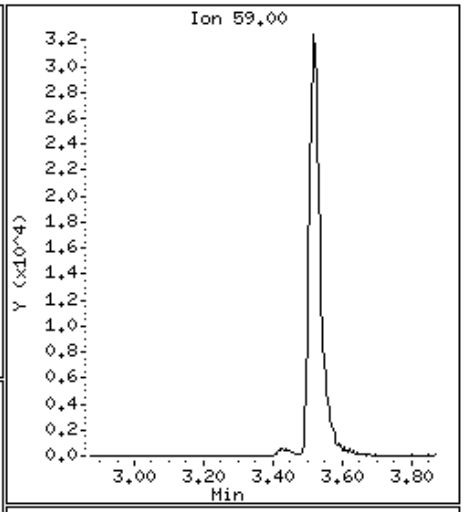
175 tert-Butyl ethyl ether Concentration: 3.85 ug/l

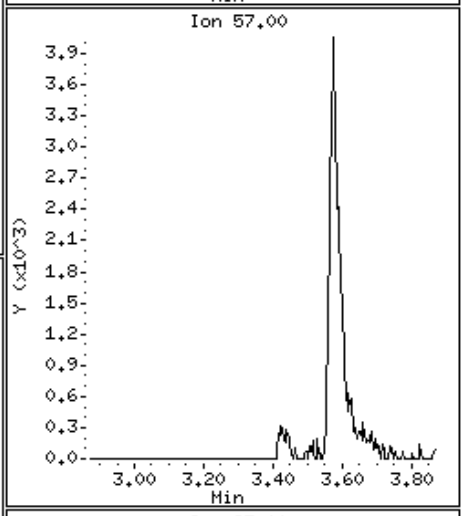


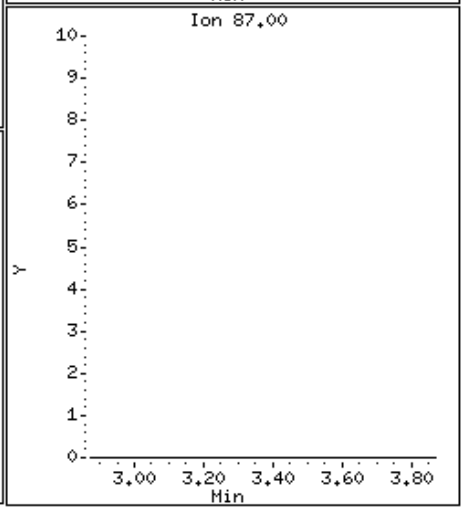



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012627.D Page 8

Date : 26-JAN-2023 17:31

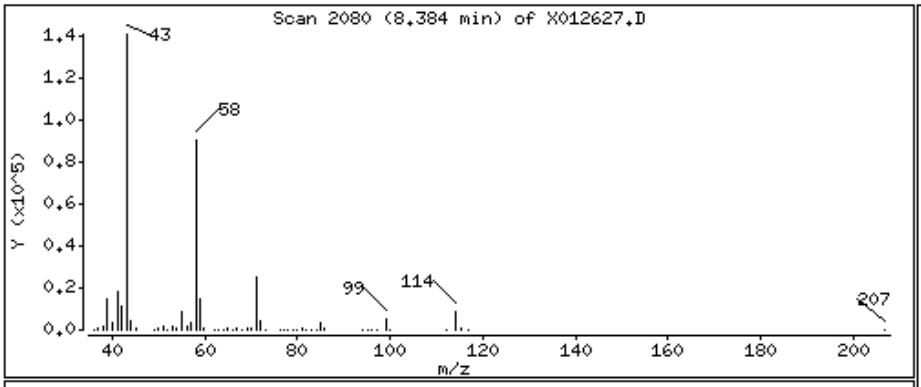
Client ID: HS23011136-05 Instrument: voa6.i

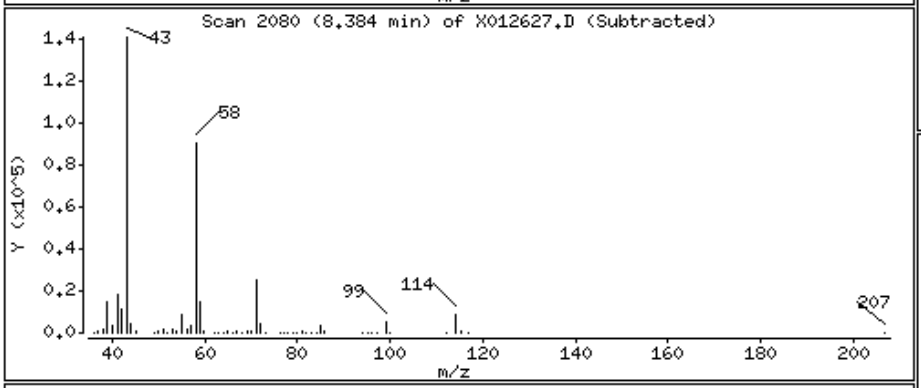
Sample Info: HS23011136-05;HS23011136-05;;;

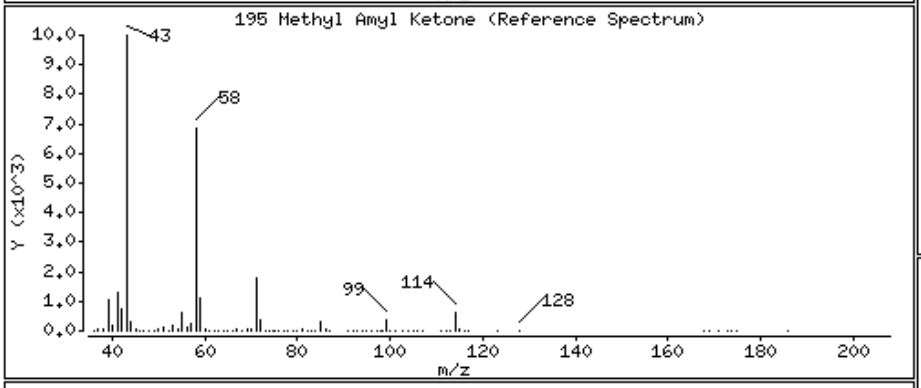
Purge Volume: 5.0 Operator: FT

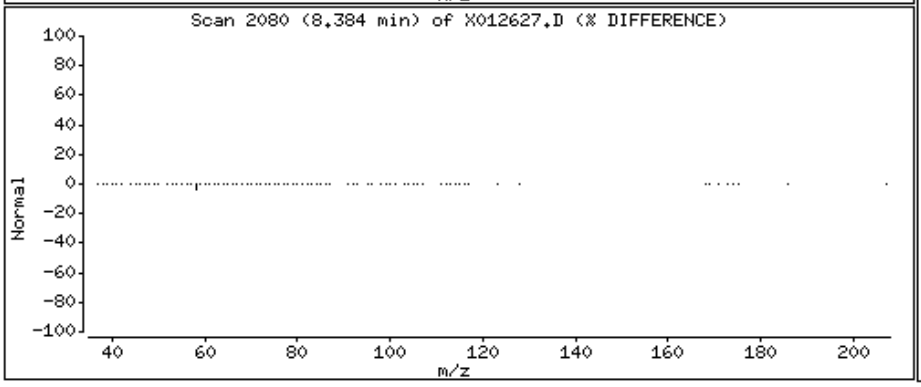
Column phase: DB624 Column diameter: 0.18

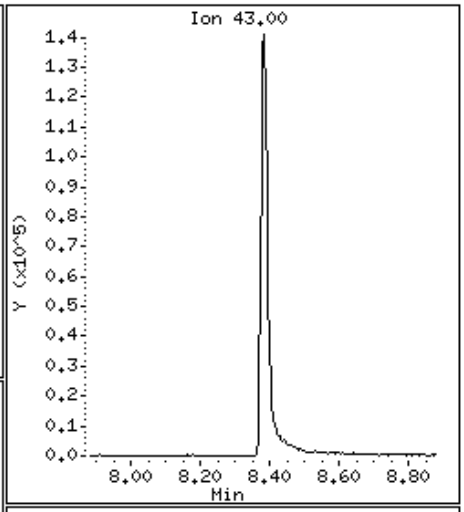
195 Methyl Amyl Ketone Concentration: 970.04 ug/l

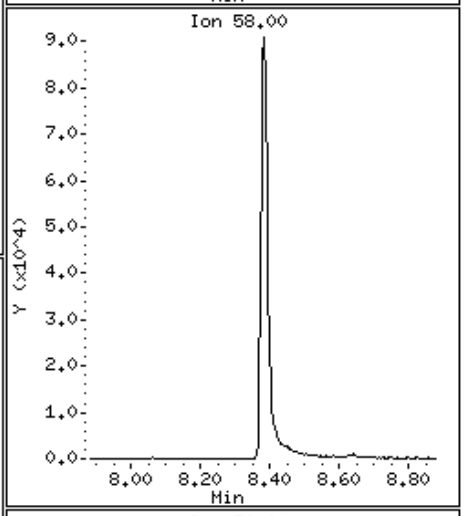


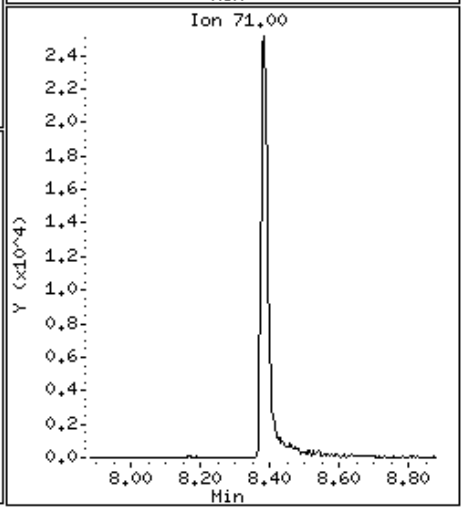



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012627.D
Inj Date  : 26-JAN-2023 17:31
InstruID  : voa6.i
LabSampID : HS23011136-05

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012628.D  Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012628.D
Lab Smp Id: HS23011136-06  Client Smp ID: HS23011136-06
Inj Date  : 26-JAN-2023 17:52
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23011136-06;HS23011136-06;;;
Misc Info : V6;WATER;0;50;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 27
Dil Factor: 50.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 50.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * | 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 665295 | 50.0000 | |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.274) | 149187 | 25.6700 | 1283.50 |
| | 10 Acetone | 43 | 1.966 | 1.966 | (0.471) | 415550 | 222.647 | 11132.35 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.518 | 3.521 | (0.843) | 2177342 | 316.600 | 15830.00(A) |
| $ | 30 Dibromofluoromethane | 113 | 4.091 | 4.095 | (0.980) | 291351 | 45.5935 | 45.59 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 336712 | 49.9385 | 49.93 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 931881 | 50.0000 | |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 153652 | 24.3440 | 1217.20 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.667 | (1.000) | 836237 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.386 | 6.385 | (0.833) | 1080447 | 52.2864 | 52.28 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 394798 | 51.1123 | 51.11 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 433846 | 50.0000 | |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 2177342 | 316.600 | 15830.00 |
| | 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 428115 | 38.5058 | 1925.28 |
| | 200 Dimethyl Disulfide | 94 | 6.209 | 6.194 | (0.810) | 1744 | 0.15409 | 7.70(a) |

QC Flag Legend

a - Target compound detected but, quantitated amount

Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.

01241241

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012628.D



Date : 26-JAN-2023 17:52

Client ID: HS23011136-06

Instrument: voa6.i

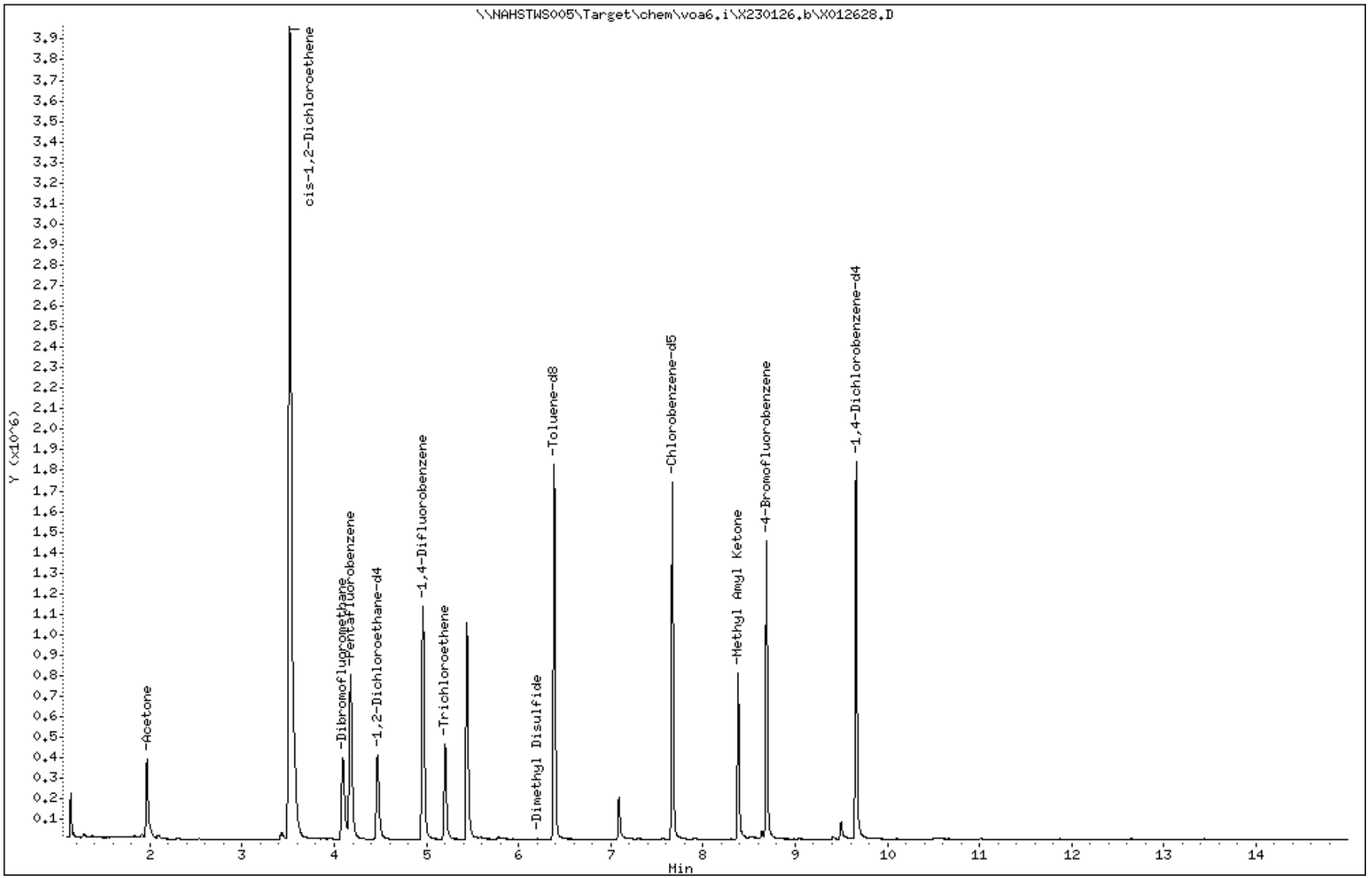
Sample Info: HS23011136-06;HS23011136-06;;;

Purge Volume: 5.0

Operator: FT

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012628.D

Date : 26-JAN-2023 17:52

Client ID: HS23011136-06

Instrument: voa6.i

Sample Info: HS23011136-06;HS23011136-06;;;

Purge Volume: 5.0

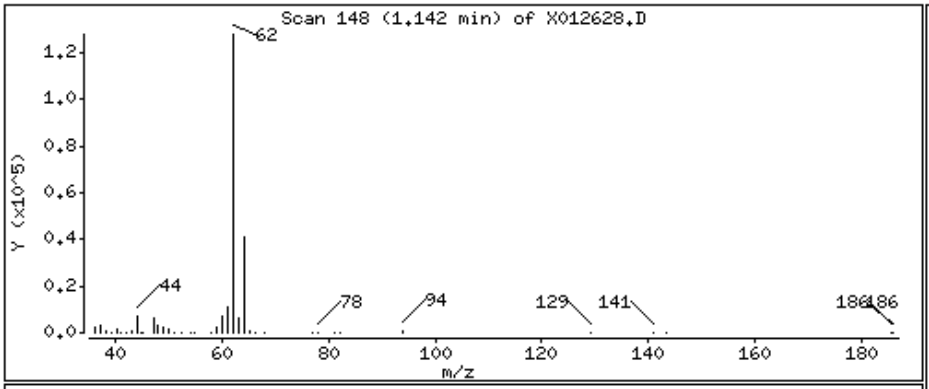
Operator: FT

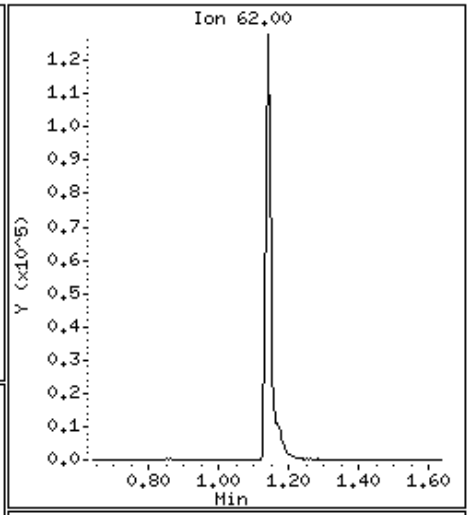
Column phase: DB624

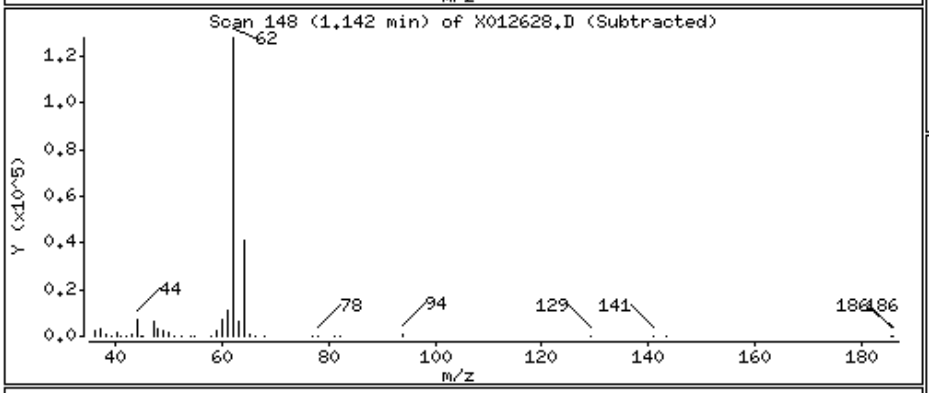
Column diameter: 0.18

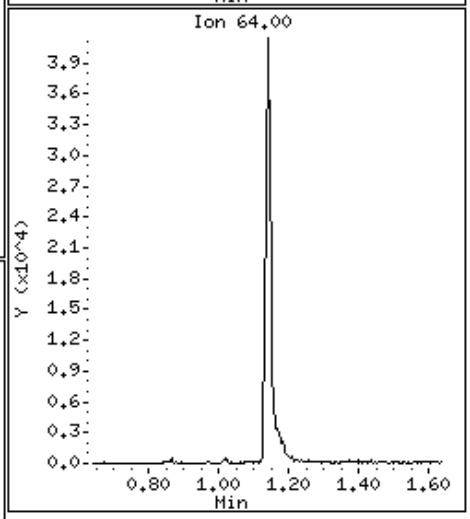
5 Vinyl Chloride

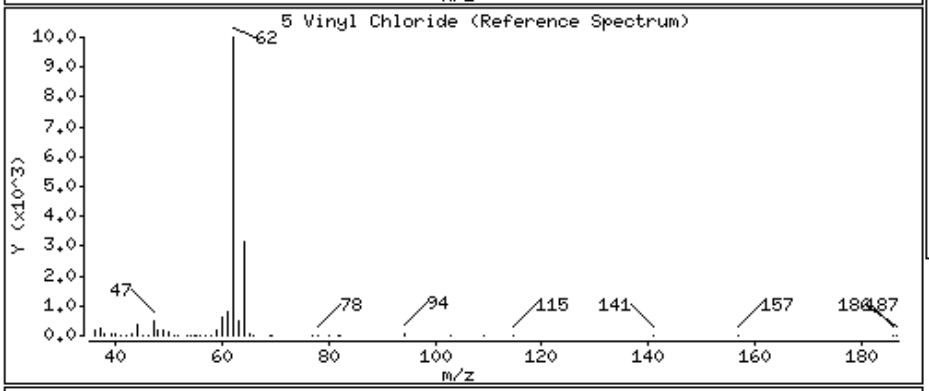
Concentration: 1283.50 ug/l

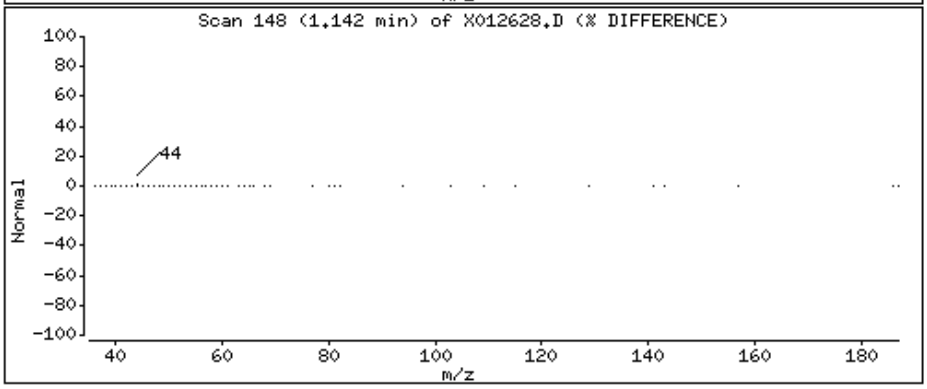


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Date : 26-JAN-2023 17:52

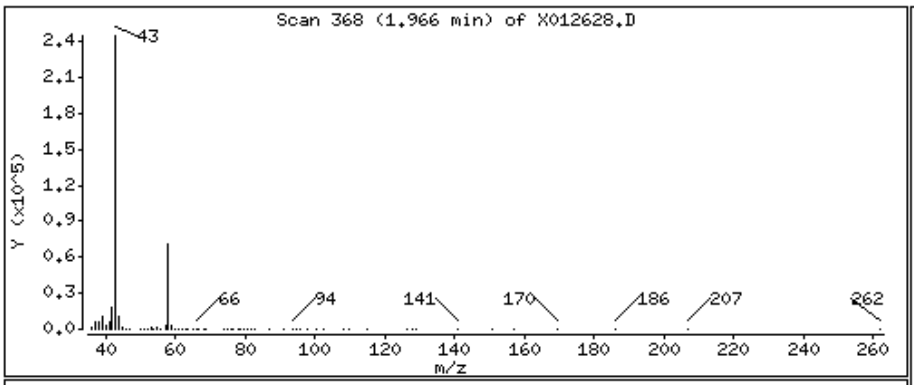
Client ID: HS23011136-06 Instrument: voa6.i

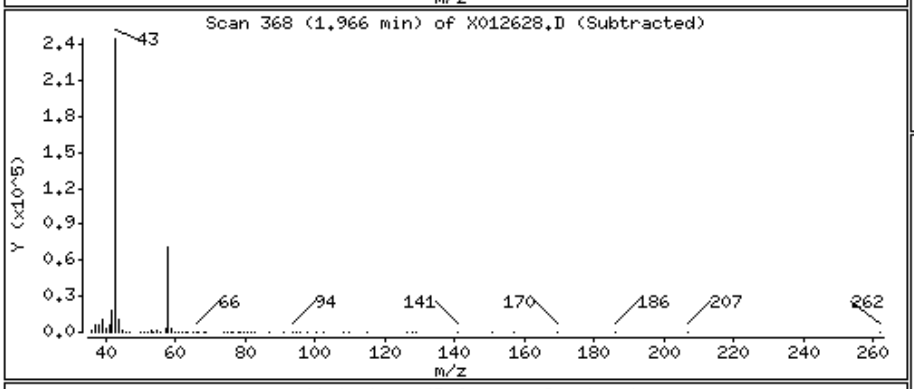
Sample Info: HS23011136-06;HS23011136-06;;;

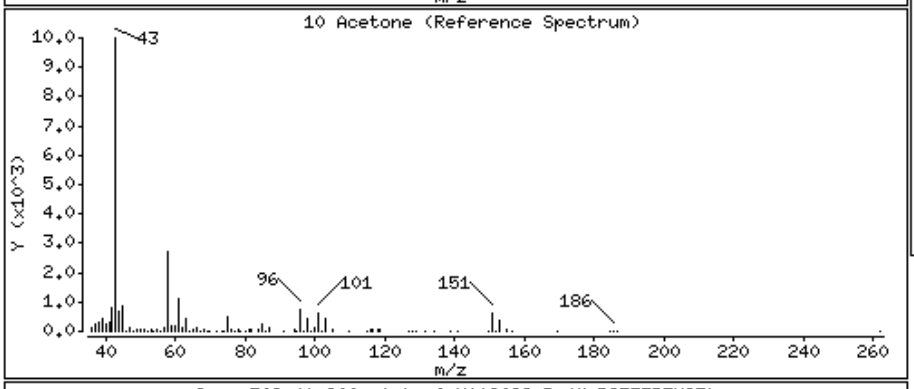
Purge Volume: 5.0 Operator: FT

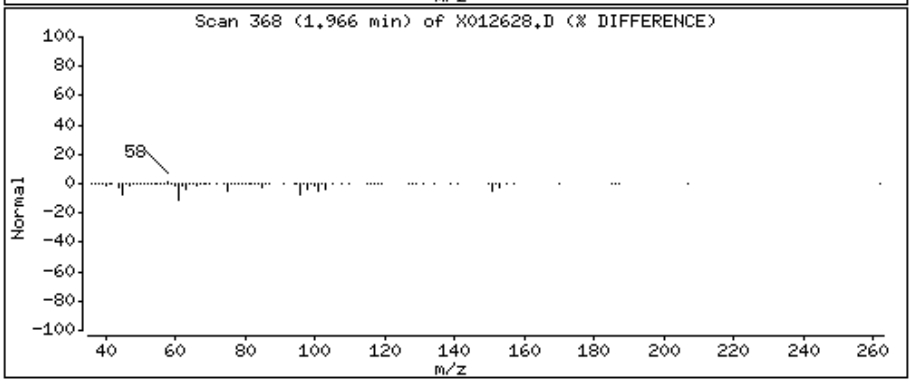
Column phase: DB624 Column diameter: 0.18

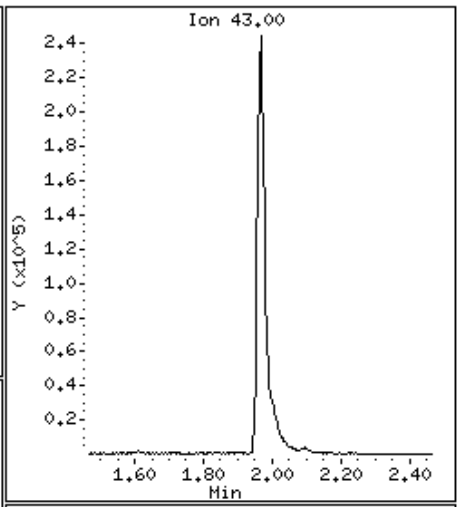
10 Acetone Concentration: 11132.35 ug/l

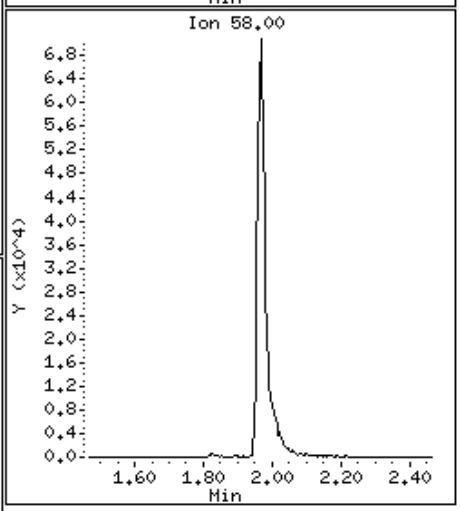


Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012628.D Page 4

Date : 26-JAN-2023 17:52

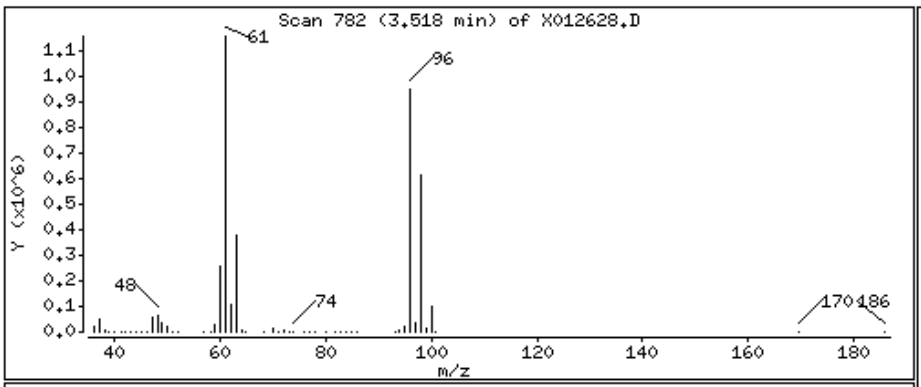
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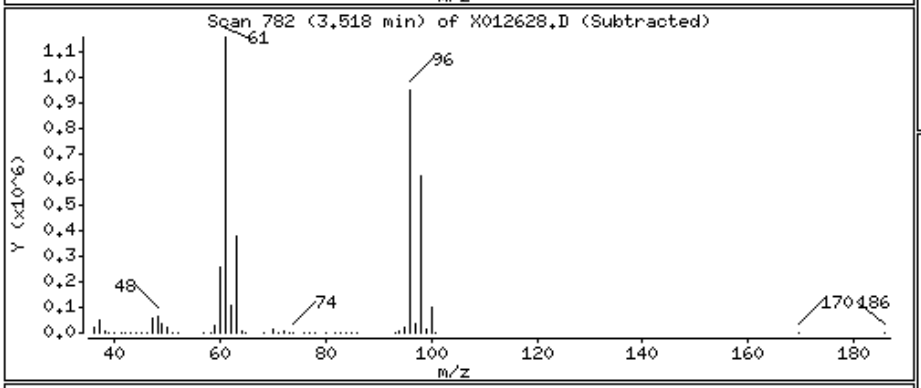
Sample Info: HS23011136-06;HS23011136-06;;;

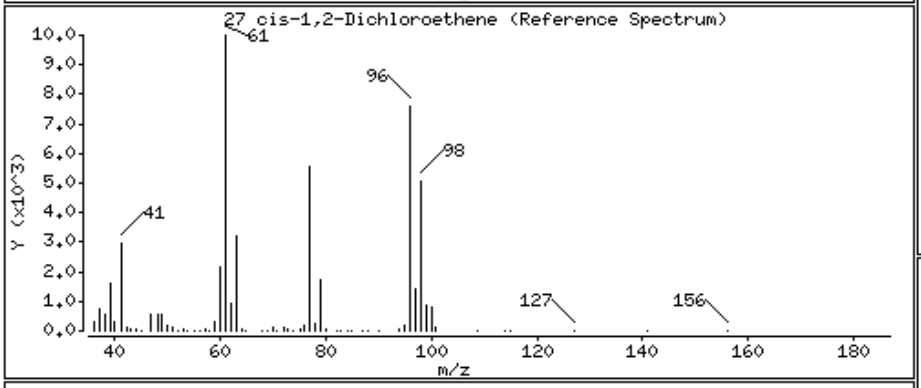
Purge Volume: 5.0 Operator: FT

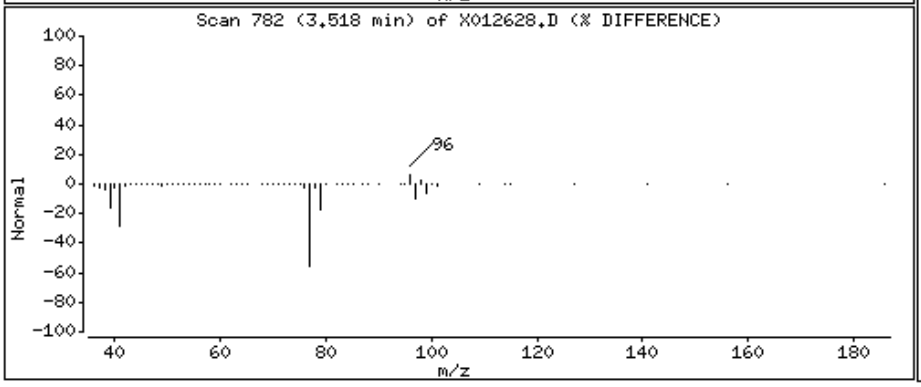
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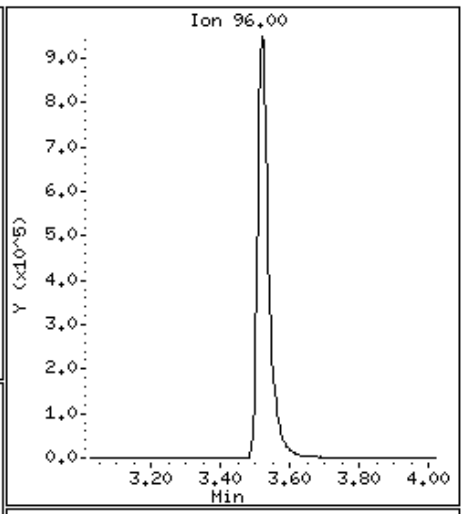
27 cis-1,2-Dichloroethene Concentration: 15830.00 ug/l

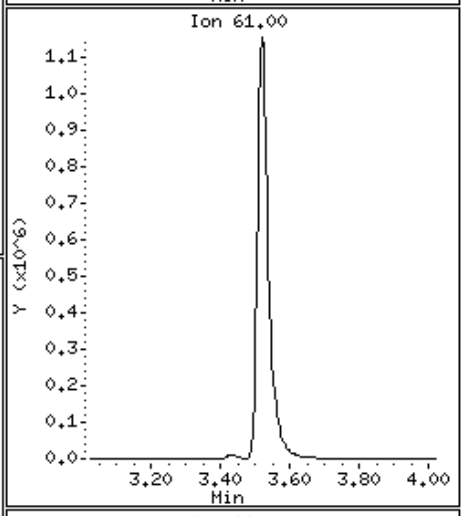


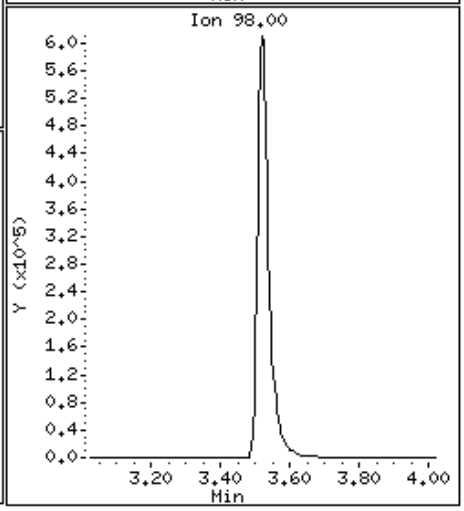



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012628.D Page 5

Date : 26-JAN-2023 17:52

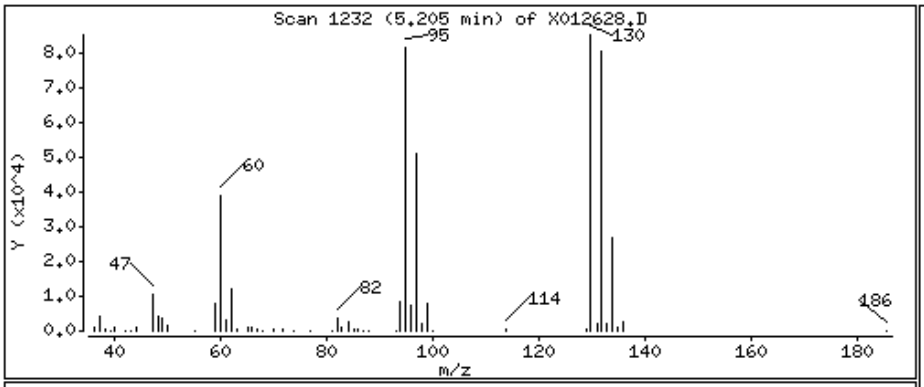
Client ID: HS23011136-06 Instrument: voa6.i

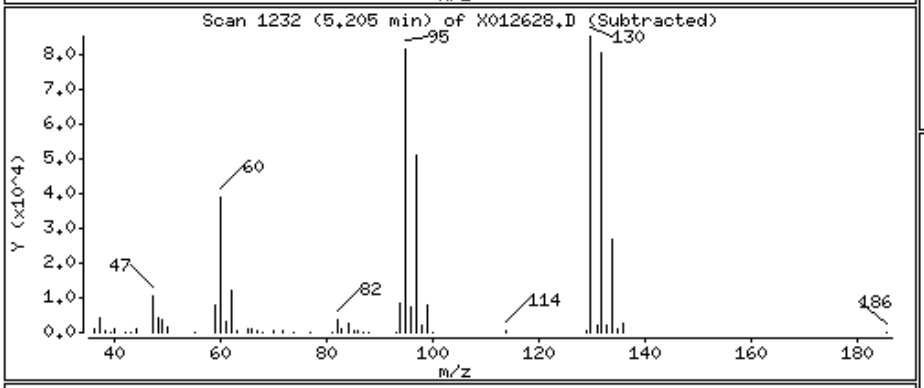
Sample Info: HS23011136-06;HS23011136-06;;;

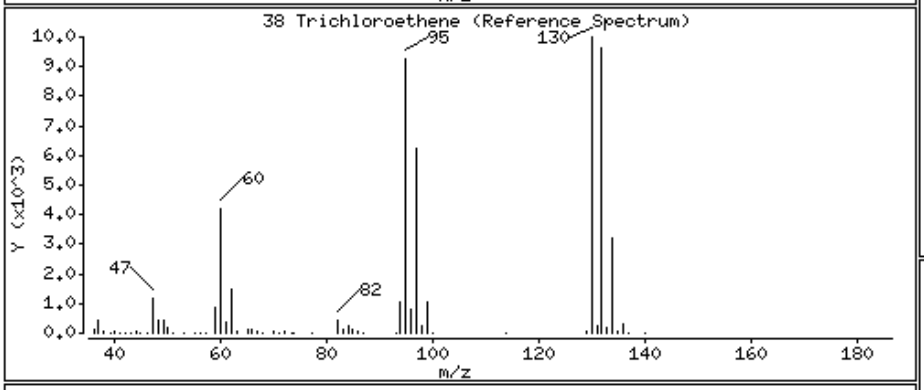
Purge Volume: 5.0 Operator: FT

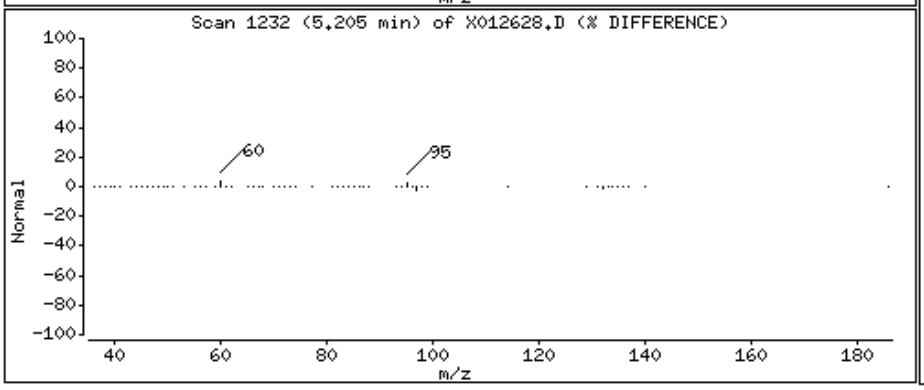
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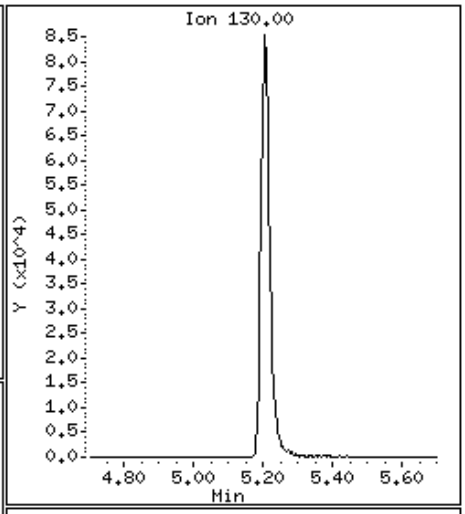
38 Trichloroethene Concentration: 1217.20 ug/l

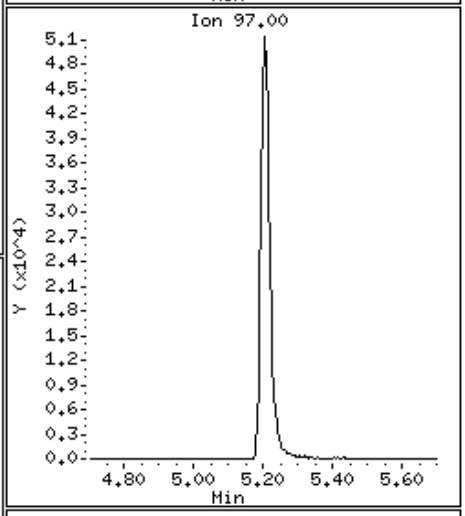


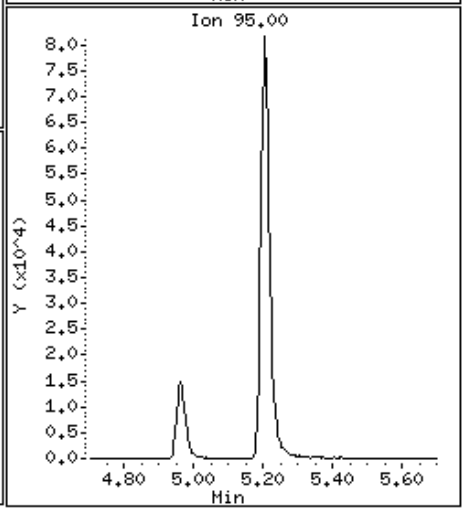



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012628.D Page 6

Date : 26-JAN-2023 17:52

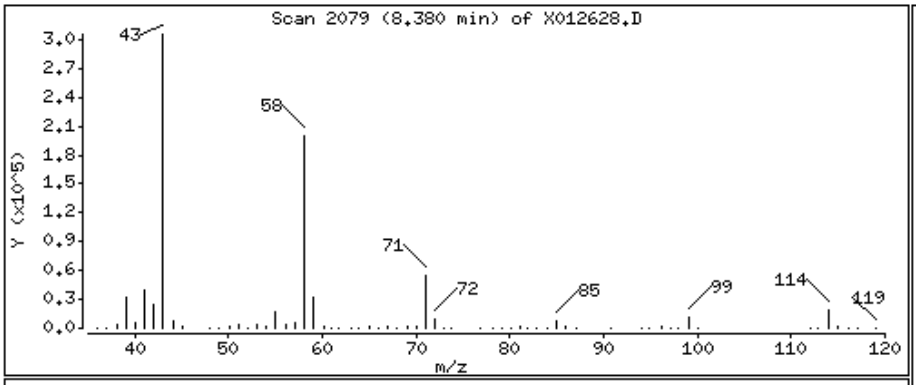
Client ID: HS23011136-06 Instrument: voa6.i

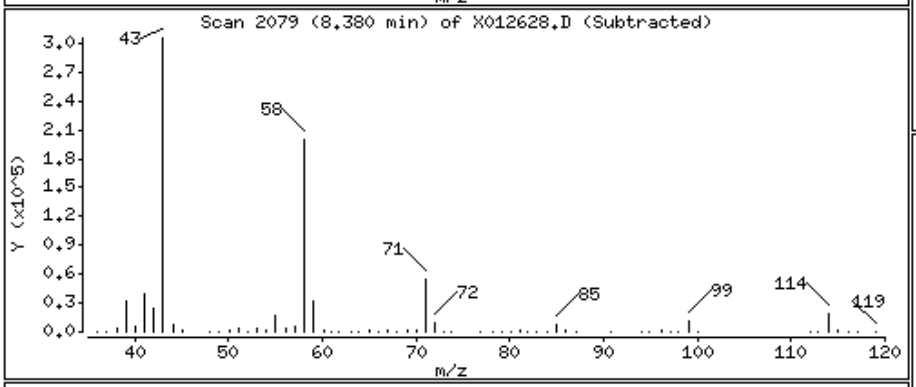
Sample Info: HS23011136-06;HS23011136-06;;;

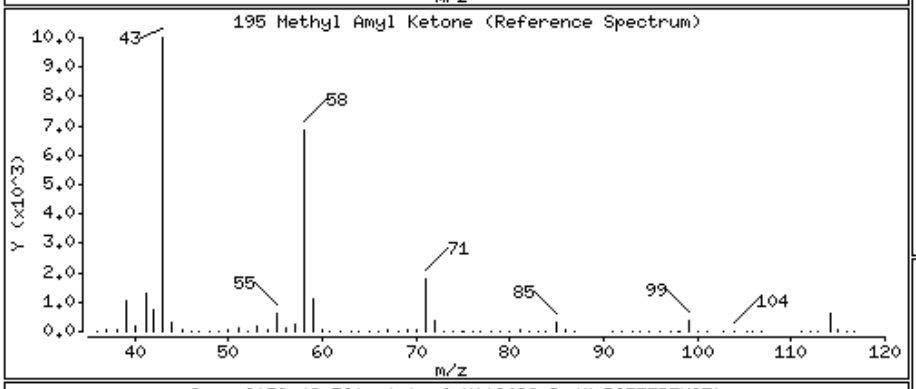
Purge Volume: 5.0 Operator: FT

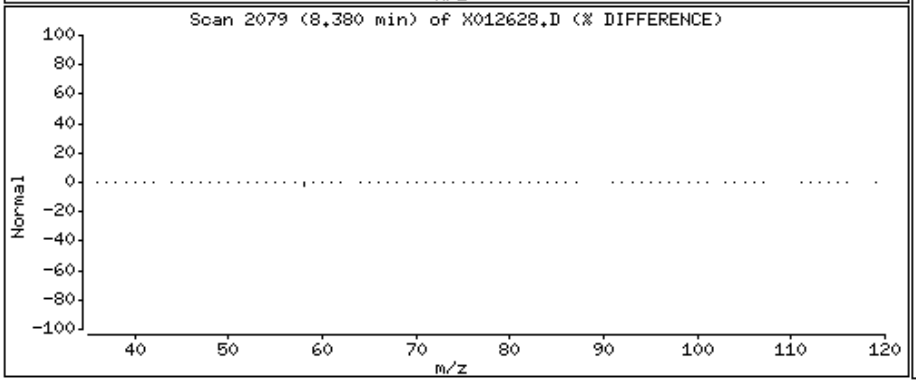
Column phase: DB624 Column diameter: 0.18

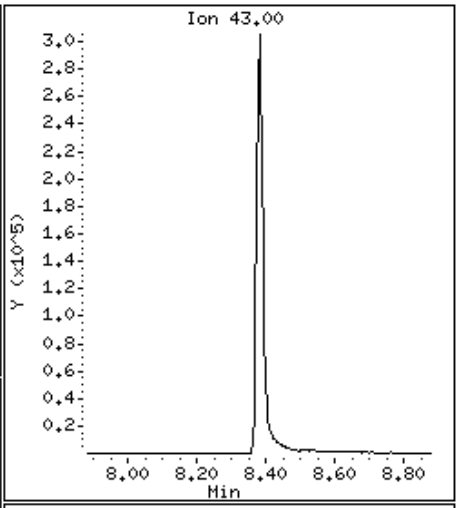
195 Methyl Amyl Ketone Concentration: 1925.28 ug/l

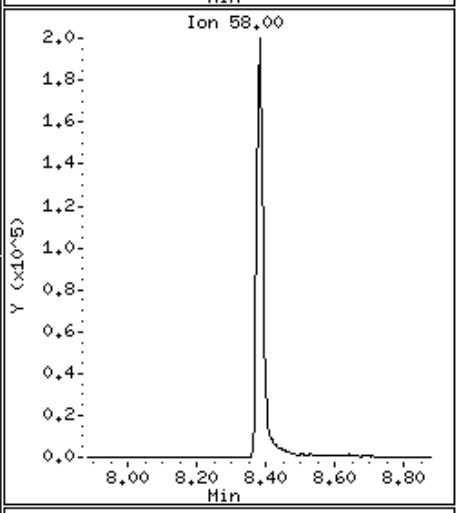


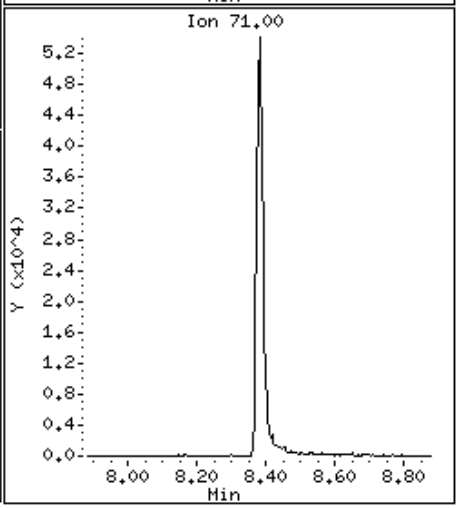



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012628.D Page 7

Date : 26-JAN-2023 17:52

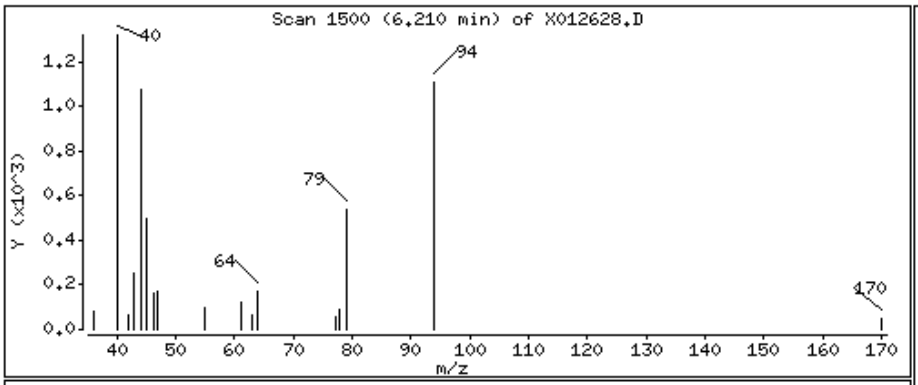
Client ID: HS23011136-06 Instrument: voa6.i

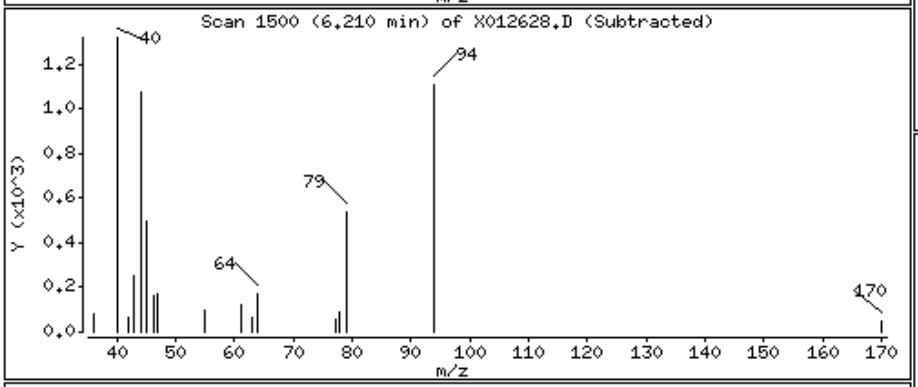
Sample Info: HS23011136-06;HS23011136-06;;;

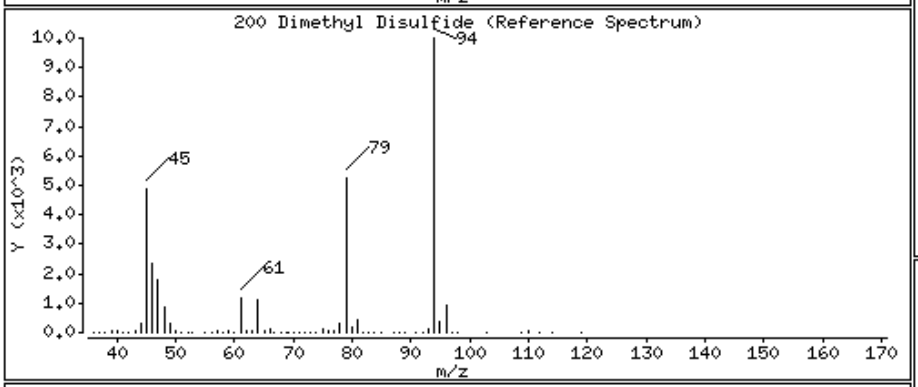
Purge Volume: 5.0 Operator: FT

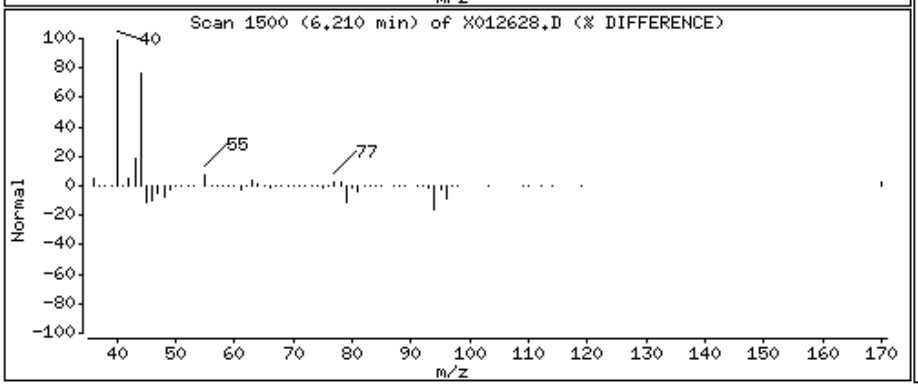
Column phase: DB624 Column diameter: 0.18

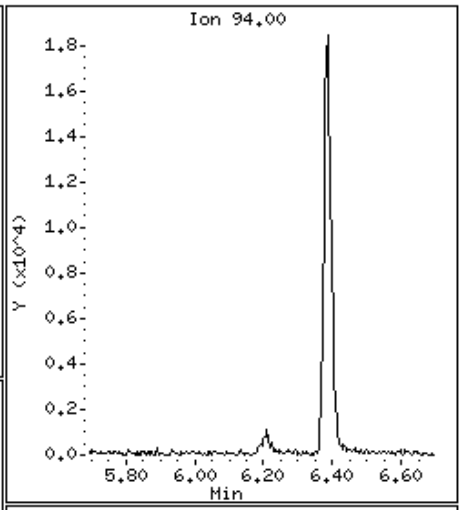
200 Dimethyl Disulfide Concentration: 7.70 ug/l

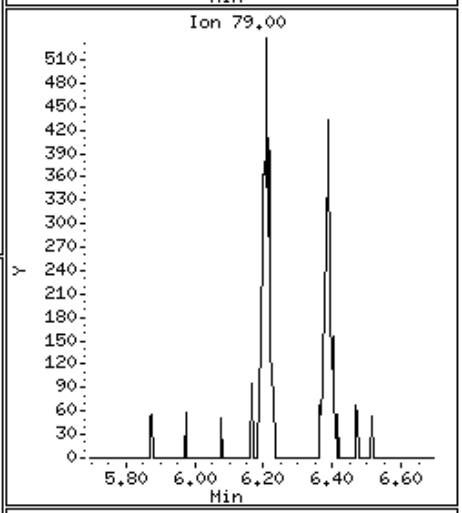


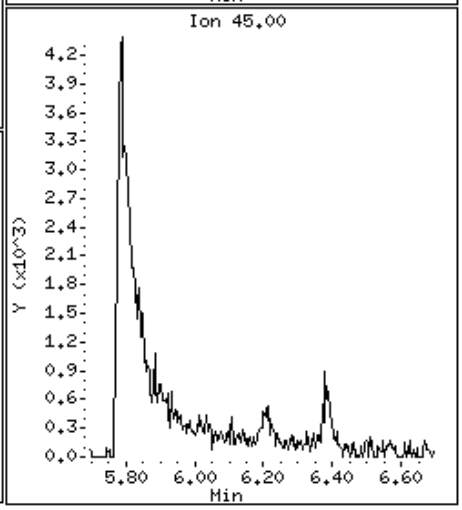



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012628.D
Inj Date  : 26-JAN-2023 17:52
InstruID  : voa6.i
LabSampID : HS23011136-06

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012629.D  Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012629.D
Lab Smp Id: CCV-END  Client Smp ID: CCV-END
Inj Date  : 26-JAN-2023 18:12
Operator  : FT  Inst ID: voa6.i
Smp Info  : CCV-END;CCV-END;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 28  Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 542544 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 165427 | 50.0000 | 43.64 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 215601 | 50.0000 | 44.19 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 275741 | 500.000 | 498.09 |
| 5 Vinyl Chloride | 62 | 1.137 | 1.137 | (0.273) | 218131 | 50.0000 | 46.02 |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 158347 | 50.0000 | 44.37 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 140058 | 50.0000 | 42.45 |
| 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 346377 | 50.0000 | 52.22 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 32264 | 100.000 | 87.32 |
| 10 Acetone | 43 | 1.966 | 1.966 | (0.471) | 142268 | 100.000 | 93.45 |
| 11 1,1-Dichloroethene | 96 | 1.909 | 1.909 | (0.458) | 201919 | 50.0000 | 49.03 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.119) | 660325 | 1000.00 | 1082.06 |
| 13 Acetonitrile | 39 | 2.194 | 2.194 | (0.526) | 266183 | 500.000 | 539.06 |
| 14 Allyl Chloride | 41 | 2.194 | 2.194 | (0.526) | 470664 | 50.0000 | 50.04 |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 512772 | 100.000 | 94.87 |
| 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.606) | 145807 | 100.000 | 104.40 |
| 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.551) | 262232 | 50.0000 | 46.42 |
| 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.606) | 661796 | 50.0000 | 49.10 |
| 19 Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 1109385 | 100.000 | 102.97 |
| 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 233150 | 50.0000 | 50.59 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.717) | 1155821 | 100.000 | 97.69 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 407489 | 50.0000 | 50.38 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 86810 | 50.0000 | 47.05(M) |
| | 24 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 160681 | 100.000 | 99.52 |
| | 25 Methacrylonitrile | 41 | 3.810 | 3.810 | (0.913) | 189690 | 50.0000 | 49.37(a) |
| | 26 2,2-Dichloropropane | 77 | 3.506 | 3.506 | (0.840) | 349667 | 50.0000 | 50.91 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.521 | (0.844) | 275156 | 50.0000 | 49.06 |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 464775 | 50.0000 | 51.27 |
| | 29 Bromochloromethane | 128 | 3.788 | 3.788 | (0.908) | 142555 | 50.0000 | 46.42 |
| $ | 30 Dibromofluoromethane | 113 | 4.091 | 4.091 | (0.980) | 247275 | 50.0000 | 47.45 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.977) | 407600 | 50.0000 | 56.67 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 342156 | 50.0000 | 58.80 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 367114 | 50.0000 | 54.66 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 348902 | 50.0000 | 56.15 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 287609 | 50.0000 | 52.29 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 819604 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.909) | 1000924 | 50.0000 | 51.14 |
| | 38 Trichloroethene | 130 | 5.201 | 5.201 | (1.048) | 300745 | 50.0000 | 54.17 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 369012 | 50.0000 | 50.23 |
| | 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.342) | 205014 | 50.0000 | 55.41 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.218) | 229275 | 100.000 | 109.71 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 255804 | 50.0000 | 49.13 |
| | 43 2-Nitropropane | 43 | 5.965 | 5.965 | (1.429) | 72591 | 50.0000 | 52.98 |
| | 44 Dibromomethane | 93 | 5.549 | 5.549 | (1.119) | 172222 | 50.0000 | 48.66 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 436991 | 100.000 | 104.53 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 435656 | 50.0000 | 50.50 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 782109 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.382 | 6.382 | (0.832) | 912074 | 50.0000 | 47.19 |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 197730 | 50.0000 | 51.23 |
| | 50 Toluene | 91 | 6.442 | 6.442 | (0.840) | 1123292 | 50.0000 | 51.96 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.678 | 6.678 | (1.346) | 378776 | 50.0000 | 52.91 |
| | 52 2-Hexanone | 43 | 7.083 | 7.083 | (0.924) | 305845 | 100.000 | 107.53 |
| | 53 1,1,2-Trichloroethane | 83 | 6.835 | 6.835 | (0.891) | 208830 | 50.0000 | 48.15 |
| | 54 1,3-Dichloropropane | 76 | 6.978 | 6.978 | (0.910) | 423240 | 50.0000 | 49.58 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 312679 | 50.0000 | 49.95 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 255787 | 50.0000 | 57.18 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 275813 | 50.0000 | 50.86 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 240271 | 50.0000 | 60.66 |
| | 59 Chlorobenzene | 112 | 7.690 | 7.690 | (1.003) | 763078 | 50.0000 | 49.76 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 291284 | 50.0000 | 51.04 |
| | 61 Ethylbenzene | 106 | 7.795 | 7.795 | (1.017) | 397563 | 50.0000 | 55.04 |
| | 62 m,p-Xylenes | 106 | 7.900 | 7.900 | (1.030) | 1002544 | 100.000 | 107.67 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 481568 | 50.0000 | 52.40 |
| | 64 Styrene | 104 | 8.256 | 8.256 | (1.077) | 832278 | 50.0000 | 54.03 |
| | 66 Bromoform | 173 | 8.406 | 8.406 | (1.096) | 213349 | 50.0000 | 49.19 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 1251152 | 50.0000 | 59.59 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 331162 | 50.0000 | 46.12 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 363901 | 50.0000 | 50.37 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 450450 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 276444 | 50.0000 | 55.15 |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.886 | 8.886 | (1.159) | 86652 | 50.0000 | 51.32 |
| | 73 n-Propylbenzene | 91 | 8.908 | 8.908 | (0.922) | 1471962 | 50.0000 | 58.99 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 369273 | 50.0000 | 49.96 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1072502 | 50.0000 | 58.18 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 891332 | 50.0000 | 54.43 |
| 77 | 4-Chlorotoluene | 91 | 9.069 | 9.069 (0.939) | 1040667 | 50.0000 | 55.75 |

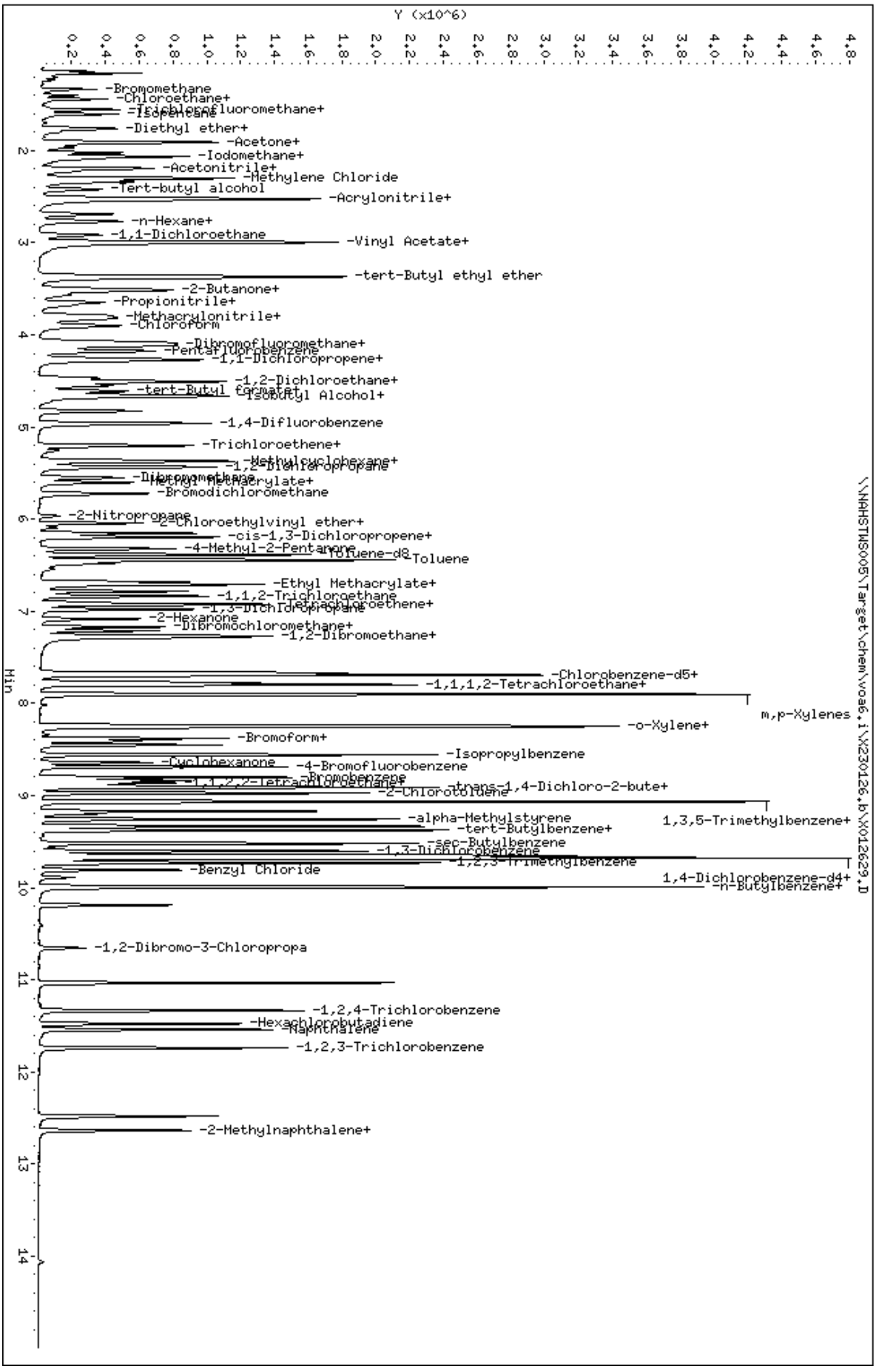
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 910730 | 50.0000 | 60.36 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 1080032 | 50.0000 | 55.68 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1280500 | 50.0000 | 63.78 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 1134493 | 50.0000 | 63.06 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.602 | 9.602 | (0.994) | 652432 | 50.0000 | 53.18 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.680 | 9.680 | (1.002) | 683753 | 50.0000 | 51.08 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 486671 | 50.0000 | 40.31 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 992044 | 50.0000 | 56.96 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 644459 | 50.0000 | 51.01 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 55596 | 50.0000 | 48.43 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 445285 | 50.0000 | 55.85 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 199983 | 50.0000 | 56.51 |
| 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 948591 | 50.0000 | 52.29 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.738 | 11.738 | (1.215) | 401139 | 50.0000 | 52.53 |
| 146 | Methyl acetate | 43 | 2.224 | 2.224 | (0.533) | 128700 | 50.0000 | 52.71 |
| 138 | Freon TF | 101 | 1.909 | 1.909 | (0.458) | 216253 | 50.0000 | 54.29 |
| 141 | Cyclohexane | 56 | 4.117 | 4.117 | (0.987) | 336036 | 50.0000 | 61.15 |
| 142 | Tetrahydrofuran | 42 | 3.836 | 3.836 | (0.919) | 65465 | 100.000 | 96.96 |
| 147 | Methylcyclohexane | 55 | 5.373 | 5.373 | (1.083) | 584257 | 50.0000 | 58.23 |
| 135 | 1,4-Dioxane | 88 | 5.594 | 5.594 | (1.340) | 55756 | 1000.00 | 1124.24 |
| 132 | n-Butanol | 56 | 5.257 | 5.257 | (1.260) | 67995 | 1000.00 | 981.71 |
| 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 216328 | 50.0000 | 58.73 |
| 133 | Ethyl Acrylate | 55 | 5.373 | 5.373 | (1.287) | 584257 | 50.0000 | 54.77 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 239774 | 50.0000 | 61.38 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 148049 | 50.0000 | 40.83 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.423 | (0.581) | 421700 | 1000.00 | 1122.51 |
| 149 | Isopropyl alcohol | 45 | 2.089 | 2.089 | (0.501) | 227839 | 1000.00 | 1161.28 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.997 | (0.718) | 696819 | 50.0000 | 49.51 |
| 160 | 2-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 373105 | 50.0000 | 42.69 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 1113071 | 50.0000 | 51.31 |
| 167 | Ethanol | 45 | 1.700 | 1.700 | (0.407) | 34652 | 1000.00 | 980.36 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.105) | 324810 | 100.000 | 112.82 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 367670 | 1000.00 | 993.58 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.117) | 770623 | 50.0000 | 49.27 |
| 175 | tert-Butyl ethyl ether | 59 | 3.371 | 3.371 | (0.808) | 739412 | 50.0000 | 49.44 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.105) | 324810 | 1000.00 | 1114.71 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 792097 | 1000.00 | 1021.08 |
| 180 | 1-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 373105 | 50.0000 | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 167449 | 50.0000 | 44.96 |
| 152 | Amyl alcohol | 42 | 6.899 | 6.899 | (0.900) | 76035 | 1000.00 | 983.12 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 29426 | 50.0000 | 41.88 |
| 159 | Propylene oxide | 43 | 1.748 | 1.748 | (0.419) | 29877 | 100.000 | 87.57 |
| 161 | 3-Methyl-1-butanol | 55 | 6.899 | 6.899 | (0.900) | 87426 | 1000.00 | 1130.62 |
| 162 | Butyl acrylate | 55 | 8.248 | 8.248 | (1.076) | 528695 | 50.0000 | 51.74 |
| 182 | Epichlorohydrin | 57 | 6.093 | 6.093 | (1.228) | 73945 | 200.000 | 201.43 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 508306 | 100.000 | (a) |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 514234 | 50.0000 | 51.52 |
| 130 | Ethyl Acetate | 43 | 3.645 | 3.645 | (0.873) | 228453 | 50.0000 | 53.96 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 214909 | 1000.00 | 1143.73 |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 72305 | 50.0000 | 50.02 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 124626 | 50.0000 | (a) |
| 188 | Isopropyl acetate | 43 | 4.672 | 4.672 | (0.942) | 662335 | 50.0000 | 52.01 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 456030 | 50.0000 | 50.00 |
| 189 n-Butyl acetate | 43 | 7.210 | 7.210 (0.940) | 375429 | 50.0000 | 55.87 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 239774 | 1000.00 | 1202.38 |
| 194 Acetaldehyde | 44 | 1.208 | 1.208 | (0.290) | 74310 | 200.000 | 218.10 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 527444 | 50.0000 | 50.72 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 524024 | 50.0000 | 49.50 |
| 168 1-Propanol | 59 | 2.997 | 2.997 | (0.718) | 78831 | 1000.00 | 889.08 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012629.D
Date : 26-JAN-2023 18:12
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

\\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012629.D

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

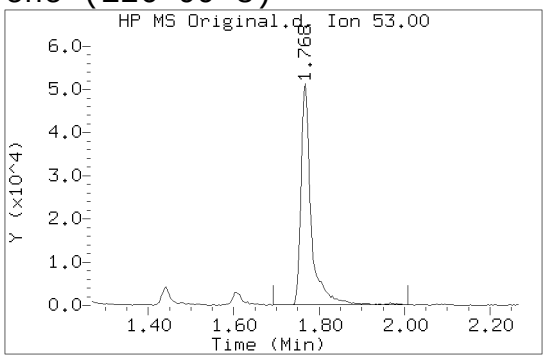
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012629.D
Inj Date : 26-JAN-2023 18:12
InstruID : voa6.i
LabSampID : CCV-END

Chloroprene (126-99-8)

Reason Code:

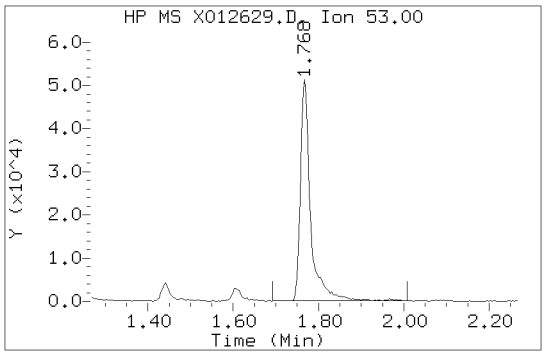
BEFORE

MASS
53
AREA
86810
HEIGHT
51169
13-Feb-2023
13:32
linh
pham



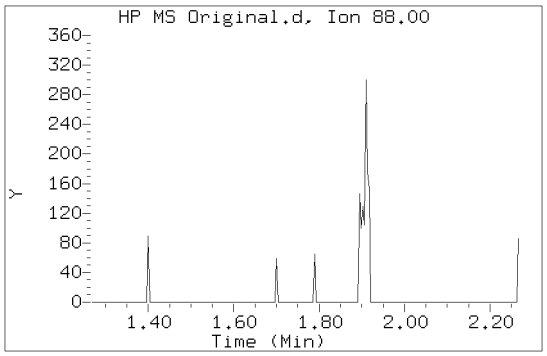

AFTER

MASS
53
AREA
86810
HEIGHT
51169
13-Feb-2023
13:32
linh
pham



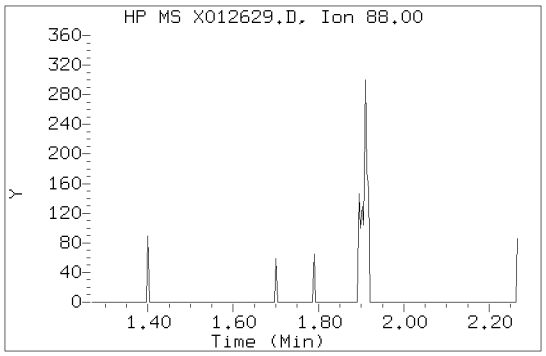

BEFORE

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:32
linh
pham




AFTER

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:32
linh
pham



01241258

right solutions.
right partner.

# Raw Data VOA6 426682

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\nahstws005\Target\chem\voa6.i\X230127.b\X012701.D  Page 1
Report Date: 27-Jan-2023 08:27

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X230127.b\X012701.D
Lab Smp Id: BFB  Client Smp ID: BFB
Inj Date  : 27-JAN-2023 07:29
Operator  : FT  Inst ID: voa6.i
Smp Info  : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\nahstws005\Target\chem\voa6.i\X230127.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham  Quant Type: ISTD
Cal Date  :  Cal File:
Als bottle: 2  QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: all.sub
Target Version:  4.14  Sample Matrix: WATER
Processing Host: NAHSTW7066

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vf | 1.000 | Volumetric correction factor |
| Vi | 2.000 | Injection Volume |
| Cpnd Variable | | Local Compound Variable |

| | | | | | CONCENTRATIONS ON-COL ( ug/L) | FINAL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | | CAS #: 460-00-4 | |
| 8.687 | 8.889 | ( 0.000) | 95 | 153088 | | | 0.00- 100.00 | 100.00 |
| 8.687 | 8.889 | ( 0.000) | 50 | 30112 | | | 15.00- 40.00 | 19.67 |
| 8.687 | 8.889 | ( 0.000) | 75 | 75048 | | | 30.00- 60.00 | 49.02 |
| 8.687 | 8.889 | ( 0.000) | 96 | 10336 | | | 5.00- 9.00 | 6.75 |
| 8.687 | 8.889 | ( 0.000) | 173 | 1311 | | | 0.00- 2.00 | 1.02 |
| 8.687 | 8.889 | ( 0.000) | 174 | 128704 | | | 50.00- 0.00 | 84.07 |
| 8.687 | 8.889 | ( 0.000) | 175 | 10189 | | | 5.00- 9.00 | 7.92 |
| 8.687 | 8.889 | ( 0.000) | 176 | 122336 | | | 95.00- 101.00 | 95.05 |
| 8.687 | 8.889 | ( 0.000) | 177 | 8185 | | | 5.00- 9.00 | 6.69 |

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 19.67 |
| 75 | 30.00 - 60.00% of mass 95 | 49.02 |
| 96 | 5.00 - 9.00% of mass 95 | 6.75 |
| 173 | Less than 2.00% of mass 174 | 0.86 ( 1.02) |
| 174 | Greater than 50.00% of mass 95 | 84.07 |
| 175 | 5.00 - 9.00% of mass 174 | 6.66 ( 7.92) |
| 176 | 95.00 - 101.00% of mass 174 | 79.91 ( 95.05) |
| 177 | 5.00 - 9.00% of mass 176 | 5.35 ( 6.69) |

Data File: X012701.D
Spectrum: Scan 2159 ( 8.68)
Location of Maximum: 95.00
Number of points: 113

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1340 | 65.90 | 73 | 98.00 | 633 | 141.90 | 159 |
| 37.00 | 7304 | 66.90 | 594 | 102.90 | 160 | 142.80 | 1450 |
| 38.00 | 6490 | 68.00 | 15356 | 103.90 | 719 | 143.80 | 85 |
| 39.10 | 2859 | 69.00 | 16166 | 104.80 | 319 | 144.80 | 76 |
| 40.00 | 1607 | 70.00 | 1721 | 105.90 | 544 | 145.80 | 204 |
| 41.00 | 1042 | 71.10 | 255 | 106.70 | 166 | 146.90 | 93 |
| 42.10 | 962 | 71.80 | 797 | 108.80 | 76 | 147.80 | 348 |
| 42.90 | 701 | 73.00 | 6596 | 109.80 | 79 | 148.70 | 98 |
| 44.00 | 1773 | 74.00 | 24856 | 110.60 | 115 | 149.20 | 86 |
| 45.00 | 1850 | 75.00 | 75048 | 111.10 | 110 | 149.80 | 217 |
| 45.90 | 90 | 76.00 | 7059 | 111.80 | 126 | 152.80 | 91 |
| 46.90 | 1302 | 76.90 | 1075 | 112.90 | 135 | 153.70 | 90 |
| 48.10 | 983 | 77.90 | 602 | 115.00 | 112 | 154.80 | 404 |
| 49.00 | 6074 | 78.90 | 4663 | 115.80 | 540 | 156.90 | 289 |
| 50.00 | 30112 | 79.90 | 1316 | 116.90 | 1085 | 158.70 | 276 |
| 51.00 | 9073 | 81.00 | 4744 | 118.00 | 400 | 160.70 | 186 |
| 52.10 | 567 | 81.80 | 978 | 119.00 | 680 | 171.40 | 60 |
| 53.00 | 159 | 82.90 | 369 | 122.70 | 56 | 173.00 | 1311 |
| 53.80 | 193 | 84.10 | 56 | 123.80 | 110 | 173.90 | 128704 |
| 55.00 | 1936 | 84.90 | 144 | 126.90 | 128 | 174.90 | 10189 |
| 55.90 | 3048 | 85.90 | 142 | 127.90 | 769 | 175.90 | 122336 |
| 57.00 | 4384 | 86.90 | 5745 | 128.70 | 369 | 176.90 | 8185 |
| 58.10 | 454 | 87.90 | 5218 | 129.90 | 427 | 177.80 | 203 |
| 59.90 | 991 | 90.80 | 765 | 130.80 | 354 | 185.80 | 264 |
| 61.00 | 7694 | 91.90 | 4514 | 134.70 | 185 | 206.90 | 112 |
| 62.00 | 6944 | 93.00 | 6857 | 136.90 | 356 | 261.80 | 81 |
| 63.00 | 4986 | 94.00 | 17624 | 138.90 | 94 | | |
| 64.00 | 570 | 95.00 | 153088 | 139.70 | 107 | | |
| 64.90 | 174 | 96.00 | 10336 | 140.80 | 1490 | | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012701.D



Date : 27-JAN-2023 07:29

Client ID: BFB

Instrument: voa6.i

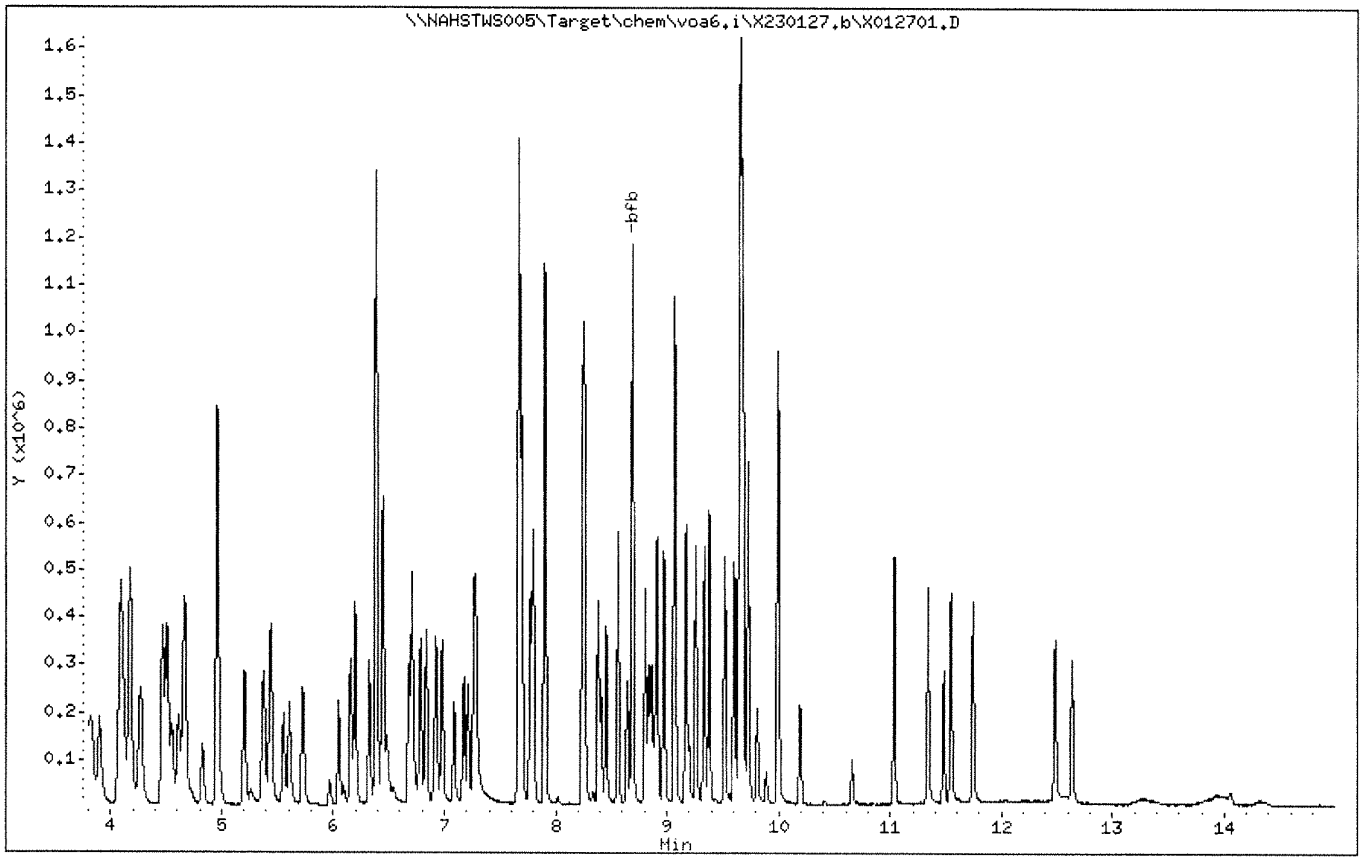
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: FT

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012701.D



Date : 27-JAN-2023 07:29

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

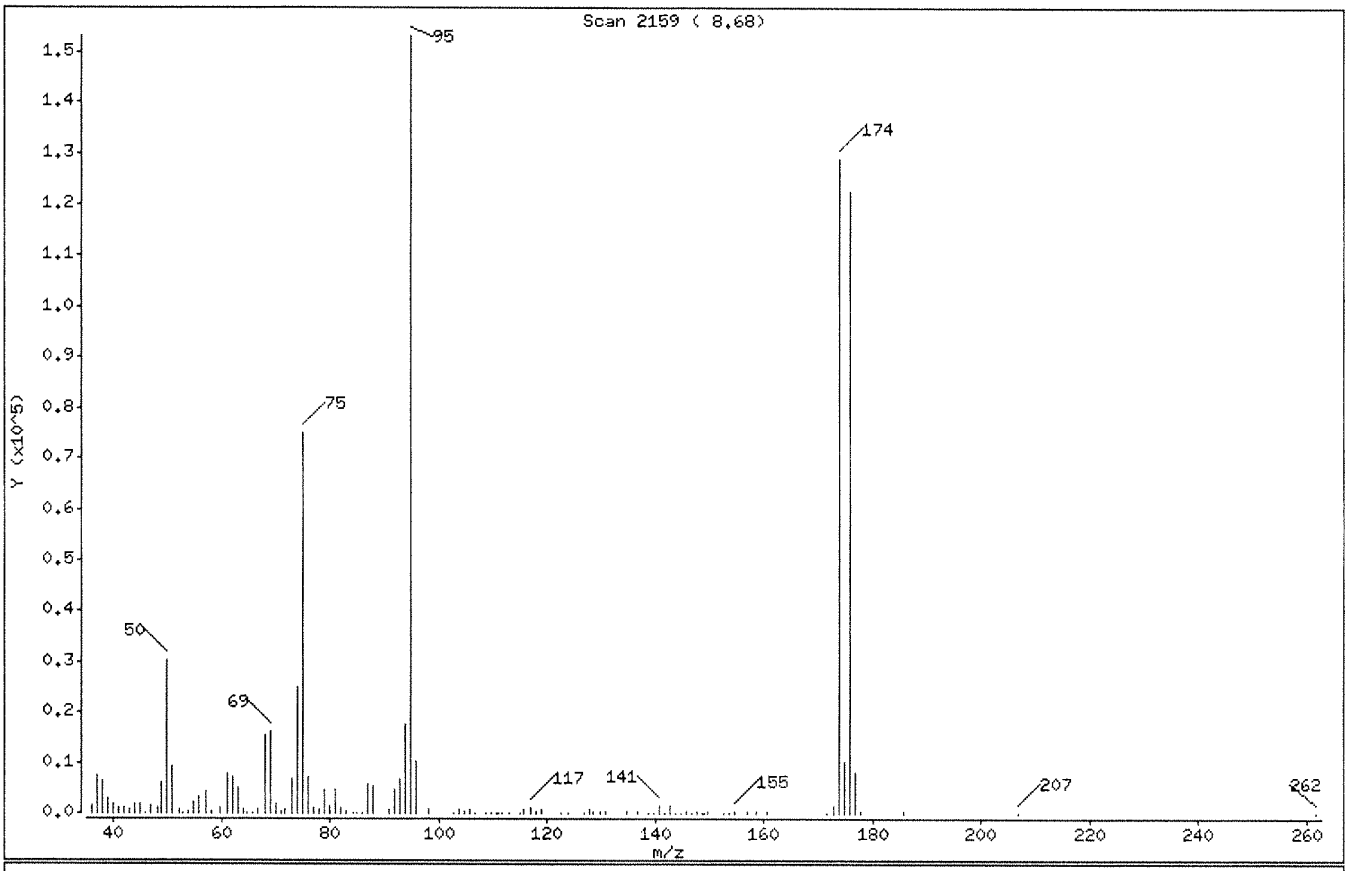
Volume Injected (uL): 2.0

Operator: FT

Column phase: DB624

Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 19.67 |
| 75 | 30.00 - 60.00% of mass 95 | 49.02 |
| 96 | 5.00 - 9.00% of mass 95 | 6.75 |
| 173 | Less than 2.00% of mass 174 | 0.86 ( 1.02) |
| 174 | Greater than 50.00% of mass 95 | 84.07 |
| 175 | 5.00 - 9.00% of mass 174 | 6.66 ( 7.92) |
| 176 | 95.00 - 101.00% of mass 174 | 79.91 ( 95.05) |
| 177 | 5.00 - 9.00% of mass 176 | 5.35 ( 6.69) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012701.D



Date : 27-JAN-2023 07:29

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: FT

Column phase: DB624

Column diameter: 0.25

Data File: X012701.D
Spectrum: Scan 2159 ( 8.68)
Location of Maximum: 95.00
Number of points: 113

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1340 | 65.90 | 73 | 98.00 | 633 | 141.90 | 159 |
| 37.00 | 7304 | 66.90 | 594 | 102.90 | 160 | 142.80 | 1450 |
| 38.00 | 6490 | 68.00 | 15356 | 103.90 | 719 | 143.80 | 85 |
| 39.10 | 2859 | 69.00 | 16166 | 104.80 | 319 | 144.80 | 76 |
| 40.00 | 1607 | 70.00 | 1721 | 105.90 | 544 | 145.80 | 204 |
| 41.00 | 1042 | 71.10 | 255 | 106.70 | 166 | 146.90 | 93 |
| 42.10 | 962 | 71.80 | 797 | 108.80 | 76 | 147.80 | 348 |
| 42.90 | 701 | 73.00 | 6596 | 109.80 | 79 | 148.70 | 98 |
| 44.00 | 1773 | 74.00 | 24856 | 110.60 | 115 | 149.20 | 86 |
| 45.00 | 1850 | 75.00 | 75048 | 111.10 | 110 | 149.80 | 217 |
| 45.90 | 90 | 76.00 | 7059 | 111.80 | 126 | 152.80 | 91 |
| 46.90 | 1302 | 76.90 | 1075 | 112.90 | 135 | 153.70 | 90 |
| 48.10 | 983 | 77.90 | 602 | 115.00 | 112 | 154.80 | 404 |
| 49.00 | 6074 | 78.90 | 4663 | 115.80 | 540 | 156.90 | 289 |
| 50.00 | 30112 | 79.90 | 1316 | 116.90 | 1085 | 158.70 | 276 |
| 51.00 | 9073 | 81.00 | 4744 | 118.00 | 400 | 160.70 | 186 |
| 52.10 | 567 | 81.80 | 978 | 119.00 | 680 | 171.40 | 60 |
| 53.00 | 159 | 82.90 | 369 | 122.70 | 56 | 173.00 | 1311 |
| 53.80 | 193 | 84.10 | 56 | 123.80 | 110 | 173.90 | 128704 |
| 55.00 | 1936 | 84.90 | 144 | 126.90 | 128 | 174.90 | 10189 |
| 55.90 | 3048 | 85.90 | 142 | 127.90 | 769 | 175.90 | 122336 |
| 57.00 | 4384 | 86.90 | 5745 | 128.70 | 369 | 176.90 | 8185 |
| 58.10 | 454 | 87.90 | 5218 | 129.90 | 427 | 177.80 | 203 |
| 59.90 | 991 | 90.80 | 765 | 130.80 | 354 | 185.80 | 264 |
| 61.00 | 7694 | 91.90 | 4514 | 134.70 | 185 | 206.90 | 112 |
| 62.00 | 6944 | 93.00 | 6857 | 136.90 | 356 | 261.80 | 81 |
| 63.00 | 4986 | 94.00 | 17624 | 138.90 | 94 | | |
| 64.00 | 570 | 95.00 | 153088 | 139.70 | 107 | | |
| 64.90 | 174 | 96.00 | 10336 | 140.80 | 1490 | | |

Data File : \\nahstws005\Target\chem\voa6.i\X230127.b\X012701.D
Inj Date  : 27-JAN-2023 07:29
InstruID  : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012702.D  Page 1
Report Date: 13-Feb-2023 13:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012702.D
Lab Smp Id: CCV  Client Smp ID: CCV
Inj Date  : 27-JAN-2023 07:50
Operator  : PC  Inst ID: voa6.i
Smp Info  : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\8260W.m
Meth Date : 13-Feb-2023 13:49 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 2  Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 574580 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 172959 | 50.0000 | 43.09 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 224682 | 50.0000 | 43.51 |
| 4 Propionitrile | 54 | 3.642 | 3.642 | (0.872) | 282706 | 500.000 | 482.20 |
| 5 Vinyl Chloride | 62 | 1.137 | 1.137 | (0.273) | 228701 | 50.0000 | 45.56 |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 173237 | 50.0000 | 45.78 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 156083 | 50.0000 | 44.67 |
| 8 Trichlorofluoromethane | 101 | 1.554 | 1.554 | (0.372) | 357653 | 50.0000 | 50.91 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 36882 | 100.000 | 94.03 |
| 10 Acetone | 43 | 1.966 | 1.966 | (0.471) | 145512 | 100.000 | 90.25 |
| 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.458) | 208338 | 50.0000 | 47.77 |
| 12 Isobutyl Alcohol | 43 | 4.669 | 4.669 | (1.119) | 681738 | 1000.00 | 1054.87 |
| 13 Acetonitrile | 39 | 2.191 | 2.191 | (0.525) | 284168 | 500.000 | 543.40 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.526) | 504682 | 50.0000 | 50.67 |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 503536 | 100.000 | 88.45 |
| 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.606) | 152407 | 100.000 | 103.04 |
| 17 Methylene Chloride | 84 | 2.300 | 2.300 | (0.551) | 268612 | 50.0000 | 44.90 |
| 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.606) | 690473 | 50.0000 | 48.37 |
| 19 Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 1178666 | 100.000 | 103.30 |
| 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 245316 | 50.0000 | 50.26 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.717) | 1324183 | 100.000 | 105.68 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 427378 | 50.0000 | 49.89 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 89232 | 50.0000 | 45.67(M) |
| | 24 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 162780 | 100.000 | 95.33 |
| | 25 Methacrylonitrile | 41 | 3.814 | 3.814 | (0.914) | 197759 | 50.0000 | 48.60(a) |
| | 26 2,2-Dichloropropane | 77 | 3.503 | 3.503 | (0.839) | 408531 | 50.0000 | 56.17 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.844) | 287055 | 50.0000 | 48.32 |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 482149 | 50.0000 | 50.22 |
| | 29 Bromochloromethane | 128 | 3.788 | 3.788 | (0.908) | 149700 | 50.0000 | 46.03 |
| $ | 30 Dibromofluoromethane | 113 | 4.091 | 4.091 | (0.980) | 273523 | 50.0000 | 49.57 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.977) | 417739 | 50.0000 | 54.84 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 351132 | 50.0000 | 57.60 |
| | 33 1,2-Dichloroethane | 62 | 4.549 | 4.549 | (0.917) | 378096 | 50.0000 | 53.74 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 355340 | 50.0000 | 54.58 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 315007 | 50.0000 | 54.07 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 858623 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.909) | 1011509 | 50.0000 | 49.33 |
| | 38 Trichloroethene | 130 | 5.201 | 5.201 | (1.048) | 296756 | 50.0000 | 51.02 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 377566 | 50.0000 | 49.06 |
| | 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.342) | 205681 | 50.0000 | 52.49 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.218) | 236276 | 100.000 | 107.92 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 259966 | 50.0000 | 47.66 |
| | 43 2-Nitropropane | 43 | 5.966 | 5.966 | (1.429) | 77027 | 50.0000 | 53.08 |
| | 44 Dibromomethane | 93 | 5.550 | 5.550 | (1.119) | 175807 | 50.0000 | 47.42 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 436697 | 100.000 | 99.74 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 461805 | 50.0000 | 51.10 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 819089 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 985304 | 50.0000 | 48.68 |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 200237 | 50.0000 | 49.52 |
| | 50 Toluene | 91 | 6.446 | 6.446 | (0.841) | 1124390 | 50.0000 | 49.66 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.678 | 6.678 | (1.346) | 400285 | 50.0000 | 53.37 |
| | 52 2-Hexanone | 43 | 7.083 | 7.083 | (0.924) | 308701 | 100.000 | 103.63 |
| | 53 1,1,2-Trichloroethane | 83 | 6.835 | 6.835 | (0.891) | 211717 | 50.0000 | 46.61 |
| | 54 1,3-Dichloropropane | 76 | 6.978 | 6.978 | (0.910) | 433656 | 50.0000 | 48.50 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 320750 | 50.0000 | 48.92 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 256867 | 50.0000 | 54.83 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 276284 | 50.0000 | 48.65 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 244745 | 50.0000 | 58.98(M) |
| | 59 Chlorobenzene | 112 | 7.690 | 7.690 | (1.003) | 777986 | 50.0000 | 48.44 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.773 | (1.014) | 296305 | 50.0000 | 49.58 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 401130 | 50.0000 | 53.02 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 1005601 | 100.000 | 103.12 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 481373 | 50.0000 | 50.01 |
| | 64 Styrene | 104 | 8.256 | 8.256 | (1.077) | 831295 | 50.0000 | 51.53 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 219464 | 50.0000 | 48.32 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 1253834 | 50.0000 | 57.02 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 339020 | 50.0000 | 46.33 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 386957 | 50.0000 | 51.14 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 459092 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 261359 | 50.0000 | 51.16(M) |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.886 | 8.886 | (1.159) | 92894 | 50.0000 | 52.53 |
| | 73 n-Propylbenzene | 91 | 8.908 | 8.908 | (0.922) | 1489909 | 50.0000 | 58.58 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 369688 | 50.0000 | 49.08 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1076698 | 50.0000 | 57.31 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 897459 | 50.0000 | 53.78 |
| 77 | 4-Chlorotoluene | 91 | 9.070 | 9.070 (0.939) | 1047348 | 50.0000 | 55.05 |

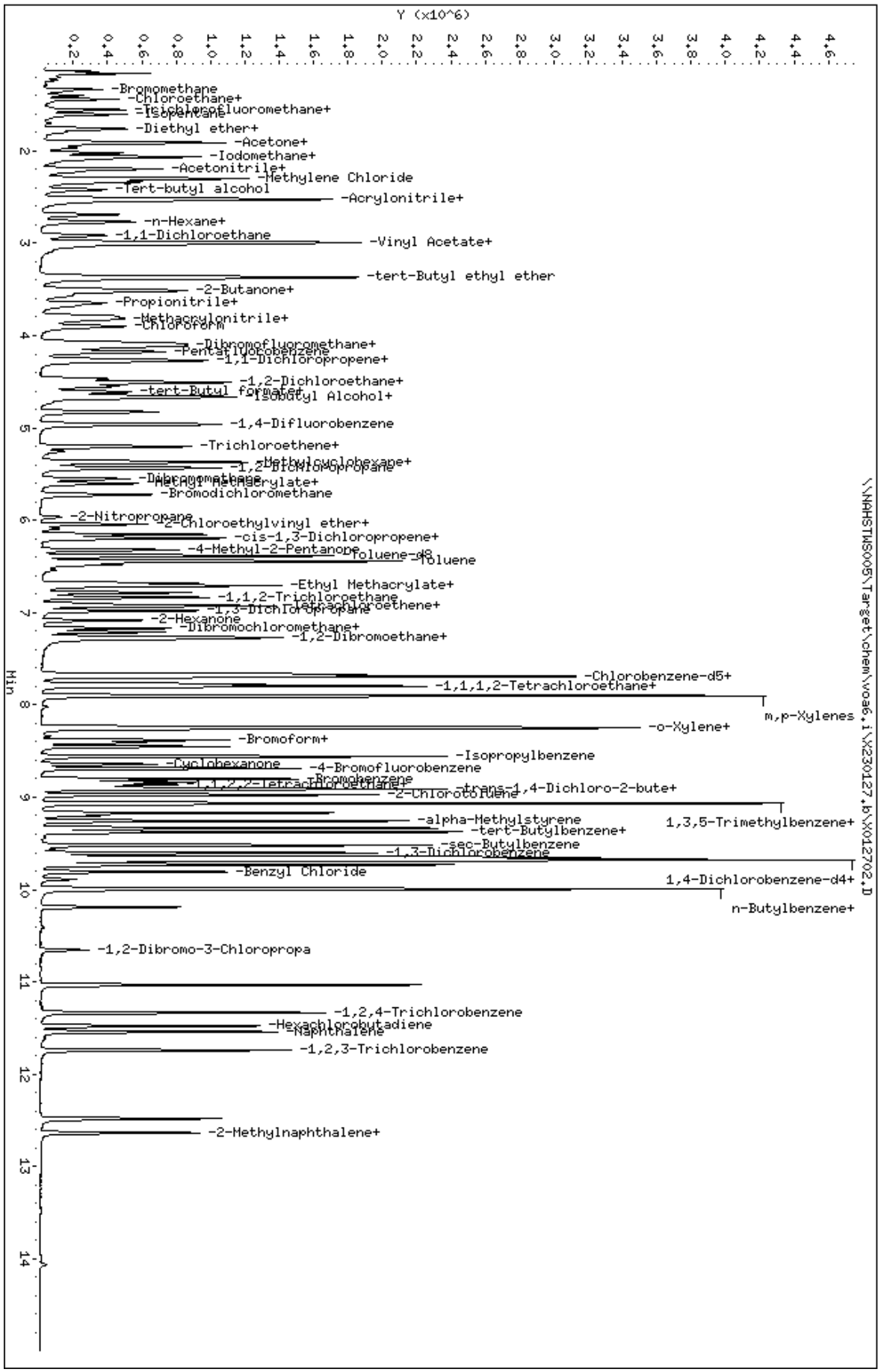
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 904008 | 50.0000 | 58.78 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 1087814 | 50.0000 | 55.03 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1276197 | 50.0000 | 62.37 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 1134454 | 50.0000 | 61.87 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 650779 | 50.0000 | 52.05 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 681578 | 50.0000 | 49.96 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 624900 | 50.0000 | 48.81 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 1023122 | 50.0000 | 57.62 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 633669 | 50.0000 | 49.21 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 56259 | 50.0000 | 48.09 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.334 | 11.334 | (1.173) | 458537 | 50.0000 | 56.43 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 216021 | 50.0000 | 59.85 |
| 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 936009 | 50.0000 | 50.62 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.215) | 406689 | 50.0000 | 52.25 |
| 146 | Methyl acetate | 43 | 2.225 | 2.225 | (0.533) | 132660 | 50.0000 | 51.30 |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.458) | 222192 | 50.0000 | 52.67 |
| 141 | Cyclohexane | 56 | 4.118 | 4.118 | (0.987) | 348920 | 50.0000 | 59.98 |
| 142 | Tetrahydrofuran | 42 | 3.836 | 3.836 | (0.919) | 68612 | 100.000 | 95.93 |
| 147 | Methylcyclohexane | 55 | 5.373 | 5.373 | (1.083) | 602668 | 50.0000 | 57.34 |
| 135 | 1,4-Dioxane | 88 | 5.595 | 5.595 | (1.340) | 55180 | 1000.00 | 1050.59 |
| 132 | n-Butanol | 56 | 5.253 | 5.253 | (1.259) | 76561 | 1000.00 | 1038.11 |
| 131 | Methyl Acrylate | 55 | 3.679 | 3.679 | (0.881) | 217730 | 50.0000 | 55.81 |
| 133 | Ethyl Acrylate | 55 | 5.373 | 5.373 | (1.287) | 602668 | 50.0000 | 53.40 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 268561 | 50.0000 | 64.91 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 163314 | 50.0000 | 42.53 |
| 148 | Tert-butyl alcohol | 59 | 2.419 | 2.419 | (0.580) | 436762 | 1000.00 | 1097.78 |
| 149 | Isopropyl alcohol | 45 | 2.086 | 2.086 | (0.500) | 239178 | 1000.00 | 1151.10 |
| 156 | Diisopropyl ether | 45 | 2.993 | 2.993 | (0.717) | 727650 | 50.0000 | 48.81 |
| 160 | 2-Methylnaphthalene | 142 | 12.635 | 12.635 | (1.308) | 384020 | 50.0000 | 43.11 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 1102632 | 50.0000 | 49.87 |
| 167 | Ethanol | 45 | 1.696 | 1.696 | (0.406) | 38965 | 1000.00 | 1041.12 |
| 172 | tert-Butyl formate | 59 | 4.609 | 4.609 | (1.104) | 337298 | 100.000 | 110.62 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 391323 | 1000.00 | 1009.75 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.117) | 796624 | 50.0000 | 48.09 |
| 175 | tert-Butyl ethyl ether | 59 | 3.368 | 3.368 | (0.807) | 772341 | 50.0000 | 48.76 |
| 176 | tert-Amyl alcohol | 59 | 4.609 | 4.609 | (1.104) | 337298 | 1000.00 | 1093.03 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 824848 | 1000.00 | 1014.98 |
| 180 | 1-Methylnaphthalene | 142 | 12.635 | 12.635 | (1.308) | 384020 | 50.0000 | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 179614 | 50.0000 | 45.54 |
| 152 | Amyl alcohol | 42 | 6.899 | 6.899 | (0.900) | 84934 | 1000.00 | 1048.60 |
| 158 | Dichlorofluoromethane | 67 | 1.524 | 1.524 | (0.365) | 31350 | 50.0000 | 42.13 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 30937 | 100.000 | 85.62 |
| 161 | 3-Methyl-1-butanol | 55 | 6.899 | 6.899 | (0.900) | 89757 | 1000.00 | 1108.36 |
| 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 547923 | 50.0000 | 51.20 |
| 182 | Epichlorohydrin | 57 | 6.089 | 6.089 | (1.227) | 76450 | 200.000 | 198.82 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 532371 | 100.000 | (a) |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 510922 | 50.0000 | 50.22 |
| 130 | Ethyl Acetate | 43 | 3.649 | 3.649 | (0.874) | 233184 | 50.0000 | 52.00 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 219146 | 1000.00 | 1144.33 |
| 185 | Isoprene | 39 | 1.763 | 1.763 | (0.423) | 81193 | 50.0000 | 53.04 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 138247 | 50.0000 | (a) |
| 188 | Isopropyl acetate | 43 | 4.669 | 4.669 | (0.941) | 684403 | 50.0000 | 51.30 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 470486 | 50.0000 | 49.25 |
| 189 n-Butyl acetate | 43 | 7.210 | 7.210 (0.940) | 383645 | 50.0000 | 54.52 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 268561 | 1000.00 | 1271.65 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.290) | 68241 | 200.000 | 186.03 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 527428 | 50.0000 | 48.43 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 546137 | 50.0000 | 49.26 |
| 168 1-Propanol | 59 | 2.989 | 2.989 | (0.716) | 82374 | 1000.00 | 877.24 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




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Column phase: DB624

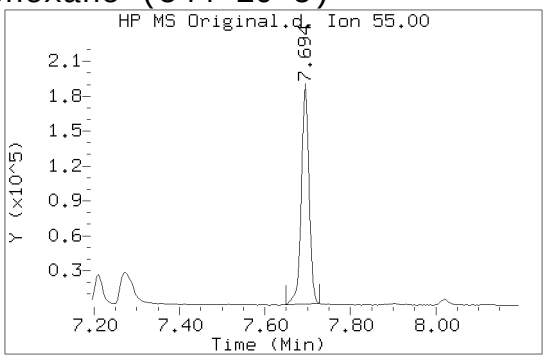
Instrument: voa6.i
Operator: PC
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LabSampID : CCV

## 1-Chlorohexane (544-10-5)

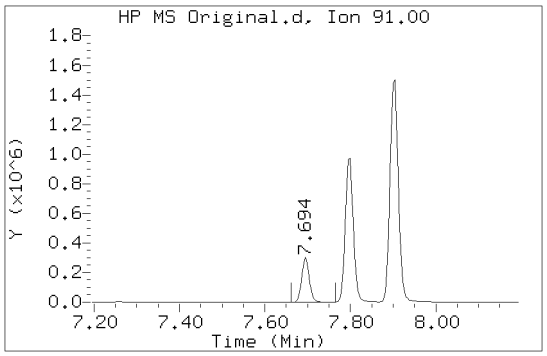
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Kori
Bagsby




### BEFORE

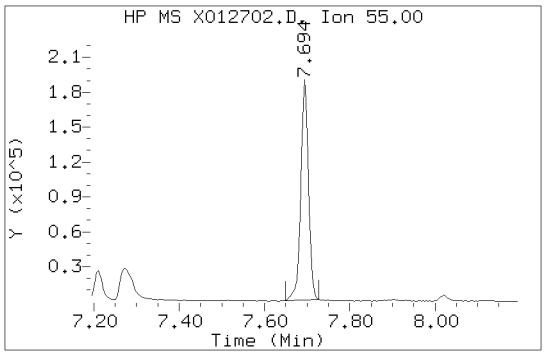
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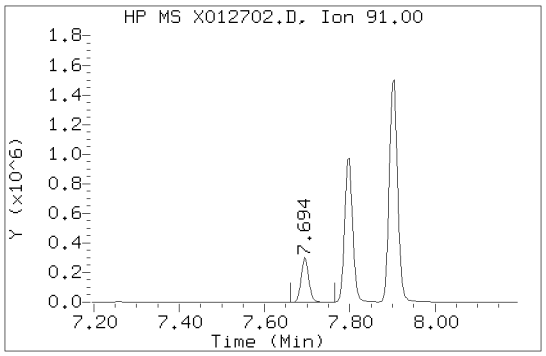
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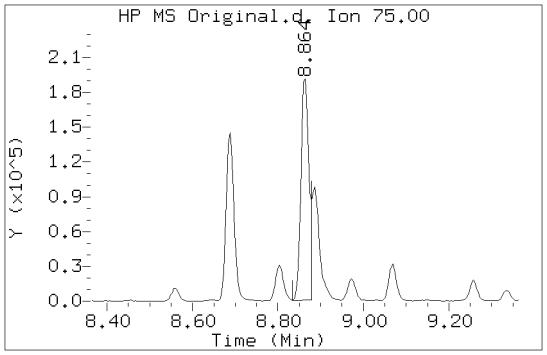
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## 1,2,3-Trichloropropane (96-18-4)

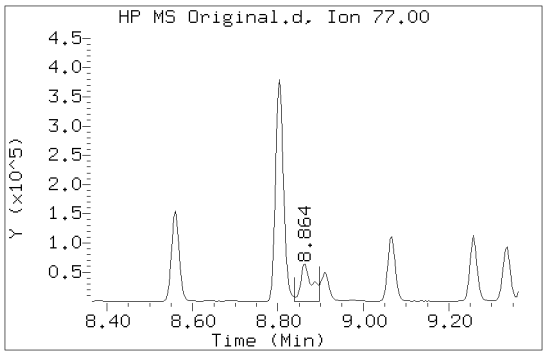
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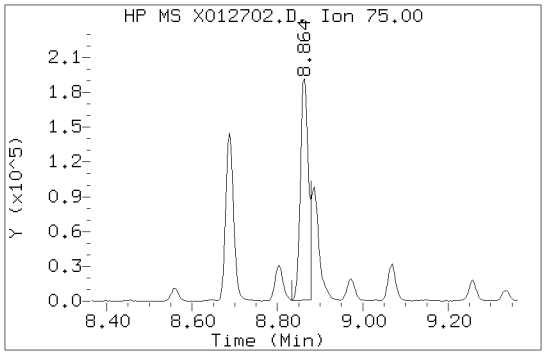
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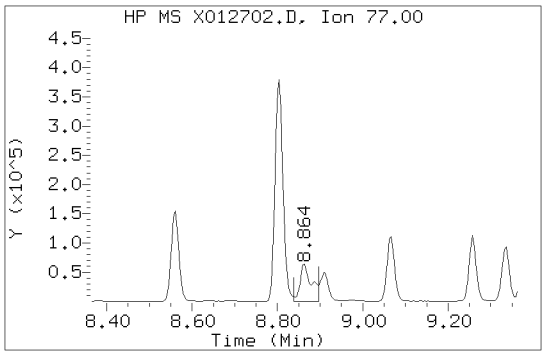
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13-Feb-2023
13:49
Kori
Bags



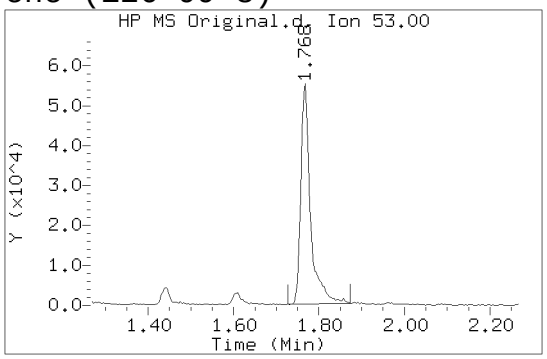
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Inj Date : 27-JAN-2023 07:50
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LabSampID : CCV

## Chloroprene (126-99-8)

Reason Code:

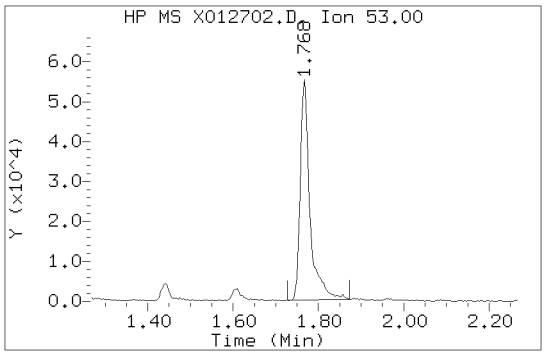
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Kori
Bagsby



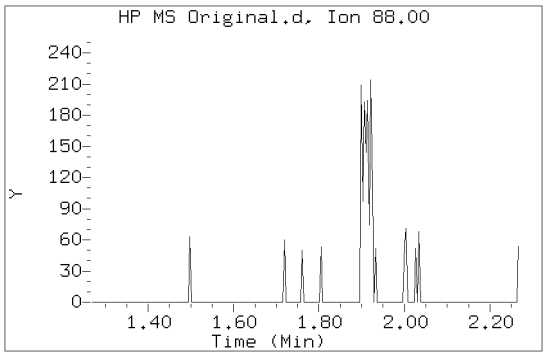

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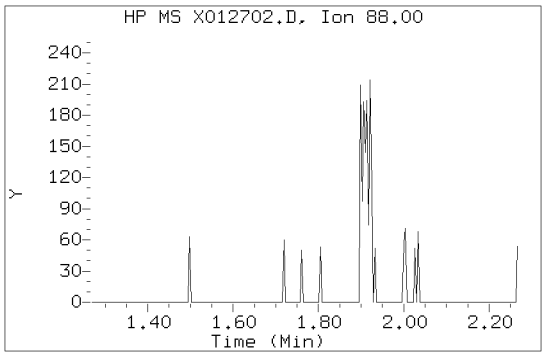

### BEFORE

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09-Feb-2023
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### AFTER

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13-Feb-2023
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Report Date: 14-Feb-2023 11:45

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012704.D
Lab Smp Id: VLCSW-230127  Client Smp ID: VLCSW-230176
Inj Date  : 27-JAN-2023 08:53
Operator  : FT  Inst ID: voa6.i
Smp Info  : VLCSW-230127;VLCSW-230176;3;;LCS
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\8260W.m
Meth Date : 13-Feb-2023 13:50 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 4  QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.177 | 4.177 | (1.000) | 559520 | 50.0000 | |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 71258 | 18.4588 | 18.45 |
| 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 95070 | 20.1609 | 20.16 |
| 4 | Propionitrile | 54 | 3.649 | 3.645 | (0.873) | 121916 | 213.546 | 213.54(a) |
| 5 | Vinyl Chloride | 62 | 1.137 | 1.141 | (0.272) | 93768 | 19.1844 | 19.18 |
| 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 68581 | 19.6608 | 19.66 |
| 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 61244 | 18.0023 | 18.00 |
| 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 147395 | 21.5494 | 21.54 |
| 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 13654 | 37.4971 | 37.49 |
| 10 | Acetone | 43 | 1.966 | 1.966 | (0.471) | 62897 | 40.0422 | 40.04 |
| 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.909 | (0.457) | 86822 | 20.4455 | 20.44 |
| 12 | Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 291752 | 463.587 | 463.58(a) |
| 13 | Acetonitrile | 39 | 2.194 | 2.194 | (0.525) | 124402 | 244.293 | 244.29(a) |
| 14 | Allyl Chloride | 41 | 2.194 | 2.194 | (0.525) | 221209 | 22.8081 | 22.80(a) |
| 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 205445 | 39.7418 | 39.74 |
| 16 | Acrylonitrile | 53 | 2.532 | 2.528 | (0.606) | 67134 | 46.6129 | 46.61 |
| 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 116852 | 20.0610 | 20.06 |
| 18 | Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.605) | 305871 | 22.0056 | 22.00 |
| 19 | Carbon Disulfide | 76 | 2.063 | 2.067 | (0.494) | 482080 | 43.3900 | 43.38 |
| 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 101580 | 21.3735 | 21.37 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.716) | 557582 | 45.6973 | 45.69 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 175007 | 20.9818 | 20.98 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.771 | 1.767 | (0.424) | 36616 | 19.2469 | 19.24(M) |
| | 24 2-Butanone | 43 | 3.574 | 3.570 | (0.856) | 66676 | 41.8529 | 41.85 |
| | 25 Methacrylonitrile | 41 | 3.818 | 3.814 | (0.914) | 85787 | 21.6531 | 21.65(a) |
| | 26 2,2-Dichloropropane | 77 | 3.503 | 3.503 | (0.838) | 166144 | 23.4604 | 23.46 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.521 | (0.843) | 116730 | 20.1821 | 20.18 |
| | 28 Chloroform | 83 | 3.904 | 3.900 | (0.935) | 200191 | 21.4140 | 21.41 |
| | 29 Bromochloromethane | 128 | 3.795 | 3.791 | (0.908) | 62347 | 19.6878 | 19.68 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 265871 | 49.4857 | 49.48 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 173731 | 23.4225 | 23.42 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.861) | 145272 | 24.6274 | 24.62 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 157919 | 23.1973 | 23.19 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 145154 | 23.0437 | 23.04 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 320690 | 56.5177 | 56.51 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.961 | (1.000) | 830877 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.908) | 419094 | 21.1225 | 21.12 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 123594 | 21.9622 | 21.96 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 154654 | 20.7694 | 20.76 |
| | 40 Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.342) | 88133 | 23.1010 | 23.10(a) |
| | 41 2-Chloroethylvinyl ether | 63 | 6.048 | 6.044 | (1.218) | 97244 | 45.9040 | 45.90 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 107530 | 20.3738 | 20.37 |
| | 43 2-Nitropropane | 43 | 5.969 | 5.965 | (1.429) | 33242 | 23.5271 | 23.52 |
| | 44 Dibromomethane | 93 | 5.549 | 5.549 | (1.118) | 74023 | 20.6344 | 20.63 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 193526 | 45.9713 | 45.97 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 187057 | 21.3902 | 21.39 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 787598 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 965112 | 49.5893 | 49.58 |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.351) | 91967 | 23.5050 | 23.50(a) |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 467271 | 21.4645 | 21.46 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.346) | 161219 | 22.2147 | 22.21 |
| | 52 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 132175 | 46.1481 | 46.14 |
| | 53 1,1,2-Trichloroethane | 83 | 6.835 | 6.839 | (0.891) | 87588 | 20.0553 | 20.05 |
| | 54 1,3-Dichloropropane | 76 | 6.981 | 6.981 | (0.911) | 179265 | 20.8537 | 20.85 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 131480 | 20.8590 | 20.85 |
| | 56 Tetrachloroethene | 164 | 6.929 | 6.925 | (0.904) | 102859 | 22.8363 | 22.83 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 116619 | 21.3570 | 21.35 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 103019 | 25.6562 | 25.65(M) |
| | 59 Chlorobenzene | 112 | 7.694 | 7.690 | (1.003) | 315040 | 20.4029 | 20.40 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 119792 | 20.8467 | 20.84 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.795 | (1.017) | 164775 | 22.6542 | 22.65 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 412242 | 43.9661 | 43.96 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 197481 | 21.3392 | 21.33 |
| | 64 Styrene | 104 | 8.256 | 8.256 | (1.077) | 336010 | 21.6620 | 21.66 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 88588 | 20.2867 | 20.28 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 509532 | 24.0995 | 24.09 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 142458 | 20.2504 | 20.25 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 373310 | 51.3148 | 51.31 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 441371 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 111214 | 22.6451 | 22.64(M) |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 37068 | 21.8018 | 21.80(a) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 602561 | 24.6466 | 24.64 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 147985 | 20.4361 | 20.43 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 435141 | 24.0935 | 24.09 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 367769 | 22.9239 | 22.92 |
| 77 | 4-Chlorotoluene | 91 | 9.069 | 9.069 (0.939) | 428232 | 23.4149 | 23.41 |

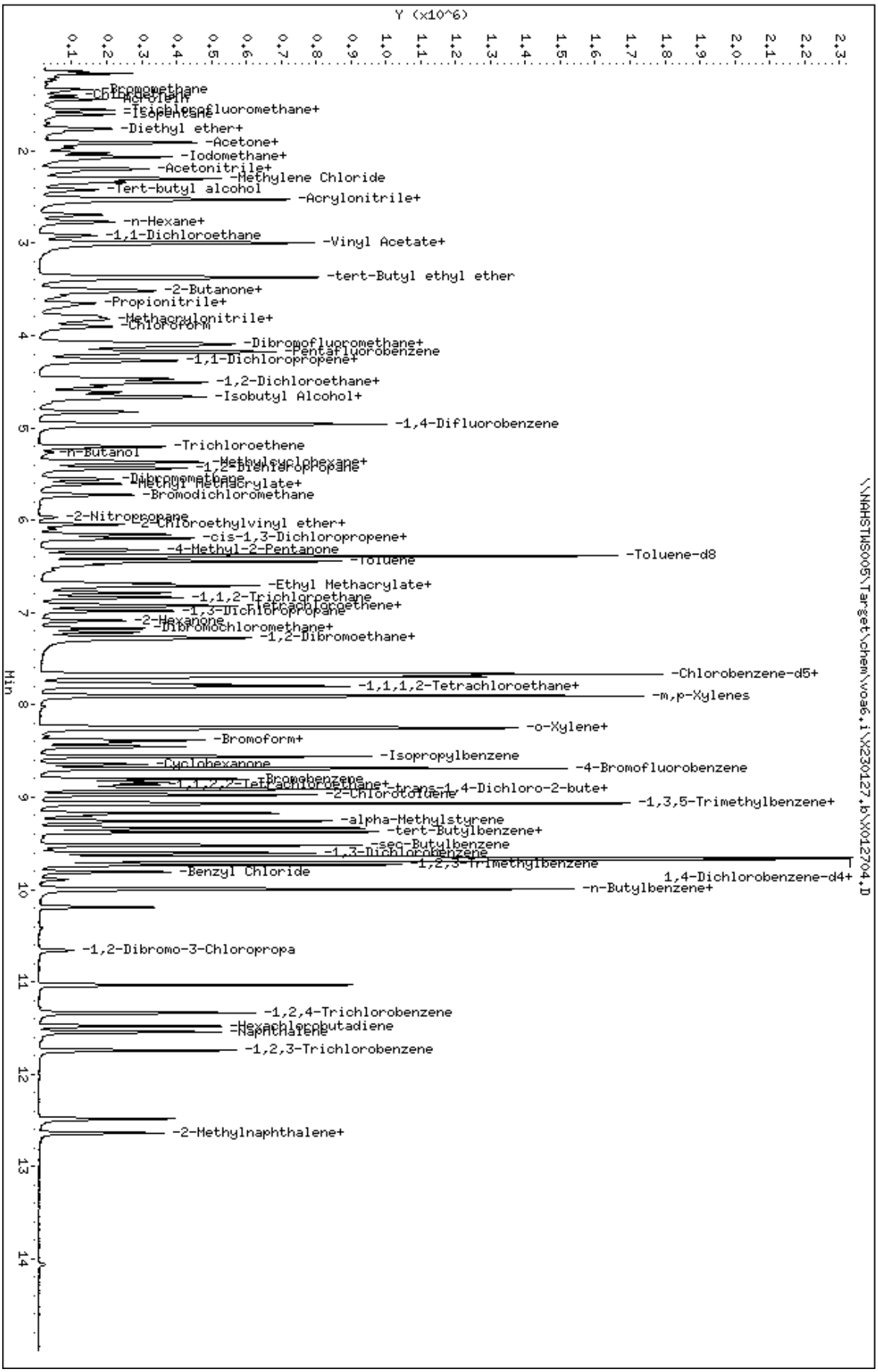
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 368773 | 24.9445 | 24.94 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 439792 | 23.1428 | 23.14 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 516621 | 26.2640 | 26.26 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 458894 | 26.0344 | 26.03 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.605 | (0.994) | 263971 | 21.9628 | 21.96 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.680 | 9.680 | (1.002) | 280076 | 21.3546 | 21.35 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 227712 | 20.1735 | 20.17 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 406242 | 24.8405 | 24.84 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 260451 | 21.0410 | 21.04 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.659 | 10.655 | (1.103) | 23634 | 21.0671 | 21.06 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.334 | (1.173) | 178543 | 22.8556 | 22.85 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 86284 | 25.0457 | 25.04 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 377814 | 21.2569 | 21.25 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.738 | (1.215) | 158677 | 21.2088 | 21.20 |
| 146 | Methyl acetate | 43 | 2.228 | 2.224 | (0.533) | 54939 | 21.8210 | 21.82 |
| 138 | Freon TF | 101 | 1.913 | 1.913 | (0.458) | 89026 | 21.6755 | 21.67 |
| 141 | Cyclohexane | 56 | 4.118 | 4.117 | (0.986) | 135638 | 24.7043 | 24.70(M) |
| 142 | Tetrahydrofuran | 42 | 3.844 | 3.836 | (0.920) | 29941 | 41.2413 | 41.24 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.373 | (1.083) | 260564 | 25.6193 | 25.61 |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 23831 | 465.941 | 465.94 |
| 132 | n-Butanol | 56 | 5.261 | 5.253 | (1.259) | 25453 | 392.671 | 392.67(a) |
| 131 | Methyl Acrylate | 55 | 3.686 | 3.683 | (0.882) | 88331 | 23.2533 | 23.25 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.287) | 260564 | 24.7279 | 24.72 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 108787 | 27.0036 | 27.00 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 67773 | 18.1279 | 18.12 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.419 | (0.580) | 191302 | 493.772 | 493.77 |
| 149 | Isopropyl alcohol | 45 | 2.090 | 2.086 | (0.500) | 101587 | 502.074 | 502.07 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.993 | (0.717) | 313640 | 21.6088 | 21.60 |
| 160 | 2-Methylnaphthalene | 142 | 12.638 | 12.634 | (1.308) | 150640 | 17.5915 | 17.59 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 472947 | 22.2519 | 22.25 |
| 167 | Ethanol | 45 | 1.696 | 1.700 | (0.406) | 16206 | 442.782 | 442.78 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.104) | 176086 | 59.3085 | 59.30 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 174855 | 469.231 | 469.23 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.116) | 351918 | 21.8198 | 21.81 |
| 175 | tert-Butyl ethyl ether | 59 | 3.368 | 3.371 | (0.806) | 337116 | 21.8581 | 21.85 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.104) | 176086 | 585.974 | 585.97 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.351) | 348012 | 442.532 | 442.53 |
| 180 | 1-Methylnaphthalene | 142 | 12.638 | 12.634 | (1.308) | 150640 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 74230 | 19.3303 | 19.33 |
| 152 | Amyl alcohol | 42 | 6.903 | 6.899 | (0.900) | 31644 | 406.303 | 406.30 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 13059 | 18.0255 | 18.02 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.419) | 13812 | 39.2553 | 39.25 |
| 161 | 3-Methyl-1-butanol | 55 | 6.907 | 6.899 | (0.901) | 29209 | 375.108 | 375.10 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.248 | (1.076) | 229196 | 22.2775 | 22.27 |
| 182 | Epichlorohydrin | 57 | 6.093 | 6.093 | (1.227) | 33516 | 91.4457 | 91.44 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 218310 | 41.5556 | 41.55 |
| M 95 | Xylenes (total) | 106 | | | | 609723 | 65.3052 | 65.30 |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 206476 | 21.1129 | 21.11 |
| 130 | Ethyl Acetate | 43 | 3.653 | 3.645 | (0.874) | 98369 | 22.5305 | 22.53 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 100380 | 545.208 | 545.20 |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 32694 | 21.9338 | 21.93 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.384) | 56743 | | (a) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 188 Isopropyl acetate | 43 | 4.672 | 4.672 (0.941) | 293232 | 22.7157 | 22.71 |
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 195372 | 21.2733 | 21.27 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 189 n-Butyl acetate | 43 | 7.214 | 7.210 | (0.941) | 163191 | 24.1206 | 24.12 |
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 108787 | 528.978 | 528.97 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 78697 | 224.604 | 224.60 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 234273 | 22.3724 | 22.37 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 229682 | 21.5473 | 21.54 |
| 168 1-Propanol | 59 | 2.993 | 2.997 | (0.716) | 35537 | 388.640 | 388.63 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X230127.b\X012704.D
Date : 27-JAN-2023 08:53
Client ID: VLCSW-230176
Sample Info: VLCSW-230127;VLCSW-230176;3;;LCS
Purge Volume: 5.0
Column phase: DB624

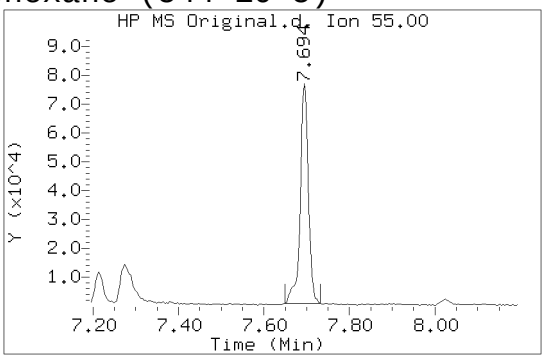
Instrument: voa6.i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012704.D
Inj Date : 27-JAN-2023 08:53
InstruID : voa6.i
LabSampID : VLCSW-230127

## 1-Chlorohexane (544-10-5)

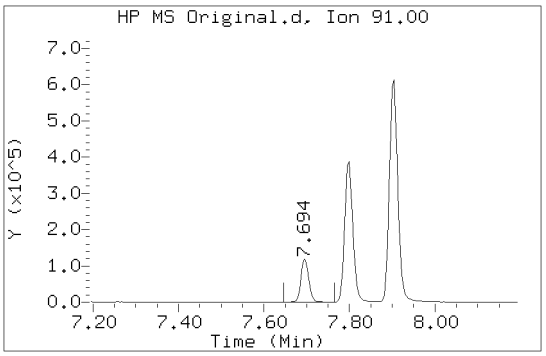
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13-Feb-2023
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linh
pham




### BEFORE

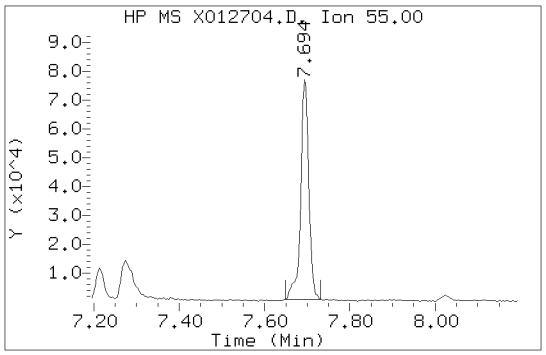
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### Reason Code:

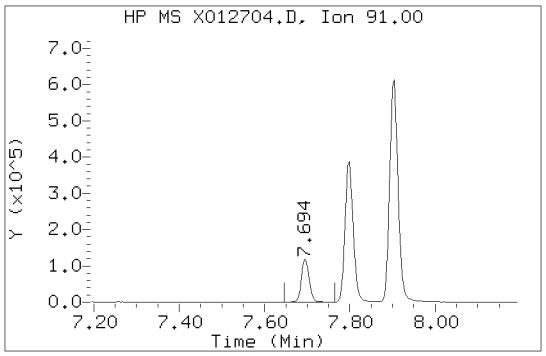
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### AFTER

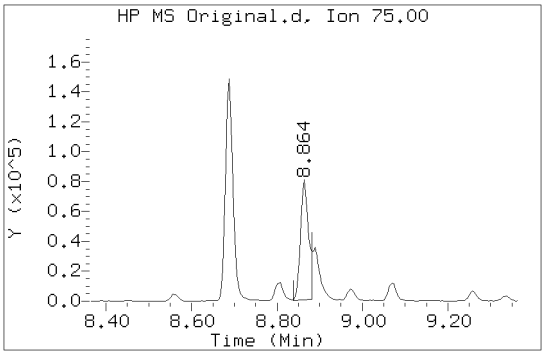
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## 1,2,3-Trichloropropane (96-18-4)

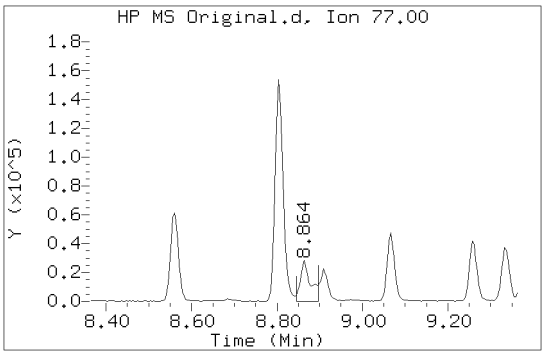
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pham




### BEFORE

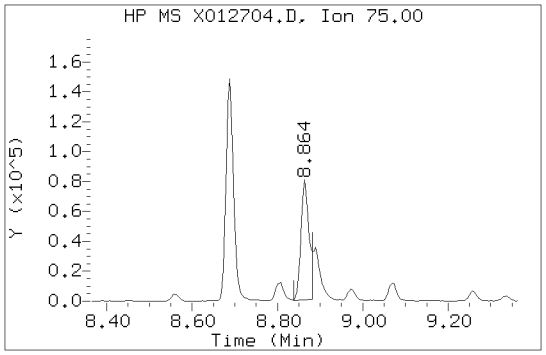
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### Reason Code:

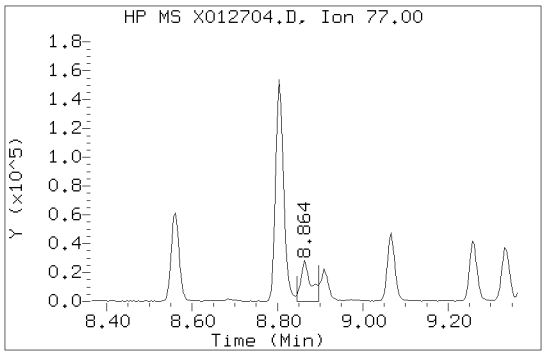
### AFTER

MASS
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AREA
111214
HEIGHT
80352
14-Feb-2023
11:45
linh
pham




### AFTER

MASS
77
AREA
48650
HEIGHT
28179
14-Feb-2023
11:45
linh
pham

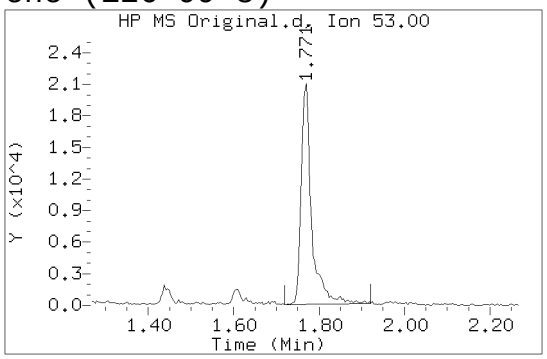


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Inj Date : 27-JAN-2023 08:53
InstruID : voa6.i
LabSampID : VLCSW-230127

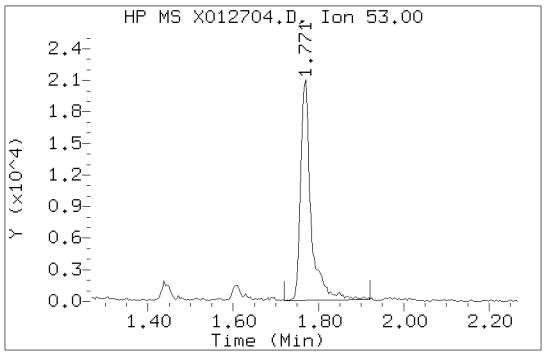
## Chloroprene (126-99-8)

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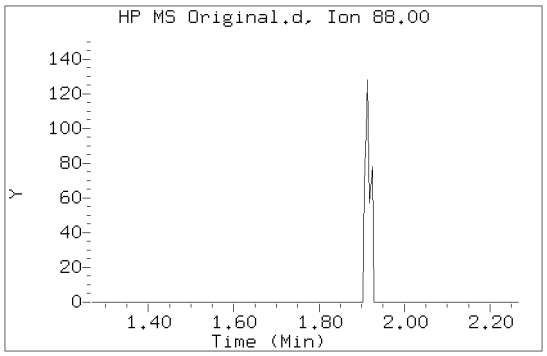
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AREA
36616
HEIGHT
20969
13-Feb-2023
13:42
linh
pham



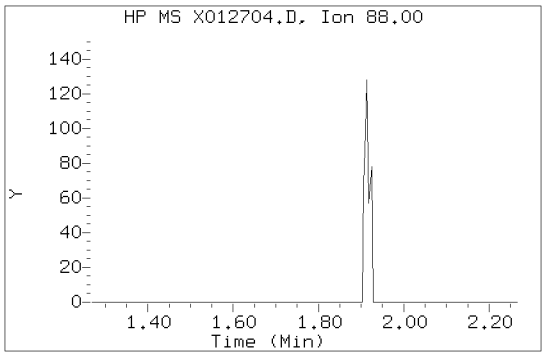

**AFTER**
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53
AREA
36616
HEIGHT
20969
14-Feb-2023
11:45
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**BEFORE**
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88
AREA
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HEIGHT
0
13-Feb-2023
13:42
linh
pham



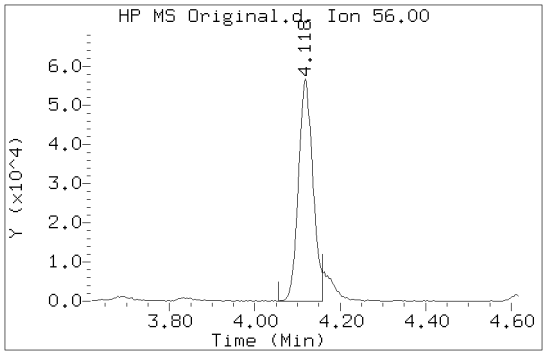

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14-Feb-2023
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pham



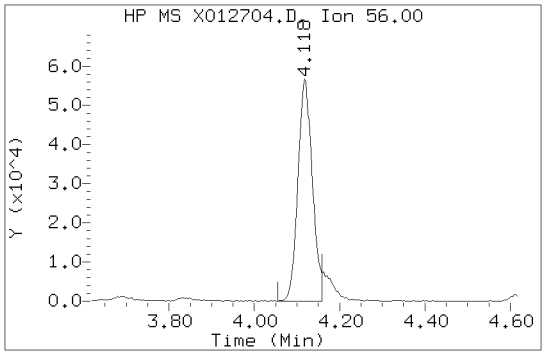

## Cyclohexane (110-82-7)

Reason Code:

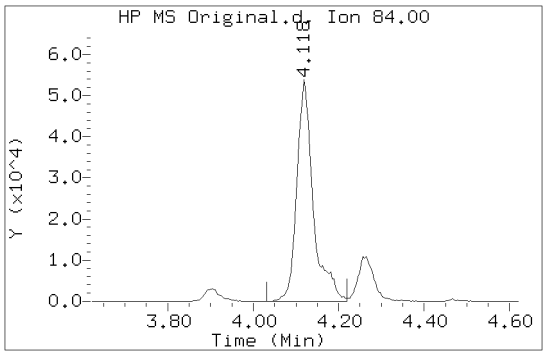
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56
AREA
135638
HEIGHT
56718
13-Feb-2023
13:42
linh
pham



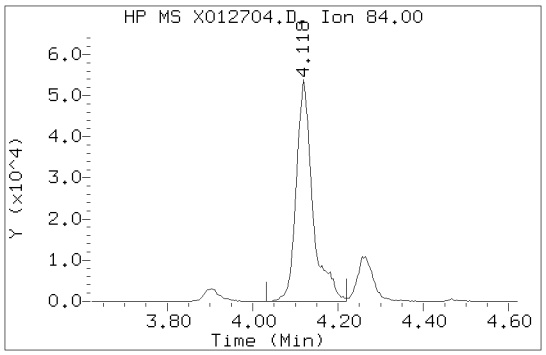

**AFTER**
MASS
56
AREA
135638
HEIGHT
56718
14-Feb-2023
11:45
linh
pham




**BEFORE**
MASS
84
AREA
146461
HEIGHT
53888
13-Feb-2023
13:42
linh
pham




**AFTER**
MASS
84
AREA
146461
HEIGHT
53888
14-Feb-2023
11:45
linh
pham



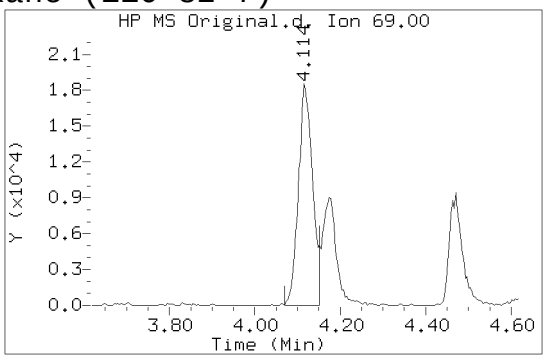
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Inj Date : 27-JAN-2023 08:53
InstruID : voa6.i
LabSampID : VLCSW-230127

Cyclohexane (110-82-7)

Reason Code:

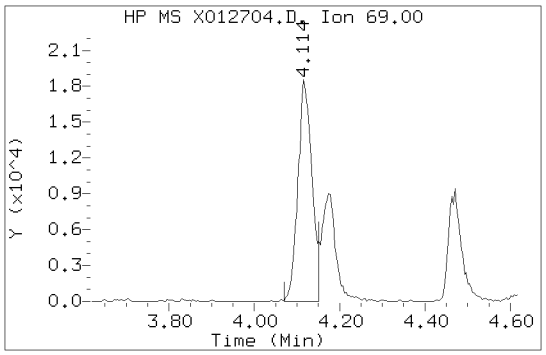
BEFORE

MASS
69
AREA
43477
HEIGHT
18552
13-Feb-2023
13:42
linh
pham




AFTER

MASS
69
AREA
43477
HEIGHT
18552
14-Feb-2023
11:45
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012706.D  Page 1
Report Date: 13-Feb-2023 13:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012706.D
Lab Smp Id: VBLKW-230127
Inj Date  : 27-JAN-2023 09:35
Operator  : PC                              Inst ID: voa6.i
Smp Info  : VBLKW-230127;VBLKW-230127;3;;BLANK
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\8260W.m
Meth Date : 13-Feb-2023 13:49 voa6.i        Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04               Cal File: X121608.D
Als bottle: 6                               QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE                          Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 682611 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.091 | 4.091 | (0.980) | 302222 | 46.0967 | 46.09 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 349789 | 50.5585 | 50.55 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 969189 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 865426 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.385 | 6.386 | (0.833) | 1120825 | 52.4110 | 52.41 |
| $ 69 4-Bromofluorobenzene | 95 | 8.691 | 8.687 | (1.133) | 413223 | 51.6926 | 51.69 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 464238 | 50.0000 | |

01241288

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012706.D



Date : 27-JAN-2023 09:35

Client ID:

Instrument: voa6.i

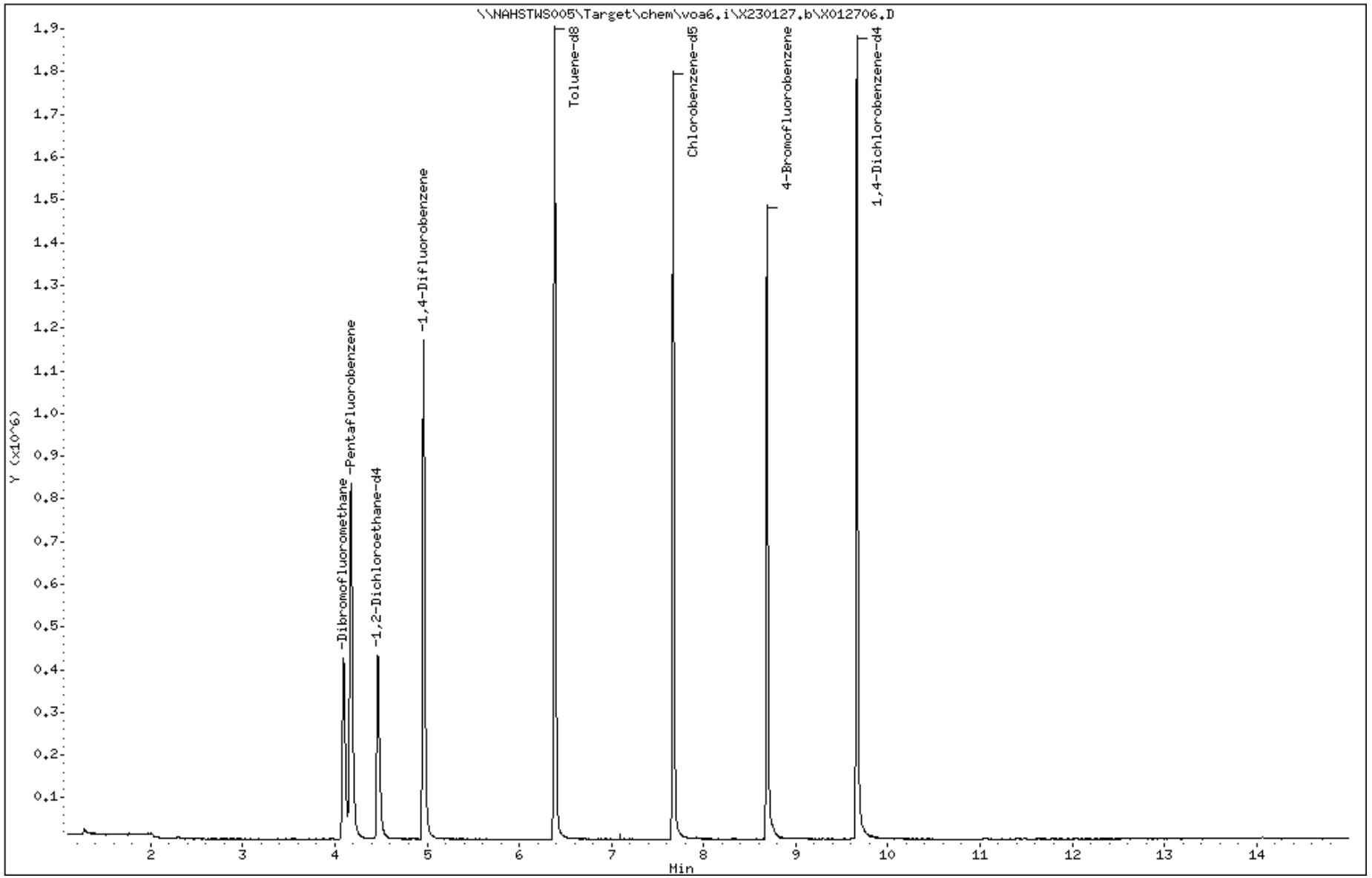
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Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012706.D
Inj Date  : 27-JAN-2023 09:35
InstruID  : voa6.i
LabSampID : VBLKW-230127

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012708.D  Page 1
Report Date: 13-Feb-2023 13:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012708.D
Lab Smp Id: HS23011212-02MS
Inj Date  : 27-JAN-2023 10:18
Operator  : PC                              Inst ID: voa6.i
Smp Info  : HS23011212-02MS;HS23011212-02MS;3;;MS
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\8260W.m
Meth Date : 13-Feb-2023 13:49 voa6.i     Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04            Cal File: X121608.D
Als bottle: 8                            QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE                       Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 684119 | 50.0000 | |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 64276 | 13.7207 | 13.72 |
| 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 88750 | 15.9159 | 15.91(R) |
| 4 | Propionitrile | 54 | 3.645 | 3.642 | (0.873) | 103634 | 148.463 | 148.46(a) |
| 5 | Vinyl Chloride | 62 | 1.141 | 1.137 | (0.273) | 91236 | 15.2667 | 15.26(R) |
| 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 64875 | 15.6104 | 15.61(R) |
| 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 59656 | 14.3418 | 14.34(R) |
| 8 | Trichlorofluoromethane | 101 | 1.557 | 1.554 | (0.373) | 152229 | 18.2027 | 18.20 |
| 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 12065 | 27.8812 | 27.88 |
| 10 | Acetone | 43 | 1.970 | 1.966 | (0.472) | 47544 | 24.7422 | 24.74 |
| 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.458) | 86096 | 16.5819 | 16.58(R) |
| 12 | Isobutyl Alcohol | 43 | 4.672 | 4.669 | (1.119) | 251038 | 326.242 | 326.24(a) |
| 13 | Acetonitrile | 39 | 2.194 | 2.191 | (0.526) | 101118 | 162.404 | 162.40(a) |
| 14 | Allyl Chloride | 41 | 2.194 | 2.195 | (0.526) | 181988 | 15.3466 | 15.34(a) |
| 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 192870 | 31.3816 | 31.38 |
| 16 | Acrylonitrile | 53 | 2.532 | 2.528 | (0.607) | 55192 | 31.3418 | 31.34 |
| 17 | Methylene Chloride | 84 | 2.299 | 2.300 | (0.551) | 106236 | 14.9167 | 14.91(R) |
| 18 | Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.606) | 252474 | 14.8558 | 14.85 |
| 19 | Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 464779 | 34.2137 | 34.21(R) |
| 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 99248 | 17.0794 | 17.07(R) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.717) | 418689 | 28.0645 | 28.06 |
| 22 1,1-Dichloroethane | 63 | 2.914 | 2.918 (0.698) | 169326 | 16.6033 | 16.60(R) |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 33680 | 14.4792 | 14.47(M) |
| | 24 2-Butanone | 43 | 3.574 | 3.570 | (0.856) | 58057 | 30.6762 | 30.67(R) |
| | 25 Methacrylonitrile | 41 | 3.821 | 3.814 | (0.916) | 68129 | 14.0642 | 14.06(a) |
| | 26 2,2-Dichloropropane | 77 | 3.506 | 3.503 | (0.840) | 120403 | 13.9050 | 13.90 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.522 | (0.844) | 111685 | 15.7929 | 15.79(R) |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 201976 | 17.6700 | 17.67(R) |
| | 29 Bromochloromethane | 128 | 3.791 | 3.788 | (0.908) | 56940 | 14.7056 | 14.70 |
| $ | 30 Dibromofluoromethane | 113 | 4.091 | 4.091 | (0.980) | 304142 | 46.2880 | 46.28(RR) |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.977) | 174494 | 19.2407 | 19.24(R) |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 141842 | 20.7469 | 20.74 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.549 | (0.918) | 149856 | 18.9928 | 18.99(R) |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 148293 | 20.3122 | 20.31(R) |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 353528 | 50.9840 | 50.98(RR) |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 962994 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.909) | 405268 | 17.6234 | 17.62(R) |
| | 38 Trichloroethene | 130 | 5.205 | 5.201 | (1.049) | 119310 | 18.2923 | 18.29(R) |
| | 39 Bromodichloromethane | 83 | 5.726 | 5.722 | (1.154) | 145999 | 16.9171 | 16.91(R) |
| | 40 Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.343) | 69713 | 14.9448 | 14.94(a) |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 101828 | 16.6465 | 16.64(R) |
| | 43 2-Nitropropane | 43 | 5.966 | 5.966 | (1.429) | 26193 | 15.1618 | 15.16 |
| | 44 Dibromomethane | 93 | 5.550 | 5.550 | (1.119) | 69731 | 16.7712 | 16.77 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 178485 | 37.9337 | 37.93(R) |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 162991 | 16.0811 | 16.08(R) |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 880296 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.386 | (0.833) | 1123194 | 51.6346 | 51.63(RR) |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 67994 | 14.9938 | 14.99(a) |
| | 50 Toluene | 91 | 6.445 | 6.446 | (0.841) | 448879 | 18.4484 | 18.44(R) |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.347) | 138153 | 16.4247 | 16.42(R) |
| | 52 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 117013 | 36.5523 | 36.55(R) |
| | 53 1,1,2-Trichloroethane | 83 | 6.835 | 6.835 | (0.891) | 81079 | 16.6100 | 16.60(R) |
| | 54 1,3-Dichloropropane | 76 | 6.981 | 6.978 | (0.911) | 166022 | 17.2795 | 17.27 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 121183 | 17.2009 | 17.20(R) |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 99509 | 19.7662 | 19.76(R) |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 105535 | 17.2919 | 17.29 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 97737 | 21.0014 | 21.00 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.690 | (1.003) | 302409 | 17.5225 | 17.52(R) |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.773 | (1.014) | 112217 | 17.4721 | 17.47 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 156461 | 19.2459 | 19.24(R) |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 391557 | 37.3625 | 37.36(R) |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 186095 | 17.9913 | 17.99(R) |
| | 64 Styrene | 104 | 8.260 | 8.256 | (1.077) | 310961 | 17.9361 | 17.93(R) |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 80619 | 16.5177 | 16.51(R) |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 492383 | 20.8360 | 20.83 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 131204 | 16.8680 | 16.86(R) |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 423059 | 52.0286 | 52.02(RR) |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 488016 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 137320 | 25.2882 | 25.28 |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 30649 | 16.1282 | 16.12(a) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.908 | (0.922) | 572143 | 21.1656 | 21.16 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 140662 | 17.5682 | 17.56 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 410854 | 20.5744 | 20.57 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 351432 | 19.8118 | 19.81 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 77 | 4-Chlorotoluene | 91 | 9.069 | 9.070 (0.939) | 396598 | 19.6125 | 19.61 |
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 (0.966) | 359902 | 22.0176 | 22.01 |

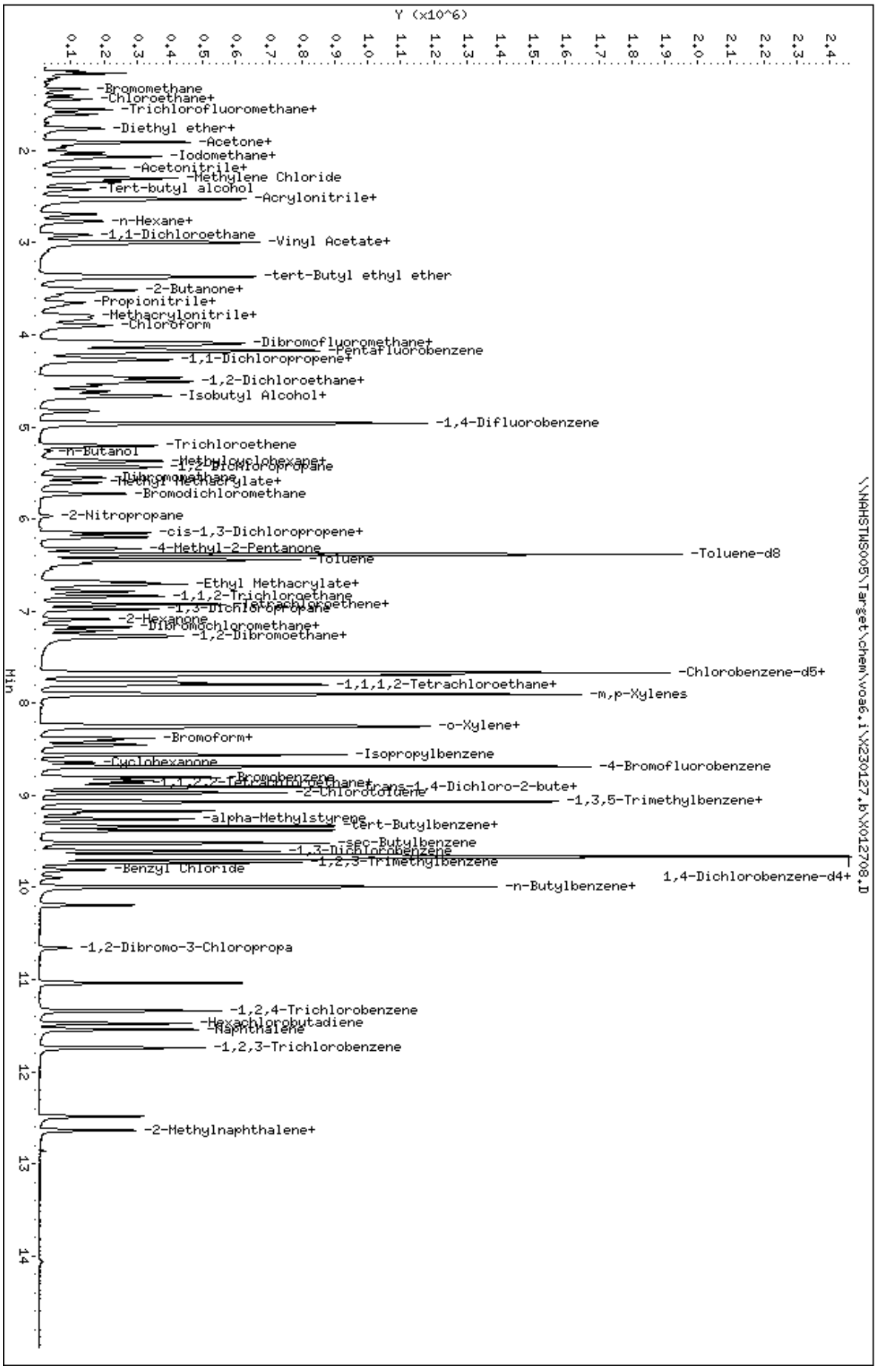
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.377 | (0.971) | 410436 | 19.5337 | 19.53 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 490204 | 22.5391 | 22.53 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 421583 | 21.6315 | 21.63 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 247129 | 18.5962 | 18.59 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 262051 | 18.0706 | 18.07 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 121958 | 11.0695 | 11.06 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 359136 | 20.2171 | 20.21 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 244353 | 17.8537 | 17.85 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.659 | 10.655 | (1.103) | 20762 | 16.7571 | 16.75 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.334 | (1.173) | 159775 | 18.4982 | 18.49 |
| 91 | Hexachlorobutadiene | 225 | 11.476 | 11.480 | (1.188) | 75683 | 19.8822 | 19.88 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 350828 | 17.8520 | 17.85 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.739 | (1.215) | 148030 | 17.8946 | 17.89 |
| 146 | Methyl acetate | 43 | 2.228 | 2.225 | (0.534) | 44722 | 14.5278 | 14.52 |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.458) | 89125 | 17.7474 | 17.74 |
| 141 | Cyclohexane | 56 | 4.118 | 4.118 | (0.987) | 154447 | 23.0934 | 23.09 |
| 142 | Tetrahydrofuran | 42 | 3.840 | 3.836 | (0.920) | 24600 | 26.6743 | 26.67 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.373 | (1.084) | 208481 | 17.6861 | 17.68 |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.595 | (1.341) | 21374 | 341.789 | 341.78 |
| 132 | n-Butanol | 56 | 5.265 | 5.253 | (1.261) | 23188 | 303.986 | 303.98(a) |
| 131 | Methyl Acrylate | 55 | 3.686 | 3.679 | (0.883) | 72303 | 15.5672 | 15.56 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.288) | 208481 | 16.8142 | 16.81 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 92121 | 18.7020 | 18.70 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 56678 | 12.3991 | 12.39 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.419 | (0.581) | 175495 | 370.472 | 370.47 |
| 149 | Isopropyl alcohol | 45 | 2.090 | 2.086 | (0.501) | 94629 | 382.506 | 382.50 |
| 156 | Diisopropyl ether | 45 | 2.993 | 2.993 | (0.717) | 256538 | 14.4556 | 14.45 |
| 160 | 2-Methylnaphthalene | 142 | 12.638 | 12.635 | (1.308) | 129295 | 13.6557 | 13.65 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 361099 | 15.3656 | 15.36 |
| 167 | Ethanol | 45 | 1.696 | 1.696 | (0.406) | 15461 | 344.766 | 344.76 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.609 | (1.105) | 132566 | 36.5181 | 36.51 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.289 | 7.285 | (0.951) | 127144 | 305.267 | 305.26 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.117) | 288151 | 14.6121 | 14.61 |
| 175 | tert-Butyl ethyl ether | 59 | 3.368 | 3.368 | (0.807) | 271998 | 14.4239 | 14.42 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.609 | (1.105) | 132566 | 360.803 | 360.80 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 252534 | 277.066 | 277.06 |
| 180 | 1-Methylnaphthalene | 142 | 12.638 | 12.635 | (1.308) | 129295 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 70597 | 15.0359 | 15.03 |
| 152 | Amyl alcohol | 42 | 6.910 | 6.899 | (0.901) | 25238 | 289.928 | 289.92 |
| 158 | Dichlorofluoromethane | 67 | 1.523 | 1.524 | (0.365) | 11823 | 13.3471 | 13.34 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 14557 | 33.8375 | 33.83 |
| 161 | 3-Methyl-1-butanol | 55 | 6.910 | 6.899 | (0.901) | 28290 | 325.049 | 325.04 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.249 | (1.076) | 176228 | 15.3254 | 15.32 |
| 182 | Epichlorohydrin | 57 | 6.101 | 6.089 | (1.230) | 5468 | 15.0198 | 15.01 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 210933 | 32.8723 | 32.87 |
| M 95 | Xylenes (total) | 106 | | | | 577652 | 55.3538 | 55.35(R) |
| 145 | alpha-Methylstyrene | 118 | 9.261 | 9.257 | (0.958) | 112960 | 10.4466 | 10.44 |
| 130 | Ethyl Acetate | 43 | 3.653 | 3.649 | (0.875) | 81844 | 15.3315 | 15.33 |
| 134 | Cyclohexanone | 55 | 8.646 | 8.642 | (0.895) | 57483 | 282.374 | 282.37(a) |
| 185 | Isoprene | 39 | 1.767 | 1.763 | (0.423) | 26043 | 14.2896 | 14.28 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 43374 | | (a) |
| 188 | Isopropyl acetate | 43 | 4.672 | 4.669 | (0.942) | 253597 | 16.9501 | 16.95 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 154269 | 15.0289 | 15.02 |
| 189 n-Butyl acetate | 43 | 7.214 | 7.210 (0.941) | 125117 | 16.5456 | 16.54 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 92121 | 366.356 | 366.35 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 171815 | 14.6800 | 14.68 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.194 | (0.808) | 165496 | 13.8909 | 13.89 |
| 168 1-Propanol | 59 | 2.993 | 2.989 | (0.717) | 30410 | 271.999 | 271.99 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012708.D
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Client ID:
Sample Info: HS23011212-02MS;HS23011212-02MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

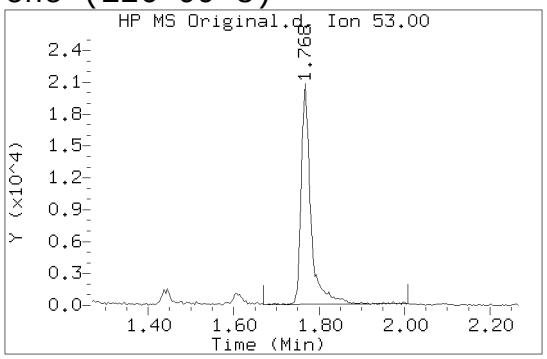
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Inj Date : 27-JAN-2023 10:18
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LabSampID : HS23011212-02MS

Chloroprene (126-99-8)

Reason Code:

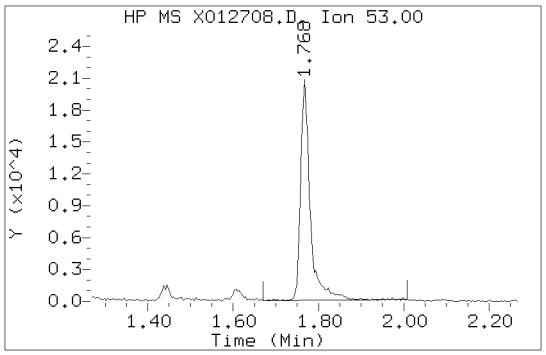
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Bagsby



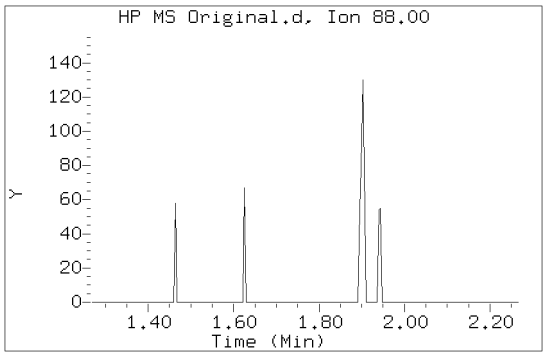

AFTER

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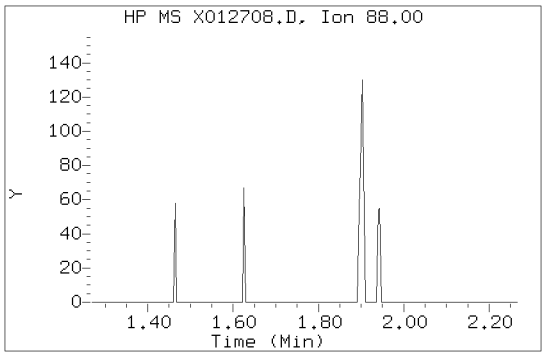

BEFORE

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AFTER

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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012709.D  Page 1
Report Date: 14-Feb-2023 11:46

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012709.D
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Inj Date  : 27-JAN-2023 10:39
Operator  : PC                              Inst ID: voa6.i
Smp Info  : HS23011212-02MSD;HS23011212-02MSD;3;;MSD
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\8260W.m
Meth Date : 13-Feb-2023 13:50 voa6.i     Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04            Cal File: X121608.D
Als bottle: 8                            QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE                       Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.174 | 4.177 | (1.000) | 684294 | 50.0000 | |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 60228 | 12.8781 | 12.87 |
| 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 83475 | 15.0981 | 15.09(R) |
| 4 | Propionitrile | 54 | 3.649 | 3.645 | (0.874) | 105930 | 151.713 | 151.71(a) |
| 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 82810 | 13.8532 | 13.85(R) |
| 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 63563 | 15.3269 | 15.32(R) |
| 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 56895 | 13.6745 | 13.67(R) |
| 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 140807 | 16.8326 | 16.83 |
| 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 11609 | 26.9280 | 26.92 |
| 10 | Acetone | 43 | 1.970 | 1.966 | (0.472) | 49174 | 25.5850 | 25.58 |
| 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.909 | (0.458) | 80268 | 15.4555 | 15.45(R) |
| 12 | Isobutyl Alcohol | 43 | 4.669 | 4.672 | (1.119) | 242031 | 314.457 | 314.45(a) |
| 13 | Acetonitrile | 39 | 2.194 | 2.194 | (0.526) | 94503 | 151.741 | 151.74(a) |
| 14 | Allyl Chloride | 41 | 2.194 | 2.194 | (0.526) | 177740 | 14.9846 | 14.98(a) |
| 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 194811 | 31.6536 | 31.65 |
| 16 | Acrylonitrile | 53 | 2.532 | 2.528 | (0.607) | 55360 | 31.4291 | 31.42 |
| 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.551) | 100943 | 14.1699 | 14.16(R) |
| 18 | Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.606) | 251323 | 14.7843 | 14.78 |
| 19 | Carbon Disulfide | 76 | 2.063 | 2.067 | (0.494) | 435768 | 32.0700 | 32.06(R) |
| 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 91770 | 15.7885 | 15.78(R) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.717) | 412267 | 27.6270 | 27.62 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 165006 | 16.1756 | 16.17(R) |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 29950 | 12.8724 | 12.87(M) |
| | 24 2-Butanone | 43 | 3.574 | 3.570 | (0.856) | 58838 | 31.0410 | 31.04(R) |
| | 25 Methacrylonitrile | 41 | 3.821 | 3.814 | (0.916) | 69614 | 14.3671 | 14.36(a) |
| | 26 2,2-Dichloropropane | 77 | 3.503 | 3.503 | (0.839) | 113010 | 13.0479 | 13.04 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.522 | 3.521 | (0.844) | 107626 | 15.2150 | 15.21(R) |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 196876 | 17.2194 | 17.21(R) |
| | 29 Bromochloromethane | 128 | 3.791 | 3.791 | (0.908) | 57282 | 14.7901 | 14.79 |
| $ | 30 Dibromofluoromethane | 113 | 4.091 | 4.095 | (0.980) | 299860 | 45.6223 | 45.62(RR) |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.977) | 163427 | 18.0157 | 18.01(R) |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 131242 | 19.2478 | 19.24 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 147467 | 18.7400 | 18.74(R) |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 141910 | 19.4898 | 19.48(R) |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.470 | (1.070) | 349106 | 50.3369 | 50.33(RR) |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 960426 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.909) | 392045 | 17.0939 | 17.09(R) |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 114207 | 17.5567 | 17.55(R) |
| | 39 Bromodichloromethane | 83 | 5.726 | 5.722 | (1.154) | 141963 | 16.4934 | 16.49(R) |
| | 40 Methyl Methacrylate | 41 | 5.606 | 5.602 | (1.343) | 68372 | 14.6536 | 14.65(a) |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 98782 | 16.1917 | 16.19(R) |
| | 43 2-Nitropropane | 43 | 5.969 | 5.965 | (1.430) | 25558 | 14.7904 | 14.79 |
| | 44 Dibromomethane | 93 | 5.553 | 5.549 | (1.119) | 67980 | 16.3938 | 16.39 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 177579 | 37.8915 | 37.89(R) |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 160778 | 15.9052 | 15.90(R) |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.667 | (1.000) | 876804 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 1120042 | 51.6948 | 51.69(RR) |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 66208 | 14.6390 | 14.63(a) |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 430041 | 17.7445 | 17.74(R) |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.347) | 136606 | 16.2842 | 16.28(R) |
| | 52 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 118789 | 37.2548 | 37.25(R) |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 82207 | 16.9081 | 16.90(R) |
| | 54 1,3-Dichloropropane | 76 | 6.978 | 6.981 | (0.910) | 165034 | 17.2450 | 17.24 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 118511 | 16.8886 | 16.88(R) |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 95166 | 18.9788 | 18.97(R) |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 107632 | 17.7058 | 17.70 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 95155 | 20.5012 | 20.50 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.690 | (1.003) | 295669 | 17.2002 | 17.20(R) |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 108946 | 17.0304 | 17.03 |
| | 61 Ethylbenzene | 106 | 7.799 | 7.795 | (1.017) | 151930 | 18.7630 | 18.76(R) |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 378607 | 36.2707 | 36.27(R) |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 182457 | 17.7098 | 17.70(R) |
| | 64 Styrene | 104 | 8.260 | 8.256 | (1.077) | 302006 | 17.4890 | 17.48(R) |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 79870 | 16.4294 | 16.42(R) |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 473729 | 20.1265 | 20.12 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 129843 | 17.0902 | 17.09(R) |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 419528 | 51.8002 | 51.80(RR) |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 476674 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 138542 | 26.1203 | 26.12 |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 30677 | 16.2072 | 16.20(a) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 547572 | 20.7386 | 20.73 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 137522 | 17.5847 | 17.58 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 402384 | 20.6297 | 20.62 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 337074 | 19.4545 | 19.45 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 77 | 4-Chlorotoluene | 91 | 9.070 | 9.069 (0.939) | 389124 | 19.7007 | 19.70 |
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 (0.966) | 344786 | 21.5947 | 21.59 |

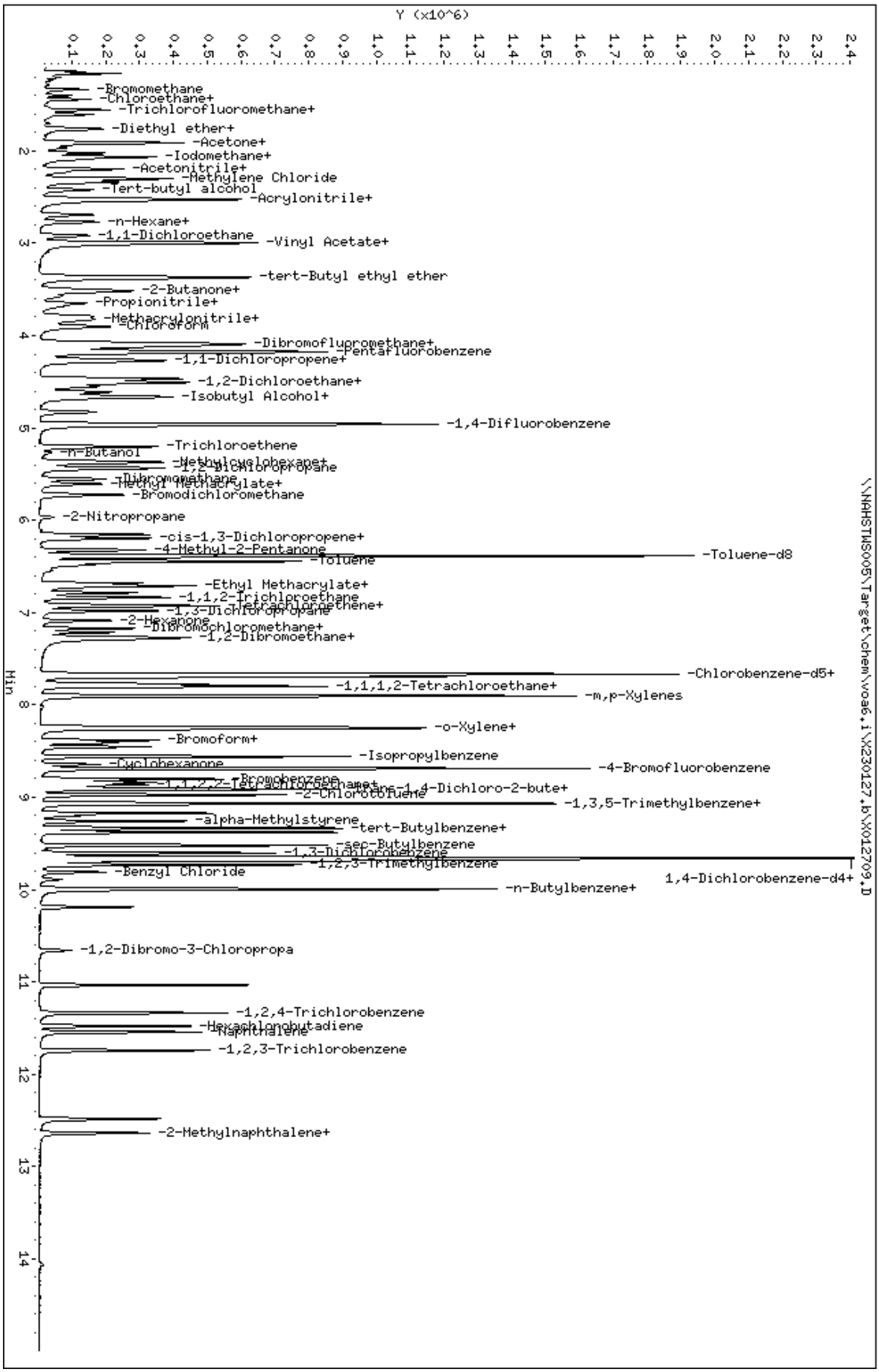
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.377 | (0.971) | 399774 | 19.4790 | 19.47 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 474896 | 22.3548 | 22.35 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 412155 | 21.6510 | 21.65 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.605 | (0.994) | 241168 | 18.5795 | 18.57 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.681 | 9.680 | (1.002) | 257086 | 18.1500 | 18.15 |
| 86 | Benzyl Chloride | 91 | 9.812 | 9.808 | (1.280) | 120272 | 10.9866 | 10.98 |
| 87 | n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 345219 | 19.9242 | 19.92 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 240537 | 17.9930 | 17.99 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.659 | 10.655 | (1.103) | 20995 | 17.3450 | 17.34 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.334 | (1.173) | 161074 | 19.0923 | 19.09 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 73507 | 19.7703 | 19.77 |
| 92 | Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 349302 | 18.1972 | 18.19 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.738 | (1.215) | 147633 | 18.2712 | 18.27 |
| 146 | Methyl acetate | 43 | 2.228 | 2.224 | (0.534) | 44128 | 14.3311 | 14.33 |
| 138 | Freon TF | 101 | 1.910 | 1.913 | (0.458) | 85890 | 17.0988 | 17.09 |
| 141 | Cyclohexane | 56 | 4.118 | 4.117 | (0.987) | 147778 | 22.1453 | 22.14 |
| 142 | Tetrahydrofuran | 42 | 3.844 | 3.836 | (0.921) | 24929 | 27.0657 | 27.06 |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.373 | (1.084) | 200140 | 17.0239 | 17.02 |
| 135 | 1,4-Dioxane | 88 | 5.595 | 5.598 | (1.340) | 21662 | 346.306 | 346.30 |
| 132 | n-Butanol | 56 | 5.265 | 5.253 | (1.261) | 23396 | 306.254 | 306.25(a) |
| 131 | Methyl Acrylate | 55 | 3.686 | 3.683 | (0.883) | 69039 | 14.8607 | 14.86 |
| 133 | Ethyl Acrylate | 55 | 5.377 | 5.373 | (1.288) | 200140 | 16.2111 | 16.21 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 86118 | 17.4788 | 17.47 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 59553 | 13.0247 | 13.02 |
| 148 | Tert-butyl alcohol | 59 | 2.423 | 2.419 | (0.581) | 178202 | 376.091 | 376.09 |
| 149 | Isopropyl alcohol | 45 | 2.090 | 2.086 | (0.501) | 95762 | 386.987 | 386.98 |
| 156 | Diisopropyl ether | 45 | 2.997 | 2.993 | (0.718) | 252534 | 14.2263 | 14.22 |
| 160 | 2-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 139417 | 15.0752 | 15.07 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 356453 | 15.5288 | 15.52 |
| 167 | Ethanol | 45 | 1.700 | 1.700 | (0.407) | 16590 | 370.087 | 370.08 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.105) | 131901 | 36.3256 | 36.32 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 118586 | 285.854 | 285.85 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.117) | 283929 | 14.3943 | 14.39 |
| 175 | tert-Butyl ethyl ether | 59 | 3.368 | 3.371 | (0.807) | 269067 | 14.2648 | 14.26 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.105) | 131901 | 358.901 | 358.90 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 252427 | 277.689 | 277.68 |
| 180 | 1-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 139417 | | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 63436 | 13.5073 | 13.50 |
| 152 | Amyl alcohol | 42 | 6.907 | 6.899 | (0.901) | 25366 | 292.559 | 292.55 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 9721 | 10.9714 | 10.97 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.420) | 12051 | 28.0052 | 28.00 |
| 161 | 3-Methyl-1-butanol | 55 | 6.910 | 6.899 | (0.901) | 26896 | 310.263 | 310.26 |
| 162 | Butyl acrylate | 55 | 8.252 | 8.248 | (1.076) | 176944 | 15.4489 | 15.44 |
| 182 | Epichlorohydrin | 57 | 6.104 | 6.093 | (1.230) | 4702 | 13.2946 | 13.29 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 199396 | 31.0036 | 31.00 |
| M 95 | Xylenes (total) | 106 | | | | 561064 | 53.9805 | 53.98(R) |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 106513 | 10.0847 | 10.08 |
| 130 | Ethyl Acetate | 43 | 3.653 | 3.645 | (0.875) | 78369 | 14.6768 | 14.67 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 58017 | 291.778 | 291.77(a) |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 23934 | 13.1291 | 13.12 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.385) | 40255 | | (a) |
| 188 | Isopropyl acetate | 43 | 4.669 | 4.672 | (0.941) | 242967 | 16.2830 | 16.28 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.455 | 8.451 (1.103) | 147832 | 14.4591 | 14.45 |
| 189 n-Butyl acetate | 43 | 7.214 | 7.210 (0.941) | 123242 | 16.3626 | 16.36 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | CONCENTRATIONS FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 86118 | 342.395 | 342.39 |
| 195 Methyl Amyl Ketone | 43 | 8.383 | 8.380 | (1.093) | 173148 | 14.8529 | 14.85 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 162468 | 13.6910 | 13.69 |
| 168 1-Propanol | 59 | 2.993 | 2.997 | (0.717) | 29218 | 261.270 | 261.27 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X230127.b\X012709.D
Date : 27-JAN-2023 10:39
Client ID:
Sample Info: HS230111212-02MSD;HS230111212-02MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

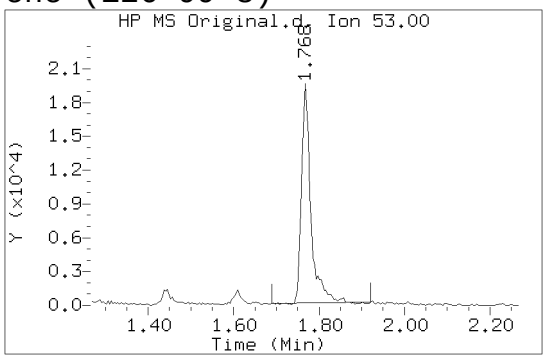
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Inj Date : 27-JAN-2023 10:39
InstruID : voa6.i
LabSampID : HS23011212-02MSD

Chloroprene (126-99-8)

Reason Code:

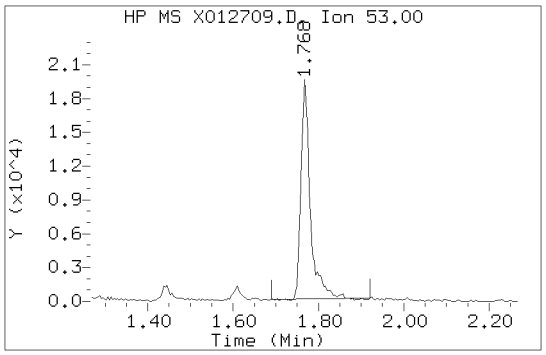
BEFORE

MASS
53
AREA
29950
HEIGHT
19446
13-Feb-2023
13:43
linh
pham



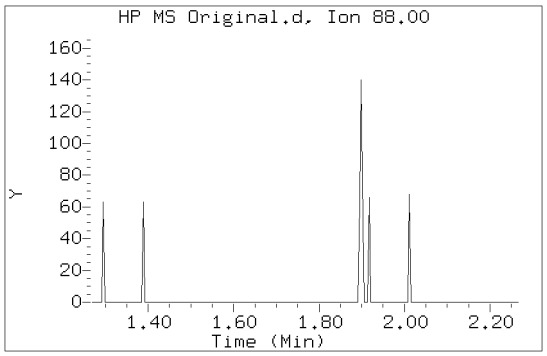

AFTER

MASS
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HEIGHT
19446
14-Feb-2023
11:46
linh
pham



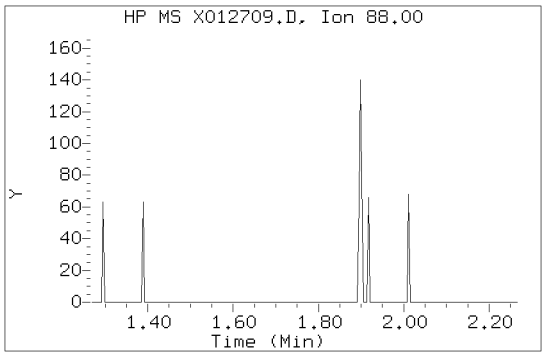

BEFORE

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:43
linh
pham




AFTER

MASS
88
AREA
0
HEIGHT
0
14-Feb-2023
11:46
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012710.D  Page 1
Report Date: 13-Feb-2023 13:50

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012710.D
Lab Smp Id: HS23011136-05  Client Smp ID: HS23011136-05
Inj Date  : 27-JAN-2023 11:00
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23011136-05;HS23011136-05;;;
Misc Info : V6;WATER;0;200;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\8260W.m
Meth Date : 13-Feb-2023 13:49 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 9
Dil Factor: 200.00000
Integrator: HP RTE  Compound Sublist: 8260-dryclean.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 200.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 674400 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.091 | 4.091 | (0.980) | 295980 | 45.6929 | 45.69 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 340474 | 49.8153 | 49.81 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 953078 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 861103 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 1102805 | 51.8273 | 51.82 |
| $ 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 392636 | 49.3667 | 49.36 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 432391 | 50.0000 | |
| 5 Vinyl Chloride | 62 | 1.141 | 1.137 | (0.274) | 45841 | 7.78119 | 1556.23 |
| 27 cis-1,2-Dichloroethene | 96 | 3.518 | 3.522 | (0.843) | 638066 | 91.5264 | 18305.28 |
| 38 Trichloroethene | 130 | 5.205 | 5.201 | (1.049) | 107610 | 16.6701 | 3334.02 |

01241309

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012710.D

Page 1

Date : 27-JAN-2023 11:00

Client ID: HS23011136-05

Instrument: voa6.i

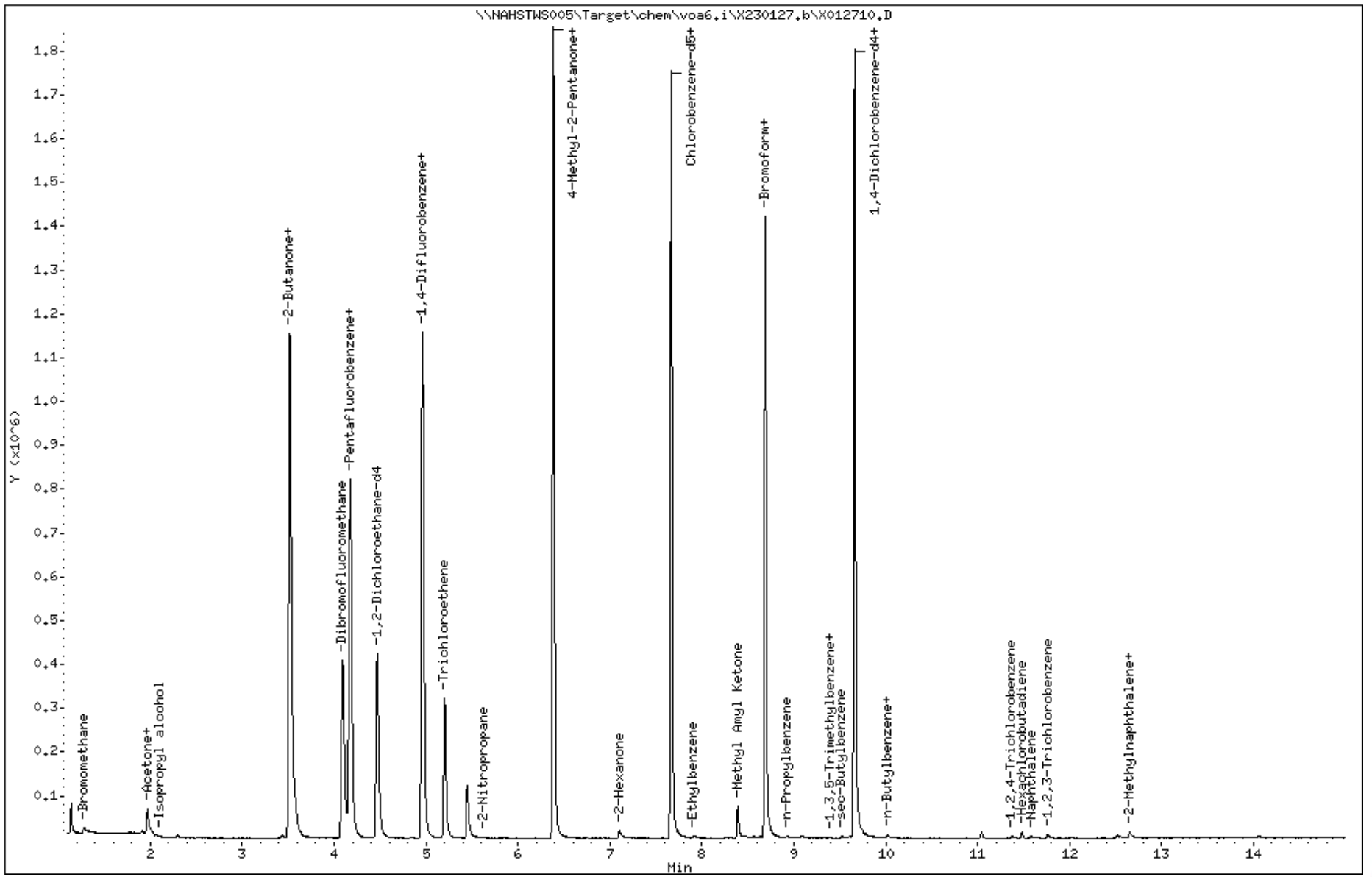
Sample Info: HS23011136-05;HS23011136-05;;;

Purge Volume: 5.0

Operator: FT

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012710.D

Date : 27-JAN-2023 11:00

Client ID: HS23011136-05

Instrument: voa6.i

Sample Info: HS23011136-05;HS23011136-05;;;

Purge Volume: 5.0

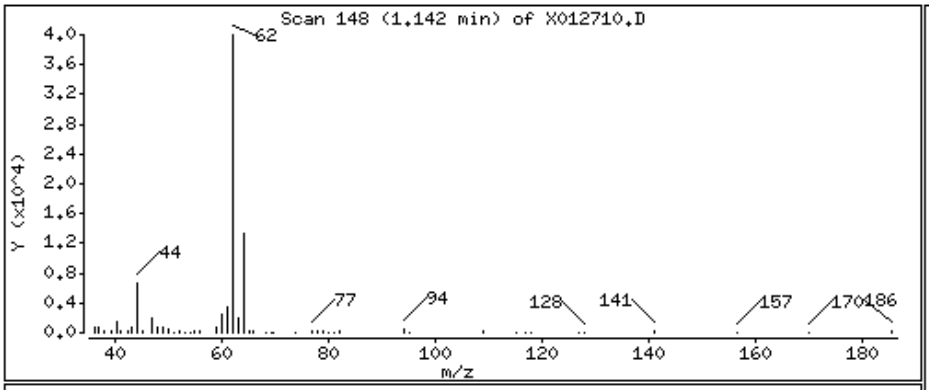
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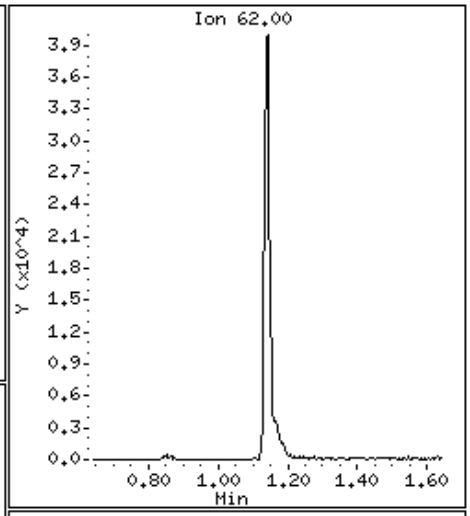
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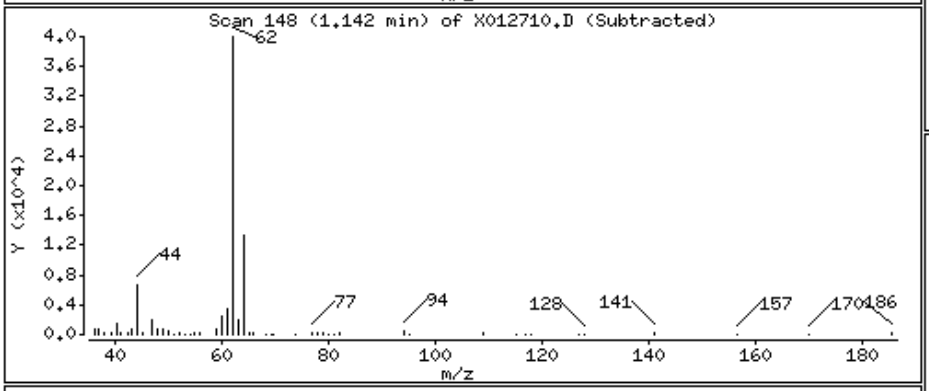
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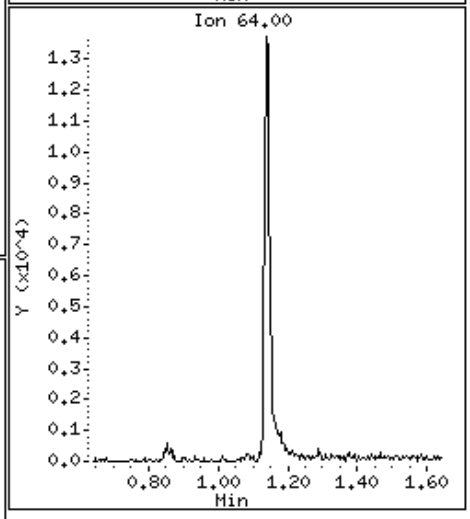
5 Vinyl Chloride

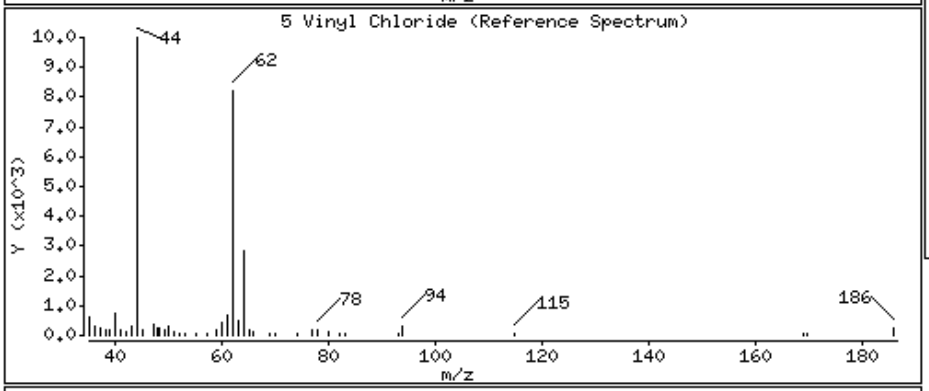
Concentration: 1556.23 ug/l

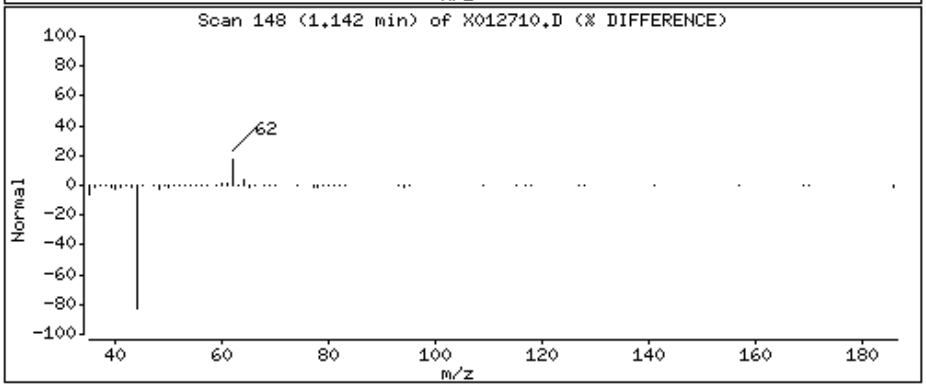


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Date : 27-JAN-2023 11:00

Client ID: HS23011136-05

Instrument: voa6.i

Sample Info: HS23011136-05;HS23011136-05;;;

Purge Volume: 5.0

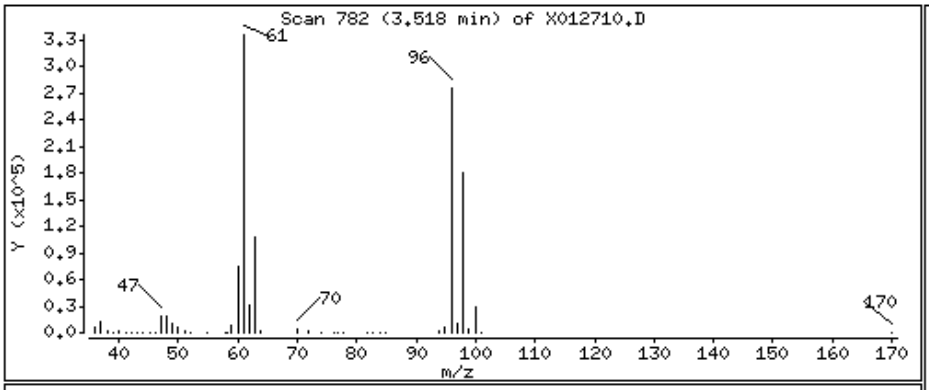
Operator: FT

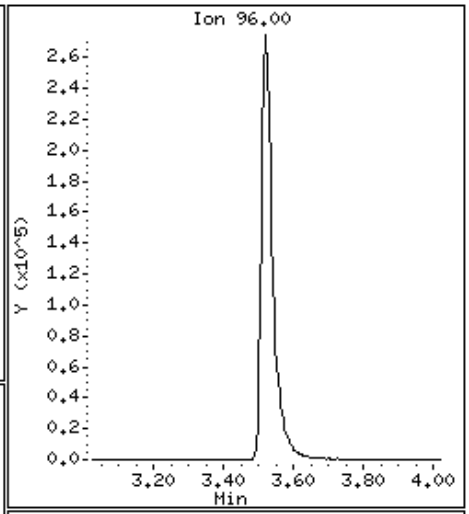
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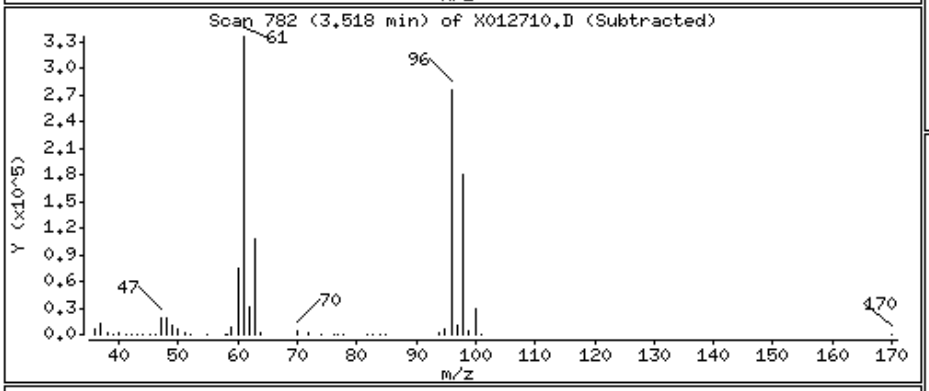
Column diameter: 0.18

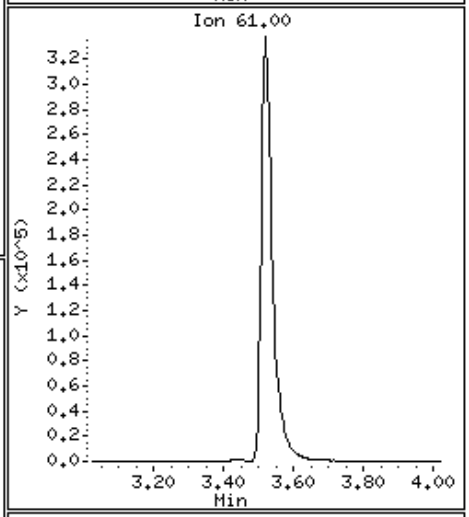
27 cis-1,2-Dichloroethene

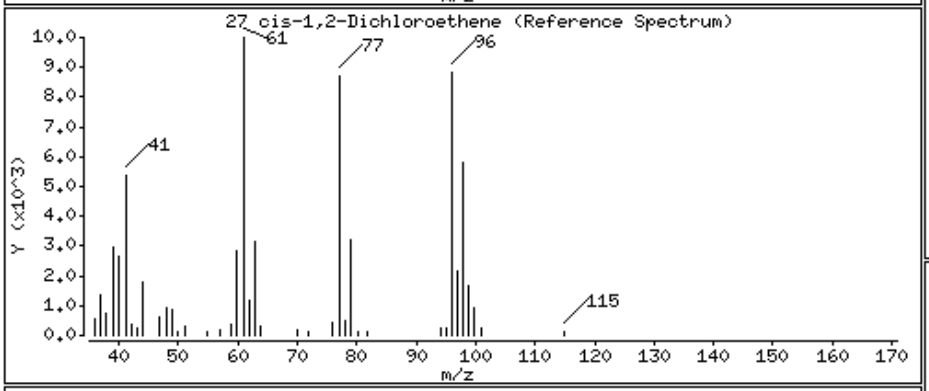
Concentration: 18305.28 ug/l

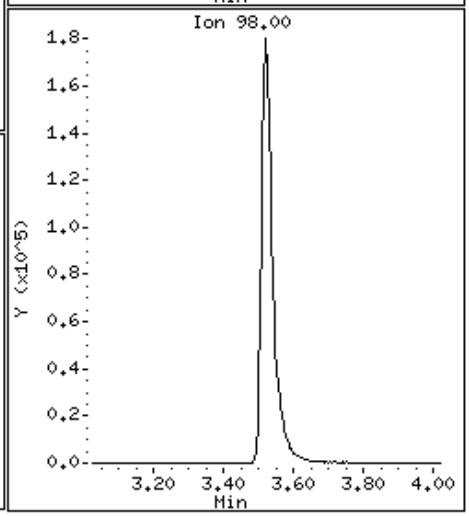


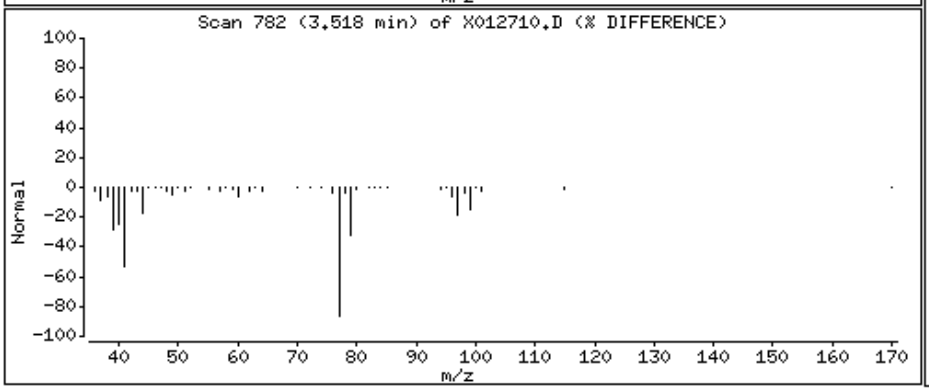



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012710.D Page 4

Date : 27-JAN-2023 11:00

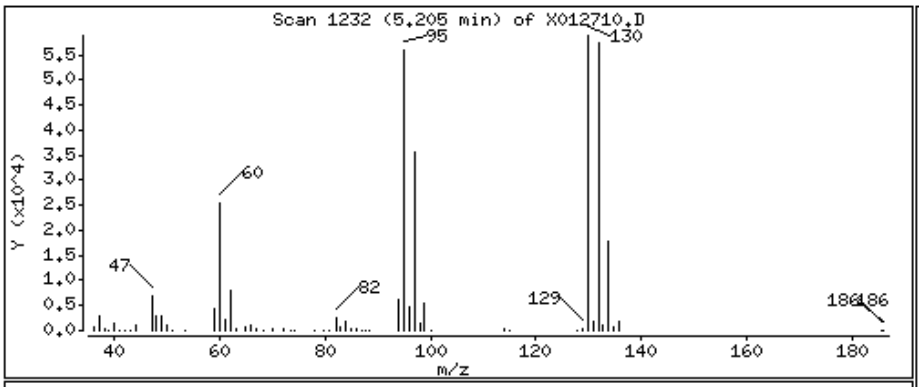
Client ID: HS23011136-05 Instrument: voa6.i

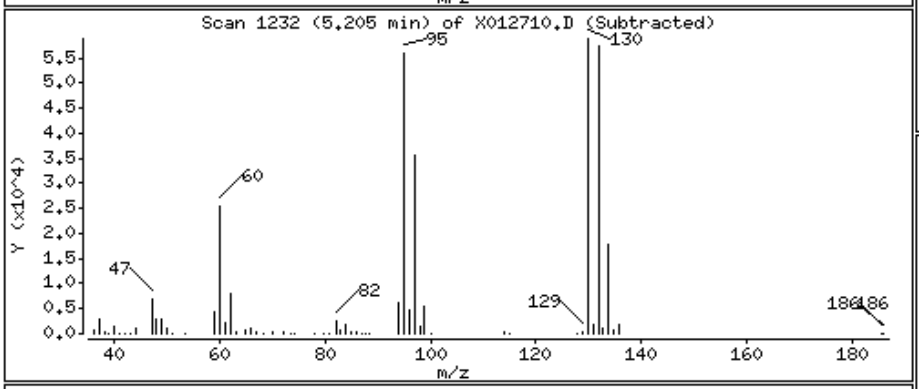
Sample Info: HS23011136-05;HS23011136-05;;;

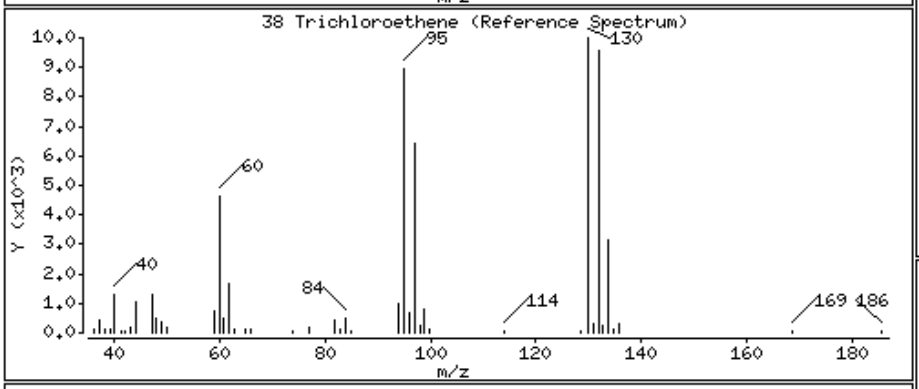
Purge Volume: 5.0 Operator: FT

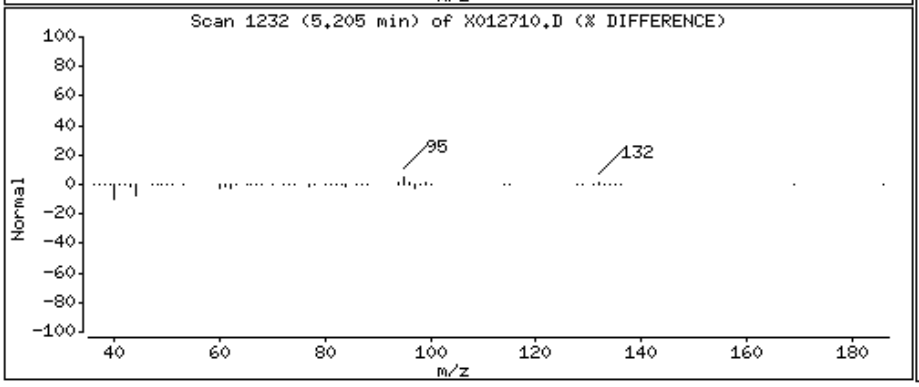
Column phase: DB624 Column diameter: 0.18

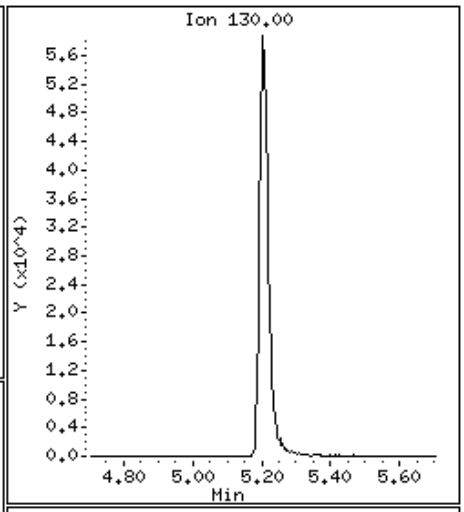
38 Trichloroethene Concentration: 3334.02 ug/l

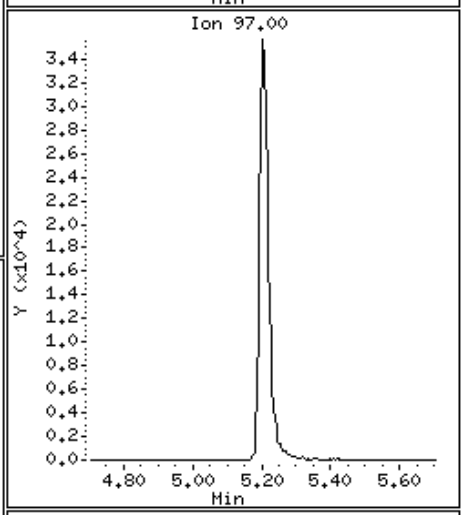


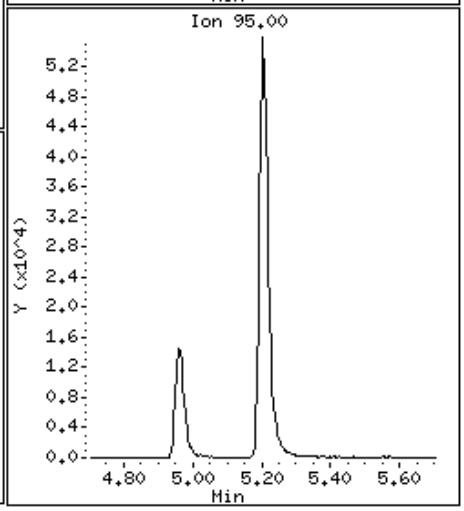



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Inj Date  : 27-JAN-2023 11:00
InstruID  : voa6.i
LabSampID : HS23011136-05

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012711.D  Page 1
Report Date: 13-Feb-2023 13:50

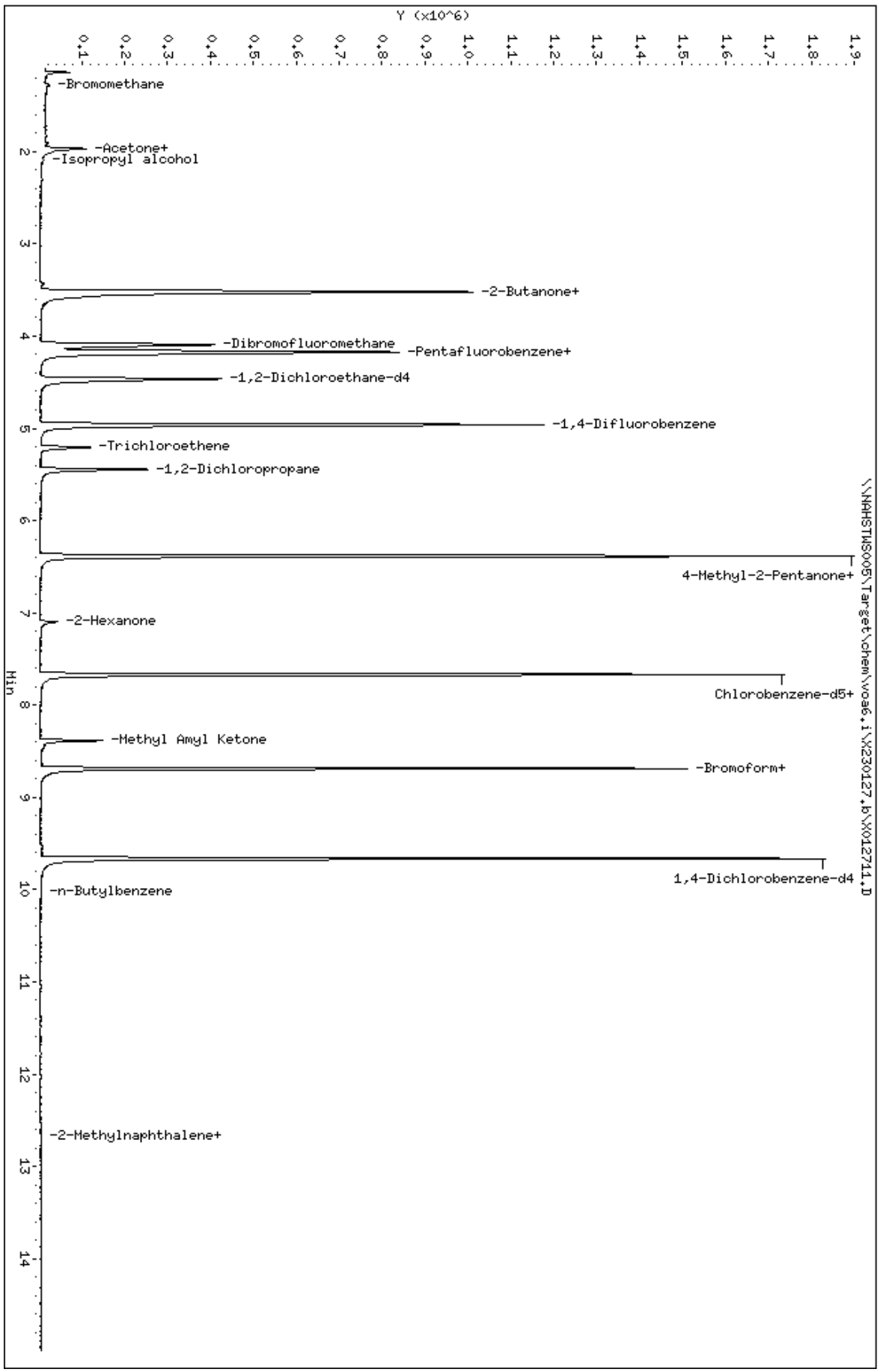
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012711.D
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Inj Date  : 27-JAN-2023 11:21
Operator  : FT  Inst ID: voa6.i
Smp Info  : HS23011136-06;HS23011136-06;;;
Misc Info : V6;WATER;0;200;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\8260W.m
Meth Date : 13-Feb-2023 13:49 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 10
Dil Factor: 200.00000
Integrator: HP RTE  Compound Sublist: 8260-dryclean.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 200.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 685696 | 50.0000 | |
| $ 30 Dibromofluoromethane | 113 | 4.095 | 4.091 | (0.981) | 299922 | 45.5381 | 45.53 |
| $ 35 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.070) | 344949 | 49.6396 | 49.63 |
| * 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 967161 | 50.0000 | |
| * 47 Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 868062 | 50.0000 | |
| $ 48 Toluene-d8 | 98 | 6.385 | 6.386 | (0.833) | 1120263 | 52.2257 | 52.22 |
| $ 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 404101 | 50.3996 | 50.39 |
| * 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 456343 | 50.0000 | |
| 5 Vinyl Chloride | 62 | 1.141 | 1.137 | (0.273) | 39014 | 6.51326 | 1302.65 |
| 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.522 | (0.844) | 559711 | 78.9643 | 15792.85 |
| 38 Trichloroethene | 130 | 5.208 | 5.201 | (1.050) | 40799 | 6.22824 | 1245.64 |




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012711.D
Date : 27-JAN-2023 11:21
Client ID: HS23011136-06
Sample Info: HS23011136-06;HS23011136-06;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: FT
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012711.D

Date : 27-JAN-2023 11:21

Client ID: HS23011136-06

Instrument: voa6.i

Sample Info: HS23011136-06;HS23011136-06;;;

Purge Volume: 5.0

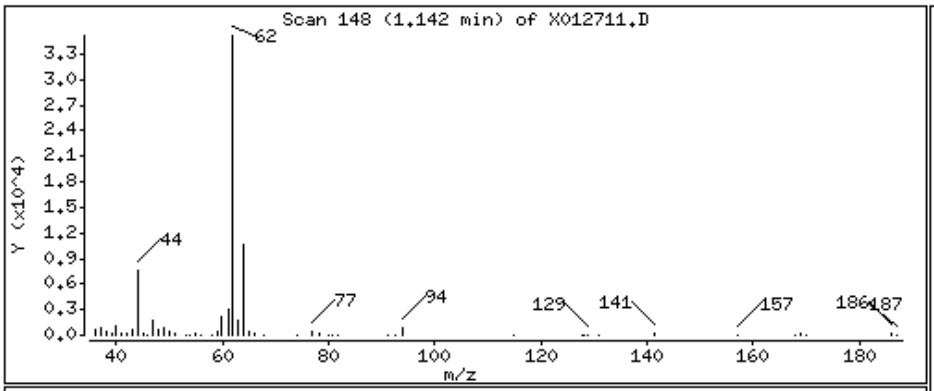
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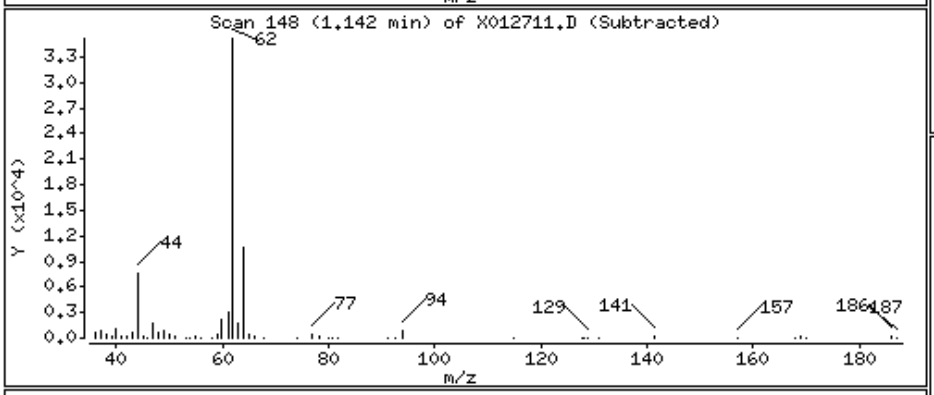
Column phase: DB624

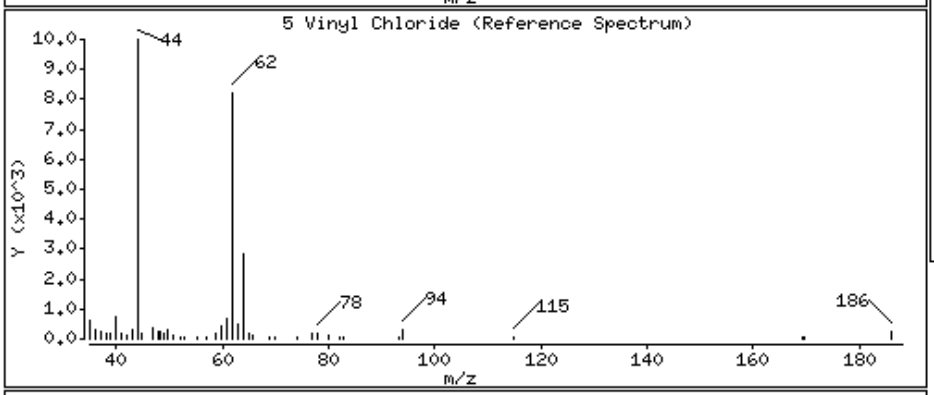
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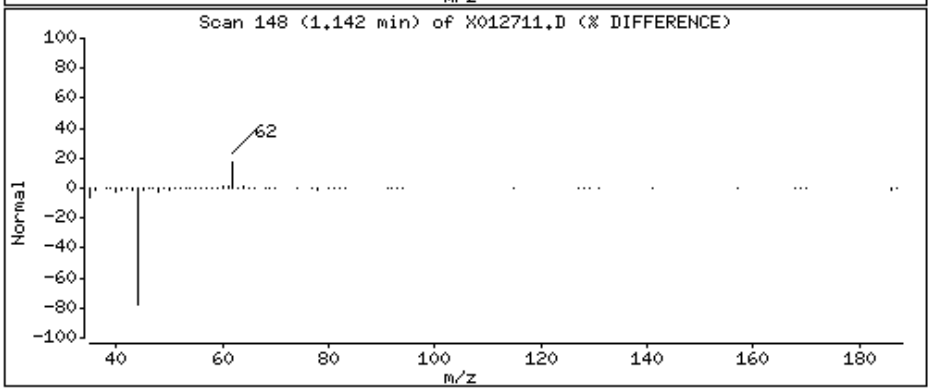
5 Vinyl Chloride

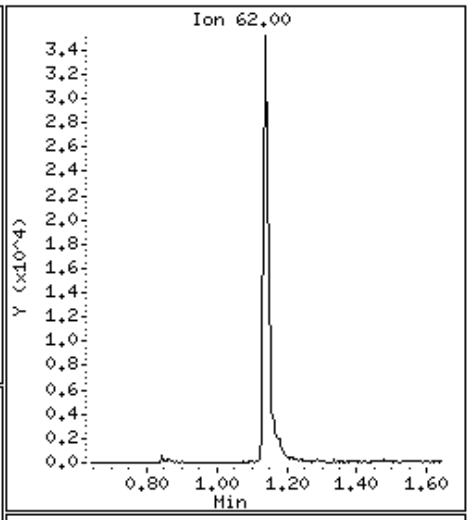
Concentration: 1302.65 ug/l

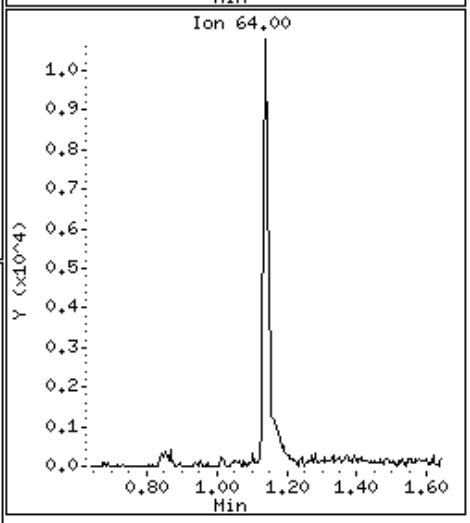


Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012711.D Page 3

Date : 27-JAN-2023 11:21

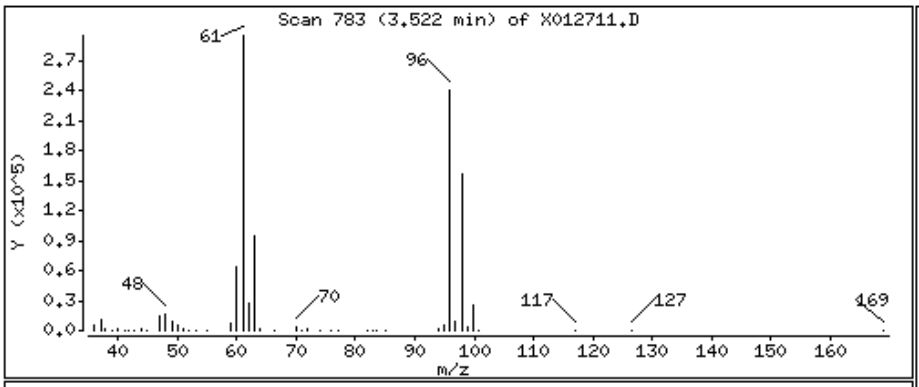
Client ID: HS23011136-06 Instrument: voa6.i

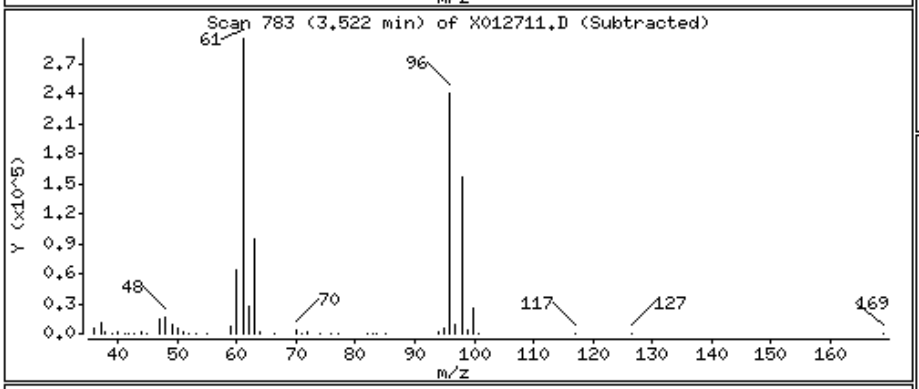
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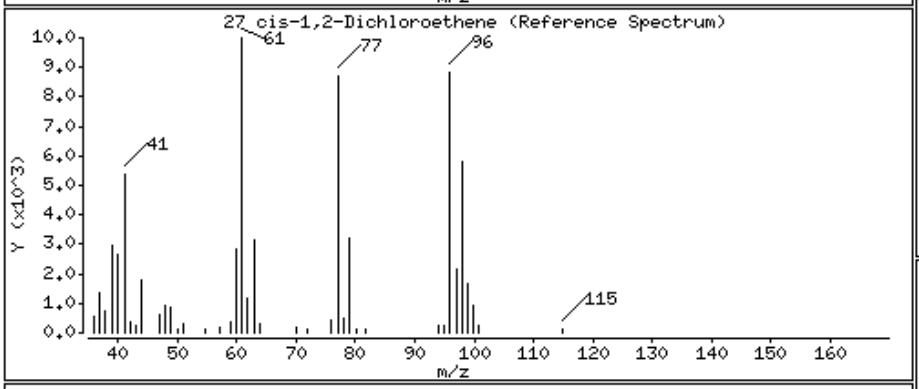
Purge Volume: 5.0 Operator: FT

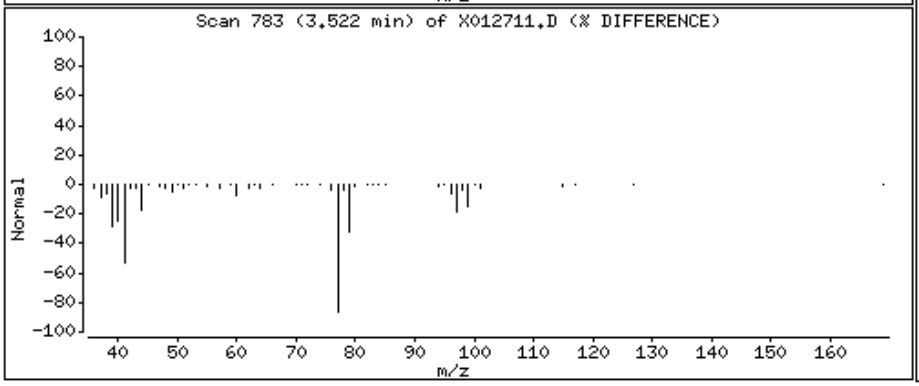
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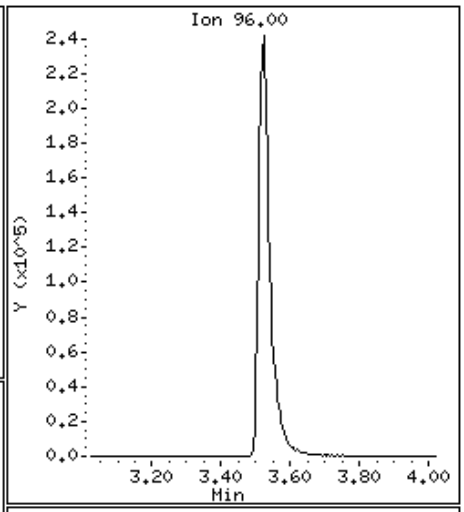
27 cis-1,2-Dichloroethene Concentration: 15792.85 ug/l

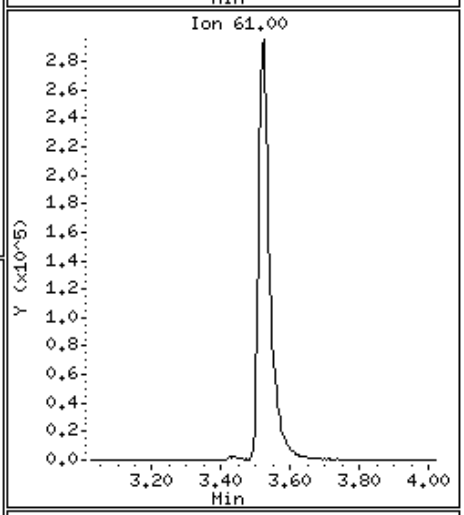


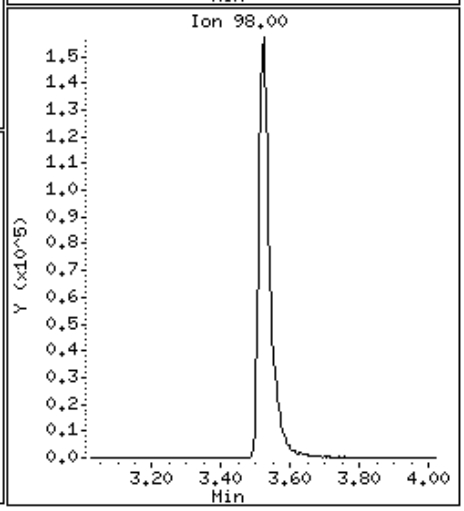



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Date : 27-JAN-2023 11:21

Client ID: HS23011136-06

Instrument: voa6.i

Sample Info: HS23011136-06;HS23011136-06;;;

Purge Volume: 5.0

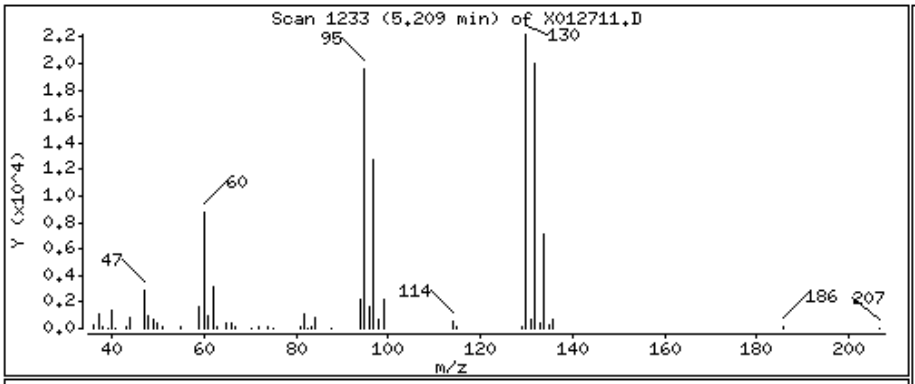
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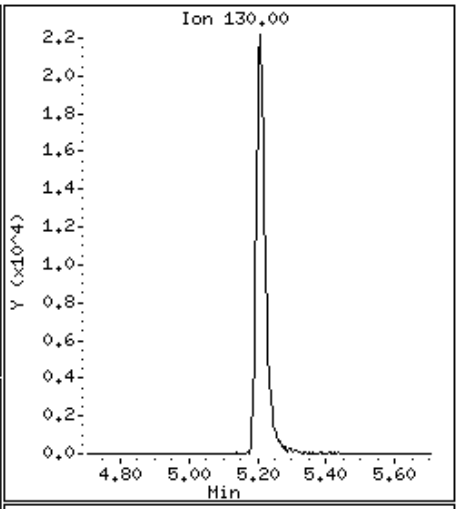
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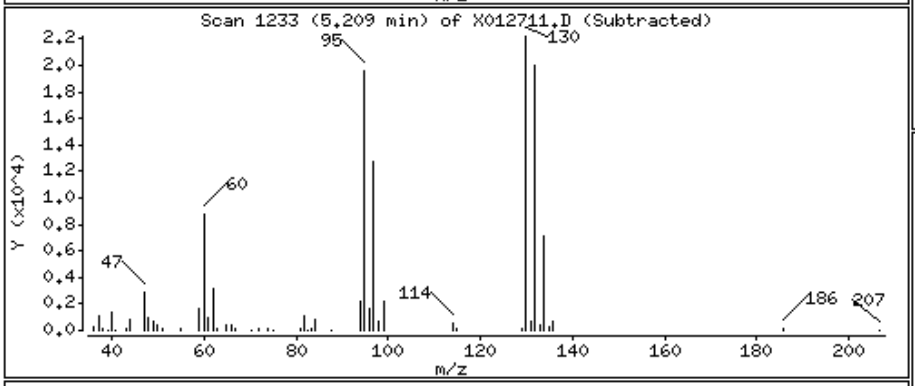
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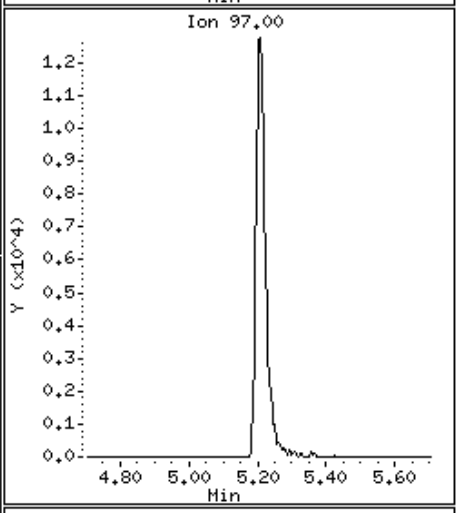
38 Trichloroethene

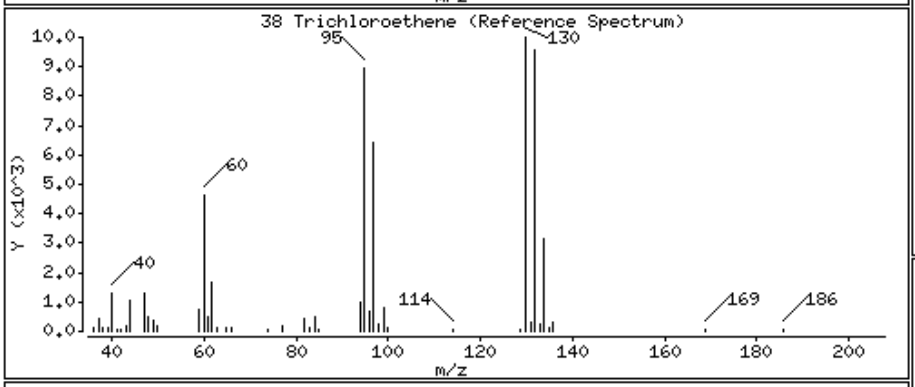
Concentration: 1245.64 ug/l

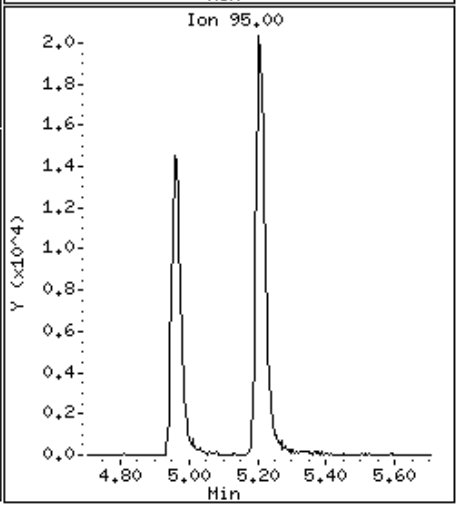


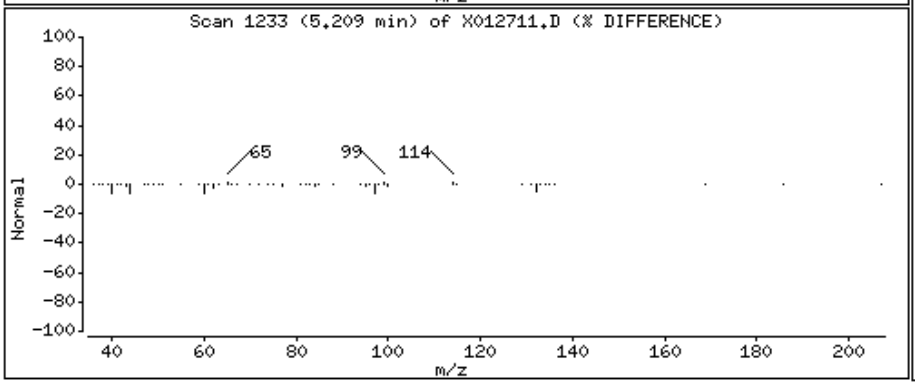



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InstruID  : voa6.i
LabSampID : HS23011136-06

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012729.D  Page 1
Report Date: 13-Feb-2023 13:50

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012729.D
Lab Smp Id: CCV-END
Inj Date  : 27-JAN-2023 17:39
Operator  : PC                              Inst ID: voa6.i
Smp Info  : CCV-END;CCV-END;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\8260W.m
Meth Date : 13-Feb-2023 13:50 voa6.i     Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04            Cal File: X121608.D
Als bottle: 28                           Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE                       Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.177 | 4.177 | (1.000) | 517192 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 151352 | 50.0000 | 41.90 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 228916 | 50.0000 | 48.96 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 271033 | 500.000 | 513.59 |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 206840 | 50.0000 | 45.78 |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 167275 | 50.0000 | 48.98 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 138754 | 50.0000 | 44.12 |
| 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 340044 | 50.0000 | 53.78 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 30795 | 100.000 | 87.42 |
| 10 Acetone | 43 | 1.966 | 1.966 | (0.471) | 115157 | 100.000 | 79.34 |
| 11 1,1-Dichloroethene | 96 | 1.909 | 1.909 | (0.457) | 198955 | 50.0000 | 50.68 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 648887 | 1000.00 | 1115.44 |
| 13 Acetonitrile | 39 | 2.194 | 2.194 | (0.525) | 267455 | 500.000 | 568.19 |
| 14 Allyl Chloride | 41 | 2.194 | 2.194 | (0.525) | 474699 | 50.0000 | 52.95 |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 419436 | 100.000 | 82.31 |
| 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 144149 | 100.000 | 108.27 |
| 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 260253 | 50.0000 | 48.33 |
| 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.605) | 662254 | 50.0000 | 51.54 |
| 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 1093848 | 100.000 | 106.51 |
| 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 234298 | 50.0000 | 53.33 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21 Vinyl Acetate | 43 | 2.993 | 2.993 (0.716) | 1168599 | 100.000 | 103.61 |
| 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 (0.699) | 406963 | 50.0000 | 52.78 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 83317 | 50.0000 | 47.37(M) |
| | 24 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 151679 | 100.000 | 98.58 |
| | 25 Methacrylonitrile | 41 | 3.814 | 3.814 | (0.913) | 184047 | 50.0000 | 50.25(a) |
| | 26 2,2-Dichloropropane | 77 | 3.503 | 3.503 | (0.838) | 338340 | 50.0000 | 51.68 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.521 | 3.521 | (0.843) | 274053 | 50.0000 | 51.26 |
| | 28 Chloroform | 83 | 3.900 | 3.900 | (0.934) | 466926 | 50.0000 | 54.03 |
| | 29 Bromochloromethane | 128 | 3.791 | 3.791 | (0.908) | 146417 | 50.0000 | 50.01 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 251643 | 50.0000 | 50.67 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 402933 | 50.0000 | 58.76 |
| | 32 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.862) | 336863 | 50.0000 | 59.09 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.918) | 369547 | 50.0000 | 56.17 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.859) | 341988 | 50.0000 | 56.17 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 287861 | 50.0000 | 54.89 |
| * | 36 1,4-Difluorobenzene | 114 | 4.961 | 4.961 | (1.000) | 802974 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.909) | 988776 | 50.0000 | 51.56 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.049) | 302247 | 50.0000 | 55.57 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 366725 | 50.0000 | 50.96 |
| | 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 193857 | 50.0000 | 54.97 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.218) | 197798 | 100.000 | 96.61 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.095) | 250830 | 50.0000 | 49.17 |
| | 43 2-Nitropropane | 43 | 5.965 | 5.965 | (1.428) | 70730 | 50.0000 | 54.15 |
| | 44 Dibromomethane | 93 | 5.549 | 5.549 | (1.119) | 172203 | 50.0000 | 49.67 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 419529 | 100.000 | 101.86 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.240) | 432240 | 50.0000 | 51.14 |
| * | 47 Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 770510 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 916364 | 50.0000 | 48.12 |
| | 49 Ethyl Methacrylate | 69 | 6.708 | 6.708 | (1.352) | 183873 | 50.0000 | 48.62 |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 1105873 | 50.0000 | 51.92 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.678 | 6.678 | (1.346) | 369502 | 50.0000 | 52.68 |
| | 52 2-Hexanone | 43 | 7.083 | 7.083 | (0.924) | 286314 | 100.000 | 102.18 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 207385 | 50.0000 | 48.53 |
| | 54 1,3-Dichloropropane | 76 | 6.981 | 6.981 | (0.911) | 422474 | 50.0000 | 50.23 |
| | 55 Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 310424 | 50.0000 | 50.34 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 246999 | 50.0000 | 56.05 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 274165 | 50.0000 | 51.32 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.551) | 233478 | 50.0000 | 60.16 |
| | 59 Chlorobenzene | 112 | 7.690 | 7.690 | (1.003) | 759842 | 50.0000 | 50.30 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 292937 | 50.0000 | 52.10 |
| | 61 Ethylbenzene | 106 | 7.795 | 7.795 | (1.017) | 391689 | 50.0000 | 55.04 |
| | 62 m,p-Xylenes | 106 | 7.904 | 7.904 | (1.031) | 989849 | 100.000 | 107.90 |
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 473677 | 50.0000 | 52.31 |
| | 64 Styrene | 104 | 8.256 | 8.256 | (1.077) | 817256 | 50.0000 | 53.85 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 213609 | 50.0000 | 50.00 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 1231417 | 50.0000 | 59.53 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 324657 | 50.0000 | 45.86 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 365300 | 50.0000 | 51.32 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 444120 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 268401 | 50.0000 | 54.31(M) |
| | 72 trans-1,4-Dichloro-2-butene | 53 | 8.886 | 8.886 | (1.159) | 85534 | 50.0000 | 51.42 |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1446247 | 50.0000 | 58.78 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 367251 | 50.0000 | 50.40 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1055546 | 50.0000 | 58.08 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | 2-Chlorotoluene | 91 | 8.972 | 8.972 (0.929) | 879877 | 50.0000 | 54.50 |
| 77 | 4-Chlorotoluene | 91 | 9.069 | 9.069 (0.939) | 1027850 | 50.0000 | 55.85 |

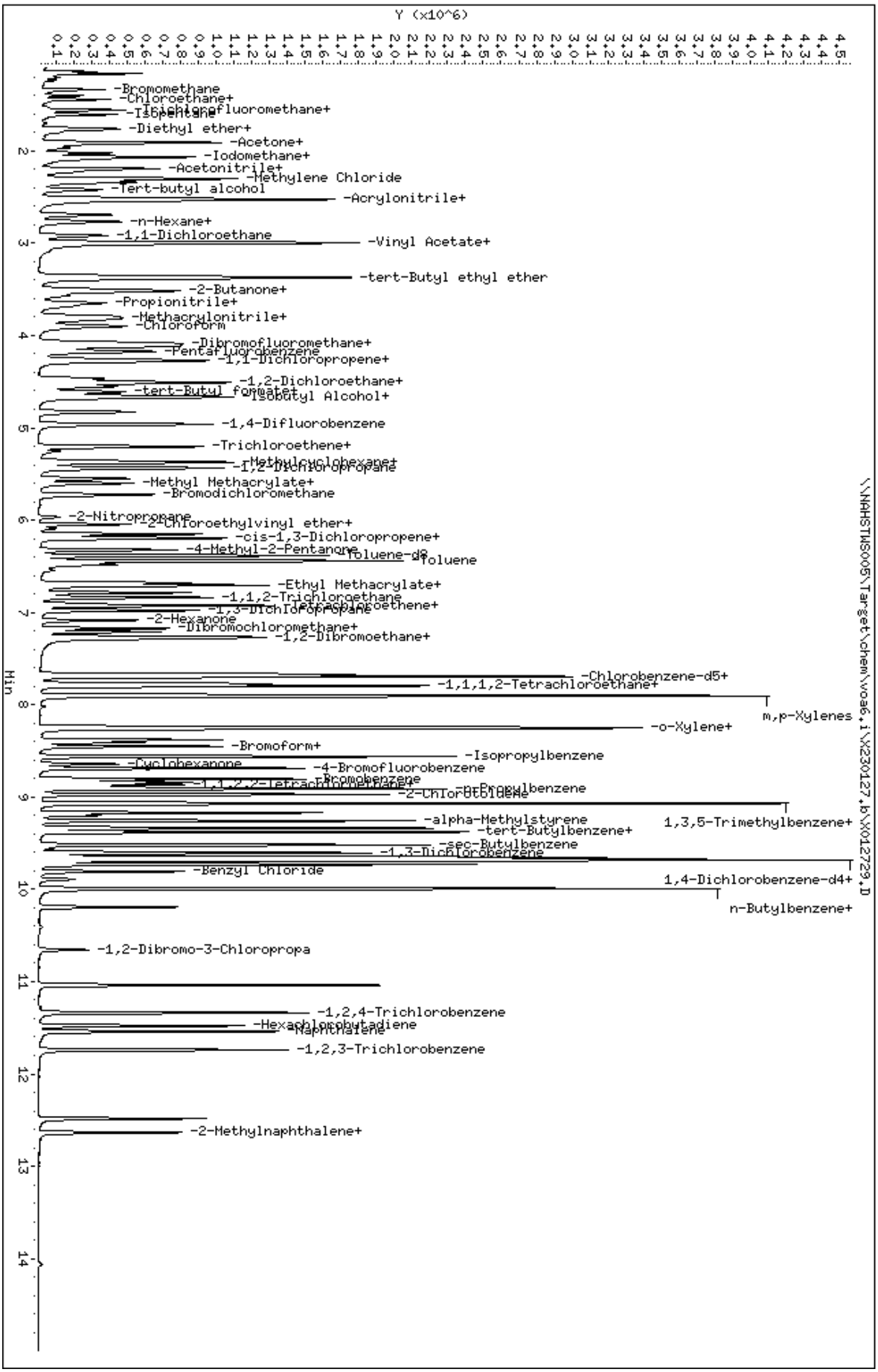
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 893644 | 50.0000 | 60.07 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.377 | 9.377 | (0.971) | 1070362 | 50.0000 | 55.97 |
| 81 | sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1244360 | 50.0000 | 62.86 |
| 82 | p-Isopropyltoluene | 119 | 9.647 | 9.647 | (0.998) | 1102022 | 50.0000 | 62.13 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.605 | 9.605 | (0.994) | 645175 | 50.0000 | 53.34 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.680 | 9.680 | (1.002) | 677366 | 50.0000 | 51.32 |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 472324 | 50.0000 | 39.75 |
| 87 | n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 953525 | 50.0000 | 55.57 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 637972 | 50.0000 | 51.22 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 55349 | 50.0000 | 48.90 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.334 | 11.334 | (1.173) | 434862 | 50.0000 | 55.32 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 192807 | 50.0000 | 55.28 |
| 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 901037 | 50.0000 | 50.38 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.738 | 11.738 | (1.215) | 390700 | 50.0000 | 51.89 |
| 146 | Methyl acetate | 43 | 2.224 | 2.224 | (0.533) | 128895 | 50.0000 | 55.38 |
| 138 | Freon TF | 101 | 1.913 | 1.913 | (0.458) | 202813 | 50.0000 | 53.42 |
| 141 | Cyclohexane | 56 | 4.117 | 4.117 | (0.986) | 325078 | 50.0000 | 62.04 |
| 142 | Tetrahydrofuran | 42 | 3.836 | 3.836 | (0.918) | 62653 | 100.000 | 97.36 |
| 147 | Methylcyclohexane | 55 | 5.373 | 5.373 | (1.083) | 558070 | 50.0000 | 56.77 |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 50180 | 1000.00 | 1061.40 |
| 132 | n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 63569 | 1000.00 | 964.45 |
| 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 204578 | 50.0000 | 58.26 |
| 133 | Ethyl Acrylate | 55 | 5.373 | 5.373 | (1.286) | 558070 | 50.0000 | 54.88 |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 222590 | 50.0000 | 59.77 |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 149958 | 50.0000 | 43.39 |
| 148 | Tert-butyl alcohol | 59 | 2.419 | 2.419 | (0.579) | 395304 | 1000.00 | 1103.82 |
| 149 | Isopropyl alcohol | 45 | 2.086 | 2.086 | (0.499) | 212868 | 1000.00 | 1138.16 |
| 156 | Diisopropyl ether | 45 | 2.993 | 2.993 | (0.716) | 692307 | 50.0000 | 51.60 |
| 160 | 2-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 338810 | 50.0000 | 39.32 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 | (1.007) | 1106964 | 50.0000 | 51.75 |
| 167 | Ethanol | 45 | 1.700 | 1.700 | (0.407) | 32718 | 1000.00 | 970.99 |
| 172 | tert-Butyl formate | 59 | 4.612 | 4.612 | (1.104) | 296339 | 100.000 | 107.98 |
| 173 | 3,3-Dimethyl-1-butanol | 57 | 7.285 | 7.285 | (0.950) | 345871 | 1000.00 | 948.74 |
| 174 | tert-Amyl methyl ether | 73 | 4.661 | 4.661 | (1.116) | 745704 | 50.0000 | 50.01 |
| 175 | tert-Butyl ethyl ether | 59 | 3.371 | 3.371 | (0.807) | 731347 | 50.0000 | 51.30 |
| 176 | tert-Amyl alcohol | 59 | 4.612 | 4.612 | (1.104) | 296339 | 1000.00 | 1066.85 |
| 151 | 4-Methyl-2-pentanol | 45 | 6.708 | 6.708 | (1.352) | 737793 | 1000.00 | 970.77 |
| 180 | 1-Methylnaphthalene | 142 | 12.634 | 12.634 | (1.308) | 338810 | 50.0000 | (a) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 157232 | 50.0000 | 44.29 |
| 152 | Amyl alcohol | 42 | 6.899 | 6.899 | (0.900) | 73181 | 1000.00 | 960.46 |
| 158 | Dichlorofluoromethane | 67 | 1.527 | 1.527 | (0.366) | 30069 | 50.0000 | 44.90 |
| 159 | Propylene oxide | 43 | 1.752 | 1.752 | (0.419) | 29679 | 100.000 | 91.25 |
| 161 | 3-Methyl-1-butanol | 55 | 6.899 | 6.899 | (0.900) | 75329 | 1000.00 | 988.84 |
| 162 | Butyl acrylate | 55 | 8.248 | 8.248 | (1.076) | 512724 | 50.0000 | 50.94 |
| 182 | Epichlorohydrin | 57 | 6.093 | 6.093 | (1.228) | 72227 | 200.000 | 200.83 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 508351 | 100.000 | (a) |
| 145 | alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 505330 | 50.0000 | 51.35 |
| 130 | Ethyl Acetate | 43 | 3.645 | 3.645 | (0.873) | 219670 | 50.0000 | 54.43 |
| 134 | Cyclohexanone | 55 | 8.642 | 8.642 | (0.894) | 144975 | 1000.00 | 782.54 |
| 185 | Isoprene | 39 | 1.767 | 1.767 | (0.423) | 72681 | 50.0000 | 52.75 |
| 186 | Isopentane | 42 | 1.606 | 1.606 | (0.384) | 119187 | 50.0000 | (a) |
| 188 | Isopropyl acetate | 43 | 4.672 | 4.672 | (0.942) | 649617 | 50.0000 | 52.07 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 187 n-Amyl acetate | 43 | 8.451 | 8.451 (1.102) | 435637 | 50.0000 | 48.48 |
| 189 n-Butyl acetate | 43 | 7.210 | 7.210 (0.940) | 360399 | 50.0000 | 54.45 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | AMOUNTS ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 | (0.663) | 222590 | 1000.00 | 1170.92 |
| 195 Methyl Amyl Ketone | 43 | 8.380 | 8.380 | (1.093) | 470332 | 50.0000 | 45.91 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 529933 | 50.0000 | 50.81 |
| 168 1-Propanol | 59 | 2.997 | 2.997 | (0.717) | 83454 | 1000.00 | 987.36 |

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012729.D
Date : 27-JAN-2023 17:39
Client ID:
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

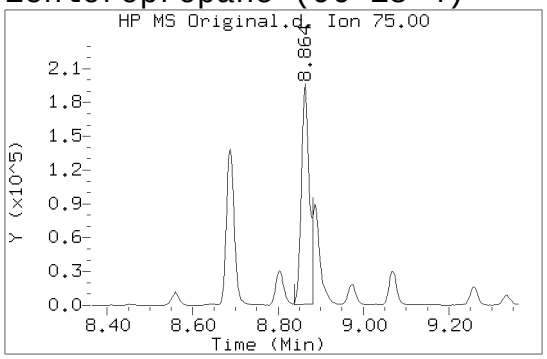
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230127.b\X012729.D
Inj Date : 27-JAN-2023 17:39
InstruID : voa6.i
LabSampID : CCV-END

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

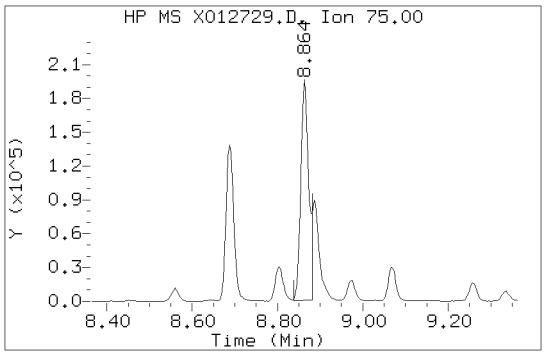
**BEFORE**

MASS
75
AREA
268401
HEIGHT
195703
09-Feb-2023
15:36
Kori
Bagsby



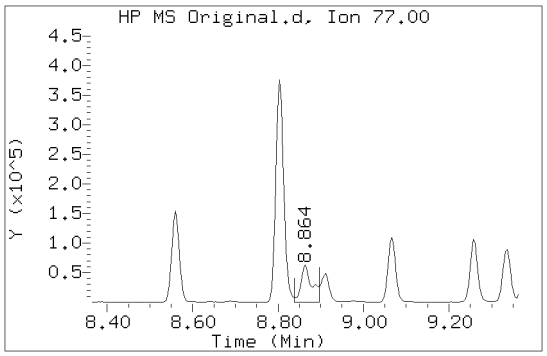

**AFTER**

MASS
75
AREA
268401
HEIGHT
195703
13-Feb-2023
13:49
Kori
Bags



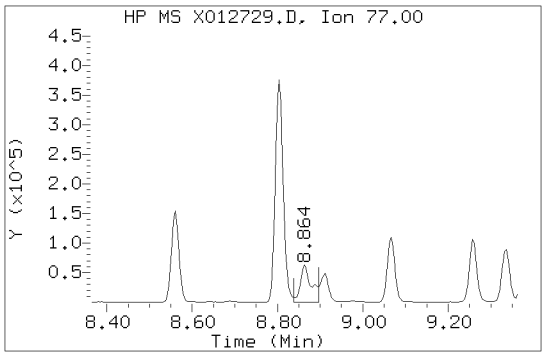

**BEFORE**

MASS
77
AREA
117910
HEIGHT
62879
09-Feb-2023
15:36
Kori
Bagsby




**AFTER**

MASS
77
AREA
117910
HEIGHT
62879
13-Feb-2023
13:49
Kori
Bags

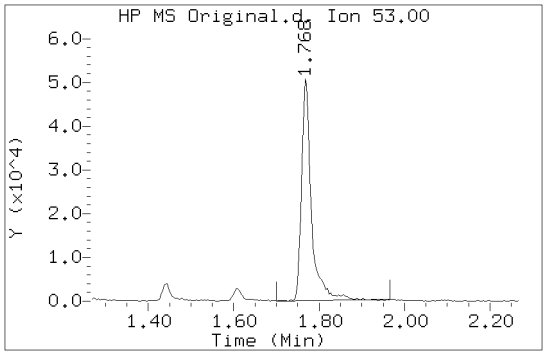



## Chloroprene (126-99-8)

Reason Code:

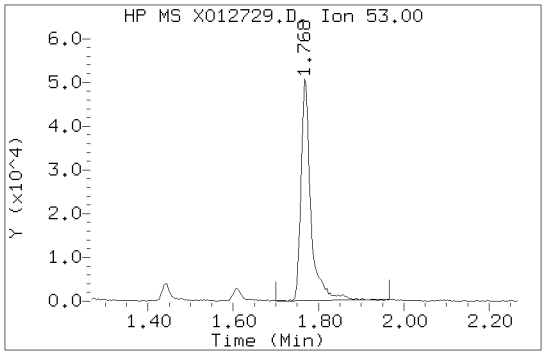
**BEFORE**

MASS
53
AREA
83317
HEIGHT
50667
09-Feb-2023
15:36
Kori
Bagsby



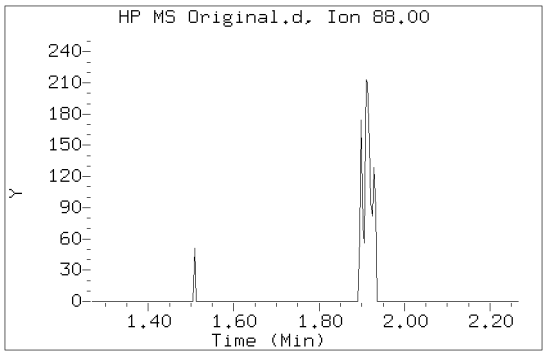

**AFTER**

MASS
53
AREA
83317
HEIGHT
50667
13-Feb-2023
13:49
Kori
Bags



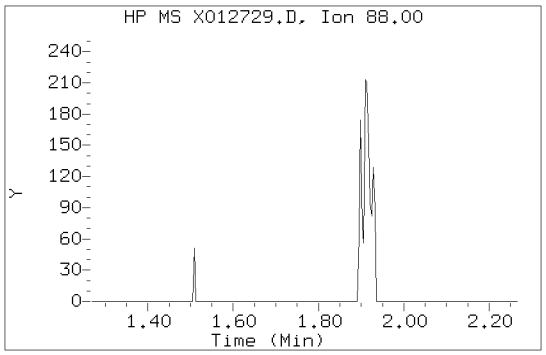

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
09-Feb-2023
15:36
Kori
Bagsby




**AFTER**

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:49
Kori
Bags



# HS23011136-GCSEMI-RSK-175

ALS WO# HS23011136

01241330

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right partner.

Form 1

# Organic Analysis Data Sheet

## Semi-Volatiles by RSK-175

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Semi-Volatiles by RSK-175

| HS23011136-01 | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|
| **16WW58-230123** | | 01/23/23 08:50 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | mg/L | 0.00100 | U | 0.000144 | 0.00100 | 0.00100 | 1 | 01/30/23 10:22 | FID-4_427362 | 007 |
| Ethene | mg/L | 0.00100 | U | 0.000234 | 0.00100 | 0.00100 | 1 | 01/30/23 10:22 | FID-4_427362 | 007 |
| Methane | mg/L | 0.00747 | | 0.000107 | 0.000500 | 0.000500 | 1 | 01/30/23 10:22 | FID-4_427362 | 007 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Semi-Volatiles by RSK-175

| HS23011136-02 | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|
| **16WW57-230123** | | 01/23/23 09:40 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | mg/L | 0.00100 | U | 0.000144 | 0.00100 | 0.00100 | 1 | 01/30/23 10:48 | FID-4_427362 | 008 |
| Ethene | mg/L | 0.00110 | | 0.000234 | 0.00100 | 0.00100 | 1 | 01/30/23 10:48 | FID-4_427362 | 008 |
| Methane | mg/L | 0.00335 | | 0.000107 | 0.000500 | 0.000500 | 1 | 01/30/23 10:48 | FID-4_427362 | 008 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Semi-Volatiles by RSK-175

| HS23011136-03 | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|
| **16IW26-230123** | | 01/23/23 10:40 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | mg/L | 0.00100 | U | 0.000144 | 0.00100 | 0.00100 | 1 | 01/30/23 10:55 | FID-4_427362 | 009 |
| Ethene | mg/L | 0.0523 | | 0.000234 | 0.00100 | 0.00100 | 1 | 01/30/23 10:55 | FID-4_427362 | 009 |
| Methane | mg/L | 5.78 | | 0.0428 | 0.200 | 0.200 | 400 | 01/30/23 11:55 | FID-4_427362 | 016 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Semi-Volatiles by RSK-175

| HS23011136-04 | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|
| **16IW10-230123** | | 01/23/23 11:35 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | mg/L | 0.00100 | U | 0.000144 | 0.00100 | 0.00100 | 1 | 01/30/23 11:20 | FID-4_427362 | 012 |
| Ethene | mg/L | 0.00100 | U | 0.000234 | 0.00100 | 0.00100 | 1 | 01/30/23 11:20 | FID-4_427362 | 012 |
| Methane | mg/L | 5.35 | | 0.0428 | 0.200 | 0.200 | 400 | 01/30/23 12:08 | FID-4_427362 | 017 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Semi-Volatiles by RSK-175

| HS23011136-05 | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|
| **16IW03-230123** | | 01/23/23 12:35 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | mg/L | 0.00100 | U | 0.000144 | 0.00100 | 0.00100 | 1 | 01/30/23 11:03 | FID-4_427362 | 010 |
| Ethene | mg/L | 0.816 | | 0.0468 | 0.200 | 0.200 | 200 | 01/30/23 12:16 | FID-4_427362 | 018 |
| Methane | mg/L | 4.28 | | 0.0214 | 0.100 | 0.100 | 200 | 01/30/23 12:16 | FID-4_427362 | 018 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Semi-Volatiles by RSK-175

| HS23011136-06 | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|
| **16IW03-230123-FD** | | 01/23/23 12:35 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | mg/L | 0.00100 | U | 0.000144 | 0.00100 | 0.00100 | 1 | 01/30/23 11:46 | FID-4_427362 | 015 |
| Ethene | mg/L | 1.59 | | 0.0936 | 0.400 | 0.400 | 400 | 01/30/23 12:26 | FID-4_427362 | 019 |
| Methane | mg/L | 5.08 | | 0.0428 | 0.200 | 0.200 | 400 | 01/30/23 12:26 | FID-4_427362 | 019 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Semi-Volatiles by RSK-175

MBLK-230130

| Collected | Received | Matrix | Basis |
|---|---|---|---|
| NA | NA | Aqueous | Wet |

**MBLK-230130**

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | mg/L | 0.00100 | U | 0.000144 | 0.00100 | 0.00100 | 1 | 01/30/23 09:35 | FID-4_427362 | 002 |
| Ethene | mg/L | 0.00100 | U | 0.000234 | 0.00100 | 0.00100 | 1 | 01/30/23 09:35 | FID-4_427362 | 002 |
| Methane | mg/L | 0.000500 | U | 0.000107 | 0.000500 | 0.000500 | 1 | 01/30/23 09:35 | FID-4_427362 | 002 |

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Form 3A

# Matrix Spike/Spike Duplicate Recovery

## Semi-Volatiles by RSK-175

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 3A - Matrix Spike/Spike Duplicate Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

| 16IW10-230123 | | HS23011136-04 | | HS23011136-04MS | | | | HS23011136-04MSD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Matrix** | Aqueous | **Run Date** | 01/30/23 | 01/30/23 | | | | 01/30/23 | | | | | | |
| **Units** | ug/L | **Run Time** | 11:20 | 11:28 | | | | 11:37 | | | | | | |
| | | **Data File** | 012.D | 013.D | | | | 014.D | | | | | | |
| Analyte | %R Limits | DF | Result | MS Result | Spike Added | %R | Q | MSD Result | Spike Added | %R | Q | RPD Limit | RPD | Q |
| Ethane | 75-125 | 1 | 0 | 31.59 | 18.04 | 175 | * | 29.48 | 18.04 | 163 | * | 30 | 6.90 | |
| Ethene | 75-125 | 1 | 0 | 47.29 | 16.80 | 282 | * | 41 | 16.80 | 244 | * | 30 | 14.3 | |
| Methane | 75-125 | 1 | 5190 | 4867 | 9.647 | - | * | 4812 | 9.647 | -3910 | * | 30 | 1.10 | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits  OL - Outside Limits

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Form 3B

# Laboratory Control Sample Recovery

## Semi-Volatiles by RSK-175

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 3B - Laboratory Control Sample Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Semi-Volatiles by RSK-175

| FID-4_427362 | | | QC ID | LCS-230130 | | | |
|---|---|---|---|---|---|---|---|
| QC Matrix | Aqueous | Units | Run Date | 01/30/23 | | | |
| | | mg/L | Run Time | 09:43 | | | |
| Analyte | | %R Limits | Spike Added | LCS Result | %R | Q | |
| Ethane | | 75-125 | 0.01804 | 0.0194 | 107 | | |
| Ethene | | 75-125 | 0.0168 | 0.0171 | 102 | | |
| Methane | | 75-125 | 0.009647 | 0.00938 | 97 | | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits

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Form 4

# Method Blank Summary

## Semi-Volatiles by RSK-175

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 4 - Method Blank Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Semi-Volatiles by RSK-175

| Client Sample ID | Type | Lab Sample ID | File ID | Date Analyzed | Run ID |
|---|---|---|---|---|---|
| METHOD BLANK | MBLK | MBLK-230130 | 002.D | 01/30/23 09:35 | FID-4_427362 |
| LCS-230130 | LCS | LCS-230130 | 003.D | 01/30/23 09:43 | FID-4_427362 |
| 16WW58-230123 | SAMP | HS23011136-01 | 007.D | 01/30/23 10:22 | FID-4_427362 |
| 16WW57-230123 | SAMP | HS23011136-02 | 008.D | 01/30/23 10:48 | FID-4_427362 |
| 16IW26-230123 | SAMP | HS23011136-03 | 009.D | 01/30/23 10:55 | FID-4_427362 |
| 16IW03-230123 | SAMP | HS23011136-05 | 010.D | 01/30/23 11:03 | FID-4_427362 |
| 16IW10-230123 | SAMP | HS23011136-04 | 012.D | 01/30/23 11:20 | FID-4_427362 |
| 16IW10-230123 | MS | HS23011136-04MS | 013.D | 01/30/23 11:28 | FID-4_427362 |
| 16IW10-230123 | MSD | HS23011136-04MSD | 014.D | 01/30/23 11:37 | FID-4_427362 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | 015.D | 01/30/23 11:46 | FID-4_427362 |
| 16IW26-230123 | SAMP | HS23011136-03 | 016.D | 01/30/23 11:55 | FID-4_427362 |
| 16IW10-230123 | SAMP | HS23011136-04 | 017.D | 01/30/23 12:08 | FID-4_427362 |
| 16IW03-230123 | SAMP | HS23011136-05 | 018.D | 01/30/23 12:16 | FID-4_427362 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | 019.D | 01/30/23 12:26 | FID-4_427362 |

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right partner.

Form 6

# Initial Calibration Data

## Semi-Volatiles by RSK-175

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** FID-4_322102

## Semi-Volatiles by RSK-175

**ICAL Start Date** 24-JAN-2017 0906
**ICAL End Date** 24-JAN-2017 1113

**Calibration Files**

**Calibration File Names**

**Level 1** ..FID-4.i\170124.b\001.D
**Level 2** ..FID-4.i\170124.b\002.D
**Level 3** ..FID-4.i\170124.b\003.D
**Level 4** ..FID-4.i\170124.b\004.D
**Level 5** ..FID-4.i\170124.b\005.D
**Level 6** ..FID-4.i\170124.b\006.D
**Level 7** ..FID-4.i\170124.b\007.D

| Compound | Level 1<br>10.00<br>Level 7<br>1000.0 | Level 2<br>25.00 | Level 3<br>50.00 | Level 4<br>100.00 | Level 5<br>250.00 | Level 6<br>500.00 | Curve | b | m1 | m2 | %RSD<br>or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 969<br>1082 | 978 | 1020 | 881 | 961 | 931 | AVRG | | 974 | | 6.55041 | |
| Ethene | 536<br>829 | 567 | 565 | 516 | 665 | 426 | AVRG | | 586 | | 21.93197 | |
| Ethane | 602<br>999 | 670 | 659 | 597 | 809 | 818 | AVRG | | 736 | | 19.88517 | |
| Propane | 500<br>96509 | 1279 | 2602 | 4785 | 18294 | 38286 | QUAD | 0.97987 | 0.00153 | -4.583e-00 | 0.99914 | |
| N-Butane | 438<br>114164 | 936 | 2034 | 3864 | 18446 | 42817 | QUAD | 2.46870 | 0.00183 | -5.537e-00 | 0.99808 | |
| Pentane | 115<br>488 | 3945 | 2080 | 950 | 501 | 412 | AVRG | | 1213 | | 112 | * |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

01241346

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Form 6I

# Initial Calibration Verification (ICV)

## Semi-Volatiles by RSK-175

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Initial Calibration Verification (ICV)

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** FID-4_322102

## Semi-Volatiles by RSK-175

| Compound | Amount Added | Amount Recovered | % Recovered | Limits | Q |
|---|---|---|---|---|---|
| Methane | 9.647 | 9.597 | 99.49 | 75-125 | |
| Ethene | 16.800 | 19.090 | 113.63 | 75-125 | |
| Ethane | 18.043 | 19.657 | 108.95 | 75-125 | |
| Propane | 26.463 | 27.238 | 102.93 | 75-125 | |
| N-Butane | 34.955 | 36.010 | 103.02 | 75-125 | |

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right solutions.
right partner.

Form 7

# Continuing Calibration Verification (CCV)

## Semi-Volatiles by RSK-175

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** FID-4_427362

## Semi-Volatiles by RSK-175

Instrument ID FID-4.i Injection Date 30-JAN-2023 0925
Lab File ID 001.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

| Compound | $\overline{RRF}$ / $\overline{RRF}$ / Amount | RF250 | CCV RRF250 | Min RRF | %D / %D / %DRIFT | Max %D / %D / %DRIFT | Curve CURVE TYPE | Q |
|---|---|---|---|---|---|---|---|---|
| Methane | 975 | 927 | 927 | 0.010 | 4.90924 | 20.0 | Averaged | |
| Ethene | 586 | 623 | 623 | 0.010 | -6.38230 | 20.0 | Averaged | |
| Ethane | 719 | 810 | 810 | 0.010 | -12.60421 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** FID-4_427362

## Semi-Volatiles by RSK-175

Instrument ID FID-4.i Injection Date 30-JAN-2023 1112
Lab File ID 011.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

| Compound | $\overline{RRF}$ / $\overline{RRF}$ / Amount | RF250 | CCV RRF250 | Min RRF | %D / %D / %DRIFT | Max %D / %D / %DRIFT | Curve CURVE TYPE | Q |
|---|---|---|---|---|---|---|---|---|
| Methane | 975 | 882 | 882 | 0.010 | 9.57660 | 20.0 | Averaged | |
| Ethene | 586 | 604 | 604 | 0.010 | -3.09964 | 20.0 | Averaged | |
| Ethane | 719 | 839 | 839 | 0.010 | -16.59443 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** FID-4_427362

## Semi-Volatiles by RSK-175

Instrument ID FID-4.i Injection Date 30-JAN-2023 1255
Lab File ID 022.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

| Compound | $\overline{RRF}$ / $\overline{RRF}$ / Amount | RF250 | CCV RRF250 | Min RRF | %D / %D / %DRIFT | Max %D / %D / %DRIFT | Curve CURVE TYPE | Q |
|---|---|---|---|---|---|---|---|---|
| Methane | 975 | 952 | 952 | 0.010 | 2.40014 | 20.0 | Averaged | |
| Ethene | 586 | 575 | 575 | 0.010 | 1.90539 | 20.0 | Averaged | |
| Ethane | 719 | 765 | 765 | 0.010 | -6.28765 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** FID-4_427362

## Semi-Volatiles by RSK-175

Instrument ID FID-4.i Injection Date 30-JAN-2023 1430
Lab File ID 033.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

| Compound | $\overline{RRF}$ / $\overline{RRF}$ / Amount | RF250 | CCV RRF250 | Min RRF | %D / %D / %DRIFT | Max %D / %D / %DRIFT | Curve CURVE TYPE | Q |
|---|---|---|---|---|---|---|---|---|
| Methane | 975 | 900 | 900 | 0.010 | 7.73730 | 20.0 | Averaged | |
| Ethene | 586 | 615 | 615 | 0.010 | -4.97400 | 20.0 | Averaged | |
| Ethane | 719 | 779 | 779 | 0.010 | -8.33668 | 20.0 | Averaged | |

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# Analysis Run Log

## Semi-Volatiles by RSK-175

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# FID04 -Logbook

**Batch:** 26730 **Analyst:** Nosa Izekor

**Date:** 01-24-2017 **Reviewer:**

**Method:** RSK 175 ICAL **Laboratory:** Houston

**Comments:** Target Sequence 170124

| # | Samp ID | Type | Analyzed | DF | Init Wt/Vol | Final Vol | File ID | Matrix | Status | pH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ICAL1 | CALIB_1 | 01-24-2017 09:06 am | 1.00 | 0.00 mL | 0.00 mL | 001.D | Liquid | Y | NA |
| 2 | ICAL2 | CALIB_2 | 01-24-2017 09:30 am | 1.00 | 0.00 mL | 0.00 mL | 002.D | Liquid | Y | NA |
| 3 | ICAL3 | CALIB_3 | 01-24-2017 09:59 am | 1.00 | 0.00 mL | 0.00 mL | 003.D | Liquid | Y | NA |
| 4 | ICAL4 | CALIB_4 | 01-24-2017 10:15 am | 1.00 | 0.00 mL | 0.00 mL | 004.D | Liquid | Y | NA |
| 5 | ICAL5 | CALIB_5 | 01-24-2017 10:39 am | 1.00 | 0.00 mL | 0.00 mL | 005.D | Liquid | Y | NA |
| 6 | ICAL6 | CALIB_6 | 01-24-2017 10:57 am | 1.00 | 0.00 mL | 0.00 mL | 006.D | Liquid | Y | NA |
| 7 | ICAL7 | CALIB_7 | 01-24-2017 11:13 am | 1.00 | 0.00 mL | 0.00 mL | 007.D | Liquid | Y | NA |
| 8 | ICV | METHSPIKI | 01-24-2017 12:05 pm | 1.00 | 0.00 mL | 0.00 mL | 008.D | Liquid | Y | NA |
| 9 | LCS-170124 | LCS | 01-24-2017 12:24 pm | 1.00 | 0.00 mL | 0.00 mL | 009.D | Liquid | Y | NA |
| 10 | LCSD-170124 | LCSD | 01-24-2017 12:40 pm | 1.00 | 0.00 mL | 0.00 mL | 010.D | Liquid | Y | NA |
| 11 | MBLK-170124 | MBLK | 01-24-2017 12:57 pm | 1.00 | 0.00 mL | 0.00 mL | 011.D | Liquid | Y | NA |
| 12 | HS17010778-01 | SAMP | 01-24-2017 01:14 pm | 1.00 | 0.00 mL | 0.00 mL | 012.D | Liquid | Y | NA |
| 13 | HS17010779-01 | SAMP | 01-24-2017 01:31 pm | 1.00 | 0.00 mL | 0.00 mL | 013.D | Liquid | Y | NA |
| 14 | HS17010779-01DUP | SAMP | 01-24-2017 01:47 pm | 1.00 | 0.00 mL | 0.00 mL | 014.D | Liquid | Y | NA |
| 15 | CCV | CCV | 01-24-2017 02:01 pm | 1.00 | 0.00 mL | 0.00 mL | 015.D | Liquid | Y | NA |

| Chemical | Value |
|---|---|
| ICAL STD ID | 30010700217 |
| ICV STD ID | 30010700610 |

# Form 13 - Analysis Run Log

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RUNID
FID-4_427362

## Semi-Volatiles by RSK-175

**Run ID** FID-4_427362 **Start Date** 01/30/23 **EndDate** 01/30/23 **Matrix** Aqueous

| Client Sample ID | Type | Lab Sample ID | File ID | Analysis Date | DF |
|---|---|---|---|---|---|
| RSK-CCV | CCV | RSK-CCV | 001.D | 01/30/23 09:25 | 1 |
| MBLK-230130 | MBLK | MBLK-230130 | 002.D | 01/30/23 09:35 | 1 |
| LCS-230130 | LCS | LCS-230130 | 003.D | 01/30/23 09:43 | 1 |
| 16WW58-230123 | SAMP | HS23011136-01 | 007.D | 01/30/23 10:22 | 1 |
| 16WW57-230123 | SAMP | HS23011136-02 | 008.D | 01/30/23 10:48 | 1 |
| 16IW26-230123 | SAMP | HS23011136-03 | 009.D | 01/30/23 10:55 | 1 |
| 16IW03-230123 | SAMP | HS23011136-05 | 010.D | 01/30/23 11:03 | 1 |
| RSK-CCV | CCV | RSK-CCV | 011.D | 01/30/23 11:12 | 1 |
| 16IW10-230123 | SAMP | HS23011136-04 | 012.D | 01/30/23 11:20 | 1 |
| 16IW10-230123 | MS | HS23011136-04MS | 013.D | 01/30/23 11:28 | 1 |
| 16IW10-230123 | MSD | HS23011136-04MSD | 014.D | 01/30/23 11:37 | 1 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | 015.D | 01/30/23 11:46 | 1 |
| 16IW26-230123 | SAMP | HS23011136-03 | 016.D | 01/30/23 11:55 | 400 |
| 16IW10-230123 | SAMP | HS23011136-04 | 017.D | 01/30/23 12:08 | 400 |
| 16IW03-230123 | SAMP | HS23011136-05 | 018.D | 01/30/23 12:16 | 200 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | 019.D | 01/30/23 12:26 | 400 |
| RSK-CCV | CCV | RSK-CCV | 022.D | 01/30/23 12:55 | 1 |
| RSK-CCV | CCV | RSK-CCV | 033.D | 01/30/23 14:30 | 1 |

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# Raw Data FID-4 322102

## Semi-Volatiles by RSK-175

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D
Lab Smp Id: ICAL1 Client Smp ID: ICAL1
Inj Date : 24-JAN-2017 09:06
Operator : JA Inst ID: FID-4.i
Smp Info : ICAL1;ICAL1;;;
Misc Info :
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 1.043 | 1.043 | 0.000 | 374 | 0.38600 | 0.383(a) |
| 2 Ethene | 1.553 | 1.553 | 0.000 | 361 | 0.67400 | 0.615(a) |
| 3 Ethane | 1.716 | 1.716 | 0.000 | 435 | 0.72200 | 0.590(a) |
| 4 Propane | 4.073 | 4.073 | 0.000 | 500 | 1.05900 | 1.743 |
| 5 N-Butane | 7.640 | 7.640 | 0.000 | 438 | 1.39800 | 3.271 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

01241358

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D



Date : 24-JAN-2017 09:06

Client ID: ICAL1

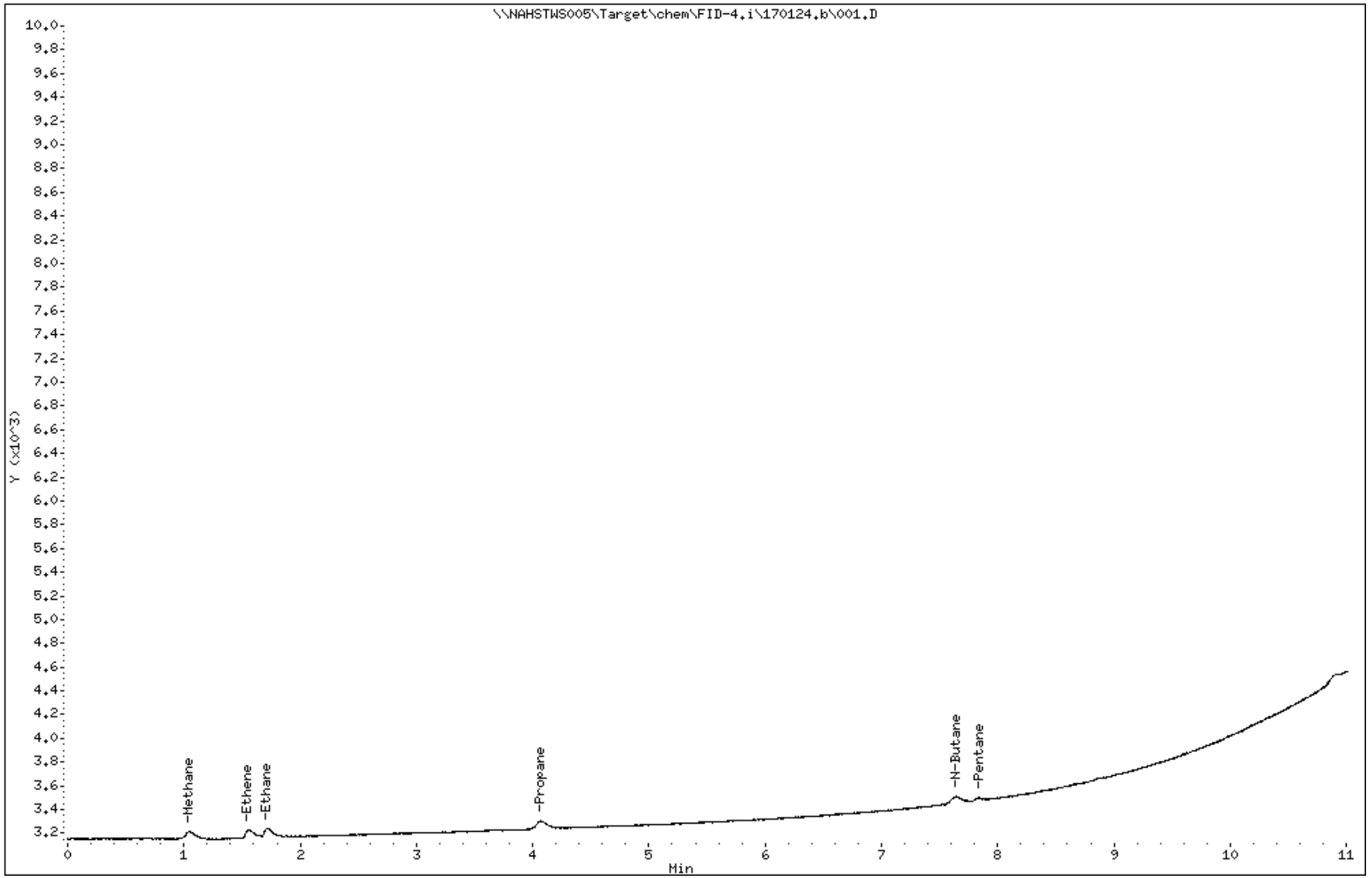
Instrument: FID-4.i

Sample Info: ICAL1;ICAL1;;;

Operator: JA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D
Inj Date  : 24-JAN-2017 09:06
InstruID  : FID-4.i
LabSampID : ICAL1

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D
Lab Smp Id: ICAL2 Client Smp ID: ICAL2
Inj Date : 24-JAN-2017 09:30
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL2;ICAL2;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 09:06 Cal File: 001.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 1.023 | 1.023 | 0.000 | 944 | 0.96500 | 0.968 |
| 2 Ethene | 1.560 | 1.560 | 0.000 | 956 | 1.68500 | 1.630 |
| 3 Ethane | 1.723 | 1.723 | 0.000 | 1209 | 1.80400 | 1.641 |
| 4 Propane | 4.123 | 4.123 | 0.000 | 1279 | 2.64600 | 2.927 |
| 5 N-Butane | 7.716 | 7.716 | 0.000 | 936 | 3.49600 | 4.180 |

01241361

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D



Date : 24-JAN-2017 09:30

Client ID: ICAL2

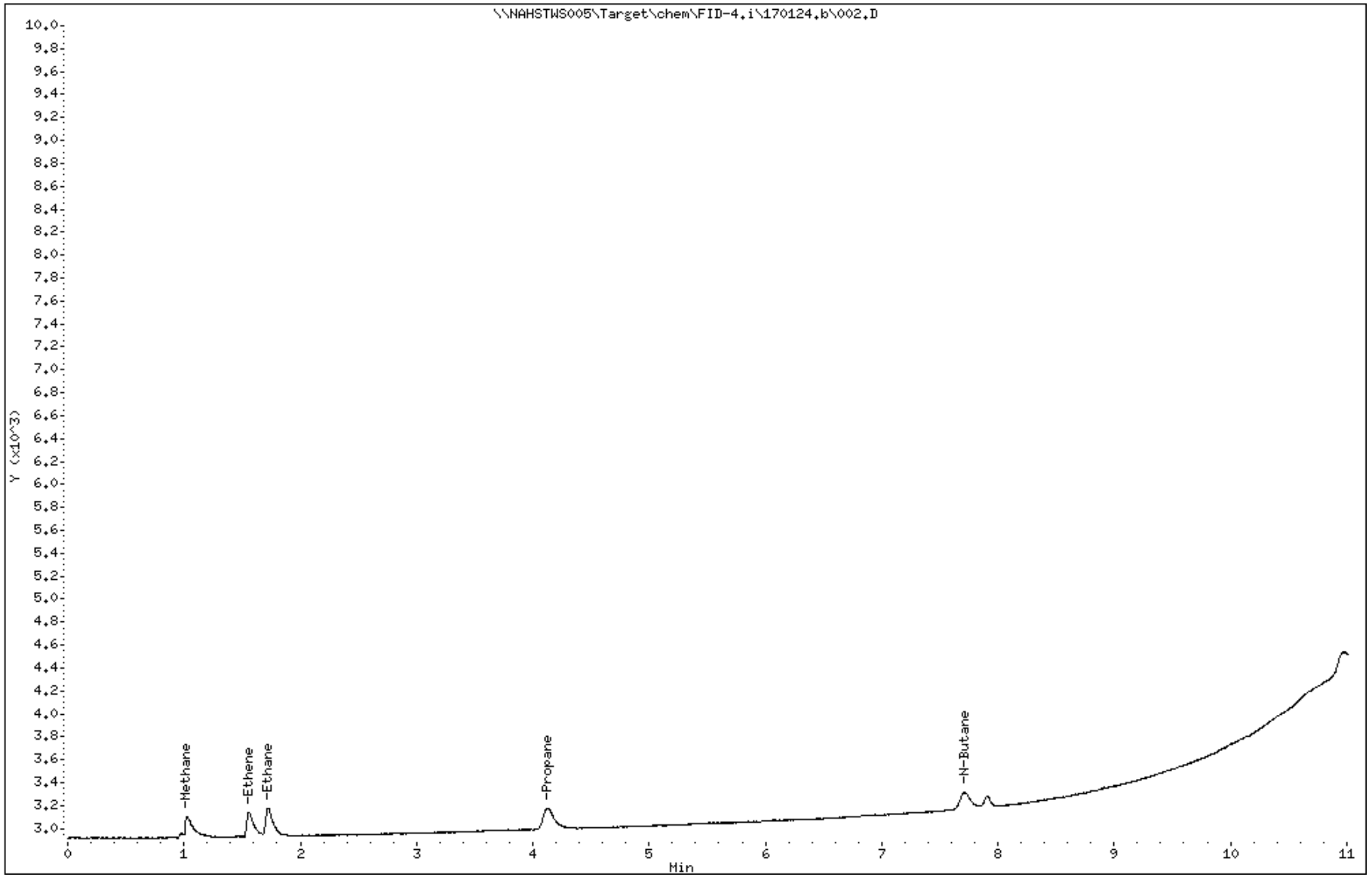
Instrument: FID-4.i

Sample Info: ICAL2;ICAL2;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D
Inj Date  : 24-JAN-2017 09:30
InstruID  : FID-4.i
LabSampID : ICAL2

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D
Lab Smp Id: ICAL3 Client Smp ID: ICAL3
Inj Date : 24-JAN-2017 09:59
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL3;ICAL3;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 09:30 Cal File: 002.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | ON-COL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 1.043 | 1.043 | 0.000 | 1967 | 1.92900 | 2.018 |
| 2 Ethene | 1.570 | 1.570 | 0.000 | 1904 | 3.37000 | 3.247 |
| 3 Ethane | 1.736 | 1.736 | 0.000 | 2378 | 3.60900 | 3.229 |
| 4 Propane | 4.123 | 4.123 | 0.000 | 2602 | 5.29300 | 4.926 |
| 5 N-Butane | 7.703 | 7.703 | 0.000 | 2034 | 6.99100 | 6.176 |

01241364

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D

Page 1

Date : 24-JAN-2017 09:59

Client ID: ICAL3

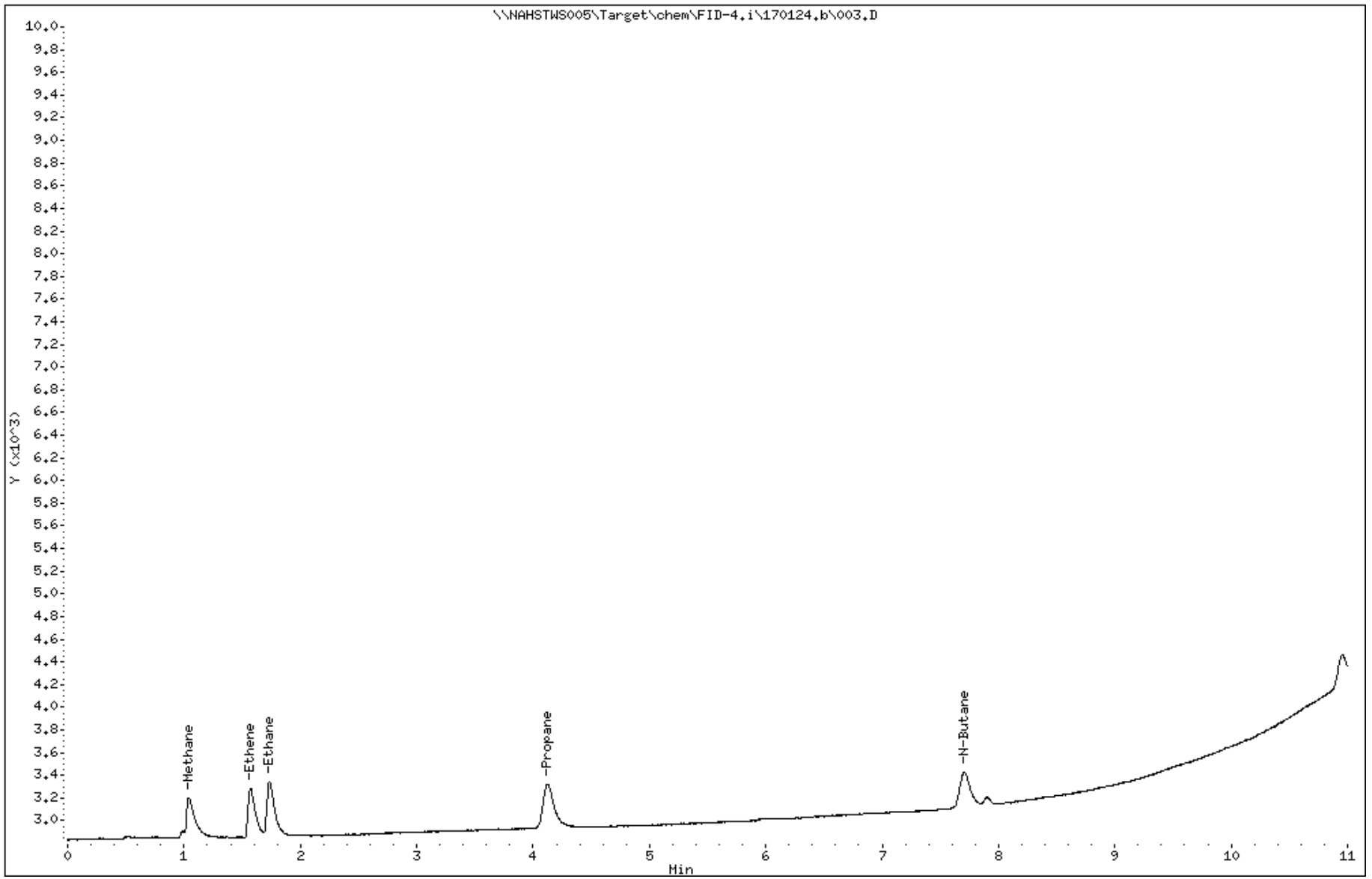
Instrument: FID-4.i

Sample Info: ICAL3;ICAL3;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D
Inj Date  : 24-JAN-2017 09:59
InstruID  : FID-4.i
LabSampID : ICAL3

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D Page 1
Report Date: 28-Sep-2022 10:02

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D
Lab Smp Id: ICAL4 Client Smp ID: ICAL4
Inj Date : 24-JAN-2017 10:15
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL4;ICAL4;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:02 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | ON-COL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 1.033 | 1.033 | 0.000 | 3399 | 3.85900 | 3.488 |
| 2 Ethene | 1.563 | 1.563 | 0.000 | 3478 | 6.74000 | 5.932 |
| 3 Ethane | 1.726 | 1.726 | 0.000 | 4310 | 7.21700 | 5.853 |
| 4 Propane | 4.120 | 4.120 | 0.000 | 4785 | 10.5850 | 8.190 |
| 5 N-Butane | 7.703 | 7.703 | 0.000 | 3864 | 13.9820 | 9.473(M) |

QC Flag Legend

M - Compound response manually integrated.

01241367

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D



Date : 24-JAN-2017 10:15

Client ID: ICAL4

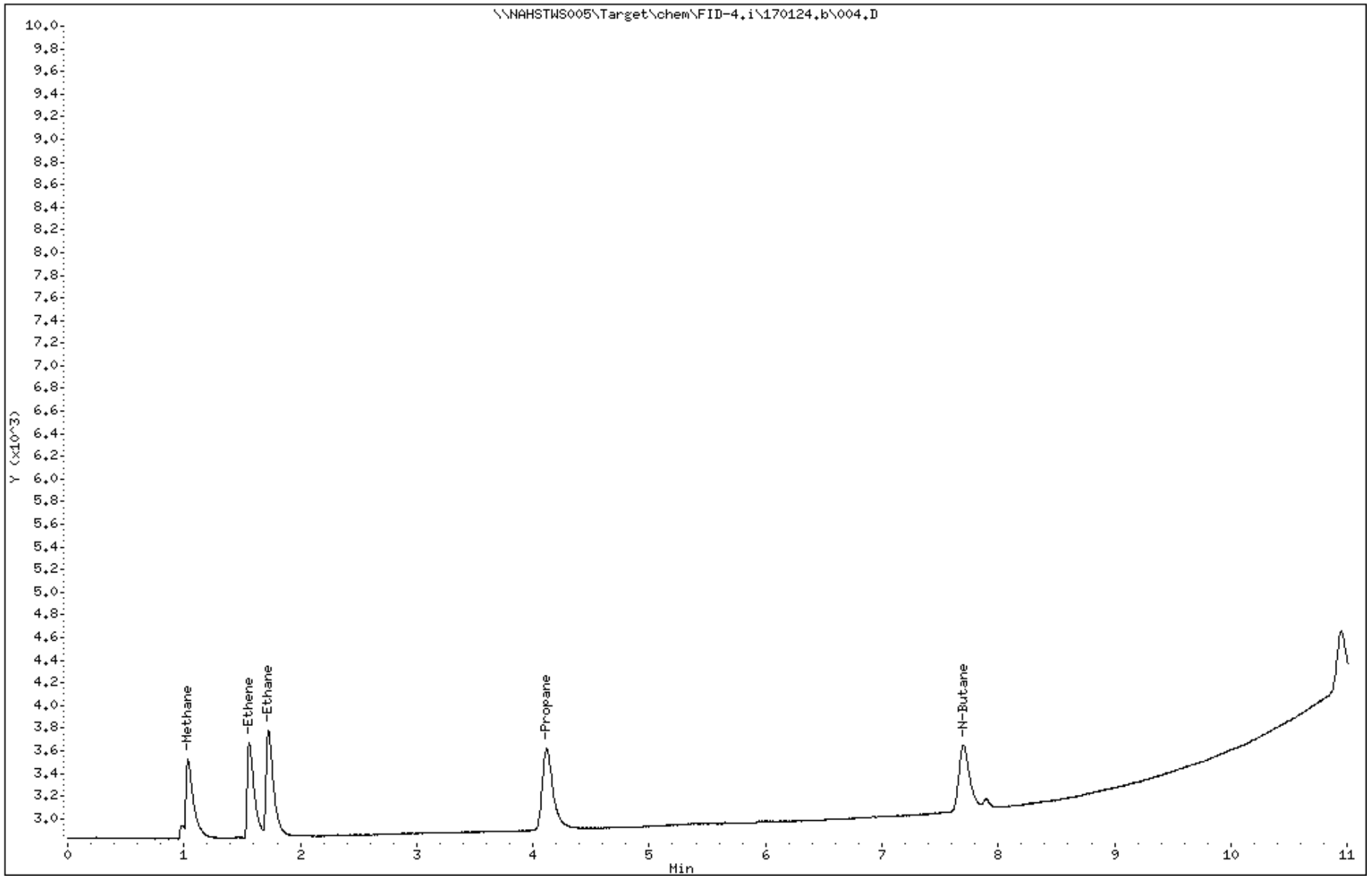
Instrument: FID-4.i

Sample Info: ICAL4;ICAL4;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



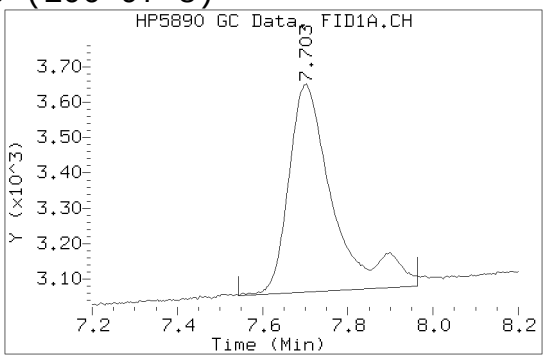
Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D
Inj Date : 24-JAN-2017 10:15
InstruID : FID-4.i
LabSampID : ICAL4

N-Butane (106-97-8)

Reason Code:

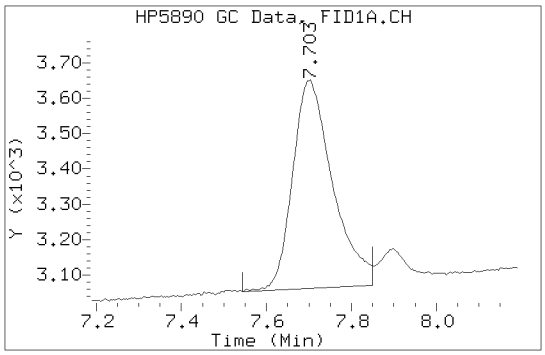
BEFORE

MASS
100
AREA
4292
HEIGHT
591
28-Sep-2022
10:02
linh
pham




AFTER

MASS
100
AREA
3864
HEIGHT
591
28-Sep-2022
10:02
linh
pham



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D Page 1
Report Date: 28-Sep-2022 10:02

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D
Lab Smp Id: ICAL5 Client Smp ID: ICAL5
Inj Date : 24-JAN-2017 10:39
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL5;ICAL5;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:02 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | ON-COL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 1.043 | 1.043 | 0.000 | 9268 | 9.64700 | 9.511 |
| 2 Ethene | 1.570 | 1.570 | 0.000 | 11210 | 16.8500 | 19.121 |
| 3 Ethane | 1.733 | 1.733 | 0.000 | 14588 | 18.0430 | 19.811 |
| 4 Propane | 4.120 | 4.120 | 0.000 | 18294 | 26.4630 | 27.415 |
| 5 N-Butane | 7.700 | 7.700 | 0.000 | 18446 | 34.9550 | 34.419(M) |

QC Flag Legend

M - Compound response manually integrated.

01241370

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D



Date : 24-JAN-2017 10:39

Client ID: ICAL5

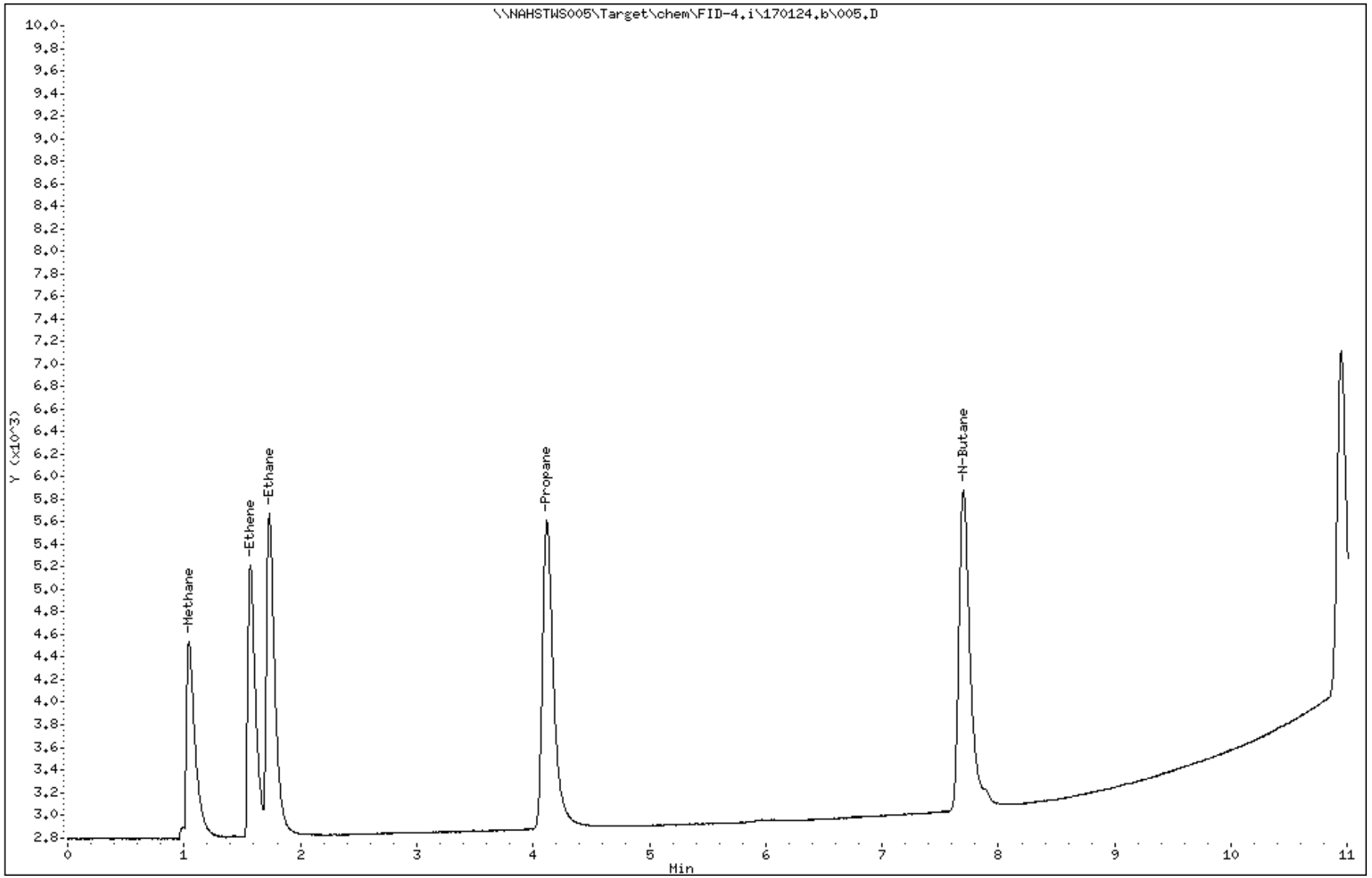
Instrument: FID-4.i

Sample Info: ICAL5;ICAL5;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



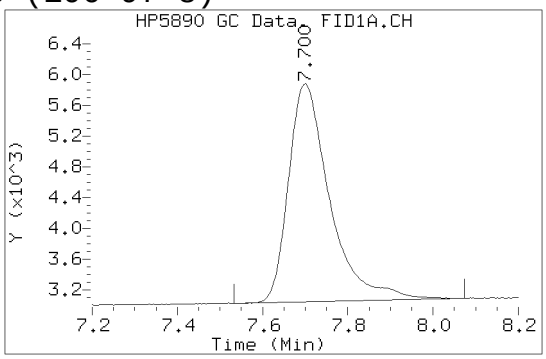
Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D
Inj Date : 24-JAN-2017 10:39
InstruID : FID-4.i
LabSampID : ICAL5

N-Butane (106-97-8)

Reason Code:

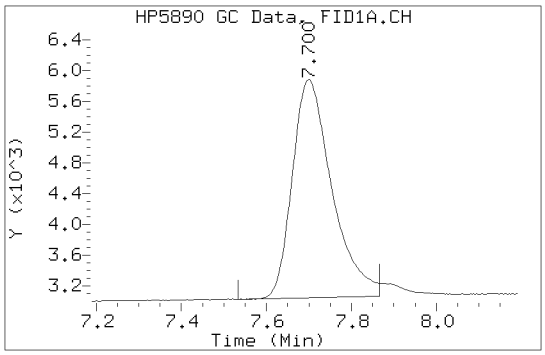
BEFORE

MASS
100
AREA
19142
HEIGHT
2839
28-Sep-2022
10:02
linh
pham




AFTER

MASS
100
AREA
18446
HEIGHT
2838
28-Sep-2022
10:02
linh
pham



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D
Lab Smp Id: ICAL6 Client Smp ID: ICAL6
Inj Date : 24-JAN-2017 10:57
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL6;ICAL6;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 10:39 Cal File: 005.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 1.023 | 1.023 | 0.000 | 17957 | 19.2940 | 18.429 |
| 2 Ethene | 1.550 | 1.550 | 0.000 | 22910 | 53.8200 | 39.078 |
| 3 Ethane | 1.716 | 1.716 | 0.000 | 29505 | 36.0860 | 40.070 |
| 4 Propane | 4.110 | 4.110 | 0.000 | 38286 | 52.9260 | 52.796 |
| 5 N-Butane | 7.696 | 7.696 | 0.000 | 42817 | 69.9110 | 70.855 |

01241373

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D

Page 1

Date : 24-JAN-2017 10:57

Client ID: ICAL6

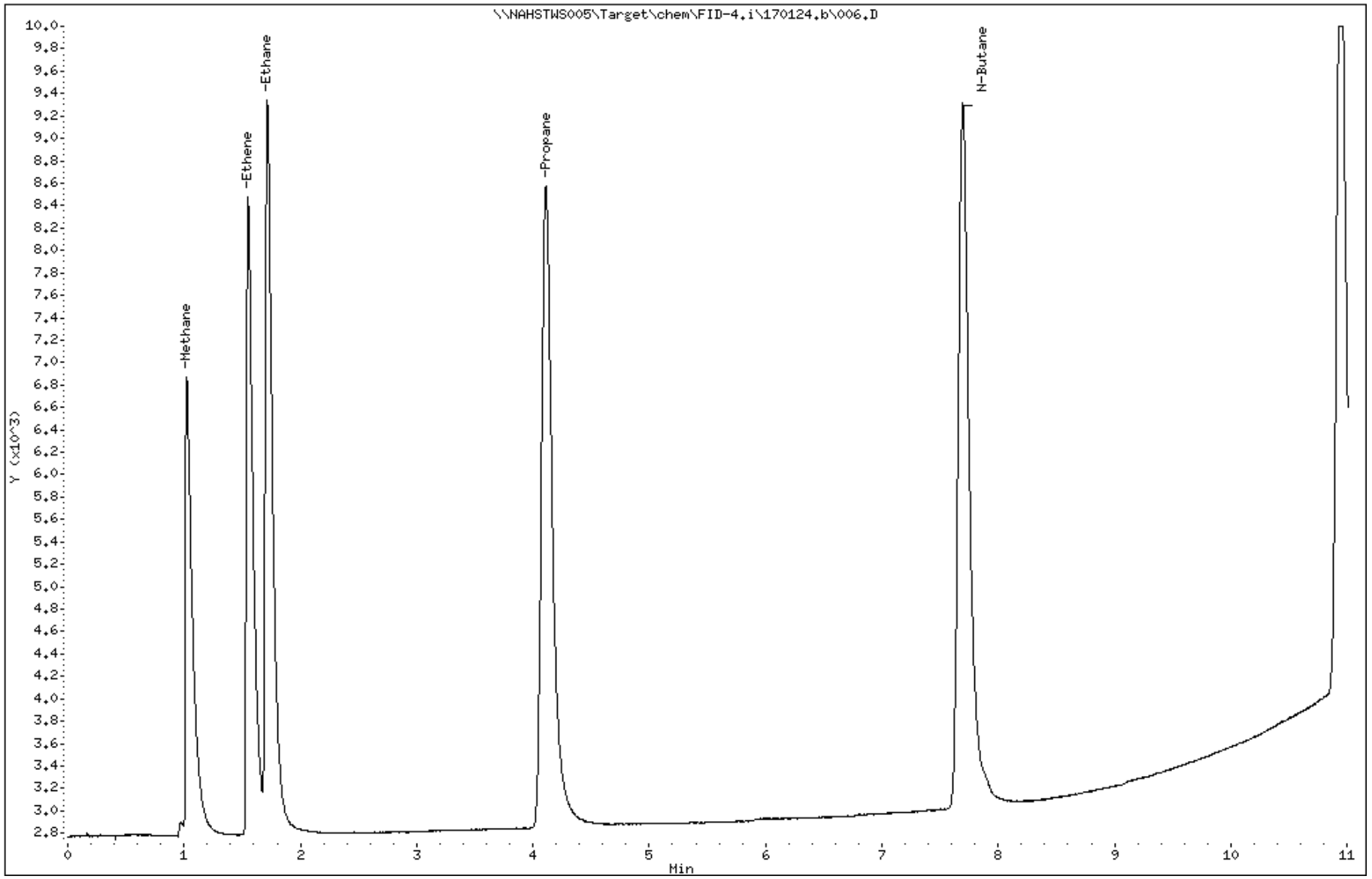
Instrument: FID-4.i

Sample Info: ICAL6;ICAL6;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D
Inj Date  : 24-JAN-2017 10:57
InstruID  : FID-4.i
LabSampID : ICAL6

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D
Lab Smp Id: ICAL7 Client Smp ID: ICAL7
Inj Date : 24-JAN-2017 11:13
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL7;ICAL7;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 10:57 Cal File: 006.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|
| | | | | | CAL-AMT | ON-COL |
| Compounds | RT | EXP RT | DLT RT | RESPONSE | ( ug/L) | ( ug/L) |
| 1 Methane | 1.030 | 1.030 | 0.000 | 41736 | 38.5880 | 42.833(A) |
| 2 Ethene | 1.556 | 1.556 | 0.000 | 55865 | 67.4000 | 95.291(A) |
| 3 Ethane | 1.723 | 1.723 | 0.000 | 72124 | 72.1720 | 97.951(A) |
| 4 Propane | 4.113 | 4.113 | 0.000 | 96509 | 105.852 | 105.844 |
| 5 N-Butane | 7.690 | 7.690 | 0.000 | 114164 | 139.821 | 139.707 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

01241376

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D



Date : 24-JAN-2017 11:13

Client ID: ICAL7

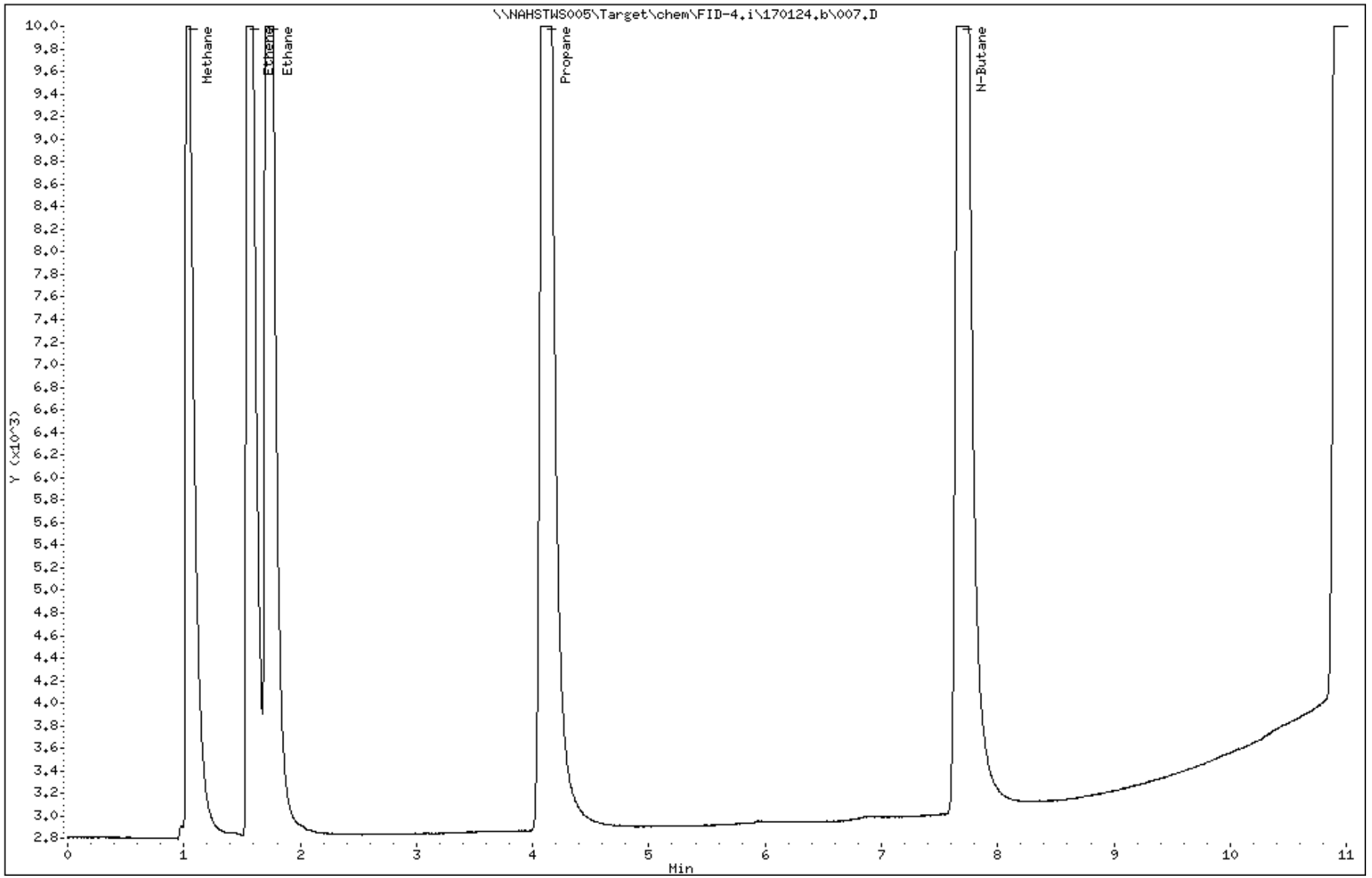
Instrument: FID-4.i

Sample Info: ICAL7;ICAL7;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D
Inj Date  : 24-JAN-2017 11:13
InstruID  : FID-4.i
LabSampID : ICAL7

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-JAN-2017 12:05
Operator : MA Inst ID: FID-4.i
Smp Info : ICV;ICV;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 8 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 1.046 | 1.030 | 0.016 | 9352 | 9.59792 | 9.597 |
| 2 Ethene | 1.573 | 1.556 | 0.017 | 11192 | 19.0906 | 19.090 |
| 3 Ethane | 1.736 | 1.723 | 0.013 | 14474 | 19.6571 | 19.657 |
| 4 Propane | 4.116 | 4.113 | 0.003 | 18164 | 27.2381 | 27.238 |
| 5 N-Butane | 7.696 | 7.690 | 0.006 | 19425 | 36.0103 | 36.010 |

01241379

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D



Date : 24-JAN-2017 12:05

Client ID: ICV

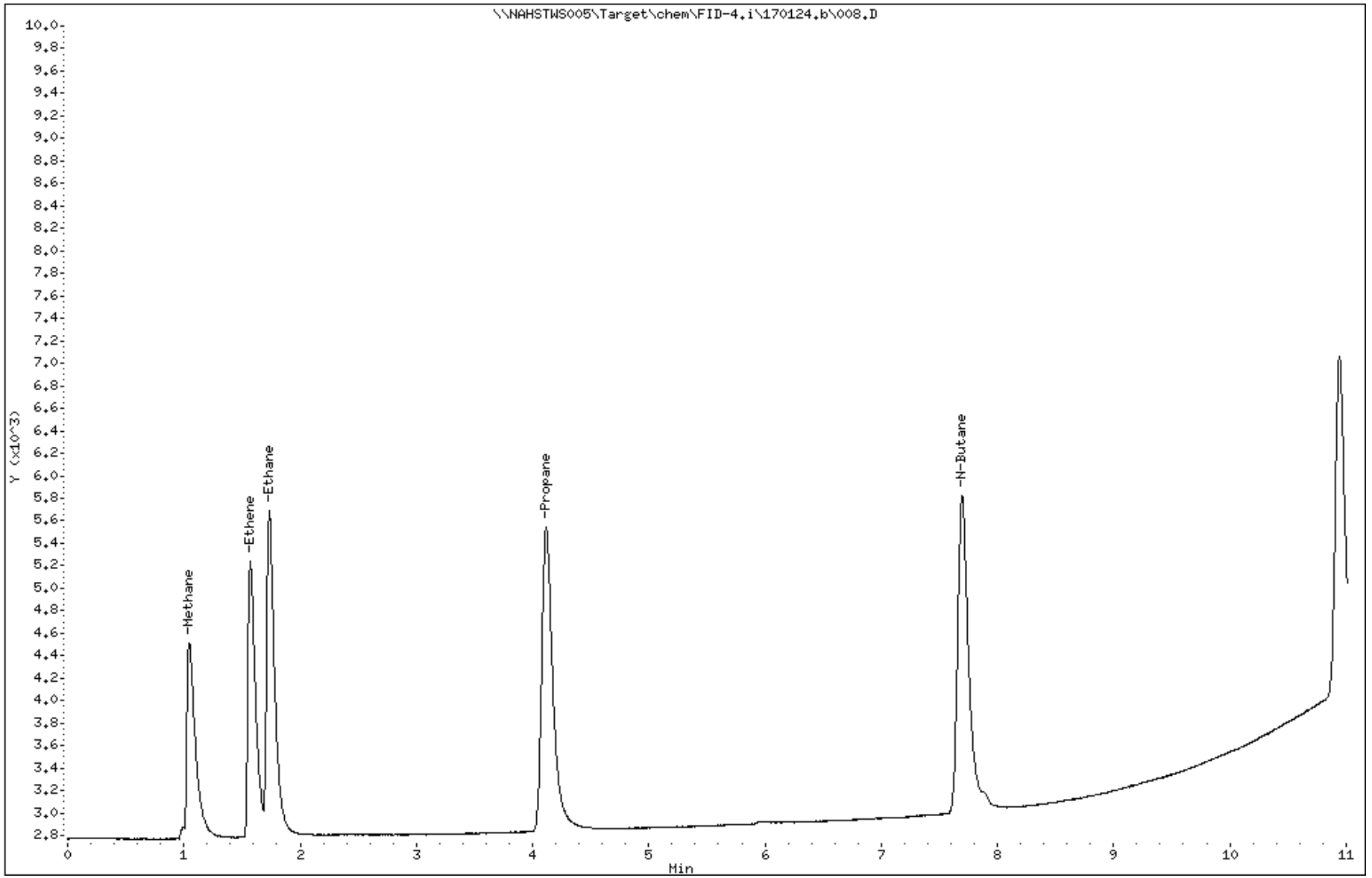
Instrument: FID-4.i

Sample Info: ICV;ICV;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D
Inj Date  : 24-JAN-2017 12:05
InstruID  : FID-4.i
LabSampID : ICV

NO MANUAL INTEGRATIONS

01241381

right solutions.
right partner.

# Raw Data FID-4 427362

# Semi-Volatiles by RSK-175

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230130.b\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 30-JAN-2023 09:25
Operator : JA Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 14:38 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|
| | | | | | CAL-AMT | ON-COL |
| Compounds | RT | EXP RT | DLT RT | RESPONSE | ( ug/L) | ( ug/L) |
| 1 Methane | 0.430 | 0.430 | 0.000 | 8944 | 9.64700 | 9.173 |
| 2 Ethene | 0.650 | 0.650 | 0.000 | 10500 | 16.8500 | 17.925 |
| 3 Ethane | 0.720 | 0.720 | 0.000 | 14618 | 18.0430 | 20.317 |

01241383

Data File: \\nahstws005\Target\chem\FID-4.i\230130.b\001.D

Page 1

Date : 30-JAN-2023 09:25

Client ID: RSK-CCV

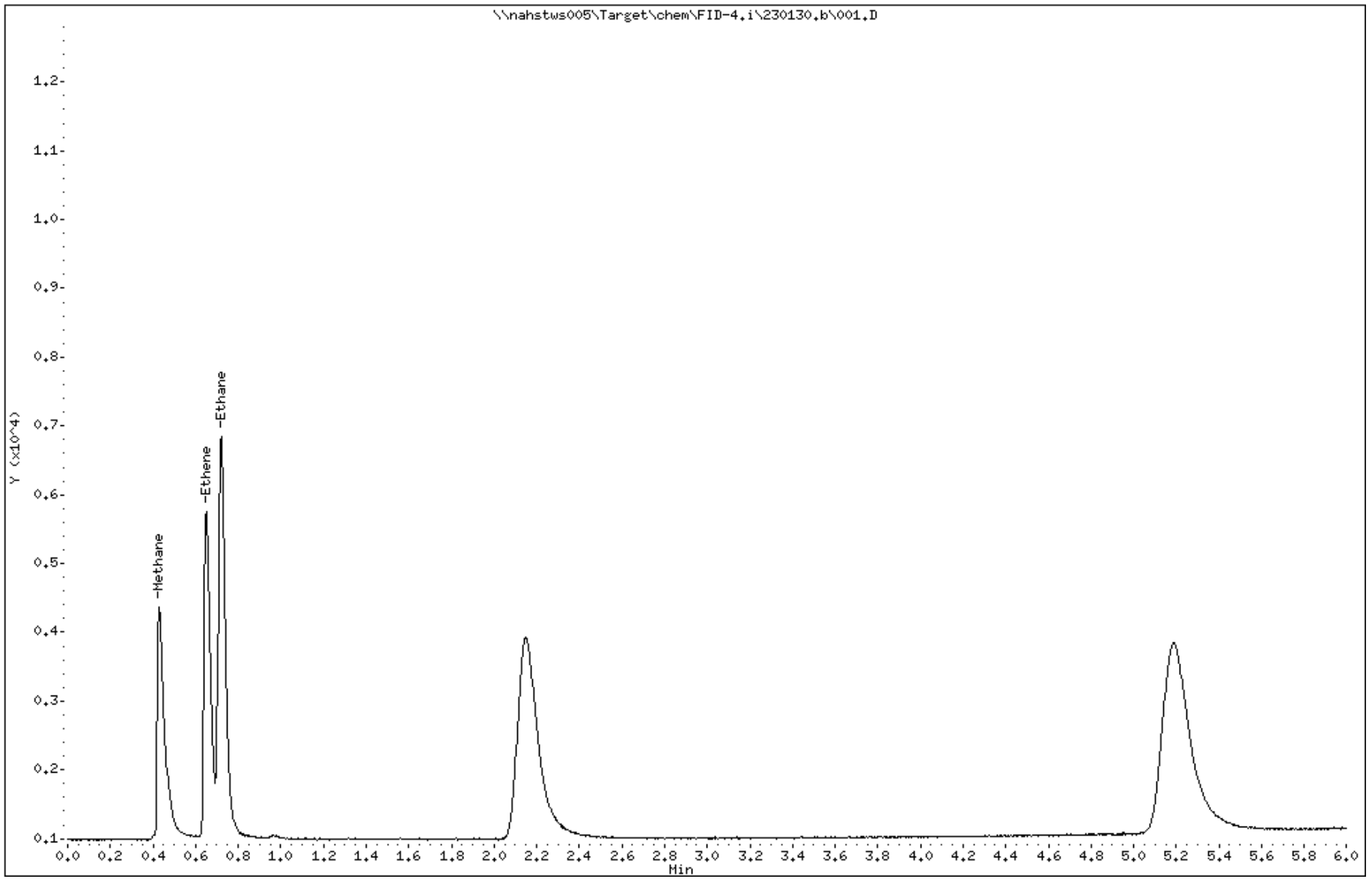
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: JA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\nahstws005\Target\chem\FID-4.i\230130.b\001.D
Inj Date  : 30-JAN-2023 09:25
InstruID  : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\002.D
Lab Smp Id: MBLK-230130 Client Smp ID: MBLK-230130
Inj Date : 30-JAN-2023 09:35
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-230130;MBLK-230130;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 09:34 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|

01241386

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\002.D



Date : 30-JAN-2023 09:35

Client ID: MBLK-230130

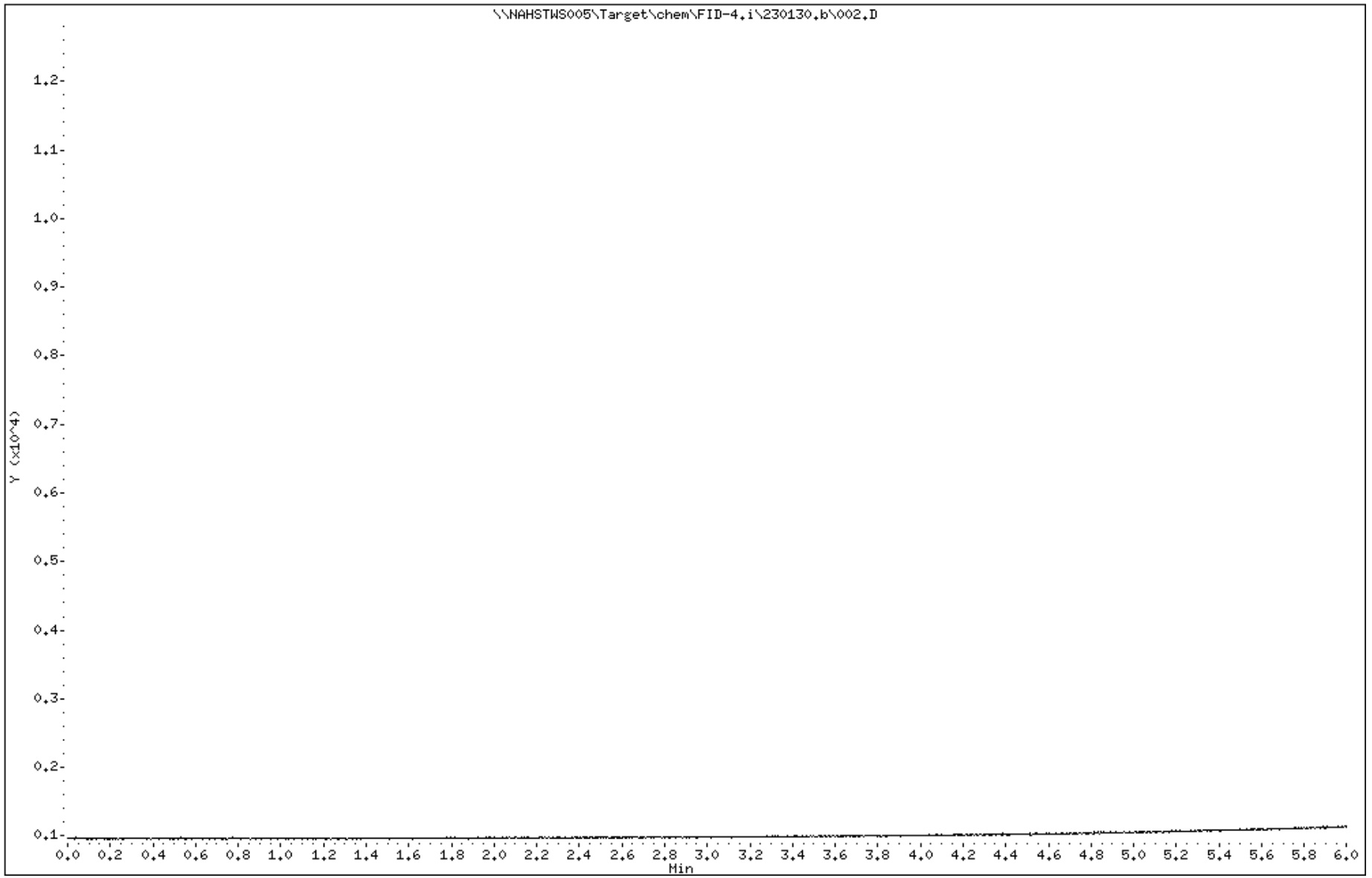
Instrument: FID-4.i

Sample Info: MBLK-230130;MBLK-230130;3;;BLANK

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\002.D
Inj Date  : 30-JAN-2023 09:35
InstruID  : FID-4.i
LabSampID : MBLK-230130

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\003.D Page 1
Report Date: 30-Jan-2023 10:57

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\003.D
Lab Smp Id: LCS-230130 Client Smp ID: LCS-230130
Inj Date : 30-JAN-2023 09:43
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-230130;LCS-230130;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 09:34 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.433 | 0.430 | 0.003 | 9149 | 9.38366 | 9.383 |
| 2 Ethene | 0.650 | 0.650 | 0.000 | 10022 | 17.1094 | 17.109 |
| 3 Ethane | 0.723 | 0.720 | 0.003 | 13952 | 19.3915 | 19.391 |

01241389

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\003.D

Page 1

Date : 30-JAN-2023 09:43

Client ID: LCS-230130

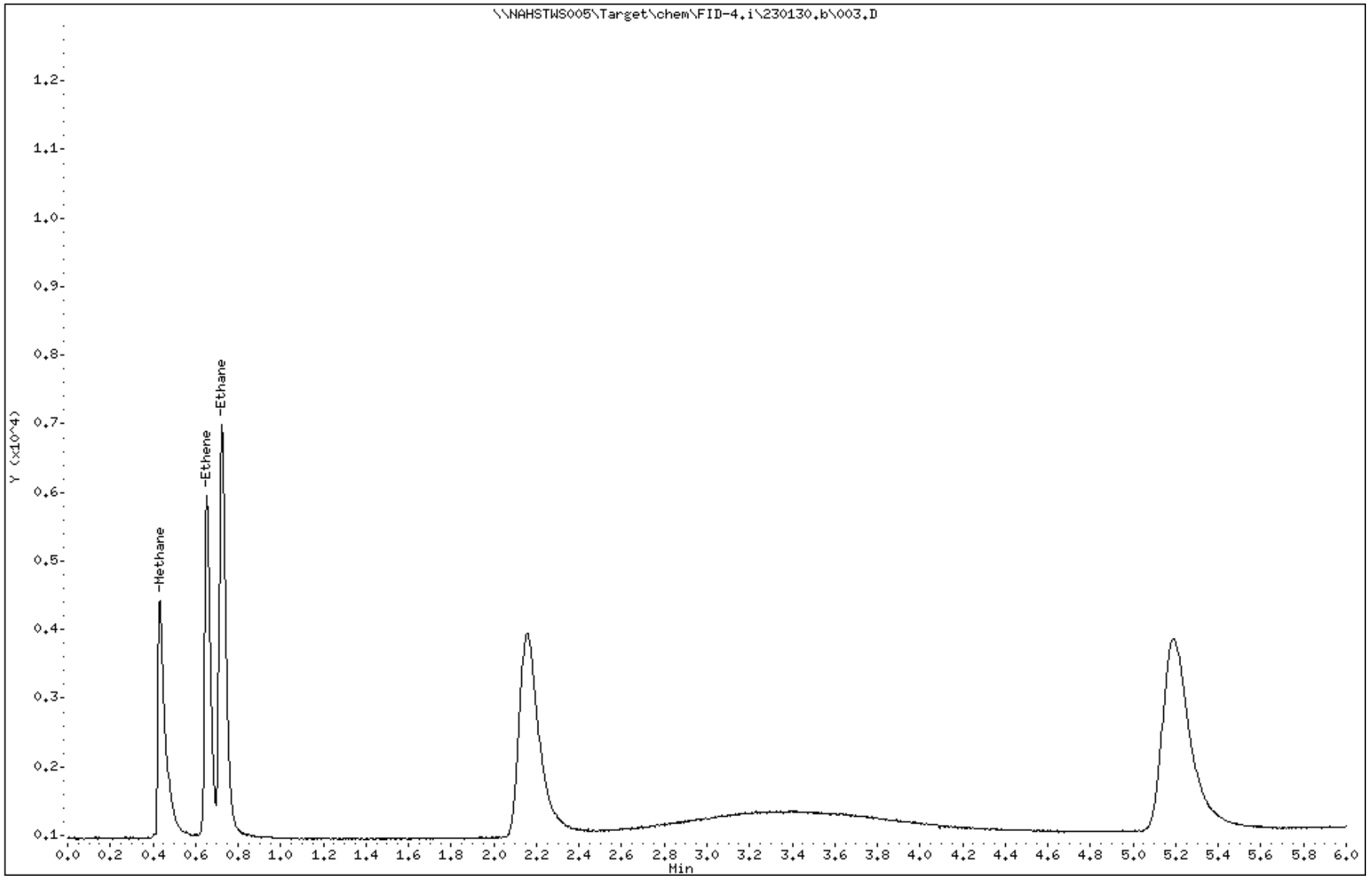
Instrument: FID-4.i

Sample Info: LCS-230130;LCS-230130;3;;LCS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\003.D
Inj Date  : 30-JAN-2023 09:43
InstruID  : FID-4.i
LabSampID : LCS-230130

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\007.D Page 1
Report Date: 30-Jan-2023 11:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\007.D
Lab Smp Id: HS23011136-01 Client Smp ID: HS23011136-01
Inj Date : 30-JAN-2023 10:22
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-01;HS23011136-01
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 09:34 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.436 | 0.430 | 0.006 | 7285 | 7.47185 | 7.471 |

01241392

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\007.D



Date : 30-JAN-2023 10:22

Client ID: HS23011136-01

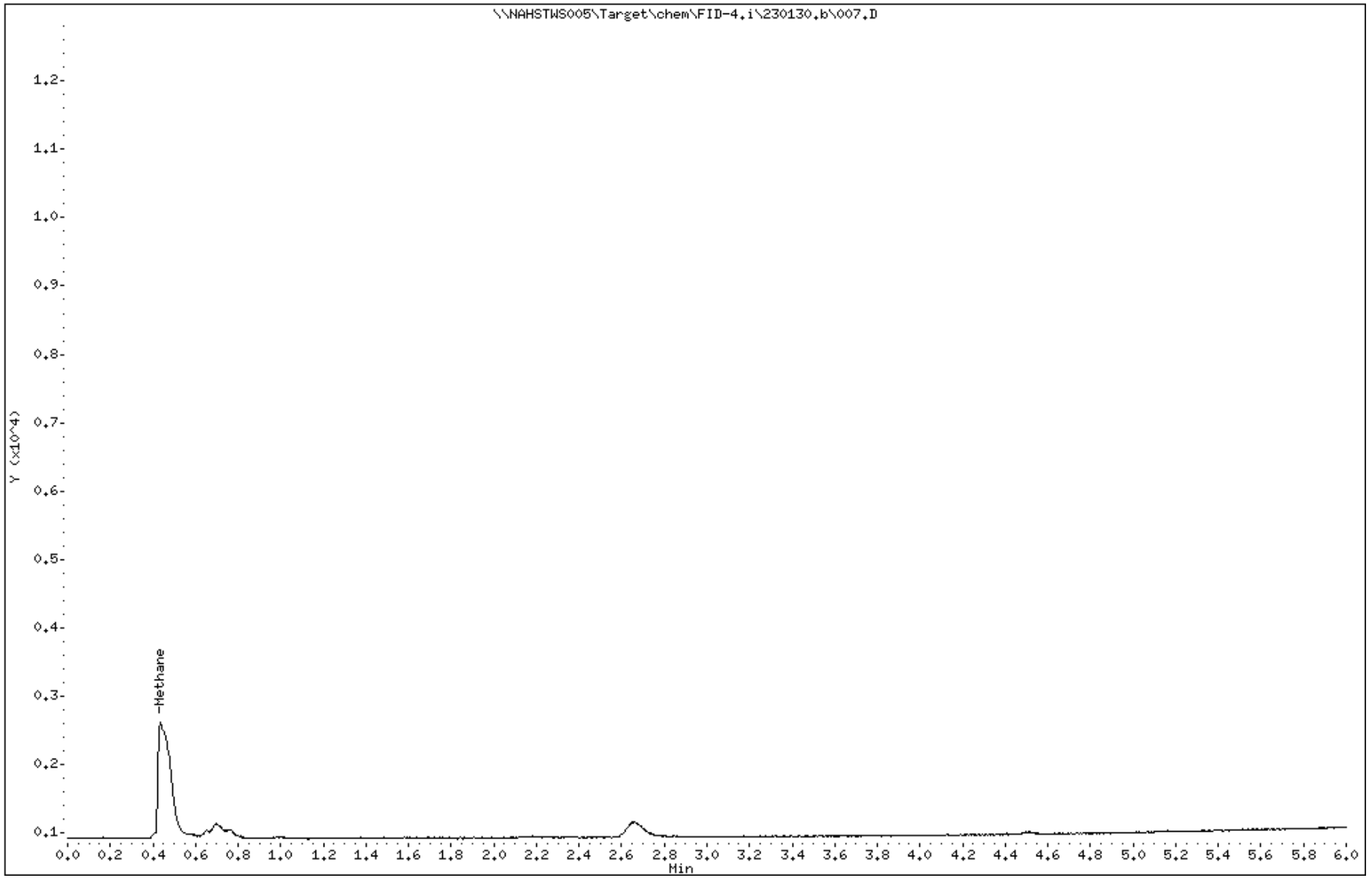
Instrument: FID-4.i

Sample Info: HS23011136-01;HS23011136-01

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\007.D
Inj Date  : 30-JAN-2023 10:22
InstruID  : FID-4.i
LabSampID : HS23011136-01

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\008.D Page 1
Report Date: 06-Feb-2023 12:13

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\008.D
Lab Smp Id: HS23011136-02 Client Smp ID: HS23011136-02
Inj Date : 30-JAN-2023 10:48
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-02;HS23011136-02
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 14:38 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.463 | 0.430 | 0.033 | 3264 | 3.34772 | 3.347(M) |
| 2 Ethene | 0.646 | 0.650 | -0.004 | 644 | 1.09943 | 1.099(M) |

QC Flag Legend

M - Compound response manually integrated.

01241395

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\008.D



Date : 30-JAN-2023 10:48

Client ID: HS23011136-02

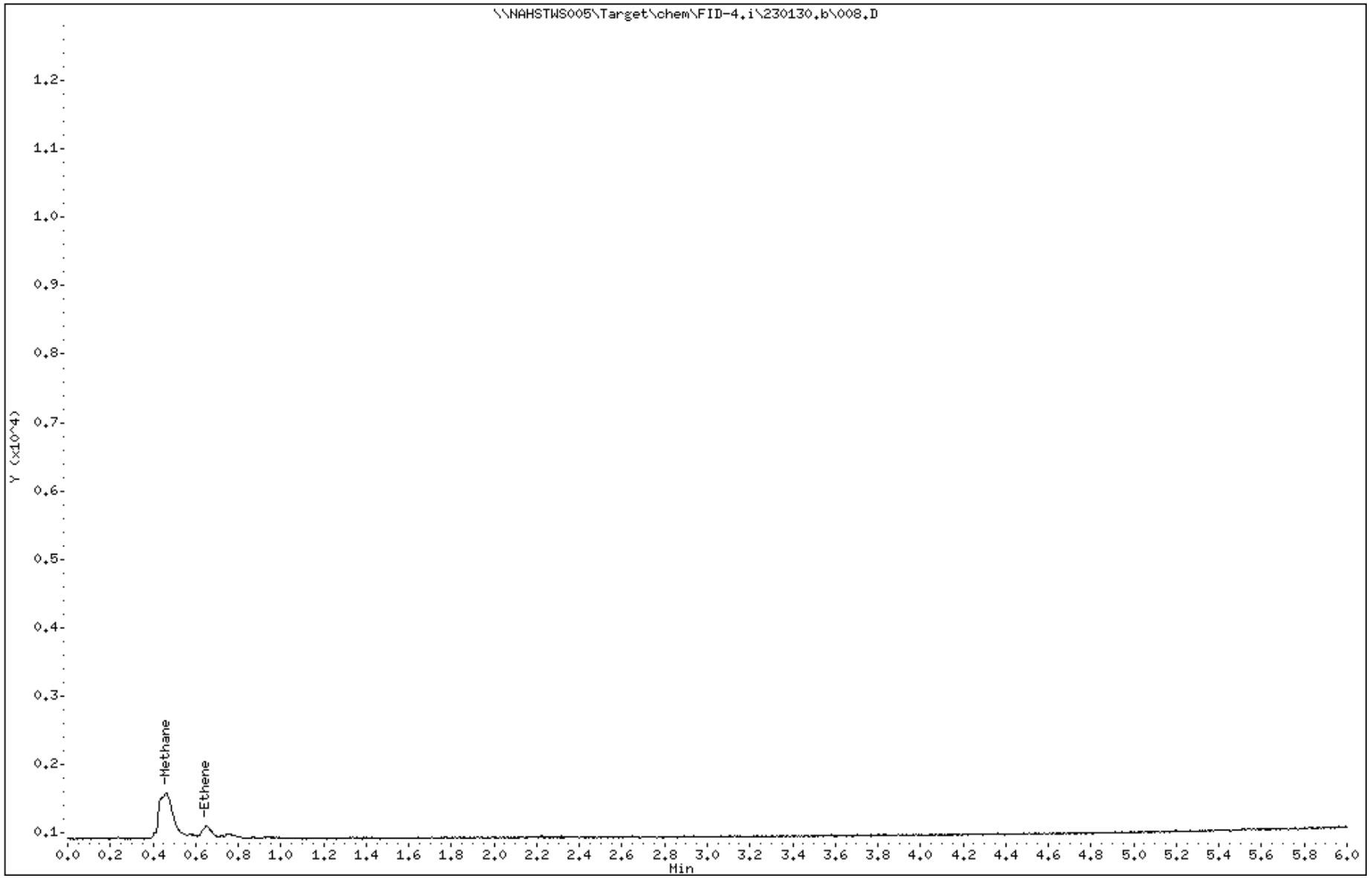
Instrument: FID-4.i

Sample Info: HS23011136-02;HS23011136-02

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



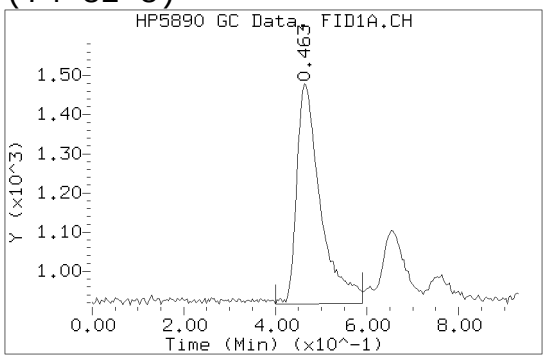
Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\008.D
Inj Date : 30-JAN-2023 10:48
InstruID : FID-4.i
LabSampID : HS23011136-02

## Methane (74-82-8)

Reason Code:

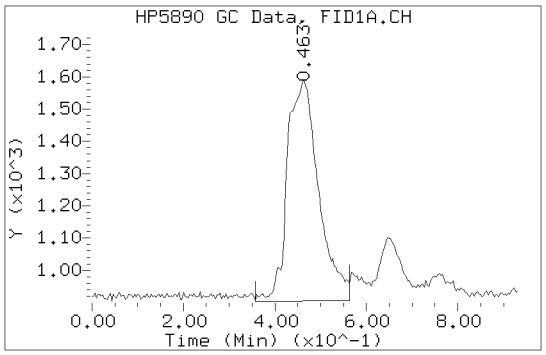
**BEFORE**

MASS
100
AREA
0
HEIGHT
0
30-Jan-2023
10:43
ALSHS
Server




**AFTER**

MASS
100
AREA
3264
HEIGHT
686
06-Feb-2023
12:13
ALSHS
Ser

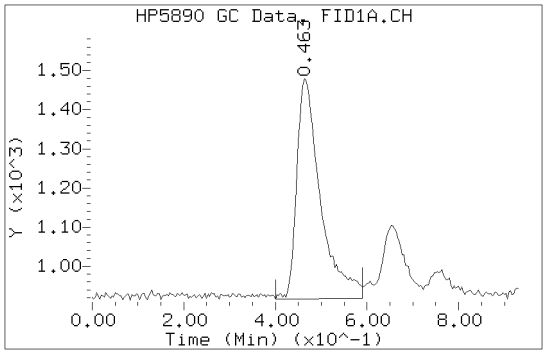



## Ethene (74-85-1)

Reason Code:

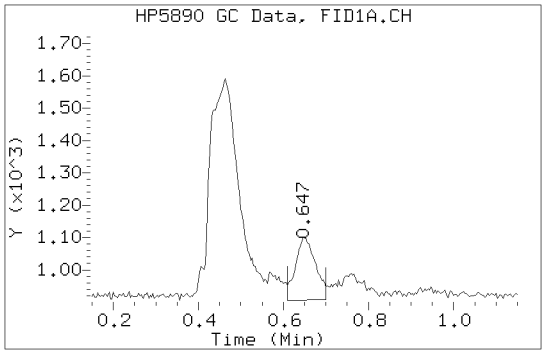
**BEFORE**

MASS
100
AREA
0
HEIGHT
0
30-Jan-2023
10:43
ALSHS
Server




**AFTER**

MASS
100
AREA
644
HEIGHT
195
06-Feb-2023
12:13
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\009.D Page 1
Report Date: 16-Feb-2023 13:14

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\009.D
Lab Smp Id: HS23011136-03 Client Smp ID: HS23011136-03
Inj Date : 30-JAN-2023 10:55
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-03;HS23011136-03
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 14:38 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.423 | 0.423 | 0.000 | 5073824 | 5203.96 | 5203.962(A) |
| 2 Ethene | 0.633 | 0.643 | -0.010 | 30630 | 52.2910 | 52.291(M) |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

01241398

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\009.D



Date : 30-JAN-2023 10:55

Client ID: HS23011136-03

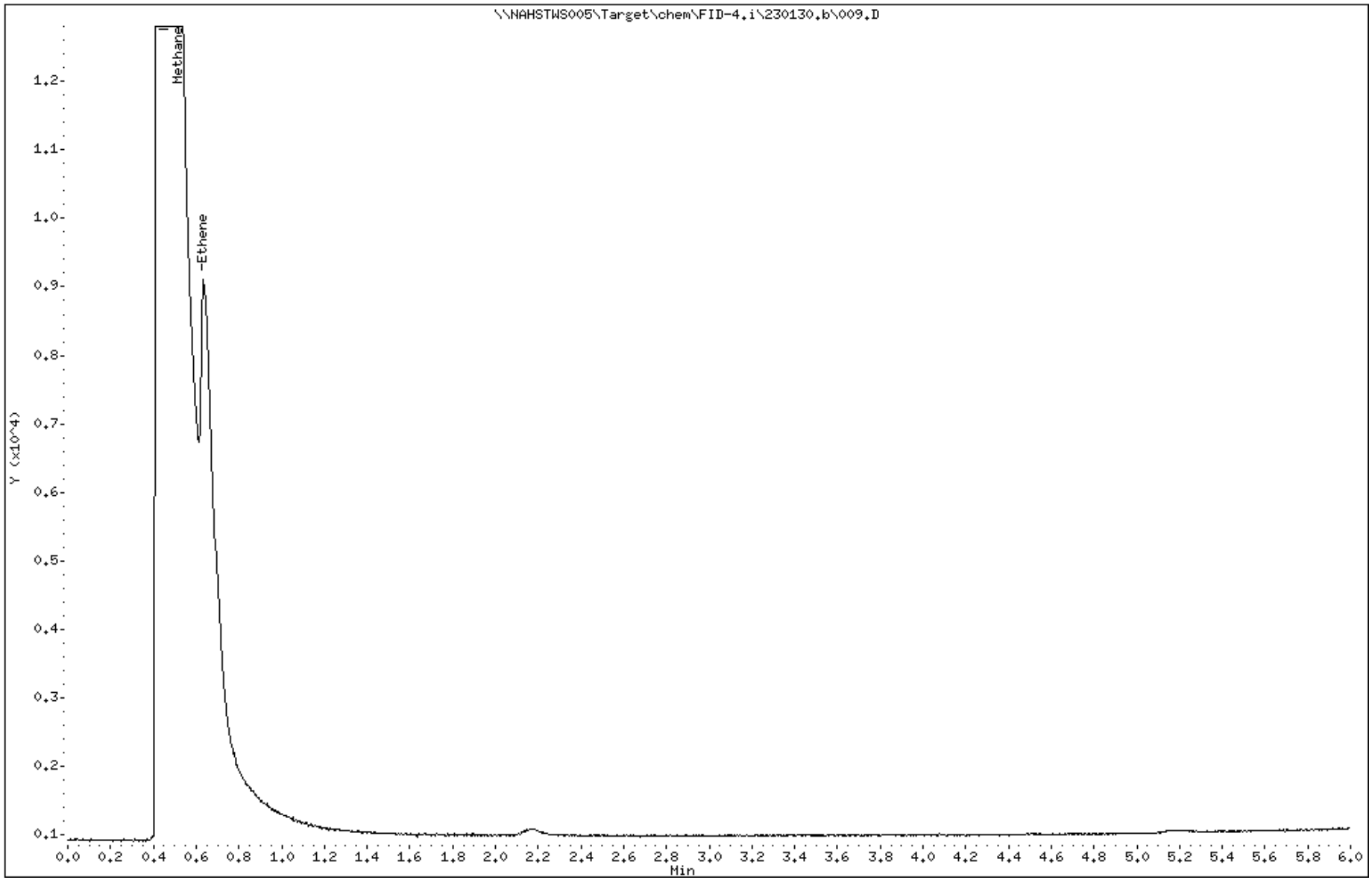
Instrument: FID-4.i

Sample Info: HS23011136-03;HS23011136-03

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



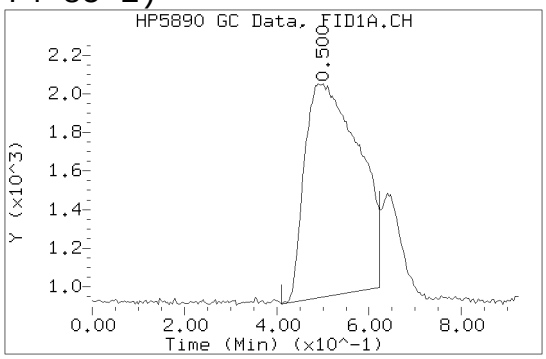
Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\009.D
Inj Date : 30-JAN-2023 10:55
InstruID : FID-4.i
LabSampID : HS23011136-03

Ethene (74-85-1)

Reason Code:

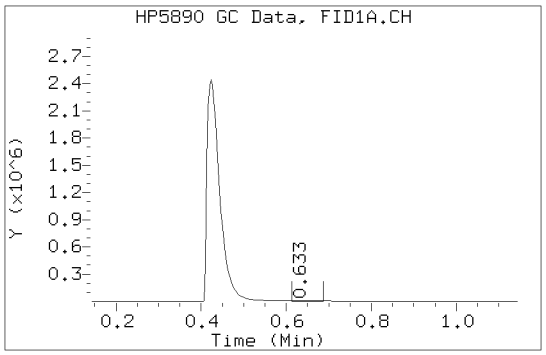
BEFORE

MASS
100
AREA
0
HEIGHT
0
30-Jan-2023
10:47
ALSHS
Server




AFTER

MASS
100
AREA
30630
HEIGHT
8189
16-Feb-2023
13:14
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\010.D Page 1
Report Date: 30-Jan-2023 11:11

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\010.D
Lab Smp Id: HS23011136-05 Client Smp ID: HS23011136-05
Inj Date : 30-JAN-2023 11:03
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-05;HS23011136-05
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 09:34 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.436 | 0.430 | 0.006 | 4595792 | 4713.67 | 4713.669(A) |
| 2 Ethene | 0.653 | 0.650 | 0.003 | 452021 | 771.682 | 771.682(A) |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

01241401

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\010.D

Page 1

Date : 30-JAN-2023 11:03

Client ID: HS23011136-05

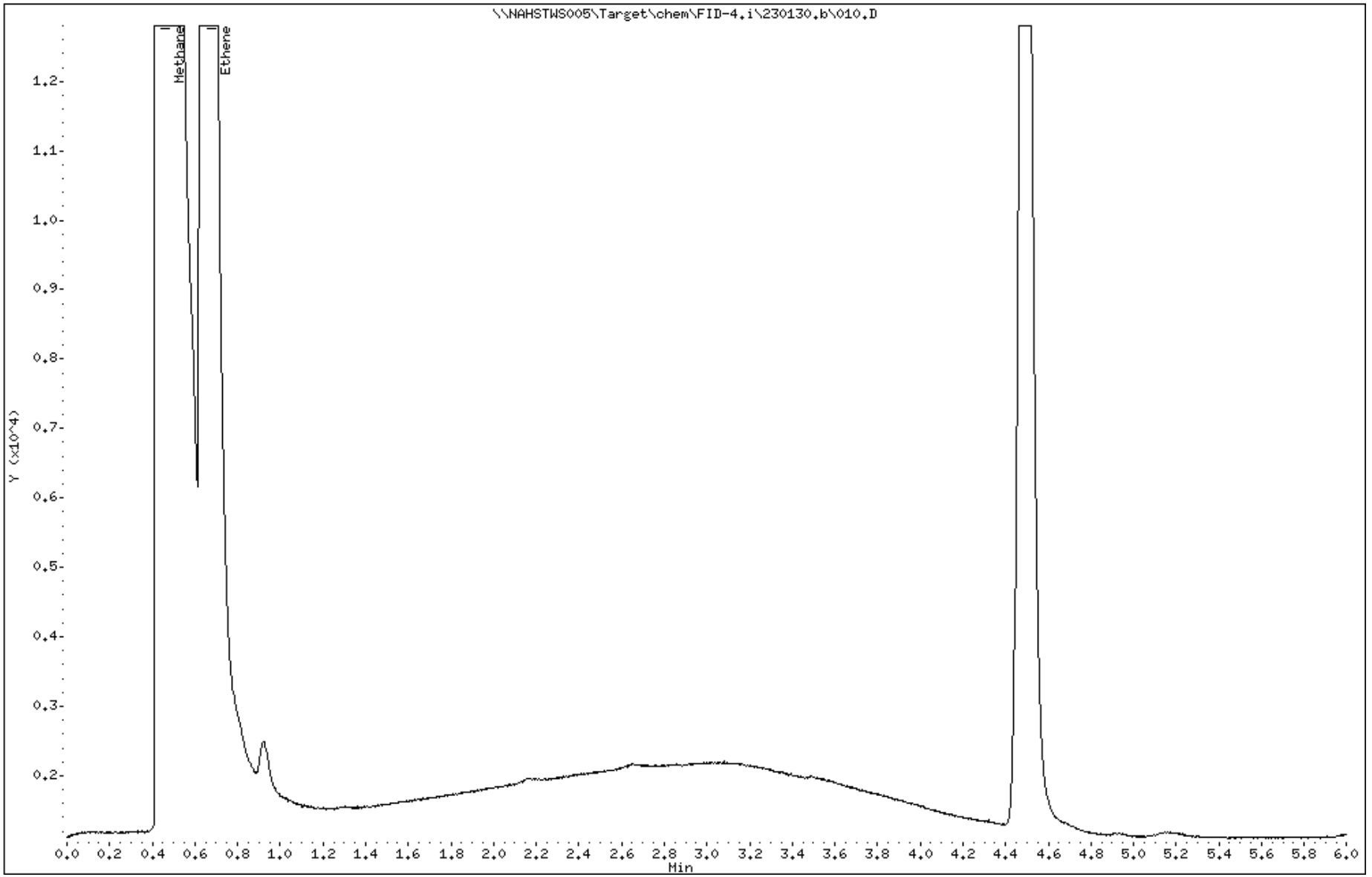
Instrument: FID-4.i

Sample Info: HS23011136-05;HS23011136-05

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\010.D
Inj Date  : 30-JAN-2023 11:03
InstruID  : FID-4.i
LabSampID : HS23011136-05

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\011.D Page 1
Report Date: 30-Jan-2023 11:26

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 30-JAN-2023 11:12
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 11:26 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.430 | 0.430 | 0.000 | 8505 | 9.64700 | 8.723 |
| 2 Ethene | 0.650 | 0.650 | 0.000 | 10176 | 16.8500 | 17.372 |
| 3 Ethane | 0.720 | 0.720 | 0.000 | 15136 | 18.0430 | 21.037 |

01241404

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\011.D



Date : 30-JAN-2023 11:12

Client ID: RSK-CCV

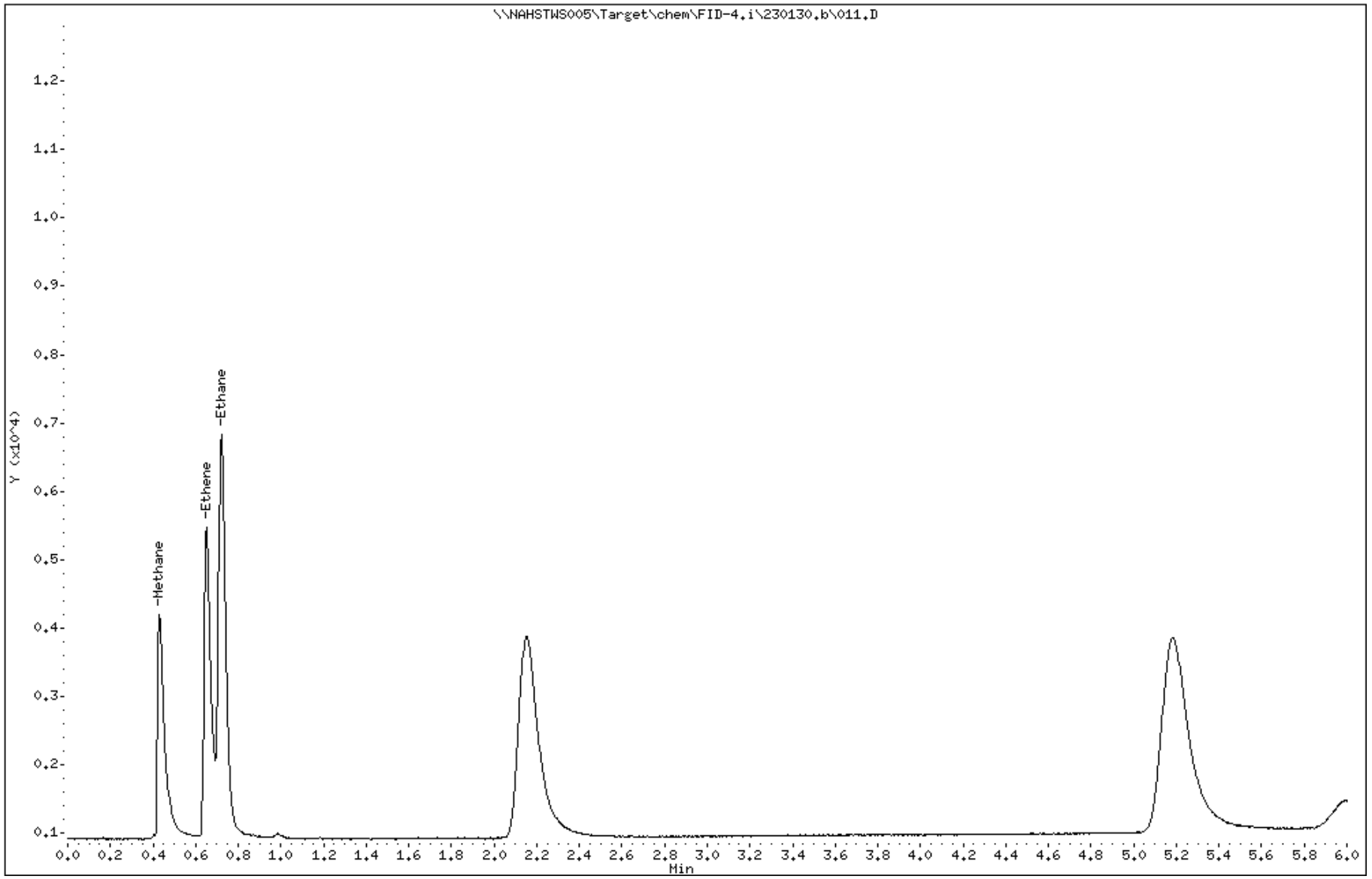
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\011.D
Inj Date  : 30-JAN-2023 11:12
InstruID  : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\012.D Page 1
Report Date: 30-Jan-2023 11:29

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\012.D
Lab Smp Id: HS23011136-04 Client Smp ID: HS23011136-04
Inj Date : 30-JAN-2023 11:20
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-04;HS23011136-04
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 11:26 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.436 | 0.430 | 0.006 | 5060054 | 5189.84 | 5189.839(A) |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

01241407

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\012.D



Date : 30-JAN-2023 11:20

Client ID: HS23011136-04

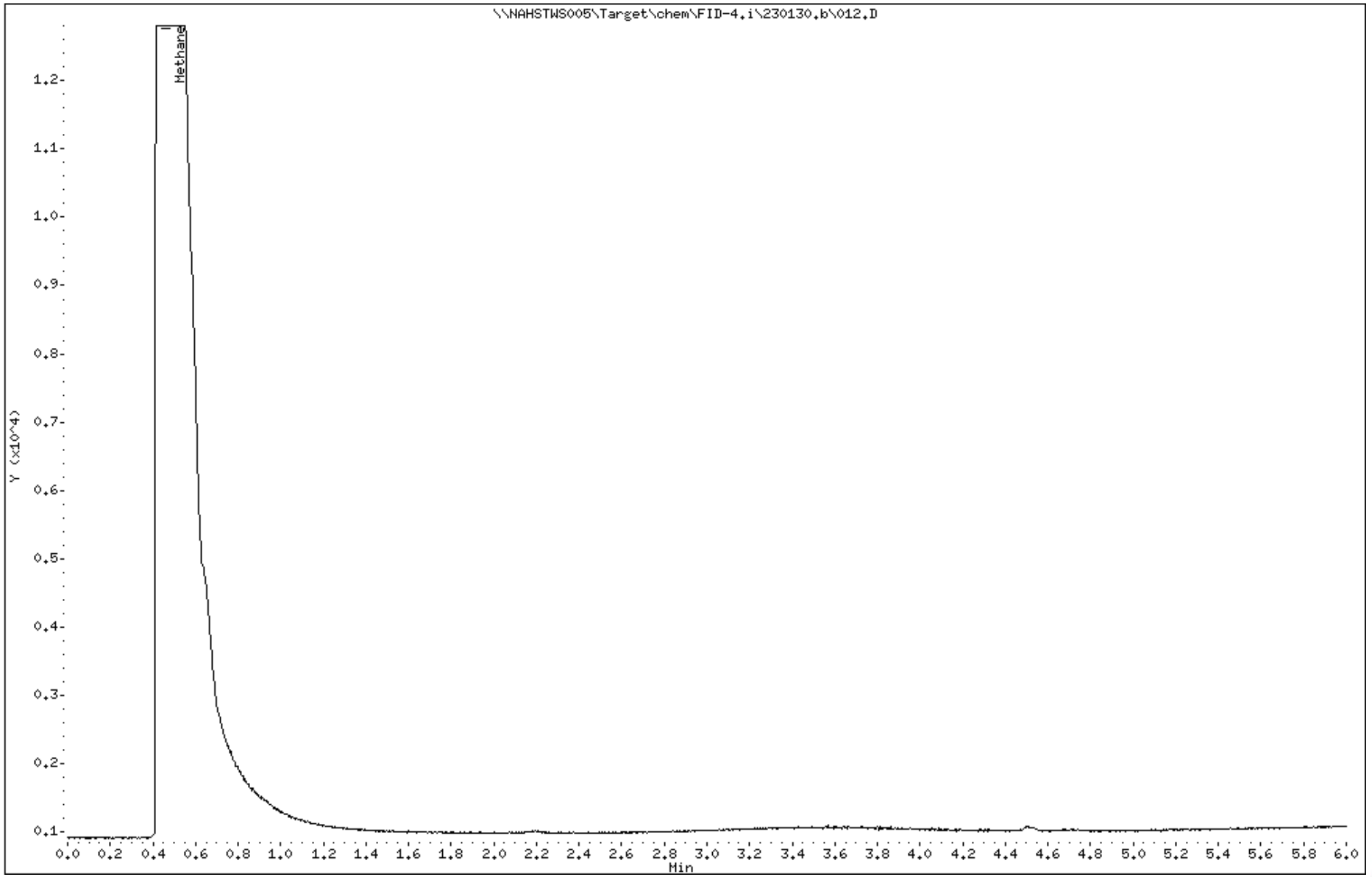
Instrument: FID-4.i

Sample Info: HS23011136-04;HS23011136-04

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\012.D
Inj Date  : 30-JAN-2023 11:20
InstruID  : FID-4.i
LabSampID : HS23011136-04

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\013.D Page 1
Report Date: 06-Feb-2023 12:14

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\013.D
Lab Smp Id: HS23011136-04MS Client Smp ID: HS23011136-04MS
Inj Date : 30-JAN-2023 11:28
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-04MS;HS23011136-04MS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 14:38 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.436 | 0.430 | 0.006 | 4744960 | 4866.66 | 4866.663(ARM) |
| 2 Ethene | 0.646 | 0.650 | -0.004 | 27702 | 47.2924 | 47.292(RM) |
| 3 Ethane | 0.726 | 0.720 | 0.006 | 22730 | 31.5918 | 31.591(RM) |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

01241410

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\013.D

Page 1

Date : 30-JAN-2023 11:28

Client ID: HS23011136-04MS

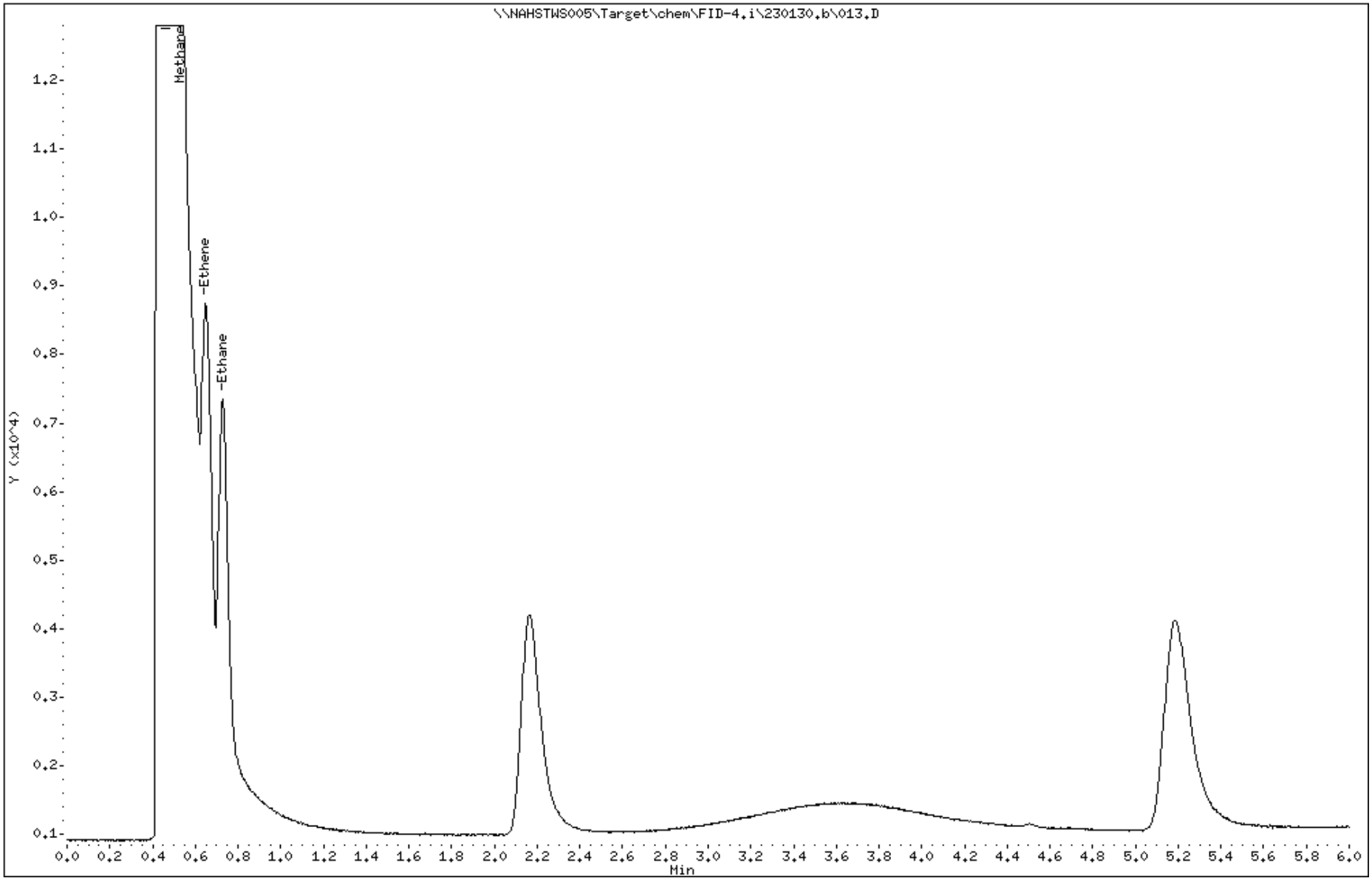
Instrument: FID-4.i

Sample Info: HS23011136-04MS;HS23011136-04MS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53

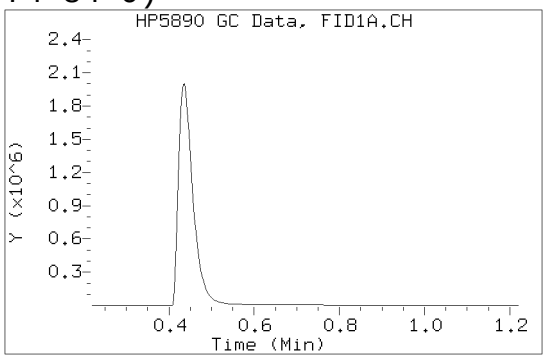


Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\013.D
Inj Date : 30-JAN-2023 11:28
InstruID : FID-4.i
LabSampID : HS23011136-04MS

## Ethane (74-84-0)

### BEFORE

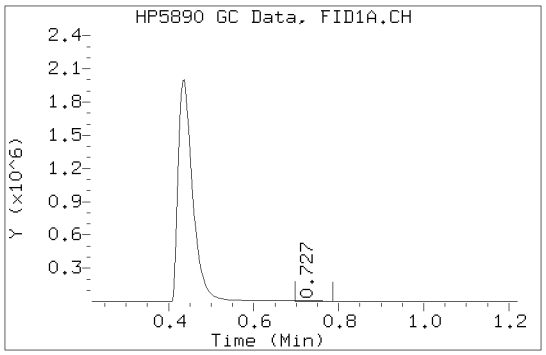
MASS
44
AREA
36147
HEIGHT
6418
30-Jan-2023
11:35
ALSHS
Server




### AFTER

MASS
44
AREA
22730
HEIGHT
6448
06-Feb-2023
12:14
ALSHS
Ser

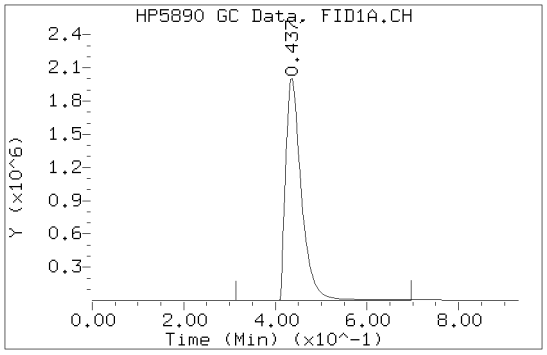
Reason Code:




## Methane (74-82-8)

### BEFORE

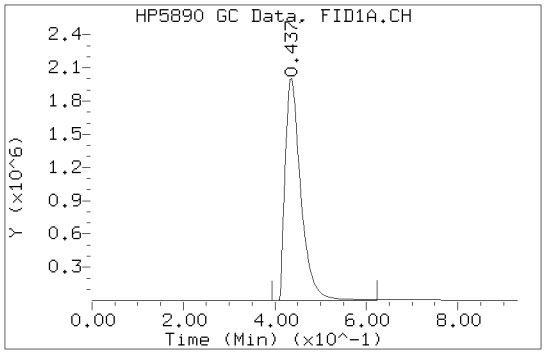
MASS
100
AREA
0
HEIGHT
0
30-Jan-2023
11:35
ALSHS
Server




### AFTER

MASS
100
AREA
4744960
HEIGHT
2000494
06-Feb-2023
12:14
ALSHS
Ser

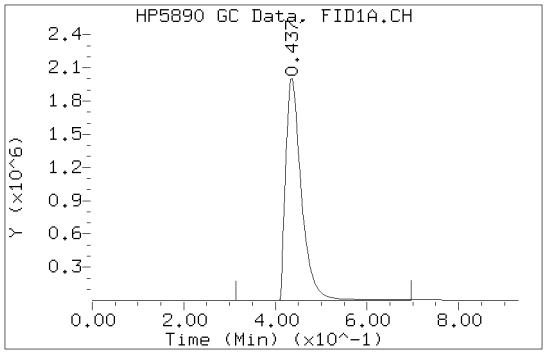
Reason Code:




## Ethene (74-85-1)

### BEFORE

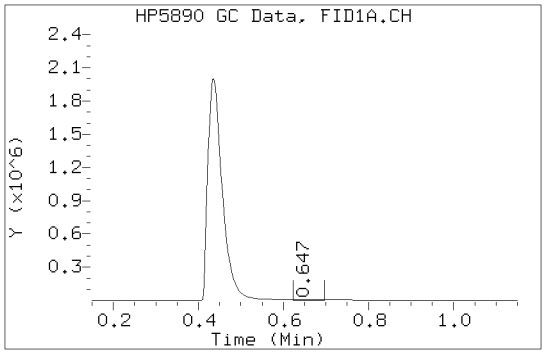
MASS
100
AREA
0
HEIGHT
0
30-Jan-2023
11:35
ALSHS
Server




### AFTER

MASS
100
AREA
27702
HEIGHT
7852
06-Feb-2023
12:14
ALSHS
Ser

Reason Code:



Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\014.D Page 1
Report Date: 06-Feb-2023 12:14

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\014.D
Lab Smp Id: HS23011136-04MSD Client Smp ID: HS23011136-04MSD
Inj Date : 30-JAN-2023 11:37
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-04MSD;HS23011136-04MSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 14:38 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 14 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.430 | 0.430 | 0.000 | 4691938 | 4812.28 | 4812.281(AR) |
| 2 Ethene | 0.636 | 0.650 | -0.014 | 24015 | 40.9980 | 40.997(R) |
| 3 Ethane | 0.716 | 0.720 | -0.004 | 21212 | 29.4820 | 29.482(RM) |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

01241413

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\014.D



Date : 30-JAN-2023 11:37

Client ID: HS23011136-04MSD

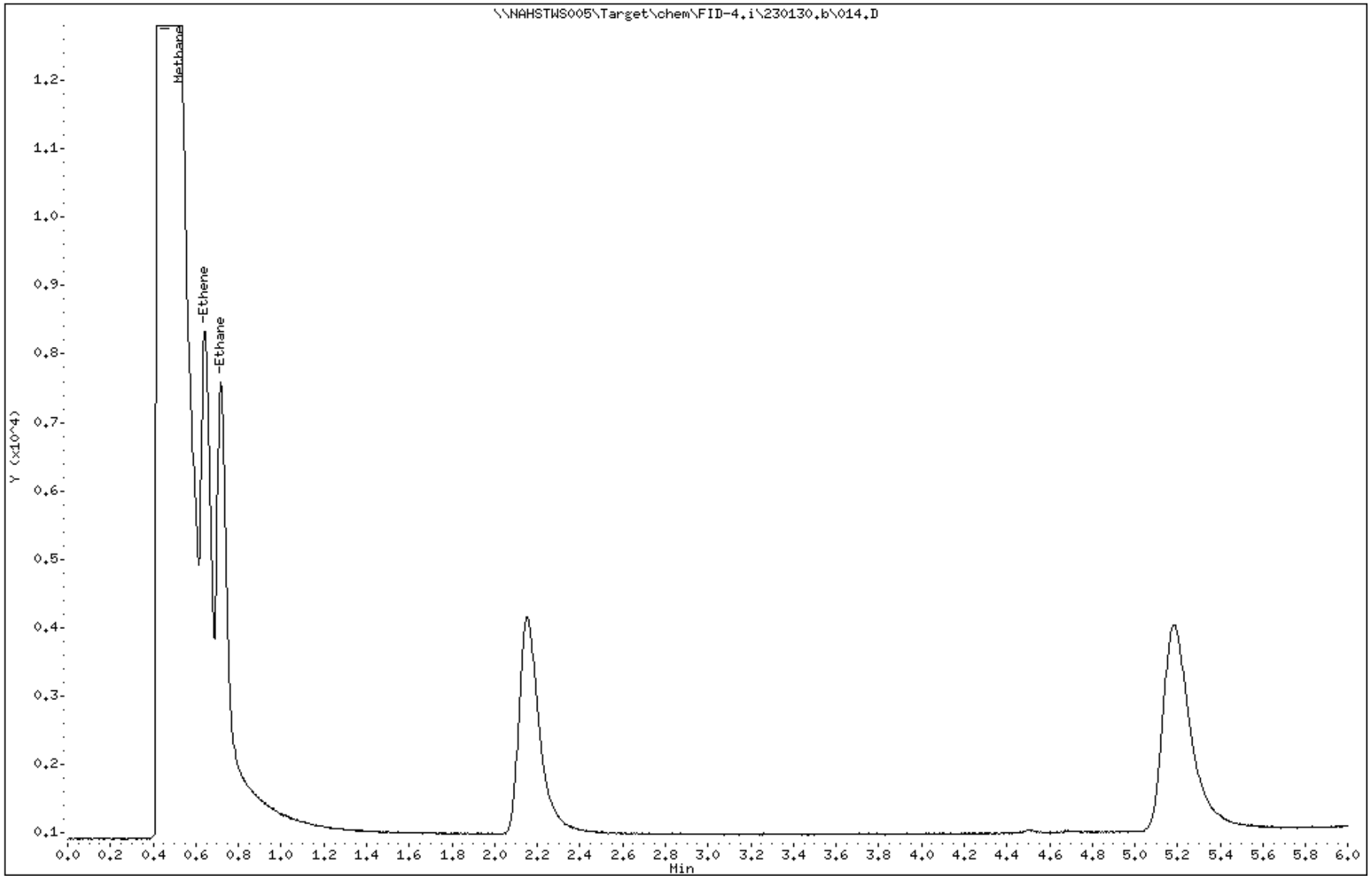
Instrument: FID-4.i

Sample Info: HS23011136-04MSD;HS23011136-04MSD

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



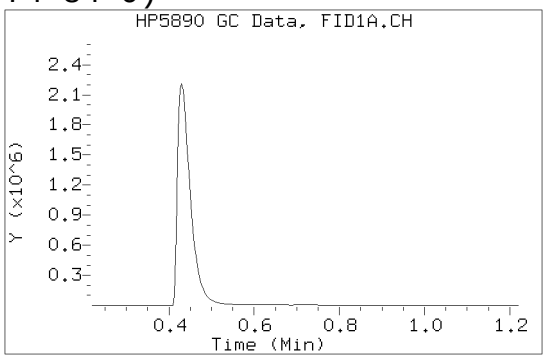
Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\014.D
Inj Date : 30-JAN-2023 11:37
InstruID : FID-4.i
LabSampID : HS23011136-04MSD

Ethane (74-84-0)

Reason Code:

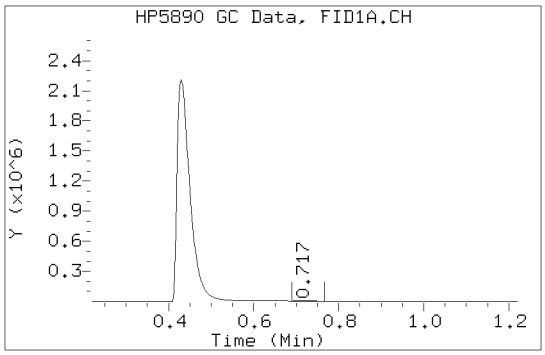
BEFORE

MASS
44
AREA
35857
HEIGHT
6673
30-Jan-2023
11:45
ALSHS
Server




AFTER

MASS
44
AREA
21212
HEIGHT
6673
06-Feb-2023
12:14
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\015.D Page 1
Report Date: 30-Jan-2023 12:07

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\015.D
Lab Smp Id: HS23011136-06 Client Smp ID: HS23011136-06
Inj Date : 30-JAN-2023 11:46
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-06;HS23011136-06
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 11:26 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.436 | 0.430 | 0.006 | 4270913 | 4380.46 | 4380.458(A) |
| 2 Ethene | 0.653 | 0.650 | 0.003 | 411634 | 702.734 | 702.734(A) |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

01241416

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\015.D



Date : 30-JAN-2023 11:46

Client ID: HS23011136-06

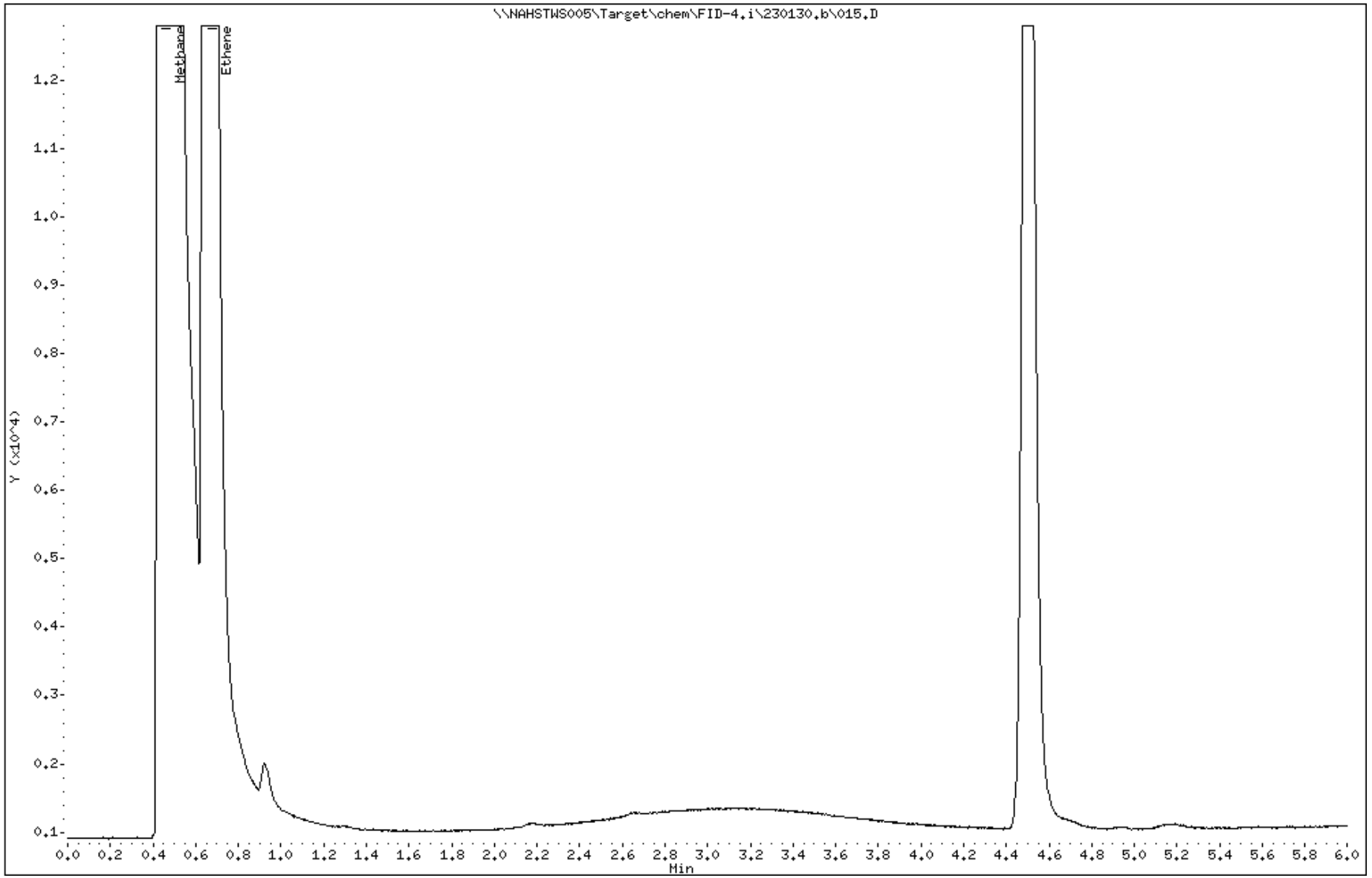
Instrument: FID-4.i

Sample Info: HS23011136-06;HS23011136-06

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\015.D
Inj Date  : 30-JAN-2023 11:46
InstruID  : FID-4.i
LabSampID : HS23011136-06

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\016.D Page 1
Report Date: 30-Jan-2023 13:46

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\016.D
Lab Smp Id: HS23011136-03 Client Smp ID: HS23011136-03
Inj Date : 30-JAN-2023 11:55
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-03;HS23011136-03
Misc Info : ;1;0;400
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 13:04 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 16
Dil Factor: 400.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.460 | 0.433 | 0.027 | 14095 | 14.4565 | 5782.609(M) |

QC Flag Legend

M - Compound response manually integrated.

01241419

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\016.D



Date : 30-JAN-2023 11:55

Client ID: HS23011136-03

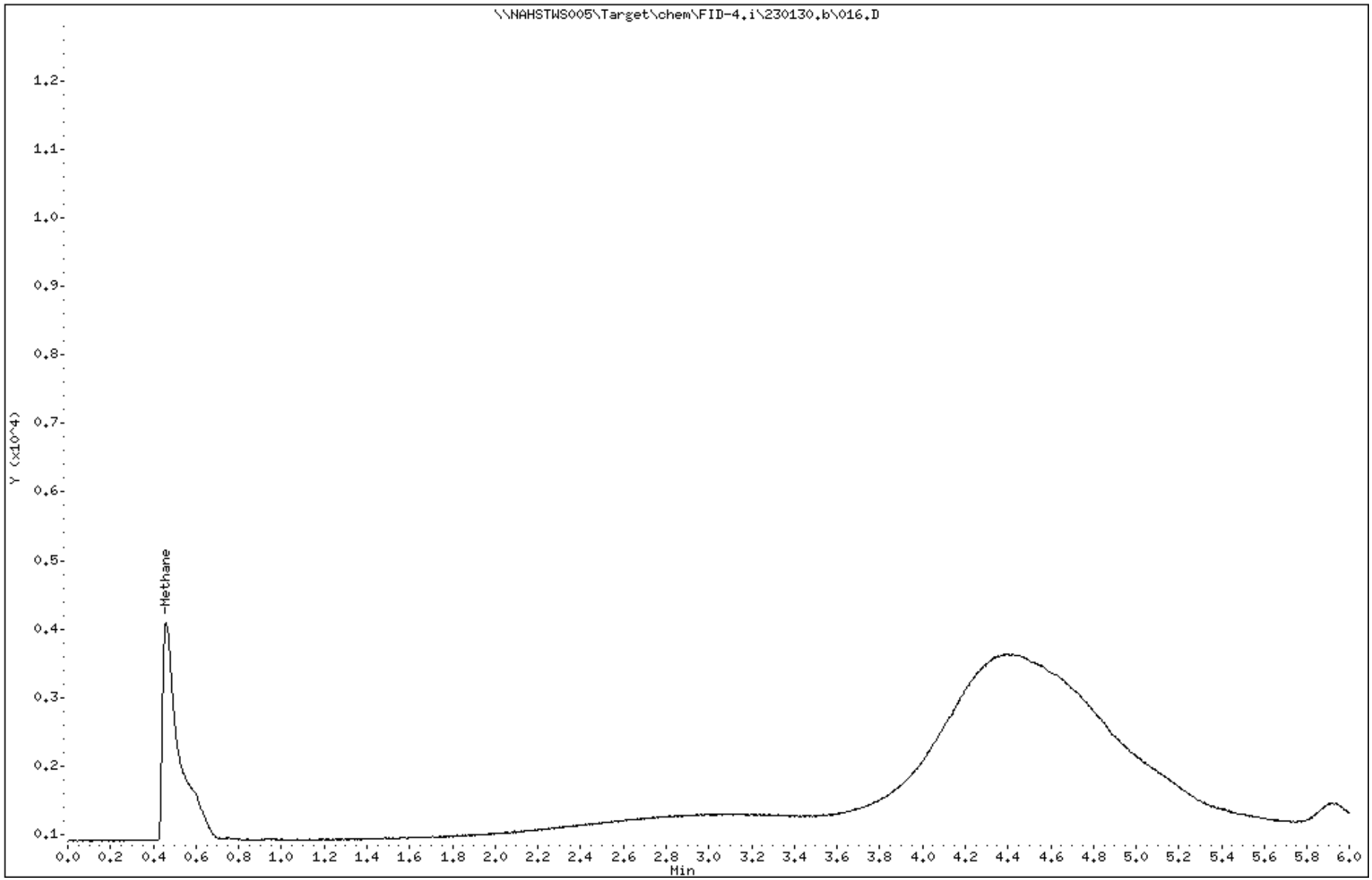
Instrument: FID-4.i

Sample Info: HS23011136-03;HS23011136-03

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



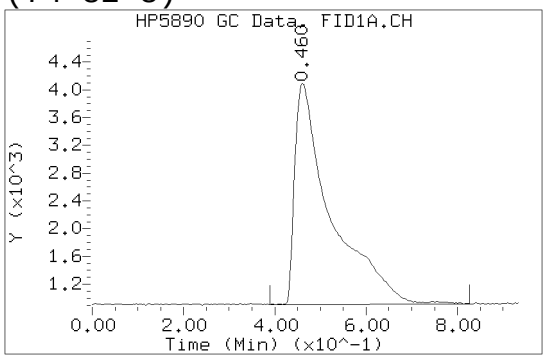
Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\016.D
Inj Date : 30-JAN-2023 11:55
InstruID : FID-4.i
LabSampID : HS23011136-03

Methane (74-82-8)

Reason Code:

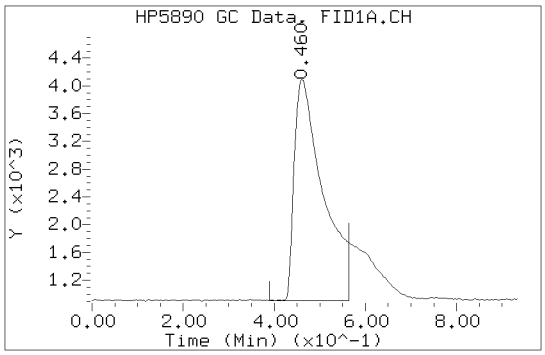
BEFORE

MASS
100
AREA
0
HEIGHT
0
30-Jan-2023
12:02
ALSHS
Server




AFTER

MASS
100
AREA
14095
HEIGHT
3185
30-Jan-2023
13:45
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\017.D Page 1
Report Date: 30-Jan-2023 13:46

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\017.D
Lab Smp Id: HS23011136-04 Client Smp ID: HS23011136-04
Inj Date : 30-JAN-2023 12:08
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-04;HS23011136-04
Misc Info : ;1;0;400
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 13:04 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 17
Dil Factor: 400.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.466 | 0.433 | 0.033 | 13039 | 13.3734 | 5349.375(M) |

QC Flag Legend

M - Compound response manually integrated.

01241422

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\017.D



Date : 30-JAN-2023 12:08

Client ID: HS23011136-04

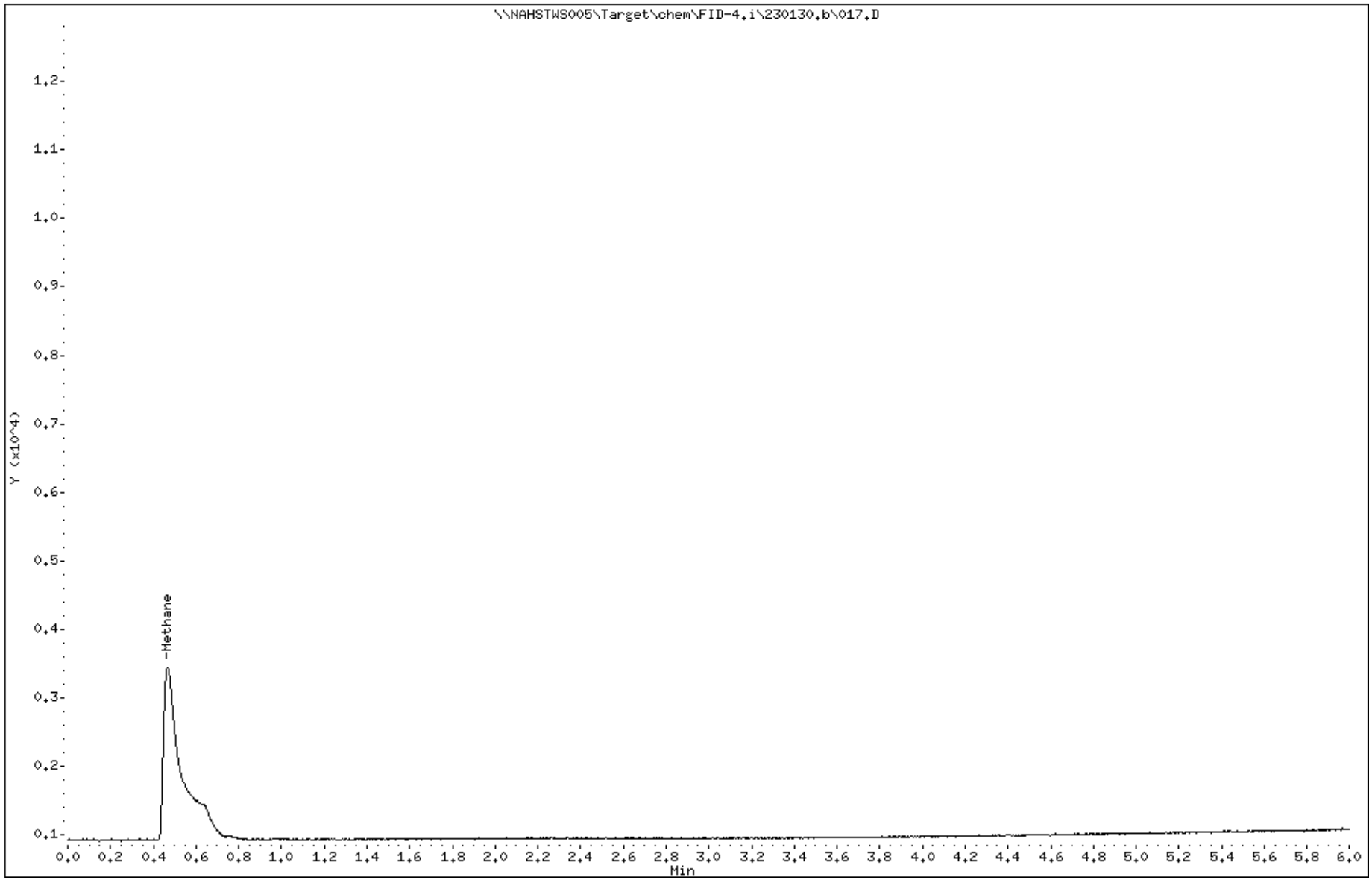
Instrument: FID-4.i

Sample Info: HS23011136-04;HS23011136-04

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



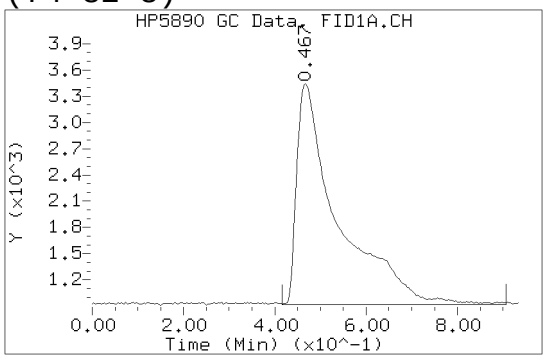
Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\017.D
Inj Date : 30-JAN-2023 12:08
InstruID : FID-4.i
LabSampID : HS23011136-04

Methane (74-82-8)

Reason Code:

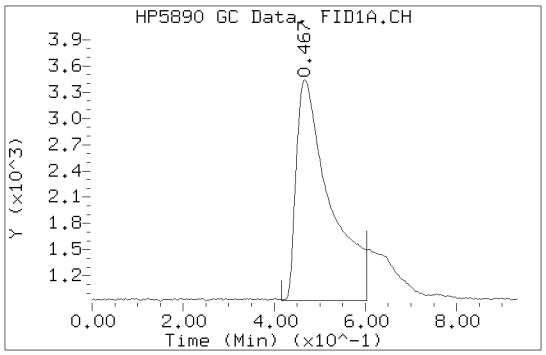
BEFORE

MASS
100
AREA
0
HEIGHT
0
30-Jan-2023
12:15
ALSHS
Server




AFTER

MASS
100
AREA
13039
HEIGHT
2530
30-Jan-2023
13:46
ALSHS
Ser



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\018.D
Lab Smp Id: HS23011136-05 Client Smp ID: HS23011136-05
Inj Date : 30-JAN-2023 12:16
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-05;HS23011136-05
Misc Info : ;1;0;200
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 14:38 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 18
Dil Factor: 200.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.453 | 0.423 | 0.030 | 20882 | 21.4176 | 4283.520(M) |
| 2 Ethene | 0.670 | 0.643 | 0.027 | 2391 | 4.08187 | 816.374(M) |

QC Flag Legend

M - Compound response manually integrated.

01241425

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\018.D



Date : 30-JAN-2023 12:16

Client ID: HS23011136-05

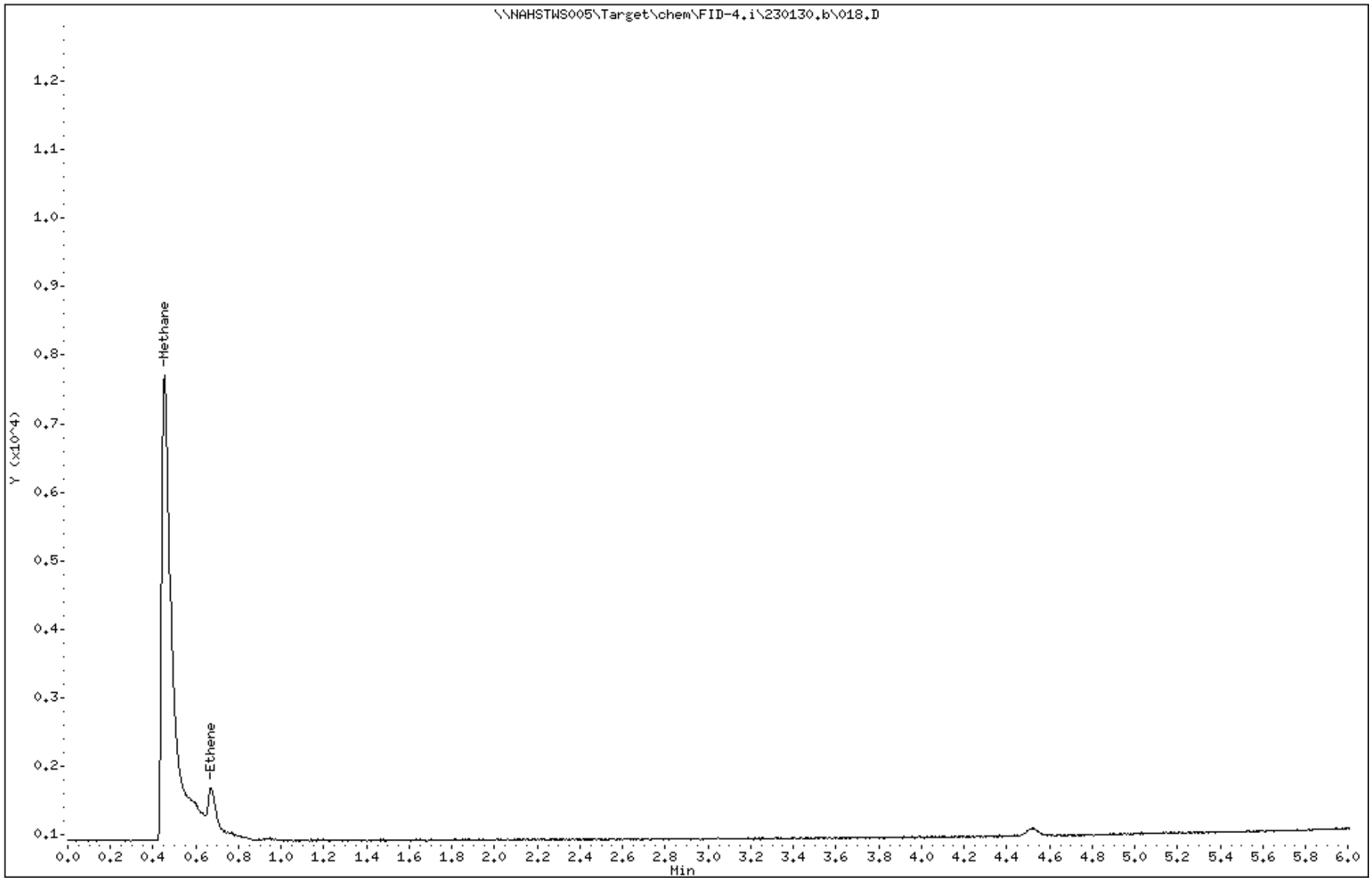
Instrument: FID-4.i

Sample Info: HS23011136-05;HS23011136-05

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53

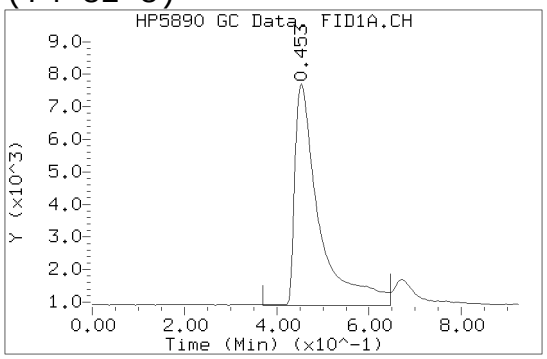


Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\018.D
Inj Date : 30-JAN-2023 12:16
InstruID : FID-4.i
LabSampID : HS23011136-05

## Methane (74-82-8)

### BEFORE

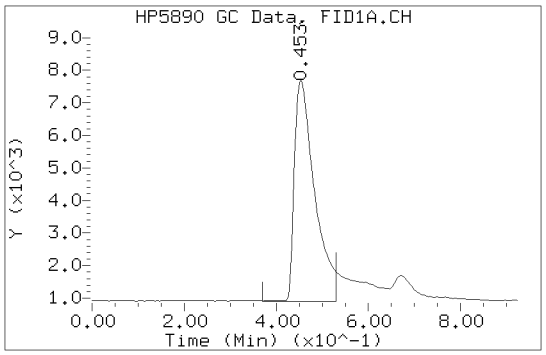
MASS
100
AREA
0
HEIGHT
0
30-Jan-2023
12:25
ALSHS
Server




### AFTER

MASS
100
AREA
20882
HEIGHT
6807
06-Feb-2023
12:22
ALSHS
Ser

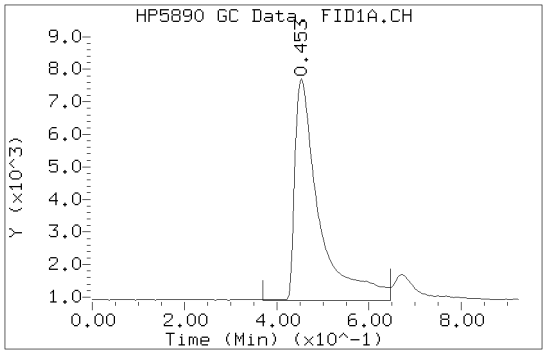
Reason Code:




## Ethene (74-85-1)

### BEFORE

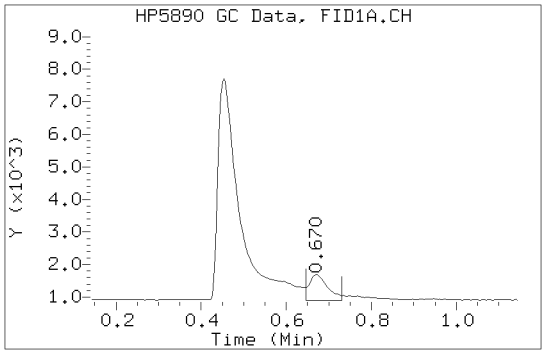
MASS
100
AREA
0
HEIGHT
0
30-Jan-2023
12:25
ALSHS
Server




### AFTER

MASS
100
AREA
2391
HEIGHT
788
06-Feb-2023
12:22
ALSHS
Ser

Reason Code:



Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\019.D Page 1
Report Date: 30-Jan-2023 13:50

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\019.D
Lab Smp Id: HS23011136-06 Client Smp ID: HS23011136-06
Inj Date : 30-JAN-2023 12:26
Operator : PL Inst ID: FID-4.i
Smp Info : HS23011136-06;HS23011136-06
Misc Info : ;1;0;400
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 13:04 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 19
Dil Factor: 400.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.460 | 0.433 | 0.027 | 12387 | 12.7047 | 5081.886(M) |
| 2 Ethene | 0.676 | 0.660 | 0.016 | 2335 | 3.98627 | 1594.508(M) |

QC Flag Legend

M - Compound response manually integrated.

01241428

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\019.D



Date : 30-JAN-2023 12:26

Client ID: HS23011136-06

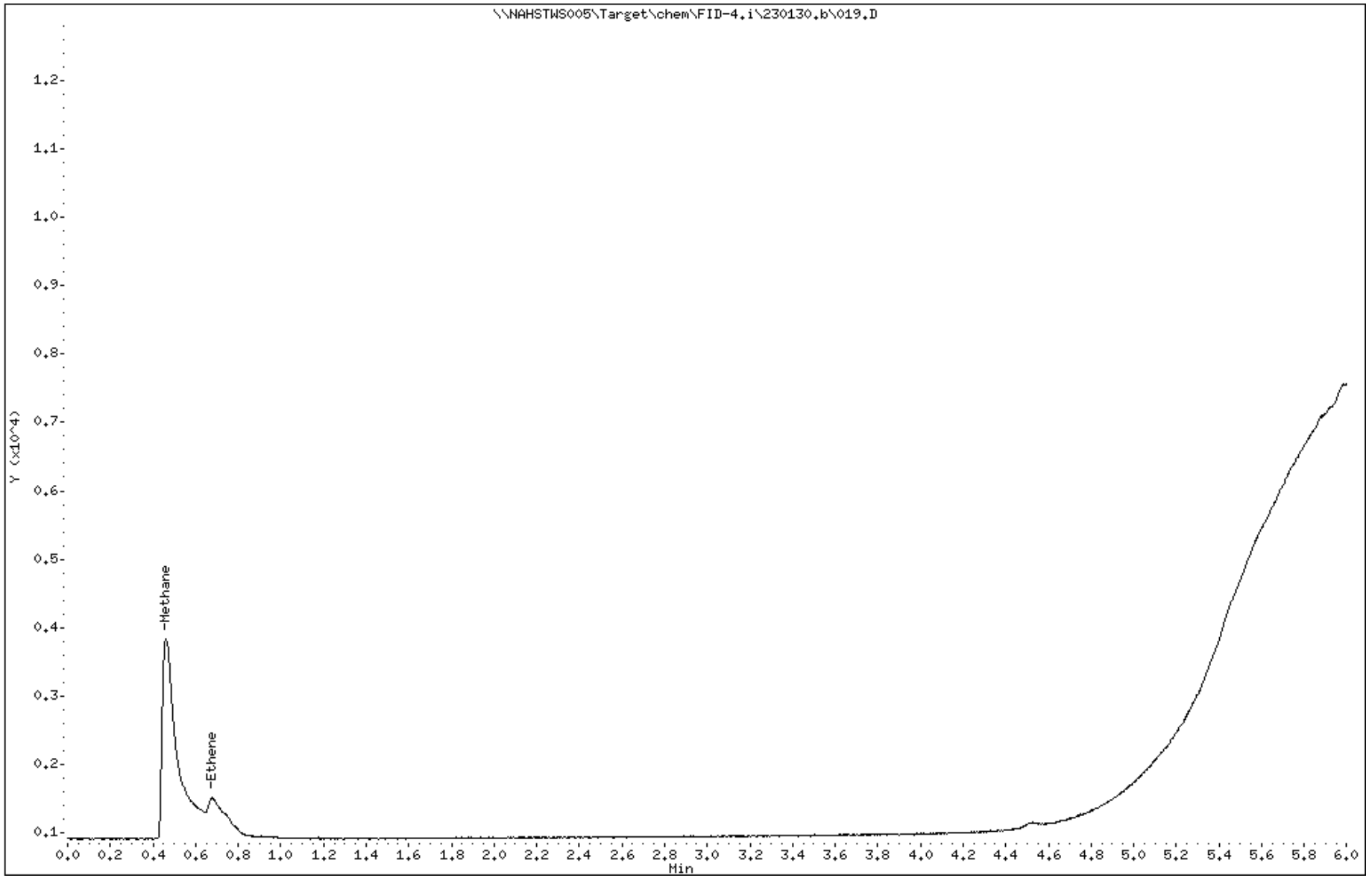
Instrument: FID-4.i

Sample Info: HS23011136-06;HS23011136-06

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



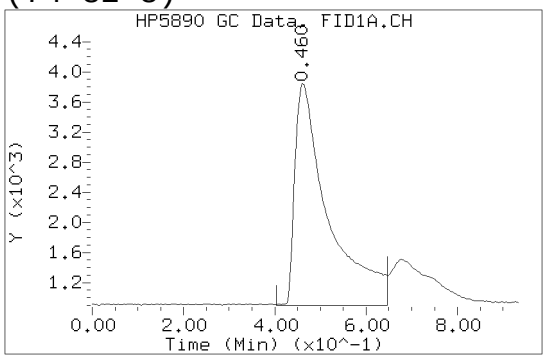
Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\019.D
Inj Date : 30-JAN-2023 12:26
InstruID : FID-4.i
LabSampID : HS23011136-06

## Methane (74-82-8)

Reason Code:

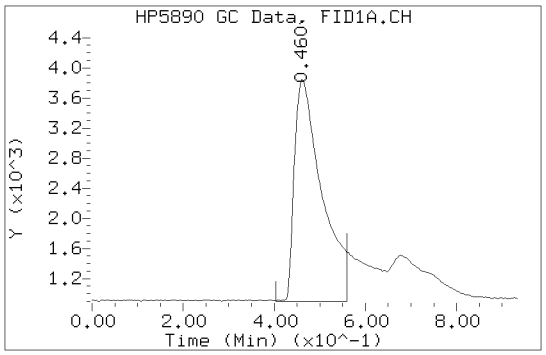
### BEFORE

MASS
100
AREA
0
HEIGHT
0
30-Jan-2023
12:33
ALSHS
Server




### AFTER

MASS
100
AREA
12387
HEIGHT
2940
30-Jan-2023
13:50
ALSHS
Ser

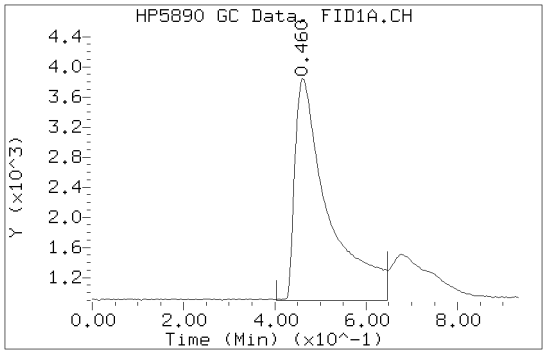



## Ethene (74-85-1)

Reason Code:

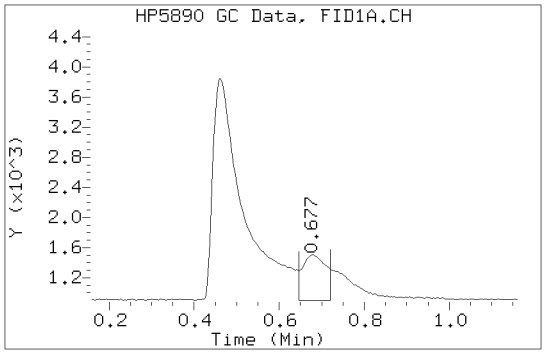
### BEFORE

MASS
100
AREA
0
HEIGHT
0
30-Jan-2023
12:33
ALSHS
Server




### AFTER

MASS
100
AREA
2335
HEIGHT
607
30-Jan-2023
13:50
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\022.D Page 1
Report Date: 06-Feb-2023 12:15

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 30-JAN-2023 12:55
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 14:38 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | ON-COL ( ug/L) |
|---|---|---|---|---|---|---|
| 1 Methane | 0.433 | 0.433 | 0.000 | 9180 | 9.64700 | 9.415 |
| 2 Ethene | 0.660 | 0.660 | 0.000 | 9682 | 16.8500 | 16.528(M) |
| 3 Ethane | 0.730 | 0.730 | 0.000 | 13798 | 18.0430 | 19.177(M) |

QC Flag Legend

M - Compound response manually integrated.

01241431

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\022.D

Page 1

Date : 30-JAN-2023 12:55

Client ID: RSK-CCV

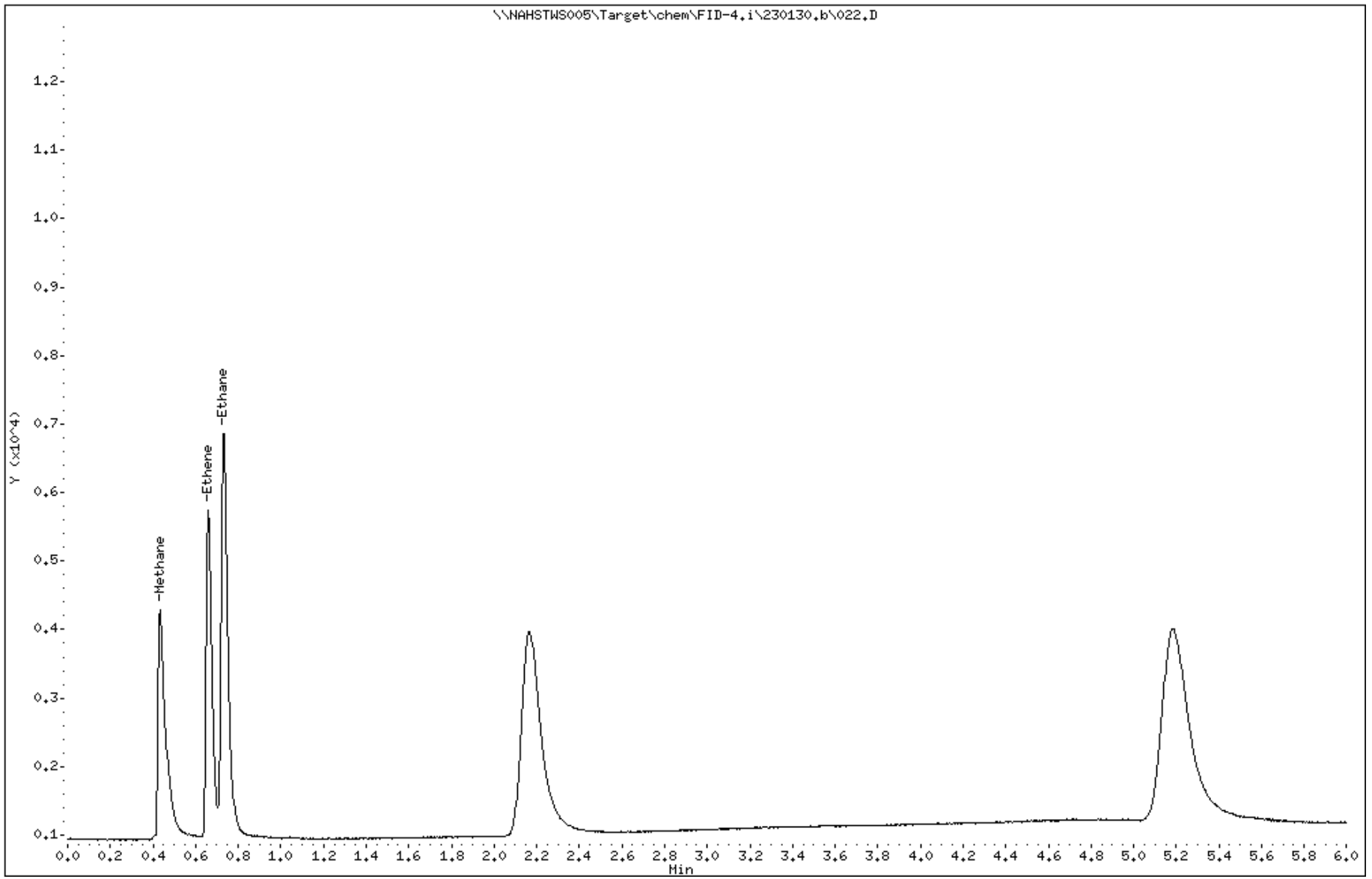
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



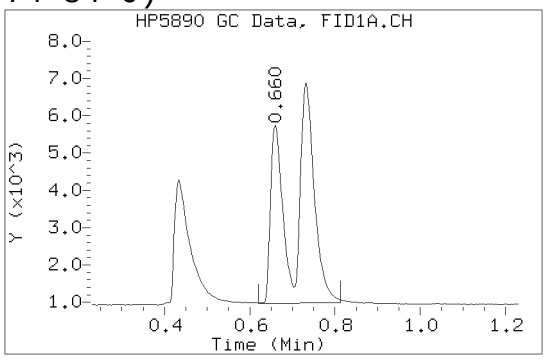
Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\022.D
Inj Date : 30-JAN-2023 12:55
InstruID : FID-4.i
LabSampID : RSK-CCV

## Ethane (74-84-0)

Reason Code:

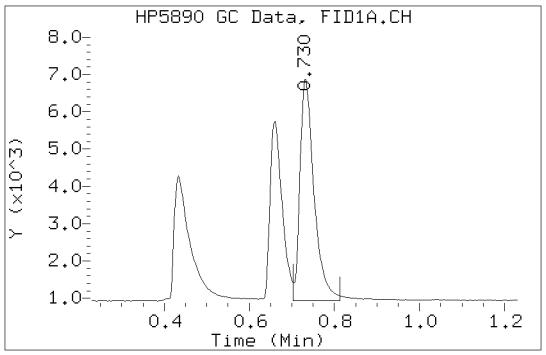
**BEFORE**

MASS
44
AREA
22792
HEIGHT
4768
30-Jan-2023
13:02
ALSHS
Server




**AFTER**

MASS
44
AREA
13798
HEIGHT
5930
06-Feb-2023
12:15
ALSHS
Ser

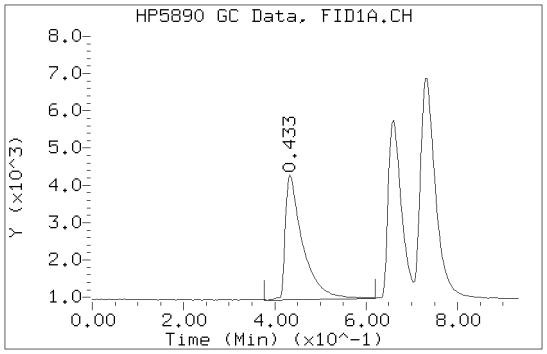



## Ethene (74-85-1)

Reason Code:

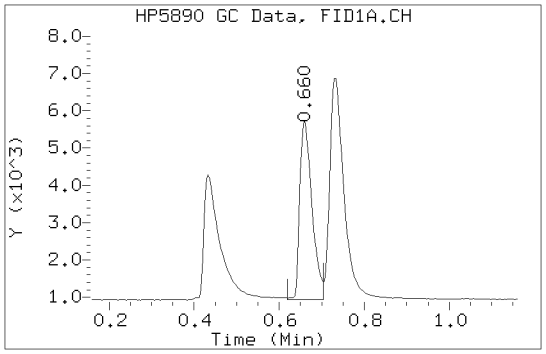
**BEFORE**

MASS
100
AREA
157
HEIGHT
23
30-Jan-2023
13:02
ALSHS
Server




**AFTER**

MASS
100
AREA
9682
HEIGHT
4816
06-Feb-2023
12:15
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\033.D Page 1
Report Date: 06-Feb-2023 12:16

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\033.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 30-JAN-2023 14:30
Operator : JA Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info :
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\RSKNI3.m
Meth Date : 30-Jan-2023 14:38 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

| | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|
| | | | | | CAL-AMT | ON-COL |
| Compounds | RT | EXP RT | DLT RT | RESPONSE | ( ug/L) | ( ug/L) |
| 1 Methane | 0.423 | 0.423 | 0.000 | 8678 | 9.64700 | 8.900 |
| 2 Ethene | 0.643 | 0.643 | 0.000 | 10361 | 16.8500 | 17.688 |
| 3 Ethane | 0.716 | 0.716 | 0.000 | 14064 | 18.0430 | 19.547(M) |

QC Flag Legend

M - Compound response manually integrated.

01241434

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230130.b\033.D



Date : 30-JAN-2023 14:30

Client ID: RSK-CCV

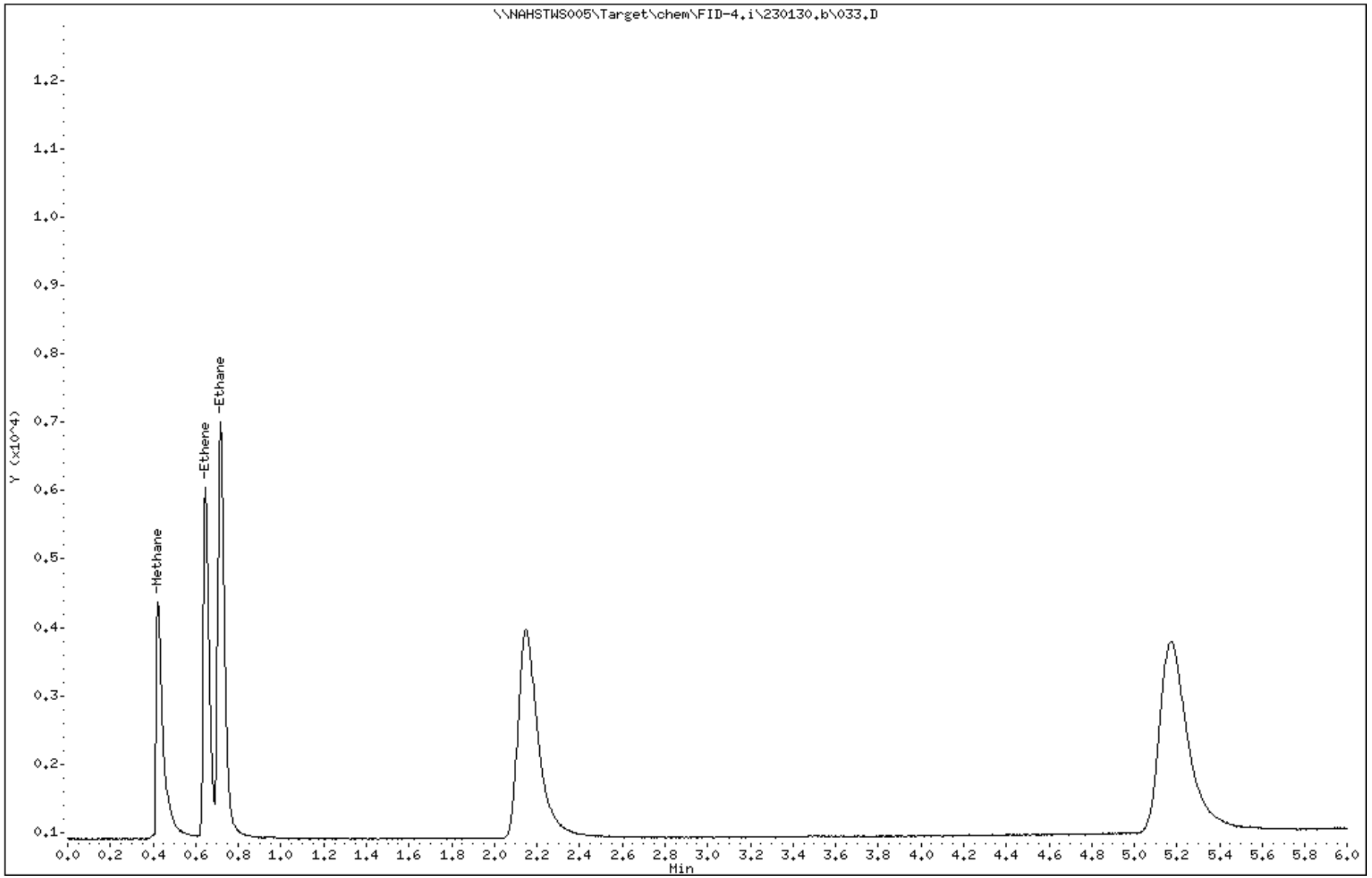
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: JA

Column phase: Rtx-PLOT

Column diameter: 0.53



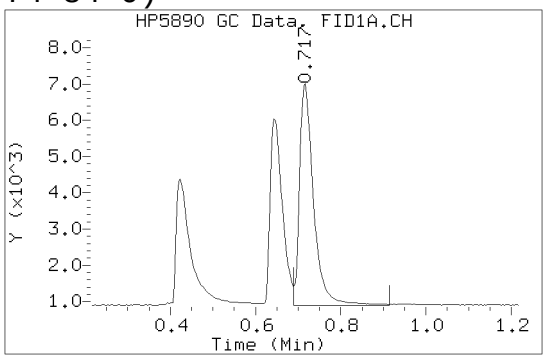
Data File : \\NAHSTWS005\Target\chem\FID-4.i\230130.b\033.D
Inj Date : 30-JAN-2023 14:30
InstruID : FID-4.i
LabSampID : RSK-CCV

Ethane (74-84-0)

Reason Code:

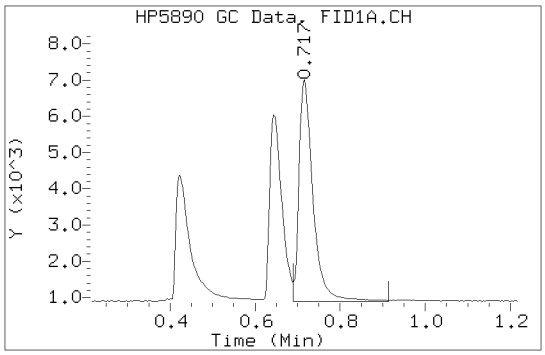
BEFORE

MASS
44
AREA
14064
HEIGHT
6114
06-Feb-2023
12:16
purvi
lad




AFTER

MASS
44
AREA
14064
HEIGHT
6114
06-Feb-2023
12:16
purvi
lad



# HS23011136 Wet Chemistry

ALS WO# HS23011136

C:\TOC-L\Data\2022_12_22_002_CAL.tlx

HS2301136

| | Type | Analysis | Sample Nam | Sample ID | Origin | Manual Diluti | Result | Notes | Status |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Standard | NPOC | CAL | 3100606518 | 12_22_2022.2 | 1.000 | | | Completed |
| 2 | Unknown | NPOC | ICV | 3100606203 | 12_22_2022.c | 1.000 | NPOC:10.7 | | Completed |
| 3 | Unknown | NPOC | ICB | | 12_22_2022.c | 1.000 | NPOC:0.34 | | Completed |

C:\TOC-L\Data\2022_12_22_002_CAL.tlx

| | Date / Time | Vial |
|---|---|---|
| 1 | 12/22/2022 | 1, 2, 3, 4, 5, |
| 2 | 12/22/2022 | 8 |
| 3 | 12/22/2022 | 1 |

# TOC-Control L Report

2022_12_22_002_CAL.tlx

**Instr.Information**

| | |
|---|---|
| Instrument Options | TOC/ASI/IC Unit/ |
| Catalyst | Regular Sensitivity |

**Cal. Curve**

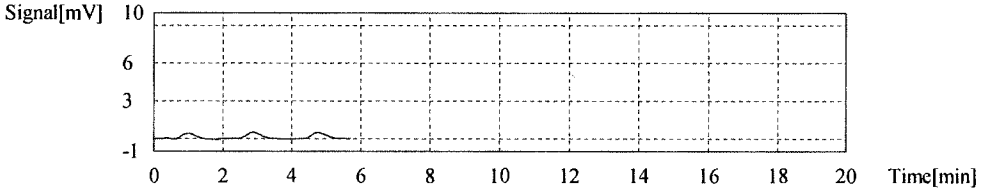
| | |
|---|---|
| Sample Name: | CAL |
| Sample ID: | 3100606518 |
| Cal. Curve: | 12_22_2022.2022_12_22_13_06_45.cal |
| Status | Completed |

| Type | Anal. |
|---|---|
| Standard | NPOC |

Conc: 0.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 1.350 | 50uL | 1.000 | ******* | | 12/22/2022 12:15:57 PM |
| 2 | 1.448 | 50uL | 1.000 | ******* | | 12/22/2022 12:18:06 PM |
| 3 | 1.380 | 50uL | 1.000 | ******* | | 12/22/2022 12:20:13 PM |

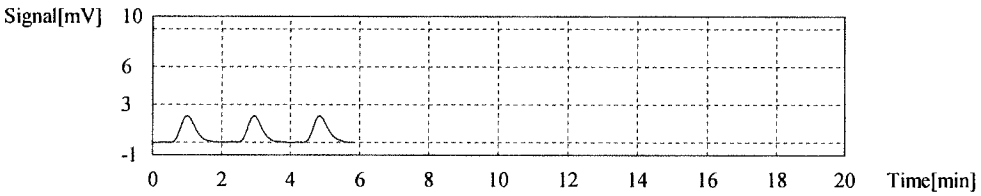
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 1.393 |




Conc: 1.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 6.297 | 50uL | 1.000 | ******* | | 12/22/2022 12:28:55 PM |
| 2 | 5.988 | 50uL | 1.000 | ******* | | 12/22/2022 12:31:02 PM |
| 3 | 6.247 | 50uL | 1.000 | ******* | | 12/22/2022 12:33:14 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 6.177 |



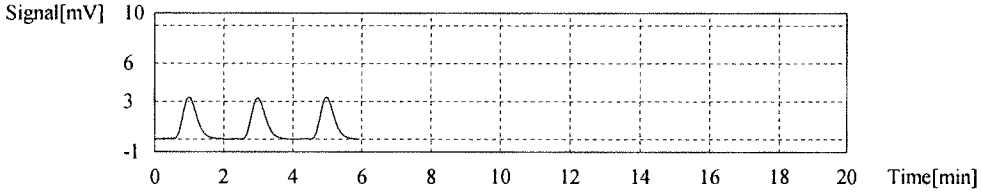

Conc: 2.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 9.406 | 50uL | 1.000 | ******* | | 12/22/2022 12:41:58 PM |
| 2 | 9.448 | 50uL | 1.000 | ******* | | 12/22/2022 12:44:11 PM |
| 3 | 9.385 | 50uL | 1.000 | ******* | | 12/22/2022 12:46:20 PM |

# TOC-Control L Report

2022_12_22_002_CAL.tlx

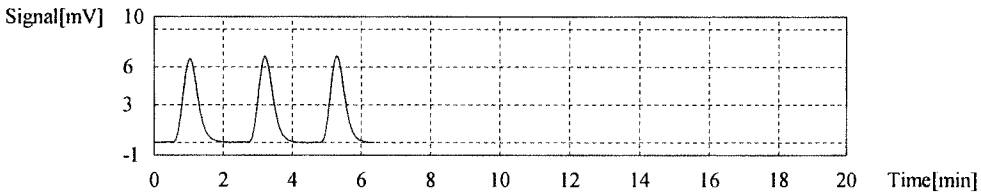
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 9.413 |




Conc: 5.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 20.41 | 50uL | 1.000 | ******* | | 12/22/2022 12:55:16 PM |
| 2 | 20.23 | 50uL | 1.000 | ******* | | 12/22/2022 12:57:35 PM |
| 3 | 20.36 | 50uL | 1.000 | ******* | | 12/22/2022 12:59:53 PM |

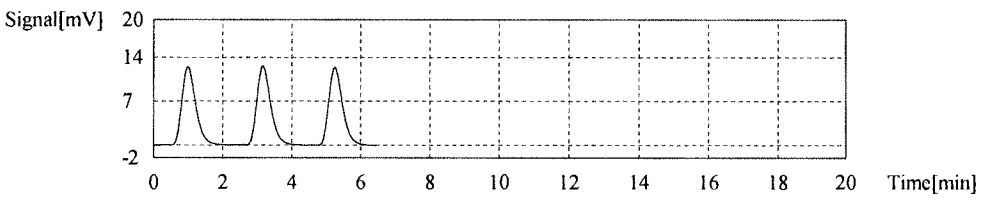
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 20.33 |




Conc: 10.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 35.65 | 50uL | 1.000 | ******* | | 12/22/2022 1:08:48 PM |
| 2 | 35.20 | 50uL | 1.000 | ******* | | 12/22/2022 1:11:07 PM |
| 3 | 35.02 | 50uL | 1.000 | ******* | | 12/22/2022 1:13:30 PM |

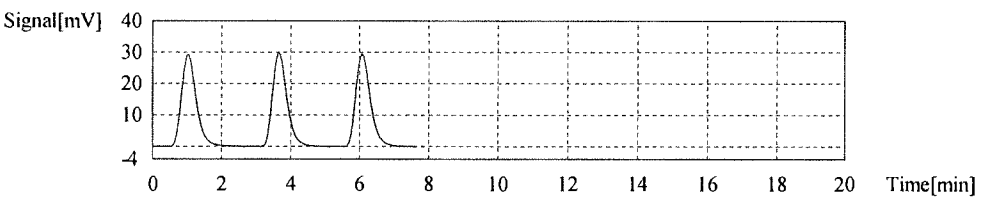
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 35.29 |




Conc: 25.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 88.49 | 50uL | 1.000 | ******* | | 12/22/2022 1:22:53 PM |
| 2 | 87.55 | 50uL | 1.000 | ******* | | 12/22/2022 1:25:34 PM |
| 3 | 87.85 | 50uL | 1.000 | ******* | | 12/22/2022 1:28:20 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 87.96 |



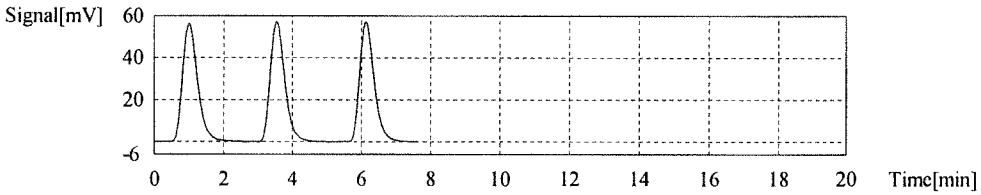

Conc: 50.00mg/L

# TOC-Control L Report

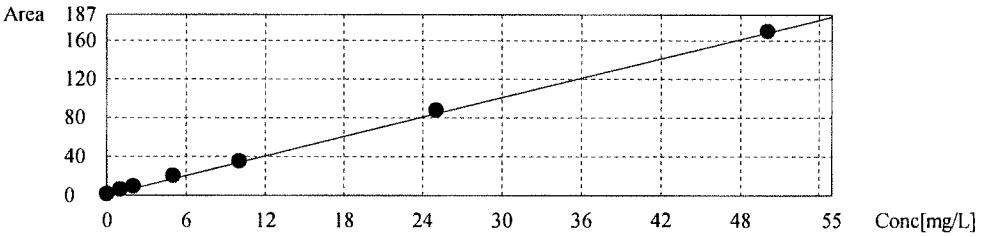
2022_12_22_002_CAL.tlx

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 169.8 | 50uL | 1.000 | ******* | | 12/22/2022 1:37:37 PM |
| 2 | 171.3 | 50uL | 1.000 | ******* | | 12/22/2022 1:40:28 PM |
| 3 | 168.9 | 50uL | 1.000 | ******* | | 12/22/2022 1:43:09 PM |

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 170.0




Slope: 3.361
Intercept 0.000
r^2 0.9998
r 0.9999
RSE(%) N/A
Zero Shift Yes




**Sample**

Sample Name: ICV
Sample ID: 3100606203
Origin: 12_22_2022.cal
Status Completed
Chk. Result

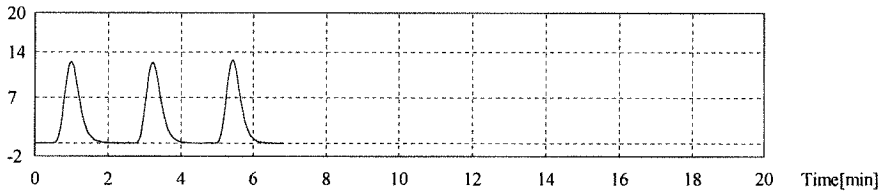
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:10.79mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 36.41 | 10.83mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 1:52:08 PM |
| 2 | 36.34 | 10.81mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 1:54:34 PM |
| 3 | 36.03 | 10.72mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 1:57:10 PM |

Mean Area 36.26
Mean Conc. 10.79mg/L




**Sample**

# TOC-Control L Report

2022_12_22_002_CAL.tlx

Sample Name: ICB
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

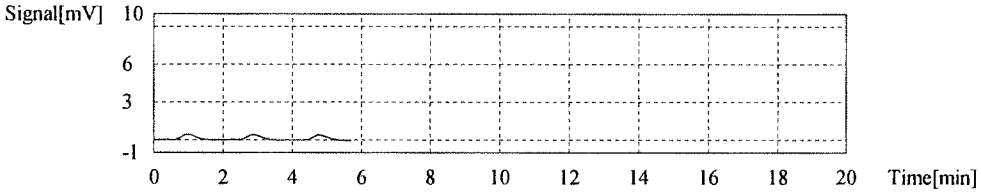
| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.3481mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.237 | 0.3681mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 2:06:02 PM |
| 2 | 1.118 | 0.3327mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 2:08:10 PM |
| 3 | 1.155 | 0.3437mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 2:10:18 PM |

Mean Area 1.170
Mean Conc. 0.3481mg/L



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| | Type | Analysis | Sample Name | Sample ID | Origin | Manual Diluti | Result | Notes |
|---|---|---|---|---|---|---|---|---|
| 1 | Unknown | NPOC | CCV | 321100711 | 12_22_2022 | 1.000 | NPOC:25.79mg/L | |
| 2 | Unknown | NPOC | CCB | | 12_22_2022 | 1.000 | NPOC:0.09327mg/ | |
| 3 | Unknown | NPOC | MBLK-01302023 | | 12_22_2022 | 1.000 | NPOC:0.06803mg/ | |
| 4 | Unknown | NPOC | LCS-01302023 | 3100606203 | 12_22_2022 | 1.000 | NPOC:11.05mg/L | |
| 5 | Unknown | NPOC | LCSD-01302023 | | 12_22_2022 | 1.000 | NPOC:11.18mg/L | |
| 6 | Unknown | NPOC | HS23011389-04 | | 12_22_2022 | 1.000 | NPOC:2.056mg/L | |
| 7 | Unknown | NPOC | HS23011389-05 | | 12_22_2022 | 1.000 | NPOC:0.6773mg/L | |
| 8 | Unknown | NPOC | HS23011136-01 | | 12_22_2022 | 1.000 | NPOC:6.477mg/L | |
| 9 | Unknown | NPOC | HS23011136-02 | | 12_22_2022 | 1.000 | NPOC:19.93mg/L | |
| 10 | Unknown | NPOC | HS23011136-03 | | 12_22_2022 | 1.000 | NPOC:91.46mg/L | |
| 11 | Unknown | NPOC | HS23011136-04 | | 12_22_2022 | 1.000 | NPOC:166.0mg/L | |
| 12 | Unknown | NPOC | HS23011136-04MS | | 12_22_2022 | 1.000 | NPOC:177.1mg/L | |
| 13 | Unknown | NPOC | CCV | 321100711 | 12_22_2022 | 1.000 | NPOC:26.87mg/L | |
| 14 | Unknown | NPOC | CCB | | 12_22_2022 | 1.000 | NPOC:0.2545mg/L | |
| 15 | Unknown | NPOC | HS23011136-05 | | 12_22_2022 | 1.000 | NPOC:1555mg/L | |
| 16 | Unknown | NPOC | HS23011136-06 | | 12_22_2022 | 1.000 | NPOC:1483mg/L | |
| 17 | Unknown | NPOC | HS23011271-01 | | 12_22_2022 | 1.000 | NPOC:5.974mg/L | |
| 18 | Unknown | NPOC | HS23011271-02 | | 12_22_2022 | 1.000 | NPOC:5.235mg/L | |
| 19 | Unknown | NPOC | CCV | 321100711 | 12_22_2022 | 1.000 | NPOC:26.54mg/L | |
| 20 | Unknown | NPOC | CCB | | 12_22_2022 | 1.000 | NPOC:0.2016mg/L | |
| 21 | Unknown | NPOC | MBLK-01302023 | | 12_22_2022 | 1.000 | NPOC:0.1783mg/L | |
| 22 | Unknown | NPOC | LCS-01302023 | 3100606203 | 12_22_2022 | 1.000 | NPOC:11.29mg/L | |
| 23 | Unknown | NPOC | LCSD-01302023 | | 12_22_2022 | 1.000 | NPOC:11.14mg/L | |
| 24 | Unknown | NPOC | HS23011271-03 | | 12_22_2022 | 1.000 | NPOC:4.907mg/L | |
| 25 | Unknown | NPOC | HS23011271-03MS | | 12_22_2022 | 1.000 | NPOC:15.53mg/L | |
| 26 | Unknown | NPOC | HS23011294-01 | | 12_22_2022 | 1.000 | NPOC:4.995mg/L | |
| 27 | Unknown | NPOC | HS23011304-02 | | 12_22_2022 | 1.000 | NPOC:0.5531mg/L | |
| 28 | Unknown | NPOC | HS23011397-10 | | 12_22_2022 | 1.000 | NPOC:1.679mg/L | |
| 29 | Unknown | NPOC | CCV | 321100711 | 12_22_2022 | 1.000 | NPOC:26.28mg/L | |
| 30 | Unknown | NPOC | CCB | | 12_22_2022 | 1.000 | NPOC:0.1365mg/L | |
| 31 | Unknown | NPOC | MBLK-01302023 | | 12_22_2022 | 1.000 | NPOC:0.04622mg/ | |
| 32 | Unknown | NPOC | LCS-01302023 | 3100606203 | 12_22_2022 | 1.000 | NPOC:10.88mg/L | |
| 33 | Unknown | NPOC | LCSD-01302023 | | 12_22_2022 | 1.000 | NPOC:11.08mg/L | |
| 34 | Unknown | NPOC | HS23011351-01 | | 12_22_2022 | 1.000 | NPOC:5.602mg/L | |
| 35 | Unknown | NPOC | HS23011351-01MS | | 12_22_2022 | 1.000 | NPOC:16.02mg/L | |
| 36 | Unknown | NPOC | HS23011251-01 | | 12_22_2022 | 1.000 | NPOC:43.33mg/L | |
| 37 | Unknown | NPOC | HS23011408-01 | | 12_22_2022 | 1.000 | NPOC:25.62mg/L | |
| 38 | Unknown | NPOC | HS23011405-01 | | 12_22_2022 | 1.000 | NPOC:32.06mg/L | |
| 39 | Unknown | NPOC | HS23011261-01 | | 12_22_2022 | 1.000 | NPOC:6.841mg/L | |
| 40 | Unknown | NPOC | HS23011261-02 | | 12_22_2022 | 1.000 | NPOC:12.37mg/L | |
| 41 | Unknown | NPOC | CCV | 321100711 | 12_22_2022 | 1.000 | NPOC:26.36mg/L | |
| 42 | Unknown | NPOC | CCB | | 12_22_2022 | 1.000 | NPOC:0.4125mg/L | |
| 43 | Unknown | NPOC | HS23011447-01 | | 12_22_2022 | 1.000 | NPOC:9.126mg/L | |
| 44 | Unknown | NPOC | HS23011353-01 | | 12_22_2022 | 1.000 | NPOC:6.311mg/L | |
| 45 | Unknown | NPOC | CCV | 321100711 | 12_22_2022 | 1.000 | NPOC:25.88mg/L | |
| 46 | Unknown | NPOC | CCB | | 12_22_2022 | 1.000 | NPOC:0.4115mg/L | |

C:\TOC-L\Data\2023_01_30_001.tlx

| | Status | Date / Time | Vial |
|---|---|---|---|
| 1 | Completed | 1/30/2023 3:18:06 P | 1 |
| 2 | Completed | 1/30/2023 3:31:03 P | 2 |
| 3 | Completed | 1/30/2023 3:43:56 P | 3 |
| 4 | Completed | 1/30/2023 3:58:00 P | 4 |
| 5 | Completed | 1/30/2023 4:11:50 P | 5 |
| 6 | Completed | 1/30/2023 4:24:55 P | 6 |
| 7 | Completed | 1/30/2023 4:37:58 P | 7 |
| 8 | Completed | 1/30/2023 4:52:00 P | 8 |
| 9 | Completed | 1/30/2023 5:06:32 P | 9 |
| 10 | Completed | 1/30/2023 5:20:59 P | 10 |
| 11 | Completed | 1/30/2023 5:35:59 P | 11 |
| 12 | Completed | 1/30/2023 5:51:05 P | 12 |
| 13 | Completed | 1/30/2023 6:05:50 P | 1 |
| 14 | Completed | 1/30/2023 6:18:53 P | 2 |
| 15 | Completed | 1/30/2023 6:38:36 P | 13 |
| 16 | Completed | 1/30/2023 6:57:33 P | 14 |
| 17 | Completed | 1/30/2023 7:11:05 P | 15 |
| 18 | Completed | 1/30/2023 7:24:52 P | 16 |
| 19 | Completed | 1/30/2023 7:39:27 P | 1 |
| 20 | Completed | 1/30/2023 7:52:20 P | 2 |
| 21 | Completed | 1/30/2023 8:05:16 P | 3 |
| 22 | Completed | 1/30/2023 8:19:44 P | 4 |
| 23 | Completed | 1/30/2023 8:33:45 P | 5 |
| 24 | Completed | 1/30/2023 8:47:31 P | 17 |
| 25 | Completed | 1/30/2023 9:01:48 P | 18 |
| 26 | Completed | 1/30/2023 9:15:21 P | 19 |
| 27 | Completed | 1/30/2023 9:28:18 P | 20 |
| 28 | Completed | 1/30/2023 9:41:23 P | 21 |
| 29 | Completed | 1/30/2023 9:56:03 P | 23 |
| 30 | Completed | 1/30/2023 10:08:56 P | 24 |
| 31 | Completed | 1/30/2023 10:21:56 P | 3 |
| 32 | Completed | 1/30/2023 10:36:00 P | 4 |
| 33 | Completed | 1/30/2023 10:50:17 P | 5 |
| 34 | Completed | 1/30/2023 11:04:26 P | 25 |
| 35 | Completed | 1/30/2023 11:18:54 P | 26 |
| 36 | Completed | 1/30/2023 11:33:41 P | 27 |
| 37 | Completed | 1/30/2023 11:48:32 P | 28 |
| 38 | Completed | 1/31/2023 12:03:06 A | 29 |
| 39 | Completed | 1/31/2023 12:17:14 A | 30 |
| 40 | Completed | 1/31/2023 12:33:10 A | 31 |
| 41 | Completed | 1/31/2023 12:48:27 A | 23 |
| 42 | Completed | 1/31/2023 1:01:20 A | 24 |
| 43 | Completed | 1/31/2023 1:15:58 A | 32 |
| 44 | Completed | 1/31/2023 1:30:19 A | 33 |
| 45 | Completed | 1/31/2023 1:45:47 A | 23 |
| 46 | Completed | 1/31/2023 1:58:40 A | 24 |

# TOC-Control L Report

2023_01_30_001.tlx

**Instr.Information**

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

**Sample**

Sample Name: CCV
Sample ID: 321100711
Origin: 12_22_2022.cal
Status: Completed
Chk. Result

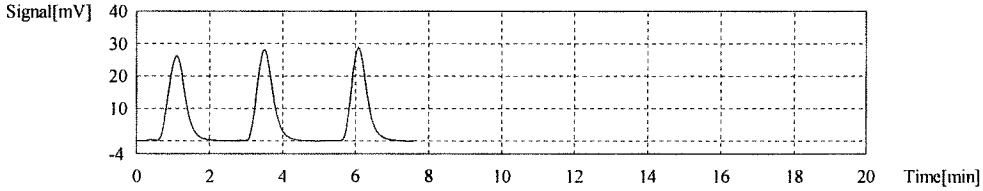
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.79mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 85.28 | 25.38mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:12:31 PM |
| 2 | 87.28 | 25.97mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:15:20 PM |
| 3 | 87.45 | 26.02mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:18:06 PM |

Mean Area: 86.67
Mean Conc.: 25.79mg/L




**Sample**

Sample Name: CCB
Sample ID:
Origin: 12_22_2022.cal
Status: Completed
Chk. Result

| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.09327mg/L |

1. Det

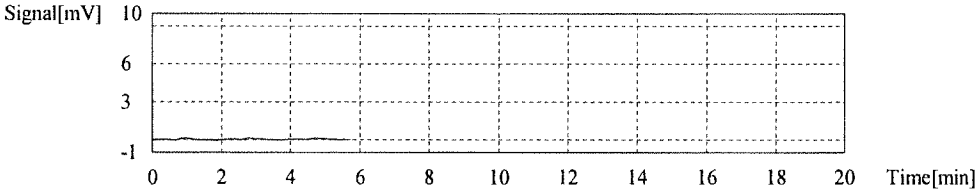
Anal.: NPOC

| No. | Area | Conc. | Inj. Vol | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.3325 | 0.09894mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:26:46 PM |
| 2 | 0.4122 | 0.1227mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:28:55 PM |
| 3 | 0.1957 | 0.05823mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:31:03 PM |

# TOC-Control L Report

2023_01_30_001.tlx

Mean Area 0.3135
Mean Conc. 0.09327mg/L




**Sample**

Sample Name: MBLK-01302023
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

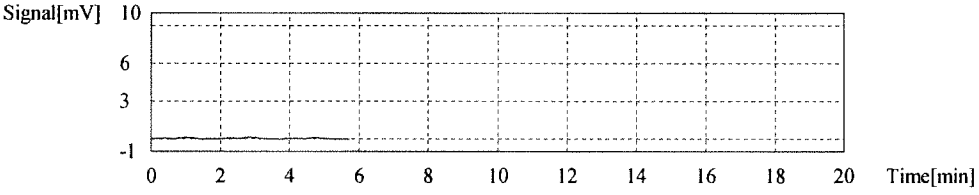
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.06803mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.2685 | 0.07989mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:39:41 PM |
| 2 | 0.2751 | 0.08186mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:41:48 PM |
| 3 | 0.1423 | 0.04234mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:43:56 PM |

Mean Area 0.2286
Mean Conc. 0.06803mg/L




**Sample**

Sample Name: LCS-01302023
Sample ID: 3100606203
Origin: 12_22_2022.cal
Status Completed
Chk. Result

| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:11.05mg/L |

1. Det

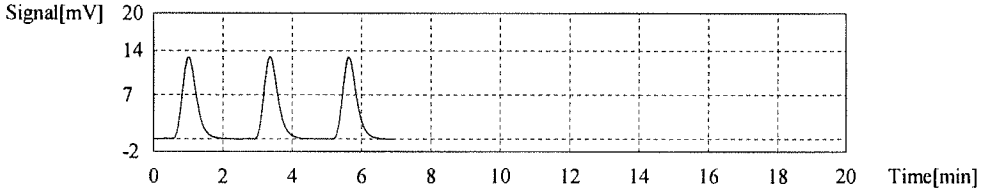
Anal.: NPOC

# TOC-Control L Report

2023_01_30_001.tlx

| No. | Area | Conc. | Inj. Vol | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 37.04 | 11.02mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:53:02 PM |
| 2 | 37.68 | 11.21mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:55:30 PM |
| 3 | 36.71 | 10.92mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 3:58:00 PM |

Mean Area 37.14
Mean Conc. 11.05mg/L




**Sample**

Sample Name: LCSD-01302023
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

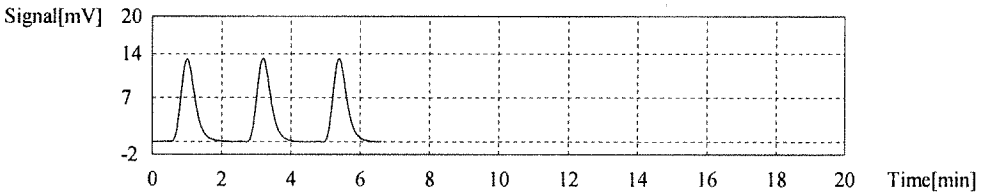
| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:11.18mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 37.43 | 11.14mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 4:06:57 PM |
| 2 | 37.97 | 11.30mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 4:09:25 PM |
| 3 | 37.30 | 11.10mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 4:11:50 PM |

Mean Area 37.57
Mean Conc. 11.18mg/L




**Sample**

Sample Name: HS23011136-01
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:6.477mg/L |

1. Det

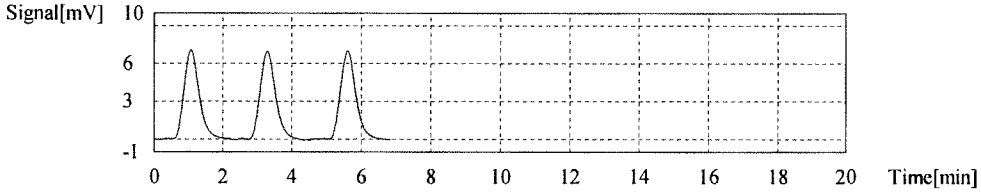
# TOC-Control L Report

2023_01_30_001.tlx

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 21.49 | 6.394mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 4:46:56 PM |
| 2 | 22.15 | 6.591mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 4:49:28 PM |
| 3 | 21.66 | 6.445mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 4:52:00 PM |

Mean Area 21.77
Mean Conc. 6.477mg/L




**Sample**

Sample Name: HS23011136-02
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

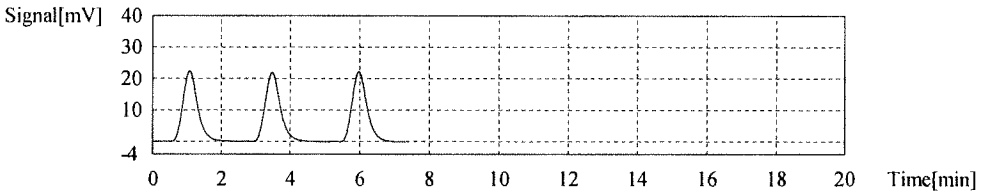
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:19.93mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 66.88 | 19.90mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:01:09 PM |
| 2 | 67.53 | 20.09mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:03:55 PM |
| 3 | 66.51 | 19.79mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:06:32 PM |

Mean Area 66.97
Mean Conc. 19.93mg/L




**Sample**

Sample Name: HS23011136-03
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:91.46mg/L |

# TOC-Control L Report

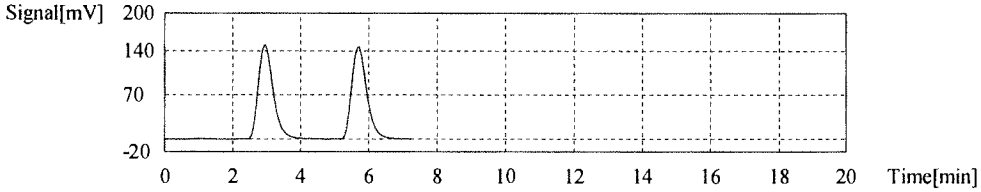
2023_01_30_001.tlx

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 2.051 | 0.6103mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:15:11 PM |
| 2 | 463.6 | 137.9mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:18:10 PM |
| 3 | 456.5 | 135.8mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:20:59 PM |

Mean Area 307.4
Mean Conc. 91.46mg/L




**Sample**

Sample Name: HS23011136-04
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

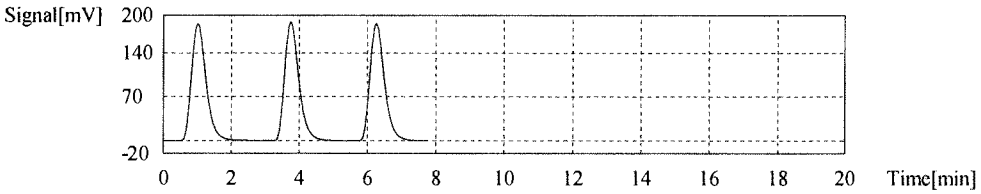
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:166.0mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 559.0 | 166.3mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:30:29 PM |
| 2 | 559.0 | 166.3mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:33:14 PM |
| 3 | 555.9 | 165.4mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:35:59 PM |

Mean Area 558.0
Mean Conc. 166.0mg/L




**Sample**

Sample Name: HS23011136-04MS
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

# TOC-Control L Report

2023_01_30_001.tlx

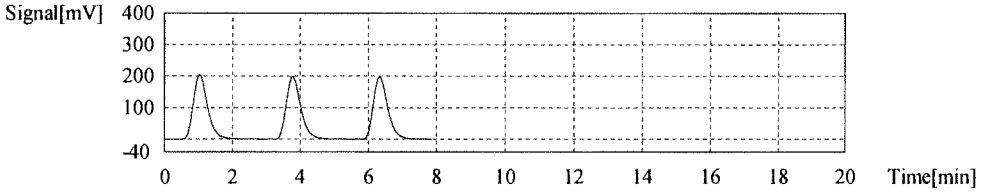
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:177.1mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 599.1 | 178.3mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:45:29 PM |
| 2 | 596.4 | 177.5mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:48:19 PM |
| 3 | 590.4 | 175.7mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 5:51:05 PM |

Mean Area 595.3
Mean Conc. 177.1mg/L




**Sample**

Sample Name: CCV
Sample ID: 321100711
Origin: 12_22_2022.cal
Status Completed
Chk. Result

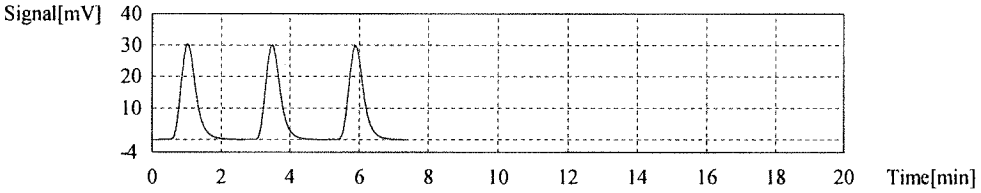
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:26.87mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 91.08 | 27.10mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:00:28 PM |
| 2 | 90.18 | 26.83mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:03:07 PM |
| 3 | 89.70 | 26.69mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:05:50 PM |

Mean Area 90.32
Mean Conc. 26.87mg/L




**Sample**

# TOC-Control L Report

2023_01_30_001.tlx

Sample Name: CCB
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

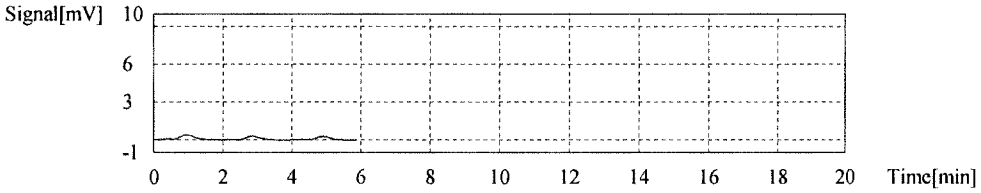
| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2545mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.9031 | 0.2687mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:14:29 PM |
| 2 | 1.059 | 0.3151mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:16:46 PM |
| 3 | 0.6040 | 0.1797mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:18:53 PM |

Mean Area 0.8554
Mean Conc. 0.2545mg/L




**Sample**

Sample Name: HS23011136-05
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

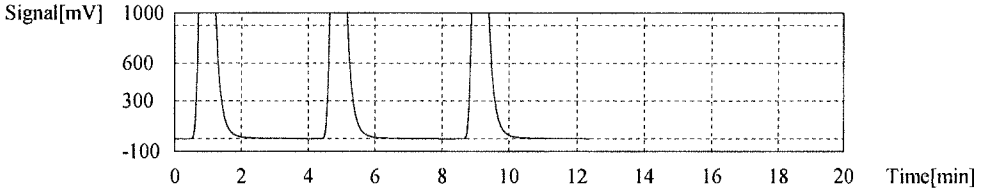
| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:1555mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 5192 | 1545mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:29:41 PM |
| 2 | 5240 | 1559mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:34:11 PM |
| 3 | 5246 | 1561mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:38:36 PM |

Mean Area 5226
Mean Conc. 1555mg/L



# TOC-Control L Report

2023_01_30_001.tlx

**Sample**

Sample Name: HS23011136-06
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

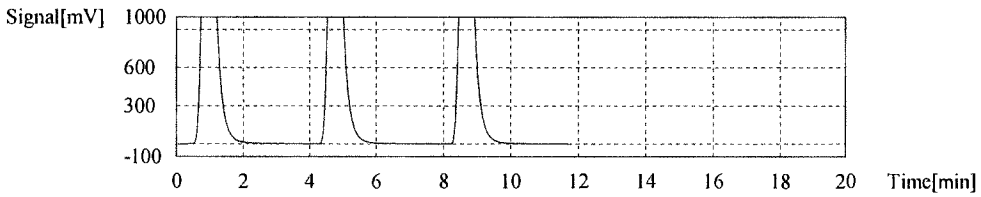
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:1483mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 4981 | 1482mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:49:10 PM |
| 2 | 4989 | 1484mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:53:20 PM |
| 3 | 4979 | 1482mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 6:57:33 PM |

Mean Area 4983
Mean Conc. 1483mg/L




**Sample**

Sample Name: CCV
Sample ID: 321100711
Origin: 12_22_2022.cal
Status Completed
Chk. Result

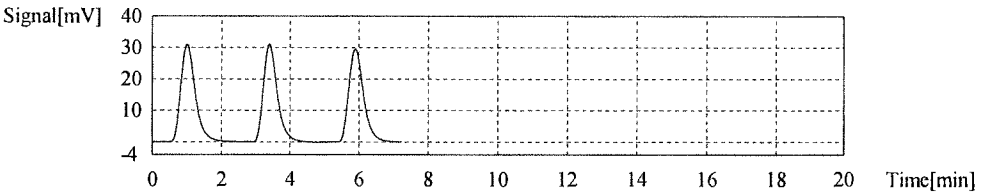
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:26.54mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 89.94 | 26.76mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 7:34:07 PM |
| 2 | 89.02 | 26.49mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 7:36:52 PM |
| 3 | 88.60 | 26.36mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 7:39:27 PM |

Mean Area 89.19
Mean Conc. 26.54mg/L



# TOC-Control L Report

2023_01_30_001.tlx

**Sample**

Sample Name: CCB
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

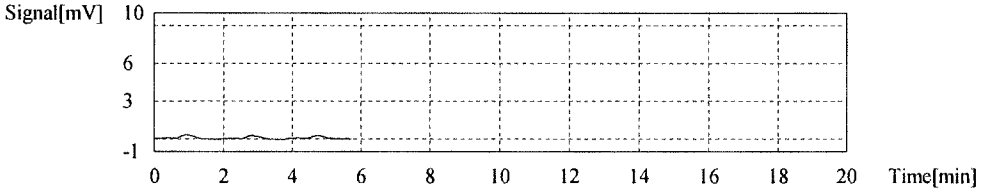
| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2016mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.6359 | 0.1892mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 7:48:06 PM |
| 2 | 0.6281 | 0.1869mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 7:50:13 PM |
| 3 | 0.7681 | 0.2286mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 1/30/2023 7:52:20 PM |

Mean Area 0.6774
Mean Conc. 0.2016mg/L



C:\TOC-L\Data\2022_12_22_002_CAL.tlx

HS2301136

| | Type | Analysis | Sample Nam | Sample ID | Origin | Manual Diluti | Result | Notes | Status |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Standard | NPOC | CAL | 3100606518 | 12_22_2022 | 1.000 | | | Completed |
| 2 | Unknown | NPOC | ICV | 3100606203 | 12_22_2022 | 1.000 | NPOC:10.7 | | Completed |
| 3 | Unknown | NPOC | ICB | | 12_22_2022 | 1.000 | NPOC:0.34 | | Completed |

C:\TOC-L\Data\2022_12_22_002_CAL.tlx

| | Date / Time | Vial |
|---|---|---|
| 1 | 12/22/2022 | 1, 2, 3, 4, 5, |
| 2 | 12/22/2022 | 8 |
| 3 | 12/22/2022 | 1 |

# TOC-Control L Report

2022_12_22_002_CAL.tlx

**Instr.Information**

| | |
|---|---|
| Instrument Options | TOC/ASI/IC Unit/ |
| Catalyst | Regular Sensitivity |

**Cal. Curve**

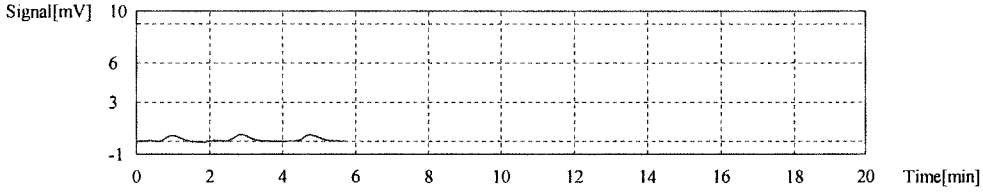
| | |
|---|---|
| Sample Name: | CAL |
| Sample ID: | 3100606518 |
| Cal. Curve: | 12_22_2022.2022_12_22_13_06_45.cal |
| Status | Completed |

| Type | Anal. |
|---|---|
| Standard | NPOC |

Conc: 0.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 1.350 | 50uL | 1.000 | ******* | | 12/22/2022 12:15:57 PM |
| 2 | 1.448 | 50uL | 1.000 | ******* | | 12/22/2022 12:18:06 PM |
| 3 | 1.380 | 50uL | 1.000 | ******* | | 12/22/2022 12:20:13 PM |

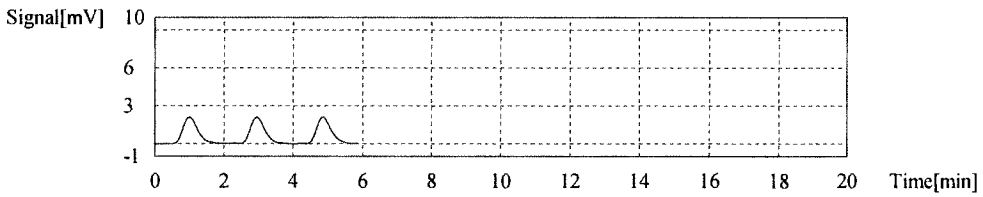
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 1.393 |




Conc: 1.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 6.297 | 50uL | 1.000 | ******* | | 12/22/2022 12:28:55 PM |
| 2 | 5.988 | 50uL | 1.000 | ******* | | 12/22/2022 12:31:02 PM |
| 3 | 6.247 | 50uL | 1.000 | ******* | | 12/22/2022 12:33:14 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 120.0sec |
| Mean Area | 6.177 |



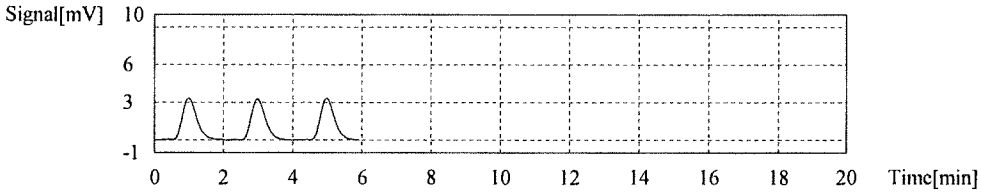

Conc: 2.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 9.406 | 50uL | 1.000 | ******* | | 12/22/2022 12:41:58 PM |
| 2 | 9.448 | 50uL | 1.000 | ******* | | 12/22/2022 12:44:11 PM |
| 3 | 9.385 | 50uL | 1.000 | ******* | | 12/22/2022 12:46:20 PM |

# TOC-Control L Report

2022_12_22_002_CAL.tlx

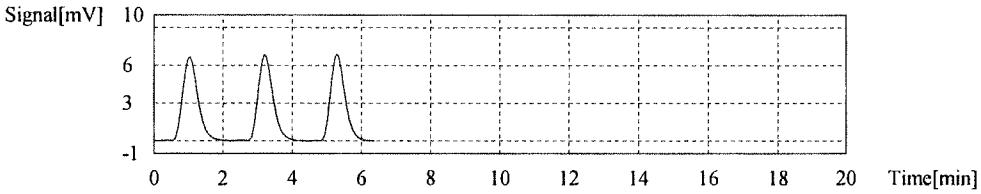
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 9.413




Conc: 5.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 20.41 | 50uL | 1.000 | ******* | | 12/22/2022 12:55:16 PM |
| 2 | 20.23 | 50uL | 1.000 | ******* | | 12/22/2022 12:57:35 PM |
| 3 | 20.36 | 50uL | 1.000 | ******* | | 12/22/2022 12:59:53 PM |

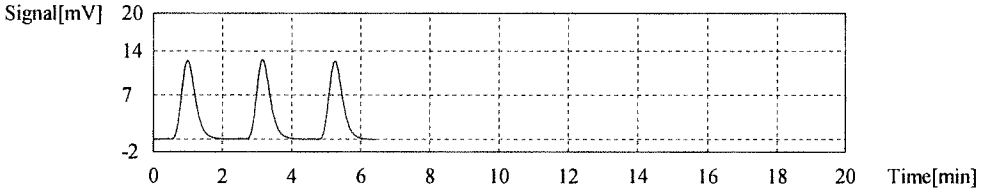
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 20.33




Conc: 10.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 35.65 | 50uL | 1.000 | ******* | | 12/22/2022 1:08:48 PM |
| 2 | 35.20 | 50uL | 1.000 | ******* | | 12/22/2022 1:11:07 PM |
| 3 | 35.02 | 50uL | 1.000 | ******* | | 12/22/2022 1:13:30 PM |

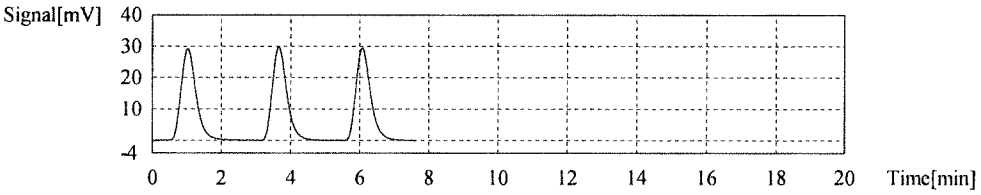
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 35.29




Conc: 25.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 88.49 | 50uL | 1.000 | ******* | | 12/22/2022 1:22:53 PM |
| 2 | 87.55 | 50uL | 1.000 | ******* | | 12/22/2022 1:25:34 PM |
| 3 | 87.85 | 50uL | 1.000 | ******* | | 12/22/2022 1:28:20 PM |

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 87.96



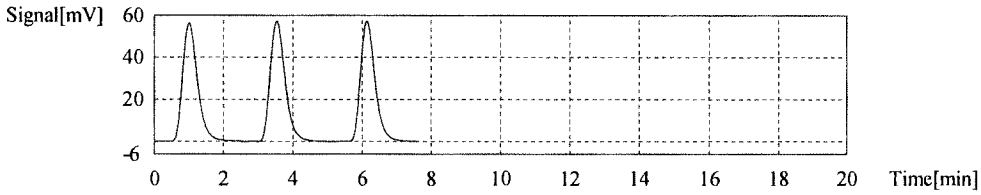

Conc: 50.00mg/L

# TOC-Control L Report

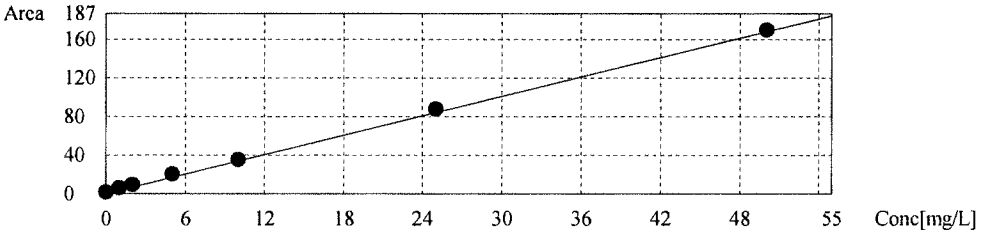
2022_12_22_002_CAL.tlx

| No. | Area | Inj. Vol | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 169.8 | 50uL | 1.000 | ******* | | 12/22/2022 1:37:37 PM |
| 2 | 171.3 | 50uL | 1.000 | ******* | | 12/22/2022 1:40:28 PM |
| 3 | 168.9 | 50uL | 1.000 | ******* | | 12/22/2022 1:43:09 PM |

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 170.0




Slope: 3.361
Intercept 0.000
r^2 0.9998
r 0.9999
RSE(%) N/A
Zero Shift Yes




**Sample**

Sample Name. ICV
Sample ID: 3100606203
Origin: 12_22_2022.cal
Status Completed
Chk. Result

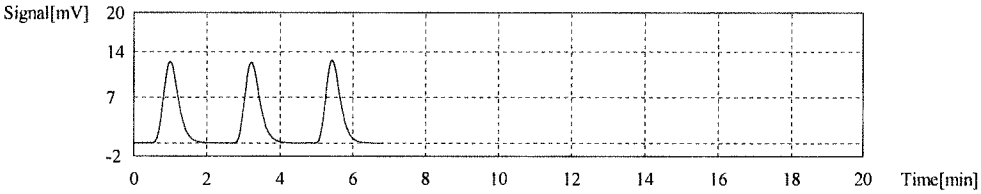
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:10.79mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 36.41 | 10.83mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 1:52:08 PM |
| 2 | 36.34 | 10.81mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 1:54:34 PM |
| 3 | 36.03 | 10.72mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 1:57:10 PM |

Mean Area 36.26
Mean Conc. 10.79mg/L




**Sample**

# TOC-Control L Report

2022_12_22_002_CAL.tlx

Sample Name: ICB
Sample ID:
Origin: 12_22_2022.cal
Status Completed
Chk. Result

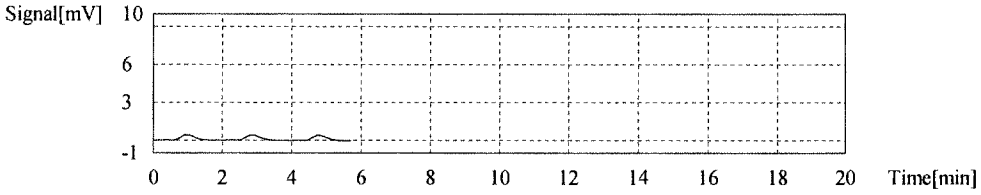
| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.3481mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.237 | 0.3681mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 2:06:02 PM |
| 2 | 1.118 | 0.3327mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 2:08:10 PM |
| 3 | 1.155 | 0.3437mg/L | 50uL | 1.000 | | 12_22_2022.2022_12_22_13_06_45.cal | 12/22/2022 2:10:18 PM |

Mean Area 1.170
Mean Conc. 0.3481mg/L



C:\TOC-L\Data\2023_02_07_001.tlx

| | Type | Analysis | Sample Name | Sample ID | Origin | Manual Diluti | Result | Notes |
|---|---|---|---|---|---|---|---|---|
| 1 | Unknown | NPOC | CCV | 321102607 | 12_22_2022 | 1.000 | NPOC:25.14mg/L | |
| 2 | Unknown | NPOC | CCB | | 12_22_2022 | 1.000 | NPOC:0.2619mg/ | |
| 3 | Unknown | NPOC | MBLK-02062023 | | 12_22_2022 | 1.000 | NPOC:0.2609mg/ | |
| 4 | Unknown | NPOC | LCS-02062023 | 3100606203 | 12_22_2022 | 1.000 | NPOC:10.27mg/L | |
| 5 | Unknown | NPOC | LCSD-02062023 | | 12_22_2022 | 1.000 | NPOC:10.39mg/L | |
| 6 | Unknown | NPOC | HS23011136-03DF10 | | 12_22_2022 | 1.000 | NPOC:11.03mg/L | |
| 7 | Unknown | NPOC | HS23011136-04DF10 | | 12_22_2022 | 1.000 | NPOC:12.16mg/L | |
| 8 | Unknown | NPOC | HS23011136-04MSDF10 | | 12_22_2022 | 1.000 | NPOC:25.34mg/L | |
| 9 | Unknown | NPOC | HS23011136-05DF100 | | 12_22_2022 | 1.000 | NPOC:19.34mg/L | |
| 10 | Unknown | NPOC | HS23011136-06DF100 | | 12_22_2022 | 1.000 | NPOC:16.61mg/L | |
| 11 | Unknown | NPOC | CCV | 321102607 | 12_22_2022 | 1.000 | NPOC:24.58mg/L | |
| 12 | Unknown | NPOC | CCB | | 12_22_2022 | 1.000 | NPOC:0.1933mg/ | |

C:\TOC-L\Data\2023_02_07_001.tlx

| | Status | Date / Time | Vial |
|---|---|---|---|
| 1 | Completed | 2/7/2023 12:40:34 | 1 |
| 2 | Completed | 2/7/2023 12:52:54 | 2 |
| 3 | Completed | 2/7/2023 1:05:14 P | 3 |
| 4 | Completed | 2/7/2023 1:18:53 P | 4 |
| 5 | Completed | 2/7/2023 1:32:42 P | 5 |
| 6 | Completed | 2/7/2023 1:46:51 P | 6 |
| 7 | Completed | 2/7/2023 2:00:38 P | 7 |
| 8 | Completed | 2/7/2023 2:15:23 P | 8 |
| 9 | Completed | 2/7/2023 2:29:32 P | 9 |
| 10 | Completed | 2/7/2023 2:43:34 P | 10 |
| 11 | Completed | 2/7/2023 3:29:21 P | 1 |
| 12 | Completed | 2/7/2023 3:41:41 P | 2 |

# TOC-Control L Report

2023_02_07_001.tlx

**Instr.Information**

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

**Sample**

Sample Name: CCV
Sample ID: 321102607
Origin: 12_22_2022_CAL.cal
Status: Completed
Chk. Result:

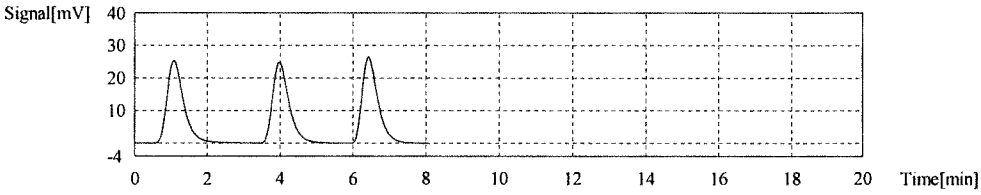
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.14mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 82.01 | 25.53mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 12:35:00 PM |
| 2 | 79.51 | 24.75mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 12:37:47 PM |
| 3 | 80.69 | 25.12mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 12:40:34 PM |

Mean Area: 80.74
Mean Conc.: 25.14mg/L




**Sample**

Sample Name: CCB
Sample ID:
Origin: 12_22_2022_CAL.cal
Status: Completed
Chk. Result:

| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2619mg/L |

1. Det

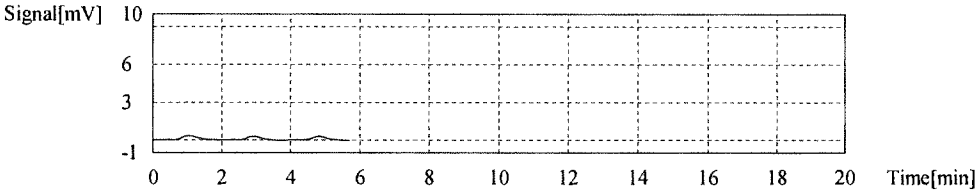
Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.9342 | 0.2909mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 12:48:38 PM |
| 2 | 0.8092 | 0.2519mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 12:50:46 PM |
| 3 | 0.7800 | 0.2428mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 12:52:54 PM |

# TOC-Control L Report

2023_02_07_001.tlx

Mean Area 0.8411
Mean Conc. 0.2619mg/L




**Sample**

Sample Name: MBLK-02062023
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

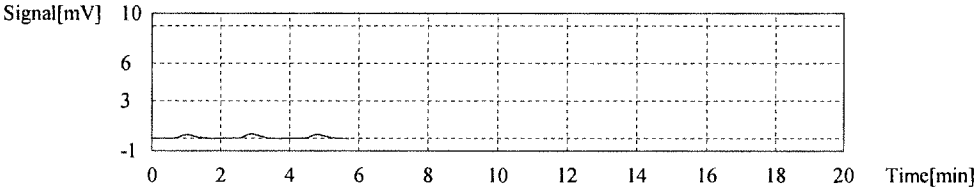
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2609mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.6985 | 0.2175mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:00:58 PM |
| 2 | 0.9830 | 0.3060mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:03:06 PM |
| 3 | 0.8321 | 0.2591mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:05:14 PM |

Mean Area 0.8379
Mean Conc. 0.2609mg/L




**Sample**

Sample Name: LCS-02062023
Sample ID: 3100606203
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:10.27mg/L |

1. Det

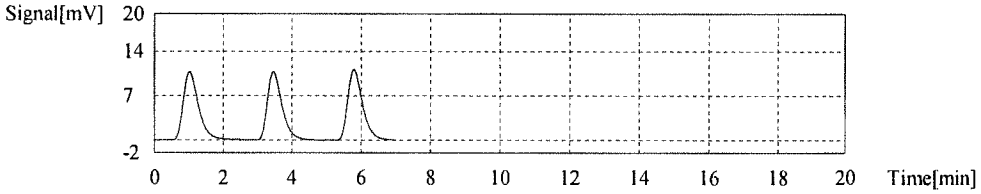
Anal.: NPOC

# TOC-Control L Report

2023_02_07_001.tlx

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 32.67 | 10.17mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:13:52 PM |
| 2 | 32.45 | 10.10mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:16:26 PM |
| 3 | 33.82 | 10.53mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:18:53 PM |

Mean Area 32.98
Mean Conc. 10.27mg/L




**Sample**

Sample Name: LCSD-02062023
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

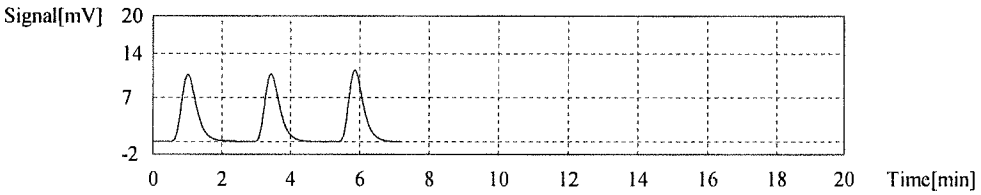
| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:10.39mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 32.67 | 10.17mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:27:27 PM |
| 2 | 33.22 | 10.34mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:30:09 PM |
| 3 | 34.25 | 10.66mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:32:42 PM |

Mean Area 33.38
Mean Conc. 10.39mg/L




**Sample**

Sample Name: HS23011136-03DF10
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:11.03mg/L |

1. Det

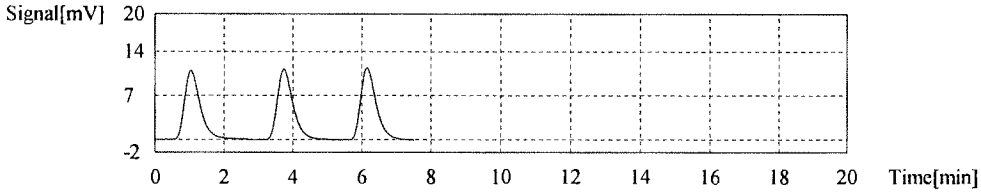
# TOC-Control L Report

2023_02_07_001.tlx

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 34.46 | 10.73mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:41:32 PM |
| 2 | 35.69 | 11.11mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:44:13 PM |
| 3 | 36.16 | 11.26mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:46:51 PM |

Mean Area 35.44
Mean Conc. 11.03mg/L




**Sample**

Sample Name: HS23011136-04DF10
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

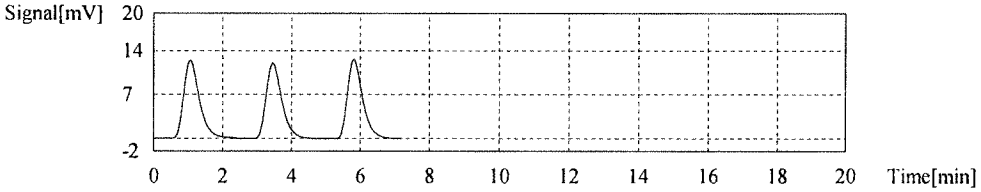
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:12.16mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 39.08 | 12.17mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:55:24 PM |
| 2 | 38.30 | 11.92mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 1:58:02 PM |
| 3 | 39.78 | 12.39mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 2:00:38 PM |

Mean Area 39.05
Mean Conc. 12.16mg/L




**Sample**

Sample Name: HS23011136-04MSDF10
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.34mg/L |

# TOC-Control L Report

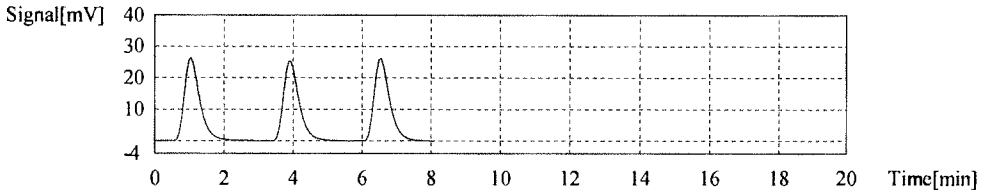
2023_02_07_001.tlx

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 81.28 | 25.31mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 2:09:38 PM |
| 2 | 80.75 | 25.14mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 2:12:33 PM |
| 3 | 82.18 | 25.59mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 2:15:23 PM |

Mean Area 81.40
Mean Conc. 25.34mg/L




**Sample**

Sample Name: HS23011136-05DF100
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

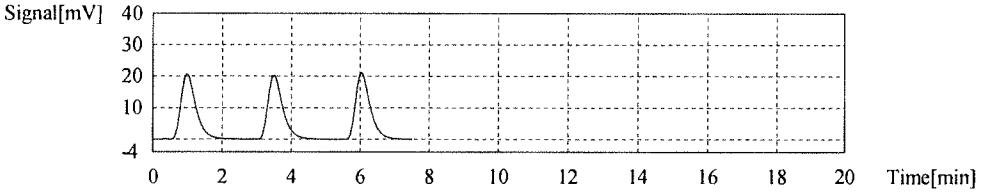
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:19.34mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 61.85 | 19.26mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 2:24:03 PM |
| 2 | 61.29 | 19.08mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 2:26:52 PM |
| 3 | 63.22 | 19.68mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 2:29:32 PM |

Mean Area 62.12
Mean Conc. 19.34mg/L




**Sample**

Sample Name: HS23011136-06DF100
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

# TOC-Control L Report

2023_02_07_001.tlx

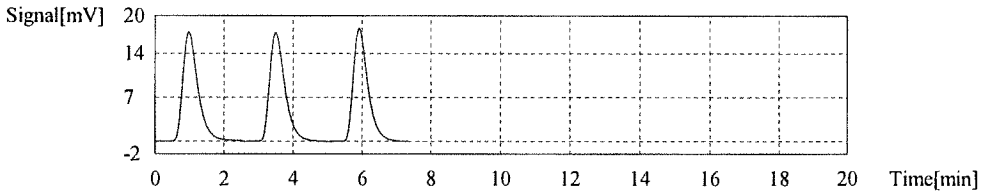
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:16.61mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 52.77 | 16.43mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 2:38:12 PM |
| 2 | 53.02 | 16.51mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 2:40:53 PM |
| 3 | 54.26 | 16.89mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 2:43:34 PM |

Mean Area 53.35
Mean Conc. 16.61mg/L




**Sample**

Sample Name: CCV
Sample ID: 321102607
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

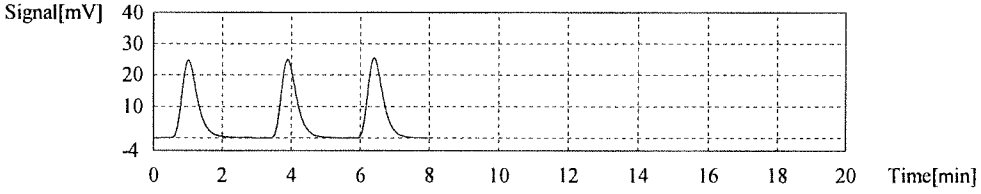
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.58mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 78.46 | 24.43mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 3:23:47 PM |
| 2 | 78.66 | 24.49mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 3:26:32 PM |
| 3 | 79.77 | 24.84mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 3:29:21 PM |

Mean Area 78.96
Mean Conc. 24.58mg/L




**Sample**

# TOC-Control L Report

2023_02_07_001.tlx

Sample Name: CCB
Sample ID:
Origin: 12_22_2022_CAL.cal
Status Completed
Chk. Result

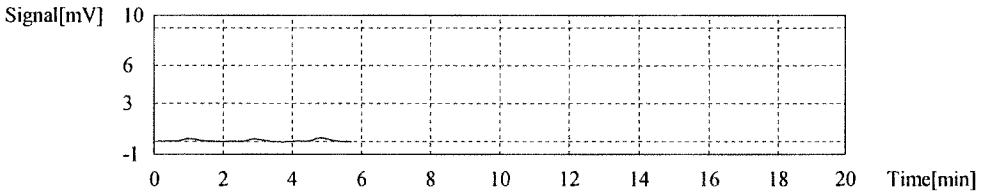
| Type | Anal | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1933mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol | Aut. Dil | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.4930 | 0.1535mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 3:37:25 PM |
| 2 | 0.6341 | 0.1974mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 3:39:33 PM |
| 3 | 0.7355 | 0.2290mg/L | 50uL | 1.000 | | 12_22_2022_CAL.2022_12_22_12_06_45.cal | 2/7/2023 3:41:41 PM |

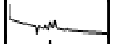
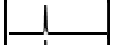
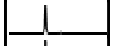
Mean Area 0.6209
Mean Conc. 0.1933mg/L



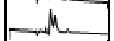
# HS23011136 9056_W IC

ALS WO# HS23011136

Sequence: 012423
Last Update Operator: alshs.nouser

| CD | Name | Comment | Type | Position | Dilution | Level | Instrument Method |
|---|---|---|---|---|---|---|---|
|  | STD1 | | Calibratio | BA1 | 1.00 | 1 | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | STD2 | | Calibratio | BA2 | 1.00 | 2 | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | STD3 | | Calibratio | BA3 | 1.00 | 3 | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | STD4 | | Calibratio | BA4 | 1.00 | 4 | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | STD5 | | Calibratio | BA5 | 1.00 | 5 | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | STD6 | | Calibratio | BA6 | 1.00 | 6 | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | ICV | | Unknown | BA7 | 1.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | ICB | | Unknown | BA8 | 1.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | CCV1 | | Unknown | R3 | 1.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | CCB | | Unknown | R7 | 1.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | MBLK | 9056-W-SH | Unknown | R5 | 1.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | LCS | | Unknown | R2 | 1.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-04DF5 | | Unknown | BB4 | 5.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-04MSDF5 | | Unknown | BB5 | 5.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-04MSDDF | | Unknown | BB6 | 5.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-04DF50 | | Unknown | BB7 | 50.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-01DF5 | | Unknown | BB8 | 5.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-01DF50 | | Unknown | BC1 | 50.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-02DF5 | | Unknown | BC2 | 5.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-02DF100 | | Unknown | BC3 | 100.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | CCV | | Unknown | R1 | 1.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | CCB | | Unknown | R4 | 1.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-03DF5 | | Unknown | BC4 | 5.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-03DF50 | | Unknown | BC5 | 50.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-05DF5 | | Unknown | BC6 | 5.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-05DF50 | | Unknown | BC7 | 50.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
|  | HS23011136-06DF5 | | Unknown | BC8 | 5.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
| | HS23011136-06DF50 | | Unknown | BD1 | 50.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
| | CCV1 | | Unknown | R3 | 1.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |
| | CCB | | Unknown | R7 | 1.00 | | Anions Program ISO37mM 150mm short 0.4 Constant current |

Sequence: 012423
Last Update Operator: alshs.nouser

| Processing Method | CD | Name | me | Status | Inject Time |
|---|---|---|---|---|---|
| Anions Processing Method ISO |  | STD1 | 5.0 | Finished | 1/23/2023 2:36:57 PM -06:00 |
| Anions Processing Method ISO |  | STD2 | 5.0 | Finished | 1/23/2023 2:42:45 PM -06:00 |
| Anions Processing Method ISO |  | STD3 | 5.0 | Finished | 1/23/2023 2:48:34 PM -06:00 |
| Anions Processing Method ISO |  | STD4 | 5.0 | Finished | 1/23/2023 2:54:22 PM -06:00 |
| Anions Processing Method ISO |  | STD5 | 5.0 | Finished | 1/23/2023 3:00:10 PM -06:00 |
| Anions Processing Method ISO |  | STD6 | 5.0 | Finished | 1/23/2023 3:05:59 PM -06:00 |
| Anions Processing Method ISO |  | ICV | 5.0 | Finished | 1/23/2023 3:11:47 PM -06:00 |
| Anions Processing Method ISO |  | ICB | 5.0 | Finished | 1/23/2023 3:17:35 PM -06:00 |
| Anions Processing Method ISO |  | CCV1 | 5.0 | Finished | 1/25/2023 12:05:26 AM -06:00 |
| Anions Processing Method ISO |  | CCB | 5.0 | Finished | 1/25/2023 12:11:14 AM -06:00 |
| Anions Processing Method ISO |  | MBLK | 5.0 | Finished | 1/25/2023 12:22:49 AM -06:00 |
| Anions Processing Method ISO |  | LCS | 5.0 | Finished | 1/25/2023 12:28:36 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-04DF5 | 5.0 | Finished | 1/25/2023 12:34:24 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-04MSDF5 | 5.0 | Finished | 1/25/2023 12:40:11 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-04MSDDF | 5.0 | Finished | 1/25/2023 12:45:58 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-04DF50 | 5.0 | Finished | 1/25/2023 12:51:46 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-01DF5 | 5.0 | Finished | 1/25/2023 12:57:33 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-01DF50 | 5.0 | Finished | 1/25/2023 1:03:20 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-02DF5 | 5.0 | Finished | 1/25/2023 1:09:08 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-02DF100 | 5.0 | Finished | 1/25/2023 1:14:55 AM -06:00 |
| Anions Processing Method ISO |  | CCV | 5.0 | Finished | 1/25/2023 1:32:16 AM -06:00 |
| Anions Processing Method ISO |  | CCB | 5.0 | Finished | 1/25/2023 1:38:03 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-03DF5 | 5.0 | Finished | 1/25/2023 1:49:38 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-03DF50 | 5.0 | Finished | 1/25/2023 1:55:25 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-05DF5 | 5.0 | Finished | 1/25/2023 2:01:12 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-05DF50 | 5.0 | Finished | 1/25/2023 2:06:59 AM -06:00 |
| Anions Processing Method ISO |  | HS23011136-06DF5 | 5.0 | Finished | 1/25/2023 2:12:46 AM -06:00 |
| Anions Processing Method ISO | | HS23011136-06DF50 | 5.0 | Finished | 1/25/2023 2:18:33 AM -06:00 |
| Anions Processing Method ISO | | CCV1 | 5.0 | Finished | 1/25/2023 2:35:55 AM -06:00 |
| Anions Processing Method ISO | | CCB | 5.0 | Finished | 1/25/2023 2:41:42 AM -06:00 |

Sequence: 012623
Injection #6: STD6

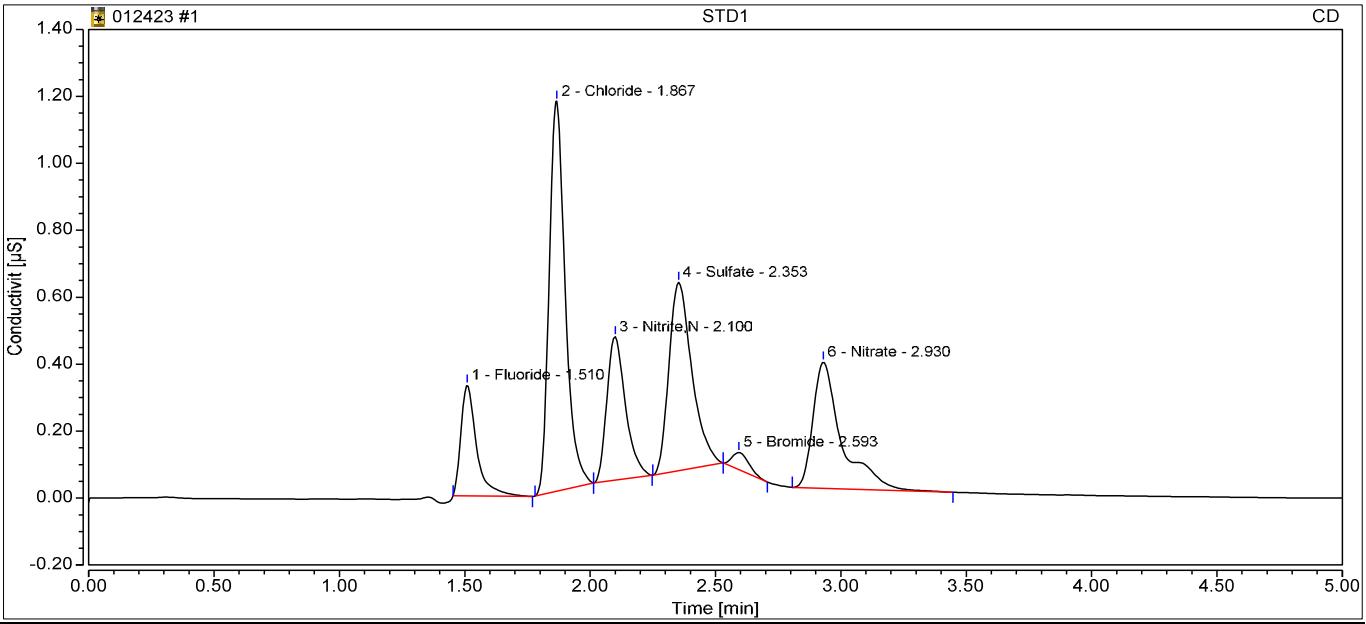
Calibration

| Peak No. | Peak Name | Cal.Type | Eval.Type | Number of Points | Rel.Std.Dev. % | Coeff.of Determination | C0 (Offset) | C1 (Slope) | C2 (Curve) |
|---|---|---|---|---|---|---|---|---|---|
| ***1*** | ***Fluoride*** | ***Lin, WithOffset, 1/A*** | ***Area*** | ***6*** | ***18.2600*** | ***0.99823*** | ***0.0003*** | ***0.2594*** | ***0.0000*** |
| 2 | Chloride | Lin, WithOffset, 1/A | Area | 6 | 3.9326 | 0.99992 | -0.0034 | 0.1716 | 0.0000 |
| 3 | Nitrite,N | Quad, WithOffset, 1/A | Area | 6 | 6.5665 | 0.99976 | 0.0001 | 0.3625 | -0.0059 |
| 4 | Sulfate | Lin, WithOffset, 1/A | Area | 6 | 7.0089 | 0.99974 | 0.0018 | 0.1125 | 0.0000 |
| 5 | Bromide | Lin, WithOffset, 1/A | Area | 6 | 21.3247 | 0.99813 | -0.0031 | 0.0579 | 0.0000 |
| 6 | Nitrate | Lin, WithOffset, 1/A | Area | 6 | 8.6115 | 0.99956 | 0.0097 | 0.3471 | 0.0000 |
| 7 | Chlorate | Quad, WithOffset, 1/A | Area | 5 | 14.8871 | 0.99687 | -0.0004 | 0.0060 | -0.0001 |
| 8 | Phosphate | Lin, WithOffset, 1/A | Area | 2 | n.a. | 1.00000 | -0.4901 | 0.1278 | 0.0000 |
| **Maximum** | | | | | **21.3247** | 1.00000 | | | |
| **Minimum** | | | | | 3.9326 | **0.99687** | | | |

*1 STD1*

| | | | |
|---|---|---|---|
| *Sample Name:* | **STD1** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BA1** | *Channel:* | **CD** |
| *Sample Type:* | **Calibration Standard** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/23/2023 14:36** | *Sample Weight:* | **1.0000** |

Run Time:

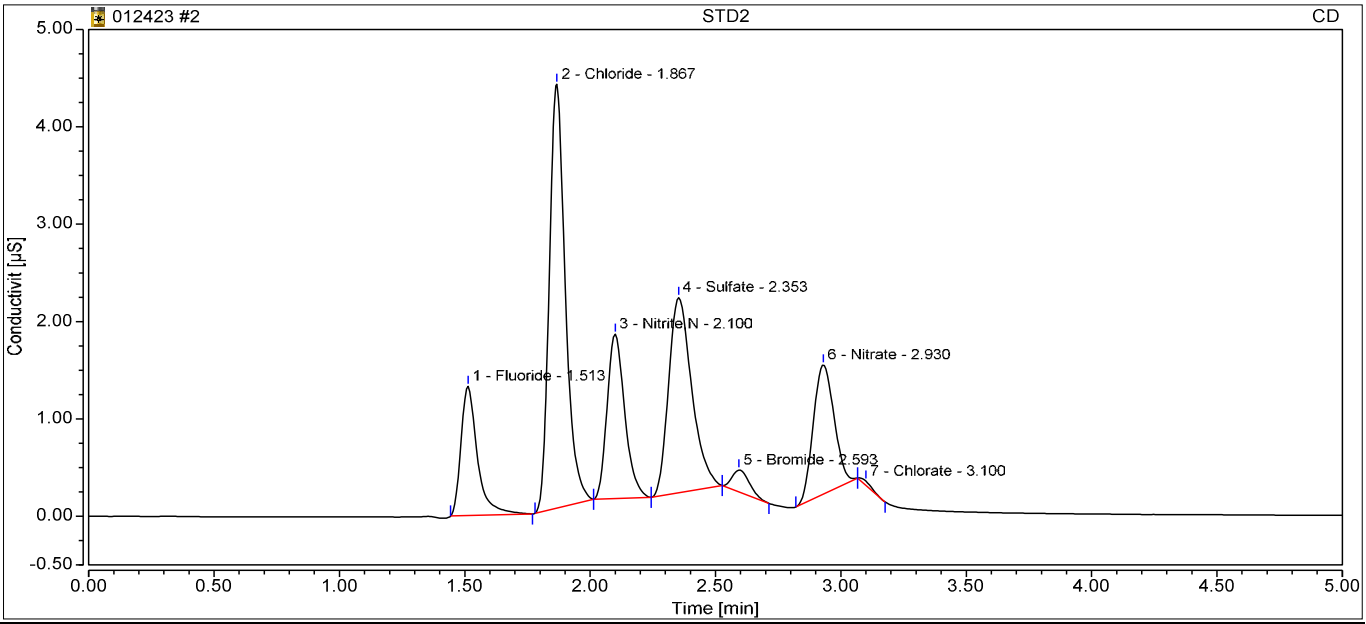



**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.51 | Fluoride | BMB | 0.024 | 0.0916 | 0.0916 | 1.0000 |
| 2 | 1.87 | Chloride | BMB | 0.087 | 0.5248 | 0.5248 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 0.037 | 0.1020 | 0.1020 | 1.0000 |
| 4 | 2.35 | Sulfate | BMB | 0.060 | 0.5165 | 0.5165 | 1.0000 |
| 5 | 2.59 | Bromide | BMB | 0.004 | 0.1232 | 0.1232 | 1.0000 |
| 6 | 2.93 | Nitrate | BMB | 0.050 | 0.1161 | 0.1161 | 1.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **0.262** | | **1.47** | |

| | | | |
|---|---|---|---|
| *2 STD2* | | | |
| *Sample Name:* | **STD2** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BA2** | *Channel:* | **CD** |
| *Sample Type:* | **Calibration Standard** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/23/2023 14:42** | *Sample Weight:* | **1.0000** |

Run Time:

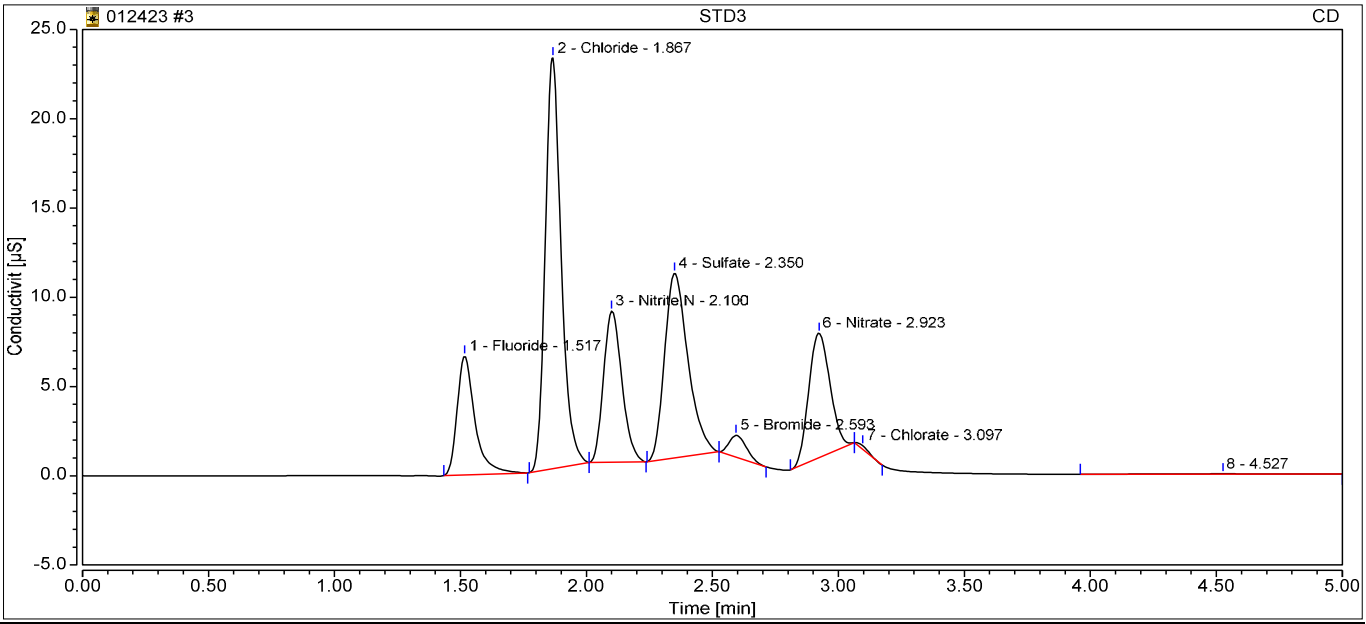



**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.51 | Fluoride | BMB | 0.101 | 0.3891 | 0.3891 | 1.0000 |
| 2 | 1.87 | Chloride | BMB | 0.323 | 1.9022 | 1.9022 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 0.138 | 0.3825 | 0.3825 | 1.0000 |
| 4 | 2.35 | Sulfate | BMB | 0.215 | 1.8922 | 1.8922 | 1.0000 |
| 5 | 2.59 | Bromide | BMB | 0.018 | 0.3682 | 0.3682 | 1.0000 |
| 6 | 2.93 | Nitrate | BMB | 0.128 | 0.3409 | 0.3409 | 1.0000 |
| 7 | 3.10 | Chlorate | BMB | 0.002 | 0.4193 | 0.4193 | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **0.925** | | **5.69** | |

| | | | |
|---|---|---|---|
| *3 STD3* | | | |
| *Sample Name:* | **STD3** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BA3** | *Channel:* | **CD** |
| *Sample Type:* | **Calibration Standard** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/23/2023 14:48** | *Sample Weight:* | **1.0000** |

Run Time:



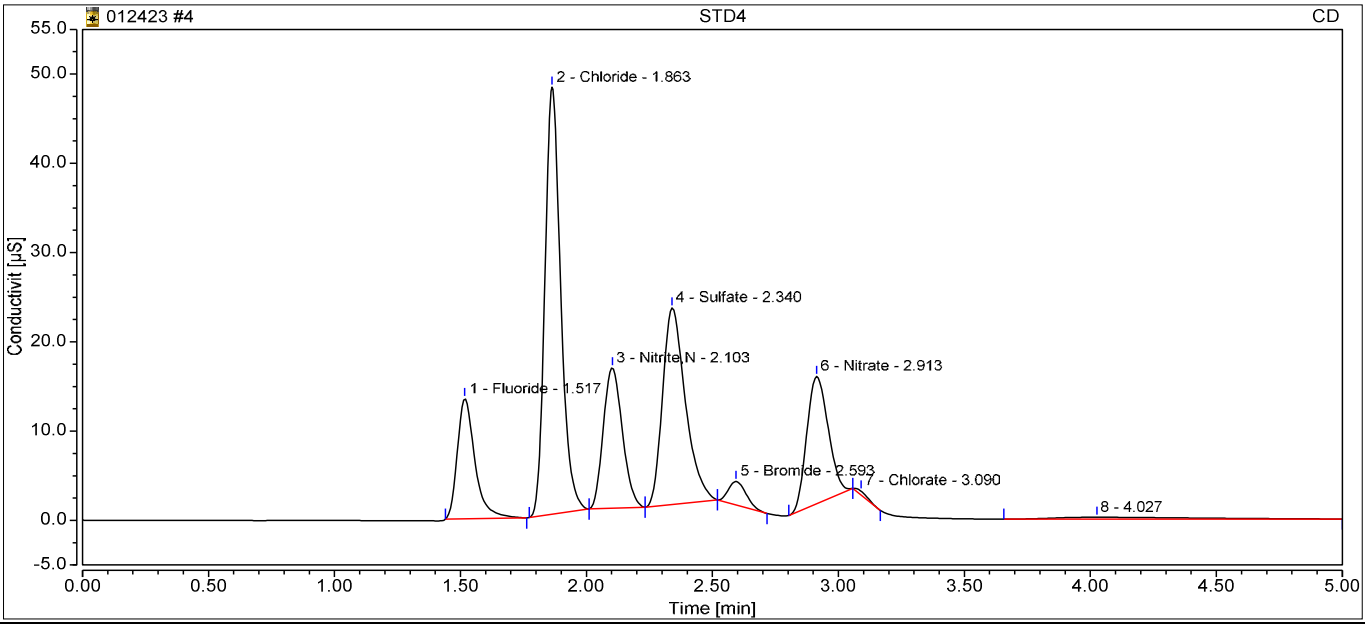

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 0.545 | 2.1003 | 2.1003 | 1.0000 |
| 2 | 1.87 | Chloride | BMB | 1.685 | 9.8413 | 9.8413 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 0.715 | 2.0394 | 2.0394 | 1.0000 |
| 4 | 2.35 | Sulfate | BMB | 1.114 | 9.8924 | 9.8924 | 1.0000 |
| 5 | 2.59 | Bromide | BMB | 0.099 | 1.7671 | 1.7671 | 1.0000 |
| 6 | 2.92 | Nitrate | BMB | 0.683 | 1.9402 | 1.9402 | 1.0000 |
| 7 | 3.10 | Chlorate | BMB | 0.010 | 1.7695 | 1.7695 | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **4.851** | | **29.35** | |

*4 STD4*

| | | | |
|---|---|---|---|
| *Sample Name:* | **STD4** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BA4** | *Channel:* | **CD** |
| *Sample Type:* | **Calibration Standard** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/23/2023 14:54** | *Sample Weight:* | **1.0000** |

Run Time:

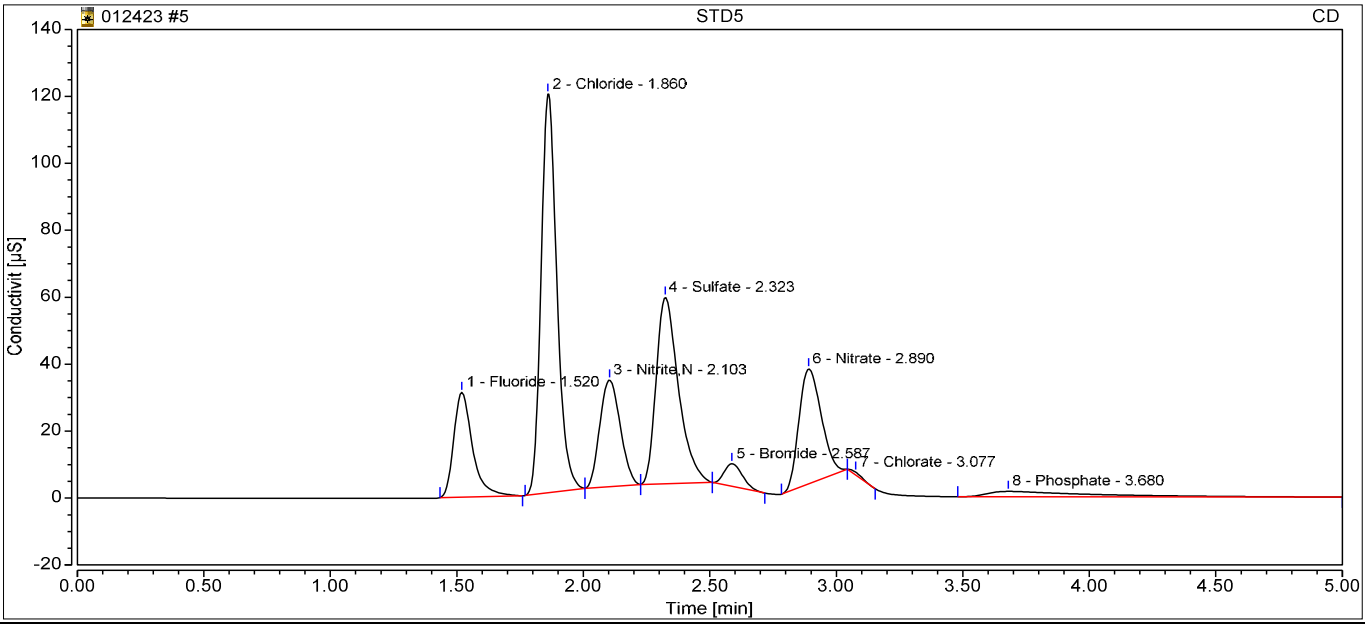



**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 1.096 | 4.2257 | 4.2257 | 1.0000 |
| 2 | 1.86 | Chloride | BMB | 3.473 | 20.2647 | 20.2647 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 1.379 | 4.0759 | 4.0759 | 1.0000 |
| 4 | 2.34 | Sulfate | BMB | 2.316 | 20.5697 | 20.5697 | 1.0000 |
| 5 | 2.59 | Bromide | BMB | 0.216 | 3.7890 | 3.7890 | 1.0000 |
| 6 | 2.91 | Nitrate | BMB | 1.408 | 4.0269 | 4.0269 | 1.0000 |
| 7 | 3.09 | Chlorate | BMB | 0.023 | 4.3199 | 4.3199 | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **9.911** | | **61.27** | |

| | | | |
|---|---|---|---|
| *5 STD5* | | | |
| *Sample Name:* | **STD5** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BA5** | *Channel:* | **CD** |
| *Sample Type:* | **Calibration Standard** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/23/2023 15:00** | *Sample Weight:* | **1.0000** |

Run Time:



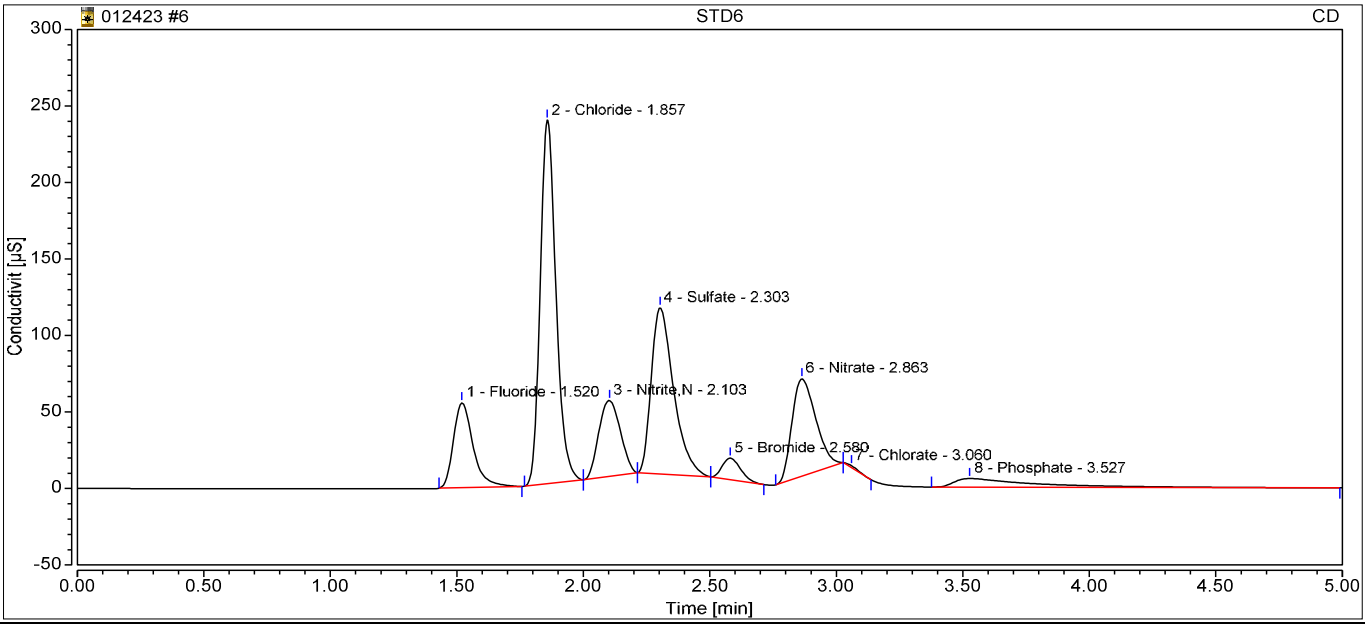

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 2.698 | 10.4020 | 10.4020 | 1.0000 |
| 2 | 1.86 | Chloride | BMB | 8.612 | 50.2171 | 50.2171 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 2.980 | 9.7904 | 9.7904 | 1.0000 |
| 4 | 2.32 | Sulfate | BMB | 5.704 | 50.6918 | 50.6918 | 1.0000 |
| 5 | 2.59 | Bromide | BMB | 0.569 | 9.8884 | 9.8884 | 1.0000 |
| 6 | 2.89 | Nitrate | BMB | 3.525 | 10.1264 | 10.1264 | 1.0000 |
| 7 | 3.08 | Chlorate | BMB | 0.047 | 9.8667 | 9.8667 | 1.0000 |
| 8 | 3.68 | Phosphate | BMB | 0.787 | 10.0000 | 10.0000 | 1.0000 |
| **Total:** | | | **0.000** | **24.922** | | **160.98** | |

*6 STD6*

| | | | |
|---|---|---|---|
| *Sample Name:* | **STD6** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BA6** | *Channel:* | **CD** |
| *Sample Type:* | **Calibration Standard** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/23/2023 15:05** | *Sample Weight:* | **1.0000** |

Run Time:



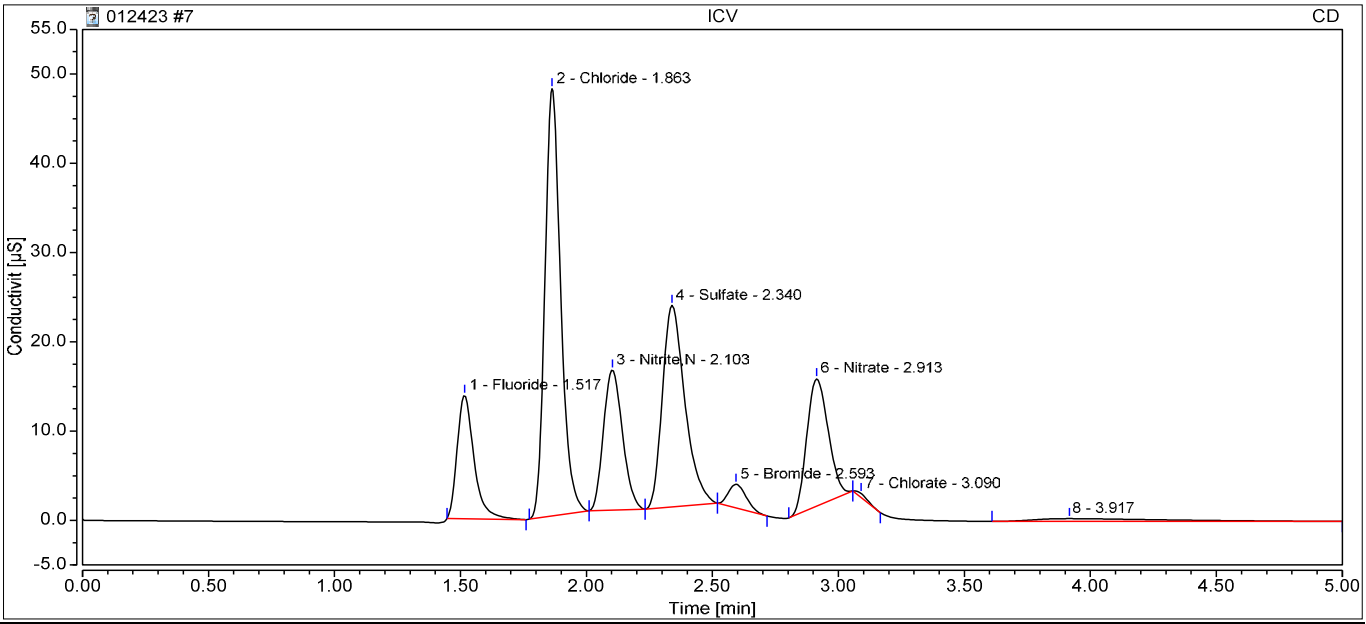

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 5.004 | 19.2913 | 19.2913 | 1.0000 |
| 2 | 1.86 | Chloride | BMB | 17.110 | 99.7497 | 99.7497 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 4.894 | 20.1587 | 20.1587 | 1.0000 |
| 4 | 2.30 | Sulfate | BMB | 11.131 | 98.9373 | 98.9373 | 1.0000 |
| 5 | 2.58 | Bromide | BMB | 1.187 | 20.5641 | 20.5641 | 1.0000 |
| 6 | 2.86 | Nitrate | BMB | 6.935 | 19.9496 | 19.9496 | 1.0000 |
| 7 | 3.06 | Chlorate | BMB | 0.069 | 20.0446 | 20.0446 | 1.0000 |
| 8 | 3.53 | Phosphate | BMB | 2.065 | 20.0000 | 20.0000 | 1.0000 |
| **Total:** | | | **0.000** | **48.395** | | **318.70** | |

7 ICV

| | | | |
|---|---|---|---|
| *Sample Name:* | **ICV** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BA7** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/23/2023 15:11** | *Sample Weight:* | **1.0000** |

Run Time:



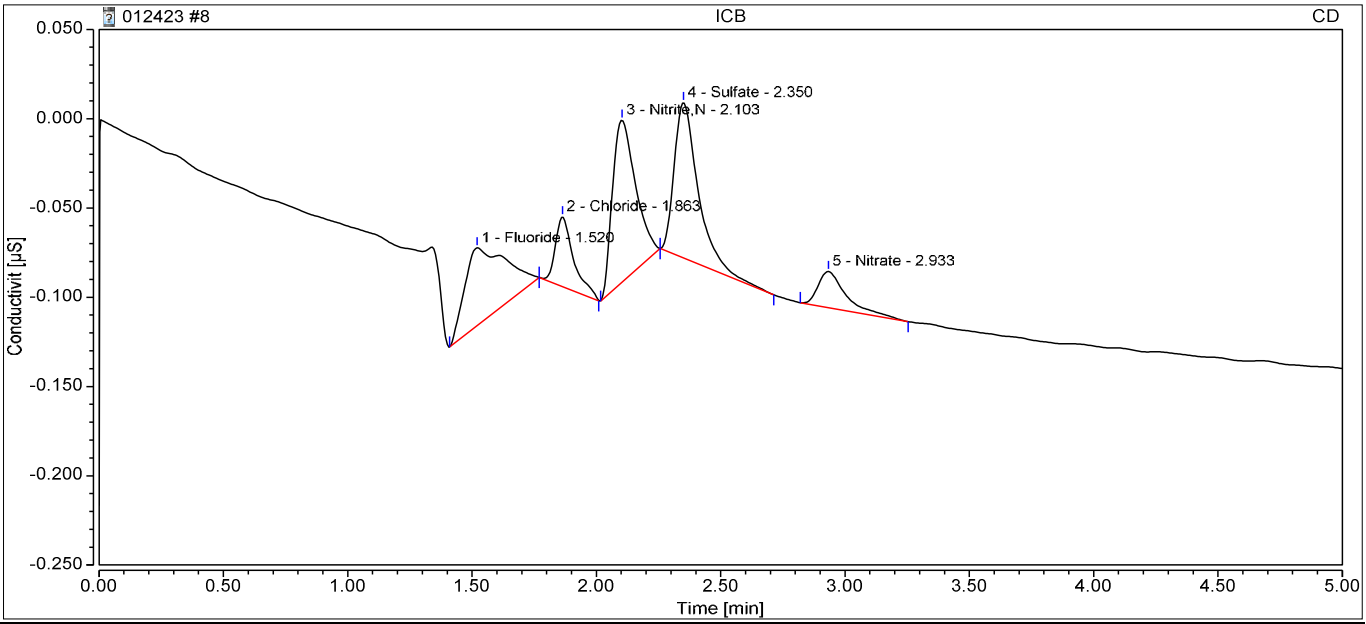

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 1.076 | 4.1460 | 4.1460 | 1.0000 |
| 2 | 1.86 | Chloride | BMB | 3.476 | 20.2807 | 20.2807 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 1.374 | 4.0608 | 4.0608 | 1.0000 |
| 4 | 2.34 | Sulfate | BMB | 2.342 | 20.8027 | 20.8027 | 1.0000 |
| 5 | 2.59 | Bromide | BMB | 0.218 | 3.8222 | 3.8222 | 1.0000 |
| 6 | 2.91 | Nitrate | BMB | 1.407 | 4.0267 | 4.0267 | 1.0000 |
| 7 | 3.09 | Chlorate | BMB | 0.023 | 4.2714 | 4.2714 | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **9.916** | | **61.41** | |

*8 ICB*

| | | | |
|---|---|---|---|
| *Sample Name:* | **ICB** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BA8** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/23/2023 15:17** | *Sample Weight:* | **1.0000** |

Run Time:



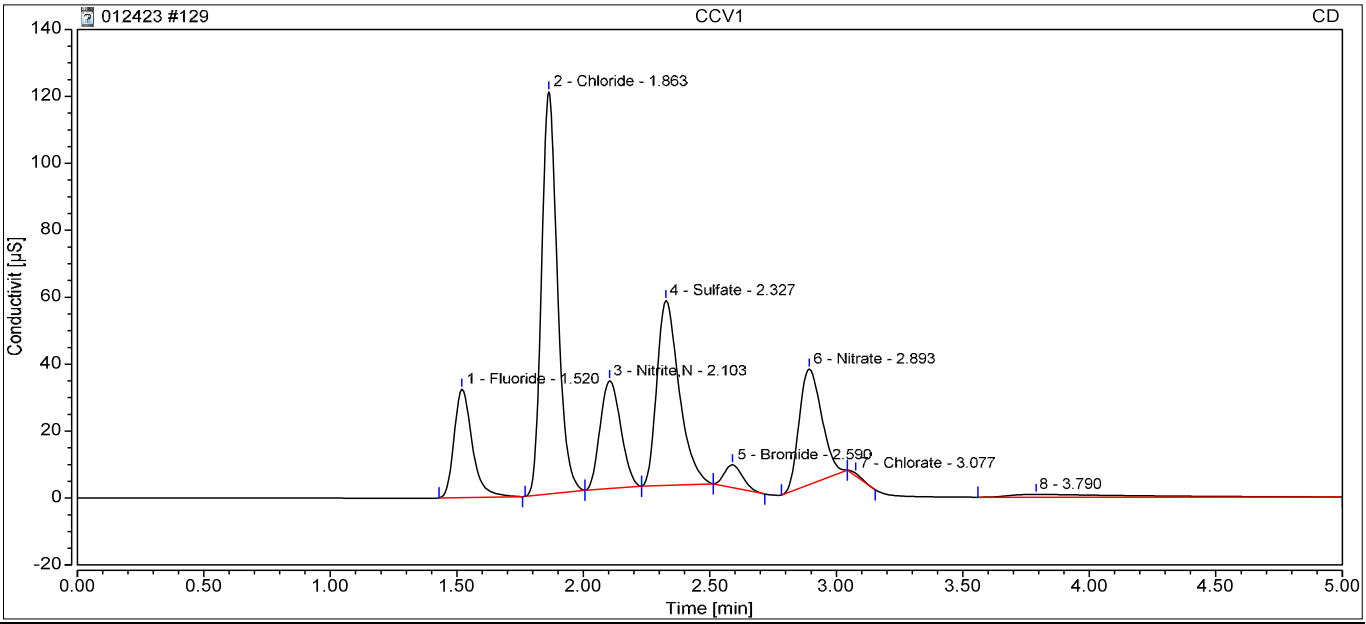

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 0.008 | 0.0297 | 0.0297 | 1.0000 |
| 2 | 1.86 | Chloride | BMB | 0.003 | 0.0390 | 0.0390 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 0.010 | 0.0268 | 0.0268 | 1.0000 |
| 4 | 2.35 | Sulfate | BMB | 0.010 | 0.0714 | 0.0714 | 1.0000 |
| n.a. | n.a. | Bromide | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| 5 | 2.93 | Nitrate | BMB | 0.003 | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **0.034** | | **0.17** | |

*129 CCV1*

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCV1** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **R3** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/25/2023 00:05** | *Sample Weight:* | **1.0000** |

Run Time:



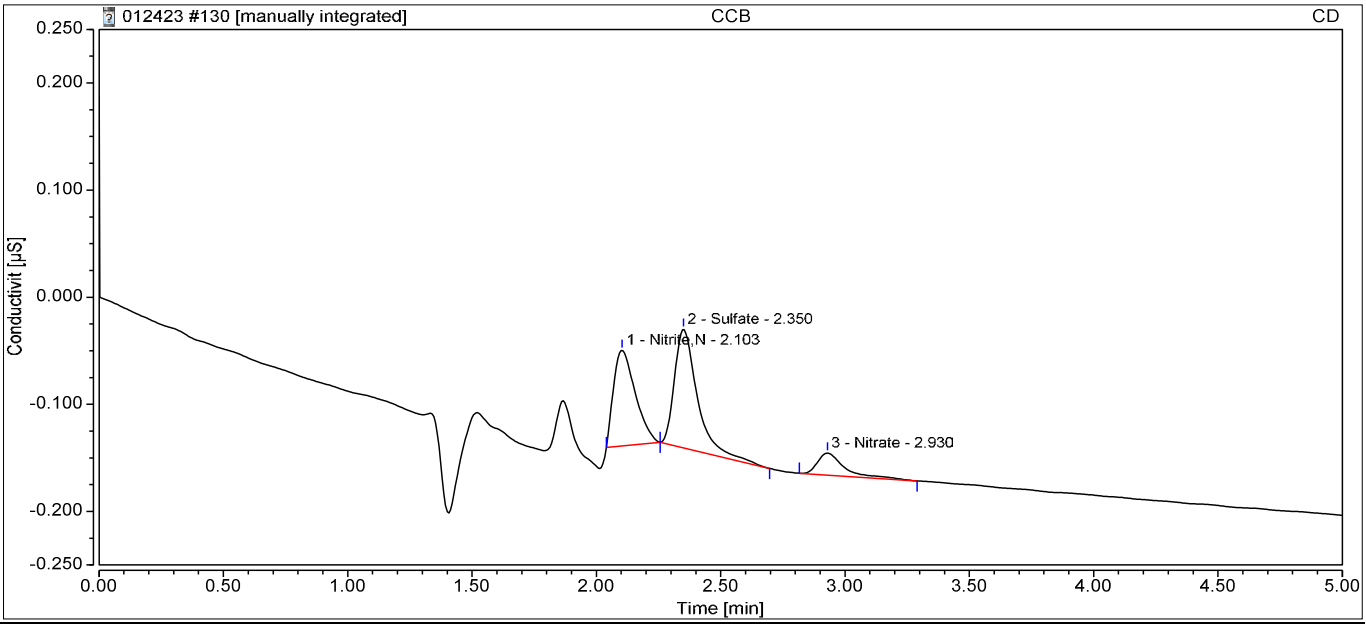

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 2.694 | 10.3849 | 10.3849 | 1.0000 |
| 2 | 1.86 | Chloride | BMB | 8.739 | 50.9556 | 50.9556 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 3.040 | 10.0367 | 10.0367 | 1.0000 |
| 4 | 2.33 | Sulfate | BMB | 5.651 | 50.2251 | 50.2251 | 1.0000 |
| 5 | 2.59 | Bromide | BMB | 0.569 | 9.8738 | 9.8738 | 1.0000 |
| 6 | 2.89 | Nitrate | BMB | 3.561 | 10.2321 | 10.2321 | 1.0000 |
| 7 | 3.08 | Chlorate | BMB | 0.044 | 9.1940 | 9.1940 | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **24.298** | | **150.90** | |

*130 CCB*

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **R7** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/25/2023 00:11** | *Sample Weight:* | **1.0000** |

Run Time:



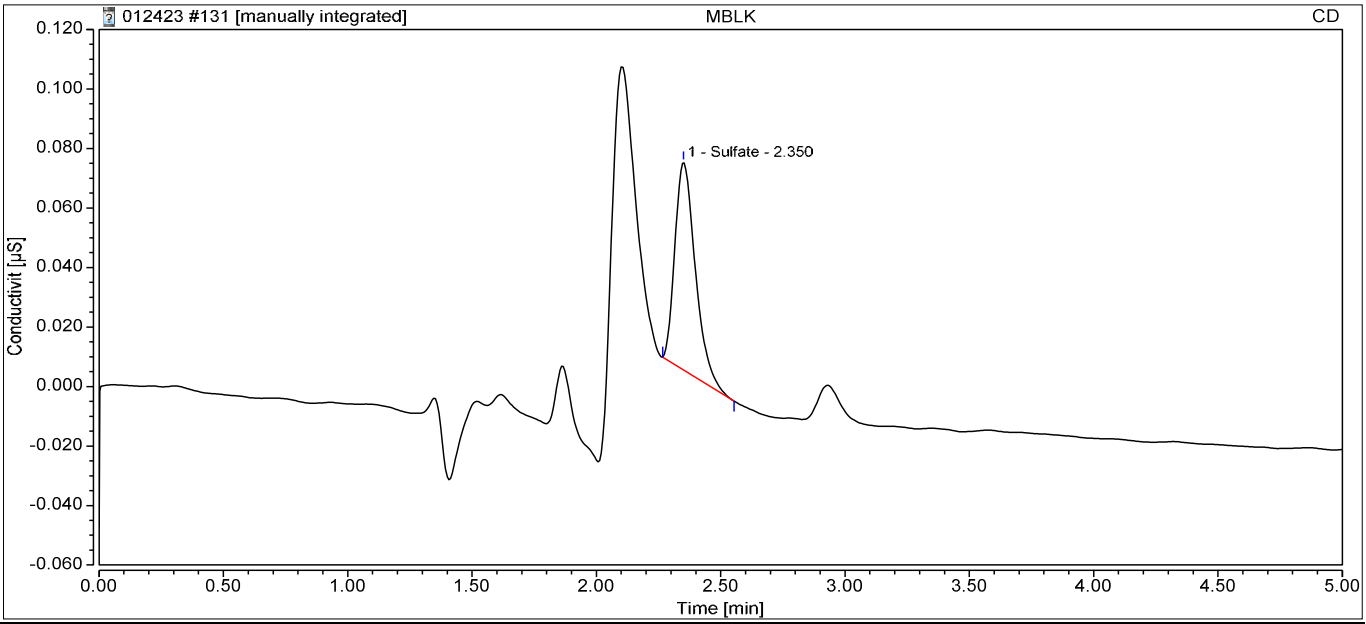

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Chloride | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| 1 | 2.10 | Nitrite,N | BMB* | 0.009 | 0.0247 | 0.0247 | 1.0000 |
| 2 | 2.35 | Sulfate | BMB | 0.012 | 0.0900 | 0.0900 | 1.0000 |
| n.a. | n.a. | Bromide | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| 3 | 2.93 | Nitrate | BMB | 0.003 | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **0.023** | | **0.11** | |

*131 MBLK*

| | | | |
|---|---|---|---|
| *Sample Name:* | **MBLK** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **R5** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/25/2023 00:22** | *Sample Weight:* | **1.0000** |

Run Time:



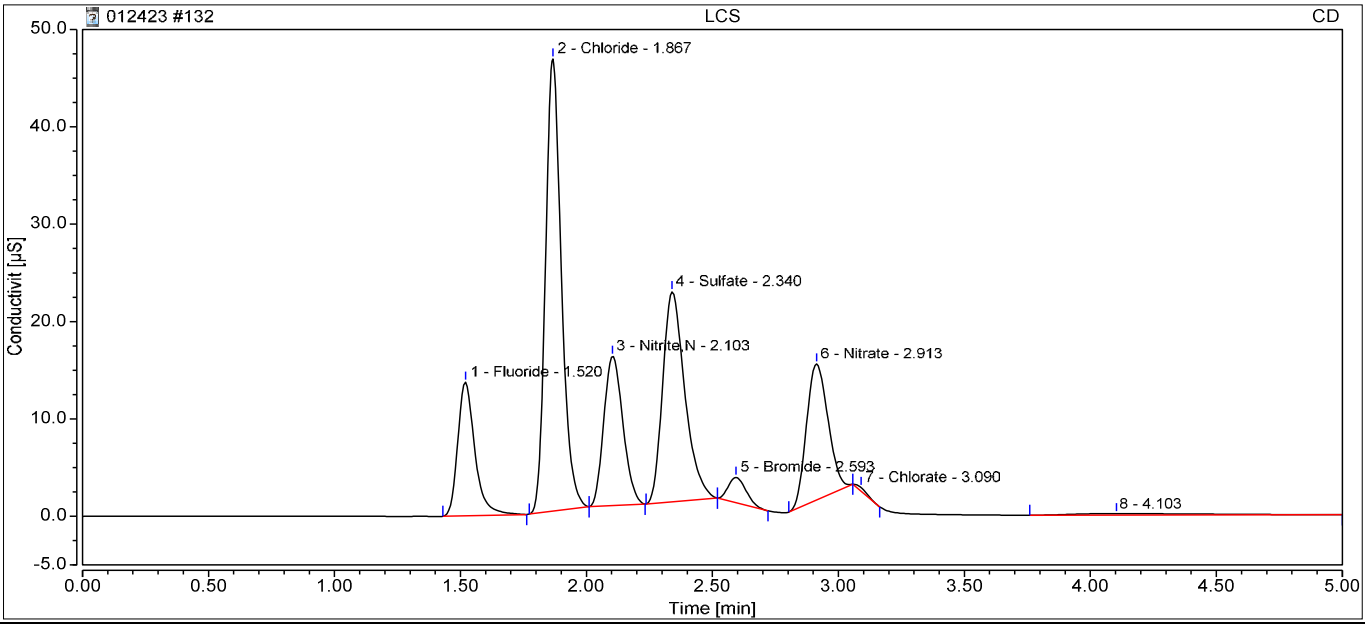

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Chloride | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| 1 | 2.35 | Sulfate | BMB | 0.007 | 0.0437 | 0.0437 | 1.0000 |
| n.a. | n.a. | Bromide | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Nitrate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **0.007** | | **0.04** | |

*132 LCS*

| | | | |
|---|---|---|---|
| *Sample Name:* | **LCS** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **R2** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/25/2023 00:28** | *Sample Weight:* | **1.0000** |

Run Time:



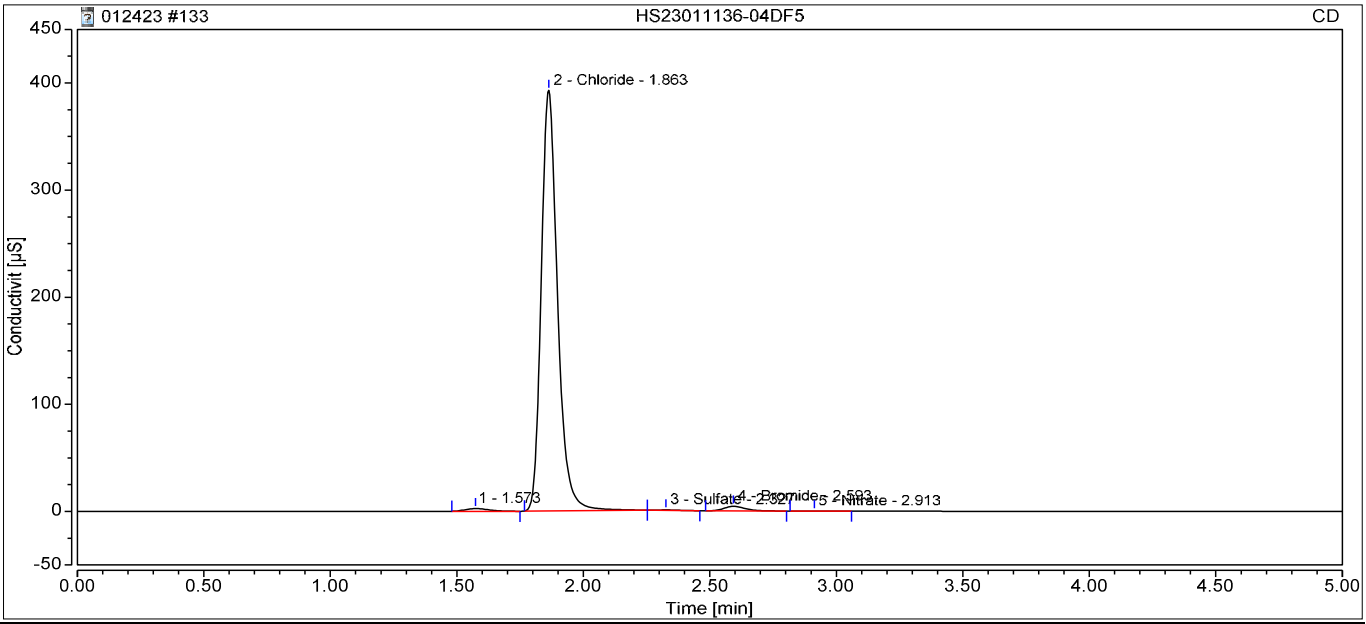

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 1.082 | 4.1715 | 4.1715 | 1.0000 |
| 2 | 1.87 | Chloride | BMB | 3.392 | 19.7888 | 19.7888 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 1.350 | 3.9831 | 3.9831 | 1.0000 |
| 4 | 2.34 | Sulfate | BMB | 2.204 | 19.5764 | 19.5764 | 1.0000 |
| 5 | 2.59 | Bromide | BMB | 0.215 | 3.7708 | 3.7708 | 1.0000 |
| 6 | 2.91 | Nitrate | BMB | 1.384 | 3.9590 | 3.9590 | 1.0000 |
| 7 | 3.09 | Chlorate | BMB | 0.020 | 3.6225 | 3.6225 | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **9.646** | | **58.87** | |

133 HS23011136-04DF5

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-04DF5** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BB4** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **5.0000** |
| *Recording Time:* | **01/25/2023 00:34** | *Sample Weight:* | **1.0000** |

Run Time:



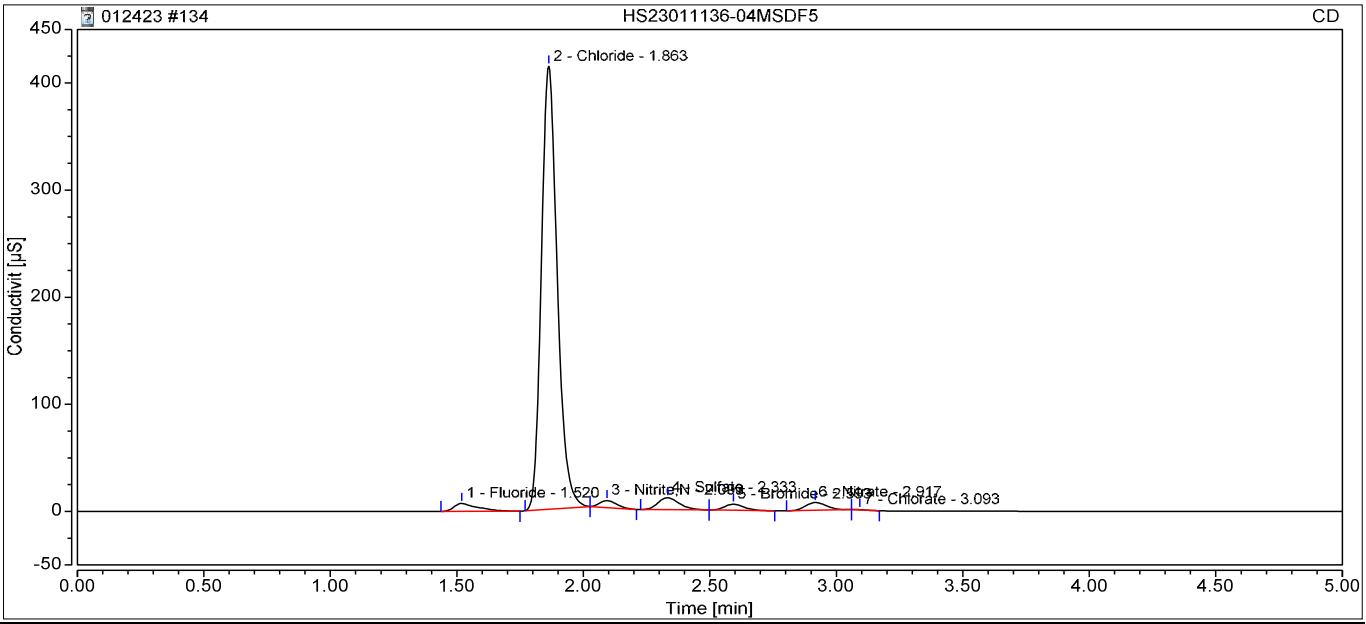

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 2 | 1.86 | Chloride | BMB | 29.271 | 170.6350 | 853.1750 | 5.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 3 | 2.33 | Sulfate | BMB | 0.035 | 0.2940 | 1.4702 | 5.0000 |
| 4 | 2.59 | Bromide | BMB | 0.401 | 6.9880 | 34.9400 | 5.0000 |
| 5 | 2.91 | Nitrate | BMB | 0.011 | 0.0025 | 0.0125 | 5.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| **Total:** | | | **0.000** | **29.718** | | **889.60** | |

*134 HS23011136-04MSDF5*

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-04MSDF5** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BB5** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **5.0000** |
| *Recording Time:* | **01/25/2023 00:40** | *Sample Weight:* | **1.0000** |

Run Time:



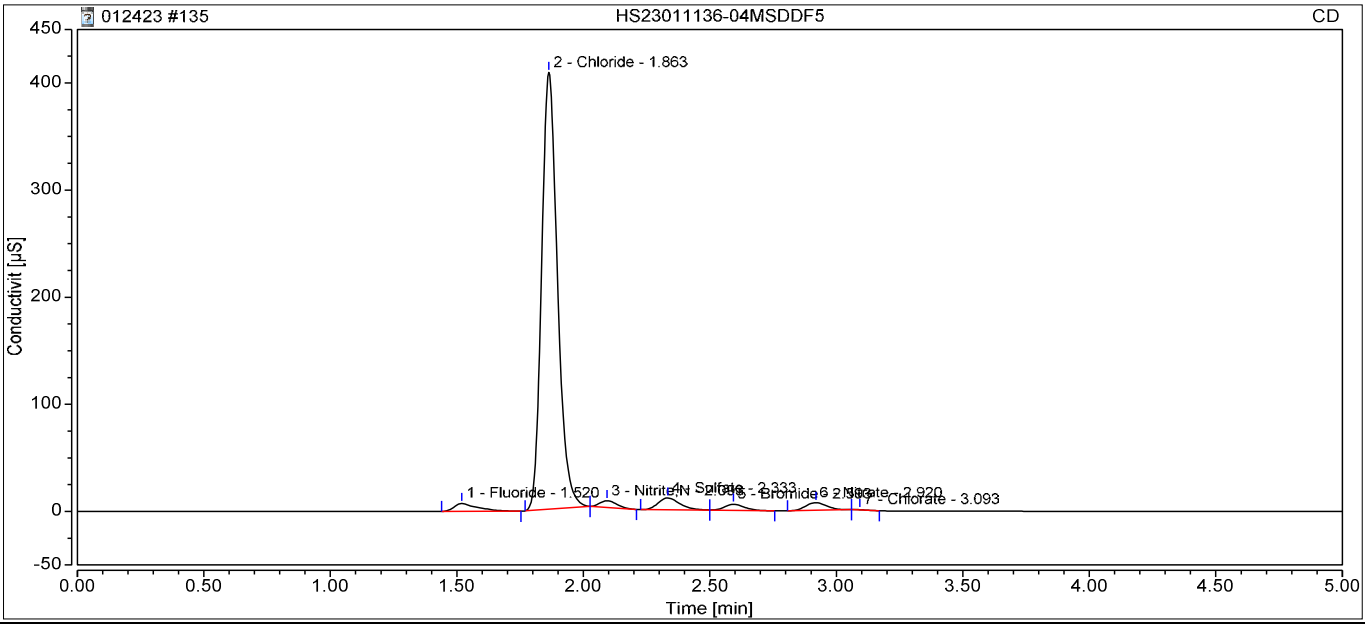

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 0.805 | 3.1021 | 15.5103 | 5.0000 |
| 2 | 1.86 | Chloride | BMB | 30.024 | 175.0214 | 875.1068 | 5.0000 |
| 3 | 2.09 | Nitrite,N | BMB | 0.506 | 1.4282 | 7.1408 | 5.0000 |
| 4 | 2.33 | Sulfate | BMB | 1.106 | 9.8160 | 49.0802 | 5.0000 |
| 5 | 2.59 | Bromide | BMB | 0.508 | 8.8222 | 44.1109 | 5.0000 |
| 6 | 2.92 | Nitrate | BMB | 0.695 | 1.9744 | 9.8722 | 5.0000 |
| 7 | 3.09 | Chlorate | BMB | 0.011 | 1.9405 | 9.7025 | 5.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| **Total:** | | | **0.000** | **33.654** | | **1010.52** | |

*135 HS23011136-04MSDDF5*

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-04MSDDF5** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BB6** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **5.0000** |
| *Recording Time:* | **01/25/2023 00:45** | *Sample Weight:* | **1.0000** |

Run Time:



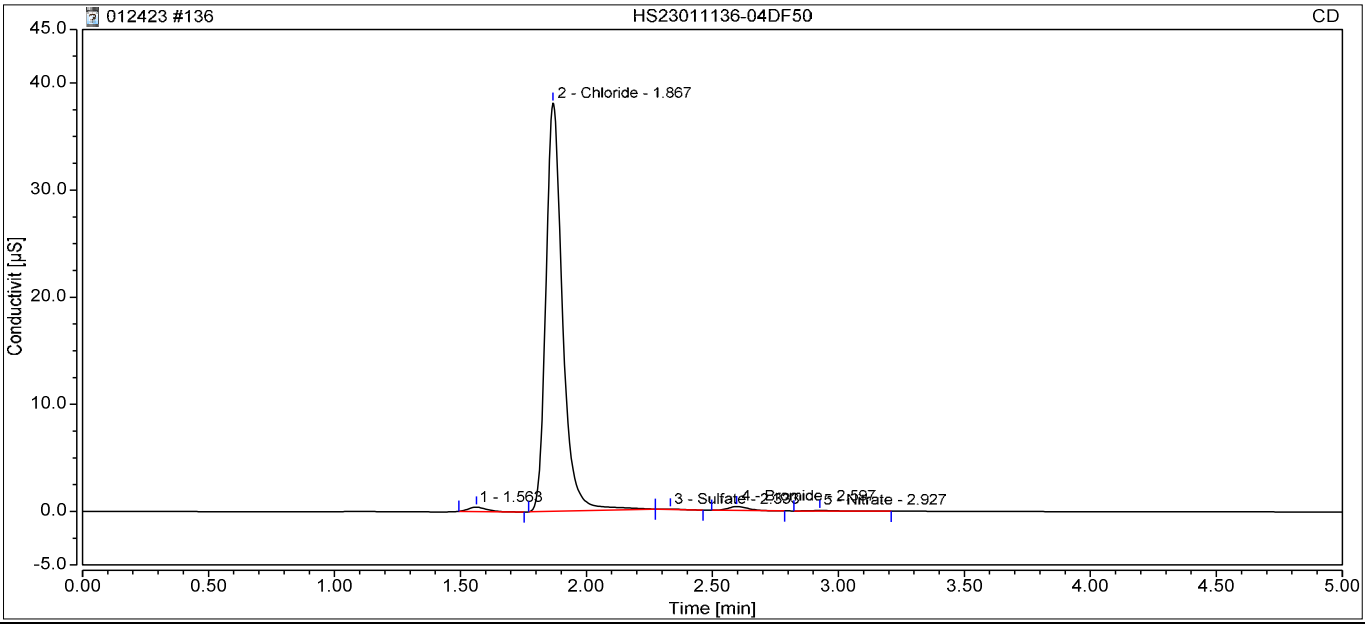

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 0.787 | 3.0326 | 15.1632 | 5.0000 |
| 2 | 1.86 | Chloride | BMB | 29.616 | 172.6439 | 863.2193 | 5.0000 |
| 3 | 2.09 | Nitrite,N | BMB | 0.496 | 1.3990 | 6.9948 | 5.0000 |
| 4 | 2.33 | Sulfate | BMB | 1.088 | 9.6567 | 48.2833 | 5.0000 |
| 5 | 2.59 | Bromide | BMB | 0.500 | 8.6881 | 43.4406 | 5.0000 |
| 6 | 2.92 | Nitrate | BMB | 0.685 | 1.9449 | 9.7244 | 5.0000 |
| 7 | 3.09 | Chlorate | BMB | 0.011 | 2.0473 | 10.2365 | 5.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| **Total:** | | | **0.000** | **33.183** | | **997.06** | |

*136 HS23011136-04DF50*

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-04DF50** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BB7** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **50.0000** |
| *Recording Time:* | **01/25/2023 00:51** | *Sample Weight:* | **1.0000** |

Run Time:



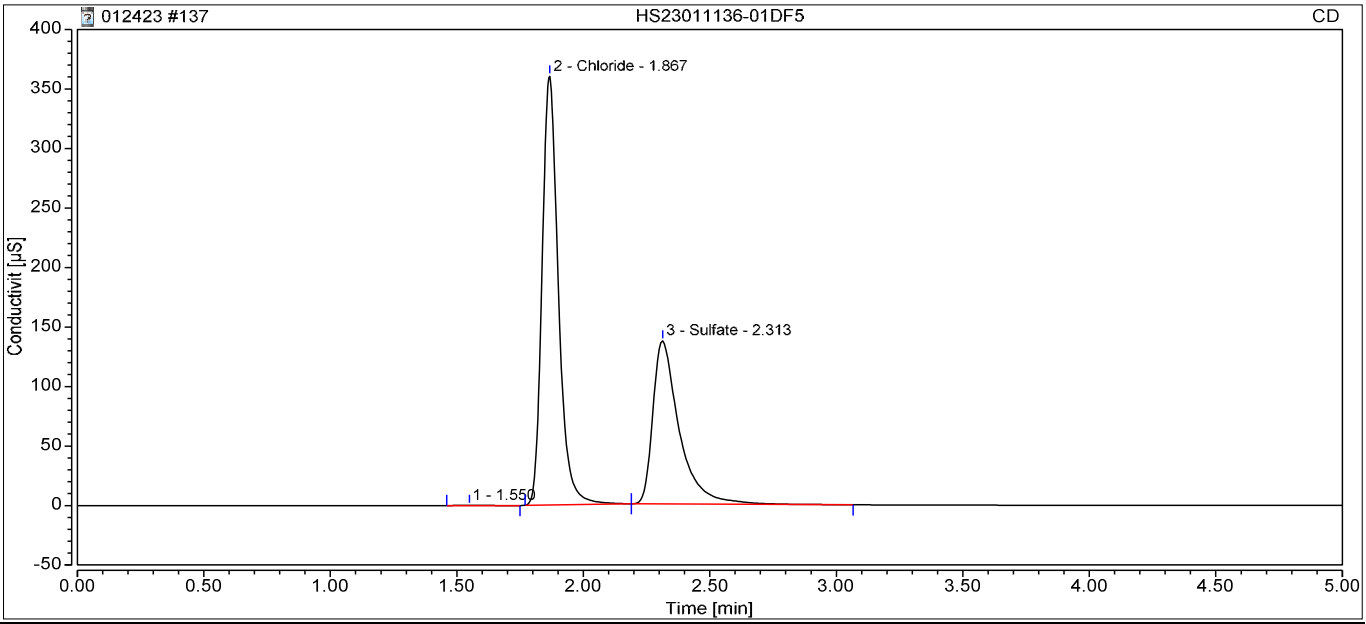

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| 2 | 1.87 | Chloride | BMB | 2.914 | 17.0067 | 850.3355 | 50.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| 3 | 2.33 | Sulfate | BMB | 0.003 | 0.0118 | 0.5920 | 50.0000 |
| 4 | 2.60 | Bromide | BMB | 0.034 | 0.6392 | 31.9578 | 50.0000 |
| 5 | 2.93 | Nitrate | BMB | 0.005 | n.a. | n.a. | 50.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| **Total:** | | | **0.000** | **2.956** | | **882.89** | |

137 HS23011136-01DF5

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-01DF5** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BB8** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **5.0000** |
| *Recording Time:* | **01/25/2023 00:57** | *Sample Weight:* | **1.0000** |

Run Time:



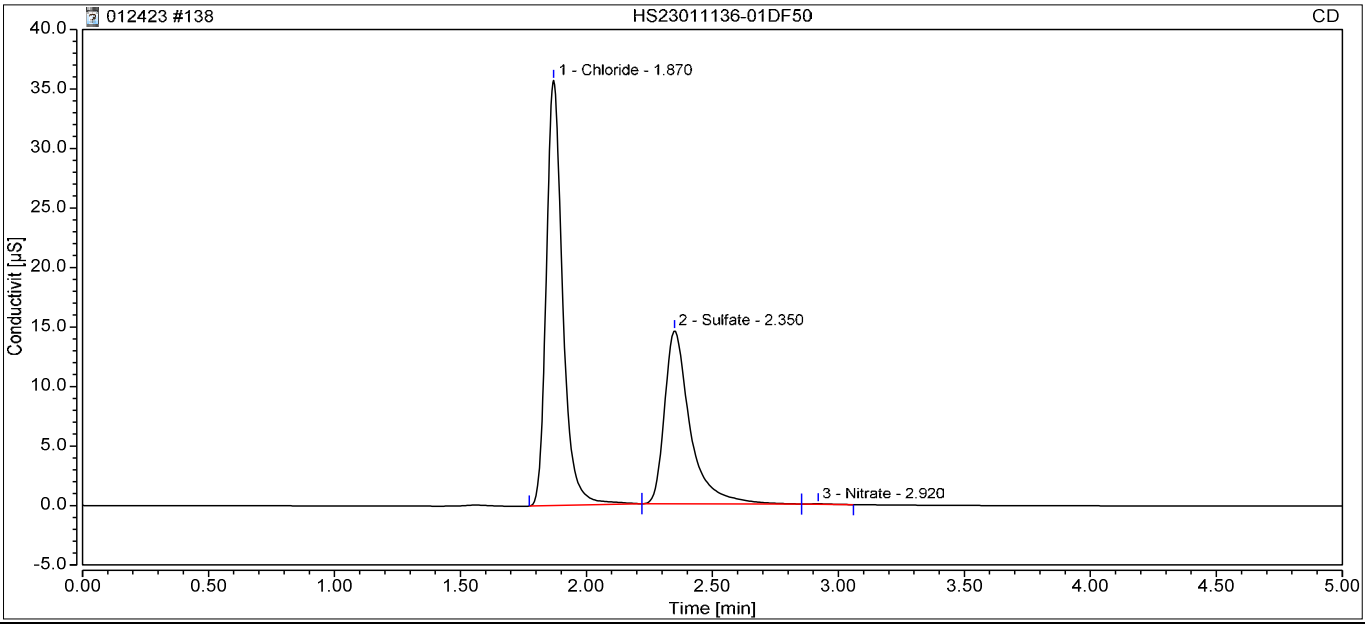

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 2 | 1.87 | Chloride | BMB | 26.849 | 156.5133 | 782.5667 | 5.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 3 | 2.31 | Sulfate | BMB | 16.542 | 147.0458 | 735.2289 | 5.0000 |
| n.a. | n.a. | Bromide | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| n.a. | n.a. | Nitrate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| **Total:** | | | **0.000** | **43.391** | | **1517.80** | |

*138 HS23011136-01DF50*

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-01DF50** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BC1** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **50.0000** |
| *Recording Time:* | **01/25/2023 01:03** | *Sample Weight:* | **1.0000** |

Run Time:



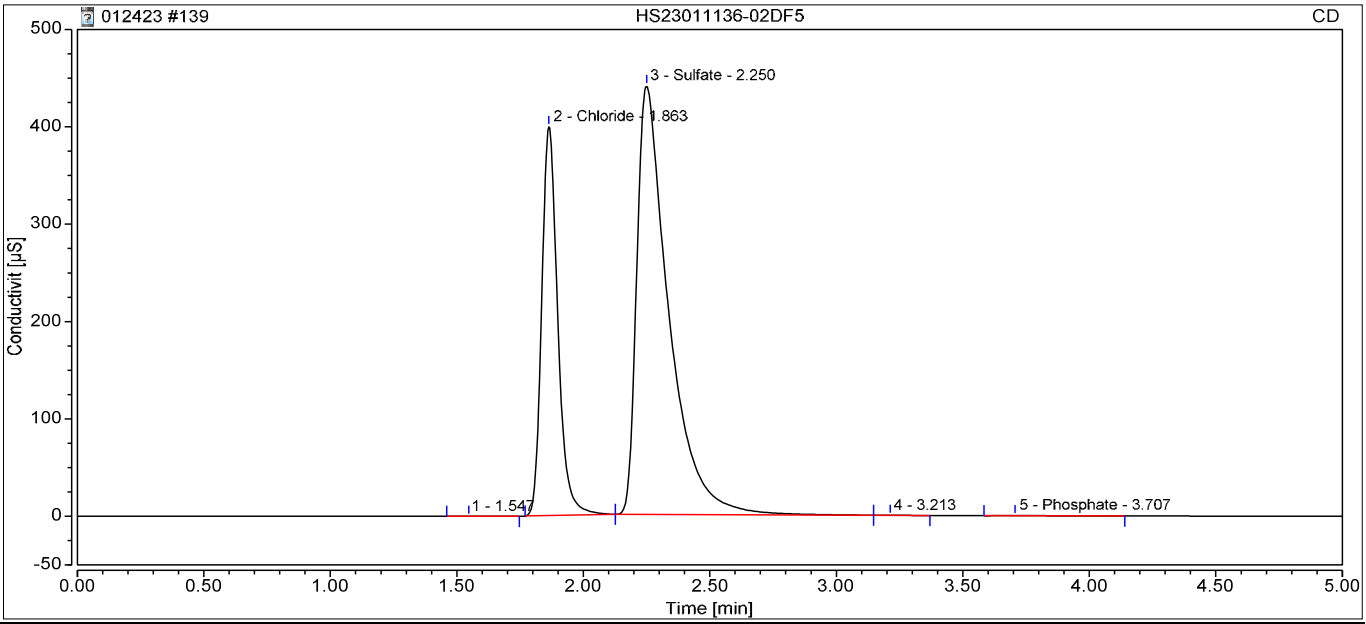

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| 1 | 1.87 | Chloride | BMB | 2.698 | 15.7429 | 787.1439 | 50.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| 2 | 2.35 | Sulfate | BMB | 1.707 | 15.1560 | 757.7978 | 50.0000 |
| n.a. | n.a. | Bromide | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| 3 | 2.92 | Nitrate | BMB | 0.003 | n.a. | n.a. | 50.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| **Total:** | | | **0.000** | **4.407** | | **1544.94** | |

*139 HS23011136-02DF5*

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-02DF5** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BC2** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **5.0000** |
| *Recording Time:* | **01/25/2023 01:09** | *Sample Weight:* | **1.0000** |

Run Time:



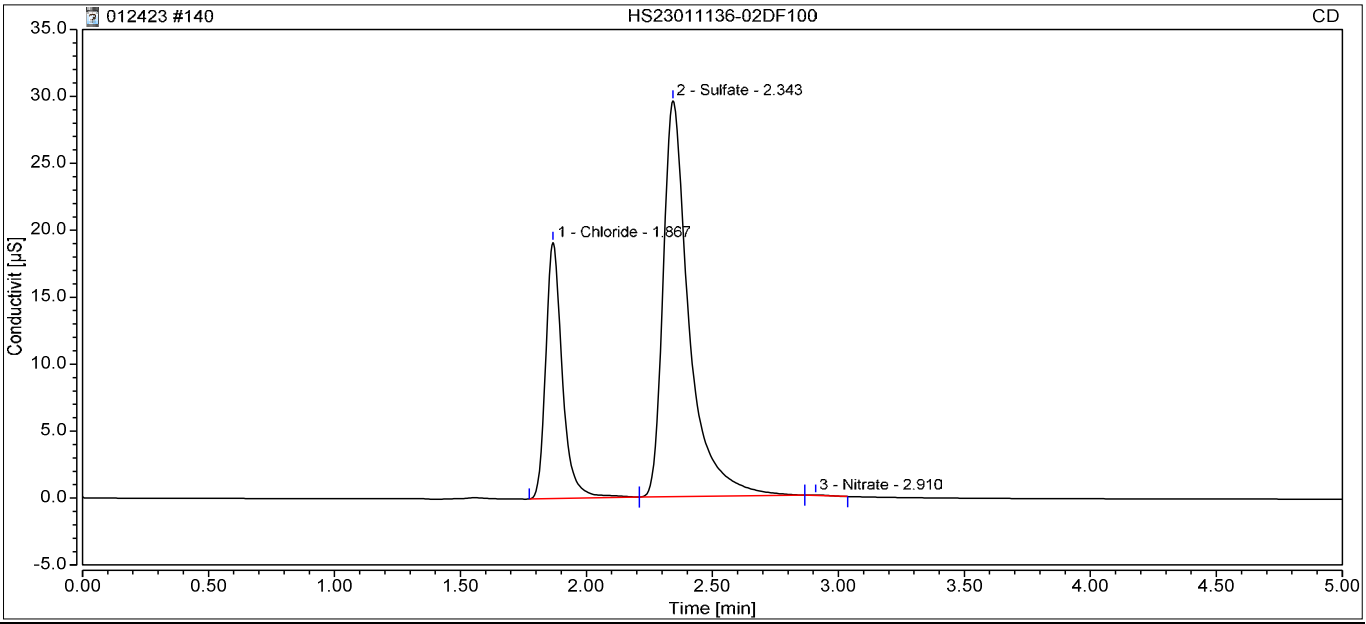

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 2 | 1.86 | Chloride | BMB | 29.318 | 170.9087 | 854.5434 | 5.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 3 | 2.25 | Sulfate | BMB | 64.316 | 571.7633 | 2858.8166 | 5.0000 |
| n.a. | n.a. | Bromide | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| n.a. | n.a. | Nitrate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 5 | 3.71 | Phosphate | BMB | 0.040 | 4.1524 | 20.7619 | 5.0000 |
| **Total:** | | | **0.000** | **93.675** | | **3734.12** | |

*140 HS23011136-02DF100*

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-02DF100** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BC3** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **100.0000** |
| *Recording Time:* | **01/25/2023 01:14** | *Sample Weight:* | **1.0000** |

Run Time:



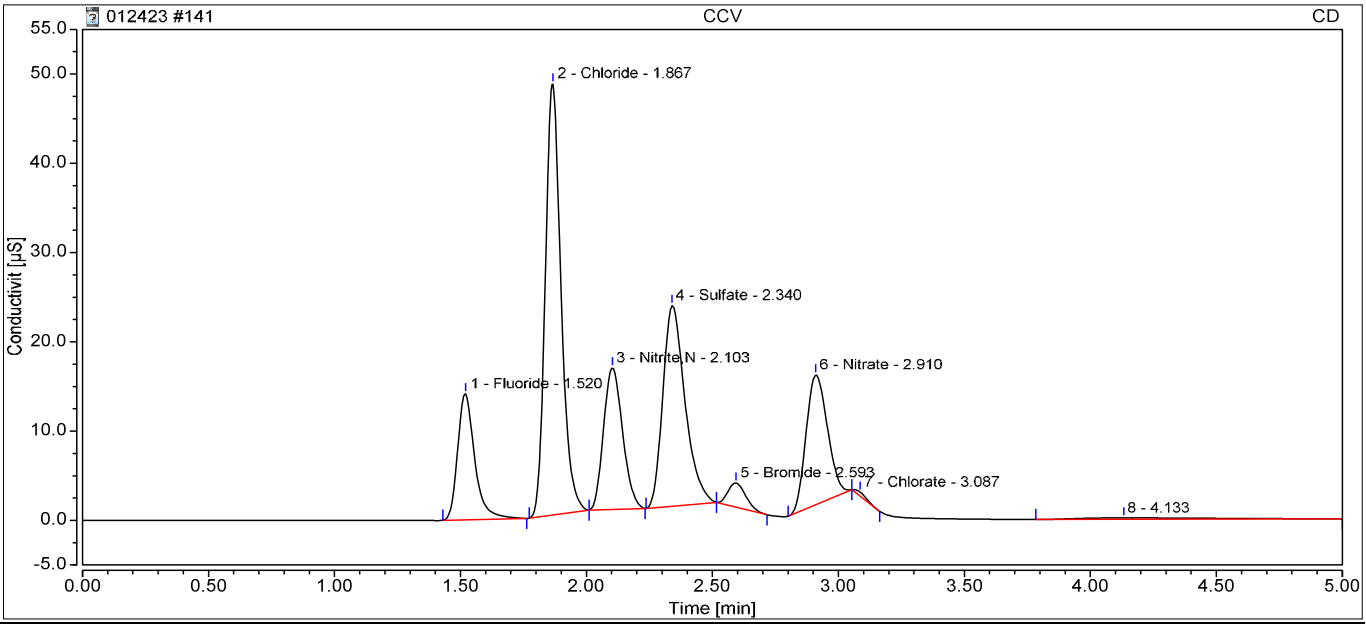

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 100.0000 |
| 1 | 1.87 | Chloride | BMB | 1.461 | 8.5338 | 853.3834 | 100.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 100.0000 |
| 2 | 2.34 | Sulfate | BMB | 3.533 | 31.3950 | 3139.4993 | 100.0000 |
| n.a. | n.a. | Bromide | n.a. | n.a. | n.a. | n.a. | 100.0000 |
| 3 | 2.91 | Nitrate | BMB | 0.003 | n.a. | n.a. | 100.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 100.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 100.0000 |
| **Total:** | | | **0.000** | **4.997** | | **3992.88** | |

*141 CCV*

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCV** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **R1** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/25/2023 01:32** | *Sample Weight:* | **1.0000** |

Run Time:



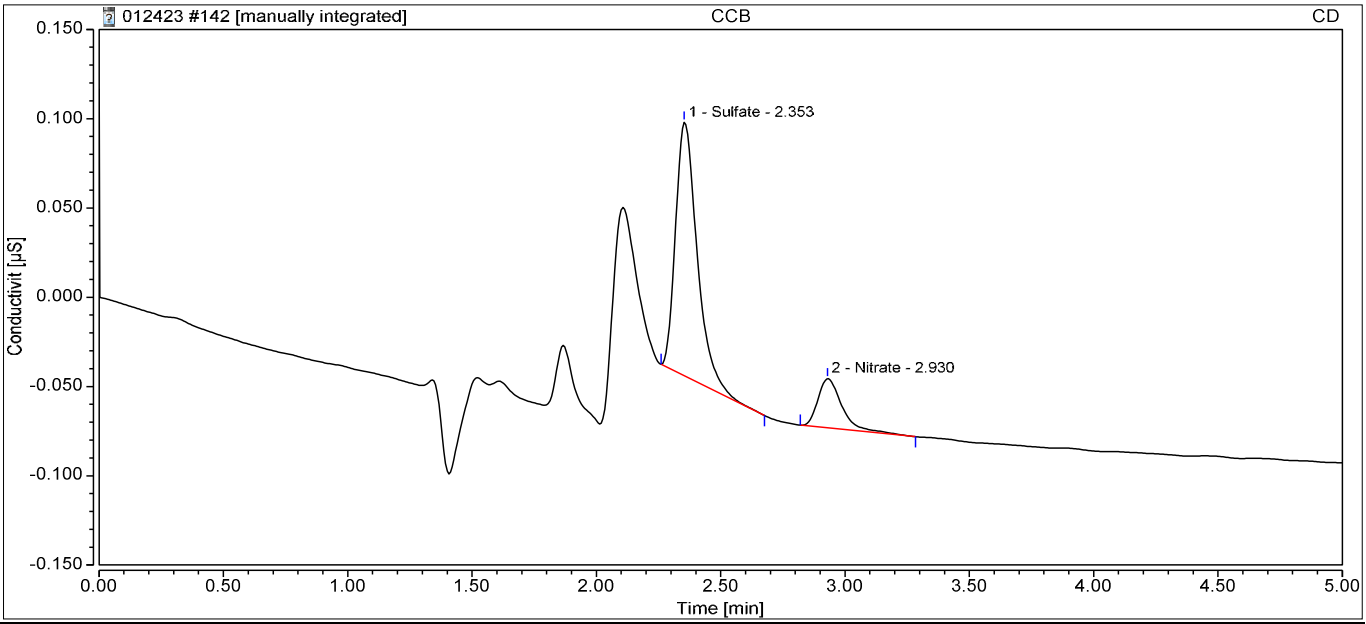

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 1.112 | 4.2868 | 4.2868 | 1.0000 |
| 2 | 1.87 | Chloride | BMB | 3.495 | 20.3916 | 20.3916 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 1.388 | 4.1042 | 4.1042 | 1.0000 |
| 4 | 2.34 | Sulfate | BMB | 2.292 | 20.3640 | 20.3640 | 1.0000 |
| 5 | 2.59 | Bromide | BMB | 0.221 | 3.8735 | 3.8735 | 1.0000 |
| 6 | 2.91 | Nitrate | BMB | 1.427 | 4.0827 | 4.0827 | 1.0000 |
| 7 | 3.09 | Chlorate | BMB | 0.023 | 4.2599 | 4.2599 | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **9.958** | | **61.36** | |

*142 CCB*

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **R4** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/25/2023 01:38** | *Sample Weight:* | **1.0000** |

Run Time:



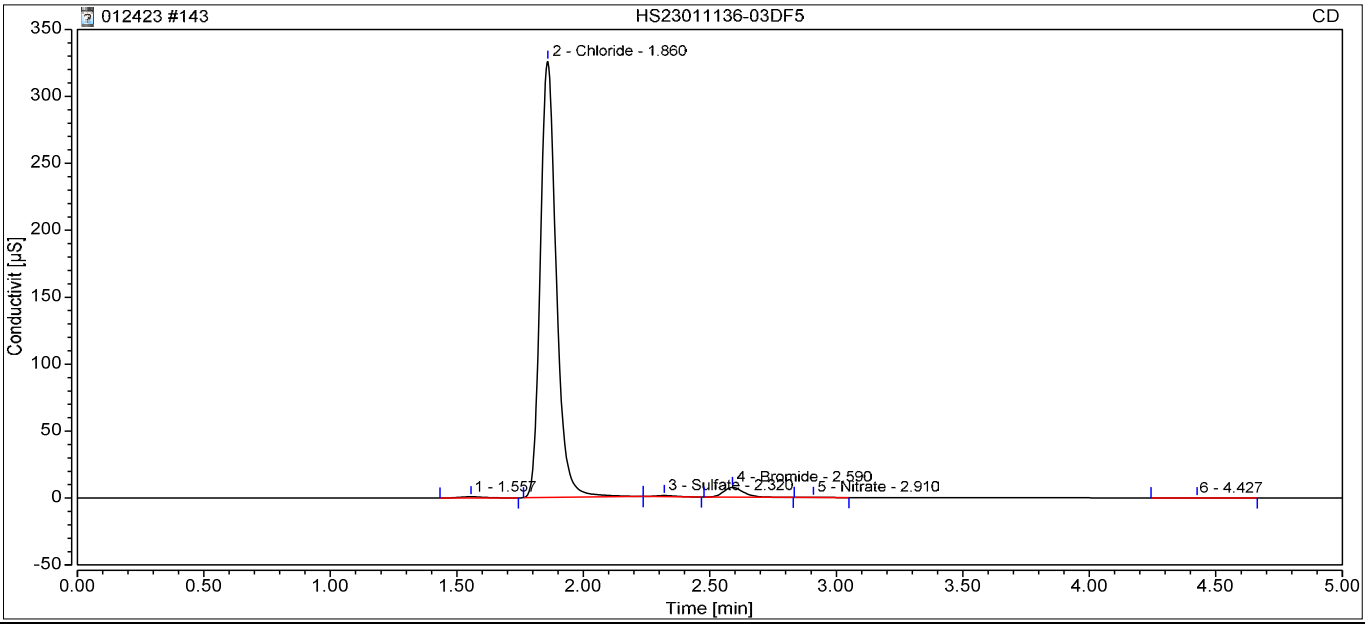

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Chloride | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| 1 | 2.35 | Sulfate | BMB | 0.014 | 0.1123 | 0.1123 | 1.0000 |
| n.a. | n.a. | Bromide | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| 2 | 2.93 | Nitrate | BMB | 0.003 | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **0.017** | | **0.11** | |

*143 HS23011136-03DF5*

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-03DF5** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BC4** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **5.0000** |
| *Recording Time:* | **01/25/2023 01:49** | *Sample Weight:* | **1.0000** |

Run Time:



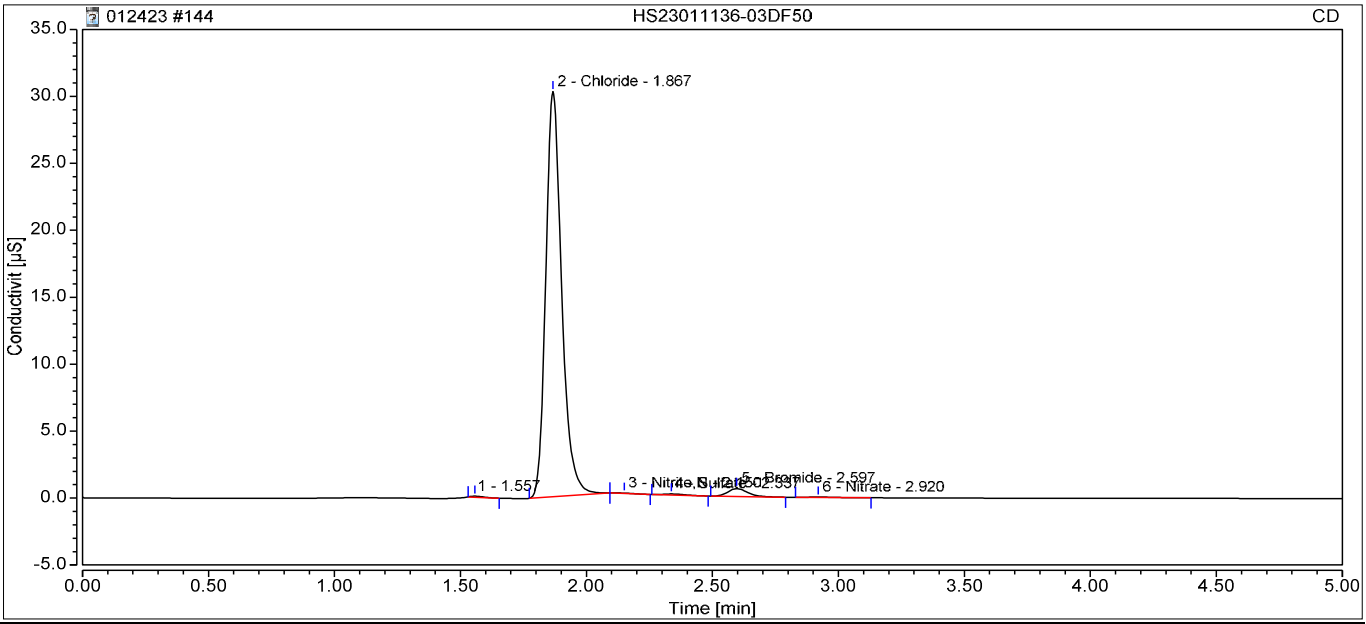

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 2 | 1.86 | Chloride | BMB | 23.804 | 138.7691 | 693.8455 | 5.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 3 | 2.32 | Sulfate | BMB | 0.080 | 0.6990 | 3.4951 | 5.0000 |
| 4 | 2.59 | Bromide | BMB | 0.674 | 11.6893 | 58.4463 | 5.0000 |
| 5 | 2.91 | Nitrate | BMB | 0.006 | n.a. | n.a. | 5.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| **Total:** | | | **0.000** | **24.565** | | **755.79** | |

*144 HS23011136-03DF50*

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-03DF50** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BC5** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **50.0000** |
| *Recording Time:* | **01/25/2023 01:55** | *Sample Weight:* | **1.0000** |

Run Time:



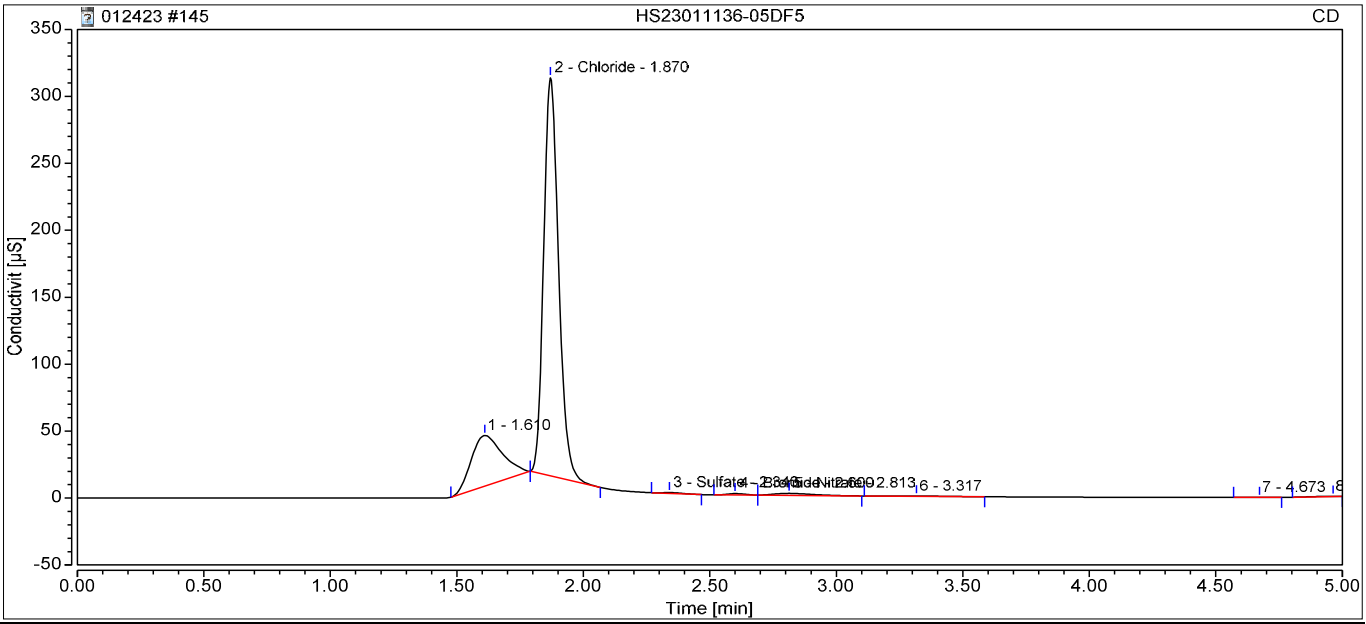

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| 2 | 1.87 | Chloride | BMB | 2.212 | 12.9135 | 645.6737 | 50.0000 |
| 3 | 2.15 | Nitrite,N | BMB | 0.003 | 0.0067 | 0.3359 | 50.0000 |
| 4 | 2.34 | Sulfate | BMB | 0.008 | 0.0533 | 2.6646 | 50.0000 |
| 5 | 2.60 | Bromide | BMB | 0.053 | 0.9729 | 48.6443 | 50.0000 |
| 6 | 2.92 | Nitrate | BMB | 0.003 | n.a. | n.a. | 50.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| **Total:** | | | **0.000** | **2.279** | | **697.32** | |

*145 HS23011136-05DF5*

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-05DF5** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BC6** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **5.0000** |
| *Recording Time:* | **01/25/2023 02:01** | *Sample Weight:* | **1.0000** |

Run Time:



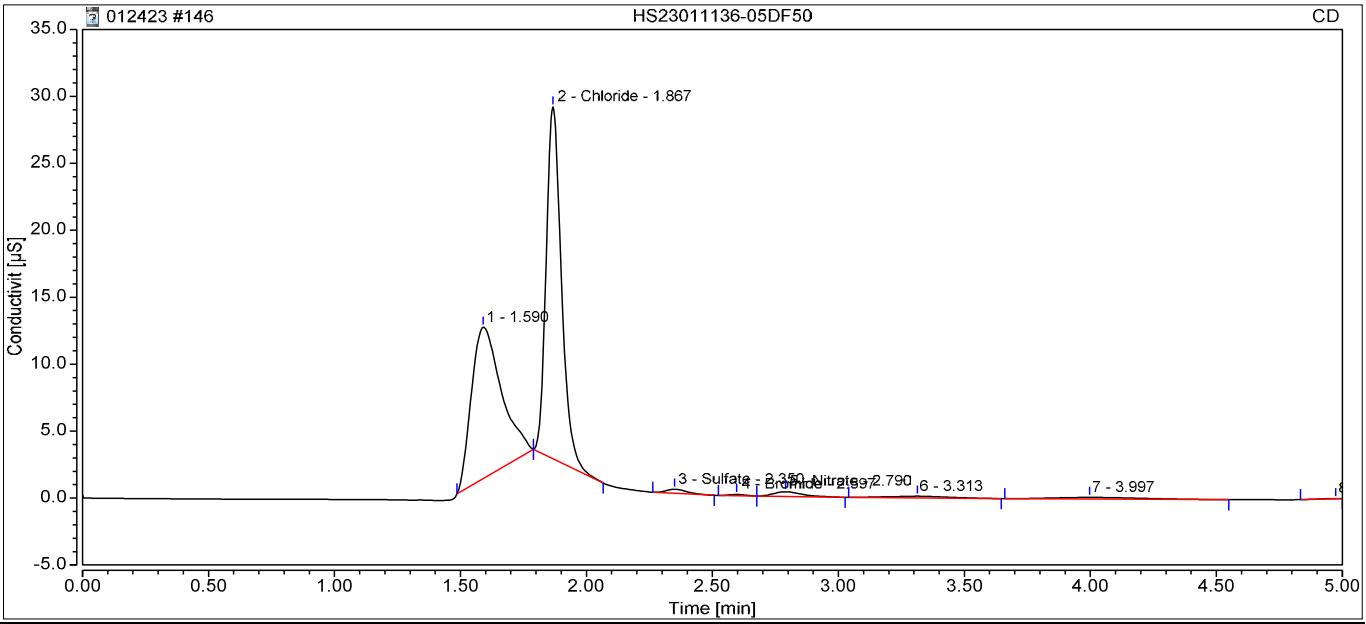

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 2 | 1.87 | Chloride | BMB | 20.372 | 118.7600 | 593.8000 | 5.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 3 | 2.34 | Sulfate | BMB | 0.054 | 0.4604 | 2.3021 | 5.0000 |
| 4 | 2.60 | Bromide | BMB | 0.080 | 1.4350 | 7.1748 | 5.0000 |
| 5 | 2.81 | Nitrate | BMB | 0.255 | 0.7079 | 3.5393 | 5.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| **Total:** | | | **0.000** | **20.761** | | **606.82** | |

*146 HS23011136-05DF50*

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-05DF50** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BC7** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **50.0000** |
| *Recording Time:* | **01/25/2023 02:06** | *Sample Weight:* | **1.0000** |

Run Time:



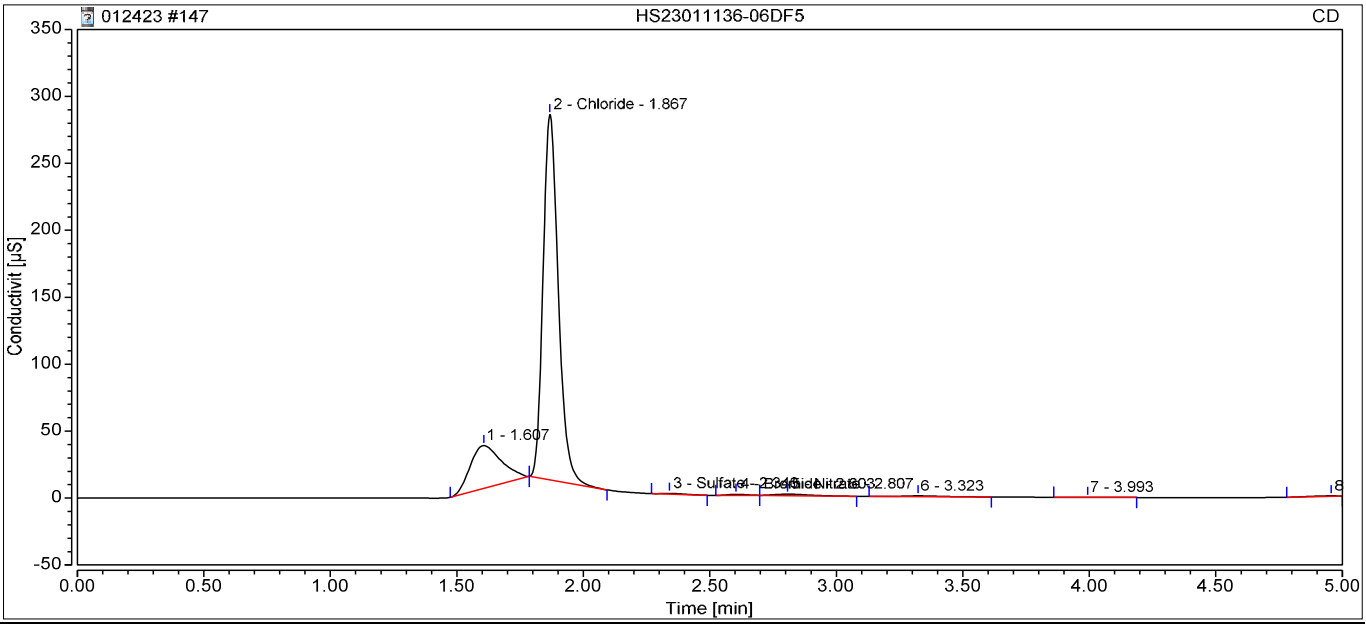

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| 2 | 1.87 | Chloride | BMB | 1.850 | 10.8016 | 540.0812 | 50.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| 3 | 2.35 | Sulfate | BMB | 0.029 | 0.2453 | 12.2651 | 50.0000 |
| 4 | 2.60 | Bromide | BMB | 0.006 | 0.1638 | 8.1900 | 50.0000 |
| 5 | 2.79 | Nitrate | BMB | 0.046 | 0.1031 | 5.1552 | 50.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| **Total:** | | | **0.000** | **1.931** | | **565.69** | |

*147 HS23011136-06DF5*

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-06DF5** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BC8** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **5.0000** |
| *Recording Time:* | **01/25/2023 02:12** | *Sample Weight:* | **1.0000** |

Run Time:



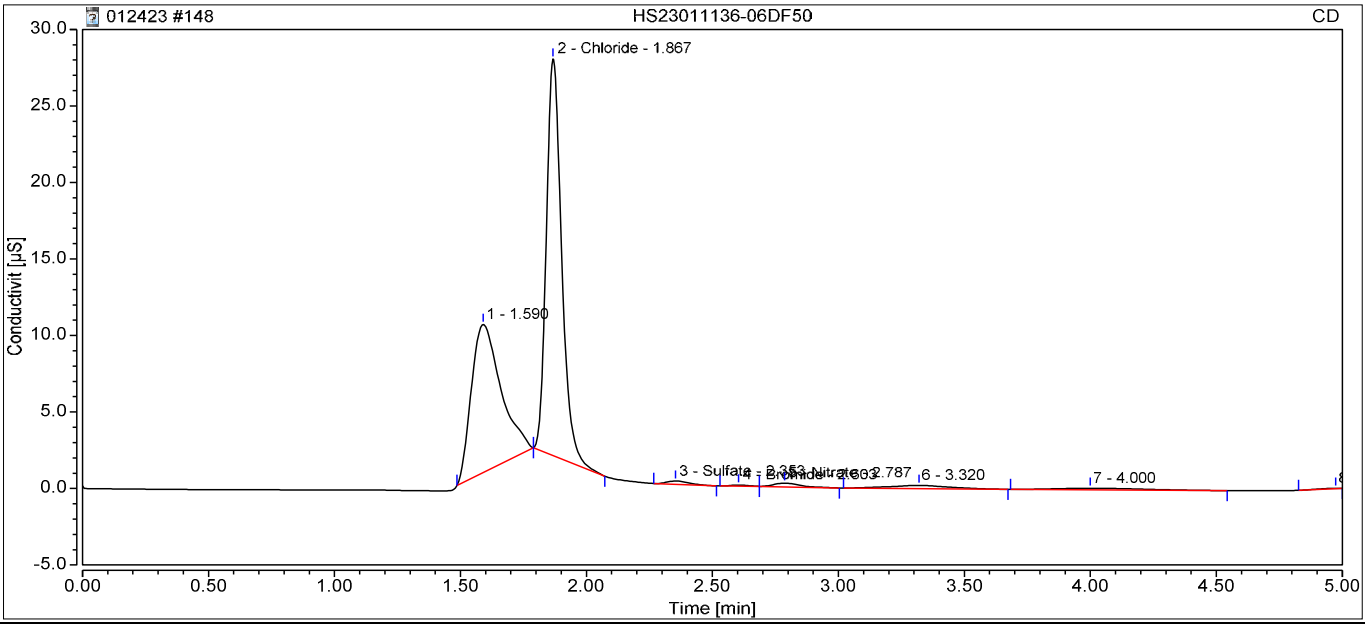

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 2 | 1.87 | Chloride | BMB | 19.100 | 111.3460 | 556.7302 | 5.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| 3 | 2.34 | Sulfate | BMB | 0.060 | 0.5178 | 2.5888 | 5.0000 |
| 4 | 2.60 | Bromide | BMB | 0.066 | 1.1873 | 5.9367 | 5.0000 |
| 5 | 2.81 | Nitrate | BMB | 0.168 | 0.4571 | 2.2857 | 5.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 5.0000 |
| **Total:** | | | **0.000** | **19.394** | | **567.54** | |

148 HS23011136-06DF50

| | | | |
|---|---|---|---|
| *Sample Name:* | **HS23011136-06DF50** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **BD1** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **50.0000** |
| *Recording Time:* | **01/25/2023 02:18** | *Sample Weight:* | **1.0000** |

Run Time:



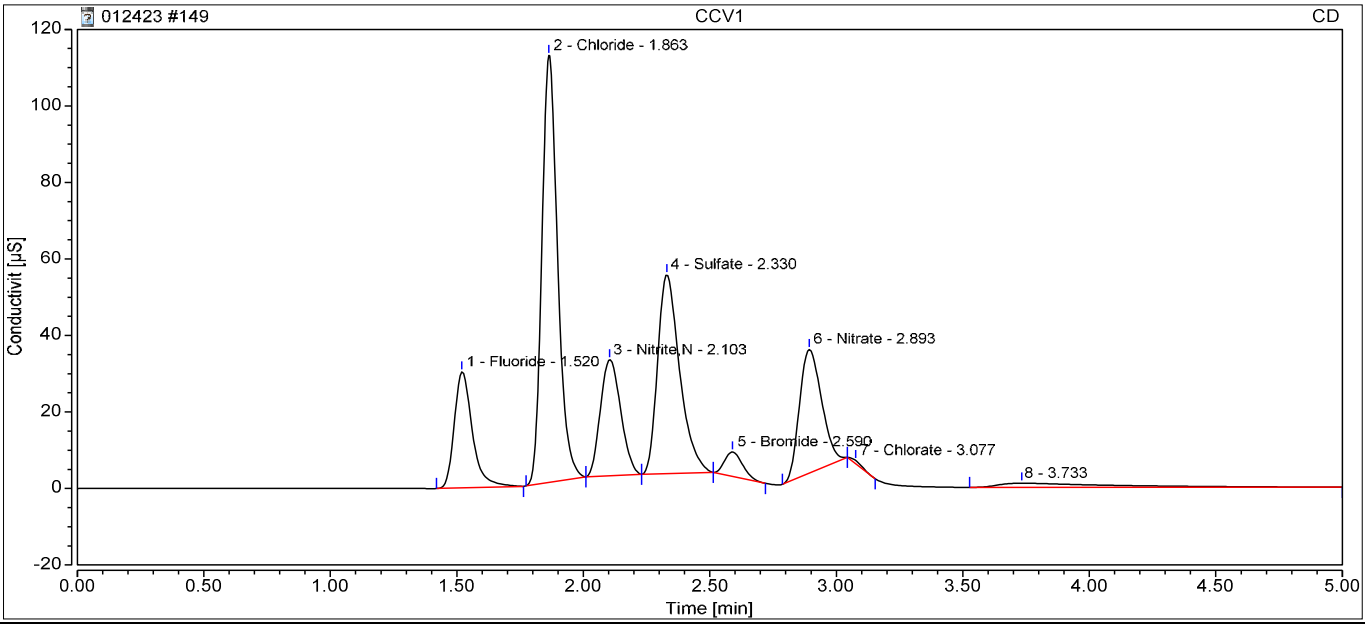

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| 2 | 1.87 | Chloride | BMB | 1.827 | 10.6704 | 533.5183 | 50.0000 |
| n.a. | n.a. | Nitrite,N | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| 3 | 2.35 | Sulfate | BMB | 0.022 | 0.1843 | 9.2172 | 50.0000 |
| 4 | 2.60 | Bromide | BMB | 0.006 | 0.1499 | 7.4943 | 50.0000 |
| 5 | 2.79 | Nitrate | BMB | 0.028 | 0.0534 | 2.6702 | 50.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 50.0000 |
| **Total:** | | | **0.000** | **1.884** | | **552.90** | |

*149 CCV1*

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCV1** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **R3** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/25/2023 02:35** | *Sample Weight:* | **1.0000** |

Run Time:



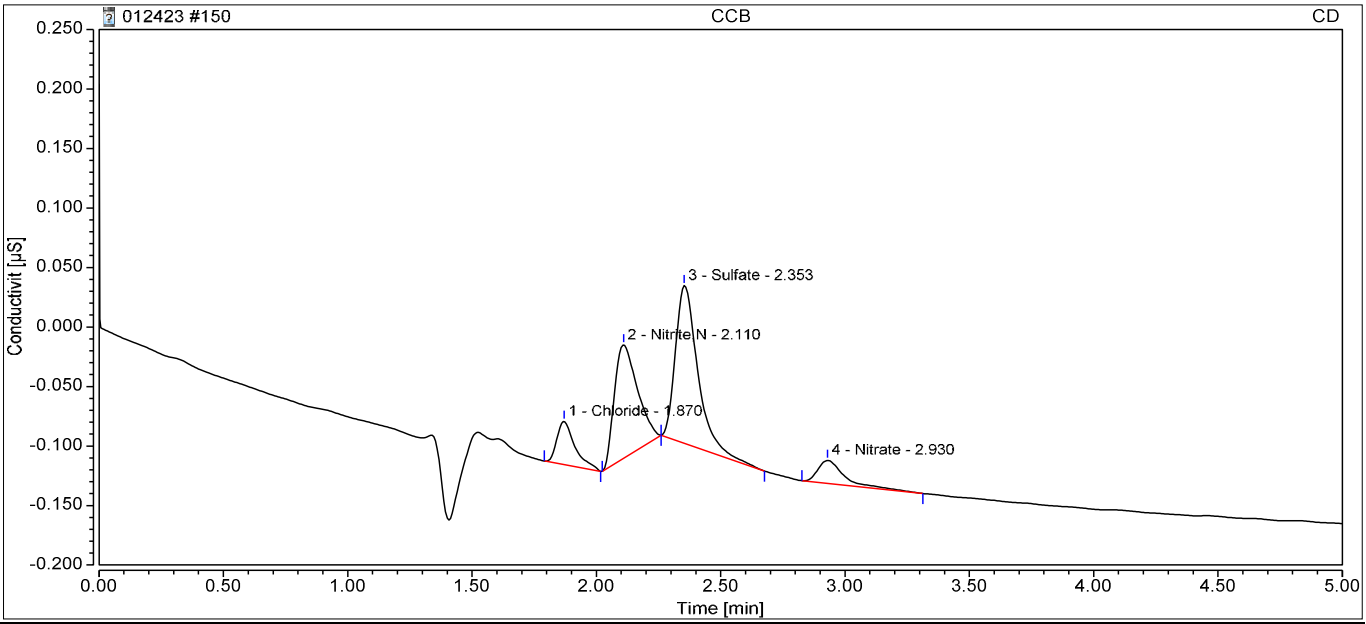

**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| 1 | 1.52 | Fluoride | BMB | 2.519 | 9.7097 | 9.7097 | 1.0000 |
| 2 | 1.86 | Chloride | BMB | 8.067 | 47.0382 | 47.0382 | 1.0000 |
| 3 | 2.10 | Nitrite,N | BMB | 2.819 | 9.1494 | 9.1494 | 1.0000 |
| 4 | 2.33 | Sulfate | BMB | 5.253 | 46.6844 | 46.6844 | 1.0000 |
| 5 | 2.59 | Bromide | BMB | 0.529 | 9.1902 | 9.1902 | 1.0000 |
| 6 | 2.89 | Nitrate | BMB | 3.277 | 9.4116 | 9.4116 | 1.0000 |
| 7 | 3.08 | Chlorate | BMB | 0.044 | 9.2543 | 9.2543 | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **22.508** | | **140.44** | |

*150 CCB*

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Injection Volume:* | **5.00** |
| *Vial Number:* | **R7** | *Channel:* | **CD** |
| *Sample Type:* | **Unknown** | *Wavelength:* | **n.a.** |
| *Control Program:* | **Anions Program ISO37mM 150mm short 0.4 Constant current** | *Bandwidth:* | **n.a.** |
| *Quantif. Method:* | **Anions Processing Method ISO** | *Dilution Factor:* | **1.0000** |
| *Recording Time:* | **01/25/2023 02:41** | *Sample Weight:* | **1.0000** |

Run Time:




**Integration Results**

| No. | Retention min | Peak Name | Peak Type | Area µS*min | Amount ppm | Concentration ppm | Dilution |
|---|---|---|---|---|---|---|---|
| n.a. | n.a. | Fluoride | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| 1 | 1.87 | Chloride | BMB | 0.003 | 0.0376 | 0.0376 | 1.0000 |
| 2 | 2.11 | Nitrite,N | BMB | 0.010 | 0.0280 | 0.0280 | 1.0000 |
| 3 | 2.35 | Sulfate | BMB | 0.014 | 0.1082 | 0.1082 | 1.0000 |
| n.a. | n.a. | Bromide | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| 4 | 2.93 | Nitrate | BMB | 0.002 | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Chlorate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| n.a. | n.a. | Phosphate | n.a. | n.a. | n.a. | n.a. | 1.0000 |
| **Total:** | | | **0.000** | **0.030** | | **0.17** | |

# HS23011136 Eurofin Lab J113311-1 Std_Tal_L4 Rev(1) Final Report

ALS WO# HS23011136

eurofins | Environment Testing

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dane Wacasey
ALS Group USA, Corp
10450 Stancliff Rd.
Suite 210
Houston TX 77099

Generated 6/5/2023 1:25 PM Revision 1

## JOB DESCRIPTION

HS23011136

## JOB NUMBER

410-113311-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

# Eurofins Lancaster Laboratories Environment Testing, LLC

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated
6/5/2023 1:25 PM
Revision 1

Authorized for release by
Kelly Bauer, Project Manager
Kelly.Bauer@et.eurofinsus.com
717 556-7262

# Eurofins Lancaster Laboratories Environment Testing, LLC

## Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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# Definitions/Glossary

Client: ALS Group USA, Corp
Job ID: 410-113311-1
Project/Site: HS23011136

## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| cn | Refer to Case Narrative for further detail |
| D | The reported value is from a dilution. |
| J1 | Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria. |
| M | Manual integrated compound. |
| U | Undetected at the Limit of Detection. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

**Job Narrative**
**410-113311-1**

REVISION

The report being provided is a revision of the original report sent on 2/1/2023. The report (revision 1) is being revised due to data did not pull into the report correctly.

**Receipt**
The samples were received on 1/25/2023 9:58 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C

**GC VOA**
Method RSK_175_CO2_D5: The method requirement for no headspace was not met. The following volatile sample was analyzed with significant headspace in the sample container(s): HS23011136-05 (410-113311-5). Significant headspace is defined as a bubble greater than 6 mm in diameter.

Method RSK_175_CO2_D5: The following sample(s) were collected in unpreserved vials for analysis of Carbon dioxide. However, the pH at the time of analysis was 5. HS23011136-05 (410-113311-5) and HS23011136-06 (410-113311-6).

Method RSK_175_CO2_D5: The following sample(s) were collected in unpreserved vials for analysis of Carbon dioxide. However, the pH at the time of analysis was 6.5. HS23011136-02 (410-113311-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Detection Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Client Sample ID: HS23011136-01 — Lab Sample ID: 410-113311-1

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 120000 | | 12000 | | 2600 | ug/L | 1 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-02 — Lab Sample ID: 410-113311-2

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 170000 | M cn | 12000 | | 2600 | ug/L | 1 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-03 — Lab Sample ID: 410-113311-3

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 490000 | D | 120000 | | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-04 — Lab Sample ID: 410-113311-4

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 120000 | | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-05 — Lab Sample ID: 410-113311-5

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 670000 | D cn | 120000 | | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-06 — Lab Sample ID: 410-113311-6

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 480000 | D cn | 120000 | | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

This Detection Summary does not include radiochemical test results.

# Client Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Client Sample ID: HS23011136-01
**Lab Sample ID: 410-113311-1**
**Date Collected: 01/23/23 08:50**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 120000 | | 12000 | | 2600 | ug/L | | 01/26/23 09:29 | 1 |

## Client Sample ID: HS23011136-02
**Lab Sample ID: 410-113311-2**
**Date Collected: 01/23/23 09:40**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 170000 | M cn | 12000 | | 2600 | ug/L | | 01/26/23 09:37 | 1 |

## Client Sample ID: HS23011136-03
**Lab Sample ID: 410-113311-3**
**Date Collected: 01/23/23 10:04**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 490000 | D | 120000 | | 26000 | ug/L | | 01/26/23 11:08 | 10 |

## Client Sample ID: HS23011136-04
**Lab Sample ID: 410-113311-4**
**Date Collected: 01/23/23 11:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 120000 | | 26000 | ug/L | | 01/26/23 11:16 | 10 |

## Client Sample ID: HS23011136-05
**Lab Sample ID: 410-113311-5**
**Date Collected: 01/23/23 12:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 670000 | D cn | 120000 | | 26000 | ug/L | | 01/26/23 11:39 | 10 |

## Client Sample ID: HS23011136-06
**Lab Sample ID: 410-113311-6**
**Date Collected: 01/23/23 12:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 480000 | D cn | 120000 | | 26000 | ug/L | | 01/26/23 11:47 | 10 |

# Default Detection Limits

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Method: RSK-175 - Dissolved Gases (GC)

### Prep: RSK-175

| Analyte | LOQ | DL | Units |
|---|---|---|---|
| Carbon dioxide | 12000 | 2600 | ug/L |

# QC Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Method: RSK-175 - Dissolved Gases (GC)

**Lab Sample ID: MB 410-338826/1-A**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 2600 | U | 12000 | | 2600 | ug/L | | 01/26/23 08:50 | 1 |

**Lab Sample ID: LCS 410-338826/2-A**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | | | 35800 | 31400 | | ug/L | | 88 | 80 - 122 | | |

**Lab Sample ID: 410-113311-4 MS**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: HS23011136-04**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 35800 | 785000 | D 4 | ug/L | | 551 | 80 - 122 | | |

**Lab Sample ID: 410-113311-4 MSD**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: HS23011136-04**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 35800 | 807000 | D 4 | ug/L | | 613 | 80 - 122 | 3 | 30 |

# QC Association Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## GC VOA

### Analysis Batch: 338795

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 410-113311-1 | HS23011136-01 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-2 | HS23011136-02 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-3 | HS23011136-03 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-4 | HS23011136-04 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-5 | HS23011136-05 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-6 | HS23011136-06 | Total/NA | Water | RSK-175 | 338826 |
| MB 410-338826/1-A | Method Blank | Total/NA | Water | RSK-175 | 338826 |
| LCS 410-338826/2-A | Lab Control Sample | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-4 MS | HS23011136-04 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-4 MSD | HS23011136-04 | Total/NA | Water | RSK-175 | 338826 |

### Prep Batch: 338826

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 410-113311-1 | HS23011136-01 | Total/NA | Water | RSK-175 | |
| 410-113311-2 | HS23011136-02 | Total/NA | Water | RSK-175 | |
| 410-113311-3 | HS23011136-03 | Total/NA | Water | RSK-175 | |
| 410-113311-4 | HS23011136-04 | Total/NA | Water | RSK-175 | |
| 410-113311-5 | HS23011136-05 | Total/NA | Water | RSK-175 | |
| 410-113311-6 | HS23011136-06 | Total/NA | Water | RSK-175 | |
| MB 410-338826/1-A | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 410-338826/2-A | Lab Control Sample | Total/NA | Water | RSK-175 | |
| 410-113311-4 MS | HS23011136-04 | Total/NA | Water | RSK-175 | |
| 410-113311-4 MSD | HS23011136-04 | Total/NA | Water | RSK-175 | |

# Lab Chronicle

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Client Sample ID: HS23011136-01
**Lab Sample ID: 410-113311-1**
**Date Collected: 01/23/23 08:50**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 08:16 |
| Total/NA | Analysis | RSK-175 | | 1 | 338795 | WN7O | ELLE | 01/26/23 09:29 |

## Client Sample ID: HS23011136-02
**Lab Sample ID: 410-113311-2**
**Date Collected: 01/23/23 09:40**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 08:16 |
| Total/NA | Analysis | RSK-175 | | 1 | 338795 | WN7O | ELLE | 01/26/23 09:37 |

## Client Sample ID: HS23011136-03
**Lab Sample ID: 410-113311-3**
**Date Collected: 01/23/23 10:04**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:08 |

## Client Sample ID: HS23011136-04
**Lab Sample ID: 410-113311-4**
**Date Collected: 01/23/23 11:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:16 |

## Client Sample ID: HS23011136-05
**Lab Sample ID: 410-113311-5**
**Date Collected: 01/23/23 12:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:39 |

## Client Sample ID: HS23011136-06
**Lab Sample ID: 410-113311-6**
**Date Collected: 01/23/23 12:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:47 |

**Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: ALS Group USA, Corp
Job ID: 410-113311-1
Project/Site: HS23011136

## Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| A2LA | Dept. of Defense ELAP | 0001.01 | 02-13-23 |

# Method Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| RSK-175 | Dissolved Gases (GC) | RSK | ELLE |
| RSK-175 | Dissolved Gases Prep | RSK | ELLE |

**Protocol References:**

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

**Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Sample Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 410-113311-1 | HS23011136-01 | Water | 01/23/23 08:50 | 01/25/23 09:58 |
| 410-113311-2 | HS23011136-02 | Water | 01/23/23 09:40 | 01/25/23 09:58 |
| 410-113311-3 | HS23011136-03 | Water | 01/23/23 10:04 | 01/25/23 09:58 |
| 410-113311-4 | HS23011136-04 | Water | 01/23/23 11:35 | 01/25/23 09:58 |
| 410-113311-5 | HS23011136-05 | Water | 01/23/23 12:35 | 01/25/23 09:58 |
| 410-113311-6 | HS23011136-06 | Water | 01/23/23 12:35 | 01/25/23 09:58 |

# GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator  Job No.: 410-113311-1

SDG No.:

Instrument ID: 19506-B  Analysis Batch Number: 331616

Lab Sample ID: IC 410-331616/6  Client Sample ID:

Date Analyzed: 12/30/22 17:05  Lab File ID: 312022_12_30B.0006.d  GC Column: HP Plot  ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Carbon dioxide | 1.94 | Peak assignment corrected | WN7O | 12/30/22 17:19 |

# GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator  Job No.: 410-113311-1

SDG No.:

Instrument ID: 19506-B  Analysis Batch Number: 338795

Lab Sample ID: 410-113311-2  Client Sample ID: HS23011136-02

Date Analyzed: 01/26/23 09:37  Lab File ID: 312023_01_26BB.0011.d  GC Column: HP Plot  ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Carbon dioxide | 2.01 | Peak assignment corrected | WN7O | 01/26/23 09:58 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-113311-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **EPH_CO2ICV_00002** | 09/29/23 | 09/29/22 | DI Water, Lot In House | 1 mL | EPH_CO2XX_00002 | 0.0018 g | Carbon dioxide | 547000 ppb |
| .EPH_CO2XX_00002 | 09/29/23 | Air Products, Lot A214157 | | | (Purchased Reagent) | | Carbon dioxide | 30.3889 % |
| **EPH_CO2MS_00004** | 07/16/23 | 07/18/22 | DI Water, Lot In House | 1 g | EPH_CO2CRV_00002 | 0.0018 g | Carbon dioxide | 1791000 ppb |
| .EPH_CO2CRV_00002 | 07/16/23 | Praxair, Lot 4-11-18 | | | (Purchased Reagent) | | Carbon dioxide | 99.5 % |

# Method RSK-175 CO2 DOD

## Dissolved Gases (GC) by Method RSK_175_CO2 DOD

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: 312023_01_26BB.0007.d

Lab ID: LCS 410-338826/2-A  Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Carbon dioxide | 35800 | 31400 | 88 | 80-122 | |

# Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: 312023_01_26BB.0021.d

Lab ID: 410-113311-4 MS  Client ID: HS23011136-04 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Carbon dioxide | 35800 | 590000 | 785000 | 551 | 80-122 | D 4 |

# Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: 312023_01_26BB.0022.d

Lab ID: 410-113311-4 MSD  Client ID: HS23011136-04 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Carbon dioxide | 35800 | 807000 | 613 | 3 | 30 | 80-122 | D 4 |

# Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Lab File ID: 312023_01_26BB.0006.d  Lab Sample ID: MB 410-338826/1-A

Matrix: Water  Heated Purge:(Y/N) N

Instrument ID: 19506-B  Date Analyzed: 01/26/2023 08:50

GC Column: HP Plot  ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 410-338826/2-A | 312023_01_26BB.0007.d | 01/26/2023 08:58 |
| HS23011136-01 | 410-113311-1 | 312023_01_26BB.0010.d | 01/26/2023 09:29 |
| HS23011136-02 | 410-113311-2 | 312023_01_26BB.0011.d | 01/26/2023 09:37 |
| HS23011136-03 | 410-113311-3 | 312023_01_26BB.0019.d | 01/26/2023 11:08 |
| HS23011136-04 | 410-113311-4 | 312023_01_26BB.0020.d | 01/26/2023 11:16 |
| HS23011136-04 MS | 410-113311-4 MS | 312023_01_26BB.0021.d | 01/26/2023 11:24 |
| HS23011136-04 MSD | 410-113311-4 MSD | 312023_01_26BB.0022.d | 01/26/2023 11:31 |
| HS23011136-05 | 410-113311-5 | 312023_01_26BB.0023.d | 01/26/2023 11:39 |
| HS23011136-06 | 410-113311-6 | 312023_01_26BB.0024.d | 01/26/2023 11:47 |

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Client Sample ID: HS23011136-01  Lab Sample ID: 410-113311-1

Matrix: Water  Lab File ID: 312023_01_26BB.0010.d

Analysis Method: RSK-175  Date Collected: 01/23/2023 08:50

Sample wt/vol: 5(mL)  Date Analyzed: 01/26/2023 09:29

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: HP Plot  ID: 0.53(mm)

Purge Volume:  Heated Purge: (Y/N) N  pH: 7.0

% Moisture:  % Solids:  Level: (low/med) Low

Analysis Batch No.: 338795  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 120000 | | 12000 | 2600 |

Report Date: 26-Jan-2023 12:45:28

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0010.d | | | | |
| Lims ID: | 410-113311-A-1-A | | | | |
| Client ID: | HS23011136-01 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Jan-2023 09:29:00 | ALS Bottle#: | 0 | Worklist Smp#: | 10 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075816-010 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:25 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.023 | 2.046 | -0.023 | 460998359 | 116399 | H |

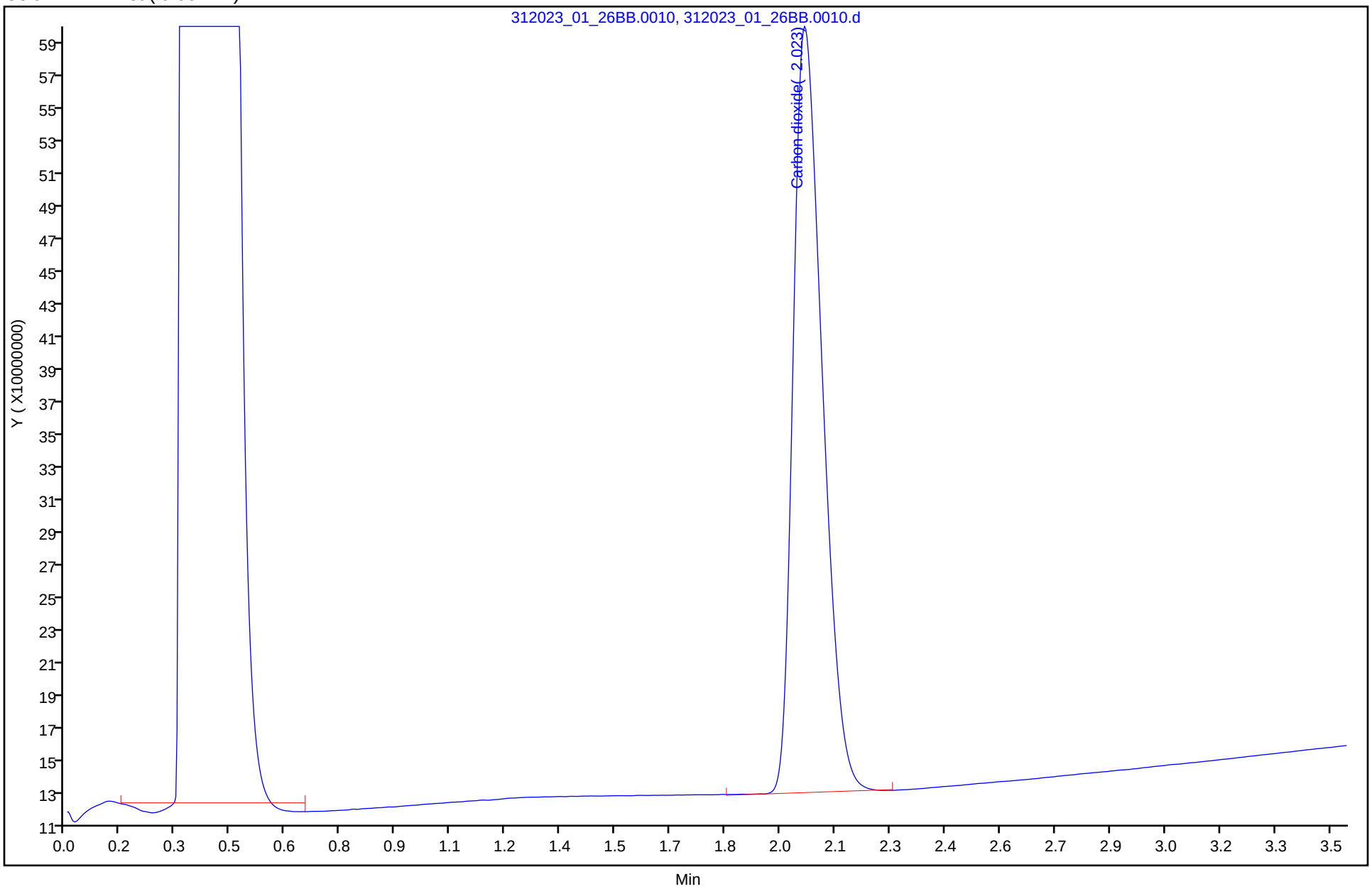
Chrom Revision: 2.3 17-Jan-2023 20:47:52

Report Date: 26-Jan-2023 12:45:28 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0010.d | | | | |
| Injection Date: | 26-Jan-2023 09:29:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | 410-113311-A-1-A | Lab Sample ID: | 410-113311-1 | Worklist Smp#: | 10 |
| Client ID: | HS23011136-01 | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Client Sample ID: HS23011136-02  Lab Sample ID: 410-113311-2

Matrix: Water  Lab File ID: 312023_01_26BB.0011.d

Analysis Method: RSK-175  Date Collected: 01/23/2023 09:40

Sample wt/vol: 5(mL)  Date Analyzed: 01/26/2023 09:37

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: HP Plot  ID: 0.53(mm)

Purge Volume:  Heated Purge: (Y/N) N  pH: 6.5

% Moisture:  % Solids:  Level: (low/med) Low

Analysis Batch No.: 338795  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 170000 | M cn | 12000 | 2600 |

Report Date: 26-Jan-2023 12:45:28

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0011.d | | | | |
| Lims ID: | 410-113311-A-2-A | | | | |
| Client ID: | HS23011136-02 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Jan-2023 09:37:00 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075816-011 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:25 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |
| First Level Reviewer: WN7O | | Date: | 26-Jan-2023 09:58:23 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.005 | 2.046 | -0.041 | 689607592H | 174121 | a |

## QC Flag Legend

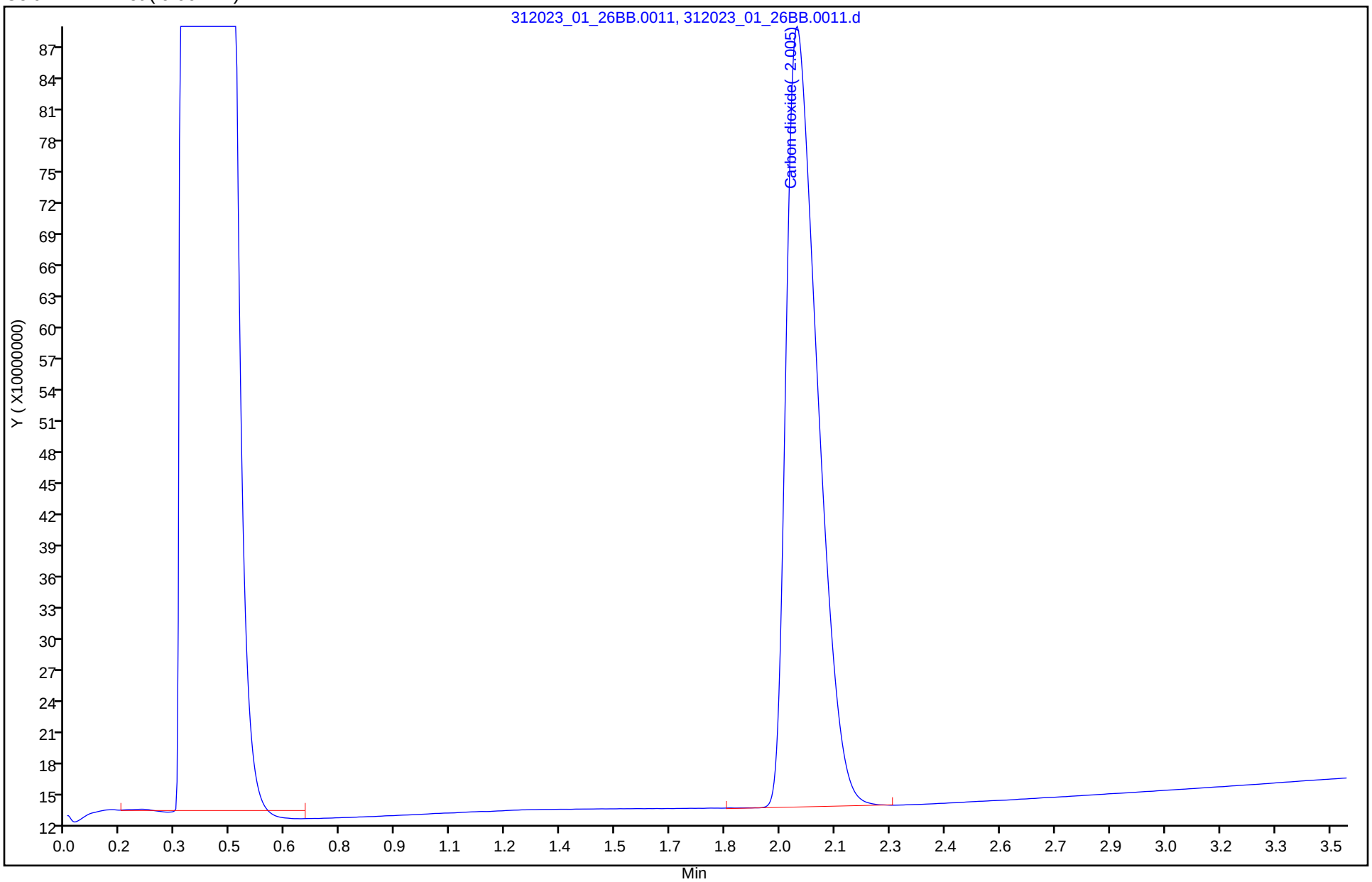
Processing Flags
H - Response Measured by Height
Review Flags
a - User Assigned ID

Report Date: 26-Jan-2023 12:45:28 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0011.d | | | | |
| Injection Date: | 26-Jan-2023 09:37:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | 410-113311-A-2-A | Lab Sample ID: | 410-113311-2 | Worklist Smp#: | 11 |
| Client ID: | HS23011136-02 | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 26-Jan-2023 12:45:28

Chrom Revision: 2.3 17-Jan-2023 20:47:52 Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing, LLC

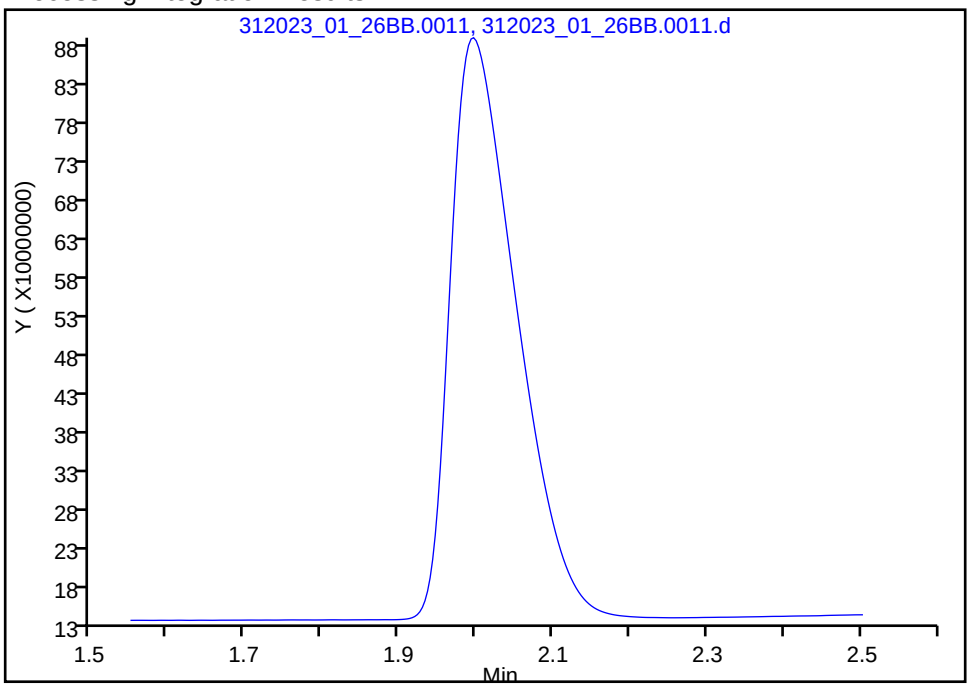
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|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0011.d | | |
| Injection Date: | 26-Jan-2023 09:37:00 | Instrument ID: | 19506-B |
| Lims ID: | 410-113311-A-2-A | Lab Sample ID: | 410-113311-2 |
| Client ID: | HS23011136-02 | | |
| Operator ID: | | ALS Bottle#: | 0 Worklist Smp#: 11 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 |
| Column: | HP Plot ( 0.00 mm) | Detector | 0FIDA |

## 1 Carbon dioxide, CAS: 124-38-9

Signal: 1

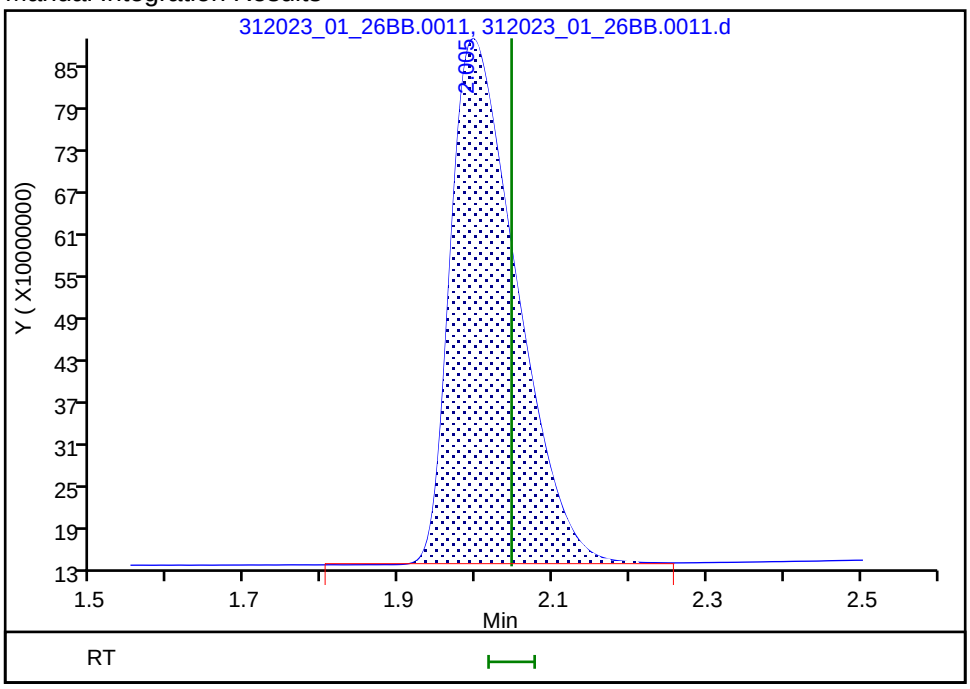
Not Detected
Expected RT: 2.05

Processing Integration Results




Manual Integration Results

RT: 2.01
Height: 689607592
Amount: 174121
Amount Units: ug/l




Reviewer: WN7O, 26-Jan-2023 09:58:20
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Client Sample ID: HS23011136-03  Lab Sample ID: 410-113311-3

Matrix: Water  Lab File ID: 312023_01_26BB.0019.d

Analysis Method: RSK-175  Date Collected: 01/23/2023 10:04

Sample wt/vol: 5(mL)  Date Analyzed: 01/26/2023 11:08

Soil Aliquot Vol:  Dilution Factor: 10

Soil Extract Vol.:  GC Column: HP Plot  ID: 0.53(mm)

Purge Volume:  Heated Purge: (Y/N) N  pH: 7.0

% Moisture:  % Solids:  Level: (low/med) Low

Analysis Batch No.: 338795  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 490000 | D | 120000 | 26000 |

Report Date: 26-Jan-2023 12:45:32

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0019.d | | | | |
| Lims ID: | 410-113311-B-3-A | | | | |
| Client ID: | HS23011136-03 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Jan-2023 11:08:00 | ALS Bottle#: | 0 | Worklist Smp#: | 19 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075816-019 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:30 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.041 | 2.046 | -0.005 | 194261528 | 49050 | H |

Chrom Revision: 2.3 17-Jan-2023 20:47:52

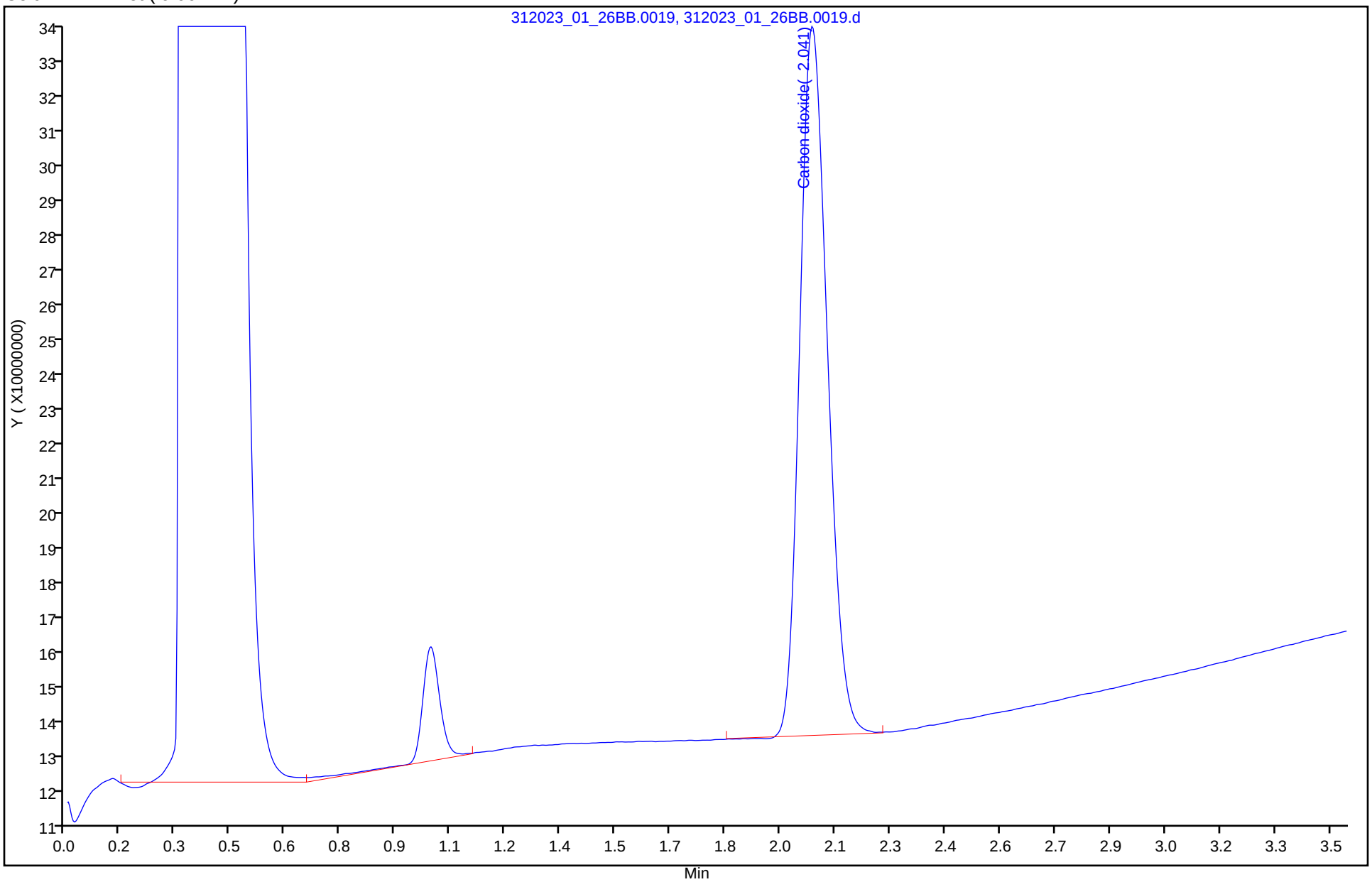
Report Date: 26-Jan-2023 12:45:32 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0019.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Jan-2023 11:08:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | 410-113311-B-3-A | Lab Sample ID: | 410-113311-3 | Worklist Smp#: | 19 |
| Client ID: | HS23011136-03 | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Client Sample ID: HS23011136-04  Lab Sample ID: 410-113311-4

Matrix: Water  Lab File ID: 312023_01_26BB.0020.d

Analysis Method: RSK-175  Date Collected: 01/23/2023 11:35

Sample wt/vol: 5(mL)  Date Analyzed: 01/26/2023 11:16

Soil Aliquot Vol:  Dilution Factor: 10

Soil Extract Vol.:  GC Column: HP Plot  ID: 0.53(mm)

Purge Volume:  Heated Purge: (Y/N) N  pH: 7.0

% Moisture:  % Solids:  Level: (low/med) Low

Analysis Batch No.: 338795  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 590000 | D J1 | 120000 | 26000 |

Report Date: 26-Jan-2023 12:45:32

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0020.d | | | | |
| Lims ID: | 410-113311-B-4-A | | | | |
| Client ID: | HS23011136-04 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Jan-2023 11:16:00 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075816-020 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:30 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

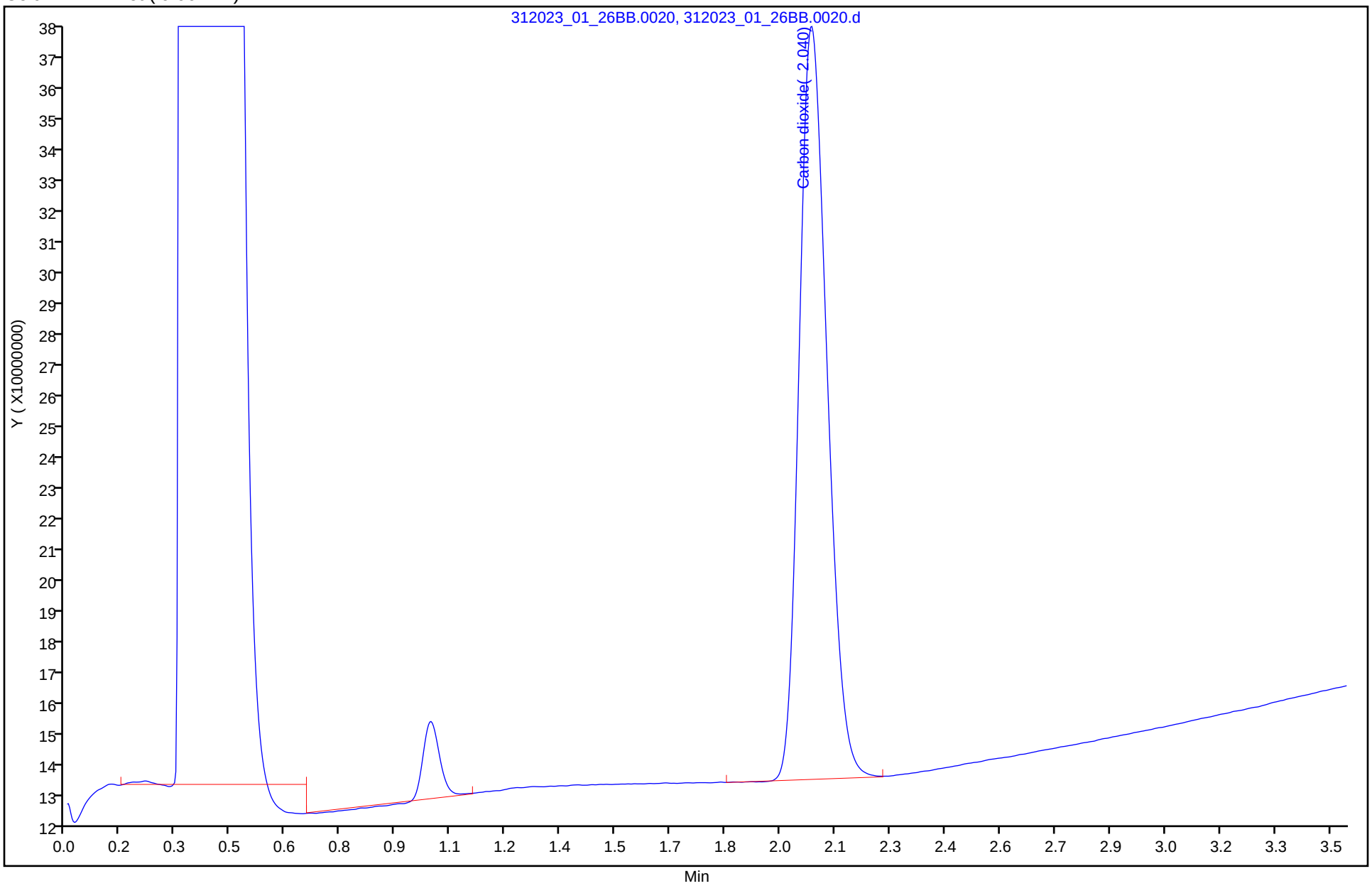
| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.040 | 2.046 | -0.006 | 232576969 | 58724 | H |

Report Date: 26-Jan-2023 12:45:32 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0020.d | | | | |
| Injection Date: | 26-Jan-2023 11:16:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | 410-113311-B-4-A | Lab Sample ID: | 410-113311-4 | Worklist Smp#: | 20 |
| Client ID: | HS23011136-04 | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Client Sample ID: HS23011136-05  Lab Sample ID: 410-113311-5

Matrix: Water  Lab File ID: 312023_01_26BB.0023.d

Analysis Method: RSK-175  Date Collected: 01/23/2023 12:35

Sample wt/vol: 5(mL)  Date Analyzed: 01/26/2023 11:39

Soil Aliquot Vol:  Dilution Factor: 10

Soil Extract Vol.:  GC Column: HP Plot  ID: 0.53(mm)

Purge Volume:  Heated Purge: (Y/N) N  pH: 5.0

% Moisture:  % Solids:  Level: (low/med) Low

Analysis Batch No.: 338795  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 670000 | D cn | 120000 | 26000 |

Report Date: 26-Jan-2023 12:45:34

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0023.d | | | | |
| Lims ID: | 410-113311-B-5-A | | | | |
| Client ID: | HS23011136-05 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Jan-2023 11:39:00 | ALS Bottle#: | 0 | Worklist Smp#: | 23 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075816-023 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:30 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.037 | 2.046 | -0.009 | 265042636 | 66921 | H |

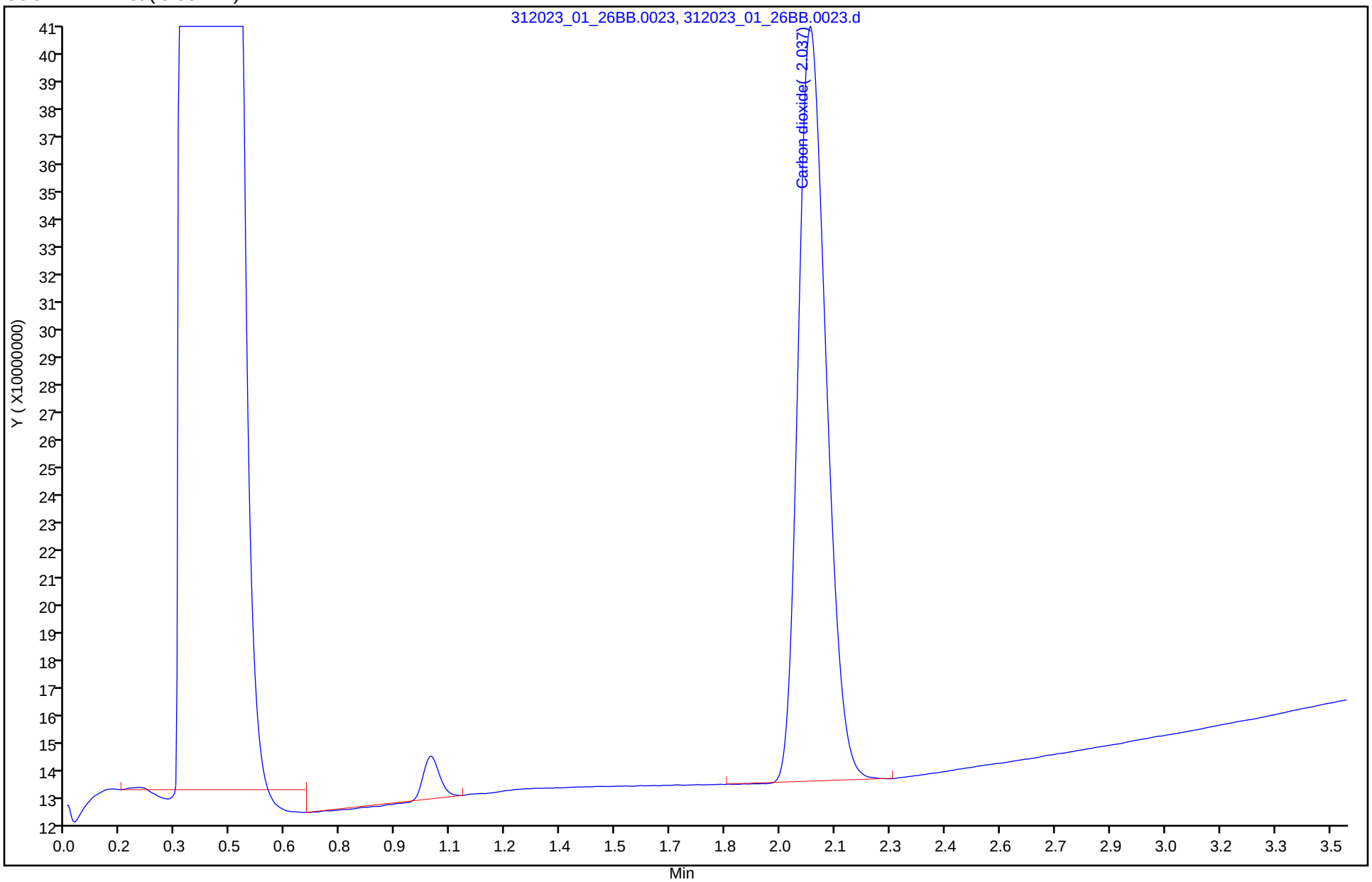
Chrom Revision: 2.3 17-Jan-2023 20:47:52

Report Date: 26-Jan-2023 12:45:34 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0023.d | | | | |
| Injection Date: | 26-Jan-2023 11:39:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | 410-113311-B-5-A | Lab Sample ID: | 410-113311-5 | Worklist Smp#: | 23 |
| Client ID: | HS23011136-05 | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Client Sample ID: HS23011136-06  Lab Sample ID: 410-113311-6

Matrix: Water  Lab File ID: 312023_01_26BB.0024.d

Analysis Method: RSK-175  Date Collected: 01/23/2023 12:35

Sample wt/vol: 5(mL)  Date Analyzed: 01/26/2023 11:47

Soil Aliquot Vol:  Dilution Factor: 10

Soil Extract Vol.:  GC Column: HP Plot  ID: 0.53(mm)

Purge Volume:  Heated Purge: (Y/N) N  pH: 5.0

% Moisture:  % Solids:  Level: (low/med) Low

Analysis Batch No.: 338795  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 480000 | D cn | 120000 | 26000 |

Report Date: 26-Jan-2023 12:45:34

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0024.d | | | | |
| Lims ID: | 410-113311-B-6-A | | | | |
| Client ID: | HS23011136-06 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Jan-2023 11:47:00 | ALS Bottle#: | 0 | Worklist Smp#: | 24 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075816-024 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:30 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.043 | 2.046 | -0.003 | 190306608 | 48051 | H |

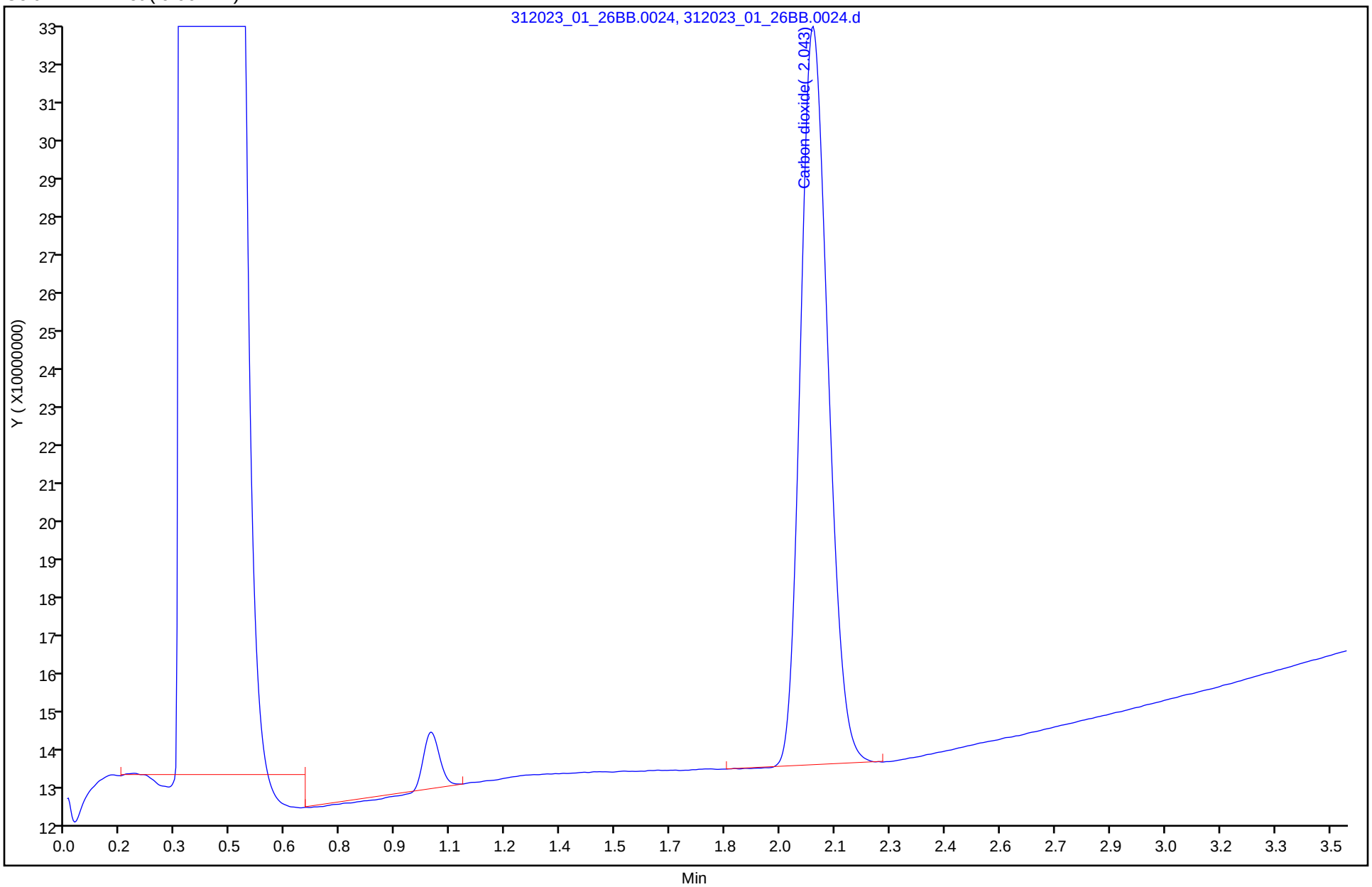
Chrom Revision: 2.3 17-Jan-2023 20:47:52

Report Date: 26-Jan-2023 12:45:34 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0024.d | | | | |
| Injection Date: | 26-Jan-2023 11:47:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | 410-113311-B-6-A | Lab Sample ID: | 410-113311-6 | Worklist Smp#: | 24 |
| Client ID: | HS23011136-06 | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env  Job No.: 410-113311-1  Analy Batch No.: 331616

SDG No.:

Instrument ID: 19506-B  GC Column: HP Plot  ID: 0.53(mm)  Heated Purge: (Y/N) N

Calibration Start Date: 12/30/2022 16:32  Calibration End Date: 12/30/2022 17:13  Calibration ID: 45608

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-331616/2 | 312022_12_30B.0002.d |
| Level 2 | IC 410-331616/3 | 312022_12_30B.0003.d |
| Level 3 | ICRT 410-331616/4 | 312022_12_30B.0004.d |
| Level 4 | IC 410-331616/5 | 312022_12_30B.0005.d |
| Level 5 | IC 410-331616/6 | 312022_12_30B.0006.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 1.980 | 1.977 | 1.973 | 1.960 | 1.943 | | | | | | 1.943 - 2.003 | 1.967 |

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1  Analy Batch No.: 331616

SDG No.:

Instrument ID: 19506-B  GC Column: HP Plot  ID: 0.53(mm)  Heated Purge: (Y/N) N

Calibration Start Date: 12/30/2022 16:32  Calibration End Date: 12/30/2022 17:13  Calibration ID: 45608

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-331616/2 | 312022_12_30B.0002.d |
| Level 2 | IC 410-331616/3 | 312022_12_30B.0003.d |
| Level 3 | ICRT 410-331616/4 | 312022_12_30B.0004.d |
| Level 4 | IC 410-331616/5 | 312022_12_30B.0005.d |
| Level 5 | IC 410-331616/6 | 312022_12_30B.0006.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 5 | LVL 2 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Carbon dioxide | 4382.9 3543.4 | 4049.0 | 3981.6 | 3845.7 | Ave | | 3960.50209 | | | | 7.7 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-113311-1 Analy Batch No.: 331616

SDG No.:

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/30/2022 16:32 Calibration End Date: 12/30/2022 17:13 Calibration ID: 45608

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-331616/2 | 312022_12_30B.0002.d |
| Level 2 | IC 410-331616/3 | 312022_12_30B.0003.d |
| Level 3 | ICRT 410-331616/4 | 312022_12_30B.0004.d |
| Level 4 | IC 410-331616/5 | 312022_12_30B.0005.d |
| Level 5 | IC 410-331616/6 | 312022_12_30B.0006.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Carbon dioxide | Ave | 47098229 | 87021455 | 142619437 | 344380785 | 634621588 | 10746 | 21492 | 35820 | 89550 | 179100 |

Curve Type Legend
Ave = Average by Height

Report Date: 03-Jan-2023 07:38:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0002.d | | | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 30-Dec-2022 16:32:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ic | | | | |
| Misc. Info.: | 410-0074294-002 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:38:08 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |
| First Level Reviewer: WN7O | | Date: | 03-Jan-2023 07:38:08 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.980 | 1.973 | 0.007 | 47098229H | 10746 | 11892 | |

## QC Flag Legend

Processing Flags

H - Response Measured by Height

## Reagents:

EPH_CO2MS_00004 Amount Added: 30.00 Units: uL

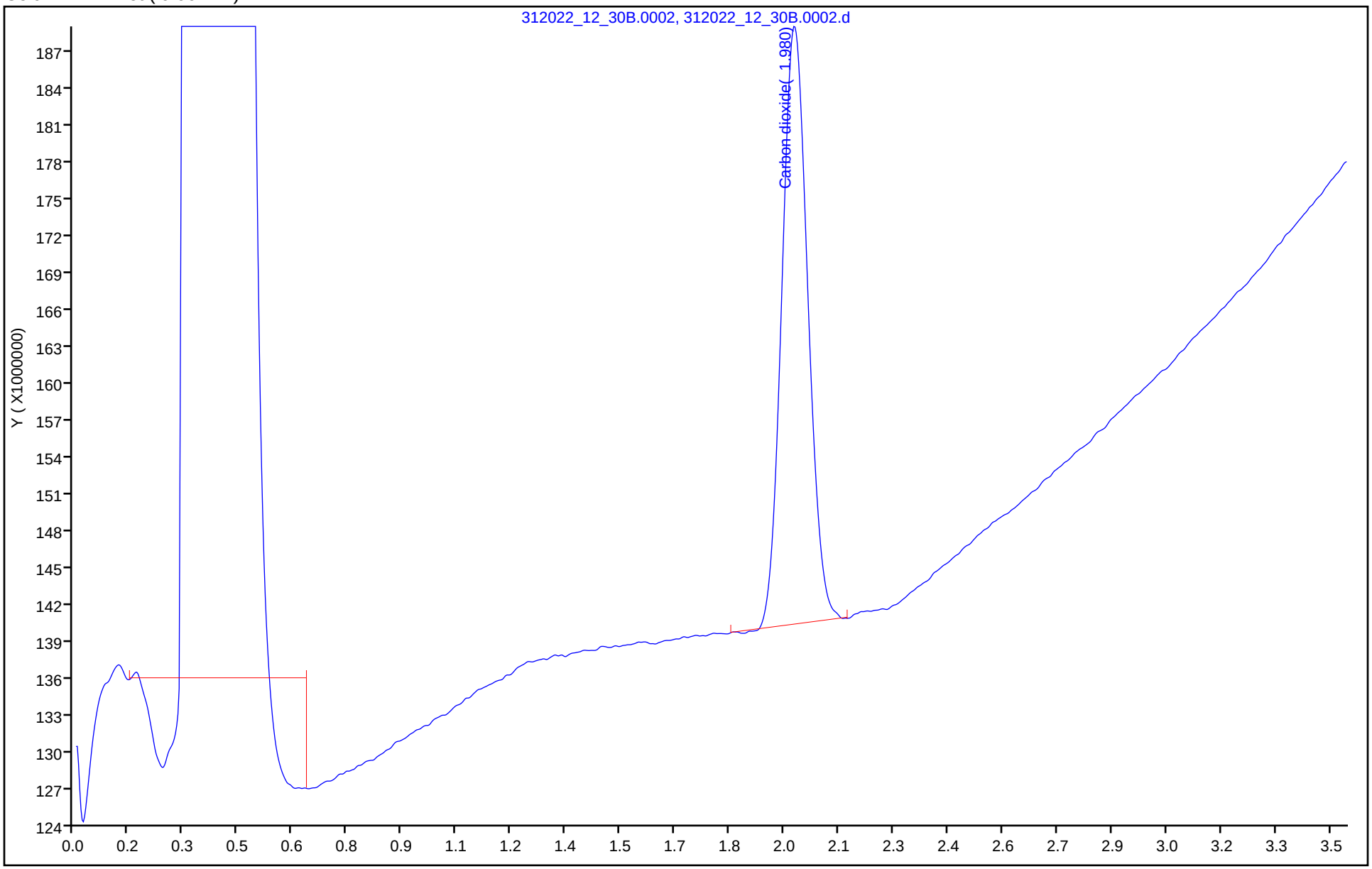
Report Date: 03-Jan-2023 07:38:08 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0002.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Dec-2022 16:32:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | IC | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 03-Jan-2023 07:31:24

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0003.d | | | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 30-Dec-2022 16:40:00 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ic | | | | |
| Misc. Info.: | 410-0074294-003 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:31:24 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.977 | 1.973 | 0.004 | 87021455H | 21492 | 21972 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 60.00 Units: uL

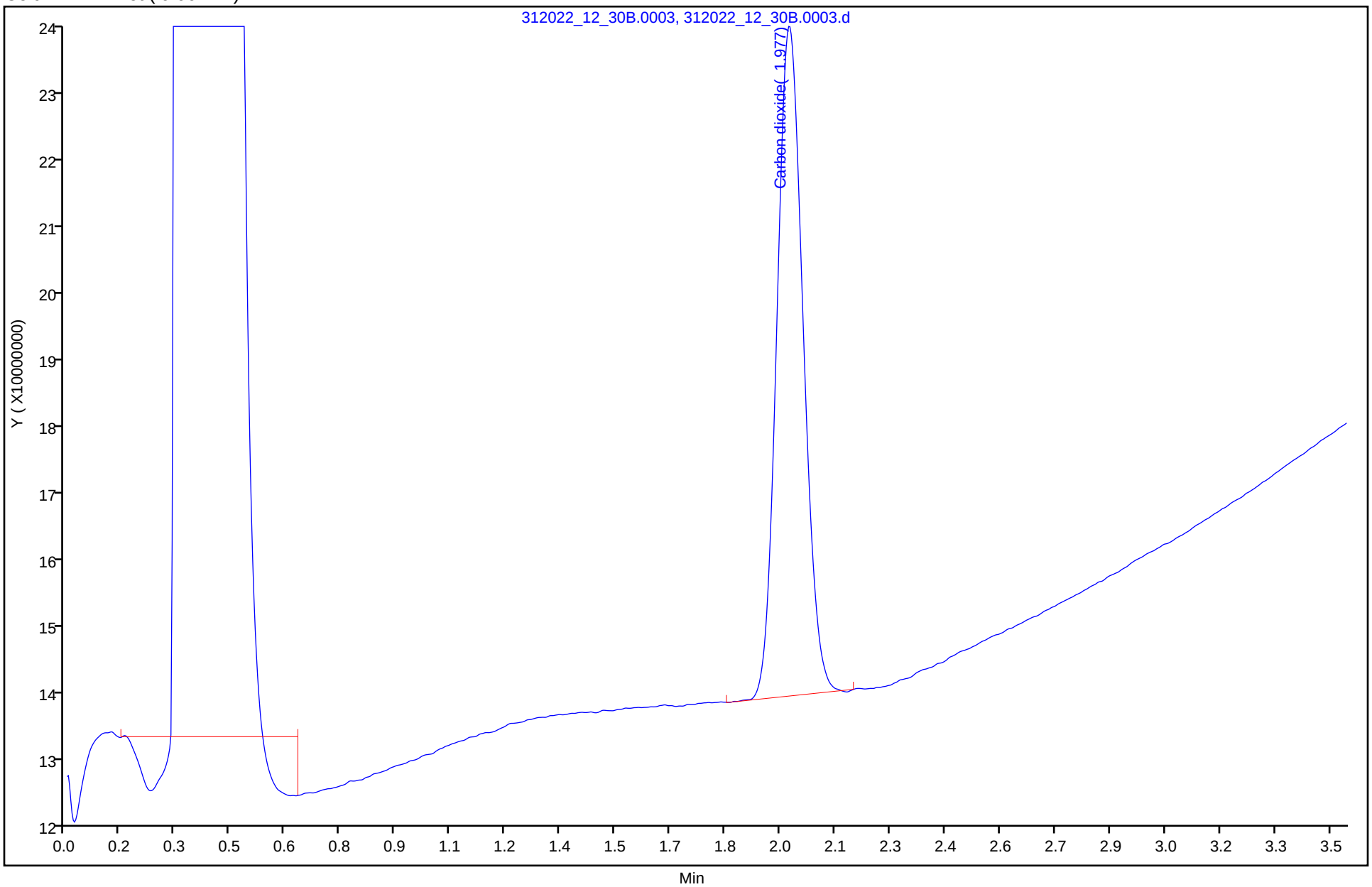
Report Date: 03-Jan-2023 07:31:24 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Dec-2022 16:40:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | IC | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 03-Jan-2023 07:31:25

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0004.d | | | | |
| Lims ID: | ICRT | | | | |
| Client ID: | | | | | |
| Sample Type: | ICRT | Calib Level: | 3 | | |
| Inject. Date: | 30-Dec-2022 16:48:00 | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | icrt | | | | |
| Misc. Info.: | 410-0074294-004 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:31:25 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.973 | 1.973 | 0.000 | 142619437H | 35820 | 36010 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 20-Dec-2022 14:14:06

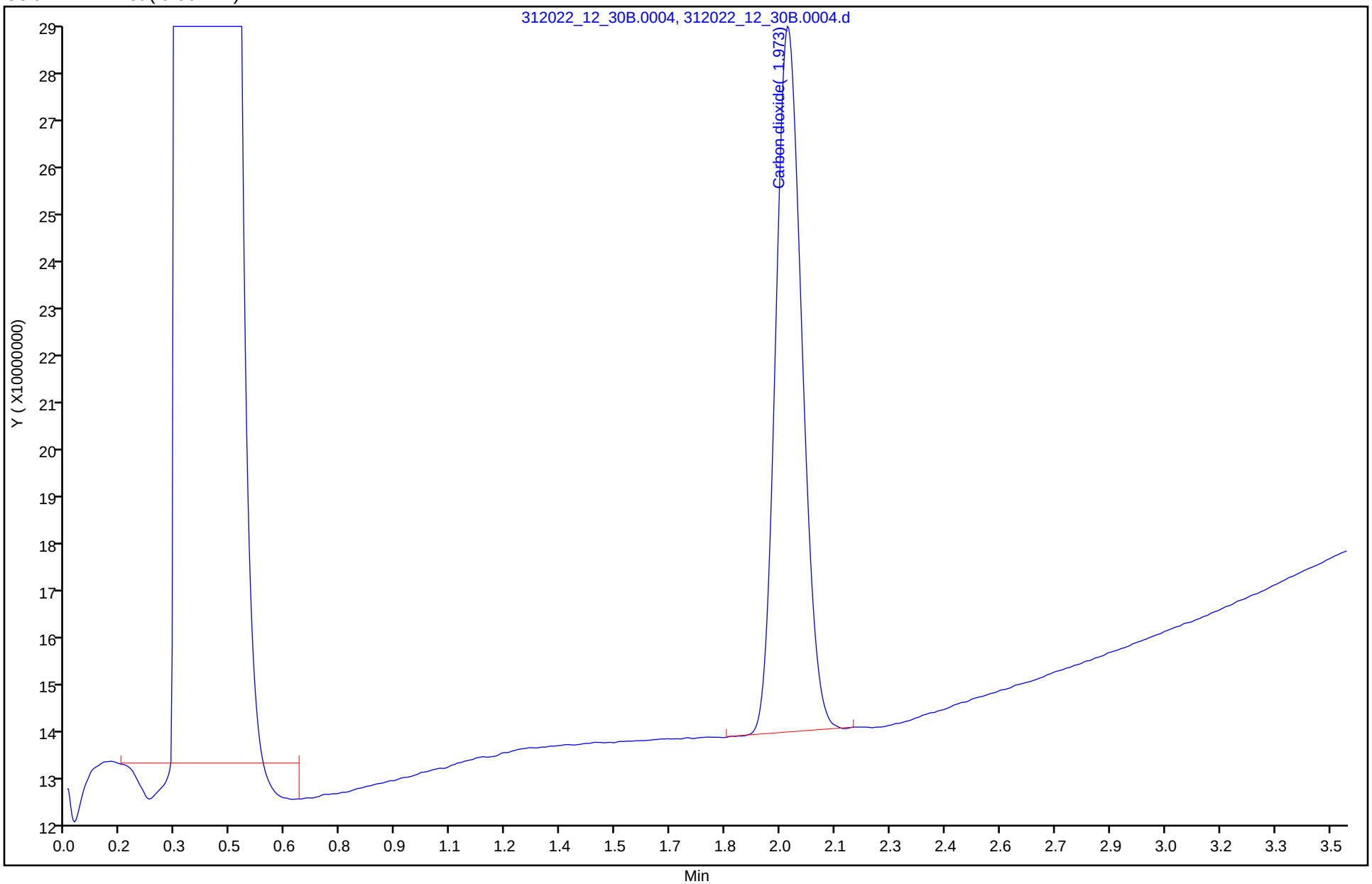
Report Date: 03-Jan-2023 07:31:25 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Dec-2022 16:48:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | ICRT | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 03-Jan-2023 07:31:26

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0005.d | | | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 30-Dec-2022 16:56:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ic | | | | |
| Misc. Info.: | 410-0074294-005 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:31:26 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.960 | 1.973 | -0.013 | 344380785 | H 89550 | 86954 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 250.00 Units: uL

Chrom Revision: 2.3 20-Dec-2022 14:14:06

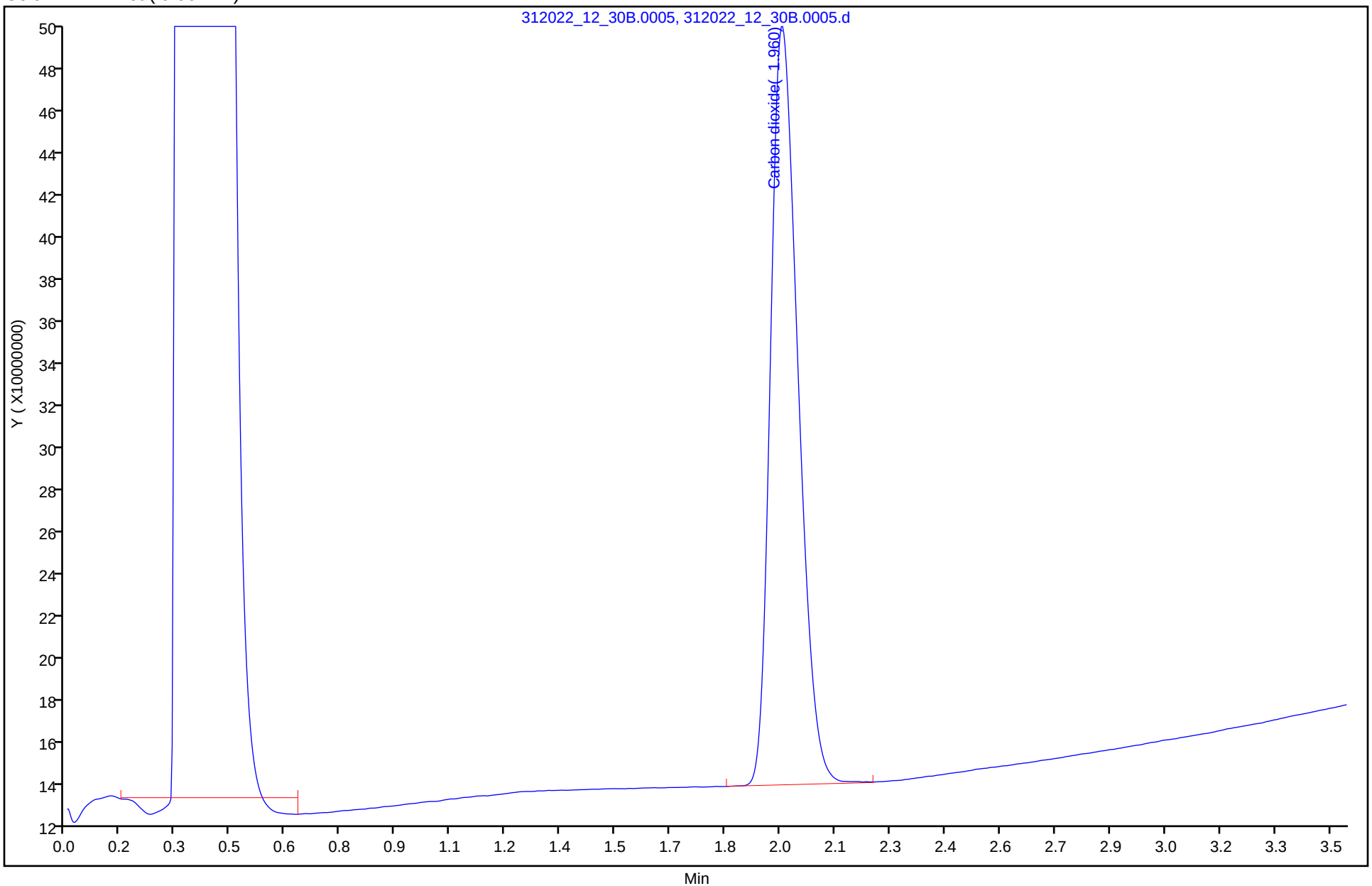
Report Date: 03-Jan-2023 07:31:26 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0005.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Dec-2022 16:56:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | IC | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 03-Jan-2023 07:31:27

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 30-Dec-2022 17:05:00 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ic | | | | |
| Misc. Info.: | 410-0074294-006 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:31:27 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |
| First Level Reviewer: WN7O | | Date: | 30-Dec-2022 17:19:32 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.943 | 1.973 | -0.030 | 634621588H | 179100 | 160238 | a |

## QC Flag Legend

Processing Flags

H - Response Measured by Height

Review Flags

a - User Assigned ID

## Reagents:

EPH_CO2MS_00004 Amount Added: 500.00 Units: uL

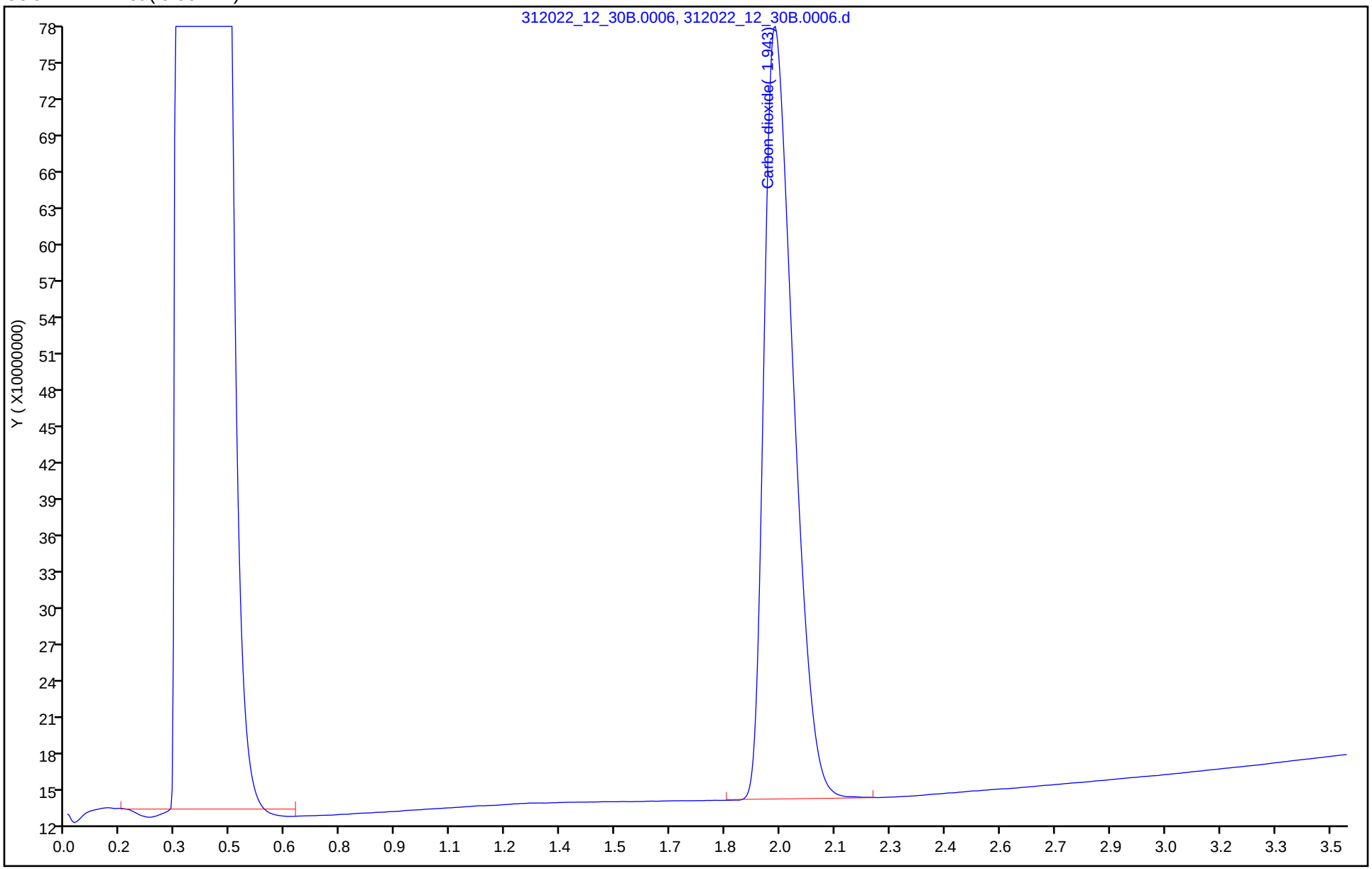
Report Date: 03-Jan-2023 07:31:27 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Dec-2022 17:05:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | IC | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



Report Date: 03-Jan-2023 07:31:27 Chrom Revision: 2.3 20-Dec-2022 14:14:06 Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing, LLC

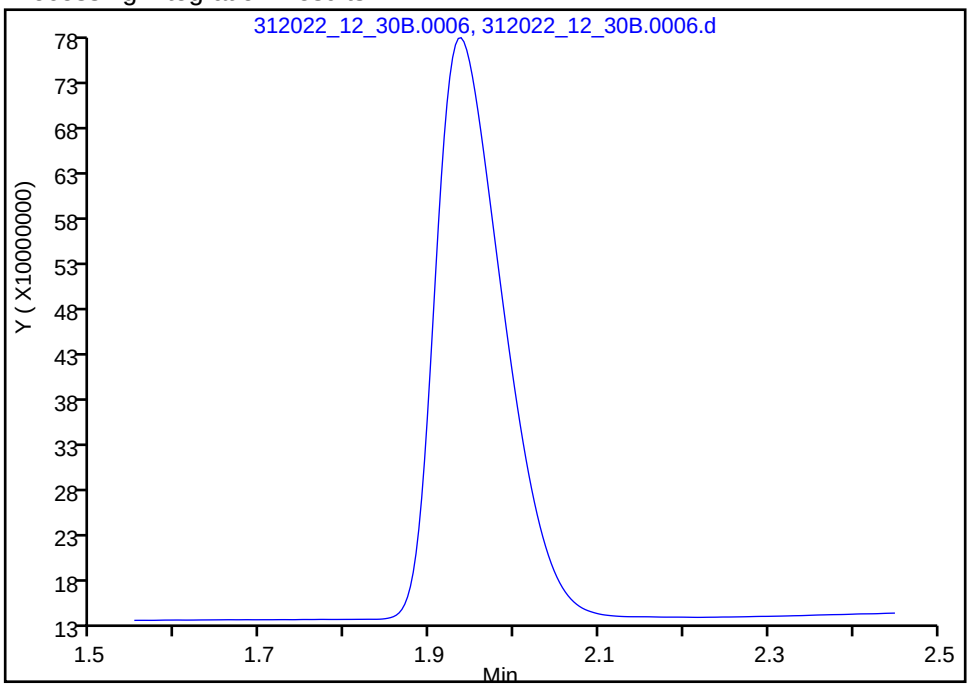
Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d
Injection Date: 30-Dec-2022 17:05:00 Instrument ID: 19506-B
Lims ID: IC
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2
Column: HP Plot ( 0.00 mm) Detector 0FIDA

## 1 Carbon dioxide, CAS: 124-38-9

Signal: 1

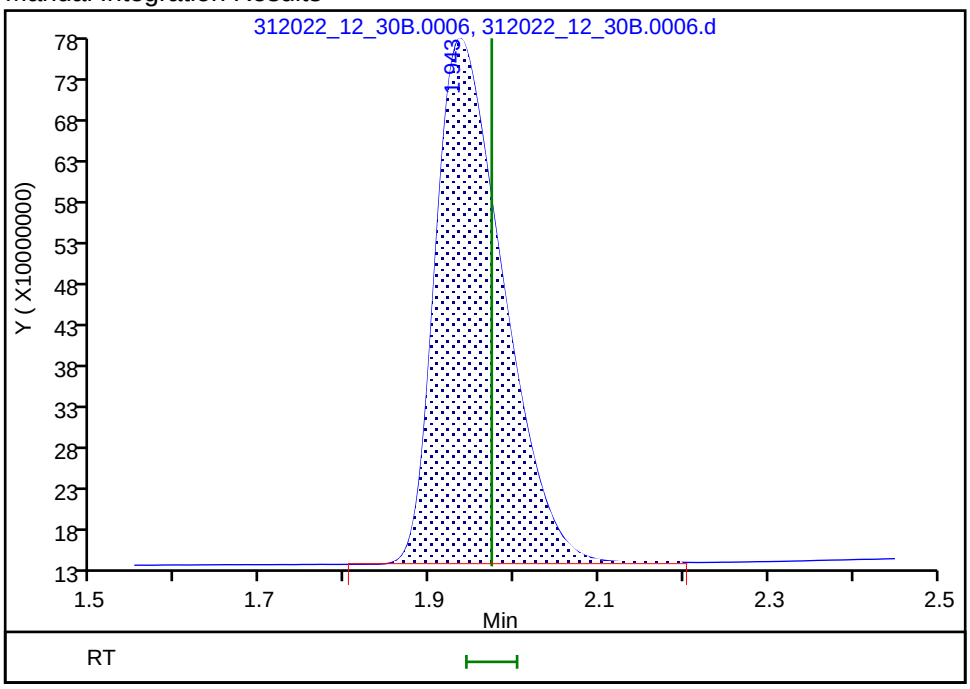
Not Detected
Expected RT: 1.97

Processing Integration Results




Manual Integration Results

RT: 1.94
Height: 634621588
Amount: 160238
Amount Units: ug/l




Reviewer: WN7O, 30-Dec-2022 17:19:26 Audit Reason: Peak assignment corrected
Audit Action: Assigned Compound ID

## Calibration / Carbon dioxide

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | HEIGHT |
| **RF Rounding:** | 0 |

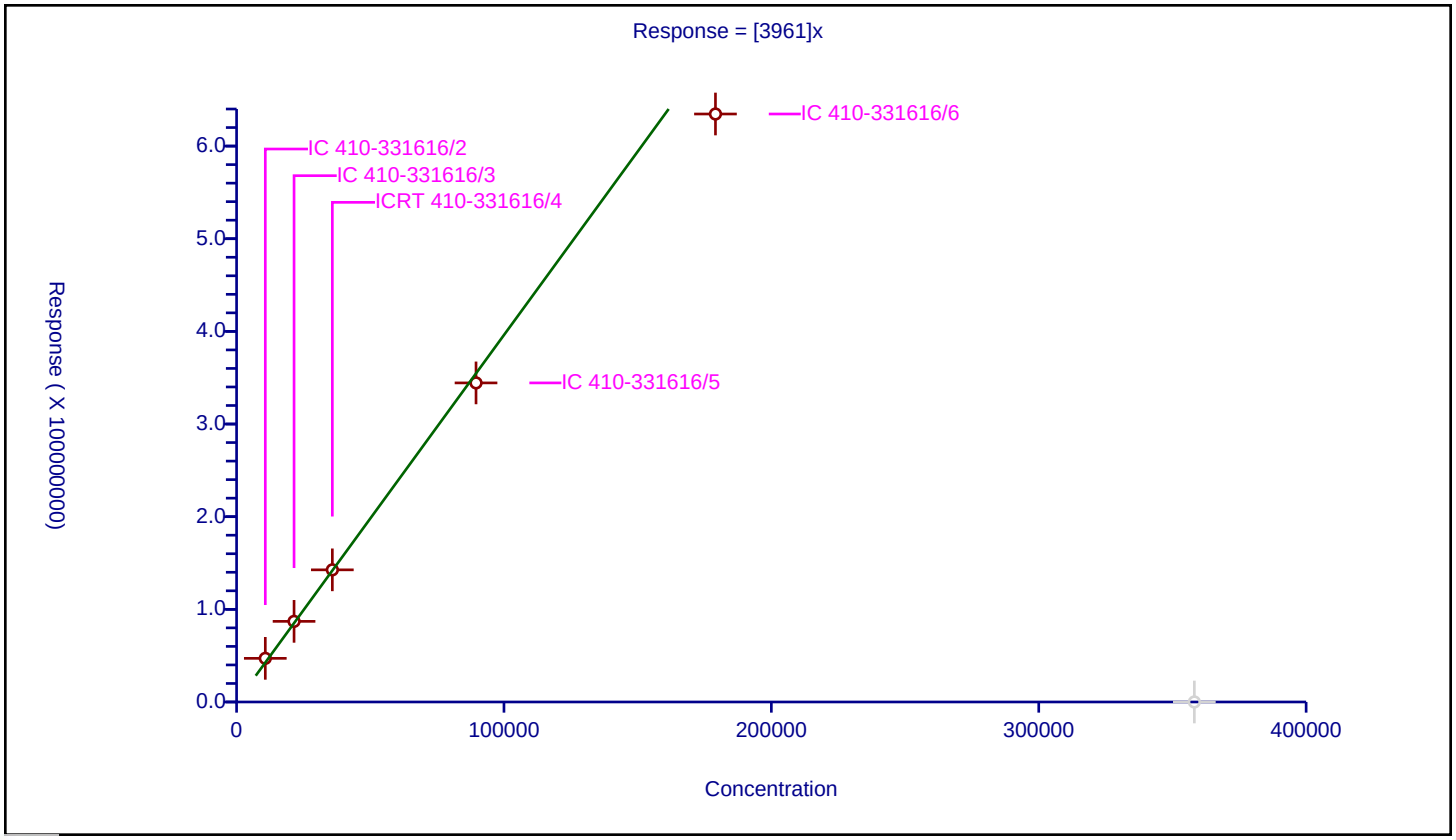
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3961 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 37800000 |
| **Relative Standard Error:** | 7.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-331616/2 | 10746.0 | 47098229.0 | | | 4382.861437 | Y |
| 2 | IC 410-331616/3 | 21492.0 | 87021455.0 | | | 4049.016146 | Y |
| 3 | ICRT 410-331616/4 | 35820.0 | 142619437.0 | | | 3981.558822 | Y |
| 4 | IC 410-331616/5 | 89550.0 | 344380785.0 | | | 3845.681575 | Y |
| 5 | IC 410-331616/6 | 179100.0 | 634621588.0 | | | 3543.392451 | Y |
| 6 | IC 410-331616/7 | 358200.0 | 0.0 | | | 0.0 | N |



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi  Job No.: 410-113311-1

SDG No.:

Lab Sample ID: ICV 410-331616/10  Calibration Date: 12/30/2022 17:37

Instrument ID: 19506-B  Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot  ID: 0.53(mm)  Calib End Date: 12/30/2022 17:13

Lab File ID: 312022_12_30B.0010.d  Conc. Units: ug/L  Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | Ave | 3961 | 3752 | | 33200 | 35000 | -5.3 | 15.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi  Job No.: 410-113311-1

SDG No.:

Lab Sample ID: ICV 410-331616/10  Calibration Date: 12/30/2022 17:37

Instrument ID: 19506-B  Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot  ID: 0.53(mm)  Calib End Date: 12/30/2022 17:13

Lab File ID: 312022_12_30B.0010.d  Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Carbon dioxide | 1.98 | 1.94 | 2.00 |

Report Date: 03-Jan-2023 07:38:13

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0010.d | | | | |
| Lims ID: | icv | | | | |
| Client ID: | | | | | |
| Sample Type: | ICV | | | | |
| Inject. Date: | 30-Dec-2022 17:37:00 | ALS Bottle#: | 0 | Worklist Smp#: | 10 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | icv | | | | |
| Misc. Info.: | 410-0074294-010 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 03-Jan-2023 07:38:08 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1619 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 1.977 | 1.973 | 0.004 | 131333027 | H 35008 | 33161 | |

## Reagents:

EPH_CO2ICV_00002 Amount Added: 0.32 Units: mL

Chrom Revision: 2.3 20-Dec-2022 14:14:06

Report Date: 03-Jan-2023 07:38:13 Chrom Revision: 2.3 20-Dec-2022 14:14:06

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0010.d

Injection Date: 30-Dec-2022 17:37:00 Instrument ID: 19506-B Operator ID:

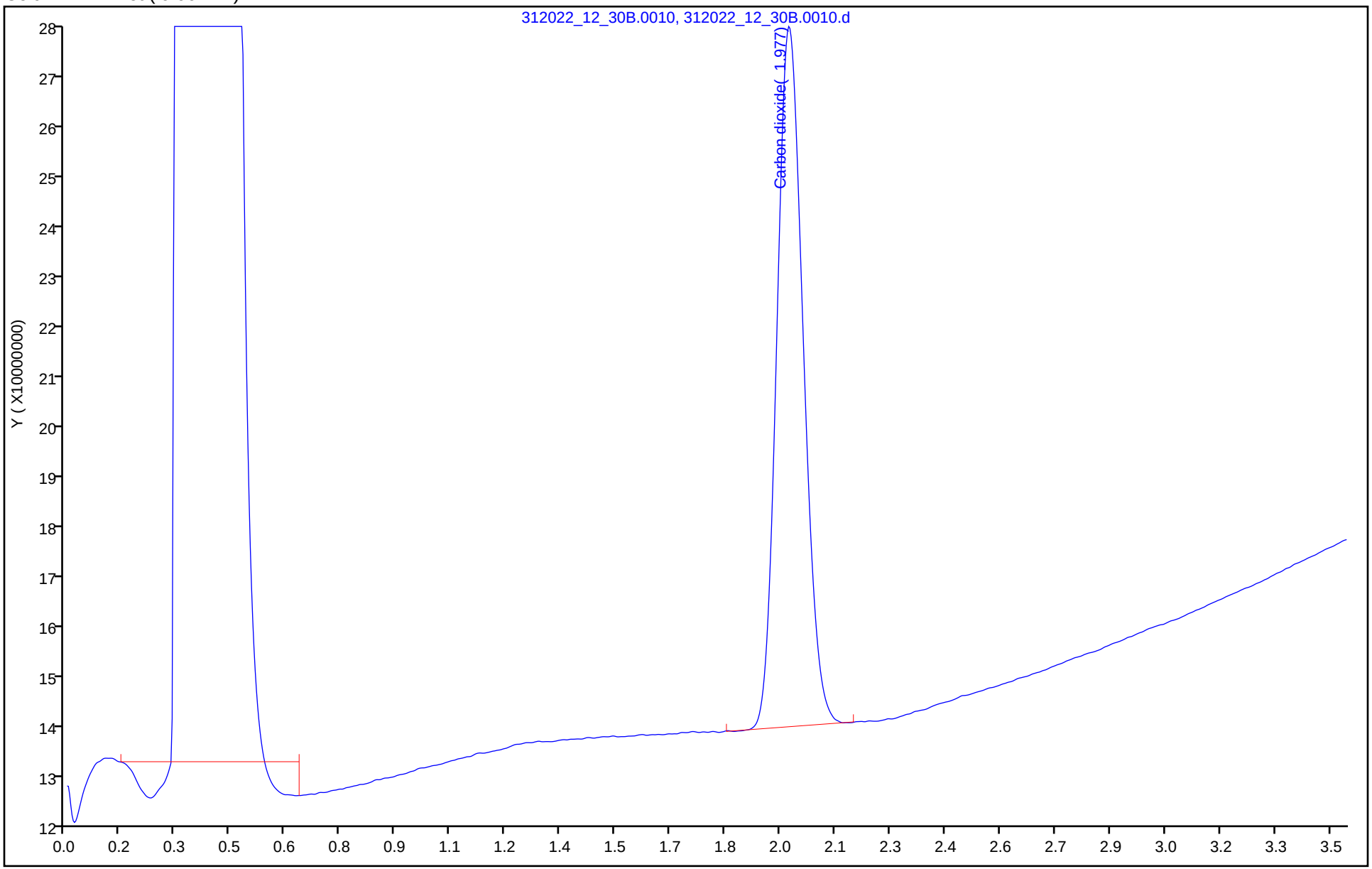
Lims ID: icv Worklist Smp#: 10

Client ID:

Purge Vol: 1.000 mL Dil. Factor: 1.0000 ALS Bottle#: 0

Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2

Column: HP Plot ( 0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi  Job No.: 410-113311-1

SDG No.:

Lab Sample ID: CCVRT 410-338795/4  Calibration Date: 01/26/2023 08:28

Instrument ID: 19506-B  Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot  ID: 0.53(mm)  Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_26BB.0004.d  Conc. Units: ug/L  Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | Ave | 3961 | 3569 | | 32300 | 35800 | -9.9 | 15.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi  Job No.: 410-113311-1

SDG No.:

Lab Sample ID: CCVRT 410-338795/4  Calibration Date: 01/26/2023 08:28

Instrument ID: 19506-B  Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot  ID: 0.53(mm)  Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_26BB.0004.d  Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Carbon dioxide | 2.05 | 2.02 | 2.08 |

Report Date: 26-Jan-2023 12:45:26

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0004.d | | | | |
| Lims ID: | ccvrt | | | | |
| Client ID: | | | | | |
| Sample Type: | CCVRT | | | | |
| Inject. Date: | 26-Jan-2023 08:28:00 | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ccvrt | | | | |
| Misc. Info.: | 410-0075816-004 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:25 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.046 | 2.046 | 0.000 | 127827988 | H 35820 | 32276 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 0.10 Units: mL

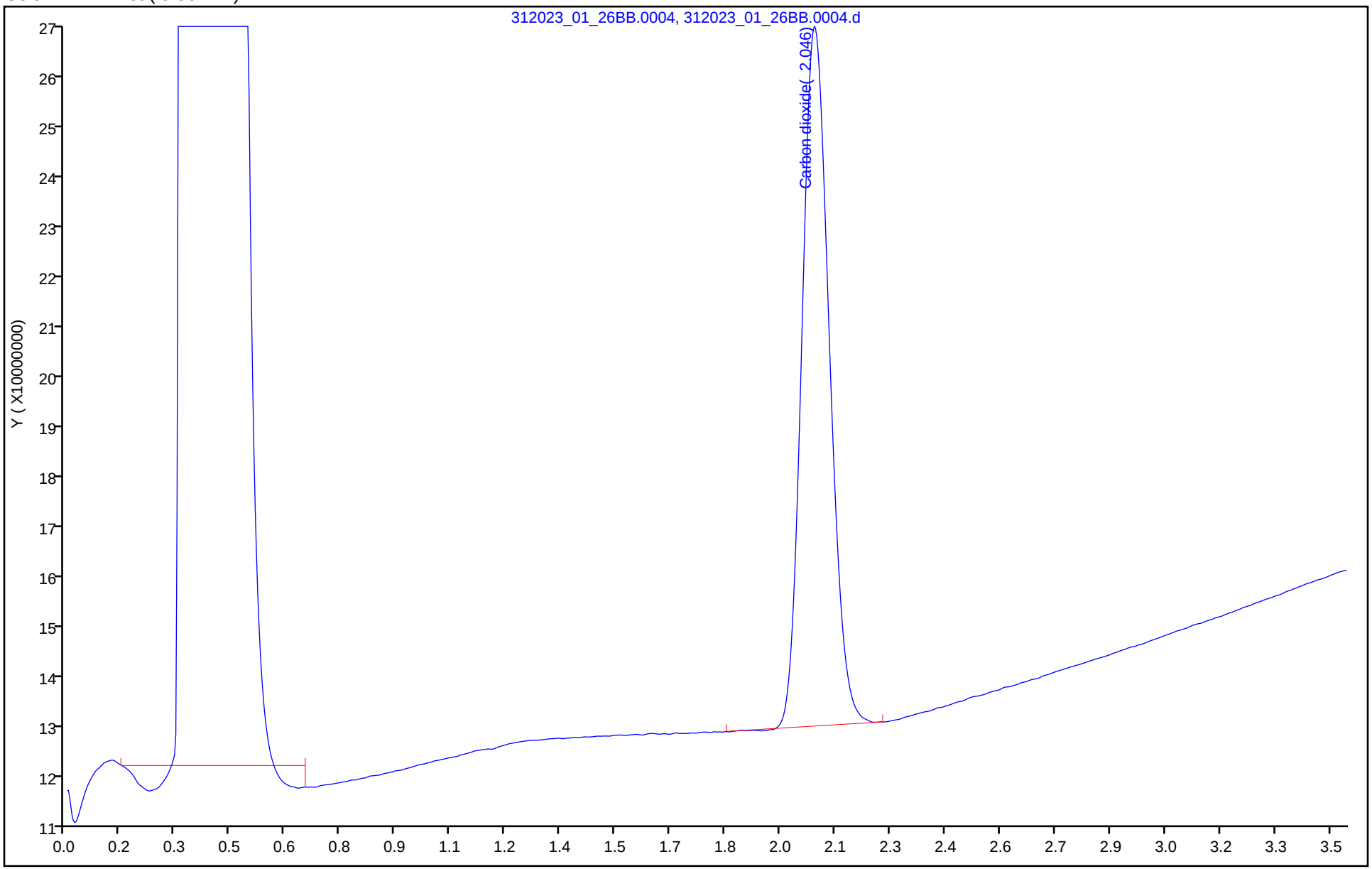
Report Date: 26-Jan-2023 12:45:26 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Jan-2023 08:28:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | ccvrt | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi  Job No.: 410-113311-1

SDG No.:

Lab Sample ID: CCV 410-338795/14  Calibration Date: 01/26/2023 10:00

Instrument ID: 19506-B  Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot  ID: 0.53(mm)  Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_26BB.0014.d  Conc. Units: ug/L  Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | Ave | 3961 | 3603 | | 32600 | 35800 | -9.0 | 15.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi  Job No.: 410-113311-1

SDG No.:

Lab Sample ID: CCV 410-338795/14  Calibration Date: 01/26/2023 10:00

Instrument ID: 19506-B  Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot  ID: 0.53(mm)  Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_26BB.0014.d  Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Carbon dioxide | 2.05 | 2.02 | 2.08 |

Report Date: 26-Jan-2023 12:45:30

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0014.d | | | | |
| Lims ID: | ccv | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 26-Jan-2023 10:00:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075816-014 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:30 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.046 | 2.046 | 0.000 | 129053807 | H 35820 | 32585 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

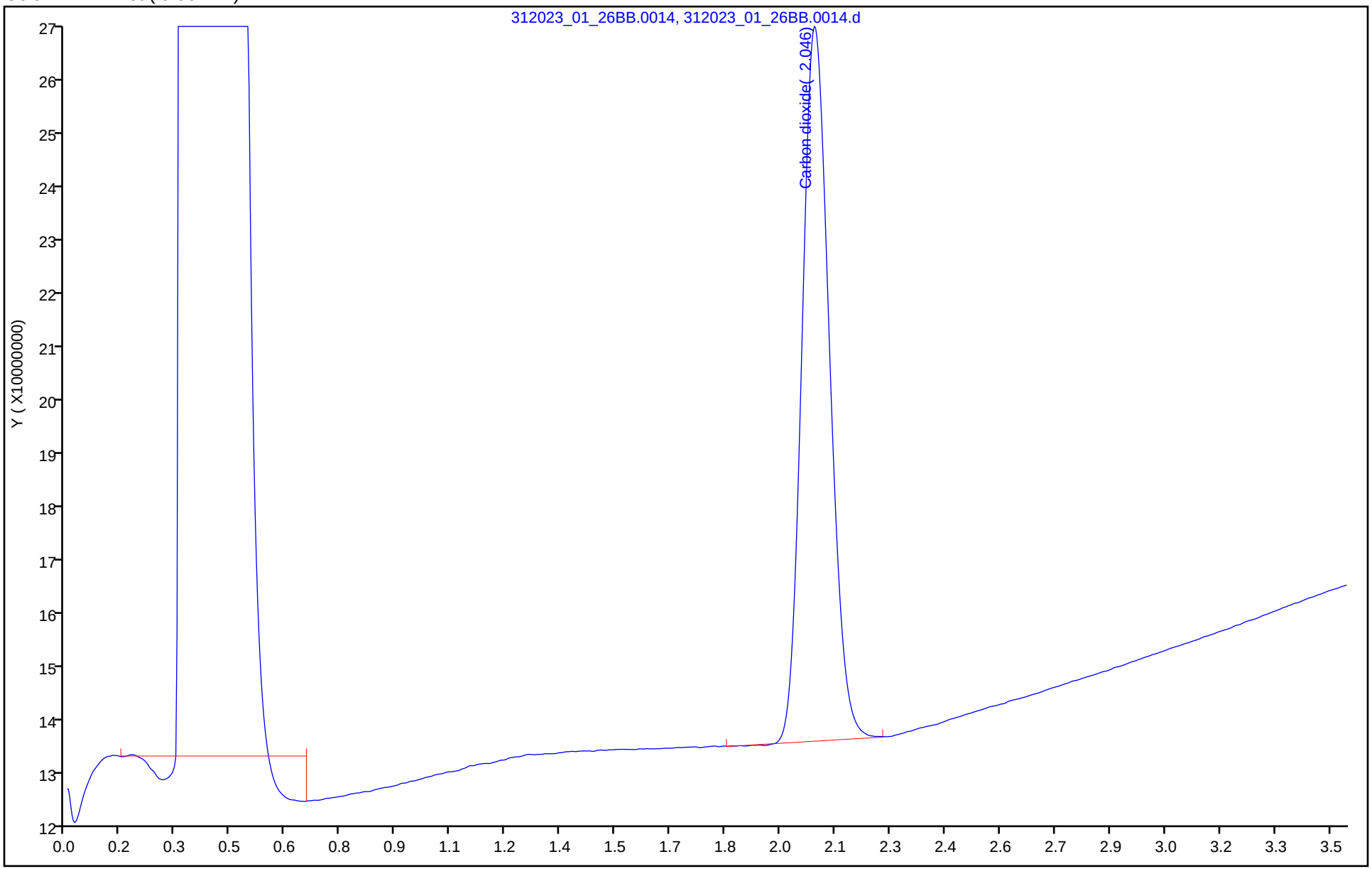
Report Date: 26-Jan-2023 12:45:30 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Jan-2023 10:00:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | ccv | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi  Job No.: 410-113311-1

SDG No.:

Lab Sample ID: CCV 410-338795/25  Calibration Date: 01/26/2023 11:54

Instrument ID: 19506-B  Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot  ID: 0.53(mm)  Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_26BB.0025.d  Conc. Units: ug/L  Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | Ave | 3961 | 3526 | | 31900 | 35800 | -11.0 | 15.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi  Job No.: 410-113311-1

SDG No.:

Lab Sample ID: CCV 410-338795/25  Calibration Date: 01/26/2023 11:54

Instrument ID: 19506-B  Calib Start Date: 12/30/2022 16:32

GC Column: HP Plot  ID: 0.53(mm)  Calib End Date: 12/30/2022 17:13

Lab File ID: 312023_01_26BB.0025.d  Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Carbon dioxide | 2.05 | 2.02 | 2.08 |

Report Date: 26-Jan-2023 12:45:34

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0025.d | | | | |
| Lims ID: | ccv | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 26-Jan-2023 11:54:00 | ALS Bottle#: | 0 | Worklist Smp#: | 25 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075816-025 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Sublist: | chrom-RSK_CO2_19506B*sub1 | | | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:34 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.047 | 2.046 | 0.001 | 126296489H | 35820 | 31889 | |

## Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

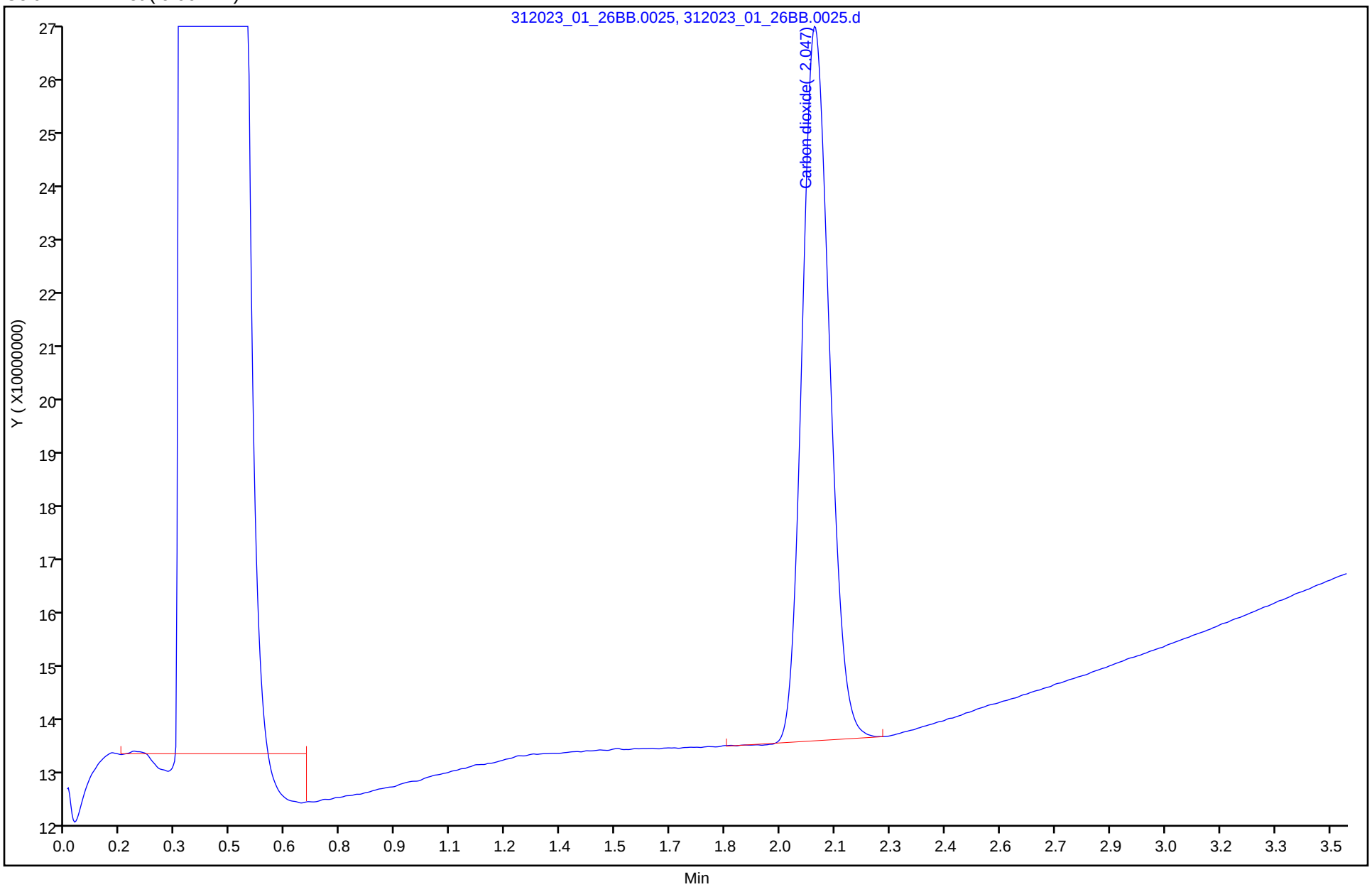
Report Date: 26-Jan-2023 12:45:34 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0025.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Jan-2023 11:54:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | ccv | | | Worklist Smp#: | 25 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 410-338826/1-A

Matrix: Water  Lab File ID: 312023_01_26BB.0006.d

Analysis Method: RSK-175  Date Collected:

Sample wt/vol: 5(mL)  Date Analyzed: 01/26/2023 08:50

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: HP Plot  ID: 0.53(mm)

Purge Volume:  Heated Purge: (Y/N) N  pH:

% Moisture:  % Solids:  Level: (low/med) Low

Analysis Batch No.: 338795  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 2600 | U | 12000 | 2600 |

Report Date: 26-Jan-2023 12:45:27

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0006.d | | | | |
| Lims ID: | MB 410-338826/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 26-Jan-2023 08:50:00 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | MB | | | | |
| Misc. Info.: | 410-0075816-006 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:25 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | | 2.046 | | | | ND | |

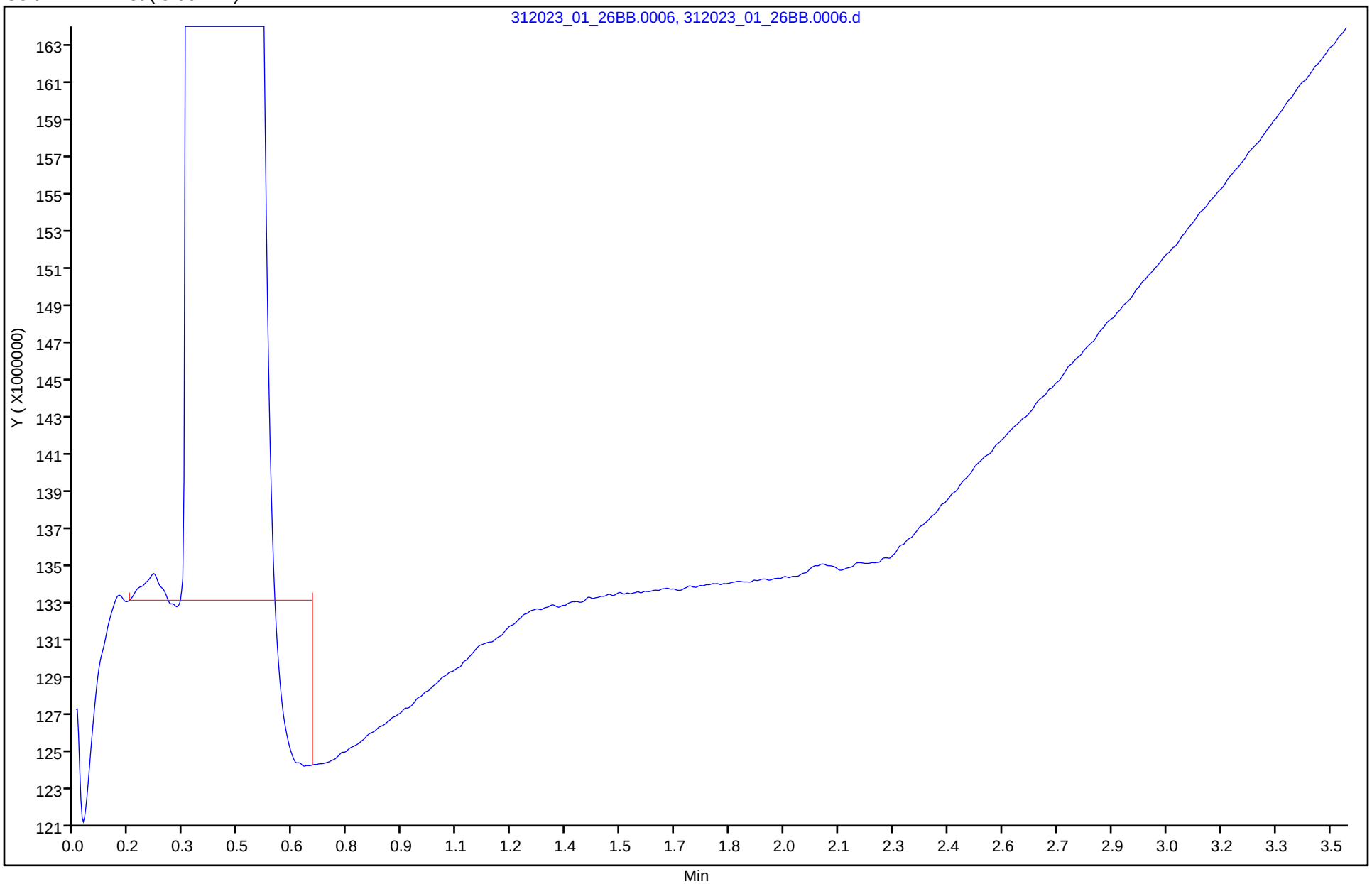
Report Date: 26-Jan-2023 12:45:27 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0006.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Jan-2023 08:50:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | MB 410-338826/1-A | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 410-338826/2-A

Matrix: Water  Lab File ID: 312023_01_26BB.0007.d

Analysis Method: RSK-175  Date Collected:

Sample wt/vol: 5(mL)  Date Analyzed: 01/26/2023 08:58

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: HP Plot  ID: 0.53(mm)

Purge Volume:  Heated Purge: (Y/N) N  pH:

% Moisture:  % Solids:  Level: (low/med) Low

Analysis Batch No.: 338795  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 31400 | | 12000 | 2600 |

Report Date: 26-Jan-2023 12:45:27

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0007.d | | | | |
| Lims ID: | LCS 410-338826/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 26-Jan-2023 08:58:00 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS | | | | |
| Misc. Info.: | 410-0075816-007 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:25 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.046 | 2.046 | 0.000 | 124293206 | H 35820 | 31383 | |

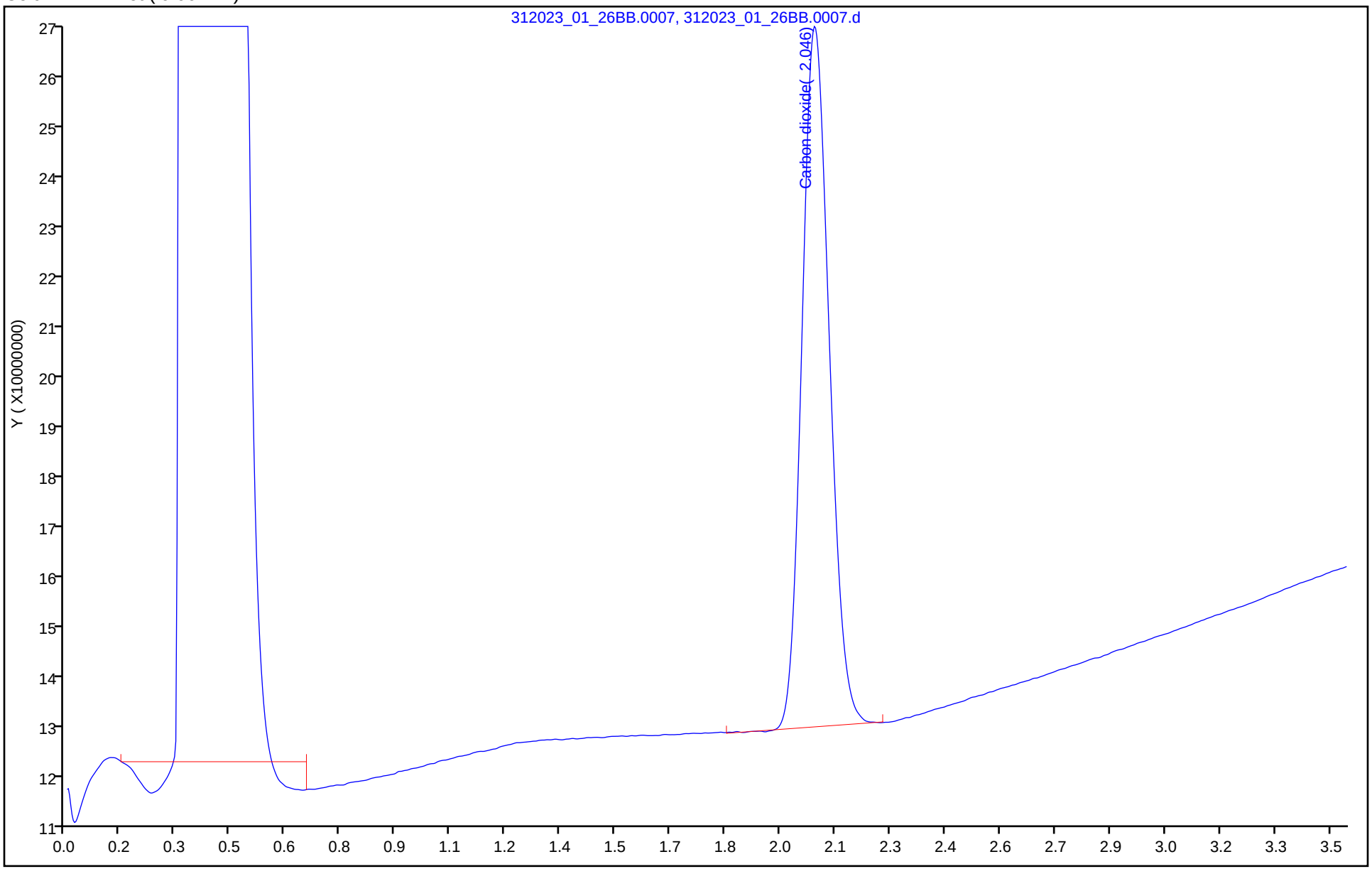
Report Date: 26-Jan-2023 12:45:27 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0007.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Jan-2023 08:58:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | LCS 410-338826/2-A | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Client Sample ID: HS23011136-04 MS  Lab Sample ID: 410-113311-4 MS

Matrix: Water  Lab File ID: 312023_01_26BB.0021.d

Analysis Method: RSK-175  Date Collected: 01/23/2023 11:35

Sample wt/vol: 5(mL)  Date Analyzed: 01/26/2023 11:24

Soil Aliquot Vol:  Dilution Factor: 10

Soil Extract Vol.:  GC Column: HP Plot  ID: 0.53(mm)

Purge Volume:  Heated Purge: (Y/N) N  pH: 7.0

% Moisture:  % Solids:  Level: (low/med) Low

Analysis Batch No.: 338795  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 785000 | D 4 | 120000 | 26000 |

Report Date: 26-Jan-2023 12:45:33

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0021.d | | | | |
| Lims ID: | 410-113311-B-4-B MS | | | | |
| Client ID: | HS23011136-04 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 26-Jan-2023 11:24:00 | ALS Bottle#: | 0 | Worklist Smp#: | 21 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075816-021 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:30 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.033 | 2.046 | -0.013 | 310727204 | H 35820 | 78457 | |

Chrom Revision: 2.3 17-Jan-2023 20:47:52

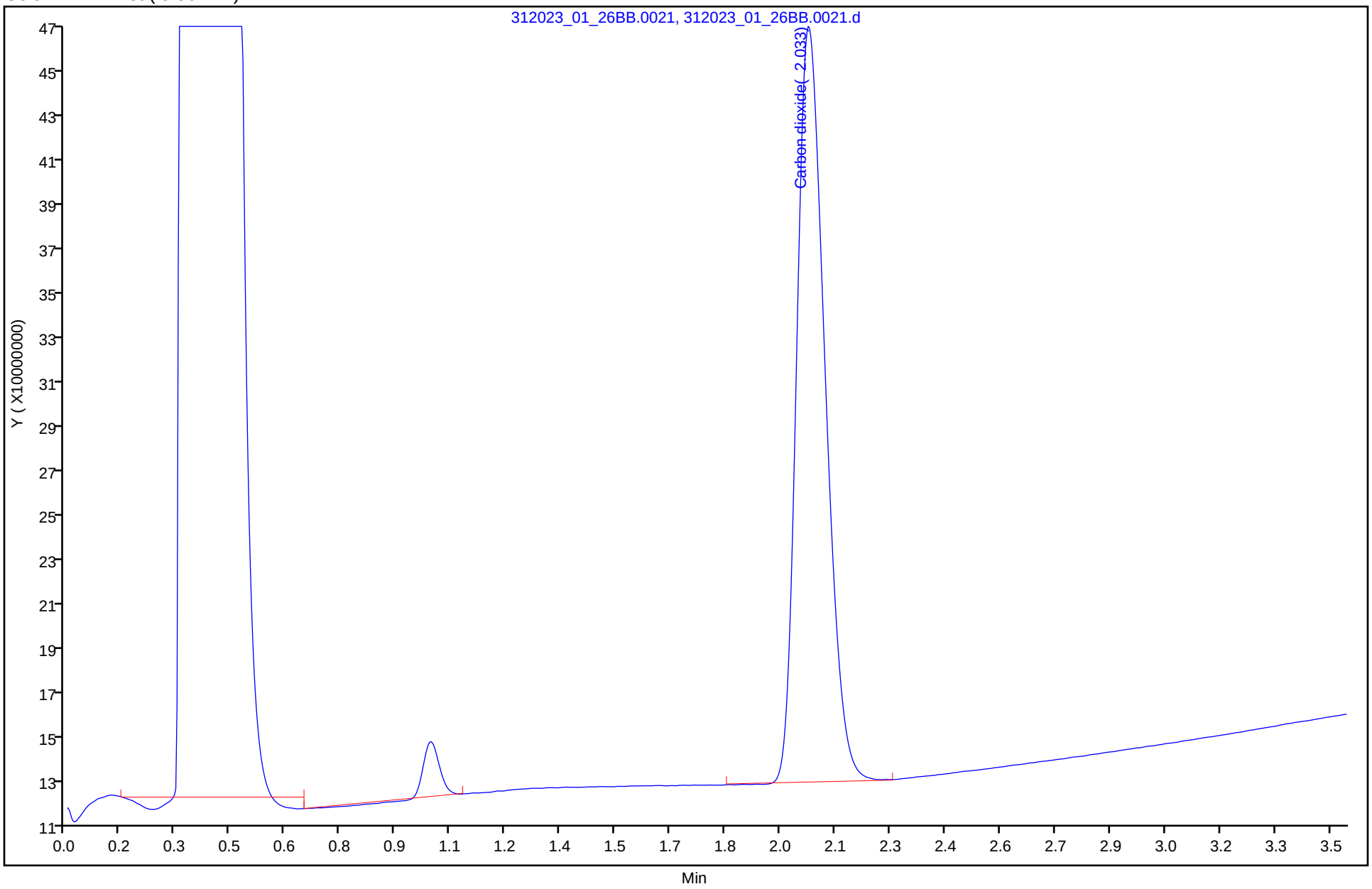
Report Date: 26-Jan-2023 12:45:33 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0021.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Jan-2023 11:24:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | 410-113311-B-4-B MS | | | Worklist Smp#: | 21 |
| Client ID: | HS23011136-04 | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC  Job No.: 410-113311-1

SDG No.:

Client Sample ID: HS23011136-04 MSD  Lab Sample ID: 410-113311-4 MSD

Matrix: Water  Lab File ID: 312023_01_26BB.0022.d

Analysis Method: RSK-175  Date Collected: 01/23/2023 11:35

Sample wt/vol: 5(mL)  Date Analyzed: 01/26/2023 11:31

Soil Aliquot Vol:  Dilution Factor: 10

Soil Extract Vol.:  GC Column: HP Plot  ID: 0.53(mm)

Purge Volume:  Heated Purge: (Y/N) N  pH: 7.0

% Moisture:  % Solids:  Level: (low/med) Low

Analysis Batch No.: 338795  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | DL |
|---|---|---|---|---|---|
| 124-38-9 | Carbon dioxide | 807000 | D 4 | 120000 | 26000 |

Report Date: 26-Jan-2023 12:45:33

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0022.d | | | | |
| Lims ID: | 410-113311-B-4-C MSD | | | | |
| Client ID: | HS23011136-04 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 26-Jan-2023 11:31:00 | ALS Bottle#: | 0 | Worklist Smp#: | 22 |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | 410-0075816-022 | | | | |
| Operator ID: | | Instrument ID: | 19506-B | | |
| Method: | \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\RSK_CO2_19506B.m | | | | |
| Limit Group: | GCV - RSK175 CO2 | | | | |
| Last Update: | 26-Jan-2023 12:45:30 | Calib Date: | 30-Dec-2022 17:05:00 | | |
| Integrator: | Genie | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19506-B\20221230-74294.b\312022_12_30B.0006.d | | | | |
| Column 1 : | HP Plot ( 0.00 mm) | | Det: 0FIDA | | |
| Process Host: | CTX1606 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Carbon dioxide | 2.033 | 2.046 | -0.013 | 319555783 | H 35820 | 80686 | |

Chrom Revision: 2.3 17-Jan-2023 20:47:52

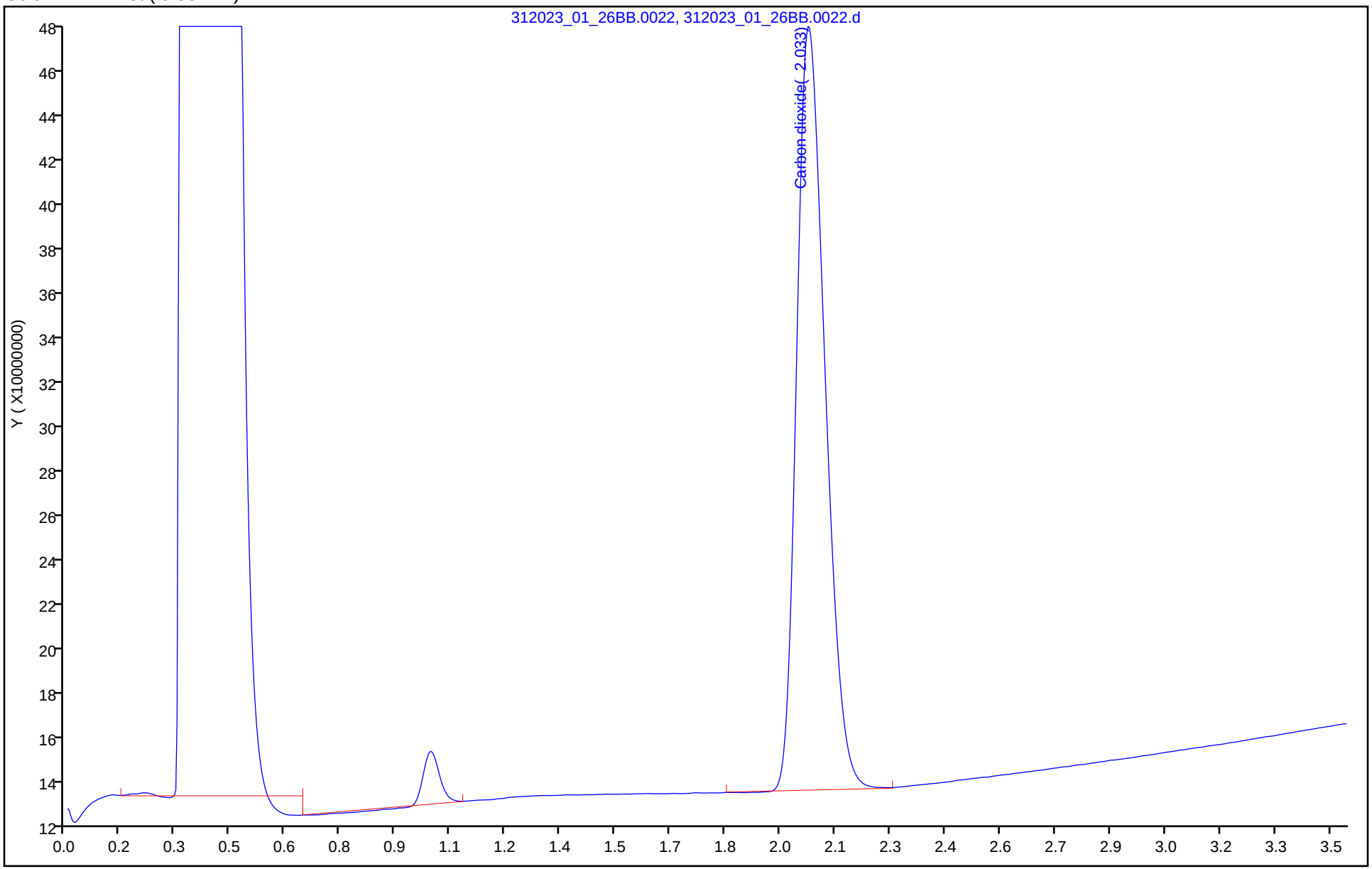
Report Date: 26-Jan-2023 12:45:33 Chrom Revision: 2.3 17-Jan-2023 20:47:52

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230126-75816.b\312023_01_26BB.0022.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Jan-2023 11:31:00 | Instrument ID: | 19506-B | Operator ID: | |
| Lims ID: | 410-113311-B-4-C MSD | | | Worklist Smp#: | 22 |
| Client ID: | HS23011136-04 | | | | |
| Purge Vol: | 1.000 mL | Dil. Factor: | 10.0000 | ALS Bottle#: | 0 |
| Method: | RSK_CO2_19506B | Limit Group: | GCV - RSK175 CO2 | | |

Column: HP Plot ( 0.00 mm)



# GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi  Job No.: 410-113311-1

SDG No.:

Instrument ID: 19506-B  Start Date: 12/30/2022 16:24

Analysis Batch Number: 331616  End Date: 12/30/2022 22:25

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| PIBLK 410-331616/1 | | 12/30/2022 16:24 | 1 | | HP Plot 0.53(mm) |
| IC 410-331616/2 | | 12/30/2022 16:32 | 1 | 312022_12_30B.0002.d | HP Plot 0.53(mm) |
| IC 410-331616/3 | | 12/30/2022 16:40 | 1 | 312022_12_30B.0003.d | HP Plot 0.53(mm) |
| ICRT 410-331616/4 | | 12/30/2022 16:48 | 1 | 312022_12_30B.0004.d | HP Plot 0.53(mm) |
| IC 410-331616/5 | | 12/30/2022 16:56 | 1 | 312022_12_30B.0005.d | HP Plot 0.53(mm) |
| IC 410-331616/6 | | 12/30/2022 17:05 | 1 | 312022_12_30B.0006.d | HP Plot 0.53(mm) |
| IC 410-331616/7 | | 12/30/2022 17:13 | 1 | | HP Plot 0.53(mm) |
| PIBLK 410-331616/8 | | 12/30/2022 17:21 | 1 | | HP Plot 0.53(mm) |
| ICVL 410-331616/9 | | 12/30/2022 17:29 | 1 | | HP Plot 0.53(mm) |
| ICV 410-331616/10 | | 12/30/2022 17:37 | 1 | 312022_12_30B.0010.d | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:10 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:17 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:26 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:33 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:41 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:48 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 18:56 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:04 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:11 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:19 | 1 | | HP Plot 0.53(mm) |
| CCV 410-331616/21 | | 12/30/2022 19:27 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:34 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:42 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:50 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 19:57 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:05 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:13 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:20 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:28 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:35 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 20:43 | 1 | | HP Plot 0.53(mm) |
| CCV 410-331616/32 | | 12/30/2022 20:51 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:03 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:11 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:20 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:28 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:36 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:44 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 21:52 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 22:01 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 22:09 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 12/30/2022 22:17 | 5 | | HP Plot 0.53(mm) |

# GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi  Job No.: 410-113311-1

SDG No.:

Instrument ID: 19506-B  Start Date: 12/30/2022 16:24

Analysis Batch Number: 331616  End Date: 12/30/2022 22:25

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 410-331616/43 | | 12/30/2022 22:25 | 1 | | HP Plot 0.53(mm) |

# GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi  Job No.: 410-113311-1

SDG No.:

Instrument ID: 19506-B  Start Date: 01/26/2023 08:28

Analysis Batch Number: 338795  End Date: 01/26/2023 11:54

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCVRT 410-338795/4 | | 01/26/2023 08:28 | 1 | 312023_01_26BB.0004.d | HP Plot 0.53(mm) |
| ICVL 410-338795/5 | | 01/26/2023 08:43 | 1 | | HP Plot 0.53(mm) |
| MB 410-338826/1-A | | 01/26/2023 08:50 | 1 | 312023_01_26BB.0006.d | HP Plot 0.53(mm) |
| LCS 410-338826/2-A | | 01/26/2023 08:58 | 1 | 312023_01_26BB.0007.d | HP Plot 0.53(mm) |
| ZZZZZ | | 01/26/2023 09:14 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 01/26/2023 09:21 | 1 | | HP Plot 0.53(mm) |
| 410-113311-1 | HS23011136-01 | 01/26/2023 09:29 | 1 | 312023_01_26BB.0010.d | HP Plot 0.53(mm) |
| 410-113311-2 | HS23011136-02 | 01/26/2023 09:37 | 1 | 312023_01_26BB.0011.d | HP Plot 0.53(mm) |
| ZZZZZ | | 01/26/2023 09:44 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 01/26/2023 09:52 | 1 | | HP Plot 0.53(mm) |
| CCV 410-338795/14 | | 01/26/2023 10:00 | 1 | 312023_01_26BB.0014.d | HP Plot 0.53(mm) |
| ZZZZZ | | 01/26/2023 10:16 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 01/26/2023 10:23 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 01/26/2023 10:31 | 1 | | HP Plot 0.53(mm) |
| ZZZZZ | | 01/26/2023 10:39 | 1 | | HP Plot 0.53(mm) |
| 410-113311-3 | HS23011136-03 | 01/26/2023 11:08 | 10 | 312023_01_26BB.0019.d | HP Plot 0.53(mm) |
| 410-113311-4 | HS23011136-04 | 01/26/2023 11:16 | 10 | 312023_01_26BB.0020.d | HP Plot 0.53(mm) |
| 410-113311-4 MS | HS23011136-04 MS | 01/26/2023 11:24 | 10 | 312023_01_26BB.0021.d | HP Plot 0.53(mm) |
| 410-113311-4 MSD | HS23011136-04 MSD | 01/26/2023 11:31 | 10 | 312023_01_26BB.0022.d | HP Plot 0.53(mm) |
| 410-113311-5 | HS23011136-05 | 01/26/2023 11:39 | 10 | 312023_01_26BB.0023.d | HP Plot 0.53(mm) |
| 410-113311-6 | HS23011136-06 | 01/26/2023 11:47 | 10 | 312023_01_26BB.0024.d | HP Plot 0.53(mm) |
| CCV 410-338795/25 | | 01/26/2023 11:54 | 1 | 312023_01_26BB.0025.d | HP Plot 0.53(mm) |

# GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie  Job No.: 410-113311-1

SDG No.:

Batch Number: 331616  Batch Start Date: 12/30/22 16:24  Batch Analyst: Patrushev, James P

Batch Method: RSK-175  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | EPH_CO2ICV 00002 | EPH_CO2MS 00004 | | |
|---|---|---|---|---|---|---|---|---|---|
| IC 410-331616/2 | | RSK-175 | | 5 mL | 5 mL | | 30 uL | | |
| IC 410-331616/3 | | RSK-175 | | 5 mL | 5 mL | | 60 uL | | |
| ICRT 410-331616/4 | | RSK-175 | | 5 mL | 5 mL | | 100 uL | | |
| IC 410-331616/5 | | RSK-175 | | 5 mL | 5 mL | | 250 uL | | |
| IC 410-331616/6 | | RSK-175 | | 5 mL | 5 mL | | 500 uL | | |
| ICV 410-331616/10 | | RSK-175 | | 5 mL | 5 mL | 0.32 mL | | | |

| Batch Notes | |
|---|---|
| | |

| Basis | Basis Description |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie  Job No.: 410-113311-1

SDG No.:

Batch Number: 338826  Batch Start Date: 01/26/23 08:16  Batch Analyst: Patrushev, James P

Batch Method: RSK-175  Batch End Date: 01/26/23 10:46

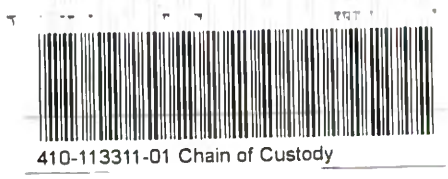
| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | Headspace | EPH_CO2MS 00004 | AnalysisComment |
|---|---|---|---|---|---|---|---|---|---|
| MB 410-338826/1 | | RSK-175, RSK-175 | | | 5 mL | 5 mL | | | |
| LCS 410-338826/2 | | RSK-175, RSK-175 | | | 5 mL | 5 mL | | 0.1 mL | |
| 410-113311-A-1 | HS23011136-01 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | | |
| 410-113311-A-2 | HS23011136-02 | RSK-175, RSK-175 | T | 6.5 SU | 5 mL | 5 mL | No | | pH 6.5 |
| 410-113311-B-3 | HS23011136-03 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | | |
| 410-113311-B-4 | HS23011136-04 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | | |
| 410-113311-B-4 MS | HS23011136-04 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | 0.1 mL | |
| 410-113311-B-4 MSD | HS23011136-04 | RSK-175, RSK-175 | T | 7 SU | 5 mL | 5 mL | No | 0.1 mL | |
| 410-113311-B-5 | HS23011136-05 | RSK-175, RSK-175 | T | 5 SU | 5 mL | 5 mL | Yes | | pH 5 >6mm headspace |
| 410-113311-B-6 | HS23011136-06 | RSK-175, RSK-175 | T | 5 SU | 5 mL | 5 mL | No | | pH5 |

| Batch Notes | |
|---|---|
| Pipette/Syringe/Dispenser ID | 7105 |
| pH Indicator ID | 10BDH1521 |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents




10450 Stancliff Rd, Ste 210
Houston, TX 77099
**T:** +1 281 530 5656
**F:** +1 281 530 5887
**www.alsglobal.com**

# Subcontract Chain of Custody

**SAMPLING STATE:** **Dept of Defense** **COC ID:** **20820**

**SUBCONTRACT TO:**

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

**Phone:** +1 717 656 2300

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | HS23011136 |
| **TSR:** | Ron Martino |

| | LAB SAMPLE ID | CLIENT SAMPLE ID | MATRIX | COLLECT DATE |
|---|---|---|---|---|
| | ANALYSIS REQUESTED | | | DUE DATE |
| 1. | **HS23011136-01** | **16WW58-230123** | **Water** | **23 Jan 2023 08:50** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 2. | **HS23011136-02** | **16WW57-230123** | **Water** | **23 Jan 2023 09:40** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 3. | **HS23011136-03** | **16IW26-230123** | **Water** | **23 Jan 2023 10:40** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 4. | **HS23011136-04** | **16IW10-230123** | **Water** | **23 Jan 2023 11:35** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 5. | **HS23011136-05** | **16IW03-230123** | **Water** | **23 Jan 2023 12:35** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 6. | **HS23011136-06** | **16IW03-230123-FD** | **Water** | **23 Jan 2023 12:35** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |

**Comments:** HS23011136-04 MS/MSD

Please analyze for the analysis listed above.
Send report to the emails shown above.

**QC Level:** DOD IV (DoD Data Package)

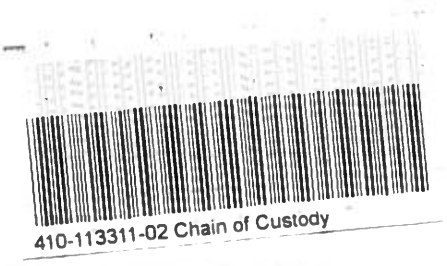
# Subcontract Chain of Custody

**SAMPLING STATE:** **Dept of Defense** **COC ID:** **20820**

Relinquished By: _____ Date/Time: 1/24/23 18:00

Received By: _____ Date/Time: 1/25/23 0958

Cooler ID(s): _____ Temperature(s): _____




10450 Stancliff Rd, Ste 210
Houston, TX 77099
**T:** +1 281 530 5656
**F:** +1 281 530 5887
**www.alsglobal.com**

# Purchase Order

**PO: HS23011136**

**VENDOR:**

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

**Phone:** +1 717 656 2300

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | 20820 |
| **TSR:** | Ron Martino |

| Item | Catalog No | Unit Price | Quantity | Ext Price |
|---|---|---|---|---|
| 1. RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | NA | | 6 | |

**Order Total:**

# Login Sample Receipt Checklist

Client: ALS Group USA, Corp

Job Number: 410-113311-1

**Login Number: 113311**
**List Number: 1**
**Creator: Ballard, Megan**

**List Source: Eurofins Lancaster Laboratories Environment Testing, LLC**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal is intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable (</=6C, not frozen). | True | |
| Cooler Temperature is recorded. | True | |
| WV: Container Temperature is acceptable (</=6C, not frozen). | N/A | |
| WV:  Container Temperature is recorded. | N/A | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| There is sufficient vol. for all requested analyses. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| Sample custody seals are intact. | N/A | |
| VOA sample vials do not have headspace >6mm in diameter (none, if from WV)? | True | |

# HS23011136-E2300079 Perchlorate Report
# Level IV

ALS WO# HS23011136

January 31, 2023 Service Request No:E2300079

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

**Laboratory Results for: HS23011136**

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory January 24, 2023
For your reference, these analyses have been assigned our service request number **E2300079.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**



James Guin

# Certificate of Analysis

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Environmental**

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request No.:** | E2300079 |
| **Project:** | HS23011136 | **Date Received:** | 01/24/23 |
| **Sample Matrix:** | Ground Water | | |

## CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

### Sample Receipt

Six samples were received for analysis at ALS Environmental in Houston on 01/24/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

### Data Validation Notes and Discussion

**Precision and Accuracy:**

EQ2300031: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch.

*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

**Client:** ALS Environmental - US **Service Request:**E2300079
**Project:** HS23011136

## SAMPLE CROSS-REFERENCE

| SAMPLE # | CLIENT SAMPLE ID | DATE | TIME |
|---|---|---|---|
| E2300079-001 | 16WW58-230123 | 1/23/2023 | 0850 |
| E2300079-002 | 16WW57-230123 | 1/23/2023 | 0940 |
| E2300079-003 | 16IW26-230123 | 1/23/2023 | 1040 |
| E2300079-004 | 16IW10-230123 | 1/23/2023 | 1135 |
| E2300079-005 | 16IW03-230123 | 1/23/2023 | 1235 |
| E2300079-006 | 16IW03-230123-FD | 1/23/2023 | 1235 |

# Service Request Summary

**Folder #:** **E2300079**
Client Name: ALS Environmental - US
Project Name: HS23011136
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/24/23
Internal Due Date: 2/7/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23011136
EDD: EQUIS
EFWEDD_LHAAP

8 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

| Lab Samp No. | Client Samp No | Matrix | Collected | HOUSTON<br>ClO4 DOD/6850 |
|---|---|---|---|---|
| E2300079-001 | 16WW58-230123 | Ground Water | 01/23/23 0850 | **IV** |
| E2300079-002 | 16WW57-230123 | Ground Water | 01/23/23 0940 | **IV** |
| E2300079-003 | 16IW26-230123 | Ground Water | 01/23/23 1040 | **IV** |
| E2300079-004 | 16IW10-230123 | Ground Water | 01/23/23 1135 | **IV** |
| E2300079-005 | 16IW03-230123 | Ground Water | 01/23/23 1235 | **IV** |
| E2300079-006 | 16IW03-230123-FD | Ground Water | 01/23/23 1235 | **IV** |

# Service Request Summary

**Folder #:** **E2300079**
Client Name: ALS Environmental - US
Project Name: HS23011136
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/24/23
Internal Due Date: 2/7/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23011136
EDD: EQUIS
EFWEDD_LHAAP

8 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

## Test Comments:

| Group | Test/Method | Samples | Comments |
|---|---|---|---|
| Semivoa GCMS | ClO4 DOD/6850 | 5 | IV Due 2/14 |
| Semivoa GCMS | ClO4 DOD/6850 | 1 | ms/msd |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| + | Possible Tedlar bag artifact. |
| A | TIC is a suspected aldol-condensation product |
| B | Analyte found in the associated method blank as well as in the sample. |
| BC | Reported results are not blank corrected. |
| BH | The back section of the tube yielded higher results than the front. |
| BT | Results indicated possible breakthrough; back section >=10% front section. |
| C | Result identification confirmed. |
| D | Compound identified in an analysis at a secondary dilution factor |
| D | Spike was diluted out |
| DE | Reported results are corrected for desorption efficiency. |
| E | Estimated value. Concentration above calibration range |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| H1 | Sample analysis performed past holding time. See case narrative. |
| H2 | Initial analysis within holding time. Reanalysis for the required dilution was past holding time. |
| H3 | Sample was received and analyzed past holding time. |
| H4 | Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative. |
| I | (Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| I | Internal standard not within the specified limits. See case narrative. |
| I | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| J | Estimated Value. Concentration found below MRL. |
| K | A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate. |
| K | Analyte was detected above the method reporting limit prior to normalization. |
| K | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| L1 | Laboratory control sample recovery outside the specified limits; results may be biased high. |
| L2 | Laboratory control sample recovery outside the specified limits; results may be biased low. |
| L3 | Laboratory control sample recovery outside the specified limits. |
| M | Matrix interference; results may be biased high. |
| M | The duplicate injection precision not met. |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| M1 | Matrix interference due to coelution with a non-target compound; results may be biased high. |
| N | Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| P | Indicates chlorodiphenyl ether interference present at the retention time of the target compound. |
| P | Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns |
| Q | Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria. |
| R | Duplicate Precision not met. |
| R1 | Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated. |
| S | Surrogate recovery not within specified limits. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| T | Analyte is a tentatively identified compound, result is estimated. |
| U | Compound was analyzed for, but was not detected (ND). |
| V1 | The continuing calibration verification standard was outside (biased high) the specified limits for this compound. |
| V2 | The continuing calibration verification standard was outside (biased low) the specified limits for this compound. |
| W | Result quantified, but the corresponding peak was detected outside the generated retention time window. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| X | See case narrative. |
| Y | Recovery outside limits |
| Y | The chromatogram resembles a petroleum product but does not match the calibration standard. |
| Z | The chromatogram does not resemble a petroleum product. |
| i | The MRL/MDL has been elevated due to a matrix interference. |

# ALS Laboratory Group

**Acronyms**

| | |
|---|---|
| Cal | Calibration |
| Conc | CONCentration |
| Dioxin(s) | Polychlorinated dibenzo-p-dioxin(s) |
| EDL | Estimated Detection Limit |
| EMPC | Estimated Maximum Possible Concentration |
| Flags | Data qualifiers |
| Furan(s) | Polychlorinated dibenzofuran(s) |
| g | Grams |
| ICAL | Initial CALibration |
| ID | IDentifier |
| Ions | Masses monitored for the analyte during data acquisition |
| L | Liter (s) |
| LCS | Laboratory Control Sample |
| DLCS | Duplicate Laboratory Control Sample |
| MB | Method Blank |
| MCL | Method Calibration Limit |
| MDL | Method Detection Limit |
| mL | Milliliters |
| MS | Matrix Spiked sample |
| DMS | Duplicate Matrix Spiked sample |
| NO | Number of peaks meeting all identification criteria |
| PCDD(s) | Polychlorinated dibenzo-p-dioxin(s) |
| PCDF(s) | Polychlorinated dibenzofuran(s) |
| ppb | Parts per billion |
| ppm | Parts per million |
| ppq | Parts per quadrillion |
| ppt | Parts per trillion |
| QA | Quality Assurance |
| QC | Quality Control |
| Ratio | Ratio of areas from monitored ions for an analyte |
| % Rec. | Percent recovery |
| RPD | Relative Percent Difference |
| RRF | Relative Response Factor |
| RT | Retention Time |
| SDG | Sample Delivery Group |
| S/N | Signal-to-noise ratio |
| TEF | Toxicity Equivalence Factor |
| TEQ | Toxicity Equivalence Quotient |

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

## State Certifications, Accreditations, and Licenses

| Agency | Number | Expire Date |
|---|---|---|
| Arizona Department of Health Services | AZ0793 | 5/27/2023 |
| Arkansas Department of Environmental Quality | 22-041-0 | 3/27/2023 |
| California Department of Health Services | 2919-2023 | 4/30/2023 |
| Department of Defense | L22-90 | 3/31/2024 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Hawaii Department of Health | 2022 | 4/30/2023 |
| Illinois Environmental Protection Agency | 2000322022-9 | 5/9/2023 |
| Kansas Department of Health and Environment | E-10352 2022-2023 | 7/31/2023 |
| Louisiana Department of Environmental Quality | 03087-2022 | 6/30/2023 |
| Louisiana Department of Health and Hospitals | LA028-2023 | 12/31/2023 |
| Maine Department of Health and Human Services | 2022017 | 6/5/2024 |
| Maryland Department of the Environment | 343 | 6/30/2023 |
| Michigan Depratment of Environmental Quality | 9971-2022 | 4/30/2023 |
| Minnesota Department of Health | 2368363 | 12/31/2023 |
| Nebraska Department of Health and Human Services | NE-OS-25-13 | 4/30/2023 |
| Nevada Department of Conservation and Natural Resources | TX026932023-1 | 7/31/2023 |
| New Hampshire Environmental Laboratory Accreditation Program | 209422 | 4/24/2023 |
| New Jersey Department of Environmental Protection | TX008-2023 | 6/30/2023 |
| New York Department of Health | 11707 | 3/31/2023 |
| Oklahoma Department of Environmental Quality | 2022-141 | 8/31/2023 |
| Oregon Environmental Laboratory Accreditation Program | TX200002 | 5/15/2023 |
| Pennsylvania Department of Environmental Protection | 68-03441-016 | 6/30/2023 |
| Perry Johnson Laboratory Accreditation | L22-91 | 3/31/2024 |
| Tennessee Department of Environment and Concervation | 04016-2022 | 4/30/2023 |
| Texas Commision on Environmental Quality | T104704231-22-29 | 4/30/2023 |
| Utah Department of Health Environmental Laboratory Certification | TX026932022-13 | 7/31/2023 |
| Washington Department of Ecology | C819-22 | 11/14/2023 |

# Chain of Custody

**ALS Environmental - Houston HRMS**
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Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

# Subcontract Chain of Custody

**SAMPLING STATE:** Dept of Defense **COC ID:** 20818

**SUBCONTRACT TO:**

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

**Phone:** +1 281 530 5656

ALS copy

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | HS23011136 |
| **TSR:** | Ron Martino |

| | LAB SAMPLE ID | CLIENT SAMPLE ID | MATRIX | COLLECT DATE |
|---|---|---|---|---|
| | ANALYSIS REQUESTED | | | DUE DATE |
| 1. | **HS23011136-01** | **16WW58-230123** | **Water** | **23 Jan 2023 08:50** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 2. | **HS23011136-02** | **16WW57-230123** | **Water** | **23 Jan 2023 09:40** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 3. | **HS23011136-03** | **16IW26-230123** | **Water** | **23 Jan 2023 10:40** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 4. | **HS23011136-04** | **16IW10-230123** | **Water** | **23 Jan 2023 11:35** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 5. | **HS23011136-05** | **16IW03-230123** | **Water** | **23 Jan 2023 12:35** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 6. | **HS23011136-06** | **16IW03-230123-FD** | **Water** | **23 Jan 2023 12:35** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |

**Comments:** HS23011136-04 MS/MSD

Please analyze for the analysis listed above.
Send report to the emails shown above.

# Subcontract Chain of Custody

**SAMPLING STATE:** Dept of Defense **COC ID:** 20818

**QC Level:** DOD IV (DoD Data Package)

Relinquished By: NR Date/Time:

Received By: Date/Time: 1-29-25 1710

Cooler ID(s): Temperature(s):

ALS Environmental

# Cooler Receipt Form

Project Chemist JG

Client/Project ALS

Thermometer ID IR31

Date/Time Received: 1-24-23 Initials: CG Date/Time Logged in: 1-24-23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ Courier (ALS) ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No
   Were they intact? ○ Yes ○ No ☒ N/A
   Were they signed and dated? ○ Yes ○ No ☒ N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

| Cooler Tracking Number | COC ID | Date Opened | Time Opened | Opened By | Temp. °C | Temp Blank? |
|---|---|---|---|---|---|---|
| NA | | 1-24-23 | 1700 | CG | 3.3 | ☒ |
| | | | | | | ☐ |
| | | | | | | ☐ |
| | | | | | | ☐ |

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No
10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
**T:** +1 713 266 1599
**F:** +1 713 266 1599
**www.alsglobal.com**

# SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

**Cooler Custody Seals (desirable, mandatory if specified in SAP):**

- ✓ Intact on outside of cooler, signed and dated

**Chain-of-Custody (COC) documentation (mandatory):**

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

**Sample Integrity (mandatory):**

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

**Temperature Requirement (varies by sample matrix):**

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

# Preparation Information Benchsheets

**ALS Environmental - Houston HRMS**
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# *Preparation Information Benchsheet*

**Prep Run#:** 413623 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/27/23 09:20

| # | Lab Code | Client ID | B# | Method /Test | pH | Cl | Matrix | Amt. Ext. | Sample Description |
|---|---|---|---|---|---|---|---|---|---|
| 1 | E2300079-001 | 16WW58-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 2 | E2300079-002 | 16WW57-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 3 | E2300079-003 | 16IW26-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 4 | E2300079-004 | 16IW10-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 5 | E2300079-005 | 16IW03-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 6 | E2300079-006 | 16IW03-230123-FD | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 7 | E2300081-001 | RSA-195-OVB-02-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 8 | E2300081-002 | RSA-195-OVB-01-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 9 | E2300081-003 | RSA-EB-01-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 10 | E2300081-004 | RSA-FB-01-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 11 | E2300082-001 | RSA-095-OVB-01 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 12 | E2300082-002 | RSA-095-OVB-02 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 13 | E2300082-003 | RSA-095-OVB-03 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 14 | E2300082-004 | RSA-DB-01 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 15 | E2300084-001 | MOSA-23-267966 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 16 | E2300084-002 | MOSA-23-267971 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 17 | E2300084-003 | MOSA-23-267967 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 18 | E2300084-004 | MOSA-23-267972 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 19 | EQ2300031-01 | MB | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 20 | EQ2300031-02 | LCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 21 | EQ2300031-03 | DLCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 22 | EQ2300031-04 | 16IW10-230123 MS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 23 | EQ2300031-05 | 16IW10-230123 DMS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 24 | EQ2300031-06 | RSA-095-OVB-01 MS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 25 | EQ2300031-07 | RSA-095-OVB-01 DMS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 26 | R2300559-004 | 2301190900 B655-EFF-2 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 27 | R2300559-009 | 2301190920 B655-INF-2 | .01 | 6850/ClO4 | | | Water | 10mL | |

**Spiking Solutions**

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EQ2300031-01 | 100.00µL | EQ2300031-01 | 100.00µL | EQ2300031-02 | 100.00µL | EQ2300031-02 | 100.00µL | EQ2300031-03 | 100.00µL | EQ2300031-03 | 100.00µL |
| EQ2300031-04 | 100.00µL | EQ2300031-05 | 100.00µL | EQ2300031-06 | 100.00µL | EQ2300031-07 | 100.00µL | | | | |

# *Preparation Information Benchsheet*

**Prep Run#:** 413623 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/27/23 09:20

| Name: | Perchlorate Intermediate Stock1 | Inventory ID | 227236 | Logbook Ref: | Perchlorate (1st Source) | Expires On: | 07/31/2023 |
|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EQ2300031-02 | 1.00µL | EQ2300031-02 | 1.00µL | EQ2300031-03 | 1.00µL | EQ2300031-03 | 1.00µL | EQ2300031-04 | 1.00µL | EQ2300031-05 | 1.00µL |
| EQ2300031-06 | 1.00µL | EQ2300031-07 | 1.00µL | | | | | | | | |

## Preparation Materials

| | | | | | |
|---|---|---|---|---|---|
| Water HPLC Grade | 01/04/2023 Water (226857) | 6850 Amber Glass screw vial | 2mL Screw Top Vial (221894) | 6850 0.45um syringe filters | 6850 Syringe Filters (224414) |
| 6850 Luer-Lok Syringes | Luer-Lok Syringes (221305) | 6850 Pipette Tips 50-1000 uL | 6850 Pipette Tips (221929) | | |

## Preparation Steps

Step: Preparation
Started: 1/27/23 09:20
Finished: 1/30/23 11:50
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 01/27/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

# Analytical Results

**ALS Environmental - Houston HRMS**
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Phone (713)266-1599 Fax (713)266-0130
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**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 0850 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16WW58-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-001 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0371** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:48 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 0940 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16WW57-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-002 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:53 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1040 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW26-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-003 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:59 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1135 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-004 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 13:05 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1235 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW03-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-005 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 13:11 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1235 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW03-230123-FD | **Units:** | µg/L |
| **Lab Code:** | E2300079-006 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 15:06 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-01 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 11:47 | 413623 | 792992 | |

# Accuracy & Precision

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**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23011136
**Sample Matrix:** Ground Water

**Service Request:** E2300079
**Date Analyzed:** 1/30/23

## Lab Control Sample Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**Prep Method:** Method

**Units:** µg/L
**Basis:** NA

**Extraction Lot:** 413623

| | Lab Control Sample EQ2300031-02 | | | Duplicate Lab Control Sample EQ2300031-03 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Perchlorate | 0.118 | 0.100 | 118 | 0.118 | 0.100 | 118 | 84 - 119 | <1 | 15 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-02 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.118** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 11:52 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Duplicate Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-03 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.118** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:07 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| | | **Date Analyzed:** | 1/30/23 |

**Matrix Spike Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-004 | **Basis:** | NA |

**Analytical Method:** 6850
**Prep Method:** Method

| | | 16IW10-230123MS | | | 16IW10-230123DMS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **Matrix Spike** | | | **Duplicate Matrix Spike** | | | | | |
| | | EQ2300031-04 | | | EQ2300031-05 | | | | | |
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Perchlorate | ND | 0.0916 | 0.100 | 92 | 0.104 | 0.100 | 104 | 84 - 119 | 13 | 15 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1135 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-04 | **Basis:** | NA |
| **Run Type:** | Matrix Spike | | |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0916** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:36 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1135 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-05 | **Basis:** | NA |
| **Run Type:** | Duplicate Matrix Spike | | |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.104** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:42 | 413623 | 792992 | |

# Initial Calibration

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**20221214**

# Injection Log

LCMS01 -Shimadzu 8050

**1st Review:** XMI
**2nd Review:** Kneir

**ICAL Date:** 12/14/2022
**Cal. Std. xp:** 01/31/2023
**ICAL ID:** EC2200016

**Mobile Phases :** **A:**0.10% Formic Acid/Water 3210301-08 **B:**MeOH 224417

| | Sample Name | | File Name | Acquisition Method | Dilution | R | Comments | Date/Time |
|---|---|---|---|---|---|---|---|---|
| 1 | IB | | 20221214_001 | Perchlorate6850c.lcm | 1x | ☒ | | 12/14/2022 15:12 |
| 2 | ICS | | 20221214_002 | Perchlorate6850c.lcm | 1x | ☒ | | 12/14/2022 15:29 |
| 3 | LODV | | 20221214_003 | Perchlorate6850c.lcm | 1x | ☒ | | 12/14/2022 15:35 |
| 4 | PERCHLORATE1 | | 20221214_004 | Perchlorate6850c.lcm | 1x | ☒ | 226061 | 12/14/2022 15:40 |
| 5 | PERCHLORATE2 | | 20221214_005 | Perchlorate6850c.lcm | 1x | ☒ | 226062 | 12/14/2022 15:46 |
| 6 | PERCHLORATE3 | | 20221214_006 | Perchlorate6850c.lcm | 1x | ☒ | 226063 | 12/14/2022 15:51 |
| 7 | PERCHLORATE4 | | 20221214_007 | Perchlorate6850c.lcm | 1x | ☒ | 226064 | 12/14/2022 15:57 |
| 8 | PERCHLORATE5 | | 20221214_008 | Perchlorate6850c.lcm | 1x | ☒ | 226065 | 12/14/2022 16:02 |
| 9 | PERCHLORATE6 | | 20221214_009 | Perchlorate6850c.lcm | 1x | ☒ | 226066 | 12/14/2022 16:09 |
| 10 | PERCHLORATE7 | | 20221214_010 | Perchlorate6850c.lcm | 1x | ☒ | 225881 | 12/14/2022 16:15 |
| 11 | PERCHLORATE8 | | 20221214_011 | Perchlorate6850c.lcm | 1x | ☒ | 226068 | 12/14/2022 16:20 |
| 12 | PERCHLORATE9 | | 20221214_012 | Perchlorate6850c.lcm | 1x | ☒ | 226069 | 12/14/2022 16:25 |
| 13 | PERCHLORATE10 | | 20221214_013 | Perchlorate6850c.lcm | 1x | ☒ | 226070 | 12/14/2022 16:31 |
| 14 | PERCHLORATEICV | | 20221214_014 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 12/14/2022 16:37 |

# *Initial Calibration - Detailed Report*

**Calibration ID:** EC2200016 **Instrument ID:** E-LCMS-01
**Column Name:** 1

| # | Lab Code | Sample Name | File Location | Aquisition Date |
|---|---|---|---|---|
| 01 | EC2200016-01 | PERCHLORATE1 | 20221214_004 | 12/14/2022 15:40 |
| 02 | EC2200016-02 | PERCHLORATE2 | 20221214_005 | 12/14/2022 15:46 |
| 03 | EC2200016-03 | PERCHLORATE3 | 20221214_006 | 12/14/2022 15:51 |
| 04 | EC2200016-04 | PERCHLORATE4 | 20221214_007 | 12/14/2022 15:57 |
| 05 | EC2200016-05 | PERCHLORATE5 | 20221214_008 | 12/14/2022 16:02 |
| 06 | EC2200016-06 | PERCHLORATE6 | 20221214_009 | 12/14/2022 16:09 |
| 07 | EC2200016-07 | PERCHLORATE7 | 20221214_010 | 12/14/2022 16:15 |
| 08 | EC2200016-08 | PERCHLORATE8 | 20221214_011 | 12/14/2022 16:20 |
| 09 | EC2200016-09 | PERCHLORATE9 | 20221214_012 | 12/14/2022 16:25 |
| 10 | EC2200016-10 | PERCHLORATE10 | 20221214_013 | 12/14/2022 16:31 |

**Analyte** **Curve Fit** **Weighting**

**Perchlorate** **Average RF** **RSD = 2.927** **Average RF = 0.1567**

| # | Amount | RF | # | Amount | RF | # | Amount | RF | # | Amount | RF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 0.1000 | 0.1615 | 02 | 0.5000 | 0.1479 | 03 | 0.7000 | 0.1579 | 04 | 1.0000 | 0.1573 |
| 05 | 2.0000 | 0.1505 | 06 | 5.0000 | 0.1573 | 07 | 10.0000 | 0.1541 | 08 | 20.0000 | 0.162 |
| 09 | 30.0000 | 0.1598 | 10 | 50.0000 | 0.1587 | | | | | | |

**Analyte**

**Perchlorate** RSE = 2.93

| # | Amount | Calculated Conc | %D | # | Amount | Calculated Conc | %D | # | Amount | Calculated Conc | %D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 0.1000 | 0.103 | 3.1 | 02 | 0.5000 | 0.472 | -5.6 | 03 | 0.7000 | 0.705 | 0.8 |
| 04 | 1.0000 | 1.00 | 0.4 | 05 | 2.0000 | 1.92 | -3.9 | 06 | 5.0000 | 5.02 | 0.4 |
| 07 | 10.0000 | 9.83 | -1.7 | 08 | 20.0000 | 20.7 | 3.4 | 09 | 30.0000 | 30.6 | 2.0 |
| 10 | 50.0000 | 50.6 | 1.3 | | | | | | | | |

# *Initial Calibration Verification Summary Report*

| | | | |
|---|---|---|---|
| **Calibration ID:** | EC2200016 | **Instrument ID:** | E-LCMS-01 |
| **Datafile ID:** | 20221214_014 | **Column Name:** | 1 |

| Analyte | Lab Code | Type | Curve Fit | True Value | Calc Conc | Units | Result | Criteria |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | EC2200016-11 | T | Average RF | 10 | 9.359 | ng/mL | -6.4 | <= 15 |

# Insight Report

Printed at 12/15/2022 10:55:51 AM

Method File: I:\LCMS01\DATA\20221013ICAL\20221013ICAL.lcm
Project File: I:\LCMS01\DATA\20221214\12142022 ICAL.damlp

## PERCHLORATE1

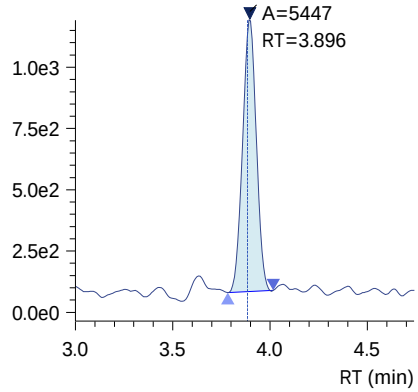
Sample ID: PERCHLORATE1
Date Acquired: 12/14/2022 3:40:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_004.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.896 | 5447 | 337240 | 0.1031 | ng/mL | 101.00<br>>85.00 | 35.31 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.889 | 337240 | 337240 | 1.0000 | ng/mL | ---- | ---- | |

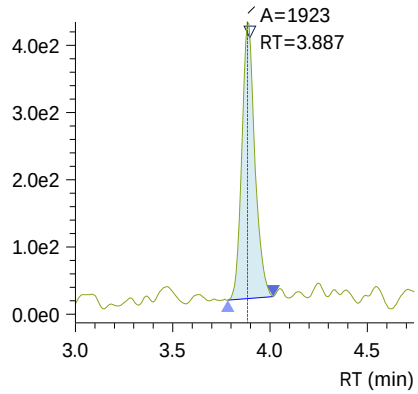
### Perchlorate

Conc 0.1031
R#1 35.31 (34.02)

Q 99.00>83.00 (-) 1.19e3



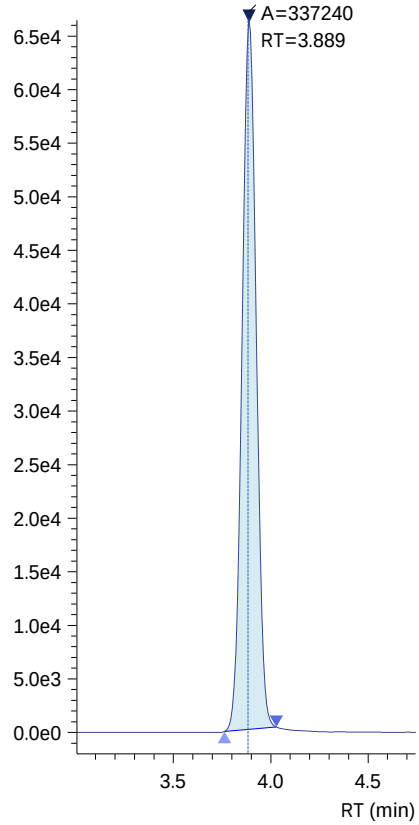

R1 101.00>85.00 (-) 4.35e2




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.65e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

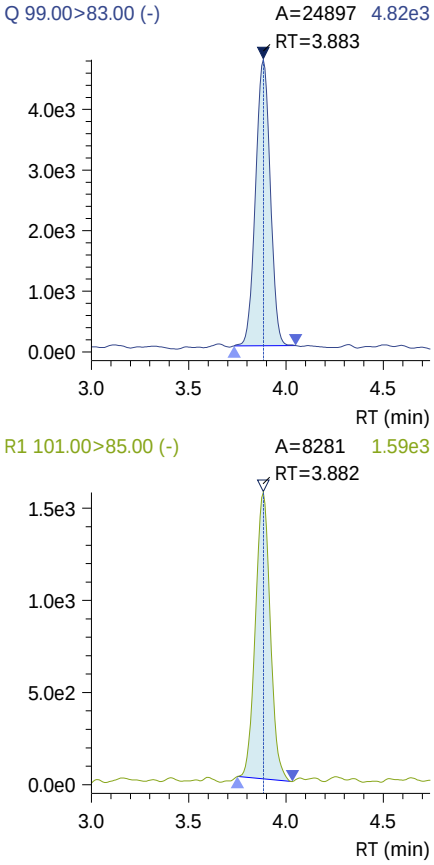
## PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 12/14/2022 3:46:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_005.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.883 | 24897 | 336620 | 0.4720 | ng/mL | 101.00<br>>85.00 | 33.26 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4 _IS | Auto | 3.878 | 336620 | 336620 | 1.0000 | ng/mL | ---- | ---- | |

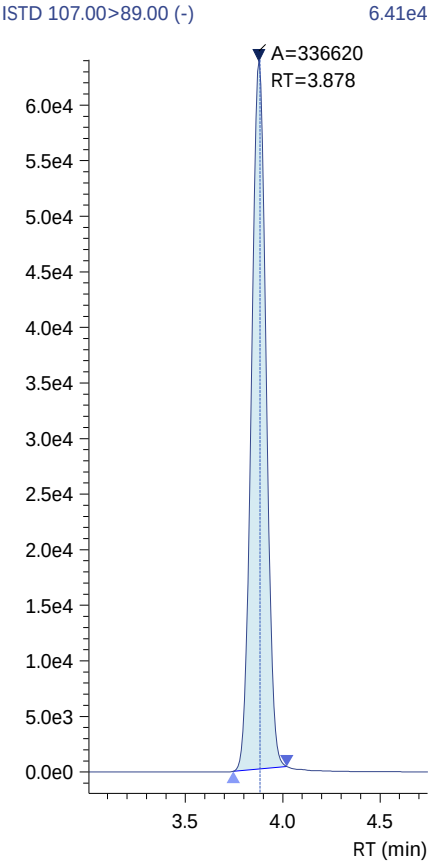
### Perchlorate

Conc 0.4720
R#1 33.26 (34.02)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 12/15/2022 10:55:51 AM

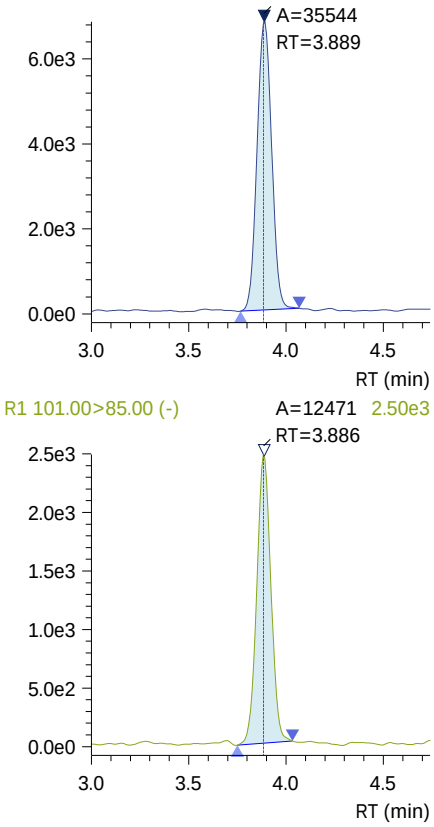
## PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 12/14/2022 3:51:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_006.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.889 | 35544 | 321596 | 0.7053 | ng/mL | 101.00<br>>85.00 | 35.09 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.885 | 321596 | 321596 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc 0.7053
R#1 35.09 (34.02)

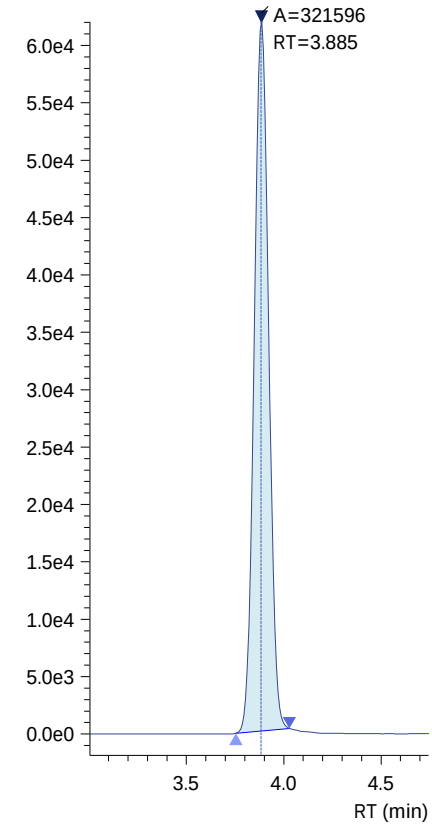






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE4

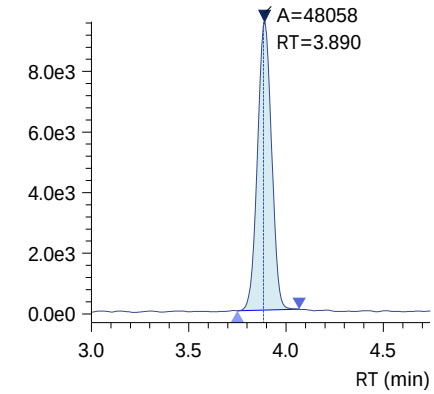
Sample ID: PERCHLORATE4
Date Acquired: 12/14/2022 3:57:06 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_007.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.890 | 48058 | 305584 | 1.0036 | ng/mL | 101.00<br>>85.00 | 33.87 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.886 | 305584 | 305584 | 1.0000 | ng/mL | ---- | ---- | |

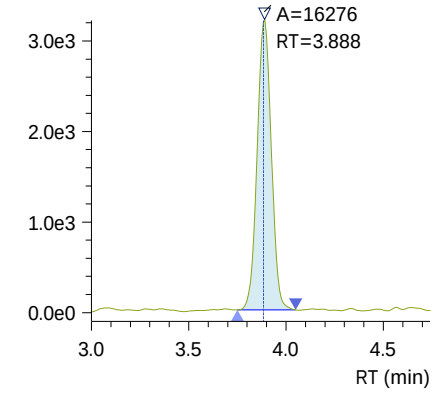
### Perchlorate

Conc 1.0036
R#1 33.87 (34.02)

Q 99.00>83.00 (-) 9.64e3



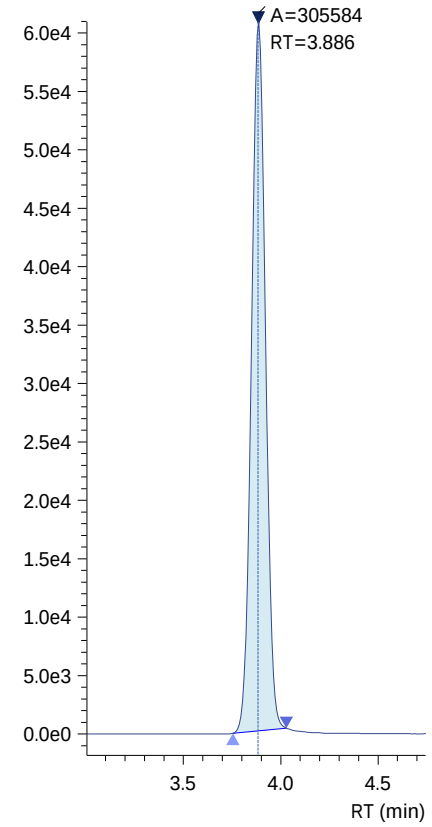

R1 101.00>85.00 (-) 3.23e3




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.10e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE5

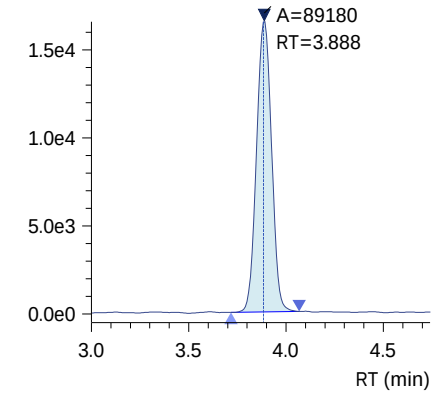
Sample ID: PERCHLORATE5
Date Acquired: 12/14/2022 4:02:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_008.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.888 | 89180 | 296200 | 1.9213 | ng/mL | 101.00<br>>85.00 | 32.32 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4 _IS | Auto | 3.885 | 296200 | 296200 | 1.0000 | ng/mL | ---- | ---- | |

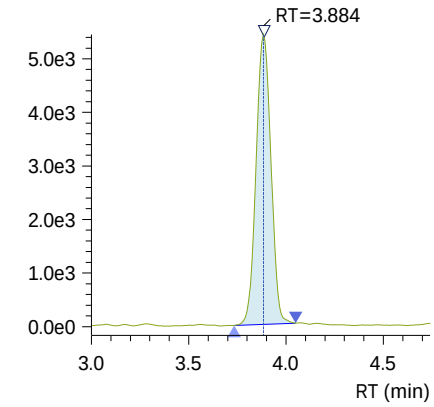
### Perchlorate

Conc 1.9213
R#1 32.32 (34.02)

Q 99.00>83.00 (-) 1.66e4



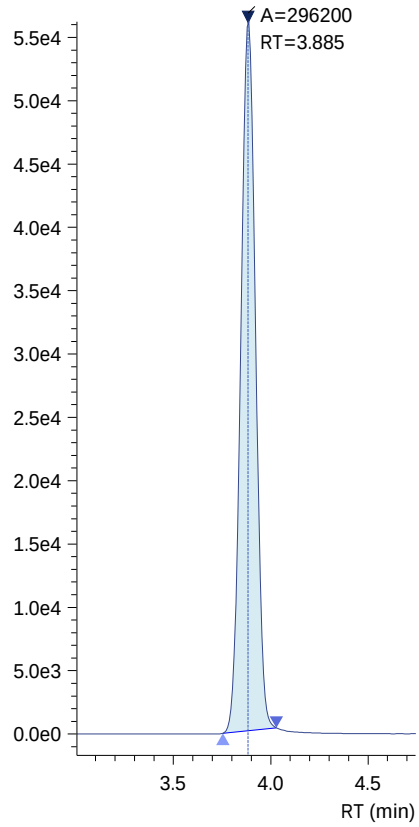

R1 101.00>85.00 (-) A=28822 5.45e3




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.62e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE6

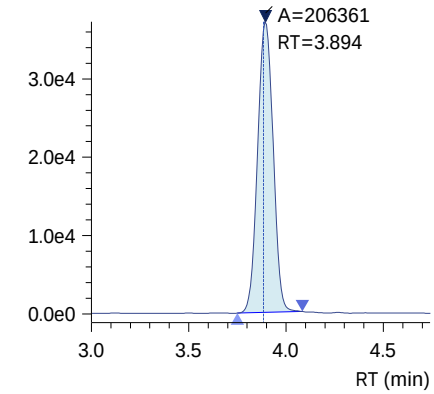
Sample ID: PERCHLORATE6
Date Acquired: 12/14/2022 4:09:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_009.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.894 | 206361 | 262312 | 5.0202 | ng/mL | 101.00 >85.00 | 33.93 | 23.94 -44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.889 | 262312 | 262312 | 1.0000 | ng/mL | ---- | ---- | |

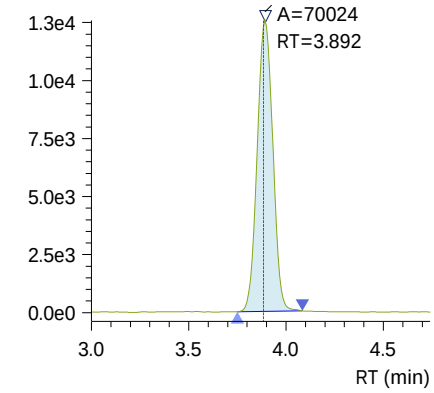
### Perchlorate

Conc 5.0202
R#1 33.93 (34.02)

Q 99.00>83.00 (-) 3.73e4



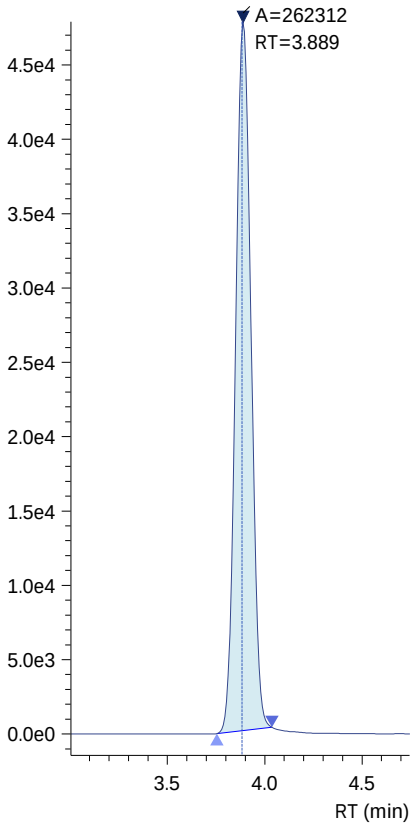

R1 101.00>85.00 (-) 1.26e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.79e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE7

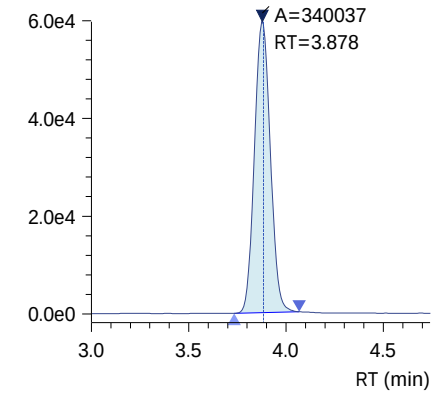
Sample ID: PERCHLORATE7
Date Acquired: 12/14/2022 4:15:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_010.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.878 | 340037 | 220702 | 9.8317 | ng/mL | 101.00 >85.00 | 34.05 | 23.94 -44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.875 | 220702 | 220702 | 1.0000 | ng/mL | ---- | ---- | |

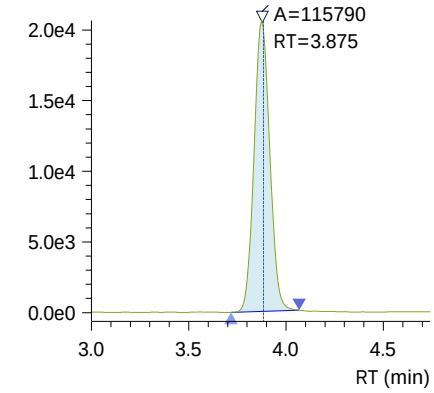
### Perchlorate

Conc 9.8317
R#1 34.05 (34.02)

Q 99.00>83.00 (-) 5.98e4



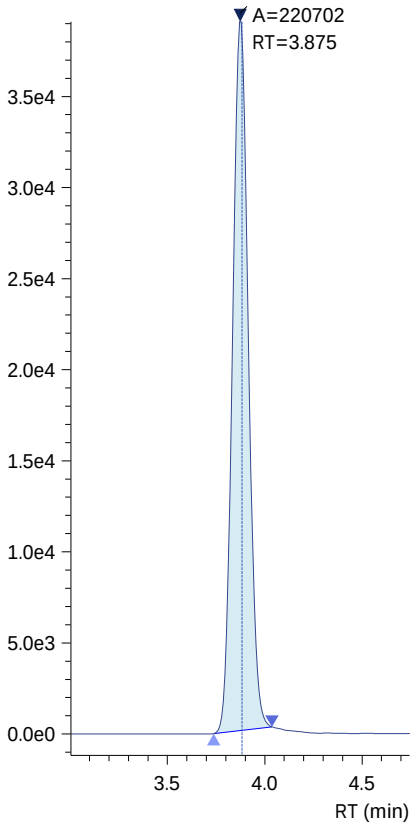

R1 101.00>85.00 (-) 2.07e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.91e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE8

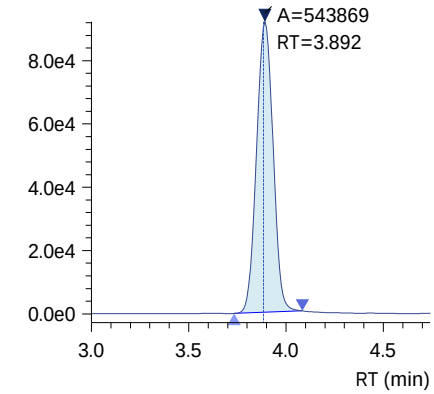
Sample ID: PERCHLORATE8
Date Acquired: 12/14/2022 4:20:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_011.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.892 | 5438<br>69 | 167819 | 20.6<br>806 | ng/mL | 101.00<br>>85.00 | 33.45 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.888 | 1678<br>19 | 167819 | 1.0000 | ng/mL | ---- | ---- | |

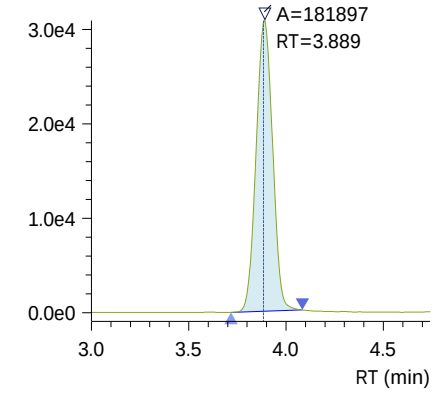
### Perchlorate

Conc 20.6806
R#1 33.45 (34.02)

Q 99.00>83.00 (-) 9.23e4



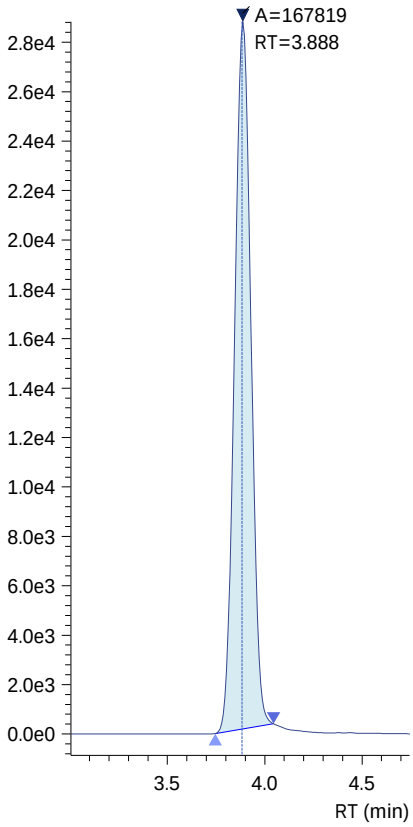

R1 101.00>85.00 (-) 3.09e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.88e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE9

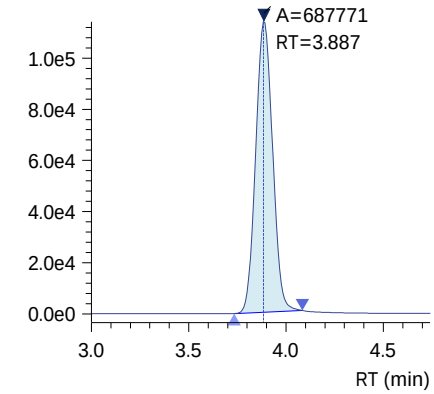
Sample ID: PERCHLORATE9
Date Acquired: 12/14/2022 4:25:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_012.lcd
Vial: 9 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.887 | 687771 | 143493 | 30.5860 | ng/mL | 101.00 >85.00 | 33.79 | 23.94 -44.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.883 | 143493 | 143493 | 1.0000 | ng/mL | ---- | ---- | |

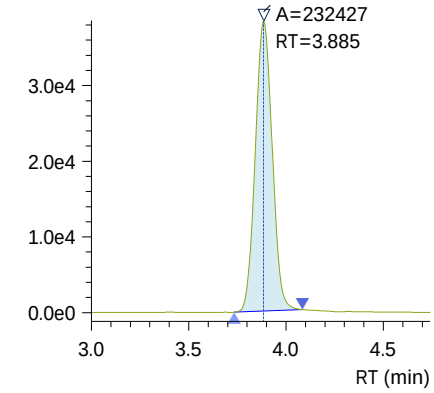
### Perchlorate

Conc 30.5860
R#1 33.79 (34.02)

Q 99.00>83.00 (-) 1.14e5



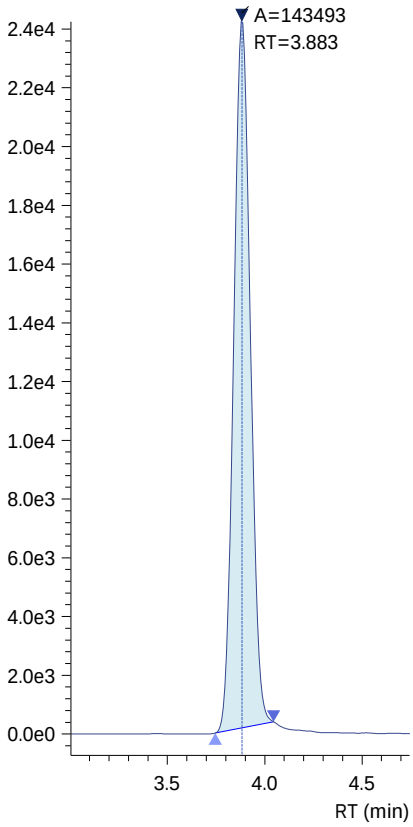

R1 101.00>85.00 (-) 3.86e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.43e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

## PERCHLORATE10

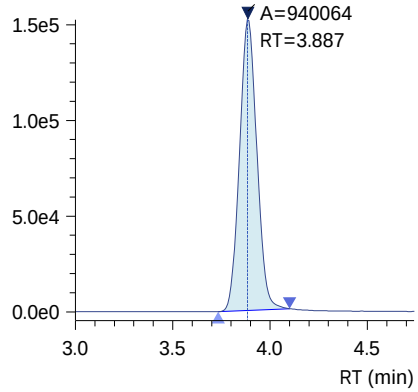
Sample ID: PERCHLORATE10
Date Acquired: 12/14/2022 4:31:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_013.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.887 | 9400<br>64 | 118445 | 50.6<br>464 | ng/mL | 101.00<br>>85.00 | 33.39 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4 _IS | Auto | 3.883 | 1184<br>45 | 118445 | 1.0000 | ng/mL | ---- | ---- | |

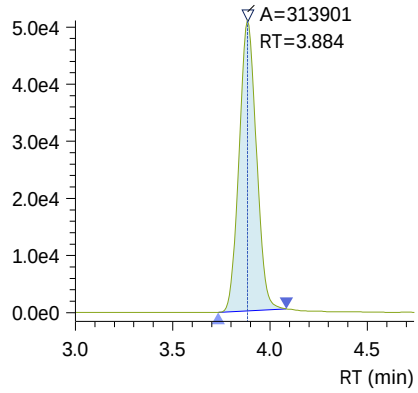
### Perchlorate

Conc 50.6464
R#1 33.39 (34.02)

Q 99.00>83.00 (-) 1.53e5



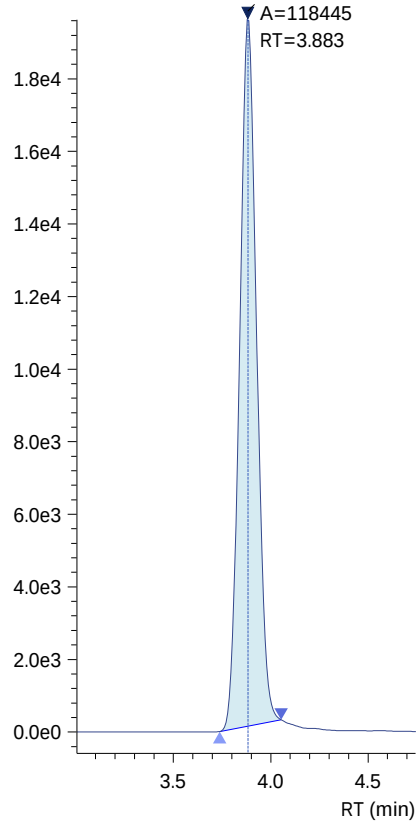

R1 101.00>85.00 (-) 5.12e4




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.96e4



# Insight Report

Printed at 12/15/2022 10:55:51 AM

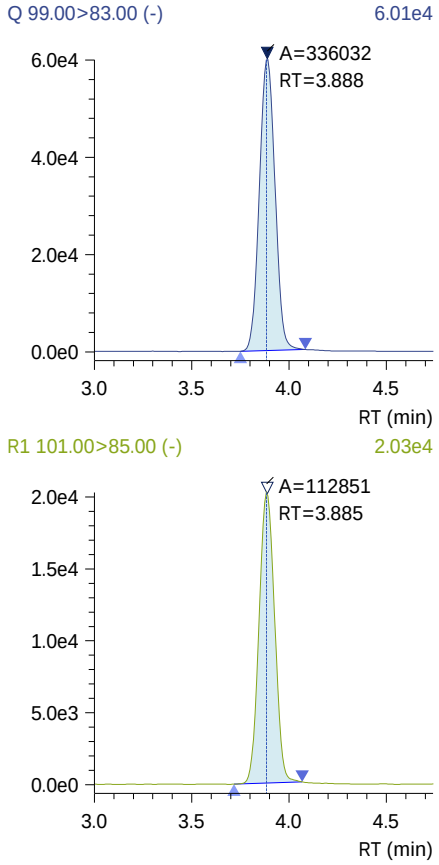
## PERCHLORATEICV

Sample ID: PERCHLORATEICV
Date Acquired: 12/14/2022 4:37:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_014.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 1

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.888 | 3360<br>32 | 229124 | 9.3588 | ng/mL | 101.00<br>>85.00 | 33.58 | 23.94<br>-44.46 |
| Sodium Perchlorate-18O4 _IS | Auto | 3.884 | 2291<br>24 | 229124 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc 9.3588
R#1 33.58 (34.02)

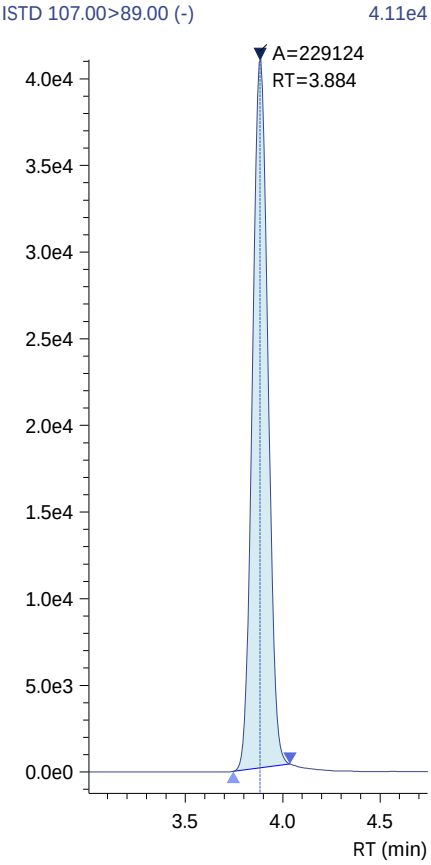






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Chromatograms and Selected Ion Monitoring

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**20230130-792992**

# Injection Log

LCMS01 -Shimadzu 8050

**1st Review:** XMI
**2nd Review:** Kneir

**ICAL Date:** 12/14/2022
**Cal. Std. xp:** 01/31/2023
**ICAL ID:** EC2200016

**Mobile Phases : A:**0.10% Formic Acid/Water 3210303-02 **B:**MeOH 224417

| | Sample Name | | File Name | Acquisition Method | Dilution | R | Comments | Date/Time |
|---|---|---|---|---|---|---|---|---|
| 1 | ICS | | 20230130-002 | Perchlorate6850c.lcm | 1x | ☒ | 32103024 | 1/30/2023 9:14 |
| 2 | LODV | | 20230130-003 | Perchlorate6850c.lcm | 1x | ☒ | 225199 | 1/30/2023 9:31 |
| 3 | PERCHLORATE7 | | 20230130-004 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/30/2023 9:38 |
| 4 | E2300068-008 | | 20230130-005 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 9:44 |
| 5 | E2300078-001 | | 20230130-006 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 9:50 |
| 6 | E2300078-002 | | 20230130-007 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 9:56 |
| 7 | E2300078-003 | | 20230130-008 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 10:01 |
| 8 | E2300078-004 | | 20230130-009 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 10:07 |
| 9 | E2300078-005 | | 20230130-010 | Perchlorate6850c.lcm | 1x | ☒ | DNU-IR | 1/30/2023 10:13 |
| 10 | E2300078-006 | | 20230130-011 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 10:19 |
| 11 | E2300078-007 | | 20230130-012 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 10:24 |
| 12 | E2300078-008 | | 20230130-013 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 10:30 |
| 13 | E2300078-005 | | 20230130-014 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 10:56 |
| 14 | PERCHLORATE7 | | 20230130-015 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/30/2023 11:02 |
| 15 | E2300067-002 | | 20230130-016 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 11:07 |
| 16 | E2300067-003 | | 20230130-017 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 11:13 |
| 17 | E2300067-005 | | 20230130-018 | Perchlorate6850c.lcm | 1000x | ☒ | | 1/30/2023 11:23 |
| 18 | E2300067-006 | | 20230130-019 | Perchlorate6850c.lcm | 5000x | ☒ | | 1/30/2023 11:29 |
| 19 | E2300068-006 | | 20230130-020 | Perchlorate6850c.lcm | 5x | ☒ | | 1/30/2023 11:35 |
| 20 | E2300068-007 | | 20230130-021 | Perchlorate6850c.lcm | 20x | ☒ | | 1/30/2023 11:41 |
| 21 | EQ2300031-01 | | 20230130-022 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 11:47 |
| 22 | EQ2300031-02 | | 20230130-023 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 11:52 |
| 23 | EQ2300031-03 | | 20230130-024 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 12:07 |
| 24 | PERCHLORATE7 | | 20230130-025 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/30/2023 12:30 |
| 25 | EQ2300031-04 | | 20230130-026 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 12:36 |
| 26 | EQ2300031-05 | | 20230130-027 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 12:42 |
| 27 | E2300079-001 | | 20230130-028 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 12:48 |
| 28 | E2300079-002 | | 20230130-029 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 12:53 |
| 29 | E2300079-003 | | 20230130-030 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 12:59 |
| 30 | E2300079-004 | | 20230130-031 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 13:05 |
| 31 | E2300079-005 | | 20230130-032 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 13:11 |
| 32 | E2300079-006 | | 20230130-033 | Perchlorate6850c.lcm | 1x | ☒ | DNU-CONFIRM PEAK | 1/30/2023 13:16 |
| 33 | E2300081-001 | | 20230130-034 | Perchlorate6850c.lcm | 1x | ☒ | DNU-CONFIRM PEAK | 1/30/2023 13:22 |
| 34 | E2300081-002 | | 20230130-035 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 13:28 |
| 35 | PERCHLORATE7 | | 20230130-036 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/30/2023 13:34 |
| 36 | E2300081-003 | | 20230130-037 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 13:40 |
| 37 | E2300081-004 | | 20230130-038 | Perchlorate6850c.lcm | 1x | ☒ | DNU-CONFIRM PEAK | 1/30/2023 13:45 |
| 38 | E2300079-006 | | 20230130-039 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 15:06 |
| 39 | E2300081-001 | | 20230130-040 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 15:11 |
| 40 | E2300082-001 | | 20230130-041 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 15:17 |

**20230130-792992**

# Injection Log

LCMS01 -Shimadzu 8050

**1st Review:** XMI
**2nd Review:** Kneir

**ICAL Date:** 12/14/2022
**Cal. Std. xp:** 01/31/2023
**ICAL ID:** EC2200016

**Mobile Phases : A:**0.10% Formic Acid/Water 3210303-02 **B:**MeOH 224417

| | Sample Name | | File Name | Acquisition Method | Dilution | R | Comments | Date/Time |
|---|---|---|---|---|---|---|---|---|
| 41 | EQ2300031-06 | | 20230130-042 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 15:23 |
| 42 | EQ2300031-07 | | 20230130-043 | Perchlorate6850c.lcm | 1x | ☒ | DNU-IR | 1/30/2023 15:29 |
| 43 | E2300082-002 | | 20230130-044 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 15:34 |
| 44 | E2300082-003 | | 20230130-045 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 15:40 |
| 45 | E2300082-004 | | 20230130-046 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 15:46 |
| 46 | PERCHLORATE7 | | 20230130-047 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/30/2023 15:52 |
| 47 | EQ2300031-07 | | 20230130-048 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 15:58 |
| 48 | E2300084-001 | | 20230130-049 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 16:03 |
| 49 | E2300084-002 | | 20230130-050 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 16:09 |
| 50 | E2300084-003 | | 20230130-051 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 16:15 |
| 51 | E2300084-004 | | 20230130-052 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 16:21 |
| 52 | R2300559-004 | | 20230130-053 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 16:26 |
| 53 | R2300559-009 | | 20230130-054 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 16:32 |
| 54 | E2300081-004 | | 20230130-055 | Perchlorate6850c.lcm | 1x | ☒ | | 1/30/2023 16:38 |
| 55 | PERCHLORATE7 | | 20230130-056 | Perchlorate6850c.lcm | 1x | ☒ | 226067 | 1/30/2023 17:01 |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Analyzed:** | 1/30/23 09:38 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230130\20230130-004 | **Lab Code:** | EQ2300043-01 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792992 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300043-01 | 197,571 | 3.46 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Analyzed:** | 1/30/23 11:02 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230130\20230130-015 | **Lab Code:** | EQ2300043-02 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792992 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300043-02 | 174,063 | 3.46 |
| Method Blank | EQ2300031-01 | 226,687 | 3.45 |
| Lab Control Sample | EQ2300031-02 | 221,162 | 3.46 |
| Duplicate Lab Control Sample | EQ2300031-03 | 220,769 | 3.45 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Analyzed:** | 1/30/23 12:30 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230130\20230130-025 | **Lab Code:** | EQ2300043-03 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792992 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300043-03 | 194,356 | 3.45 |
| 16IW10-230123MS | EQ2300031-04 | 270,500 | 3.46 |
| 16IW10-230123DMS | EQ2300031-05 | 269,008 | 3.46 |
| 16WW58-230123 | E2300079-001 | 246,971 | 3.46 |
| 16WW57-230123 | E2300079-002 | 238,100 | 3.46 |
| 16IW26-230123 | E2300079-003 | 295,378 | 3.46 |
| 16IW10-230123 | E2300079-004 | 262,698 | 3.46 |
| 16IW03-230123 | E2300079-005 | 250,378 | 3.45 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23011136

**Service Request:** E2300079
**Date Analyzed:** 1/30/23 13:34

## Internal Standard Area and RT Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**File ID:** I:\LCMS01\DATA\20230130\20230130-036
**Instrument ID:** E-LCMS-01
**Analytical Method:** 6850

**Lab Code:** EQ2300043-04
**Analysis Lot:** 792992
**Signal ID:** 1

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300043-04 | 196,716 | 3.46 |
| 16IW03-230123-FD | E2300079-006 | 241,011 | 3.44 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Analyzed:** | 1/30/23 15:52 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230130\20230130-047 | **Lab Code:** | EQ2300043-05 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792992 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300043-05 | 180,587 | 3.45 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Analyzed:** | 1/30/23 17:01 |

**Internal Standard Area and RT Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **File ID:** | I:\LCMS01\DATA\20230130\20230130-056 | **Lab Code:** | EQ2300043-06 |
| **Instrument ID:** | E-LCMS-01 | **Analysis Lot:** | 792992 |
| **Analytical Method:** | 6850 | **Signal ID:** | 1 |

| | | Sodium Perchlorate-18O4 | |
|---|---|---|---|
| | | **Area** | **RT** |
| | **ICAL Average ==>** | 251,001 | 3.88 |
| | **Upper Limit ==>** | 376,502 | 5.88 |
| | **Lower Limit ==>** | 125,501 | 1.88 |
| ***Associated Analyses*** | | | |
| Continuing Calibration Verification | EQ2300043-06 | 167,665 | 3.45 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23011136

**Service Request:** E2300079
**Date Analyzed:** 1/30/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230130\20230130-004

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792992
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 10.6 | 0.1567 | 0.1655 | 5.6 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23011136

**Service Request:** E2300079
**Date Analyzed:** 1/30/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230130\20230130-015

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792992
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 10.2 | 0.1567 | 0.1593 | 1.7 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23011136

**Service Request:** E2300079
**Date Analyzed:** 1/30/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230130\20230130-025

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792992
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.84 | 0.1567 | 0.1540 | -1.7 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23011136

**Service Request:** E2300079
**Date Analyzed:** 1/30/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230130\20230130-036

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792992
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.94 | 0.1567 | 0.1554 | -0.8 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23011136

**Service Request:** E2300079
**Date Analyzed:** 1/30/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230130\20230130-047

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792992
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 10.2 | 0.1567 | 0.1592 | 1.6 | NA | ± 15 % | Average RF |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

**Client:** ALS Environmental - US
**Project:** HS23011136

**Service Request:** E2300079
**Date Analyzed:** 1/30/23

## Continuing Calibration Verification Summary
## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

**Analytical Method:** 6850
**File ID:** I:\LCMS01\DATA\20230130\20230130-056

**Calibration Date:** 12/14/22
**Calibration ID:** EC2200016
**Analysis Lot:** 792992
**Units:** ng/mL

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.92 | 0.1567 | 0.1551 | -1.0 | NA | ± 15 % | Average RF |

# Insight Report

Printed at 1/31/2023 9:35:02 AM

Method File: I:\LCMS01\DATA\20230130\20230130.lcm
Project File: I:\LCMS01\DATA\20230130\20230130.damlp

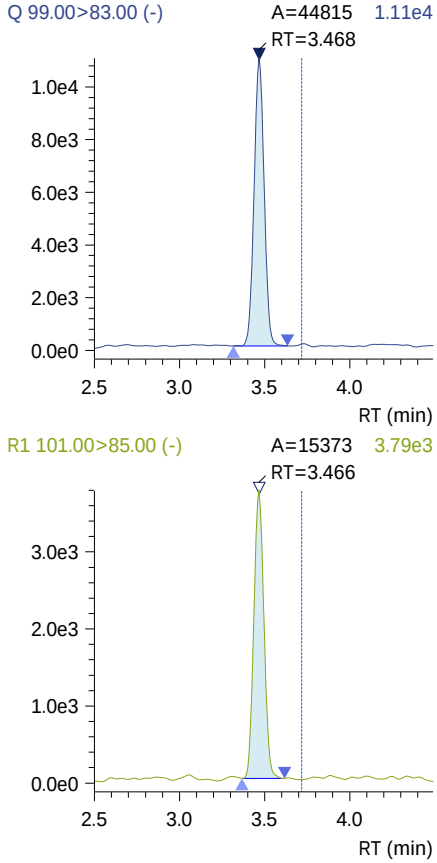
## ICS

Sample ID: ICS
Date Acquired: 1/30/2023 9:14:40 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-002.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.468 | 44815 | 257791 | 1.1115 | ng/mL | 101.00<br>>85.00 | 34.30 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.464 | 257791 | 257791 | 1.0000 | ng/mL | ---- | ---- | |

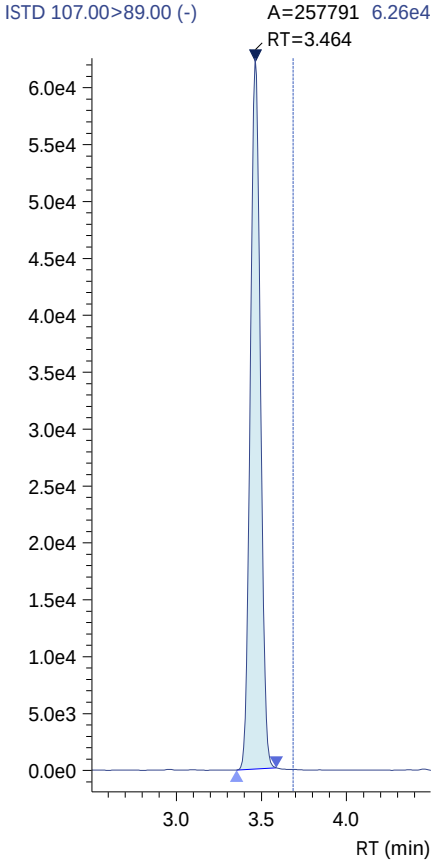
### Perchlorate

Conc 1.1115
R#1 34.30 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:35:02 AM

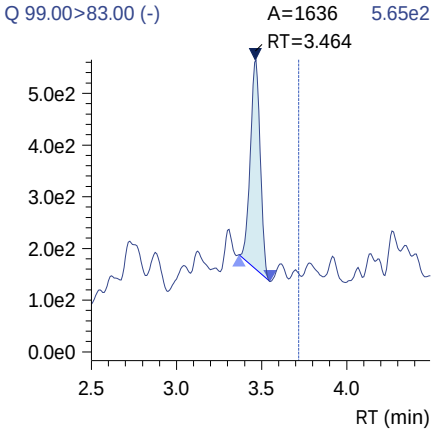
## LODV

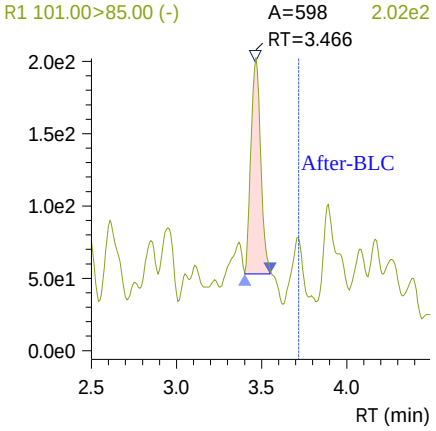
Sample ID: LODV
Date Acquired: 1/30/2023 9:31:55 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-003.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | MI R1 | 3.464 | 1636 | 217222 | 0.0481 | ng/mL | 101.00<br>>85.00 | 36.56 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.461 | 2172<br>22 | 217222 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

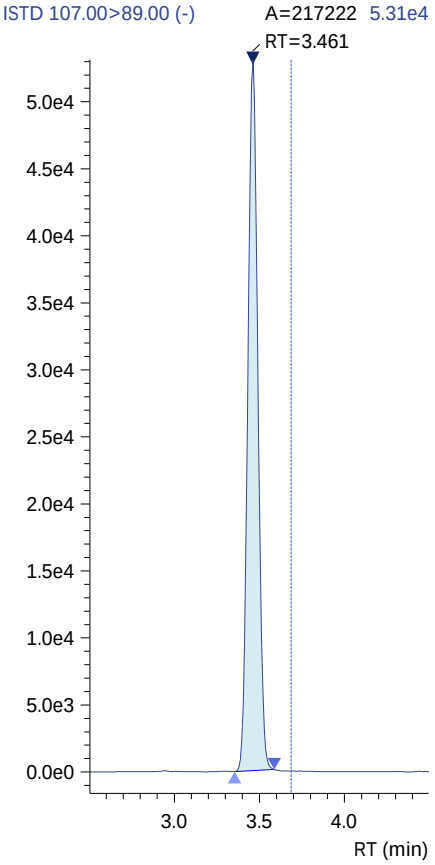
Conc 0.0481
R#1 36.56 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:37:55 AM

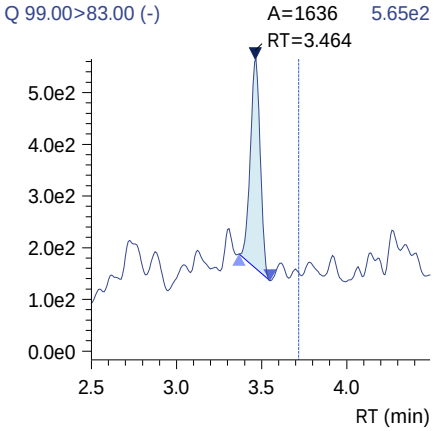
Method File: I:\LCMS01\DATA\20230130\20230130.lcm
Project File: I:\LCMS01\DATA\20230130\20230130.damlp

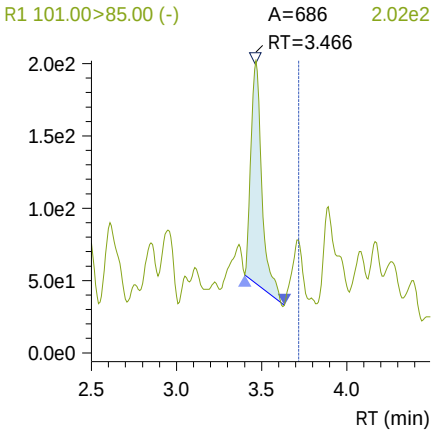
## LODV

Sample ID: LODV
Date Acquired: 1/30/2023 9:31:55 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-003.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 0

### Perchlorate

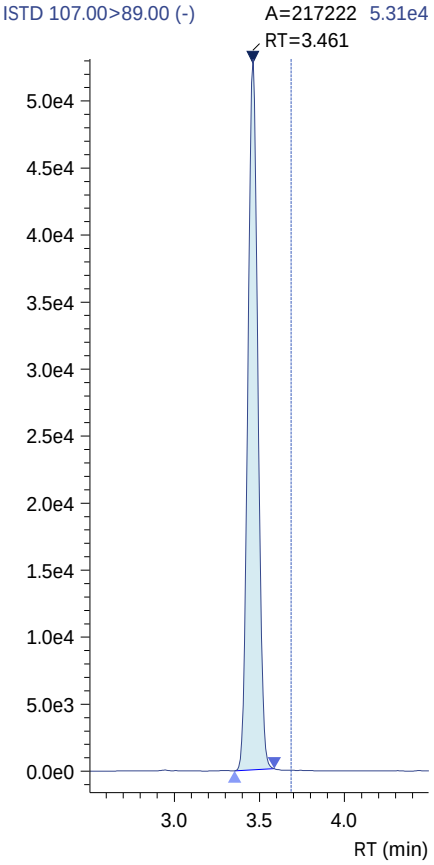
Conc 0.0480
R#1 41.93 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:35:02 AM

## EQ2300031-01

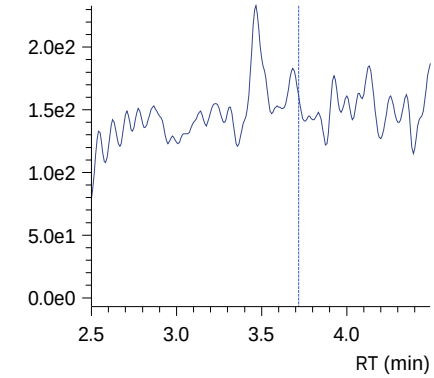
Sample ID: EQ2300031-01
Date Acquired: 1/30/2023 11:47:02 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-022.lcd
Vial: 53 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND(W/B) | ---- | ---- | 226687 | ---- | ng/mL | 101.00<br>>85.00 | 0.00 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.454 | 226687 | 226687 | 1.0000 | ng/mL | ---- | ---- | |

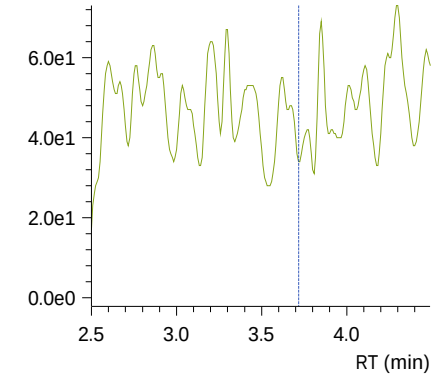
### Perchlorate

Conc ----
R#1 0.00 (31.89)

Q 99.00>83.00 (-) 2.33e2



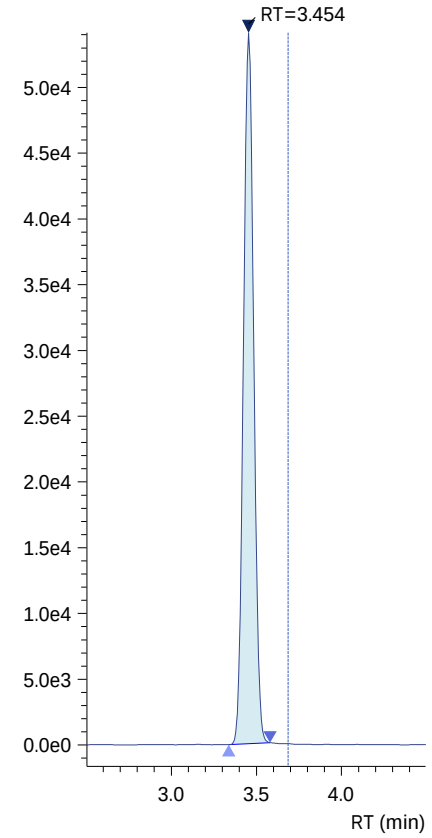

R1 101.00>85.00 (-) 7.30e1




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=226687 5.42e4



# Insight Report

Printed at 1/31/2023 9:35:02 AM

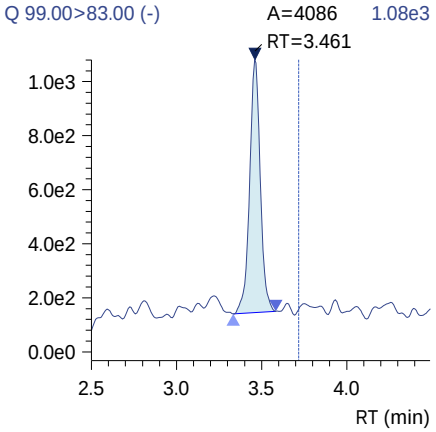
## EQ2300031-02

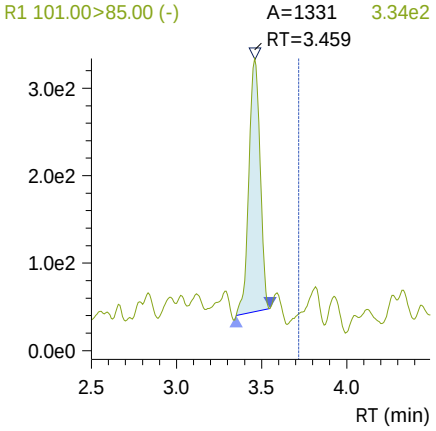
Sample ID: EQ2300031-02
Date Acquired: 1/30/2023 11:52:48 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-023.lcd
Vial: 54 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.461 | 4086 | 221162 | 0.1181 | ng/mL | 101.00<br>>85.00 | 32.57 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | M | 3.457 | 221162 | 221162 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

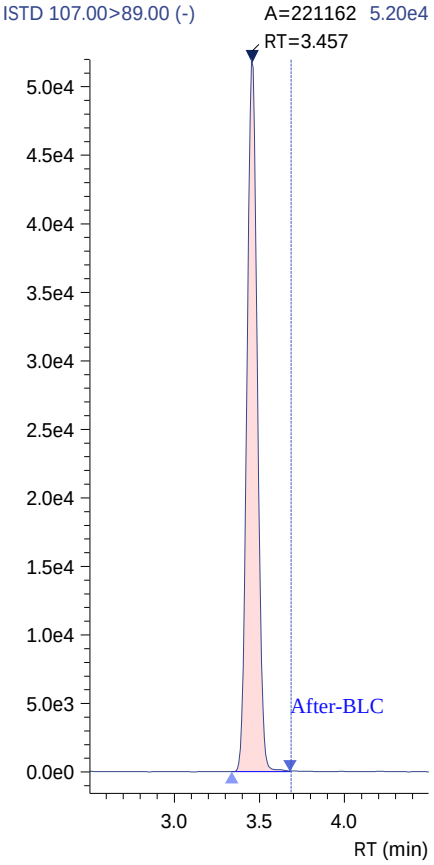
Conc 0.1181
R#1 32.57 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:37:55 AM

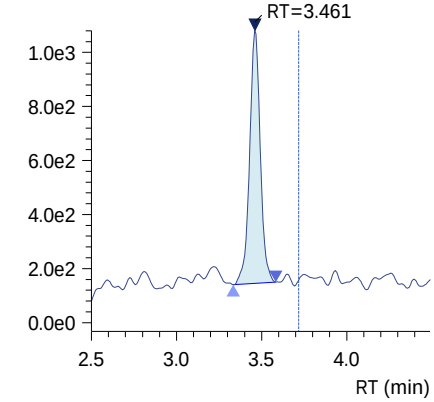
## EQ2300031-02

Sample ID: EQ2300031-02
Date Acquired: 1/30/2023 11:52:48 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-023.lcd
Vial: 54 | Inj. Volume: 25.0000uL | Tray: 4

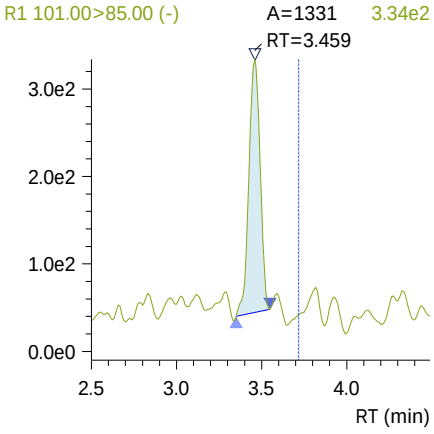
### Perchlorate

Conc 0.1190
R#1 32.57 (31.89)

Q 99.00>83.00 (-) A=4086 1.08e3



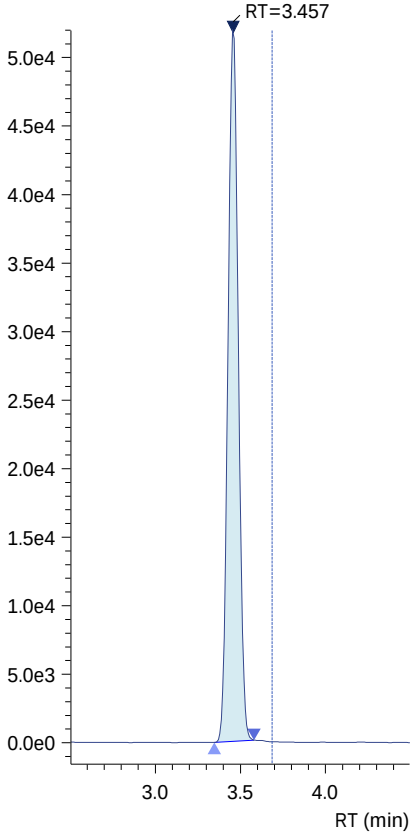

R1 101.00>85.00 (-) A=1331 3.34e2




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=219144 5.20e4



# Insight Report

Printed at 1/31/2023 9:35:02 AM

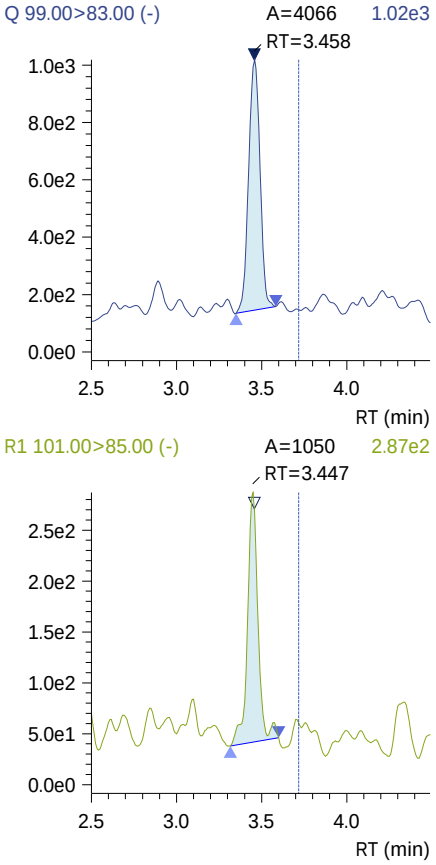
## EQ2300031-03

Sample ID: EQ2300031-03
Date Acquired: 1/30/2023 12:07:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-024.lcd
Vial: 55 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.458 | 4066 | 220769 | 0.1178 | ng/mL | 101.00<br>>85.00 | 25.81 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | M | 3.452 | 220769 | 220769 | 1.0000 | ng/mL | ---- | ---- | |

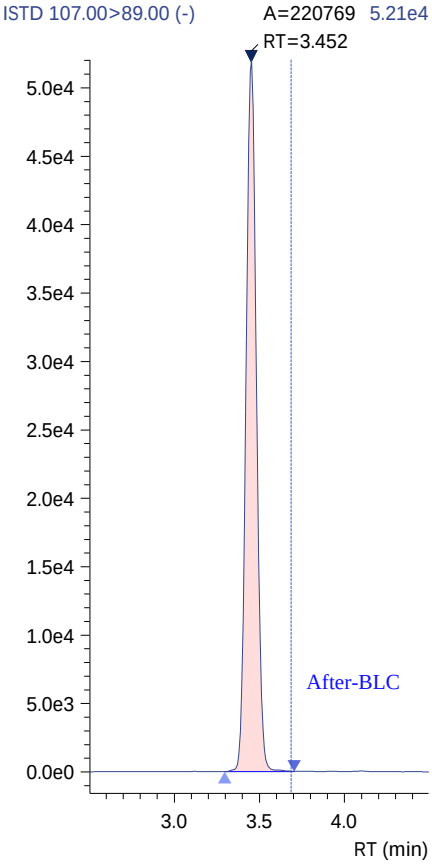
### Perchlorate

Conc 0.1178
R#1 25.81 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:37:55 AM

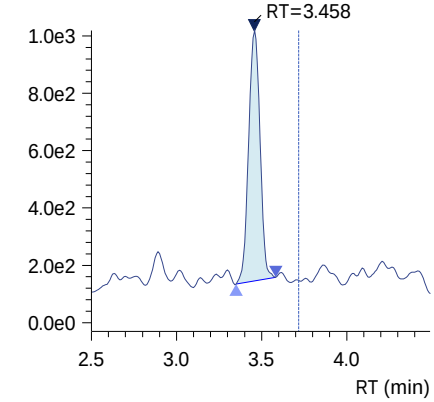
## EQ2300031-03

Sample ID: EQ2300031-03
Date Acquired: 1/30/2023 12:07:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-024.lcd
Vial: 55 | Inj. Volume: 25.0000uL | Tray: 4

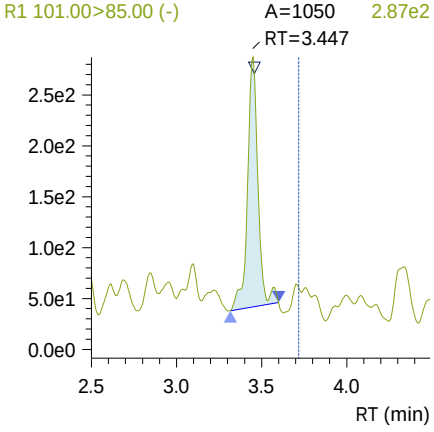
### Perchlorate

Conc 0.1190
R#1 25.81 (31.89)

Q 99.00>83.00 (-) A=4066 1.02e3



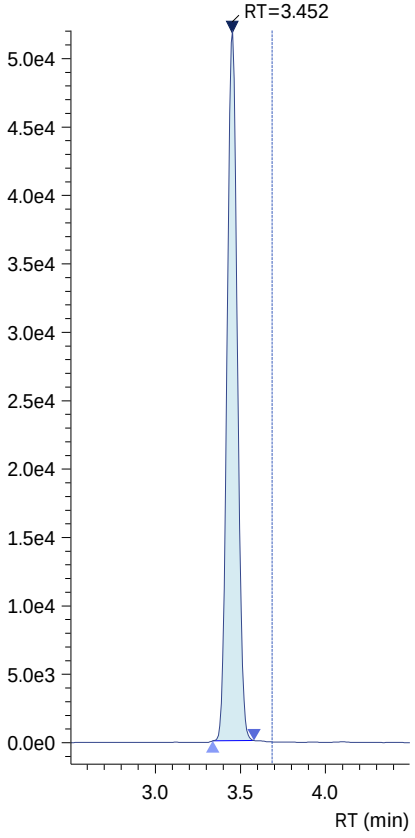

R1 101.00>85.00 (-) A=1050 2.87e2




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=218134 5.21e4



# Insight Report

Printed at 1/31/2023 9:35:02 AM

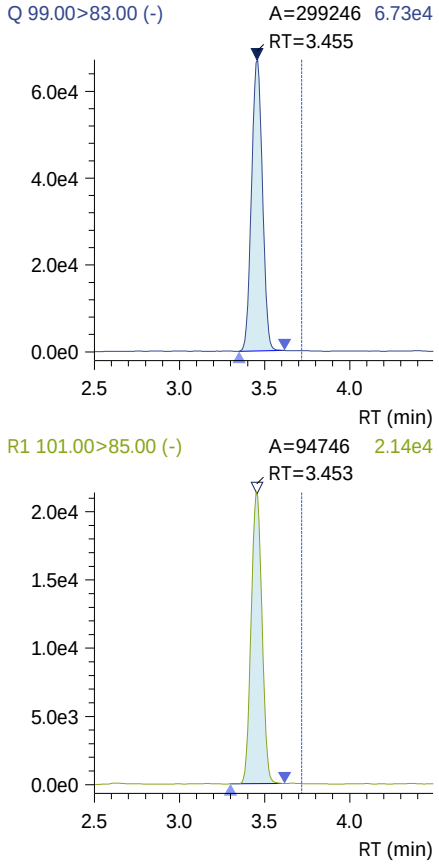
## PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 1/30/2023 12:30:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-025.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.455 | 299246 | 194356 | 9.8445 | ng/mL | 101.00<br>>85.00 | 31.66 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.450 | 194356 | 194356 | 1.0000 | ng/mL | ---- | ---- | |

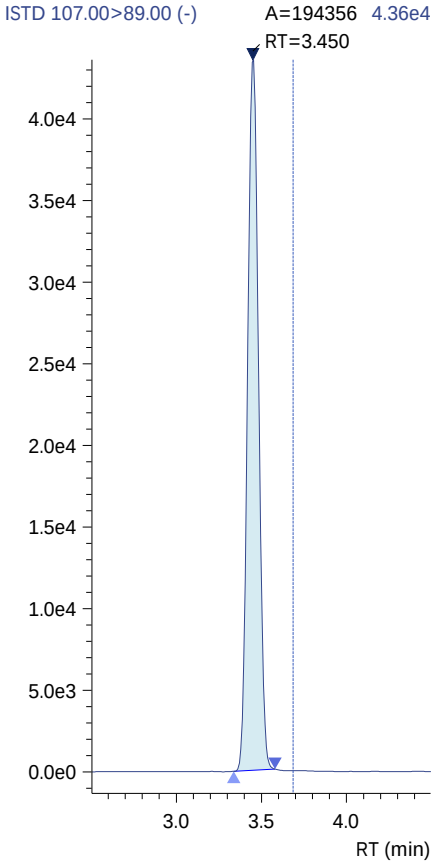
### Perchlorate

Conc 9.8445
R#1 31.66 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:35:02 AM

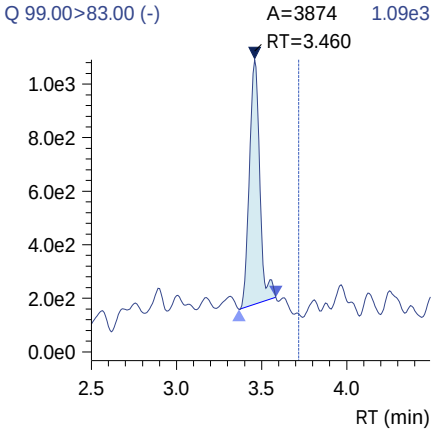
## EQ2300031-04

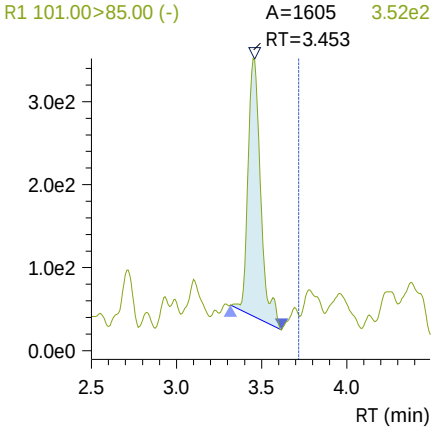
Sample ID: EQ2300031-04
Date Acquired: 1/30/2023 12:36:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-026.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 5

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.460 | 3874 | 270500 | 0.0916 | ng/mL | 101.00<br>>85.00 | 41.43 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.455 | 270500 | 270500 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

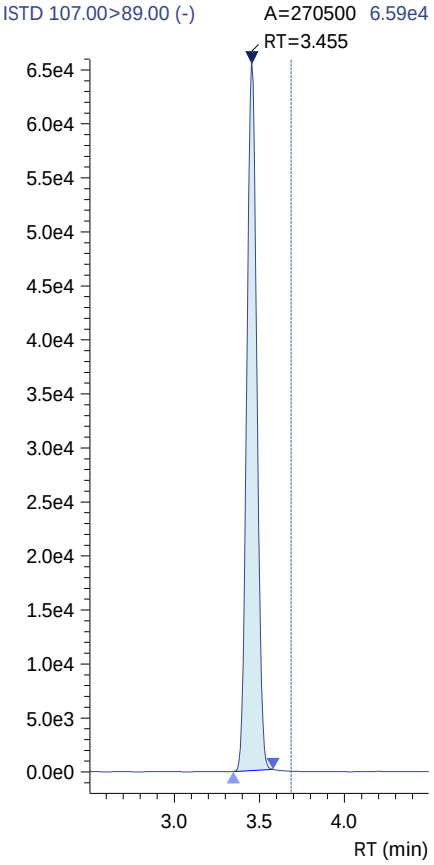
Conc 0.0916
R#1 41.43 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:35:02 AM

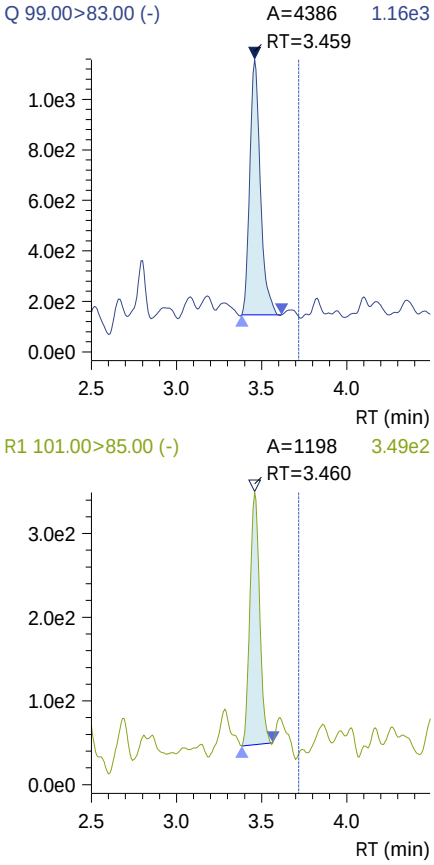
## EQ2300031-05

Sample ID: EQ2300031-05
Date Acquired: 1/30/2023 12:42:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-027.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 5

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.459 | 4386 | 269008 | 0.1042 | ng/mL | 101.00<br>>85.00 | 27.32 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.457 | 269008 | 269008 | 1.0000 | ng/mL | ---- | ---- | |

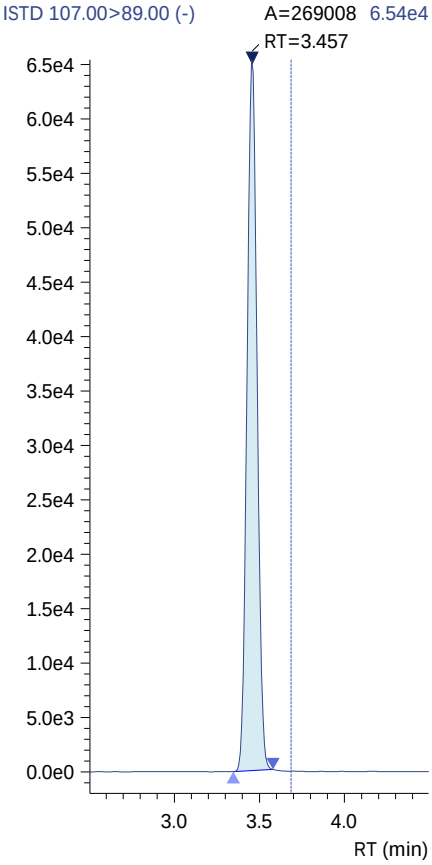
### Perchlorate

Conc 0.1042
R#1 27.32 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:35:02 AM

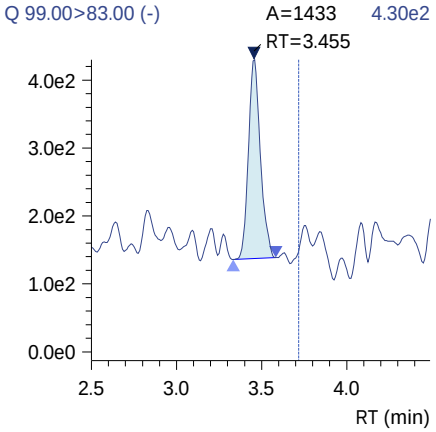
## E2300079-001

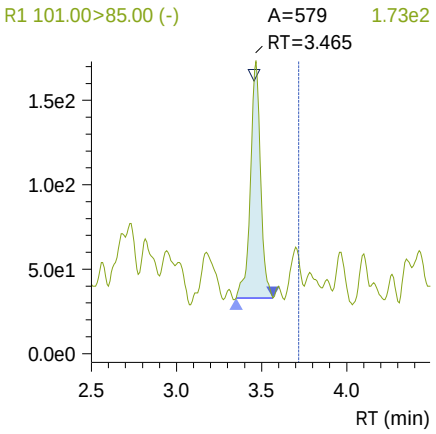
Sample ID: E2300079-001
Date Acquired: 1/30/2023 12:48:06 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-028.lcd
Vial: 47 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.455 | 1433 | 246971 | 0.0371 | ng/mL | 101.00<br>>85.00 | 40.40 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.458 | 2469 71 | 246971 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

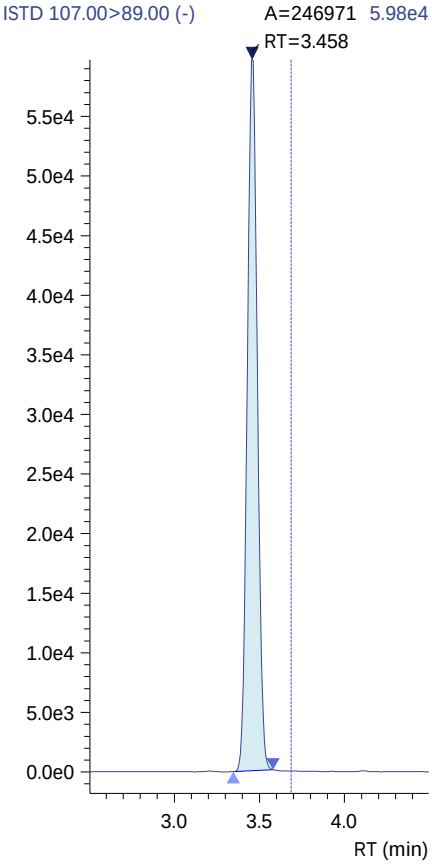
Conc 0.0371
R#1 40.40 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:35:02 AM

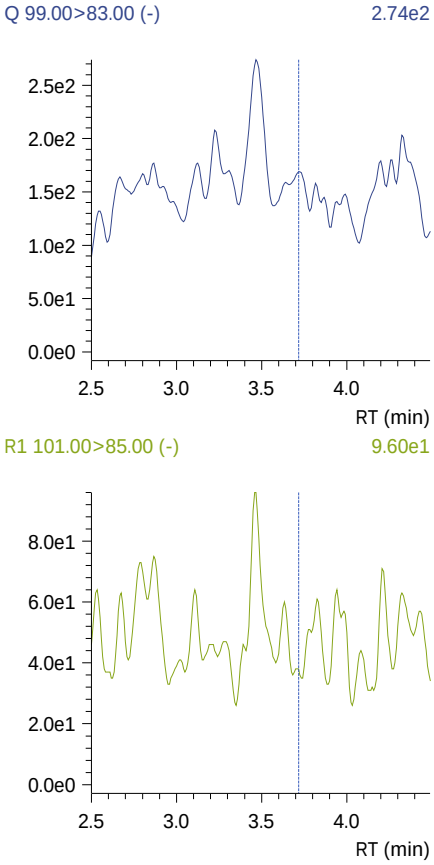
## E2300079-002

Sample ID: E2300079-002
Date Acquired: 1/30/2023 12:53:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-029.lcd
Vial: 48 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND(W/B) | ---- | ---- | 238100 | ---- | ng/mL | 101.00<br>>85.00 | 0.00 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.458 | 238100 | 238100 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc ----
R#1 0.00 (31.89)

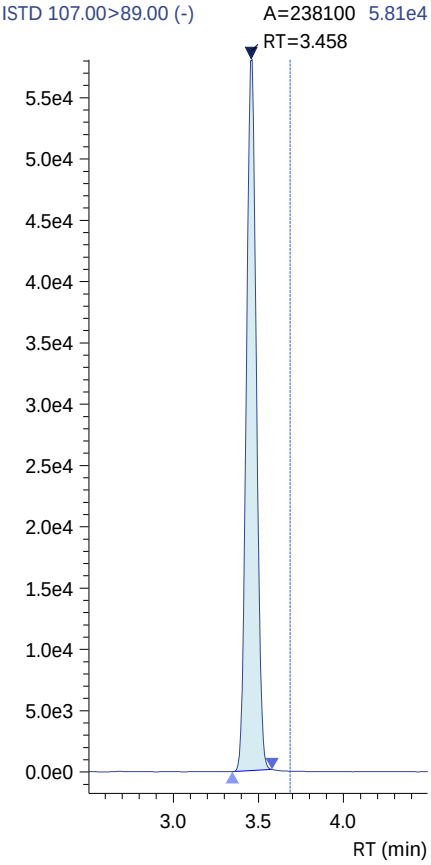






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:35:02 AM

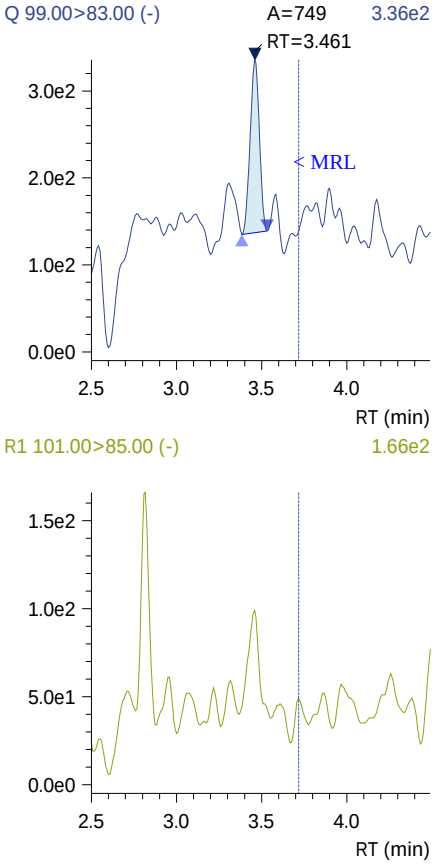
## E2300079-003

Sample ID: E2300079-003
Date Acquired: 1/30/2023 12:59:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-030.lcd
Vial: 49 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.461 | 749 | 295378 | 0.0162 | ng/mL | 101.00<br>>85.00 | 0.00 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.456 | 295378 | 295378 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc 0.0162
R#1 0.00 (31.89)

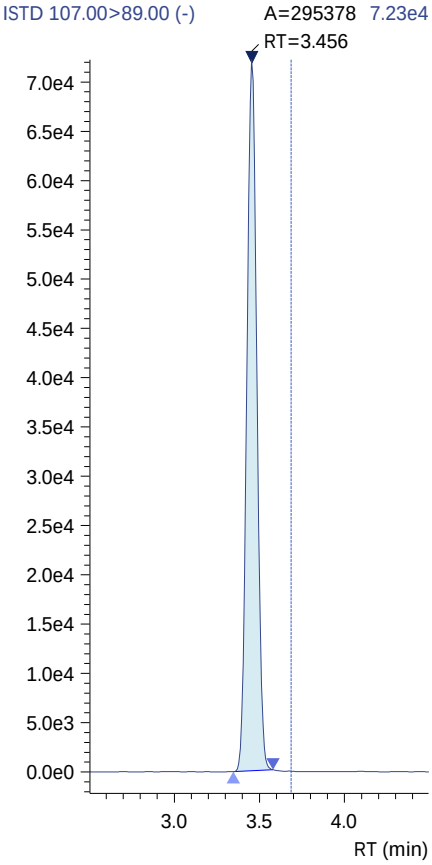






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:35:02 AM

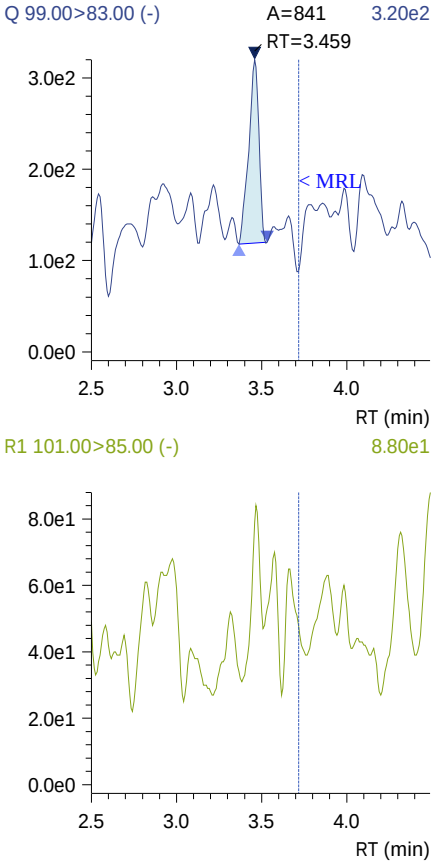
## E2300079-004

Sample ID: E2300079-004
Date Acquired: 1/30/2023 1:05:25 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-031.lcd
Vial: 50 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.459 | 841 | 262698 | 0.0205 | ng/mL | 101.00<br>>85.00 | 0.00 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.456 | 262698 | 262698 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc 0.0205
R#1 0.00 (31.89)

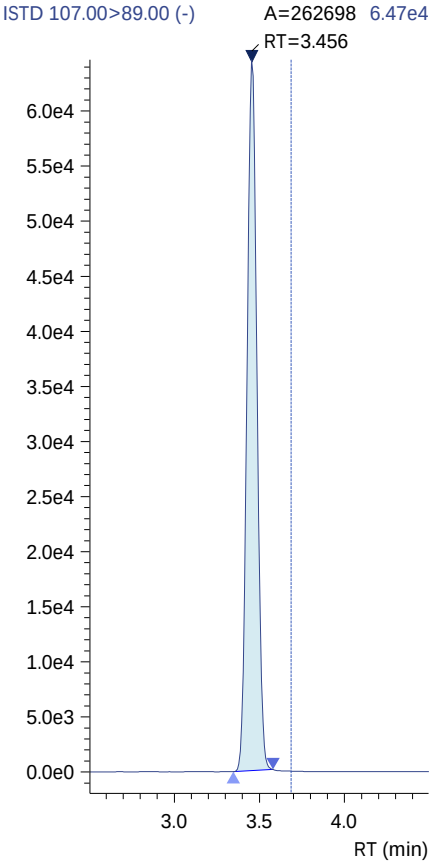






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:35:02 AM

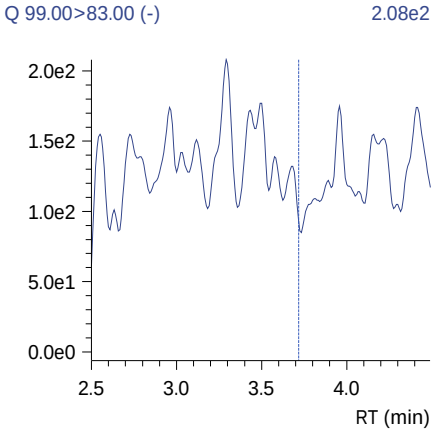
## E2300079-005

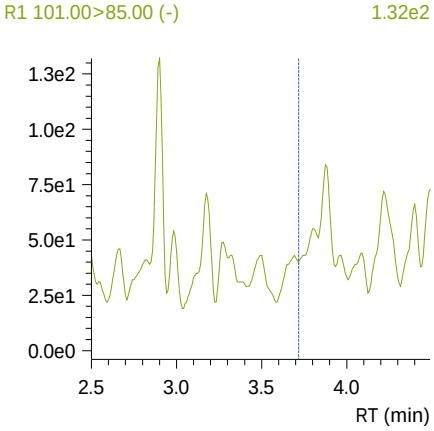
Sample ID: E2300079-005
Date Acquired: 1/30/2023 1:11:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-032.lcd
Vial: 51 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND(W/B) | ---- | ---- | 250378 | ---- | ng/mL | 101.00<br>>85.00 | 0.00 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.454 | 250378 | 250378 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

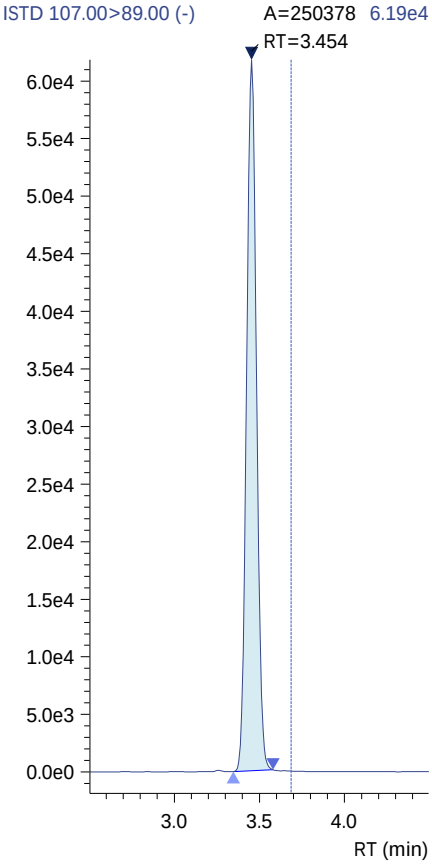
Conc ----
R#1 0.00 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:35:02 AM

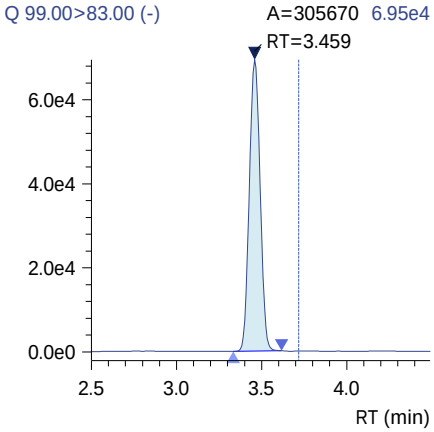
## PERCHLORATE7

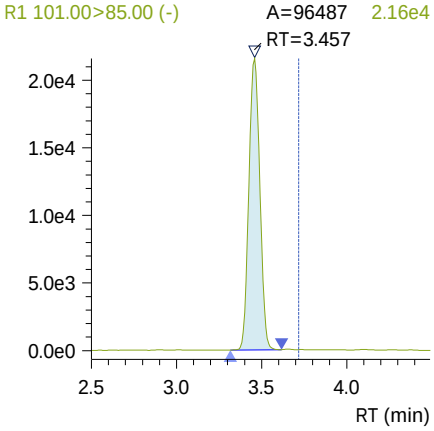
Sample ID: PERCHLORATE7
Date Acquired: 1/30/2023 1:34:13 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-036.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.459 | 305670 | 196716 | 9.9351 | ng/mL | 101.00<br>>85.00 | 31.57 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.455 | 196716 | 196716 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

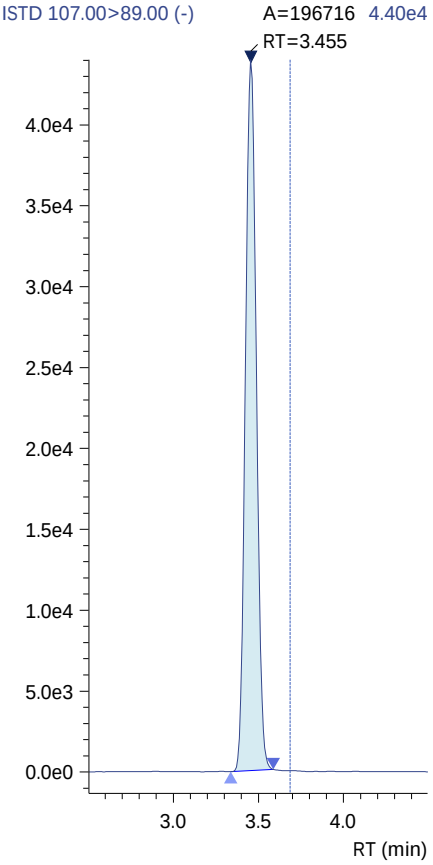
Conc 9.9351
R#1 31.57 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:35:02 AM

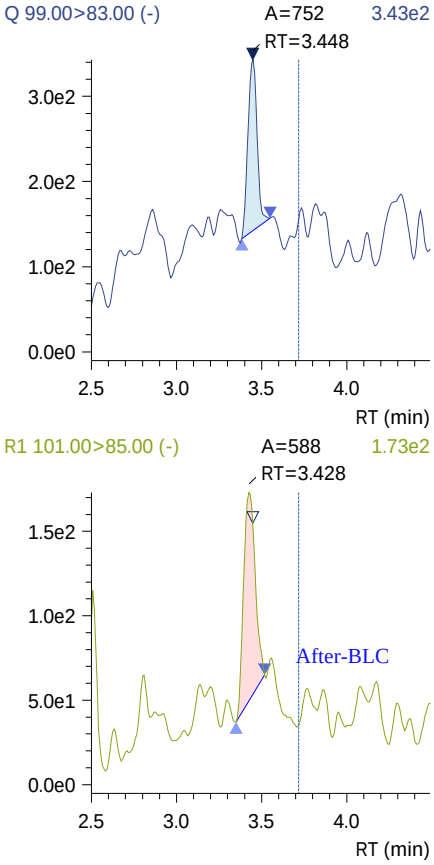
## E2300079-006

Sample ID: E2300079-006
Date Acquired: 1/30/2023 3:06:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-039.lcd
Vial: 52 | Inj. Volume: 25.0000uL | Tray: 4

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | MI R1 | 3.448 | 752 | 241011 | 0.0199 | ng/mL | 101.00<br>>85.00 | 78.18 | 22.32<br>-41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.441 | 2410<br>11 | 241011 | 1.0000 | ng/mL | ---- | ---- | |

### Perchlorate

Conc 0.0199
R#1 78.18 (31.89)

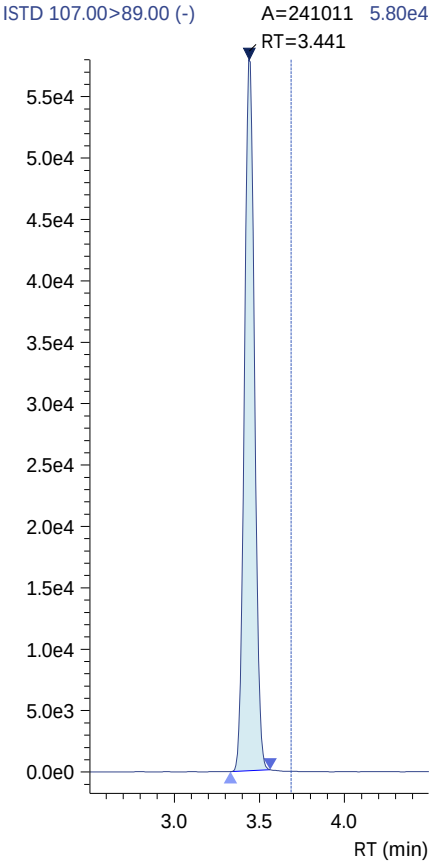






### Sodium Perchlorate-18O4_IS

Conc 1.0000



# Insight Report

Printed at 1/31/2023 9:37:55 AM

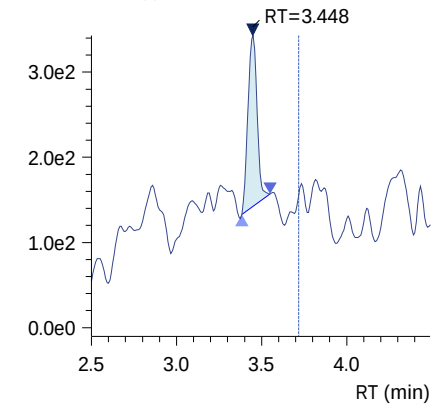
## E2300079-006

Sample ID: E2300079-006
Date Acquired: 1/30/2023 3:06:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-039.lcd
Vial: 52 | Inj. Volume: 25.0000uL | Tray: 4

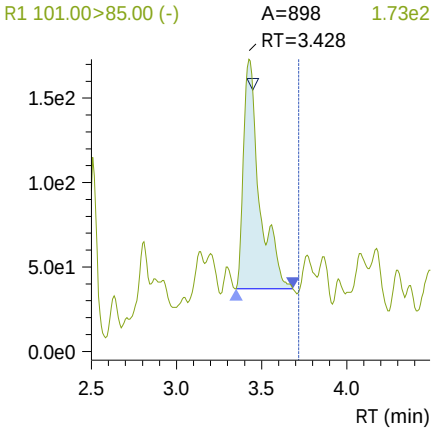
### Perchlorate

Conc 0.0199
R#1 119.43 (31.89)

Q 99.00>83.00 (-) A=752 3.43e2



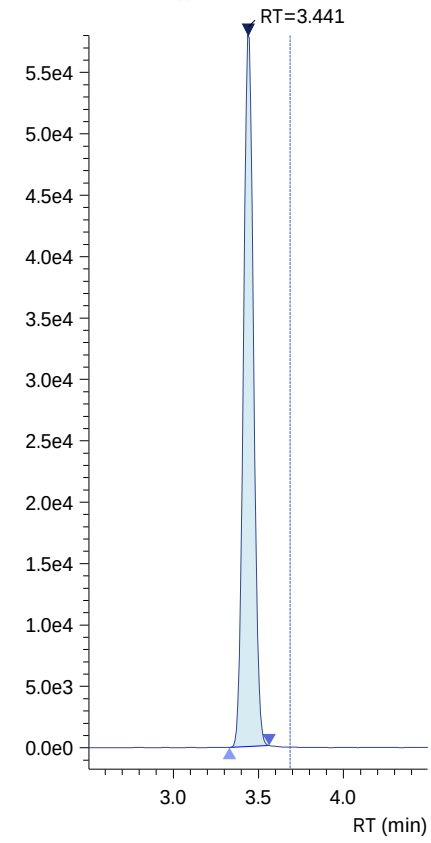

R1 101.00>85.00 (-) A=898 1.73e2




### Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=241011 5.80e4



# Insight Report

Printed at 1/31/2023 9:35:02 AM

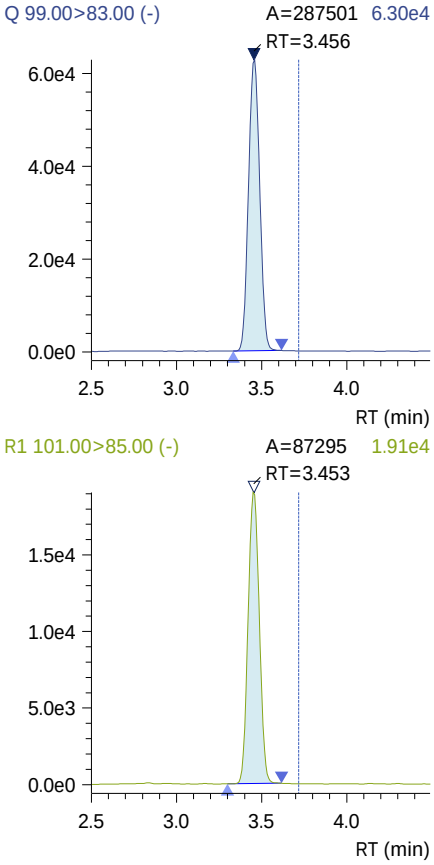
## PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 1/30/2023 3:52:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230130\20230130-047.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

| Name | Mode ID | Found RT | Area | ISTD Area | Conc. | Unit | Ref 1 m/z | Ref 1 Actual Ratio | Comment 1 |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | Auto | 3.456 | 287501 | 180587 | 10.1792 | ng/mL | 101.00 >85.00 | 30.36 | 22.32 -41.46 |
| Sodium Perchlorate-18O4_IS | Auto | 3.452 | 180587 | 180587 | 1.0000 | ng/mL | ---- | ---- | |

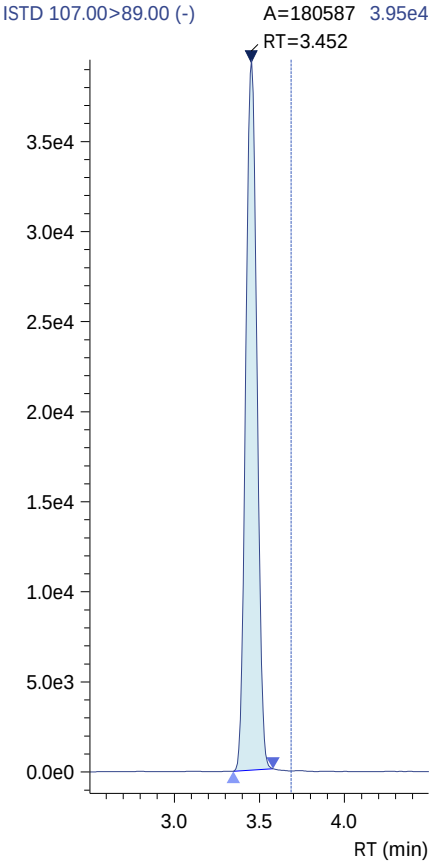
### Perchlorate

Conc 10.1792
R#1 30.36 (31.89)




### Sodium Perchlorate-18O4_IS

Conc 1.0000



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
alsglobal.com

# WorkOrder: HS23011136

## LHAAP 16 January 2023

## Aptim Environmental & Infrastucture, Inc.

Vicki Graves
10333 Richmond Ave Ste 1030
Houston TX 77042

**16-Feb-2023**

ALS Environmental
ALS Group USA, Corp
10450 Stancliff Road, Suite 210
Houston, TX 77099
**T :** +1 281 530 5656
**F :** +1 281 530 5887
**www.alsglobal.com**

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- Chain of Custody

# HS23011136 LHAAP 16 January 2023 Final

ALS WO# HS23011136

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

February 07, 2023

Vicki Graves
Aptim Environmental & Infrastucture, Inc.
10333 Richmond Ave
Ste 1030
Houston, TX 77042

Work Order: **HS23011136**

Laboratory Results for: **LHAAP 16 January 2023**

Dear Vicki Graves ,

ALS Environmental received 7 sample(s) on Jan 24, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

**Generated By: JUMOKE.LAWAL**
Dane J. Wacasey

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**Work Order:** HS23011136

## SAMPLE SUMMARY

| Lab Samp ID | Client Sample ID | Matrix | TagNo | Collection Date | Date Received | Hold |
|---|---|---|---|---|---|---|
| HS23011136-01 | 16WW58-230123 | Water | | 23-Jan-2023 08:50 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-02 | 16WW57-230123 | Water | | 23-Jan-2023 09:40 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-03 | 16IW26-230123 | Water | | 23-Jan-2023 10:40 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-04 | 16IW10-230123 | Water | | 23-Jan-2023 11:35 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-05 | 16IW03-230123 | Water | | 23-Jan-2023 12:35 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-06 | 16IW03-230123-FD | Water | | 23-Jan-2023 12:35 | 24-Jan-2023 09:50 | ☐ |
| HS23011136-07 | Trip Blank-230123 | Water | CG-090622-793 | 23-Jan-2023 00:00 | 24-Jan-2023 09:50 | ☐ |

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
**Project:** LHAAP 16 January 2023
**Work Order:** HS23011136

## Work Order Comments

- The analysis for CO2 by RSK175 was subcontracted to Eurofins in Lancaster, PA. The final report is appended.
- The analysis for Perchlorate was performed by ALS Houston Specialty Lab. The final report is appended.

## GC Semivolatiles by Method RSK-175

### Batch ID: R427362

**Sample ID: 16IW10-230123 (HS23011136-04MS)**

- The recovery of the Matrix Spike (MS) associated to select analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MS may be due to sample matrix interference.

**Sample ID: 16IW10-230123 (HS23011136-04MSD)**

- The recovery of the Matrix Spike Duplicate (MSD) associated to select analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

## GCMS Volatiles by Method SW8260

### Batch ID: R426583

**Sample ID: 16IW26-230123 (HS23011136-03)**

- Dilution required due to high concentrations of non target analytes and sample matrix.

**Sample ID: 16WW57-230123 (HS23011136-02)**

- Dilution required due to sample matrix.

**Sample ID: 16WW58-230123 (HS23011136-01)**

- Dilution required due to high concentrations of target analytes.

**Sample ID: 16IW10-230123 (HS23011136-04MS)**

- The recovery of the Matrix Spike (MS) and the Matrix Spike Duplicate (MSD) associated to these analytes were outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MS/MSD may be due to sample matrix interference. cis-1,2-Dichloroethene, Methylene chloride

### Batch ID: R426682

**Sample ID: HS23011212-02MSD**

- MSD was performed on unrelated sample

## WetChemistry by Method SM5310B

### Batch ID: R427016

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

### Batch ID: R427492

**Sample ID: 16IW10-230123 (HS23011136-04MS)**

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
**Project:** LHAAP 16 January 2023
**Work Order:** HS23011136

## WetChemistry by Method SW9056

### Batch ID: R426450

**Sample ID: 16IW03-230123 (HS23011136-05)**

- The reporting limit is elevated due to dilution for high concentrations of non-target analytes. (Sulfate)

**Sample ID: 16IW10-230123 (HS23011136-04)**

- The reporting limit is elevated due to dilution for high concentrations of non-target analytes. (Nitrogen, Nitrate (As N),Sulfate)

**ALS Houston, US** Date: 07-Feb-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16WW58-230123
Collection Date: 23-Jan-2023 08:50

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-01
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 50 | U | 15 | 50 | 50 | ug/L | 50 | 26-Jan-2023 16:27 |
| 1,1-Dichloroethene | 50 | U | 10 | 50 | 50 | ug/L | 50 | 26-Jan-2023 16:27 |
| 1,2-Dichloroethane | 50 | U | 10 | 50 | 50 | ug/L | 50 | 26-Jan-2023 16:27 |
| **cis-1,2-Dichloroethene** | **200** | | **10** | **50** | **50** | **ug/L** | 50 | 26-Jan-2023 16:27 |
| Methylene chloride | 50 | U | 20 | 50 | 100 | ug/L | 50 | 26-Jan-2023 16:27 |
| **Trichloroethene** | **7,000** | | **10** | **50** | **50** | **ug/L** | 50 | 26-Jan-2023 16:27 |
| Vinyl chloride | 50 | U | 10 | 50 | 50 | ug/L | 50 | 26-Jan-2023 16:27 |
| *Surr: 1,2-Dichloroethane-d4* | *99.3* | | | **0** | *81-118* | *%REC* | *50* | *26-Jan-2023 16:27* |
| *Surr: 4-Bromofluorobenzene* | *99.9* | | | **0** | *85-114* | *%REC* | *50* | *26-Jan-2023 16:27* |
| *Surr: Dibromofluoromethane* | *91.7* | | | **0** | *80-119* | *%REC* | *50* | *26-Jan-2023 16:27* |
| *Surr: Toluene-d8* | *104* | | | **0** | *89-112* | *%REC* | *50* | *26-Jan-2023 16:27* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 10:22 |
| Ethene | 0.000500 | U | 0.000234 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 10:22 |
| **Methane** | **0.00747** | | **0.000107** | **0.000500** | **0.000500** | **mg/L** | 1 | 30-Jan-2023 10:22 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **6.48** | | **0.500** | **1.00** | **1.00** | **mg/L** | 1 | 30-Jan-2023 16:52 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| Nitrogen, Nitrate (As N) | 0.250 | U | 0.150 | 0.250 | 0.500 | mg/L | 5 | 25-Jan-2023 00:57 |
| **Sulfate** | **758** | | **10.0** | **12.5** | **25.0** | **mg/L** | 50 | 25-Jan-2023 01:03 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US** Date: 07-Feb-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16WW57-230123
Collection Date: 23-Jan-2023 09:40

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-02
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 5.0 | U | 1.5 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 16:48 |
| 1,1-Dichloroethene | 5.0 | U | 1.0 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 16:48 |
| 1,2-Dichloroethane | 5.0 | U | 1.0 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 16:48 |
| cis-1,2-Dichloroethene | 5.0 | U | 1.0 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 16:48 |
| Methylene chloride | 5.0 | U | 2.0 | 5.0 | 10 | ug/L | 5 | 26-Jan-2023 16:48 |
| **Trichloroethene** | **160** | | **1.0** | **5.0** | **5.0** | **ug/L** | 5 | 26-Jan-2023 16:48 |
| Vinyl chloride | 5.0 | U | 1.0 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 16:48 |
| *Surr: 1,2-Dichloroethane-d4* | *96.0* | | | **0** | *81-118* | *%REC* | *5* | *26-Jan-2023 16:48* |
| *Surr: 4-Bromofluorobenzene* | *102* | | | **0** | *85-114* | *%REC* | *5* | *26-Jan-2023 16:48* |
| *Surr: Dibromofluoromethane* | *85.1* | | | **0** | *80-119* | *%REC* | *5* | *26-Jan-2023 16:48* |
| *Surr: Toluene-d8* | *104* | | | **0** | *89-112* | *%REC* | *5* | *26-Jan-2023 16:48* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 10:48 |
| **Ethene** | **0.00110** | | **0.000234** | **0.000500** | **0.00100** | **mg/L** | 1 | 30-Jan-2023 10:48 |
| **Methane** | **0.00335** | | **0.000107** | **0.000500** | **0.000500** | **mg/L** | 1 | 30-Jan-2023 10:48 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **19.9** | | **0.500** | **1.00** | **1.00** | **mg/L** | 1 | 30-Jan-2023 17:06 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| Nitrogen, Nitrate (As N) | 0.250 | U | 0.150 | 0.250 | 0.500 | mg/L | 5 | 25-Jan-2023 01:09 |
| **Sulfate** | **3,140** | | **20.0** | **25.0** | **50.0** | **mg/L** | 100 | 25-Jan-2023 01:14 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US** Date: 07-Feb-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16IW26-230123
Collection Date: 23-Jan-2023 10:40

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-03
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 5.0 | U | 1.5 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 17:09 |
| 1,1-Dichloroethene | 5.0 | U | 1.0 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 17:09 |
| 1,2-Dichloroethane | 5.0 | U | 1.0 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 17:09 |
| cis-1,2-Dichloroethene | 5.0 | U | 1.0 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 17:09 |
| Methylene chloride | 5.0 | U | 2.0 | 5.0 | 10 | ug/L | 5 | 26-Jan-2023 17:09 |
| Trichloroethene | 5.0 | U | 1.0 | 5.0 | 5.0 | ug/L | 5 | 26-Jan-2023 17:09 |
| **Vinyl chloride** | **2.0** | J | **1.0** | **5.0** | **5.0** | **ug/L** | 5 | 26-Jan-2023 17:09 |
| *Surr: 1,2-Dichloroethane-d4* | *98.1* | | | **0** | *81-118* | *%REC* | *5* | *26-Jan-2023 17:09* |
| *Surr: 4-Bromofluorobenzene* | *102* | | | **0** | *85-114* | *%REC* | *5* | *26-Jan-2023 17:09* |
| *Surr: Dibromofluoromethane* | *88.6* | | | **0** | *80-119* | *%REC* | *5* | *26-Jan-2023 17:09* |
| *Surr: Toluene-d8* | *103* | | | **0** | *89-112* | *%REC* | *5* | *26-Jan-2023 17:09* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 10:55 |
| **Ethene** | **0.0523** | | **0.000234** | **0.000500** | **0.00100** | **mg/L** | 1 | 30-Jan-2023 10:55 |
| **Methane** | **5.78** | | **0.0428** | **0.200** | **0.200** | **mg/L** | 400 | 30-Jan-2023 11:55 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **110** | | **5.00** | **10.0** | **10.0** | **mg/L** | 10 | 07-Feb-2023 13:46 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| Nitrogen, Nitrate (As N) | 0.250 | U | 0.150 | 0.250 | 0.500 | mg/L | 5 | 25-Jan-2023 01:49 |
| **Sulfate** | **3.50** | | **1.00** | **1.25** | **2.50** | **mg/L** | 5 | 25-Jan-2023 01:49 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US** Date: 07-Feb-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16IW10-230123
Collection Date: 23-Jan-2023 11:35

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-04
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 1.0 | U | 0.30 | 1.0 | 1.0 | ug/L | 1 | 26-Jan-2023 10:30 |
| 1,1-Dichloroethene | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 26-Jan-2023 10:30 |
| 1,2-Dichloroethane | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 26-Jan-2023 10:30 |
| **cis-1,2-Dichloroethene** | **1.9** | | **0.20** | **1.0** | **1.0** | **ug/L** | 1 | 26-Jan-2023 10:30 |
| Methylene chloride | 1.0 | U | 0.40 | 1.0 | 2.0 | ug/L | 1 | 26-Jan-2023 10:30 |
| **Trichloroethene** | **1.6** | | **0.20** | **1.0** | **1.0** | **ug/L** | 1 | 26-Jan-2023 10:30 |
| **Vinyl chloride** | **4.2** | | **0.20** | **1.0** | **1.0** | **ug/L** | 1 | 26-Jan-2023 10:30 |
| *Surr: 1,2-Dichloroethane-d4* | *97.9* | | | **0** | *81-118* | *%REC* | *1* | *26-Jan-2023 10:30* |
| *Surr: 4-Bromofluorobenzene* | *102* | | | **0** | *85-114* | *%REC* | *1* | *26-Jan-2023 10:30* |
| *Surr: Dibromofluoromethane* | *91.4* | | | **0** | *80-119* | *%REC* | *1* | *26-Jan-2023 10:30* |
| *Surr: Toluene-d8* | *105* | | | **0** | *89-112* | *%REC* | *1* | *26-Jan-2023 10:30* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 11:20 |
| Ethene | 0.000500 | U | 0.000234 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 11:20 |
| **Methane** | **5.35** | | **0.0428** | **0.200** | **0.200** | **mg/L** | 400 | 30-Jan-2023 12:08 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **122** | | **5.00** | **10.0** | **10.0** | **mg/L** | 10 | 07-Feb-2023 14:00 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| Nitrogen, Nitrate (As N) | 0.250 | U | 0.150 | 0.250 | 0.500 | mg/L | 5 | 25-Jan-2023 00:34 |
| **Sulfate** | **1.47** | J | **1.00** | **1.25** | **2.50** | **mg/L** | 5 | 25-Jan-2023 00:34 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US** Date: 07-Feb-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16IW03-230123
Collection Date: 23-Jan-2023 12:35

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-05
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 50 | U | 15 | 50 | 50 | ug/L | 50 | 26-Jan-2023 17:31 |
| **1,1-Dichloroethene** | **48** | J | **10** | **50** | **50** | **ug/L** | 50 | 26-Jan-2023 17:31 |
| 1,2-Dichloroethane | 50 | U | 10 | 50 | 50 | ug/L | 50 | 26-Jan-2023 17:31 |
| **cis-1,2-Dichloroethene** | **18,000** | | **40** | **200** | **200** | **ug/L** | 200 | 27-Jan-2023 11:00 |
| Methylene chloride | 50 | U | 20 | 50 | 100 | ug/L | 50 | 26-Jan-2023 17:31 |
| **Trichloroethene** | **3,600** | | **10** | **50** | **50** | **ug/L** | 50 | 26-Jan-2023 17:31 |
| **Vinyl chloride** | **1,600** | | **10** | **50** | **50** | **ug/L** | 50 | 26-Jan-2023 17:31 |
| *Surr: 1,2-Dichloroethane-d4* | *101* | | **0** | *81-118* | | *%REC* | *50* | *26-Jan-2023 17:31* |
| *Surr: 1,2-Dichloroethane-d4* | *99.6* | | **0** | *81-118* | | *%REC* | *200* | *27-Jan-2023 11:00* |
| *Surr: 4-Bromofluorobenzene* | *102* | | **0** | *85-114* | | *%REC* | *50* | *26-Jan-2023 17:31* |
| *Surr: 4-Bromofluorobenzene* | *98.7* | | **0** | *85-114* | | *%REC* | *200* | *27-Jan-2023 11:00* |
| *Surr: Dibromofluoromethane* | *91.6* | | **0** | *80-119* | | *%REC* | *50* | *26-Jan-2023 17:31* |
| *Surr: Dibromofluoromethane* | *91.4* | | **0** | *80-119* | | *%REC* | *200* | *27-Jan-2023 11:00* |
| *Surr: Toluene-d8* | *104* | | **0** | *89-112* | | *%REC* | *50* | *26-Jan-2023 17:31* |
| *Surr: Toluene-d8* | *104* | | **0** | *89-112* | | *%REC* | *200* | *27-Jan-2023 11:00* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 11:03 |
| **Ethene** | **0.816** | | **0.0468** | **0.100** | **0.200** | **mg/L** | 200 | 30-Jan-2023 12:16 |
| **Methane** | **4.28** | | **0.0214** | **0.100** | **0.100** | **mg/L** | 200 | 30-Jan-2023 12:16 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **1,930** | | **50.0** | **100** | **100** | **mg/L** | 100 | 07-Feb-2023 14:29 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| **Nitrogen, Nitrate (As N)** | **3.54** | | **0.150** | **0.250** | **0.500** | **mg/L** | 5 | 25-Jan-2023 02:01 |
| **Sulfate** | **2.30** | J | **1.00** | **1.25** | **2.50** | **mg/L** | 5 | 25-Jan-2023 02:01 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US** Date: 07-Feb-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: 16IW03-230123-FD
Collection Date: 23-Jan-2023 12:35

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-06
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 50 | U | 15 | 50 | 50 | ug/L | 50 | 26-Jan-2023 17:52 |
| 1,1-Dichloroethene | 50 | U | 10 | 50 | 50 | ug/L | 50 | 26-Jan-2023 17:52 |
| 1,2-Dichloroethane | 50 | U | 10 | 50 | 50 | ug/L | 50 | 26-Jan-2023 17:52 |
| **cis-1,2-Dichloroethene** | **16,000** | | **40** | **200** | **200** | **ug/L** | 200 | 27-Jan-2023 11:21 |
| Methylene chloride | 50 | U | 20 | 50 | 100 | ug/L | 50 | 26-Jan-2023 17:52 |
| **Trichloroethene** | **1,200** | | **10** | **50** | **50** | **ug/L** | 50 | 26-Jan-2023 17:52 |
| **Vinyl chloride** | **1,300** | | **10** | **50** | **50** | **ug/L** | 50 | 26-Jan-2023 17:52 |
| *Surr: 1,2-Dichloroethane-d4* | *99.9* | | **0** | *81-118* | *%REC* | *50* | *26-Jan-2023 17:52* | |
| *Surr: 1,2-Dichloroethane-d4* | *99.3* | | **0** | *81-118* | *%REC* | *200* | *27-Jan-2023 11:21* | |
| *Surr: 4-Bromofluorobenzene* | *102* | | **0** | *85-114* | *%REC* | *50* | *26-Jan-2023 17:52* | |
| *Surr: 4-Bromofluorobenzene* | *101* | | **0** | *85-114* | *%REC* | *200* | *27-Jan-2023 11:21* | |
| *Surr: Dibromofluoromethane* | *91.2* | | **0** | *80-119* | *%REC* | *50* | *26-Jan-2023 17:52* | |
| *Surr: Dibromofluoromethane* | *91.1* | | **0** | *80-119* | *%REC* | *200* | *27-Jan-2023 11:21* | |
| *Surr: Toluene-d8* | *105* | | **0** | *89-112* | *%REC* | *50* | *26-Jan-2023 17:52* | |
| *Surr: Toluene-d8* | *104* | | **0** | *89-112* | *%REC* | *200* | *27-Jan-2023 11:21* | |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | | | Analyst: PPM |
| Ethane | 0.000500 | U | 0.000144 | 0.000500 | 0.00100 | mg/L | 1 | 30-Jan-2023 11:46 |
| **Ethene** | **1.59** | | **0.0936** | **0.200** | **0.400** | **mg/L** | 400 | 30-Jan-2023 12:26 |
| **Methane** | **5.08** | | **0.0428** | **0.200** | **0.200** | **mg/L** | 400 | 30-Jan-2023 12:26 |
| **TOTAL ORGANIC CARBON - SM5310B-2011** | | **Method:SM5310B** | | | | | | Analyst: JAC |
| **Organic Carbon, Total** | **1,660** | | **50.0** | **100** | **100** | **mg/L** | 100 | 07-Feb-2023 14:43 |
| **ANIONS BY SW9056A** | | **Method:SW9056** | | | | | | Analyst: TH |
| **Nitrogen, Nitrate (As N)** | **2.29** | | **0.150** | **0.250** | **0.500** | **mg/L** | 5 | 25-Jan-2023 02:12 |
| **Sulfate** | **2.59** | | **1.00** | **1.25** | **2.50** | **mg/L** | 5 | 25-Jan-2023 02:12 |
| **SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 31-Jan-2023 15:57 |
| **SUBCONTRACT ANALYSIS - RSK** | | **Method:NA** | | | | | | Analyst: SUB |
| Subcontract Analysis | See Attached | | 0 | 0 | | NA | 1 | 01-Feb-2023 09:58 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US** Date: 07-Feb-23

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 January 2023
Sample ID: Trip Blank-230123
Collection Date: 23-Jan-2023 00:00

**ANALYTICAL REPORT**
WorkOrder:HS23011136
Lab ID:HS23011136-07
Matrix:Water

| ANALYSES | RESULT | QUAL | DL | LOD | LOQ | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|---|
| **VOLATILES ORGANICS BY METHOD 8260C** | | **Method:SW8260** | | | | | | Analyst: FT |
| 1,1,2-Trichloroethane | 1.0 | U | 0.30 | 1.0 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| 1,1-Dichloroethene | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| 1,2-Dichloroethane | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| Methylene chloride | 1.0 | U | 0.40 | 1.0 | 2.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| Trichloroethene | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| Vinyl chloride | 1.0 | U | 0.20 | 1.0 | 1.0 | ug/L | 1 | 26-Jan-2023 11:33 |
| *Surr: 1,2-Dichloroethane-d4* | *99.1* | | | **0** | *81-118* | *%REC* | *1* | *26-Jan-2023 11:33* |
| *Surr: 4-Bromofluorobenzene* | *100* | | | **0** | *85-114* | *%REC* | *1* | *26-Jan-2023 11:33* |
| *Surr: Dibromofluoromethane* | *92.4* | | | **0** | *80-119* | *%REC* | *1* | *26-Jan-2023 11:33* |
| *Surr: Toluene-d8* | *105* | | | **0** | *89-112* | *%REC* | *1* | *26-Jan-2023 11:33* |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

## DATES REPORT

| Sample ID | Client Samp ID | Collection Date | Leachate Date | Prep Date | Analysis Date | DF |
|---|---|---|---|---|---|---|
| **Batch ID:** R426450 ( 0 ) | **Test Name :** ANIONS BY SW9056A | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 25 Jan 2023 01:03 | 50 |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 25 Jan 2023 00:57 | 5 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 25 Jan 2023 01:14 | 100 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 25 Jan 2023 01:09 | 5 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 25 Jan 2023 01:49 | 5 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 25 Jan 2023 00:34 | 5 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 25 Jan 2023 02:01 | 5 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 25 Jan 2023 02:12 | 5 |
| **Batch ID:** R426583 ( 0 ) | **Test Name :** VOLATILES ORGANICS BY METHOD 8260C | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 26 Jan 2023 16:27 | 50 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 26 Jan 2023 16:48 | 5 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 26 Jan 2023 17:09 | 5 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 26 Jan 2023 10:30 | 1 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 26 Jan 2023 17:31 | 50 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 26 Jan 2023 17:52 | 50 |
| HS23011136-07 | Trip Blank-230123 | 23 Jan 2023 00:00 | | | 26 Jan 2023 11:33 | 1 |
| **Batch ID:** R426682 ( 0 ) | **Test Name :** VOLATILES ORGANICS BY METHOD 8260C | | | | **Matrix:** Water | |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 27 Jan 2023 11:00 | 200 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 27 Jan 2023 11:21 | 200 |
| **Batch ID:** R426969 ( 0 ) | **Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850) | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 31 Jan 2023 15:57 | 1 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 31 Jan 2023 15:57 | 1 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 31 Jan 2023 15:57 | 1 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 31 Jan 2023 15:57 | 1 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 31 Jan 2023 15:57 | 1 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 31 Jan 2023 15:57 | 1 |
| **Batch ID:** R427010 ( 0 ) | **Test Name :** SUBCONTRACT ANALYSIS - RSK | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 01 Feb 2023 09:58 | 1 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 01 Feb 2023 09:58 | 1 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 01 Feb 2023 09:58 | 1 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 01 Feb 2023 09:58 | 1 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 01 Feb 2023 09:58 | 1 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 01 Feb 2023 09:58 | 1 |
| **Batch ID:** R427016 ( 0 ) | **Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011 | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 30 Jan 2023 16:52 | 1 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 30 Jan 2023 17:06 | 1 |

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023 **DATES REPORT**
**WorkOrder:** HS23011136

| Sample ID | Client Samp ID | Collection Date | Leachate Date | Prep Date | Analysis Date | DF |
|---|---|---|---|---|---|---|
| **Batch ID:** R427362 ( 0 ) | **Test Name :** DISSOLVED GASES BY RSK-175 | | | | **Matrix:** Water | |
| HS23011136-01 | 16WW58-230123 | 23 Jan 2023 08:50 | | | 30 Jan 2023 10:22 | 1 |
| HS23011136-02 | 16WW57-230123 | 23 Jan 2023 09:40 | | | 30 Jan 2023 10:48 | 1 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 30 Jan 2023 11:55 | 400 |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 30 Jan 2023 10:55 | 1 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 30 Jan 2023 12:08 | 400 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 30 Jan 2023 11:20 | 1 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 30 Jan 2023 12:16 | 200 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 30 Jan 2023 11:03 | 1 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 30 Jan 2023 12:26 | 400 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 30 Jan 2023 11:46 | 1 |
| **Batch ID:** R427492 ( 0 ) | **Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011 | | | | **Matrix:** Water | |
| HS23011136-03 | 16IW26-230123 | 23 Jan 2023 10:40 | | | 07 Feb 2023 13:46 | 10 |
| HS23011136-04 | 16IW10-230123 | 23 Jan 2023 11:35 | | | 07 Feb 2023 14:00 | 10 |
| HS23011136-05 | 16IW03-230123 | 23 Jan 2023 12:35 | | | 07 Feb 2023 14:29 | 100 |
| HS23011136-06 | 16IW03-230123-FD | 23 Jan 2023 12:35 | | | 07 Feb 2023 14:43 | 100 |

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R427362 ( 0 ) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

**MBLK** Sample ID: **MBLK-230130** Units: **mg/L** Analysis Date: **30-Jan-2023 09:35**
Client ID: Run ID: **FID-4_427362** SeqNo: **7109613** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | 0.000500 | 0.00100 | | | | | | | | U |
| Ethene | 0.000500 | 0.00100 | | | | | | | | U |
| Methane | 0.000500 | 0.000500 | | | | | | | | U |

**LCS** Sample ID: **LCS-230130** Units: **mg/L** Analysis Date: **30-Jan-2023 09:43**
Client ID: Run ID: **FID-4_427362** SeqNo: **7109614** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | 0.0194 | 0.00100 | 0.01804 | 0 | 107 | 75 - 125 | | | | |
| Ethene | 0.0171 | 0.00100 | 0.0168 | 0 | 102 | 75 - 125 | | | | |
| Methane | 0.00938 | 0.000500 | 0.009647 | 0 | 97.3 | 75 - 125 | | | | |

**MS** Sample ID: **HS23011136-04MS** Units: **mg/L** Analysis Date: **30-Jan-2023 11:28**
Client ID: **16IW10-230123** Run ID: **FID-4_427362** SeqNo: **7109624** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | 0.0316 | 0.00100 | 0.01804 | 0 | 175 | 75 - 125 | | | | S |
| Ethene | 0.0473 | 0.00100 | 0.0168 | 0 | 282 | 75 - 125 | | | | S |
| Methane | 4.87 | 0.000500 | 0.009647 | 5.190 | -3350 | 75 - 125 | | | | SEO |

**MSD** Sample ID: **HS23011136-04MSD** Units: **mg/L** Analysis Date: **30-Jan-2023 11:37**
Client ID: **16IW10-230123** Run ID: **FID-4_427362** SeqNo: **7109625** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | 0.0295 | 0.00100 | 0.01804 | 0 | 163 | 75 - 125 | 0.03159 | 6.91 | 30 | S |
| Ethene | 0.0410 | 0.00100 | 0.0168 | 0 | 244 | 75 - 125 | 0.04729 | 14.3 | 30 | S |
| Methane | 4.81 | 0.000500 | 0.009647 | 5.190 | -3910 | 75 - 125 | 4.867 | 1.12 | 30 | SEO |

**The following samples were analyzed in this batch:** HS23011136-01 HS23011136-02 HS23011136-03 HS23011136-04 HS23011136-05 HS23011136-06

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R426583 ( 0 ) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

**MBLK** Sample ID: **VBLKW-230126** Units: **ug/L** Analysis Date: **26-Jan-2023 10:09**
Client ID: Run ID: **VOA6_426583** SeqNo: **7089740** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1.0 | 1.0 | | | | | | | | U |
| 1,1-Dichloroethene | 1.0 | 1.0 | | | | | | | | U |
| 1,2-Dichloroethane | 1.0 | 1.0 | | | | | | | | U |
| cis-1,2-Dichloroethene | 1.0 | 1.0 | | | | | | | | U |
| Methylene chloride | 1.0 | 2.0 | | | | | | | | U |
| Trichloroethene | 1.0 | 1.0 | | | | | | | | U |
| Vinyl chloride | 1.0 | 1.0 | | | | | | | | U |
| *Surr: 1,2-Dichloroethane-d4* | *49.8* | *1.0* | *50* | *0* | *99.6* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *49.71* | *1.0* | *50* | *0* | *99.4* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *45.67* | *1.0* | *50* | *0* | *91.3* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *52.02* | *1.0* | *50* | *0* | *104* | *89 - 112* | | | | |

**LCS** Sample ID: **VLCSW-230126** Units: **ug/L** Analysis Date: **26-Jan-2023 09:27**
Client ID: Run ID: **VOA6_426583** SeqNo: **7089753** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20.84 | 1.0 | 20 | 0 | 104 | 80 - 119 | | | | |
| 1,1-Dichloroethene | 20.3 | 1.0 | 20 | 0 | 102 | 71 - 131 | | | | |
| 1,2-Dichloroethane | 22.43 | 1.0 | 20 | 0 | 112 | 73 - 128 | | | | |
| cis-1,2-Dichloroethene | 20.04 | 1.0 | 20 | 0 | 100 | 78 - 123 | | | | |
| Methylene chloride | 19.73 | 2.0 | 20 | 0 | 98.7 | 74 - 124 | | | | |
| Trichloroethene | 21.89 | 1.0 | 20 | 0 | 109 | 79 - 123 | | | | |
| Vinyl chloride | 19.56 | 1.0 | 20 | 0 | 97.8 | 58 - 137 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *53.42* | *1.0* | *50* | *0* | *107* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *51.37* | *1.0* | *50* | *0* | *103* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *48.58* | *1.0* | *50* | *0* | *97.2* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *48.94* | *1.0* | *50* | *0* | *97.9* | *89 - 112* | | | | |

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R426583 ( 0 ) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

**MS** Sample ID: **HS23011136-04MS** Units: **ug/L** Analysis Date: **26-Jan-2023 10:51**
Client ID: **16IW10-230123** Run ID: **VOA6_426583** SeqNo: **7089742** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 16.92 | 1.0 | 20 | 0 | 84.6 | 80 - 119 | | | | |
| 1,1-Dichloroethene | 16.95 | 1.0 | 20 | 0 | 84.8 | 71 - 131 | | | | |
| 1,2-Dichloroethane | 19.19 | 1.0 | 20 | 0 | 96.0 | 73 - 128 | | | | |
| cis-1,2-Dichloroethene | 17.04 | 1.0 | 20 | 1.898 | 75.7 | 78 - 123 | | | | S |
| Methylene chloride | 14.31 | 2.0 | 20 | 0 | 71.5 | 74 - 124 | | | | S |
| Trichloroethene | 20.06 | 1.0 | 20 | 1.572 | 92.5 | 79 - 123 | | | | |
| Vinyl chloride | 19.92 | 1.0 | 20 | 4.236 | 78.4 | 58 - 137 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *49.74* | *1.0* | *50* | *0* | *99.5* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *51.78* | *1.0* | *50* | *0* | *104* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *45.57* | *1.0* | *50* | *0* | *91.1* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *52.55* | *1.0* | *50* | *0* | *105* | *89 - 112* | | | | |

**MSD** Sample ID: **HS23011136-04MSD** Units: **ug/L** Analysis Date: **26-Jan-2023 11:12**
Client ID: **16IW10-230123** Run ID: **VOA6_426583** SeqNo: **7089743** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 16.46 | 1.0 | 20 | 0 | 82.3 | 80 - 119 | 16.92 | 2.78 | 20 | |
| 1,1-Dichloroethene | 15.86 | 1.0 | 20 | 0 | 79.3 | 71 - 131 | 16.95 | 6.63 | 20 | |
| 1,2-Dichloroethane | 17.84 | 1.0 | 20 | 0 | 89.2 | 73 - 128 | 19.19 | 7.31 | 20 | |
| cis-1,2-Dichloroethene | 16.53 | 1.0 | 20 | 1.898 | 73.1 | 78 - 123 | 17.04 | 3.05 | 20 | S |
| Methylene chloride | 13.89 | 2.0 | 20 | 0 | 69.5 | 74 - 124 | 14.31 | 2.96 | 20 | S |
| Trichloroethene | 18.87 | 1.0 | 20 | 1.572 | 86.5 | 79 - 123 | 20.06 | 6.15 | 20 | |
| Vinyl chloride | 18.64 | 1.0 | 20 | 4.236 | 72.0 | 58 - 137 | 19.92 | 6.66 | 20 | |
| *Surr: 1,2-Dichloroethane-d4* | *49.79* | *1.0* | *50* | *0* | *99.6* | *81 - 118* | *49.74* | *0.0824* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *51.93* | *1.0* | *50* | *0* | *104* | *85 - 114* | *51.78* | *0.303* | *20* | |
| *Surr: Dibromofluoromethane* | *45.8* | *1.0* | *50* | *0* | *91.6* | *80 - 119* | *45.57* | *0.51* | *20* | |
| *Surr: Toluene-d8* | *52.15* | *1.0* | *50* | *0* | *104* | *89 - 112* | *52.55* | *0.753* | *20* | |

**The following samples were analyzed in this batch:**

| | | | |
|---|---|---|---|
| HS23011136-01 | HS23011136-02 | HS23011136-03 | HS23011136-04 |
| HS23011136-05 | HS23011136-06 | HS23011136-07 | |

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID: R426682 ( 0 )** **Instrument: VOA6** **Method: VOLATILES ORGANICS BY METHOD 8260C**

**MBLK** Sample ID: **VBLKW-230127** Units: **ug/L** Analysis Date: **27-Jan-2023 09:35**
Client ID: Run ID: **VOA6_426682** SeqNo: **7092070** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 1.0 | 1.0 | | | | | | | | U |
| *Surr: 1,2-Dichloroethane-d4* | *50.56* | *1.0* | *50* | *0* | *101* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *51.69* | *1.0* | *50* | *0* | *103* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *46.1* | *1.0* | *50* | *0* | *92.2* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *52.41* | *1.0* | *50* | *0* | *105* | *89 - 112* | | | | |

**LCS** Sample ID: **VLCSW-230127** Units: **ug/L** Analysis Date: **27-Jan-2023 08:53**
Client ID: Run ID: **VOA6_426682** SeqNo: **7092069** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 20.18 | 1.0 | 20 | 0 | 101 | 78 - 123 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *56.52* | *1.0* | *50* | *0* | *113* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *51.31* | *1.0* | *50* | *0* | *103* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *49.49* | *1.0* | *50* | *0* | *99.0* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *49.59* | *1.0* | *50* | *0* | *99.2* | *89 - 112* | | | | |

**MS** Sample ID: **HS23011212-02MS** Units: **ug/L** Analysis Date: **27-Jan-2023 10:18**
Client ID: Run ID: **VOA6_426682** SeqNo: **7092072** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 15.79 | 1.0 | 20 | 0 | 79.0 | 78 - 123 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *50.98* | *1.0* | *50* | *0* | *102* | *81 - 118* | | | | |
| *Surr: 4-Bromofluorobenzene* | *52.03* | *1.0* | *50* | *0* | *104* | *85 - 114* | | | | |
| *Surr: Dibromofluoromethane* | *46.29* | *1.0* | *50* | *0* | *92.6* | *80 - 119* | | | | |
| *Surr: Toluene-d8* | *51.63* | *1.0* | *50* | *0* | *103* | *89 - 112* | | | | |

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R426682 ( 0 ) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

**MSD** Sample ID: **HS23011212-02MSD** Units: **ug/L** Analysis Date: **27-Jan-2023 10:39**
Client ID: Run ID: **VOA6_426682** SeqNo: **7092073** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 15.22 | 1.0 | 20 | 0 | 76.1 | 78 - 123 | 15.79 | 3.73 | 20 | S |
| *Surr: 1,2-Dichloroethane-d4* | *50.34* | *1.0* | *50* | *0* | *101* | *81 - 118* | *50.98* | *1.28* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *51.8* | *1.0* | *50* | *0* | *104* | *85 - 114* | *52.03* | *0.44* | *20* | |
| *Surr: Dibromofluoromethane* | *45.62* | *1.0* | *50* | *0* | *91.2* | *80 - 119* | *46.29* | *1.45* | *20* | |
| *Surr: Toluene-d8* | *51.69* | *1.0* | *50* | *0* | *103* | *89 - 112* | *51.63* | *0.116* | *20* | |

**The following samples were analyzed in this batch:** HS23011136-05 HS23011136-06

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID: R426450 ( 0 )** **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

**MBLK** Sample ID: **MBLK** Units: **mg/L** Analysis Date: **25-Jan-2023 00:22**
Client ID: Run ID: **ICS-Integrion_426450** SeqNo: **7086801** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Nitrate (As N) | 0.0500 | 0.100 | | | | | | | | U |
| Sulfate | 0.250 | 0.500 | | | | | | | | U |

**LCS** Sample ID: **LCS** Units: **mg/L** Analysis Date: **25-Jan-2023 00:28**
Client ID: Run ID: **ICS-Integrion_426450** SeqNo: **7086802** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Nitrate (As N) | 3.959 | 0.100 | 4 | 0 | 99.0 | 80 - 120 | | | | |
| Sulfate | 19.58 | 0.500 | 20 | 0 | 97.9 | 80 - 120 | | | | |

**MS** Sample ID: **HS23011136-04MS** Units: **mg/L** Analysis Date: **25-Jan-2023 00:40**
Client ID: **16IW10-230123** Run ID: **ICS-Integrion_426450** SeqNo: **7086804** PrepDate: DF: **5**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Nitrate (As N) | 9.872 | 0.500 | 10 | 0.0125 | 98.6 | 80 - 120 | | | | |
| Sulfate | 49.08 | 2.50 | 50 | 1.47 | 95.2 | 80 - 120 | | | | |

**MSD** Sample ID: **HS23011136-04MSD** Units: **mg/L** Analysis Date: **25-Jan-2023 00:45**
Client ID: **16IW10-230123** Run ID: **ICS-Integrion_426450** SeqNo: **7086805** PrepDate: DF: **5**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Nitrate (As N) | 9.724 | 0.500 | 10 | 0.0125 | 97.1 | 80 - 120 | 9.872 | 1.51 | 20 | |
| Sulfate | 48.28 | 2.50 | 50 | 1.47 | 93.6 | 80 - 120 | 49.08 | 1.64 | 20 | |

**The following samples were analyzed in this batch:** HS23011136-01 HS23011136-02 HS23011136-03 HS23011136-04 HS23011136-05 HS23011136-06

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R427016 ( 0 ) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

**MBLK** Sample ID: **MBLK-01302023** Units: **mg/L** Analysis Date: **30-Jan-2023 15:43**
Client ID: Run ID: **TOC_04_427016** SeqNo: **7100586** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 1.00 | 1.00 | | | | | | | | U |

**LCS** Sample ID: **LCS-01302023** Units: **mg/L** Analysis Date: **30-Jan-2023 15:58**
Client ID: Run ID: **TOC_04_427016** SeqNo: **7100587** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 11.05 | 1.00 | 10 | 0 | 110 | 85 - 115 | | | | |

**LCSD** Sample ID: **LCSD-01302023** Units: **mg/L** Analysis Date: **30-Jan-2023 16:11**
Client ID: Run ID: **TOC_04_427016** SeqNo: **7100588** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 11.18 | 1.00 | 10 | 0 | 112 | 85 - 115 | 11.05 | 1.17 | 20 | |

**MS** Sample ID: **HS23011136-04MS** Units: **mg/L** Analysis Date: **30-Jan-2023 17:51**
Client ID: **16IW10-230123** Run ID: **TOC_04_427016** SeqNo: **7100595** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 177.1 | 1.00 | 10 | 166 | 111 | 80 - 120 | | | | EO |

**The following samples were analyzed in this batch:** HS23011136-01 HS23011136-02

**ALS Houston, US** Date: 07-Feb-23

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** HS23011136

**QC BATCH REPORT**

**Batch ID:** R427492 ( 0 ) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

**MBLK** Sample ID: **MBLK-02062023** Units: **mg/L** Analysis Date: **07-Feb-2023 13:05**
Client ID: Run ID: **TOC_04_427492** SeqNo: **7112481** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 1.00 | 1.00 | | | | | | | | U |

**LCS** Sample ID: **LCS-02062023** Units: **mg/L** Analysis Date: **07-Feb-2023 13:18**
Client ID: Run ID: **TOC_04_427492** SeqNo: **7112482** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 10.27 | 1.00 | 10 | 0 | 103 | 85 - 115 | | | | |

**LCSD** Sample ID: **LCSD-02062023** Units: **mg/L** Analysis Date: **07-Feb-2023 13:32**
Client ID: Run ID: **TOC_04_427492** SeqNo: **7112483** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 10.39 | 1.00 | 10 | 0 | 104 | 85 - 115 | 10.27 | 1.16 | 20 | |

**MS** Sample ID: **HS23011136-04MS** Units: **mg/L** Analysis Date: **07-Feb-2023 14:15**
Client ID: **16IW10-230123** Run ID: **TOC_04_427492** SeqNo: **7112486** PrepDate: DF: **10**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Carbon, Total | 253.4 | 10.0 | 100 | 121.6 | 132 | 80 - 120 | | | | S |

**The following samples were analyzed in this batch:** HS23011136-03 HS23011136-04 HS23011136-05 HS23011136-06

**Client:** Aptim Environmental & Infrastucture, Inc.
**Project:** LHAAP 16 January 2023
**WorkOrder:** **HS23011136**

**QUALIFIERS, ACRONYMS, UNITS**

| Qualifier | Description |
|---|---|
| * | Value exceeds Regulatory Limit |
| a | Not accredited |
| B | Analyte detected in the associated Method Blank above the Reporting Limit |
| E | Value above quantitation range |
| H | Analyzed outside of Holding Time |
| J | Analyte detected below quantitation limit |
| M | Manually integrated, see raw data for justification |
| n | Not offered for accreditation |
| ND | Not Detected at the Reporting Limit |
| O | Sample amount is > 4 times amount spiked |
| P | Dual Column results percent difference > 40% |
| R | RPD above laboratory control limit |
| S | Spike Recovery outside laboratory control limits |
| U | Analyzed but not detected above the MDL/SDL |

| Acronym | Description |
|---|---|
| DCS | Detectability Check Study |
| DUP | Method Duplicate |
| LCS | Laboratory Control Sample |
| LCSD | Laboratory Control Sample Duplicate |
| MBLK | Method Blank |
| MDL | Method Detection Limit |
| MQL | Method Quantitation Limit |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| PDS | Post Digestion Spike |
| PQL | Practical Quantitaion Limit |
| SD | Serial Dilution |
| SDL | Sample Detection Limit |
| TRRP | Texas Risk Reduction Program |

| Unit Reported | Description |
|---|---|
| mg/L | Milligrams per Liter |

## CERTIFICATIONS,ACCREDITATIONS & LICENSES

| Agency | Number | Expire Date |
|---|---|---|
| Arkansas | 22-041-0 | 27-Mar-2023 |
| California | 2919 2022-2023 | 30-Apr-2023 |
| Dept of Defense | L21-682 | 31-Dec-2023 |
| Florida | E87611-36 | 30-Jun-2023 |
| Illinois | 2000322022-9 | 09-May-2023 |
| Kansas | E-10352; 2022-2023 | 31-Jul-2023 |
| Kentucky | 123043, 2022-2023 | 30-Apr-2023 |
| Louisiana | 03087, 2022-2023 | 30-Jun-2023 |
| Maryland | 343, 2022-2023 | 30-Jun-2023 |
| North Carolina | 624-2023 | 31-Dec-2023 |
| North Dakota | R-193 2022-2023 | 30-Apr-2023 |
| Oklahoma | 2022-141 | 31-Aug-2023 |
| Texas | T104704231-22-29 | 30-Apr-2023 |
| Utah | TX026932022-13 | 31-Jul-2023 |

**ALS Houston, US** Date: 07-Feb-23

## Sample Receipt Checklist

**Work Order ID:** HS23011136 **Date/Time Received:** 24-Jan-2023 09:50

**Client Name:** CBI-Houston **Received by:** Corey Grandits

**Completed By:** /S/ Nelson D. Dusara (eSignature) 24-Jan-2023 12:46 (Date/Time) **Reviewed by:** /S/ Dane J. Wacasey (eSignature) 07-Feb-2023 16:49 (Date/Time)

Matrices: WATER Carrier name: FedEx

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on shipping container/cooler? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Present ☑ |
| VOA/TX1005/TX1006 Solids in hermetically sealed vials? | Yes ☐ | No ☐ | Not Present ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | 2 Page(s) |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | |
| Samplers name present on COC? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature in compliance? | Yes ☑ | No ☐ | |

| | | |
|---|---|---|
| Temperature(s)/Thermometer(s): | 3.1/2.6 C UC/C | IR 31 |
| Cooler(s)/Kit(s): | 45314 | |
| Date/Time sample(s) sent to storage: | 01/24/2023 12:00 | |

| | | | |
|---|---|---|---|
| Water - VOA vials have zero headspace? | Yes ☑ | No ☐ | No VOA vials submitted ☐ |
| Water - pH acceptable upon receipt? | Yes ☑ | No ☐ | N/A ☐ |
| pH adjusted? | Yes ☐ | No ☑ | N/A ☐ |
| pH adjusted by: | | | |

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

HS23011136

Aptim Environmental & Infrastucture, Inc.

LHAAP January 2023

# CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 575-2190 ATTN: Dane Wacasey

| Project: APTIM<br>LONGHORN ARMY AMMN. PLANT (LHAAP)<br>GROUNDWATER TREATMENT PLANT (GWTP)<br>KARNACK, TEXAS | Project No.<br>501032 |
|---|---|
| Job:<br>**LHAAP 16 January 2023** | |
| Prepared By:<br>Scott Beesinger | P.O. Number |

| Field Sample I.D. | Sample Matrix | Date / Time | MS / MSD | No. OF CONTAINERS | Analyses: VOC by SW 8260B | TOC by SM5310C | MEE by RSK 175 | Anions sulfate and nitrate by SW9056 | CO2 by RSK 175 | Perchlorate by SW 6850 | Manganese by SW6020A | | | | Remarks (Preservatives, etc.) | Lab I.D.# |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16WW58-230123 | WG | 1/23/23 0850 | | 13 | X | X | X | X | X | X | | | | | | |
| 16WW57-230123 | WG | 1/23/23 0940 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW26-230123 | WG | 1/23/23 1040 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW10-230123 | WG | 1/23/23 1135 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW10-230123-MS | WG | 1/23/23 1135 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW10-230123-MSD | WG | 1/23/23 1135 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW03-230123 | WG | 1/23/23 1235 | | 13 | X | X | X | X | X | X | | | | | | |
| 16IW03-230123-FD | WG | 1/23/23 1235 | | 13 | X | X | X | X | X | X | | | | | | |

**Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com**

| Relinquished By: | Date | Time | Received By: | Date | Time | Relinquished By: | Date | Time | Received By: | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Scott Beesinger | 1/23/23 | 1430 | COREY G | 1-24-23 | 0950 | | | | | | |

| For Lab Use Only | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Received At Lab By: | Date | Time | Airbill No. | Opened By: | Date | Time | Temp of Container | Seal No. | Condition |
| | | | | | | | | | |

Remarks:

49314 1241

3.1°

**HS23011136**

Aptim Environmental & Infrastucture, Inc.

LHAAP January 2023

# CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 575-2190 ATTN: Dane Wacasey

| Project: APTIM<br>LONGHORN ARMY AMMN. PLANT (LHAAP)<br>GROUNDWATER TREATMENT PLANT (GWTP)<br>KARNACK, TEXAS | Project No.<br>501032 |
|---|---|
| Job:<br>**LHAAP 16 January 2023** | |
| Prepared By:<br>Scott Beesinger | P.O. Number |

| Field Sample I.D. / Time | Sample Matrix | Date / | MS / MSD | No. OF CONTAINERS | Analyses: VOC by SW 8260B | TOC by SM5310C | MEE by RSK 175 | Anions sulfate and nitrate by SW9056 | CO2 by RSK 175 | Perchlorate by SW 6850 | Manganese by SW6020A | | | | Remarks (Preservatives, etc.) | Lab I.D.# |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRIP BLANK-230123 | W | 1/23/23 | | 2 | X | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

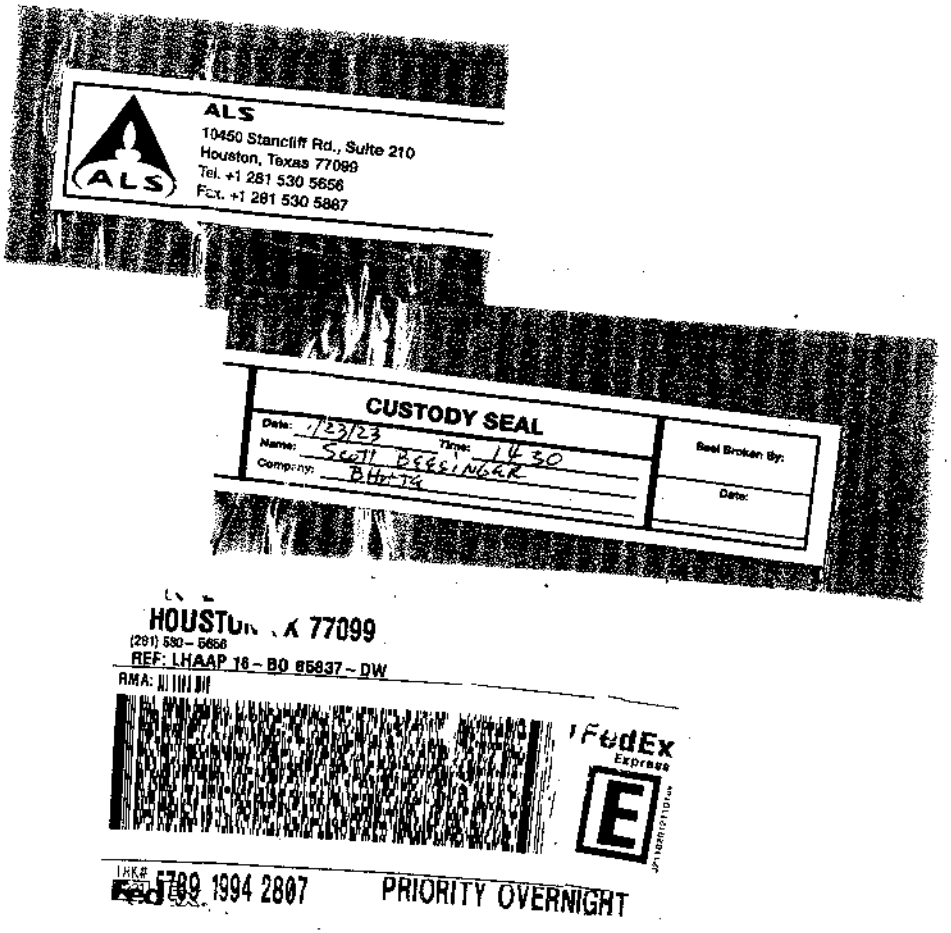
**Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com**

| Relinquished By: | Date | Time | Received By: | Date | Time | Relinquished By: | Date | Time | Received By: | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Scott Beesinger | 1/23/23 | 1430 | CODE76 | 1-24-23 | 0940 | | | | | | |

**For Lab Use Only**

| Received At Lab By: | Date | Time | Airbill No. | Opened By: | Date | Time | Temp of Container | Seal No. | Condition |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

Remarks:



ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 1/23/23 Time: 1430
Name: SCOTT BEGGINGER
Company: BHGE

Seal Broken By:
Date:

HOUSTON, TX 77099
(281) 530-5656
REF: LHAAP 16 - BO 65837 - DW
AMA:

FedEx Express

IHK# 5789 1994 2807 PRIORITY OVERNIGHT

January 31, 2023 Service Request No:E2300079

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

**Laboratory Results for: HS23011136**

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory January 24, 2023
For your reference, these analyses have been assigned our service request number **E2300079.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

# Certificate of Analysis

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Environmental**

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request No.:** | E2300079 |
| **Project:** | HS23011136 | **Date Received:** | 01/24/23 |
| **Sample Matrix:** | Ground Water | | |

## CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

### Sample Receipt

Six samples were received for analysis at ALS Environmental in Houston on 01/24/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

### Data Validation Notes and Discussion

**Precision and Accuracy:**

EQ2300031: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch.

*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

**Client:** ALS Environmental - US **Service Request:**E2300079
**Project:** HS23011136

## SAMPLE CROSS-REFERENCE

| SAMPLE # | CLIENT SAMPLE ID | DATE | TIME |
|---|---|---|---|
| E2300079-001 | 16WW58-230123 | 1/23/2023 | 0850 |
| E2300079-002 | 16WW57-230123 | 1/23/2023 | 0940 |
| E2300079-003 | 16IW26-230123 | 1/23/2023 | 1040 |
| E2300079-004 | 16IW10-230123 | 1/23/2023 | 1135 |
| E2300079-005 | 16IW03-230123 | 1/23/2023 | 1235 |
| E2300079-006 | 16IW03-230123-FD | 1/23/2023 | 1235 |

# Service Request Summary

**Folder #:** **E2300079**
Client Name: ALS Environmental - US
Project Name: HS23011136
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/24/23
Internal Due Date: 2/7/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23011136
EDD: EQUIS
EFWEDD_LHAAP

8 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

| Lab Samp No. | Client Samp No | Matrix | Collected | HOUSTON<br>ClO4 DOD/6850 |
|---|---|---|---|---|
| E2300079-001 | 16WW58-230123 | Ground Water | 01/23/23 0850 | **IV** |
| E2300079-002 | 16WW57-230123 | Ground Water | 01/23/23 0940 | **IV** |
| E2300079-003 | 16IW26-230123 | Ground Water | 01/23/23 1040 | **IV** |
| E2300079-004 | 16IW10-230123 | Ground Water | 01/23/23 1135 | **IV** |
| E2300079-005 | 16IW03-230123 | Ground Water | 01/23/23 1235 | **IV** |
| E2300079-006 | 16IW03-230123-FD | Ground Water | 01/23/23 1235 | **IV** |

# Service Request Summary

**Folder #:** **E2300079**
Client Name: ALS Environmental - US
Project Name: HS23011136
Project Number:

**Report To:** Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/24/23
Internal Due Date: 2/7/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23011136
EDD: EQUIS
EFWEDD_LHAAP

8 120 mL-Plastic Bottle Natural WM Unpreserved
**Location:** EHRMS-AirArch 1
**Pressure Gas:**

## Test Comments:

| Group | Test/Method | Samples | Comments |
|---|---|---|---|
| Semivoa GCMS | ClO4 DOD/6850 | 5 | IV Due 2/14 |
| Semivoa GCMS | ClO4 DOD/6850 | 1 | ms/msd |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| + | Possible Tedlar bag artifact. |
| A | TIC is a suspected aldol-condensation product |
| B | Analyte found in the associated method blank as well as in the sample. |
| BC | Reported results are not blank corrected. |
| BH | The back section of the tube yielded higher results than the front. |
| BT | Results indicated possible breakthrough; back section >=10% front section. |
| C | Result identification confirmed. |
| D | Compound identified in an analysis at a secondary dilution factor |
| D | Spike was diluted out |
| DE | Reported results are corrected for desorption efficiency. |
| E | Estimated value. Concentration above calibration range |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| H1 | Sample analysis performed past holding time. See case narrative. |
| H2 | Initial analysis within holding time. Reanalysis for the required dilution was past holding time. |
| H3 | Sample was received and analyzed past holding time. |
| H4 | Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative. |
| I | (Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| I | Internal standard not within the specified limits. See case narrative. |
| I | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| J | Estimated Value. Concentration found below MRL. |
| K | A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate. |
| K | Analyte was detected above the method reporting limit prior to normalization. |
| K | The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| L1 | Laboratory control sample recovery outside the specified limits; results may be biased high. |
| L2 | Laboratory control sample recovery outside the specified limits; results may be biased low. |
| L3 | Laboratory control sample recovery outside the specified limits. |
| M | Matrix interference; results may be biased high. |
| M | The duplicate injection precision not met. |

# Data Qualifiers

## Lab Standard

| | |
|---|---|
| M1 | Matrix interference due to coelution with a non-target compound; results may be biased high. |
| N | Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| P | Indicates chlorodiphenyl ether interference present at the retention time of the target compound. |
| P | Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns |
| Q | Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria. |
| R | Duplicate Precision not met. |
| R1 | Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated. |
| S | Surrogate recovery not within specified limits. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| T | Analyte is a tentatively identified compound, result is estimated. |
| U | Compound was analyzed for, but was not detected (ND). |
| V1 | The continuing calibration verification standard was outside (biased high) the specified limits for this compound. |
| V2 | The continuing calibration verification standard was outside (biased low) the specified limits for this compound. |
| W | Result quantified, but the corresponding peak was detected outside the generated retention time window. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| X | See case narrative. |
| Y | Recovery outside limits |
| Y | The chromatogram resembles a petroleum product but does not match the calibration standard. |
| Z | The chromatogram does not resemble a petroleum product. |
| i | The MRL/MDL has been elevated due to a matrix interference. |

# ALS Laboratory Group

**Acronyms**

| | |
|---|---|
| Cal | Calibration |
| Conc | CONCentration |
| Dioxin(s) | Polychlorinated dibenzo-p-dioxin(s) |
| EDL | Estimated Detection Limit |
| EMPC | Estimated Maximum Possible Concentration |
| Flags | Data qualifiers |
| Furan(s) | Polychlorinated dibenzofuran(s) |
| g | Grams |
| ICAL | Initial CALibration |
| ID | IDentifier |
| Ions | Masses monitored for the analyte during data acquisition |
| L | Liter (s) |
| LCS | Laboratory Control Sample |
| DLCS | Duplicate Laboratory Control Sample |
| MB | Method Blank |
| MCL | Method Calibration Limit |
| MDL | Method Detection Limit |
| mL | Milliliters |
| MS | Matrix Spiked sample |
| DMS | Duplicate Matrix Spiked sample |
| NO | Number of peaks meeting all identification criteria |
| PCDD(s) | Polychlorinated dibenzo-p-dioxin(s) |
| PCDF(s) | Polychlorinated dibenzofuran(s) |
| ppb | Parts per billion |
| ppm | Parts per million |
| ppq | Parts per quadrillion |
| ppt | Parts per trillion |
| QA | Quality Assurance |
| QC | Quality Control |
| Ratio | Ratio of areas from monitored ions for an analyte |
| % Rec. | Percent recovery |
| RPD | Relative Percent Difference |
| RRF | Relative Response Factor |
| RT | Retention Time |
| SDG | Sample Delivery Group |
| S/N | Signal-to-noise ratio |
| TEF | Toxicity Equivalence Factor |
| TEQ | Toxicity Equivalence Quotient |

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

## State Certifications, Accreditations, and Licenses

| Agency | Number | Expire Date |
|---|---|---|
| Arizona Department of Health Services | AZ0793 | 5/27/2023 |
| Arkansas Department of Environmental Quality | 22-041-0 | 3/27/2023 |
| California Department of Health Services | 2919-2023 | 4/30/2023 |
| Department of Defense | L22-90 | 3/31/2024 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Florida Department of Health | E87611-36 | 6/30/2023 |
| Hawaii Department of Health | 2022 | 4/30/2023 |
| Illinois Environmental Protection Agency | 2000322022-9 | 5/9/2023 |
| Kansas Department of Health and Environment | E-10352 2022-2023 | 7/31/2023 |
| Louisiana Department of Environmental Quality | 03087-2022 | 6/30/2023 |
| Louisiana Department of Health and Hospitals | LA028-2023 | 12/31/2023 |
| Maine Department of Health and Human Services | 2022017 | 6/5/2024 |
| Maryland Department of the Environment | 343 | 6/30/2023 |
| Michigan Depratment of Environmental Quality | 9971-2022 | 4/30/2023 |
| Minnesota Department of Health | 2368363 | 12/31/2023 |
| Nebraska Department of Health and Human Services | NE-OS-25-13 | 4/30/2023 |
| Nevada Department of Conservation and Natural Resources | TX026932023-1 | 7/31/2023 |
| New Hampshire Environmental Laboratory Accreditation Program | 209422 | 4/24/2023 |
| New Jersey Department of Environmental Protection | TX008-2023 | 6/30/2023 |
| New York Department of Health | 11707 | 3/31/2023 |
| Oklahoma Department of Environmental Quality | 2022-141 | 8/31/2023 |
| Oregon Environmental Laboratory Accreditation Program | TX200002 | 5/15/2023 |
| Pennsylvania Department of Environmental Protection | 68-03441-016 | 6/30/2023 |
| Perry Johnson Laboratory Accreditation | L22-91 | 3/31/2024 |
| Tennessee Department of Environment and Concervation | 04016-2022 | 4/30/2023 |
| Texas Commision on Environmental Quality | T104704231-22-29 | 4/30/2023 |
| Utah Department of Health Environmental Laboratory Certification | TX026932022-13 | 7/31/2023 |
| Washington Department of Ecology | C819-22 | 11/14/2023 |

# Chain of Custody

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

# Subcontract Chain of Custody

**SAMPLING STATE:** Dept of Defense **COC ID:** 20818

**SUBCONTRACT TO:**

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

**Phone:** +1 281 530 5656

ALS copy

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | HS23011136 |
| **TSR:** | Ron Martino |

| | LAB SAMPLE ID | CLIENT SAMPLE ID | MATRIX | COLLECT DATE |
|---|---|---|---|---|
| | ANALYSIS REQUESTED | | | DUE DATE |
| 1. | **HS23011136-01** | **16WW58-230123** | **Water** | **23 Jan 2023 08:50** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 2. | **HS23011136-02** | **16WW57-230123** | **Water** | **23 Jan 2023 09:40** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 3. | **HS23011136-03** | **16IW26-230123** | **Water** | **23 Jan 2023 10:40** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 4. | **HS23011136-04** | **16IW10-230123** | **Water** | **23 Jan 2023 11:35** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 5. | **HS23011136-05** | **16IW03-230123** | **Water** | **23 Jan 2023 12:35** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |
| 6. | **HS23011136-06** | **16IW03-230123-FD** | **Water** | **23 Jan 2023 12:35** |
| | Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves. | | | 09 Feb 2023 |

**Comments:** HS23011136-04 MS/MSD

Please analyze for the analysis listed above.
Send report to the emails shown above.

# Subcontract Chain of Custody

**SAMPLING STATE:** Dept of Defense **COC ID:** 20818

**QC Level:** DOD IV (DoD Data Package)

Relinquished By: NR Date/Time:

Received By: Date/Time: 1-29-25 1720

Cooler ID(s): Temperature(s):

# Cooler Receipt Form

ALS Environmental

Project Chemist JH

Client/Project ALS Thermometer ID 1231

Date/Time Received: 1-24-23 Initials: CG Date/Time Logged in: 1-24-23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ Courier (ALS) ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

| Cooler Tracking Number | COC ID | Date Opened | Time Opened | Opened By | Temp. °C | Temp Blank? |
|---|---|---|---|---|---|---|
| NA | | 1-24-23 | 1700 | CG | 3.3 | ☒ |
| | | | | | | ☐ |
| | | | | | | ☐ |
| | | | | | | ☐ |

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

HS-HRMSCoolerReceipt R1.0

ALS Environmental - Houston HRMS

10450 Stancliff Rd., Suite 210
Houston, TX 77099
**T:** +1 713 266 1599
**F:** +1 713 266 1599
**www.alsglobal.com**

# SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

**Cooler Custody Seals (desirable, mandatory if specified in SAP):**

- ✓ Intact on outside of cooler, signed and dated

**Chain-of-Custody (COC) documentation (mandatory):**

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

**Sample Integrity (mandatory):**

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

**Temperature Requirement (varies by sample matrix):**

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

# Preparation Information Benchsheets

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

# *Preparation Information Benchsheet*

**Prep Run#:** 413623 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/27/23 09:20

| # | Lab Code | Client ID | B# | Method /Test | pH | Cl | Matrix | Amt. Ext. | Sample Description |
|---|---|---|---|---|---|---|---|---|---|
| 1 | E2300079-001 | 16WW58-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 2 | E2300079-002 | 16WW57-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 3 | E2300079-003 | 16IW26-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 4 | E2300079-004 | 16IW10-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 5 | E2300079-005 | 16IW03-230123 | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 6 | E2300079-006 | 16IW03-230123-FD | .01 | 6850/ClO4 DOD | | | Ground Water | 10mL | |
| 7 | E2300081-001 | RSA-195-OVB-02-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 8 | E2300081-002 | RSA-195-OVB-01-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 9 | E2300081-003 | RSA-EB-01-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 10 | E2300081-004 | RSA-FB-01-190123 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 11 | E2300082-001 | RSA-095-OVB-01 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 12 | E2300082-002 | RSA-095-OVB-02 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 13 | E2300082-003 | RSA-095-OVB-03 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 14 | E2300082-004 | RSA-DB-01 | .01 | 6850/ClO4 DOD | | | Water | 10mL | |
| 15 | E2300084-001 | MOSA-23-267966 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 16 | E2300084-002 | MOSA-23-267971 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 17 | E2300084-003 | MOSA-23-267967 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 18 | E2300084-004 | MOSA-23-267972 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 19 | EQ2300031-01 | MB | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 20 | EQ2300031-02 | LCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 21 | EQ2300031-03 | DLCS | | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 22 | EQ2300031-04 | 16IW10-230123 MS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 23 | EQ2300031-05 | 16IW10-230123 DMS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 24 | EQ2300031-06 | RSA-095-OVB-01 MS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 25 | EQ2300031-07 | RSA-095-OVB-01 DMS | .01 | 6850/ClO4 DOD | | | Liquid | 10mL | |
| 26 | R2300559-004 | 2301190900 B655-EFF-2 | .01 | 6850/ClO4 | | | Water | 10mL | |
| 27 | R2300559-009 | 2301190920 B655-INF-2 | .01 | 6850/ClO4 | | | Water | 10mL | |

**Spiking Solutions**

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EQ2300031-01 | 100.00µL | EQ2300031-01 | 100.00µL | EQ2300031-02 | 100.00µL | EQ2300031-02 | 100.00µL | EQ2300031-03 | 100.00µL | EQ2300031-03 | 100.00µL |
| EQ2300031-04 | 100.00µL | EQ2300031-05 | 100.00µL | EQ2300031-06 | 100.00µL | EQ2300031-07 | 100.00µL | | | | |

# *Preparation Information Benchsheet*

**Prep Run#:** 413623 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
**Team:** Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/27/23 09:20

| Name: | Perchlorate Intermediate Stock1 | Inventory ID | 227236 | Logbook Ref: | Perchlorate (1st Source) | Expires On: | 07/31/2023 |
|---|---|---|---|---|---|---|---|

EQ2300031-02 1.00µL EQ2300031-02 1.00µL EQ2300031-03 1.00µL EQ2300031-03 1.00µL EQ2300031-04 1.00µL EQ2300031-05 1.00µL
EQ2300031-06 1.00µL EQ2300031-07 1.00µL

## Preparation Materials

| | | | | | |
|---|---|---|---|---|---|
| Water HPLC Grade | 01/04/2023 Water (226857) | 6850 Amber Glass screw vial | 2mL Screw Top Vial (221894) | 6850 0.45um syringe filters | 6850 Syringe Filters (224414) |
| 6850 Luer-Lok Syringes | Luer-Lok Syringes (221305) | 6850 Pipette Tips 50-1000 uL | 6850 Pipette Tips (221929) | | |

## Preparation Steps

Step: Preparation
Started: 1/27/23 09:20
Finished: 1/30/23 11:50
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 01/27/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

# Analytical Results

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 0850 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16WW58-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-001 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0371** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:48 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 0940 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16WW57-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-002 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:53 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1040 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW26-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-003 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:59 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1135 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-004 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 13:05 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1235 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW03-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-005 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 13:11 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1235 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW03-230123-FD | **Units:** | µg/L |
| **Lab Code:** | E2300079-006 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 15:06 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-01 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | U | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 11:47 | 413623 | 792992 | |

# Accuracy & Precision

**ALS Environmental - Houston HRMS**
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Analyzed:** | 1/30/23 |
| **Sample Matrix:** | Ground Water | | |

**Lab Control Sample Summary**

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

| | | | |
|---|---|---|---|
| **Analytical Method:** | 6850 | **Units:** | µg/L |
| **Prep Method:** | Method | **Basis:** | NA |
| | | **Extraction Lot:** | 413623 |

| | Lab Control Sample EQ2300031-02 | | | Duplicate Lab Control Sample EQ2300031-03 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Perchlorate | 0.118 | 0.100 | 118 | 0.118 | 0.100 | 118 | 84 - 119 | <1 | 15 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-02 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.118** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 11:52 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | NA |
| **Sample Matrix:** | Ground Water | **Date Received:** | NA |
| **Sample Name:** | Duplicate Lab Control Sample | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-03 | **Basis:** | NA |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.118** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:07 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| | | **Date Analyzed:** | 1/30/23 |

## Matrix Spike Summary

## Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

| | | | |
|---|---|---|---|
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | E2300079-004 | **Basis:** | NA |

**Analytical Method:** 6850
**Prep Method:** Method

| | | 16IW10-230123MS | | | 16IW10-230123DMS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **Matrix Spike** | | | **Duplicate Matrix Spike** | | | | | |
| | | EQ2300031-04 | | | EQ2300031-05 | | | | | |
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Perchlorate | ND | 0.0916 | 0.100 | 92 | 0.104 | 0.100 | 104 | 84 - 119 | 13 | 15 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1135 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-04 | **Basis:** | NA |
| **Run Type:** | Matrix Spike | | |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.0916** | J | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:36 | 413623 | 792992 | |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | ALS Environmental - US | **Service Request:** | E2300079 |
| **Project:** | HS23011136 | **Date Collected:** | 1/23/23 1135 |
| **Sample Matrix:** | Ground Water | **Date Received:** | 1/24/23 |
| **Sample Name:** | 16IW10-230123 | **Units:** | µg/L |
| **Lab Code:** | EQ2300031-05 | **Basis:** | NA |
| **Run Type:** | Duplicate Matrix Spike | | |

**Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry**

**Analytical Method:** 6850
**Prep Method:** Method

| Analyte Name | Result | Q | LOQ | LOD | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Analysis Lot | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | **0.104** | | 0.100 | 0.0500 | 0.0250 | 1 | 1/27/23 | 1/30/23 12:42 | 413623 | 792992 | |

eurofins | Environment Testing

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dane Wacasey
ALS Group USA, Corp
10450 Stancliff Rd.
Suite 210
Houston, Texas 77099

Generated 2/1/2023 10:19:09 AM

## JOB DESCRIPTION

HS23011136

## JOB NUMBER

410-113311-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.



my EOL

# Eurofins Lancaster Laboratories Environment Testing, LLC

## Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated
2/1/2023 10:19:09 AM

Authorized for release by
Kelly Bauer, Project Manager
Kelly.Bauer@et.eurofinsus.com
(717)556-7262

# Eurofins Lancaster Laboratories Environment Testing, LLC

## Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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# Definitions/Glossary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| cn | Refer to Case Narrative for further detail |
| D | The reported value is from a dilution. |
| J1 | Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria. |
| M | Manual integrated compound. |
| U | Undetected at the Limit of Detection. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

# Case Narrative

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Job ID: 410-113311-1

### Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

**Narrative**

**Job Narrative**
**410-113311-1**

**Receipt**
The samples were received on 1/25/2023 9:58 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C

**GC VOA**
Method RSK_175_CO2_D5: The method requirement for no headspace was not met. The following volatile sample was analyzed with significant headspace in the sample container(s): HS23011136-05 (410-113311-5). Significant headspace is defined as a bubble greater than 6 mm in diameter.

Method RSK_175_CO2_D5: The following sample(s) were collected in unpreserved vials for analysis of Carbon dioxide. However, the pH at the time of analysis was 5. HS23011136-05 (410-113311-5) and HS23011136-06 (410-113311-6).

Method RSK_175_CO2_D5: The following sample(s) were collected in unpreserved vials for analysis of Carbon dioxide. However, the pH at the time of analysis was 6.5. HS23011136-02 (410-113311-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Detection Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Client Sample ID: HS23011136-01 — Lab Sample ID: 410-113311-1

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 120000 | | 12000 | 2600 | ug/L | 1 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-02 — Lab Sample ID: 410-113311-2

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 170000 | M cn | 12000 | 2600 | ug/L | 1 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-03 — Lab Sample ID: 410-113311-3

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 490000 | D | 120000 | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-04 — Lab Sample ID: 410-113311-4

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 120000 | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-05 — Lab Sample ID: 410-113311-5

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 670000 | D cn | 120000 | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

## Client Sample ID: HS23011136-06 — Lab Sample ID: 410-113311-6

| Analyte | Result | Qualifier | LOQ | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 480000 | D cn | 120000 | 26000 | ug/L | 10 | | RSK-175 | Total/NA |

This Detection Summary does not include radiochemical test results.

# Client Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Client Sample ID: HS23011136-01
**Lab Sample ID: 410-113311-1**
**Date Collected: 01/23/23 08:50**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 120000 | | 12000 | 2600 | ug/L | | 01/26/23 08:16 | 01/26/23 09:29 | 1 |

## Client Sample ID: HS23011136-02
**Lab Sample ID: 410-113311-2**
**Date Collected: 01/23/23 09:40**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 170000 | M cn | 12000 | 2600 | ug/L | | 01/26/23 08:16 | 01/26/23 09:37 | 1 |

## Client Sample ID: HS23011136-03
**Lab Sample ID: 410-113311-3**
**Date Collected: 01/23/23 10:04**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 490000 | D | 120000 | 26000 | ug/L | | 01/26/23 10:46 | 01/26/23 11:08 | 10 |

## Client Sample ID: HS23011136-04
**Lab Sample ID: 410-113311-4**
**Date Collected: 01/23/23 11:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 120000 | 26000 | ug/L | | 01/26/23 10:46 | 01/26/23 11:16 | 10 |

## Client Sample ID: HS23011136-05
**Lab Sample ID: 410-113311-5**
**Date Collected: 01/23/23 12:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 670000 | D cn | 120000 | 26000 | ug/L | | 01/26/23 10:46 | 01/26/23 11:39 | 10 |

## Client Sample ID: HS23011136-06
**Lab Sample ID: 410-113311-6**
**Date Collected: 01/23/23 12:35**
**Matrix: Water**
**Date Received: 01/25/23 09:58**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 480000 | D cn | 120000 | 26000 | ug/L | | 01/26/23 10:46 | 01/26/23 11:47 | 10 |

# QC Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Method: RSK-175 - Dissolved Gases (GC)

**Lab Sample ID: MB 410-338826/1-A**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | MB Result | MB Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 2600 | U | 12000 | 2600 | ug/L | | 01/26/23 08:16 | 01/26/23 08:50 | 1 |

**Lab Sample ID: LCS 410-338826/2-A**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | | | 35800 | 31400 | | ug/L | | 88 | 80 - 122 | | |

**Lab Sample ID: 410-113311-4 MS**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: HS23011136-04**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 35800 | 785000 | D 4 | ug/L | | 551 | 80 - 122 | | |

**Lab Sample ID: 410-113311-4 MSD**
**Matrix: Water**
**Analysis Batch: 338795**

**Client Sample ID: HS23011136-04**
**Prep Type: Total/NA**
**Prep Batch: 338826**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon dioxide | 590000 | D J1 | 35800 | 807000 | D 4 | ug/L | | 613 | 80 - 122 | 3 | 30 |

# QC Association Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## GC VOA

### Analysis Batch: 338795

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 410-113311-1 | HS23011136-01 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-2 | HS23011136-02 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-3 | HS23011136-03 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-4 | HS23011136-04 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-5 | HS23011136-05 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-6 | HS23011136-06 | Total/NA | Water | RSK-175 | 338826 |
| MB 410-338826/1-A | Method Blank | Total/NA | Water | RSK-175 | 338826 |
| LCS 410-338826/2-A | Lab Control Sample | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-4 MS | HS23011136-04 | Total/NA | Water | RSK-175 | 338826 |
| 410-113311-4 MSD | HS23011136-04 | Total/NA | Water | RSK-175 | 338826 |

### Prep Batch: 338826

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 410-113311-1 | HS23011136-01 | Total/NA | Water | RSK-175 | |
| 410-113311-2 | HS23011136-02 | Total/NA | Water | RSK-175 | |
| 410-113311-3 | HS23011136-03 | Total/NA | Water | RSK-175 | |
| 410-113311-4 | HS23011136-04 | Total/NA | Water | RSK-175 | |
| 410-113311-5 | HS23011136-05 | Total/NA | Water | RSK-175 | |
| 410-113311-6 | HS23011136-06 | Total/NA | Water | RSK-175 | |
| MB 410-338826/1-A | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 410-338826/2-A | Lab Control Sample | Total/NA | Water | RSK-175 | |
| 410-113311-4 MS | HS23011136-04 | Total/NA | Water | RSK-175 | |
| 410-113311-4 MSD | HS23011136-04 | Total/NA | Water | RSK-175 | |

# Lab Chronicle

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Client Sample ID: HS23011136-01
**Date Collected: 01/23/23 08:50**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-1
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 08:16 |
| Total/NA | Analysis | RSK-175 | | 1 | 338795 | WN7O | ELLE | 01/26/23 09:29 |

## Client Sample ID: HS23011136-02
**Date Collected: 01/23/23 09:40**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-2
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 08:16 |
| Total/NA | Analysis | RSK-175 | | 1 | 338795 | WN7O | ELLE | 01/26/23 09:37 |

## Client Sample ID: HS23011136-03
**Date Collected: 01/23/23 10:04**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:08 |

## Client Sample ID: HS23011136-04
**Date Collected: 01/23/23 11:35**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:16 |

## Client Sample ID: HS23011136-05
**Date Collected: 01/23/23 12:35**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-5
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:39 |

## Client Sample ID: HS23011136-06
**Date Collected: 01/23/23 12:35**
**Date Received: 01/25/23 09:58**

## Lab Sample ID: 410-113311-6
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | RSK-175 | | | 338826 | WN7O | ELLE | 01/26/23 10:46 |
| Total/NA | Analysis | RSK-175 | | 10 | 338795 | WN7O | ELLE | 01/26/23 11:47 |

**Laboratory References:**
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

## Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| A2LA | Dept. of Defense ELAP | 0001.01 | 11-30-24 |

# Method Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| RSK-175 | Dissolved Gases (GC) | RSK | ELLE |
| RSK-175 | Dissolved Gases Prep | RSK | ELLE |

**Protocol References:**

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

**Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Sample Summary

Client: ALS Group USA, Corp
Project/Site: HS23011136

Job ID: 410-113311-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 410-113311-1 | HS23011136-01 | Water | 01/23/23 08:50 | 01/25/23 09:58 |
| 410-113311-2 | HS23011136-02 | Water | 01/23/23 09:40 | 01/25/23 09:58 |
| 410-113311-3 | HS23011136-03 | Water | 01/23/23 10:04 | 01/25/23 09:58 |
| 410-113311-4 | HS23011136-04 | Water | 01/23/23 11:35 | 01/25/23 09:58 |
| 410-113311-5 | HS23011136-05 | Water | 01/23/23 12:35 | 01/25/23 09:58 |
| 410-113311-6 | HS23011136-06 | Water | 01/23/23 12:35 | 01/25/23 09:58 |




10450 Stancliff Rd, Ste 210
Houston, TX 77099
**T:** +1 281 530 5656
**F:** +1 281 530 5887
**www.alsglobal.com**

# Subcontract Chain of Custody

**SAMPLING STATE:** **Dept of Defense** **COC ID:** **20820**

**SUBCONTRACT TO:**

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

**Phone:** +1 717 656 2300

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | HS23011136 |
| **TSR:** | Ron Martino |

| | LAB SAMPLE ID | CLIENT SAMPLE ID | MATRIX | COLLECT DATE |
|---|---|---|---|---|
| | ANALYSIS REQUESTED | | | DUE DATE |
| 1. | **HS23011136-01** | **16WW58-230123** | **Water** | **23 Jan 2023 08:50** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 2. | **HS23011136-02** | **16WW57-230123** | **Water** | **23 Jan 2023 09:40** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 3. | **HS23011136-03** | **16IW26-230123** | **Water** | **23 Jan 2023 10:40** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 4. | **HS23011136-04** | **16IW10-230123** | **Water** | **23 Jan 2023 11:35** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 5. | **HS23011136-05** | **16IW03-230123** | **Water** | **23 Jan 2023 12:35** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |
| 6. | **HS23011136-06** | **16IW03-230123-FD** | **Water** | **23 Jan 2023 12:35** |
| | RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | | | 09 Feb 2023 |

**Comments:** HS23011136-04 MS/MSD

Please analyze for the analysis listed above.
Send report to the emails shown above.

**QC Level:** DOD IV (DoD Data Package)

mB

1.1

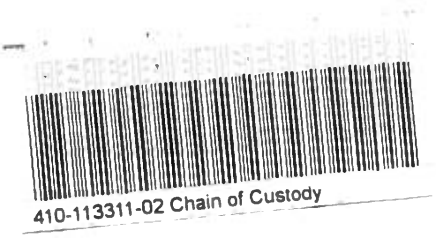
# Subcontract Chain of Custody

**SAMPLING STATE:** **Dept of Defense** **COC ID:** **20820**

Relinquished By: _____ Date/Time: 1/24/23 18:00

Received By: _____ Date/Time: 1/25/23 0958

Cooler ID(s): _____ Temperature(s): _____




10450 Stancliff Rd, Ste 210
Houston, TX 77099
**T:** +1 281 530 5656
**F:** +1 281 530 5887
**www.alsglobal.com**

# Purchase Order

**PO: HS23011136**

**VENDOR:**

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

**Phone:** +1 717 656 2300

**CUSTOMER INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Dane J. Wacasey |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Email:** | Dane.Wacasey@alsglobal.com |
| **Alternate Contact:** | Jumoke M. Lawal |
| **Email:** | jumoke.lawal@alsglobal.com |

**INVOICE INFORMATION:**

| | |
|---|---|
| **Company:** | ALS Houston |
| **Contact:** | Accounts Payable |
| **Address:** | 10450 Stancliff Rd, Ste 210 |
| **Phone:** | +1 281 530 5656 |
| **Reference:** | 20820 |
| **TSR:** | Ron Martino |

| Item | Catalog No | Unit Price | Quantity | Ext Price |
|---|---|---|---|---|
| 1. RSK175 CO2; LHAAP; DoD Level IV, EQUIS EDD | NA | | 6 | |

**Order Total:**

# Login Sample Receipt Checklist

Client: ALS Group USA, Corp

Job Number: 410-113311-1

**Login Number: 113311**
**List Number: 1**
**Creator: Ballard, Megan**

**List Source: Eurofins Lancaster Laboratories Environment Testing, LLC**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal is intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable (</=6C, not frozen). | True | |
| Cooler Temperature is recorded. | True | |
| WV: Container Temperature is acceptable (</=6C, not frozen). | N/A | |
| WV:  Container Temperature is recorded. | N/A | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| There is sufficient vol. for all requested analyses. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| Sample custody seals are intact. | N/A | |
| VOA sample vials do not have headspace >6mm in diameter (none, if from WV)? | True | |

# HS23011136-MSVOA-SW8260

ALS WO# HS23011136

right solutions.
right partner.

Form 1

# Organic Analysis Data Sheet

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-01 | | | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|---|---|
| **16WW58-230123** | | | | 01/23/23 08:50 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 50 | U | 15 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| 1,1-Dichloroethene | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| 1,2-Dichloroethane | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| cis-1,2-Dichloroethene | ug/L | 200 | | 10 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| Methylene chloride | ug/L | 100 | U | 20 | 100 | 100 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| Trichloroethene | ug/L | 7,000 | | 10 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |
| Vinyl chloride | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 16:27 | VOA6_426583 | X012624 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-02 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **16WW57-230123** | 01/23/23 09:40 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 5.0 | U | 1.5 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| 1,1-Dichloroethene | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| 1,2-Dichloroethane | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| cis-1,2-Dichloroethene | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| Methylene chloride | ug/L | 10 | U | 2.0 | 10 | 10 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| Trichloroethene | ug/L | 160 | | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |
| Vinyl chloride | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 16:48 | VOA6_426583 | X012625 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-03 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **16IW26-230123** | 01/23/23 10:40 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 5.0 | U | 1.5 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| 1,1-Dichloroethene | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| 1,2-Dichloroethane | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| cis-1,2-Dichloroethene | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| Methylene chloride | ug/L | 10 | U | 2.0 | 10 | 10 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| Trichloroethene | ug/L | 5.0 | U | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |
| Vinyl chloride | ug/L | 2.0 | J | 1.0 | 5.0 | 5.0 | 5 | 01/26/23 17:09 | VOA6_426583 | X012626 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-04 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **16IW10-230123** | 01/23/23 11:35 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 1.0 | U | 0.30 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| 1,1-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| 1,2-Dichloroethane | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| cis-1,2-Dichloroethene | ug/L | 1.9 | | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| Methylene chloride | ug/L | 2.0 | U | 0.40 | 2.0 | 2.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| Trichloroethene | ug/L | 1.6 | | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |
| Vinyl chloride | ug/L | 4.2 | | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:30 | VOA6_426583 | X012607 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-05 | | | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|---|---|
| **16IW03-230123** | | | | 01/23/23 12:35 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 50 | U | 15 | 50 | 50 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |
| 1,1-Dichloroethene | ug/L | 48 | J | 10 | 50 | 50 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |
| 1,2-Dichloroethane | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |
| cis-1,2-Dichloroethene | ug/L | 18,000 | | 40 | 200 | 200 | 200 | 01/27/23 11:00 | VOA6_426682 | X012710 |
| Methylene chloride | ug/L | 100 | U | 20 | 100 | 100 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |
| Trichloroethene | ug/L | 3,600 | | 10 | 50 | 50 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |
| Vinyl chloride | ug/L | 1,600 | | 10 | 50 | 50 | 50 | 01/26/23 17:31 | VOA6_426583 | X012627 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-06 | | | | Collected | Received | Matrix | Basis |
|---|---|---|---|---|---|---|---|
| **16IW03-230123-FD** | | | | 01/23/23 12:35 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 50 | U | 15 | 50 | 50 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |
| 1,1-Dichloroethene | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |
| 1,2-Dichloroethane | ug/L | 50 | U | 10 | 50 | 50 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |
| cis-1,2-Dichloroethene | ug/L | 16,000 | | 40 | 200 | 200 | 200 | 01/27/23 11:21 | VOA6_426682 | X012711 |
| Methylene chloride | ug/L | 100 | U | 20 | 100 | 100 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |
| Trichloroethene | ug/L | 1,200 | | 10 | 50 | 50 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |
| Vinyl chloride | ug/L | 1,300 | | 10 | 50 | 50 | 50 | 01/26/23 17:52 | VOA6_426583 | X012628 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| HS23011136-07 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **Trip Blank-230123** | 01/23/23 00:00 | 01/24/23 09:50 | Water | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 1.0 | U | 0.30 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| 1,1-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| 1,2-Dichloroethane | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| cis-1,2-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| Methylene chloride | ug/L | 2.0 | U | 0.40 | 2.0 | 2.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| Trichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |
| Vinyl chloride | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 11:33 | VOA6_426583 | X012610 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| VBLKW-230126 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **VBLKW-230126** | NA | NA | Aqueous | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ug/L | 1.0 | U | 0.30 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| 1,1-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| 1,2-Dichloroethane | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| cis-1,2-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| Methylene chloride | ug/L | 2.0 | U | 0.40 | 2.0 | 2.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| Trichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |
| Vinyl chloride | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/26/23 10:09 | VOA6_426583 | X012606 |

# Form 1 - Organic Analysis Data Sheet

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| VBLKW-230127 | Collected | Received | Matrix | Basis |
|---|---|---|---|---|
| **VBLKW-230127** | NA | NA | Aqueous | Wet |

| Analyte | Units | Result | Q | DL | LOD | LOQ | DF | Analysis Date | Run ID | DataFile |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | ug/L | 1.0 | U | 0.20 | 1.0 | 1.0 | 1 | 01/27/23 09:35 | VOA6_426682 | X012706 |

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Form 2

# System Monitoring Compound Recovery

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426583

## Volatiles by EPA 8260

| CCV | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 50.59 | 50 | 101 | 80-120 | |
| 4-Bromofluorobenzene | 50.99 | 50 | 102 | 80-120 | |
| Dibromofluoromethane | 46.46 | 50 | 92.9 | 80-120 | |
| Toluene-d8 | 47.95 | 50 | 95.9 | 80-120 | |

| VLCSW-230126 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 53.42 | 50 | 107 | 81-118 | |
| 4-Bromofluorobenzene | 51.37 | 50 | 103 | 85-114 | |
| Dibromofluoromethane | 48.58 | 50 | 97.2 | 80-119 | |
| Toluene-d8 | 48.94 | 50 | 97.9 | 89-112 | |

| VBLKW-230126 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 49.8 | 50 | 99.6 | 81-118 | |
| 4-Bromofluorobenzene | 49.71 | 50 | 99.4 | 85-114 | |
| Dibromofluoromethane | 45.67 | 50 | 91.3 | 80-119 | |
| Toluene-d8 | 52.02 | 50 | 104 | 89-112 | |

| HS23011136-04 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 49 | 50 | 97.9 | 81-118 | |
| 4-Bromofluorobenzene | 51 | 50 | 102 | 85-114 | |
| Dibromofluoromethane | 46 | 50 | 91.4 | 80-119 | |
| Toluene-d8 | 52 | 50 | 105 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426583

## Volatiles by EPA 8260

| HS23011136-04MS | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 49.74 | 50 | 99.5 | 81-118 | |
| 4-Bromofluorobenzene | 51.78 | 50 | 104 | 85-114 | |
| Dibromofluoromethane | 45.57 | 50 | 91.1 | 80-119 | |
| Toluene-d8 | 52.55 | 50 | 105 | 89-112 | |

| HS23011136-04MSD | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 49.79 | 50 | 99.6 | 81-118 | |
| 4-Bromofluorobenzene | 51.93 | 50 | 104 | 85-114 | |
| Dibromofluoromethane | 45.8 | 50 | 91.6 | 80-119 | |
| Toluene-d8 | 52.15 | 50 | 104 | 89-112 | |

| HS23011136-07 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 50 | 50 | 99.1 | 81-118 | |
| 4-Bromofluorobenzene | 50 | 50 | 100 | 85-114 | |
| Dibromofluoromethane | 46 | 50 | 92.4 | 80-119 | |
| Toluene-d8 | 53 | 50 | 105 | 89-112 | |

| HS23011136-01 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 50 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 2,500 | 2500 | 99.3 | 81-118 | |
| 4-Bromofluorobenzene | 2,500 | 2500 | 99.9 | 85-114 | |
| Dibromofluoromethane | 2,300 | 2500 | 91.7 | 80-119 | |
| Toluene-d8 | 2,600 | 2500 | 104 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426583

## Volatiles by EPA 8260

| HS23011136-02 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 5 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 240 | 250 | 96.0 | 81-118 | |
| 4-Bromofluorobenzene | 250 | 250 | 102 | 85-114 | |
| Dibromofluoromethane | 210 | 250 | 85.1 | 80-119 | |
| Toluene-d8 | 260 | 250 | 104 | 89-112 | |

| HS23011136-03 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 5 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 250 | 250 | 98.1 | 81-118 | |
| 4-Bromofluorobenzene | 260 | 250 | 102 | 85-114 | |
| Dibromofluoromethane | 220 | 250 | 88.6 | 80-119 | |
| Toluene-d8 | 260 | 250 | 103 | 89-112 | |

| HS23011136-05 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 50 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 2,500 | 2500 | 101 | 81-118 | |
| 4-Bromofluorobenzene | 2,500 | 2500 | 102 | 85-114 | |
| Dibromofluoromethane | 2,300 | 2500 | 91.6 | 80-119 | |
| Toluene-d8 | 2,600 | 2500 | 104 | 89-112 | |

| HS23011136-06 | Analyzed 01/26/23 | | Conc Units µg/L | | DF 50 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 2,500 | 2500 | 99.9 | 81-118 | |
| 4-Bromofluorobenzene | 2,600 | 2500 | 102 | 85-114 | |
| Dibromofluoromethane | 2,300 | 2500 | 91.2 | 80-119 | |
| Toluene-d8 | 2,600 | 2500 | 105 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426682

## Volatiles by EPA 8260

| CCV | Analyzed 01/27/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 54.07 | 50 | 108 | 80-120 | |
| 4-Bromofluorobenzene | 51.15 | 50 | 102 | 80-120 | |
| Dibromofluoromethane | 49.58 | 50 | 99.2 | 80-120 | |
| Toluene-d8 | 48.68 | 50 | 97.4 | 80-120 | |

| VLCSW-230127 | Analyzed 01/27/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 56.52 | 50 | 113 | 81-118 | |
| 4-Bromofluorobenzene | 51.31 | 50 | 103 | 85-114 | |
| Dibromofluoromethane | 49.49 | 50 | 99.0 | 80-119 | |
| Toluene-d8 | 49.59 | 50 | 99.2 | 89-112 | |

| VBLKW-230127 | Analyzed 01/27/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 50.56 | 50 | 101 | 81-118 | |
| 4-Bromofluorobenzene | 51.69 | 50 | 103 | 85-114 | |
| Dibromofluoromethane | 46.1 | 50 | 92.2 | 80-119 | |
| Toluene-d8 | 52.41 | 50 | 105 | 89-112 | |

| HS23011212-02MS | Analyzed 01/27/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 50.98 | 50 | 102 | 81-118 | |
| 4-Bromofluorobenzene | 52.03 | 50 | 104 | 85-114 | |
| Dibromofluoromethane | 46.29 | 50 | 92.6 | 80-119 | |
| Toluene-d8 | 51.63 | 50 | 103 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

# Form 2 - System Monitoring Compound Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426682

## Volatiles by EPA 8260

| HS23011212-02MSD | Analyzed 01/27/23 | | Conc Units µg/L | | DF 1 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 50.34 | 50 | 101 | 81-118 | |
| 4-Bromofluorobenzene | 51.8 | 50 | 104 | 85-114 | |
| Dibromofluoromethane | 45.62 | 50 | 91.2 | 80-119 | |
| Toluene-d8 | 51.69 | 50 | 103 | 89-112 | |

| HS23011136-05 | Analyzed 01/27/23 | | Conc Units µg/L | | DF 200 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 10,000 | 10000 | 99.6 | 81-118 | |
| 4-Bromofluorobenzene | 9,900 | 10000 | 98.7 | 85-114 | |
| Dibromofluoromethane | 9,100 | 10000 | 91.4 | 80-119 | |
| Toluene-d8 | 10,000 | 10000 | 104 | 89-112 | |

| HS23011136-06 | Analyzed 01/27/23 | | Conc Units µg/L | | DF 200 |
|---|---|---|---|---|---|
| Surrogate | Result Conc | Spike Conc | %Recovery | %Recovery Limits | Q |
| 1,2-Dichloroethane-d4 | 9,900 | 10000 | 99.3 | 81-118 | |
| 4-Bromofluorobenzene | 10,000 | 10000 | 101 | 85-114 | |
| Dibromofluoromethane | 9,100 | 10000 | 91.1 | 80-119 | |
| Toluene-d8 | 10,000 | 10000 | 104 | 89-112 | |

Q - Surrogate %Recovery Flag  * - %Recovery / RPD Outside Limits

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Form 3A

# Matrix Spike/Spike Duplicate Recovery

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 3A - Matrix Spike/Spike Duplicate Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder **HS23011136**

| 16IW10-230123 | | HS23011136-04 | | HS23011136-04MS | | | | HS23011136-04MSD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Matrix** Aqueous | | **Run Date** | 01/26/23 | 01/26/23 | | | | 01/26/23 | | | | | | |
| **Units** µg/L | | **Run Time** | 10:30 | 10:51 | | | | 11:12 | | | | | | |
| | | **Data File** | X012607.D | X012608.D | | | | X012609.D | | | | | | |
| Analyte | %R Limits | DF | Result | MS Result | Spike Added | %R | Q | MSD Result | Spike Added | %R | Q | RPD Limit | RPD | Q |
| 1,1,2-Trichloroethane | 80-119 | 1 | 0 | 16.92 | 20.00 | 85 | | 16.46 | 20.00 | 82 | | 20 | 2.80 | |
| 1,1-Dichloroethene | 71-131 | 1 | 0 | 16.95 | 20.00 | 85 | | 15.86 | 20.00 | 79 | | 20 | 6.60 | |
| 1,2-Dichloroethane | 73-128 | 1 | 0 | 19.19 | 20.00 | 96 | | 17.84 | 20.00 | 89 | | 20 | 7.30 | |
| cis-1,2-Dichloroethene | 78-123 | 1 | 1.898 | 17.04 | 20.00 | 76 | * | 16.53 | 20.00 | 73 | * | 20 | 3.00 | |
| Methylene chloride | 74-124 | 1 | 0 | 14.31 | 20.00 | 72 | * | 13.89 | 20.00 | 70 | * | 20 | 3.00 | |
| Trichloroethene | 79-123 | 1 | 1.572 | 20.06 | 20.00 | 93 | | 18.87 | 20.00 | 87 | | 20 | 6.10 | |
| Vinyl chloride | 58-137 | 1 | 4.236 | 19.92 | 20.00 | 78 | | 18.64 | 20.00 | 72 | | 20 | 6.70 | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits  OL - Outside Limits

# Form 3A - Matrix Spike/Spike Duplicate Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

| | | HS23011212-02 | | HS23011212-02MS | | | | HS23011212-02MSD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Matrix** Aqueous | | **Run Date** | 01/27/23 | 01/27/23 | | | | 01/27/23 | | | | | | |
| **Units** µg/L | | **Run Time** | 09:56 | 10:18 | | | | 10:39 | | | | | | |
| | | **Data File** | X012707.D | X012708.D | | | | X012709.D | | | | | | |
| Analyte | %R Limits | DF | Result | MS Result | Spike Added | %R | Q | MSD Result | Spike Added | %R | Q | RPD Limit | RPD | Q |
| cis-1,2-Dichloroethene | 78-123 | 1 | 0 | 15.79 | 20.00 | 79 | | 15.22 | 20.00 | 76 | * | 20 | 3.70 | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits  OL - Outside Limits

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Form 3B

# Laboratory Control Sample Recovery

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 3B - Laboratory Control Sample Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| VOA6_426583 | | QC ID | VLCSW-230126 | | | |
|---|---|---|---|---|---|---|
| QC Matrix Aqueous | Units | Run Date | 01/26/23 | | | |
| | ug/L | Run Time | 09:27 | | | |
| Analyte | %R Limits | Spike Added | LCS Result | %R | Q | |
| 1,1,2-Trichloroethane | 80-119 | 20 | 20.84 | 104 | | |
| 1,1-Dichloroethene | 71-131 | 20 | 20.3 | 102 | | |
| 1,2-Dichloroethane | 73-128 | 20 | 22.43 | 112 | | |
| 1,2-Dichloroethane-d4 | 81-118 | 50 | 53.42 | 107 | | |
| 4-Bromofluorobenzene | 85-114 | 50 | 51.37 | 103 | | |
| cis-1,2-Dichloroethene | 78-123 | 20 | 20.04 | 100 | | |
| Dibromofluoromethane | 80-119 | 50 | 48.58 | 97 | | |
| Methylene chloride | 74-124 | 20 | 19.73 | 99 | | |
| Toluene-d8 | 89-112 | 50 | 48.94 | 98 | | |
| Trichloroethene | 79-123 | 20 | 21.89 | 109 | | |
| Vinyl chloride | 58-137 | 20 | 19.56 | 98 | | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits

# Form 3B - Laboratory Control Sample Recovery

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| VOA6_426682 | | QC ID | VLCSW-230127 | | | |
|---|---|---|---|---|---|---|
| QC Matrix Aqueous | Units | Run Date | 01/27/23 | | | |
| | %REC | Run Time | 08:53 | | | |
| Analyte | %R Limits | Spike Added | LCS Result | %R | Q | |
| 1,2-Dichloroethane-d4 | 81-118 | 50 | 56.52 | 113 | | |
| 4-Bromofluorobenzene | 85-114 | 50 | 51.31 | 103 | | |
| cis-1,2-Dichloroethene | 78-123 | 20 | 20.18 | 101 | | |
| Dibromofluoromethane | 80-119 | 50 | 49.49 | 99 | | |
| Toluene-d8 | 89-112 | 50 | 49.59 | 99 | | |

# - %Recovery / RPD Flag  * - %Recovery / RPD Outside Limits

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right partner.

Form 4

# Method Blank Summary

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 4 - Method Blank Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| Client Sample ID | Type | Lab Sample ID | File ID | Date Analyzed | Run ID |
|---|---|---|---|---|---|
| METHOD BLANK | MBLK | VBLKW-230126 | X012606.D | 01/26/23 10:09 | VOA6_426583 |
| VLCSW-230126 | LCS | VLCSW-230126 | X012604.D | 01/26/23 09:27 | VOA6_426583 |
| 16IW10-230123 | SAMP | HS23011136-04 | X012607.D | 01/26/23 10:30 | VOA6_426583 |
| 16IW10-230123 | MS | HS23011136-04MS | X012608.D | 01/26/23 10:51 | VOA6_426583 |
| 16IW10-230123 | MSD | HS23011136-04MSD | X012609.D | 01/26/23 11:12 | VOA6_426583 |
| Trip Blank-230123 | SAMP | HS23011136-07 | X012610.D | 01/26/23 11:33 | VOA6_426583 |
| 16WW58-230123 | SAMP | HS23011136-01 | X012624.D | 01/26/23 16:27 | VOA6_426583 |
| 16WW57-230123 | SAMP | HS23011136-02 | X012625.D | 01/26/23 16:48 | VOA6_426583 |
| 16IW26-230123 | SAMP | HS23011136-03 | X012626.D | 01/26/23 17:09 | VOA6_426583 |
| 16IW03-230123 | SAMP | HS23011136-05 | X012627.D | 01/26/23 17:31 | VOA6_426583 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | X012628.D | 01/26/23 17:52 | VOA6_426583 |

# Form 4 - Method Blank Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

| Client Sample ID | Type | Lab Sample ID | File ID | Date Analyzed | Run ID |
|---|---|---|---|---|---|
| METHOD BLANK | MBLK | VBLKW-230127 | X012706.D | 01/27/23 09:35 | VOA6_426682 |
| VLCSW-230127 | LCS | VLCSW-230127 | X012704.D | 01/27/23 08:53 | VOA6_426682 |
| BatchQC | MS | HS23011212-02MS | X012708.D | 01/27/23 10:18 | VOA6_426682 |
| BatchQC | MSD | HS23011212-02MSD | X012709.D | 01/27/23 10:39 | VOA6_426682 |
| 16IW03-230123 | SAMP | HS23011136-05 | X012710.D | 01/27/23 11:00 | VOA6_426682 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | X012711.D | 01/27/23 11:21 | VOA6_426682 |

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right partner.

Form 5

# Instrument Performance Check

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 5 - Instrument Performance Check

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_424237

Tune File X121601.D 12/16/22 11:17

| m / e | Ion Abundance Criterion | %RA |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 18.3 (18.4) |
| 75 | 30.0 - 60.0% of mass 95 | 46.1 (46.1) |
| 95 | Base peak, 100% RA | 100 (100) |
| 96 | 5.0 - 9.0% of mass 95 | 7.2 (7.16) |
| 173 | Less than 2.0% of mass 174 | 0.8 (0.897) 1 |
| 174 | 50.0 - 120.0% of mass 95 | 89 (89) |
| 175 | 4.0 - 9.0% of mass 174 | 7 (7.82) 1 |
| 176 | 93.0 - 101.0% of mass 174 | 87.4 (98.2) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.8 (6.59) 2 |

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

| | Type | Date Analyzed | Lab File ID | Sample ID |
|---|---|---|---|---|
| 1 | ICAL1 | 12/16/22 11:38 | X121602 | VSTD000.25 |
| 2 | ICAL2 | 12/16/22 12:20 | X121603 | VSTD000.5 |
| 3 | ICAL3 | 12/16/22 12:41 | X121604 | VSTD001 |
| 4 | ICAL4 | 12/16/22 13:02 | X121605 | VSTD002 |
| 5 | ICAL5 | 12/16/22 13:23 | X121606 | VSTD005 |
| 6 | ICAL6 | 12/16/22 13:43 | X121607 | VSTD020 |
| 7 | ICAL7 | 12/16/22 14:04 | X121608 | VSTD050 |
| 8 | ICAL8 | 12/16/22 14:25 | X121609 | VSTD100 |
| 9 | ICAL9 | 12/16/22 14:46 | X121610 | VSTD150 |
| 10 | ICAL | 12/16/22 15:07 | X121611 | VSTD200 |
| 11 | ICV | 12/16/22 15:49 | X121613 | CCV |

# Form 5 - Instrument Performance Check

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426583

**Tune File** X012601.D 01/26/23 08:03

| m / e | Ion Abundance Criterion | %RA |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 18.4 (18.4) |
| 75 | 30.0 - 60.0% of mass 95 | 49.1 (49.1) |
| 95 | Base peak, 100% RA | 100 (100) |
| 96 | 5.0 - 9.0% of mass 95 | 6.9 (6.92) |
| 173 | Less than 2.0% of mass 174 | 0.7 (0.768) 1 |
| 174 | 50.0 - 120.0% of mass 95 | 90.1 (90.1) |
| 175 | 4.0 - 9.0% of mass 174 | 6.1 (6.78) 1 |
| 176 | 93.0 - 101.0% of mass 174 | 85.7 (95.2) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.6 (6.58) 2 |

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

| | Type | Date Analyzed | Lab File ID | Sample ID |
|---|---|---|---|---|
| 1 | CCV | 01/26/23 08:24 | X012602 | CCV |
| 2 | LCS | 01/26/23 09:27 | X012604 | VLCSW-230126 |
| 3 | MBLK | 01/26/23 10:09 | X012606 | VBLKW-230126 |
| 4 | SAMP | 01/26/23 10:30 | X012607 | 16IW10-230123 |
| 5 | MS | 01/26/23 10:51 | X012608 | HS23011136-04MS |
| 6 | MSD | 01/26/23 11:12 | X012609 | HS23011136-04MSD |
| 7 | SAMP | 01/26/23 11:33 | X012610 | Trip Blank-230123 |
| 8 | SAMP | 01/26/23 16:27 | X012624 | 16WW58-230123 |
| 9 | SAMP | 01/26/23 16:48 | X012625 | 16WW57-230123 |
| 10 | SAMP | 01/26/23 17:09 | X012626 | 16IW26-230123 |
| 11 | SAMP | 01/26/23 17:31 | X012627 | 16IW03-230123 |
| 12 | SAMP | 01/26/23 17:52 | X012628 | 16IW03-230123-FD |
| 13 | CCV_EN | 01/26/23 18:12 | X012629 | CCV-END |

# Form 5 - Instrument Performance Check

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426682

Tune File X012701.D 01/27/23 07:29

| m / e | Ion Abundance Criterion | %RA |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 19.7 (19.7) |
| 75 | 30.0 - 60.0% of mass 95 | 49 (49) |
| 95 | Base peak, 100% RA | 100 (100) |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 (6.75) |
| 173 | Less than 2.0% of mass 174 | 0.9 (1.02) 1 |
| 174 | 50.0 - 120.0% of mass 95 | 84.1 (84.1) |
| 175 | 4.0 - 9.0% of mass 174 | 6.7 (7.92) 1 |
| 176 | 93.0 - 101.0% of mass 174 | 79.9 (95.1) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.3 (6.69) 2 |

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

| | Type | Date Analyzed | Lab File ID | Sample ID |
|---|---|---|---|---|
| 1 | CCV | 01/27/23 07:50 | X012702 | CCV |
| 2 | LCS | 01/27/23 08:53 | X012704 | VLCSW-230127 |
| 3 | MBLK | 01/27/23 09:35 | X012706 | VBLKW-230127 |
| 4 | MS | 01/27/23 10:18 | X012708 | ZZZZZZMS |
| 5 | MSD | 01/27/23 10:39 | X012709 | ZZZZZZMSD |
| 6 | SAMP | 01/27/23 11:00 | X012710 | 16IW03-230123 |
| 7 | SAMP | 01/27/23 11:21 | X012711 | 16IW03-230123-FD |
| 8 | CCV_EN | 01/27/23 17:39 | X012729 | CCV-END |

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Form 6

# Initial Calibration Data

# Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138
**ICAL End Date** 16-DEC-2022 1507

**Calibration Files**

**Level 1** ..voa6.i\X221216.b\X121602.D
**Level 2** ..voa6.i\X221216.b\X121603.D
**Level 3** ..voa6.i\X221216.b\X121604.D
**Level 4** ..voa6.i\X221216.b\X121605.D
**Level 5** ..voa6.i\X221216.b\X121606.D
**Level 6** ..voa6.i\X221216.b\X121607.D
**Level 7** ..voa6.i\X221216.b\X121608.D
**Level 8** ..voa6.i\X221216.b\X121609.D
**Level 9** ..voa6.i\X221216.b\X121610.D
**Level 10** ..voa6.i\X221216.b\X121611.D

| Compound | Level 1<br>0.250<br>Level 7<br>50.0 | Level 2<br>0.500<br>Level 8<br>100.0 | Level 3<br>1.00<br>Level 9<br>150.0 | Level 4<br>2.00<br>Level 10<br>200.0 | Level 5<br>5.00 | Level 6<br>20.00 | Curve | b | m1 | m2 | %RSD<br>or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | NE<br>160392 | 1990<br>309019 | 2911<br>476130 | 6239<br>635808 | 15008 | 63382 | LINR | 0.00786 | 0.35247 | | 0.99971 | |
| Chloromethane | NE<br>192710 | 2466<br>388163 | 3670<br>621048 | 8057<br>865151 | 19623 | 72324 | LINR | 0.04423 | 0.47332 | | 0.99747 | |
| Propionitrile | NE<br>0.04851 | 0.06018<br>0.04917 | 0.05265<br>0.05178 | 0.04739<br>0.05178 | 0.05114 | 0.04656 | AVRG | | 0.05102 | | 7.91502 | |
| Vinyl Chloride | NE<br>0.44103 | 0.52268<br>0.42953 | 0.40472<br>0.44923 | 0.39786<br>0.45909 | 0.42164 | 0.40520 | AVRG | | 0.43678 | | 8.81916 | |
| Bromomethane | NE<br>139689 | 1893<br>284165 | 3293<br>470318 | 5996<br>NE | 15112 | 52034 | LINR | 0.03529 | 0.34244 | | 0.99519 | |
| Chloroethane | NE<br>0.29447 | 0.35820<br>0.28714 | 0.27936<br>0.30494 | 0.31044<br>0.30410 | 0.31436 | 0.28309 | AVRG | | 0.30401 | | 7.80750 | |
| Trichlorofluoromethane | NE<br>0.60756 | 0.71207<br>0.59817 | 0.54474<br>0.64605 | 0.57316<br>0.65074 | 0.59068 | 0.57785 | AVRG | | 0.61122 | | 8.28859 | |
| Acrolein | NE<br>27445 | 440<br>60756 | 761<br>96139 | 1317<br>125874 | 2699 | 12279 | LINR | 0.05644 | 0.03519 | | 0.99833 | |
| Acetone | NE<br>124798 | 2669<br>243517 | 4787<br>373504 | 7041<br>514105 | 17632 | 50987 | LINR | -0.00069 | 0.14025 | | 0.99910 | |
| 1,1-Dichloroethene | NE<br>0.36912 | 0.44142<br>0.36226 | 0.35953<br>0.38517 | 0.37590<br>0.39076 | 0.37389 | 0.35725 | AVRG | | 0.37948 | | 6.80558 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Isobutyl Alcohol | NE<br>0.05462 | 0.05610<br>0.05559 | 0.05239<br>0.05946 | 0.05650<br>0.05952 | 0.05728 | 0.05469 | AVRG | | 0.05624 | | 4.10209 | |
| Acetonitrile | NE<br>0.04430 | 0.04776<br>0.04552 | 0.04645<br>0.04791 | 0.04253<br>0.04736 | 0.04357 | 0.04417 | AVRG | | 0.04551 | | 4.32823 | |
| Allyl Chloride | NE<br>0.81324 | 0.99118<br>0.83169 | 0.95202<br>0.86799 | 0.81682<br>0.86396 | 0.84304 | 0.82034 | AVRG | | 0.86670 | | 7.30464 | |
| Iodomethane | NE<br>455792 | 2397<br>958603 | 3865<br>1554547 | 8702<br>2193685 | 26708 | 143457 | QUAD | 0.06641 | 2.01333 | -0.08031 | 0.99956 | |
| Acrylonitrile | NE<br>0.12970 | 0.12113<br>0.12956 | 0.12536<br>0.13857 | 0.12482<br>0.13997 | 0.12256 | 0.12666 | AVRG | | 0.12870 | | 5.15060 | |
| Methylene Chloride | NE<br>0.49311 | 0.63666<br>0.46611 | 0.59459<br>0.48892 | 0.50364<br>0.47907 | 0.50885 | 0.51372 | AVRG | | 0.52052 | | 10.92514 | |
| Methyl tert-butyl ether | NE<br>1.16844 | 1.26574<br>1.18584 | 1.39027<br>1.23813 | 1.27259<br>1.24075 | 1.24993 | 1.16729 | AVRG | | 1.24211 | | 5.52745 | |
| Carbon Disulfide | NE<br>0.97542 | 1.07494<br>0.97088 | 1.00609<br>1.02392 | 0.95722<br>1.06178 | 0.94769 | 0.91773 | AVRG | | 0.99285 | | 5.32584 | |
| trans-1,2-Dichloroethene | NE<br>0.41851 | 0.48064<br>0.41454 | 0.42427<br>0.43221 | 0.38965<br>0.43554 | 0.42173 | 0.40526 | AVRG | | 0.42470 | | 5.92187 | |
| Vinyl Acetate | NE<br>1.07506 | 1.09845<br>1.07519 | 0.99054<br>1.16529 | 1.06368<br>1.16741 | 1.12321 | 1.05445 | AVRG | | 1.09037 | | 5.13969 | |
| 1,1-Dichloroethane | NE<br>0.72125 | 0.83949<br>0.70504 | 0.80145<br>0.74074 | 0.69997<br>0.74459 | 0.75023 | 0.70550 | AVRG | | 0.74536 | | 6.34771 | |
| Chloroprene | NE<br>0.16145 | 0.19503<br>0.16116 | 0.18721<br>0.16823 | 0.17124<br>0.17481 | 0.15874 | 0.15219 | AVRG | | 0.17001 | | 8.17551 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Butanone | NE<br>130179 | 1292<br>264221 | 2498<br>407629 | 5418<br>555896 | 11771 | 47830 | LINR | 0.06050 | 0.15346 | | 0.99924 | |
| Methacrylonitrile | NE<br>0.32328 | 0.44770<br>0.32565 | 0.36475<br>0.34081 | 0.34993<br>0.34351 | 0.34840 | 0.34235 | AVRG | | 0.35404 | | 10.52608 | |
| 2,2-Dichloropropane | NE<br>0.62063 | 0.70167<br>0.61027 | 0.65466<br>0.64008 | 0.60521<br>0.65162 | 0.61866 | 0.59289 | AVRG | | 0.63286 | | 5.25207 | |
| cis-1,2-Dichloroethene | NE<br>0.49985 | 0.61803<br>0.48778 | 0.49622<br>0.51710 | 0.52999<br>0.51455 | 0.50446 | 0.48374 | AVRG | | 0.51686 | | 7.86616 | |
| Chloroform | NE<br>0.81023 | 0.87547<br>0.78725 | 0.86252<br>0.84612 | 0.85352<br>0.84457 | 0.84666 | 0.79238 | AVRG | | 0.83541 | | 3.73708 | |
| Bromochloromethane | NE<br>0.26364 | 0.32093<br>0.26287 | 0.29857<br>0.28290 | 0.28124<br>0.28282 | 0.29319 | 0.26077 | AVRG | | 0.28299 | | 6.91423 | |
| 1,1,1-Trichloroethane | NE<br>0.65703 | 0.76105<br>0.64156 | 0.65666<br>0.67604 | 0.60049<br>0.69720 | 0.64387 | 0.63152 | AVRG | | 0.66283 | | 6.90392 | |
| 1,1-Dichloropropene | NE<br>0.37084 | 0.35889<br>0.35979 | 0.34245<br>0.36734 | 0.33027<br>0.37324 | 0.34789 | 0.34406 | AVRG | | 0.35497 | | 4.12237 | |
| 1,2-Dichloroethane | NE<br>0.39909 | 0.45501<br>0.40154 | 0.40587<br>0.41082 | 0.39492<br>0.41030 | 0.41104 | 0.39842 | AVRG | | 0.40967 | | 4.39762 | |
| Carbon Tetrachloride | NE<br>0.36348 | 0.40179<br>0.35355 | 0.45347<br>0.36349 | 0.40515<br>0.37429 | 0.35265 | 0.34370 | AVRG | | 0.37906 | | 9.25223 | |
| Benzene | NE<br>1.17241 | 1.34410<br>1.15323 | 1.19304<br>1.17461 | 1.18322<br>1.18197 | 1.19608 | 1.14722 | AVRG | | 1.19399 | | 4.90945 | |
| Trichloroethene | NE<br>0.33750 | 0.37562<br>0.33140 | 0.31723<br>0.33891 | 0.33885<br>0.34649 | 0.33109 | 0.33079 | AVRG | | 0.33865 | | 4.73809 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | NE<br>0.42913 | 0.53078<br>0.42602 | 0.45893<br>0.44706 | 0.43689<br>0.45009 | 0.42833 | 0.42563 | AVRG | | 0.44810 | | 7.41292 | |
| Methyl Methacrylate | NE<br>0.32238 | 0.38746<br>0.32465 | 0.34921<br>0.34726 | 0.33881<br>0.35704 | 0.33548 | 0.30606 | AVRG | | 0.34093 | | 6.87301 | |
| 2-Chloroethylvinyl ether | NE<br>0.13057 | 0.13531<br>0.12541 | 0.11670<br>0.12799 | 0.12141<br>0.12973 | 0.12912 | 0.13108 | AVRG | | 0.12748 | | 4.37734 | |
| 1,2-Dichloropropane | NE<br>0.31044 | 0.35613<br>0.30521 | 0.33560<br>0.31542 | 0.29692<br>0.31856 | 0.31629 | 0.30391 | AVRG | | 0.31761 | | 5.71516 | |
| 2-Nitropropane | NE<br>0.73644 | 1.05598<br>0.73807 | 0.76159<br>0.78445 | 0.80915<br>0.80253 | 0.77468 | 0.75211 | AVRG | | 0.80167 | | 12.32619 | |
| Dibromomethane | NE<br>0.20672 | 0.25085<br>0.20317 | 0.21183<br>0.21324 | 0.22317<br>0.21357 | 0.21081 | 0.20954 | AVRG | | 0.21588 | | 6.58330 | |
| 4-Methyl-2-Pentanone | NE<br>0.25814 | 0.28987<br>0.25156 | 0.26418<br>0.26114 | 0.28502<br>0.26166 | 0.26684 | 0.26684 | AVRG | | 0.26725 | | 4.64865 | |
| cis-1,3-Dichloropropene | NE<br>0.52860 | 0.53732<br>0.53368 | 0.47650<br>0.55605 | 0.50179<br>0.56353 | 0.51804 | 0.52075 | AVRG | | 0.52625 | | 5.04185 | |
| Ethyl Methacrylate | NE<br>0.20804 | 0.28138<br>0.22619 | 0.24077<br>0.24786 | 0.23910<br>0.26163 | 0.20135 | 0.21276 | AVRG | | 0.23545 | | 11.14205 | |
| Toluene | NE<br>1.36202 | 1.60765<br>1.32088 | 1.37997<br>1.35198 | 1.37463<br>1.35870 | 1.36957 | 1.31273 | AVRG | | 1.38201 | | 6.34459 | |
| trans-1,3-Dichloropropene | NE<br>0.44682 | 0.44236<br>0.44877 | 0.39493<br>0.47075 | 0.40065<br>0.48573 | 0.41433 | 0.42619 | AVRG | | 0.43673 | | 7.01005 | |
| 2-Hexanone | NE<br>0.17839 | 0.19991<br>0.17192 | 0.17409<br>0.18312 | 0.17972<br>0.18566 | 0.18386 | 0.17978 | AVRG | | 0.18183 | | 4.45920 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | NE<br>0.26479 | 0.32419<br>0.25654 | 0.26954<br>0.26825 | 0.29087<br>0.26649 | 0.28491 | 0.26973 | AVRG | | 0.27726 | | 7.37510 | |
| 1,3-Dichloropropane | NE<br>0.53007 | 0.62065<br>0.51166 | 0.55587<br>0.53587 | 0.54217<br>0.53590 | 0.54663 | 0.53274 | AVRG | | 0.54573 | | 5.60982 | |
| Dibromochloromethane | NE<br>0.39906 | 0.43810<br>0.39075 | 0.38701<br>0.40792 | 0.39402<br>0.40793 | 0.38762 | 0.38903 | AVRG | | 0.40016 | | 4.08851 | |
| Tetrachloroethene | NE<br>0.29836 | 0.33024<br>0.28012 | 0.25660<br>0.28506 | 0.28292<br>0.28889 | 0.26322 | 0.28810 | AVRG | | 0.28594 | | 7.36821 | |
| 1,2-Dibromoethane | NE<br>0.35151 | 0.36263<br>0.33998 | 0.33509<br>0.35512 | 0.32714<br>0.35096 | 0.35422 | 0.34322 | AVRG | | 0.34665 | | 3.22017 | |
| 1-Chlorohexane | NE<br>0.24556 | 0.26597<br>0.23682 | 0.22998<br>0.25047 | 0.21386<br>0.26558 | 0.22191 | 0.24457 | AVRG | | 0.24163 | | 7.44215 | |
| Chlorobenzene | NE<br>0.95622 | 1.20054<br>0.92158 | 0.96715<br>0.96470 | 0.94773<br>0.97511 | 0.95913 | 0.93014 | AVRG | | 0.98026 | | 8.61127 | |
| 1,1,1,2-Tetrachloroethane | NE<br>0.36060 | 0.42477<br>0.35457 | 0.34549<br>0.36940 | 0.36191<br>0.37188 | 0.34596 | 0.34861 | AVRG | | 0.36480 | | 6.70616 | |
| Ethylbenzene | NE<br>0.47797 | 0.47482<br>0.45902 | 0.43893<br>0.46986 | 0.45503<br>0.47447 | 0.45171 | 0.45394 | AVRG | | 0.46175 | | 2.86128 | |
| m,p-Xylenes | NE<br>0.60205 | 0.69860<br>0.58346 | 0.55710<br>0.60071 | 0.56286<br>0.61493 | 0.56012 | 0.57743 | AVRG | | 0.59525 | | 7.35638 | |
| o-Xylene | NE<br>0.59049 | 0.68372<br>0.57562 | 0.51381<br>0.60058 | 0.56977<br>0.61516 | 0.56849 | 0.56994 | AVRG | | 0.58751 | | 7.79066 | |
| Styrene | NE<br>1.03116 | 1.02806<br>1.01266 | 0.79991<br>1.07651 | 0.88633<br>1.09594 | 0.95404 | 0.97800 | AVRG | | 0.98473 | | 9.52837 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromoform | NE | 0.31195 | 0.25221 | 0.26817 | 0.25683 | 0.26696 | | | | | | |
| | 0.27805 | 0.27584 | 0.29222 | 0.29278 | | | AVRG | | 0.27722 | | 6.87336 | |
| Isopropylbenzene | NE | 1.35706 | 1.16805 | 1.25967 | 1.30607 | 1.32939 | | | | | | |
| | 1.41077 | 1.36357 | 1.42773 | 1.45784 | | | AVRG | | 1.34224 | | 6.69875 | |
| 1,1,2,2-Tetrachloroethane | NE | 0.91828 | 0.84470 | 0.83187 | 0.83648 | 0.79018 | | | | | | |
| | 0.74007 | 0.71754 | 0.75363 | 0.73962 | | | AVRG | | 0.79693 | | 8.24435 | |
| 1,2,3-Trichloropropane | NE | 0.58047 | 0.56626 | 0.53238 | 0.58048 | 0.54015 | | | | | | |
| | 0.53505 | 0.52761 | 0.60583 | 0.53897 | | | AVRG | | 0.55636 | | 4.97536 | |
| trans-1,4-Dichloro-2-butene | NE | 0.12274 | 0.09213 | 0.10381 | 0.10162 | 0.10094 | | | | | | |
| | 0.10800 | 0.10845 | 0.11623 | 0.11751 | | | AVRG | | 0.10794 | | 8.88299 | |
| n-Propylbenzene | NE | 3.20938 | 2.13608 | 2.47845 | 2.73904 | 2.83806 | | | | | | |
| | 2.90611 | 2.78733 | 2.90643 | 2.92515 | | | AVRG | | 2.76956 | | 11.03336 | |
| Bromobenzene | NE | 0.90477 | 0.79060 | 0.83045 | 0.81066 | 0.82521 | | | | | | |
| | 0.80056 | 0.78064 | 0.82147 | 0.81857 | | | AVRG | | 0.82033 | | 4.35370 | |
| 1,3,5-Trimethylbenzene | NE | 2.06484 | 1.68256 | 1.97796 | 2.03460 | 2.07048 | | | | | | |
| | 2.12398 | 2.07652 | 2.18148 | 2.20122 | | | AVRG | | 2.04596 | | 7.47801 | |
| 2-Chlorotoluene | NE | 1.93144 | 1.77508 | 1.90257 | 1.85141 | 1.80074 | | | | | | |
| | 1.79455 | 1.71779 | 1.79669 | 1.78644 | | | AVRG | | 1.81741 | | 3.65582 | |
| 4-Chlorotoluene | NE | 2.19766 | 1.72811 | 1.99610 | 2.10678 | 2.06499 | | | | | | |
| | 2.09570 | 2.05624 | 2.19099 | 2.20989 | | | AVRG | | 2.07183 | | 7.13984 | |
| tert-Butylbenzene | NE | 1.83685 | 1.33195 | 1.56610 | 1.66625 | 1.69957 | | | | | | |
| | 1.74647 | 1.66742 | 1.77236 | 1.78580 | | | AVRG | | 1.67475 | | 9.03914 | |
| 1,2,4-Trimethylbenzene | NE | 2.44261 | 1.84882 | 2.01055 | 2.12502 | 2.14371 | | | | | | |
| | 2.18278 | 2.12445 | 2.25368 | 2.24326 | | | AVRG | | 2.15277 | | 7.66012 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | NE<br>2.38144 | 2.28219<br>2.30322 | 1.76441<br>2.43114 | 1.95855<br>2.46321 | 2.17705 | 2.29365 | AVRG | | 2.22832 | | 10.32115 | |
| p-Isopropyltoluene | NE<br>2.16946 | 2.11113<br>2.07989 | 1.42476<br>2.19272 | 1.76888<br>2.20460 | 1.95504 | 2.06459 | AVRG | | 1.99679 | | 12.72950 | |
| 1,3-Dichlorobenzene | NE<br>1.39279 | 1.34465<br>1.34586 | 1.21323<br>1.42324 | 1.32549<br>1.42237 | 1.40186 | 1.38449 | AVRG | | 1.36155 | | 4.82043 | |
| 1,4-Dichlorobenzene | NE<br>1.45712 | 1.63128<br>1.44362 | 1.40441<br>1.52301 | 1.45614<br>1.52190 | 1.47766 | 1.45673 | AVRG | | 1.48576 | | 4.44368 | |
| Benzyl Chloride | NE<br>472387 | 3642<br>1009234 | 4632<br>1650494 | 12783<br>2286488 | 35254 | 163895 | LINR | 0.05387 | 0.82700 | | 0.99832 | |
| n-Butylbenzene | NE<br>696355 | 5149<br>1425779 | 8459<br>2293126 | 19853<br>3216534 | 54831 | 248190 | LINR | 0.03551 | 1.99525 | | 0.99890 | |
| 1,2-Dichlorobenzene | NE<br>1.39065 | 1.58241<br>1.36532 | 1.22790<br>1.44207 | 1.34058<br>1.43128 | 1.42827 | 1.41177 | AVRG | | 1.40225 | | 6.73504 | |
| 1,2-Dibromo-3-Chloropropane | NE<br>48660 | 441<br>94321 | 778<br>149691 | 1619<br>205063 | 4911 | 18635 | LINR | 0.00184 | 0.12764 | | 0.99948 | |
| 1,2,4-Trichlorobenzene | NE<br>0.95146 | 0.91627<br>0.90293 | 0.65608<br>0.94400 | 0.83350<br>0.95022 | 0.89445 | 0.91558 | AVRG | | 0.88494 | | 10.53488 | |
| Hexachlorobutadiene | NE<br>155390 | 1477<br>299042 | 1928<br>466452 | 3970<br>654615 | 13454 | 55912 | QUAD | -0.00107 | 2.58308 | -0.07816 | 0.99966 | |
| Naphthalene | NE<br>2.14094 | 2.01970<br>2.06230 | 1.60683<br>2.15450 | 1.85985<br>2.12714 | 2.04153 | 2.10842 | AVRG | | 2.01347 | | 8.78393 | |
| 1,2,3-Trichlorobenzene | NE<br>0.85880 | 1.02696<br>0.83163 | 0.68341<br>0.85478 | 0.79977<br>0.84995 | 0.84958 | 0.87304 | AVRG | | 0.84755 | | 10.42886 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethyl Acetate | NE<br>0.37280 | 0.44748<br>0.34980 | 0.34909<br>0.38488 | 0.40657<br>0.39192 | 0.39985 | 0.40902 | AVRG | | 0.39016 | | 7.92750 | |
| Methyl Acrylate | NE<br>0.33014 | 0.38247<br>0.33914 | 0.34243<br>0.35741 | 0.29817<br>0.35867 | 0.33173 | 0.31494 | AVRG | | 0.33946 | | 7.36740 | |
| n-Butanol | NE<br>54418 | 622<br>124057 | 1171<br>210842 | 2004<br>297334 | 4891 | 15012 | QUAD | 0.80435 | 158 | -58.97368 | 0.99813 | * |
| Ethyl Acrylate | NE<br>420886 | NE<br>862071 | NE<br>1358300 | 9825<br>1836030 | 26414 | 172044 | LINR | 0.05859 | 1.02468 | | 0.99901 | * |
| Cyclohexanone | NE<br>0.01934 | 0.07093<br>0.01945 | 0.03374<br>0.01993 | 0.02556<br>0.01966 | 0.01884 | 0.01912 | AVRG | | 0.02740 | | 62.21369 | * |
| 1,4-Dioxane | 0.00463<br>0.00443 | 0.00501<br>0.00442 | 0.00455<br>0.00480 | 0.00386<br>0.00497 | 0.00466 | 0.00438 | AVRG | | 0.00457 | | 7.29408 | |
| n-Hexane | NE<br>0.39852 | 0.41368<br>0.36338 | 0.26016<br>0.39788 | 0.32309<br>0.40267 | 0.32437 | 0.35631 | AVRG | | 0.36001 | | 13.97418 | |
| Freon TF | NE<br>0.37622 | 0.40111<br>0.36030 | 0.37263<br>0.38547 | 0.33005<br>0.39624 | 0.32940 | 0.35185 | AVRG | | 0.36703 | | 7.16337 | |
| Methyl Acetate | NE<br>0.21071 | 0.27499<br>0.21615 | 0.23617<br>0.22455 | 0.22728<br>0.22667 | 0.19900 | 0.20937 | AVRG | | 0.22499 | | 9.73149 | |
| Methylcyclohexane | NE<br>0.60749 | 0.69525<br>0.62521 | 0.49917<br>0.65111 | 0.58500<br>0.65095 | 0.56389 | 0.63030 | AVRG | | 0.61204 | | 9.36456 | |
| Isopropyl alcohol | NE<br>0.01716 | 0.02240<br>0.01767 | 0.01652<br>0.01919 | 0.01536<br>0.01934 | 0.01833 | 0.01677 | AVRG | | 0.01808 | | 11.41496 | |
| Amyl alcohol | NE<br>0.00433 | NE<br>0.00498 | NE<br>0.00582 | NE<br>0.00605 | 0.00196 | 0.00315 | AVRG | | 0.00438 | | 36.19033 | * |

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# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Allyl alcohol | NE<br>0.01993 | 0.03347<br>0.01817 | 0.01301<br>0.01989 | 0.01615<br>0.02013 | 0.01622 | 0.01782 | AVRG | | 0.01942 | | 29.60962 | * |
| 4-Methyl-2-pentanol | NE<br>0.04191 | 0.13977<br>0.04448 | 0.06768<br>0.05120 | 0.05740<br>0.05444 | 0.04467 | 0.04137 | AVRG | | 0.06032 | | 51.38639 | * |
| Tert-butyl alcohol | NE<br>0.03307 | 0.04145<br>0.03257 | 0.03359<br>0.03586 | 0.03291<br>0.03628 | 0.03387 | 0.03199 | AVRG | | 0.03462 | | 8.48705 | |
| Diethyl ether | NE<br>0.30968 | 0.40393<br>0.31674 | 0.33122<br>0.33062 | 0.34807<br>0.33029 | 0.33548 | 0.30080 | AVRG | | 0.33409 | | 8.92652 | |
| 1,3-Butadiene | NE<br>0.33288 | 0.38854<br>0.32994 | 0.38107<br>0.34951 | 0.31405<br>0.35836 | 0.31693 | 0.31715 | AVRG | | 0.34316 | | 8.15203 | |
| Cyclohexane | NE<br>237699 | 2803<br>432198 | 4003<br>682728 | 7375<br>943314 | 19859 | 84355 | LINR | 0.02522 | 0.51703 | | 0.99847 | |
| Tetrahydrofuran | NE<br>58181 | 900<br>109518 | 1361<br>162133 | 2867<br>219995 | 7598 | 28221 | LINR | -0.06333 | 0.06025 | | 0.99942 | |
| alpha-Methylstyrene | NE<br>1.13399 | 1.35155<br>1.10993 | 0.85865<br>1.16502 | 1.02359<br>1.17184 | 1.06165 | 1.09458 | AVRG | | 1.10787 | | 11.89593 | |
| Diisopropyl ether | NE<br>1.21127 | 1.41201<br>1.25239 | 1.35074<br>1.32366 | 1.30436<br>1.33324 | 1.25459 | 1.23114 | AVRG | | 1.29704 | | 5.00179 | |
| Dichlorofluoromethane | NE<br>0.05734 | NE<br>0.05842 | NE<br>0.06234 | NE<br>0.06214 | 0.06484 | 0.06089 | AVRG | | 0.06099 | | 4.51209 | * |
| Propylene oxide | NE<br>0.03071 | NE<br>0.03174 | 0.05613<br>0.03407 | 0.03062<br>0.03228 | 0.03687 | 0.02961 | AVRG | | 0.03525 | | 24.79698 | * |
| 3-Methyl-1-butanol | NE<br>0.00489 | NE<br>0.00483 | NE<br>0.00601 | NE<br>0.00612 | 0.00211 | 0.00438 | AVRG | | 0.00472 | | 30.80128 | * |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Butyl acrylate | NE<br>0.63698 | 0.73114<br>0.67566 | 0.58907<br>0.72950 | 0.57945<br>0.74630 | 0.58578 | 0.60437 | AVRG | | 0.65314 | | 10.52624 | |
| 1,2,3-Trimethylbenzene | NE<br>2.21302 | 2.76749<br>2.29498 | 2.61167<br>2.36627 | 2.52848<br>2.30685 | 2.25428 | 2.32678 | AVRG | | 2.40776 | | 7.74526 | |
| Ethanol | NE<br>29714 | 458<br>56794 | 787<br>87890 | 1703<br>117751 | 3072 | 12594 | LINR | -0.06594 | 0.00325 | | 0.99956 | |
| 1-Propanol | NE<br>0.00727 | 0.00862<br>0.00784 | 0.00964<br>0.00802 | 0.00852<br>0.00816 | 0.00825 | 0.00721 | AVRG | | 0.00817 | | 9.04495 | |
| tert-Butyl formate | NE<br>0.24908 | NE<br>0.25521 | NE<br>0.29218 | 0.25634<br>0.29283 | 0.33766 | 0.24706 | AVRG | | 0.27577 | | 12.14219 | * |
| 3,3-Dimethyl-1-butanol | NE<br>0.02235 | NE<br>0.02388 | NE<br>0.02628 | NE<br>0.02679 | 0.01912 | 0.02169 | AVRG | | 0.02335 | | 12.46791 | * |
| tert-Amyl methyl ether | NE<br>1.32775 | 2.53777<br>1.35994 | 1.82297<br>1.44272 | 1.67155<br>1.43312 | 1.55575 | 1.35887 | AVRG | | 1.61227 | | 23.79383 | * |
| tert-Butyl ethyl ether | NE<br>1.27589 | 1.81984<br>1.30743 | 1.44501<br>1.37993 | 1.35004<br>1.39745 | 1.35223 | 1.28319 | AVRG | | 1.40122 | | 11.86386 | |
| tert-Amyl alcohol | NE<br>0.02491 | 0.03129<br>0.02552 | 0.02457<br>0.02922 | 0.02972<br>0.02928 | 0.03377 | 0.02471 | AVRG | | 0.02811 | | 11.82574 | |
| Epichlorohydrin | NE<br>58515 | 926<br>126478 | 1242<br>183469 | 2483<br>257397 | 5941 | 23842 | LINR | 0.04999 | 0.02268 | | 0.99921 | |
| Isoprene | NE<br>0.13550 | 0.20890<br>0.13652 | 0.10782<br>0.14294 | 0.12769<br>0.14612 | 0.14811 | 0.13210 | AVRG | | 0.14286 | | 19.27805 | * |
| n-Amyl acetate | NE<br>0.52035 | NE<br>0.54240 | NE<br>0.59479 | NE<br>0.61078 | NE | 0.53118 | AVRG | | 0.55990 | | 7.20069 | * |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

# Initial Calibration Data

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

**ICAL Start Date** 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507



| Compound | Level 1 0.250 Level 7 50.0 | Level 2 0.500 Level 8 100.0 | Level 3 1.00 Level 9 150.0 | Level 4 2.00 Level 10 200.0 | Level 5 5.00 | Level 6 20.00 | Curve | b | m1 | m2 | %RSD or $R^2$ | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Isopropyl acetate | NE<br>0.72227 | 1.34716<br>0.73275 | 0.78367<br>0.76494 | 0.79130<br>0.76466 | 0.77391 | 0.74796 | AVRG | | 0.82540 | | 23.86221 | * |
| n-Butyl acetate | NE<br>0.19856 | 0.47947<br>0.20815 | 0.28533<br>0.21762 | 0.15799<br>0.22438 | 0.22627 | 0.22783 | AVRG | | 0.24729 | | 37.68114 | * |
| Acetaldehyde | NE<br>67188 | NE<br>107798 | 3384<br>161053 | 5661<br>205547 | 6161 | 32393 | LINR | -0.46573 | 0.02837 | | 0.99553 | |
| Methyl Amyl Ketone | NE<br>0.62641 | 1.24254<br>0.65992 | 0.68451<br>0.69377 | 0.63815<br>0.71197 | 0.57607 | 0.60726 | AVRG | | 0.71562 | | 28.26825 | * |
| Dimethyl Disulfide | NE<br>0.67210 | 0.79855<br>0.68414 | 0.63899<br>0.70500 | 0.61608<br>0.69777 | 0.61366 | 0.66406 | AVRG | | 0.67671 | | 8.32695 | |
| 1,2-Dichloroethylene (total) | NE<br>0.45918 | 0.54933<br>0.45116 | 0.46024<br>0.47466 | 0.45982<br>0.47504 | 0.46309 | 0.44450 | AVRG | | 0.47078 | | 6.59168 | |
| Xylenes (total) | NE<br>0.56357 | 0.65089<br>0.56191 | 0.51351<br>0.58028 | 0.53491<br>0.60523 | 0.53725 | 0.54549 | AVRG | | 0.56589 | | 7.37687 | |
| Dibromofluoromethane | NE<br>211939 | 2321<br>438954 | 4769<br>652724 | 9050<br>856027 | 24255 | 90108 | LINR | -0.00333 | 0.47851 | | 0.99972 | |
| 1,2-Dichloroethane-d4 | NE<br>222293 | 2849<br>455890 | 5559<br>686218 | 9783<br>919752 | 24938 | 92990 | LINR | 0.00543 | 0.50950 | | 0.99982 | |
| Toluene-d8 | NE<br>1.18347 | 1.47608<br>1.20166 | 1.31472<br>1.16429 | 1.20749<br>1.10711 | 1.24798 | 1.21701 | AVRG | | 1.23554 | | 8.62469 | |
| 4-Bromofluorobenzene | NE<br>292753 | 3870<br>615584 | 7790<br>936681 | 13631<br>1277239 | 32501 | 116878 | LINR | 0.00128 | 0.46242 | | 0.99992 | |

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

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Form 6I

# Initial Calibration Verification (ICV)

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Initial Calibration Verification (ICV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

RunID VOA6_424237

## Volatiles by by EPA 8260

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

| Compound | Amount Added | Amount Recovered | % Recovered | Limits | Q |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachlor | 50.00 | 48.61 | 97.24 | 80-120 | |
| 1,1,1-Trichloroeth | 50.00 | 50.16 | 100.33 | 80-120 | |
| 1,1,2,2-Tetrachlor | 50.00 | 46.75 | 93.50 | 80-120 | |
| Freon TF | 50.00 | 52.90 | 105.81 | 80-120 | |
| Methyl Acetate | 50.00 | 48.17 | 96.35 | 80-120 | |
| Cyclohexane | 50.00 | 51.73 | 103.47 | 80-120 | |
| Methylcyclohexane | 50.00 | 50.89 | 101.79 | 80-120 | |
| Carbon Disulfide | 100.00 | 98.50 | 98.50 | 80-120 | |
| 2-Hexanone | 100.00 | 96.73 | 96.74 | 80-120 | |
| 1,1,2-Trichloroeth | 50.00 | 47.91 | 95.83 | 80-120 | |
| 1,1-Dichloroethane | 50.00 | 48.19 | 96.39 | 80-120 | |
| 1,1-Dichloroethene | 50.00 | 49.34 | 98.68 | 80-120 | |
| 1,1-Dichloropropen | 50.00 | 52.11 | 104.24 | 80-120 | |
| 1,2,3-Trichloroben | 50.00 | 52.79 | 105.58 | 80-120 | |
| 1,2,3-Trichloropro | 50.00 | 48.07 | 96.16 | 80-120 | |
| 1,2,4-Trichloroben | 50.00 | 54.66 | 109.32 | 80-120 | |
| 1,2,4-Trimethylben | 50.00 | 51.32 | 102.65 | 80-120 | |
| 1,2-Dibromo-3-Chlo | 50.00 | 50.53 | 101.07 | 80-120 | |
| 1,2-Dibromoethane | 50.00 | 50.24 | 100.49 | 80-120 | |
| Acrolein | 100.00 | 95.06 | 95.07 | 80-120 | |
| Acrylonitrile | 100.00 | 101.42 | 101.43 | 80-120 | |
| 1,2-Dichlorobenzen | 50.00 | 49.52 | 99.05 | 80-120 | |
| 1,2-Dichloroethane | 50.00 | 49.52 | 99.05 | 80-120 | |
| 1,2-Dichloropropan | 50.00 | 49.60 | 99.22 | 80-120 | |
| 1,3,5-Trimethylben | 50.00 | 52.30 | 104.61 | 80-120 | |
| 1,3-Dichlorobenzen | 50.00 | 51.21 | 102.43 | 80-120 | |
| 1,3-Dichloropropan | 50.00 | 47.82 | 95.66 | 80-120 | |
| 1,4-Dichlorobenzen | 50.00 | 49.71 | 99.44 | 80-120 | |
| 1-Chlorohexane | 50.00 | 51.98 | 103.97 | 80-120 | |
| 2,2-Dichloropropan | 50.00 | 50.98 | 101.98 | 80-120 | |
| 2-Butanone | 100.00 | 97.74 | 97.74 | 80-120 | |
| 2-Chloroethylvinyl | 100.00 | 104.19 | 104.19 | 80-120 | |
| 2-Chlorotoluene | 50.00 | 49.94 | 99.89 | 80-120 | |
| 4-Chlorotoluene | 50.00 | 51.25 | 102.51 | 80-120 | |

# Initial Calibration Verification (ICV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

| Compound | Amount Added | Amount Recovered | % Recovered | Limits | Q |
|---|---|---|---|---|---|
| p-Isopropyltoluene | 50.00 | 54.75 | 109.51 | 80-120 | |
| 4-Methyl-2-Pentano | 100.00 | 94.03 | 94.03 | 80-120 | |
| Acetone | 100.00 | 101.89 | 101.90 | 80-120 | |
| Acetonitrile | 500.00 | 475.59 | 95.12 | 80-120 | |
| Allyl Chloride | 50.00 | 47.31 | 94.63 | 80-120 | |
| Benzene | 50.00 | 50.29 | 100.58 | 80-120 | |
| Bromobenzene | 50.00 | 49.62 | 99.25 | 80-120 | |
| Bromochloromethane | 50.00 | 47.25 | 94.51 | 80-120 | |
| Bromodichlorometha | 50.00 | 49.22 | 98.45 | 80-120 | |
| Bromoform | 50.00 | 49.33 | 98.66 | 80-120 | |
| Bromomethane | 50.00 | 50.78 | 101.58 | 80-120 | |
| Carbon Tetrachlori | 50.00 | 49.06 | 98.12 | 80-120 | |
| Chlorobenzene | 50.00 | 48.34 | 96.68 | 80-120 | |
| Chloroethane | 50.00 | 48.32 | 96.64 | 80-120 | |
| Chloroform | 50.00 | 48.45 | 96.91 | 80-120 | |
| Chloromethane | 50.00 | 50.17 | 100.35 | 80-120 | |
| Chloroprene | 50.00 | 47.74 | 95.50 | 80-120 | |
| cis-1,2-Dichloroet | 50.00 | 48.25 | 96.51 | 80-120 | |
| cis-1,3-Dichloropr | 50.00 | 52.11 | 104.22 | 80-120 | |
| Dibromochlorometha | 50.00 | 49.50 | 99.02 | 80-120 | |
| Dibromomethane | 50.00 | 49.19 | 98.38 | 80-120 | |
| Dichlorodifluorome | 50.00 | 52.19 | 104.38 | 80-120 | |
| Ethylbenzene | 50.00 | 51.31 | 102.63 | 80-120 | |
| Ethyl Methacrylate | 50.00 | 44.07 | 88.15 | 80-120 | |
| Iodomethane | 100.00 | 96.48 | 96.49 | 80-120 | |
| Isobutyl Alcohol | 1000.00 | 982.15 | 98.22 | 70-130 | |
| Propionitrile | 500.00 | 486.89 | 97.38 | 70-130 | |
| Hexachlorobutadien | 50.00 | 57.73 | 115.48 | 80-120 | |
| Isopropylbenzene | 50.00 | 52.09 | 104.19 | 80-120 | |
| m,p-Xylenes | 100.00 | 100.17 | 100.17 | 80-120 | |
| Methyl tert-butyl | 50.00 | 48.12 | 96.25 | 80-120 | |
| Methylene Chloride | 50.00 | 47.56 | 95.14 | 80-120 | |
| Methacrylonitrile | 50.00 | 46.73 | 93.48 | 80-120 | |
| Methyl Methacrylat | 50.00 | 47.71 | 95.43 | 80-120 | |

# Initial Calibration Verification (ICV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_424237

## Volatiles by by EPA 8260

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

| Compound | Amount Added | Amount Recovered | % Recovered | Limits | Q |
|---|---|---|---|---|---|
| n-Butylbenzene | 50.00 | 50.66 | 101.33 | 80-120 | |
| n-Propylbenzene | 50.00 | 52.67 | 105.35 | 80-120 | |
| Naphthalene | 50.00 | 52.67 | 105.35 | 80-120 | |
| o-Xylene | 50.00 | 49.75 | 99.51 | 80-120 | |
| sec-Butylbenzene | 50.00 | 54.16 | 108.34 | 80-120 | |
| Styrene | 50.00 | 52.09 | 104.20 | 80-120 | |
| tert-Butylbenzene | 50.00 | 52.83 | 105.67 | 80-120 | |
| Tetrachloroethene | 50.00 | 50.99 | 101.99 | 80-120 | |
| Toluene | 50.00 | 49.20 | 98.42 | 80-120 | |
| trans-1,2-Dichloro | 50.00 | 49.99 | 99.98 | 80-120 | |
| trans-1,3-Dichloro | 50.00 | 52.50 | 105.01 | 80-120 | |
| trans-1,4-Dichloro | 50.00 | 49.73 | 99.47 | 80-120 | |
| Trichloroethene | 50.00 | 51.28 | 102.56 | 80-120 | |
| Trichlorofluoromet | 50.00 | 51.00 | 102.02 | 80-120 | |
| Vinyl Acetate | 100.00 | 104.75 | 104.76 | 80-120 | |
| Vinyl Chloride | 50.00 | 50.57 | 101.15 | 80-120 | |
| 1,2-Dichloroethyle | 100.00 | 98.24 | 98.25 | 80-120 | |
| Xylenes (total) | 150.00 | 149.92 | 99.95 | 80-120 | |
| 1,4-Dioxane | 1000.00 | 1021.76 | 102.18 | 80-120 | |
| Dibromofluorometha | 50.00 | 50.91 | 101.84 | 71-125 | |
| 1,2-Dichloroethane | 50.00 | 50.36 | 100.73 | 70-125 | |
| Toluene-d8 | 50.00 | 49.50 | 99.00 | 75-125 | |
| 4-Bromofluorobenze | 50.00 | 49.98 | 99.97 | 72-125 | |

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Form 7

# Continuing Calibration Verification (CCV)

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 0824
Lab File ID X012602.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 42.29552 | 0.29539 | 0.100 | 15.40897 | 20.0 | Linear | |
| Chloromethane | 50.0 | 43.75326 | 0.39325 | 0.100 | 12.49348 | 20.0 | Linear | |
| Propionitrile | 0.05102 | 0.04959 | 0.04959 | 0.010 | 2.79809 | 20.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.40952 | 0.40952 | 0.100 | 6.23957 | 20.0 | Averaged | |
| Bromomethane | 50.0 | 42.06902 | 0.27604 | 0.100 | 15.86196 | 20.0 | Linear | |
| Chloroethane | 0.30401 | 0.25706 | 0.25706 | 0.100 | 15.44419 | 20.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.62013 | 0.62013 | 0.100 | -1.45613 | 20.0 | Averaged | |
| Acrolein | 100 | 88.68840 | 0.03021 | 0.010 | 11.31160 | 20.0 | Linear | |
| Acetone | 100 | 80.68339 | 0.11320 | 0.100 | 19.31661 | 20.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.35928 | 0.35928 | 0.100 | 5.32212 | 20.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06030 | 0.06030 | 0.005 | -7.22012 | 20.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.04759 | 0.04759 | 0.005 | -4.57839 | 20.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.85588 | 0.85588 | 0.100 | 1.24811 | 20.0 | Averaged | |
| Iodomethane | 100 | 99 | 0.49501 | 0.100 | 0.95253 | 20.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.13178 | 0.13178 | 0.050 | -2.39072 | 20.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.46257 | 0.46257 | 0.100 | 11.13259 | 20.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.19381 | 1.19381 | 0.100 | 3.88816 | 20.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.00312 | 1.00312 | 0.100 | -1.03396 | 20.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.42317 | 0.42317 | 0.100 | 0.36165 | 20.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.14986 | 1.14986 | 0.010 | -5.45674 | 20.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.72980 | 0.72980 | 0.200 | 2.08802 | 20.0 | Averaged | |
| Chloroprene | 0.17001 | 0.15844 | 0.15844 | 0.100 | 6.80394 | 20.0 | Averaged | |
| 2-Butanone | 100 | 94.91203 | 0.14101 | 0.100 | 5.08797 | 20.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.34154 | 0.34154 | 0.100 | 3.53205 | 20.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.70484 | 0.70484 | 0.100 | -11.37443 | 20.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.48334 | 0.48334 | 0.100 | 6.48494 | 20.0 | Averaged | |
| Chloroform | 0.83541 | 0.82145 | 0.82145 | 0.200 | 1.67149 | 20.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.25429 | 0.25429 | 0.100 | 10.14185 | 20.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 46.46093 | 0.44623 | 0.100 | 7.07814 | 20.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.73124 | 0.73124 | 0.100 | -10.32202 | 20.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.42442 | 0.42442 | 0.100 | -19.56229 | 20.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.43909 | 0.43909 | 0.100 | -7.18192 | 20.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.41918 | 0.41918 | 0.100 | -10.58446 | 20.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 50.59043 | 0.51275 | 0.100 | -1.18085 | 20.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 0824
Lab File ID X012602.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.21322 | 1.21322 | 0.500 | -1.61036 | 20.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.35936 | 0.35936 | 0.200 | -6.11559 | 20.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.44514 | 0.44514 | 0.200 | 0.65971 | 20.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.35637 | 0.35637 | 0.100 | -4.52948 | 20.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.14090 | 0.14090 | 0.001 | -10.52376 | 20.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.31273 | 0.31273 | 0.100 | 1.53492 | 20.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.13394 | 0.13394 | 0.000 | -6.07878 | 20.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.20799 | 0.20799 | 0.100 | 3.65550 | 20.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.27897 | 0.27897 | 0.100 | -4.38540 | 20.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.54631 | 0.54631 | 0.200 | -3.81205 | 20.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.18485 | 1.18485 | 0.100 | 4.10235 | 20.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.23407 | 0.23407 | 0.100 | 0.58604 | 20.0 | Averaged | |
| Toluene | 1.38201 | 1.42211 | 1.42211 | 0.400 | -2.90121 | 20.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.47120 | 0.47120 | 0.100 | -7.89390 | 20.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.19373 | 0.19373 | 0.100 | -6.54412 | 20.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.26493 | 0.26493 | 0.100 | 4.44600 | 20.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.53941 | 0.53941 | 0.100 | 1.15840 | 20.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.40145 | 0.40145 | 0.100 | -0.32319 | 20.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.32250 | 0.32250 | 0.200 | -12.78592 | 20.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.35227 | 0.35227 | 0.100 | -1.62152 | 20.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.27437 | 0.27437 | 0.100 | -13.54889 | 20.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.97590 | 0.97590 | 0.500 | 0.44387 | 20.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.37157 | 0.37157 | 0.100 | -1.85502 | 20.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.50774 | 0.50774 | 0.100 | -9.95873 | 20.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.63981 | 0.63981 | 0.100 | -7.48544 | 20.0 | Averaged | |
| o-Xylene | 0.58751 | 0.61406 | 0.61406 | 0.300 | -4.52016 | 20.0 | Averaged | |
| Styrene | 0.98473 | 1.05733 | 1.05733 | 0.300 | -7.37168 | 20.0 | Averaged | |
| Bromoform | 0.27722 | 0.27640 | 0.27640 | 0.100 | 0.29839 | 20.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.59119 | 1.59119 | 0.100 | -18.54761 | 20.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.75640 | 0.75640 | 0.300 | 5.08515 | 20.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 50.98603 | 0.47094 | 0.100 | -1.97207 | 20.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.57286 | 0.57286 | 0.100 | -2.96619 | 20.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11554 | 0.11554 | 0.050 | -7.04259 | 20.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.27719 | 3.27719 | 0.100 | -18.32910 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

RunID VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 0824
Lab File ID X012602.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | RRF / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.82078 | 0.82078 | 0.100 | -0.05543 | 20.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.42737 | 2.42737 | 0.100 | -18.64225 | 20.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 2.00768 | 2.00768 | 0.100 | -10.46920 | 20.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.35482 | 2.35482 | 0.100 | -13.65911 | 20.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 1.98556 | 1.98556 | 0.100 | -18.55849 | 20.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.44290 | 2.44290 | 0.100 | -13.47738 | 20.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.87075 | 2.87075 | 0.100 | -28.83022 | 20.0 | Averaged | <- |
| p-Isopropyltoluene | 1.99679 | 2.56533 | 2.56533 | 0.100 | -28.47289 | 20.0 | Averaged | <- |
| 1,3-Dichlorobenzene | 1.36155 | 1.46414 | 1.46414 | 0.600 | -7.53438 | 20.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.52950 | 1.52950 | 0.400 | -2.94362 | 20.0 | Averaged | |
| Benzyl Chloride | 50.0 | 50.41923 | 0.78939 | 0.010 | -0.83845 | 20.0 | Linear | |
| n-Butylbenzene | 50.0 | 59.60555 | 2.30771 | 0.500 | -19.21111 | 20.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.43927 | 1.43927 | 0.400 | -2.63995 | 20.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 50.03656 | 0.12750 | 0.040 | -0.07312 | 20.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 1.03877 | 1.03877 | 0.100 | -17.38289 | 20.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 59.13016 | 0.46478 | 0.100 | -18.26032 | 20.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.19322 | 2.19322 | 0.200 | -8.92731 | 20.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.92627 | 0.92627 | 0.010 | -9.28788 | 20.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.23681 | 0.23681 | 0.100 | -5.25384 | 20.0 | Averaged | |
| Freon TF | 0.36703 | 0.38624 | 0.38624 | 0.100 | -5.23468 | 20.0 | Averaged | |
| Cyclohexane | 50.0 | 58.98619 | 0.59691 | 0.100 | -17.97237 | 20.0 | Linear | |
| Tetrahydrofuran | 100 | 90.37306 | 0.05636 | 0.001 | 9.62694 | 20.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.72971 | 0.72971 | 0.100 | -19.22511 | 20.0 | Averaged | |
| 1,4-Dioxane | 0.00457 | 0.00485 | 0.00485 | 0.001 | -6.15112 | 20.0 | Averaged | |
| n-Butanol | 1000 | 1008 | 0.00645 | 0.005 | -0.83678 | 20.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.36259 | 0.36259 | 0.100 | -6.81437 | 20.0 | Averaged | |
| Ethyl Acrylate | 50.0 | 54.65320 | 1.07431 | 0.100 | -9.30640 | 20.0 | Linear | |
| n-Hexane | 0.36001 | 0.48128 | 0.48128 | 0.100 | -33.68608 | 20.0 | Averaged | <- |
| Diethyl ether | 0.33409 | 0.27711 | 0.27711 | 0.100 | 17.05397 | 20.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03789 | 0.03789 | 0.005 | -9.45458 | 20.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02032 | 0.02032 | 0.005 | -12.39872 | 20.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.24871 | 1.24871 | 0.100 | 3.72681 | 20.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 1.01255 | 1.01255 | 0.100 | -4.37880 | 20.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.48304 | 2.48304 | 0.100 | -3.12667 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 0824
Lab File ID X012602.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 970 | 0.00316 | 0.001 | 2.97056 | 20.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.28947 | 0.28947 | 0.100 | -9.10317 | 20.0 | Averaged | |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02440 | 0.02440 | 0.005 | -3.15391 | 20.0 | Averaged | |
| tert-Amyl methyl ether | 1.44127 | 1.35888 | 1.35888 | 0.005 | 5.71680 | 20.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.33113 | 1.33113 | 0.100 | 3.41761 | 20.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.02895 | 0.02895 | 0.005 | -7.79502 | 20.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.04863 | 0.04863 | 0.005 | -2.76844 | 20.0 | Averaged | |
| 1-Methylnaphthalene | ++++ | 1.01255 | 1.01255 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.32284 | 0.32284 | 0.100 | 5.92024 | 20.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00514 | 0.00514 | 0.005 | -3.98570 | 20.0 | Averaged | <- |
| Dichlorofluoromethane | 0.06474 | 0.05373 | 0.05373 | 0.100 | 17.00586 | 20.0 | Averaged | <- |
| Propylene oxide | 0.03144 | 0.02822 | 0.02822 | 0.005 | 10.25946 | 20.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00575 | 0.00575 | 0.005 | -16.38701 | 20.0 | Averaged | <- |
| Butyl acrylate | 0.65314 | 0.68663 | 0.68663 | 0.100 | -5.12754 | 20.0 | Averaged | |
| Epichlorohydrin | 200 | 210 | 0.02347 | 0.001 | -4.76388 | 20.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.45325 | 0.45325 | 0.200 | 3.72295 | 20.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.60396 | 0.60396 | 0.100 | -6.72622 | 20.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.15119 | 1.15119 | 0.100 | -3.91076 | 20.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.41123 | 0.41123 | 0.100 | -5.40068 | 20.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.02262 | 0.02262 | 0.005 | -8.47072 | 20.0 | Averaged | |
| Isoprene | 0.13320 | 0.13611 | 0.13611 | 0.100 | -2.18392 | 20.0 | Averaged | |
| Isopentane | ++++ | 0.23943 | 0.23943 | 0.100 | ++++ | 20.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.81992 | 0.81992 | 0.100 | -5.54804 | 20.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.59091 | 0.59091 | 0.100 | -1.35028 | 20.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.48765 | 0.48765 | 0.100 | -13.53707 | 20.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02406 | 0.02406 | 0.004 | -30.93988 | 20.0 | Averaged | <- |
| Acetaldehyde | 200 | 177 | 0.02836 | 0.001 | 11.68728 | 20.0 | Linear | |
| Methyl Amyl Ketone | 0.66478 | 0.64663 | 0.64663 | 0.100 | 2.72899 | 20.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.66344 | 0.66344 | 0.100 | 1.96030 | 20.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00049 | 0.00049 | 0.001 | ++++ | 20.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 9.389e+63 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00729 | 0.00729 | 0.005 | 10.73738 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 1812
Lab File ID X012629.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 43.64576 | 0.30491 | 0.100 | 12.70848 | 50.0 | Linear | |
| Chloromethane | 50.0 | 44.19085 | 0.39739 | 0.100 | 11.61829 | 50.0 | Linear | |
| Propionitrile | 0.05102 | 0.05082 | 0.05082 | 0.010 | 0.38075 | 50.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.40205 | 0.40205 | 0.100 | 7.95044 | 50.0 | Averaged | |
| Bromomethane | 50.0 | 44.37853 | 0.29186 | 0.100 | 11.24295 | 50.0 | Linear | |
| Chloroethane | 0.30401 | 0.25815 | 0.25815 | 0.100 | 15.08517 | 50.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.63843 | 0.63843 | 0.100 | -4.45112 | 50.0 | Averaged | |
| Acrolein | 100 | 87.32221 | 0.02973 | 0.010 | 12.67779 | 50.0 | Linear | |
| Acetone | 100 | 93.45185 | 0.13111 | 0.100 | 6.54815 | 50.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.37217 | 0.37217 | 0.100 | 1.92555 | 50.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06085 | 0.06085 | 0.005 | -8.20700 | 50.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.04906 | 0.04906 | 0.005 | -7.81373 | 50.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.86751 | 0.86751 | 0.100 | -0.09410 | 50.0 | Averaged | |
| Iodomethane | 100 | 94.87601 | 0.47256 | 0.100 | 5.12399 | 50.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.13437 | 0.13437 | 0.050 | -4.40523 | 50.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.48334 | 0.48334 | 0.100 | 7.14325 | 50.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.21980 | 1.21980 | 0.100 | 1.79585 | 50.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.02239 | 1.02239 | 0.100 | -2.97529 | 50.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.42973 | 0.42973 | 0.100 | -1.18451 | 50.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.06519 | 1.06519 | 0.010 | 2.30932 | 50.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.75107 | 0.75107 | 0.200 | -0.76580 | 50.0 | Averaged | |
| Chloroprene | 0.17001 | 0.16001 | 0.16001 | 0.100 | 5.88275 | 50.0 | Averaged | |
| 2-Butanone | 100 | 100 | 0.14808 | 0.100 | 0.47705 | 50.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.34963 | 0.34963 | 0.100 | 1.24606 | 50.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.64450 | 0.64450 | 0.100 | -1.83928 | 50.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.50716 | 0.50716 | 0.100 | 1.87661 | 50.0 | Averaged | |
| Chloroform | 0.83541 | 0.85666 | 0.85666 | 0.200 | -2.54312 | 50.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.26275 | 0.26275 | 0.100 | 7.15163 | 50.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 47.45779 | 0.45577 | 0.100 | 5.08441 | 50.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.75128 | 0.75128 | 0.100 | -13.34443 | 50.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.41747 | 0.41747 | 0.100 | -17.60419 | 50.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.44792 | 0.44792 | 0.100 | -9.33671 | 50.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.42570 | 0.42570 | 0.100 | -12.30227 | 50.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 52.29395 | 0.53011 | 0.100 | -4.58790 | 50.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 1812
Lab File ID X012629.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.22123 | 1.22123 | 0.500 | -2.28147 | 50.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.36694 | 0.36694 | 0.200 | -8.35246 | 50.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.45023 | 0.45023 | 0.200 | -0.47691 | 50.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.37788 | 0.37788 | 0.100 | -10.83755 | 50.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.13987 | 0.13987 | 0.001 | -9.71791 | 50.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.31211 | 0.31211 | 0.100 | 1.73199 | 50.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.13380 | 0.13380 | 0.000 | -5.96798 | 50.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.21013 | 0.21013 | 0.100 | 2.66348 | 50.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.27937 | 0.27937 | 0.100 | -4.53396 | 50.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.53154 | 0.53154 | 0.200 | -1.00578 | 50.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.16617 | 1.16617 | 0.100 | 5.61400 | 50.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.24125 | 0.24125 | 0.100 | -2.46224 | 50.0 | Averaged | |
| Toluene | 1.38201 | 1.43623 | 1.43623 | 0.400 | -3.92327 | 50.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.46215 | 0.46215 | 0.100 | -5.82029 | 50.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.19553 | 0.19553 | 0.100 | -7.53330 | 50.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.26701 | 0.26701 | 0.100 | 3.69593 | 50.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.54115 | 0.54115 | 0.100 | 0.83863 | 50.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.39979 | 0.39979 | 0.100 | 0.09222 | 50.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.32705 | 0.32705 | 0.200 | -14.37469 | 50.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.35265 | 0.35265 | 0.100 | -1.73105 | 50.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.29315 | 0.29315 | 0.100 | -21.32201 | 50.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.97567 | 0.97567 | 0.500 | 0.46812 | 50.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.37243 | 0.37243 | 0.100 | -2.09264 | 50.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.50832 | 0.50832 | 0.100 | -10.08556 | 50.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.64092 | 0.64092 | 0.100 | -7.67281 | 50.0 | Averaged | |
| o-Xylene | 0.58751 | 0.61573 | 0.61573 | 0.300 | -4.80377 | 50.0 | Averaged | |
| Styrene | 0.98473 | 1.06415 | 1.06415 | 0.300 | -8.06431 | 50.0 | Averaged | |
| Bromoform | 0.27722 | 0.27279 | 0.27279 | 0.100 | 1.60024 | 50.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.59972 | 1.59972 | 0.100 | -19.18274 | 50.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.73518 | 0.73518 | 0.300 | 7.74820 | 50.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 50.37371 | 0.46528 | 0.100 | -0.74741 | 50.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.61371 | 0.61371 | 0.100 | -10.30832 | 50.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11079 | 0.11079 | 0.050 | -2.64512 | 50.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.26776 | 3.26776 | 0.100 | -17.98841 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 1812
Lab File ID X012629.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.81979 | 0.81979 | 0.100 | 0.06563 | 50.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.38096 | 2.38096 | 0.100 | -16.37357 | 50.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 1.97876 | 1.97876 | 0.100 | -8.87782 | 50.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.31028 | 2.31028 | 0.100 | -11.50938 | 50.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 2.02182 | 2.02182 | 0.100 | -20.72372 | 50.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.39767 | 2.39767 | 0.100 | -11.37644 | 50.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.84271 | 2.84271 | 0.100 | -27.57218 | 50.0 | Averaged | |
| p-Isopropyltoluene | 1.99679 | 2.51858 | 2.51858 | 0.100 | -26.13157 | 50.0 | Averaged | |
| 1,3-Dichlorobenzene | 1.36155 | 1.44840 | 1.44840 | 0.600 | -6.37855 | 50.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.51793 | 1.51793 | 0.400 | -2.16516 | 50.0 | Averaged | |
| Benzyl Chloride | 50.0 | 40.31447 | 0.62225 | 0.010 | 19.37106 | 50.0 | Linear | |
| n-Butylbenzene | 50.0 | 56.96510 | 2.20234 | 0.500 | -13.93020 | 50.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.43070 | 1.43070 | 0.400 | -2.02880 | 50.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 48.43865 | 0.12342 | 0.040 | 3.12270 | 50.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 0.98853 | 0.98853 | 0.100 | -11.70570 | 50.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 56.51600 | 0.44396 | 0.100 | -13.03199 | 50.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.10587 | 2.10587 | 0.200 | -4.58947 | 50.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.89053 | 0.89053 | 0.010 | -5.07137 | 50.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.23722 | 0.23722 | 0.100 | -5.43457 | 50.0 | Averaged | |
| Freon TF | 0.36703 | 0.39859 | 0.39859 | 0.100 | -8.59857 | 50.0 | Averaged | |
| Cyclohexane | 50.0 | 61.15786 | 0.61937 | 0.100 | -22.31572 | 50.0 | Linear | |
| Tetrahydrofuran | 100 | 96.96792 | 0.06033 | 0.001 | 3.03208 | 50.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.71285 | 0.71285 | 0.100 | -16.47136 | 50.0 | Averaged | |
| 1,4-Dioxane | 0.00457 | 0.00514 | 0.00514 | 0.001 | -12.42447 | 50.0 | Averaged | |
| n-Butanol | 1000 | 982 | 0.00627 | 0.005 | 1.82811 | 50.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.39873 | 0.39873 | 0.100 | -17.46123 | 50.0 | Averaged | |
| Ethyl Acrylate | 50.0 | 54.77967 | 1.07688 | 0.100 | -9.55934 | 50.0 | Linear | |
| n-Hexane | 0.36001 | 0.44194 | 0.44194 | 0.100 | -22.76031 | 50.0 | Averaged | |
| Diethyl ether | 0.33409 | 0.27288 | 0.27288 | 0.100 | 18.32171 | 50.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03886 | 0.03886 | 0.005 | -12.25126 | 50.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02100 | 0.02100 | 0.005 | -16.12847 | 50.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.28435 | 1.28435 | 0.100 | 0.97834 | 50.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 0.82829 | 0.82829 | 0.100 | 14.61491 | 50.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.47102 | 2.47102 | 0.100 | -2.62754 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426583

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 26-JAN-2023 1812
Lab File ID X012629.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 980 | 0.00319 | 0.001 | 1.96362 | 50.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.29934 | 0.29934 | 0.100 | -12.82421 | 50.0 | Averaged | |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02351 | 0.02351 | 0.005 | 0.64168 | 50.0 | Averaged | |
| tert-Amyl methyl ether | 1.44127 | 1.42039 | 1.42039 | 0.005 | 1.44895 | 50.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.36286 | 1.36286 | 0.100 | 1.11505 | 50.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.02993 | 0.02993 | 0.005 | -11.47145 | 50.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.04832 | 0.04832 | 0.005 | -2.10830 | 50.0 | Averaged | |
| 1-Methylnaphthalene | ++++ | 0.82829 | 0.82829 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.30864 | 0.30864 | 0.100 | 10.06016 | 50.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00486 | 0.00486 | 0.005 | 1.68727 | 50.0 | Averaged | |
| Dichlorofluoromethane | 0.06474 | 0.05424 | 0.05424 | 0.100 | 16.22426 | 50.0 | Averaged | |
| Propylene oxide | 0.03144 | 0.02753 | 0.02753 | 0.005 | 12.42913 | 50.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00559 | 0.00559 | 0.005 | -13.06238 | 50.0 | Averaged | |
| Butyl acrylate | 0.65314 | 0.67599 | 0.67599 | 0.100 | -3.49809 | 50.0 | Averaged | |
| Epichlorohydrin | 200 | 201 | 0.02256 | 0.001 | -0.71857 | 50.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.46845 | 0.46845 | 0.200 | 0.49585 | 50.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.60359 | 0.60359 | 0.100 | -6.66103 | 50.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.14160 | 1.14160 | 0.100 | -3.04500 | 50.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.42108 | 0.42108 | 0.100 | -7.92460 | 50.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.02385 | 0.02385 | 0.005 | -14.37387 | 50.0 | Averaged | |
| Isoprene | 0.13320 | 0.13327 | 0.13327 | 0.100 | -0.05189 | 50.0 | Averaged | |
| Isopentane | ++++ | 0.22971 | 0.22971 | 0.100 | ++++ | 50.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.80812 | 0.80812 | 0.100 | -4.02909 | 50.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.58308 | 0.58308 | 0.100 | -0.00755 | 50.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.48002 | 0.48002 | 0.100 | -11.75995 | 50.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02210 | 0.02210 | 0.004 | -20.23855 | 50.0 | Averaged | |
| Acetaldehyde | 200 | 218 | 0.03424 | 0.001 | -9.05445 | 50.0 | Linear | |
| Methyl Amyl Ketone | 0.66478 | 0.67439 | 0.67439 | 0.100 | -1.44582 | 50.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.67001 | 0.67001 | 0.100 | 0.98888 | 50.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00043 | 0.00043 | 0.001 | ++++ | 50.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 9.389e+63 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00726 | 0.00726 | 0.005 | 11.09128 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 0750
Lab File ID X012702.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 43.09370 | 0.30102 | 0.100 | 13.81259 | 20.0 | Linear | |
| Chloromethane | 50.0 | 43.51984 | 0.39104 | 0.100 | 12.96032 | 20.0 | Linear | |
| Propionitrile | 0.05102 | 0.04920 | 0.04920 | 0.010 | 3.55907 | 20.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.39803 | 0.39803 | 0.100 | 8.87095 | 20.0 | Averaged | |
| Bromomethane | 50.0 | 45.78631 | 0.30150 | 0.100 | 8.42738 | 20.0 | Linear | |
| Chloroethane | 0.30401 | 0.27165 | 0.27165 | 0.100 | 10.64565 | 20.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.62246 | 0.62246 | 0.100 | -1.83813 | 20.0 | Averaged | |
| Acrolein | 100 | 94.03118 | 0.03209 | 0.010 | 5.96882 | 20.0 | Linear | |
| Acetone | 100 | 90.25230 | 0.12662 | 0.100 | 9.74770 | 20.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.36259 | 0.36259 | 0.100 | 4.44979 | 20.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.05932 | 0.05932 | 0.005 | -5.48715 | 20.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.04946 | 0.04946 | 0.005 | -8.68094 | 20.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.87835 | 0.87835 | 0.100 | -1.34440 | 20.0 | Averaged | |
| Iodomethane | 100 | 88.45613 | 0.43818 | 0.100 | 11.54387 | 20.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.13262 | 0.13262 | 0.050 | -3.04650 | 20.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.46749 | 0.46749 | 0.100 | 10.18732 | 20.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.20170 | 1.20170 | 0.100 | 3.25315 | 20.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.02568 | 1.02568 | 0.100 | -3.30610 | 20.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.42695 | 0.42695 | 0.100 | -0.52845 | 20.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.15231 | 1.15231 | 0.010 | -5.68054 | 20.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.74381 | 0.74381 | 0.200 | 0.20842 | 20.0 | Averaged | |
| Chloroprene | 0.17001 | 0.15530 | 0.15530 | 0.100 | 8.65084 | 20.0 | Averaged | |
| 2-Butanone | 100 | 95.33295 | 0.14165 | 0.100 | 4.66705 | 20.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.34418 | 0.34418 | 0.100 | 2.78557 | 20.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.71101 | 0.71101 | 0.100 | -12.34924 | 20.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.49959 | 0.49959 | 0.100 | 3.34081 | 20.0 | Averaged | |
| Chloroform | 0.83541 | 0.83913 | 0.83913 | 0.200 | -0.44527 | 20.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.26054 | 0.26054 | 0.100 | 7.93425 | 20.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 49.57588 | 0.47604 | 0.100 | 0.84823 | 20.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.72703 | 0.72703 | 0.100 | -9.68709 | 20.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.40895 | 0.40895 | 0.100 | -15.20481 | 20.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.44035 | 0.44035 | 0.100 | -7.49015 | 20.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.41385 | 0.41385 | 0.100 | -9.17689 | 20.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 54.07283 | 0.54824 | 0.100 | -8.14565 | 20.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 0750
Lab File ID X012702.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.17806 | 1.17806 | 0.500 | 1.33408 | 20.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.34562 | 0.34562 | 0.200 | -2.05667 | 20.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.43973 | 0.43973 | 0.200 | 1.86584 | 20.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.35797 | 0.35797 | 0.100 | -4.99824 | 20.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.13759 | 0.13759 | 0.001 | -7.92995 | 20.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.30277 | 0.30277 | 0.100 | 4.67146 | 20.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.13406 | 0.13406 | 0.000 | -6.17428 | 20.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.20475 | 0.20475 | 0.100 | 5.15272 | 20.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.26657 | 0.26657 | 0.100 | 0.25267 | 20.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.53784 | 0.53784 | 0.200 | -2.20278 | 20.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.20293 | 1.20293 | 0.100 | 2.63925 | 20.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.23321 | 0.23321 | 0.100 | 0.95395 | 20.0 | Averaged | |
| Toluene | 1.38201 | 1.37273 | 1.37273 | 0.400 | 0.67163 | 20.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.46619 | 0.46619 | 0.100 | -6.74741 | 20.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.18844 | 0.18844 | 0.100 | -3.63723 | 20.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.25848 | 0.25848 | 0.100 | 6.77258 | 20.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.52944 | 0.52944 | 0.100 | 2.98534 | 20.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.39159 | 0.39159 | 0.100 | 2.14040 | 20.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.31360 | 0.31360 | 0.200 | -9.67205 | 20.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.33731 | 0.33731 | 0.100 | 2.69600 | 20.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.28504 | 0.28504 | 0.100 | -17.96512 | 20.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.94982 | 0.94982 | 0.500 | 3.10503 | 20.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.36175 | 0.36175 | 0.100 | 0.83624 | 20.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.48973 | 0.48973 | 0.100 | -6.05856 | 20.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.61385 | 0.61385 | 0.100 | -3.12513 | 20.0 | Averaged | |
| o-Xylene | 0.58751 | 0.58769 | 0.58769 | 0.300 | -0.03160 | 20.0 | Averaged | |
| Styrene | 0.98473 | 1.01490 | 1.01490 | 0.300 | -3.06358 | 20.0 | Averaged | |
| Bromoform | 0.27722 | 0.26794 | 0.26794 | 0.100 | 3.34976 | 20.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.53077 | 1.53077 | 0.100 | -14.04586 | 20.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.73846 | 0.73846 | 0.300 | 7.33697 | 20.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 51.14594 | 0.47242 | 0.100 | -2.29189 | 20.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.56930 | 0.56930 | 0.100 | -2.32586 | 20.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11341 | 0.11341 | 0.050 | -5.07117 | 20.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.24534 | 3.24534 | 0.100 | -17.17889 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

RunID VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 0750
Lab File ID X012702.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.80526 | 0.80526 | 0.100 | 1.83661 | 20.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.34528 | 2.34528 | 0.100 | -14.62966 | 20.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 1.95486 | 1.95486 | 0.100 | -7.56263 | 20.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.28135 | 2.28135 | 0.100 | -10.11272 | 20.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 1.96912 | 1.96912 | 0.100 | -17.57693 | 20.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.36949 | 2.36949 | 0.100 | -10.06728 | 20.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.77983 | 2.77983 | 0.100 | -24.75012 | 20.0 | Averaged | <- |
| p-Isopropyltoluene | 1.99679 | 2.47108 | 2.47108 | 0.100 | -23.75300 | 20.0 | Averaged | <- |
| 1,3-Dichlorobenzene | 1.36155 | 1.41754 | 1.41754 | 0.600 | -4.11162 | 20.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.48462 | 1.48462 | 0.400 | 0.07688 | 20.0 | Averaged | |
| Benzyl Chloride | 50.0 | 48.81905 | 0.76292 | 0.010 | 2.36189 | 20.0 | Linear | |
| n-Butylbenzene | 50.0 | 57.62260 | 2.22858 | 0.500 | -15.24520 | 20.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.38027 | 1.38027 | 0.400 | 1.56789 | 20.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 48.09426 | 0.12254 | 0.040 | 3.81147 | 20.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 0.99879 | 0.99879 | 0.100 | -12.86480 | 20.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 59.85354 | 0.47054 | 0.100 | -19.70709 | 20.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.03883 | 2.03883 | 0.200 | -1.25951 | 20.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.88586 | 0.88586 | 0.010 | -4.51985 | 20.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.23088 | 0.23088 | 0.100 | -2.61928 | 20.0 | Averaged | |
| Freon TF | 0.36703 | 0.38670 | 0.38670 | 0.100 | -5.35978 | 20.0 | Averaged | |
| Cyclohexane | 50.0 | 59.98675 | 0.60726 | 0.100 | -19.97350 | 20.0 | Linear | |
| Tetrahydrofuran | 100 | 95.93010 | 0.05971 | 0.001 | 4.06990 | 20.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.70190 | 0.70190 | 0.100 | -14.68191 | 20.0 | Averaged | |
| 1,4-Dioxane | 0.00457 | 0.00480 | 0.00480 | 0.001 | -5.05952 | 20.0 | Averaged | |
| n-Butanol | 1000 | 1038 | 0.00666 | 0.005 | -3.81101 | 20.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.37894 | 0.37894 | 0.100 | -11.63093 | 20.0 | Averaged | |
| Ethyl Acrylate | 50.0 | 53.40295 | 1.04888 | 0.100 | -6.80591 | 20.0 | Linear | |
| n-Hexane | 0.36001 | 0.46740 | 0.46740 | 0.100 | -29.83247 | 20.0 | Averaged | <- |
| Diethyl ether | 0.33409 | 0.28423 | 0.28423 | 0.100 | 14.92362 | 20.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03801 | 0.03801 | 0.005 | -9.77841 | 20.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02081 | 0.02081 | 0.005 | -15.11087 | 20.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.26640 | 1.26640 | 0.100 | 2.36237 | 20.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 0.83648 | 0.83648 | 0.100 | 13.77134 | 20.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.40177 | 2.40177 | 0.100 | 0.24871 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 0750
Lab File ID X012702.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 1041 | 0.00339 | 0.001 | -4.11255 | 20.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.29352 | 0.29352 | 0.100 | -10.62955 | 20.0 | Averaged | |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02389 | 0.02389 | 0.005 | -0.97587 | 20.0 | Averaged | |
| tert-Amyl methyl ether | 1.44127 | 1.38645 | 1.38645 | 0.005 | 3.80398 | 20.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.34418 | 1.34418 | 0.100 | 2.47022 | 20.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.02935 | 0.02935 | 0.005 | -9.30310 | 20.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.04803 | 0.04803 | 0.005 | -1.49816 | 20.0 | Averaged | |
| 1-Methylnaphthalene | ++++ | 0.83648 | 0.83648 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.31260 | 0.31260 | 0.100 | 8.90507 | 20.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00518 | 0.00518 | 0.005 | -4.86100 | 20.0 | Averaged | <- |
| Dichlorofluoromethane | 0.06474 | 0.05456 | 0.05456 | 0.100 | 15.72300 | 20.0 | Averaged | <- |
| Propylene oxide | 0.03144 | 0.02692 | 0.02692 | 0.005 | 14.37800 | 20.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00548 | 0.00548 | 0.005 | -10.83630 | 20.0 | Averaged | <- |
| Butyl acrylate | 0.65314 | 0.66894 | 0.66894 | 0.100 | -2.41955 | 20.0 | Averaged | |
| Epichlorohydrin | 200 | 199 | 0.02226 | 0.001 | 0.58513 | 20.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.46327 | 0.46327 | 0.200 | 1.59553 | 20.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.57727 | 0.57727 | 0.100 | -2.01030 | 20.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.11290 | 1.11290 | 0.100 | -0.45408 | 20.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.40583 | 0.40583 | 0.100 | -4.01759 | 20.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.02387 | 0.02387 | 0.005 | -14.43336 | 20.0 | Averaged | |
| Isoprene | 0.13320 | 0.14131 | 0.14131 | 0.100 | -6.08647 | 20.0 | Averaged | |
| Isopentane | ++++ | 0.24061 | 0.24061 | 0.100 | ++++ | 20.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.79709 | 0.79709 | 0.100 | -2.61020 | 20.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.57440 | 0.57440 | 0.100 | 1.48049 | 20.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.46838 | 0.46838 | 0.100 | -9.04961 | 20.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02337 | 0.02337 | 0.004 | -27.16543 | 20.0 | Averaged | <- |
| Acetaldehyde | 200 | 186 | 0.02969 | 0.001 | 6.98303 | 20.0 | Linear | |
| Methyl Amyl Ketone | 0.66478 | 0.64392 | 0.64392 | 0.100 | 3.13717 | 20.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.66676 | 0.66676 | 0.100 | 1.46953 | 20.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00043 | 0.00043 | 0.001 | ++++ | 20.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 9.389e+63 | 0.100 | ++++ | 20.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00717 | 0.00717 | 0.005 | 12.27529 | 20.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 1739
Lab File ID X012729.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 41.90548 | 0.29264 | 0.100 | 16.18904 | 50.0 | Linear | |
| Chloromethane | 50.0 | 48.96823 | 0.44261 | 0.100 | 2.06354 | 50.0 | Linear | |
| Propionitrile | 0.05102 | 0.05240 | 0.05240 | 0.010 | -2.71817 | 50.0 | Averaged | |
| Vinyl Chloride | 0.43678 | 0.39993 | 0.39993 | 0.100 | 8.43657 | 50.0 | Averaged | |
| Bromomethane | 50.0 | 48.98789 | 0.32343 | 0.100 | 2.02423 | 50.0 | Linear | |
| Chloroethane | 0.30401 | 0.26828 | 0.26828 | 0.100 | 11.75211 | 50.0 | Averaged | |
| Trichlorofluoromethane | 0.61122 | 0.65748 | 0.65748 | 0.100 | -7.56782 | 50.0 | Averaged | |
| Acrolein | 100 | 87.42835 | 0.02977 | 0.010 | 12.57165 | 50.0 | Linear | |
| Acetone | 100 | 79.34615 | 0.11133 | 0.100 | 20.65385 | 50.0 | Linear | |
| 1,1-Dichloroethene | 0.37948 | 0.38468 | 0.38468 | 0.100 | -1.37169 | 50.0 | Averaged | |
| Isobutyl Alcohol | 0.05624 | 0.06273 | 0.06273 | 0.005 | -11.54493 | 50.0 | Averaged | |
| Acetonitrile | 0.04551 | 0.05171 | 0.05171 | 0.005 | -13.63907 | 50.0 | Averaged | |
| Allyl Chloride | 0.86670 | 0.91784 | 0.91784 | 0.100 | -5.90073 | 50.0 | Averaged | |
| Iodomethane | 100 | 82.31867 | 0.40549 | 0.100 | 17.68133 | 50.0 | Quadratic | |
| Acrylonitrile | 0.12870 | 0.13936 | 0.13936 | 0.050 | -8.27761 | 50.0 | Averaged | |
| Methylene Chloride | 0.52052 | 0.50320 | 0.50320 | 0.100 | 3.32666 | 50.0 | Averaged | |
| Methyl tert-butyl ether | 1.24211 | 1.28048 | 1.28048 | 0.100 | -3.08927 | 50.0 | Averaged | |
| Carbon Disulfide | 0.99285 | 1.05749 | 1.05749 | 0.100 | -6.51012 | 50.0 | Averaged | |
| trans-1,2-Dichloroethene | 0.42470 | 0.45302 | 0.45302 | 0.100 | -6.66707 | 50.0 | Averaged | |
| Vinyl Acetate | 1.09037 | 1.12975 | 1.12975 | 0.010 | -3.61228 | 50.0 | Averaged | |
| 1,1-Dichloroethane | 0.74536 | 0.78687 | 0.78687 | 0.200 | -5.56874 | 50.0 | Averaged | |
| Chloroprene | 0.17001 | 0.16109 | 0.16109 | 0.100 | 5.24192 | 50.0 | Averaged | |
| 2-Butanone | 100 | 98.58193 | 0.14664 | 0.100 | 1.41807 | 50.0 | Linear | |
| Methacrylonitrile | 0.35404 | 0.35586 | 0.35586 | 0.100 | -0.51293 | 50.0 | Averaged | |
| 2,2-Dichloropropane | 0.63286 | 0.65419 | 0.65419 | 0.100 | -3.37063 | 50.0 | Averaged | |
| cis-1,2-Dichloroethene | 0.51686 | 0.52989 | 0.52989 | 0.100 | -2.52063 | 50.0 | Averaged | |
| Chloroform | 0.83541 | 0.90281 | 0.90281 | 0.200 | -8.06747 | 50.0 | Averaged | |
| Bromochloromethane | 0.28299 | 0.28310 | 0.28310 | 0.100 | -0.03835 | 50.0 | Averaged | |
| Dibromofluoromethane | 50.0 | 50.67476 | 0.48656 | 0.100 | -1.34951 | 50.0 | Linear | |
| 1,1,1-Trichloroethane | 0.66283 | 0.77908 | 0.77908 | 0.100 | -17.53901 | 50.0 | Averaged | |
| 1,1-Dichloropropene | 0.35497 | 0.41952 | 0.41952 | 0.100 | -18.18287 | 50.0 | Averaged | |
| 1,2-Dichloroethane | 0.40967 | 0.46022 | 0.46022 | 0.100 | -12.34075 | 50.0 | Averaged | |
| Carbon Tetrachloride | 0.37906 | 0.42590 | 0.42590 | 0.100 | -12.35658 | 50.0 | Averaged | |
| 1,2-Dichloroethane-d4 | 50.0 | 54.89183 | 0.55658 | 0.100 | -9.78366 | 50.0 | Linear | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 1739
Lab File ID X012729.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Benzene | 1.19399 | 1.23139 | 1.23139 | 0.500 | -3.13270 | 50.0 | Averaged | |
| Trichloroethene | 0.33865 | 0.37641 | 0.37641 | 0.200 | -11.14884 | 50.0 | Averaged | |
| Bromodichloromethane | 0.44810 | 0.45671 | 0.45671 | 0.200 | -1.92222 | 50.0 | Averaged | |
| Methyl Methacrylate | 0.34093 | 0.37483 | 0.37483 | 0.100 | -9.94312 | 50.0 | Averaged | |
| 2-Chloroethylvinyl ether | 0.12748 | 0.12317 | 0.12317 | 0.001 | 3.38484 | 50.0 | Averaged | |
| 1,2-Dichloropropane | 0.31761 | 0.31238 | 0.31238 | 0.100 | 1.64716 | 50.0 | Averaged | |
| 2-Nitropropane | 0.12626 | 0.13676 | 0.13676 | 0.000 | -8.31253 | 50.0 | Averaged | |
| Dibromomethane | 0.21588 | 0.21446 | 0.21446 | 0.100 | 0.65855 | 50.0 | Averaged | |
| 4-Methyl-2-Pentanone | 0.26725 | 0.27224 | 0.27224 | 0.100 | -1.86756 | 50.0 | Averaged | |
| cis-1,3-Dichloropropene | 0.52625 | 0.53830 | 0.53830 | 0.200 | -2.28927 | 50.0 | Averaged | |
| Toluene-d8 | 1.23554 | 1.18930 | 1.18930 | 0.100 | 3.74251 | 50.0 | Averaged | |
| Ethyl Methacrylate | 0.23545 | 0.22899 | 0.22899 | 0.100 | 2.74503 | 50.0 | Averaged | |
| Toluene | 1.38201 | 1.43525 | 1.43525 | 0.400 | -3.85189 | 50.0 | Averaged | |
| trans-1,3-Dichloropropene | 0.43673 | 0.46017 | 0.46017 | 0.100 | -5.36731 | 50.0 | Averaged | |
| 2-Hexanone | 0.18183 | 0.18580 | 0.18580 | 0.100 | -2.18171 | 50.0 | Averaged | |
| 1,1,2-Trichloroethane | 0.27726 | 0.26915 | 0.26915 | 0.100 | 2.92261 | 50.0 | Averaged | |
| 1,3-Dichloropropane | 0.54573 | 0.54830 | 0.54830 | 0.100 | -0.47194 | 50.0 | Averaged | |
| Dibromochloromethane | 0.40016 | 0.40288 | 0.40288 | 0.100 | -0.68039 | 50.0 | Averaged | |
| Tetrachloroethene | 0.28594 | 0.32057 | 0.32057 | 0.200 | -12.10776 | 50.0 | Averaged | |
| 1,2-Dibromoethane | 0.34665 | 0.35582 | 0.35582 | 0.100 | -2.64547 | 50.0 | Averaged | |
| 1-Chlorohexane | 0.24163 | 0.29077 | 0.29077 | 0.100 | -20.33356 | 50.0 | Averaged | |
| Chlorobenzene | 0.98026 | 0.98615 | 0.98615 | 0.500 | -0.60175 | 50.0 | Averaged | |
| 1,1,1,2-Tetrachloroethane | 0.36480 | 0.38019 | 0.38019 | 0.100 | -4.21759 | 50.0 | Averaged | |
| Ethylbenzene | 0.46175 | 0.50835 | 0.50835 | 0.100 | -10.09175 | 50.0 | Averaged | |
| m,p-Xylenes | 0.59525 | 0.64233 | 0.64233 | 0.100 | -7.90972 | 50.0 | Averaged | |
| o-Xylene | 0.58751 | 0.61476 | 0.61476 | 0.300 | -4.63828 | 50.0 | Averaged | |
| Styrene | 0.98473 | 1.06067 | 1.06067 | 0.300 | -7.71123 | 50.0 | Averaged | |
| Bromoform | 0.27722 | 0.27723 | 0.27723 | 0.100 | -0.00276 | 50.0 | Averaged | |
| Isopropylbenzene | 1.34224 | 1.59818 | 1.59818 | 0.100 | -19.06866 | 50.0 | Averaged | |
| 1,1,2,2-Tetrachloroethane | 0.79693 | 0.73101 | 0.73101 | 0.300 | 8.27127 | 50.0 | Averaged | |
| 4-Bromofluorobenzene | 50.0 | 51.32737 | 0.47410 | 0.100 | -2.65475 | 50.0 | Linear | |
| 1,2,3-Trichloropropane | 0.55636 | 0.60434 | 0.60434 | 0.100 | -8.62542 | 50.0 | Averaged | |
| trans-1,4-Dichloro-2-butene | 0.10794 | 0.11101 | 0.11101 | 0.050 | -2.84602 | 50.0 | Averaged | |
| n-Propylbenzene | 2.76956 | 3.25643 | 3.25643 | 0.100 | -17.57947 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 1739
Lab File ID X012729.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Bromobenzene | 0.82033 | 0.82692 | 0.82692 | 0.100 | -0.80372 | 50.0 | Averaged | |
| 1,3,5-Trimethylbenzene | 2.04596 | 2.37671 | 2.37671 | 0.100 | -16.16617 | 50.0 | Averaged | |
| 2-Chlorotoluene | 1.81741 | 1.98117 | 1.98117 | 0.100 | -9.01046 | 50.0 | Averaged | |
| 4-Chlorotoluene | 2.07183 | 2.31435 | 2.31435 | 0.100 | -11.70577 | 50.0 | Averaged | |
| tert-Butylbenzene | 1.67475 | 2.01217 | 2.01217 | 0.100 | -20.14723 | 50.0 | Averaged | |
| 1,2,4-Trimethylbenzene | 2.15277 | 2.41007 | 2.41007 | 0.100 | -11.95246 | 50.0 | Averaged | |
| sec-Butylbenzene | 2.22832 | 2.80186 | 2.80186 | 0.100 | -25.73862 | 50.0 | Averaged | |
| p-Isopropyltoluene | 1.99679 | 2.48136 | 2.48136 | 0.100 | -24.26777 | 50.0 | Averaged | |
| 1,3-Dichlorobenzene | 1.36155 | 1.45270 | 1.45270 | 0.600 | -6.69464 | 50.0 | Averaged | |
| 1,4-Dichlorobenzene | 1.48576 | 1.52519 | 1.52519 | 0.400 | -2.65337 | 50.0 | Averaged | |
| Benzyl Chloride | 50.0 | 39.75504 | 0.61300 | 0.010 | 20.48992 | 50.0 | Linear | |
| n-Butylbenzene | 50.0 | 55.57827 | 2.14700 | 0.500 | -11.15655 | 50.0 | Linear | |
| 1,2-Dichlorobenzene | 1.40225 | 1.43649 | 1.43649 | 0.400 | -2.44137 | 50.0 | Averaged | |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 48.90987 | 0.12463 | 0.040 | 2.18025 | 50.0 | Linear | |
| 1,2,4-Trichlorobenzene | 0.88494 | 0.97915 | 0.97915 | 0.100 | -10.64581 | 50.0 | Averaged | |
| Hexachlorobutadiene | 50.0 | 55.28014 | 0.43413 | 0.100 | -10.56027 | 50.0 | Quadratic | |
| Naphthalene | 2.01347 | 2.02881 | 2.02881 | 0.200 | -0.76224 | 50.0 | Averaged | |
| 1,2,3-Trichlorobenzene | 0.84755 | 0.87972 | 0.87972 | 0.010 | -3.79565 | 50.0 | Averaged | |
| Methyl Acetate | 0.22499 | 0.24922 | 0.24922 | 0.100 | -10.77040 | 50.0 | Averaged | |
| Freon TF | 0.36703 | 0.39214 | 0.39214 | 0.100 | -6.84174 | 50.0 | Averaged | |
| Cyclohexane | 50.0 | 62.04496 | 0.62854 | 0.100 | -24.08992 | 50.0 | Linear | |
| Tetrahydrofuran | 100 | 97.36433 | 0.06057 | 0.001 | 2.63567 | 50.0 | Linear | |
| Methylcyclohexane | 0.61204 | 0.69500 | 0.69500 | 0.100 | -13.55506 | 50.0 | Averaged | |
| 1,4-Dioxane | 0.00457 | 0.00485 | 0.00485 | 0.001 | -6.14097 | 50.0 | Averaged | |
| n-Butanol | 1000 | 964 | 0.00615 | 0.005 | 3.55442 | 50.0 | Quadratic | |
| Methyl Acrylate | 0.33946 | 0.39556 | 0.39556 | 0.100 | -16.52629 | 50.0 | Averaged | |
| Ethyl Acrylate | 50.0 | 54.88559 | 1.07904 | 0.100 | -9.77119 | 50.0 | Linear | |
| n-Hexane | 0.36001 | 0.43038 | 0.43038 | 0.100 | -19.54866 | 50.0 | Averaged | |
| Diethyl ether | 0.33409 | 0.28995 | 0.28995 | 0.100 | 13.21315 | 50.0 | Averaged | |
| Tert-butyl alcohol | 0.03462 | 0.03822 | 0.03822 | 0.005 | -10.38295 | 50.0 | Averaged | |
| Isopropyl alcohol | 0.01808 | 0.02058 | 0.02058 | 0.005 | -13.81622 | 50.0 | Averaged | |
| Diisopropyl ether | 1.29704 | 1.33859 | 1.33859 | 0.100 | -3.20295 | 50.0 | Averaged | |
| 2-Methylnaphthalene | 0.97007 | 0.76288 | 0.76288 | 0.100 | 21.35820 | 50.0 | Averaged | |
| 1,2,3-Trimethylbenzene | 2.40776 | 2.49249 | 2.49249 | 0.100 | -3.51917 | 50.0 | Averaged | |

# Continuing Calibration Verification (CCV)

**Client** Aptim Environmental & Infrastucture, Inc.
**Project** LHAAP 16 January 2023

**Workorder** HS23011136

**RunID** VOA6_426682

## Volatiles by by EPA 8260

Instrument ID voa6.i Injection Date 27-JAN-2023 1739
Lab File ID X012729.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

| Compound | $\overline{RRF}$ / Amount | RF50 | CCV RRF50 | Min RRF | %D / %Drift | Max %D / %Drift | Curve Type | Q |
|---|---|---|---|---|---|---|---|---|
| Ethanol | 1000 | 971 | 0.00316 | 0.001 | 2.90098 | 50.0 | Linear | |
| tert-Butyl formate | 0.26532 | 0.28649 | 0.28649 | 0.100 | -7.98039 | 50.0 | Averaged | |
| 3,3-Dimethyl-1-butanol | 0.02366 | 0.02244 | 0.02244 | 0.005 | 5.12556 | 50.0 | Averaged | |
| tert-Amyl methyl ether | 1.44127 | 1.44183 | 1.44183 | 0.005 | -0.03890 | 50.0 | Averaged | |
| tert-Butyl ethyl ether | 1.37823 | 1.41407 | 1.41407 | 0.100 | -2.60071 | 50.0 | Averaged | |
| tert-Amyl alcohol | 0.02685 | 0.02865 | 0.02865 | 0.005 | -6.68570 | 50.0 | Averaged | |
| 4-Methyl-2-pentanol | 0.04732 | 0.04594 | 0.04594 | 0.005 | 2.92223 | 50.0 | Averaged | |
| 1-Methylnaphthalene | ++++ | 0.76288 | 0.76288 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1,3-Butadiene | 0.34316 | 0.30401 | 0.30401 | 0.100 | 11.40818 | 50.0 | Averaged | |
| Amyl alcohol | 0.00494 | 0.00475 | 0.00475 | 0.005 | 3.95305 | 50.0 | Averaged | |
| Dichlorofluoromethane | 0.06474 | 0.05814 | 0.05814 | 0.100 | 10.19734 | 50.0 | Averaged | |
| Propylene oxide | 0.03144 | 0.02869 | 0.02869 | 0.005 | 8.74532 | 50.0 | Averaged | |
| 3-Methyl-1-butanol | 0.00494 | 0.00489 | 0.00489 | 0.005 | 1.11539 | 50.0 | Averaged | |
| Butyl acrylate | 0.65314 | 0.66543 | 0.66543 | 0.100 | -1.88254 | 50.0 | Averaged | |
| Epichlorohydrin | 200 | 201 | 0.02249 | 0.001 | -0.41975 | 50.0 | Linear | |
| 1,2-Dichloroethylene (total | 0.47078 | 0.49145 | 0.49145 | 0.200 | -4.39094 | 50.0 | Averaged | |
| Xylenes (total) | 0.56589 | 0.60754 | 0.60754 | 0.100 | -7.35991 | 50.0 | Averaged | |
| alpha-Methylstyrene | 1.10787 | 1.13782 | 1.13782 | 0.100 | -2.70403 | 50.0 | Averaged | |
| Ethyl Acetate | 0.39016 | 0.42474 | 0.42474 | 0.100 | -8.86230 | 50.0 | Averaged | |
| Cyclohexanone | 0.02086 | 0.01632 | 0.01632 | 0.005 | 21.74509 | 50.0 | Averaged | |
| Isoprene | 0.13320 | 0.14053 | 0.14053 | 0.100 | -5.50208 | 50.0 | Averaged | |
| Isopentane | ++++ | 0.23045 | 0.23045 | 0.100 | ++++ | 50.0 | Averaged | <- |
| Isopropyl acetate | 0.77682 | 0.80901 | 0.80901 | 0.100 | -4.14467 | 50.0 | Averaged | |
| n-Amyl acetate | 0.58303 | 0.56539 | 0.56539 | 0.100 | 3.02649 | 50.0 | Averaged | |
| n-Butyl acetate | 0.42951 | 0.46774 | 0.46774 | 0.100 | -8.90077 | 50.0 | Averaged | |
| Allyl alcohol | 0.01838 | 0.02152 | 0.02152 | 0.004 | -17.09287 | 50.0 | Averaged | |
| Acetaldehyde | ++++ | ++++ | 9.389e+63 | 0.001 | ++++ | 50.0 | Linear | <- |
| Methyl Amyl Ketone | 0.66478 | 0.61042 | 0.61042 | 0.100 | 8.17703 | 50.0 | Averaged | |
| Dimethyl Disulfide | 0.67671 | 0.68777 | 0.68777 | 0.100 | -1.63487 | 50.0 | Averaged | |
| 2-Ethyl-1-hexanol | ++++ | 0.00031 | 0.00031 | 0.001 | ++++ | 50.0 | Averaged | <- |
| Isobutylene | 0.05199 | ++++ | 9.389e+63 | 0.100 | ++++ | 50.0 | Averaged | <- |
| 1-Propanol | 0.00817 | 0.00807 | 0.00807 | 0.005 | 1.26351 | 50.0 | Averaged | |

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Form 8

# Internal Standard Area and RT Summary

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# Form 8 - Internal Standard Area and RT Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426583

| | | IS1 | | | | IS2 | | | | IS3 | | | | IS4 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | File ID | Area | | RT | | Area | | RT | | Area | | RT | | Area | | RT | |
| 12-HOUR STD (CCV) | X012602 | 555954 | # | 4.17 | # | 818504 | # | 4.96 | # | 783145 | # | 7.67 | # | 449944 | # | 9.66 | # |
| VLCSW-230126 | X012604 | 537171 | | 4.18 | | 803137 | | 4.97 | | 756761 | | 7.67 | | 433848 | | 9.66 | |
| VBLKW-230126 | X012606 | 656022 | | 4.17 | | 934312 | | 4.96 | | 832965 | | 7.67 | | 425726 | | 9.66 | |
| HS23011136-04 | X012607 | 664054 | | 4.17 | | 938183 | | 4.96 | | 844450 | | 7.67 | | 447049 | | 9.66 | |
| HS23011136-04MS | X012608 | 677446 | | 4.17 | | 934883 | | 4.96 | | 846633 | | 7.67 | | 467991 | | 9.66 | |
| HS23011136-04MSD | X012609 | 679614 | | 4.17 | | 955229 | | 4.96 | | 862847 | | 7.67 | | 475607 | | 9.66 | |
| HS23011136-07 | X012610 | 666111 | | 4.17 | | 939656 | | 4.96 | | 833918 | | 7.67 | | 420612 | | 9.66 | |
| HS23011136-01 | X012624 | 658273 | | 4.18 | | 921308 | | 4.96 | | 827734 | | 7.67 | | 421331 | | 9.66 | |
| HS23011136-02 | X012625 | 628011 | | 4.17 | | 888394 | | 4.96 | | 809517 | | 7.67 | | 426466 | | 9.66 | |
| HS23011136-03 | X012626 | 645017 | | 4.17 | | 904573 | | 4.96 | | 816412 | | 7.67 | | 438934 | | 9.66 | |
| HS23011136-05 | X012627 | 664241 | | 4.17 | | 936254 | | 4.96 | | 843424 | | 7.67 | | 449265 | | 9.66 | |
| HS23011136-06 | X012628 | 665295 | | 4.17 | | 931881 | | 4.96 | | 836237 | | 7.67 | | 433846 | | 9.66 | |
| CCV-END | X012629 | 542544 | | 4.17 | | 819604 | | 4.96 | | 782109 | | 7.67 | | 450450 | | 9.66 | |

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

# - Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

# Form 8 - Internal Standard Area and RT Summary

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

RunID
VOA6_426682

| | | IS1 | | | | IS2 | | | | IS3 | | | | IS4 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | File ID | Area | | RT | | Area | | RT | | Area | | RT | | Area | | RT | |
| 12-HOUR STD (CCV) | X012702 | 574580 | # | 4.17 | # | 858623 | # | 4.96 | # | 819089 | # | 7.67 | # | 459092 | # | 9.66 | # |
| VLCSW-230127 | X012704 | 559520 | | 4.18 | | 830877 | | 4.97 | | 787598 | | 7.67 | | 441371 | | 9.66 | |
| VBLKW-230127 | X012706 | 682611 | | 4.17 | | 969189 | | 4.96 | | 865426 | | 7.67 | | 464238 | | 9.66 | |
| ZZZZZZMS | X012708 | 684119 | | 4.17 | | 962994 | | 4.96 | | 880296 | | 7.67 | | 488016 | | 9.66 | |
| ZZZZZZMSD | X012709 | 684294 | | 4.17 | | 960426 | | 4.96 | | 876804 | | 7.67 | | 476674 | | 9.66 | |
| HS23011136-05 | X012710 | 674400 | | 4.17 | | 953078 | | 4.96 | | 861103 | | 7.67 | | 432391 | | 9.66 | |
| HS23011136-06 | X012711 | 685696 | | 4.17 | | 967161 | | 4.96 | | 868062 | | 7.67 | | 456343 | | 9.66 | |
| CCV-END | X012729 | 517192 | | 4.18 | | 802974 | | 4.96 | | 770510 | | 7.67 | | 444120 | | 9.66 | |

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

# - Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

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# Analysis Run Log

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

# MSVOA06 -Logbook

**Batch:** 52417 **Analyst:** Presenta Cabascango

**Date:** 12-16-2022 **Reviewer:**

**Method:** 8260 **Laboratory:** Houston

**Comments:**

| # | Samp ID | Type | Analyzed | DF | Init Wt/Vol | Final Vol | File ID | Matrix | Status | pH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BFB | TUNE | 12-16-2022 11:17 am | 1.00 | 50 mL | 50 mL | X121601.D | Liquid | Y | NA |
| 2 | VSTD000.25 | ICAL1 | 12-16-2022 11:38 am | 1.00 | 50 mL | 50 mL | X121602.D | Liquid | Y | NA |
| 3 | VSTD000.5 | ICAL2 | 12-16-2022 12:20 pm | 1.00 | 50 mL | 50 mL | X121603.D | Liquid | Y | NA |
| 4 | VSTD001 | ICAL3 | 12-16-2022 12:41 pm | 1.00 | 50 mL | 50 mL | X121604.D | Liquid | Y | NA |
| 5 | VSTD002 | ICAL4 | 12-16-2022 01:02 pm | 1.00 | 50 mL | 50 mL | X121605.D | Liquid | Y | NA |
| 6 | VSTD005 | ICAL5 | 12-16-2022 01:23 pm | 1.00 | 50 mL | 50 mL | X121606.D | Liquid | Y | NA |
| 7 | VSTD020 | ICAL6 | 12-16-2022 01:43 pm | 1.00 | 50 mL | 50 mL | X121607.D | Liquid | Y | NA |
| 8 | VSTD050 | ICAL7 | 12-16-2022 02:04 pm | 1.00 | 50 mL | 50 mL | X121608.D | Liquid | Y | NA |
| 9 | VSTD100 | ICAL8 | 12-16-2022 02:25 pm | 1.00 | 50 mL | 50 mL | X121609.D | Liquid | Y | NA |
| 10 | VSTD150 | ICAL9 | 12-16-2022 02:46 pm | 1.00 | 50 mL | 50 mL | X121610.D | Liquid | Y | NA |
| 11 | VSTD200 | ICAL | 12-16-2022 03:07 pm | 1.00 | 50 mL | 50 mL | X121611.D | Liquid | Y | NA |
| 12 | BLANK | SAMP | 12-16-2022 03:28 pm | 1.00 | 50 mL | 50 mL | X121612.D | Liquid | Y | NA |
| 13 | CCV | CCV | 12-16-2022 03:49 pm | 1.00 | 50 mL | 50 mL | X121613.D | Liquid | Y | NA |
| 14 | BLANK | SAMP | 12-16-2022 04:10 pm | 1.00 | 50 mL | 50 mL | X121614.D | Liquid | Y | NA |
| 15 | CCB | SAMP | 12-16-2022 04:31 pm | 1.00 | 50 mL | 50 mL | X121615.D | Liquid | Y | NA |
| 16 | VLCSW-221216 | LCS | 12-16-2022 04:52 pm | 1.00 | 50 mL | 50 mL | X121616.D | Liquid | Y | NA |
| 17 | BLANK | SAMP | 12-16-2022 05:13 pm | 1.00 | 50 mL | 50 mL | X121617.D | Liquid | Y | NA |
| 18 | VBLKW-221216 | MBLK | 12-16-2022 05:34 pm | 1.00 | 50 mL | 50 mL | X121618.D | Liquid | Y | NA |
| 19 | HS22120648-05 | SAMP | 12-16-2022 05:55 pm | 1.00 | 50 mL | 50 mL | X121619.D | Liquid | Y | NA |
| 20 | HS22120648-09 | SAMP | 12-16-2022 06:16 pm | 1.00 | 50 mL | 50 mL | X121620.D | Liquid | Y | NA |
| 21 | HS22120648-01 | SAMP | 12-16-2022 06:37 pm | 1.00 | 50 mL | 50 mL | X121621.D | Liquid | Y | NA |
| 22 | HS22120648-02 | SAMP | 12-16-2022 06:58 pm | 1.00 | 50 mL | 50 mL | X121622.D | Liquid | Y | NA |
| 23 | HS22120648-03 | SAMP | 12-16-2022 07:19 pm | 1.00 | 50 mL | 50 mL | X121623.D | Liquid | Y | NA |
| 24 | HS22120648-04 | SAMP | 12-16-2022 07:40 pm | 1.00 | 50 mL | 50 mL | X121624.D | Liquid | Y | NA |
| 25 | HS22120648-06 | SAMP | 12-16-2022 08:01 pm | 1.00 | 50 mL | 50 mL | X121625.D | Liquid | Y | NA |
| 26 | HS22120648-07 | SAMP | 12-16-2022 08:22 pm | 1.00 | 50 mL | 50 mL | X121626.D | Liquid | Y | NA |
| 27 | HS22120648-08 | SAMP | 12-16-2022 08:43 pm | 1.00 | 50 mL | 50 mL | X121627.D | Liquid | Y | NA |
| 28 | HS22120648-06MS | MS | 12-16-2022 09:04 pm | 1.00 | 50 mL | 50 mL | X121628.D | Liquid | Y | NA |
| 29 | HS22120648-06MSD | MSD | 12-16-2022 09:25 pm | 1.00 | 50 mL | 50 mL | X121629.D | Liquid | Y | NA |
| 30 | CCV-END | CCV | 12-16-2022 09:46 pm | 1.00 | 50 mL | 50 mL | X121630.D | Liquid | Y | NA |
| 31 | BFB | TUNE | 12-16-2022 10:07 pm | 1.00 | 50 mL | 50 mL | Y121601.D | Liquid | Y | NA |
| 32 | CCV | CCV | 12-16-2022 10:28 pm | 1.00 | 50 mL | 50 mL | Y121602a.D | Liquid | Y | NA |
| 33 | CCV | CCV | 12-16-2022 10:49 pm | 1.00 | 50 mL | 50 mL | Y121603.D | Liquid | Y | NA |
| 34 | CCB | SAMP | 12-16-2022 11:10 pm | 1.00 | 50 mL | 50 mL | Y121604.D | Liquid | Y | NA |
| 35 | VLCSW-221215 | LCS | 12-16-2022 11:31 pm | 1.00 | 50 mL | 50 mL | Y121605.D | Liquid | Y | NA |
| 36 | BLANK | SAMP | 12-16-2022 11:52 pm | 1.00 | 50 mL | 50 mL | Y121606.D | Liquid | Y | NA |
| 37 | VBLKW-221215 | MBLK | 12-17-2022 12:13 am | 1.00 | 50 mL | 50 mL | Y121607.D | Liquid | Y | NA |
| 38 | HS22120974-13 | SAMP | 12-17-2022 12:34 am | 1.00 | 50 mL | 50 mL | Y121608.D | Liquid | Y | NA |
| 39 | HS22120974-01 | SAMP | 12-17-2022 12:55 am | 1.00 | 50 mL | 50 mL | Y121609.D | Liquid | Y | NA |
| 40 | HS22120974-01MS | MS | 12-17-2022 01:16 am | 1.00 | 50 mL | 50 mL | Y121610.D | Liquid | Y | NA |
| 41 | HS22120974-01MSD | MSD | 12-17-2022 01:38 am | 1.00 | 50 mL | 50 mL | Y121611.D | Liquid | Y | NA |

# MSVOA06 -Logbook

| # | Samp ID | Type | Analyzed | DF | Init Wt/Vol | Final Vol | File ID | Matrix | Status | pH |
|---|---|---|---|---|---|---|---|---|---|---|
| 42 | BLANK | SAMP | 12-17-2022 01:59 am | 1.00 | 50 mL | 50 mL | Y121612.D | Liquid | Y | NA |
| 43 | HS22120974-02 | SAMP | 12-17-2022 02:20 am | 1.00 | 50 mL | 50 mL | Y121613.D | Liquid | Y | NA |
| 44 | HS22120974-03 | SAMP | 12-17-2022 02:41 am | 1.00 | 50 mL | 50 mL | Y121614.D | Liquid | Y | NA |
| 45 | HS22120974-04 | SAMP | 12-17-2022 03:02 am | 1.00 | 50 mL | 50 mL | Y121615.D | Liquid | Y | NA |
| 46 | HS22120974-05 | SAMP | 12-17-2022 03:23 am | 1.00 | 50 mL | 50 mL | Y121616.D | Liquid | Y | NA |
| 47 | HS22120974-06 | SAMP | 12-17-2022 03:44 am | 1.00 | 50 mL | 50 mL | Y121617.D | Liquid | Y | NA |
| 48 | HS22120974-07 | SAMP | 12-17-2022 04:05 am | 1.00 | 50 mL | 50 mL | Y121618.D | Liquid | Y | NA |
| 49 | HS22120974-08 | SAMP | 12-17-2022 04:26 am | 1.00 | 50 mL | 50 mL | Y121619.D | Liquid | Y | NA |
| 50 | HS22120974-09 | SAMP | 12-17-2022 04:47 am | 1.00 | 50 mL | 50 mL | Y121620.D | Liquid | Y | NA |
| 51 | HS22120974-10 | SAMP | 12-17-2022 05:08 am | 1.00 | 50 mL | 50 mL | Y121621.D | Liquid | Y | NA |
| 52 | HS22120974-11 | SAMP | 12-17-2022 05:29 am | 1.00 | 50 mL | 50 mL | Y121622.D | Liquid | Y | NA |
| 53 | HS22120974-12 | SAMP | 12-17-2022 05:50 am | 1.00 | 50 mL | 50 mL | Y121623.D | Liquid | Y | NA |
| 54 | HS22120974-14 | SAMP | 12-17-2022 06:11 am | 1.00 | 50 mL | 50 mL | Y121624.D | Liquid | Y | NA |
| 55 | HS22120974-15 | SAMP | 12-17-2022 06:32 am | 1.00 | 50 mL | 50 mL | Y121625.D | Liquid | Y | NA |
| 56 | HS22120574-15 | SAMP | 12-17-2022 06:53 am | 5.00 | 10 mL | 50 mL | Y121626.D | Liquid | Y | NA |
| 57 | HS22120574-17 | SAMP | 12-17-2022 07:14 am | 5.00 | 10 mL | 50 mL | Y121627.D | Liquid | Y | NA |
| 58 | HS22120770-07 | SAMP | 12-17-2022 07:36 am | 10.00 | 5 mL | 50 mL | Y121628.D | Liquid | Y | NA |
| 59 | HS22120770-07 | SAMP | 12-17-2022 07:57 am | 100.0( | 500 µL | 50 mL | Y121629.D | Liquid | Y | NA |
| 60 | HS22120770-10 | SAMP | 12-17-2022 08:18 am | 5.00 | 10 mL | 50 mL | Y121630.D | Liquid | Y | NA |
| 61 | BLANK | SAMP | 12-17-2022 08:39 am | 1.00 | 50 mL | 50 mL | Y121631.D | Liquid | Y | NA |

# Form 13 - Analysis Run Log

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

RUNID
VOA6_426583

**Run ID** VOA6_426583 **Start Date** 01/26/23 **EndDate** 01/26/23 **Matrix** Aqueous

| Client Sample ID | Type | Lab Sample ID | File ID | Analysis Date | DF |
|---|---|---|---|---|---|
| CCV | CCV | CCV | X012602.D | 01/26/23 08:24 | 1 |
| VLCSW-230126 | LCS | VLCSW-230126 | X012604.D | 01/26/23 09:27 | 1 |
| VBLKW-230126 | MBLK | VBLKW-230126 | X012606.D | 01/26/23 10:09 | 1 |
| 16IW10-230123 | SAMP | HS23011136-04 | X012607.D | 01/26/23 10:30 | 1 |
| 16IW10-230123 | MS | HS23011136-04MS | X012608.D | 01/26/23 10:51 | 1 |
| 16IW10-230123 | MSD | HS23011136-04MSD | X012609.D | 01/26/23 11:12 | 1 |
| Trip Blank-230123 | SAMP | HS23011136-07 | X012610.D | 01/26/23 11:33 | 1 |
| 16WW58-230123 | SAMP | HS23011136-01 | X012624.D | 01/26/23 16:27 | 50 |
| 16WW57-230123 | SAMP | HS23011136-02 | X012625.D | 01/26/23 16:48 | 5 |
| 16IW26-230123 | SAMP | HS23011136-03 | X012626.D | 01/26/23 17:09 | 5 |
| 16IW03-230123 | SAMP | HS23011136-05 | X012627.D | 01/26/23 17:31 | 50 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | X012628.D | 01/26/23 17:52 | 50 |

# Form 13 - Analysis Run Log

**Client** Aptim Environmental & Infrastucture, Inc.

**Project** LHAAP 16 January 2023

Workorder
**HS23011136**

## Volatiles by EPA 8260

RUNID
VOA6_426682

**Run ID** VOA6_426682 **Start Date** 01/27/23 **EndDate** 01/27/23 **Matrix** Aqueous

| Client Sample ID | Type | Lab Sample ID | File ID | Analysis Date | DF |
|---|---|---|---|---|---|
| CCV | CCV | CCV | X012702.D | 01/27/23 07:50 | 1 |
| VLCSW-230127 | LCS | VLCSW-230127 | X012704.D | 01/27/23 08:53 | 1 |
| VBLKW-230127 | MBLK | VBLKW-230127 | X012706.D | 01/27/23 09:35 | 1 |
| BatchQC | MS | HS23011212-02MS | X012708.D | 01/27/23 10:18 | 1 |
| BatchQC | MSD | HS23011212-02MSD | X012709.D | 01/27/23 10:39 | 1 |
| 16IW03-230123 | SAMP | HS23011136-05 | X012710.D | 01/27/23 11:00 | 200 |
| 16IW03-230123-FD | SAMP | HS23011136-06 | X012711.D | 01/27/23 11:21 | 200 |

right solutions.
right partner.

# Raw Data VOA6 424237

# Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\x221216.b\X121601.D  Page 1
Report Date: 16-Dec-2022 12:08

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\x221216.b\X121601.D
Lab Smp Id: BFB  Client Smp ID: BFB
Inj Date  : 16-DEC-2022 11:17
Operator  : PC  Inst ID: voa6.i
Smp Info  : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\x221216.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham  Quant Type: ISTD
Cal Date  :  Cal File:
Als bottle: 1  QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: all.sub
Target Version:  4.14  Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vf | 1.000 | Volumetric correction factor |
| Vi | 2.000 | Injection Volume |
| Cpnd Variable | | Local Compound Variable |

| | | | | | CONCENTRATIONS ON-COL ( ug/L) | CONCENTRATIONS FINAL ( ug/l) | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT | REL RT | MASS | RESPONSE | | | TARGET RANGE | RATIO |
| 1 bfb | | | | | | | CAS #: 460-00-4 | |
| 8.691 | 8.889 | ( 0.000) | 95 | 72328 | | | 0.00- 100.00 | 100.00 |
| 8.691 | 8.889 | ( 0.000) | 50 | 13272 | | | 15.00- 40.00 | 18.35 |
| 8.691 | 8.889 | ( 0.000) | 75 | 33368 | | | 30.00- 60.00 | 46.13 |
| 8.691 | 8.889 | ( 0.000) | 96 | 5178 | | | 5.00- 9.00 | 7.16 |
| 8.691 | 8.889 | ( 0.000) | 173 | 577 | | | 0.00- 2.00 | 0.90 |
| 8.691 | 8.889 | ( 0.000) | 174 | 64360 | | | 50.00- 0.00 | 88.98 |
| 8.691 | 8.889 | ( 0.000) | 175 | 5033 | | | 5.00- 9.00 | 7.82 |
| 8.691 | 8.889 | ( 0.000) | 176 | 63184 | | | 95.00- 101.00 | 98.17 |
| 8.691 | 8.889 | ( 0.000) | 177 | 4164 | | | 5.00- 9.00 | 6.59 |

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 18.35 |
| 75 | 30.00 - 60.00% of mass 95 | 46.13 |
| 96 | 5.00 - 9.00% of mass 95 | 7.16 |
| 173 | Less than 2.00% of mass 174 | 0.80 ( 0.90) |
| 174 | Greater than 50.00% of mass 95 | 88.98 |
| 175 | 5.00 - 9.00% of mass 174 | 6.96 ( 7.82) |
| 176 | 95.00 - 101.00% of mass 174 | 87.36 ( 98.17) |
| 177 | 5.00 - 9.00% of mass 176 | 5.76 ( 6.59) |

Data File: X121601.D
Spectrum: Scan 2160 ( 8.68)
Location of Maximum: 95.00
Number of points: 84

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 35.90 | 686 | 63.00 | 2521 | 93.00 | 2705 | 136.90 | 215 |
| 37.00 | 3051 | 64.10 | 316 | 94.00 | 9587 | 140.90 | 735 |
| 38.00 | 2957 | 66.90 | 155 | 95.00 | 72328 | 141.70 | 91 |
| 39.00 | 1321 | 67.90 | 6274 | 96.00 | 5178 | 142.80 | 683 |
| 39.90 | 1146 | 69.00 | 6990 | 96.90 | 213 | 145.60 | 119 |
| 42.00 | 114 | 69.90 | 604 | 103.00 | 58 | 148.00 | 107 |
| 42.90 | 301 | 71.80 | 385 | 104.00 | 313 | 149.80 | 105 |
| 44.00 | 1509 | 72.90 | 2986 | 104.70 | 125 | 153.80 | 54 |
| 45.00 | 716 | 74.00 | 11163 | 105.10 | 132 | 154.80 | 169 |
| 46.80 | 723 | 75.00 | 33368 | 105.90 | 451 | 156.80 | 155 |
| 48.00 | 503 | 76.00 | 3228 | 110.60 | 54 | 160.80 | 71 |
| 49.00 | 3278 | 76.90 | 395 | 113.00 | 74 | 171.60 | 83 |
| 50.00 | 13272 | 77.80 | 187 | 114.80 | 159 | 172.80 | 577 |
| 51.00 | 3648 | 78.90 | 2224 | 115.80 | 342 | 173.90 | 64360 |
| 52.10 | 365 | 79.80 | 718 | 116.90 | 386 | 174.90 | 5033 |
| 54.00 | 52 | 80.90 | 2158 | 117.90 | 425 | 175.90 | 63184 |
| 54.90 | 278 | 81.80 | 420 | 118.80 | 260 | 176.90 | 4164 |
| 56.00 | 1513 | 83.00 | 51 | 127.90 | 191 | 178.00 | 133 |
| 57.00 | 1763 | 86.90 | 2878 | 128.90 | 172 | | |
| 59.90 | 665 | 87.80 | 2342 | 129.80 | 237 | | |
| 61.00 | 3173 | 91.00 | 516 | 130.80 | 156 | | |
| 62.00 | 3572 | 92.00 | 2006 | 134.70 | 222 | | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D Page 1

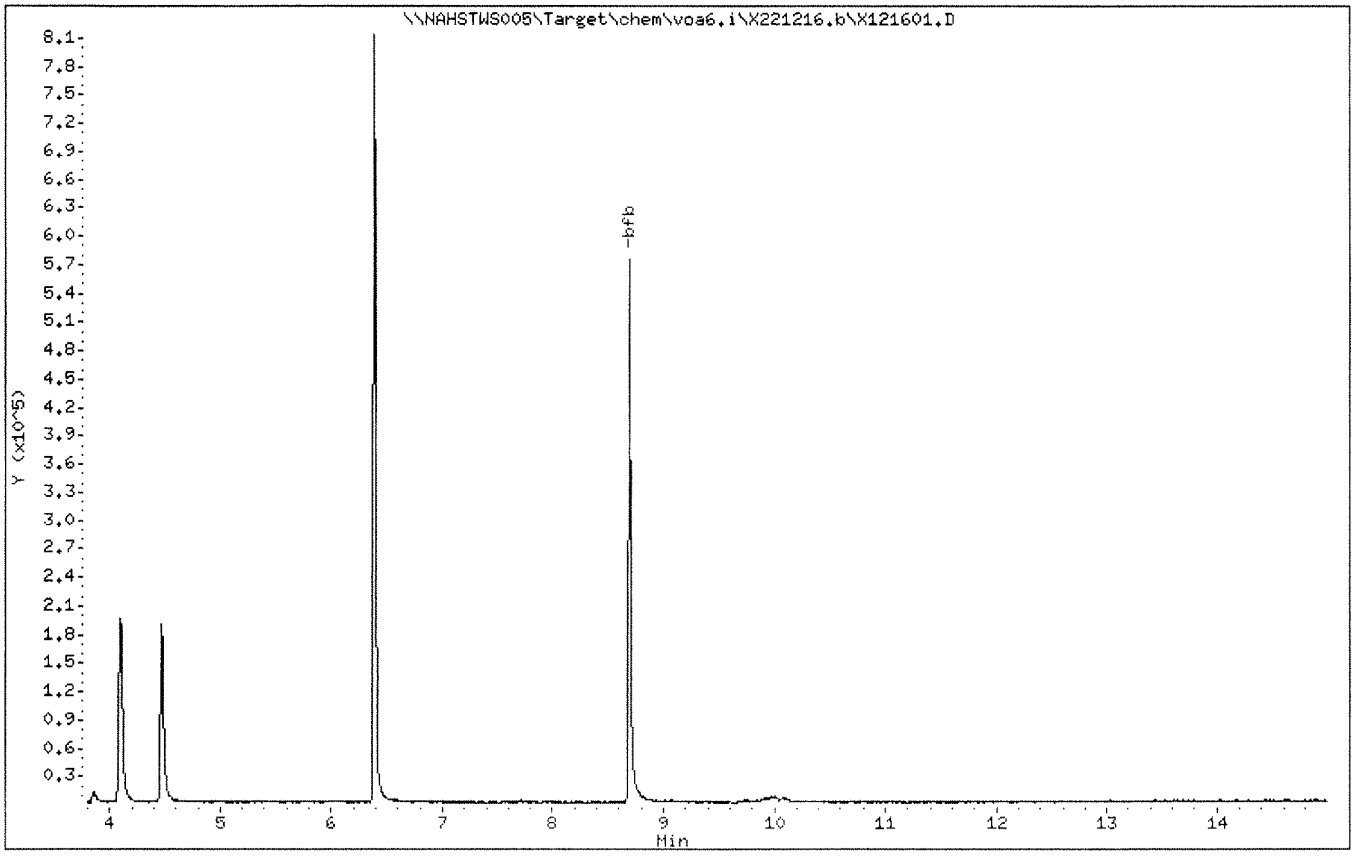
Date : 16-DEC-2022 11:17

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D Page 2

Date : 16-DEC-2022 11:17

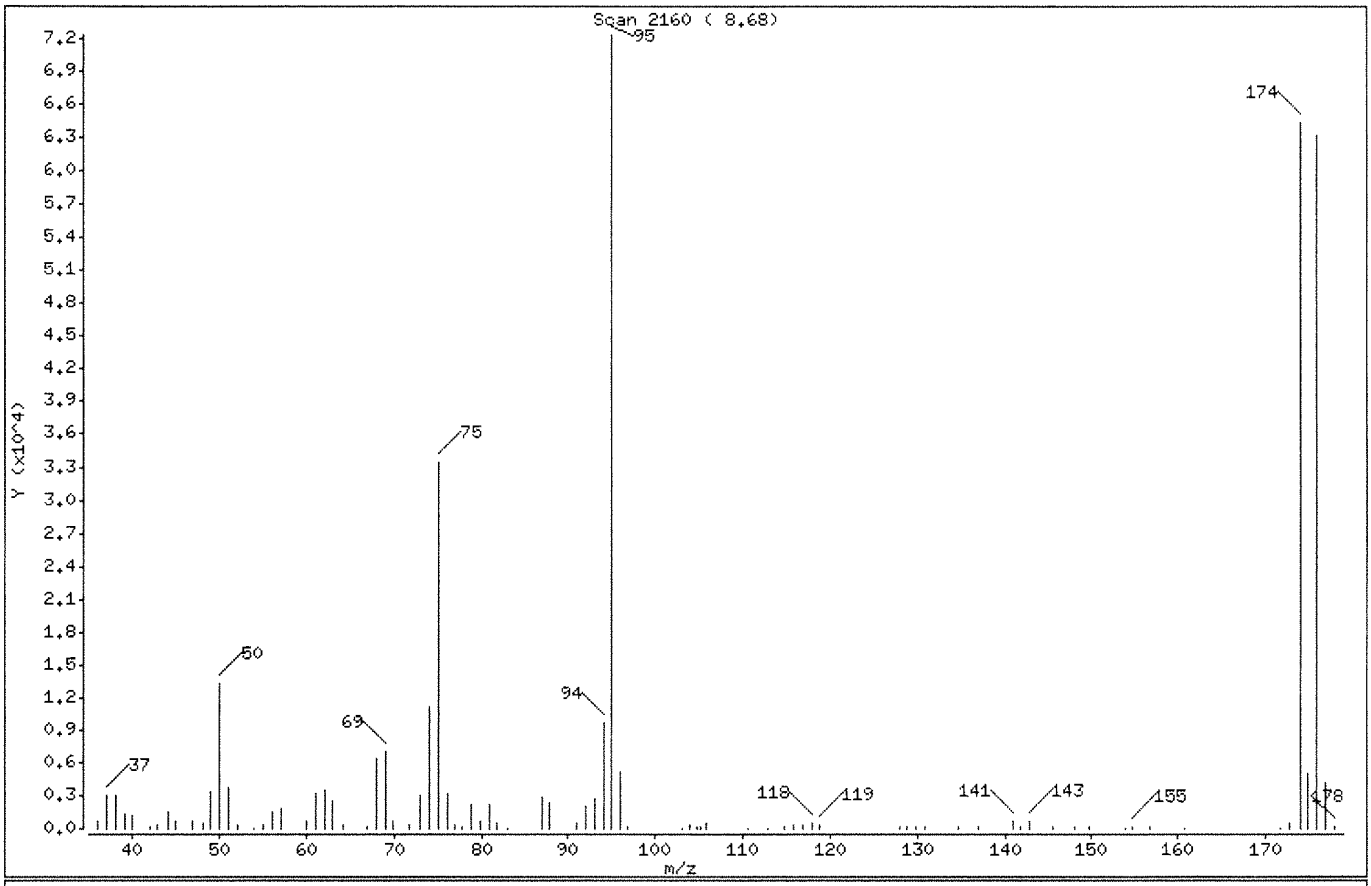
Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 18.35 |
| 75 | 30.00 - 60.00% of mass 95 | 46.13 |
| 96 | 5.00 - 9.00% of mass 95 | 7.16 |
| 173 | Less than 2.00% of mass 174 | 0.80 ( 0.90) |
| 174 | Greater than 50.00% of mass 95 | 88.98 |
| 175 | 5.00 - 9.00% of mass 174 | 6.96 ( 7.82) |
| 176 | 95.00 - 101.00% of mass 174 | 87.36 ( 98.17) |
| 177 | 5.00 - 9.00% of mass 176 | 5.76 ( 6.59) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D 

Date : 16-DEC-2022 11:17

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X121601.D
Spectrum: Scan 2160 ( 8.68)
Location of Maximum: 95.00
Number of points: 84

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 35.90 | 686 | 63.00 | 2521 | 93.00 | 2705 | 136.90 | 215 |
| 37.00 | 3051 | 64.10 | 316 | 94.00 | 9587 | 140.90 | 735 |
| 38.00 | 2957 | 66.90 | 155 | 95.00 | 72328 | 141.70 | 91 |
| 39.00 | 1321 | 67.90 | 6274 | 96.00 | 5178 | 142.80 | 683 |
| 39.90 | 1146 | 69.00 | 6990 | 96.90 | 213 | 145.60 | 119 |
| 42.00 | 114 | 69.90 | 604 | 103.00 | 58 | 148.00 | 107 |
| 42.90 | 301 | 71.80 | 385 | 104.00 | 313 | 149.80 | 105 |
| 44.00 | 1509 | 72.90 | 2986 | 104.70 | 125 | 153.80 | 54 |
| 45.00 | 716 | 74.00 | 11163 | 105.10 | 132 | 154.80 | 169 |
| 46.80 | 723 | 75.00 | 33368 | 105.90 | 451 | 156.80 | 155 |
| 48.00 | 503 | 76.00 | 3228 | 110.60 | 54 | 160.80 | 71 |
| 49.00 | 3278 | 76.90 | 395 | 113.00 | 74 | 171.60 | 83 |
| 50.00 | 13272 | 77.80 | 187 | 114.80 | 159 | 172.80 | 577 |
| 51.00 | 3648 | 78.90 | 2224 | 115.80 | 342 | 173.90 | 64360 |
| 52.10 | 365 | 79.80 | 718 | 116.90 | 386 | 174.90 | 5033 |
| 54.00 | 52 | 80.90 | 2158 | 117.90 | 425 | 175.90 | 63184 |
| 54.90 | 278 | 81.80 | 420 | 118.80 | 260 | 176.90 | 4164 |
| 56.00 | 1513 | 83.00 | 51 | 127.90 | 191 | 178.00 | 133 |
| 57.00 | 1763 | 86.90 | 2878 | 128.90 | 172 | | |
| 59.90 | 665 | 87.80 | 2342 | 129.80 | 237 | | |
| 61.00 | 3173 | 91.00 | 516 | 130.80 | 156 | | |
| 62.00 | 3572 | 92.00 | 2006 | 134.70 | 222 | | |

Data File : \\NAHSTWS005\Target\chem\voa6.i\x221216.b\X121601.D
Inj Date  : 16-DEC-2022 11:17
InstruID  : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Lab Smp Id: VSTD000.25  Client Smp ID: VSTD000.25
Inj Date  : 16-DEC-2022 11:38
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD000.25;VSTD000.25;1;1;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 2  Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 461807 | 50.0000 | |
| 135 | 1,4-Dioxane | 88 | 5.625 | 5.625 | (1.346) | 214 | 5.00000 | 5.06(M) |
| 140 | 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 1172 | 0.25000 | 0.36 |
| 25 | Methacrylonitrile | 41 | 3.855 | 3.855 | (0.923) | 5876 | 0.25000 | 1.79 |
| 12 | Isobutyl Alcohol | 43 | 4.687 | 4.687 | (1.122) | 2537 | 5.00000 | 4.88(TM) |
| 13 | Acetonitrile | 39 | 2.202 | 2.202 | (0.527) | 730 | 2.50000 | 1.73 |
| 14 | Allyl Chloride | 41 | 2.206 | 2.206 | (0.528) | 1591 | 0.25000 | 0.19 |
| 4 | Propionitrile | 54 | 3.702 | 3.702 | (0.886) | 1165 | 2.50000 | 2.47(M) |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.931 | 8.931 | (1.164) | 280 | 0.25000 | 0.19(M) |
| 145 | alpha-Methylstyrene | 118 | 9.268 | 9.268 | (0.959) | 2322 | 0.25000 | 0.30 |
| 200 | Dimethyl Disulfide | 94 | 6.213 | 6.213 | (0.810) | 1870 | 0.25000 | 0.21 |
| 139 | Diethyl ether | 59 | 1.760 | 1.760 | (0.421) | 687 | 0.25000 | 0.22 |
| 49 | Ethyl Methacrylate | 69 | 6.738 | 6.738 | (1.357) | 625 | 0.25000 | 0.19 |
| 142 | Tetrahydrofuran | 42 | 3.836 | 3.836 | (0.918) | 358 | 0.50000 | (M) |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.737 | 9.737 | (1.008) | 4360 | 0.25000 | 0.25 |
| 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 801 | 0.25000 | 0.63(M) |
| 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 1420 | 0.25000 | 2.53 |
| 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 1134 | 0.25000 | 0.28(M) |
| 6 | Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 1009 | 0.25000 | 2.08(M) |
| 8 | Trichlorofluoromethane | 101 | 1.561 | 1.561 | (0.374) | 1468 | 0.25000 | 0.26 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 10 Acetone | 43 | 1.977 | 1.977 (0.473) | 2727 | 0.50000 | 2.07 |
| 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 (0.457) | 1010 | 0.25000 | 0.28(M) |

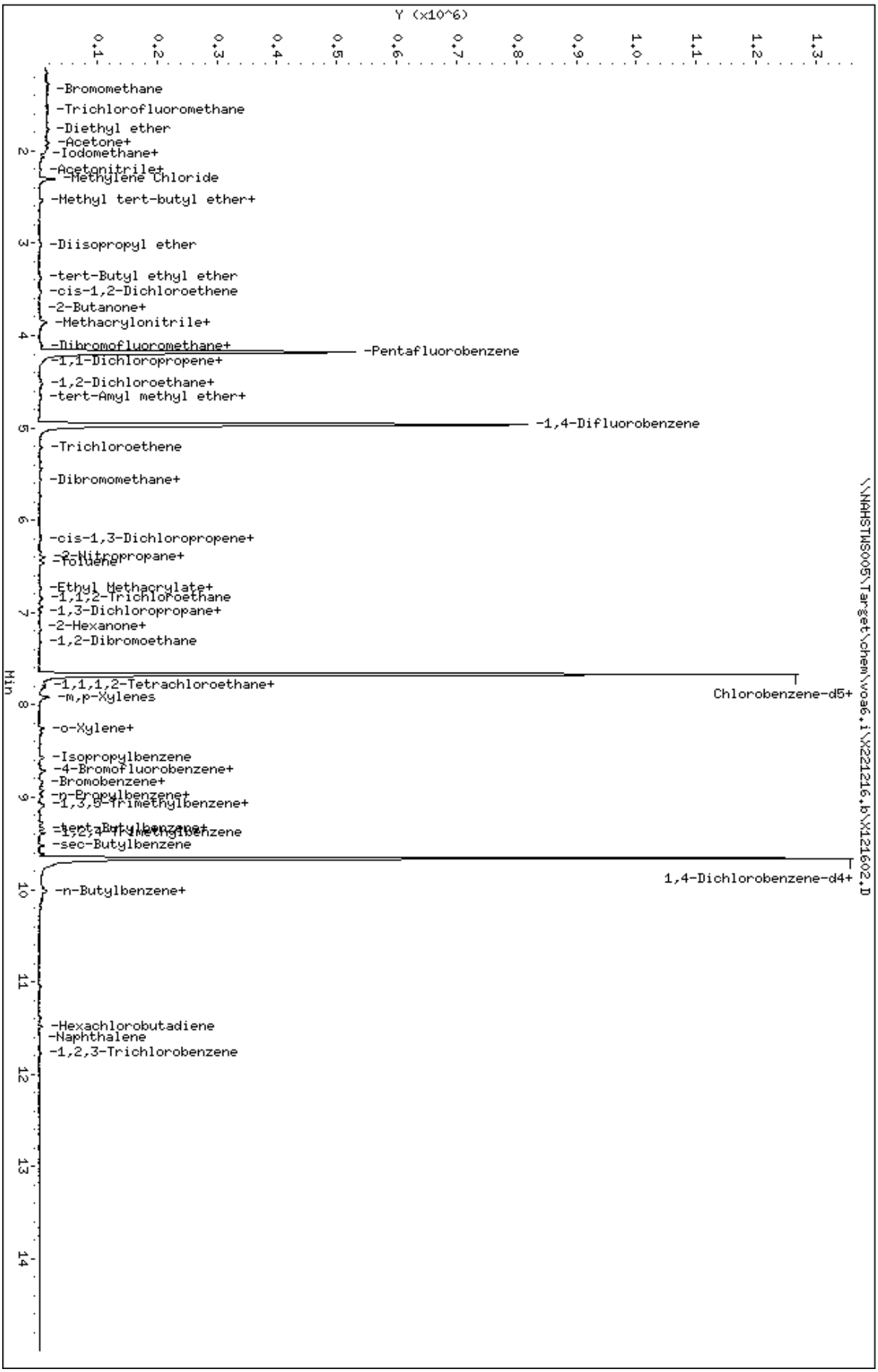
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 15 Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 1106 | 0.50000 | 3.56(T) |
| | 17 Methylene Chloride | 84 | 2.292 | 2.292 | (0.549) | 1436 | 0.25000 | 0.29(M) |
| | 18 Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 2787 | 0.25000 | 0.24 |
| | 19 Carbon Disulfide | 76 | 2.071 | 2.071 | (0.496) | 5999 | 0.50000 | 0.65 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.539 | 2.539 | (0.608) | 1302 | 0.25000 | 0.33 |
| | 24 2-Butanone | 43 | 3.698 | 3.698 | (0.885) | 1014 | 0.50000 | 3.74 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.533 | 3.533 | (0.846) | 1402 | 0.25000 | 0.29 |
| | 28 Chloroform | 83 | 3.908 | 3.908 | (0.935) | 2553 | 0.25000 | 0.33 |
| | 29 Bromochloromethane | 128 | 3.799 | 3.799 | (0.909) | 802 | 0.25000 | 0.30(M) |
| $ | 30 Dibromofluoromethane | 113 | 4.103 | 4.103 | (0.982) | 1706 | 0.25000 | 0.21 |
| | 31 1,1,1-Trichloroethane | 97 | 4.076 | 4.076 | (0.976) | 1648 | 0.25000 | 0.26 |
| | 32 1,1-Dichloropropene | 75 | 4.286 | 4.286 | (0.863) | 2114 | 0.25000 | 0.43 |
| | 33 1,2-Dichloroethane | 62 | 4.571 | 4.571 | (0.921) | 2167 | 0.25000 | 0.38 |
| | 34 Carbon Tetrachloride | 117 | 4.256 | 4.256 | (0.857) | 1685 | 0.25000 | 0.32(M) |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.481 | 4.481 | (1.073) | 2260 | 0.25000 | 0.75(T) |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 690224 | 50.0000 | |
| | 37 Benzene | 78 | 4.522 | 4.522 | (0.911) | 5768 | 0.25000 | 0.34 |
| | 38 Trichloroethene | 130 | 5.212 | 5.212 | (1.050) | 1544 | 0.25000 | 0.33 |
| | 44 Dibromomethane | 93 | 5.565 | 5.565 | (1.121) | 1046 | 0.25000 | 0.35 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.352 | 6.352 | (0.828) | 2297 | 0.50000 | 0.65 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.168 | 6.168 | (1.242) | 1839 | 0.25000 | 0.25 |
| * | 47 Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 653787 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.401 | 6.401 | (0.834) | 6828 | 0.25000 | 0.42(T) |
| | 50 Toluene | 91 | 6.457 | 6.457 | (0.842) | 6778 | 0.25000 | 0.37 |
| | 52 2-Hexanone | 43 | 7.150 | 7.150 | (0.932) | 974 | 0.50000 | 0.40(T) |
| | 53 1,1,2-Trichloroethane | 83 | 6.847 | 6.847 | (0.893) | 1098 | 0.25000 | 0.30 |
| | 54 1,3-Dichloropropane | 76 | 6.993 | 6.993 | (0.912) | 2278 | 0.25000 | 0.31 |
| | 55 Dibromochloromethane | 129 | 7.184 | 7.184 | (0.936) | 1732 | 0.25000 | 0.33 |
| | 56 Tetrachloroethene | 164 | 6.933 | 6.933 | (0.904) | 1051 | 0.25000 | 0.28 |
| | 57 1,2-Dibromoethane | 107 | 7.278 | 7.278 | (0.949) | 1100 | 0.25000 | 0.24 |
| | 58 1-Chlorohexane | 55 | 7.668 | 7.668 | (1.544) | 6570 | 0.25000 | 1.96 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 3981 | 0.25000 | 0.31 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.780 | 7.780 | (1.014) | 1245 | 0.25000 | 0.26 |
| | 61 Ethylbenzene | 106 | 7.810 | 7.810 | (1.018) | 1854 | 0.25000 | 0.30 |
| | 62 m,p-Xylenes | 106 | 7.915 | 7.915 | (1.032) | 5083 | 0.50000 | 0.65 |
| | 63 o-Xylene | 106 | 8.252 | 8.252 | (1.076) | 2471 | 0.25000 | 0.32 |
| | 64 Styrene | 104 | 8.297 | 8.297 | (1.082) | 3214 | 0.25000 | 0.24 |
| | 67 Isopropylbenzene | 105 | 8.575 | 8.575 | (1.118) | 5495 | 0.25000 | 0.31 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.706 | 8.706 | (1.135) | 4271 | 0.25000 | 0.77 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 348702 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.875 | 8.875 | (0.919) | 766 | 0.25000 | 0.19(M) |
| | 73 n-Propylbenzene | 91 | 8.931 | 8.931 | (0.924) | 5570 | 0.25000 | 0.28 |
| | 74 Bromobenzene | 156 | 8.826 | 8.826 | (0.913) | 1517 | 0.25000 | 0.26 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.081 | 9.081 | (0.940) | 4893 | 0.25000 | 0.34 |
| | 76 2-Chlorotoluene | 91 | 8.991 | 8.991 | (0.931) | 4890 | 0.25000 | 0.38 |
| | 77 4-Chlorotoluene | 91 | 9.107 | 9.107 | (0.943) | 3881 | 0.25000 | 0.26 |
| | 78 tert-Butylbenzene | 119 | 9.343 | 9.343 | (0.967) | 4059 | 0.25000 | 0.34 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.392 | 9.392 | (0.972) | 5202 | 0.25000 | 0.34 |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 4818 | 0.25000 | 0.31 |
| | 82 p-Isopropyltoluene | 119 | 9.662 | 9.662 | (1.000) | 4406 | 0.25000 | 0.31 |
| | 83 1,3-Dichlorobenzene | 146 | 9.621 | 9.621 | (0.996) | 3005 | 0.25000 | 0.31 |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 3674 | 0.25000 | 0.35 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 87 | n-Butylbenzene | 91 | 10.033 | 10.033 (1.038) | 1595 | 0.25000 | 1.89 |
| 88 | 1,2-Dichlorobenzene | 146 | 10.010 | 10.010 (1.036) | 2937 | 0.25000 | 0.30 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 91 Hexachlorobutadiene | 225 | 11.484 | 11.484 | (1.189) | 726 | 0.25000 | 0.21(M) |
| | 92 Naphthalene | 128 | 11.607 | 11.607 | (1.201) | 1969 | 0.25000 | 0.14 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.769 | 11.769 | (1.218) | 1816 | 0.25000 | 0.30(M) |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 2704 | 0.50000 | |
| M | 95 Xylenes (total) | 106 | | | | 7554 | 0.75000 | |
| | 141 Cyclohexane | 56 | 4.125 | 4.125 | (0.987) | 1235 | 0.25000 | 1.51(M) |
| | 138 Freon TF | 101 | 1.917 | 1.917 | (0.459) | 765 | 0.25000 | 0.22(M) |

## QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.




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Client ID: VSTD000,25
Sample Info: VSTD000,25;VSTD000,25;1;1;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6,i
Operator: PC
Column diameter: 0.18

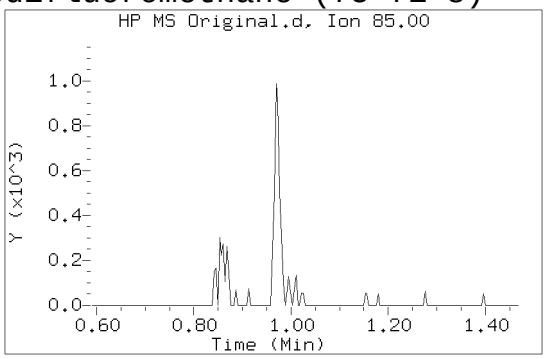
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Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Dichlorodifluoromethane (75-71-8)

Reason Code:

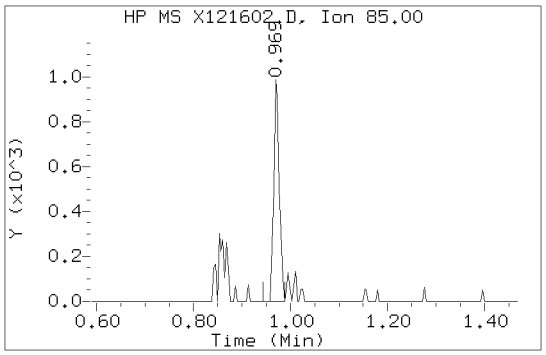
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16-Dec-2022
11:54
ALSHS
Server



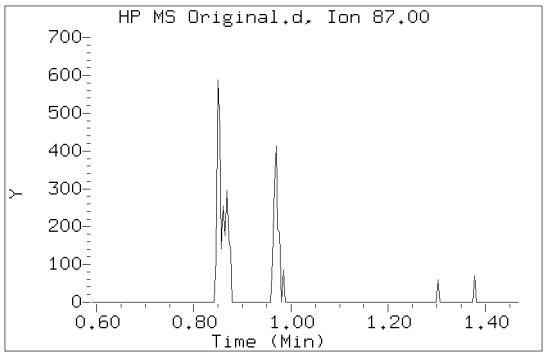

AFTER

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HEIGHT
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27-Dec-2022
16:07
ALSHS
Ser



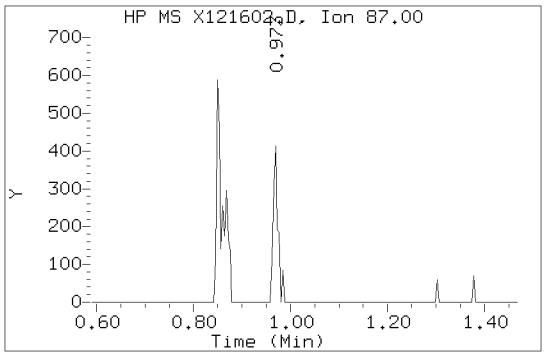

BEFORE

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16-Dec-2022
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ALSHS
Server




AFTER

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AREA
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HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

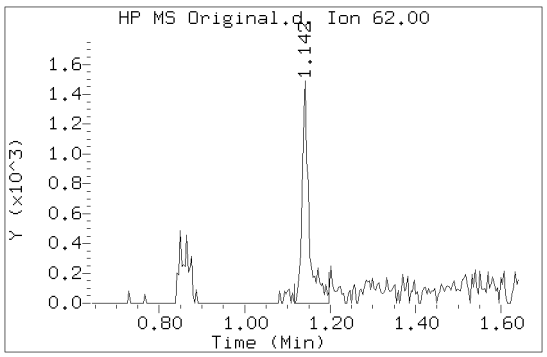



## Vinyl Chloride (75-01-4)

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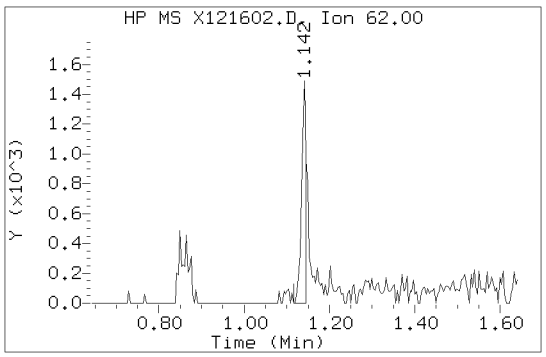
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16-Dec-2022
11:54
ALSHS
Server



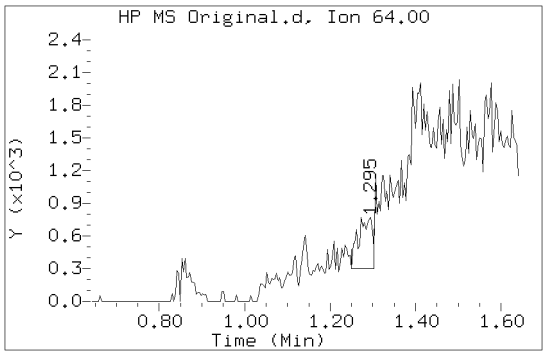

AFTER

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27-Dec-2022
16:07
ALSHS
Ser



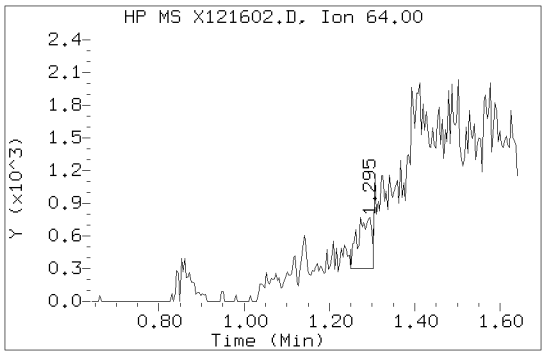

BEFORE

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HEIGHT
961
16-Dec-2022
11:54
ALSHS
Server




AFTER

MASS
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AREA
1053
HEIGHT
470
27-Dec-2022
16:07
ALSHS
Ser

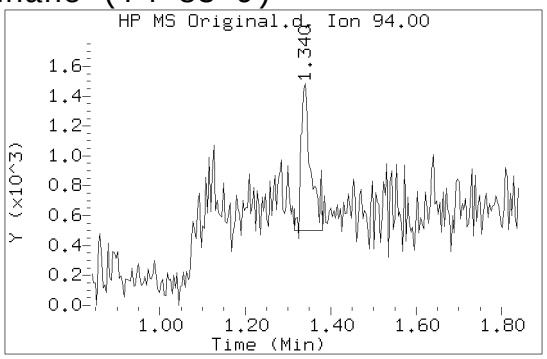


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InstruID : voa6.i
LabSampID : VSTD000.25

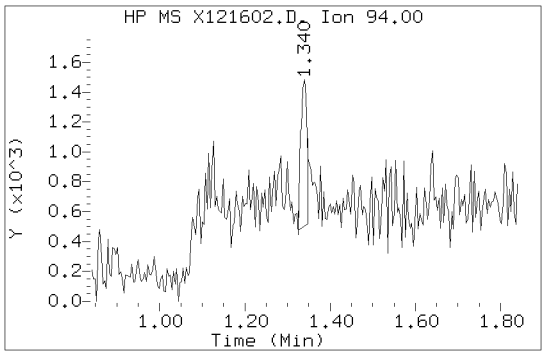
## Bromomethane (74-83-9)

Reason Code:

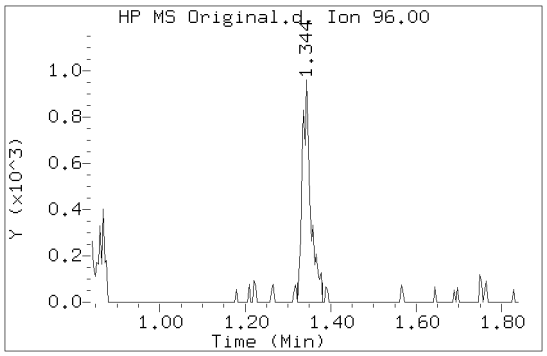
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11:54
ALSHS
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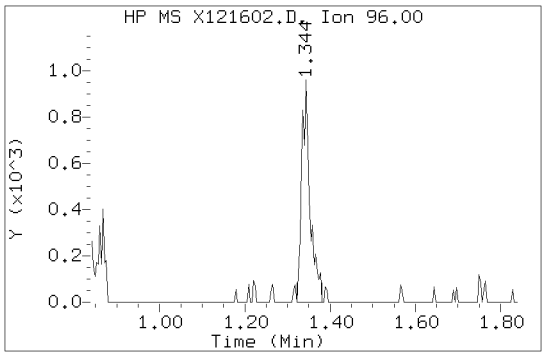

AFTER
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1009
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977
27-Dec-2022
16:07
ALSHS
Ser




BEFORE
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AREA
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HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



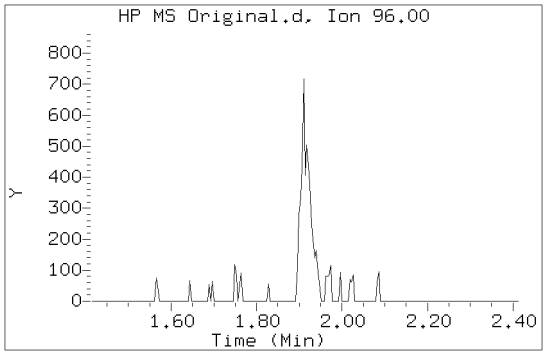

AFTER
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27-Dec-2022
16:07
ALSHS
Ser



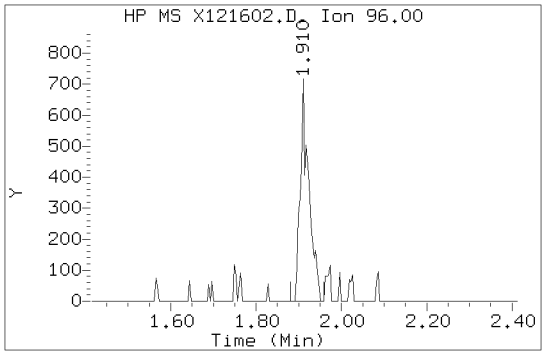

## 1,1-Dichloroethene (75-35-4)

Reason Code:

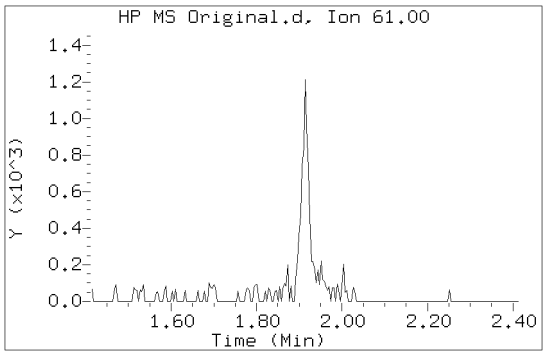
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16-Dec-2022
11:54
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Server



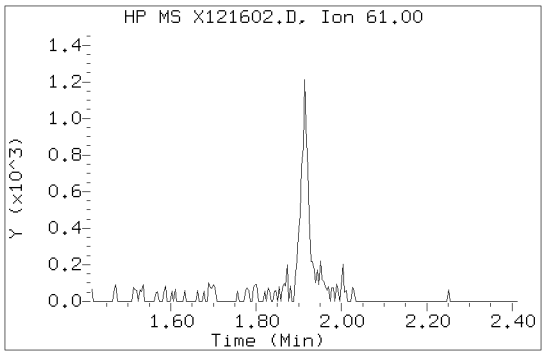

AFTER
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AREA
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HEIGHT
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27-Dec-2022
16:07
ALSHS
Ser




BEFORE
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HEIGHT
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16-Dec-2022
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AFTER
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HEIGHT
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27-Dec-2022
16:07
ALSHS
Ser



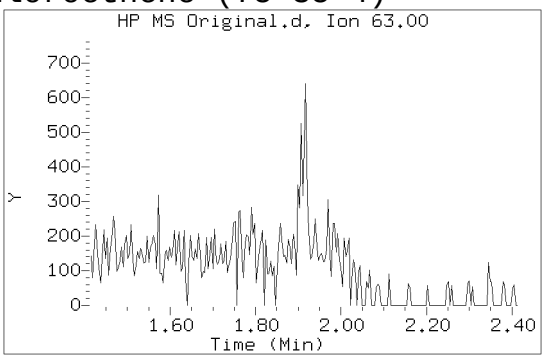
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Inj Date : 16-DEC-2022 11:38
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LabSampID : VSTD000.25

## 1,1-Dichloroethene (75-35-4)

Reason Code:

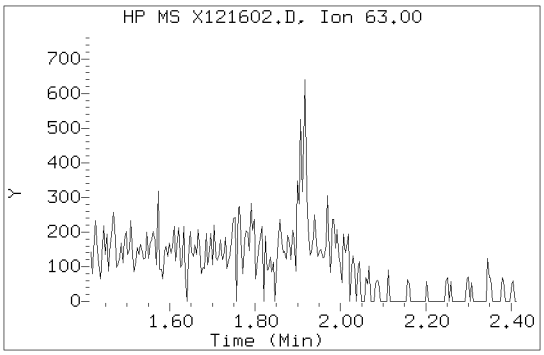
**BEFORE**

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16-Dec-2022
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**AFTER**

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27-Dec-2022
16:07
ALSHS
Ser

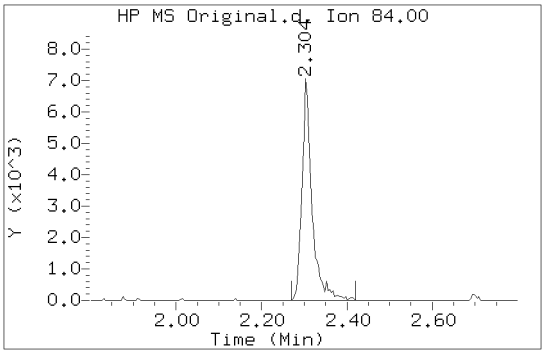



## Methylene Chloride (75-09-2)

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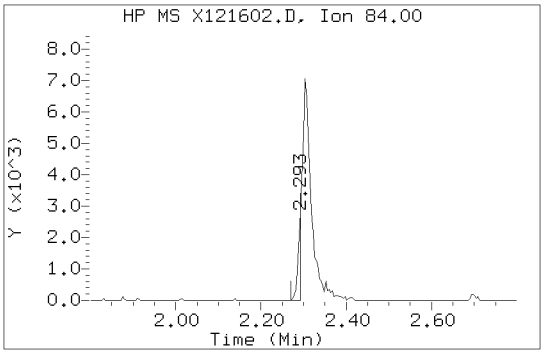
**BEFORE**

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Server



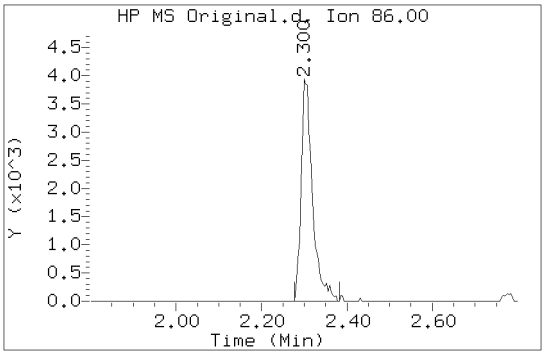

**AFTER**

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16:07
ALSHS
Ser



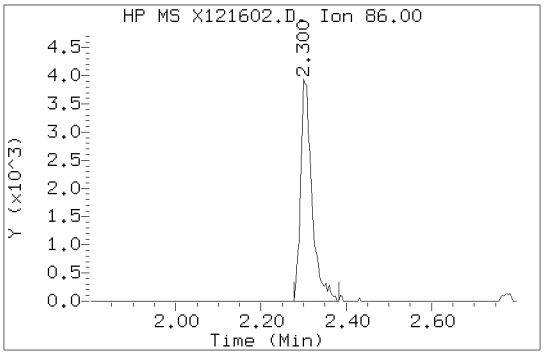

**BEFORE**

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86
AREA
7453
HEIGHT
3944
16-Dec-2022
11:54
ALSHS
Server



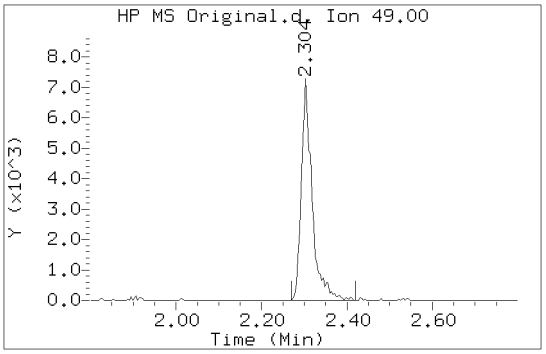

**AFTER**

MASS
86
AREA
7453
HEIGHT
3944
27-Dec-2022
16:07
ALSHS
Ser



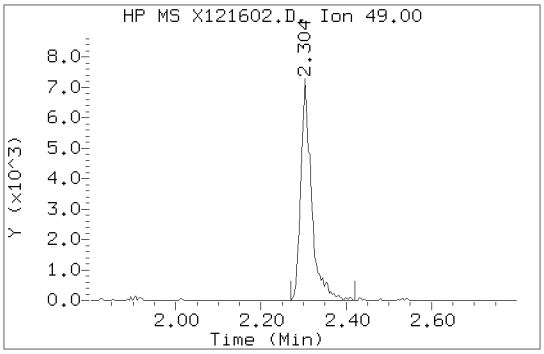

**BEFORE**

MASS
49
AREA
12974
HEIGHT
7289
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
49
AREA
12974
HEIGHT
7289
27-Dec-2022
16:07
ALSHS
Ser



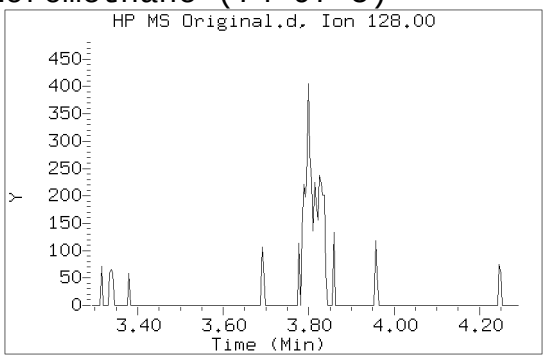
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Bromochloromethane (74-97-5)

Reason Code:

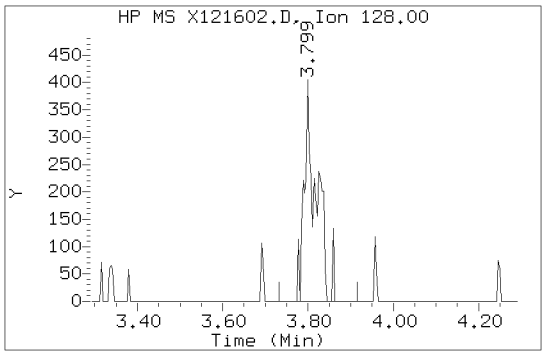
BEFORE

MASS
96
AREA
1402
HEIGHT
854
16-Dec-2022
11:54
ALSHS
Server



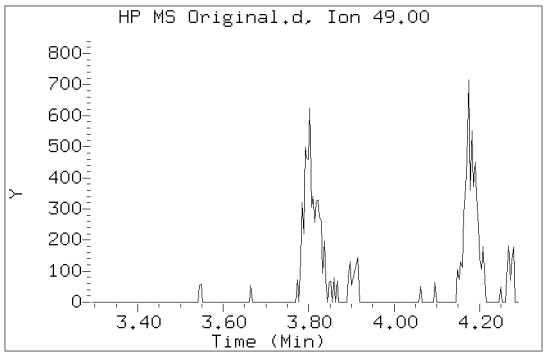

AFTER

MASS
128
AREA
802
HEIGHT
405
27-Dec-2022
16:07
ALSHS
Ser



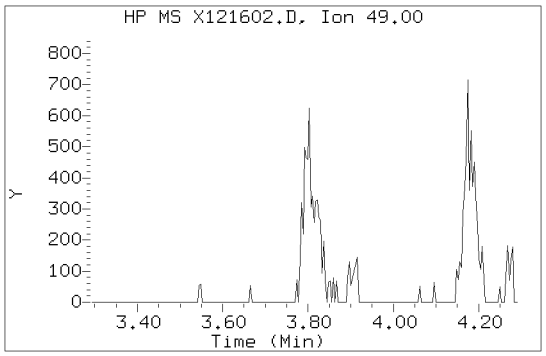

BEFORE

MASS
61
AREA
1975
HEIGHT
828
16-Dec-2022
11:54
ALSHS
Server



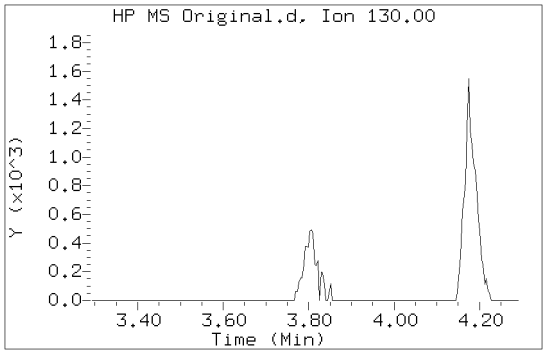

AFTER

MASS
49
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



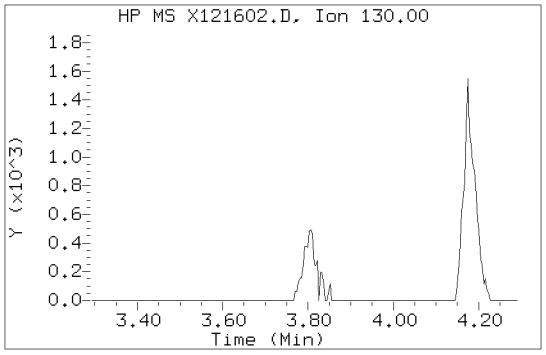

BEFORE

MASS
98
AREA
1027
HEIGHT
608
16-Dec-2022
11:54
ALSHS
Server




AFTER

MASS
130
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

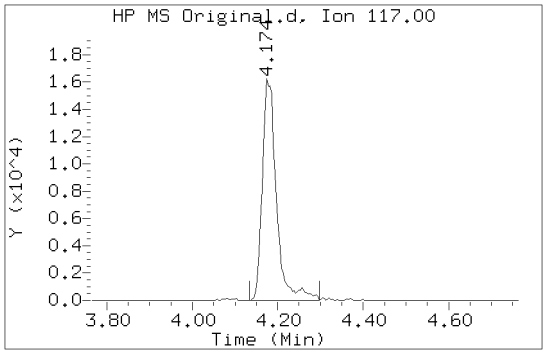



## Carbon Tetrachloride (56-23-5)

Reason Code:

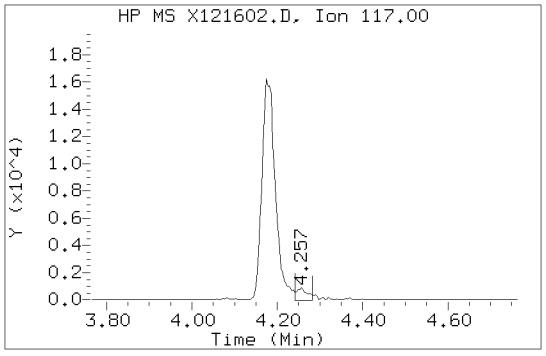
BEFORE

MASS
97
AREA
1700
HEIGHT
1016
16-Dec-2022
11:54
ALSHS
Server




AFTER

MASS
117
AREA
1685
HEIGHT
944
27-Dec-2022
16:07
ALSHS
Ser



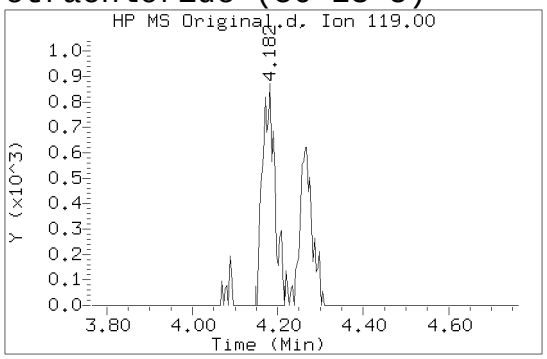
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Carbon Tetrachloride (56-23-5)

Reason Code:

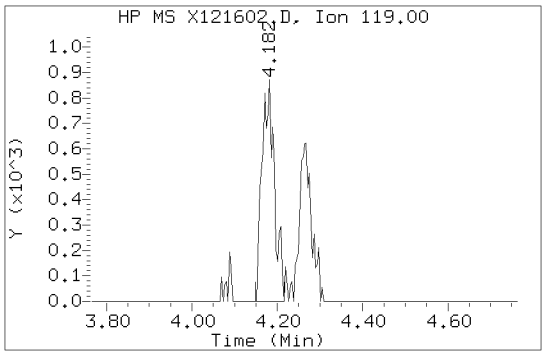
**BEFORE**

MASS
99
AREA
207130
HEIGHT
91368
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
119
AREA
1748
HEIGHT
872
27-Dec-2022
16:07
ALSHS
Ser

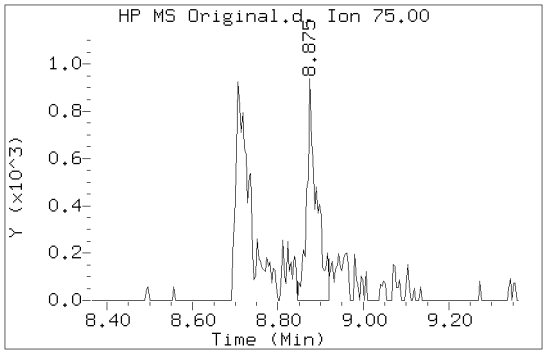



## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

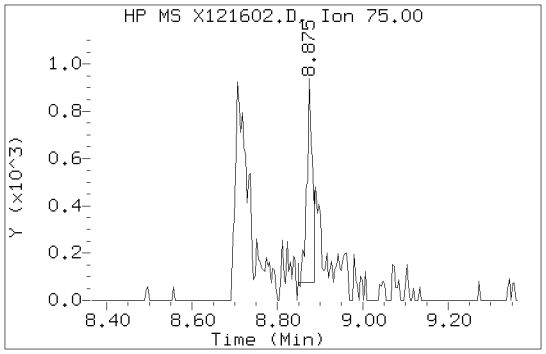
**BEFORE**

MASS
152
AREA
348702
HEIGHT
242350
16-Dec-2022
11:54
ALSHS
Server



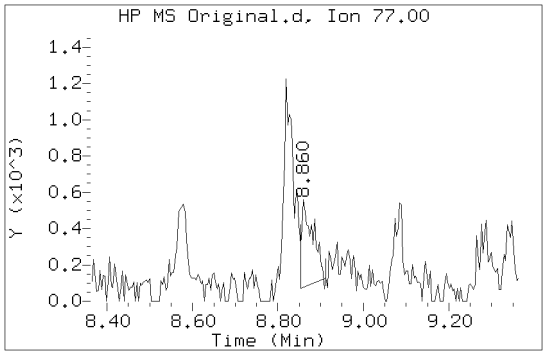

**AFTER**

MASS
75
AREA
766
HEIGHT
862
27-Dec-2022
16:07
ALSHS
Ser



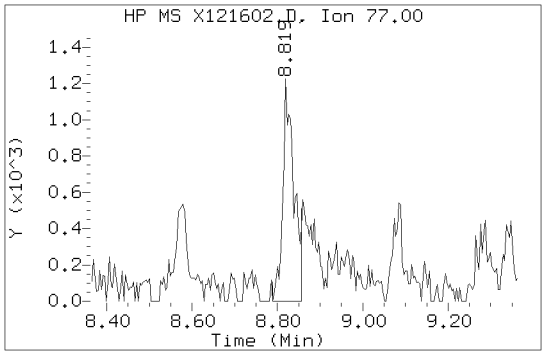

**BEFORE**

MASS
115
AREA
184413
HEIGHT
133835
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
77
AREA
2223
HEIGHT
1225
27-Dec-2022
16:07
ALSHS
Ser

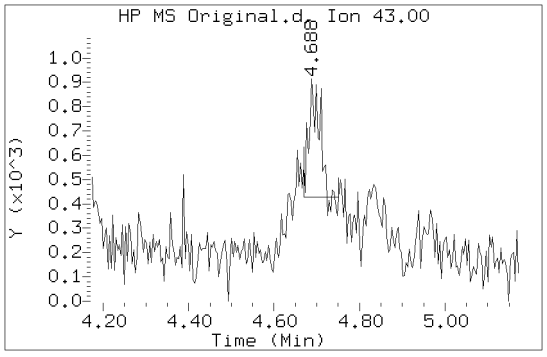



## Isobutyl Alcohol (78-83-1)

Reason Code:

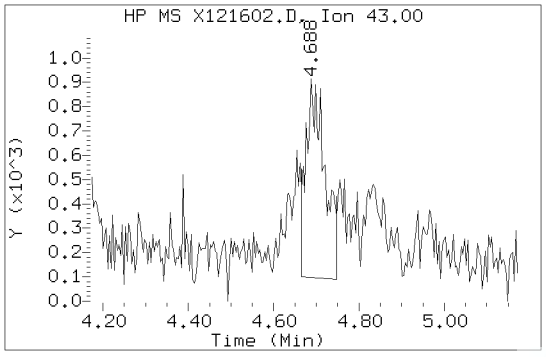
**BEFORE**

MASS
75
AREA
1475
HEIGHT
938
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
43
AREA
2537
HEIGHT
816
27-Dec-2022
16:07
ALSHS
Ser

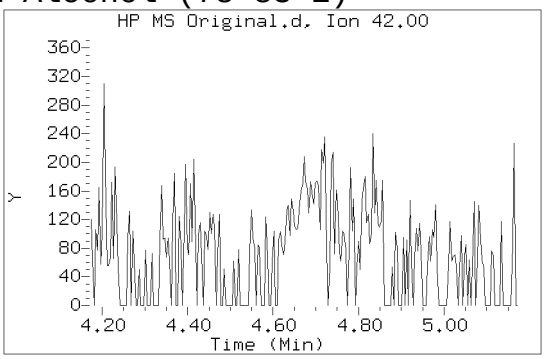


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Isobutyl Alcohol (78-83-1)

**BEFORE**

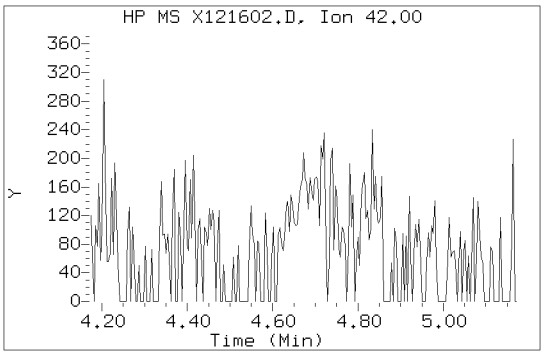
MASS
77
AREA
888
HEIGHT
483
16-Dec-2022
11:54
ALSHS
Server




Reason Code:

**AFTER**

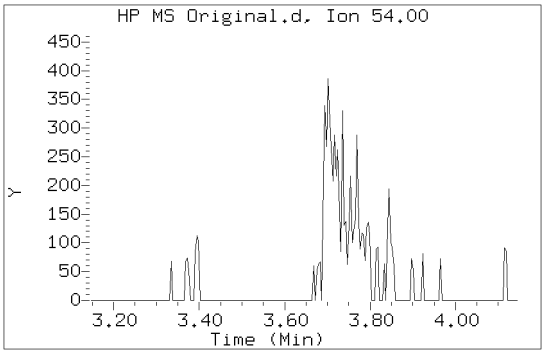
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser




## Propionitrile (107-12-0)

**BEFORE**

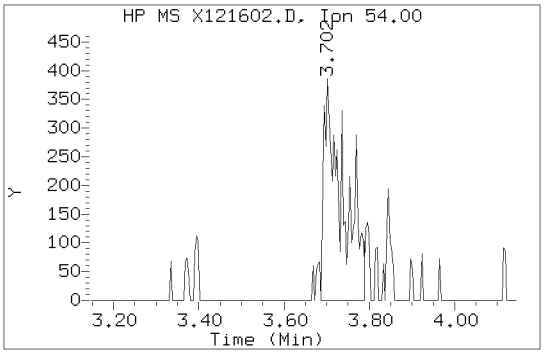
MASS
91
AREA
3881
HEIGHT
1822
16-Dec-2022
11:54
ALSHS
Server




Reason Code:

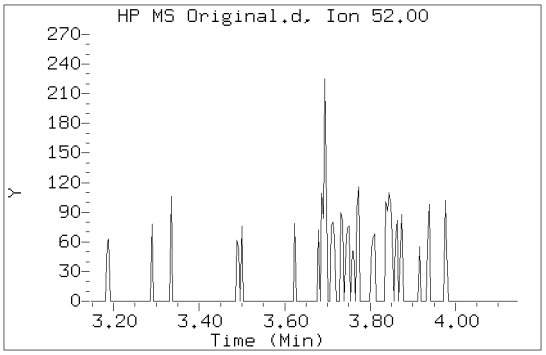
**AFTER**

MASS
54
AREA
1165
HEIGHT
386
27-Dec-2022
16:07
ALSHS
Ser



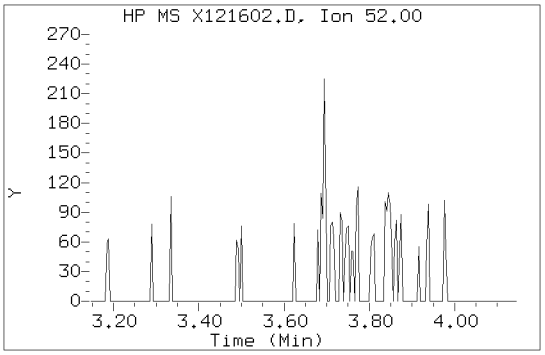

**BEFORE**

MASS
126
AREA
1511
HEIGHT
914
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

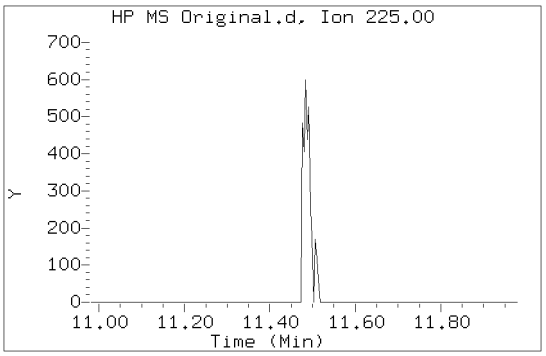
MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser




## Hexachlorobutadiene (87-68-3)

**BEFORE**

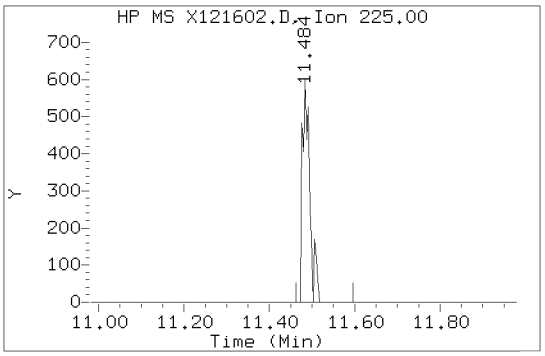
MASS
155
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




Reason Code:

**AFTER**

MASS
225
AREA
726
HEIGHT
599
27-Dec-2022
16:07
ALSHS
Ser



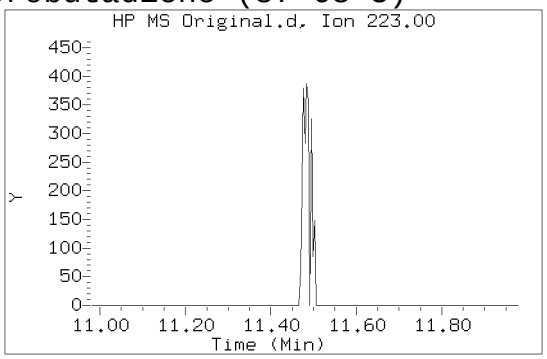
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Hexachlorobutadiene (87-68-3)

Reason Code:

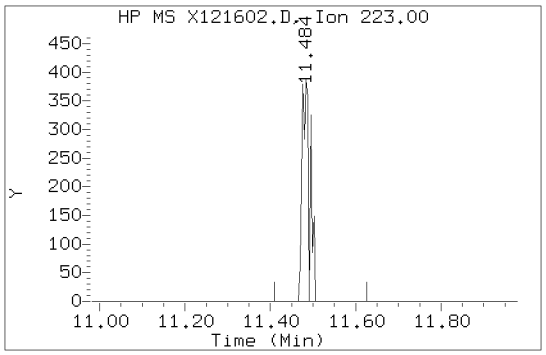
BEFORE

MASS
157
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



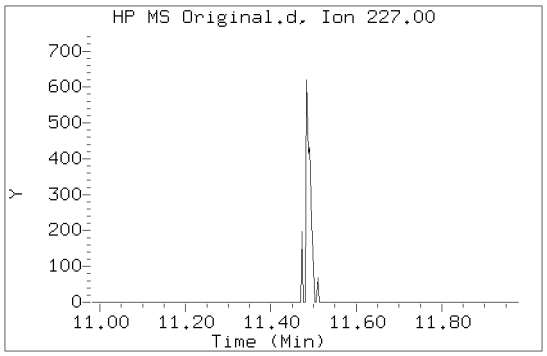

AFTER

MASS
223
AREA
502
HEIGHT
387
27-Dec-2022
16:07
ALSHS
Ser



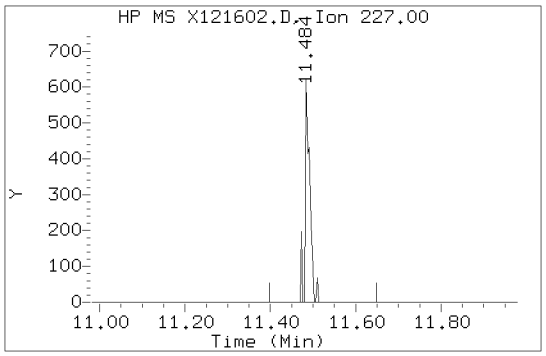

BEFORE

MASS
75
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




AFTER

MASS
227
AREA
469
HEIGHT
620
27-Dec-2022
16:07
ALSHS
Ser

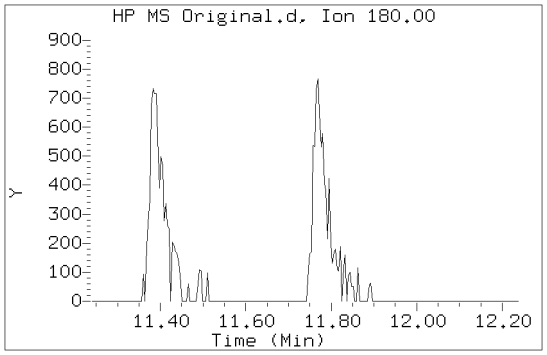



## 1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

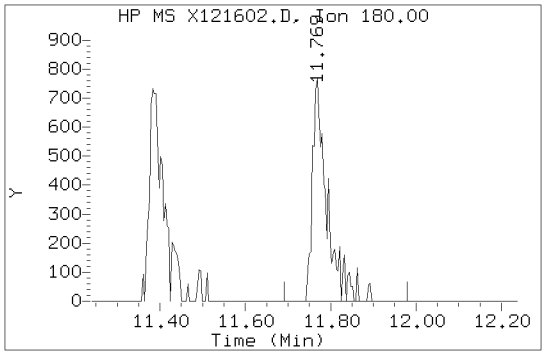
BEFORE

MASS
225
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



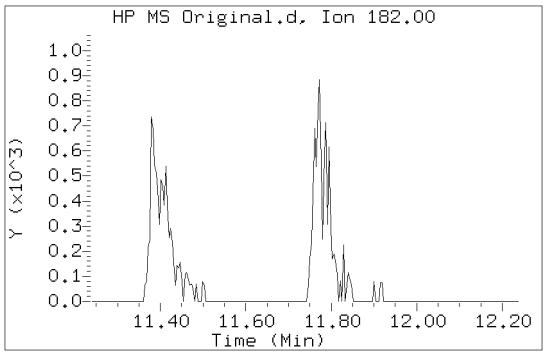

AFTER

MASS
180
AREA
1816
HEIGHT
766
27-Dec-2022
16:07
ALSHS
Ser



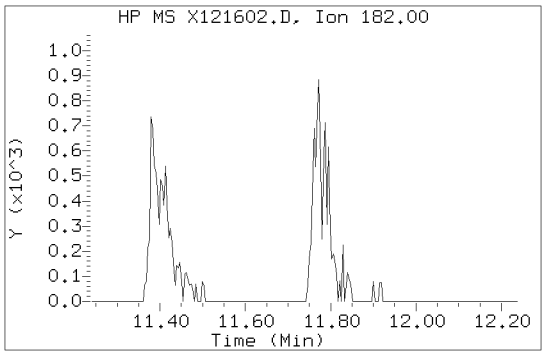

BEFORE

MASS
223
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




AFTER

MASS
182
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

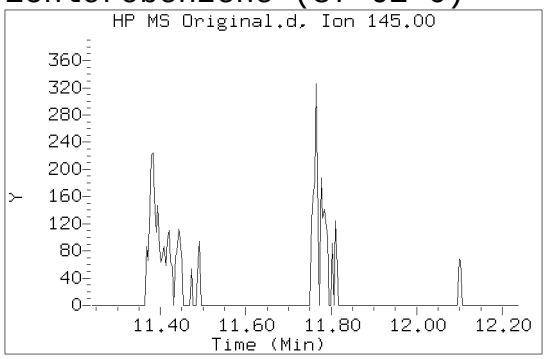


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## 1,2,3-Trichlorobenzene (87-61-6)

**BEFORE**

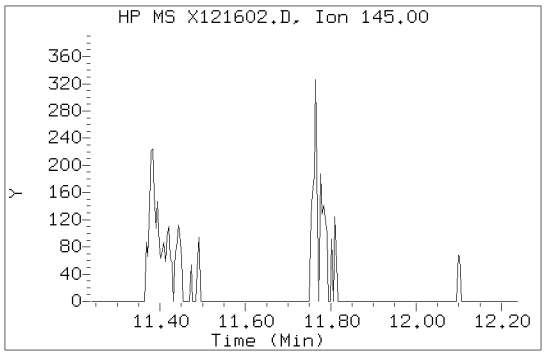
MASS
227
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
145
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

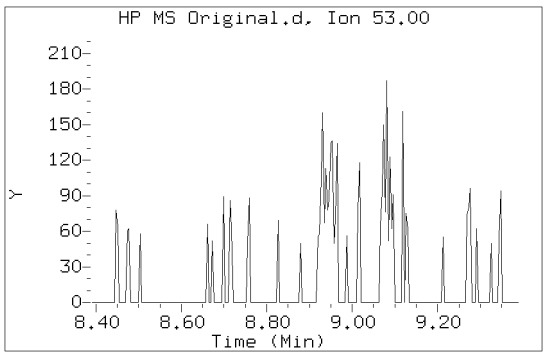
Reason Code:




## trans-1,4-Dichloro-2-butene (110-57-6)

**BEFORE**

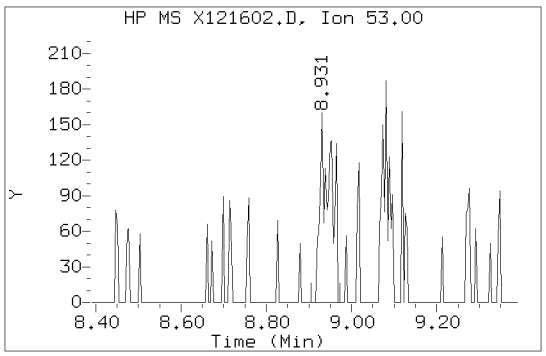
MASS
53
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

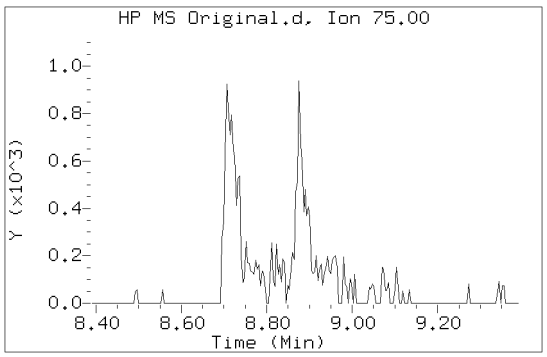
MASS
53
AREA
280
HEIGHT
160
27-Dec-2022
16:07
ALSHS
Ser

Reason Code:



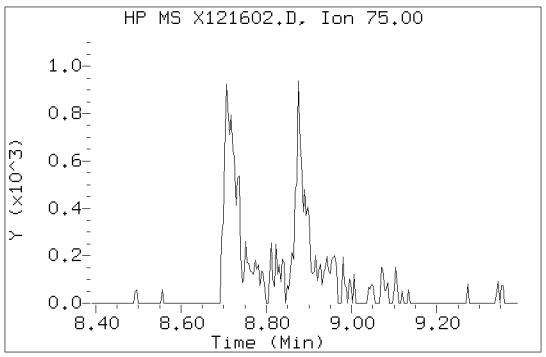

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

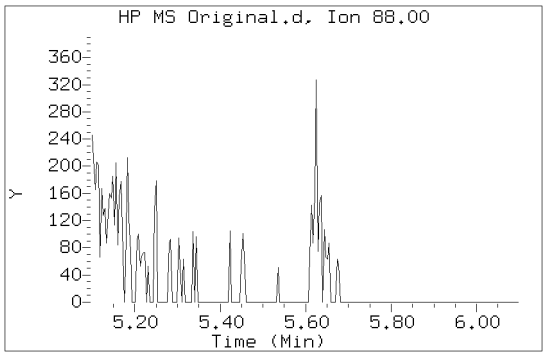
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75
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HEIGHT
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27-Dec-2022
16:07
ALSHS
Ser




## 1,4-Dioxane ()

**BEFORE**

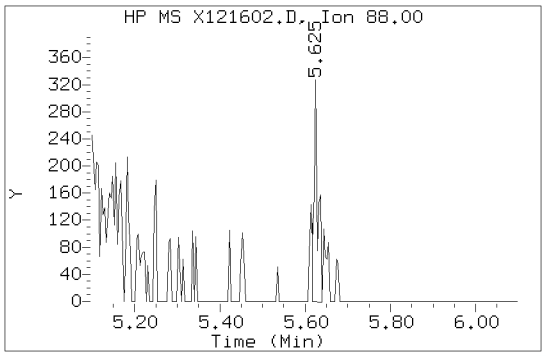
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16-Dec-2022
11:54
ALSHS
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**AFTER**

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27-Dec-2022
16:07
ALSHS
Ser

Reason Code:



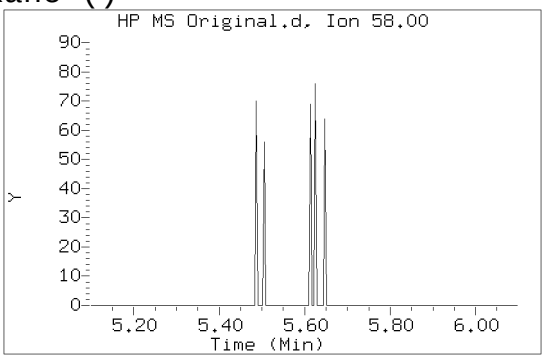
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Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## 1,4-Dioxane ()

Reason Code:

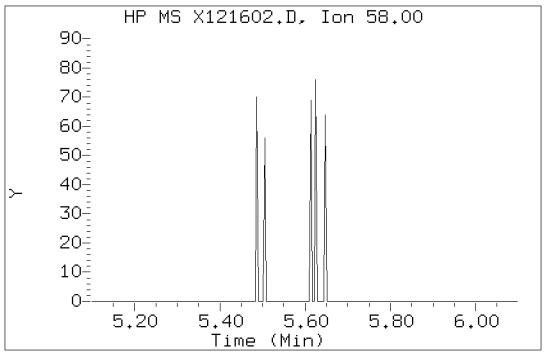
**BEFORE**

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16-Dec-2022
11:54
ALSHS
Server




**AFTER**

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HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

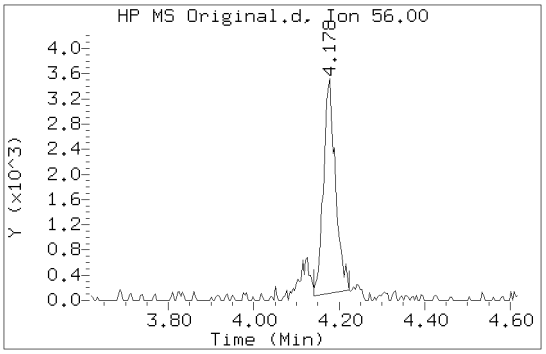



## Cyclohexane (110-82-7)

Reason Code:

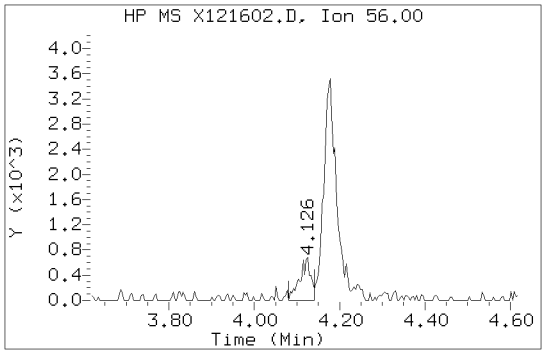
**BEFORE**

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HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



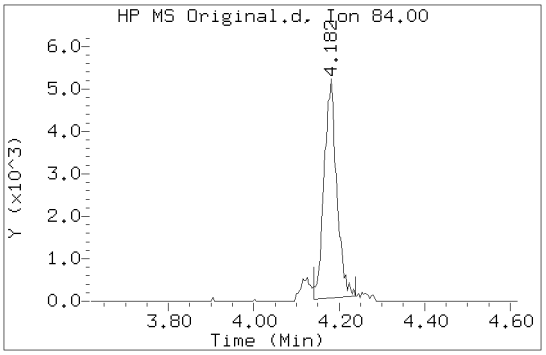

**AFTER**

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16:07
ALSHS
Ser



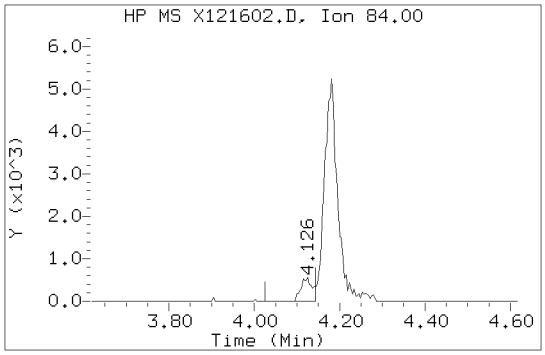

**BEFORE**

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AREA
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HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
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AREA
1062
HEIGHT
557
27-Dec-2022
16:07
ALSHS
Ser

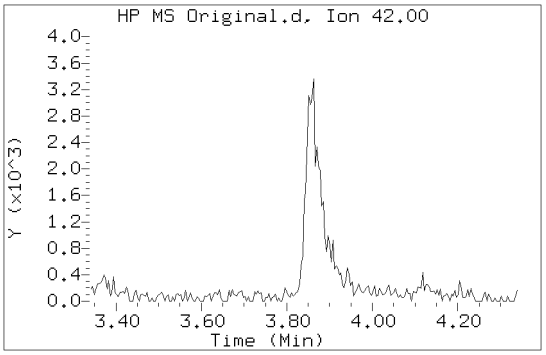



## Tetrahydrofuran (109-99-9)

Reason Code:

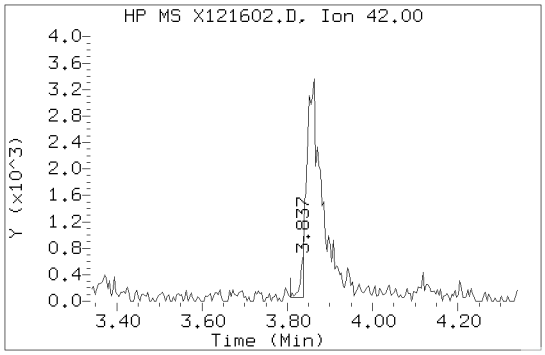
**BEFORE**

MASS
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AREA
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HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




**AFTER**

MASS
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AREA
358
HEIGHT
628
27-Dec-2022
16:07
ALSHS
Ser



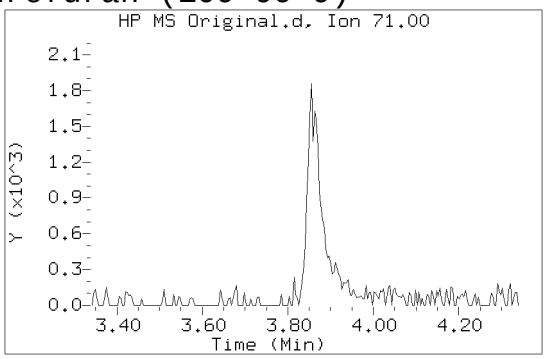
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

## Tetrahydrofuran (109-99-9)

Reason Code:

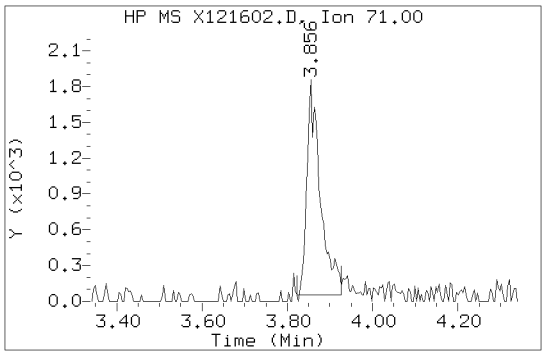
BEFORE

MASS
151
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




AFTER

MASS
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AREA
3962
HEIGHT
1803
27-Dec-2022
16:07
ALSHS
Ser

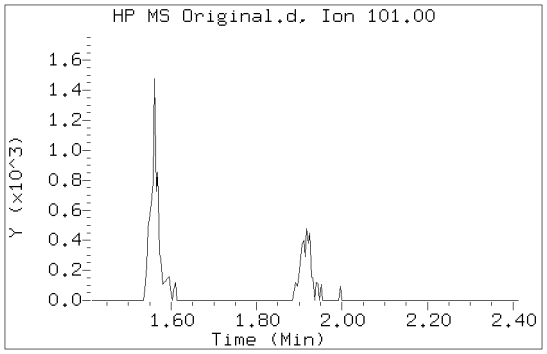



## Freon TF (76-13-1)

Reason Code:

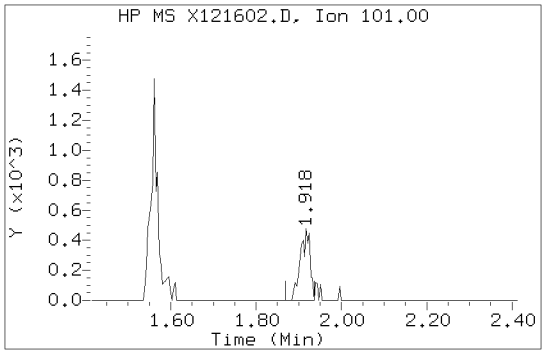
BEFORE

MASS
118
AREA
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HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



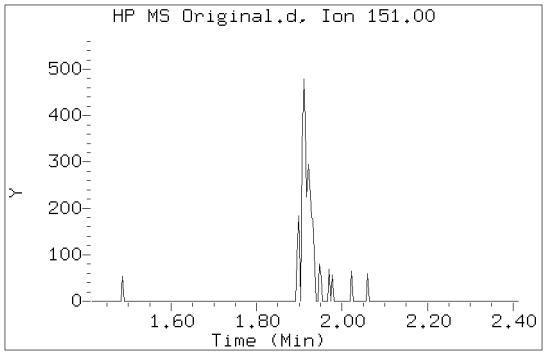

AFTER

MASS
101
AREA
765
HEIGHT
479
27-Dec-2022
16:07
ALSHS
Ser



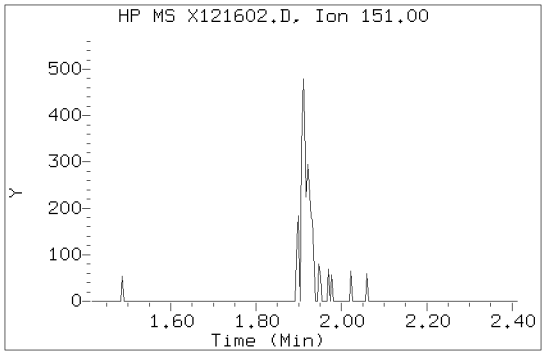

BEFORE

MASS
103
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HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server




AFTER

MASS
151
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
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Inj Date  : 16-DEC-2022 12:20
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD000.5;VSTD000.5;1;2;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 11:38  Cal File: X121602.D
Als bottle: 4  Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 461469 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.625 | 5.625 | (1.346) | 462 | 10.0000 | 10.95(M) |
| 140 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 1793 | 0.50000 | 0.56(M) |
| 25 Methacrylonitrile | 41 | 3.848 | 3.848 | (0.921) | 2066 | 0.50000 | 0.63(M) |
| 12 Isobutyl Alcohol | 43 | 4.695 | 4.695 | (1.124) | 5178 | 10.0000 | 9.97(M) |
| 13 Acetonitrile | 39 | 2.210 | 2.210 | (0.529) | 2204 | 5.00000 | 5.24(M) |
| 14 Allyl Chloride | 41 | 2.206 | 2.206 | (0.528) | 4574 | 0.50000 | 0.57(M) |
| 4 Propionitrile | 54 | 3.686 | 3.686 | (0.882) | 2777 | 5.00000 | 5.89(M) |
| 136 n-Hexane | 57 | 2.772 | 2.772 | (0.664) | 1909 | 0.50000 | 0.57(M) |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.931 | 8.931 | (1.165) | 792 | 0.50000 | 0.56(M) |
| 23 Chloroprene | 53 | 1.771 | 1.771 | (0.424) | 900 | 0.50000 | 0.57(M) |
| 145 alpha-Methylstyrene | 118 | 9.272 | 9.272 | (0.960) | 4701 | 0.50000 | 0.60 |
| 200 Dimethyl Disulfide | 94 | 6.202 | 6.202 | (0.809) | 5153 | 0.50000 | 0.59(M) |
| 139 Diethyl ether | 59 | 1.760 | 1.760 | (0.421) | 1864 | 0.50000 | 0.60 |
| 130 Ethyl Acetate | 43 | 3.679 | 3.679 | (0.881) | 2065 | 0.50000 | 0.57(M) |
| 40 Methyl Methacrylate | 41 | 5.628 | 5.628 | (1.347) | 1788 | 0.50000 | 0.56(M) |
| 49 Ethyl Methacrylate | 69 | 6.727 | 6.727 | (1.355) | 1935 | 0.50000 | 0.59(M) |
| 132 n-Butanol | 56 | 5.291 | 5.291 | (1.266) | 622 | 10.0000 | 50.83(M) |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 900 | 1.00000 | (M) |
| 150 Allyl alcohol | 57 | 2.772 | 2.772 | (0.664) | 3089 | 10.0000 | 17.23 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 9626 | 0.50000 | 0.57(M) |
| 131 | Methyl Acrylate | 55 | 3.743 | 3.743 (0.896) | 1765 | 0.50000 | 0.56(M) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D Page 2
Report Date: 27-Dec-2022 16:07

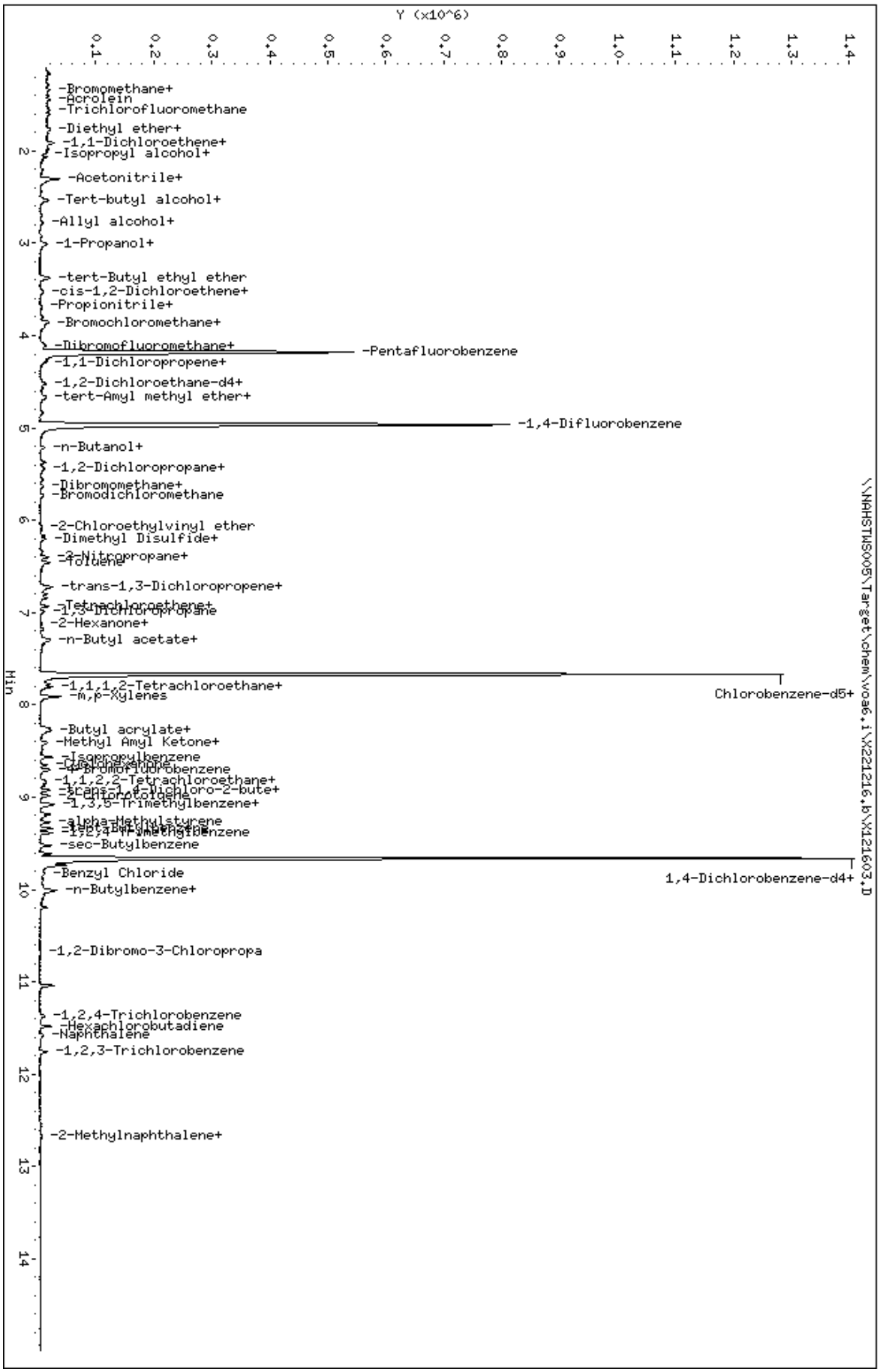
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | CAL-AMT | ON-COL |
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ( ug/l) | ( ug/l) |
| | 162 | Butyl acrylate | 55 | 8.271 | 8.271 | (1.079) | 4718 | 0.50000 | 0.55(M) |
| | 2 | Dichlorodifluoromethane | 85 | 0.972 | 0.972 | (0.233) | 1990 | 0.50000 | 1.00(M) |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 2466 | 0.50000 | 2.77(M) |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 2412 | 0.50000 | 0.59(M) |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 1893 | 0.50000 | 2.36(M) |
| | 7 | Chloroethane | 64 | 1.407 | 1.407 | (0.337) | 1653 | 0.50000 | 0.58(M) |
| | 8 | Trichlorofluoromethane | 101 | 1.561 | 1.561 | (0.374) | 3286 | 0.50000 | 0.58(M) |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 440 | 1.00000 | 4.17(M) |
| | 10 | Acetone | 43 | 1.977 | 1.977 | (0.473) | 2669 | 1.00000 | 2.02(M) |
| | 11 | 1,1-Dichloroethene | 96 | 1.913 | 1.913 | (0.458) | 2037 | 0.50000 | 0.58(M) |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 2397 | 1.00000 | 3.84(TM) |
| | 16 | Acrylonitrile | 53 | 2.566 | 2.566 | (0.614) | 1118 | 1.00000 | 0.94(M) |
| | 17 | Methylene Chloride | 84 | 2.296 | 2.296 | (0.550) | 2938 | 0.50000 | 0.61(M) |
| | 18 | Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 5841 | 0.50000 | 0.50(M) |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 9921 | 1.00000 | 1.08(M) |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.543 | 2.543 | (0.609) | 2218 | 0.50000 | 0.56(M) |
| | 21 | Vinyl Acetate | 43 | 3.023 | 3.023 | (0.724) | 10138 | 1.00000 | 1.00(M) |
| | 22 | 1,1-Dichloroethane | 63 | 2.926 | 2.926 | (0.700) | 3874 | 0.50000 | 0.56(M) |
| | 24 | 2-Butanone | 43 | 3.649 | 3.649 | (0.873) | 1292 | 1.00000 | 3.93(M) |
| | 26 | 2,2-Dichloropropane | 77 | 3.514 | 3.514 | (0.841) | 3238 | 0.50000 | 0.55(M) |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.544 | 3.544 | (0.848) | 2852 | 0.50000 | 0.59 |
| | 28 | Chloroform | 83 | 3.908 | 3.908 | (0.935) | 4040 | 0.50000 | 0.52(M) |
| | 29 | Bromochloromethane | 128 | 3.799 | 3.799 | (0.909) | 1481 | 0.50000 | 0.56 |
| $ | 30 | Dibromofluoromethane | 113 | 4.110 | 4.110 | (0.984) | 2321 | 0.50000 | 0.35 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.084 | 4.084 | (0.978) | 3512 | 0.50000 | 0.57(M) |
| | 32 | 1,1-Dichloropropene | 75 | 4.290 | 4.290 | (0.864) | 2468 | 0.50000 | 0.50(M) |
| | 33 | 1,2-Dichloroethane | 62 | 4.567 | 4.567 | (0.920) | 3129 | 0.50000 | 0.55(M) |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 2763 | 0.50000 | 0.52(MH) |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.481 | 4.481 | (1.073) | 2849 | 0.50000 | 0.87(T) |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 687671 | 50.0000 | |
| | 37 | Benzene | 78 | 4.519 | 4.519 | (0.910) | 9243 | 0.50000 | 0.56 |
| | 38 | Trichloroethene | 130 | 5.216 | 5.216 | (1.051) | 2583 | 0.50000 | 0.55(M) |
| | 39 | Bromodichloromethane | 83 | 5.730 | 5.730 | (1.154) | 3650 | 0.50000 | 0.59(M) |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.071 | 6.071 | (1.223) | 1861 | 1.00000 | 1.06(M) |
| | 42 | 1,2-Dichloropropane | 63 | 5.441 | 5.441 | (1.096) | 2449 | 0.50000 | 0.56(M) |
| | 44 | Dibromomethane | 93 | 5.557 | 5.557 | (1.119) | 1725 | 0.50000 | 0.58 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.337 | 6.337 | (0.826) | 3741 | 1.00000 | 1.08(M) |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.168 | 6.168 | (1.242) | 3695 | 0.50000 | 0.51(M) |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 645291 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.401 | 6.401 | (0.835) | 9525 | 0.50000 | 0.59 |
| | 50 | Toluene | 91 | 6.460 | 6.460 | (0.843) | 10374 | 0.50000 | 0.58(M) |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.697 | 6.697 | (1.349) | 3042 | 0.50000 | 0.50 |
| | 52 | 2-Hexanone | 43 | 7.117 | 7.117 | (0.928) | 2580 | 1.00000 | 1.09 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 2092 | 0.50000 | 0.58(M) |
| | 54 | 1,3-Dichloropropane | 76 | 6.993 | 6.993 | (0.912) | 4005 | 0.50000 | 0.56(M) |
| | 55 | Dibromochloromethane | 129 | 7.180 | 7.180 | (0.936) | 2827 | 0.50000 | 0.54 |
| | 56 | Tetrachloroethene | 164 | 6.933 | 6.933 | (0.904) | 2131 | 0.50000 | 0.57(M) |
| | 57 | 1,2-Dibromoethane | 107 | 7.270 | 7.270 | (0.948) | 2340 | 0.50000 | 0.52(M) |
| | 58 | 1-Chlorohexane | 55 | 7.705 | 7.705 | (1.552) | 1829 | 0.50000 | 0.55(MH) |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 7747 | 0.50000 | 0.61 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.784 | 7.784 | (1.015) | 2741 | 0.50000 | 0.58(M) |
| | 61 | Ethylbenzene | 106 | 7.806 | 7.806 | (1.018) | 3064 | 0.50000 | 0.51(M) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 62 m,p-Xylenes | 106 | 7.911 | 7.911 (1.032) | 9016 | 1.00000 | 1.17(M) |
| 63 o-Xylene | 106 | 8.252 | 8.252 (1.076) | 4412 | 0.50000 | 0.58(M) |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 64 Styrene | 104 | 8.286 | 8.286 | (1.081) | 6634 | 0.50000 | 0.52(M) |
| | 66 Bromoform | 173 | 8.421 | 8.421 | (1.098) | 2013 | 0.50000 | 0.56(TM) |
| | 67 Isopropylbenzene | 105 | 8.567 | 8.567 | (1.117) | 8757 | 0.50000 | 0.50(M) |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.845 | 8.845 | (0.915) | 3194 | 0.50000 | 0.57(M) |
| $ | 69 4-Bromofluorobenzene | 95 | 8.706 | 8.706 | (1.135) | 3870 | 0.50000 | 0.71(M) |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 347824 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.871 | 8.871 | (0.918) | 2019 | 0.50000 | 0.52(M) |
| | 73 n-Propylbenzene | 91 | 8.923 | 8.923 | (0.924) | 11163 | 0.50000 | 0.57(M) |
| | 74 Bromobenzene | 156 | 8.818 | 8.818 | (0.913) | 3147 | 0.50000 | 0.55(M) |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.073 | 9.073 | (0.939) | 7182 | 0.50000 | 0.50(M) |
| | 76 2-Chlorotoluene | 91 | 8.983 | 8.983 | (0.930) | 6718 | 0.50000 | 0.53(M) |
| | 77 4-Chlorotoluene | 91 | 9.088 | 9.088 | (0.941) | 7644 | 0.50000 | 0.53(M) |
| | 78 tert-Butylbenzene | 119 | 9.339 | 9.339 | (0.967) | 6389 | 0.50000 | 0.54(M) |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.384 | 9.384 | (0.971) | 8496 | 0.50000 | 0.56(M) |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 7938 | 0.50000 | 0.51(M) |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 7343 | 0.50000 | 0.52(M) |
| | 83 1,3-Dichlorobenzene | 146 | 9.613 | 9.613 | (0.995) | 4677 | 0.50000 | 0.49(M) |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 5674 | 0.50000 | 0.54(M) |
| | 86 Benzyl Chloride | 91 | 9.831 | 9.831 | (1.282) | 3642 | 0.50000 | 3.03 |
| | 87 n-Butylbenzene | 91 | 10.014 | 10.014 | (1.036) | 5149 | 0.50000 | 2.14(M) |
| | 88 1,2-Dichlorobenzene | 146 | 10.010 | 10.010 | (1.036) | 5504 | 0.50000 | 0.56(M) |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.678 | 10.678 | (1.105) | 441 | 0.50000 | 0.58(M) |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.364 | 11.364 | (1.176) | 3187 | 0.50000 | 0.51(M) |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 1477 | 0.50000 | 0.49(M) |
| | 92 Naphthalene | 128 | 11.581 | 11.581 | (1.199) | 7025 | 0.50000 | 0.50 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.765 | 11.765 | (1.218) | 3572 | 0.50000 | 0.60(M) |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 5070 | 1.00000 | |
| M | 95 Xylenes (total) | 106 | | | | 13428 | 1.50000 | |
| | 141 Cyclohexane | 56 | 4.114 | 4.114 | (0.985) | 2803 | 0.50000 | 1.84(M) |
| | 138 Freon TF | 101 | 1.917 | 1.917 | (0.459) | 1851 | 0.50000 | 0.54(M) |
| | 147 Methylcyclohexane | 55 | 5.415 | 5.415 | (1.091) | 4781 | 0.50000 | 0.56(M) |
| | 146 Methyl Acetate | 43 | 2.240 | 2.240 | (0.536) | 1269 | 0.50000 | 0.61(M) |

## QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Date : 16-DEC-2022 12:20
Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;
Purge Volume: 5.0
Column phase: DB624

\\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

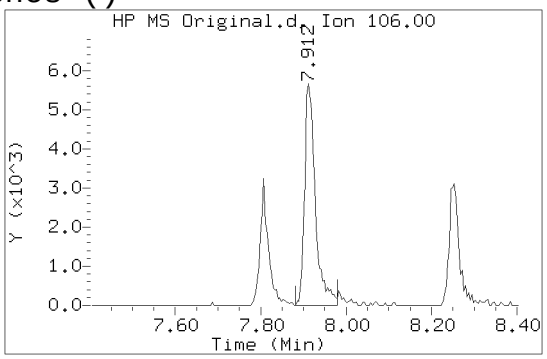
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## m,p-Xylenes ()

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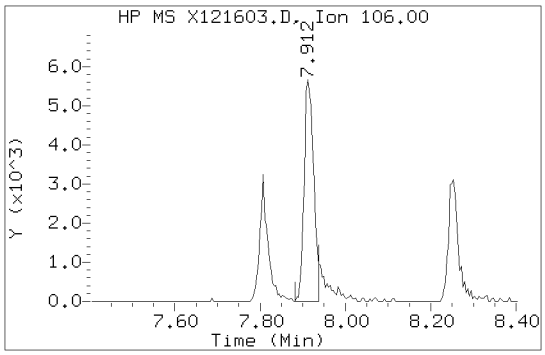
BEFORE

MASS
106
AREA
10070
HEIGHT
5666
27-Dec-2022
16:03
linh
pham



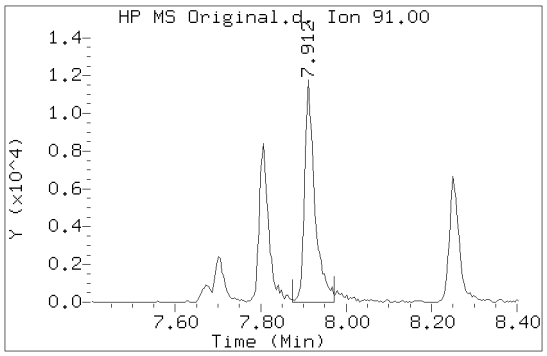

AFTER

MASS
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AREA
9016
HEIGHT
5666
27-Dec-2022
16:07
linh
pham



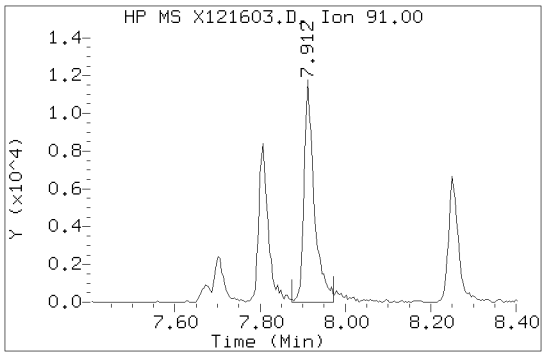

BEFORE

MASS
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AREA
19887
HEIGHT
11768
27-Dec-2022
16:03
linh
pham




AFTER

MASS
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AREA
19887
HEIGHT
11768
27-Dec-2022
16:07
linh
pham

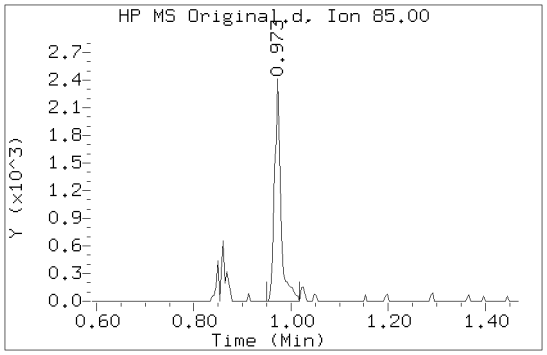



## Dichlorodifluoromethane (75-71-8)

Reason Code:

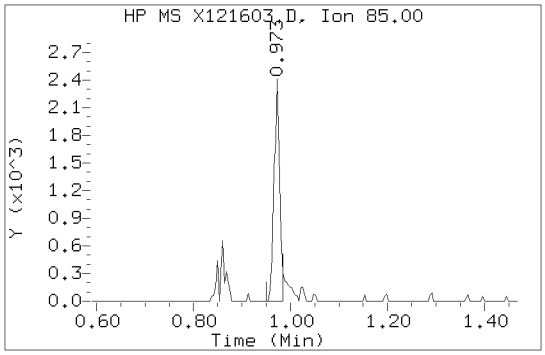
BEFORE

MASS
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AREA
2242
HEIGHT
2413
27-Dec-2022
16:03
linh
pham



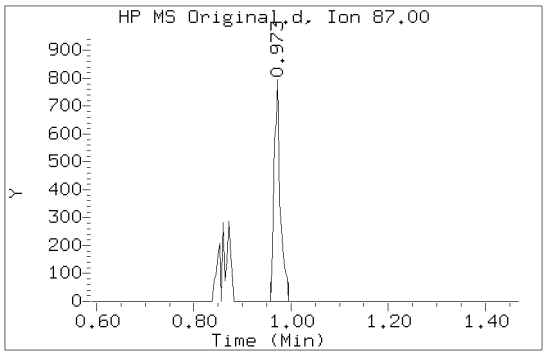

AFTER

MASS
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AREA
1990
HEIGHT
2413
27-Dec-2022
16:07
linh
pham



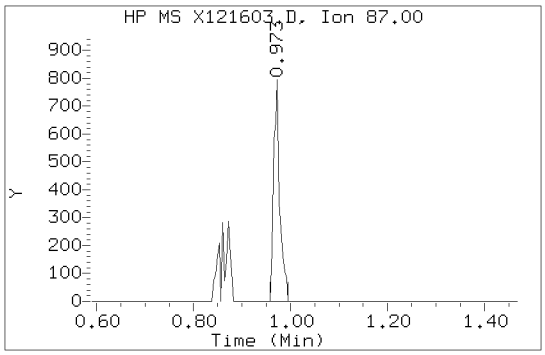

BEFORE

MASS
87
AREA
713
HEIGHT
795
27-Dec-2022
16:03
linh
pham




AFTER

MASS
87
AREA
713
HEIGHT
795
27-Dec-2022
16:07
linh
pham

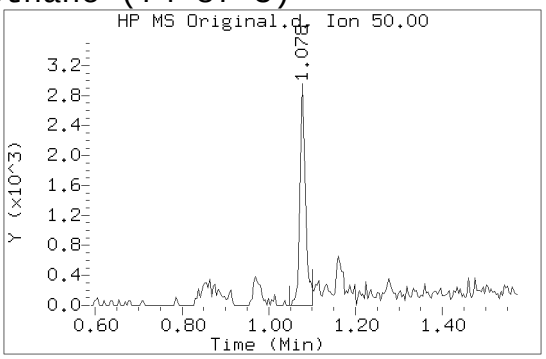


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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Chloromethane (74-87-3)

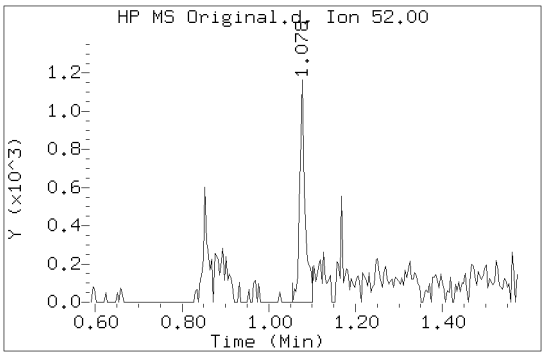
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AREA
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HEIGHT
2959
27-Dec-2022
16:03
linh
pham




### BEFORE

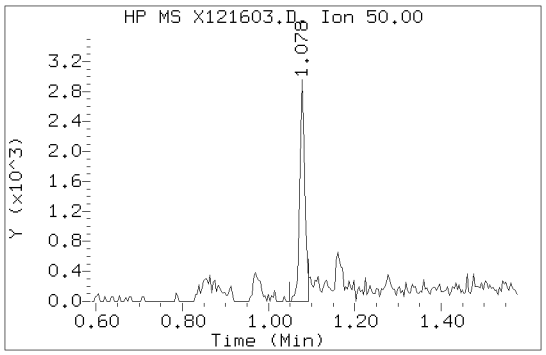
MASS
52
AREA
985
HEIGHT
1164
27-Dec-2022
16:03
linh
pham




### Reason Code:

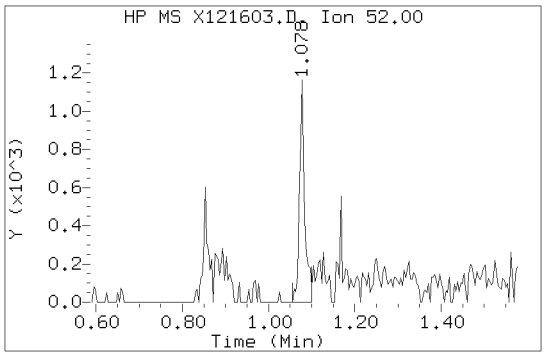
### AFTER

MASS
50
AREA
2466
HEIGHT
2959
27-Dec-2022
16:07
linh
pham




### AFTER

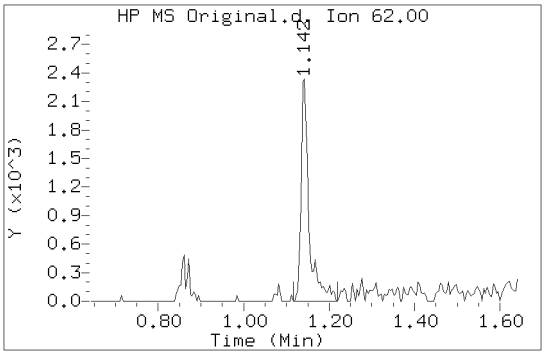
MASS
52
AREA
985
HEIGHT
1164
27-Dec-2022
16:07
linh
pham




## Vinyl Chloride (75-01-4)

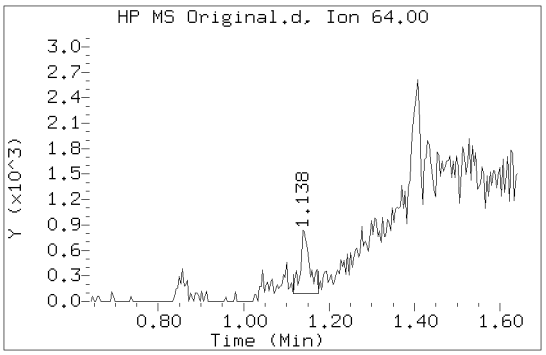
### BEFORE

MASS
62
AREA
3132
HEIGHT
2337
27-Dec-2022
16:03
linh
pham




### BEFORE

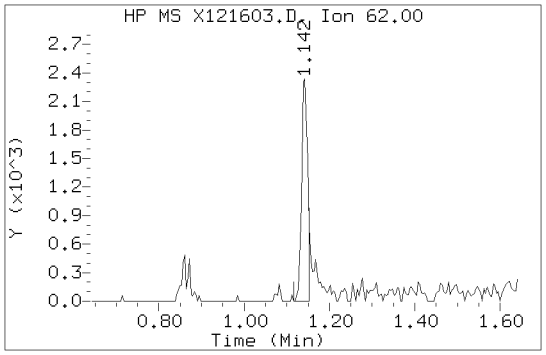
MASS
64
AREA
1174
HEIGHT
750
27-Dec-2022
16:03
linh
pham




### Reason Code:

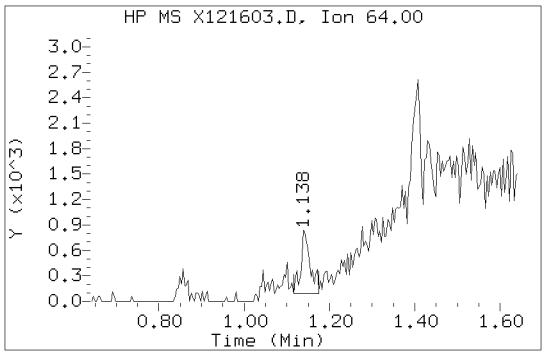
### AFTER

MASS
62
AREA
2412
HEIGHT
2337
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
64
AREA
1174
HEIGHT
750
27-Dec-2022
16:07
linh
pham



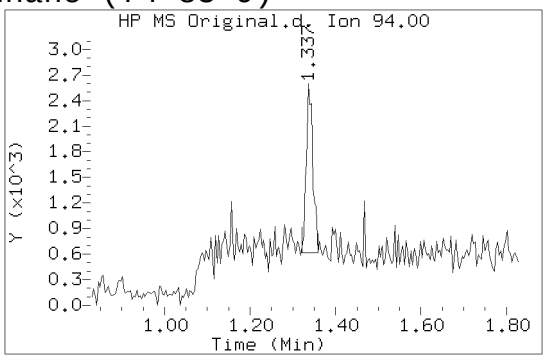
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Bromomethane (74-83-9)

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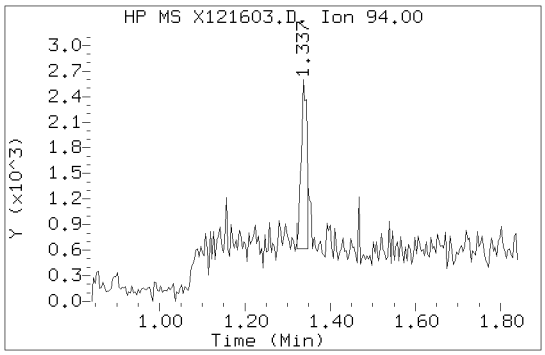
BEFORE

MASS
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AREA
2146
HEIGHT
1983
27-Dec-2022
16:03
linh
pham



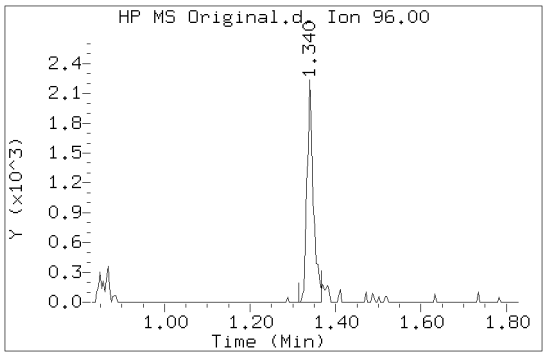

AFTER

MASS
94
AREA
1893
HEIGHT
1983
27-Dec-2022
16:07
linh
pham



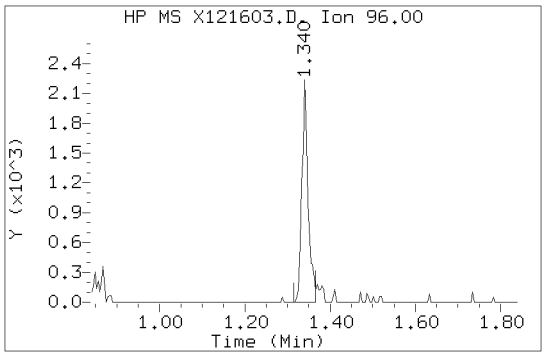

BEFORE

MASS
96
AREA
2304
HEIGHT
2236
27-Dec-2022
16:03
linh
pham




AFTER

MASS
96
AREA
2304
HEIGHT
2236
27-Dec-2022
16:07
linh
pham

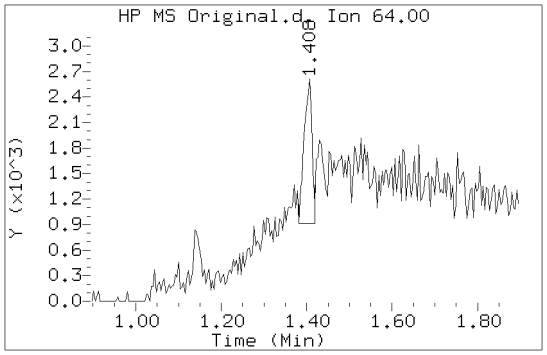



## Chloroethane (75-00-3)

Reason Code:

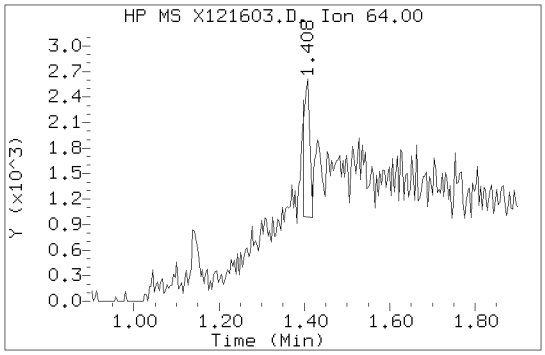
BEFORE

MASS
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AREA
2196
HEIGHT
1702
27-Dec-2022
16:03
linh
pham



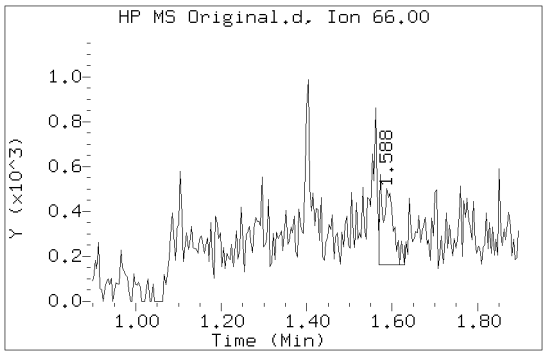

AFTER

MASS
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AREA
1653
HEIGHT
1624
27-Dec-2022
16:07
linh
pham



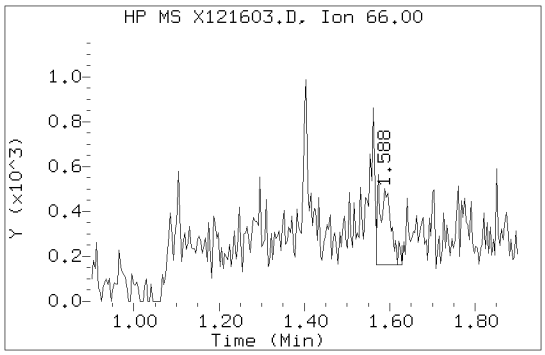

BEFORE

MASS
66
AREA
677
HEIGHT
340
27-Dec-2022
16:03
linh
pham




AFTER

MASS
66
AREA
677
HEIGHT
340
27-Dec-2022
16:07
linh
pham



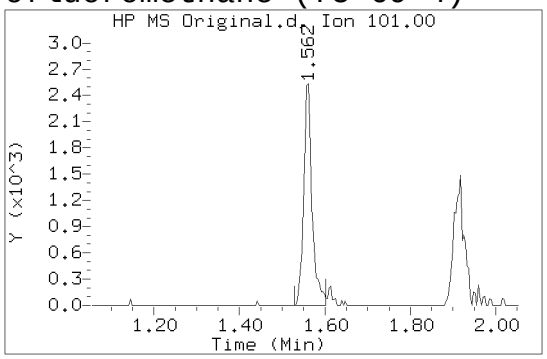
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Trichlorofluoromethane (75-69-4)

Reason Code:

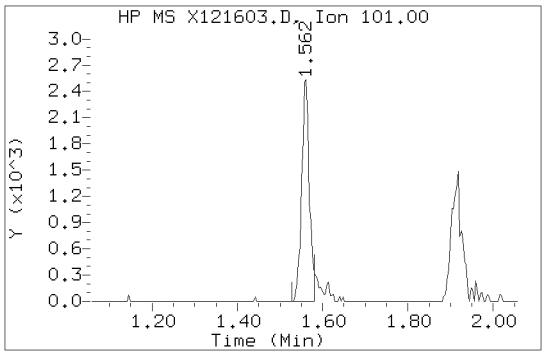
**BEFORE**

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AREA
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HEIGHT
2534
27-Dec-2022
16:03
linh
pham



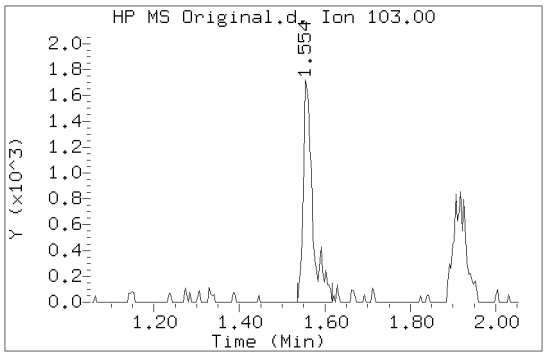

**AFTER**

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27-Dec-2022
16:07
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pham



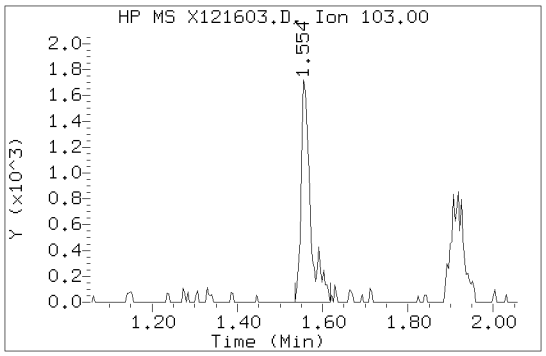

**BEFORE**

MASS
103
AREA
2708
HEIGHT
1720
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
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AREA
2708
HEIGHT
1720
27-Dec-2022
16:07
linh
pham

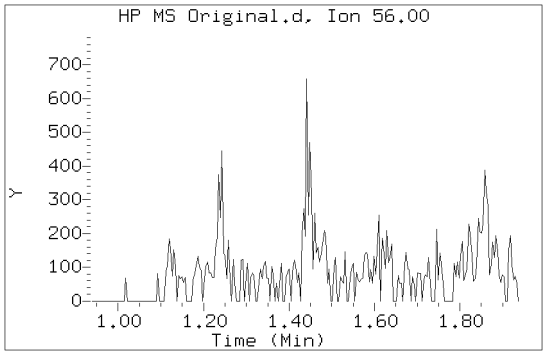



## Acrolein (107-02-8 )

Reason Code:

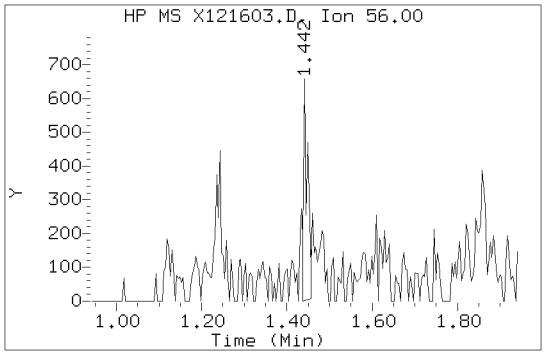
**BEFORE**

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AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham



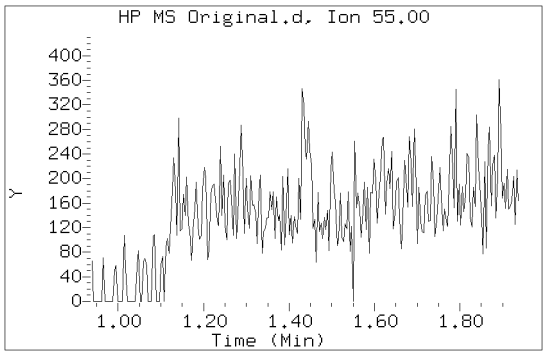

**AFTER**

MASS
56
AREA
440
HEIGHT
656
27-Dec-2022
16:07
linh
pham



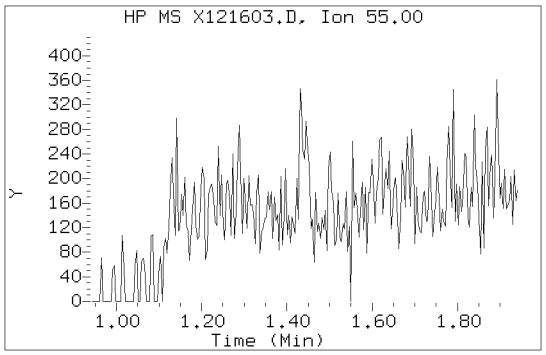

**BEFORE**

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



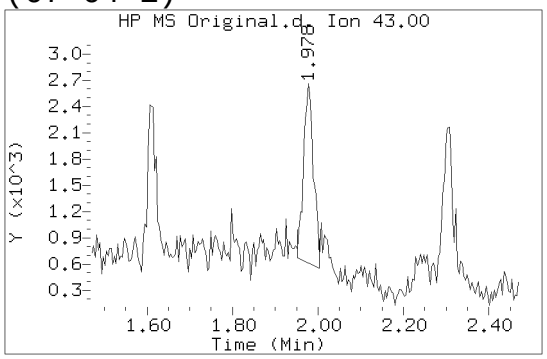
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Acetone (67-64-1)

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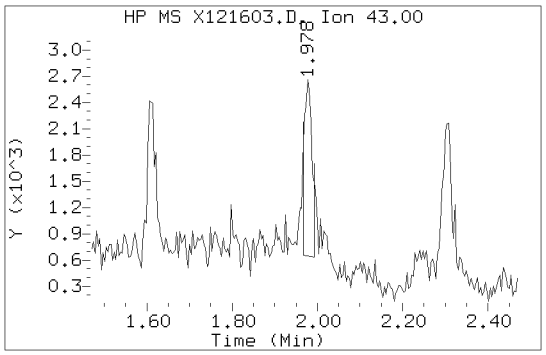
**BEFORE**

MASS
43
AREA
3388
HEIGHT
2046
27-Dec-2022
16:03
linh
pham



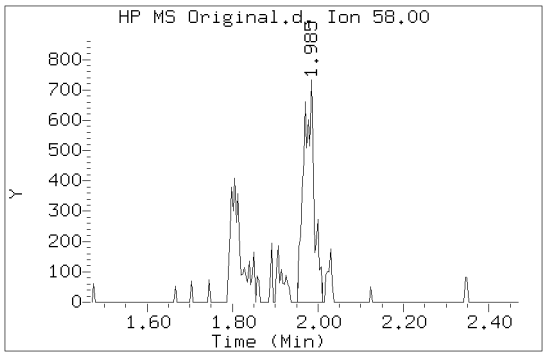

**AFTER**

MASS
43
AREA
2669
HEIGHT
2015
27-Dec-2022
16:07
linh
pham



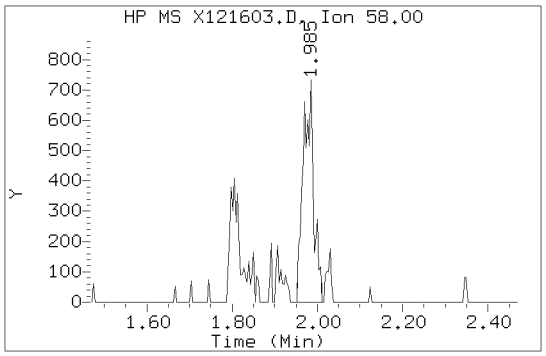

**BEFORE**

MASS
58
AREA
1264
HEIGHT
733
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
1264
HEIGHT
733
27-Dec-2022
16:07
linh
pham

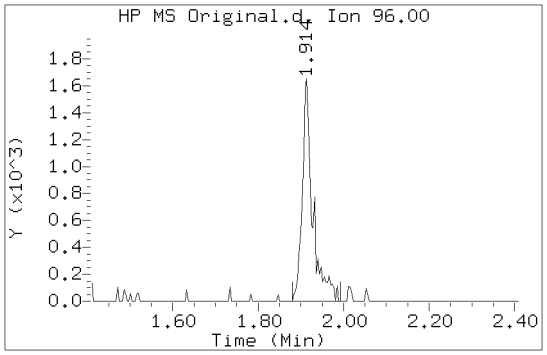



## 1,1-Dichloroethene (75-35-4)

Reason Code:

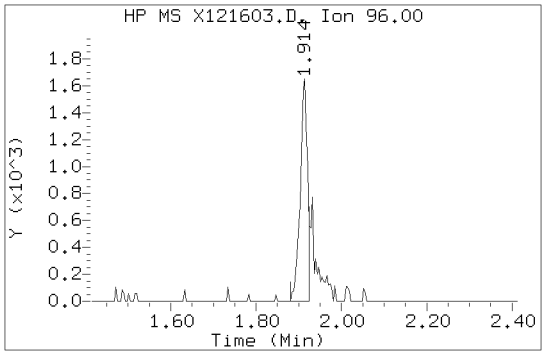
**BEFORE**

MASS
96
AREA
2836
HEIGHT
1651
27-Dec-2022
16:03
linh
pham



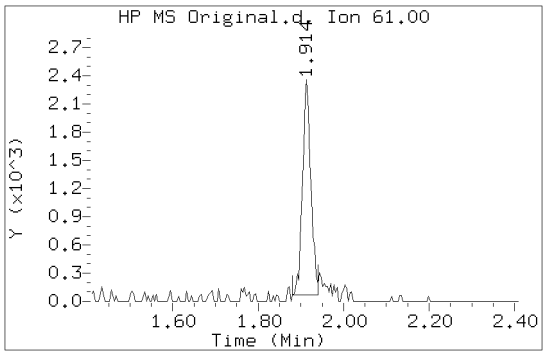

**AFTER**

MASS
96
AREA
2037
HEIGHT
1651
27-Dec-2022
16:07
linh
pham



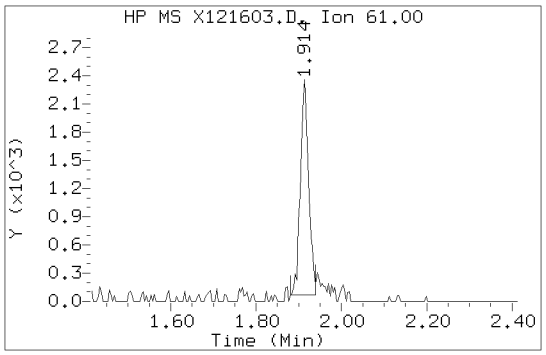

**BEFORE**

MASS
61
AREA
3197
HEIGHT
2293
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
61
AREA
3197
HEIGHT
2293
27-Dec-2022
16:07
linh
pham



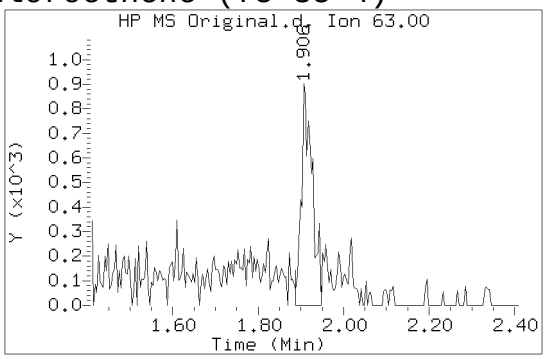
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1-Dichloroethene (75-35-4)

Reason Code:

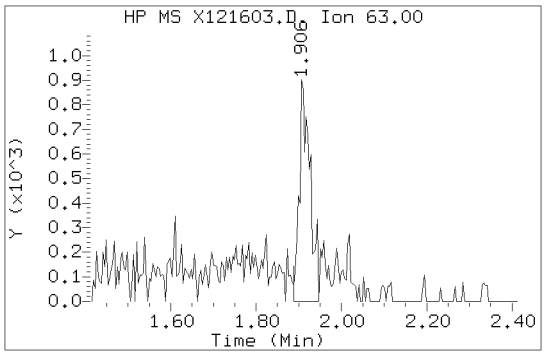
**BEFORE**

MASS
63
AREA
1607
HEIGHT
902
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
63
AREA
1607
HEIGHT
902
27-Dec-2022
16:07
linh
pham

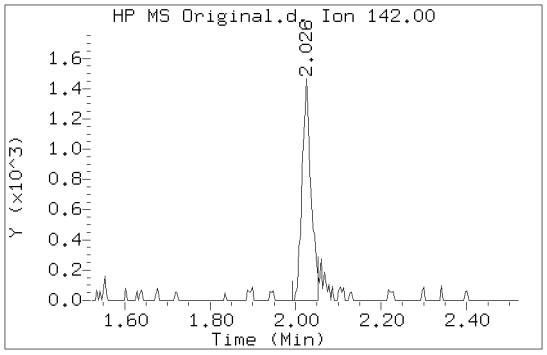



## Iodomethane (74-88-4)

Reason Code:

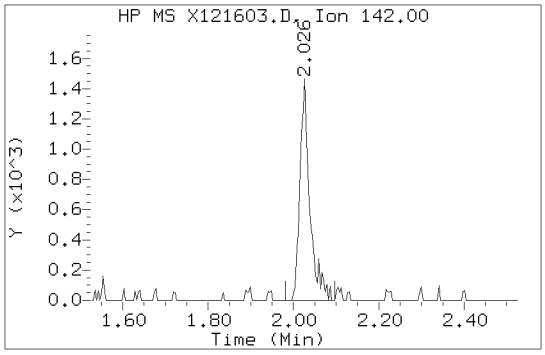
**BEFORE**

MASS
142
AREA
2166
HEIGHT
1466
27-Dec-2022
16:03
linh
pham



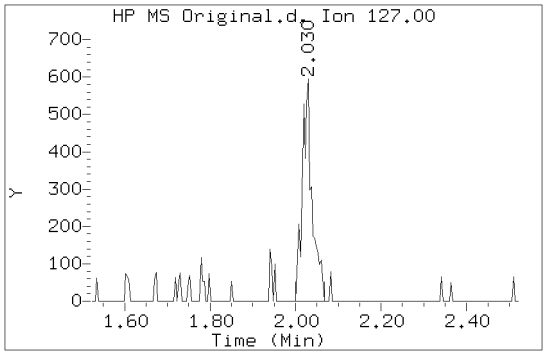

**AFTER**

MASS
142
AREA
2397
HEIGHT
1466
27-Dec-2022
16:07
linh
pham



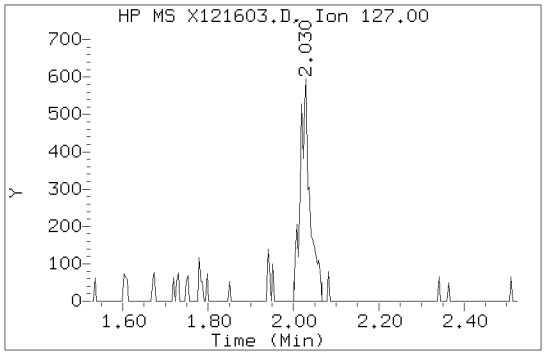

**BEFORE**

MASS
127
AREA
958
HEIGHT
595
27-Dec-2022
16:03
linh
pham



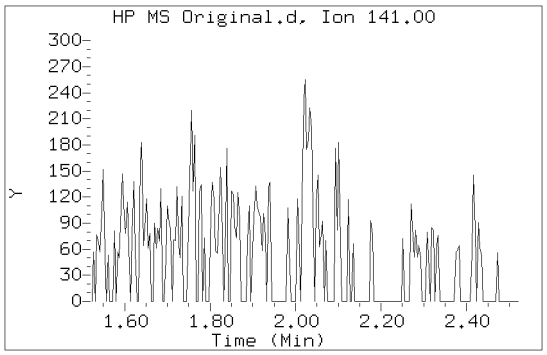

**AFTER**

MASS
127
AREA
958
HEIGHT
595
27-Dec-2022
16:07
linh
pham



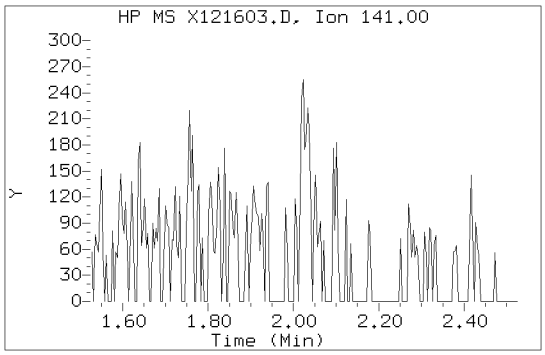

**BEFORE**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



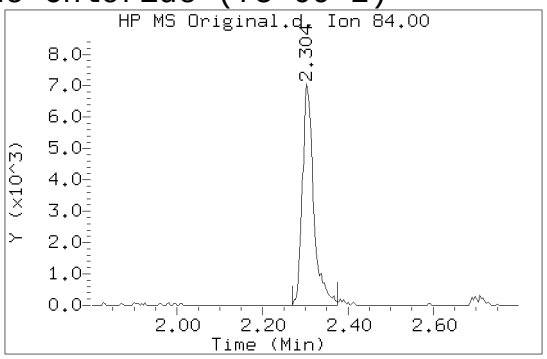
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methylene Chloride (75-09-2)

Reason Code:

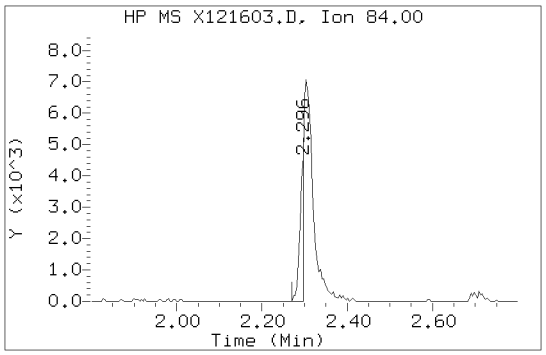
**BEFORE**

MASS
84
AREA
13307
HEIGHT
7067
27-Dec-2022
16:03
linh
pham



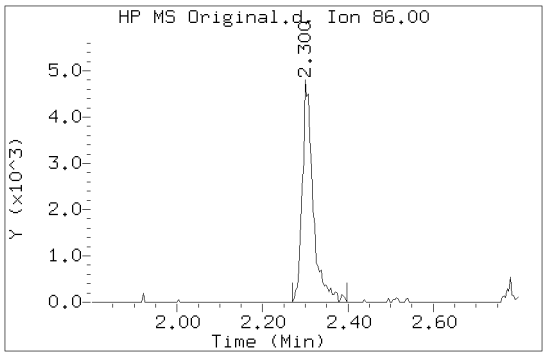

**AFTER**

MASS
84
AREA
2938
HEIGHT
4595
27-Dec-2022
16:07
linh
pham



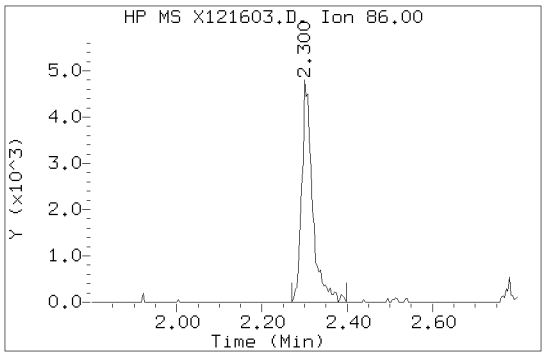

**BEFORE**

MASS
86
AREA
8692
HEIGHT
4802
27-Dec-2022
16:03
linh
pham



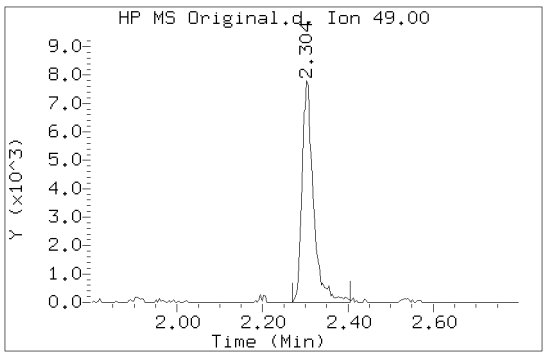

**AFTER**

MASS
86
AREA
8692
HEIGHT
4802
27-Dec-2022
16:07
linh
pham



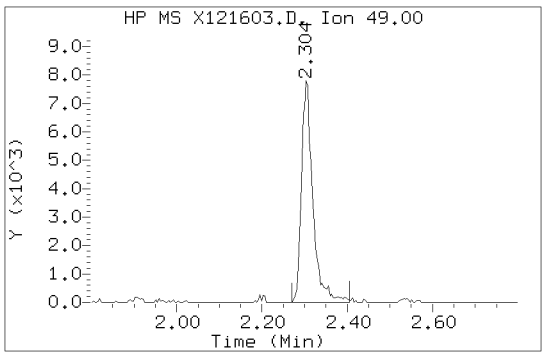

**BEFORE**

MASS
49
AREA
14733
HEIGHT
7803
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
49
AREA
14733
HEIGHT
7803
27-Dec-2022
16:07
linh
pham

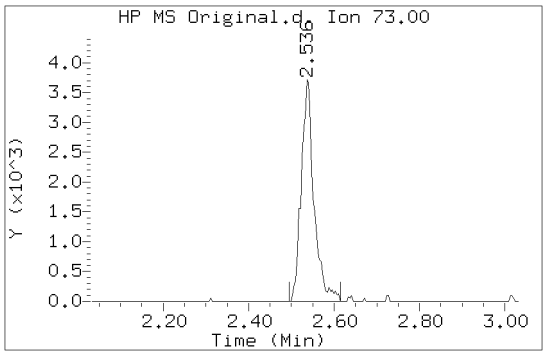



## Methyl tert-butyl ether (1634-04-4)

Reason Code:

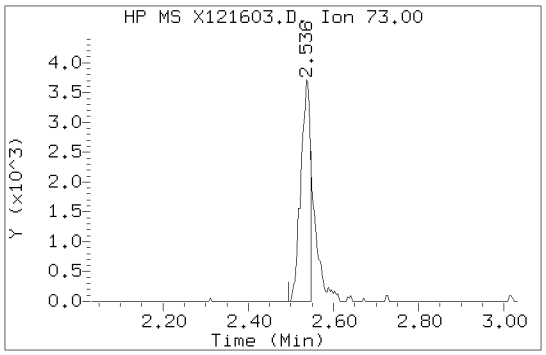
**BEFORE**

MASS
73
AREA
7826
HEIGHT
3716
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
73
AREA
5841
HEIGHT
3716
27-Dec-2022
16:07
linh
pham

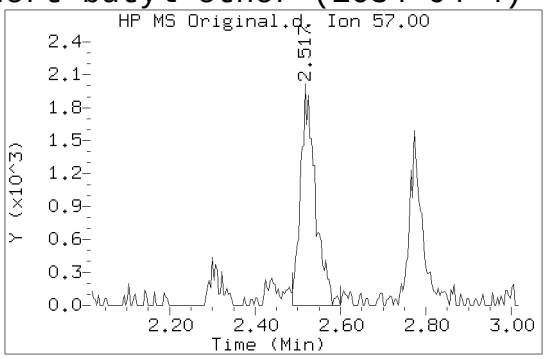


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methyl tert-butyl ether (1634-04-4)

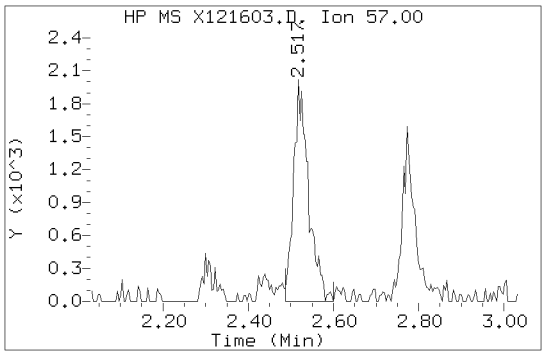
**BEFORE**

MASS
57
AREA
4915
HEIGHT
2019
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
57
AREA
4915
HEIGHT
2019
27-Dec-2022
16:07
linh
pham

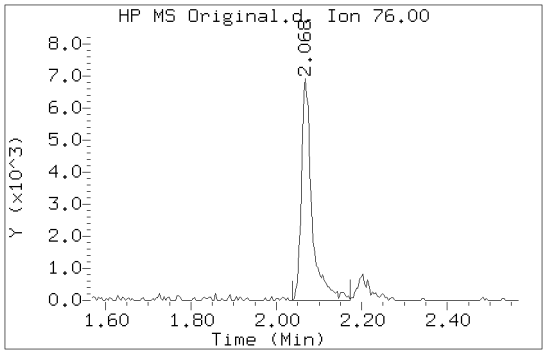



Reason Code:

## Carbon Disulfide (75-15-0)

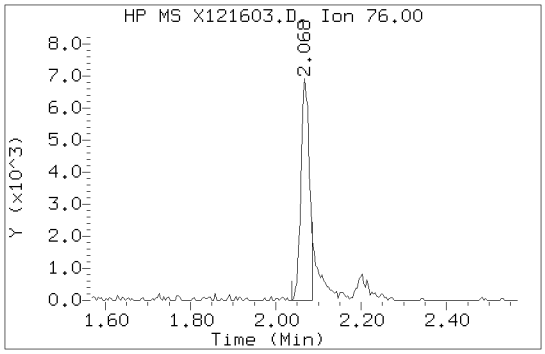
**BEFORE**

MASS
76
AREA
12313
HEIGHT
6923
27-Dec-2022
16:03
linh
pham




**AFTER**

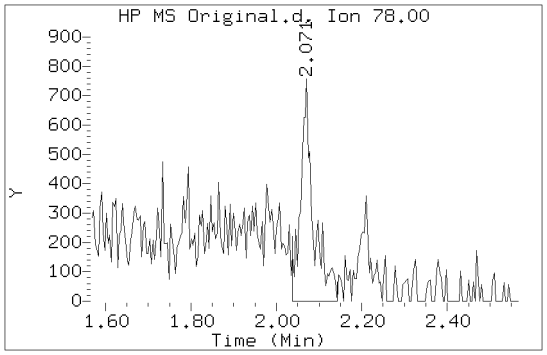
MASS
76
AREA
9921
HEIGHT
6923
27-Dec-2022
16:07
linh
pham




Reason Code:

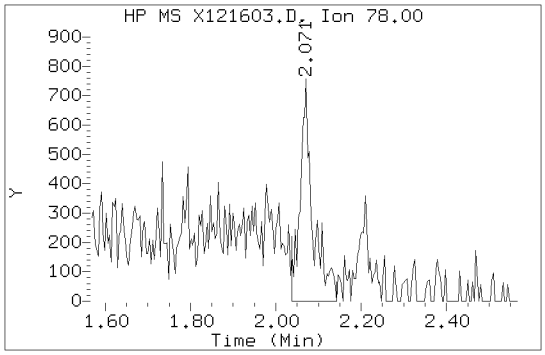
**BEFORE**

MASS
78
AREA
1586
HEIGHT
757
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
78
AREA
1586
HEIGHT
757
27-Dec-2022
16:07
linh
pham

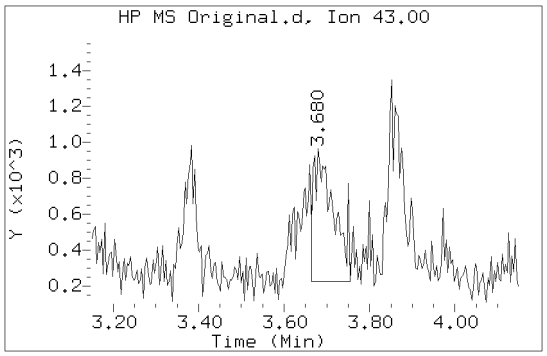



Reason Code:

## 2-Butanone (78-93-3)

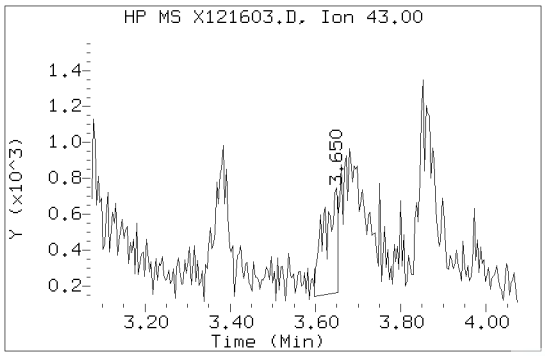
**BEFORE**

MASS
43
AREA
2415
HEIGHT
742
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
43
AREA
1292
HEIGHT
587
27-Dec-2022
16:07
linh
pham




Reason Code:

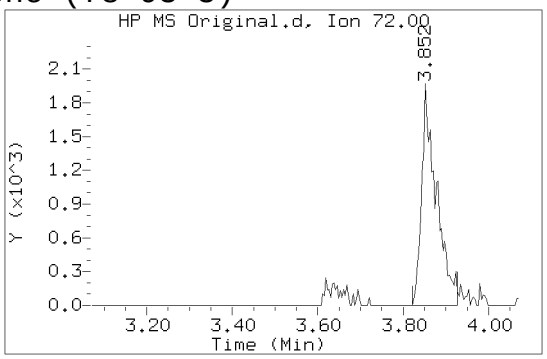
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 2-Butanone (78-93-3)

Reason Code:

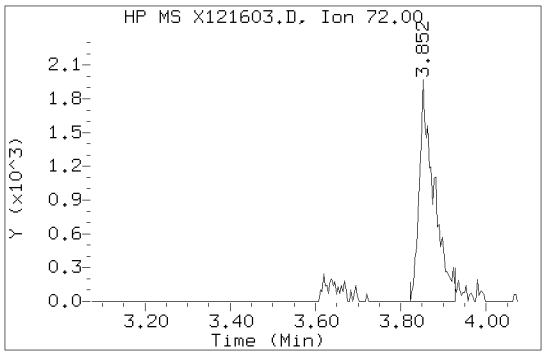
**BEFORE**

MASS
72
AREA
4698
HEIGHT
1970
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
72
AREA
4698
HEIGHT
1970
27-Dec-2022
16:07
linh
pham

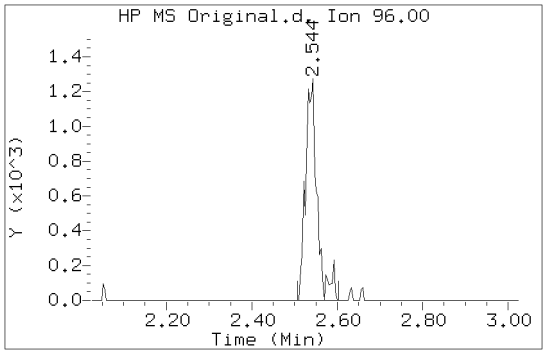



## trans-1,2-Dichloroethene (156-60-5)

Reason Code:

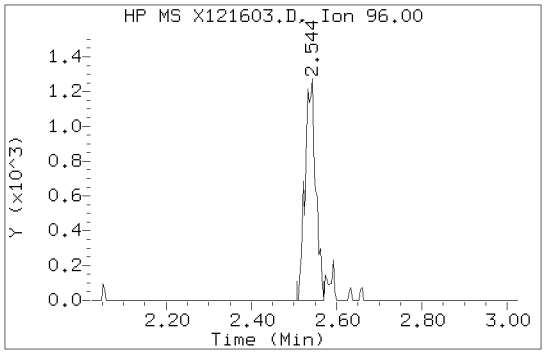
**BEFORE**

MASS
96
AREA
2404
HEIGHT
1274
27-Dec-2022
16:03
linh
pham



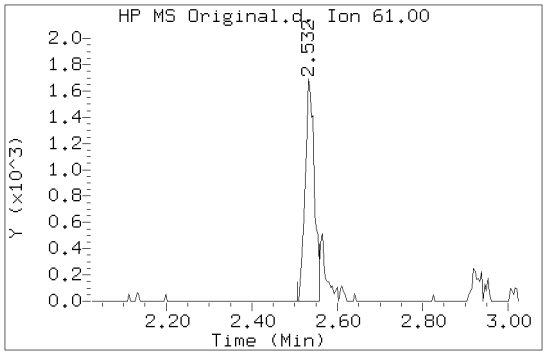

**AFTER**

MASS
96
AREA
2218
HEIGHT
1274
27-Dec-2022
16:07
linh
pham



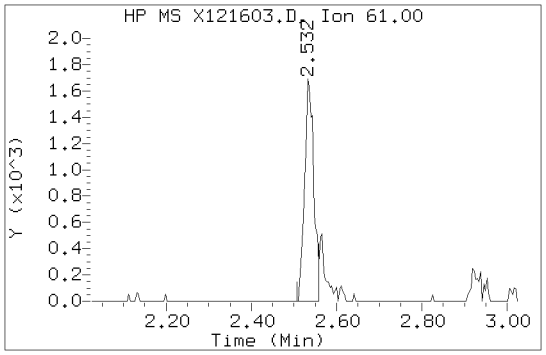

**BEFORE**

MASS
61
AREA
2571
HEIGHT
1692
27-Dec-2022
16:03
linh
pham



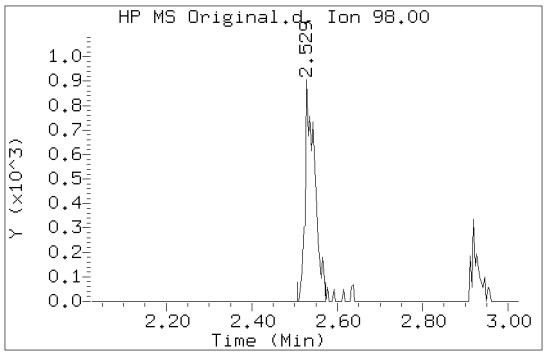

**AFTER**

MASS
61
AREA
2571
HEIGHT
1692
27-Dec-2022
16:07
linh
pham



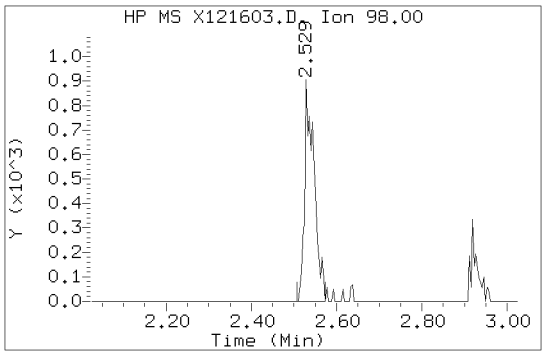

**BEFORE**

MASS
98
AREA
1412
HEIGHT
906
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
98
AREA
1412
HEIGHT
906
27-Dec-2022
16:07
linh
pham

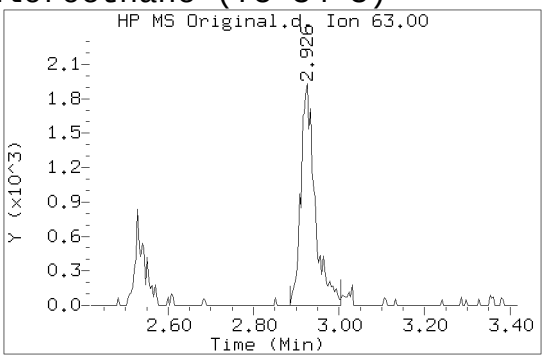


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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

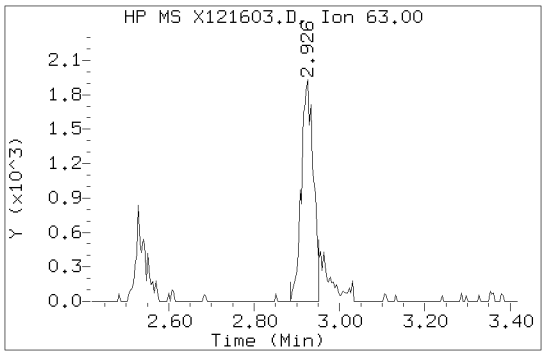
## 1,1-Dichloroethane (75-34-3)

Reason Code:

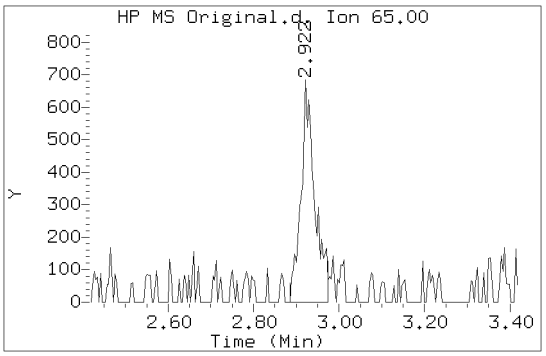
BEFORE
MASS
63
AREA
4504
HEIGHT
1931
27-Dec-2022
16:03
linh
pham



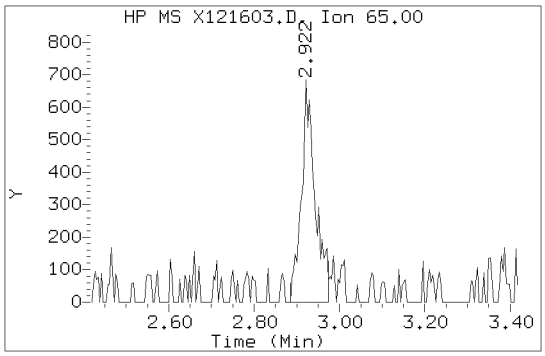

AFTER
MASS
63
AREA
3874
HEIGHT
1931
27-Dec-2022
16:07
linh
pham



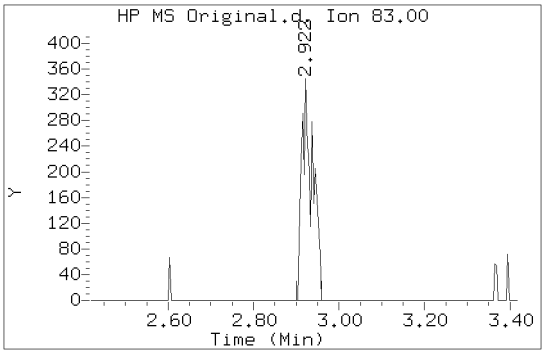

BEFORE
MASS
65
AREA
1548
HEIGHT
684
27-Dec-2022
16:03
linh
pham



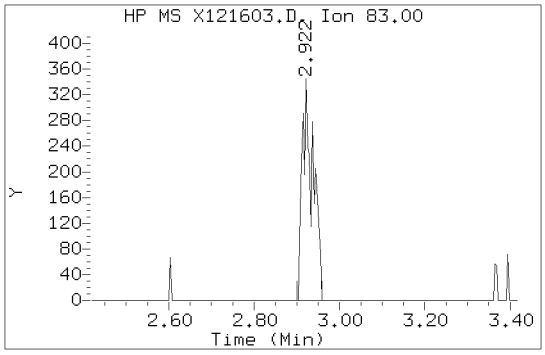

AFTER
MASS
65
AREA
1548
HEIGHT
684
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
83
AREA
618
HEIGHT
345
27-Dec-2022
16:03
linh
pham



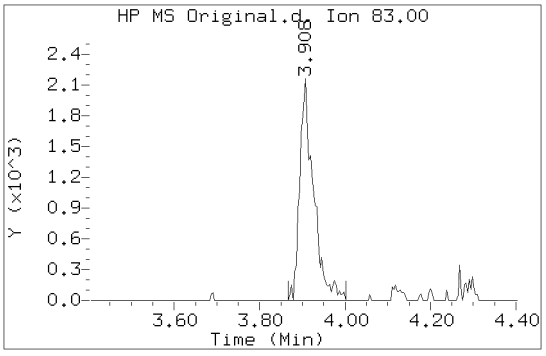

AFTER
MASS
83
AREA
618
HEIGHT
345
27-Dec-2022
16:07
linh
pham



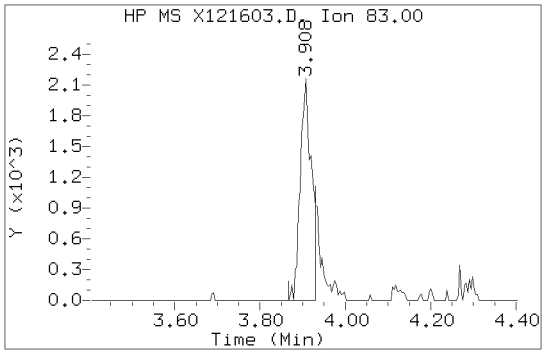

## Chloroform (67-66-3)

Reason Code:

BEFORE
MASS
83
AREA
4949
HEIGHT
2160
27-Dec-2022
16:03
linh
pham




AFTER
MASS
83
AREA
4040
HEIGHT
2160
27-Dec-2022
16:07
linh
pham



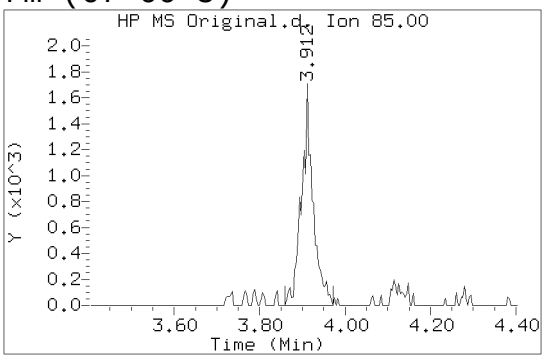
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Chloroform (67-66-3)

Reason Code:

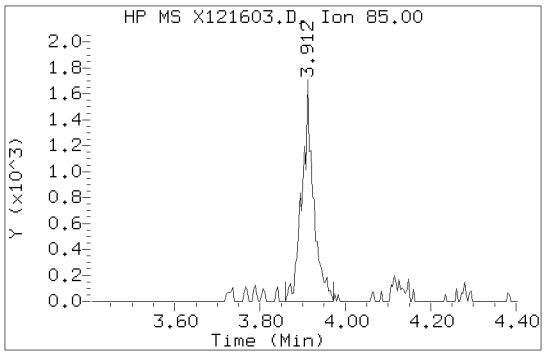
**BEFORE**

MASS
85
AREA
3222
HEIGHT
1709
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
3222
HEIGHT
1709
27-Dec-2022
16:07
linh
pham

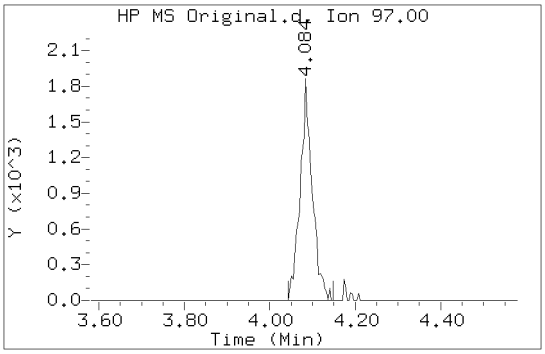



## 1,1,1-Trichloroethane (71-55-6)

Reason Code:

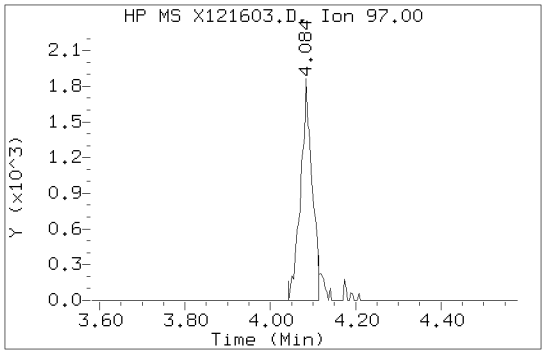
**BEFORE**

MASS
97
AREA
3710
HEIGHT
1863
27-Dec-2022
16:03
linh
pham



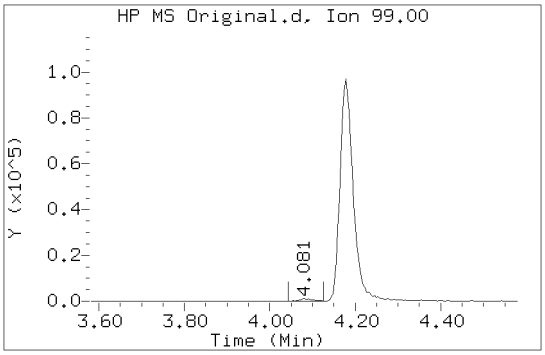

**AFTER**

MASS
97
AREA
3512
HEIGHT
1863
27-Dec-2022
16:07
linh
pham



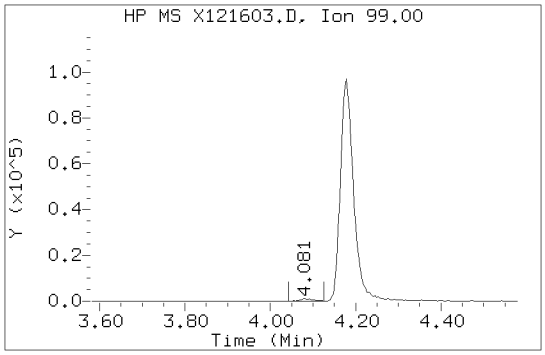

**BEFORE**

MASS
99
AREA
2299
HEIGHT
1029
27-Dec-2022
16:03
linh
pham



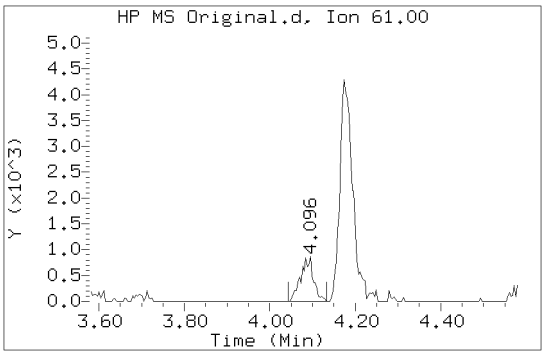

**AFTER**

MASS
99
AREA
2299
HEIGHT
1029
27-Dec-2022
16:07
linh
pham



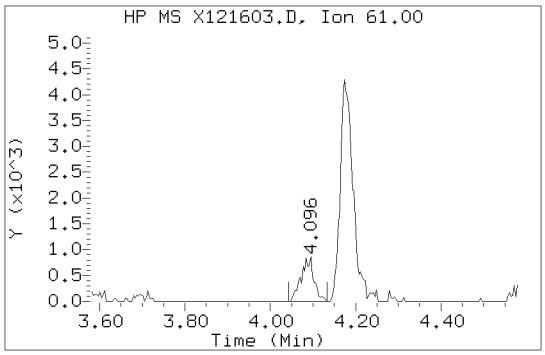

**BEFORE**

MASS
61
AREA
1801
HEIGHT
872
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
61
AREA
1801
HEIGHT
872
27-Dec-2022
16:07
linh
pham



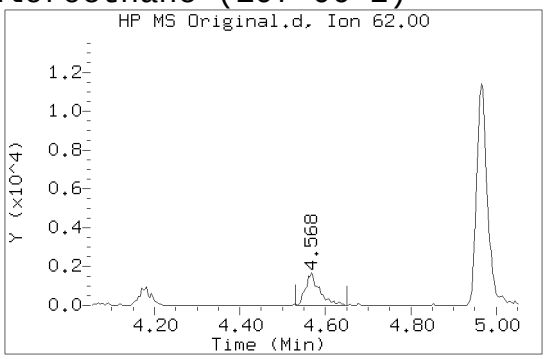
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,2-Dichloroethane (107-06-2)

Reason Code:

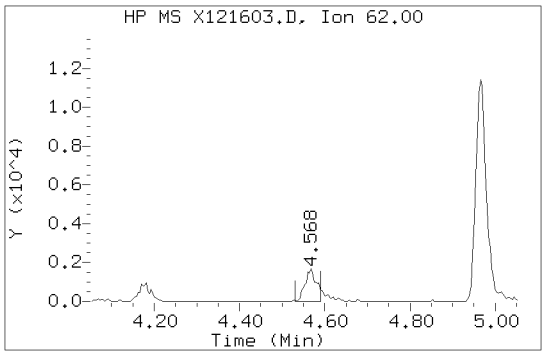
BEFORE

MASS
62
AREA
3822
HEIGHT
1678
27-Dec-2022
16:03
linh
pham



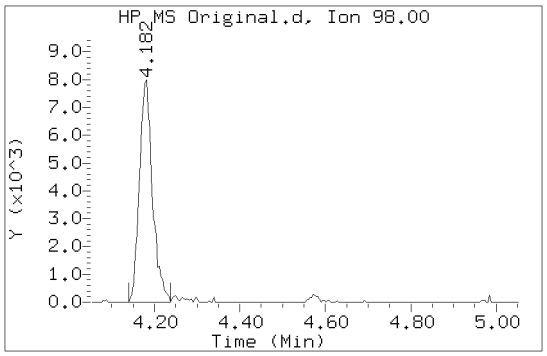

AFTER

MASS
62
AREA
3129
HEIGHT
1678
27-Dec-2022
16:07
linh
pham



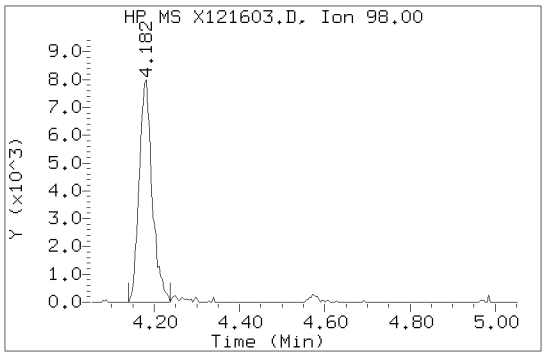

BEFORE

MASS
98
AREA
16918
HEIGHT
7987
27-Dec-2022
16:03
linh
pham




AFTER

MASS
98
AREA
16918
HEIGHT
7987
27-Dec-2022
16:07
linh
pham

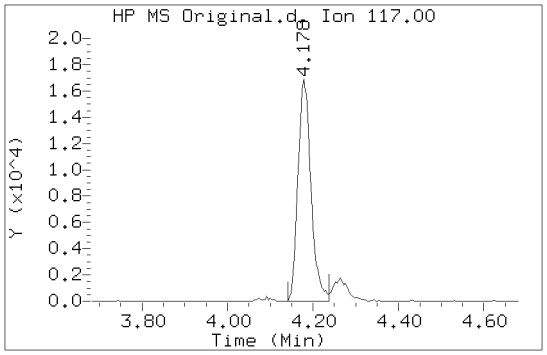



## Carbon Tetrachloride (56-23-5)

Reason Code:

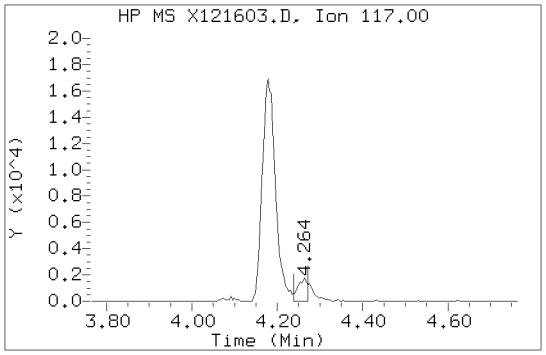
BEFORE

MASS
117
AREA
36559
HEIGHT
16920
27-Dec-2022
16:03
linh
pham



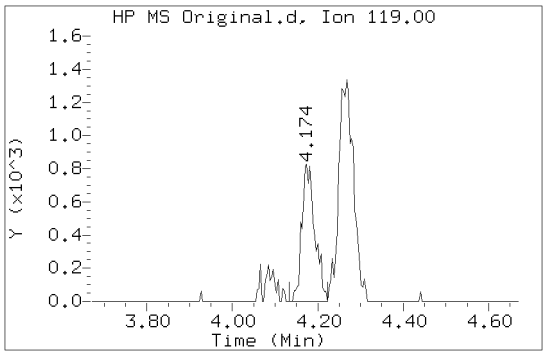

AFTER

MASS
117
AREA
2763
HEIGHT
1744
27-Dec-2022
16:07
linh
pham



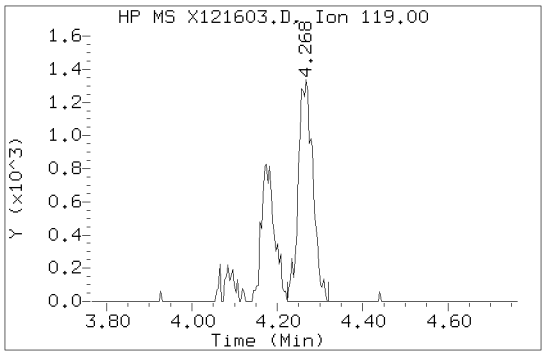

BEFORE

MASS
119
AREA
1780
HEIGHT
826
27-Dec-2022
16:03
linh
pham




AFTER

MASS
119
AREA
3227
HEIGHT
1337
27-Dec-2022
16:07
linh
pham

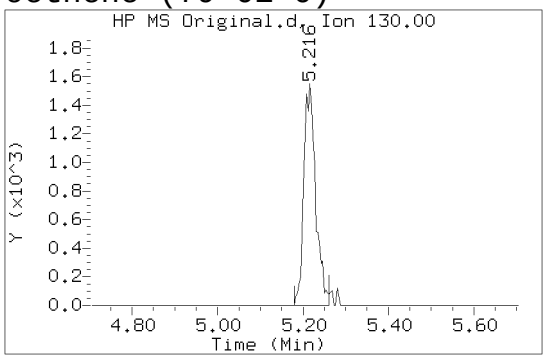


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

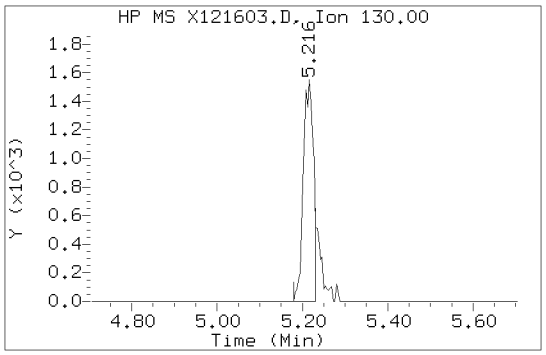
## Trichloroethene (79-01-6)

Reason Code:

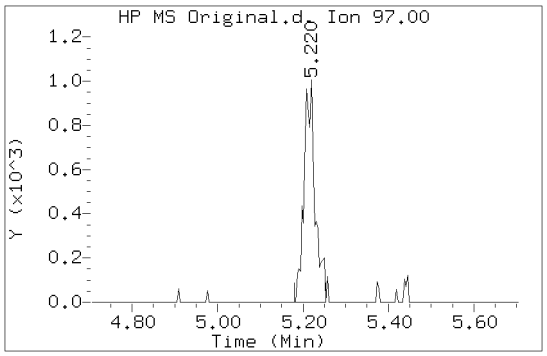
BEFORE
MASS
130
AREA
3011
HEIGHT
1551
27-Dec-2022
16:03
linh
pham



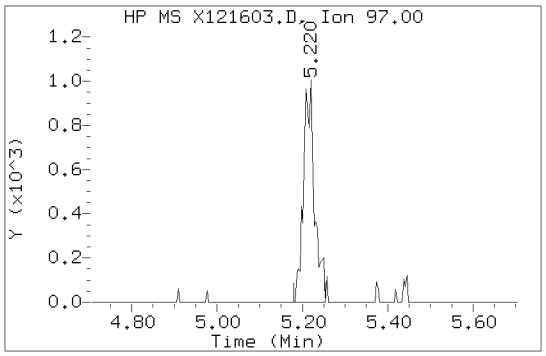

AFTER
MASS
130
AREA
2583
HEIGHT
1551
27-Dec-2022
16:07
linh
pham



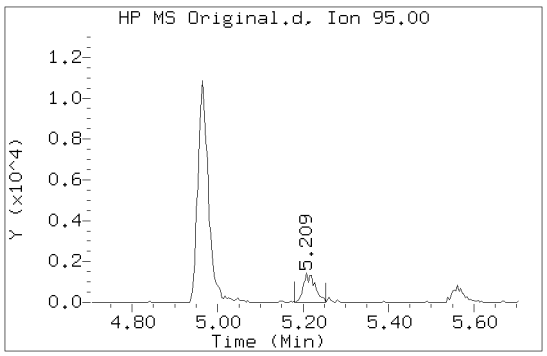

BEFORE
MASS
97
AREA
1808
HEIGHT
1006
27-Dec-2022
16:03
linh
pham



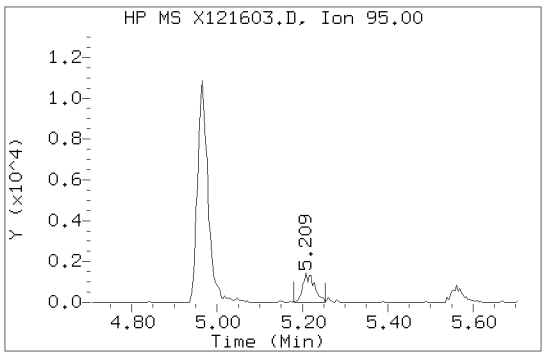

AFTER
MASS
97
AREA
1808
HEIGHT
1006
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
95
AREA
2693
HEIGHT
1431
27-Dec-2022
16:03
linh
pham



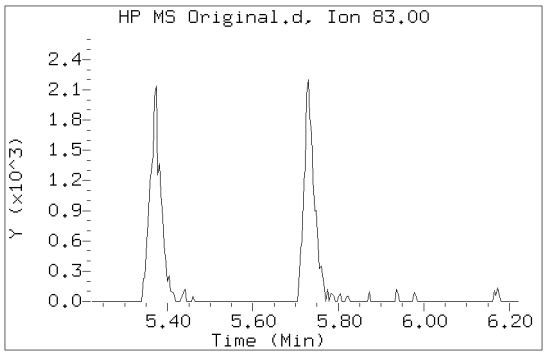

AFTER
MASS
95
AREA
2693
HEIGHT
1431
27-Dec-2022
16:07
linh
pham



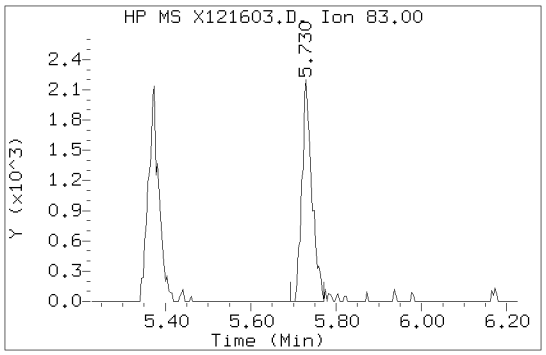

## Bromodichloromethane (75-27-4)

Reason Code:

BEFORE
MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
83
AREA
3650
HEIGHT
2201
27-Dec-2022
16:07
linh
pham



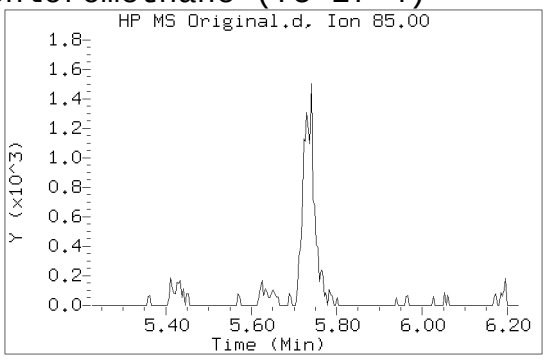
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Bromodichloromethane (75-27-4)

Reason Code:

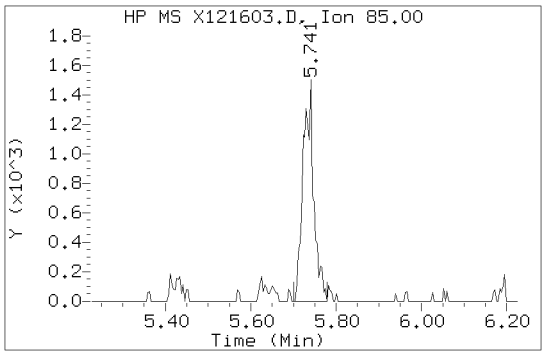
BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



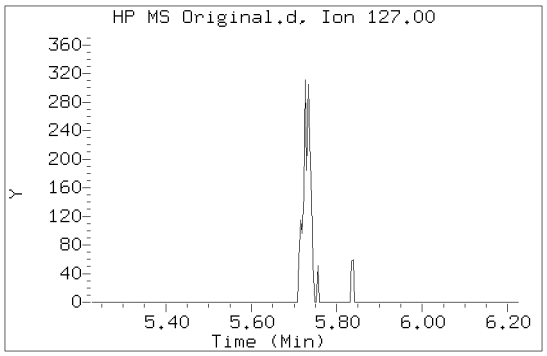

AFTER

MASS
85
AREA
2639
HEIGHT
1503
27-Dec-2022
16:07
linh
pham



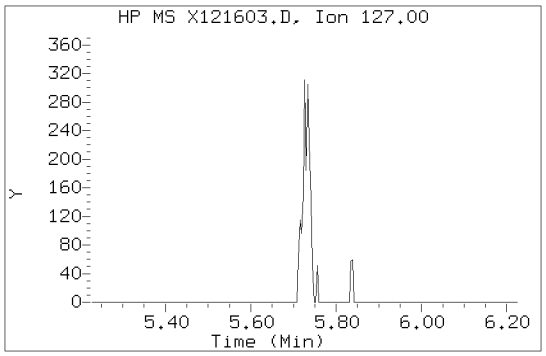

BEFORE

MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

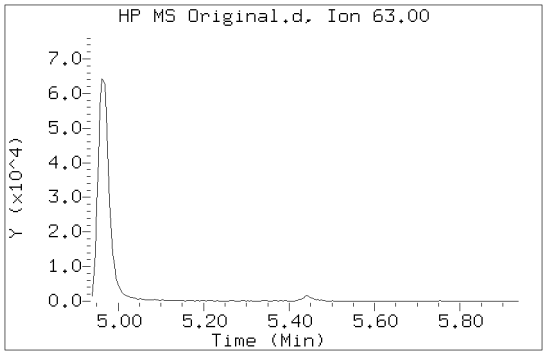



## 1,2-Dichloropropane (78-87-5)

Reason Code:

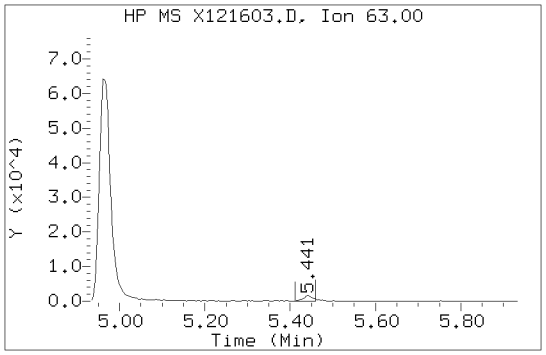
BEFORE

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



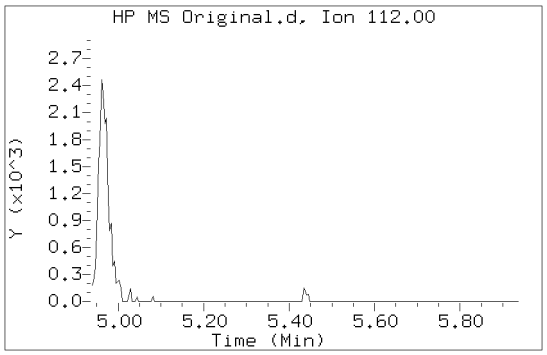

AFTER

MASS
63
AREA
2449
HEIGHT
1587
27-Dec-2022
16:07
linh
pham



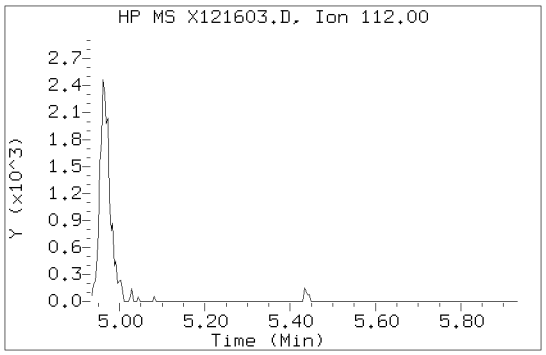

BEFORE

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



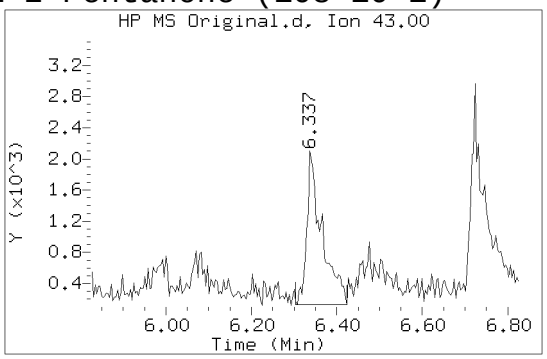
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 4-Methyl-2-Pentanone (108-10-1)

Reason Code:

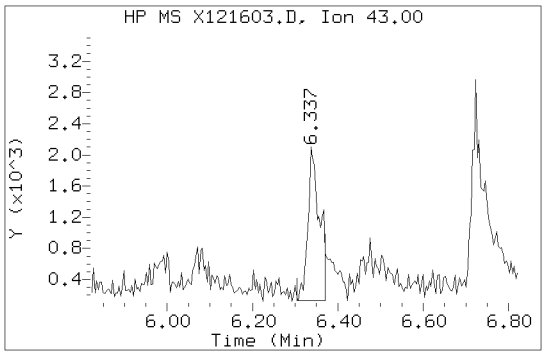
**BEFORE**

MASS
43
AREA
4873
HEIGHT
1970
27-Dec-2022
16:03
linh
pham



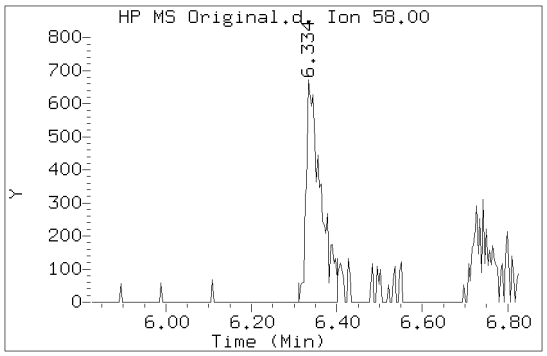

**AFTER**

MASS
43
AREA
3741
HEIGHT
1970
27-Dec-2022
16:07
linh
pham



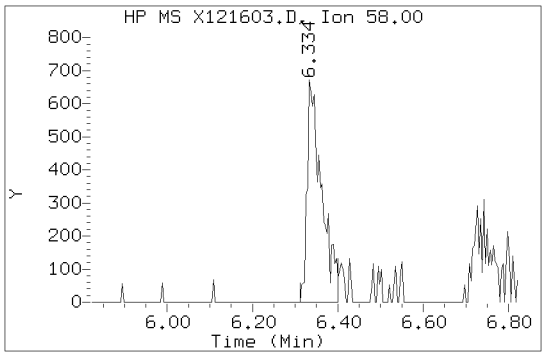

**BEFORE**

MASS
58
AREA
1585
HEIGHT
672
27-Dec-2022
16:03
linh
pham



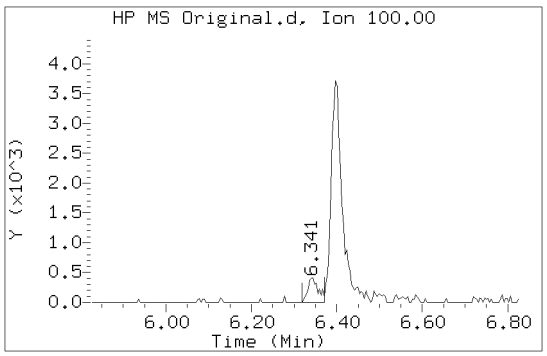

**AFTER**

MASS
58
AREA
1585
HEIGHT
672
27-Dec-2022
16:07
linh
pham



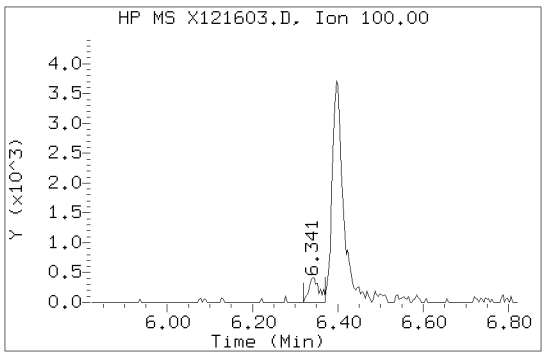

**BEFORE**

MASS
100
AREA
714
HEIGHT
412
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
100
AREA
714
HEIGHT
412
27-Dec-2022
16:07
linh
pham

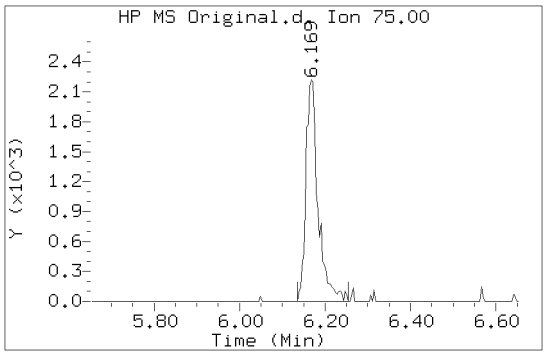



## cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

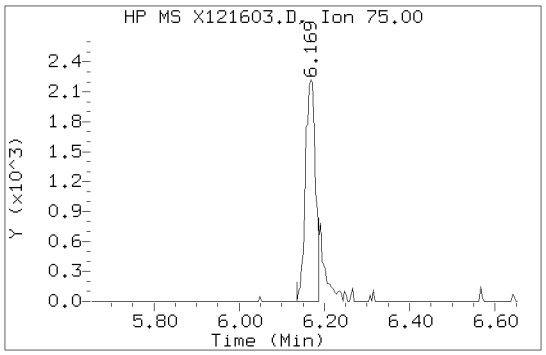
**BEFORE**

MASS
75
AREA
4432
HEIGHT
2222
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
3695
HEIGHT
2222
27-Dec-2022
16:07
linh
pham



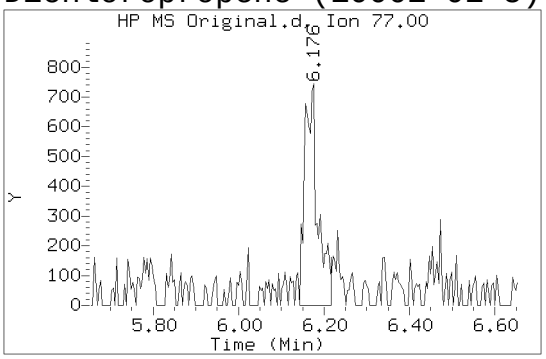
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

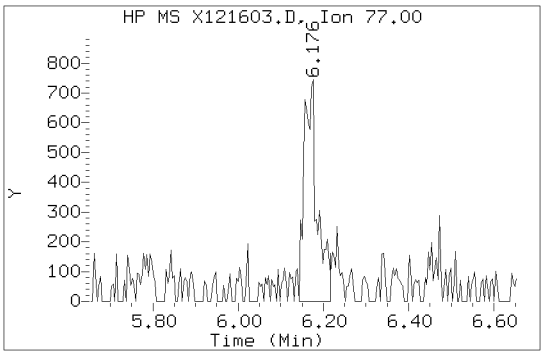
BEFORE

MASS
77
AREA
1607
HEIGHT
745
27-Dec-2022
16:03
linh
pham



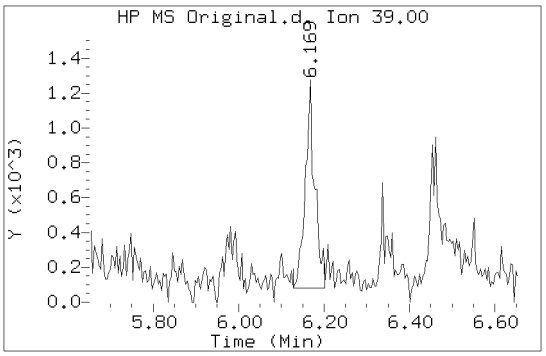

AFTER

MASS
77
AREA
1607
HEIGHT
745
27-Dec-2022
16:07
linh
pham



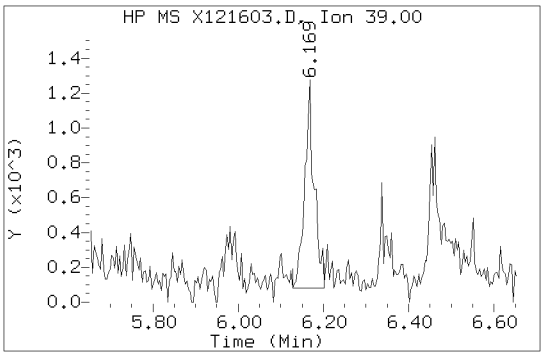

BEFORE

MASS
39
AREA
1836
HEIGHT
1193
27-Dec-2022
16:03
linh
pham




AFTER

MASS
39
AREA
1836
HEIGHT
1193
27-Dec-2022
16:07
linh
pham

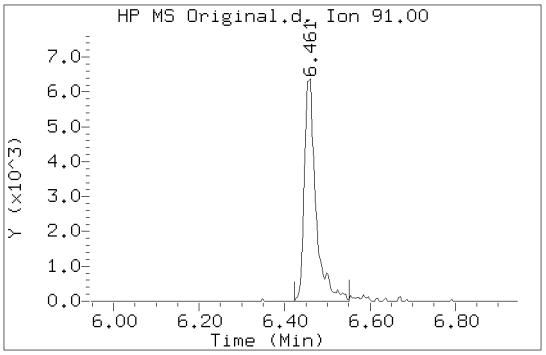



## Toluene (108-88-3)

Reason Code:

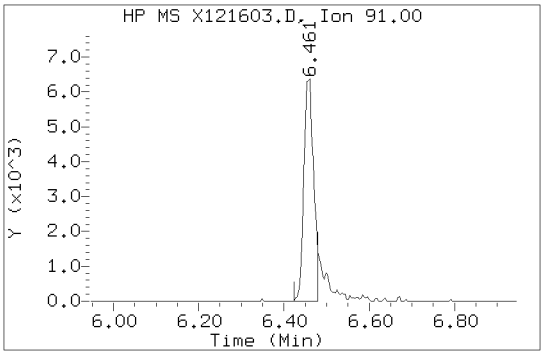
BEFORE

MASS
91
AREA
12225
HEIGHT
6374
27-Dec-2022
16:03
linh
pham



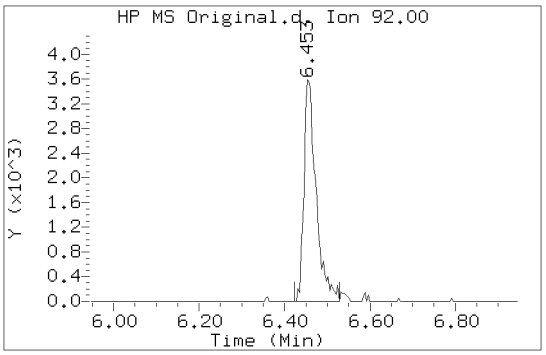

AFTER

MASS
91
AREA
10374
HEIGHT
6374
27-Dec-2022
16:07
linh
pham



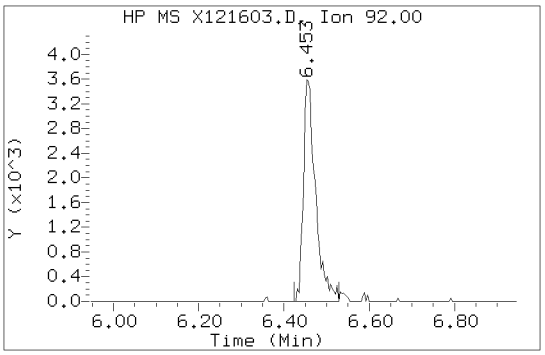

BEFORE

MASS
92
AREA
7180
HEIGHT
3591
27-Dec-2022
16:03
linh
pham




AFTER

MASS
92
AREA
7180
HEIGHT
3591
27-Dec-2022
16:07
linh
pham



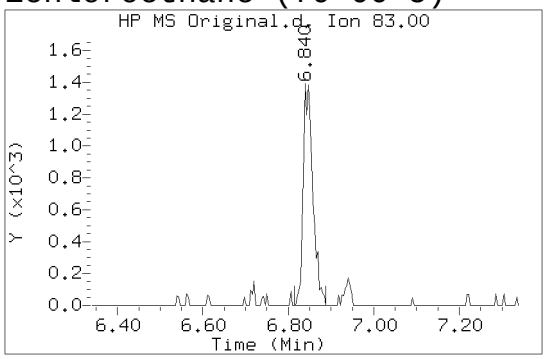
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1,2-Trichloroethane (79-00-5)

Reason Code:

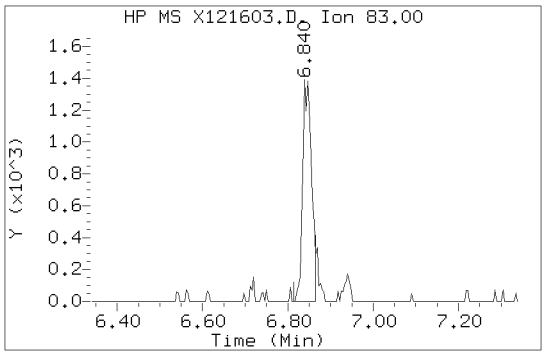
**BEFORE**

MASS
83
AREA
2247
HEIGHT
1391
27-Dec-2022
16:03
linh
pham



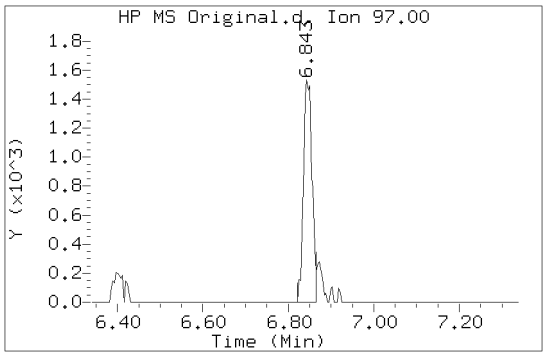

**AFTER**

MASS
83
AREA
2092
HEIGHT
1391
27-Dec-2022
16:07
linh
pham



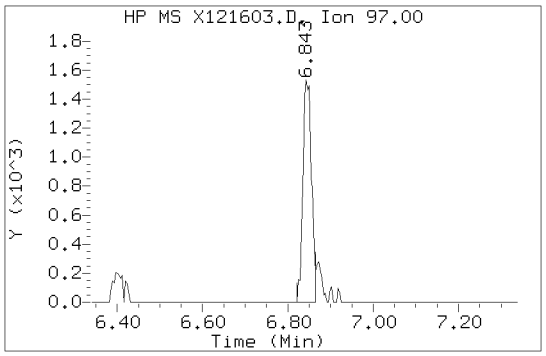

**BEFORE**

MASS
97
AREA
2224
HEIGHT
1532
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
97
AREA
2224
HEIGHT
1532
27-Dec-2022
16:07
linh
pham

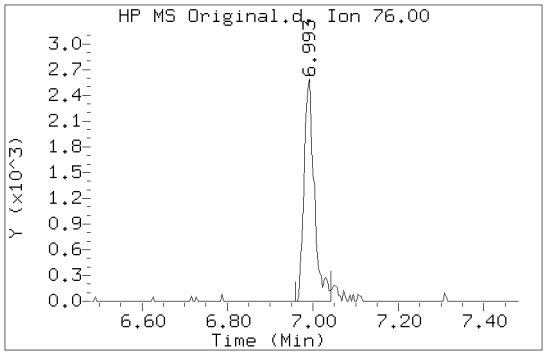



## 1,3-Dichloropropane (142-28-9)

Reason Code:

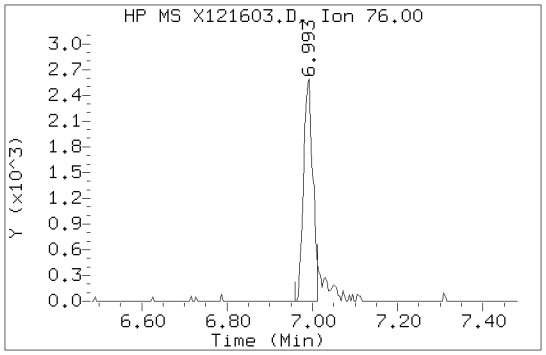
**BEFORE**

MASS
76
AREA
4415
HEIGHT
2592
27-Dec-2022
16:03
linh
pham



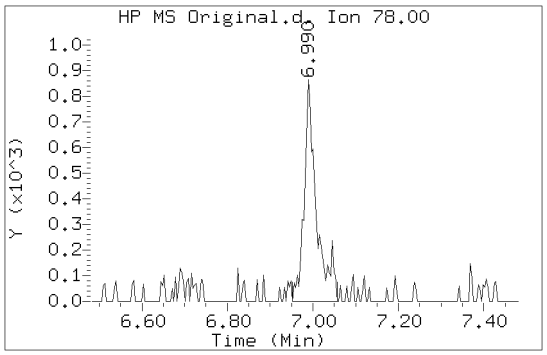

**AFTER**

MASS
76
AREA
4005
HEIGHT
2592
27-Dec-2022
16:07
linh
pham



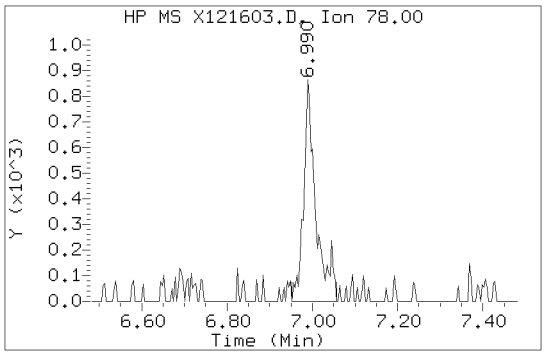

**BEFORE**

MASS
78
AREA
1727
HEIGHT
864
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
78
AREA
1727
HEIGHT
864
27-Dec-2022
16:07
linh
pham



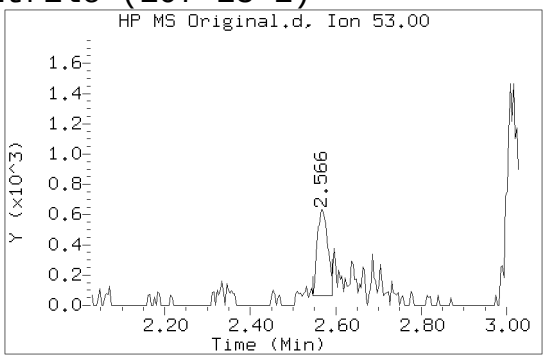
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Acrylonitrile (107-13-1)

Reason Code:

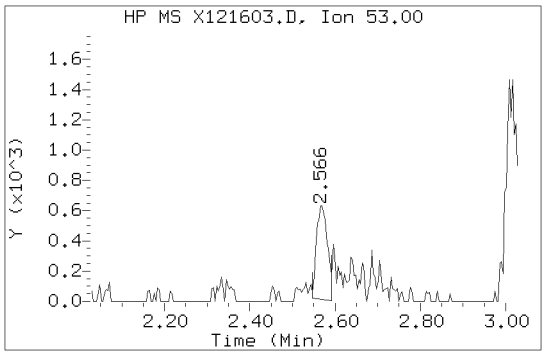
**BEFORE**

MASS
53
AREA
975
HEIGHT
571
27-Dec-2022
16:03
linh
pham



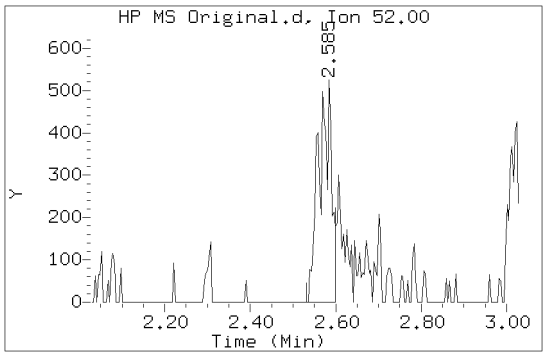

**AFTER**

MASS
53
AREA
1118
HEIGHT
618
27-Dec-2022
16:07
linh
pham



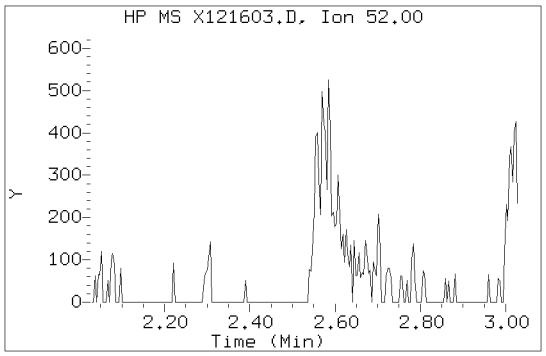

**BEFORE**

MASS
52
AREA
1100
HEIGHT
525
27-Dec-2022
16:03
linh
pham



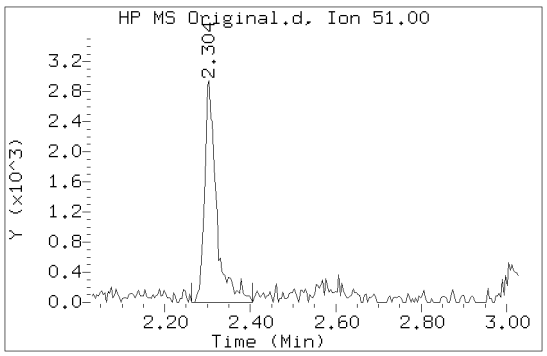

**AFTER**

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



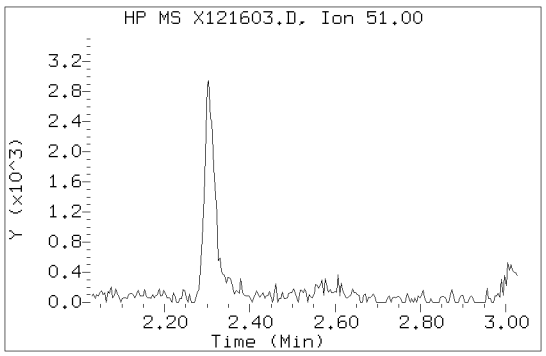

**BEFORE**

MASS
51
AREA
5708
HEIGHT
2946
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
51
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

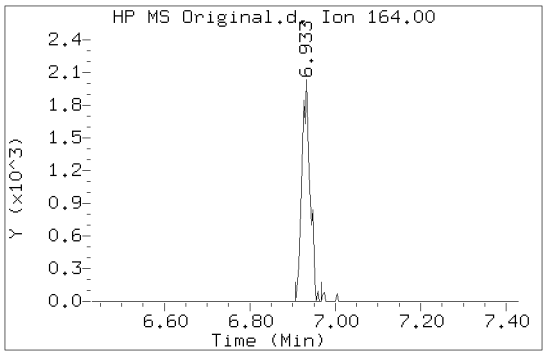



## Tetrachloroethene (127-18-4)

Reason Code:

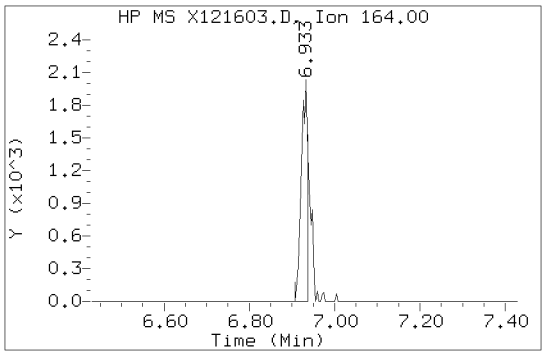
**BEFORE**

MASS
164
AREA
2777
HEIGHT
2036
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
164
AREA
2131
HEIGHT
2036
27-Dec-2022
16:07
linh
pham



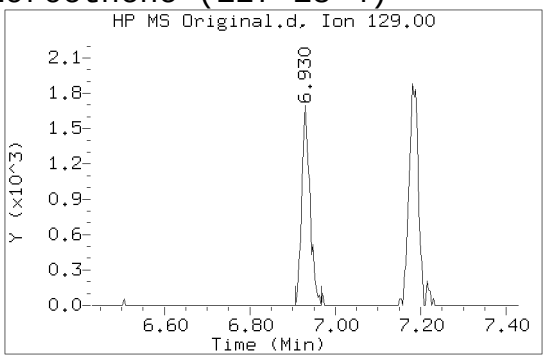
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Tetrachloroethene (127-18-4)

Reason Code:

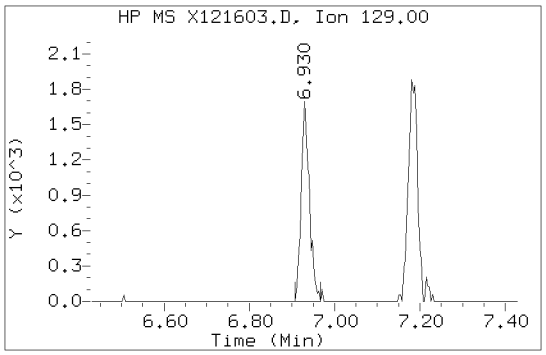
**BEFORE**

MASS
129
AREA
2342
HEIGHT
1697
27-Dec-2022
16:03
linh
pham



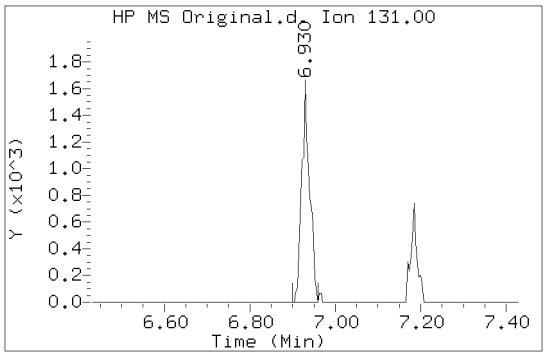

**AFTER**

MASS
129
AREA
2342
HEIGHT
1697
27-Dec-2022
16:07
linh
pham



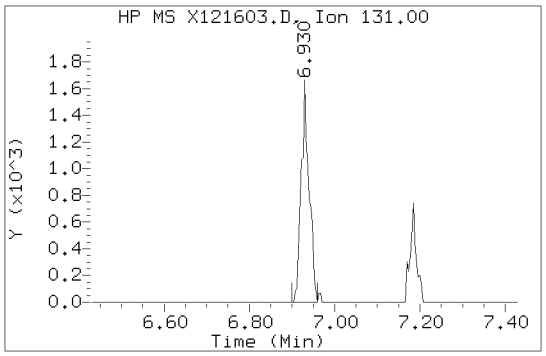

**BEFORE**

MASS
131
AREA
2193
HEIGHT
1665
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
131
AREA
2193
HEIGHT
1665
27-Dec-2022
16:07
linh
pham

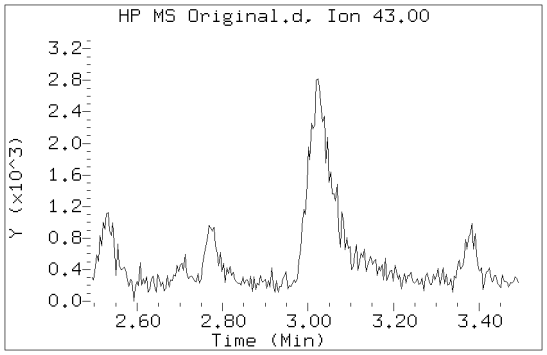



## Vinyl Acetate (108-05-4)

Reason Code:

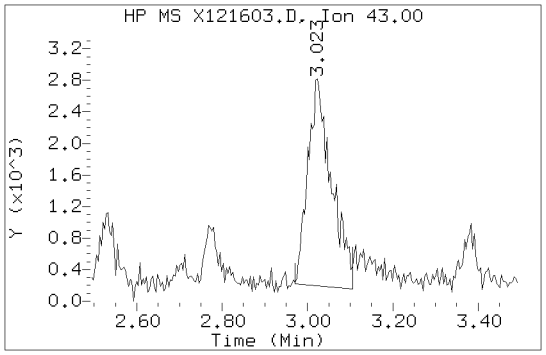
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



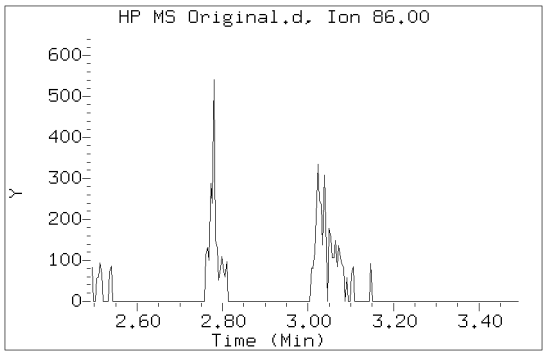

**AFTER**

MASS
43
AREA
10138
HEIGHT
2622
27-Dec-2022
16:07
linh
pham



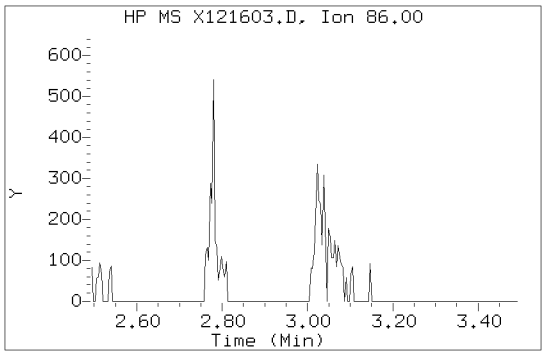

**BEFORE**

MASS
86
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
86
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



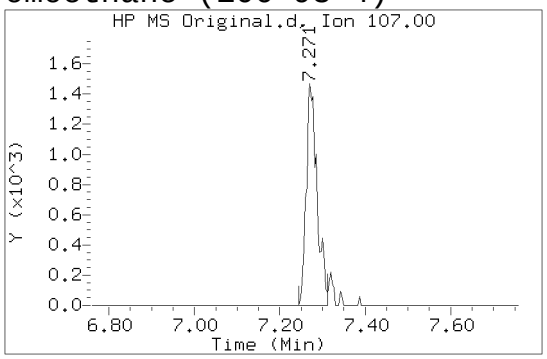
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,2-Dibromoethane (106-93-4)

Reason Code:

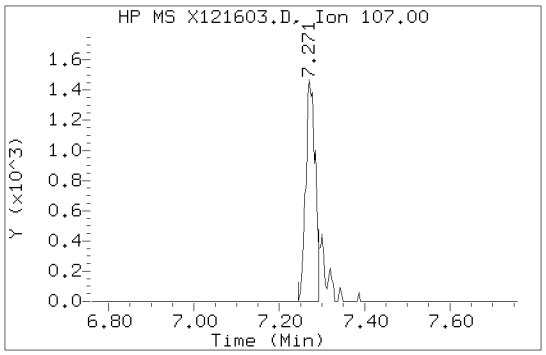
BEFORE

MASS
107
AREA
2627
HEIGHT
1469
27-Dec-2022
16:03
linh
pham



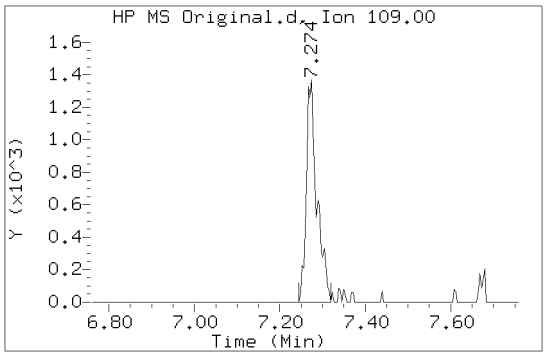

AFTER

MASS
107
AREA
2340
HEIGHT
1469
27-Dec-2022
16:07
linh
pham



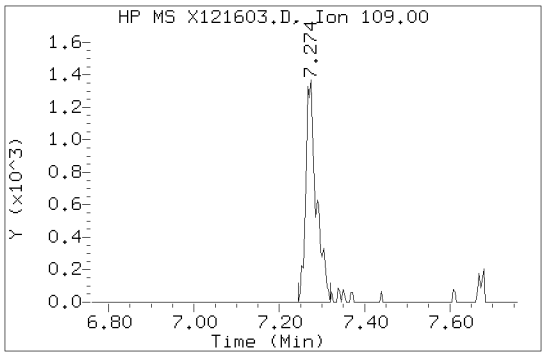

BEFORE

MASS
109
AREA
2396
HEIGHT
1369
27-Dec-2022
16:03
linh
pham




AFTER

MASS
109
AREA
2396
HEIGHT
1369
27-Dec-2022
16:07
linh
pham

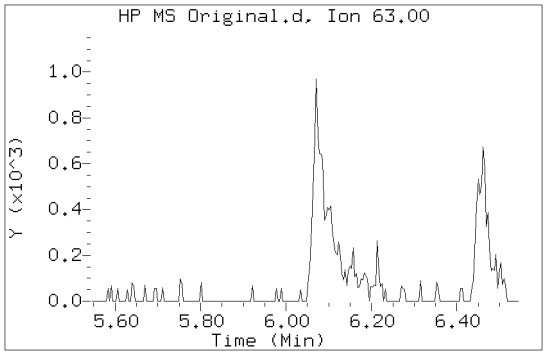



## 2-Chloroethylvinyl ether (110-75-8)

Reason Code:

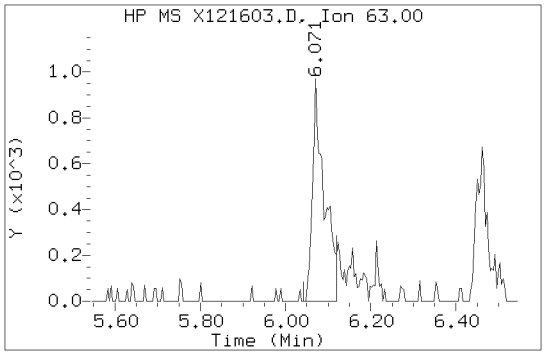
BEFORE

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



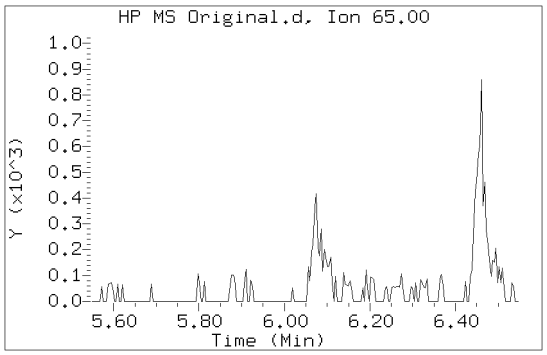

AFTER

MASS
63
AREA
1861
HEIGHT
970
27-Dec-2022
16:07
linh
pham



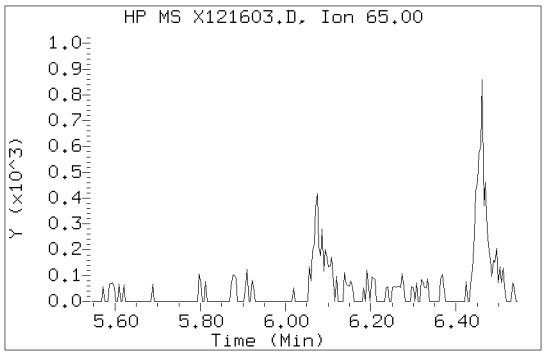

BEFORE

MASS
65
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
65
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



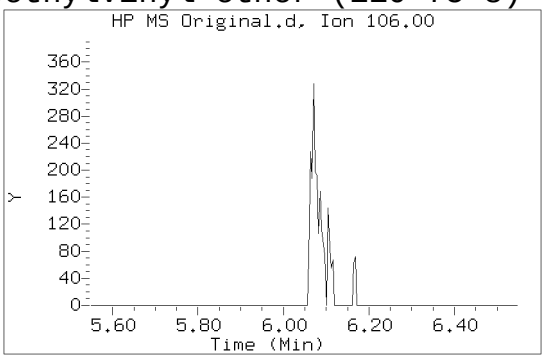
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 2-Chloroethylvinyl ether (110-75-8)

Reason Code:

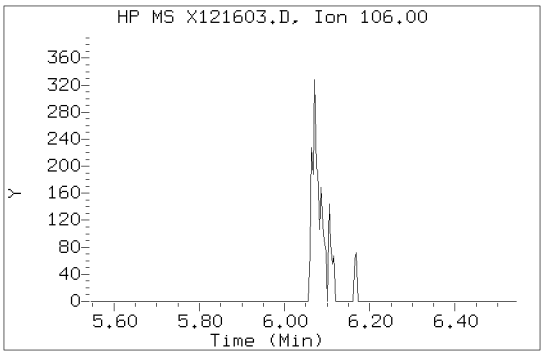
**BEFORE**

MASS
106
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
106
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

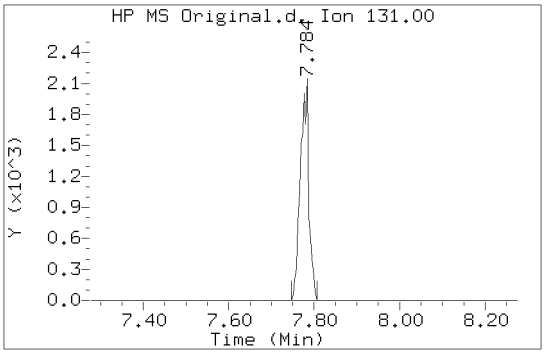



## 1,1,1,2-Tetrachloroethane (630-20-6)

Reason Code:

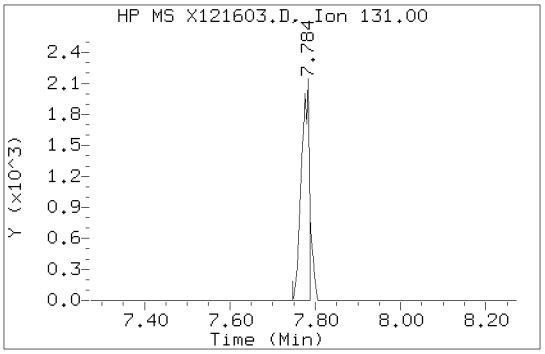
**BEFORE**

MASS
131
AREA
3036
HEIGHT
2146
27-Dec-2022
16:03
linh
pham



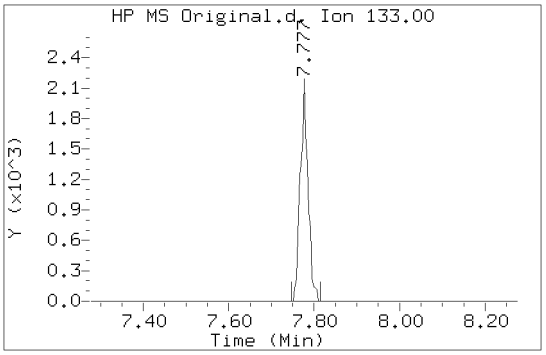

**AFTER**

MASS
131
AREA
2741
HEIGHT
2146
27-Dec-2022
16:07
linh
pham



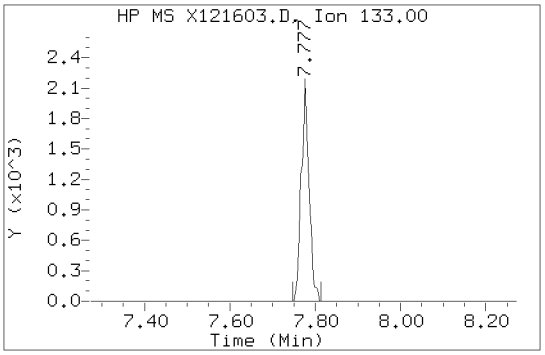

**BEFORE**

MASS
133
AREA
2829
HEIGHT
2191
27-Dec-2022
16:03
linh
pham



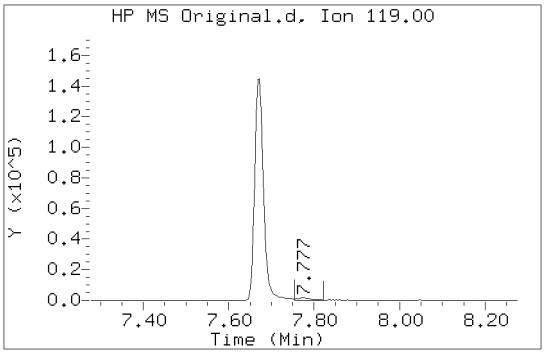

**AFTER**

MASS
133
AREA
2829
HEIGHT
2191
27-Dec-2022
16:07
linh
pham



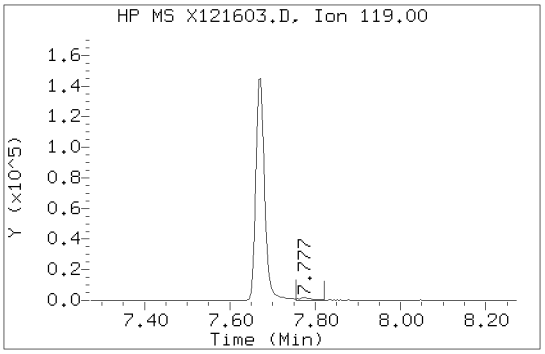

**BEFORE**

MASS
119
AREA
2971
HEIGHT
1971
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
119
AREA
2971
HEIGHT
1971
27-Dec-2022
16:07
linh
pham



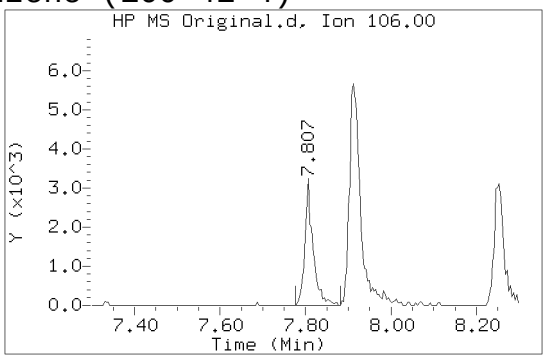
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Ethylbenzene (100-41-4)

Reason Code:

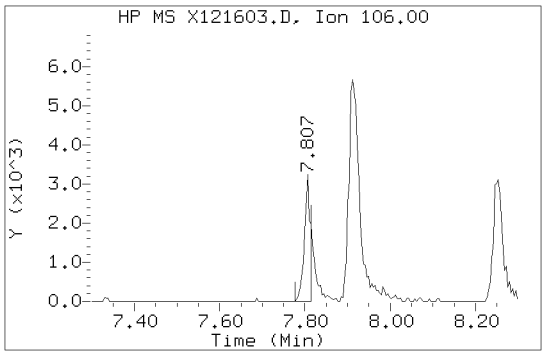
BEFORE

MASS
106
AREA
4331
HEIGHT
3242
27-Dec-2022
16:03
linh
pham



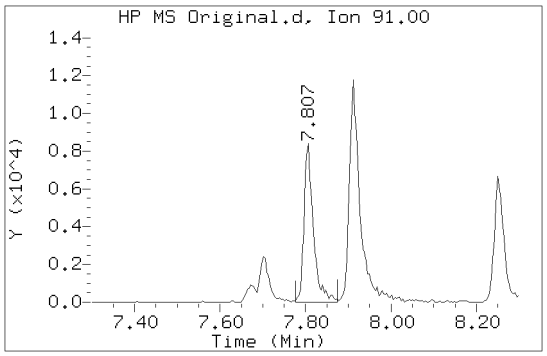

AFTER

MASS
106
AREA
3064
HEIGHT
3242
27-Dec-2022
16:07
linh
pham



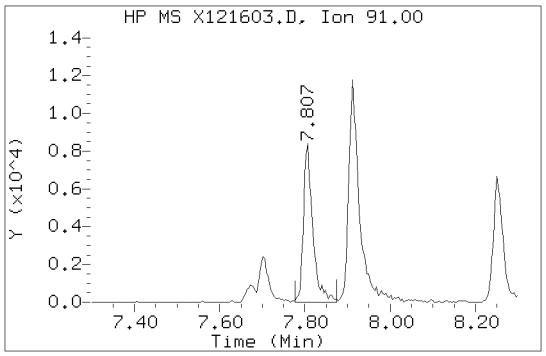

BEFORE

MASS
91
AREA
13136
HEIGHT
8410
27-Dec-2022
16:03
linh
pham




AFTER

MASS
91
AREA
13136
HEIGHT
8410
27-Dec-2022
16:07
linh
pham

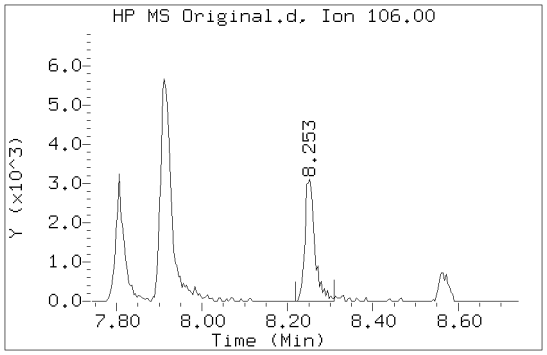



## o-Xylene (95-47-6)

Reason Code:

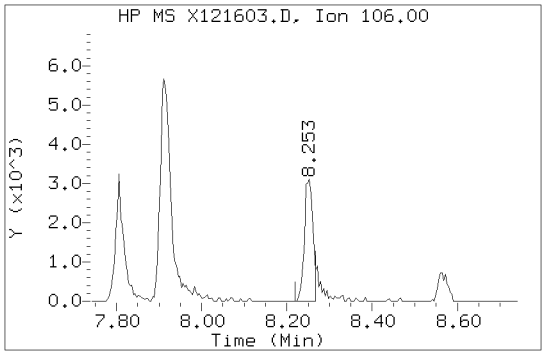
BEFORE

MASS
106
AREA
5100
HEIGHT
3111
27-Dec-2022
16:03
linh
pham



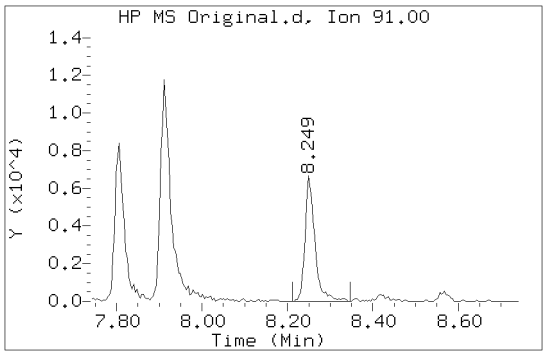

AFTER

MASS
106
AREA
4412
HEIGHT
3111
27-Dec-2022
16:07
linh
pham



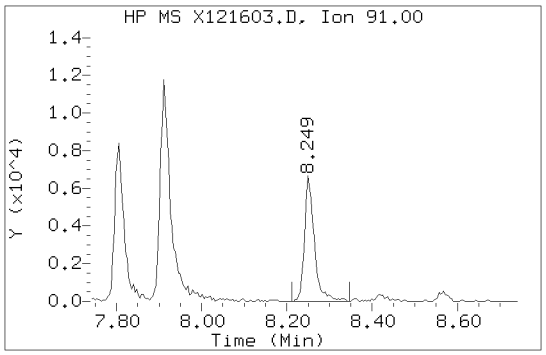

BEFORE

MASS
91
AREA
10808
HEIGHT
6665
27-Dec-2022
16:03
linh
pham




AFTER

MASS
91
AREA
10808
HEIGHT
6665
27-Dec-2022
16:07
linh
pham

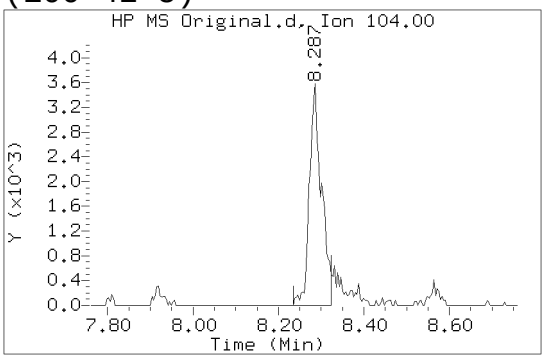


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Styrene (100-42-5)

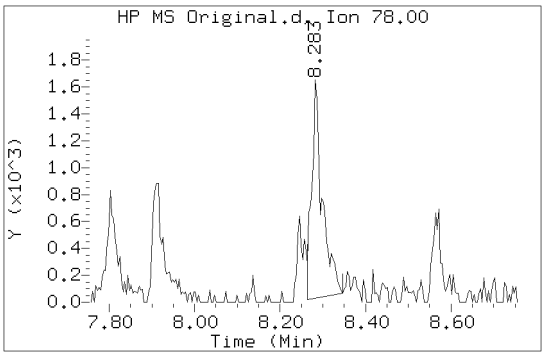
### BEFORE

MASS
104
AREA
7074
HEIGHT
3581
27-Dec-2022
16:03
linh
pham




### BEFORE

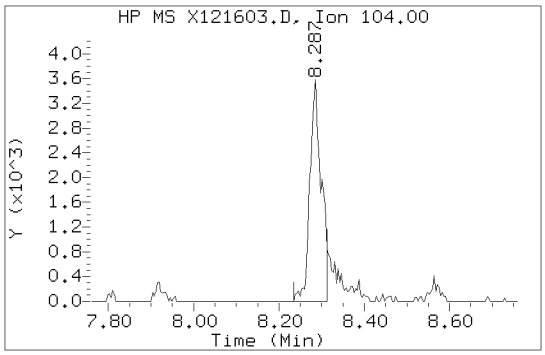
MASS
78
AREA
2827
HEIGHT
1622
27-Dec-2022
16:03
linh
pham




### Reason Code:

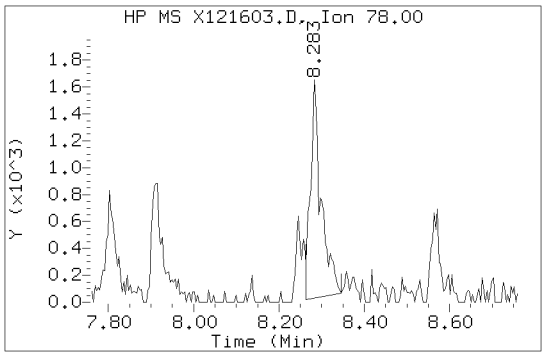
### AFTER

MASS
104
AREA
6634
HEIGHT
3581
27-Dec-2022
16:07
linh
pham




### AFTER

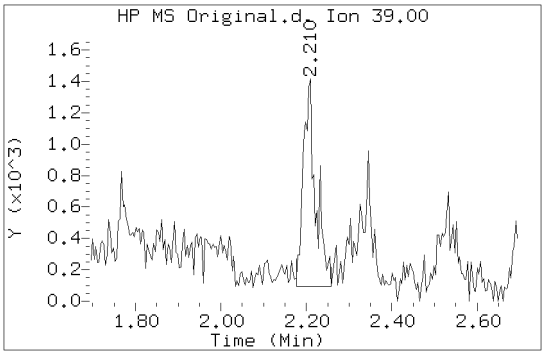
MASS
78
AREA
2827
HEIGHT
1622
27-Dec-2022
16:07
linh
pham




## Acetonitrile (75-05-8)

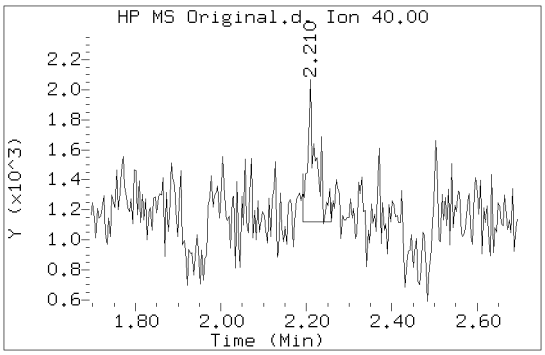
### BEFORE

MASS
39
AREA
2674
HEIGHT
1321
27-Dec-2022
16:03
linh
pham




### BEFORE

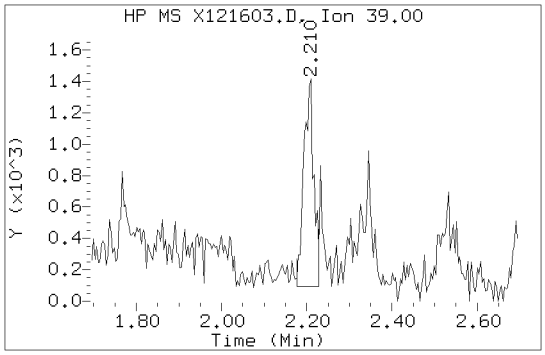
MASS
40
AREA
1296
HEIGHT
946
27-Dec-2022
16:03
linh
pham




### Reason Code:

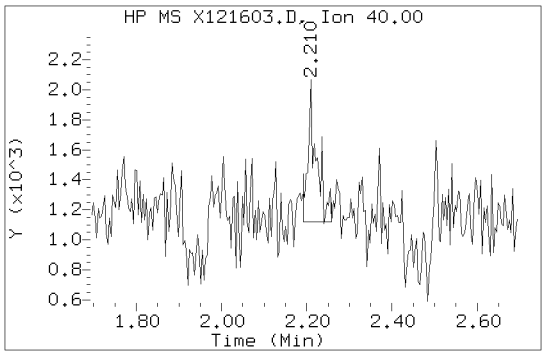
### AFTER

MASS
39
AREA
2204
HEIGHT
1321
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
40
AREA
1296
HEIGHT
946
27-Dec-2022
16:07
linh
pham



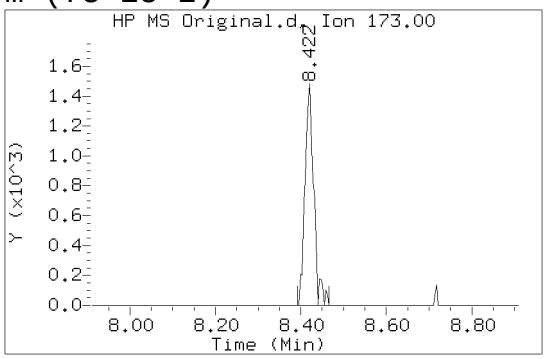
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Bromoform (75-25-2)

Reason Code:

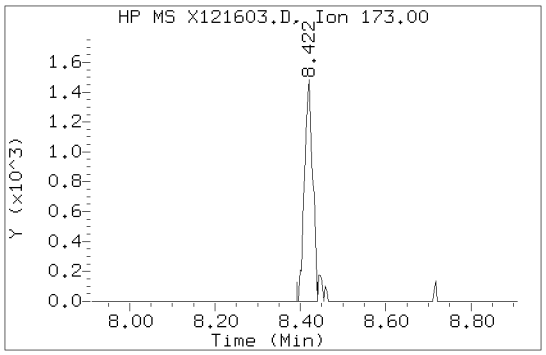
**BEFORE**

MASS
173
AREA
2158
HEIGHT
1483
27-Dec-2022
16:03
linh
pham



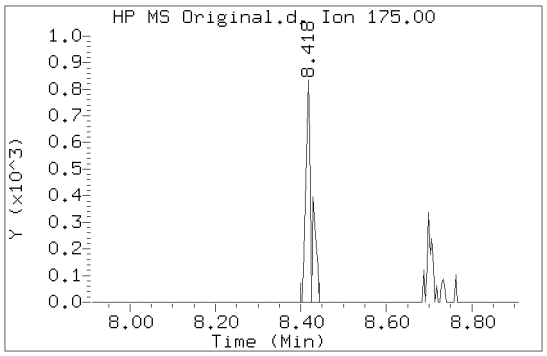

**AFTER**

MASS
173
AREA
2013
HEIGHT
1483
27-Dec-2022
16:07
linh
pham



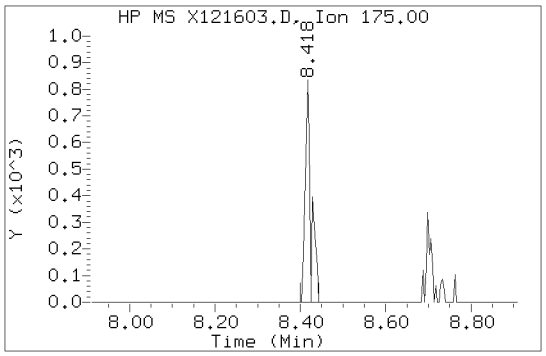

**BEFORE**

MASS
175
AREA
807
HEIGHT
835
27-Dec-2022
16:03
linh
pham



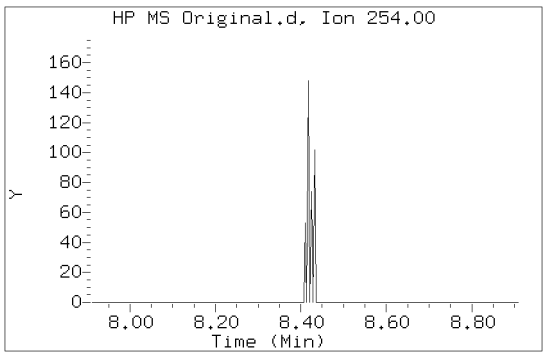

**AFTER**

MASS
175
AREA
807
HEIGHT
835
27-Dec-2022
16:07
linh
pham



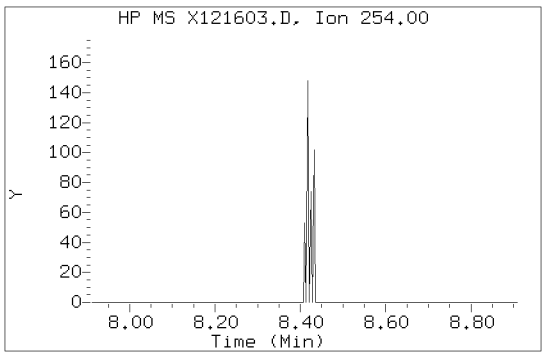

**BEFORE**

MASS
254
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
254
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

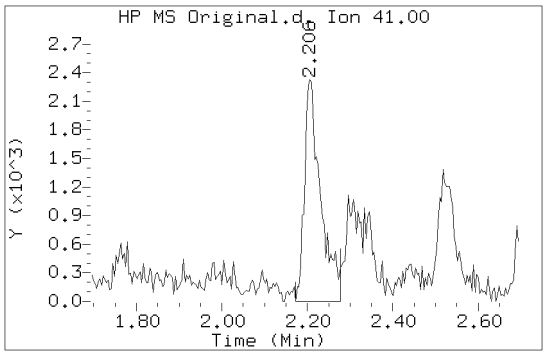



## Allyl Chloride (107-05-1)

Reason Code:

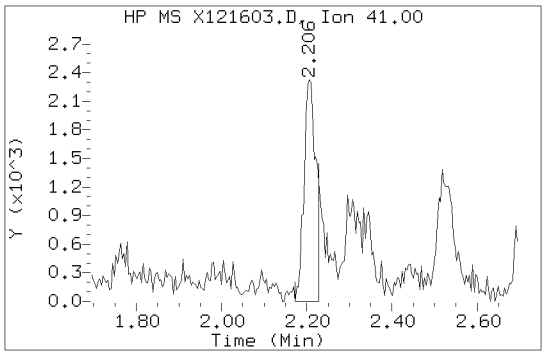
**BEFORE**

MASS
41
AREA
6169
HEIGHT
2326
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
4574
HEIGHT
2326
27-Dec-2022
16:07
linh
pham



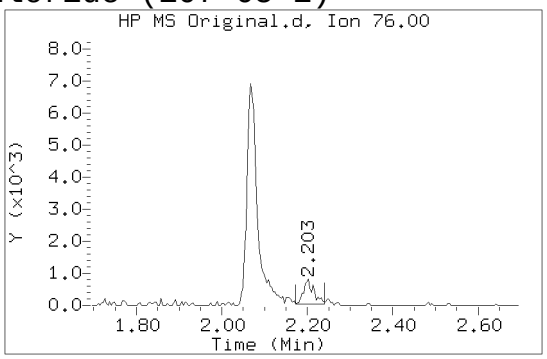
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Allyl Chloride (107-05-1)

Reason Code:

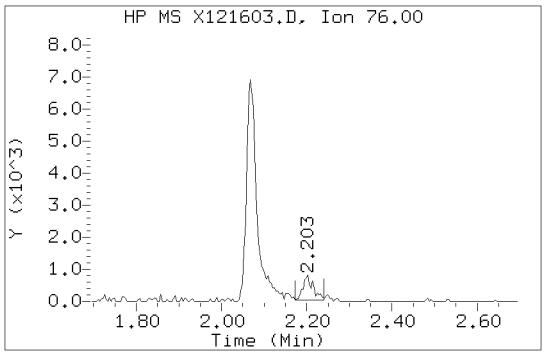
**BEFORE**

MASS
76
AREA
1254
HEIGHT
763
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
76
AREA
1254
HEIGHT
763
27-Dec-2022
16:07
linh
pham

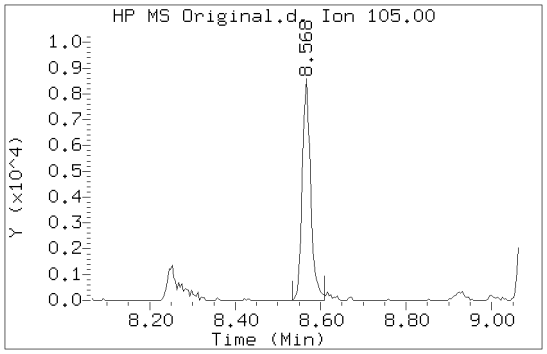



## Isopropylbenzene (98-82-8)

Reason Code:

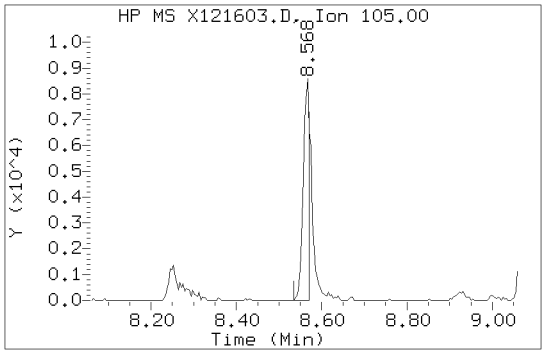
**BEFORE**

MASS
105
AREA
12091
HEIGHT
8588
27-Dec-2022
16:03
linh
pham



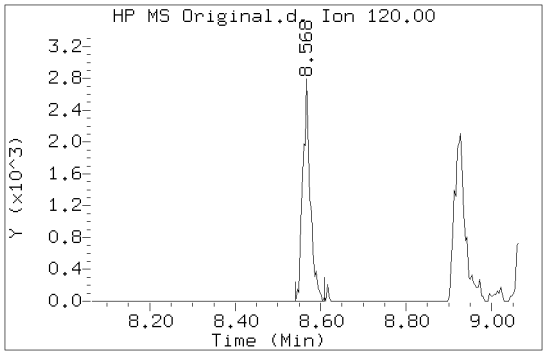

**AFTER**

MASS
105
AREA
8757
HEIGHT
8588
27-Dec-2022
16:07
linh
pham



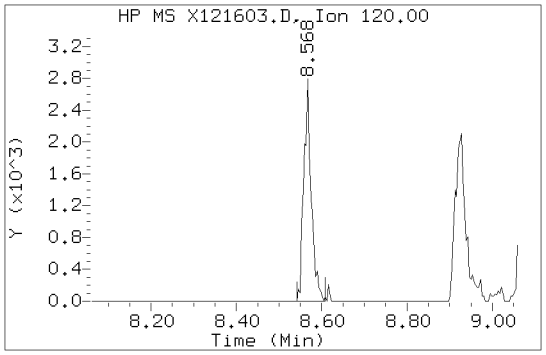

**BEFORE**

MASS
120
AREA
3462
HEIGHT
2793
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
120
AREA
3462
HEIGHT
2793
27-Dec-2022
16:07
linh
pham

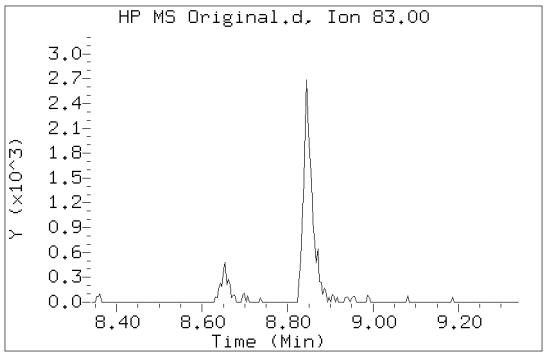



## 1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

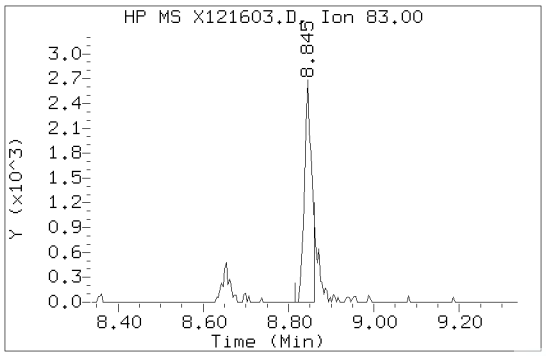
**BEFORE**

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
83
AREA
3194
HEIGHT
2685
27-Dec-2022
16:07
linh
pham



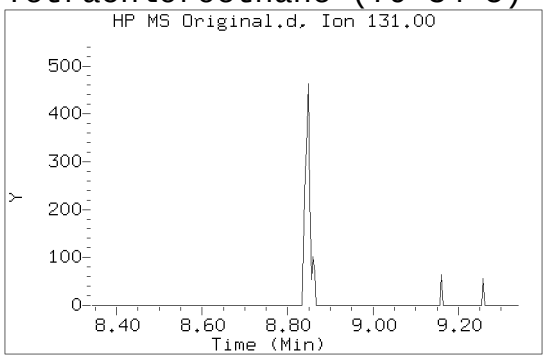
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

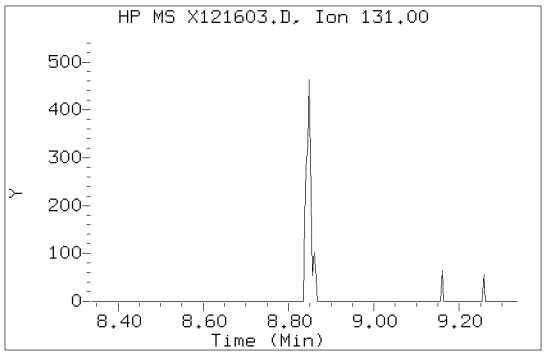
BEFORE

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



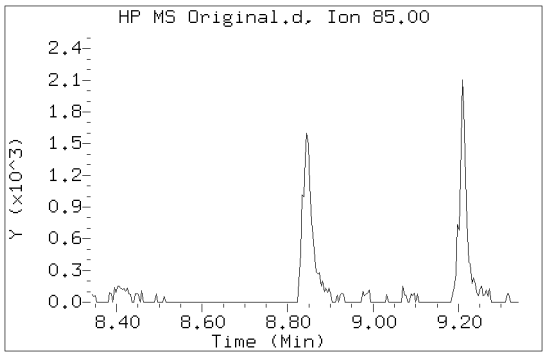

AFTER

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



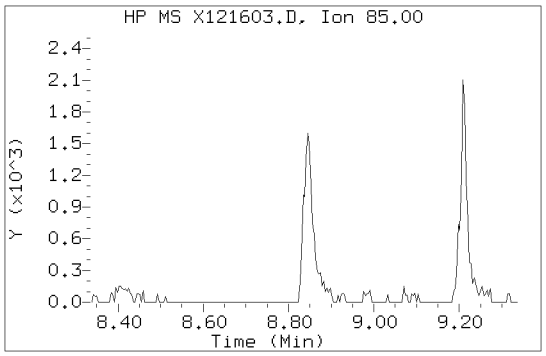

BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

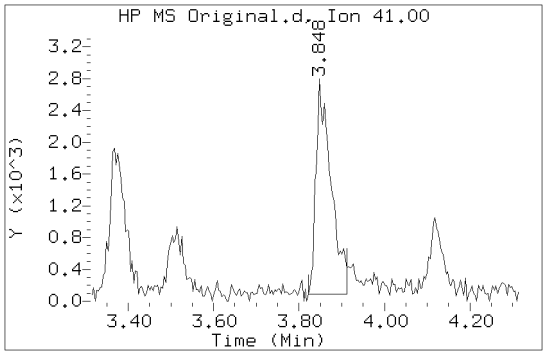



## Methacrylonitrile (126-98-7)

Reason Code:

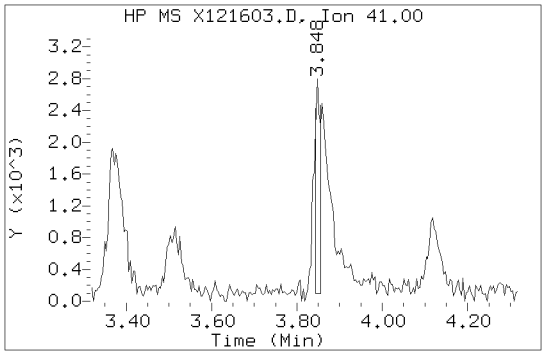
BEFORE

MASS
41
AREA
6587
HEIGHT
2708
27-Dec-2022
16:03
linh
pham



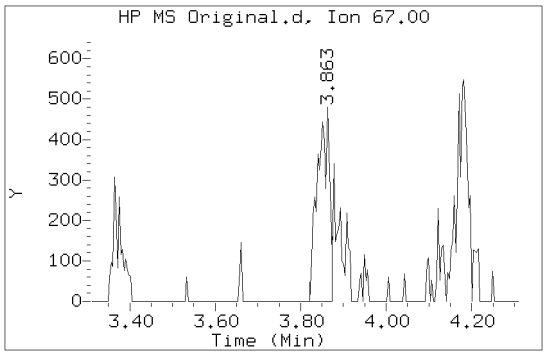

AFTER

MASS
41
AREA
2066
HEIGHT
2701
27-Dec-2022
16:07
linh
pham



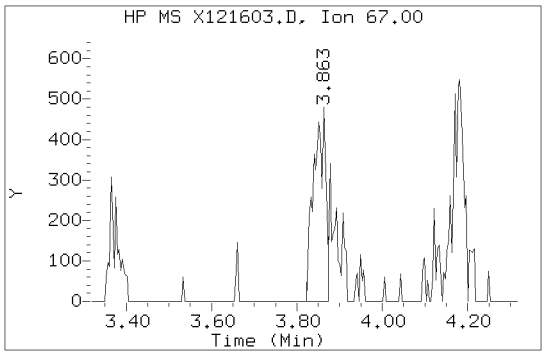

BEFORE

MASS
67
AREA
937
HEIGHT
480
27-Dec-2022
16:03
linh
pham




AFTER

MASS
67
AREA
937
HEIGHT
480
27-Dec-2022
16:07
linh
pham



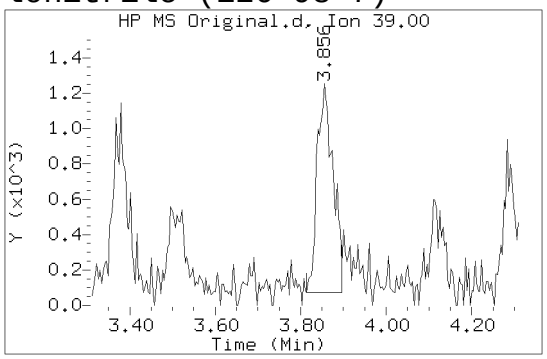
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methacrylonitrile (126-98-7)

Reason Code:

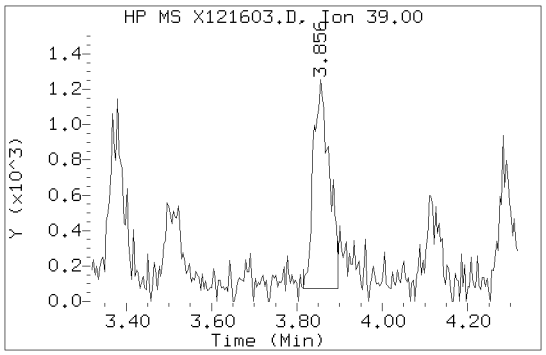
BEFORE

MASS
39
AREA
3048
HEIGHT
1181
27-Dec-2022
16:03
linh
pham




AFTER

MASS
39
AREA
3048
HEIGHT
1181
27-Dec-2022
16:07
linh
pham

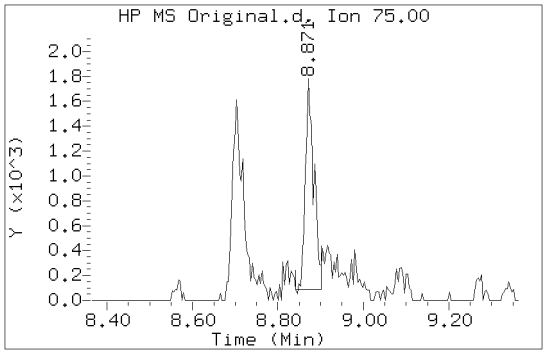



## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

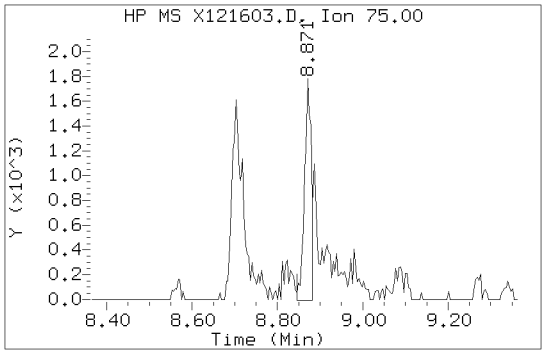
BEFORE

MASS
75
AREA
2351
HEIGHT
1693
27-Dec-2022
16:03
linh
pham



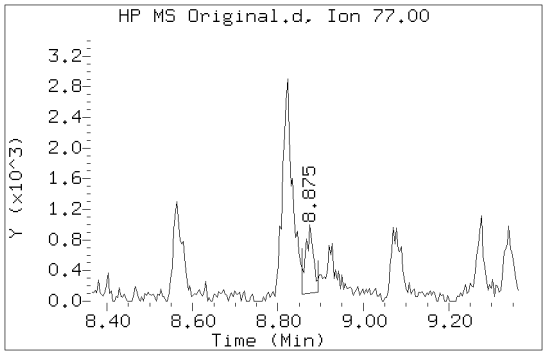

AFTER

MASS
75
AREA
2019
HEIGHT
1788
27-Dec-2022
16:07
linh
pham



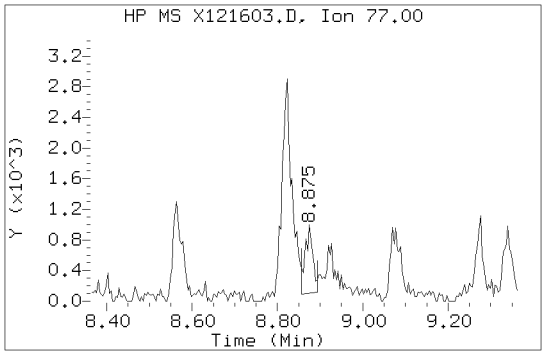

BEFORE

MASS
77
AREA
1161
HEIGHT
895
27-Dec-2022
16:03
linh
pham




AFTER

MASS
77
AREA
1161
HEIGHT
895
27-Dec-2022
16:07
linh
pham

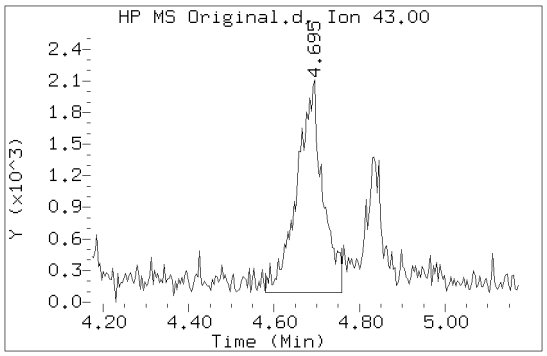



## Isobutyl Alcohol (78-83-1)

Reason Code:

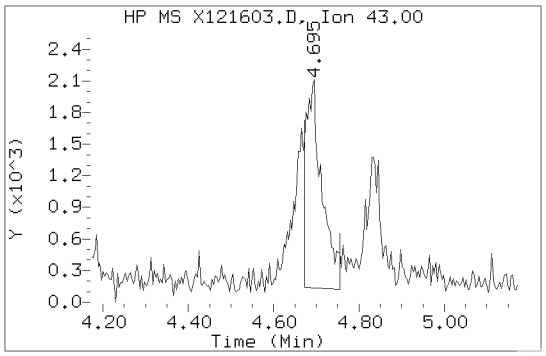
BEFORE

MASS
43
AREA
8478
HEIGHT
2018
27-Dec-2022
16:03
linh
pham




AFTER

MASS
43
AREA
5178
HEIGHT
1973
27-Dec-2022
16:07
linh
pham



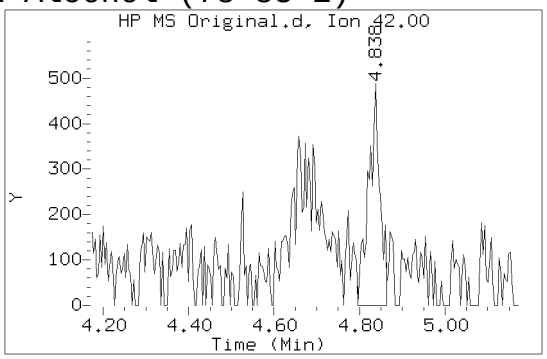
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Isobutyl Alcohol (78-83-1)

Reason Code:

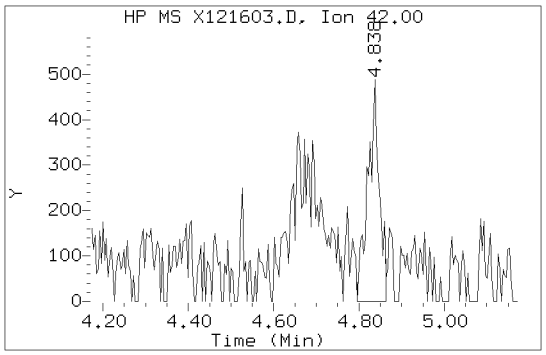
**BEFORE**

MASS
42
AREA
904
HEIGHT
488
27-Dec-2022
16:03
linh
pham



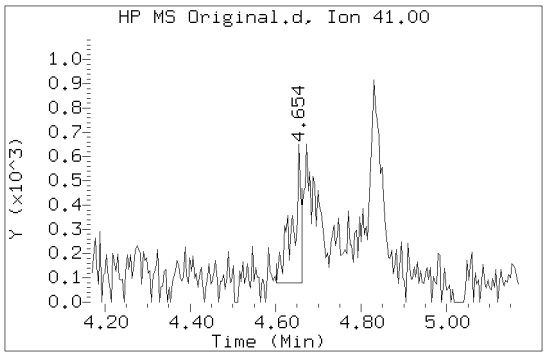

**AFTER**

MASS
42
AREA
904
HEIGHT
488
27-Dec-2022
16:07
linh
pham



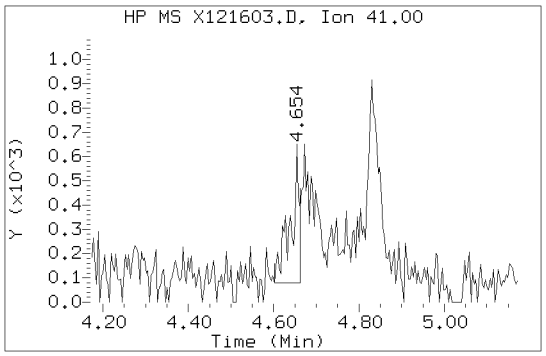

**BEFORE**

MASS
41
AREA
776
HEIGHT
572
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
776
HEIGHT
572
27-Dec-2022
16:07
linh
pham

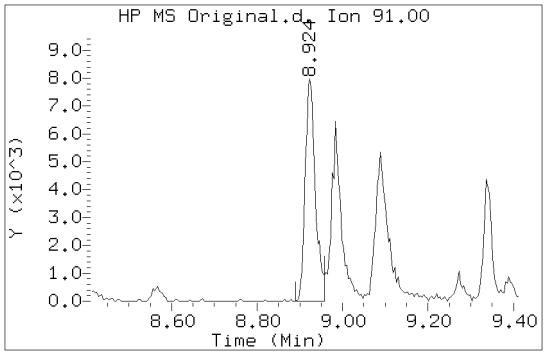



## n-Propylbenzene (106-65-1)

Reason Code:

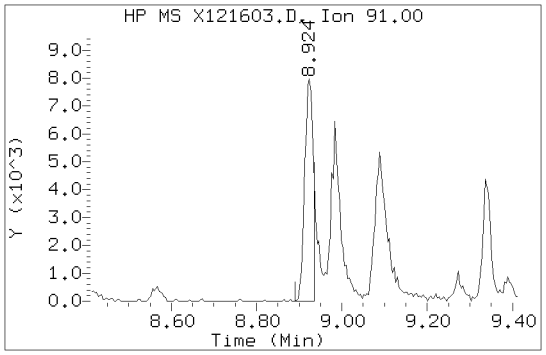
**BEFORE**

MASS
91
AREA
13496
HEIGHT
7972
27-Dec-2022
16:03
linh
pham



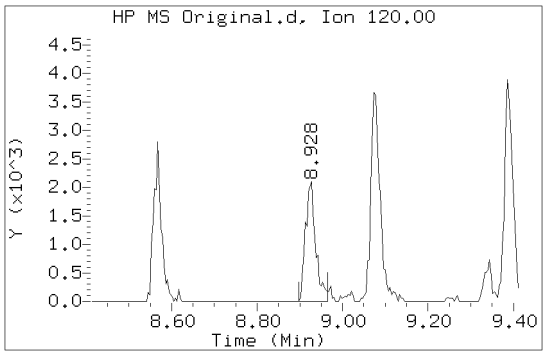

**AFTER**

MASS
91
AREA
11163
HEIGHT
7972
27-Dec-2022
16:07
linh
pham



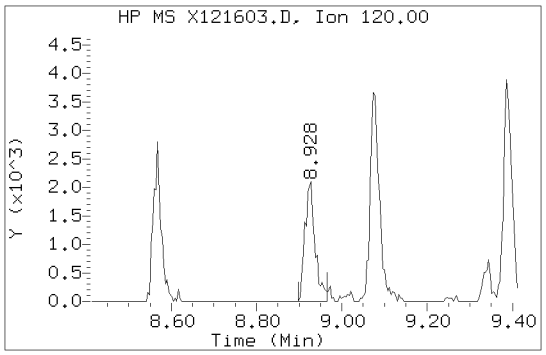

**BEFORE**

MASS
120
AREA
3559
HEIGHT
2104
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
120
AREA
3559
HEIGHT
2104
27-Dec-2022
16:07
linh
pham

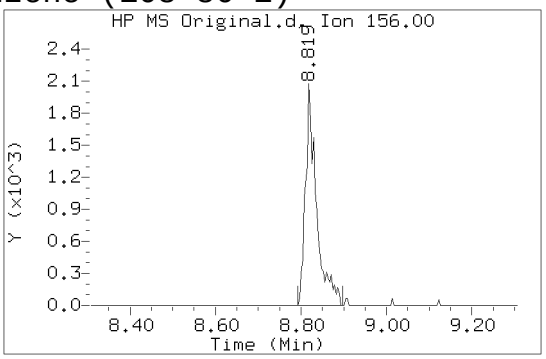


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

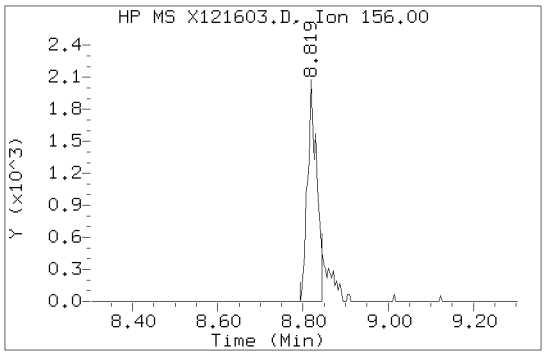
## Bromobenzene (108-86-1)

Reason Code:

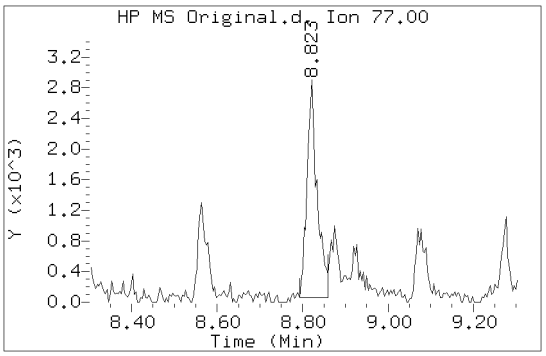
BEFORE
MASS
156
AREA
3747
HEIGHT
2077
27-Dec-2022
16:03
linh
pham



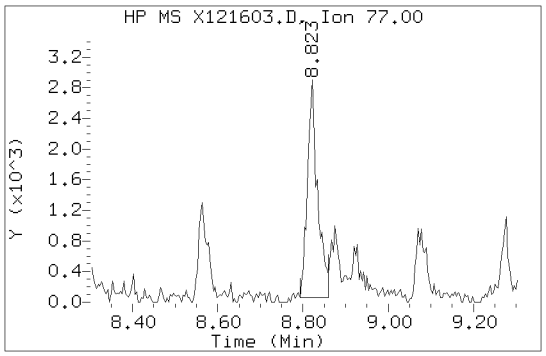

AFTER
MASS
156
AREA
3147
HEIGHT
2077
27-Dec-2022
16:07
linh
pham



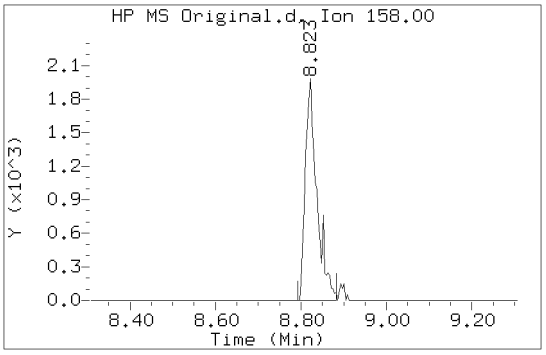

BEFORE
MASS
77
AREA
4719
HEIGHT
2841
27-Dec-2022
16:03
linh
pham



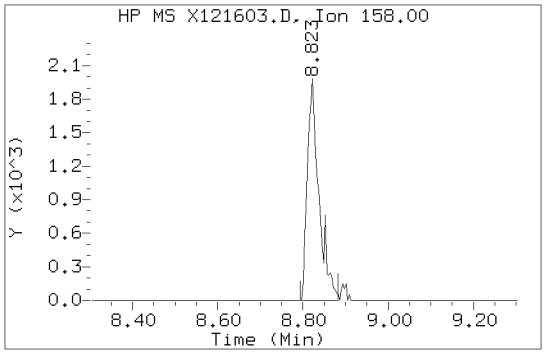

AFTER
MASS
77
AREA
4719
HEIGHT
2841
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
158
AREA
3772
HEIGHT
1983
27-Dec-2022
16:03
linh
pham



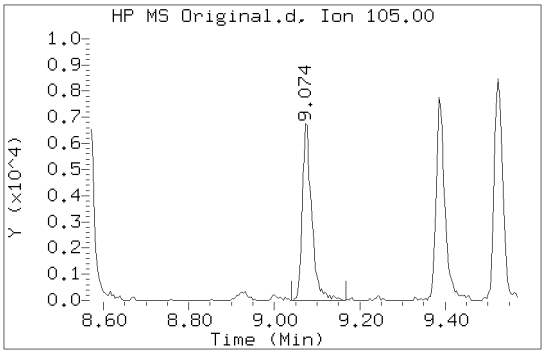

AFTER
MASS
158
AREA
3772
HEIGHT
1983
27-Dec-2022
16:07
linh
pham



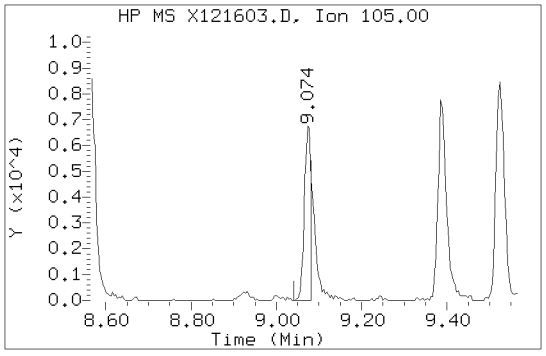

## 1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

BEFORE
MASS
105
AREA
10555
HEIGHT
6758
27-Dec-2022
16:03
linh
pham




AFTER
MASS
105
AREA
7182
HEIGHT
6758
27-Dec-2022
16:07
linh
pham



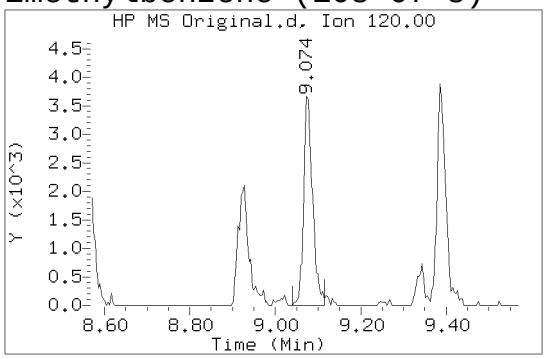
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

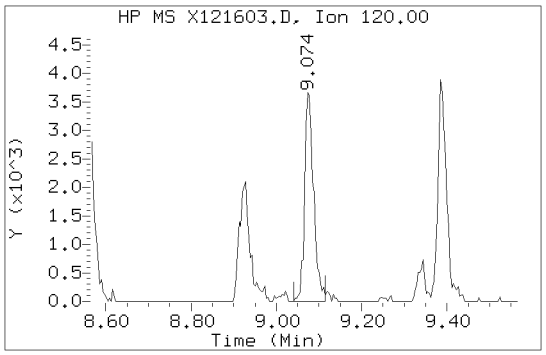
BEFORE

MASS
120
AREA
5450
HEIGHT
3663
27-Dec-2022
16:03
linh
pham




AFTER

MASS
120
AREA
5450
HEIGHT
3663
27-Dec-2022
16:07
linh
pham

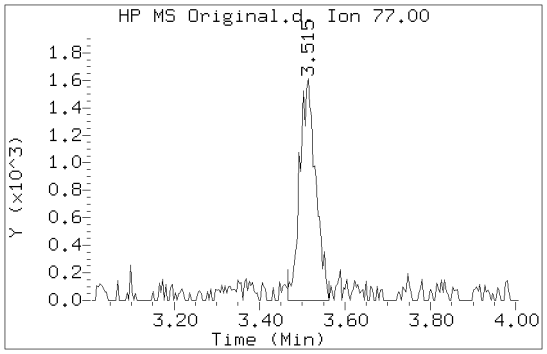



## 2,2-Dichloropropane (594-20-7)

Reason Code:

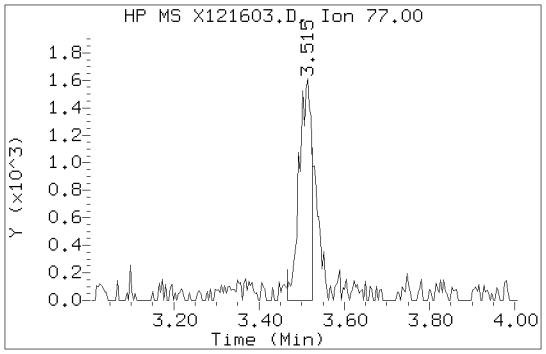
BEFORE

MASS
77
AREA
4217
HEIGHT
1612
27-Dec-2022
16:03
linh
pham



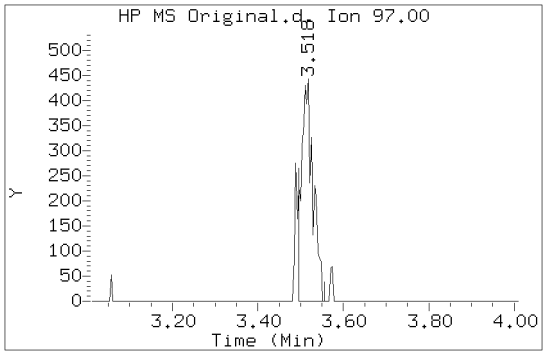

AFTER

MASS
77
AREA
3238
HEIGHT
1612
27-Dec-2022
16:07
linh
pham



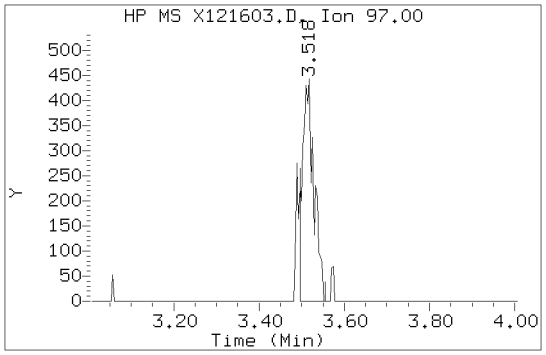

BEFORE

MASS
97
AREA
843
HEIGHT
443
27-Dec-2022
16:03
linh
pham




AFTER

MASS
97
AREA
843
HEIGHT
443
27-Dec-2022
16:07
linh
pham

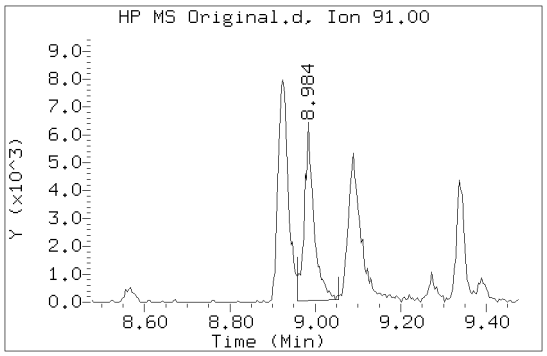



## 2-Chlorotoluene (95-49-8)

Reason Code:

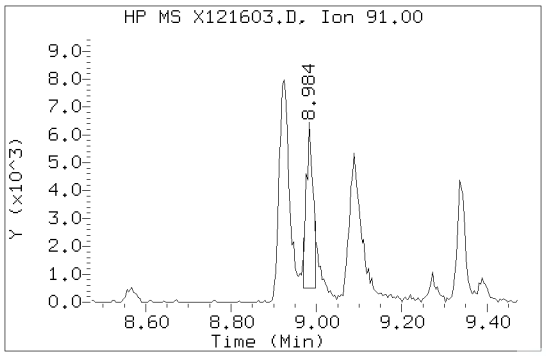
BEFORE

MASS
91
AREA
10128
HEIGHT
6401
27-Dec-2022
16:03
linh
pham




AFTER

MASS
91
AREA
6718
HEIGHT
5942
27-Dec-2022
16:07
linh
pham



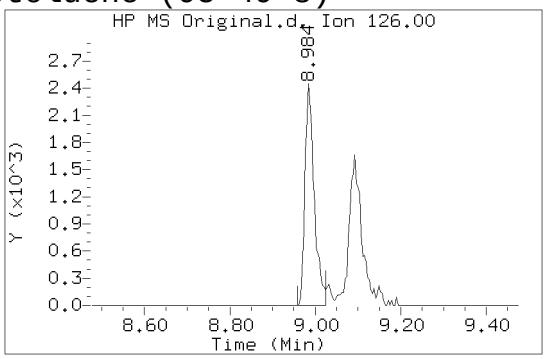
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 2-Chlorotoluene (95-49-8)

Reason Code:

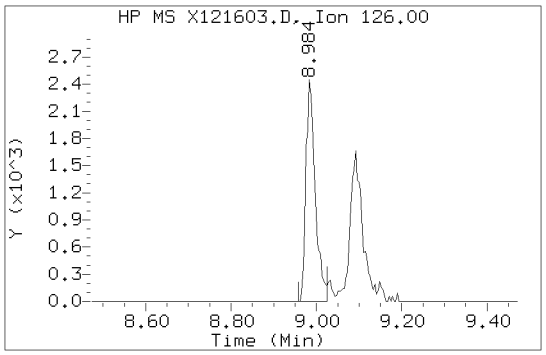
BEFORE

MASS
126
AREA
3761
HEIGHT
2450
27-Dec-2022
16:03
linh
pham




AFTER

MASS
126
AREA
3761
HEIGHT
2450
27-Dec-2022
16:07
linh
pham

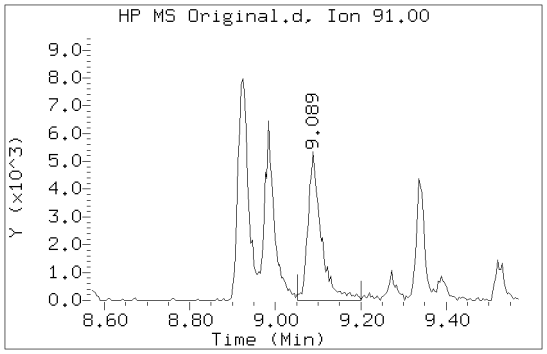



## 4-Chlorotoluene (106-43-4)

Reason Code:

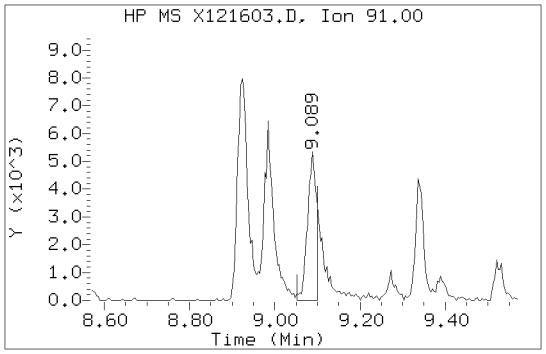
BEFORE

MASS
91
AREA
11481
HEIGHT
5337
27-Dec-2022
16:03
linh
pham



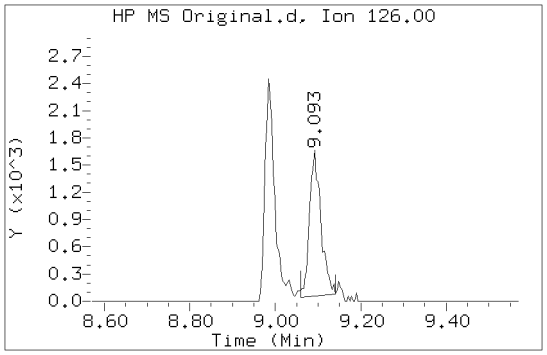

AFTER

MASS
91
AREA
7644
HEIGHT
5337
27-Dec-2022
16:07
linh
pham



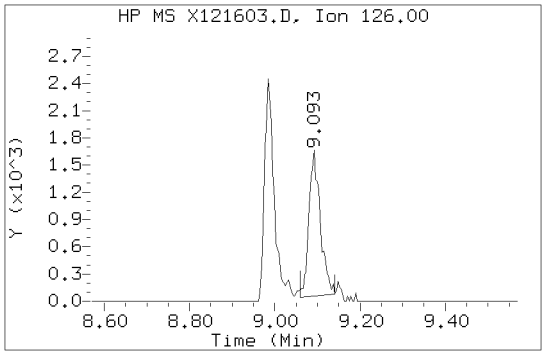

BEFORE

MASS
126
AREA
3008
HEIGHT
1612
27-Dec-2022
16:03
linh
pham




AFTER

MASS
126
AREA
3008
HEIGHT
1612
27-Dec-2022
16:07
linh
pham

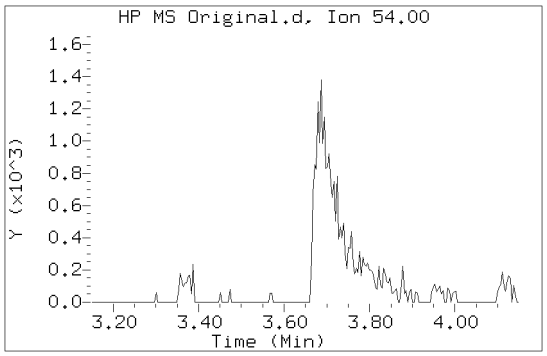



## Propionitrile (107-12-0)

Reason Code:

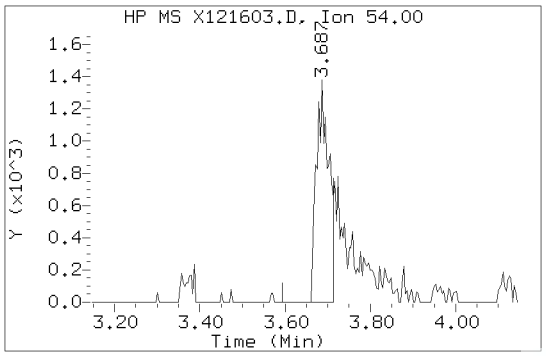
BEFORE

MASS
54
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
54
AREA
2777
HEIGHT
1380
27-Dec-2022
16:07
linh
pham



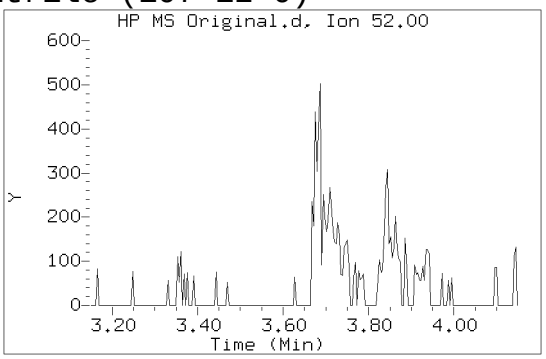
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Propionitrile (107-12-0)

Reason Code:

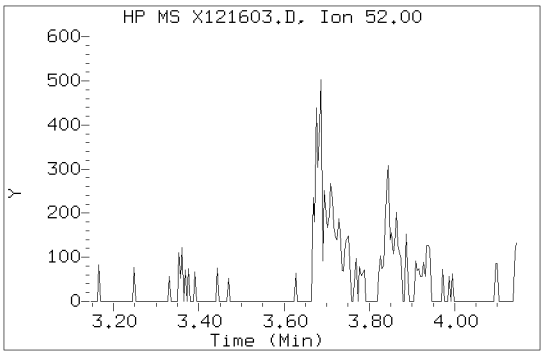
BEFORE

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



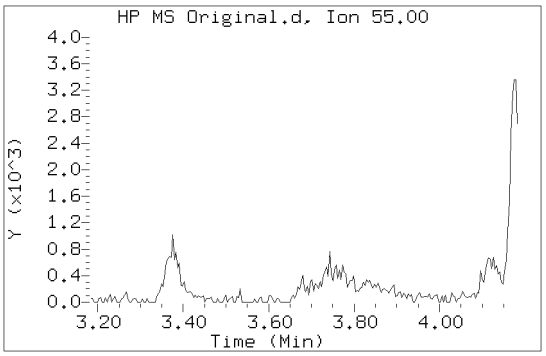

AFTER

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



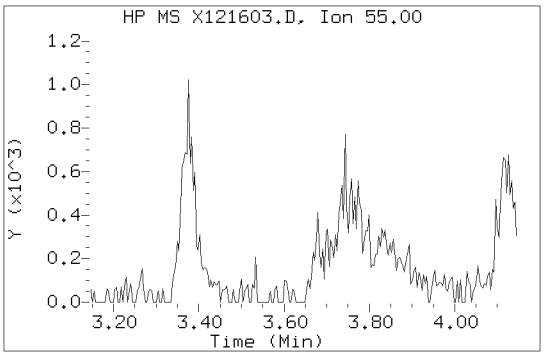

BEFORE

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

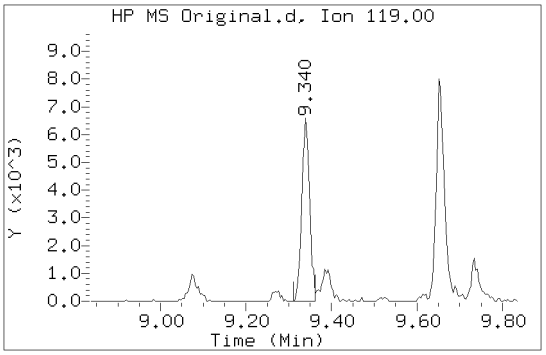



## tert-Butylbenzene (98-06-6)

Reason Code:

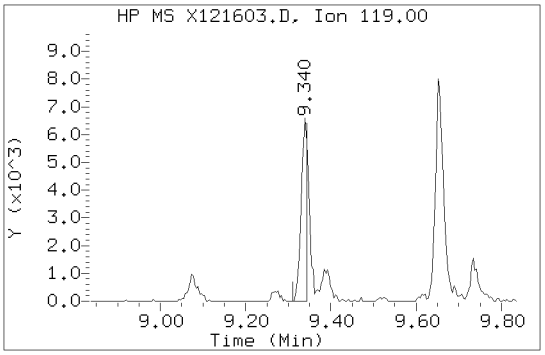
BEFORE

MASS
119
AREA
8660
HEIGHT
6598
27-Dec-2022
16:03
linh
pham



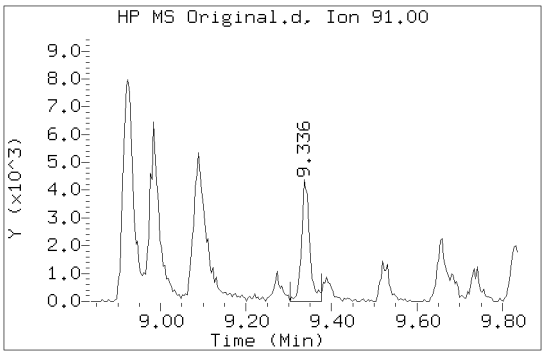

AFTER

MASS
119
AREA
6389
HEIGHT
6598
27-Dec-2022
16:07
linh
pham



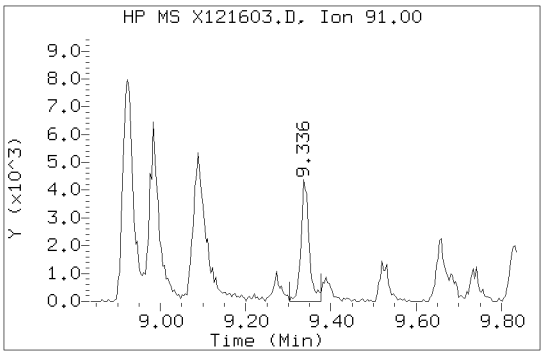

BEFORE

MASS
91
AREA
6013
HEIGHT
4378
27-Dec-2022
16:03
linh
pham




AFTER

MASS
91
AREA
6013
HEIGHT
4378
27-Dec-2022
16:07
linh
pham



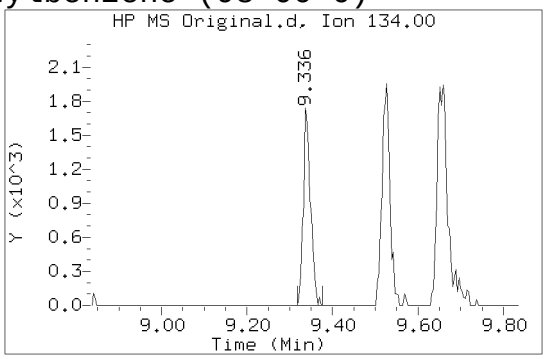
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## tert-Butylbenzene (98-06-6)

Reason Code:

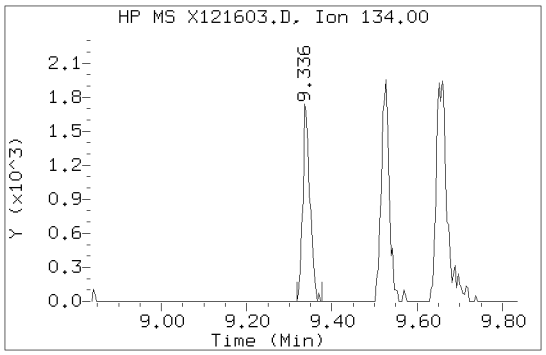
BEFORE

MASS
134
AREA
2112
HEIGHT
1740
27-Dec-2022
16:03
linh
pham




AFTER

MASS
134
AREA
2112
HEIGHT
1740
27-Dec-2022
16:07
linh
pham

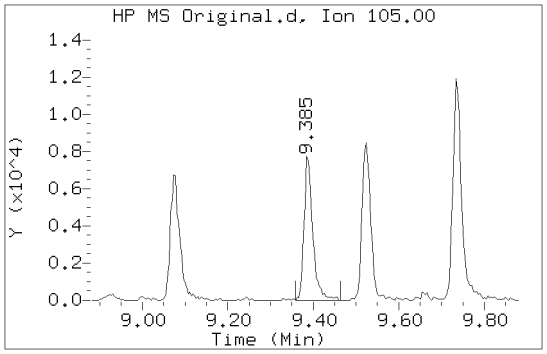



## 1,2,4-Trimethylbenzene (95-63-6)

Reason Code:

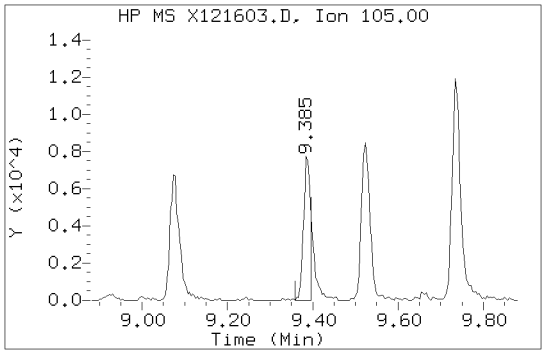
BEFORE

MASS
105
AREA
11065
HEIGHT
7775
27-Dec-2022
16:03
linh
pham



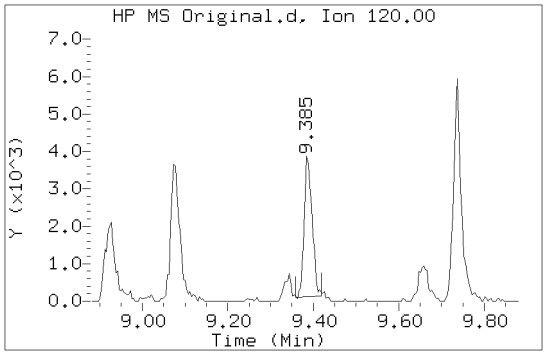

AFTER

MASS
105
AREA
8496
HEIGHT
7775
27-Dec-2022
16:07
linh
pham



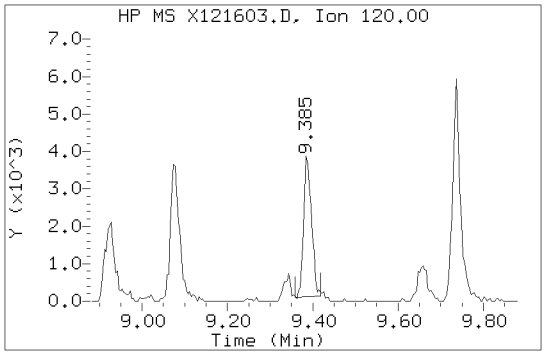

BEFORE

MASS
120
AREA
4898
HEIGHT
3773
27-Dec-2022
16:03
linh
pham




AFTER

MASS
120
AREA
4898
HEIGHT
3773
27-Dec-2022
16:07
linh
pham

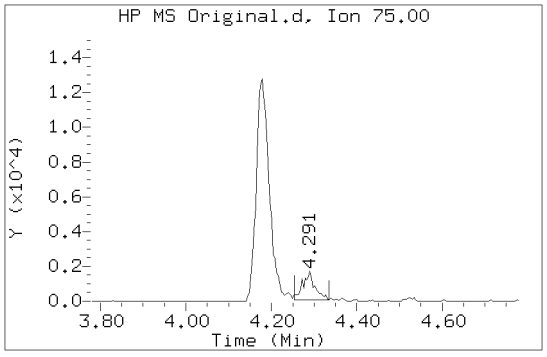



## 1,1-Dichloropropene (563-58-6)

Reason Code:

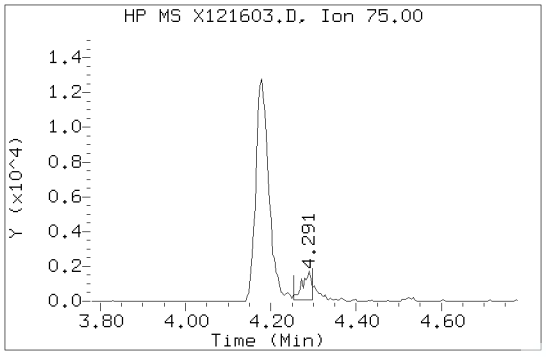
BEFORE

MASS
75
AREA
3235
HEIGHT
1674
27-Dec-2022
16:03
linh
pham




AFTER

MASS
75
AREA
2468
HEIGHT
1674
27-Dec-2022
16:07
linh
pham



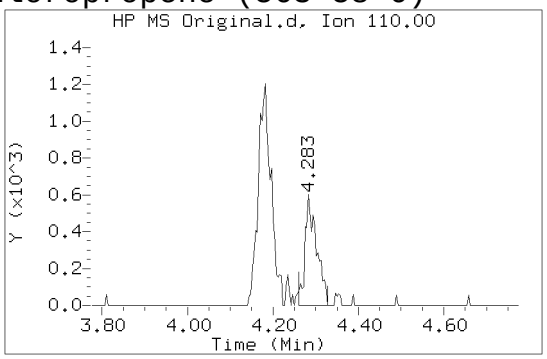
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,1-Dichloropropene (563-58-6)

Reason Code:

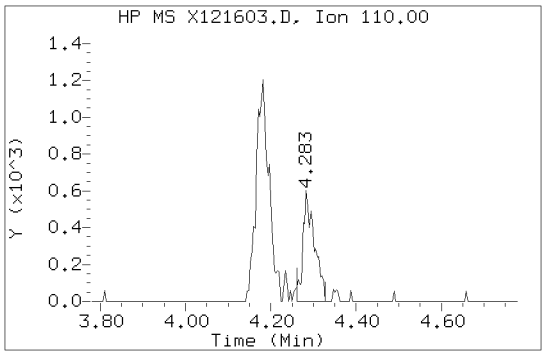
BEFORE

MASS
110
AREA
1143
HEIGHT
603
27-Dec-2022
16:03
linh
pham



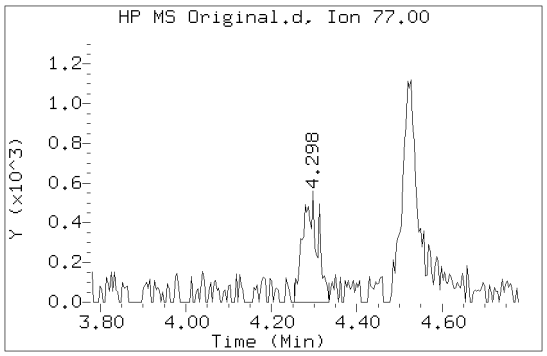

AFTER

MASS
110
AREA
1143
HEIGHT
603
27-Dec-2022
16:07
linh
pham



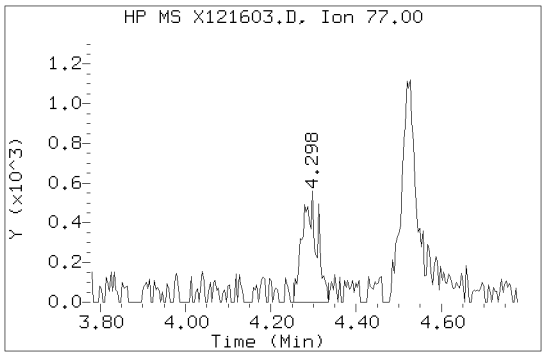

BEFORE

MASS
77
AREA
1342
HEIGHT
559
27-Dec-2022
16:03
linh
pham




AFTER

MASS
77
AREA
1342
HEIGHT
559
27-Dec-2022
16:07
linh
pham

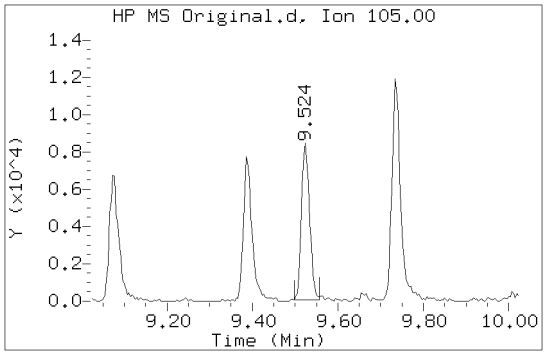



## sec-Butylbenzene (135-98-8)

Reason Code:

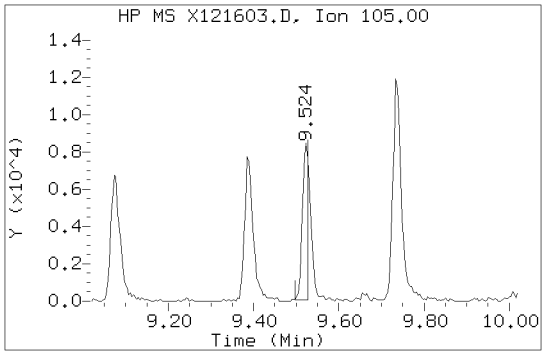
BEFORE

MASS
105
AREA
11512
HEIGHT
8394
27-Dec-2022
16:03
linh
pham



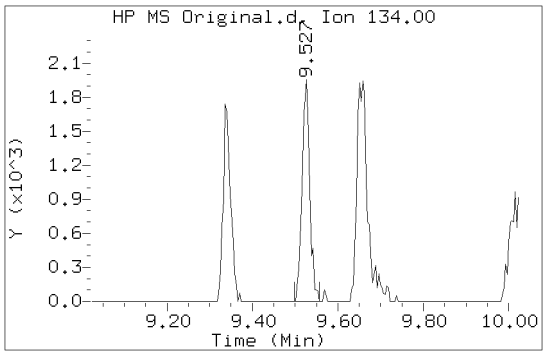

AFTER

MASS
105
AREA
7938
HEIGHT
8394
27-Dec-2022
16:07
linh
pham



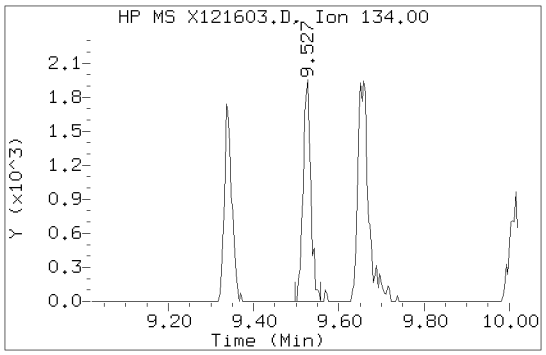

BEFORE

MASS
134
AREA
2519
HEIGHT
1955
27-Dec-2022
16:03
linh
pham




AFTER

MASS
134
AREA
2519
HEIGHT
1955
27-Dec-2022
16:07
linh
pham



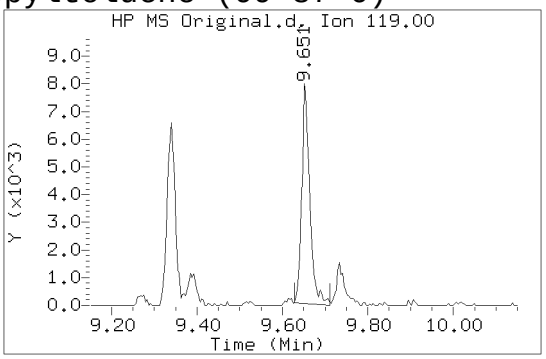
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## p-Isopropyltoluene (99-87-6)

Reason Code:

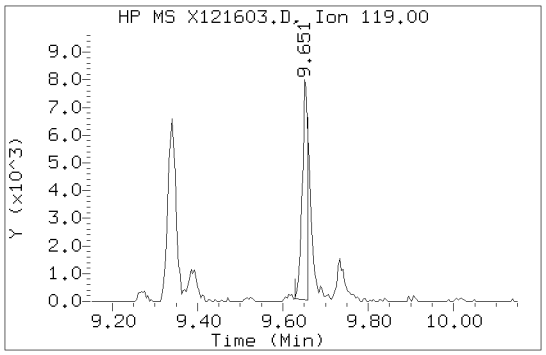
BEFORE

MASS
119
AREA
10660
HEIGHT
7944
27-Dec-2022
16:03
linh
pham



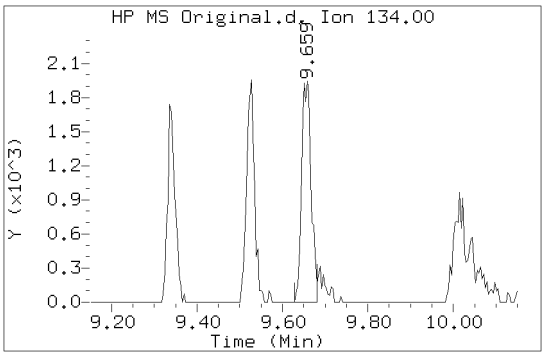

AFTER

MASS
119
AREA
7343
HEIGHT
7944
27-Dec-2022
16:07
linh
pham



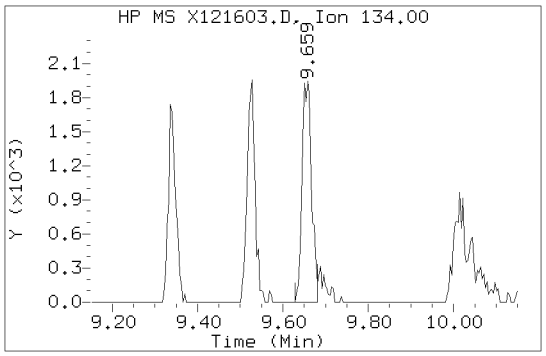

BEFORE

MASS
134
AREA
3102
HEIGHT
1946
27-Dec-2022
16:03
linh
pham



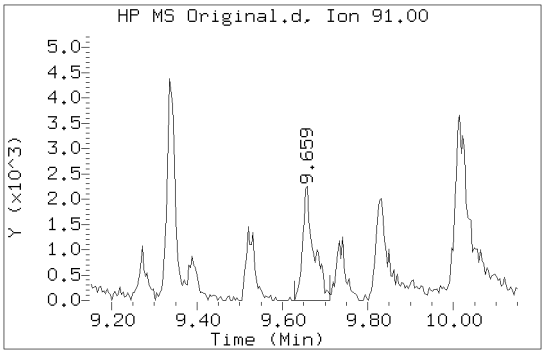

AFTER

MASS
134
AREA
3102
HEIGHT
1946
27-Dec-2022
16:07
linh
pham



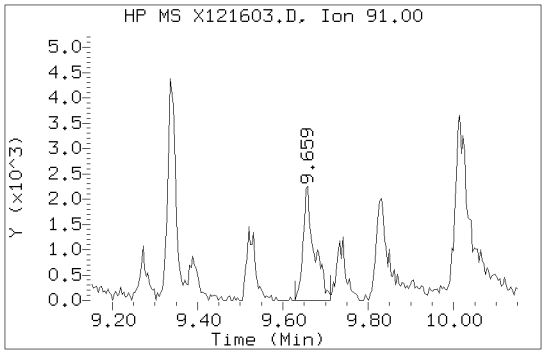

BEFORE

MASS
91
AREA
4191
HEIGHT
2256
27-Dec-2022
16:03
linh
pham




AFTER

MASS
91
AREA
4191
HEIGHT
2256
27-Dec-2022
16:07
linh
pham

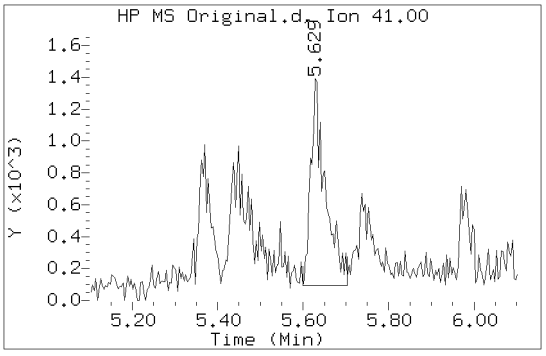



## Methyl Methacrylate (80-62-6)

Reason Code:

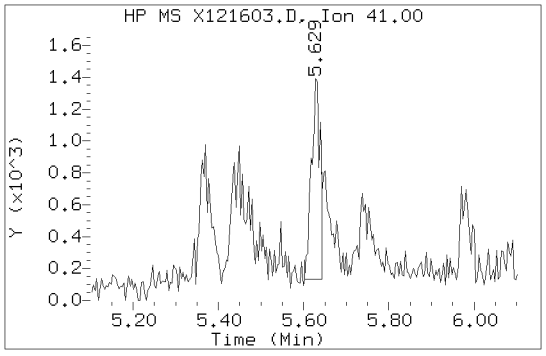
BEFORE

MASS
41
AREA
3067
HEIGHT
1299
27-Dec-2022
16:03
linh
pham




AFTER

MASS
41
AREA
1788
HEIGHT
1257
27-Dec-2022
16:07
linh
pham

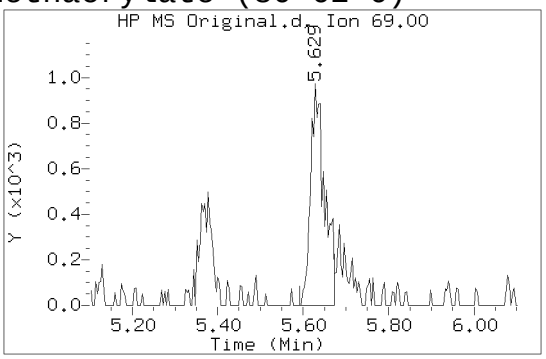


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methyl Methacrylate (80-62-6)

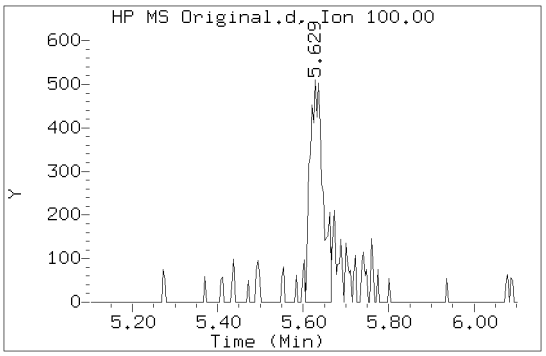
**BEFORE**

MASS
69
AREA
2216
HEIGHT
973
27-Dec-2022
16:03
linh
pham




**BEFORE**

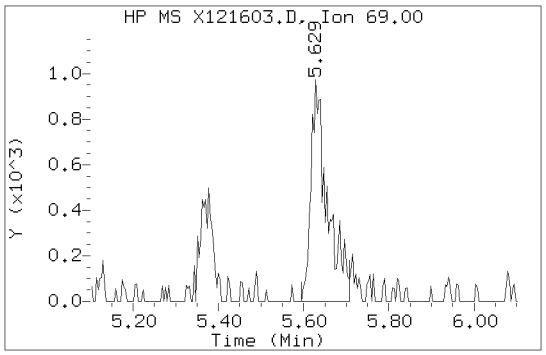
MASS
100
AREA
1074
HEIGHT
510
27-Dec-2022
16:03
linh
pham




Reason Code:

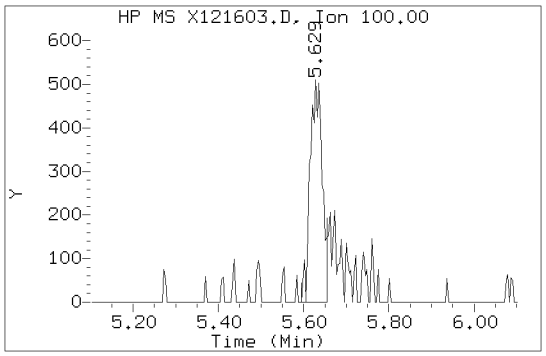
**AFTER**

MASS
69
AREA
2595
HEIGHT
973
27-Dec-2022
16:07
linh
pham




**AFTER**

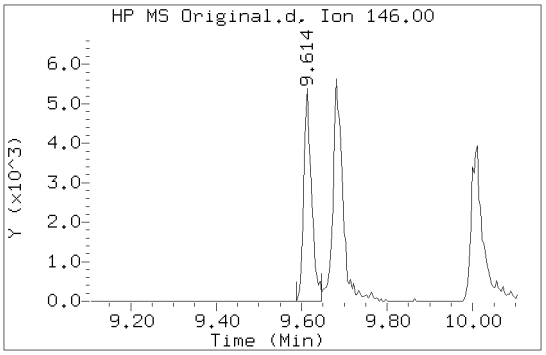
MASS
100
AREA
1011
HEIGHT
510
27-Dec-2022
16:07
linh
pham




## 1,3-Dichlorobenzene (541-73-1)

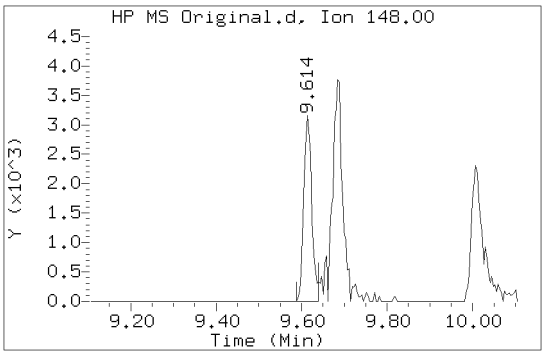
**BEFORE**

MASS
146
AREA
6964
HEIGHT
5387
27-Dec-2022
16:03
linh
pham




**BEFORE**

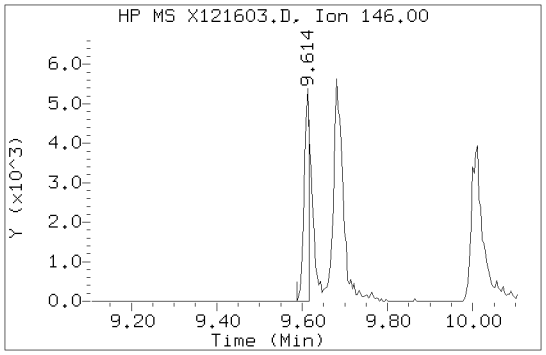
MASS
148
AREA
4216
HEIGHT
3157
27-Dec-2022
16:03
linh
pham




Reason Code:

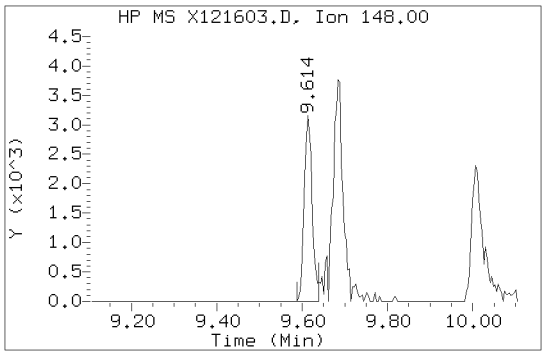
**AFTER**

MASS
146
AREA
4677
HEIGHT
5387
27-Dec-2022
16:07
linh
pham




**AFTER**

MASS
148
AREA
4216
HEIGHT
3157
27-Dec-2022
16:07
linh
pham



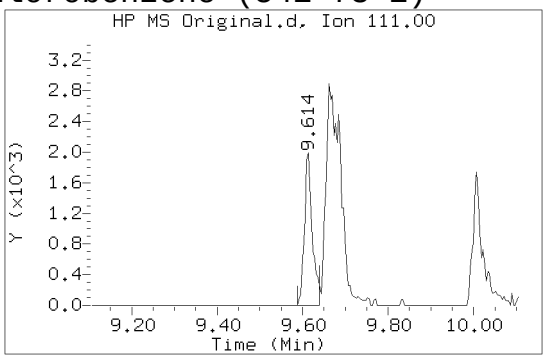
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,3-Dichlorobenzene (541-73-1)

Reason Code:

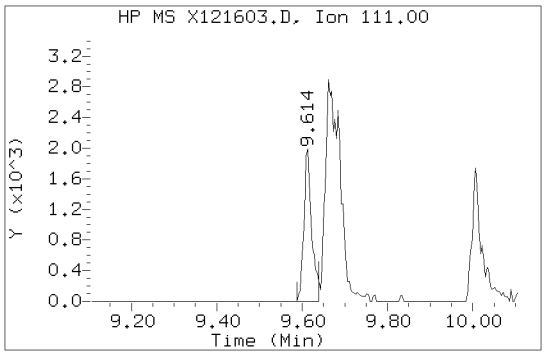
BEFORE

MASS
111
AREA
2596
HEIGHT
1995
27-Dec-2022
16:03
linh
pham




AFTER

MASS
111
AREA
2596
HEIGHT
1995
27-Dec-2022
16:07
linh
pham

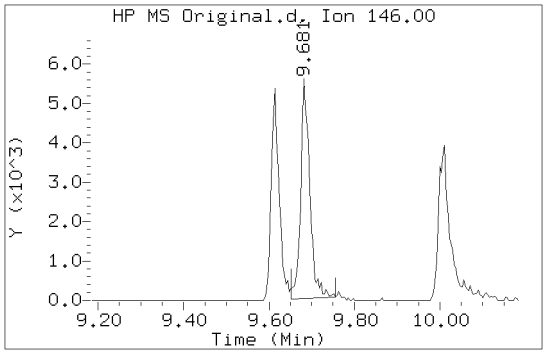



## 1,4-Dichlorobenzene (106-46-7)

Reason Code:

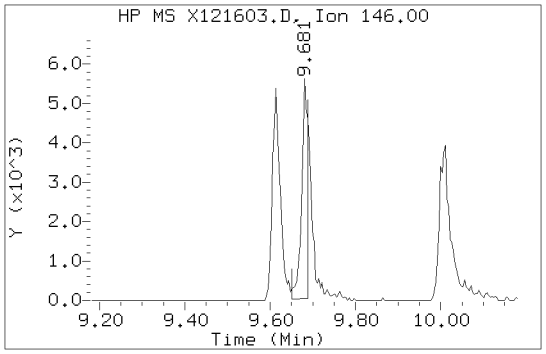
BEFORE

MASS
146
AREA
8510
HEIGHT
5586
27-Dec-2022
16:03
linh
pham



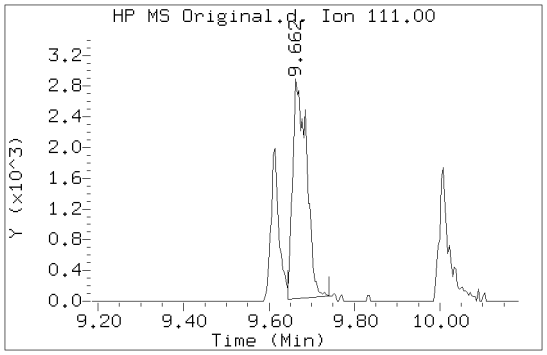

AFTER

MASS
146
AREA
5674
HEIGHT
5587
27-Dec-2022
16:07
linh
pham



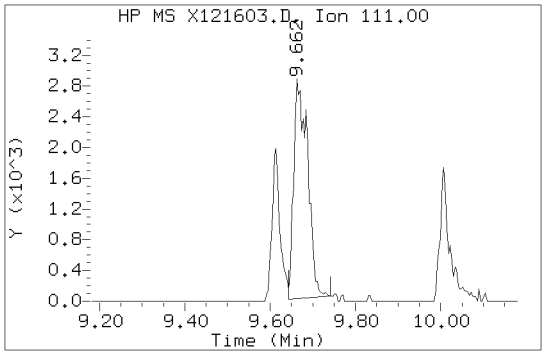

BEFORE

MASS
111
AREA
6571
HEIGHT
2862
27-Dec-2022
16:03
linh
pham



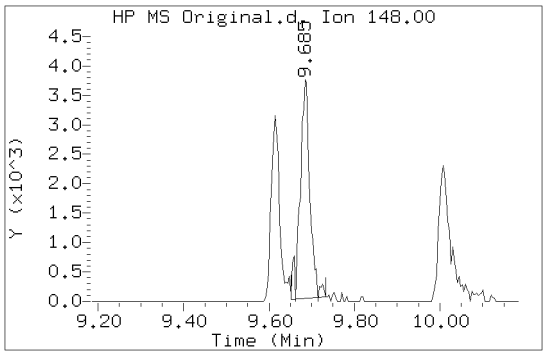

AFTER

MASS
111
AREA
6571
HEIGHT
2862
27-Dec-2022
16:07
linh
pham



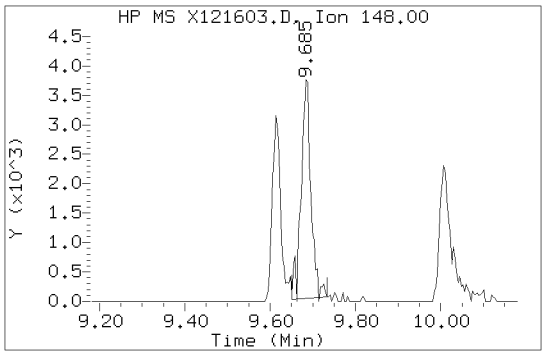

BEFORE

MASS
148
AREA
6083
HEIGHT
3714
27-Dec-2022
16:03
linh
pham




AFTER

MASS
148
AREA
6083
HEIGHT
3714
27-Dec-2022
16:07
linh
pham



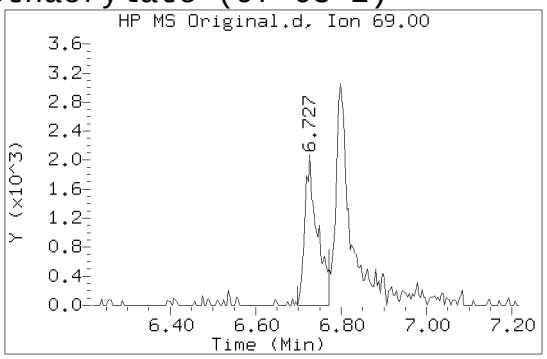
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Ethyl Methacrylate (97-63-2)

Reason Code:

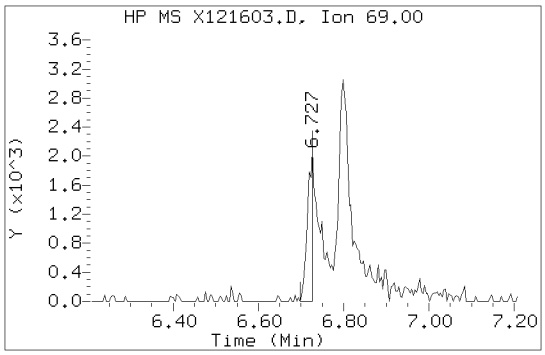
BEFORE

MASS
69
AREA
4283
HEIGHT
2083
27-Dec-2022
16:03
linh
pham



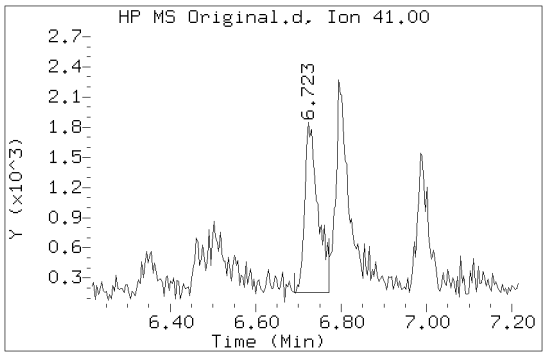

AFTER

MASS
69
AREA
1935
HEIGHT
2083
27-Dec-2022
16:07
linh
pham



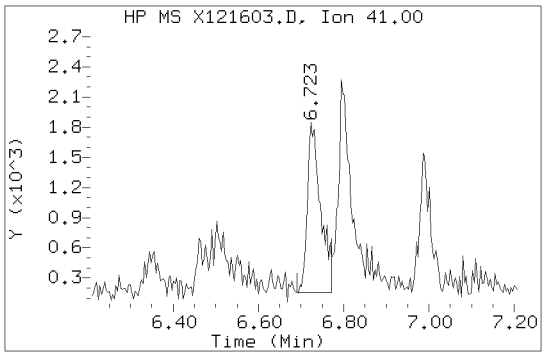

BEFORE

MASS
41
AREA
3701
HEIGHT
1688
27-Dec-2022
16:03
linh
pham




AFTER

MASS
41
AREA
3701
HEIGHT
1688
27-Dec-2022
16:07
linh
pham

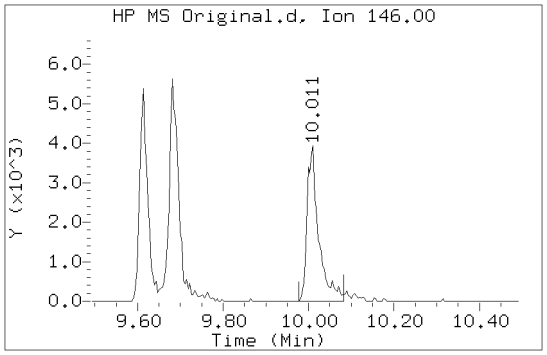



## 1,2-Dichlorobenzene (95-50-1)

Reason Code:

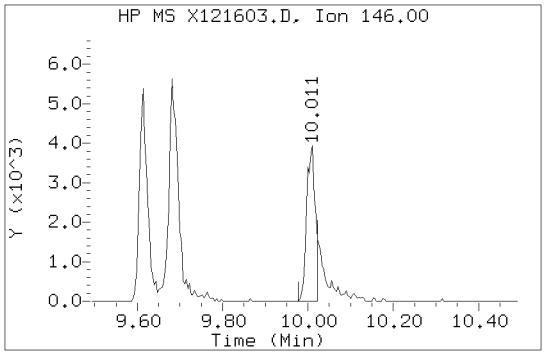
BEFORE

MASS
146
AREA
7400
HEIGHT
3934
27-Dec-2022
16:03
linh
pham



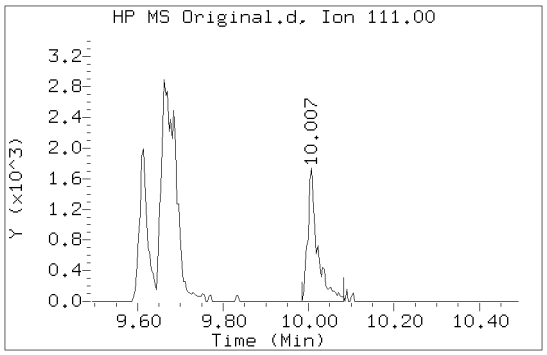

AFTER

MASS
146
AREA
5504
HEIGHT
3934
27-Dec-2022
16:07
linh
pham



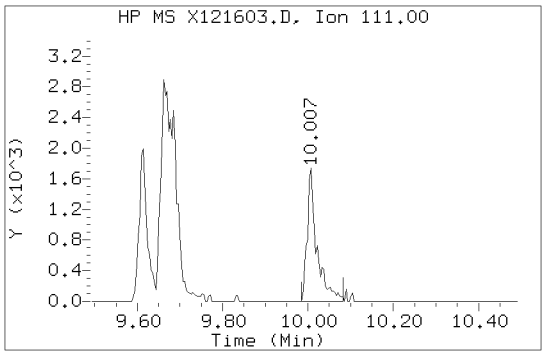

BEFORE

MASS
111
AREA
2768
HEIGHT
1741
27-Dec-2022
16:03
linh
pham




AFTER

MASS
111
AREA
2768
HEIGHT
1741
27-Dec-2022
16:07
linh
pham



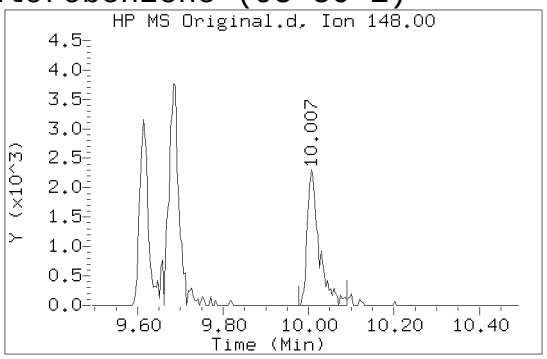
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,2-Dichlorobenzene (95-50-1)

Reason Code:

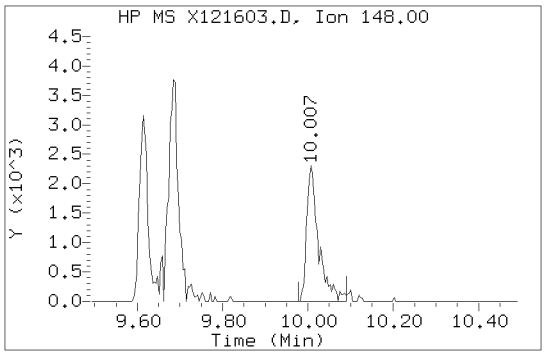
**BEFORE**

MASS
148
AREA
4515
HEIGHT
2306
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
148
AREA
4515
HEIGHT
2306
27-Dec-2022
16:07
linh
pham

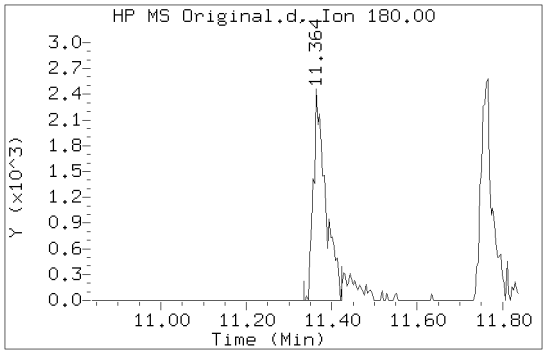



## 1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

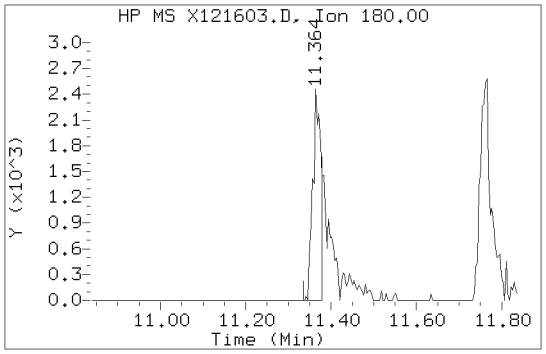
**BEFORE**

MASS
180
AREA
4912
HEIGHT
2459
27-Dec-2022
16:03
linh
pham



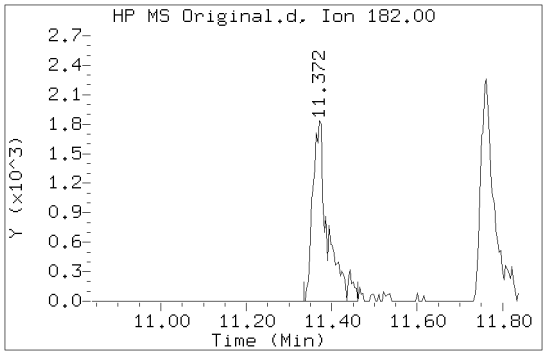

**AFTER**

MASS
180
AREA
3187
HEIGHT
2459
27-Dec-2022
16:07
linh
pham



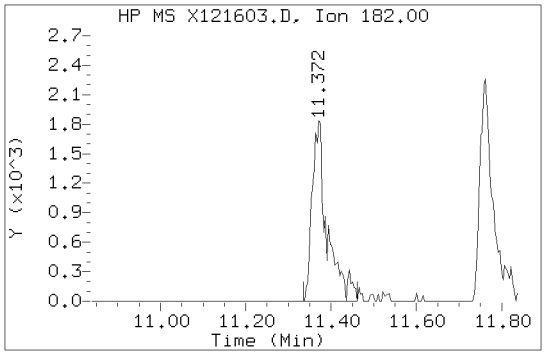

**BEFORE**

MASS
182
AREA
4514
HEIGHT
1835
27-Dec-2022
16:03
linh
pham



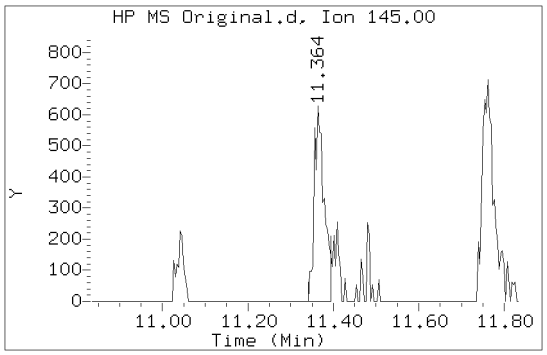

**AFTER**

MASS
182
AREA
4514
HEIGHT
1835
27-Dec-2022
16:07
linh
pham



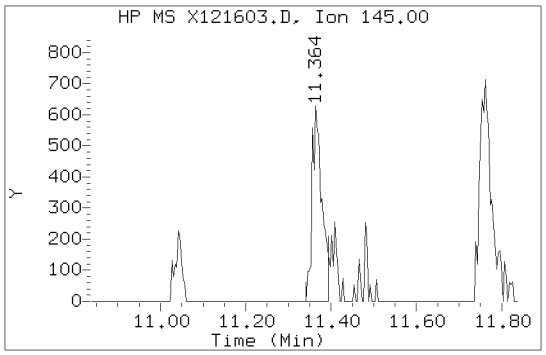

**BEFORE**

MASS
145
AREA
1003
HEIGHT
629
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
145
AREA
1003
HEIGHT
629
27-Dec-2022
16:07
linh
pham

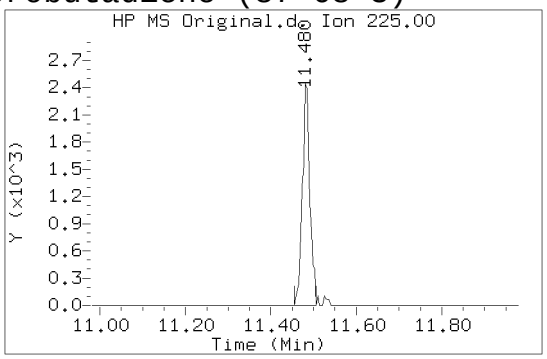


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

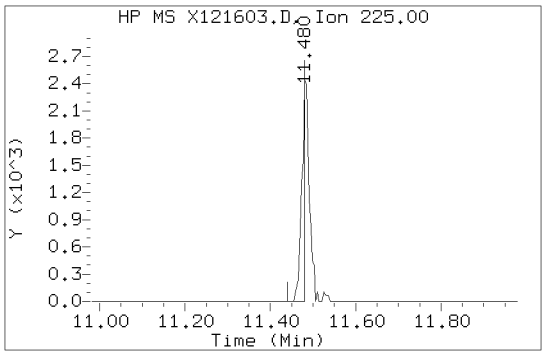
## Hexachlorobutadiene (87-68-3)

Reason Code:

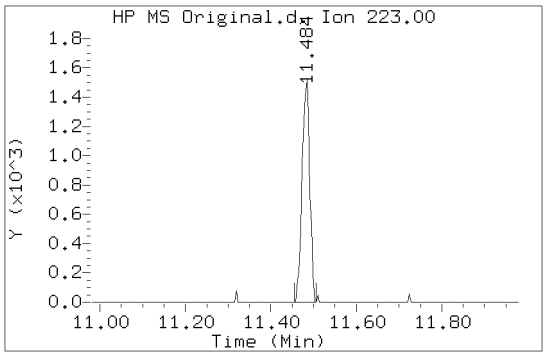
BEFORE
MASS
225
AREA
3038
HEIGHT
2444
27-Dec-2022
16:03
linh
pham



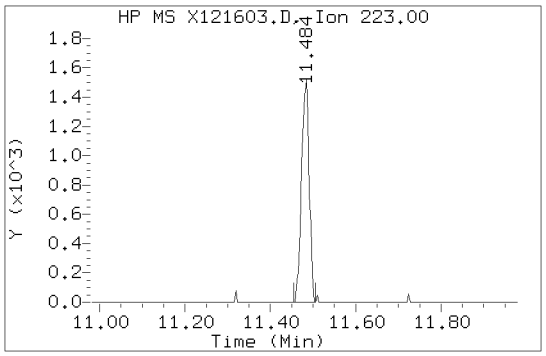

AFTER
MASS
225
AREA
1477
HEIGHT
2444
27-Dec-2022
16:07
linh
pham



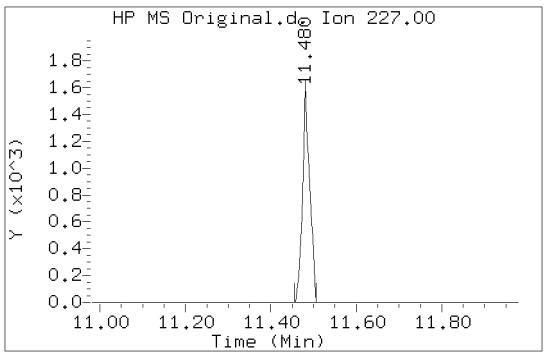

BEFORE
MASS
223
AREA
1952
HEIGHT
1518
27-Dec-2022
16:03
linh
pham



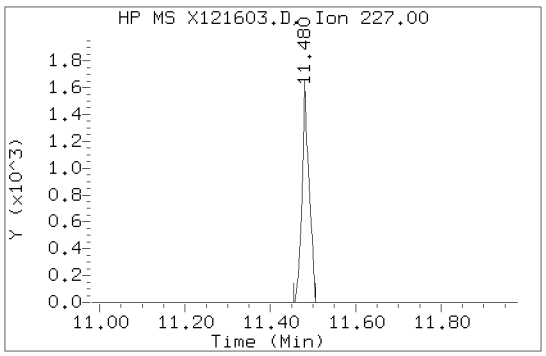

AFTER
MASS
223
AREA
1952
HEIGHT
1518
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
227
AREA
1938
HEIGHT
1652
27-Dec-2022
16:03
linh
pham



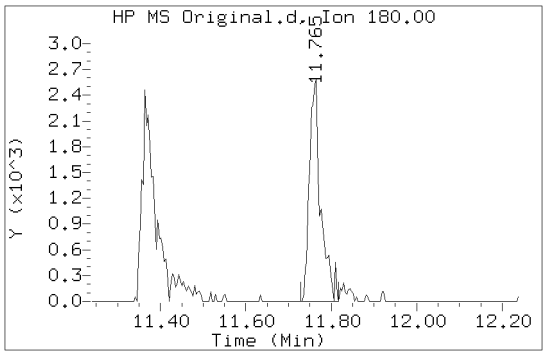

AFTER
MASS
227
AREA
1938
HEIGHT
1652
27-Dec-2022
16:07
linh
pham



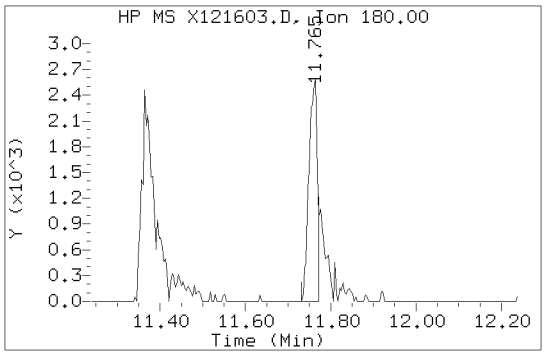

## 1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

BEFORE
MASS
180
AREA
4741
HEIGHT
2580
27-Dec-2022
16:03
linh
pham




AFTER
MASS
180
AREA
3572
HEIGHT
2580
27-Dec-2022
16:07
linh
pham



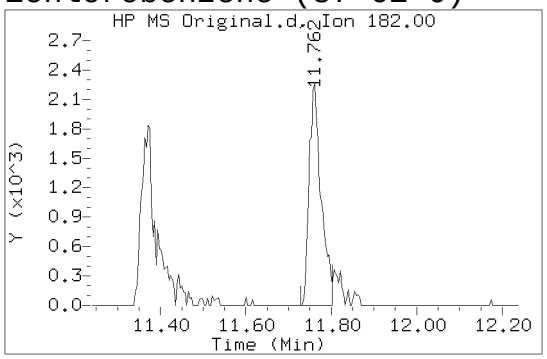
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## 1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

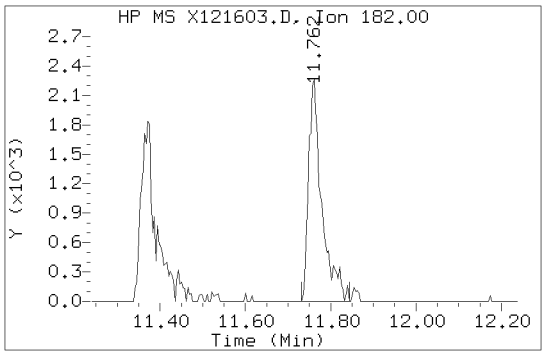
**BEFORE**

MASS
182
AREA
4404
HEIGHT
2261
27-Dec-2022
16:03
linh
pham



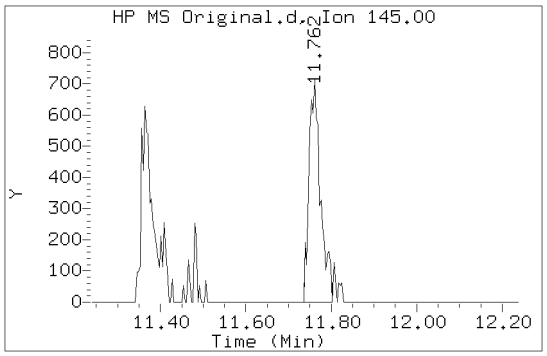

**AFTER**

MASS
182
AREA
4881
HEIGHT
2261
27-Dec-2022
16:07
linh
pham



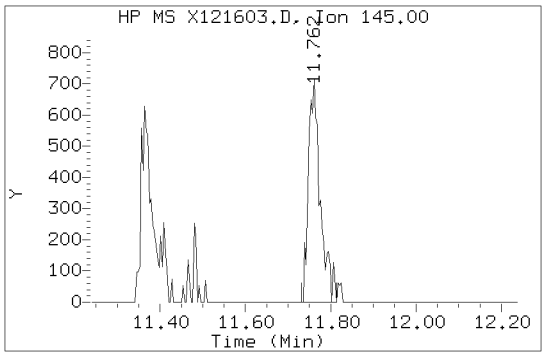

**BEFORE**

MASS
145
AREA
1338
HEIGHT
713
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
145
AREA
1384
HEIGHT
713
27-Dec-2022
16:07
linh
pham

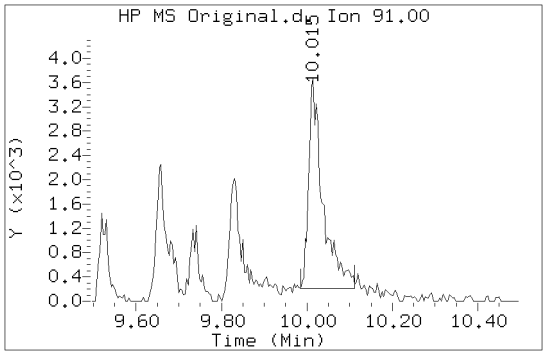



## n-Butylbenzene (104-51-8)

Reason Code:

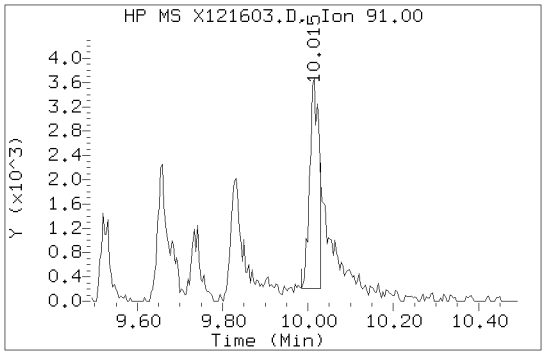
**BEFORE**

MASS
91
AREA
8005
HEIGHT
3451
27-Dec-2022
16:03
linh
pham



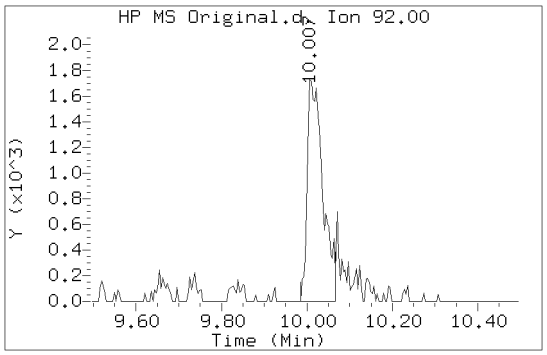

**AFTER**

MASS
91
AREA
5149
HEIGHT
3451
27-Dec-2022
16:07
linh
pham



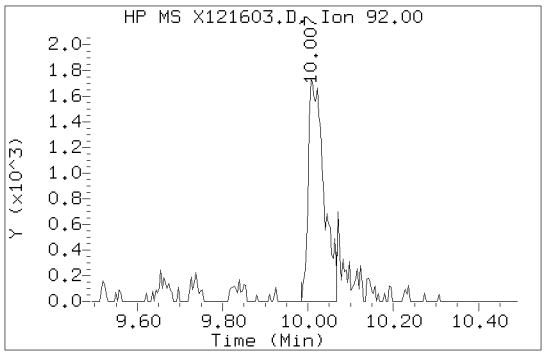

**BEFORE**

MASS
92
AREA
4404
HEIGHT
1727
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
92
AREA
4404
HEIGHT
1727
27-Dec-2022
16:07
linh
pham



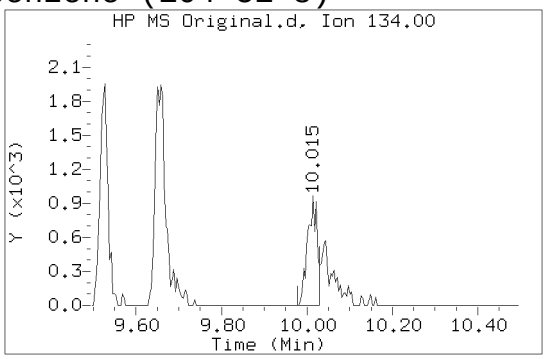
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## n-Butylbenzene (104-51-8)

Reason Code:

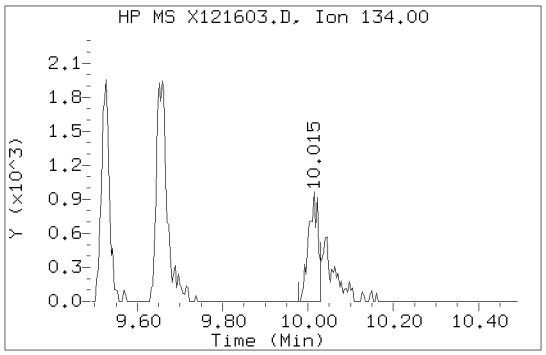
**BEFORE**

MASS
134
AREA
1502
HEIGHT
969
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
134
AREA
1502
HEIGHT
969
27-Dec-2022
16:07
linh
pham

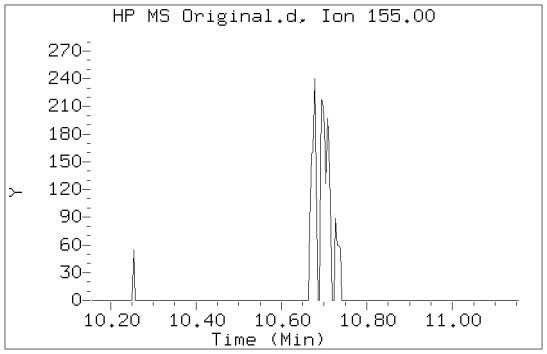



## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

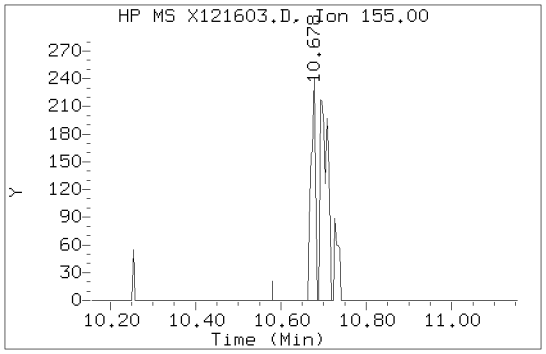
**BEFORE**

MASS
155
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



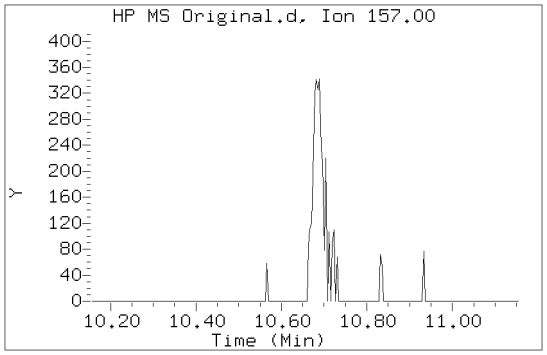

**AFTER**

MASS
155
AREA
441
HEIGHT
240
27-Dec-2022
16:07
linh
pham



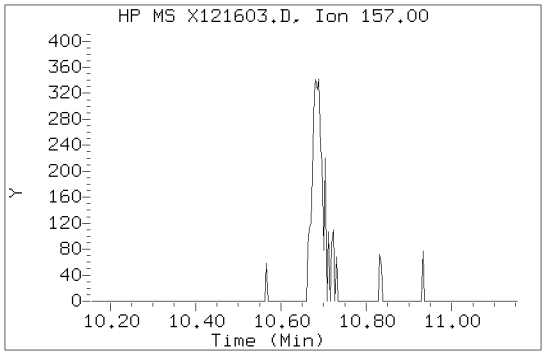

**BEFORE**

MASS
157
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



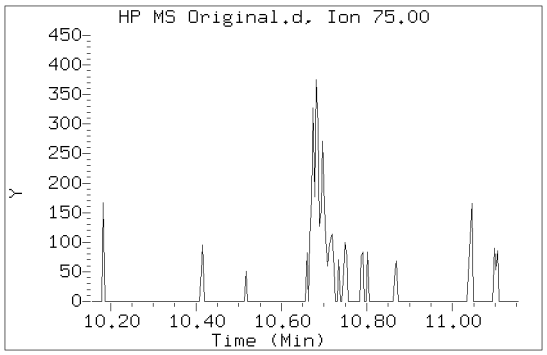

**AFTER**

MASS
157
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



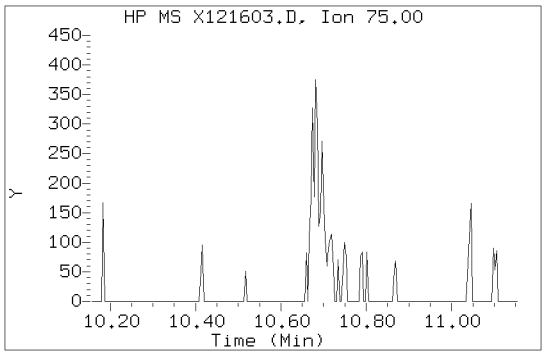

**BEFORE**

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

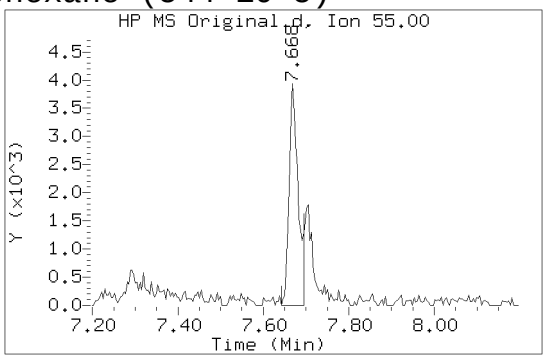


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

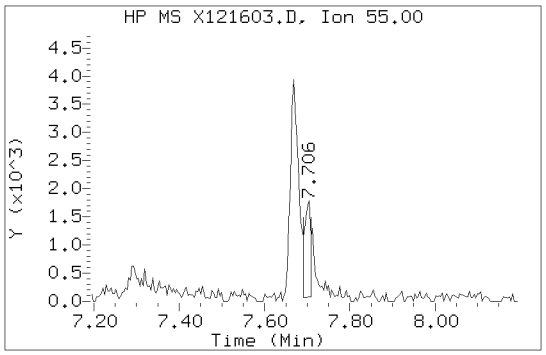
## 1-Chlorohexane (544-10-5)

Reason Code:

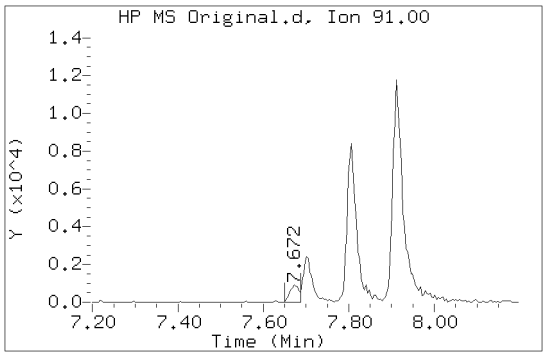
BEFORE
MASS
55
AREA
5785
HEIGHT
3936
27-Dec-2022
16:03
linh
pham



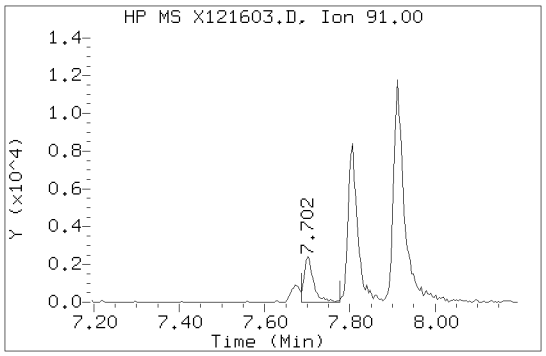

AFTER
MASS
55
AREA
1829
HEIGHT
1707
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
91
AREA
1355
HEIGHT
933
27-Dec-2022
16:03
linh
pham



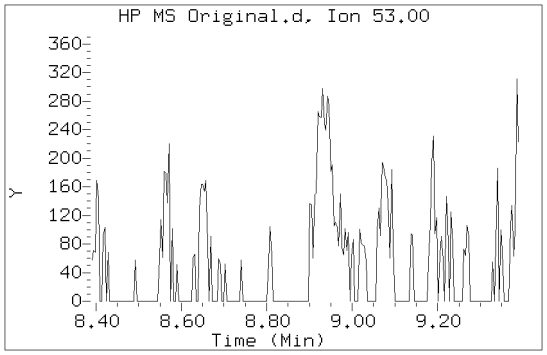

AFTER
MASS
91
AREA
3802
HEIGHT
2430
27-Dec-2022
16:07
linh
pham



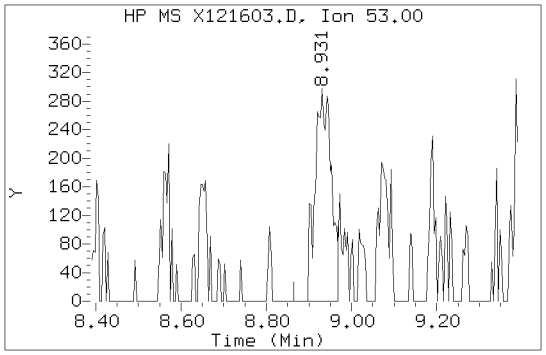

## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

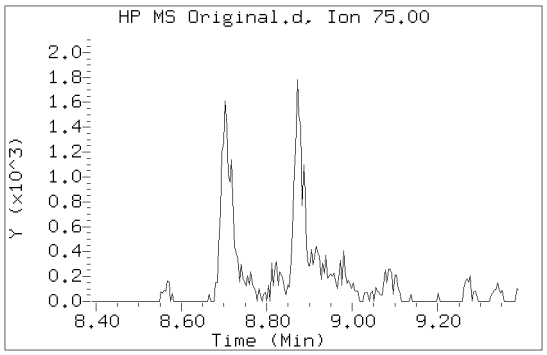
BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



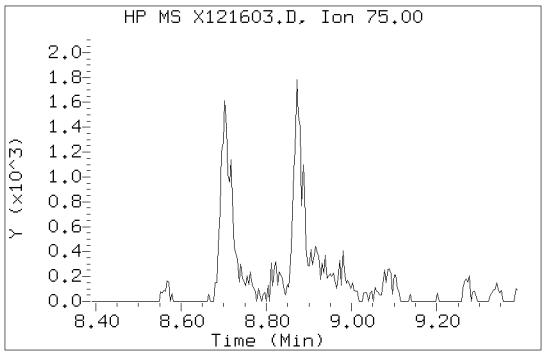

AFTER
MASS
53
AREA
792
HEIGHT
298
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

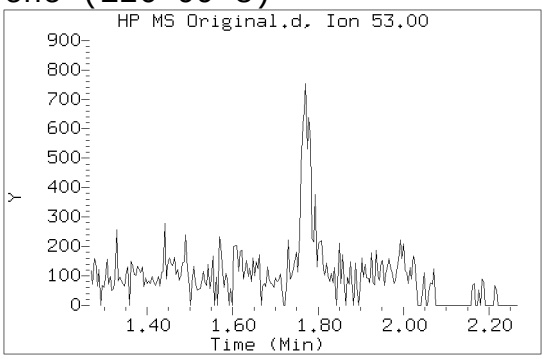


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Chloroprene (126-99-8)

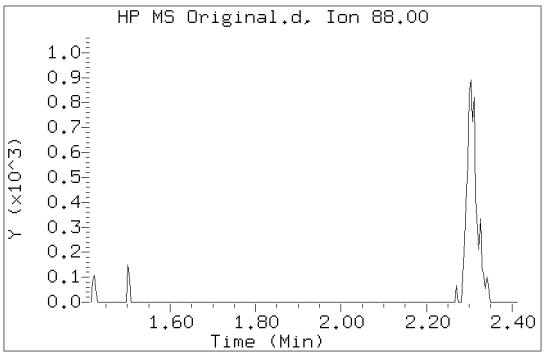
### BEFORE

MASS
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AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham




### BEFORE

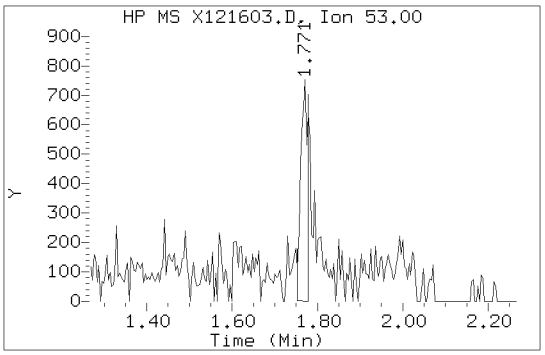
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### Reason Code:

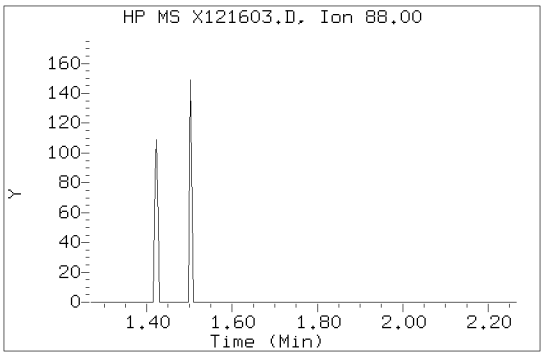
### AFTER

MASS
53
AREA
900
HEIGHT
751
27-Dec-2022
16:07
linh
pham




### AFTER

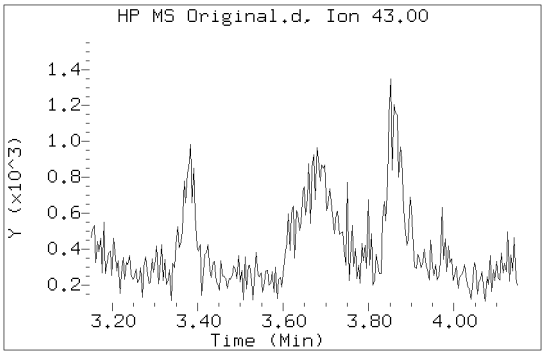
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




## Ethyl Acetate (141-78-6)

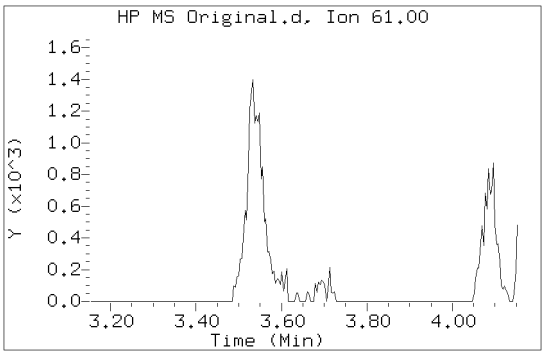
### BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### BEFORE

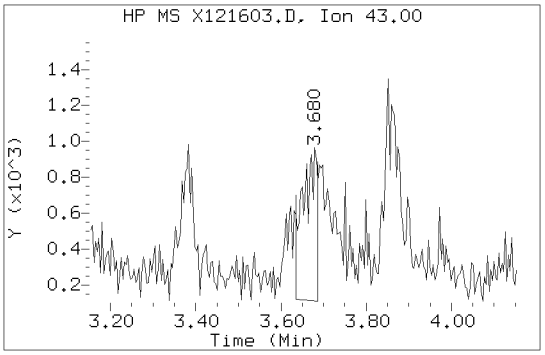
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### Reason Code:

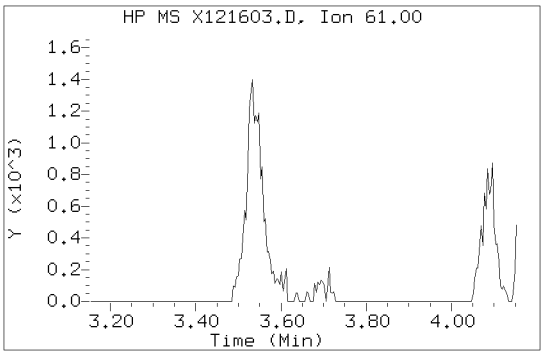
### AFTER

MASS
43
AREA
2065
HEIGHT
853
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

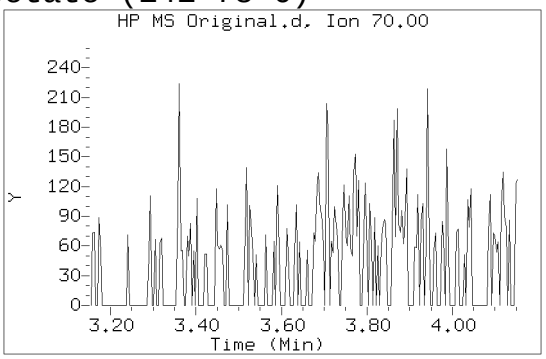


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Ethyl Acetate (141-78-6)

**BEFORE**

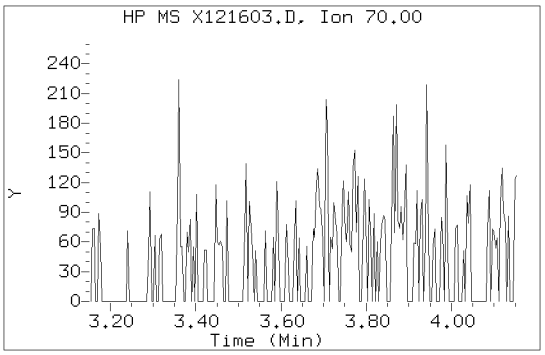
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

**AFTER**

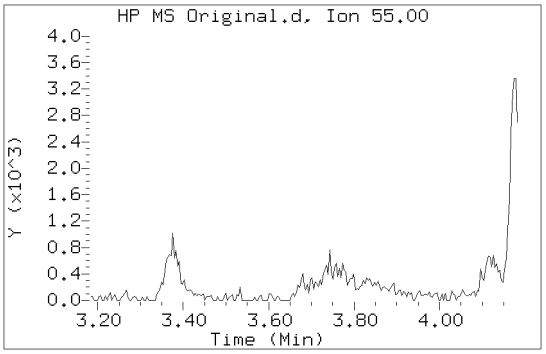
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




## Methyl Acrylate (96-33-3)

**BEFORE**

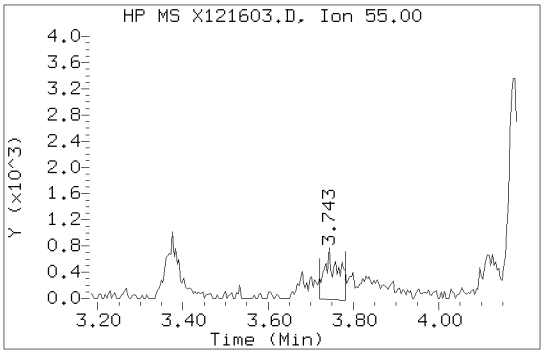
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

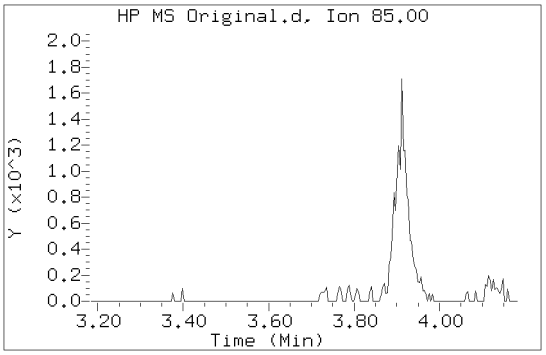
**AFTER**

MASS
55
AREA
1765
HEIGHT
787
27-Dec-2022
16:07
linh
pham



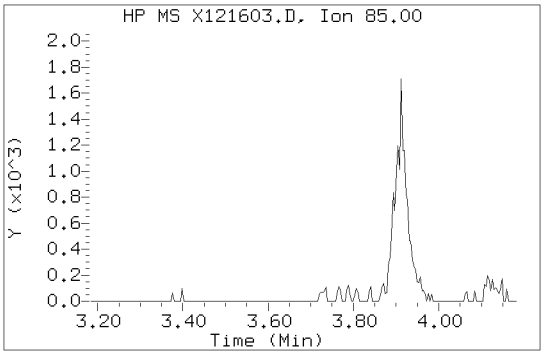

**BEFORE**

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

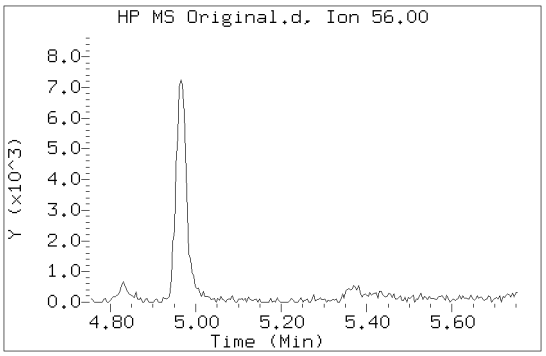
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




## n-Butanol (71-36-3)

**BEFORE**

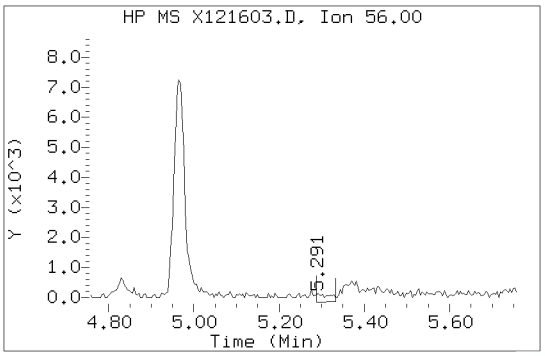
MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

**AFTER**

MASS
56
AREA
622
HEIGHT
300
27-Dec-2022
16:07
linh
pham



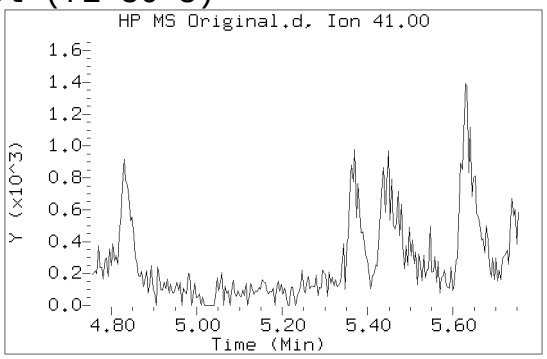
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## n-Butanol (71-36-3)

Reason Code:

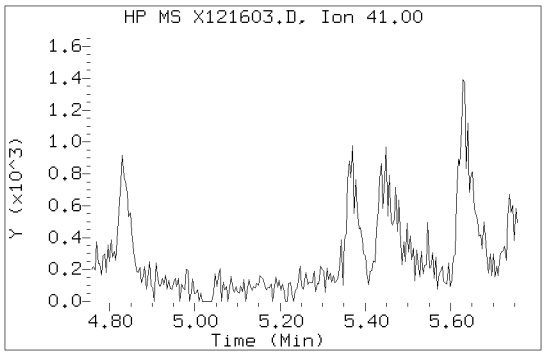
**BEFORE**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

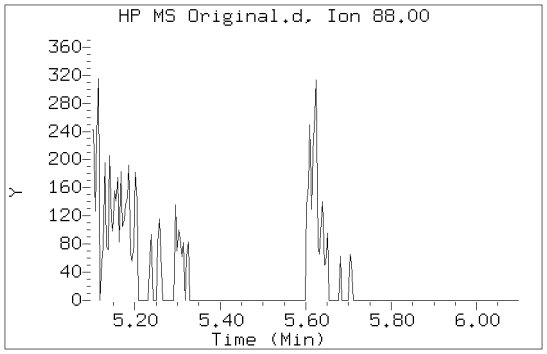



## 1,4-Dioxane ()

Reason Code:

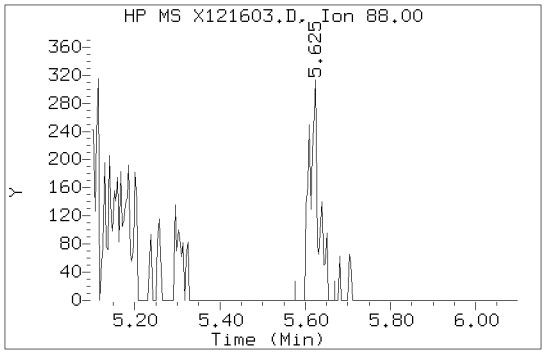
**BEFORE**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



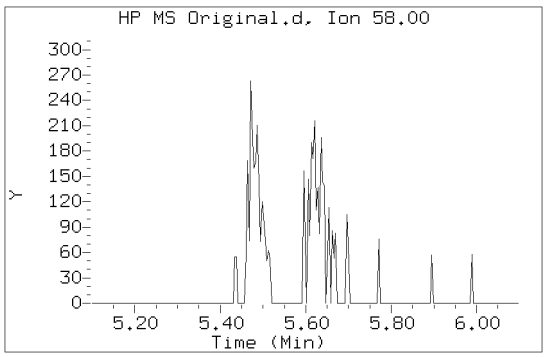

**AFTER**

MASS
88
AREA
462
HEIGHT
313
27-Dec-2022
16:07
linh
pham



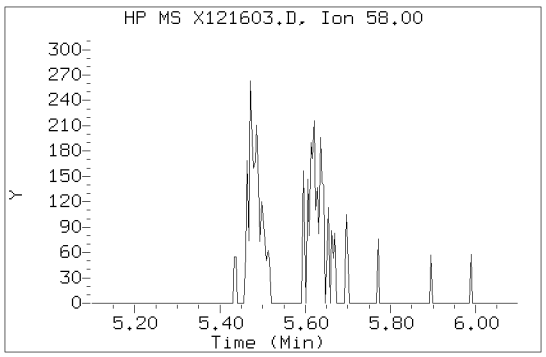

**BEFORE**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

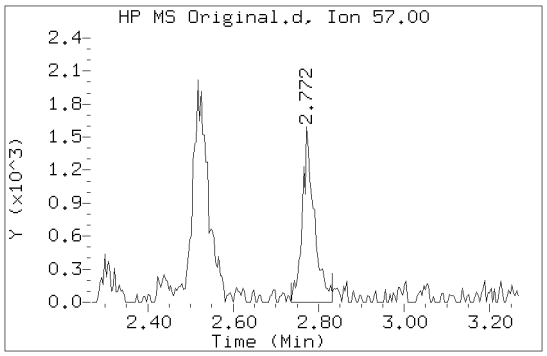



## n-Hexane (110-54-3)

Reason Code:

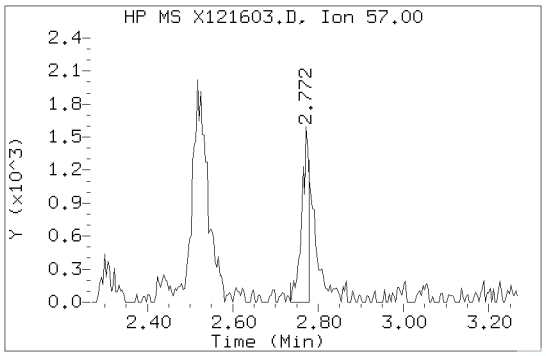
**BEFORE**

MASS
57
AREA
3089
HEIGHT
1591
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
57
AREA
1909
HEIGHT
1591
27-Dec-2022
16:07
linh
pham

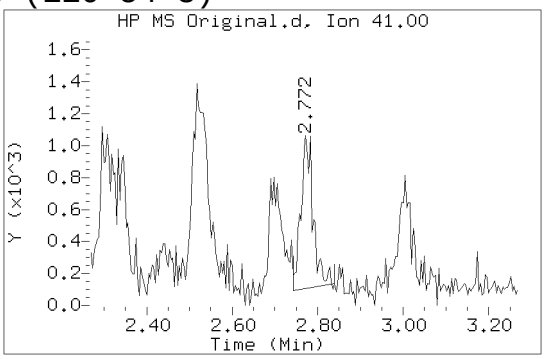


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

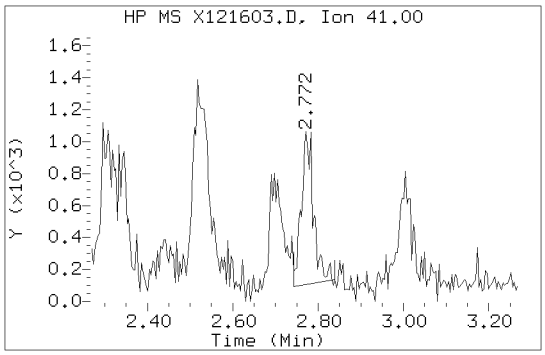
## n-Hexane (110-54-3)

Reason Code:

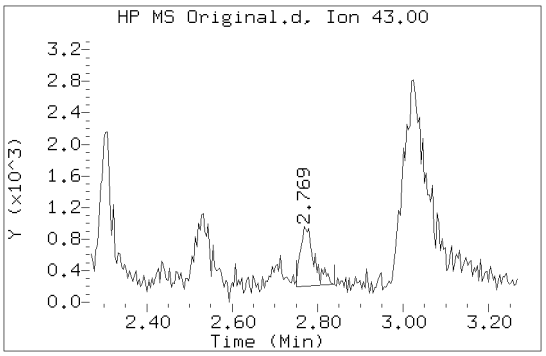
BEFORE
MASS
41
AREA
1918
HEIGHT
958
27-Dec-2022
16:03
linh
pham



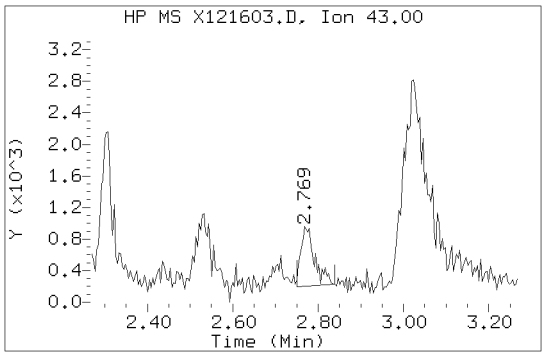

AFTER
MASS
41
AREA
1918
HEIGHT
958
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
43
AREA
1726
HEIGHT
759
27-Dec-2022
16:03
linh
pham



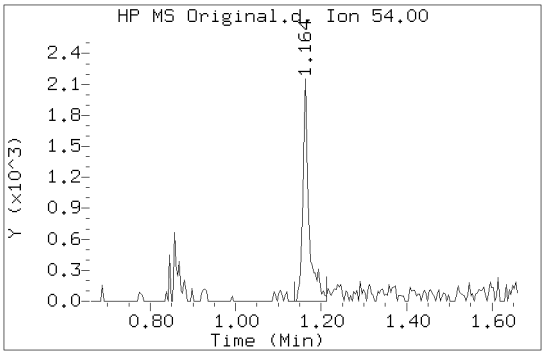

AFTER
MASS
43
AREA
1726
HEIGHT
759
27-Dec-2022
16:07
linh
pham



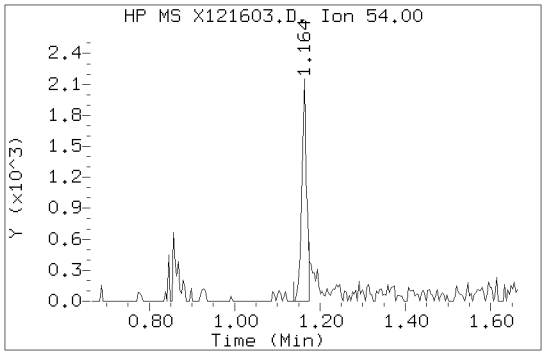

## 1,3-Butadiene (106-99-0)

Reason Code:

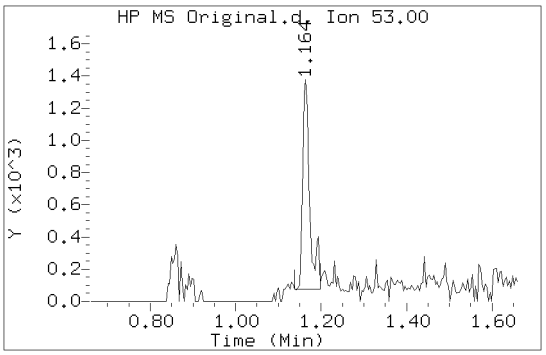
BEFORE
MASS
54
AREA
2206
HEIGHT
2153
27-Dec-2022
16:03
linh
pham



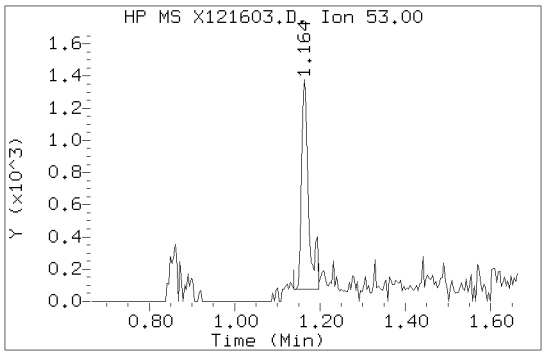

AFTER
MASS
54
AREA
1793
HEIGHT
2153
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
53
AREA
1535
HEIGHT
1301
27-Dec-2022
16:03
linh
pham




AFTER
MASS
53
AREA
1535
HEIGHT
1301
27-Dec-2022
16:07
linh
pham



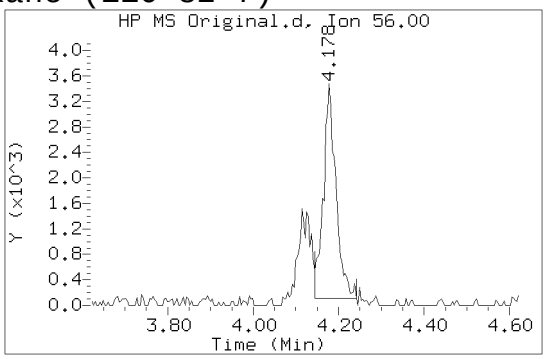
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Cyclohexane (110-82-7)

Reason Code:

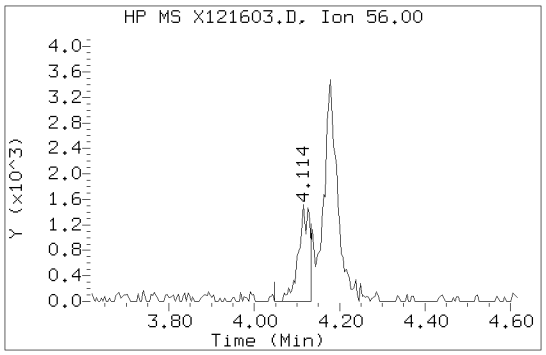
**BEFORE**

MASS
56
AREA
6884
HEIGHT
3363
27-Dec-2022
16:03
linh
pham



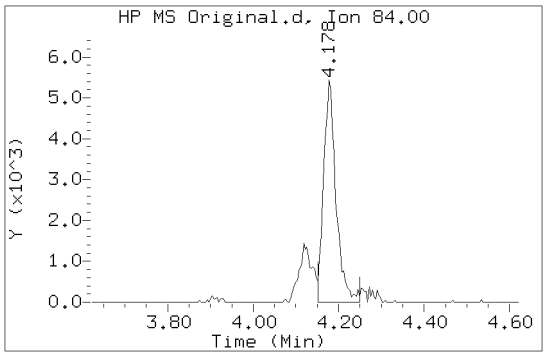

**AFTER**

MASS
56
AREA
2803
HEIGHT
1514
27-Dec-2022
16:07
linh
pham



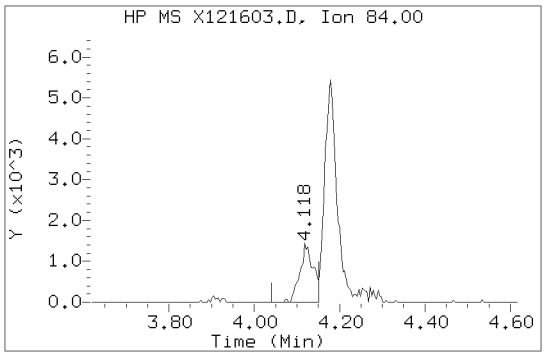

**BEFORE**

MASS
84
AREA
10951
HEIGHT
5440
27-Dec-2022
16:03
linh
pham



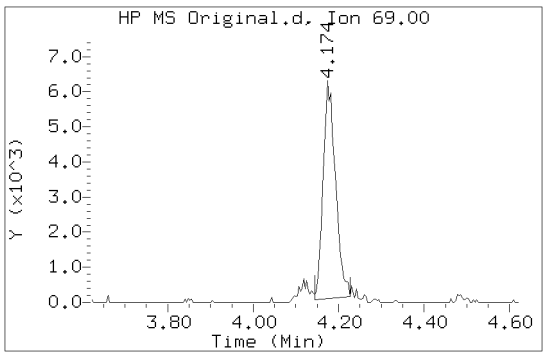

**AFTER**

MASS
84
AREA
3197
HEIGHT
1443
27-Dec-2022
16:07
linh
pham



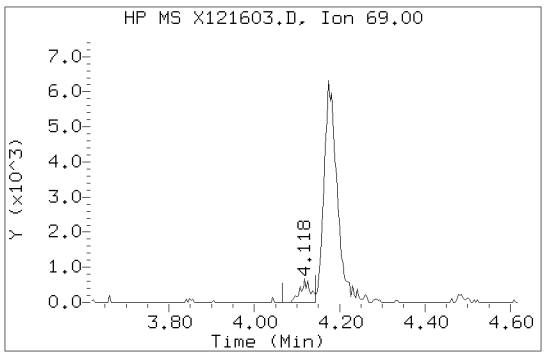

**BEFORE**

MASS
69
AREA
12449
HEIGHT
6206
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
69
AREA
1108
HEIGHT
681
27-Dec-2022
16:07
linh
pham

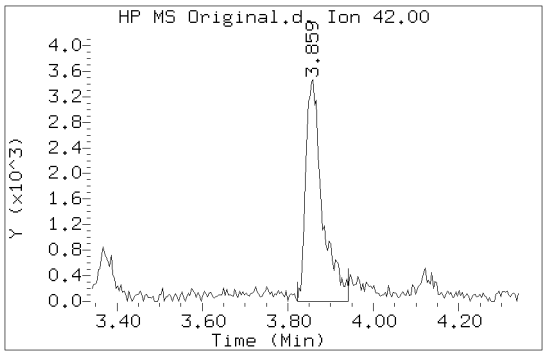



## Tetrahydrofuran (109-99-9)

Reason Code:

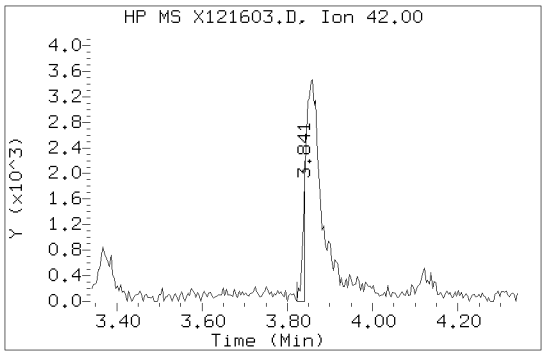
**BEFORE**

MASS
42
AREA
9468
HEIGHT
3467
27-Dec-2022
16:03
linh
pham




**AFTER**

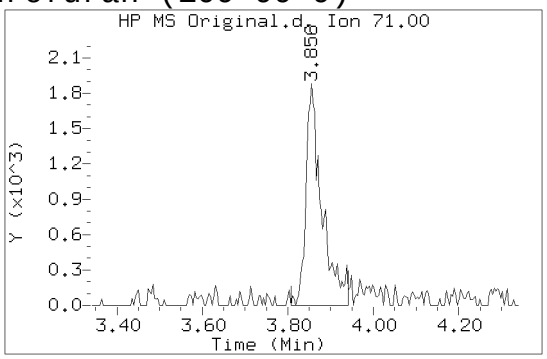
MASS
42
AREA
900
HEIGHT
1891
27-Dec-2022
16:07
linh
pham



Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

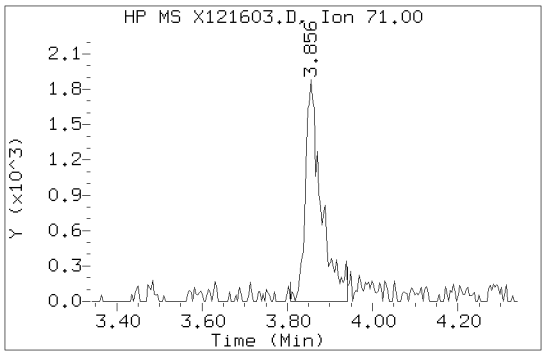
## Tetrahydrofuran (109-99-9)

BEFORE
MASS
71
AREA
4885
HEIGHT
1881
27-Dec-2022
16:03
linh
pham



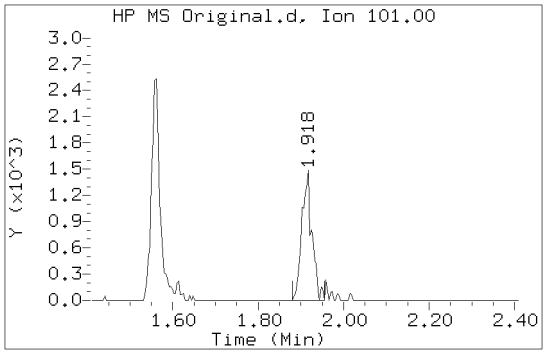

Reason Code:

AFTER
MASS
71
AREA
4885
HEIGHT
1881
27-Dec-2022
16:07
linh
pham



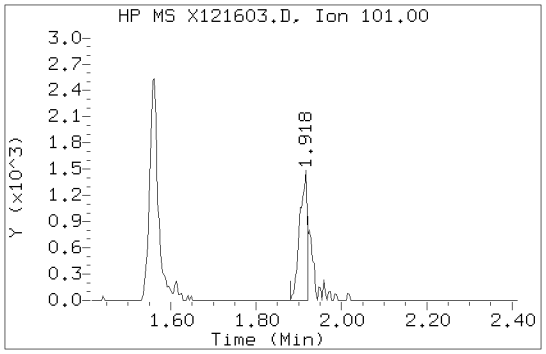

## Freon TF (76-13-1)

BEFORE
MASS
101
AREA
2478
HEIGHT
1484
27-Dec-2022
16:03
linh
pham

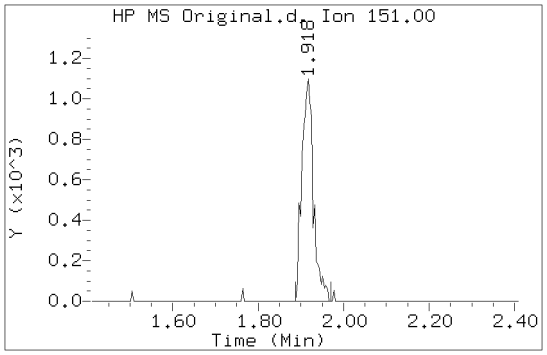



Reason Code:

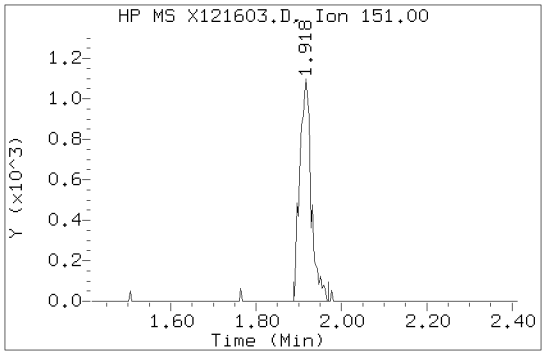
AFTER
MASS
101
AREA
1851
HEIGHT
1484
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
151
AREA
2095
HEIGHT
1098
27-Dec-2022
16:03
linh
pham

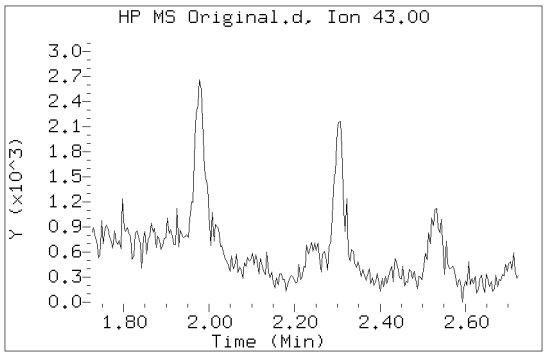



AFTER
MASS
151
AREA
2095
HEIGHT
1098
27-Dec-2022
16:07
linh
pham



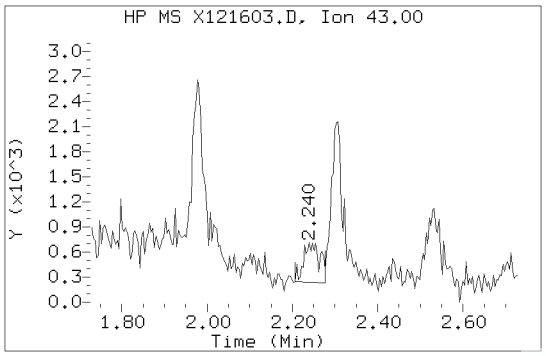

## Methyl Acetate (79-20-9)

BEFORE
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

AFTER
MASS
43
AREA
1269
HEIGHT
477
27-Dec-2022
16:07
linh
pham



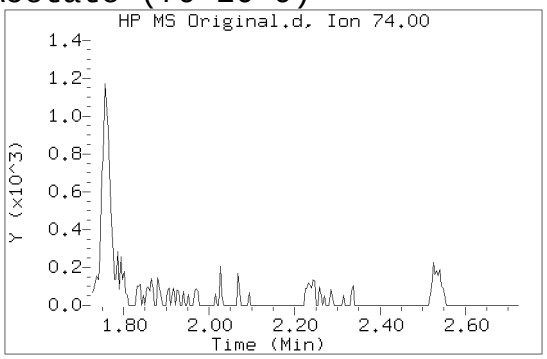
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Methyl Acetate (79-20-9)

Reason Code:

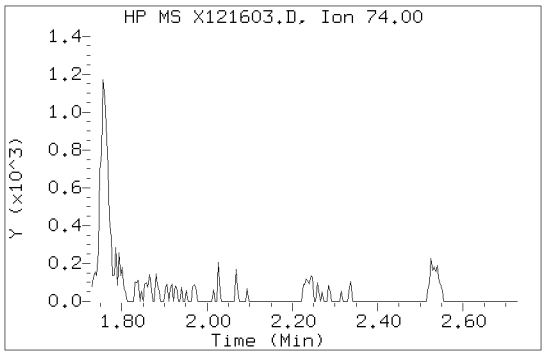
BEFORE

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

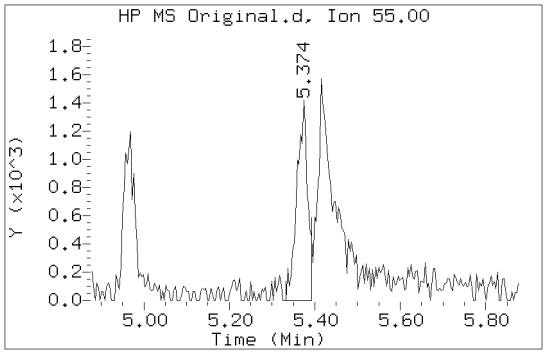



## Methylcyclohexane (108-87-2)

Reason Code:

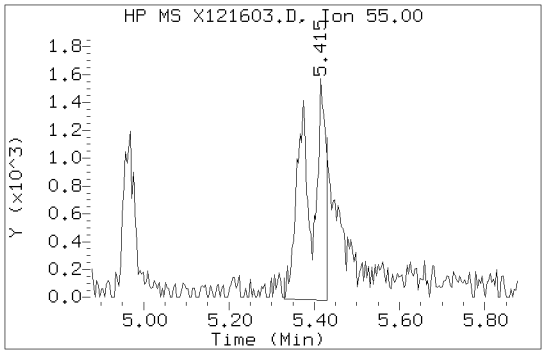
BEFORE

MASS
55
AREA
2505
HEIGHT
1416
27-Dec-2022
16:03
linh
pham



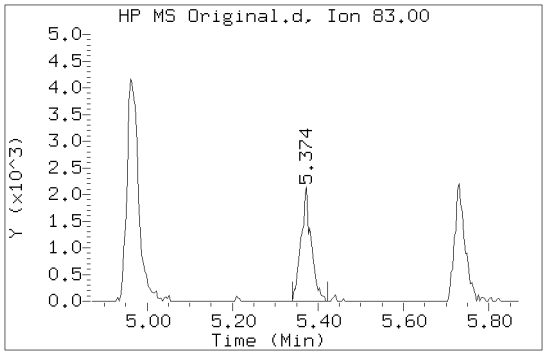

AFTER

MASS
55
AREA
4781
HEIGHT
1590
27-Dec-2022
16:07
linh
pham



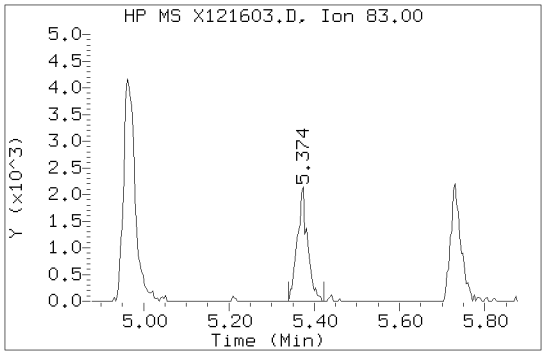

BEFORE

MASS
83
AREA
3627
HEIGHT
2141
27-Dec-2022
16:03
linh
pham




AFTER

MASS
83
AREA
3627
HEIGHT
2141
27-Dec-2022
16:07
linh
pham

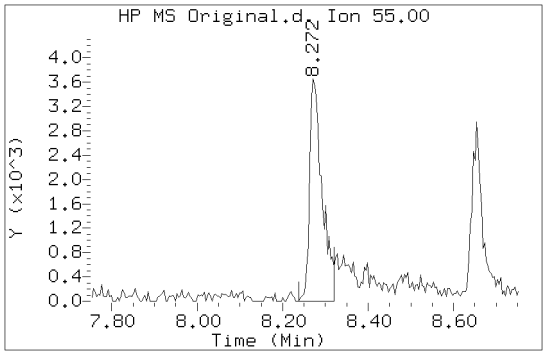



## Butyl acrylate (141-32-2)

Reason Code:

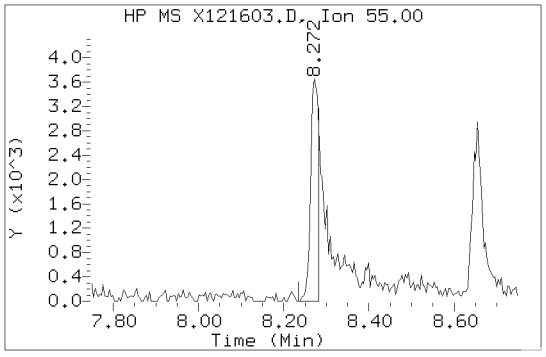
BEFORE

MASS
55
AREA
7480
HEIGHT
3653
27-Dec-2022
16:03
linh
pham




AFTER

MASS
55
AREA
4718
HEIGHT
3653
27-Dec-2022
16:07
linh
pham



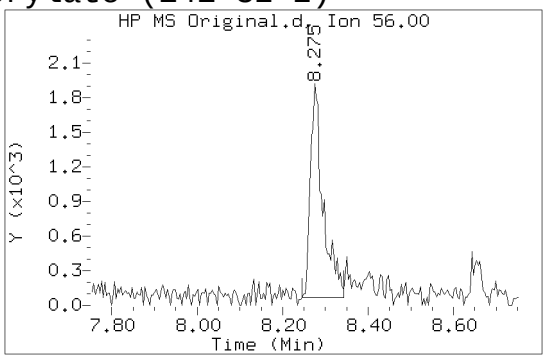
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

## Butyl acrylate (141-32-2)

Reason Code:

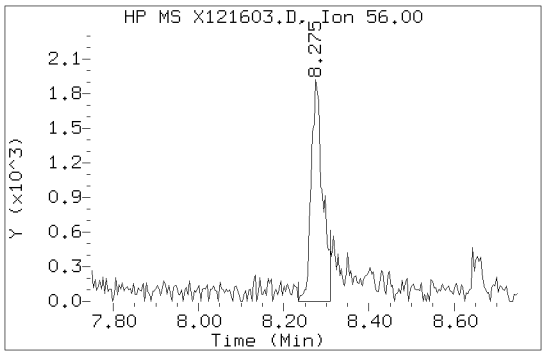
**BEFORE**

MASS
56
AREA
3795
HEIGHT
1858
27-Dec-2022
16:03
linh
pham



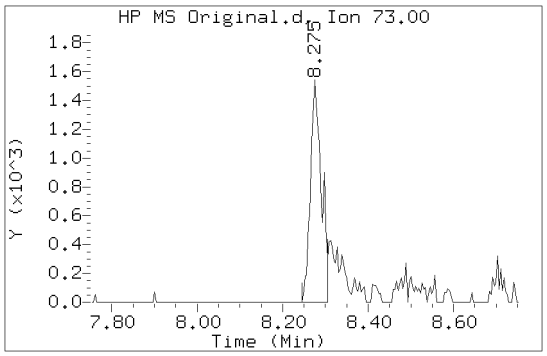

**AFTER**

MASS
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AREA
3566
HEIGHT
1923
27-Dec-2022
16:07
linh
pham



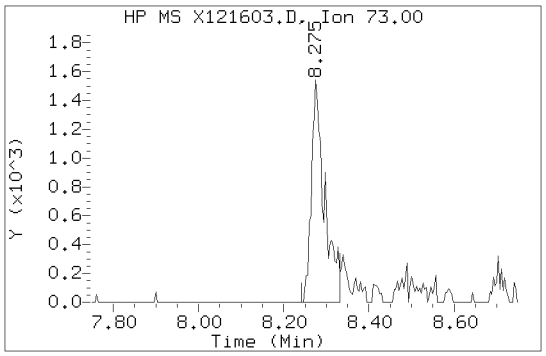

**BEFORE**

MASS
73
AREA
2742
HEIGHT
1542
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
73
AREA
3276
HEIGHT
1542
27-Dec-2022
16:07
linh
pham

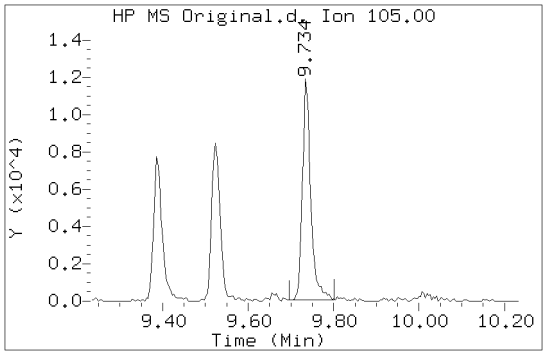



## 1,2,3-Trimethylbenzene (526-73-8)

Reason Code:

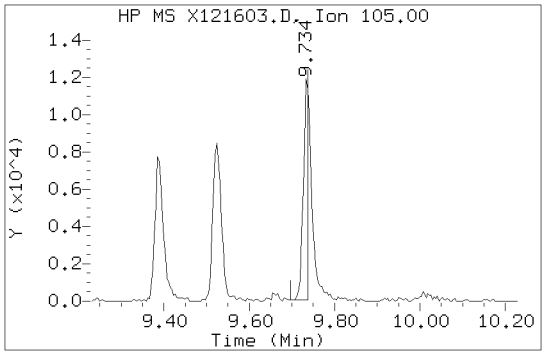
**BEFORE**

MASS
105
AREA
16642
HEIGHT
11860
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
105
AREA
9626
HEIGHT
11860
27-Dec-2022
16:07
linh
pham

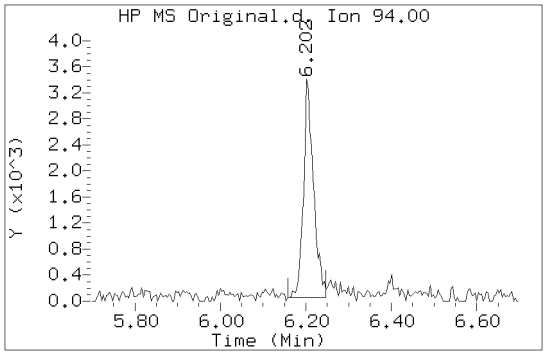



## Dimethyl Disulfide (624-92-0)

Reason Code:

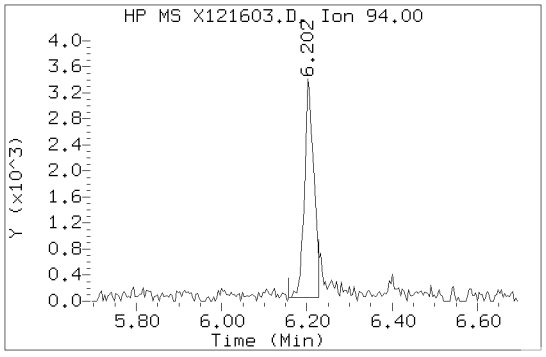
**BEFORE**

MASS
94
AREA
5523
HEIGHT
3352
27-Dec-2022
16:03
linh
pham




**AFTER**

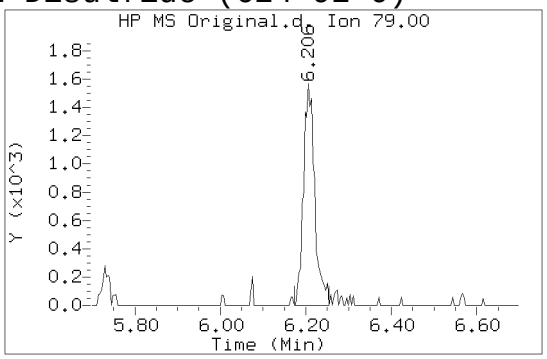
MASS
94
AREA
5153
HEIGHT
3352
27-Dec-2022
16:07
linh
pham



Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

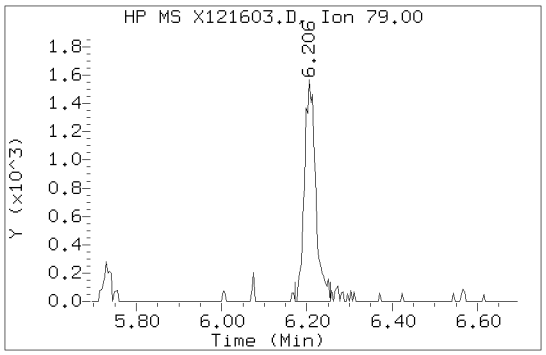
## Dimethyl Disulfide (624-92-0)

BEFORE
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AREA
2905
HEIGHT
1568
27-Dec-2022
16:03
linh
pham

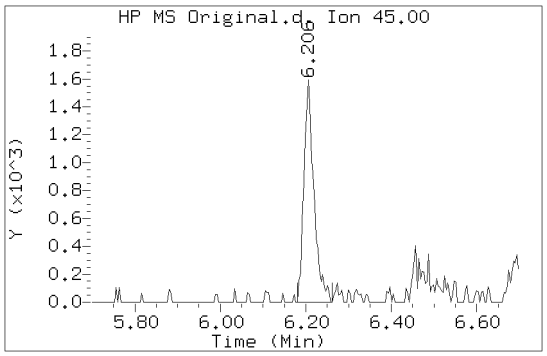



Reason Code:

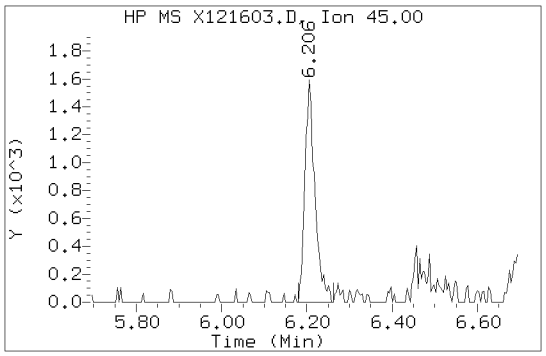
AFTER
MASS
79
AREA
2905
HEIGHT
1568
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
45
AREA
2647
HEIGHT
1593
27-Dec-2022
16:03
linh
pham

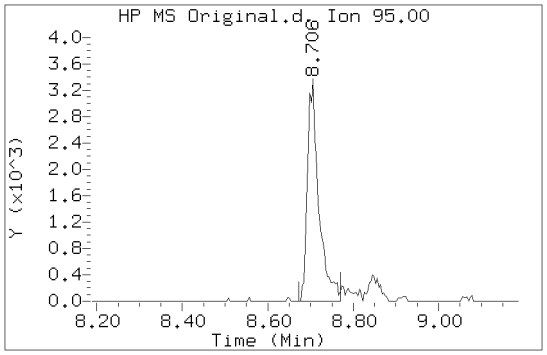



AFTER
MASS
45
AREA
2647
HEIGHT
1593
27-Dec-2022
16:07
linh
pham



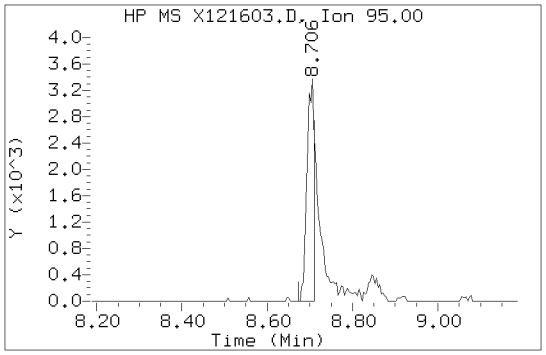

## 4-Bromofluorobenzene (460-00-4)

BEFORE
MASS
95
AREA
6240
HEIGHT
3372
27-Dec-2022
16:03
linh
pham

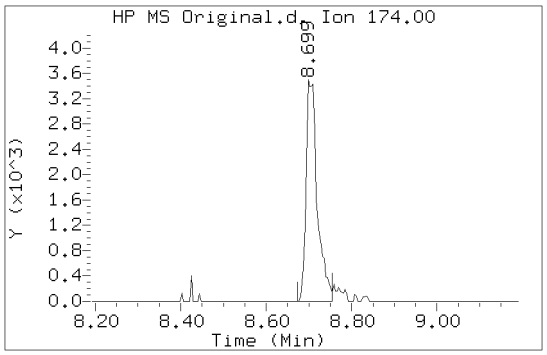



Reason Code:

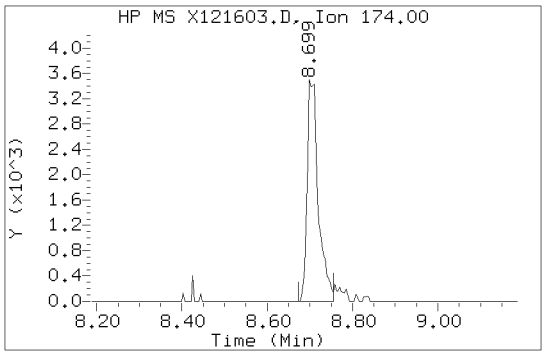
AFTER
MASS
95
AREA
3870
HEIGHT
3372
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
174
AREA
6370
HEIGHT
3502
27-Dec-2022
16:03
linh
pham




AFTER
MASS
174
AREA
6370
HEIGHT
3502
27-Dec-2022
16:07
linh
pham



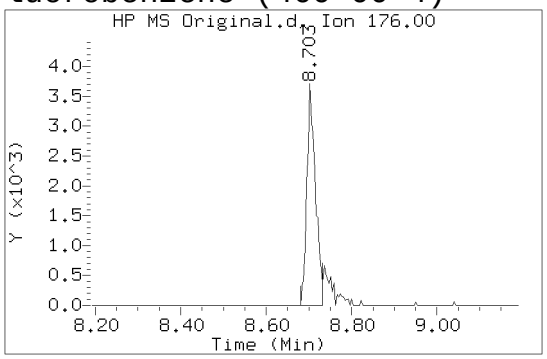
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Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

4-Bromofluorobenzene (460-00-4)

Reason Code:

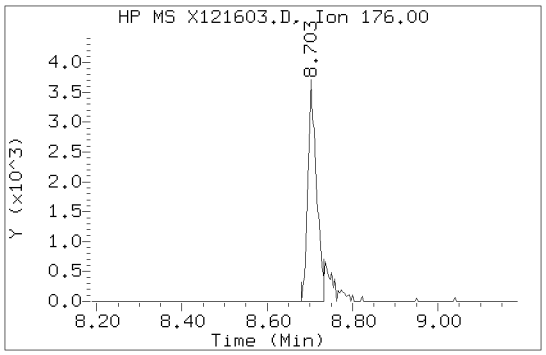
BEFORE

MASS
176
AREA
5204
HEIGHT
3711
27-Dec-2022
16:03
linh
pham




AFTER

MASS
176
AREA
5204
HEIGHT
3711
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Lab Smp Id: VSTD001  Client Smp ID: VSTD001
Inj Date  : 16-DEC-2022 12:41
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD001;VSTD001;1;3;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 12:20  Cal File: X121603.D
Als bottle: 5  Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 450308 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.610 | 5.610 | (1.343) | 820 | 20.0000 | 19.92(M) |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 3432 | 1.00000 | 1.11 |
| 25 Methacrylonitrile | 41 | 3.852 | 3.852 | (0.922) | 3285 | 1.00000 | 1.03(M) |
| 12 Isobutyl Alcohol | 43 | 4.695 | 4.695 | (1.124) | 9436 | 20.0000 | 18.62(M) |
| 13 Acetonitrile | 39 | 2.198 | 2.198 | (0.526) | 4183 | 10.0000 | 10.20 |
| 14 Allyl Chloride | 41 | 2.202 | 2.202 | (0.527) | 8574 | 1.00000 | 1.09 |
| 4 Propionitrile | 54 | 3.687 | 3.687 | (0.882) | 4742 | 10.0000 | 10.32(M) |
| 136 n-Hexane | 57 | 2.776 | 2.776 | (0.664) | 2343 | 1.00000 | 0.72 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.920 | 8.920 | (1.163) | 1196 | 1.00000 | 0.85(M) |
| 194 Acetaldehyde | 44 | 1.212 | 1.212 | (0.290) | 3384 | 4.00000 | (M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 1686 | 1.00000 | 1.10(M) |
| 145 alpha-Methylstyrene | 118 | 9.272 | 9.272 | (0.960) | 6032 | 1.00000 | 0.77 |
| 200 Dimethyl Disulfide | 94 | 6.206 | 6.206 | (0.809) | 8295 | 1.00000 | 0.94 |
| 139 Diethyl ether | 59 | 1.760 | 1.760 | (0.421) | 2983 | 1.00000 | 0.99 |
| 130 Ethyl Acetate | 43 | 3.675 | 3.675 | (0.880) | 3144 | 1.00000 | 0.89(M) |
| 40 Methyl Methacrylate | 41 | 5.628 | 5.628 | (1.347) | 3145 | 1.00000 | 1.02 |
| 49 Ethyl Methacrylate | 69 | 6.727 | 6.727 | (1.355) | 3303 | 1.00000 | 1.02(M) |
| 132 n-Butanol | 56 | 5.239 | 5.239 | (1.254) | 1171 | 20.0000 | 60.69(M) |
| 142 Tetrahydrofuran | 42 | 3.844 | 3.844 | (0.920) | 1361 | 2.00000 | (M) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.776 | 2.776 (0.664) | 2343 | 20.0000 | 13.39 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 18347 | 1.00000 | 1.08 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D Page 2
Report Date: 27-Dec-2022 16:07

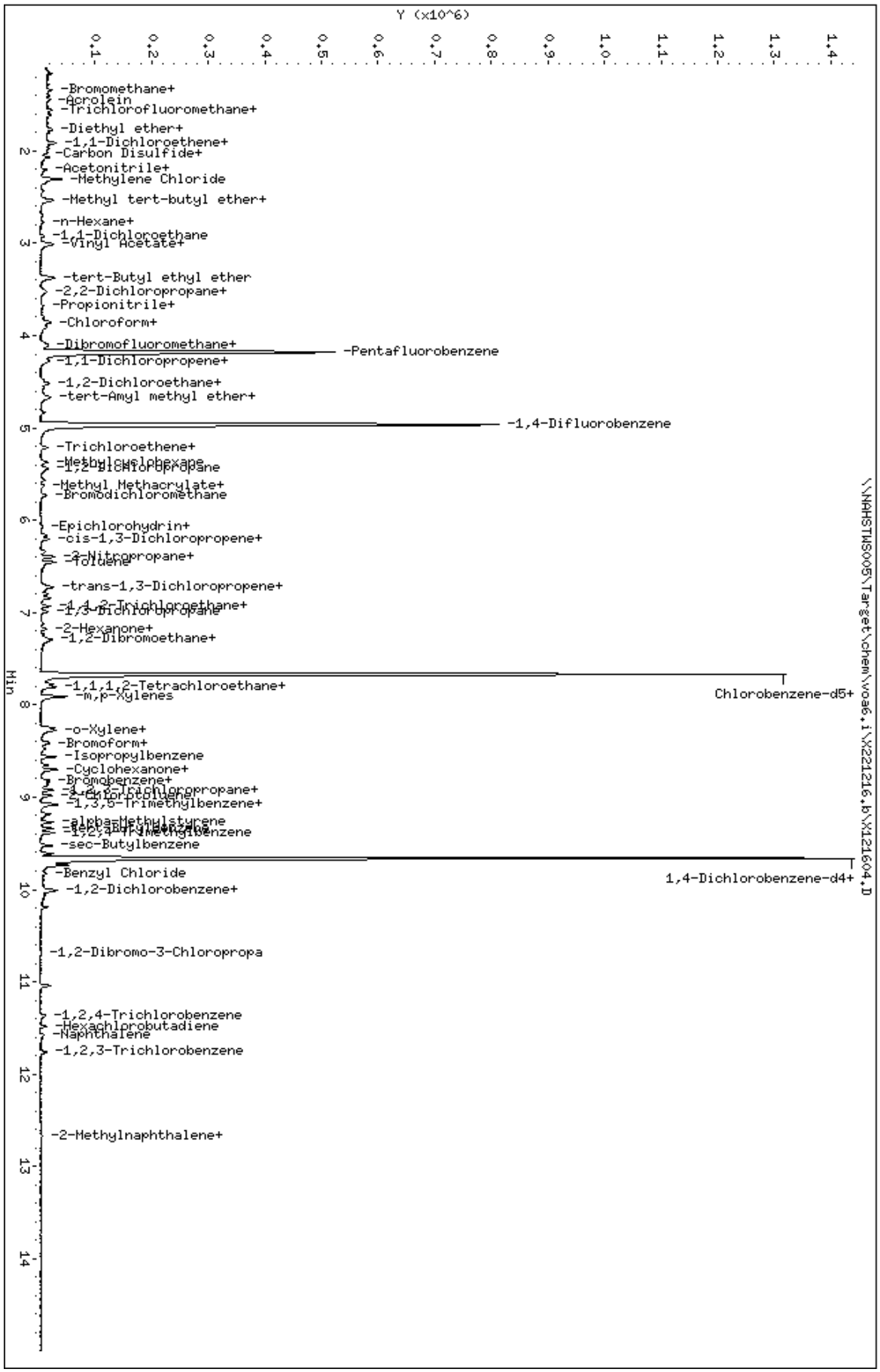
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | CAL-AMT | ON-COL |
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ( ug/l) | ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.743 | 3.743 | (0.896) | 3084 | 1.00000 | 1.00(M) |
| | 162 | Butyl acrylate | 55 | 8.271 | 8.271 | (1.078) | 7647 | 1.00000 | 0.90 |
| | 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 2911 | 1.00000 | 1.30 |
| | 3 | Chloromethane | 50 | 1.078 | 1.078 | (0.258) | 3670 | 1.00000 | 3.07 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 3645 | 1.00000 | 0.92 |
| | 6 | Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 3293 | 1.00000 | 2.83 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 2516 | 1.00000 | 0.91(M) |
| | 8 | Trichlorofluoromethane | 101 | 1.554 | 1.554 | (0.372) | 4906 | 1.00000 | 0.89 |
| | 9 | Acrolein | 56 | 1.452 | 1.452 | (0.348) | 761 | 2.00000 | 5.22(M) |
| | 10 | Acetone | 43 | 1.977 | 1.977 | (0.473) | 4787 | 2.00000 | 3.75(M) |
| | 11 | 1,1-Dichloroethene | 96 | 1.913 | 1.913 | (0.458) | 3238 | 1.00000 | 0.94 |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 3865 | 2.00000 | 4.18(TM) |
| | 16 | Acrylonitrile | 53 | 2.554 | 2.554 | (0.612) | 2258 | 2.00000 | 1.94(M) |
| | 17 | Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 5355 | 1.00000 | 1.14(M) |
| | 18 | Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 12521 | 1.00000 | 1.11 |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 18122 | 2.00000 | 2.02 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.532 | 2.532 | (0.606) | 3821 | 1.00000 | 0.99 |
| | 21 | Vinyl Acetate | 43 | 3.012 | 3.012 | (0.721) | 17842 | 2.00000 | 1.81 |
| | 22 | 1,1-Dichloroethane | 63 | 2.922 | 2.922 | (0.699) | 7218 | 1.00000 | 1.07 |
| | 24 | 2-Butanone | 43 | 3.619 | 3.619 | (0.866) | 2498 | 2.00000 | 4.83(M) |
| | 26 | 2,2-Dichloropropane | 77 | 3.514 | 3.514 | (0.841) | 5896 | 1.00000 | 1.03 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.540 | 3.540 | (0.847) | 4469 | 1.00000 | 0.96 |
| | 28 | Chloroform | 83 | 3.908 | 3.908 | (0.935) | 7768 | 1.00000 | 1.03 |
| | 29 | Bromochloromethane | 128 | 3.803 | 3.803 | (0.910) | 2689 | 1.00000 | 1.05 |
| $ | 30 | Dibromofluoromethane | 113 | 4.103 | 4.103 | (0.982) | 4769 | 1.00000 | 0.94 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.088 | 4.088 | (0.978) | 5914 | 1.00000 | 0.99 |
| | 32 | 1,1-Dichloropropene | 75 | 4.286 | 4.286 | (0.863) | 4698 | 1.00000 | 0.96 |
| | 33 | 1,2-Dichloroethane | 62 | 4.564 | 4.564 | (0.919) | 5568 | 1.00000 | 0.99 |
| | 34 | Carbon Tetrachloride | 117 | 4.271 | 4.271 | (0.860) | 6221 | 1.00000 | 1.19 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.485 | 4.485 | (1.074) | 5559 | 1.00000 | 1.48 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 685937 | 50.0000 | |
| | 37 | Benzene | 78 | 4.515 | 4.515 | (0.909) | 16367 | 1.00000 | 0.99 |
| | 38 | Trichloroethene | 130 | 5.216 | 5.216 | (1.051) | 4352 | 1.00000 | 0.93 |
| | 39 | Bromodichloromethane | 83 | 5.730 | 5.730 | (1.154) | 6296 | 1.00000 | 1.02(M) |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.071 | 6.071 | (1.223) | 3202 | 2.00000 | 1.83(M) |
| | 42 | 1,2-Dichloropropane | 63 | 5.445 | 5.445 | (1.097) | 4604 | 1.00000 | 1.05(M) |
| | 44 | Dibromomethane | 93 | 5.557 | 5.557 | (1.119) | 2906 | 1.00000 | 0.98 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.341 | 6.341 | (0.827) | 6859 | 2.00000 | 1.97 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.168 | 6.168 | (1.242) | 6537 | 1.00000 | 0.90 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 649074 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.401 | 6.401 | (0.834) | 17067 | 1.00000 | 1.06 |
| | 50 | Toluene | 91 | 6.457 | 6.457 | (0.842) | 17914 | 1.00000 | 0.99 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.693 | 6.693 | (1.348) | 5418 | 1.00000 | 0.90 |
| | 52 | 2-Hexanone | 43 | 7.109 | 7.109 | (0.927) | 4520 | 2.00000 | 1.91 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.843 | 6.843 | (0.892) | 3499 | 1.00000 | 0.97 |
| | 54 | 1,3-Dichloropropane | 76 | 6.989 | 6.989 | (0.911) | 7216 | 1.00000 | 1.01 |
| | 55 | Dibromochloromethane | 129 | 7.177 | 7.177 | (0.936) | 5024 | 1.00000 | 0.96 |
| | 56 | Tetrachloroethene | 164 | 6.933 | 6.933 | (0.904) | 3331 | 1.00000 | 0.89 |
| | 57 | 1,2-Dibromoethane | 107 | 7.270 | 7.270 | (0.948) | 4350 | 1.00000 | 0.96 |
| | 58 | 1-Chlorohexane | 55 | 7.705 | 7.705 | (1.552) | 3155 | 1.00000 | 0.95(MH) |
| | 59 | Chlorobenzene | 112 | 7.698 | 7.698 | (1.003) | 12555 | 1.00000 | 0.98 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.776 | 7.776 | (1.014) | 4485 | 1.00000 | 0.94 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.806 | 7.806 (1.018) | 5698 | 1.00000 | 0.95 |
| 62 m,p-Xylenes | 106 | 7.911 | 7.911 (1.031) | 14464 | 2.00000 | 1.87 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.249 | 8.249 | (1.075) | 6670 | 1.00000 | 0.87 |
| | 64 Styrene | 104 | 8.282 | 8.282 | (1.080) | 10384 | 1.00000 | 0.81 |
| | 66 Bromoform | 173 | 8.417 | 8.417 | (1.097) | 3274 | 1.00000 | 0.90(T) |
| | 67 Isopropylbenzene | 105 | 8.564 | 8.564 | (1.116) | 15163 | 1.00000 | 0.87 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.845 | 8.845 | (0.915) | 5934 | 1.00000 | 1.05(M) |
| $ | 69 4-Bromofluorobenzene | 95 | 8.702 | 8.702 | (1.134) | 7790 | 1.00000 | 1.36(M) |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 351251 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.871 | 8.871 | (0.918) | 3978 | 1.00000 | 1.01 |
| | 73 n-Propylbenzene | 91 | 8.923 | 8.923 | (0.924) | 15006 | 1.00000 | 0.77 |
| | 74 Bromobenzene | 156 | 8.818 | 8.818 | (0.913) | 5554 | 1.00000 | 0.96 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.073 | 9.073 | (0.939) | 11820 | 1.00000 | 0.82 |
| | 76 2-Chlorotoluene | 91 | 8.980 | 8.980 | (0.929) | 12470 | 1.00000 | 0.97 |
| | 77 4-Chlorotoluene | 91 | 9.085 | 9.085 | (0.940) | 12140 | 1.00000 | 0.83 |
| | 78 tert-Butylbenzene | 119 | 9.340 | 9.340 | (0.967) | 9357 | 1.00000 | 0.79 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.385 | 9.385 | (0.971) | 12988 | 1.00000 | 0.85 |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 12395 | 1.00000 | 0.79 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 10009 | 1.00000 | 0.71 |
| | 83 1,3-Dichlorobenzene | 146 | 9.609 | 9.609 | (0.995) | 8523 | 1.00000 | 0.89 |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 9866 | 1.00000 | 0.94 |
| | 86 Benzyl Chloride | 91 | 9.823 | 9.823 | (1.280) | 4632 | 1.00000 | 3.12 |
| | 87 n-Butylbenzene | 91 | 10.014 | 10.014 | (1.036) | 8459 | 1.00000 | 2.37(M) |
| | 88 1,2-Dichlorobenzene | 146 | 10.007 | 10.007 | (1.036) | 8626 | 1.00000 | 0.87 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.689 | 10.689 | (1.106) | 778 | 1.00000 | 0.95(M) |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.371 | 11.371 | (1.177) | 4609 | 1.00000 | 0.74 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 1928 | 1.00000 | 0.65 |
| | 92 Naphthalene | 128 | 11.574 | 11.574 | (1.198) | 11288 | 1.00000 | 0.79(M) |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.754 | 11.754 | (1.216) | 4801 | 1.00000 | 0.80 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 8290 | 2.00000 | |
| M | 95 Xylenes (total) | 106 | | | | 21134 | 3.00000 | |
| | 141 Cyclohexane | 56 | 4.125 | 4.125 | (0.987) | 4003 | 1.00000 | 2.12(H) |
| | 138 Freon TF | 101 | 1.906 | 1.906 | (0.456) | 3356 | 1.00000 | 1.01 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 6848 | 1.00000 | 0.81(M) |
| | 146 Methyl Acetate | 43 | 2.236 | 2.236 | (0.535) | 2127 | 1.00000 | 1.04(M) |
| | 148 Tert-Butyl alcohol | 59 | 2.438 | 2.438 | (0.584) | 6051 | 20.0000 | 19.40(a) |

## QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121604.D
Date : 16-DEC-2022 12:41
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624

\\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121604.D
Instrument: voa6,i
Operator: PC
Column diameter: 0.18

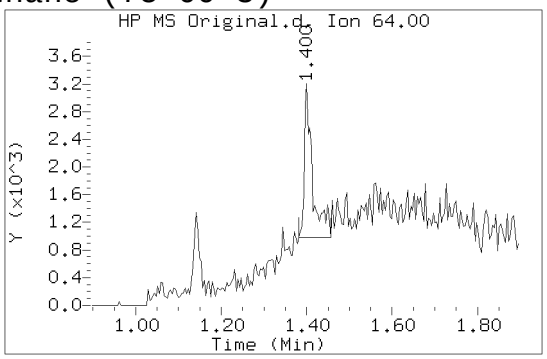
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Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Chloroethane (75-00-3)

Reason Code:

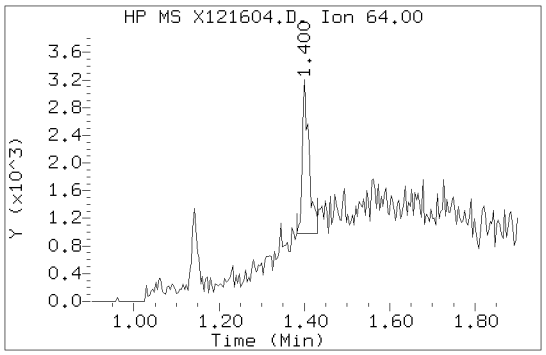
BEFORE

MASS
64
AREA
2984
HEIGHT
2221
27-Dec-2022
16:03
linh
pham



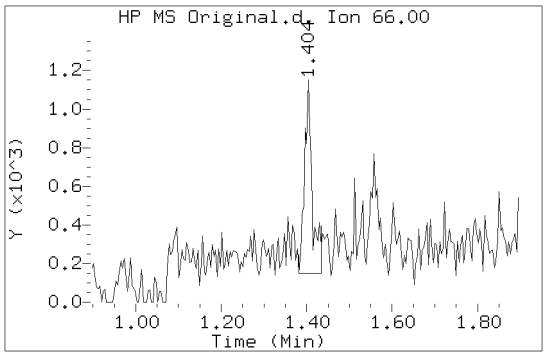

AFTER

MASS
64
AREA
2516
HEIGHT
2221
27-Dec-2022
16:07
linh
pham



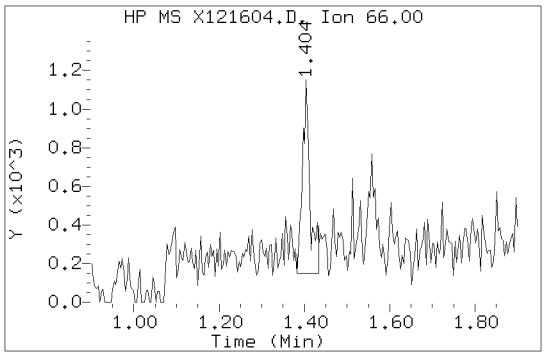

BEFORE

MASS
66
AREA
1262
HEIGHT
1002
27-Dec-2022
16:03
linh
pham




AFTER

MASS
66
AREA
1262
HEIGHT
1002
27-Dec-2022
16:07
linh
pham

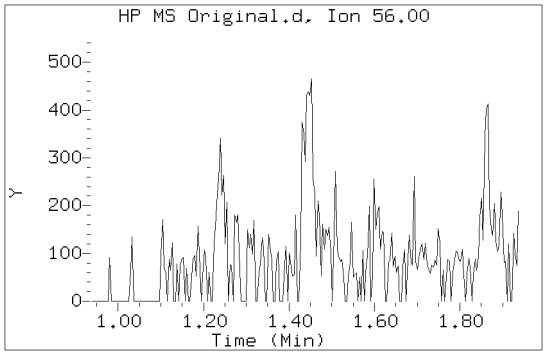



## Acrolein (107-02-8 )

Reason Code:

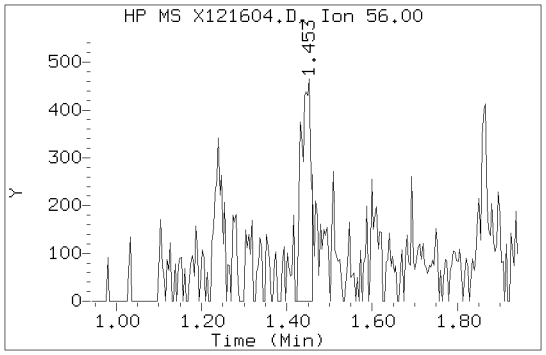
BEFORE

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



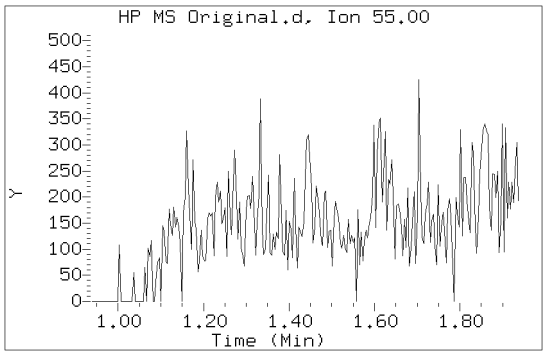

AFTER

MASS
56
AREA
761
HEIGHT
465
27-Dec-2022
16:07
linh
pham



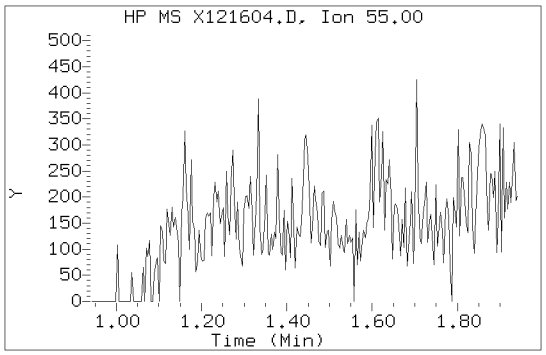

BEFORE

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



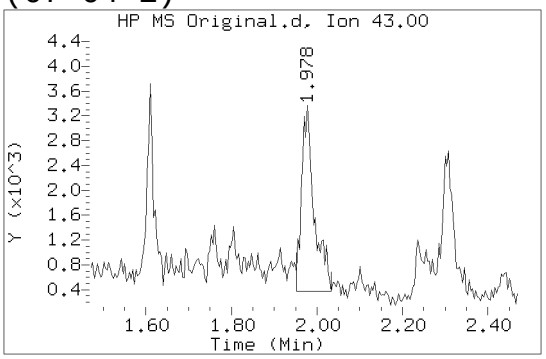
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Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Acetone (67-64-1)

Reason Code:

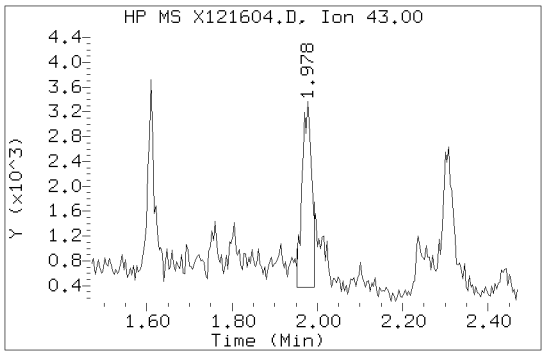
**BEFORE**

MASS
43
AREA
6265
HEIGHT
2993
27-Dec-2022
16:03
linh
pham



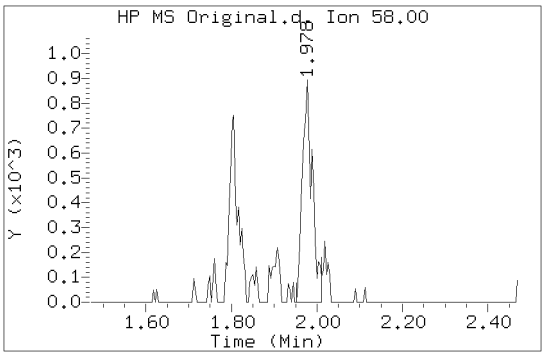

**AFTER**

MASS
43
AREA
4787
HEIGHT
2993
27-Dec-2022
16:07
linh
pham



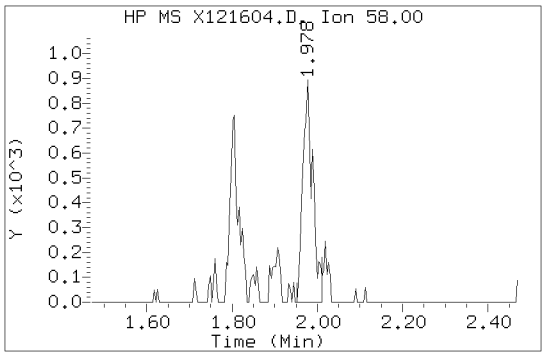

**BEFORE**

MASS
58
AREA
1474
HEIGHT
894
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
1474
HEIGHT
894
27-Dec-2022
16:07
linh
pham

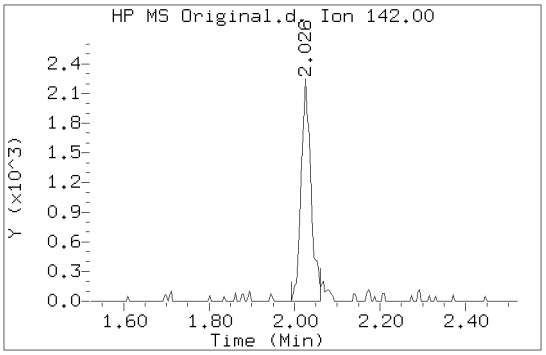



## Iodomethane (74-88-4)

Reason Code:

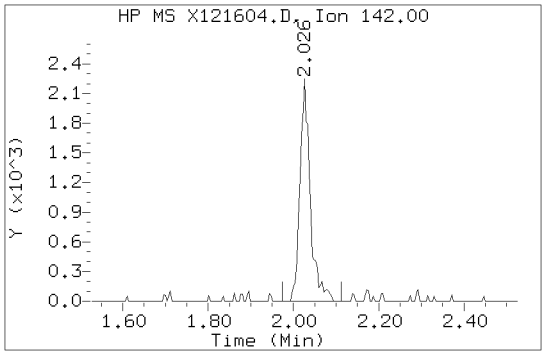
**BEFORE**

MASS
142
AREA
3661
HEIGHT
2248
27-Dec-2022
16:03
linh
pham



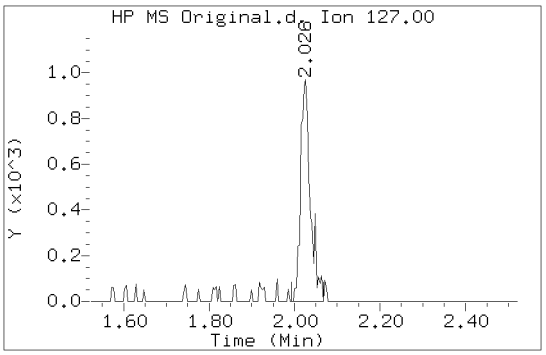

**AFTER**

MASS
142
AREA
3865
HEIGHT
2248
27-Dec-2022
16:07
linh
pham



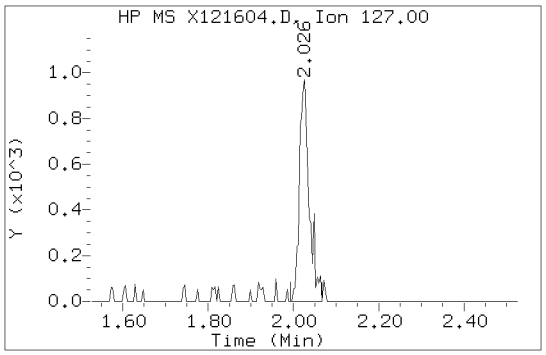

**BEFORE**

MASS
127
AREA
1585
HEIGHT
970
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
127
AREA
1585
HEIGHT
970
27-Dec-2022
16:07
linh
pham



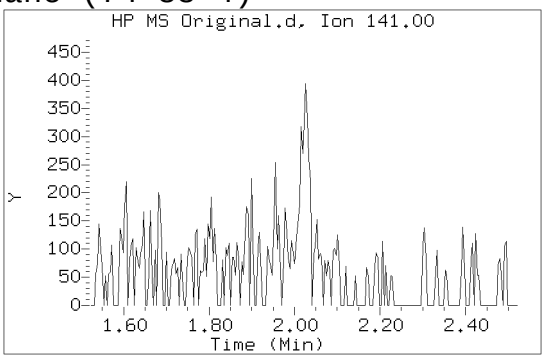
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Iodomethane (74-88-4)

Reason Code:

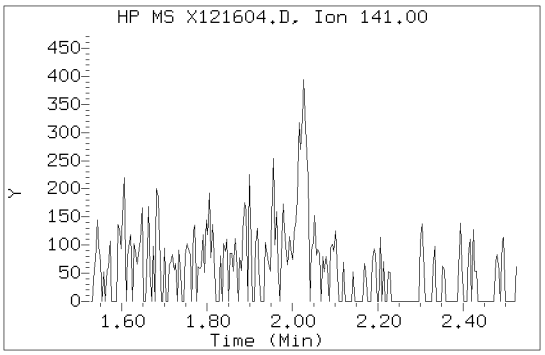
**BEFORE**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

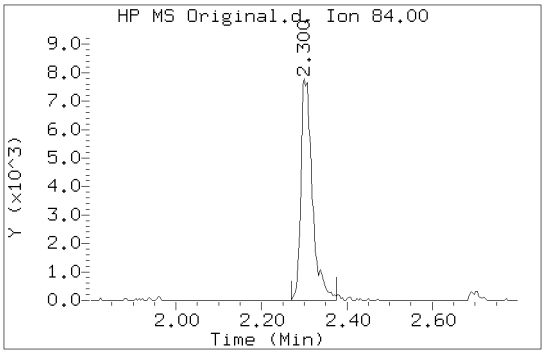



## Methylene Chloride (75-09-2)

Reason Code:

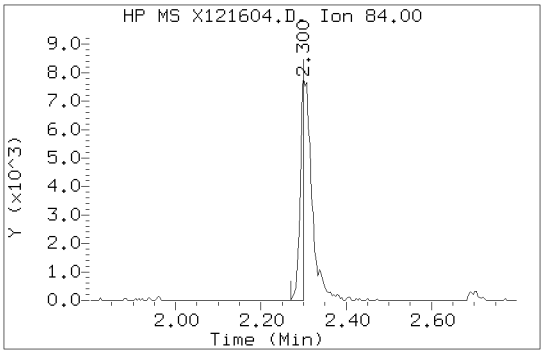
**BEFORE**

MASS
84
AREA
14864
HEIGHT
7788
27-Dec-2022
16:03
linh
pham



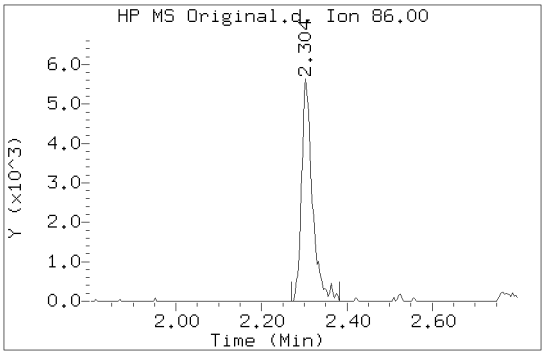

**AFTER**

MASS
84
AREA
5355
HEIGHT
7788
27-Dec-2022
16:07
linh
pham



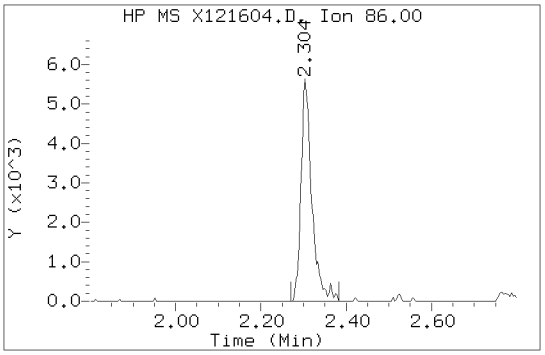

**BEFORE**

MASS
86
AREA
10161
HEIGHT
5637
27-Dec-2022
16:03
linh
pham



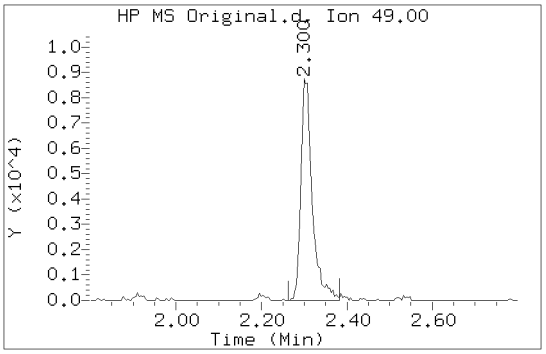

**AFTER**

MASS
86
AREA
10161
HEIGHT
5637
27-Dec-2022
16:07
linh
pham



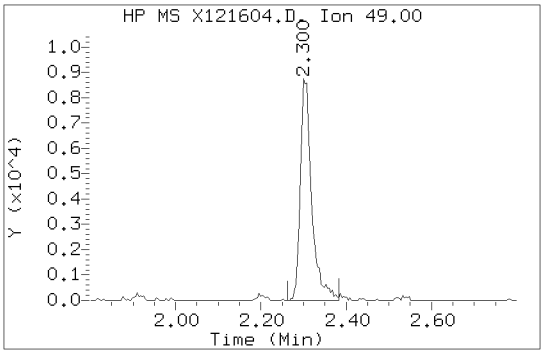

**BEFORE**

MASS
49
AREA
16641
HEIGHT
8752
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
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AREA
16641
HEIGHT
8752
27-Dec-2022
16:07
linh
pham

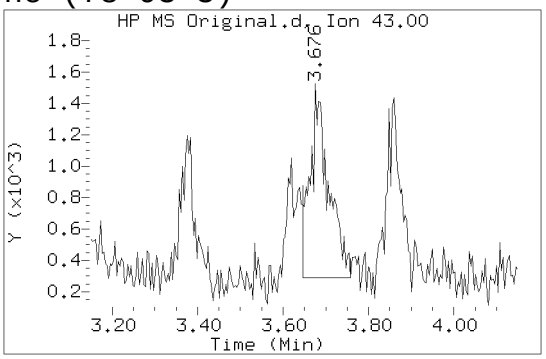


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 2-Butanone (78-93-3)

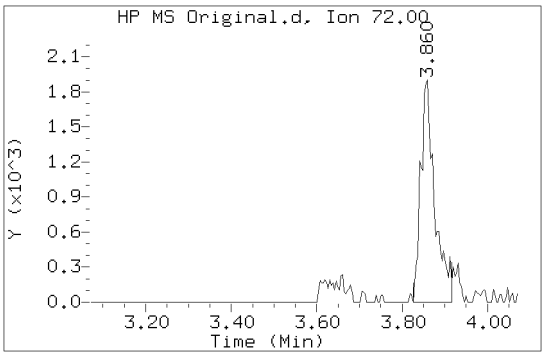
### BEFORE

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3758
HEIGHT
1236
27-Dec-2022
16:03
linh
pham




### BEFORE

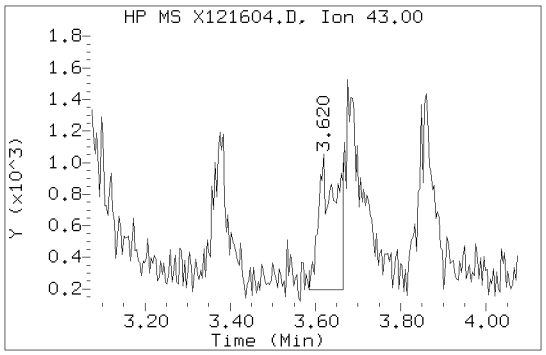
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72
AREA
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HEIGHT
1902
27-Dec-2022
16:03
linh
pham




Reason Code:

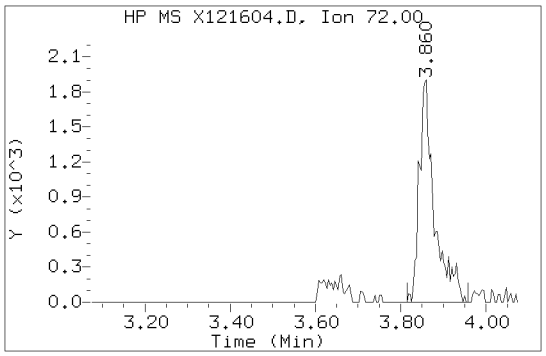
### AFTER

MASS
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AREA
2498
HEIGHT
859
27-Dec-2022
16:07
linh
pham




### AFTER

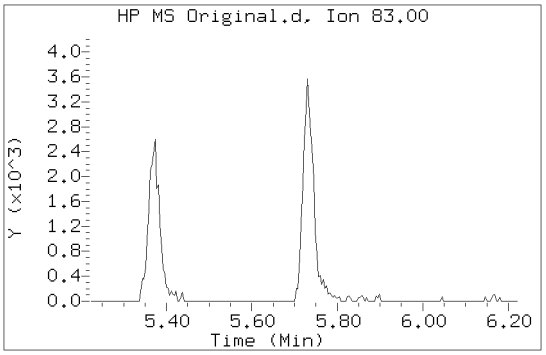
MASS
72
AREA
4690
HEIGHT
1902
27-Dec-2022
16:07
linh
pham




## Bromodichloromethane (75-27-4)

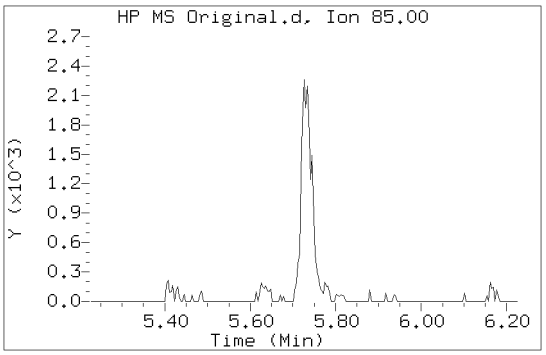
### BEFORE

MASS
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AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham




### BEFORE

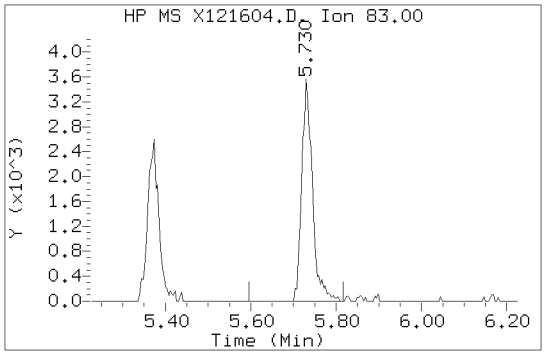
MASS
85
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27-Dec-2022
16:03
linh
pham




Reason Code:

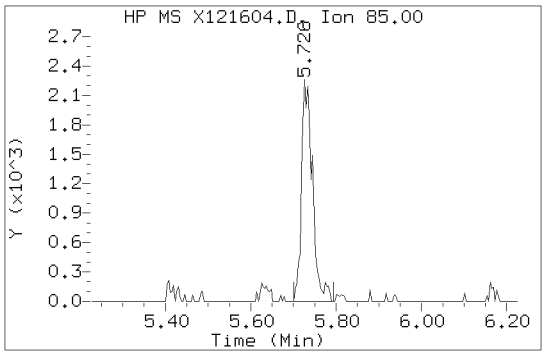
### AFTER

MASS
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AREA
6296
HEIGHT
3568
27-Dec-2022
16:07
linh
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### AFTER

MASS
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AREA
4084
HEIGHT
2261
27-Dec-2022
16:07
linh
pham

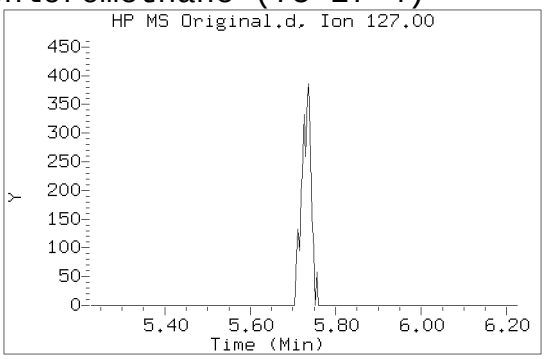


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Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Bromodichloromethane (75-27-4)

### BEFORE

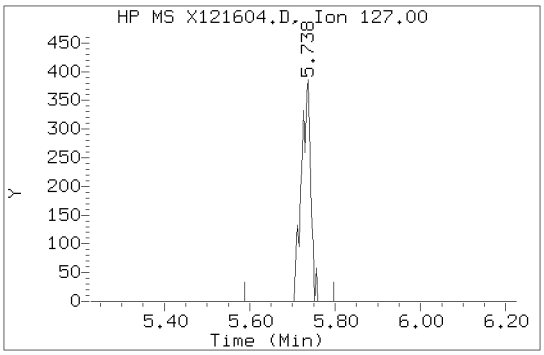
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AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

### AFTER

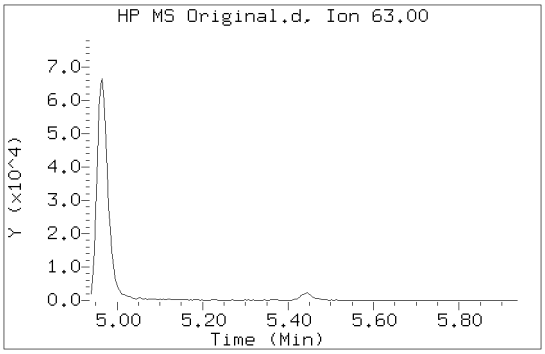
MASS
127
AREA
595
HEIGHT
386
27-Dec-2022
16:07
linh
pham




## 1,2-Dichloropropane (78-87-5)

### BEFORE

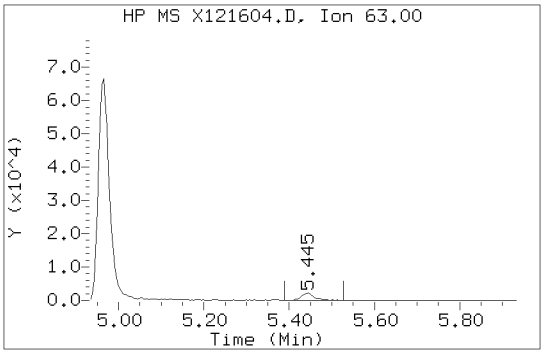
MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

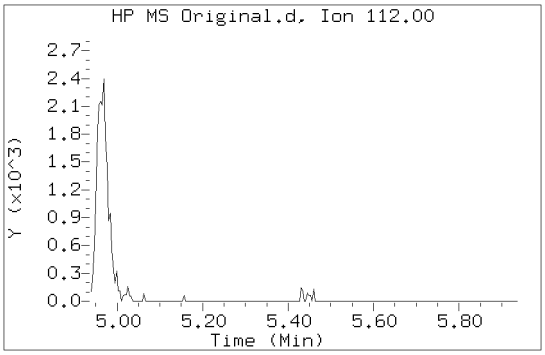
### AFTER

MASS
63
AREA
4604
HEIGHT
2381
27-Dec-2022
16:07
linh
pham



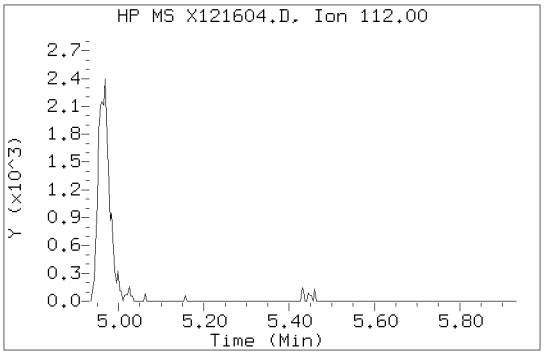

### BEFORE

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### AFTER

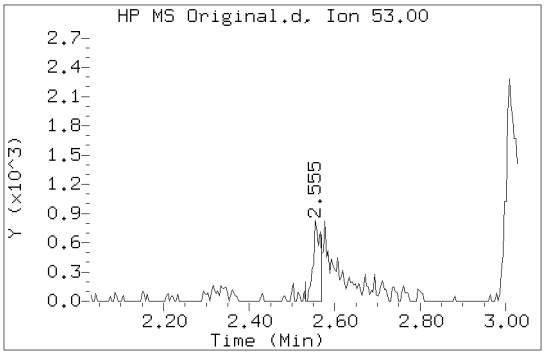
MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




## Acrylonitrile (107-13-1)

### BEFORE

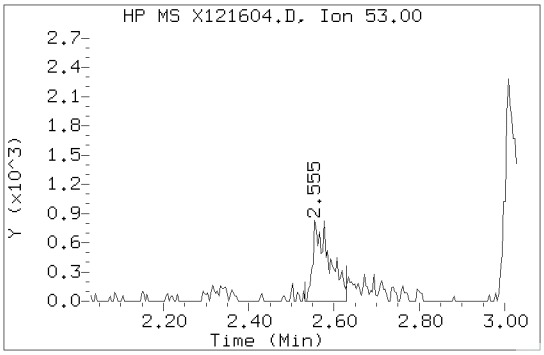
MASS
53
AREA
967
HEIGHT
834
27-Dec-2022
16:03
linh
pham




Reason Code:

### AFTER

MASS
53
AREA
2258
HEIGHT
834
27-Dec-2022
16:07
linh
pham



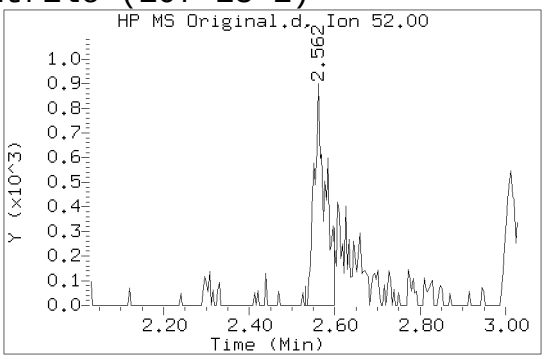
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Acrylonitrile (107-13-1)

Reason Code:

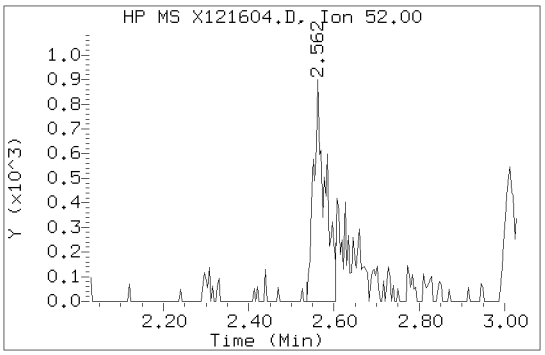
**BEFORE**

MASS
52
AREA
1657
HEIGHT
900
27-Dec-2022
16:03
linh
pham



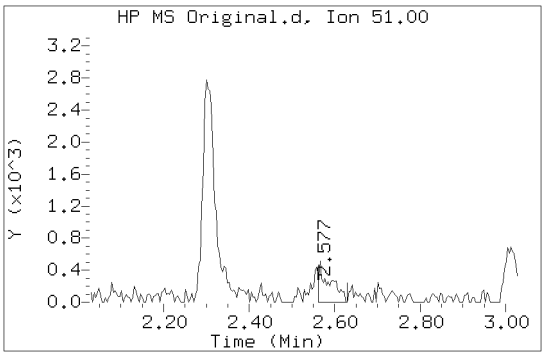

**AFTER**

MASS
52
AREA
1692
HEIGHT
900
27-Dec-2022
16:07
linh
pham



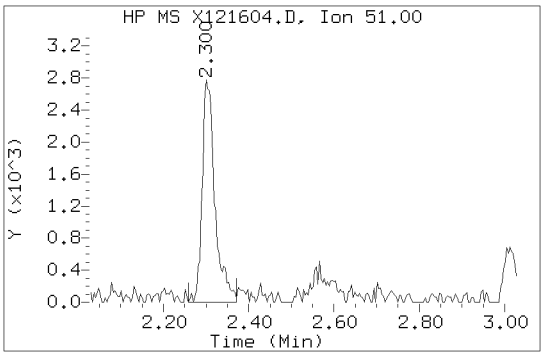

**BEFORE**

MASS
51
AREA
901
HEIGHT
301
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
51
AREA
5757
HEIGHT
2777
27-Dec-2022
16:07
linh
pham

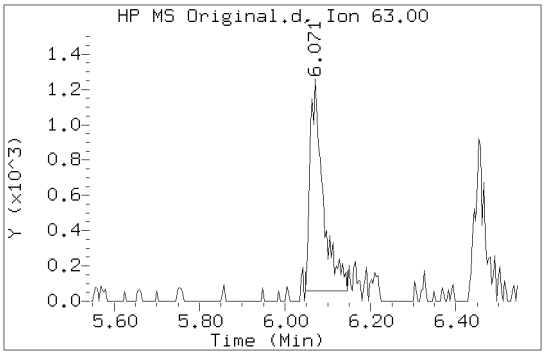



## 2-Chloroethylvinyl ether (110-75-8)

Reason Code:

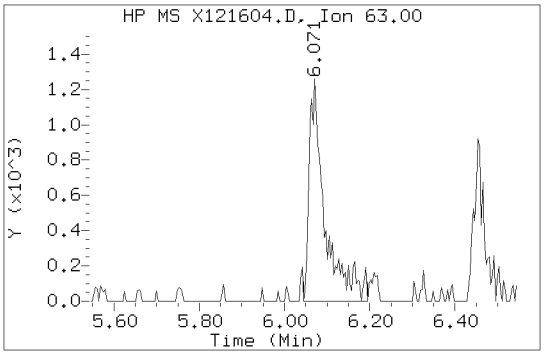
**BEFORE**

MASS
63
AREA
2513
HEIGHT
1202
27-Dec-2022
16:03
linh
pham



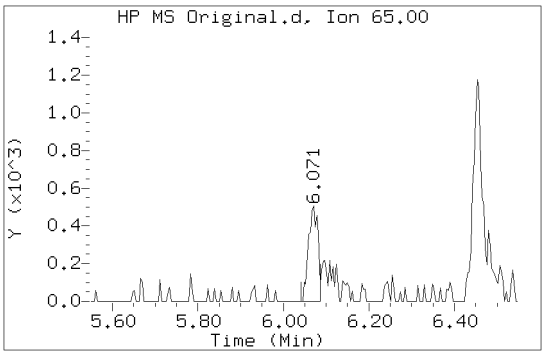

**AFTER**

MASS
63
AREA
3202
HEIGHT
1260
27-Dec-2022
16:07
linh
pham



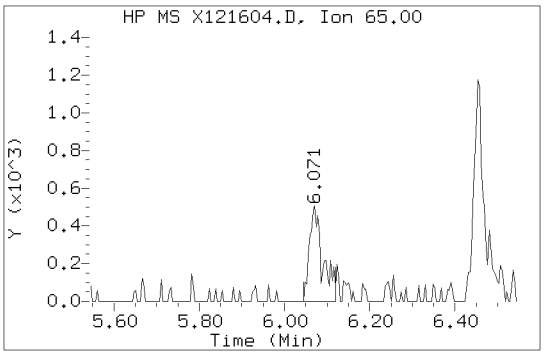

**BEFORE**

MASS
65
AREA
775
HEIGHT
507
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
65
AREA
1093
HEIGHT
507
27-Dec-2022
16:07
linh
pham



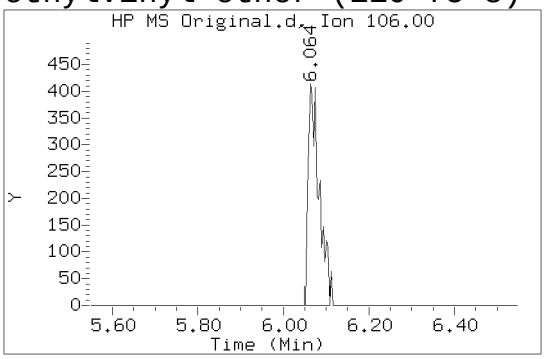
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 2-Chloroethylvinyl ether (110-75-8)

Reason Code:

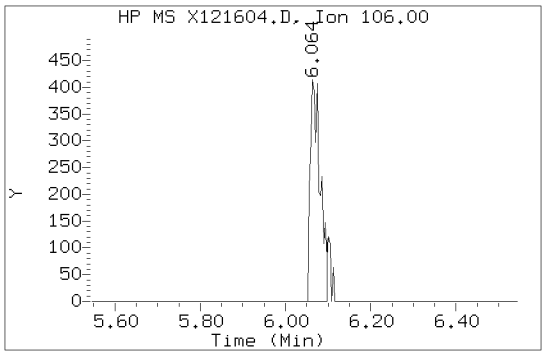
**BEFORE**

MASS
106
AREA
725
HEIGHT
414
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
106
AREA
673
HEIGHT
414
27-Dec-2022
16:07
linh
pham

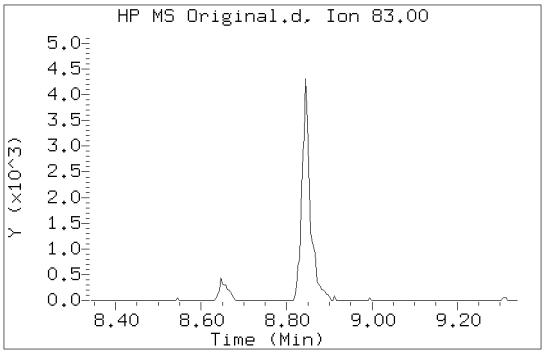



## 1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

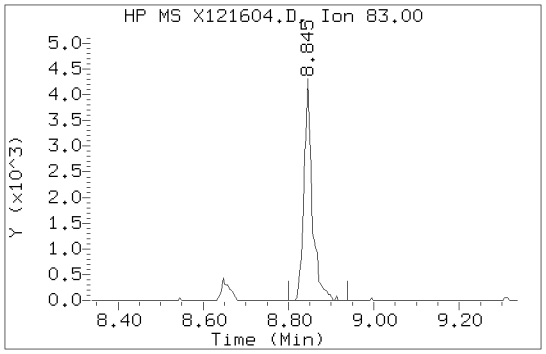
**BEFORE**

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



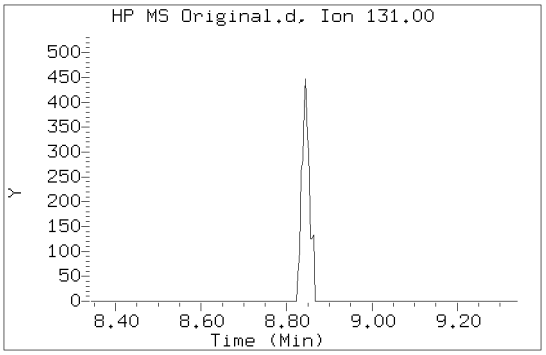

**AFTER**

MASS
83
AREA
5934
HEIGHT
4312
27-Dec-2022
16:07
linh
pham



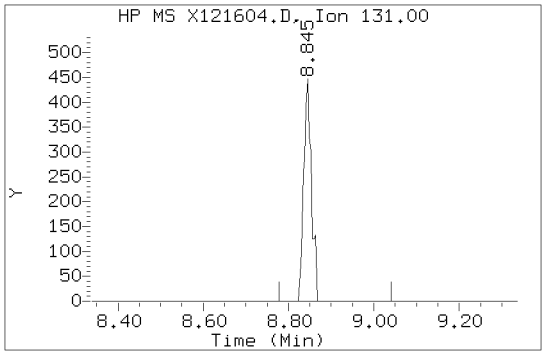

**BEFORE**

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



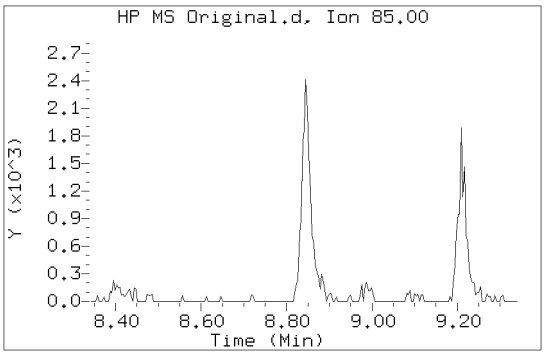

**AFTER**

MASS
131
AREA
574
HEIGHT
447
27-Dec-2022
16:07
linh
pham



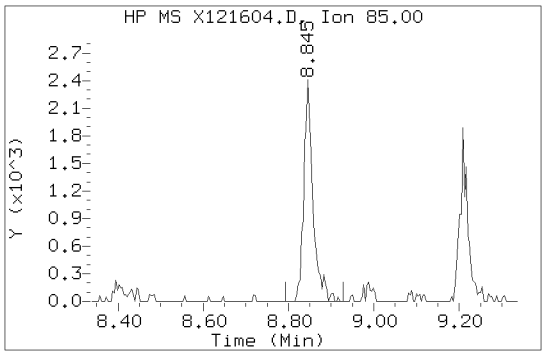

**BEFORE**

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
3682
HEIGHT
2411
27-Dec-2022
16:07
linh
pham

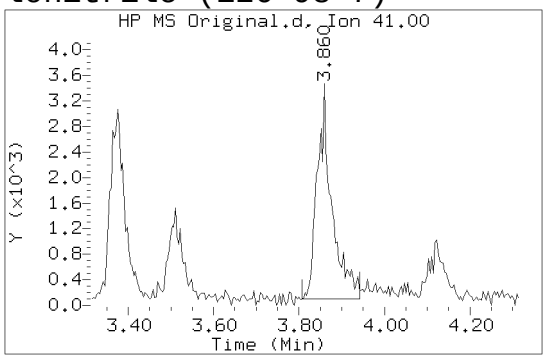


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

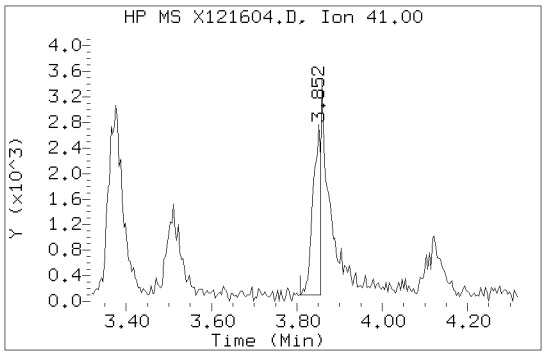
## Methacrylonitrile (126-98-7)

Reason Code:

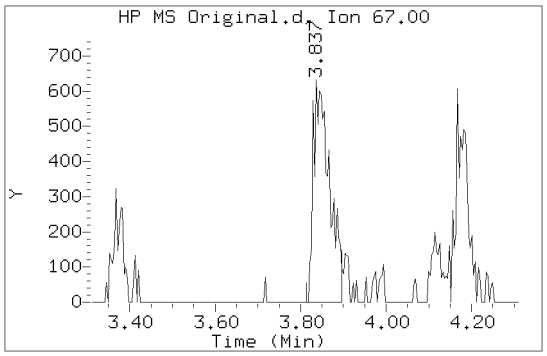
BEFORE
MASS
41
AREA
7966
HEIGHT
3370
27-Dec-2022
16:03
linh
pham



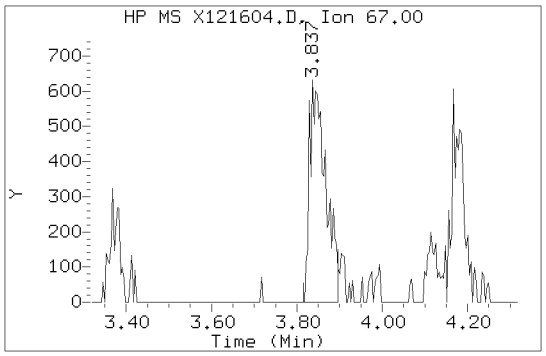

AFTER
MASS
41
AREA
3285
HEIGHT
2668
27-Dec-2022
16:07
linh
pham



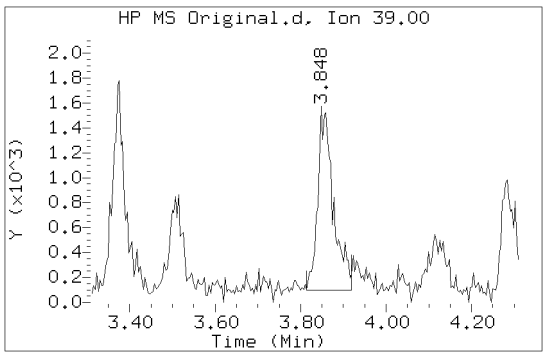

BEFORE
MASS
67
AREA
1649
HEIGHT
632
27-Dec-2022
16:03
linh
pham



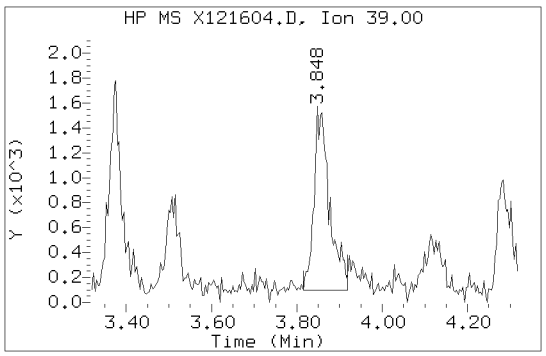

AFTER
MASS
67
AREA
1649
HEIGHT
632
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
39
AREA
3700
HEIGHT
1473
27-Dec-2022
16:03
linh
pham



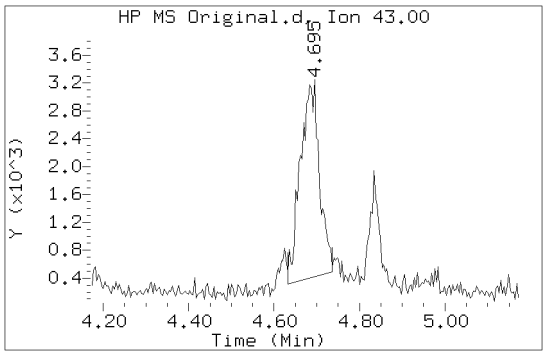

AFTER
MASS
39
AREA
3700
HEIGHT
1473
27-Dec-2022
16:07
linh
pham



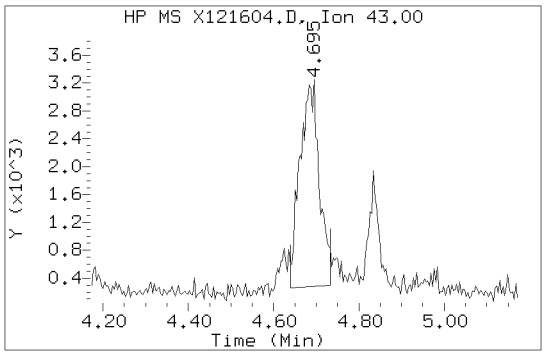

## Isobutyl Alcohol (78-83-1)

Reason Code:

BEFORE
MASS
43
AREA
8847
HEIGHT
2826
27-Dec-2022
16:03
linh
pham




AFTER
MASS
43
AREA
9436
HEIGHT
2966
27-Dec-2022
16:07
linh
pham



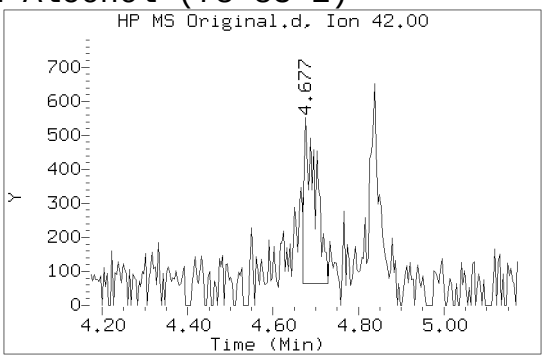
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Isobutyl Alcohol (78-83-1)

Reason Code:

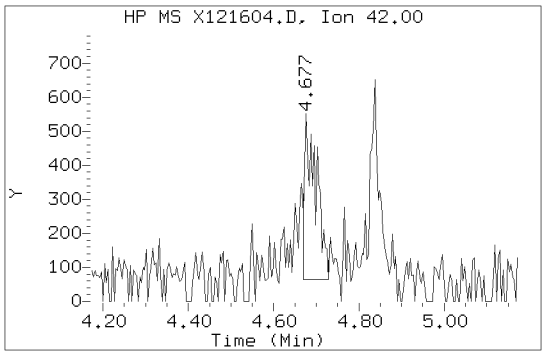
**BEFORE**

MASS
42
AREA
953
HEIGHT
488
27-Dec-2022
16:03
linh
pham



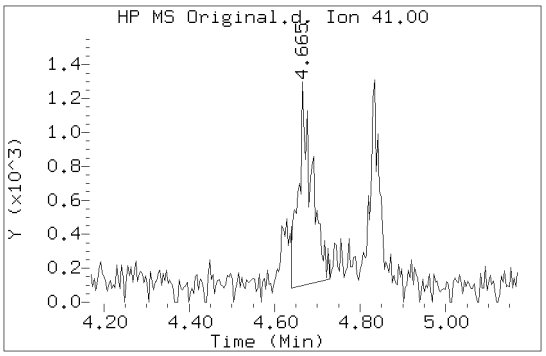

**AFTER**

MASS
42
AREA
953
HEIGHT
488
27-Dec-2022
16:07
linh
pham



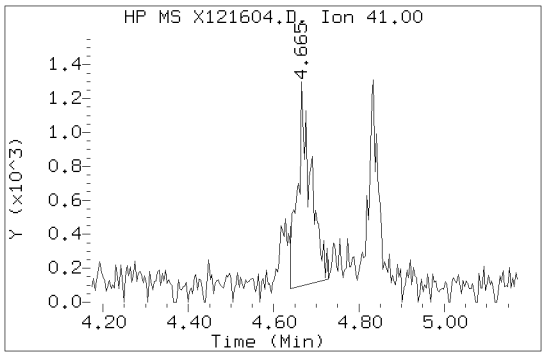

**BEFORE**

MASS
41
AREA
2650
HEIGHT
1200
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
2656
HEIGHT
1201
27-Dec-2022
16:07
linh
pham

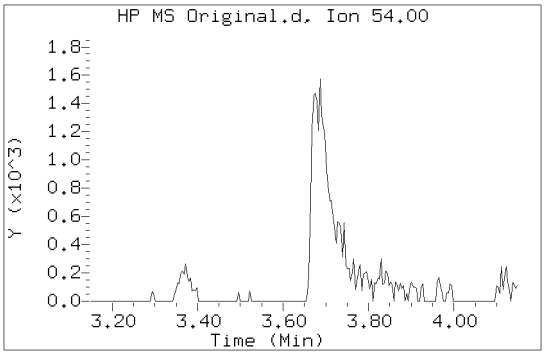



## Propionitrile (107-12-0)

Reason Code:

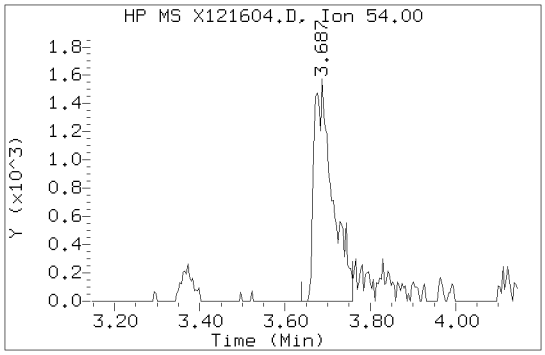
**BEFORE**

MASS
54
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



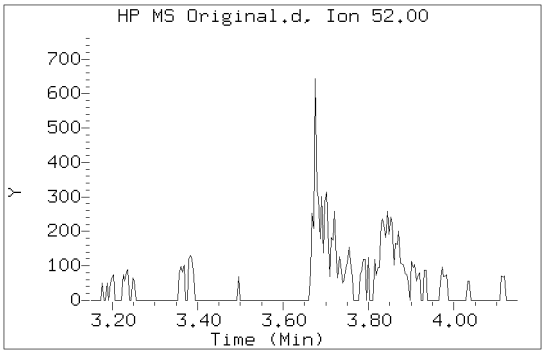

**AFTER**

MASS
54
AREA
4742
HEIGHT
1574
27-Dec-2022
16:07
linh
pham



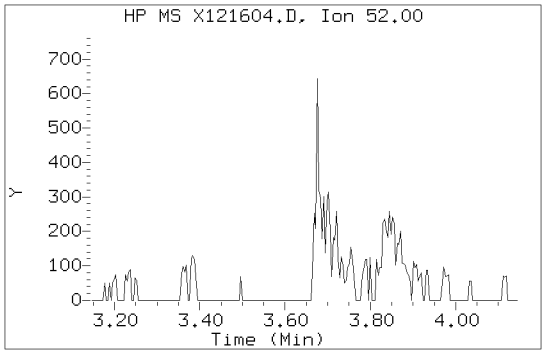

**BEFORE**

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



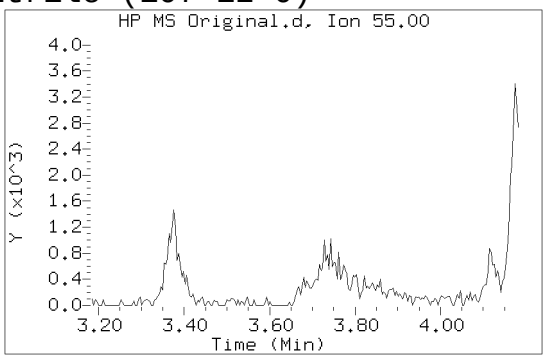
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Propionitrile (107-12-0)

Reason Code:

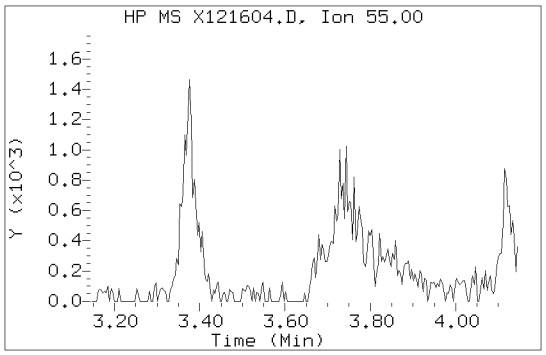
BEFORE

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

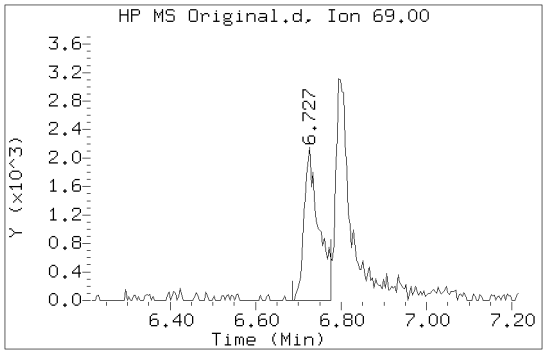



## Ethyl Methacrylate (97-63-2)

Reason Code:

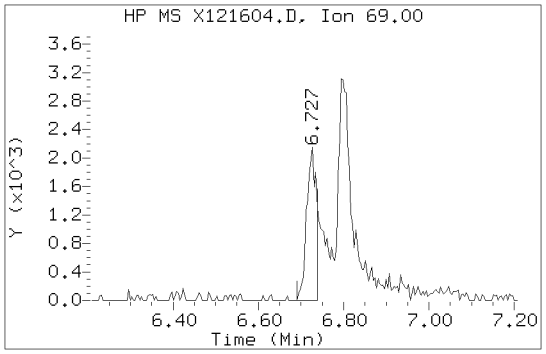
BEFORE

MASS
69
AREA
5177
HEIGHT
2156
27-Dec-2022
16:03
linh
pham



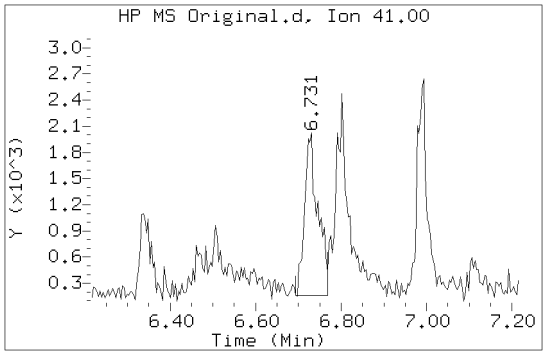

AFTER

MASS
69
AREA
3303
HEIGHT
2156
27-Dec-2022
16:07
linh
pham



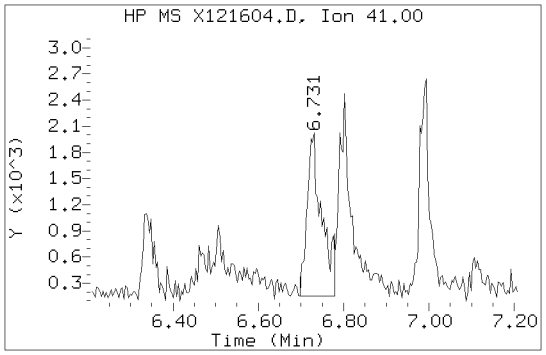

BEFORE

MASS
41
AREA
4059
HEIGHT
1867
27-Dec-2022
16:03
linh
pham




AFTER

MASS
41
AREA
4485
HEIGHT
1872
27-Dec-2022
16:07
linh
pham

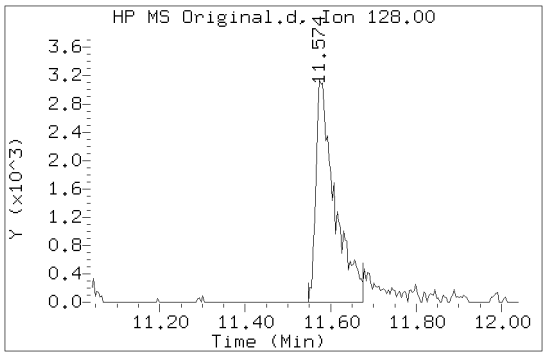



## Naphthalene (91-20-3)

Reason Code:

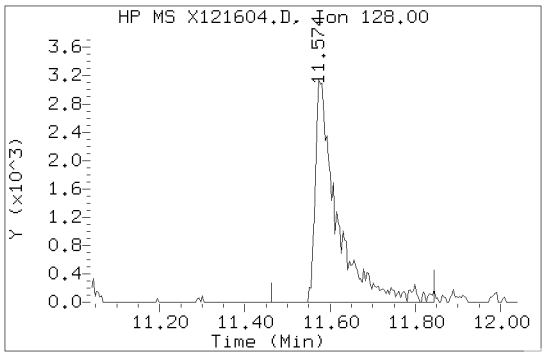
BEFORE

MASS
128
AREA
9627
HEIGHT
3139
27-Dec-2022
16:03
linh
pham




AFTER

MASS
128
AREA
11288
HEIGHT
3139
27-Dec-2022
16:07
linh
pham



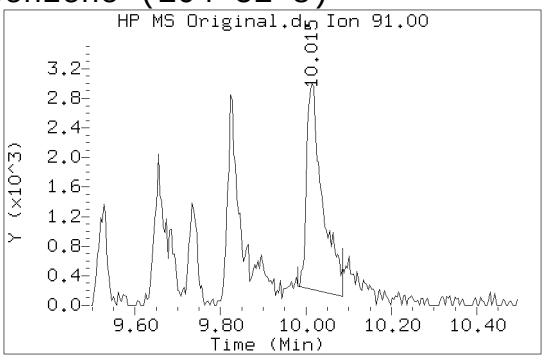
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## n-Butylbenzene (104-51-8)

Reason Code:

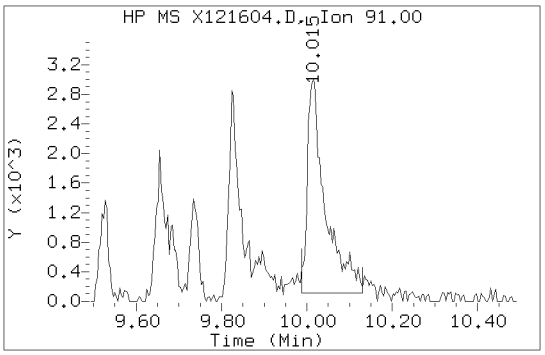
**BEFORE**

MASS
91
AREA
7194
HEIGHT
2783
27-Dec-2022
16:03
linh
pham



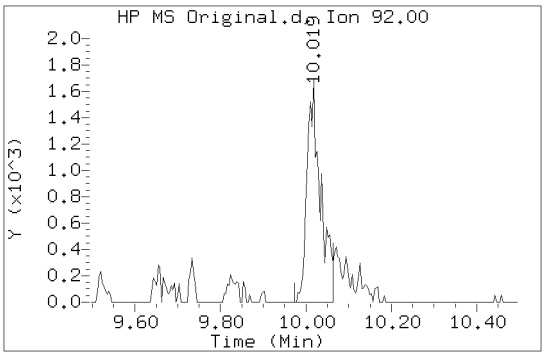

**AFTER**

MASS
91
AREA
8459
HEIGHT
2887
27-Dec-2022
16:07
linh
pham



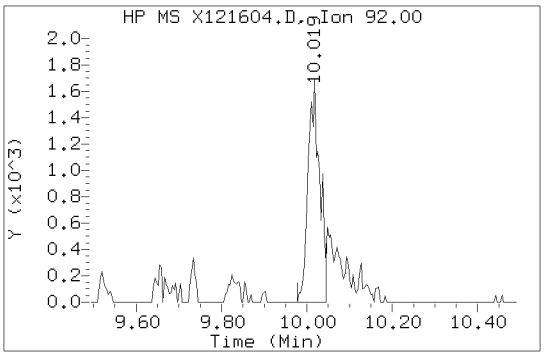

**BEFORE**

MASS
92
AREA
3696
HEIGHT
1686
27-Dec-2022
16:03
linh
pham



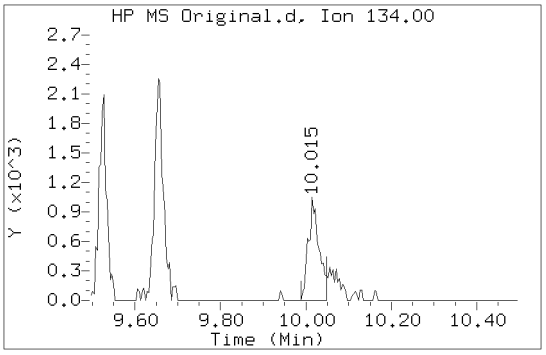

**AFTER**

MASS
92
AREA
3188
HEIGHT
1686
27-Dec-2022
16:07
linh
pham



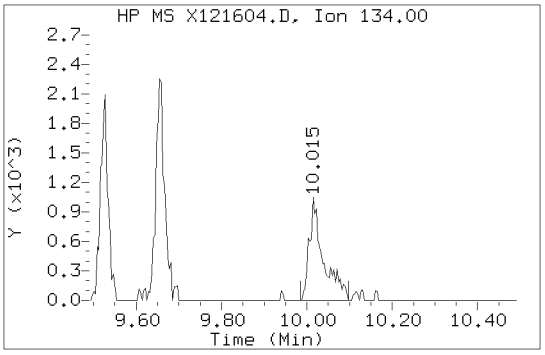

**BEFORE**

MASS
134
AREA
1829
HEIGHT
1051
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
134
AREA
2397
HEIGHT
1051
27-Dec-2022
16:07
linh
pham

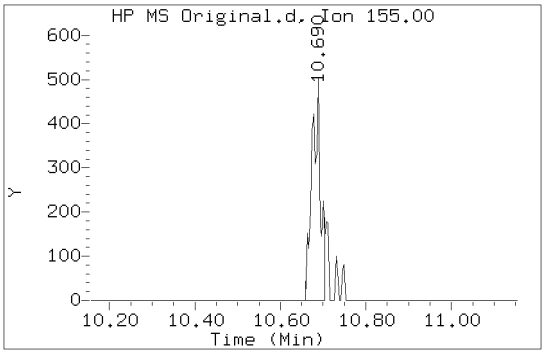



## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

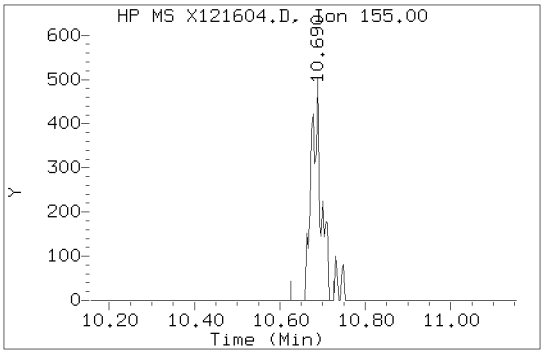
**BEFORE**

MASS
155
AREA
699
HEIGHT
502
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
155
AREA
778
HEIGHT
502
27-Dec-2022
16:07
linh
pham



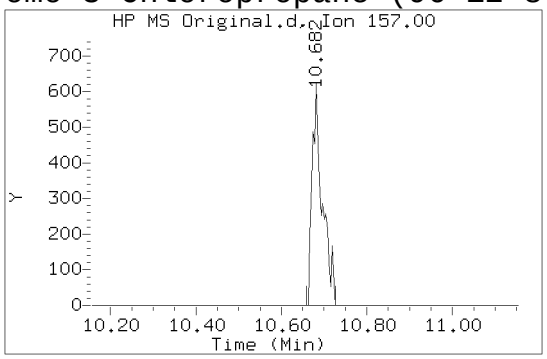
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

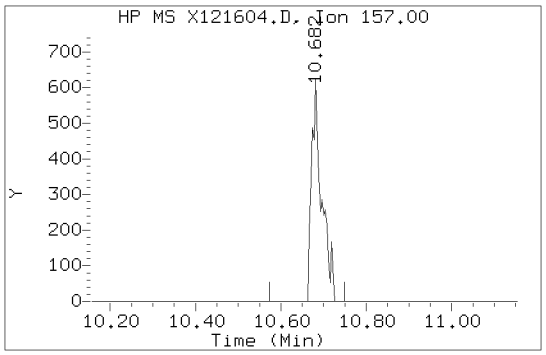
**BEFORE**

MASS
157
AREA
1023
HEIGHT
622
27-Dec-2022
16:03
linh
pham



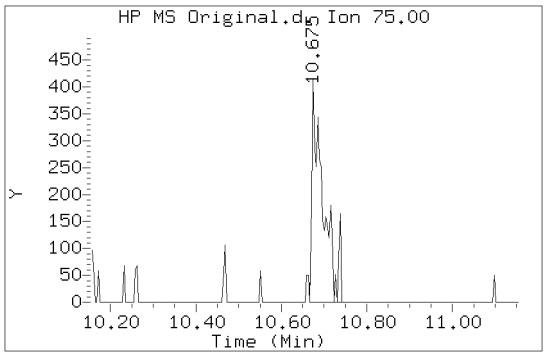

**AFTER**

MASS
157
AREA
1023
HEIGHT
622
27-Dec-2022
16:07
linh
pham



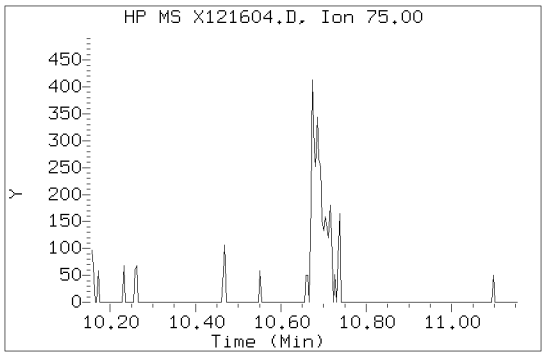

**BEFORE**

MASS
75
AREA
742
HEIGHT
413
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

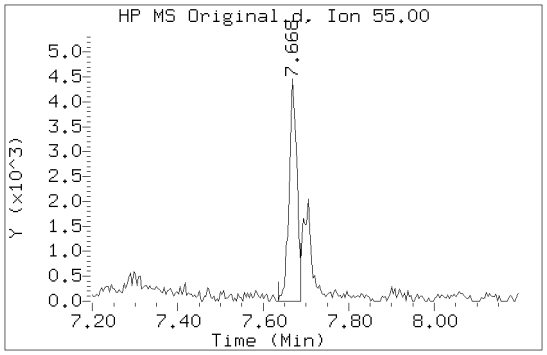



## 1-Chlorohexane (544-10-5)

Reason Code:

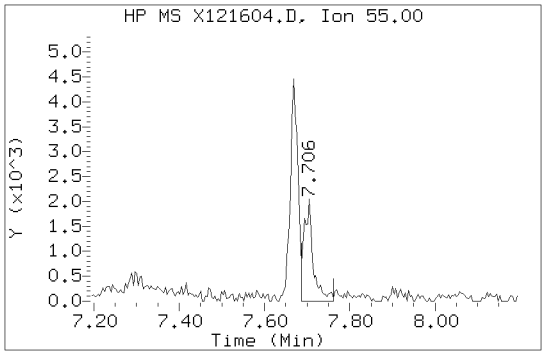
**BEFORE**

MASS
55
AREA
5660
HEIGHT
4460
27-Dec-2022
16:03
linh
pham



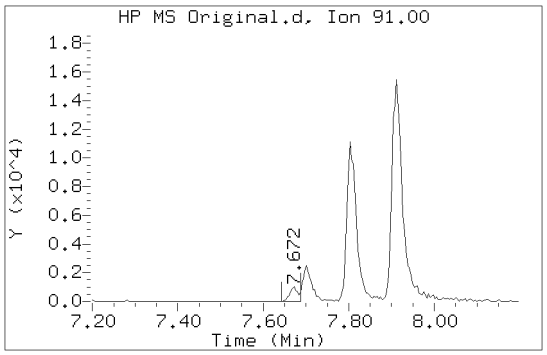

**AFTER**

MASS
55
AREA
3155
HEIGHT
2048
27-Dec-2022
16:07
linh
pham



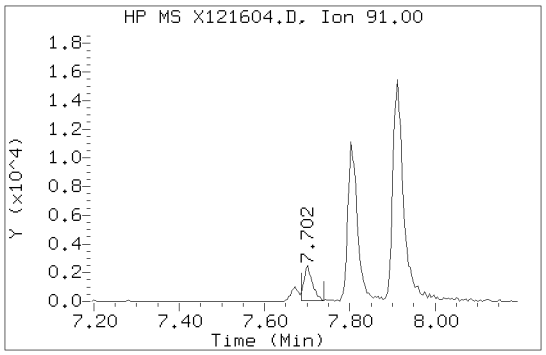

**BEFORE**

MASS
91
AREA
1392
HEIGHT
1029
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
91
AREA
3448
HEIGHT
2478
27-Dec-2022
16:07
linh
pham

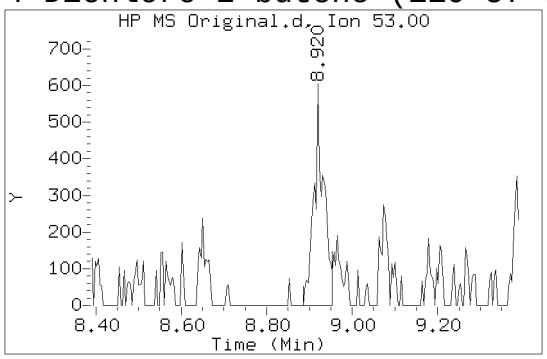


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

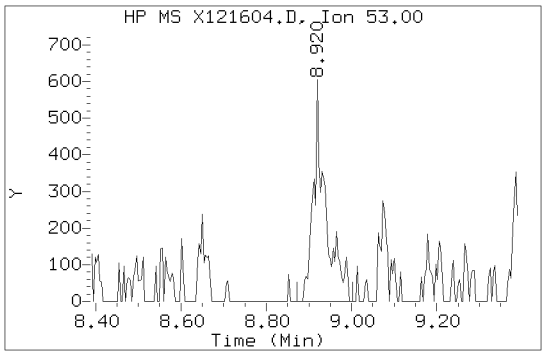
## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

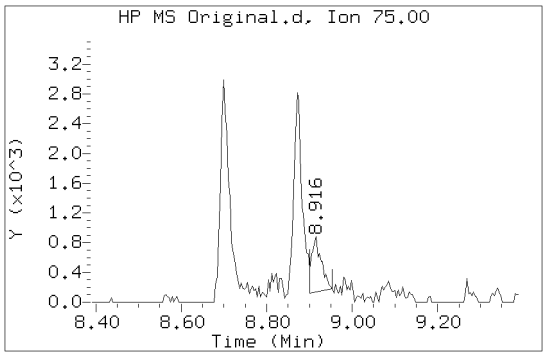
BEFORE
MASS
53
AREA
956
HEIGHT
605
27-Dec-2022
16:03
linh
pham



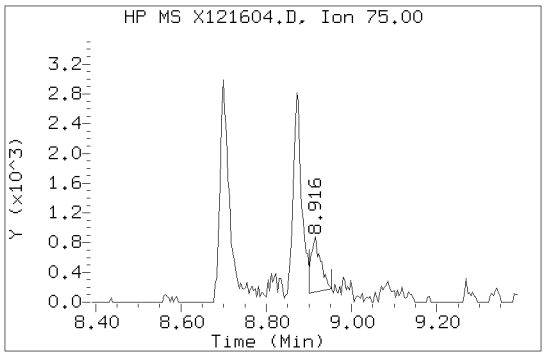

AFTER
MASS
53
AREA
1196
HEIGHT
605
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
75
AREA
1166
HEIGHT
745
27-Dec-2022
16:03
linh
pham



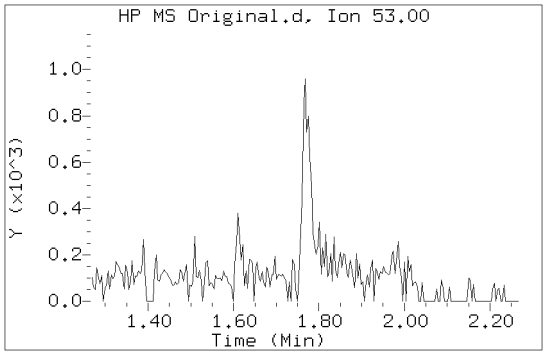

AFTER
MASS
75
AREA
1166
HEIGHT
745
27-Dec-2022
16:07
linh
pham



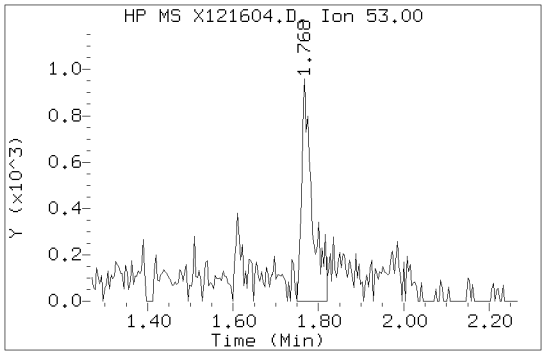

## Chloroprene (126-99-8)

Reason Code:

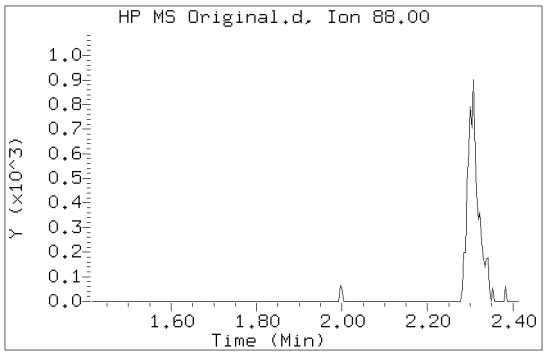
BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



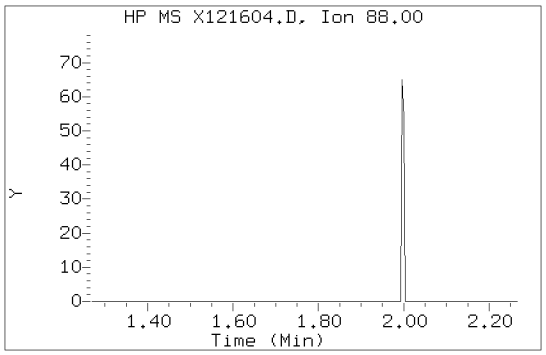

AFTER
MASS
53
AREA
1686
HEIGHT
959
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

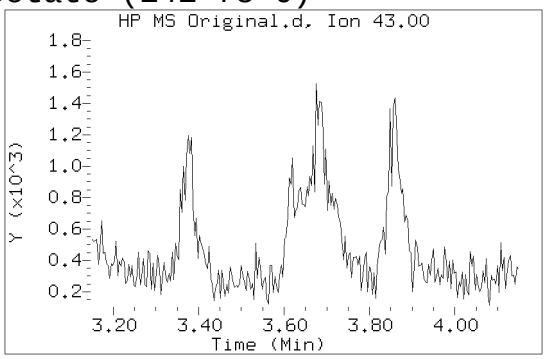


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

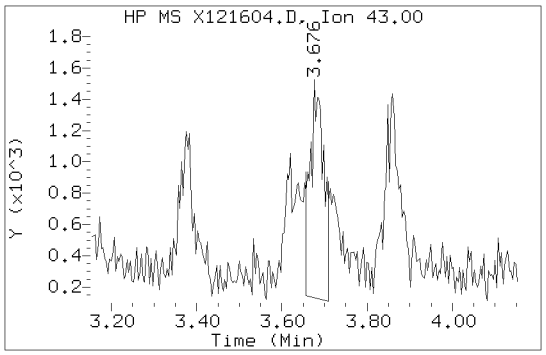
## Ethyl Acetate (141-78-6)

Reason Code:

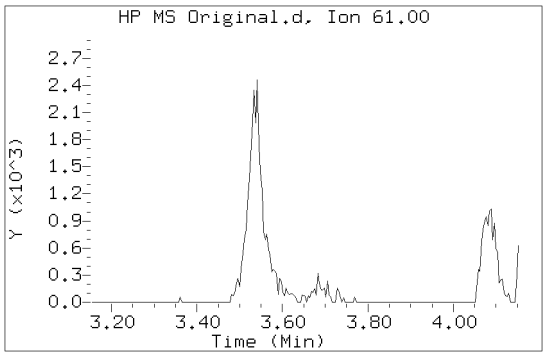
**BEFORE**
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



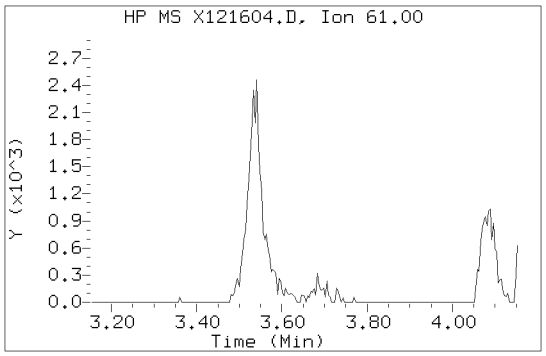

**AFTER**
MASS
43
AREA
3144
HEIGHT
1392
27-Dec-2022
16:07
linh
pham



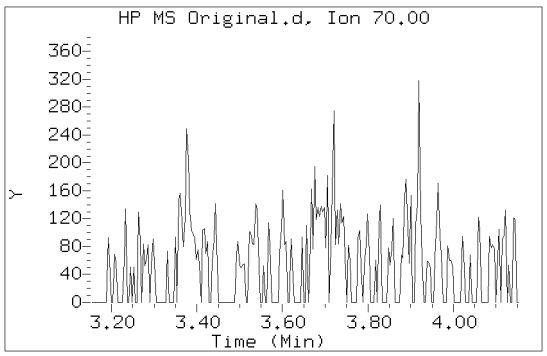

**BEFORE**
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



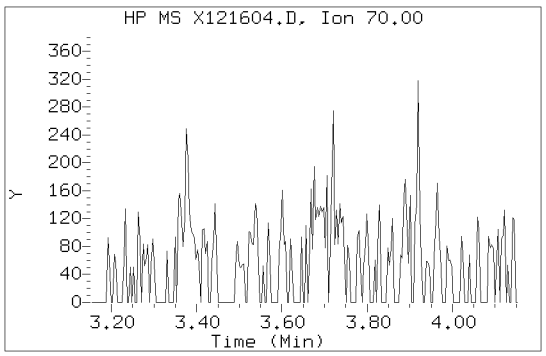

**AFTER**
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



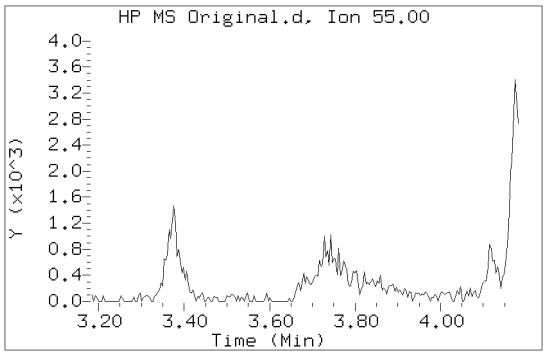

**AFTER**
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



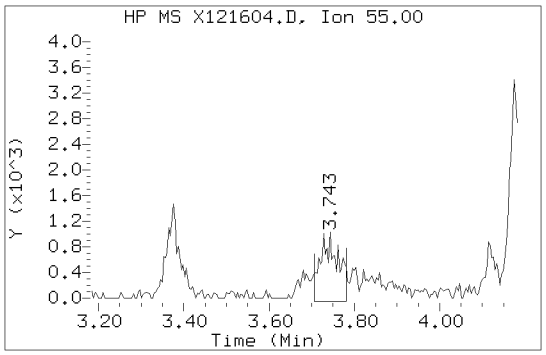

## Methyl Acrylate (96-33-3)

Reason Code:

**BEFORE**
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
55
AREA
3084
HEIGHT
1078
27-Dec-2022
16:07
linh
pham



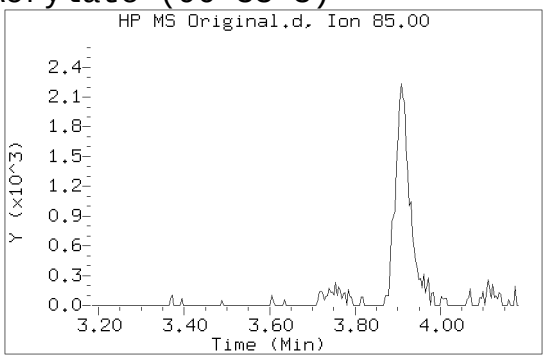
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Methyl Acrylate (96-33-3)

Reason Code:

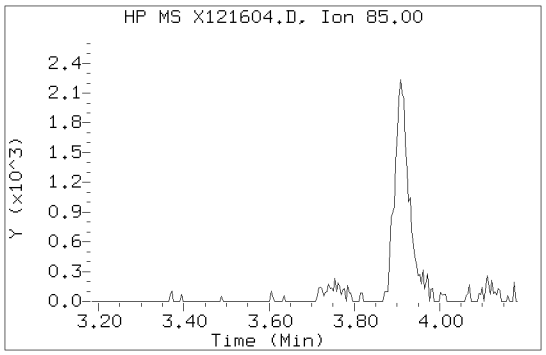
BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

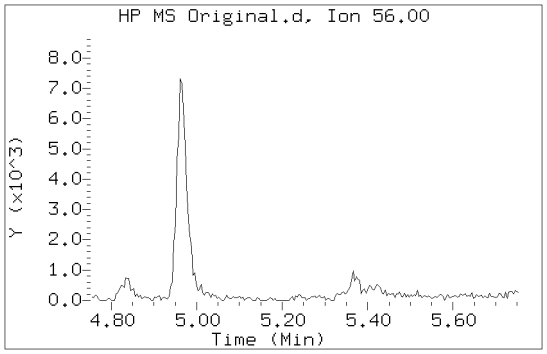



## n-Butanol (71-36-3)

Reason Code:

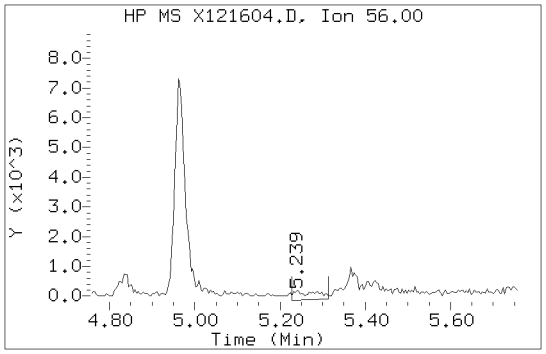
BEFORE

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



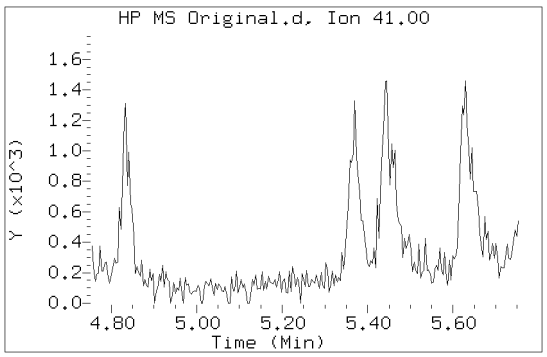

AFTER

MASS
56
AREA
1171
HEIGHT
317
27-Dec-2022
16:07
linh
pham



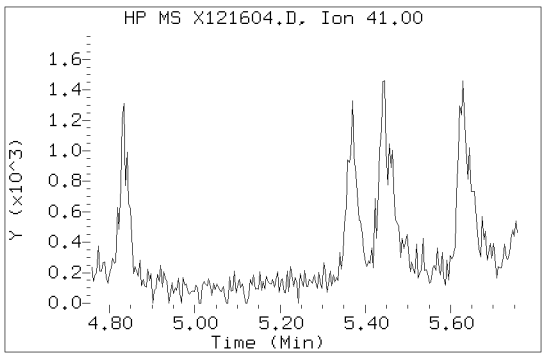

BEFORE

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

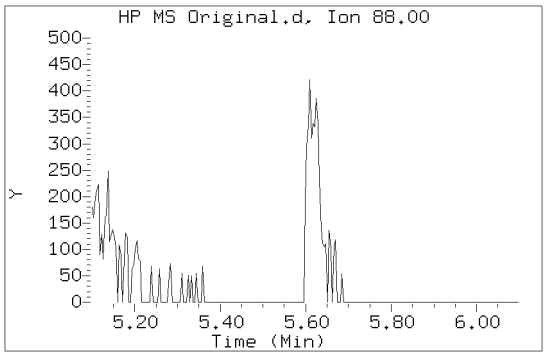



## 1,4-Dioxane ()

Reason Code:

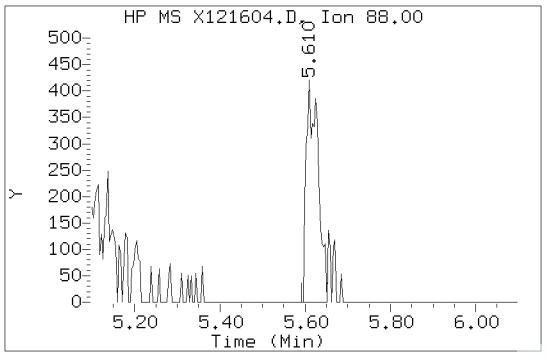
BEFORE

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
88
AREA
820
HEIGHT
421
27-Dec-2022
16:07
linh
pham



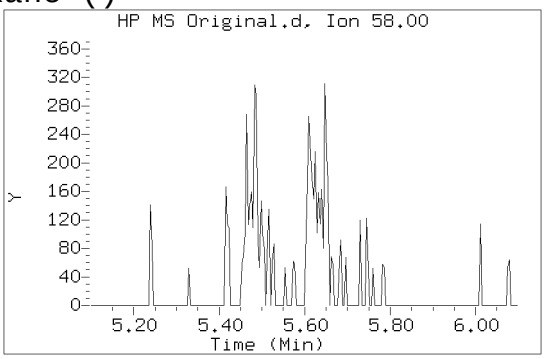
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Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## 1,4-Dioxane ()

Reason Code:

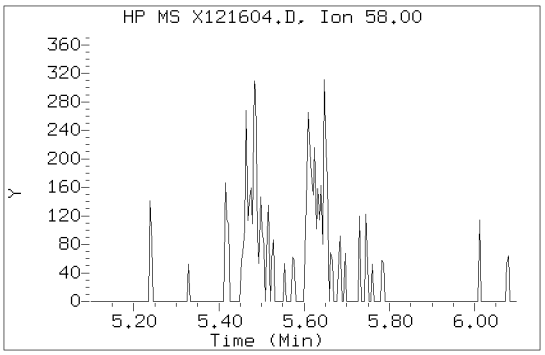
**BEFORE**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

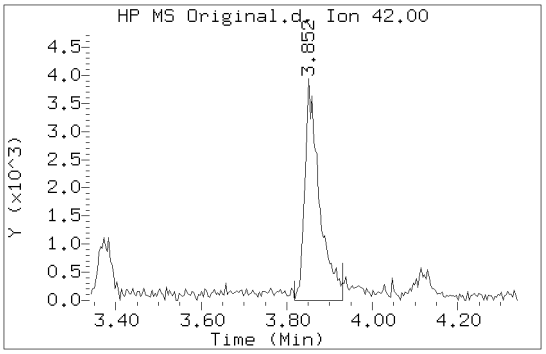



## Tetrahydrofuran (109-99-9)

Reason Code:

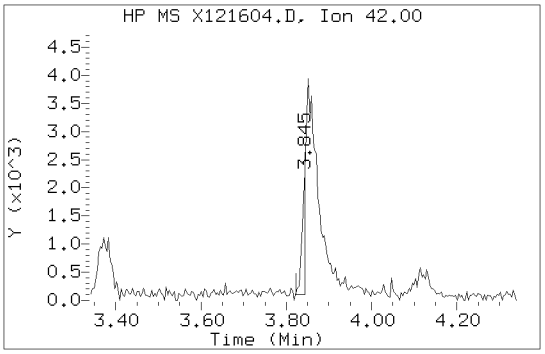
**BEFORE**

MASS
42
AREA
9396
HEIGHT
3939
27-Dec-2022
16:03
linh
pham



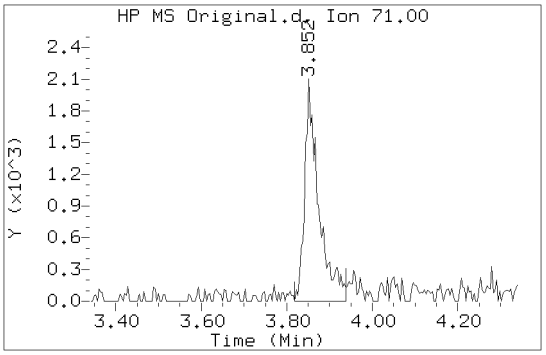

**AFTER**

MASS
42
AREA
1361
HEIGHT
2190
27-Dec-2022
16:07
linh
pham



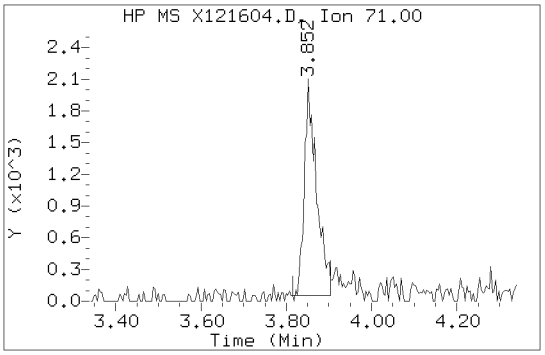

**BEFORE**

MASS
71
AREA
4781
HEIGHT
2103
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
71
AREA
4046
HEIGHT
2046
27-Dec-2022
16:07
linh
pham

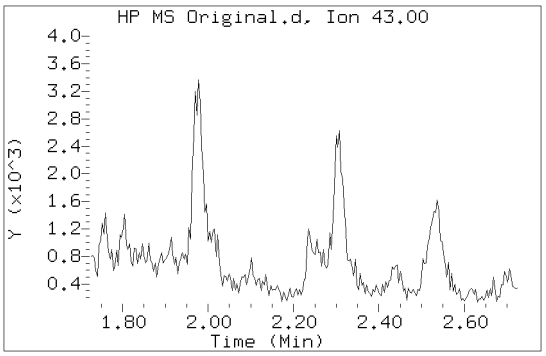



## Methyl Acetate (79-20-9)

Reason Code:

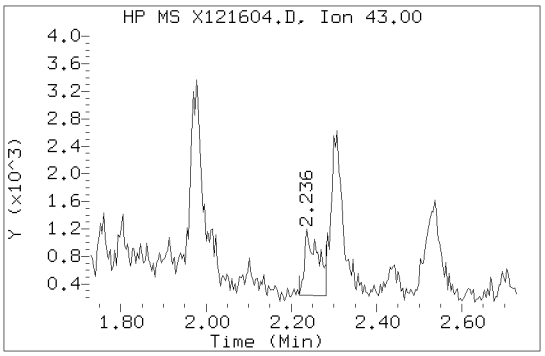
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
43
AREA
2127
HEIGHT
968
27-Dec-2022
16:07
linh
pham

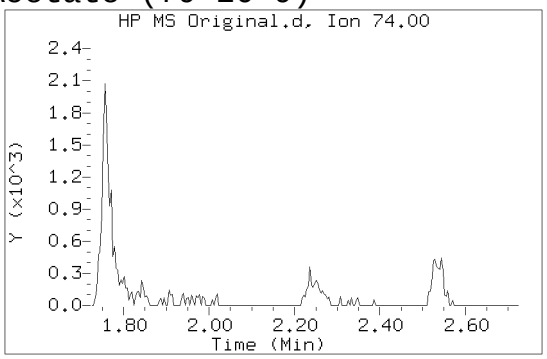


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Methyl Acetate (79-20-9)

### BEFORE

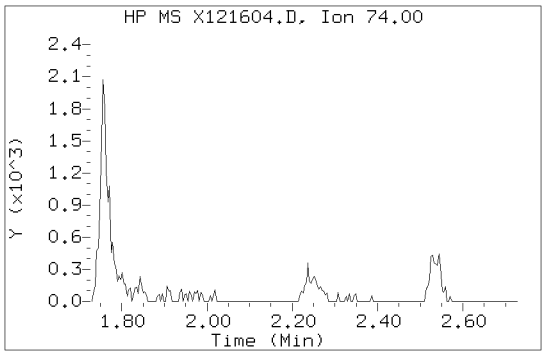
MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

### AFTER

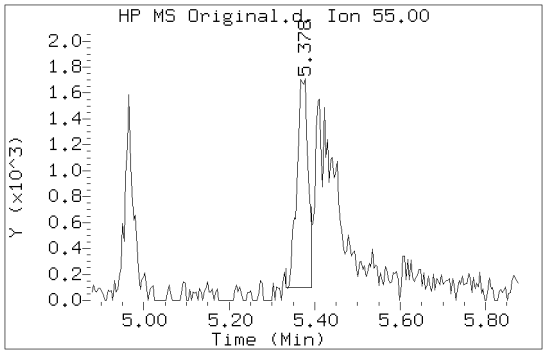
MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




## Methylcyclohexane (108-87-2)

### BEFORE

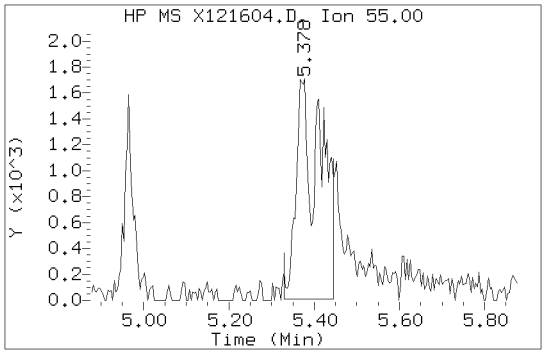
MASS
55
AREA
2998
HEIGHT
1612
27-Dec-2022
16:03
linh
pham




Reason Code:

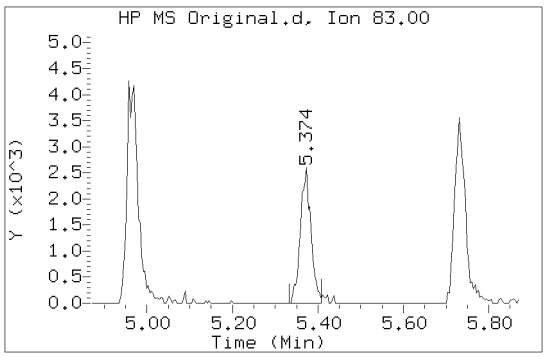
### AFTER

MASS
55
AREA
6848
HEIGHT
1699
27-Dec-2022
16:07
linh
pham



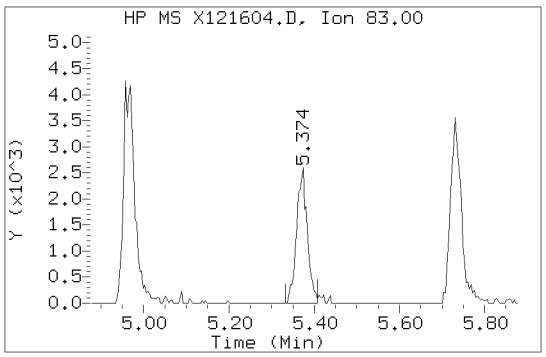

### BEFORE

MASS
83
AREA
4577
HEIGHT
2601
27-Dec-2022
16:03
linh
pham




### AFTER

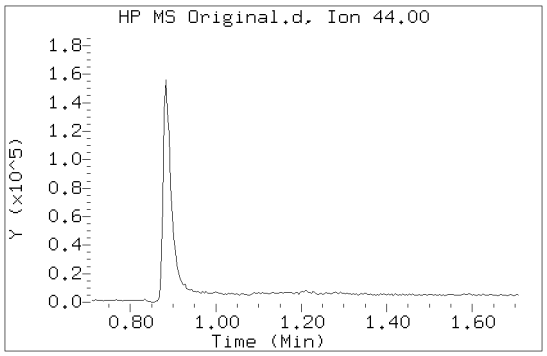
MASS
83
AREA
4577
HEIGHT
2601
27-Dec-2022
16:07
linh
pham




## Acetaldehyde (75-07-0)

### BEFORE

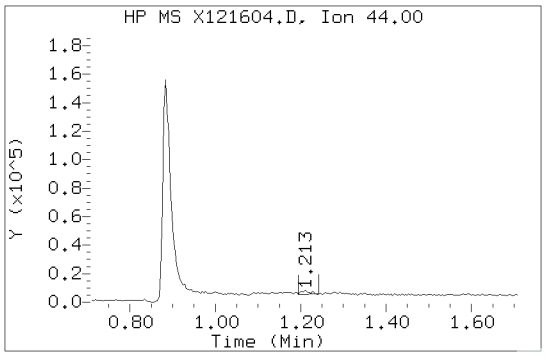
MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




Reason Code:

### AFTER

MASS
44
AREA
3384
HEIGHT
2655
27-Dec-2022
16:07
linh
pham



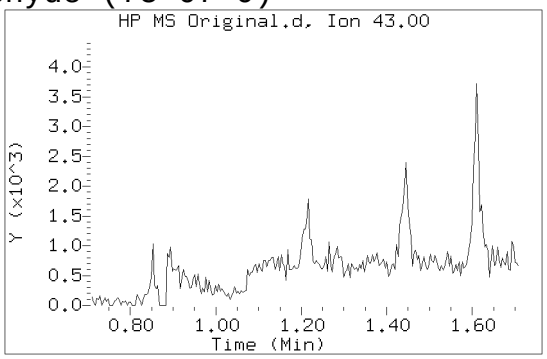
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Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

## Acetaldehyde (75-07-0)

Reason Code:

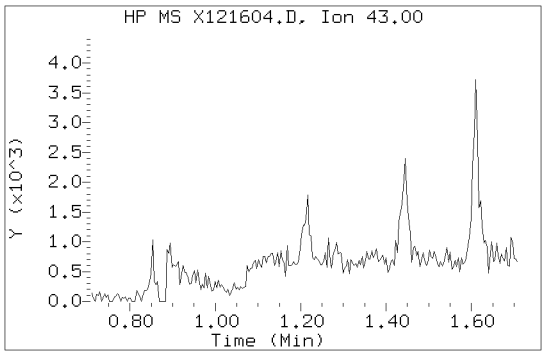
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



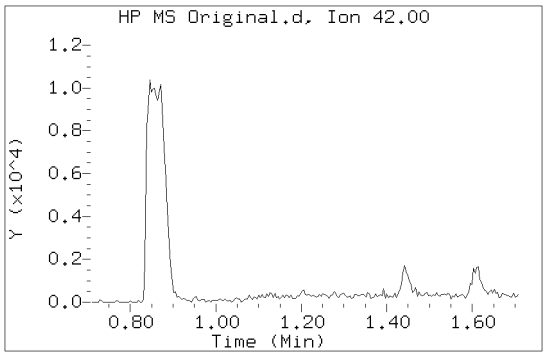

**AFTER**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



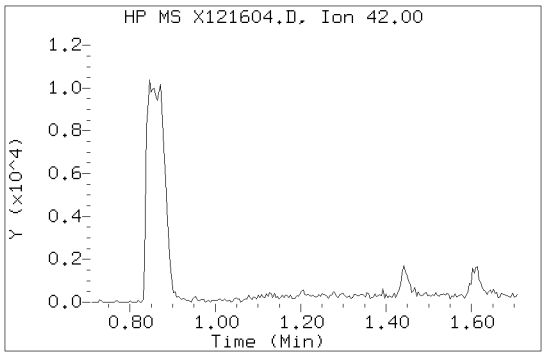

**BEFORE**

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

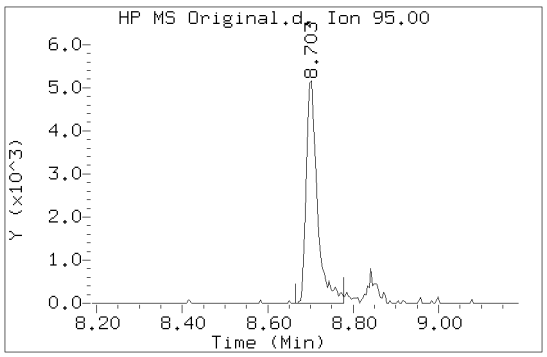



## 4-Bromofluorobenzene (460-00-4)

Reason Code:

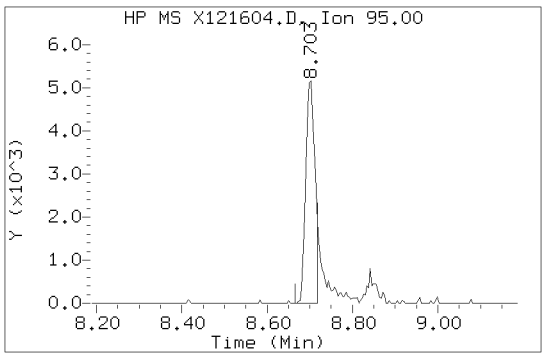
**BEFORE**

MASS
95
AREA
9514
HEIGHT
5159
27-Dec-2022
16:03
linh
pham



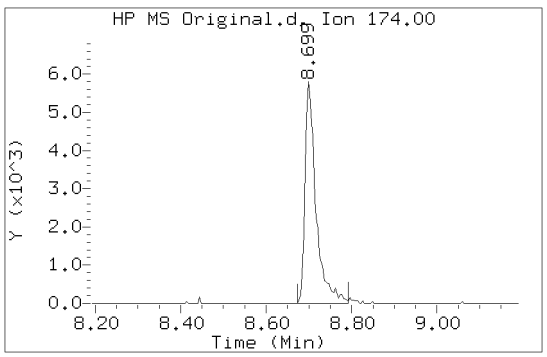

**AFTER**

MASS
95
AREA
7790
HEIGHT
5159
27-Dec-2022
16:07
linh
pham



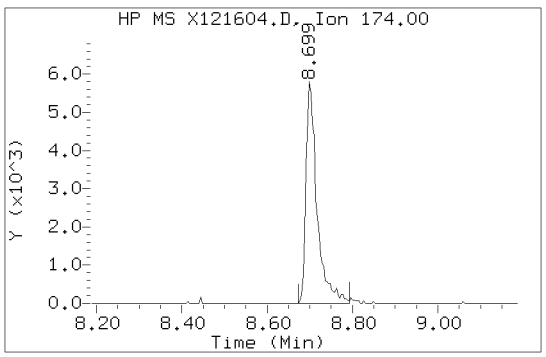

**BEFORE**

MASS
174
AREA
10505
HEIGHT
5802
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
174
AREA
10505
HEIGHT
5802
27-Dec-2022
16:07
linh
pham



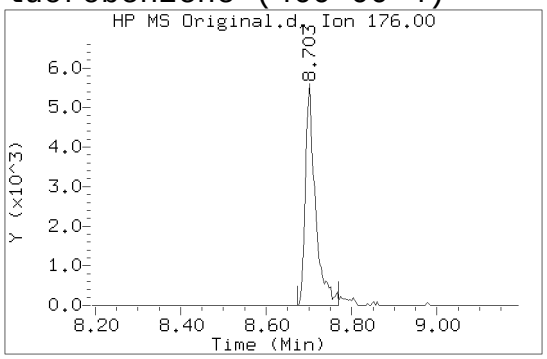
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Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

4-Bromofluorobenzene (460-00-4)

Reason Code:

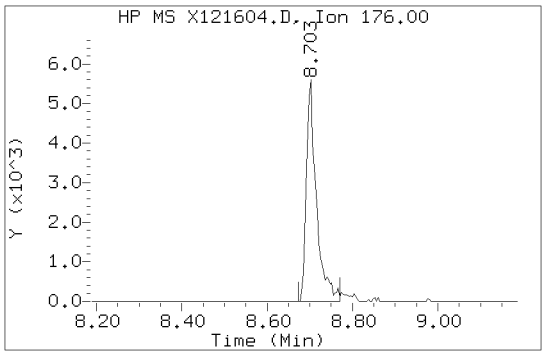
BEFORE

MASS
176
AREA
9226
HEIGHT
5603
27-Dec-2022
16:03
linh
pham




AFTER

MASS
176
AREA
9226
HEIGHT
5603
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Lab Smp Id: VSTD002  Client Smp ID: VSTD002
Inj Date  : 16-DEC-2022 13:02
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD002;VSTD002;1;4;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 12:41  Cal File: X121604.D
Als bottle: 6  Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 456374 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.610 | 5.610 | (1.343) | 1409 | 40.0000 | 33.77(M) |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 5733 | 2.00000 | 1.83 |
| 25 Methacrylonitrile | 41 | 3.859 | 3.859 | (0.924) | 6388 | 2.00000 | 1.97(M) |
| 12 Isobutyl Alcohol | 43 | 4.684 | 4.684 | (1.121) | 20629 | 40.0000 | 40.18(M) |
| 13 Acetonitrile | 39 | 2.198 | 2.198 | (0.526) | 7764 | 20.0000 | 18.69 |
| 14 Allyl Chloride | 41 | 2.206 | 2.206 | (0.528) | 14911 | 2.00000 | 1.88 |
| 4 Propionitrile | 54 | 3.675 | 3.675 | (0.880) | 8651 | 20.0000 | 18.57 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 5898 | 2.00000 | 1.79 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.920 | 8.920 | (1.163) | 2690 | 2.00000 | 1.92(M) |
| 194 Acetaldehyde | 44 | 1.212 | 1.212 | (0.290) | 5661 | 8.00000 | (M) |
| 23 Chloroprene | 53 | 1.771 | 1.771 | (0.424) | 3126 | 2.00000 | 2.01(M) |
| 145 alpha-Methylstyrene | 118 | 9.268 | 9.268 | (0.959) | 14447 | 2.00000 | 1.84 |
| 200 Dimethyl Disulfide | 94 | 6.202 | 6.202 | (0.808) | 15964 | 2.00000 | 1.82 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 6354 | 2.00000 | 2.08 |
| 130 Ethyl Acetate | 43 | 3.675 | 3.675 | (0.880) | 7422 | 2.00000 | 2.08(M) |
| 40 Methyl Methacrylate | 41 | 5.617 | 5.617 | (1.345) | 6185 | 2.00000 | 1.98 |
| 49 Ethyl Methacrylate | 69 | 6.715 | 6.715 | (1.353) | 6546 | 2.00000 | 2.03 |
| 132 n-Butanol | 56 | 5.343 | 5.343 | (1.279) | 2004 | 40.0000 | 74.77(TM) |
| 142 Tetrahydrofuran | 42 | 3.848 | 3.848 | (0.921) | 2867 | 4.00000 | 2.04(M) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 5898 | 40.0000 | 33.27 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 35687 | 2.00000 | 2.10 |

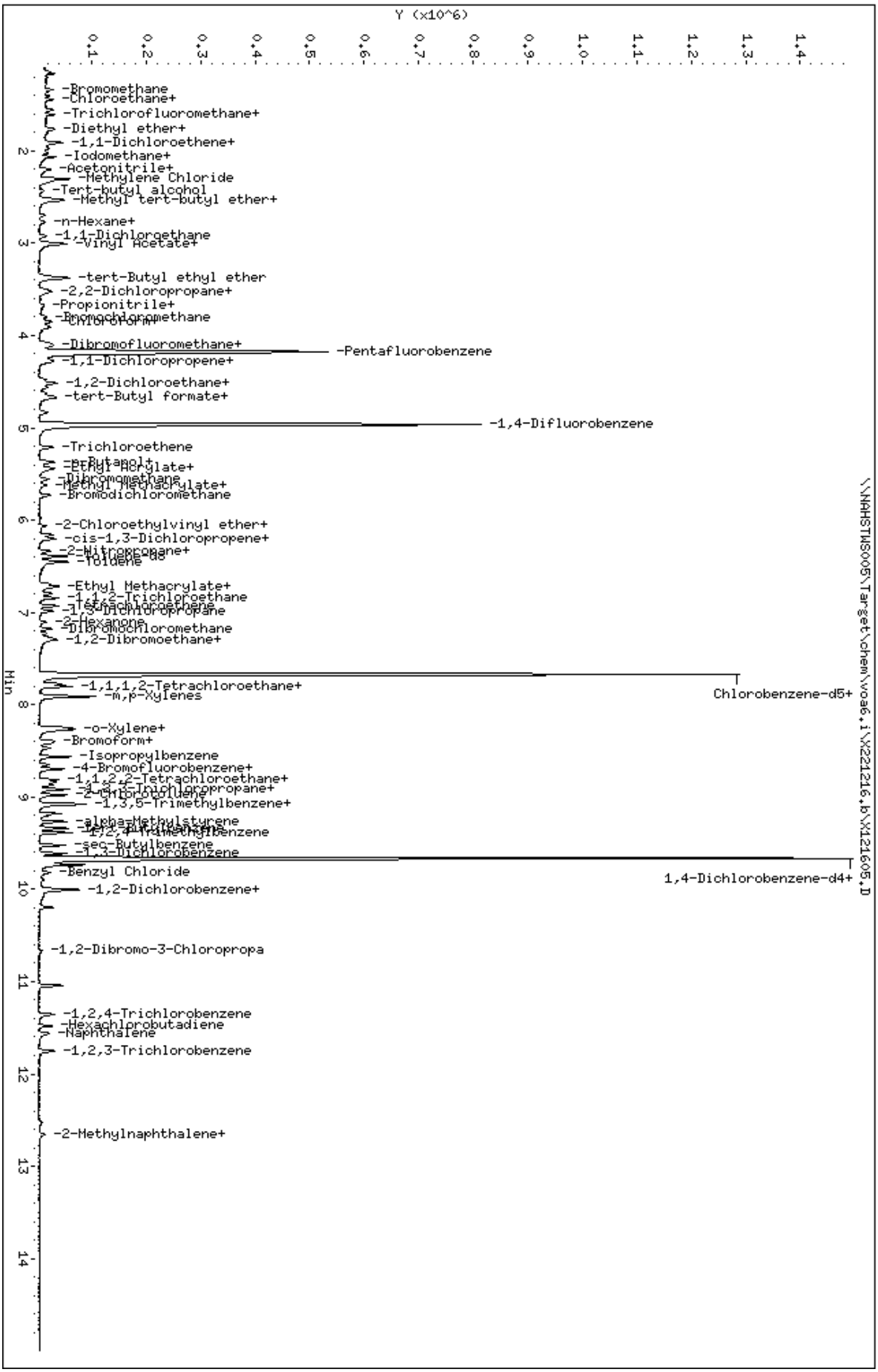
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 131 Methyl Acrylate | 55 | 3.720 | 3.720 | (0.891) | 5443 | 2.00000 | 1.75(M) |
| | 162 Butyl acrylate | 55 | 8.267 | 8.267 | (1.078) | 15015 | 2.00000 | 1.77 |
| | 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 6239 | 2.00000 | 2.33 |
| | 3 Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 8057 | 2.00000 | 4.07 |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 7263 | 2.00000 | 1.82 |
| | 6 Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 5996 | 2.00000 | 3.68(M) |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 5667 | 2.00000 | 2.04(M) |
| | 8 Trichlorofluoromethane | 101 | 1.561 | 1.561 | (0.374) | 10463 | 2.00000 | 1.87 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 1317 | 4.00000 | 6.92(M) |
| | 10 Acetone | 43 | 1.973 | 1.973 | (0.472) | 7041 | 4.00000 | 5.46(M) |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 6862 | 2.00000 | 1.98 |
| | 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 8702 | 4.00000 | 5.23 |
| | 16 Acrylonitrile | 53 | 2.554 | 2.554 | (0.611) | 4557 | 4.00000 | 3.87(M) |
| | 17 Methylene Chloride | 84 | 2.303 | 2.303 | (0.551) | 9194 | 2.00000 | 1.93(M) |
| | 18 Methyl tert-butyl ether | 73 | 2.536 | 2.536 | (0.607) | 23231 | 2.00000 | 2.04 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 34948 | 4.00000 | 3.85 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.532 | 2.532 | (0.606) | 7113 | 2.00000 | 1.83 |
| | 21 Vinyl Acetate | 43 | 3.008 | 3.008 | (0.720) | 38835 | 4.00000 | 3.90 |
| | 22 1,1-Dichloroethane | 63 | 2.922 | 2.922 | (0.699) | 12778 | 2.00000 | 1.87 |
| | 24 2-Butanone | 43 | 3.604 | 3.604 | (0.863) | 5418 | 4.00000 | 6.89(M) |
| | 26 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 11048 | 2.00000 | 1.91 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.529 | 3.529 | (0.845) | 9675 | 2.00000 | 2.05 |
| | 28 Chloroform | 83 | 3.908 | 3.908 | (0.935) | 15581 | 2.00000 | 2.04 |
| | 29 Bromochloromethane | 128 | 3.803 | 3.803 | (0.910) | 5134 | 2.00000 | 1.98 |
| $ | 30 Dibromofluoromethane | 113 | 4.106 | 4.106 | (0.983) | 9050 | 2.00000 | 1.90 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 10962 | 2.00000 | 1.81 |
| | 32 1,1-Dichloropropene | 75 | 4.286 | 4.286 | (0.863) | 9042 | 2.00000 | 1.86 |
| | 33 1,2-Dichloroethane | 62 | 4.560 | 4.560 | (0.918) | 10812 | 2.00000 | 1.92 |
| | 34 Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 11092 | 2.00000 | 2.13(M) |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.477 | 4.477 | (1.072) | 9783 | 2.00000 | 2.37 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 684444 | 50.0000 | |
| | 37 Benzene | 78 | 4.515 | 4.515 | (0.909) | 32394 | 2.00000 | 1.98 |
| | 38 Trichloroethene | 130 | 5.216 | 5.216 | (1.051) | 9277 | 2.00000 | 2.00 |
| | 39 Bromodichloromethane | 83 | 5.733 | 5.733 | (1.155) | 11961 | 2.00000 | 1.94 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.059 | 6.059 | (1.220) | 6648 | 4.00000 | 3.80 |
| | 42 1,2-Dichloropropane | 63 | 5.441 | 5.441 | (1.096) | 8129 | 2.00000 | 1.86(M) |
| | 44 Dibromomethane | 93 | 5.553 | 5.553 | (1.119) | 6110 | 2.00000 | 2.06 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.337 | 6.337 | (0.826) | 14771 | 4.00000 | 4.26 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.161 | 6.161 | (1.241) | 13738 | 2.00000 | 1.90 |
| * | 47 Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 647809 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.393 | 6.393 | (0.833) | 31289 | 2.00000 | 1.95 |
| | 50 Toluene | 91 | 6.453 | 6.453 | (0.841) | 35620 | 2.00000 | 1.98 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.693 | 6.693 | (1.348) | 10969 | 2.00000 | 1.83 |
| | 52 2-Hexanone | 43 | 7.105 | 7.105 | (0.926) | 9314 | 4.00000 | 3.95 |
| | 53 1,1,2-Trichloroethane | 83 | 6.843 | 6.843 | (0.892) | 7537 | 2.00000 | 2.09 |
| | 54 1,3-Dichloropropane | 76 | 6.989 | 6.989 | (0.911) | 14049 | 2.00000 | 1.98 |
| | 55 Dibromochloromethane | 129 | 7.180 | 7.180 | (0.936) | 10210 | 2.00000 | 1.96 |
| | 56 Tetrachloroethene | 164 | 6.929 | 6.929 | (0.903) | 7331 | 2.00000 | 1.97 |
| | 57 1,2-Dibromoethane | 107 | 7.263 | 7.263 | (0.947) | 8477 | 2.00000 | 1.88 |
| | 58 1-Chlorohexane | 55 | 7.697 | 7.697 | (1.550) | 5855 | 2.00000 | 1.77(MH) |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 24558 | 2.00000 | 1.93 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.013) | 9378 | 2.00000 | 1.98 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.802 | 7.802 (1.017) | 11791 | 2.00000 | 1.97 |
| 62 m,p-Xylenes | 106 | 7.911 | 7.911 (1.031) | 29170 | 4.00000 | 3.78 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.249 | 8.249 | (1.075) | 14764 | 2.00000 | 1.93 |
| | 64 Styrene | 104 | 8.271 | 8.271 | (1.078) | 22967 | 2.00000 | 1.80 |
| | 66 Bromoform | 173 | 8.417 | 8.417 | (1.097) | 6949 | 2.00000 | 1.93(T) |
| | 67 Isopropylbenzene | 105 | 8.563 | 8.563 | (1.116) | 32641 | 2.00000 | 1.87 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.841 | 8.841 | (0.915) | 11741 | 2.00000 | 2.08 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.698 | 8.698 | (1.134) | 13631 | 2.00000 | 2.33 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 352851 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.867 | 8.867 | (0.918) | 7514 | 2.00000 | 1.91 |
| | 73 n-Propylbenzene | 91 | 8.916 | 8.916 | (0.923) | 34981 | 2.00000 | 1.78 |
| | 74 Bromobenzene | 156 | 8.815 | 8.815 | (0.912) | 11721 | 2.00000 | 2.02 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.073 | 9.073 | (0.939) | 27917 | 2.00000 | 1.93 |
| | 76 2-Chlorotoluene | 91 | 8.980 | 8.980 | (0.929) | 26853 | 2.00000 | 2.09 |
| | 77 4-Chlorotoluene | 91 | 9.077 | 9.077 | (0.939) | 28173 | 2.00000 | 1.92 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 22104 | 2.00000 | 1.87 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.384 | 9.384 | (0.971) | 28377 | 2.00000 | 1.86 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 27643 | 2.00000 | 1.75 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 24966 | 2.00000 | 1.77 |
| | 83 1,3-Dichlorobenzene | 146 | 9.613 | 9.613 | (0.995) | 18708 | 2.00000 | 1.94 |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 20552 | 2.00000 | 1.96 |
| | 86 Benzyl Chloride | 91 | 9.819 | 9.819 | (1.280) | 12783 | 2.00000 | 3.88 |
| | 87 n-Butylbenzene | 91 | 10.003 | 10.003 | (1.035) | 19853 | 2.00000 | 3.18(M) |
| | 88 1,2-Dichlorobenzene | 146 | 9.999 | 9.999 | (1.035) | 18921 | 2.00000 | 1.91 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.678 | 10.678 | (1.105) | 1619 | 2.00000 | 1.88(M) |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.352 | 11.352 | (1.175) | 11764 | 2.00000 | 1.88(M) |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 3970 | 2.00000 | 1.39 |
| | 92 Naphthalene | 128 | 11.559 | 11.559 | (1.196) | 26250 | 2.00000 | 1.84(M) |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.750 | 11.750 | (1.216) | 11288 | 2.00000 | 1.88 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 16788 | 4.00000 | |
| M | 95 Xylenes (total) | 106 | | | | 43934 | 6.00000 | |
| | 141 Cyclohexane | 56 | 4.125 | 4.125 | (0.987) | 7375 | 2.00000 | 2.82(H) |
| | 138 Freon TF | 101 | 1.917 | 1.917 | (0.459) | 6025 | 2.00000 | 1.79 |
| | 147 Methylcyclohexane | 55 | 5.373 | 5.373 | (1.082) | 16016 | 2.00000 | 1.91(M) |
| | 146 Methyl Acetate | 43 | 2.247 | 2.247 | (0.538) | 4149 | 2.00000 | 2.02 |
| | 148 Tert-Butyl alcohol | 59 | 2.434 | 2.434 | (0.583) | 12015 | 40.0000 | 38.02(a) |
| | 149 Isopropyl Alcohol | 45 | 2.101 | 2.101 | (0.503) | 5607 | 40.0000 | 33.97 |

## QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121605,D
Date : 16-DEC-2022 13:02
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;
Purge Volume: 5.0
Column phase: DB624

\\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121605,D

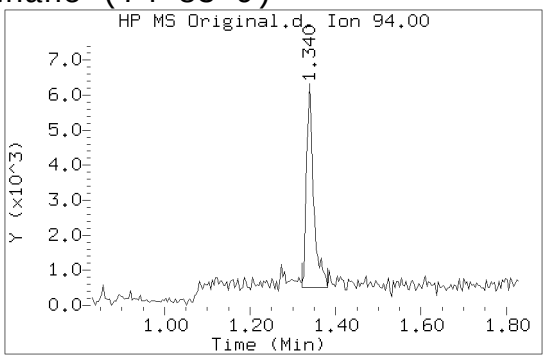
Instrument: voa6,i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## Bromomethane (74-83-9)

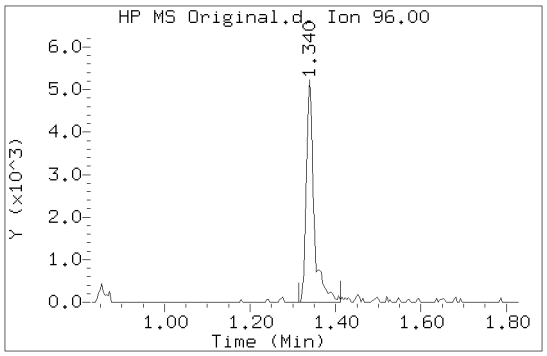
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### BEFORE

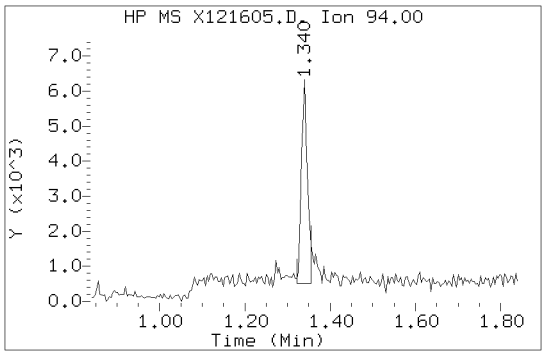
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Reason Code:

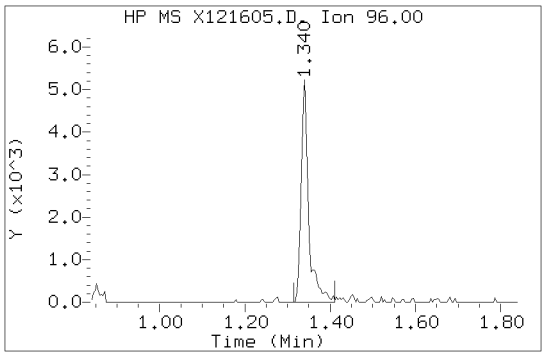
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### AFTER

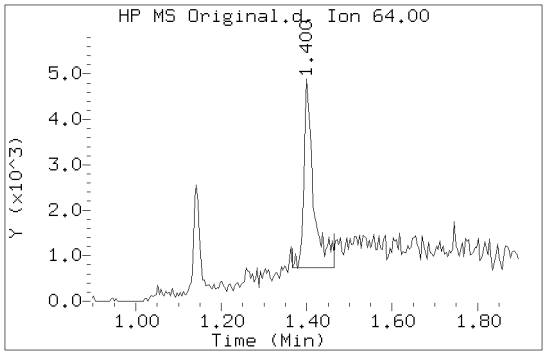
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## Chloroethane (75-00-3)

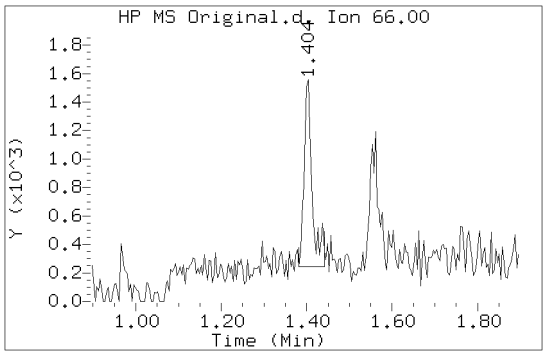
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### BEFORE

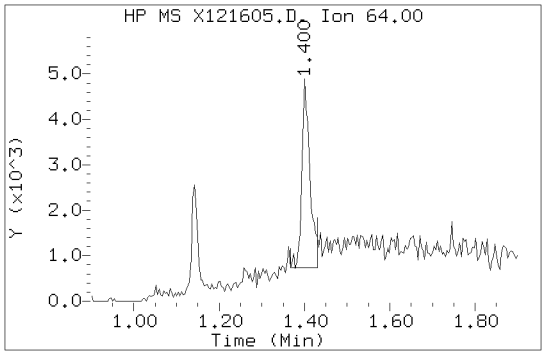
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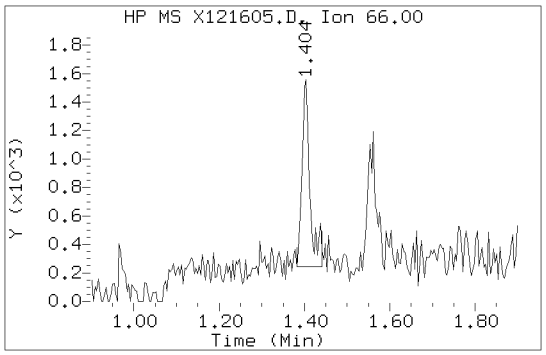
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### AFTER

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HEIGHT
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27-Dec-2022
16:07
linh
pham

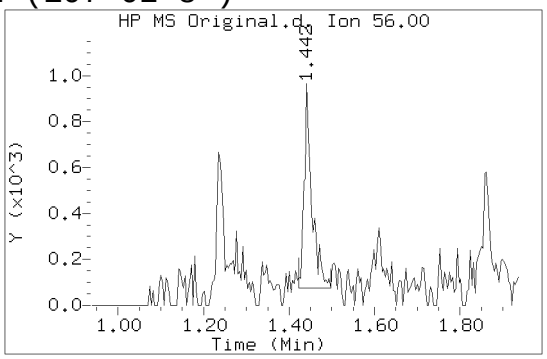


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InstruID : voa6.i
LabSampID : VSTD002

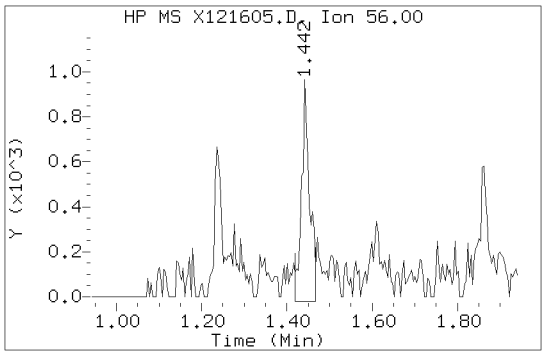
## Acrolein (107-02-8 )

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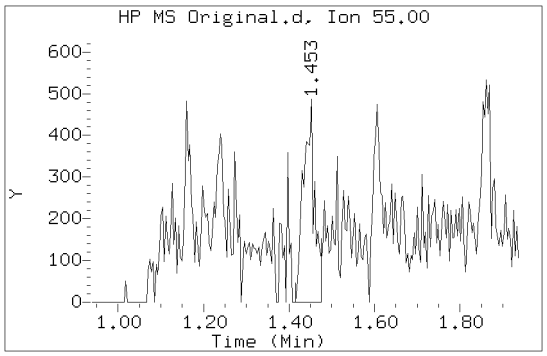
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27-Dec-2022
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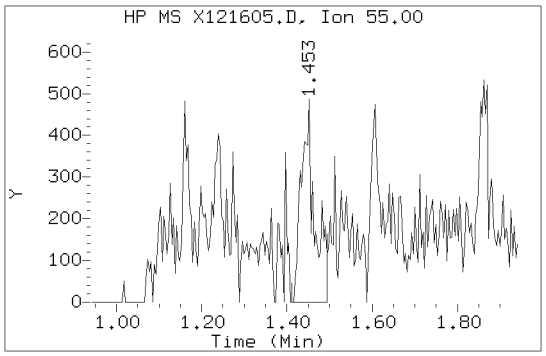

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27-Dec-2022
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BEFORE
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487
27-Dec-2022
16:03
linh
pham



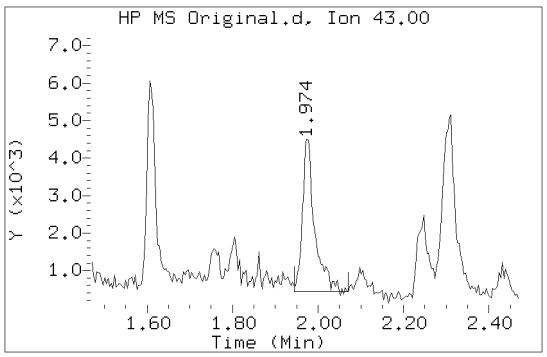

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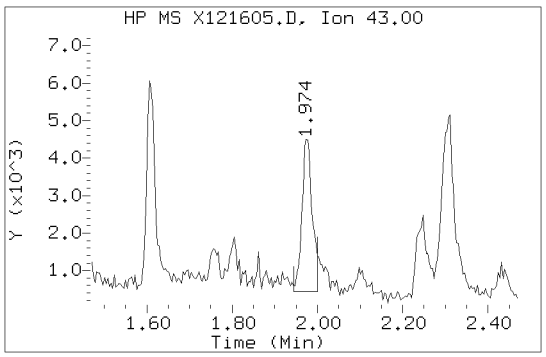

## Acetone (67-64-1)

Reason Code:

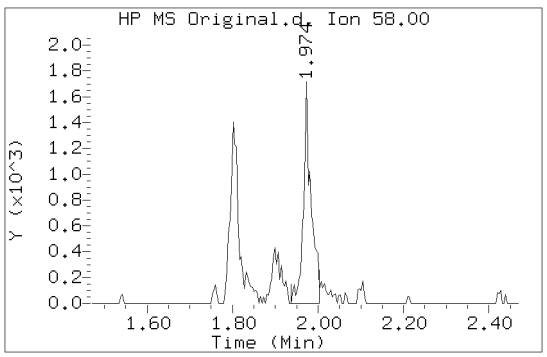
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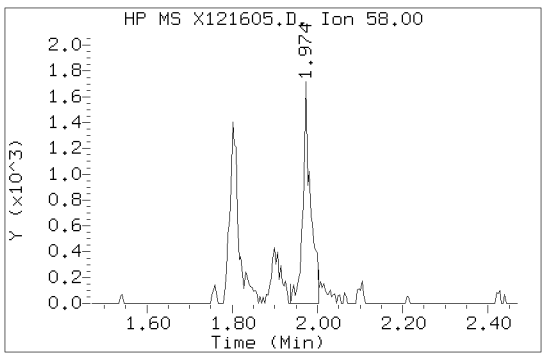

AFTER
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BEFORE
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27-Dec-2022
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pham



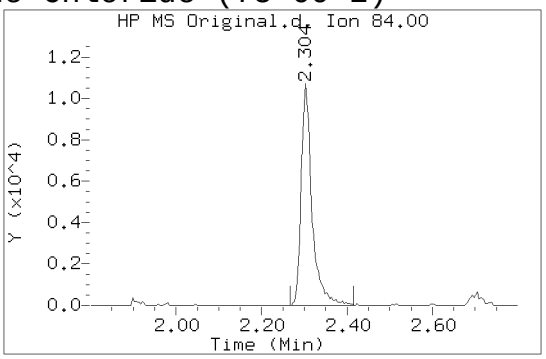

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Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

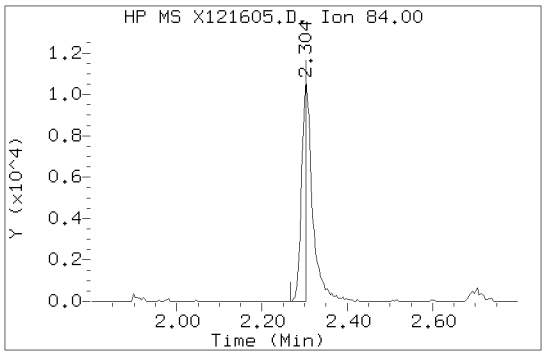
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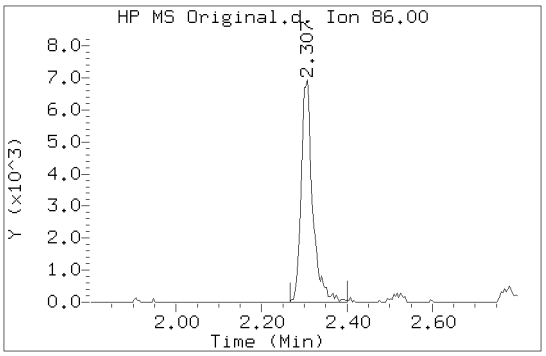



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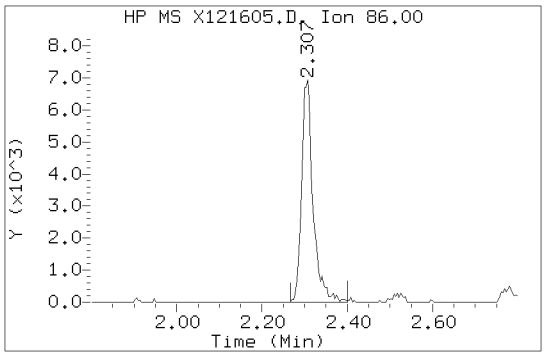
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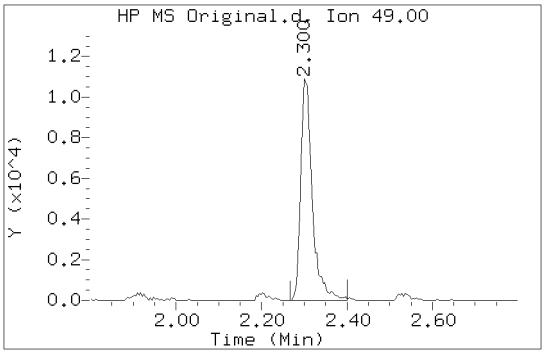

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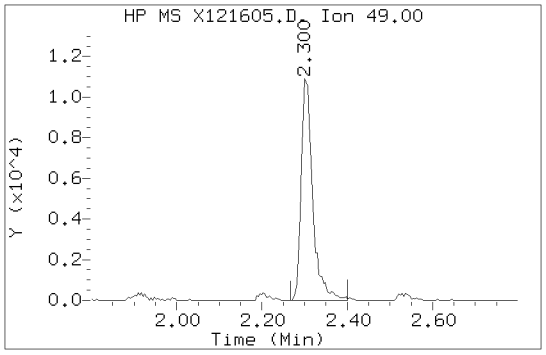

AFTER
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BEFORE
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10905
27-Dec-2022
16:03
linh
pham

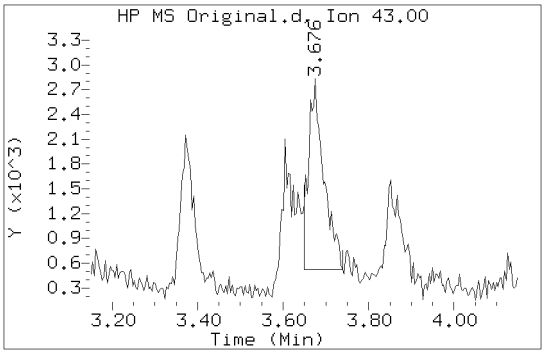



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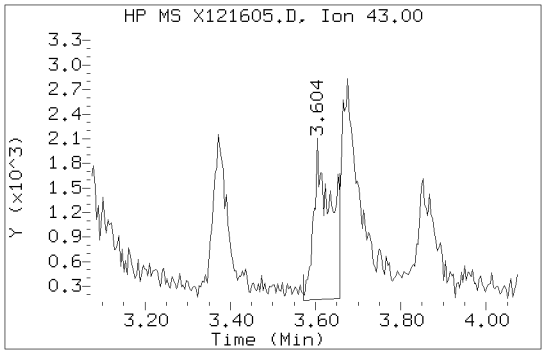

## 2-Butanone (78-93-3)

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27-Dec-2022
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Reason Code:

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27-Dec-2022
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pham



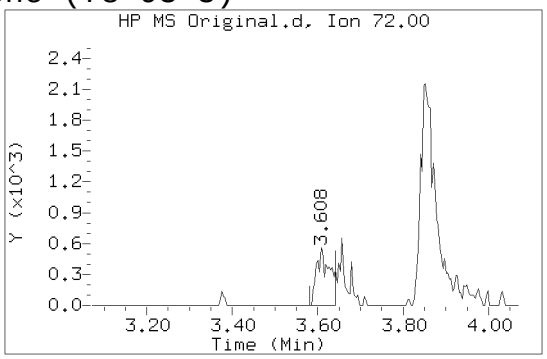
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 2-Butanone (78-93-3)

Reason Code:

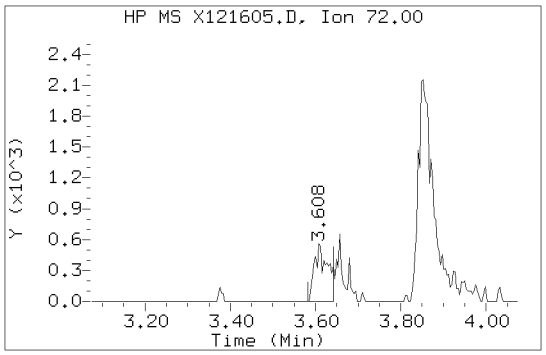
**BEFORE**

MASS
72
AREA
1209
HEIGHT
563
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
72
AREA
1209
HEIGHT
563
27-Dec-2022
16:07
linh
pham

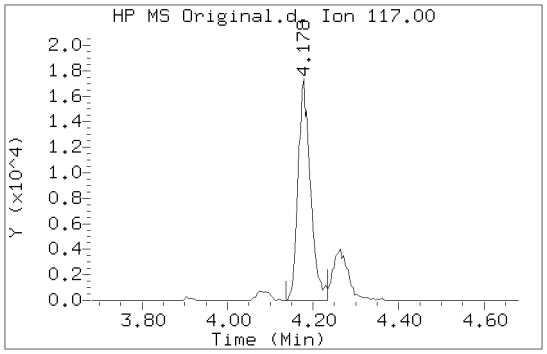



## Carbon Tetrachloride (56-23-5)

Reason Code:

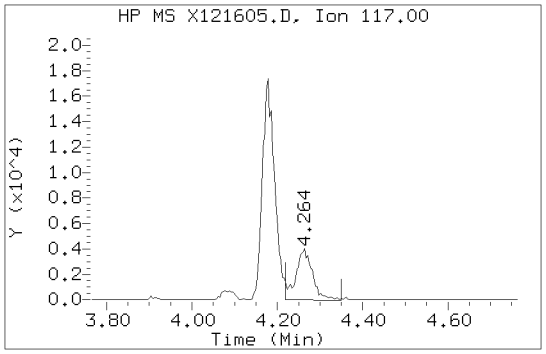
**BEFORE**

MASS
117
AREA
35555
HEIGHT
17376
27-Dec-2022
16:03
linh
pham



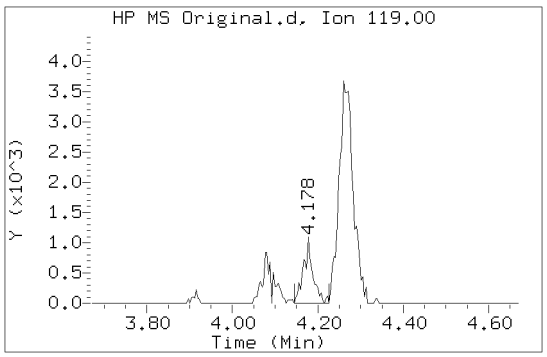

**AFTER**

MASS
117
AREA
11092
HEIGHT
4036
27-Dec-2022
16:07
linh
pham



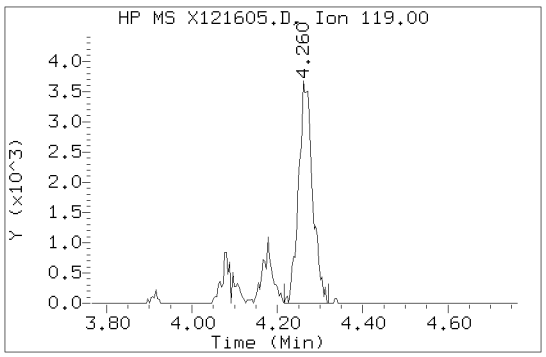

**BEFORE**

MASS
119
AREA
1692
HEIGHT
1100
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
119
AREA
8494
HEIGHT
3676
27-Dec-2022
16:07
linh
pham

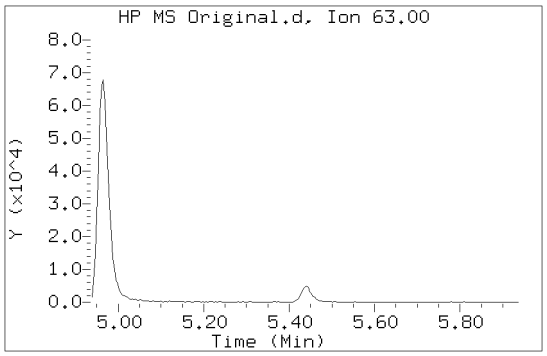



## 1,2-Dichloropropane (78-87-5)

Reason Code:

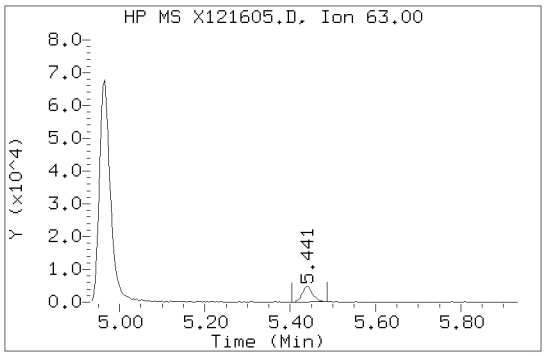
**BEFORE**

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
63
AREA
8129
HEIGHT
4705
27-Dec-2022
16:07
linh
pham



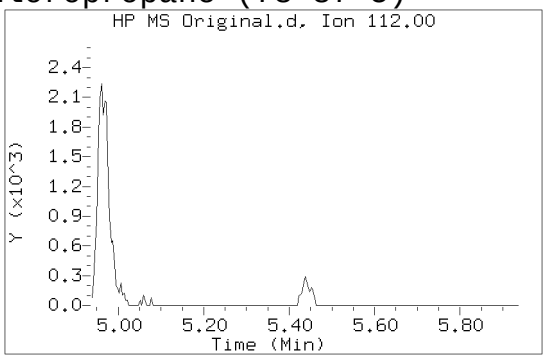
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Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 1,2-Dichloropropane (78-87-5)

Reason Code:

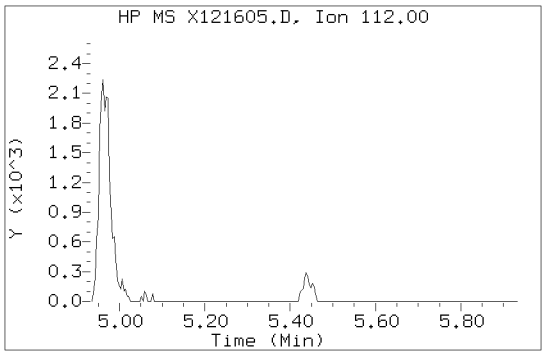
BEFORE

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




AFTER

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

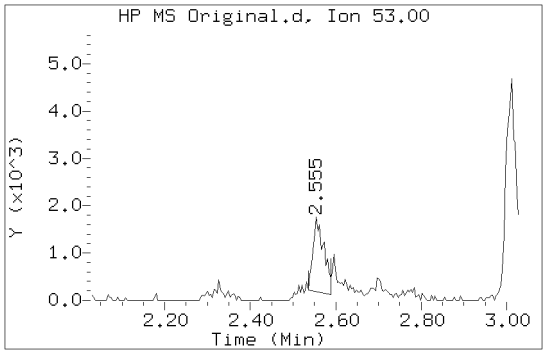



## Acrylonitrile (107-13-1)

Reason Code:

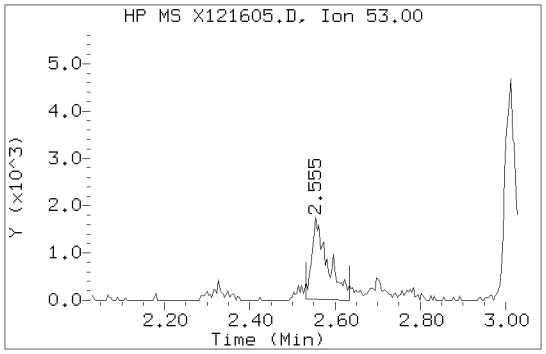
BEFORE

MASS
53
AREA
2810
HEIGHT
1577
27-Dec-2022
16:03
linh
pham



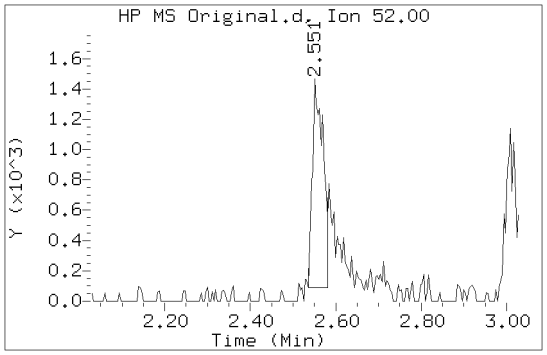

AFTER

MASS
53
AREA
4557
HEIGHT
1735
27-Dec-2022
16:07
linh
pham



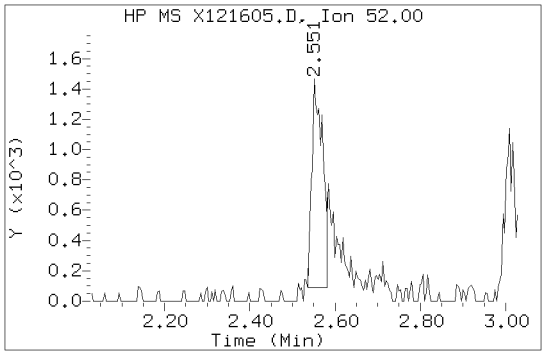

BEFORE

MASS
52
AREA
2408
HEIGHT
1379
27-Dec-2022
16:03
linh
pham



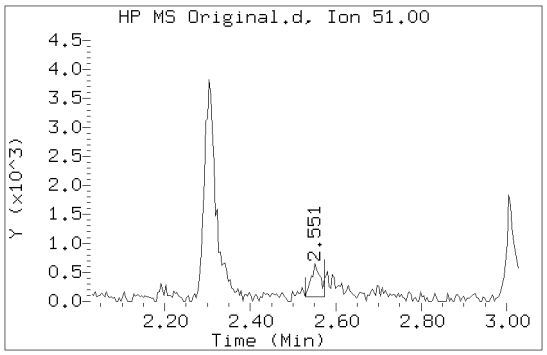

AFTER

MASS
52
AREA
2408
HEIGHT
1379
27-Dec-2022
16:07
linh
pham



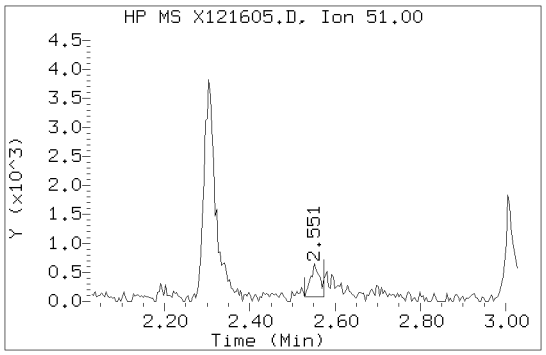

BEFORE

MASS
51
AREA
876
HEIGHT
575
27-Dec-2022
16:03
linh
pham




AFTER

MASS
51
AREA
876
HEIGHT
575
27-Dec-2022
16:07
linh
pham

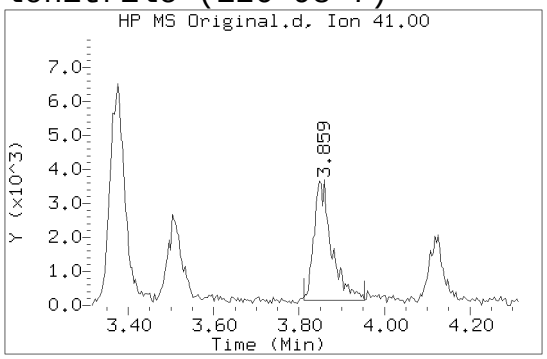


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

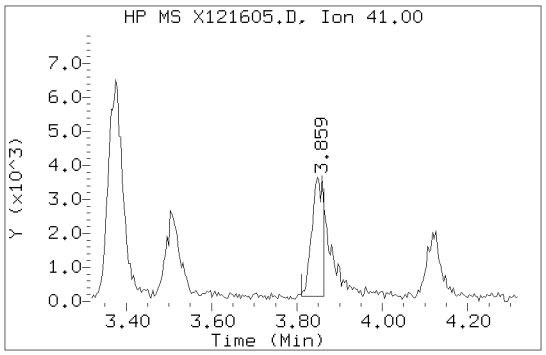
## Methacrylonitrile (126-98-7)

Reason Code:

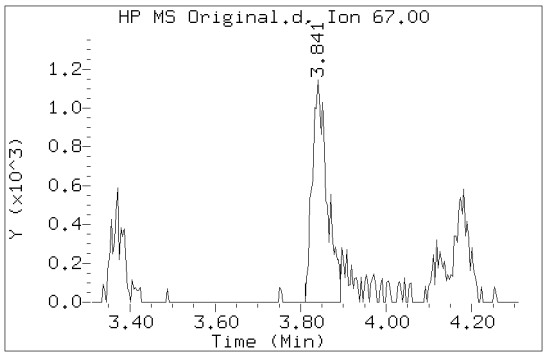
BEFORE
MASS
41
AREA
10013
HEIGHT
3544
27-Dec-2022
16:03
linh
pham



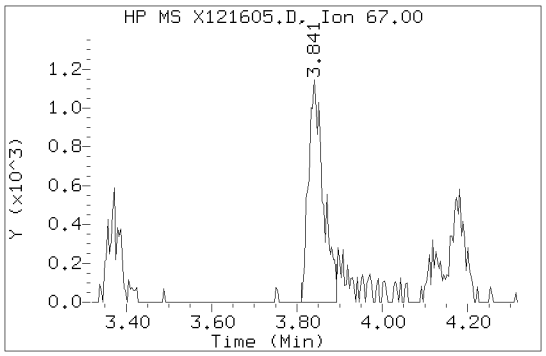

AFTER
MASS
41
AREA
6388
HEIGHT
3544
27-Dec-2022
16:07
linh
pham



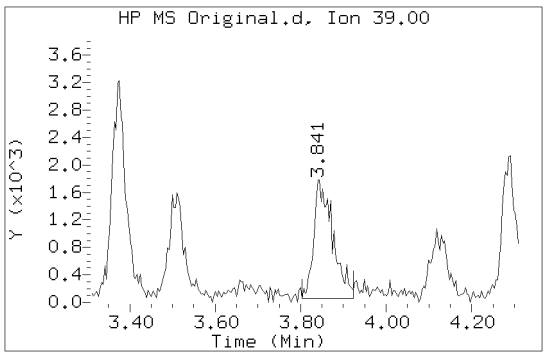

BEFORE
MASS
67
AREA
2751
HEIGHT
1145
27-Dec-2022
16:03
linh
pham



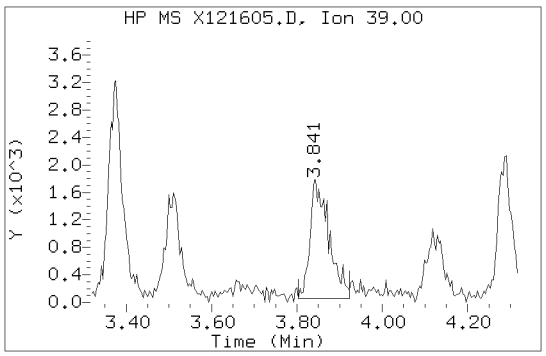

AFTER
MASS
67
AREA
2751
HEIGHT
1145
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
39
AREA
5310
HEIGHT
1724
27-Dec-2022
16:03
linh
pham



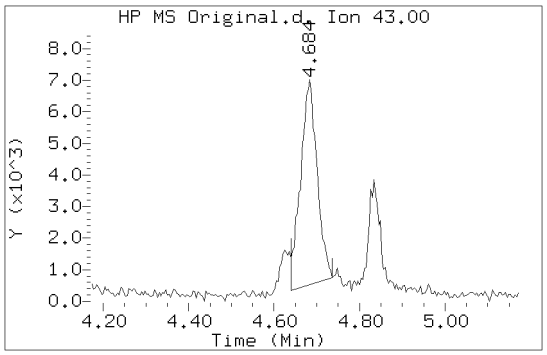

AFTER
MASS
39
AREA
5310
HEIGHT
1724
27-Dec-2022
16:07
linh
pham



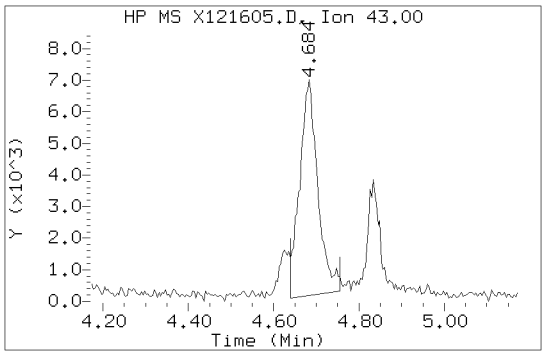

## Isobutyl Alcohol (78-83-1)

Reason Code:

BEFORE
MASS
43
AREA
17811
HEIGHT
6479
27-Dec-2022
16:03
linh
pham




AFTER
MASS
43
AREA
20629
HEIGHT
6832
27-Dec-2022
16:07
linh
pham



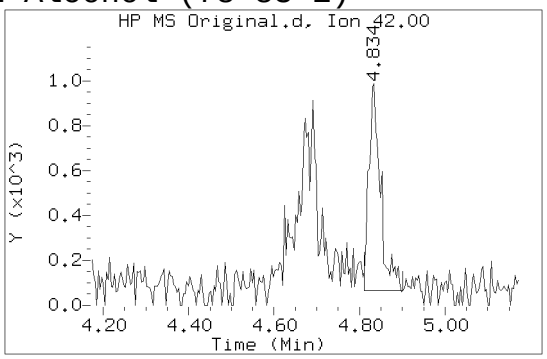
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## Isobutyl Alcohol (78-83-1)

Reason Code:

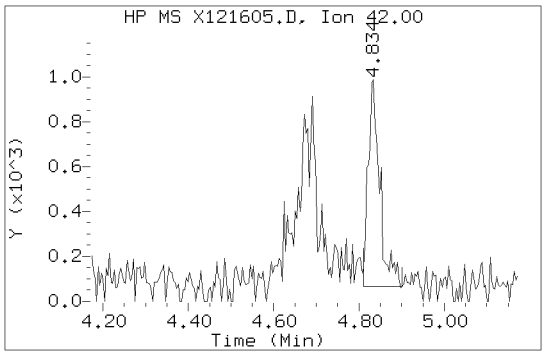
**BEFORE**

MASS
42
AREA
1728
HEIGHT
920
27-Dec-2022
16:03
linh
pham



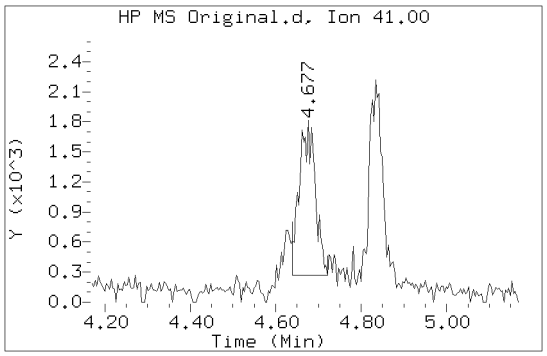

**AFTER**

MASS
42
AREA
1728
HEIGHT
920
27-Dec-2022
16:07
linh
pham



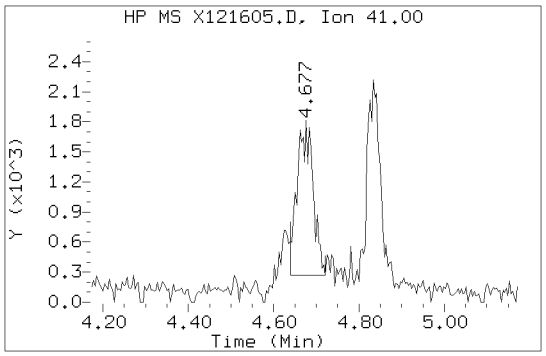

**BEFORE**

MASS
41
AREA
4067
HEIGHT
1547
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
4067
HEIGHT
1547
27-Dec-2022
16:07
linh
pham

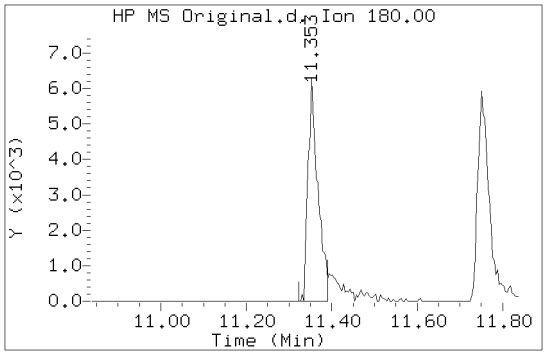



## 1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

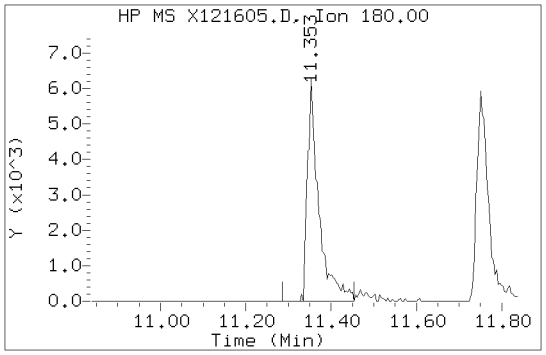
**BEFORE**

MASS
180
AREA
10131
HEIGHT
6269
27-Dec-2022
16:03
linh
pham



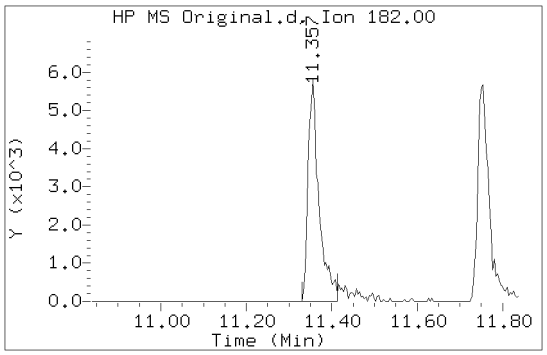

**AFTER**

MASS
180
AREA
11764
HEIGHT
6269
27-Dec-2022
16:07
linh
pham



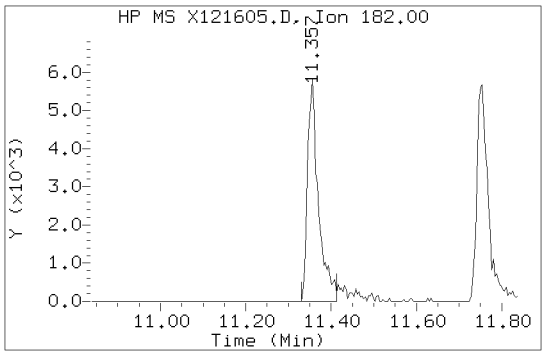

**BEFORE**

MASS
182
AREA
10317
HEIGHT
5807
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
182
AREA
10317
HEIGHT
5807
27-Dec-2022
16:07
linh
pham

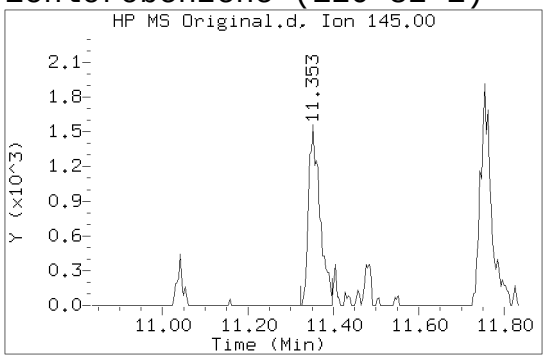


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 1,2,4-Trichlorobenzene (120-82-1)

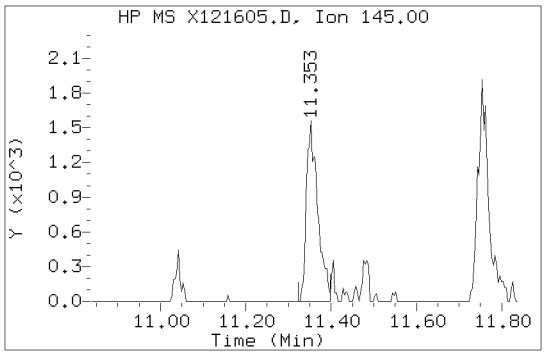
### BEFORE

MASS
145
AREA
2887
HEIGHT
1565
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
145
AREA
2887
HEIGHT
1565
27-Dec-2022
16:07
linh
pham

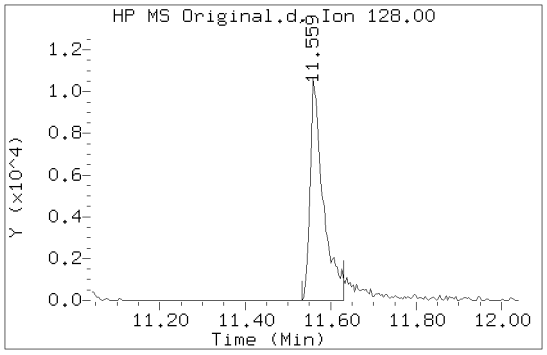



Reason Code:

## Naphthalene (91-20-3)

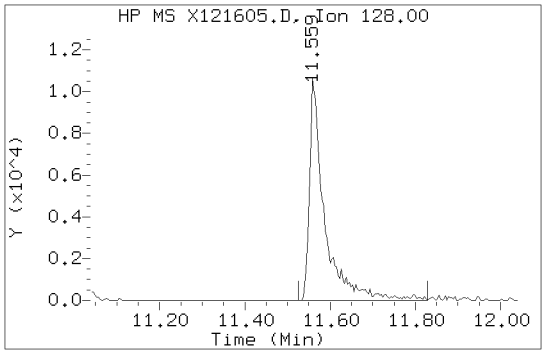
### BEFORE

MASS
128
AREA
22581
HEIGHT
10616
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
128
AREA
26250
HEIGHT
10616
27-Dec-2022
16:07
linh
pham

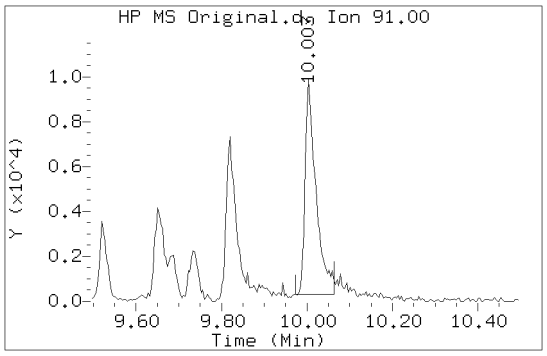



Reason Code:

## n-Butylbenzene (104-51-8)

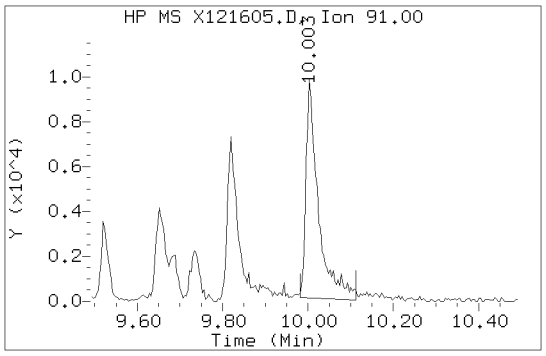
### BEFORE

MASS
91
AREA
17181
HEIGHT
9558
27-Dec-2022
16:03
linh
pham




### AFTER

MASS
91
AREA
19853
HEIGHT
9720
27-Dec-2022
16:07
linh
pham




Reason Code:

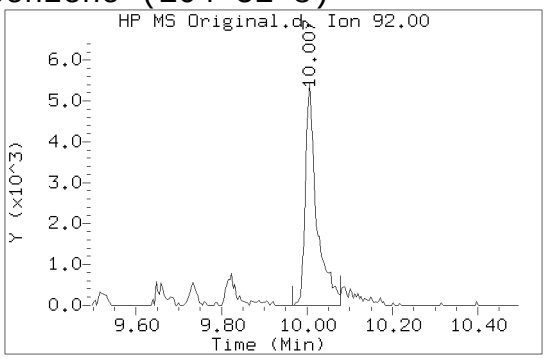
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## n-Butylbenzene (104-51-8)

Reason Code:

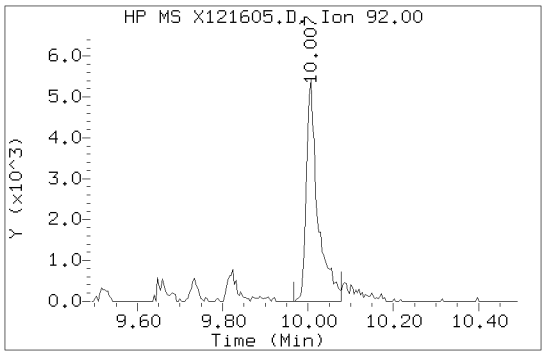
**BEFORE**

MASS
92
AREA
10185
HEIGHT
5422
27-Dec-2022
16:03
linh
pham



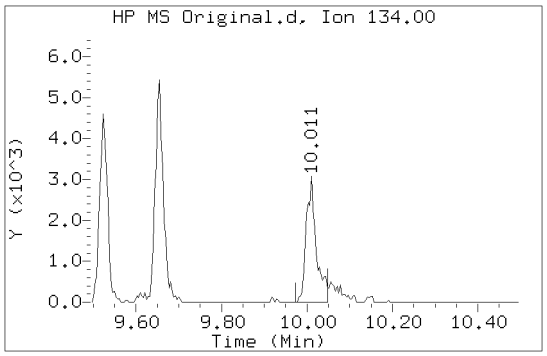

**AFTER**

MASS
92
AREA
10185
HEIGHT
5422
27-Dec-2022
16:07
linh
pham



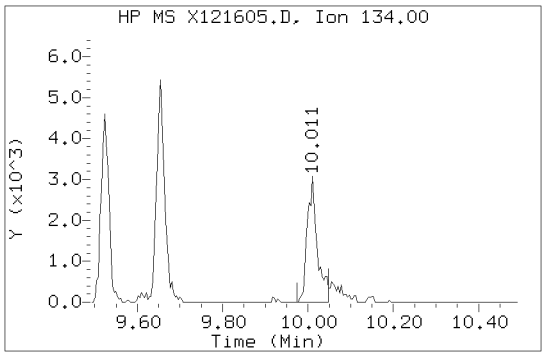

**BEFORE**

MASS
134
AREA
5059
HEIGHT
3076
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
134
AREA
5059
HEIGHT
3076
27-Dec-2022
16:07
linh
pham

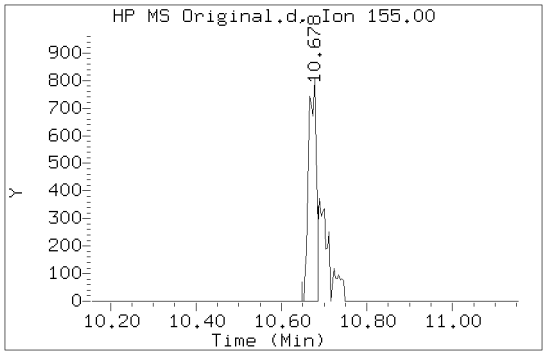



## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

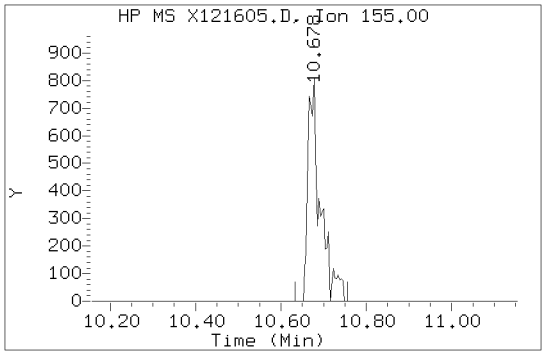
**BEFORE**

MASS
155
AREA
1026
HEIGHT
806
27-Dec-2022
16:03
linh
pham



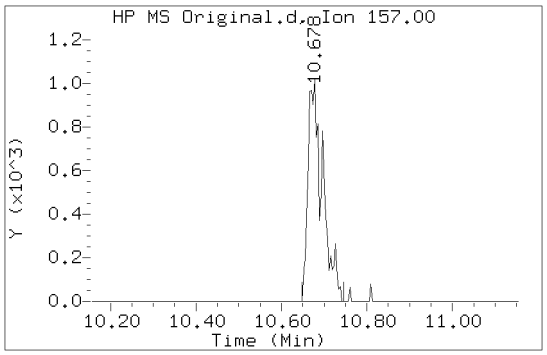

**AFTER**

MASS
155
AREA
1619
HEIGHT
806
27-Dec-2022
16:07
linh
pham



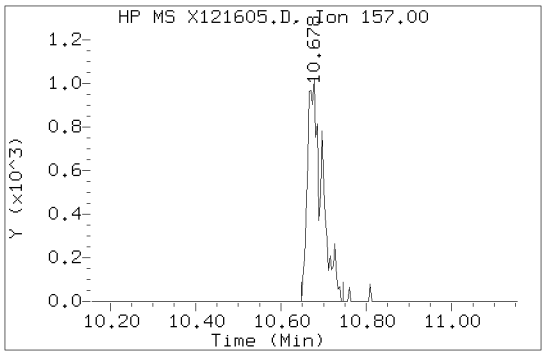

**BEFORE**

MASS
157
AREA
2422
HEIGHT
1016
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
157
AREA
2422
HEIGHT
1016
27-Dec-2022
16:07
linh
pham



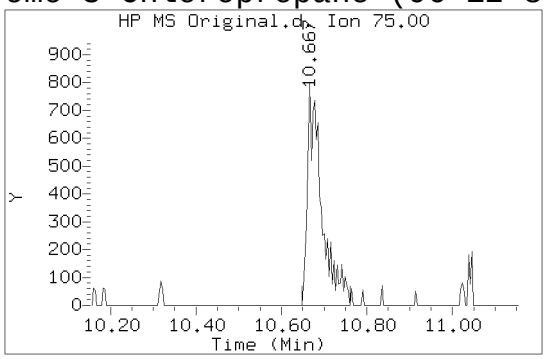
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## 1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

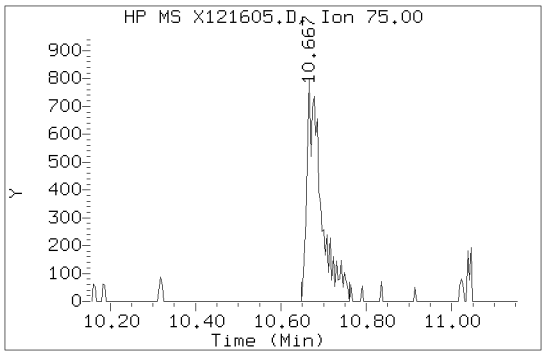
**BEFORE**

MASS
75
AREA
1843
HEIGHT
796
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
1843
HEIGHT
796
27-Dec-2022
16:07
linh
pham

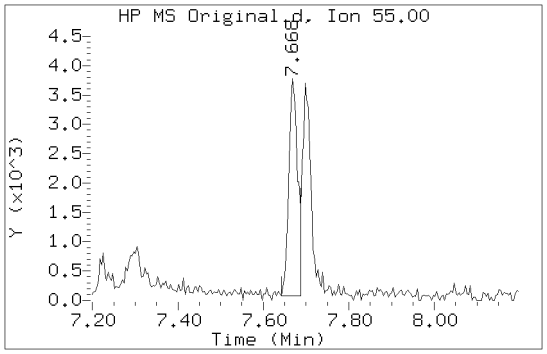



## 1-Chlorohexane (544-10-5)

Reason Code:

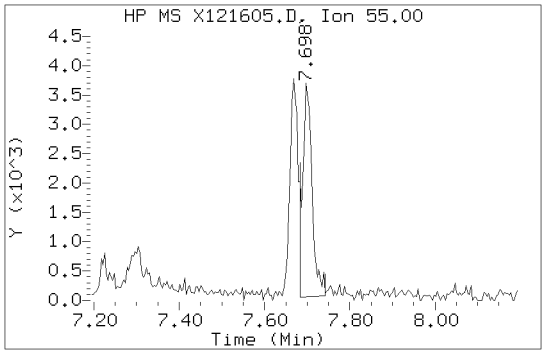
**BEFORE**

MASS
55
AREA
5357
HEIGHT
3703
27-Dec-2022
16:03
linh
pham



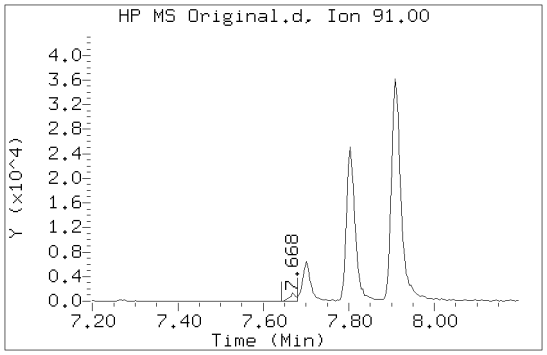

**AFTER**

MASS
55
AREA
5855
HEIGHT
3647
27-Dec-2022
16:07
linh
pham



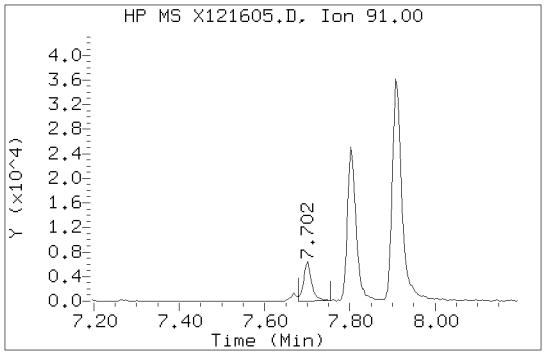

**BEFORE**

MASS
91
AREA
1356
HEIGHT
1324
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
91
AREA
8682
HEIGHT
6440
27-Dec-2022
16:07
linh
pham

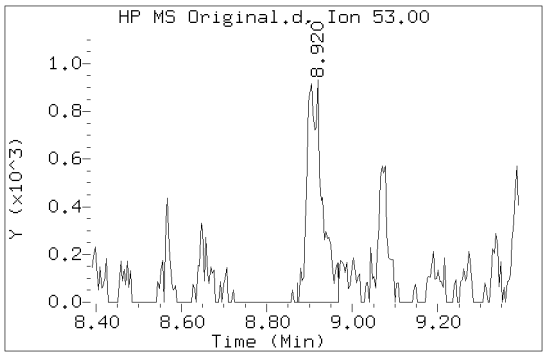



## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

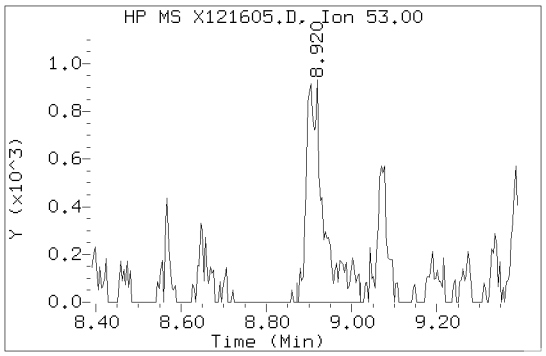
**BEFORE**

MASS
53
AREA
2313
HEIGHT
932
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
53
AREA
2690
HEIGHT
932
27-Dec-2022
16:07
linh
pham



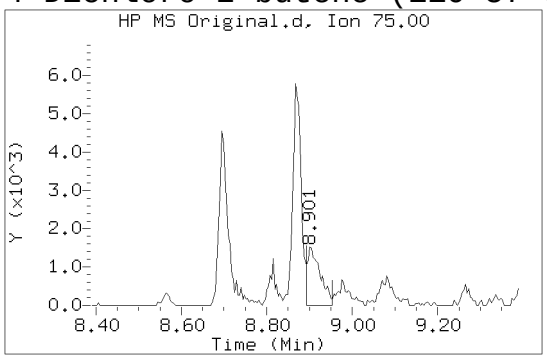
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

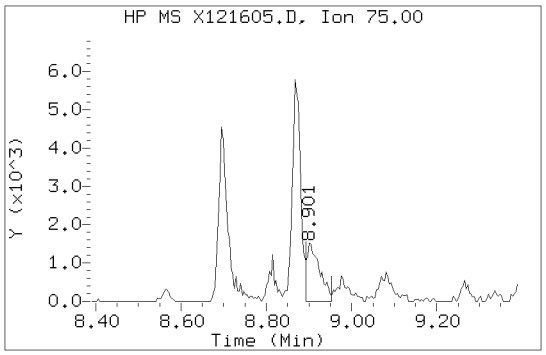
**BEFORE**

MASS
75
AREA
3228
HEIGHT
1526
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
75
AREA
3228
HEIGHT
1526
27-Dec-2022
16:07
linh
pham

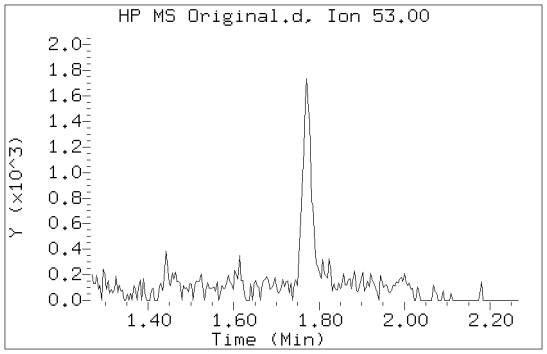



## Chloroprene (126-99-8)

Reason Code:

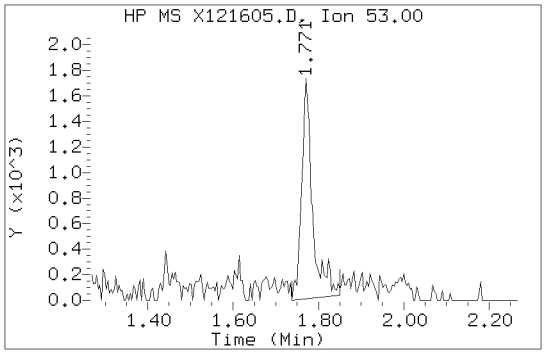
**BEFORE**

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



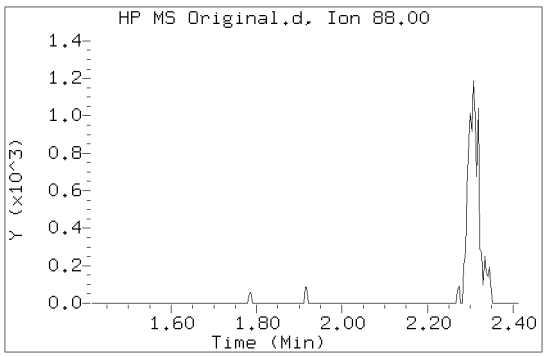

**AFTER**

MASS
53
AREA
3126
HEIGHT
1722
27-Dec-2022
16:07
linh
pham



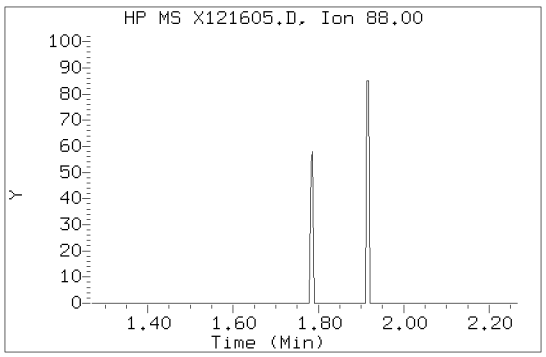

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

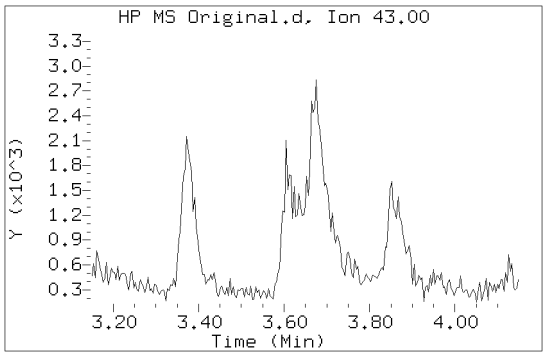



## Ethyl Acetate (141-78-6)

Reason Code:

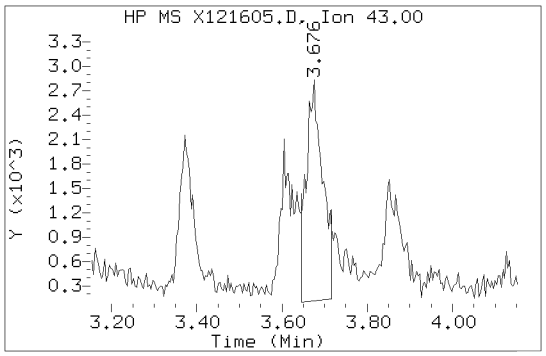
**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
43
AREA
7422
HEIGHT
2716
27-Dec-2022
16:07
linh
pham

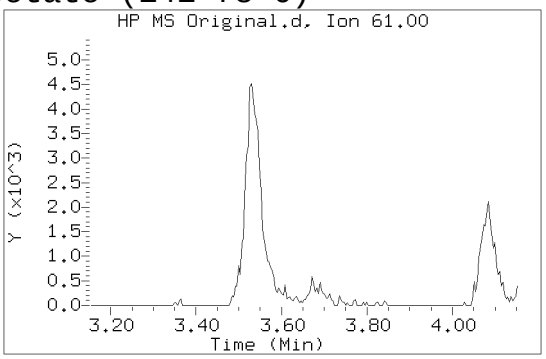


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## Ethyl Acetate (141-78-6)

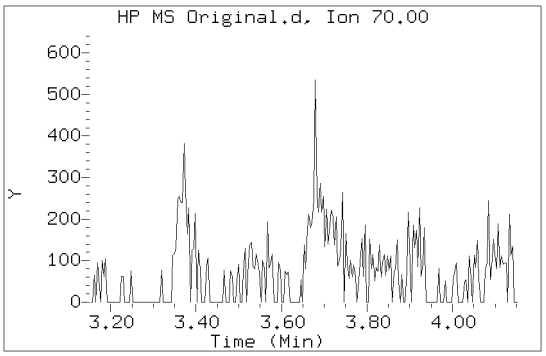
### BEFORE

MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### BEFORE

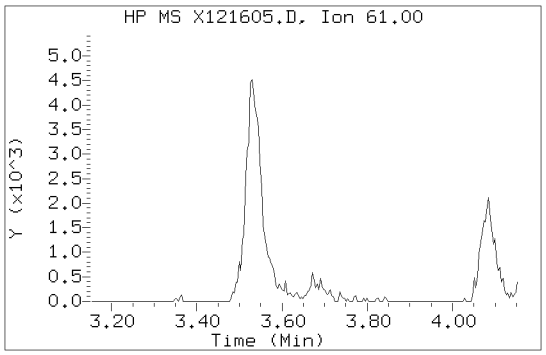
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### Reason Code:

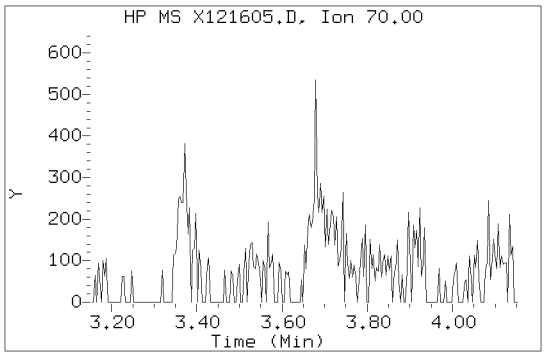
### AFTER

MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




### AFTER

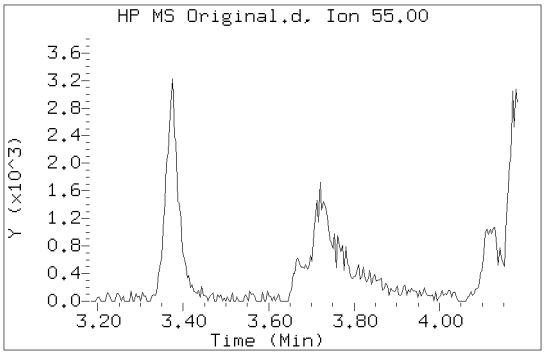
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham




## Methyl Acrylate (96-33-3)

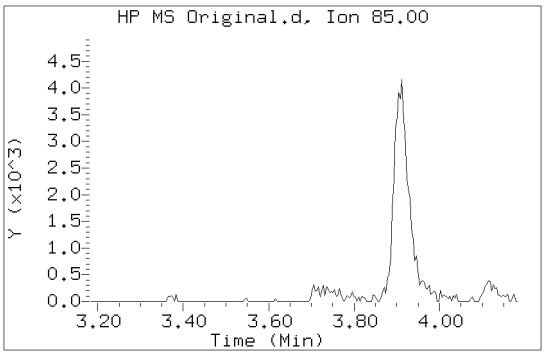
### BEFORE

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### BEFORE

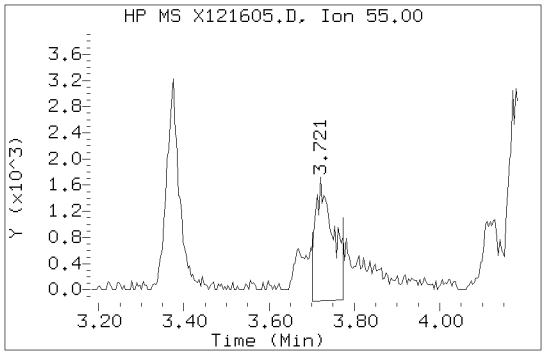
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




### Reason Code:

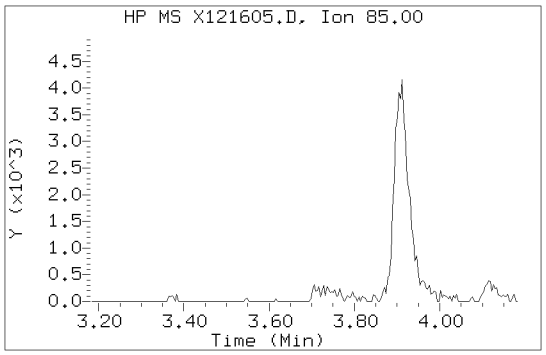
### AFTER

MASS
55
AREA
5443
HEIGHT
1892
27-Dec-2022
16:07
linh
pham




### AFTER

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



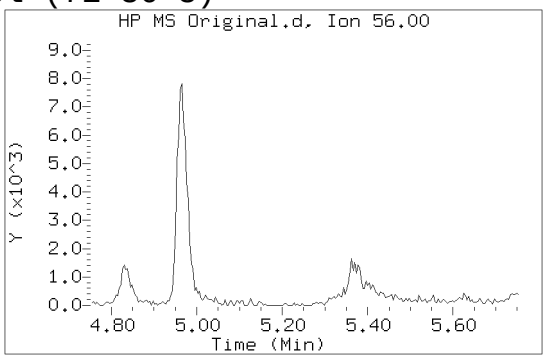
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Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

## n-Butanol (71-36-3)

Reason Code:

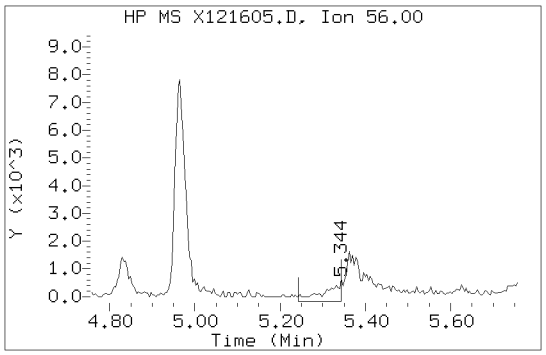
**BEFORE**

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



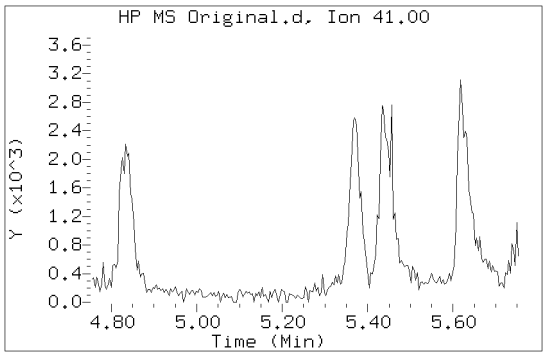

**AFTER**

MASS
56
AREA
2004
HEIGHT
808
27-Dec-2022
16:07
linh
pham



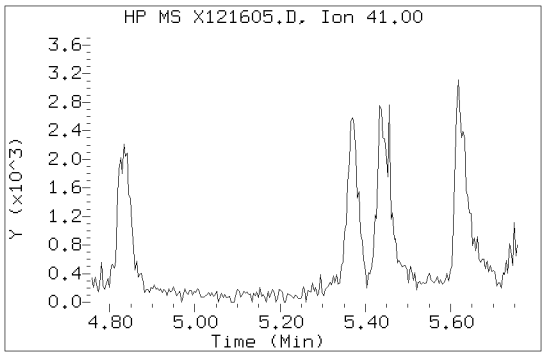

**BEFORE**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

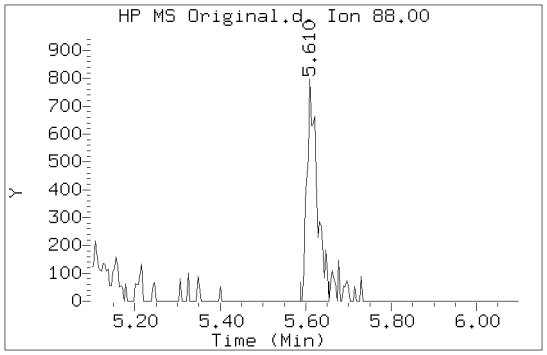



## 1,4-Dioxane ()

Reason Code:

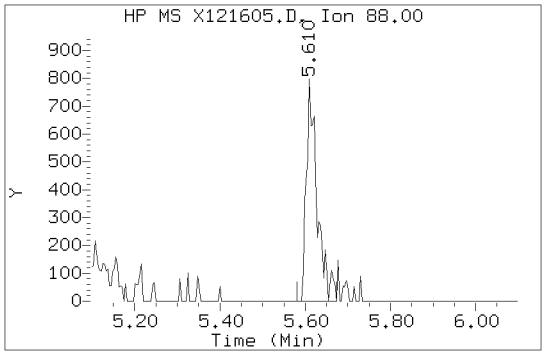
**BEFORE**

MASS
88
AREA
1335
HEIGHT
798
27-Dec-2022
16:03
linh
pham



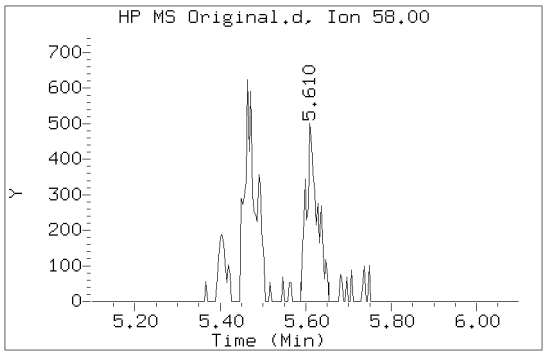

**AFTER**

MASS
88
AREA
1409
HEIGHT
798
27-Dec-2022
16:07
linh
pham



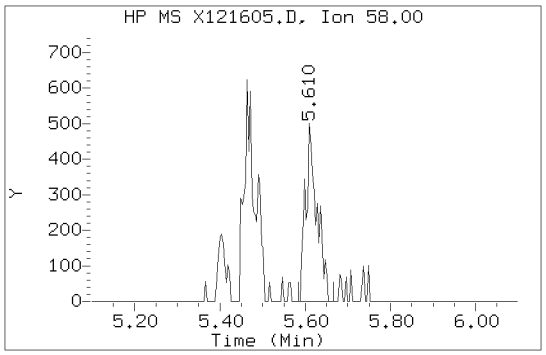

**BEFORE**

MASS
58
AREA
934
HEIGHT
501
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
934
HEIGHT
501
27-Dec-2022
16:07
linh
pham

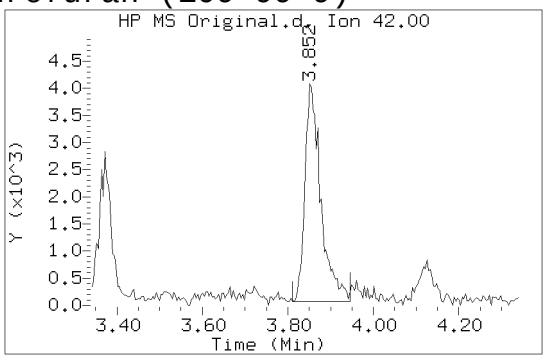


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

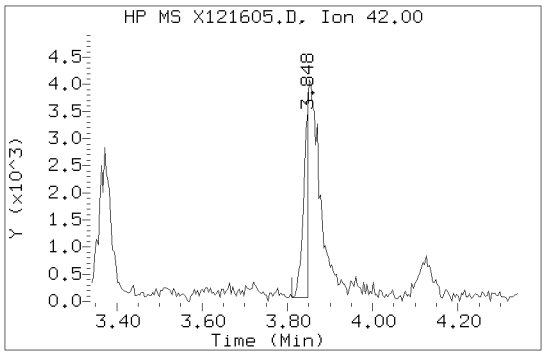
## Tetrahydrofuran (109-99-9)

Reason Code:

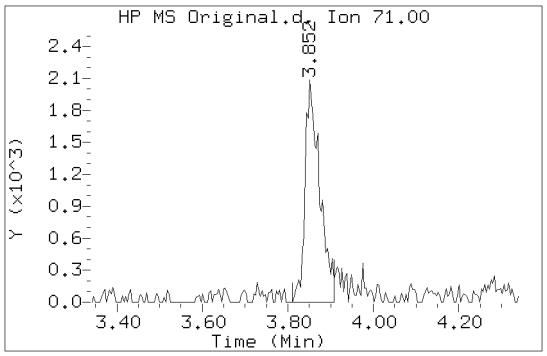
BEFORE
MASS
42
AREA
10469
HEIGHT
4012
27-Dec-2022
16:03
linh
pham



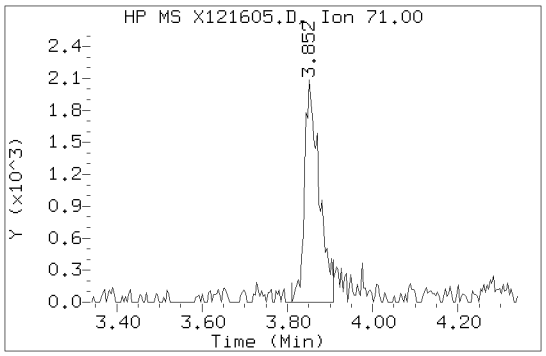

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3419
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BEFORE
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5020
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2086
27-Dec-2022
16:03
linh
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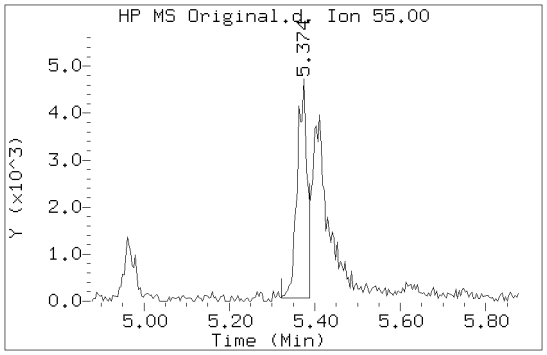

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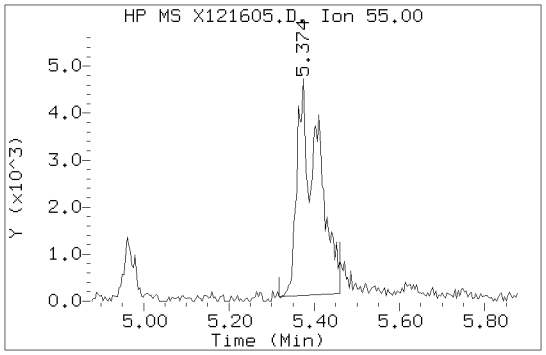

## Methylcyclohexane (108-87-2)

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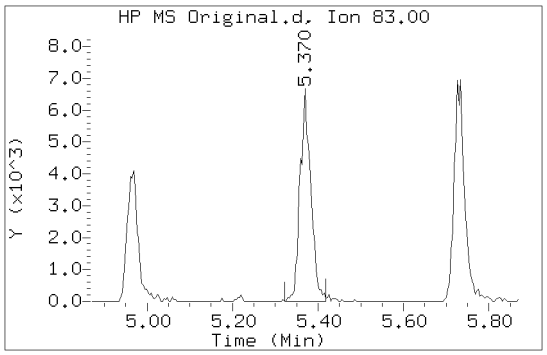
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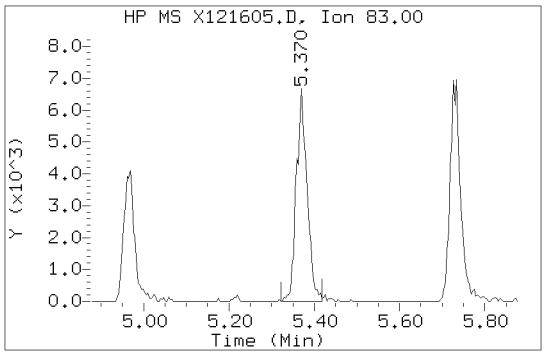

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BEFORE
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6672
27-Dec-2022
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AFTER
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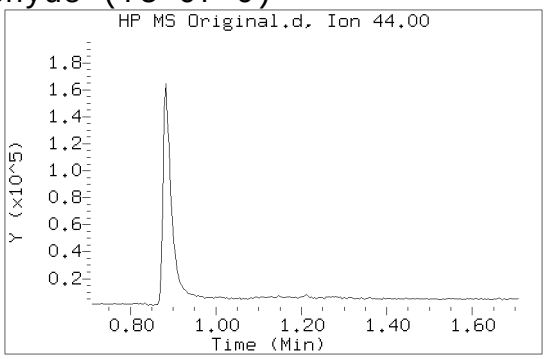


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InstruID : voa6.i
LabSampID : VSTD002

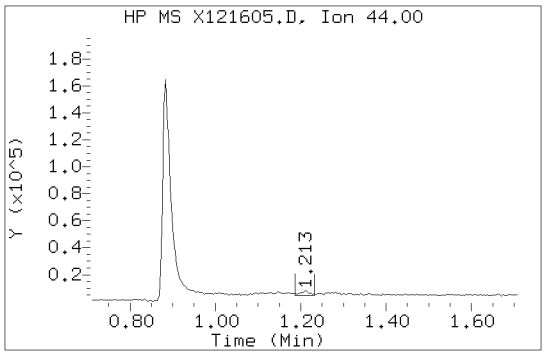
Acetaldehyde (75-07-0)

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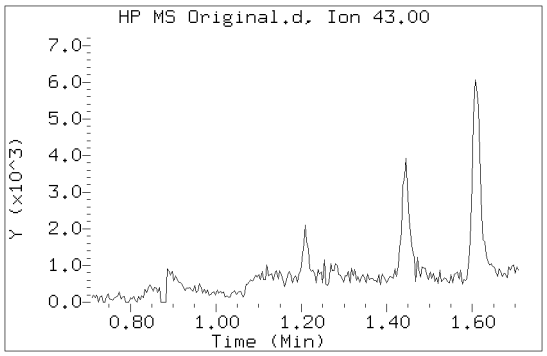
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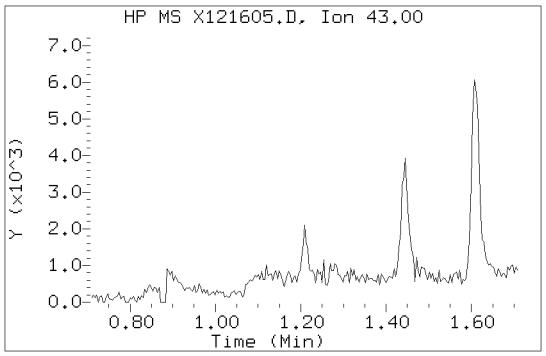

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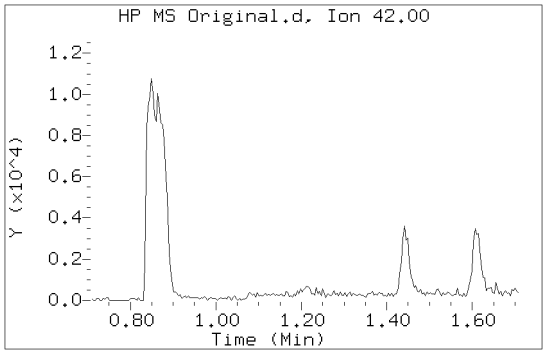

BEFORE
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16:03
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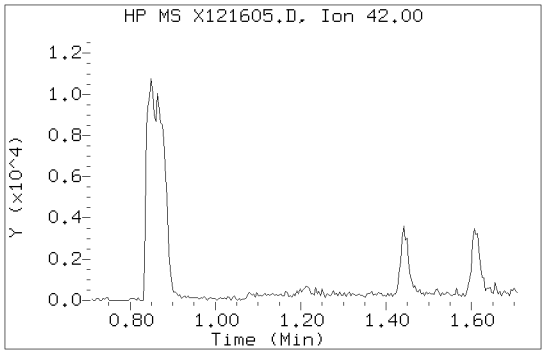

AFTER
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16:07
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BEFORE
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HEIGHT
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AFTER
MASS
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HEIGHT
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27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Lab Smp Id: VSTD005  Client Smp ID: VSTD005
Inj Date  : 16-DEC-2022 13:23
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD005;VSTD005;1;5;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 13:02  Cal File: X121605.D
Als bottle: 7  Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 450664 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.602 | 5.602 | (1.341) | 4197 | 100.000 | 101.88(M) |
| 140 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 14283 | 5.00000 | 4.61 |
| 25 Methacrylonitrile | 41 | 3.840 | 3.840 | (0.919) | 15701 | 5.00000 | 4.92(M) |
| 12 Isobutyl Alcohol | 43 | 4.680 | 4.680 | (1.120) | 51624 | 100.000 | 101.84 |
| 13 Acetonitrile | 39 | 2.198 | 2.198 | (0.526) | 19635 | 50.0000 | 47.87 |
| 14 Allyl Chloride | 41 | 2.198 | 2.198 | (0.526) | 37993 | 5.00000 | 4.86 |
| 4 Propionitrile | 54 | 3.660 | 3.660 | (0.876) | 23049 | 50.0000 | 50.12 |
| 136 n-Hexane | 57 | 2.772 | 2.772 | (0.664) | 14618 | 5.00000 | 4.50 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.901 | 8.901 | (1.161) | 6648 | 5.00000 | 4.70(M) |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 6161 | 20.0000 | 0.80(M) |
| 23 Chloroprene | 53 | 1.771 | 1.771 | (0.424) | 7154 | 5.00000 | 4.66(M) |
| 145 alpha-Methylstyrene | 118 | 9.261 | 9.261 | (0.958) | 37831 | 5.00000 | 4.79 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 40144 | 5.00000 | 4.53 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 15119 | 5.00000 | 5.02 |
| 130 Ethyl Acetate | 43 | 3.660 | 3.660 | (0.876) | 18020 | 5.00000 | 5.12(M) |
| 40 Methyl Methacrylate | 41 | 5.617 | 5.617 | (1.345) | 15119 | 5.00000 | 4.92 |
| 49 Ethyl Methacrylate | 69 | 6.715 | 6.715 | (1.353) | 13801 | 5.00000 | 4.27 |
| 132 n-Butanol | 56 | 5.287 | 5.287 | (1.266) | 4891 | 100.000 | 125.41(M) |
| 142 Tetrahydrofuran | 42 | 3.848 | 3.848 | (0.921) | 7598 | 10.0000 | 10.82(M) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.772 | 2.772 (0.664) | 14618 | 100.000 | 83.50 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 80329 | 5.00000 | 4.68 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D Page 2
Report Date: 27-Dec-2022 16:07

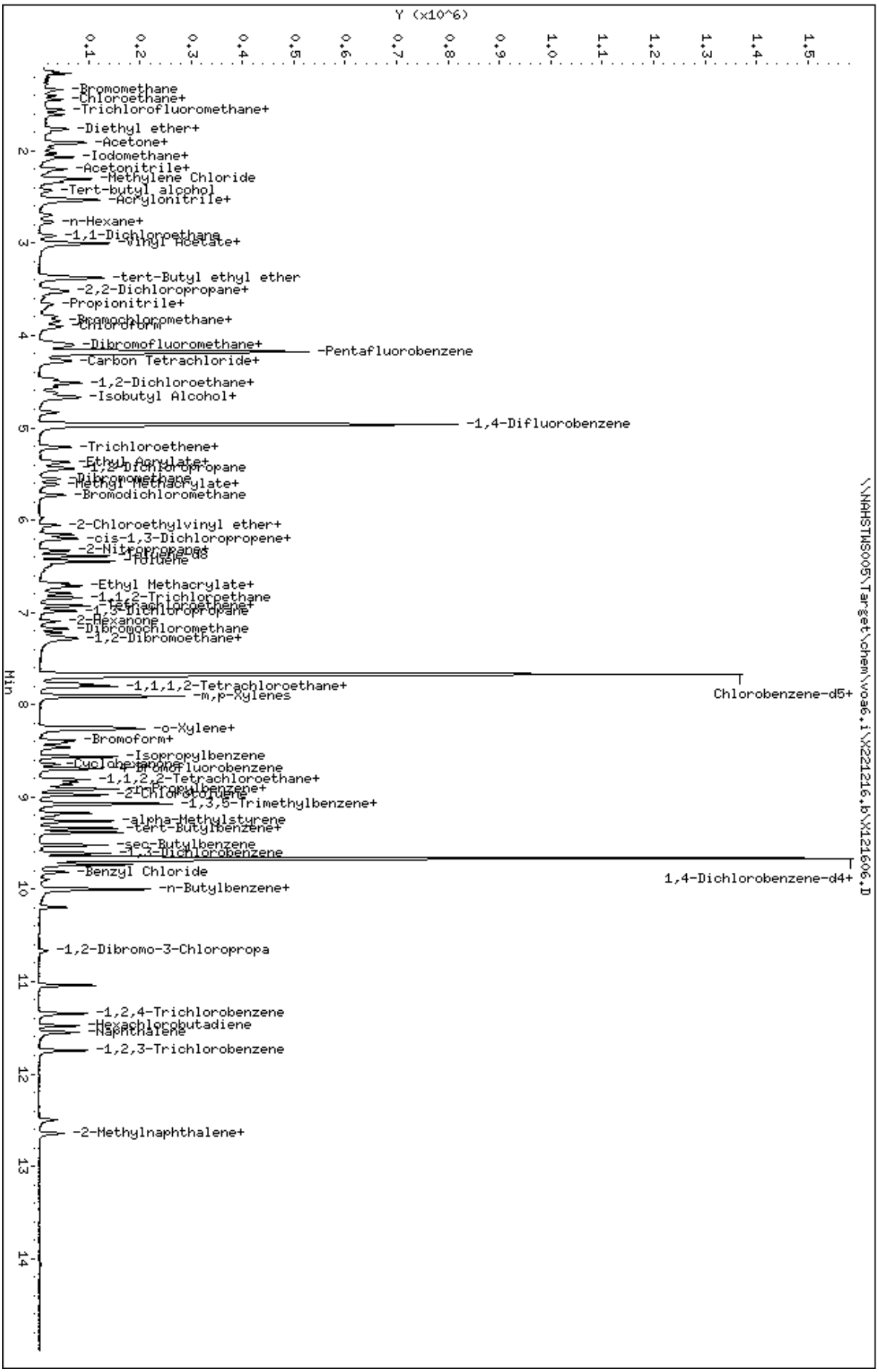
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | CAL-AMT | ON-COL |
| | Compounds | | MASS | RT | EXP RT | REL RT | RESPONSE | ( ug/l) | ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.705 | 3.705 | (0.887) | 14950 | 5.00000 | 4.88(M) |
| | 162 | Butyl acrylate | 55 | 8.260 | 8.260 | (1.077) | 38320 | 5.00000 | 4.48 |
| | 2 | Dichlorodifluoromethane | 85 | 0.972 | 0.972 | (0.233) | 15008 | 5.00000 | 5.11 |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 19623 | 5.00000 | 6.81 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 19002 | 5.00000 | 4.82 |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 15112 | 5.00000 | 6.66 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 14167 | 5.00000 | 5.17 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 26620 | 5.00000 | 4.83 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 2699 | 10.0000 | 11.33 |
| | 10 | Acetone | 43 | 1.973 | 1.973 | (0.472) | 17632 | 10.0000 | 13.91 |
| | 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 16850 | 5.00000 | 4.92 |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 26708 | 10.0000 | 9.27 |
| | 16 | Acrylonitrile | 53 | 2.551 | 2.551 | (0.611) | 11047 | 10.0000 | 9.52 |
| | 17 | Methylene Chloride | 84 | 2.303 | 2.303 | (0.551) | 22932 | 5.00000 | 4.88(M) |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 56330 | 5.00000 | 5.03 |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 85418 | 10.0000 | 9.54 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.532 | 2.532 | (0.606) | 19006 | 5.00000 | 4.96 |
| | 21 | Vinyl Acetate | 43 | 3.000 | 3.000 | (0.718) | 101238 | 10.0000 | 10.30 |
| | 22 | 1,1-Dichloroethane | 63 | 2.922 | 2.922 | (0.699) | 33810 | 5.00000 | 5.03 |
| | 24 | 2-Butanone | 43 | 3.600 | 3.600 | (0.862) | 11771 | 10.0000 | 11.53(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 27881 | 5.00000 | 4.88 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.533 | 3.533 | (0.846) | 22734 | 5.00000 | 4.88 |
| | 28 | Chloroform | 83 | 3.904 | 3.904 | (0.935) | 38156 | 5.00000 | 5.06 |
| | 29 | Bromochloromethane | 128 | 3.799 | 3.799 | (0.909) | 13213 | 5.00000 | 5.18 |
| $ | 30 | Dibromofluoromethane | 113 | 4.103 | 4.103 | (0.982) | 24255 | 5.00000 | 5.45 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 29017 | 5.00000 | 4.85 |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 23845 | 5.00000 | 4.90(M) |
| | 33 | 1,2-Dichloroethane | 62 | 4.556 | 4.556 | (0.918) | 28173 | 5.00000 | 5.01 |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 24171 | 5.00000 | 4.65 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.477 | 4.477 | (1.072) | 24938 | 5.00000 | 5.70(M) |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 685413 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.511 | (0.909) | 81981 | 5.00000 | 5.00 |
| | 38 | Trichloroethene | 130 | 5.208 | 5.208 | (1.049) | 22693 | 5.00000 | 4.88 |
| | 39 | Bromodichloromethane | 83 | 5.729 | 5.729 | (1.154) | 29358 | 5.00000 | 4.77 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.056 | 6.056 | (1.220) | 17700 | 10.0000 | 10.12 |
| | 42 | 1,2-Dichloropropane | 63 | 5.437 | 5.437 | (1.095) | 21679 | 5.00000 | 4.97 |
| | 44 | Dibromomethane | 93 | 5.557 | 5.557 | (1.119) | 14449 | 5.00000 | 4.88 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.329 | 6.329 | (0.825) | 34912 | 10.0000 | 9.98 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.161 | 6.161 | (1.241) | 35507 | 5.00000 | 4.92 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 654176 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.389 | 6.389 | (0.833) | 81640 | 5.00000 | 5.05 |
| | 50 | Toluene | 91 | 6.449 | 6.449 | (0.841) | 89594 | 5.00000 | 4.95 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.689 | 6.689 | (1.347) | 28399 | 5.00000 | 4.74(M) |
| | 52 | 2-Hexanone | 43 | 7.094 | 7.094 | (0.925) | 24056 | 10.0000 | 10.11 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 18638 | 5.00000 | 5.13 |
| | 54 | 1,3-Dichloropropane | 76 | 6.985 | 6.985 | (0.911) | 35759 | 5.00000 | 5.00 |
| | 55 | Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 25357 | 5.00000 | 4.84 |
| | 56 | Tetrachloroethene | 164 | 6.929 | 6.929 | (0.904) | 17219 | 5.00000 | 4.60 |
| | 57 | 1,2-Dibromoethane | 107 | 7.263 | 7.263 | (0.947) | 23172 | 5.00000 | 5.10 |
| | 58 | 1-Chlorohexane | 55 | 7.698 | 7.698 | (1.550) | 15210 | 5.00000 | 4.59(MH) |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 62744 | 5.00000 | 4.89 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.776 | 7.776 | (1.014) | 22632 | 5.00000 | 4.74 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.802 | 7.802 (1.018) | 29550 | 5.00000 | 4.89 |
| 62 m,p-Xylenes | 106 | 7.907 | 7.907 (1.031) | 73283 | 10.0000 | 9.40 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 63 | o-Xylene | 106 | 8.245 | 8.245 | (1.075) | 37189 | 5.00000 | 4.83 |
| 64 | Styrene | 104 | 8.267 | 8.267 | (1.078) | 62411 | 5.00000 | 4.84 |
| 66 | Bromoform | 173 | 8.414 | 8.414 | (1.097) | 16801 | 5.00000 | 4.63 |
| 67 | Isopropylbenzene | 105 | 8.563 | 8.563 | (1.117) | 85440 | 5.00000 | 4.86 |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.841 | 8.841 | (0.915) | 29807 | 5.00000 | 5.24 |
| $ 69 | 4-Bromofluorobenzene | 95 | 8.695 | 8.695 | (1.134) | 32501 | 5.00000 | 5.43 |
| * 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 356340 | 50.0000 | |
| 71 | 1,2,3-Trichloropropane | 75 | 8.867 | 8.867 | (0.918) | 20685 | 5.00000 | 5.21(M) |
| 73 | n-Propylbenzene | 91 | 8.916 | 8.916 | (0.923) | 97603 | 5.00000 | 4.94 |
| 74 | Bromobenzene | 156 | 8.811 | 8.811 | (0.912) | 28887 | 5.00000 | 4.94 |
| 75 | 1,3,5-Trimethylbenzene | 105 | 9.070 | 9.070 | (0.939) | 72501 | 5.00000 | 4.97 |
| 76 | 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 65973 | 5.00000 | 5.09 |
| 77 | 4-Chlorotoluene | 91 | 9.077 | 9.077 | (0.939) | 75073 | 5.00000 | 5.08 |
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 59375 | 5.00000 | 4.97 |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 75723 | 5.00000 | 4.93 |
| 81 | sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 77577 | 5.00000 | 4.88 |
| 82 | p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 69666 | 5.00000 | 4.89 |
| 83 | 1,3-Dichlorobenzene | 146 | 9.609 | 9.609 | (0.995) | 49954 | 5.00000 | 5.14 |
| 84 | 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 52655 | 5.00000 | 4.97 |
| 86 | Benzyl Chloride | 91 | 9.816 | 9.816 | (1.280) | 35254 | 5.00000 | 5.95 |
| 87 | n-Butylbenzene | 91 | 9.999 | 9.999 | (1.035) | 54831 | 5.00000 | 5.63 |
| 88 | 1,2-Dichlorobenzene | 146 | 9.995 | 9.995 | (1.035) | 50895 | 5.00000 | 5.09 |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.670 | 10.670 | (1.104) | 4911 | 5.00000 | 5.49 |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.345 | 11.345 | (1.174) | 31873 | 5.00000 | 5.05 |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 13454 | 5.00000 | 4.81 |
| 92 | Naphthalene | 128 | 11.551 | 11.551 | (1.196) | 72748 | 5.00000 | 5.06 |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.746 | 11.746 | (1.216) | 30274 | 5.00000 | 5.01 |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 41740 | 10.0000 | |
| M 95 | Xylenes (total) | 106 | | | | 110472 | 15.0000 | |
| 141 | Cyclohexane | 56 | 4.118 | 4.118 | (0.986) | 19859 | 5.00000 | 5.52(H) |
| 138 | Freon TF | 101 | 1.913 | 1.913 | (0.458) | 14845 | 5.00000 | 4.48 |
| 147 | Methylcyclohexane | 55 | 5.388 | 5.388 | (1.085) | 38650 | 5.00000 | 4.60(M) |
| 146 | Methyl Acetate | 43 | 2.236 | 2.236 | (0.535) | 8968 | 5.00000 | 4.42 |
| 148 | Tert-Butyl alcohol | 59 | 2.431 | 2.431 | (0.582) | 30525 | 100.000 | 97.81 |
| 149 | Isopropyl Alcohol | 45 | 2.097 | 2.097 | (0.502) | 16518 | 100.000 | 101.35(T) |

## QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




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Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;
Purge Volume: 5.0
Column phase: DB624

\\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121606,D

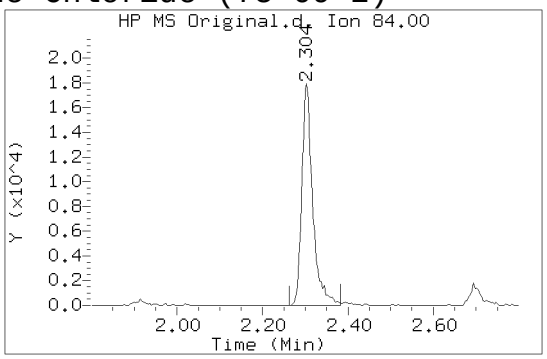
Instrument: voa6,i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
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LabSampID : VSTD005

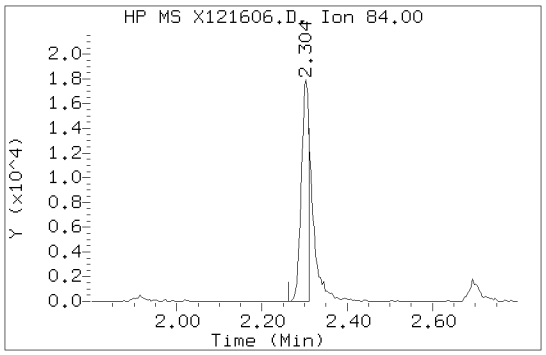
## Methylene Chloride (75-09-2)

Reason Code:

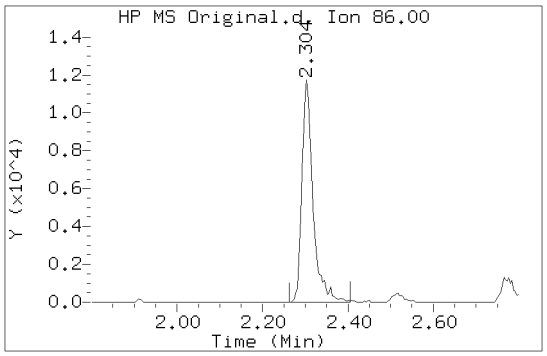
BEFORE
MASS
84
AREA
32325
HEIGHT
17936
27-Dec-2022
16:03
linh
pham



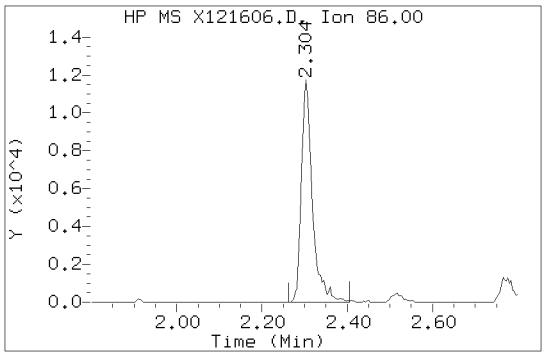

AFTER
MASS
84
AREA
22932
HEIGHT
17936
27-Dec-2022
16:07
linh
pham



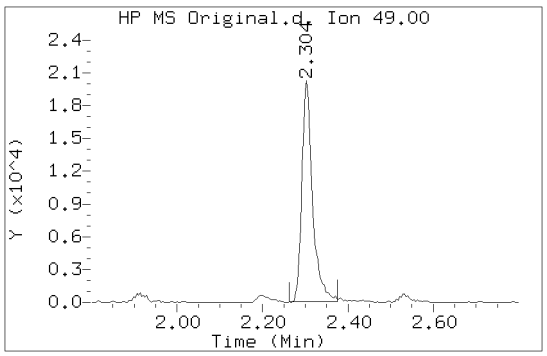

BEFORE
MASS
86
AREA
21691
HEIGHT
11740
27-Dec-2022
16:03
linh
pham



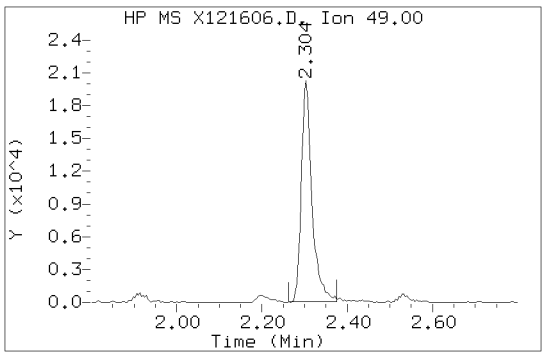

AFTER
MASS
86
AREA
21691
HEIGHT
11740
27-Dec-2022
16:07
linh
pham




BEFORE
MASS
49
AREA
35909
HEIGHT
20222
27-Dec-2022
16:03
linh
pham



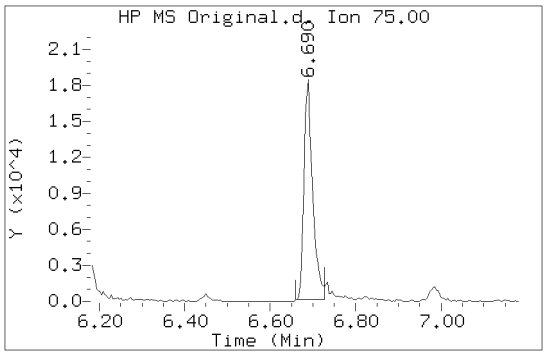

AFTER
MASS
49
AREA
35909
HEIGHT
20222
27-Dec-2022
16:07
linh
pham



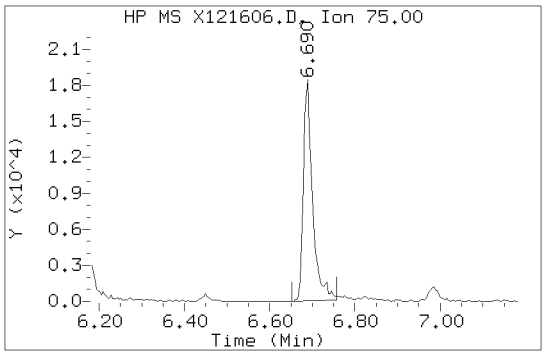

## trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

BEFORE
MASS
75
AREA
26483
HEIGHT
18306
27-Dec-2022
16:03
linh
pham




AFTER
MASS
75
AREA
28399
HEIGHT
18443
27-Dec-2022
16:07
linh
pham



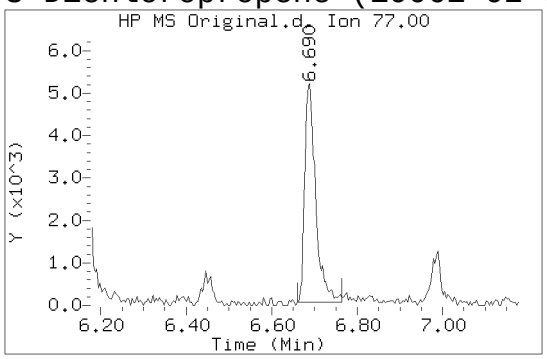
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

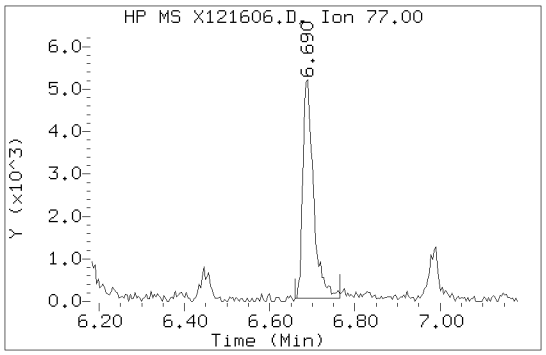
BEFORE

MASS
77
AREA
9244
HEIGHT
5154
27-Dec-2022
16:03
linh
pham



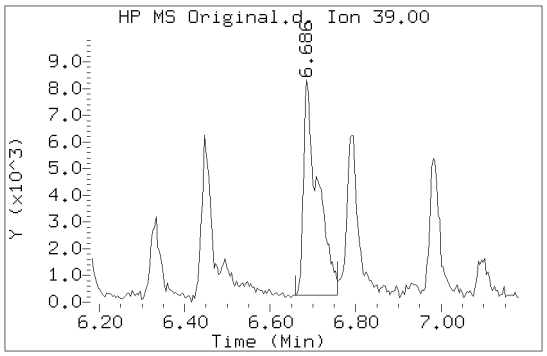

AFTER

MASS
77
AREA
9244
HEIGHT
5154
27-Dec-2022
16:07
linh
pham



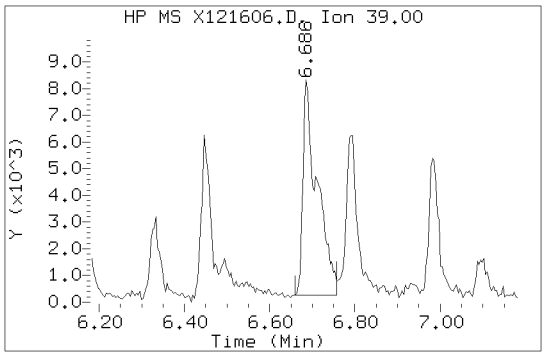

BEFORE

MASS
39
AREA
19092
HEIGHT
8065
27-Dec-2022
16:03
linh
pham




AFTER

MASS
39
AREA
19092
HEIGHT
8065
27-Dec-2022
16:07
linh
pham

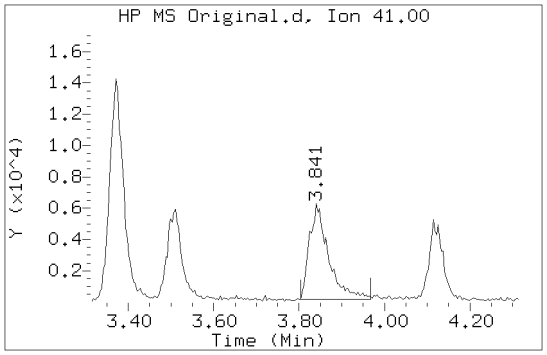



## Methacrylonitrile (126-98-7)

Reason Code:

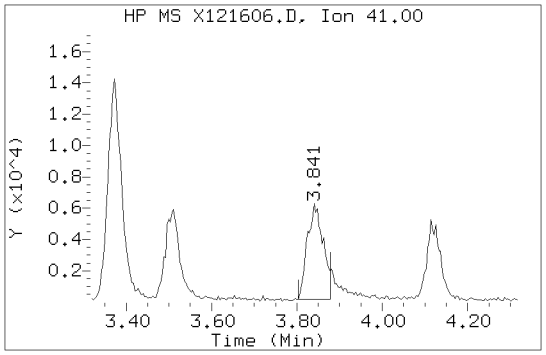
BEFORE

MASS
41
AREA
18790
HEIGHT
6109
27-Dec-2022
16:03
linh
pham



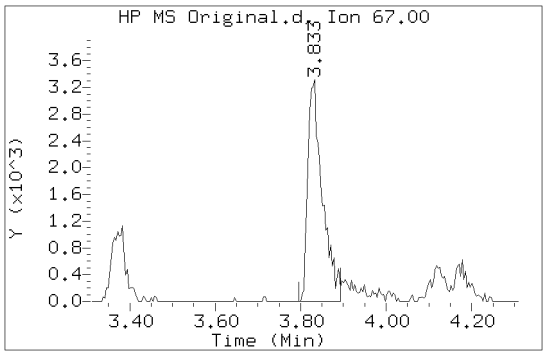

AFTER

MASS
41
AREA
15701
HEIGHT
6109
27-Dec-2022
16:07
linh
pham



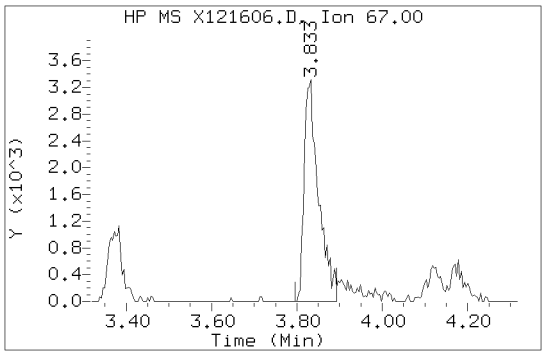

BEFORE

MASS
67
AREA
7866
HEIGHT
3315
27-Dec-2022
16:03
linh
pham




AFTER

MASS
67
AREA
7866
HEIGHT
3315
27-Dec-2022
16:07
linh
pham



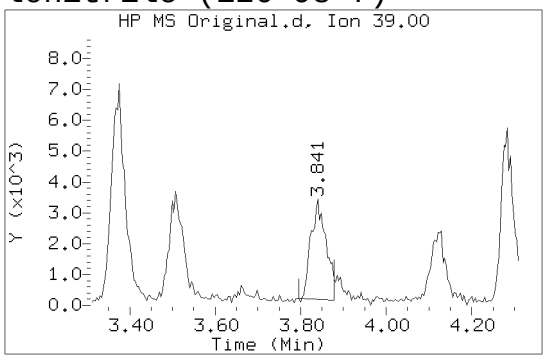
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Methacrylonitrile (126-98-7)

Reason Code:

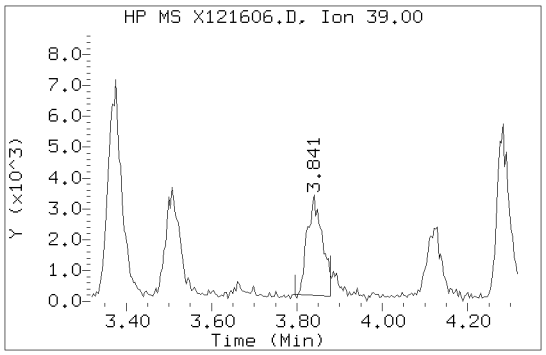
BEFORE

MASS
39
AREA
7951
HEIGHT
3252
27-Dec-2022
16:03
linh
pham




AFTER

MASS
39
AREA
7951
HEIGHT
3252
27-Dec-2022
16:07
linh
pham

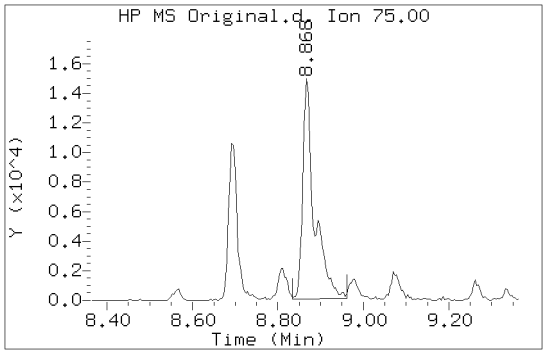



## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

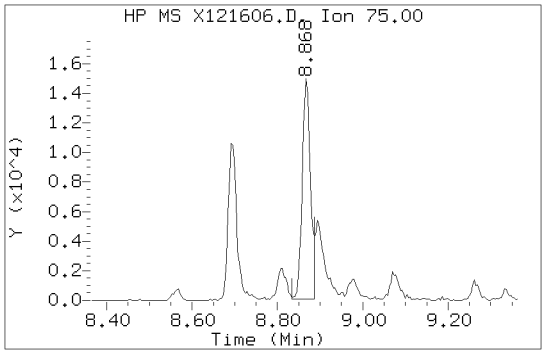
BEFORE

MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:03
linh
pham



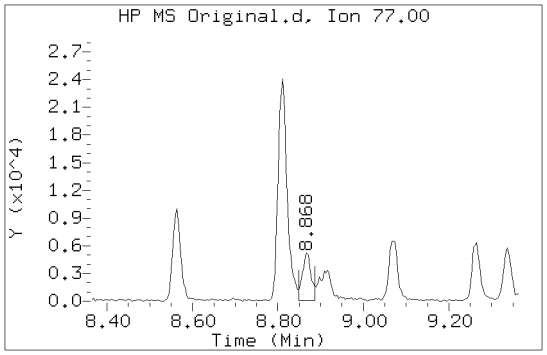

AFTER

MASS
75
AREA
20685
HEIGHT
14911
27-Dec-2022
16:07
linh
pham



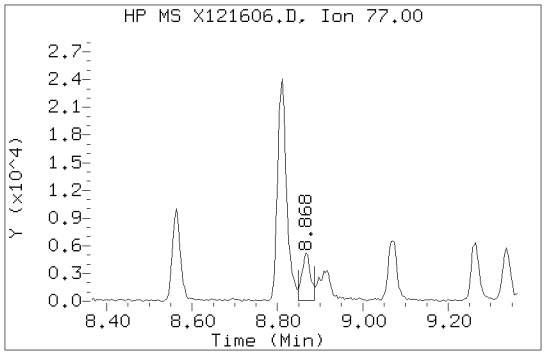

BEFORE

MASS
77
AREA
7524
HEIGHT
5143
27-Dec-2022
16:03
linh
pham




AFTER

MASS
77
AREA
7524
HEIGHT
5143
27-Dec-2022
16:07
linh
pham

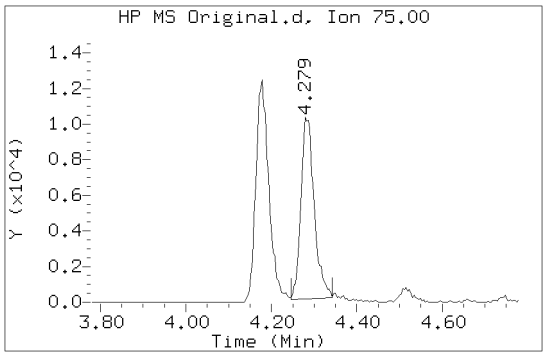



## 1,1-Dichloropropene (563-58-6)

Reason Code:

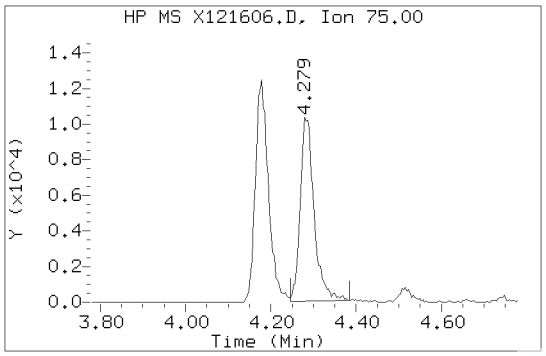
BEFORE

MASS
75
AREA
22411
HEIGHT
10201
27-Dec-2022
16:03
linh
pham




AFTER

MASS
75
AREA
23845
HEIGHT
10354
27-Dec-2022
16:07
linh
pham



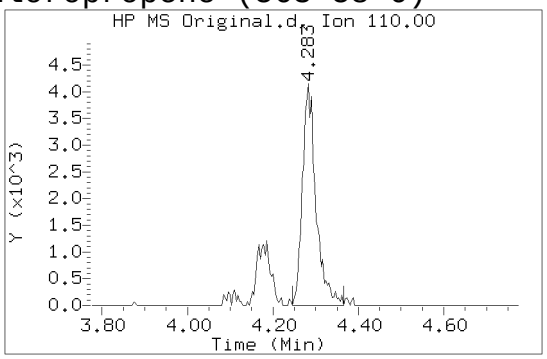
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## 1,1-Dichloropropene (563-58-6)

Reason Code:

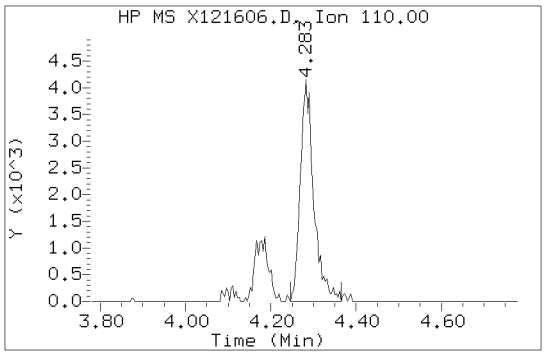
**BEFORE**

MASS
110
AREA
9244
HEIGHT
4151
27-Dec-2022
16:03
linh
pham



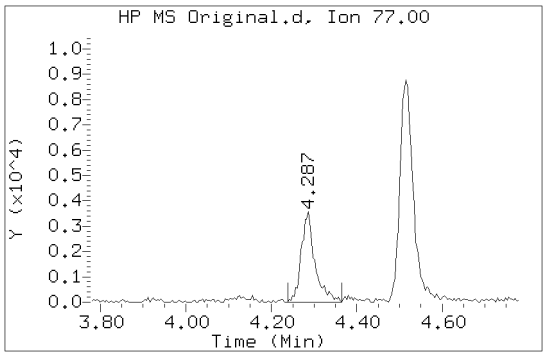

**AFTER**

MASS
110
AREA
9244
HEIGHT
4151
27-Dec-2022
16:07
linh
pham



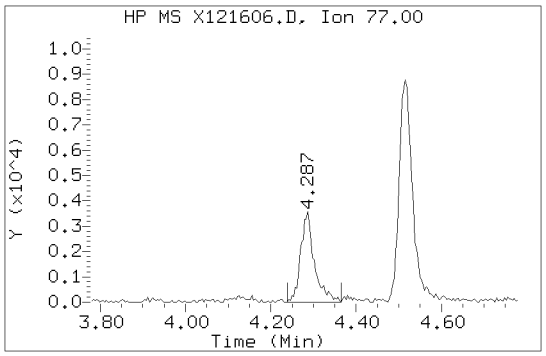

**BEFORE**

MASS
77
AREA
8083
HEIGHT
3567
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
77
AREA
8083
HEIGHT
3567
27-Dec-2022
16:07
linh
pham

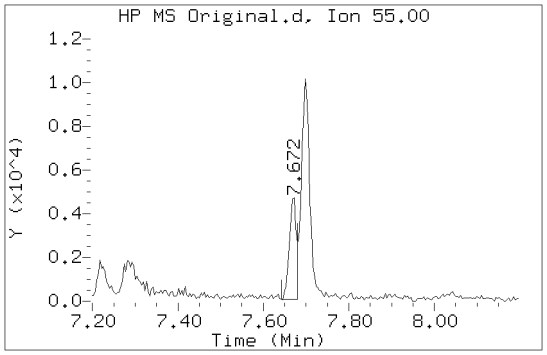



## 1-Chlorohexane (544-10-5)

Reason Code:

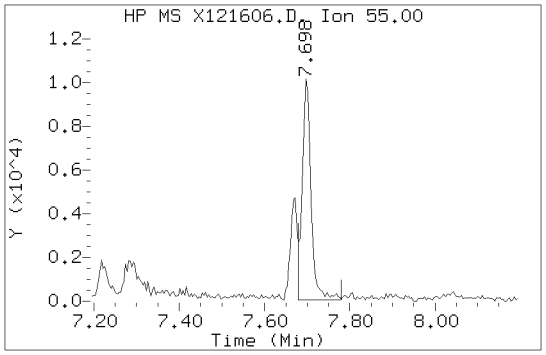
**BEFORE**

MASS
55
AREA
5371
HEIGHT
4660
27-Dec-2022
16:03
linh
pham



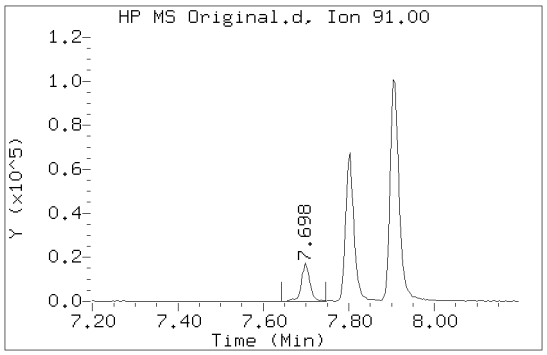

**AFTER**

MASS
55
AREA
15210
HEIGHT
10126
27-Dec-2022
16:07
linh
pham



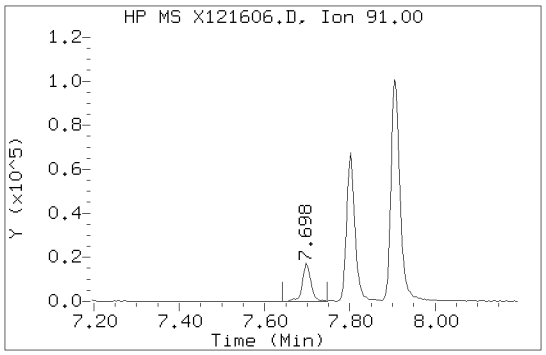

**BEFORE**

MASS
91
AREA
24578
HEIGHT
17336
27-Dec-2022
16:03
linh
pham




**AFTER**

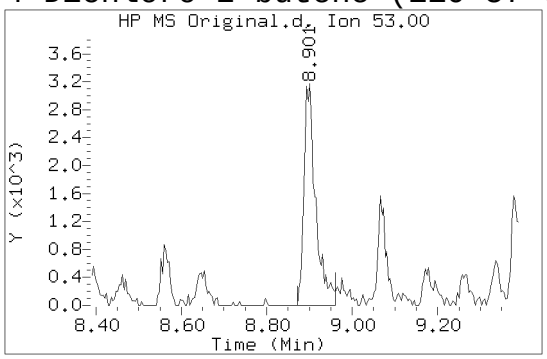
MASS
91
AREA
24578
HEIGHT
17336
27-Dec-2022
16:07
linh
pham



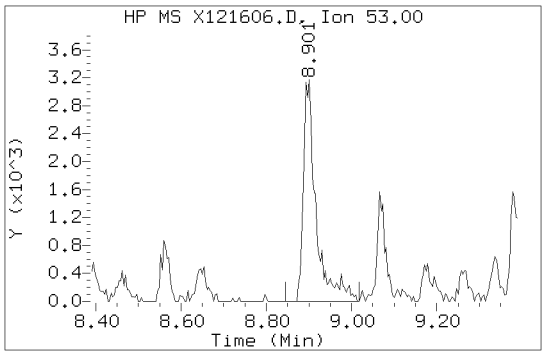
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## trans-1,4-Dichloro-2-butene (110-57-6)

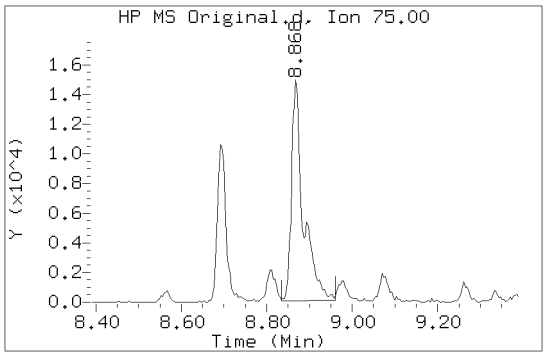
**BEFORE**
MASS
53
AREA
6122
HEIGHT
3172
27-Dec-2022
16:03
linh
pham



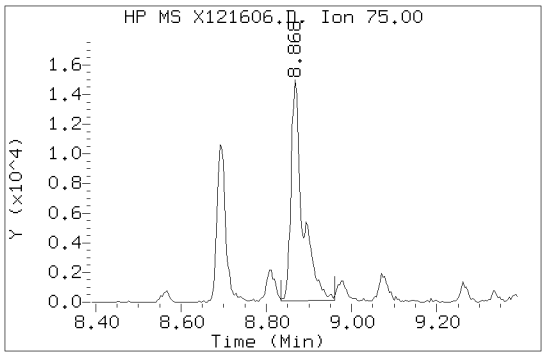

**AFTER**
MASS
53
AREA
6648
HEIGHT
3172
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:03
linh
pham

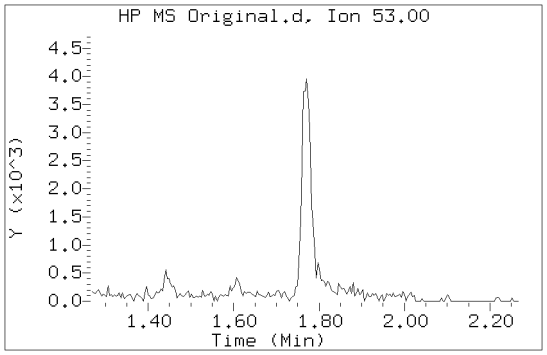



**AFTER**
MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:07
linh
pham

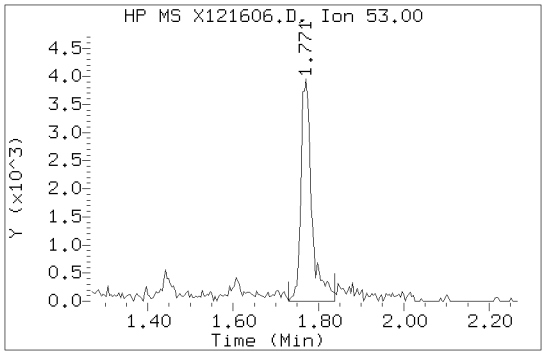



## Chloroprene (126-99-8)

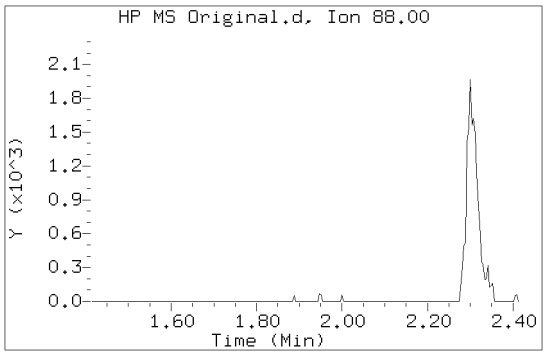
**BEFORE**
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



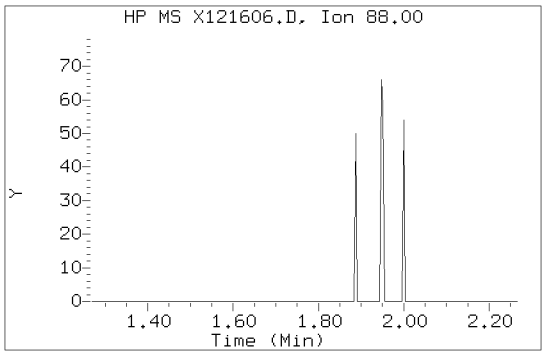

**AFTER**
MASS
53
AREA
7154
HEIGHT
3955
27-Dec-2022
16:07
linh
pham




**BEFORE**
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



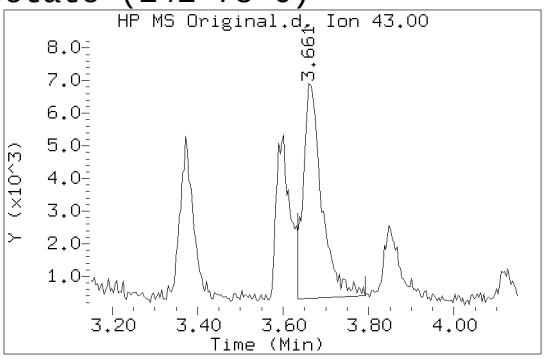
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Ethyl Acetate (141-78-6)

Reason Code:

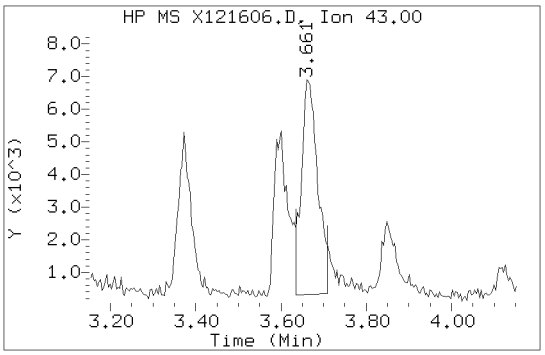
**BEFORE**

MASS
43
AREA
20113
HEIGHT
6576
27-Dec-2022
16:03
linh
pham



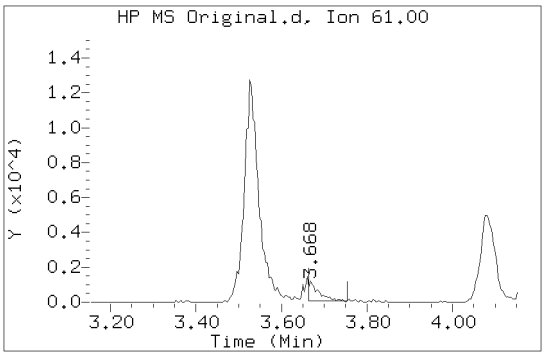

**AFTER**

MASS
43
AREA
18020
HEIGHT
6576
27-Dec-2022
16:07
linh
pham



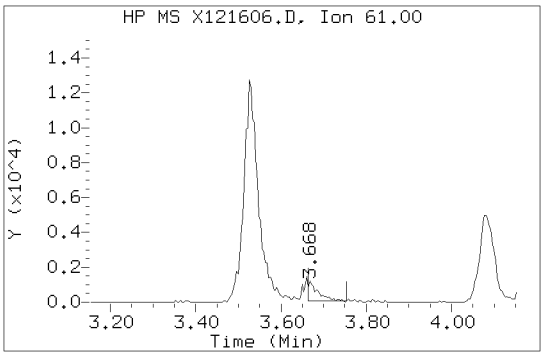

**BEFORE**

MASS
61
AREA
1766
HEIGHT
1155
27-Dec-2022
16:03
linh
pham



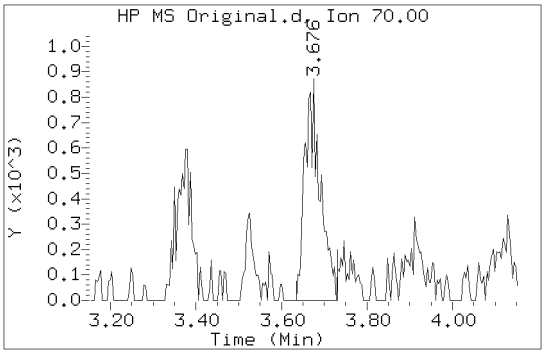

**AFTER**

MASS
61
AREA
1766
HEIGHT
1155
27-Dec-2022
16:07
linh
pham



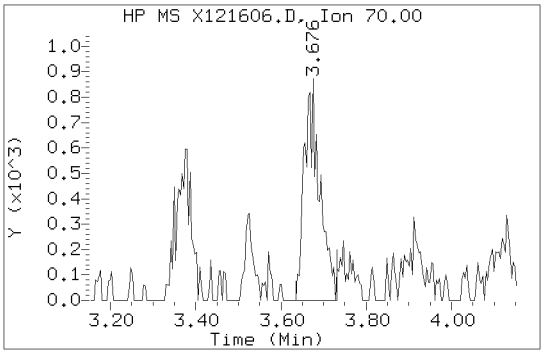

**BEFORE**

MASS
70
AREA
2205
HEIGHT
873
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
70
AREA
2205
HEIGHT
873
27-Dec-2022
16:07
linh
pham

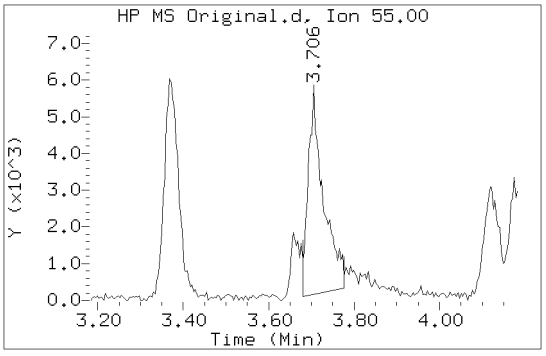



## Methyl Acrylate (96-33-3)

Reason Code:

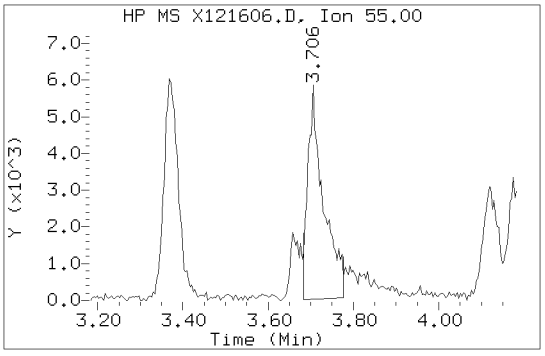
**BEFORE**

MASS
55
AREA
14157
HEIGHT
5696
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
55
AREA
14950
HEIGHT
5831
27-Dec-2022
16:07
linh
pham



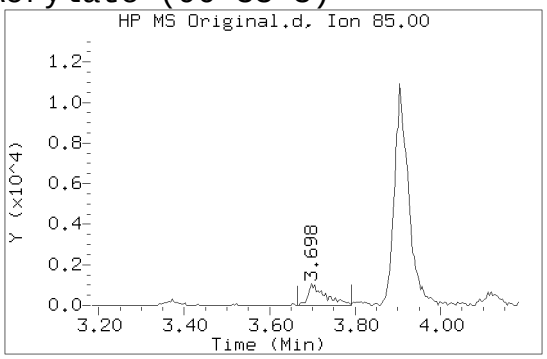
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Methyl Acrylate (96-33-3)

Reason Code:

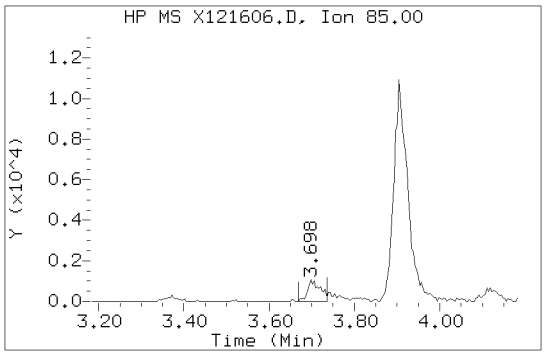
**BEFORE**

MASS
85
AREA
2934
HEIGHT
1073
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
85
AREA
2159
HEIGHT
1073
27-Dec-2022
16:07
linh
pham

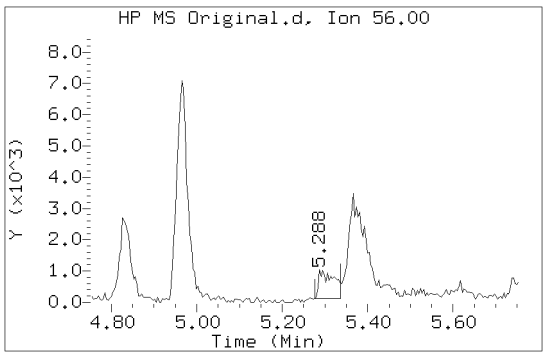



## n-Butanol (71-36-3)

Reason Code:

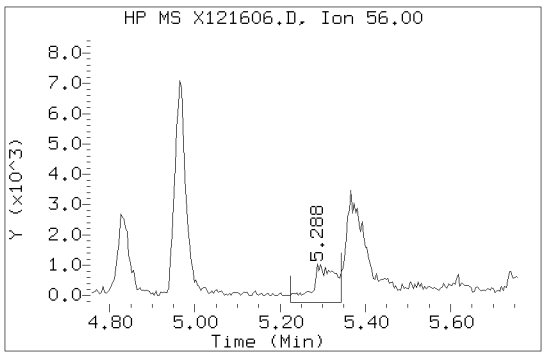
**BEFORE**

MASS
56
AREA
2243
HEIGHT
922
27-Dec-2022
16:03
linh
pham



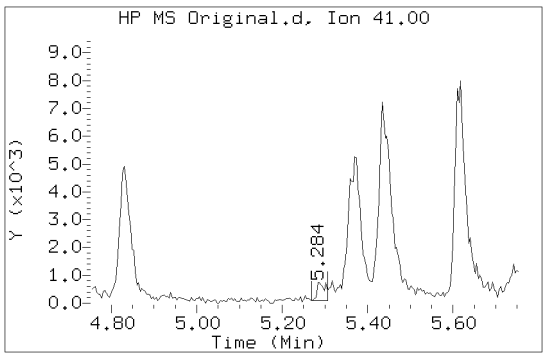

**AFTER**

MASS
56
AREA
4891
HEIGHT
1266
27-Dec-2022
16:07
linh
pham



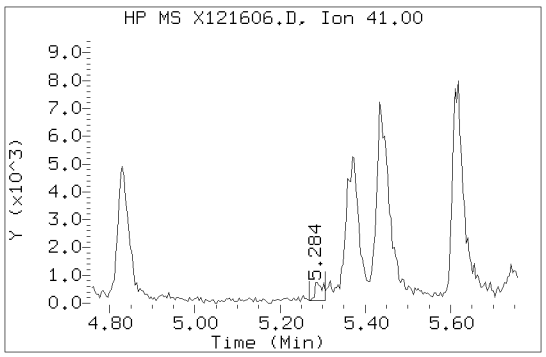

**BEFORE**

MASS
41
AREA
876
HEIGHT
641
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
41
AREA
876
HEIGHT
641
27-Dec-2022
16:07
linh
pham

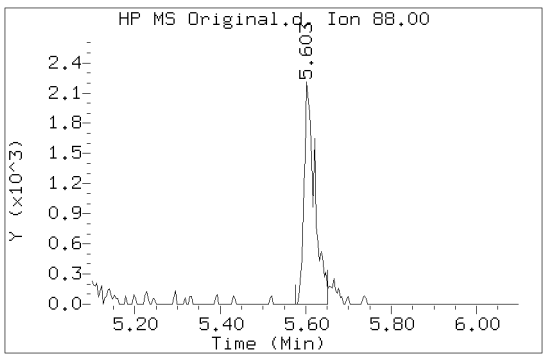



## 1,4-Dioxane ()

Reason Code:

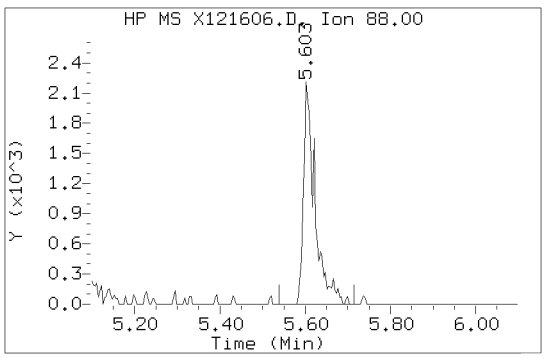
**BEFORE**

MASS
88
AREA
3873
HEIGHT
2211
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
88
AREA
4197
HEIGHT
2211
27-Dec-2022
16:07
linh
pham



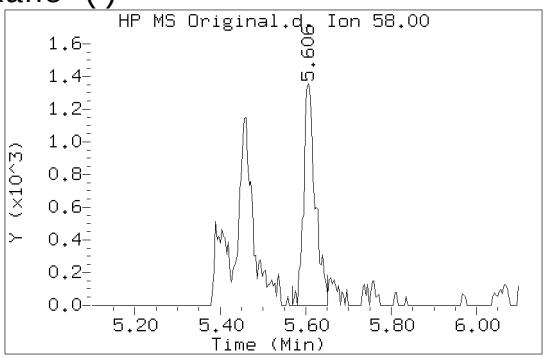
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Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## 1,4-Dioxane ()

Reason Code:

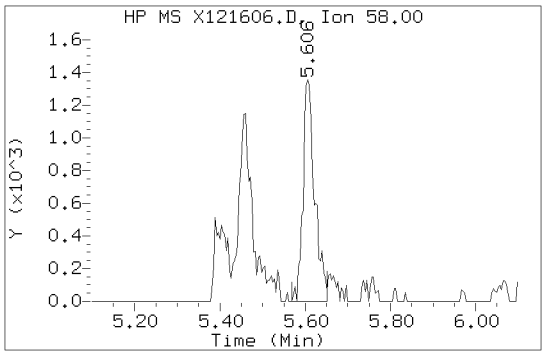
**BEFORE**

MASS
58
AREA
2625
HEIGHT
1356
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
58
AREA
2625
HEIGHT
1356
27-Dec-2022
16:07
linh
pham

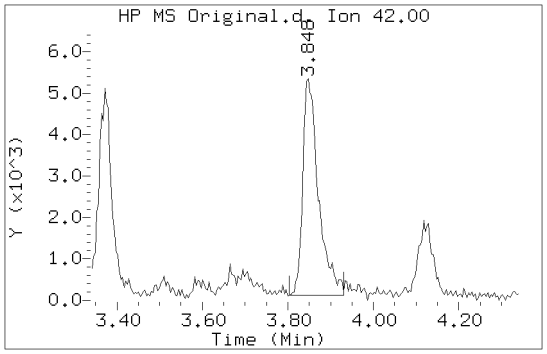



## Tetrahydrofuran (109-99-9)

Reason Code:

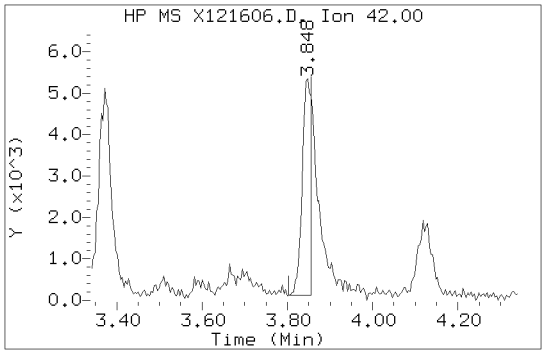
**BEFORE**

MASS
42
AREA
13557
HEIGHT
5225
27-Dec-2022
16:03
linh
pham



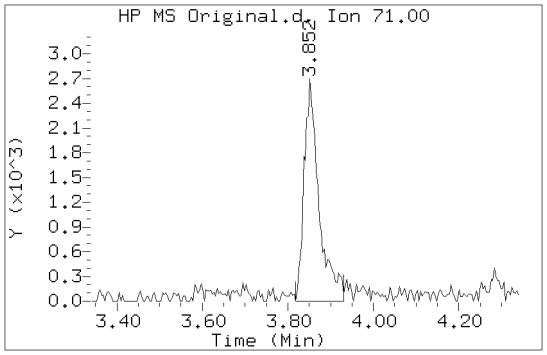

**AFTER**

MASS
42
AREA
7598
HEIGHT
5225
27-Dec-2022
16:07
linh
pham



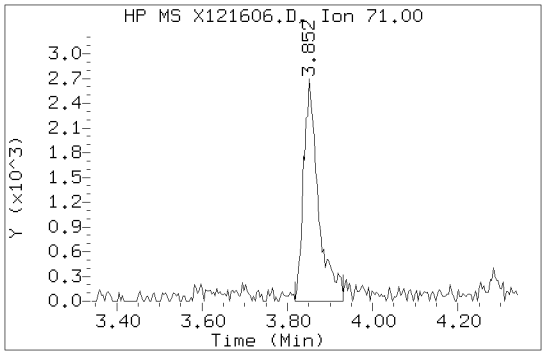

**BEFORE**

MASS
71
AREA
6572
HEIGHT
2695
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
71
AREA
6572
HEIGHT
2695
27-Dec-2022
16:07
linh
pham

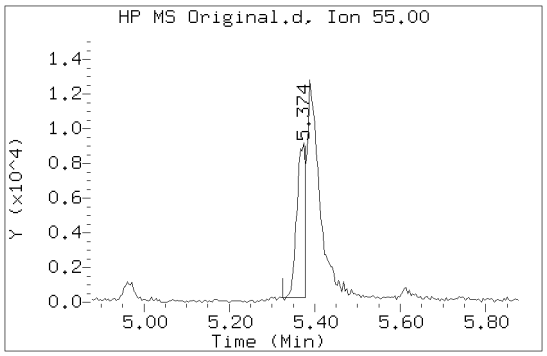



## Methylcyclohexane (108-87-2)

Reason Code:

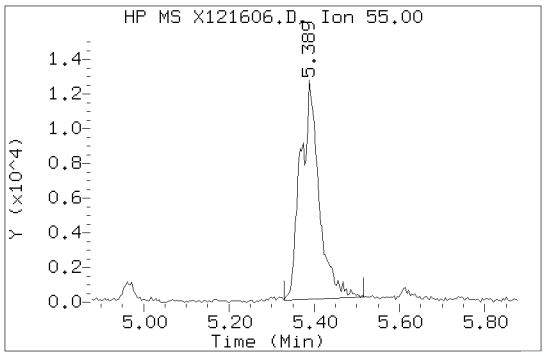
**BEFORE**

MASS
55
AREA
12381
HEIGHT
8941
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
55
AREA
38650
HEIGHT
12647
27-Dec-2022
16:07
linh
pham



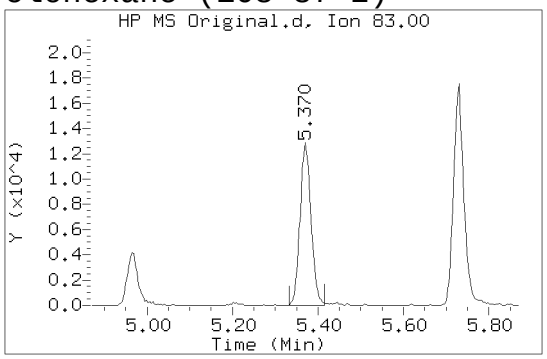
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## Methylcyclohexane (108-87-2)

Reason Code:

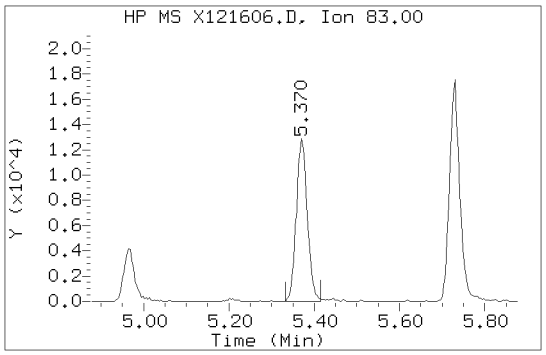
**BEFORE**

MASS
83
AREA
23564
HEIGHT
12870
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
83
AREA
23564
HEIGHT
12870
27-Dec-2022
16:07
linh
pham

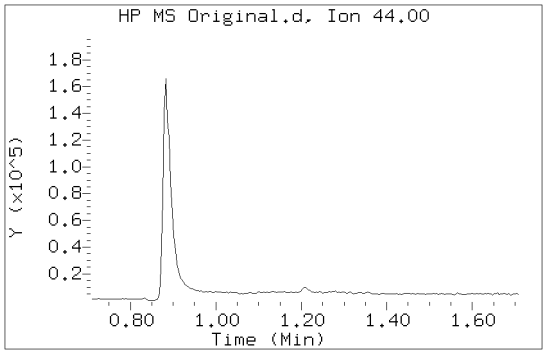



## Acetaldehyde (75-07-0)

Reason Code:

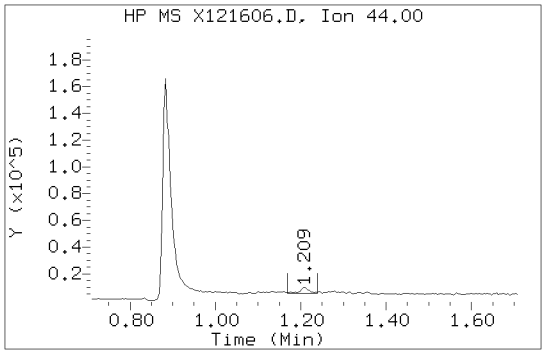
**BEFORE**

MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



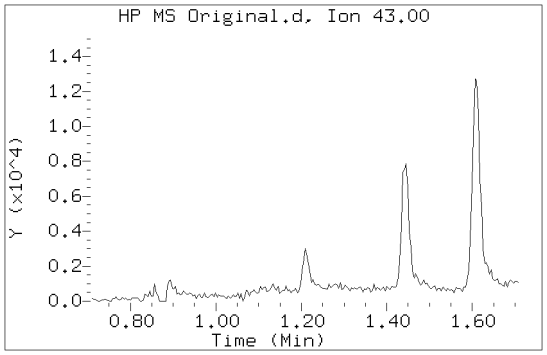

**AFTER**

MASS
44
AREA
6161
HEIGHT
4314
27-Dec-2022
16:07
linh
pham



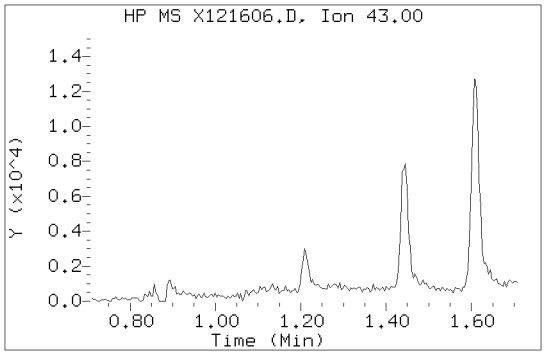

**BEFORE**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



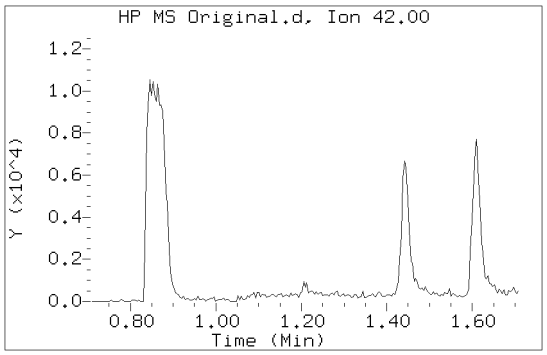

**AFTER**

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



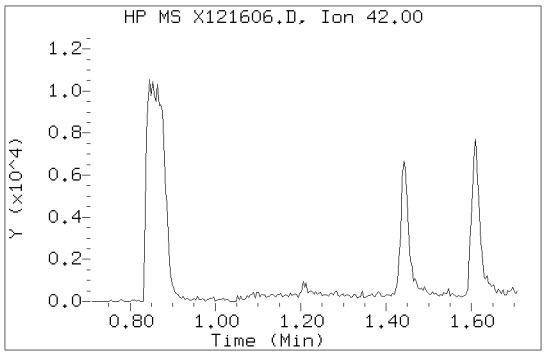

**BEFORE**

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



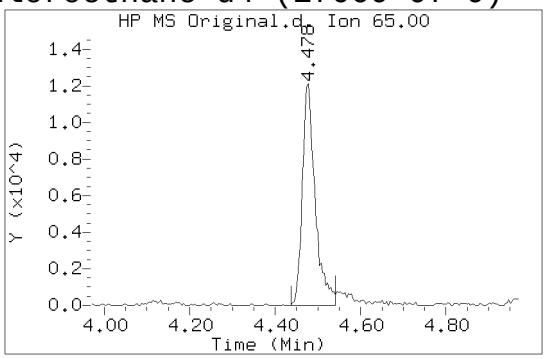
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

## 1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

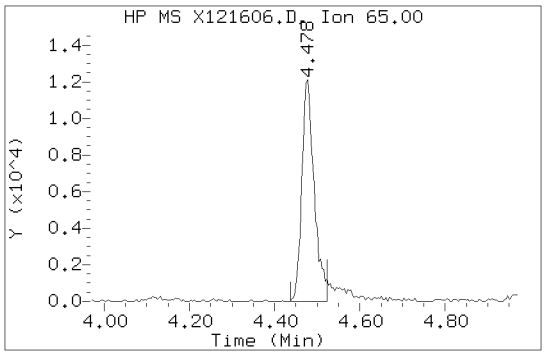
**BEFORE**

MASS
65
AREA
25815
HEIGHT
12121
27-Dec-2022
16:03
linh
pham



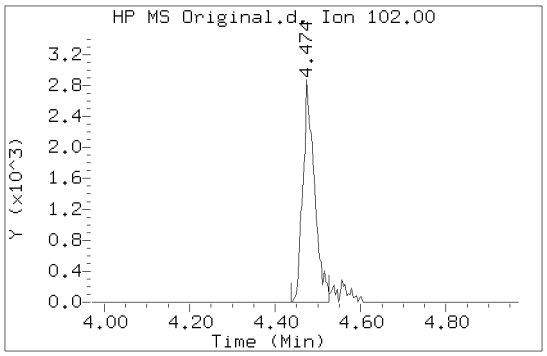

**AFTER**

MASS
65
AREA
24938
HEIGHT
12121
27-Dec-2022
16:07
linh
pham



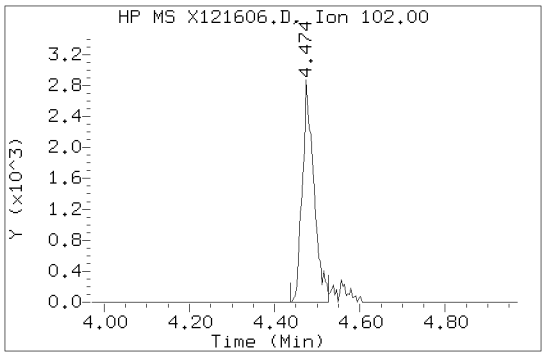

**BEFORE**

MASS
102
AREA
5492
HEIGHT
2873
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
102
AREA
5492
HEIGHT
2873
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Lab Smp Id: VSTD020  Client Smp ID: VSTD020
Inj Date  : 16-DEC-2022 13:43
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD020;VSTD020;1;6;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 13:23  Cal File: X121606.D
Als bottle: 8  Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 459407 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 16105 | 400.000 | 383.50(M) |
| 140 1,3-Butadiene | 54 | 1.164 | 1.164 | (0.279) | 58280 | 20.0000 | 18.48 |
| 25 Methacrylonitrile | 41 | 3.821 | 3.821 | (0.915) | 62911 | 20.0000 | 19.33 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 201008 | 400.000 | 388.99 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 81163 | 200.000 | 194.11 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 150748 | 20.0000 | 18.93 |
| 4 Propionitrile | 54 | 3.653 | 3.653 | (0.874) | 85562 | 200.000 | 182.52 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 65476 | 20.0000 | 19.79 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.893 | 8.893 | (1.160) | 26140 | 20.0000 | 18.70 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 32393 | 80.0000 | 100.98(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 27967 | 20.0000 | 17.90(M) |
| 145 alpha-Methylstyrene | 118 | 9.261 | 9.261 | (0.958) | 155968 | 20.0000 | 19.76 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 171978 | 20.0000 | 19.62 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 55275 | 20.0000 | 18.00 |
| 130 Ethyl Acetate | 43 | 3.660 | 3.660 | (0.876) | 75163 | 20.0000 | 20.96 |
| 40 Methyl Methacrylate | 41 | 5.606 | 5.606 | (1.342) | 56242 | 20.0000 | 17.95 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 58073 | 20.0000 | 18.07 |
| 132 n-Butanol | 56 | 5.268 | 5.268 | (1.261) | 15012 | 400.000 | 294.62 |
| 142 Tetrahydrofuran | 42 | 3.848 | 3.848 | (0.921) | 28221 | 40.0000 | 47.81 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 65476 | 400.000 | 366.93 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 331546 | 20.0000 | 19.32 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D Page 2
Report Date: 27-Dec-2022 16:07

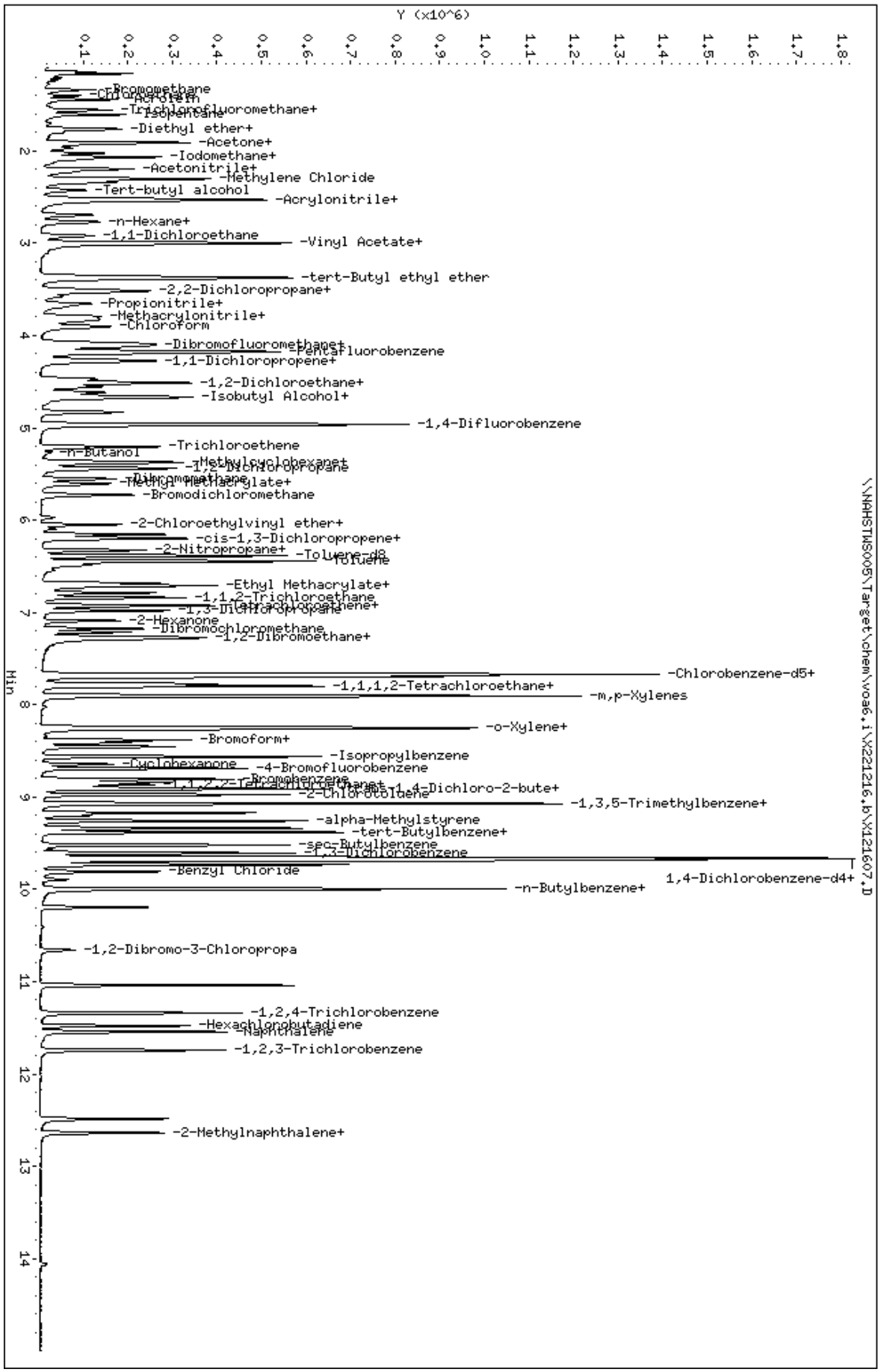
| | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|
| | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT ( ug/l) | ON-COL ( ug/l) |
| | 131 Methyl Acrylate | 55 | 3.690 | 3.690 | (0.883) | 57874 | 20.0000 | 18.55(M) |
| | 162 Butyl acrylate | 55 | 8.252 | 8.252 | (1.076) | 156518 | 20.0000 | 18.50 |
| | 2 Dichlorodifluoromethane | 85 | 0.972 | 0.972 | (0.233) | 63382 | 20.0000 | 19.96 |
| | 3 Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 72324 | 20.0000 | 18.84 |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 74461 | 20.0000 | 18.55 |
| | 6 Bromomethane | 94 | 1.340 | 1.340 | (0.321) | 52034 | 20.0000 | 18.30 |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 52021 | 20.0000 | 18.62 |
| | 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 106188 | 20.0000 | 18.90 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 12279 | 40.0000 | 40.80 |
| | 10 Acetone | 43 | 1.973 | 1.973 | (0.472) | 50987 | 40.0000 | 39.53 |
| | 11 1,1-Dichloroethene | 96 | 1.913 | 1.913 | (0.458) | 65650 | 20.0000 | 18.82 |
| | 15 Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 143457 | 40.0000 | 34.36 |
| | 16 Acrylonitrile | 53 | 2.532 | 2.532 | (0.606) | 46552 | 40.0000 | 39.36 |
| | 17 Methylene Chloride | 84 | 2.303 | 2.303 | (0.551) | 94402 | 20.0000 | 19.73 |
| | 18 Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 214504 | 20.0000 | 18.79 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 337289 | 40.0000 | 36.97 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 74471 | 20.0000 | 19.08 |
| | 21 Vinyl Acetate | 43 | 2.997 | 2.997 | (0.717) | 387538 | 40.0000 | 38.68 |
| | 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 129644 | 20.0000 | 18.93 |
| | 24 2-Butanone | 43 | 3.578 | 3.578 | (0.856) | 47830 | 40.0000 | 36.94(H) |
| | 26 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 108952 | 20.0000 | 18.73 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.525 | 3.525 | (0.844) | 88894 | 20.0000 | 18.71 |
| | 28 Chloroform | 83 | 3.904 | 3.904 | (0.935) | 145610 | 20.0000 | 18.96 |
| | 29 Bromochloromethane | 128 | 3.795 | 3.795 | (0.908) | 47919 | 20.0000 | 18.42 |
| $ | 30 Dibromofluoromethane | 113 | 4.099 | 4.099 | (0.981) | 90108 | 20.0000 | 20.32 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 116049 | 20.0000 | 19.05 |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 93914 | 20.0000 | 19.38 |
| | 33 1,2-Dichloroethane | 62 | 4.556 | 4.556 | (0.918) | 108750 | 20.0000 | 19.45 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 93815 | 20.0000 | 18.13 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 92990 | 20.0000 | 20.13 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 682389 | 50.0000 | |
| | 37 Benzene | 78 | 4.511 | 4.511 | (0.909) | 313141 | 20.0000 | 19.21 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 90292 | 20.0000 | 19.53 |
| | 39 Bromodichloromethane | 83 | 5.726 | 5.726 | (1.153) | 116178 | 20.0000 | 18.99 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.048 | 6.048 | (1.218) | 71559 | 40.0000 | 41.12 |
| | 42 1,2-Dichloropropane | 63 | 5.437 | 5.437 | (1.095) | 82954 | 20.0000 | 19.13 |
| | 44 Dibromomethane | 93 | 5.553 | 5.553 | (1.119) | 57196 | 20.0000 | 19.41 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.326 | 6.326 | (0.825) | 138209 | 40.0000 | 39.93 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 142141 | 20.0000 | 19.79 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 647445 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 315179 | 20.0000 | 19.70 |
| | 50 Toluene | 91 | 6.445 | 6.445 | (0.841) | 339968 | 20.0000 | 18.99 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 116330 | 20.0000 | 19.51 |
| | 52 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 93119 | 40.0000 | 39.54 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 69855 | 20.0000 | 19.45 |
| | 54 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 137967 | 20.0000 | 19.52 |
| | 55 Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 100749 | 20.0000 | 19.44 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 74611 | 20.0000 | 20.15 |
| | 57 1,2-Dibromoethane | 107 | 7.263 | 7.263 | (0.947) | 88886 | 20.0000 | 19.80 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 66757 | 20.0000 | 20.24 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 240885 | 20.0000 | 18.97 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 90283 | 20.0000 | 19.11 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 117560 | 20.0000 | 19.66 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 299082 | 40.0000 | 38.80 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 147602 | 20.0000 | 19.40 |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 253280 | 20.0000 | 19.86 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 69137 | 20.0000 | 19.25 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 344283 | 20.0000 | 19.80 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 112594 | 20.0000 | 19.83 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.691 | 8.691 | (1.133) | 116878 | 20.0000 | 19.58 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 356229 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 76967 | 20.0000 | 19.41 |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 404399 | 20.0000 | 20.49 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 117586 | 20.0000 | 20.11 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.070 | 9.070 | (0.939) | 295026 | 20.0000 | 20.23 |
| | 76 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 256591 | 20.0000 | 19.81 |
| | 77 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 294244 | 20.0000 | 19.93 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 242174 | 20.0000 | 20.29 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 305461 | 20.0000 | 19.91 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 326826 | 20.0000 | 20.58 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 294187 | 20.0000 | 20.67 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 197278 | 20.0000 | 20.33 |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 207572 | 20.0000 | 19.60 |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 163895 | 20.0000 | 17.99 |
| | 87 n-Butylbenzene | 91 | 9.995 | 9.995 | (1.035) | 248190 | 20.0000 | 19.23 |
| | 88 1,2-Dichlorobenzene | 146 | 9.995 | 9.995 | (1.035) | 201166 | 20.0000 | 20.13 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.663 | 10.663 | (1.104) | 18635 | 20.0000 | 20.58 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 130463 | 20.0000 | 20.69 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 55912 | 20.0000 | 20.12 |
| | 92 Naphthalene | 128 | 11.544 | 11.544 | (1.195) | 300432 | 20.0000 | 20.94 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.742 | (1.215) | 124401 | 20.0000 | 20.60 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 163365 | 40.0000 | |
| M | 95 Xylenes (total) | 106 | | | | 446684 | 60.0000 | |
| | 141 Cyclohexane | 56 | 4.118 | 4.118 | (0.986) | 84355 | 20.0000 | 19.01(M) |
| | 138 Freon TF | 101 | 1.910 | 1.910 | (0.457) | 64657 | 20.0000 | 19.17 |
| | 147 Methylcyclohexane | 55 | 5.381 | 5.381 | (1.084) | 172044 | 20.0000 | 20.59 |
| | 146 Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 38475 | 20.0000 | 18.61 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.423 | (0.580) | 117583 | 400.000 | 369.63 |
| | 149 Isopropyl Alcohol | 45 | 2.090 | 2.090 | (0.500) | 61646 | 400.000 | 371.06 |

## QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

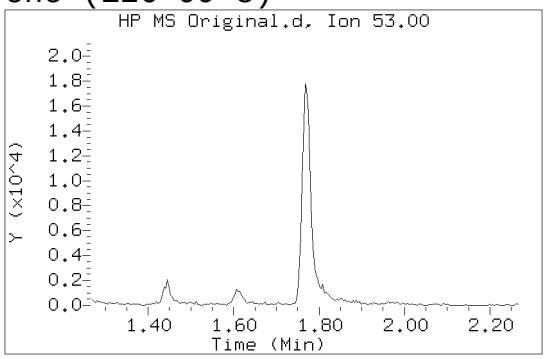

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Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 1
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Chloroethane
Acrolein
Trichlorofluoromethane+
Isopentane
Diethyl ether+
Acetone+
Iodomethane+
Acetonitrile+
Methylene Chloride
Tert-butyl alcohol
Acrylonitrile+
n-Hexane+
1,1-Dichloroethane
Vinyl Acetate+
tert-Butyl ethyl ether
2,2-Dichloropropane+
Propionitrile+
Methacrylonitrile+
Chloroform
Dibromofluoromethane+
Perfluorobenzene
1,1-Dichloropropene+
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Isobutyl Alcohol+
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o-Xylene+
Bromoform+
Isopropylbenzene
Cyclohexanone
4-Bromofluorobenzene
Bromobenzene
1,1,2,2-Tetrachloroethane+
1,4-Dichloro-2-bute+
2-Chlorotoluene
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tert-Butylbenzene+
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1,4-Dichlorobenzene-d4+
Benzyl Chloride
n-Butylbenzene+
1,2-Dibromo-3-Chloropropa
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Hexachlorobutadiene
Naphthalene
1,2,3-Trichlorobenzene
2-Methylnaphthalene+

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InstruID : voa6.i
LabSampID : VSTD020

## Chloroprene (126-99-8)

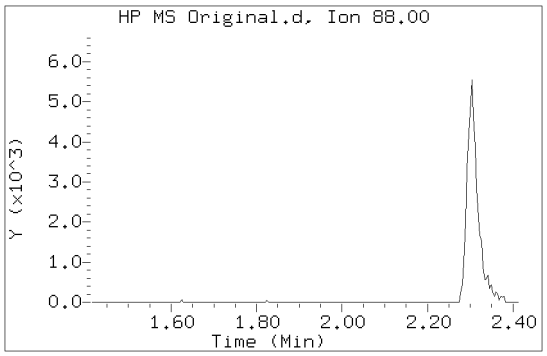
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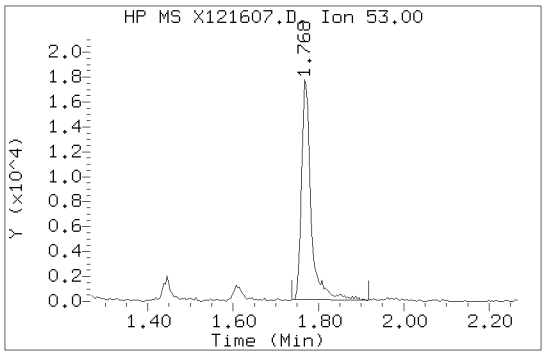
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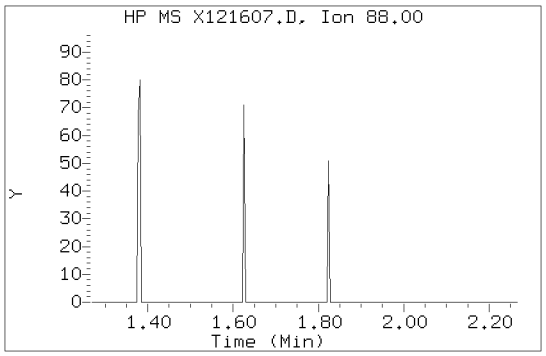
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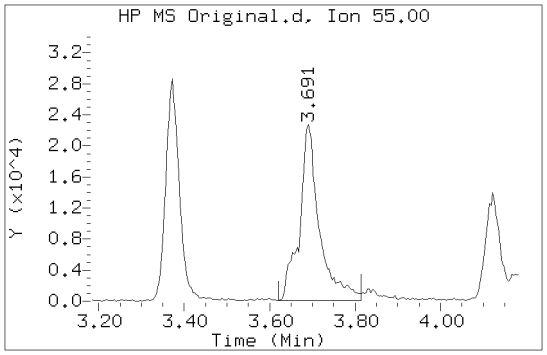
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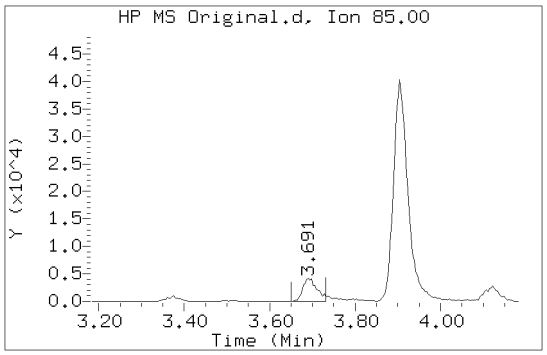
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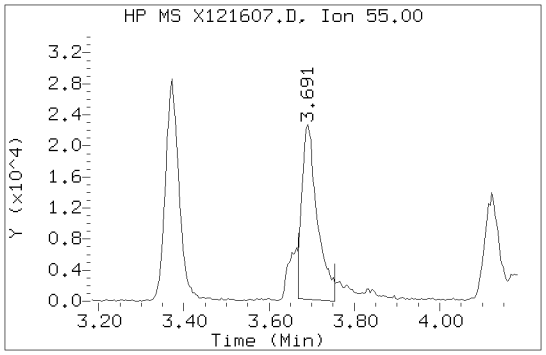
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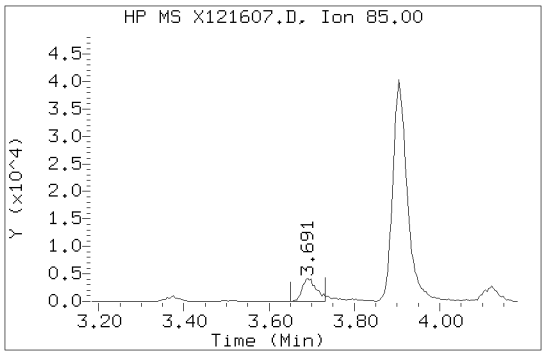
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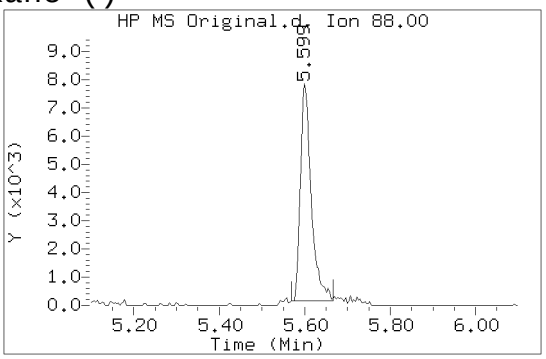


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LabSampID : VSTD020

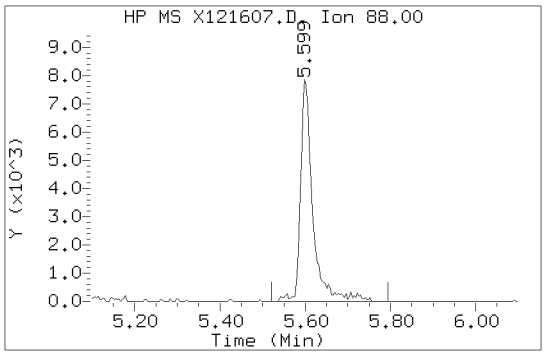
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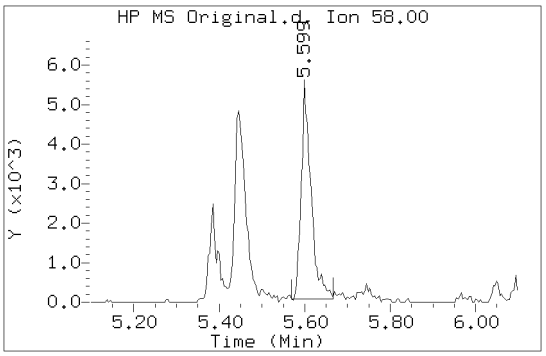
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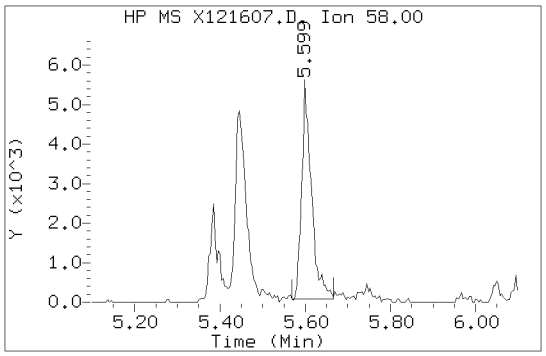

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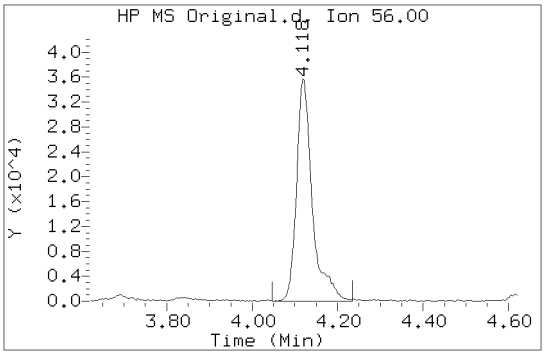

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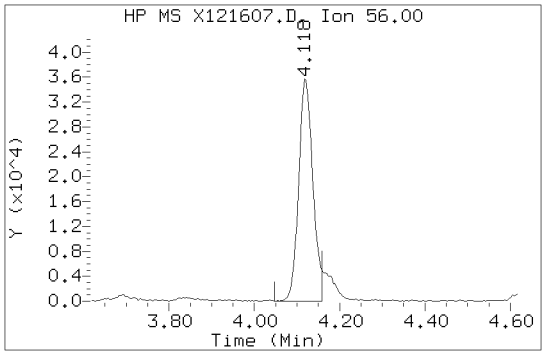

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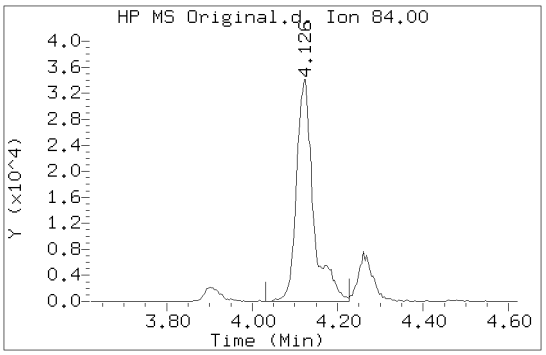
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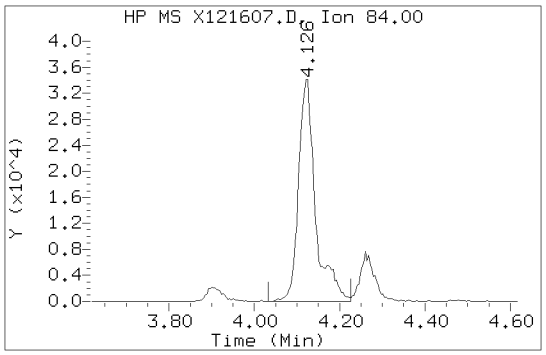

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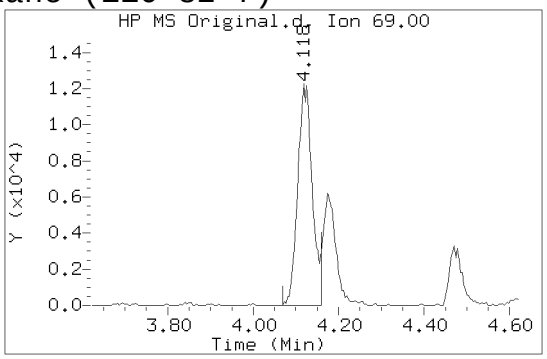


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Inj Date : 16-DEC-2022 13:43
InstruID : voa6.i
LabSampID : VSTD020

## Cyclohexane (110-82-7)

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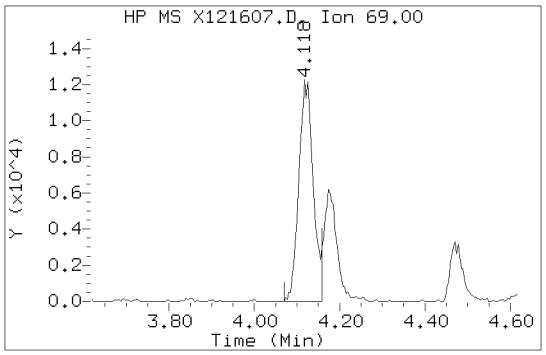
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27-Dec-2022
16:03
linh
pham




Reason Code:

**AFTER**

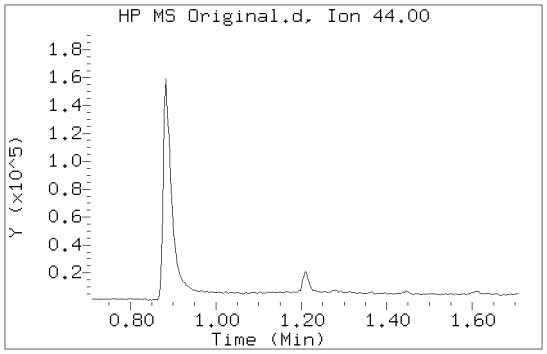
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## Acetaldehyde (75-07-0)

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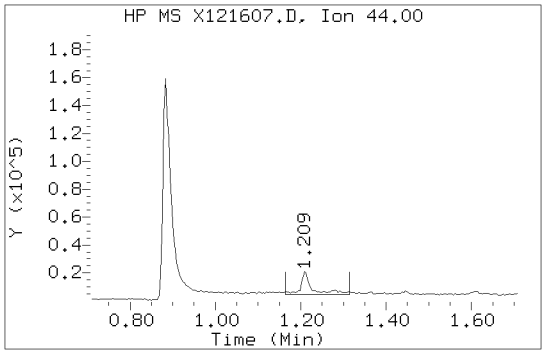
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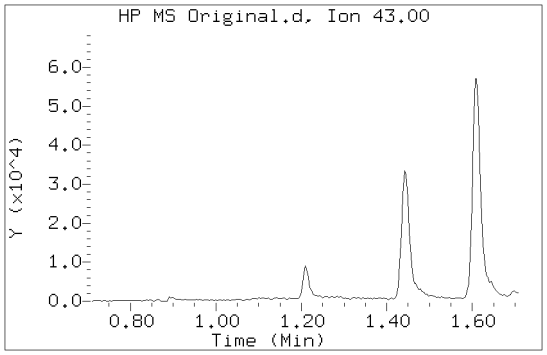
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pham



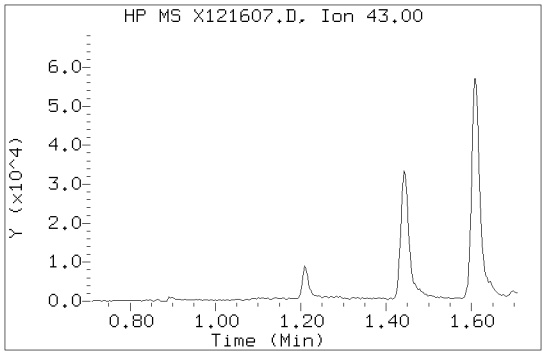

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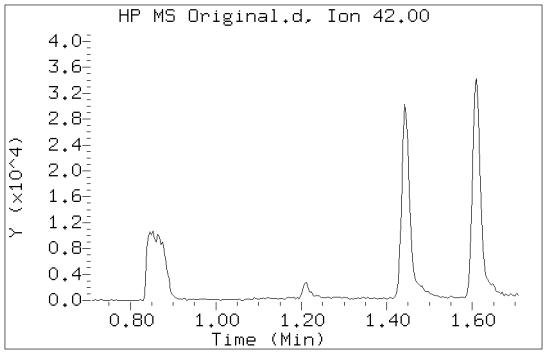

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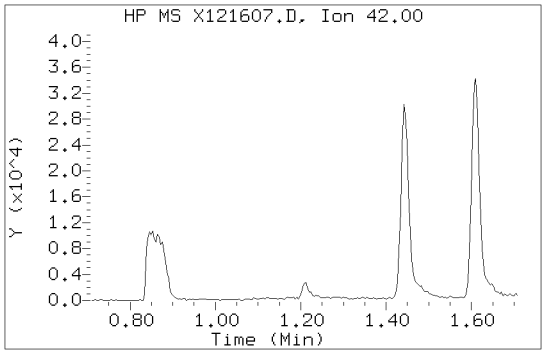

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27-Dec-2022
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**AFTER**

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27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
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Inj Date  : 16-DEC-2022 14:04
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD050;VSTD050;1;7;
Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 13:43  Cal File: X121607.D
Als bottle: 9  Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 457591 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.595 | 5.595 | (1.339) | 40509 | 1000.00 | 968.45 |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 152324 | 50.0000 | 48.50 |
| 25 Methacrylonitrile | 41 | 3.821 | 3.821 | (0.915) | 147931 | 50.0000 | 45.65 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 499872 | 1000.00 | 971.21 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 202696 | 500.000 | 486.70 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 372130 | 50.0000 | 46.91 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 221995 | 500.000 | 475.45 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 182358 | 50.0000 | 55.34 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.890 | (1.159) | 70497 | 50.0000 | 50.03 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 67188 | 200.000 | 235.49(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 73877 | 50.0000 | 47.48(M) |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 423646 | 50.0000 | 51.17 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 438695 | 50.0000 | 49.65 |
| 139 Diethyl ether | 59 | 1.756 | 1.756 | (0.420) | 141705 | 50.0000 | 46.34 |
| 130 Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 170590 | 50.0000 | 47.77 |
| 40 Methyl Methacrylate | 41 | 5.606 | 5.606 | (1.342) | 147516 | 50.0000 | 47.27 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 144135 | 50.0000 | 44.17 |
| 132 n-Butanol | 56 | 5.253 | 5.253 | (1.257) | 54418 | 1000.00 | 935.85 |
| 142 Tetrahydrofuran | 42 | 3.844 | 3.844 | (0.920) | 58181 | 100.000 | 102.34 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 182358 | 1000.00 | 1026.00 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 826758 | 50.0000 | 45.95 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D Page 2
Report Date: 27-Dec-2022 16:07

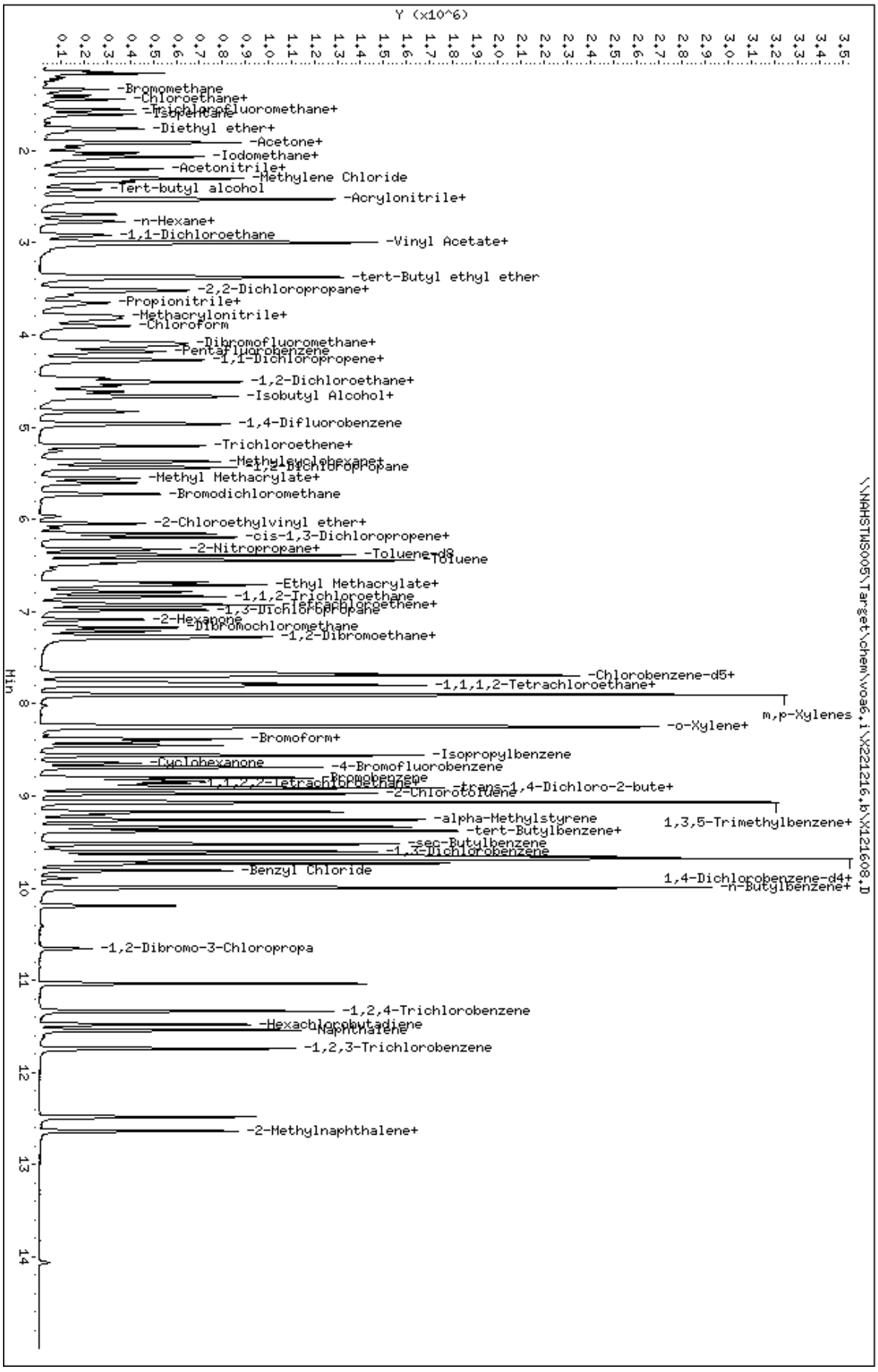
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 131 Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 151068 | 50.0000 | 48.62(M) |
| | 162 Butyl acrylate | 55 | 8.252 | 8.252 | (1.076) | 415774 | 50.0000 | 48.76 |
| | 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 160392 | 50.0000 | 50.11 |
| | 3 Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 192710 | 50.0000 | 46.69 |
| | 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 201812 | 50.0000 | 50.48 |
| | 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 139689 | 50.0000 | 46.33 |
| | 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 134745 | 50.0000 | 48.43 |
| | 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 278013 | 50.0000 | 49.70 |
| | 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 27445 | 100.000 | 88.04 |
| | 10 Acetone | 43 | 1.970 | 1.970 | (0.472) | 124798 | 100.000 | 97.19 |
| | 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 168905 | 50.0000 | 48.63 |
| | 15 Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 455792 | 100.000 | 99.60 |
| | 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 118697 | 100.000 | 100.77 |
| | 17 Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 225642 | 50.0000 | 47.36 |
| | 18 Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 534667 | 50.0000 | 47.03 |
| | 19 Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 892690 | 100.000 | 98.24 |
| | 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 191505 | 50.0000 | 49.27 |
| | 21 Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 983875 | 100.000 | 98.59 |
| | 22 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 330037 | 50.0000 | 48.38 |
| | 24 2-Butanone | 43 | 3.574 | 3.574 | (0.856) | 130179 | 100.000 | 95.71(H) |
| | 26 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 283996 | 50.0000 | 49.03 |
| | 27 cis-1,2-Dichloroethene | 96 | 3.525 | 3.525 | (0.844) | 228729 | 50.0000 | 48.35 |
| | 28 Chloroform | 83 | 3.904 | 3.904 | (0.935) | 370755 | 50.0000 | 48.49 |
| | 29 Bromochloromethane | 128 | 3.788 | 3.788 | (0.907) | 120638 | 50.0000 | 46.58 |
| $ | 30 Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 211939 | 50.0000 | 48.23 |
| | 31 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 300650 | 50.0000 | 49.56 |
| | 32 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 256928 | 50.0000 | 52.23 |
| | 33 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 276500 | 50.0000 | 48.70 |
| | 34 Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 251833 | 50.0000 | 47.94 |
| $ | 35 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 222293 | 50.0000 | 47.94 |
| * | 36 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 692830 | 50.0000 | |
| | 37 Benzene | 78 | 4.507 | 4.507 | (0.908) | 812279 | 50.0000 | 49.09 |
| | 38 Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 233833 | 50.0000 | 49.83 |
| | 39 Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 297315 | 50.0000 | 47.88 |
| | 41 2-Chloroethylvinyl ether | 63 | 6.048 | 6.048 | (1.218) | 180920 | 100.000 | 102.42 |
| | 42 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 215079 | 50.0000 | 48.87 |
| | 44 Dibromomethane | 93 | 5.553 | 5.553 | (1.119) | 143223 | 50.0000 | 47.87 |
| | 45 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 336990 | 100.000 | 96.59 |
| | 46 cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 366231 | 50.0000 | 50.22 |
| * | 47 Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 652727 | 50.0000 | |
| $ | 48 Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 772486 | 50.0000 | 47.89 |
| | 50 Toluene | 91 | 6.446 | 6.446 | (0.841) | 889029 | 50.0000 | 49.27 |
| | 51 trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 309568 | 50.0000 | 51.15 |
| | 52 2-Hexanone | 43 | 7.087 | 7.087 | (0.924) | 232879 | 100.000 | 98.10 |
| | 53 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 172833 | 50.0000 | 47.75 |
| | 54 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 345991 | 50.0000 | 48.56 |
| | 55 Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 260477 | 50.0000 | 49.86 |
| | 56 Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 194749 | 50.0000 | 52.17 |
| | 57 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 229442 | 50.0000 | 50.70 |
| | 58 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 170128 | 50.0000 | 50.81 |
| | 59 Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 624151 | 50.0000 | 48.77 |
| | 60 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.773 | (1.014) | 235373 | 50.0000 | 49.42 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 311983 | 50.0000 | 51.75 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 785955 | 100.000 | 101.14 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 385427 | 50.0000 | 50.25 |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 673066 | 50.0000 | 52.35 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 181492 | 50.0000 | 50.14 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 920845 | 50.0000 | 52.55 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 276483 | 50.0000 | 46.43 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 292753 | 50.0000 | 48.55 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 373588 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 199888 | 50.0000 | 48.08(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1085689 | 50.0000 | 52.46 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 299078 | 50.0000 | 48.79 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 793494 | 50.0000 | 51.90 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 670422 | 50.0000 | 49.37 |
| | 77 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 782927 | 50.0000 | 50.57 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 652461 | 50.0000 | 52.14 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 815460 | 50.0000 | 50.69 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 889679 | 50.0000 | 53.43 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 810483 | 50.0000 | 54.32 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 520329 | 50.0000 | 51.14 |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 544362 | 50.0000 | 49.03 |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 472387 | 50.0000 | 46.44 |
| | 87 n-Butylbenzene | 91 | 9.995 | 9.995 | (1.035) | 696355 | 50.0000 | 48.48 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 519532 | 50.0000 | 49.58 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 48660 | 50.0000 | 51.11 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 355455 | 50.0000 | 53.75 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 155390 | 50.0000 | 52.99 |
| | 92 Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 799829 | 50.0000 | 53.16 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.742 | 11.742 | (1.215) | 320836 | 50.0000 | 50.66 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 420234 | 100.000 | |
| M | 95 Xylenes (total) | 106 | | | | 1171382 | 150.000 | |
| | 141 Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 237699 | 50.0000 | 51.49 |
| | 138 Freon TF | 101 | 1.913 | 1.913 | (0.458) | 172155 | 50.0000 | 51.25 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 420886 | 50.0000 | 49.62 |
| | 146 Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 96420 | 50.0000 | 46.82 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.423 | (0.580) | 302677 | 1000.00 | 955.26 |
| | 149 Isopropyl Alcohol | 45 | 2.090 | 2.090 | (0.500) | 157082 | 1000.00 | 949.28 |

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




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Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6_i
Operator: PC
Column diameter: 0.18

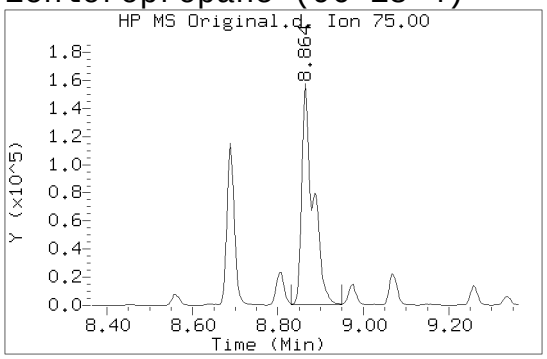
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Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

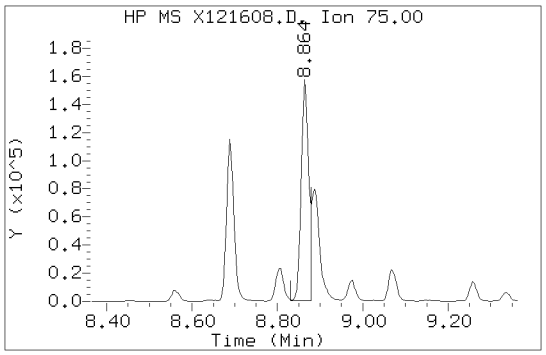
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linh
pham



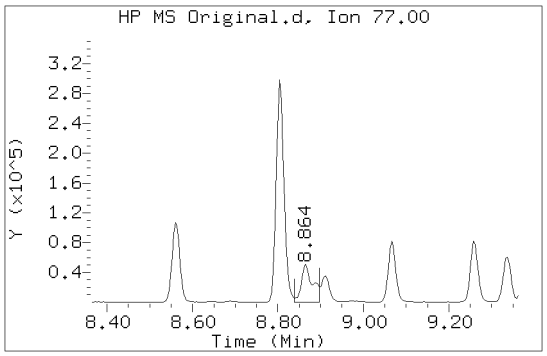

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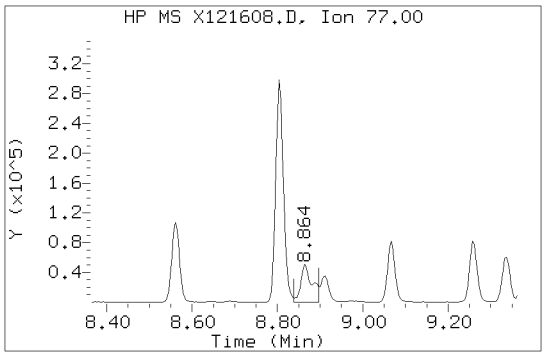

**BEFORE**

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**AFTER**

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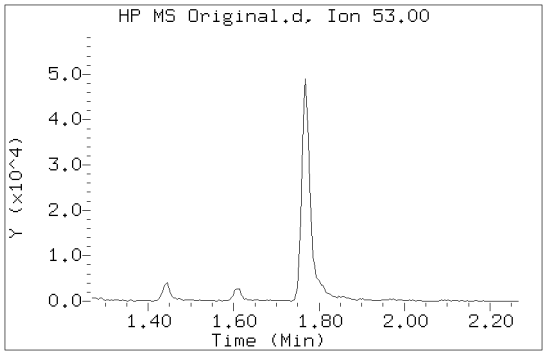



## Chloroprene (126-99-8)

Reason Code:

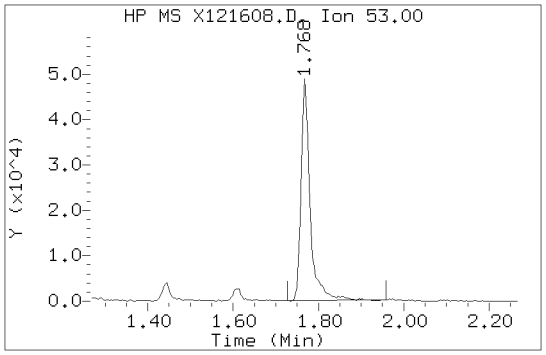
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27-Dec-2022
16:03
linh
pham



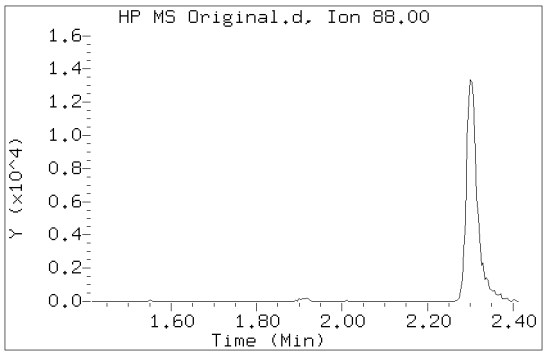

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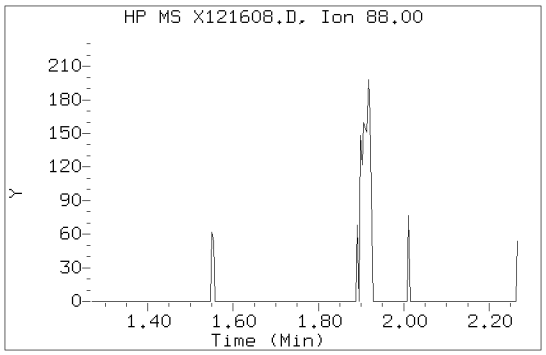

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0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham

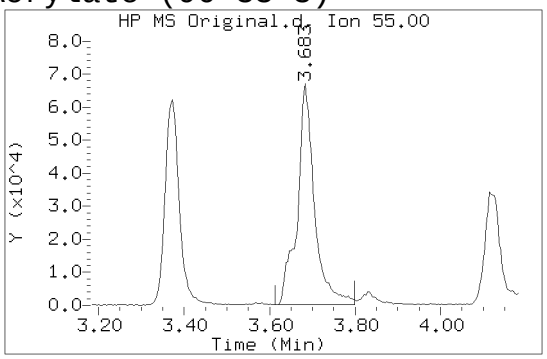


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Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

## Methyl Acrylate (96-33-3)

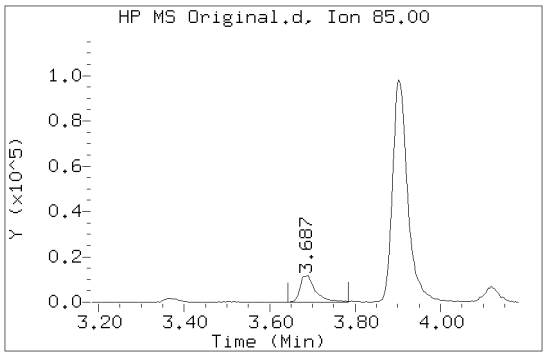
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16:03
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pham




### BEFORE

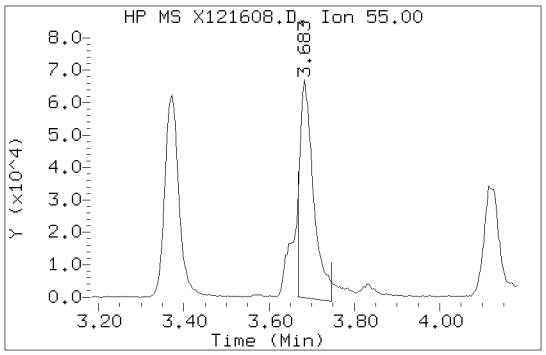
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16:03
linh
pham




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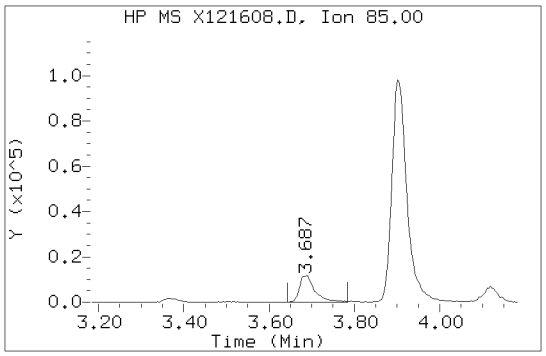
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16:06
linh
pham




### AFTER

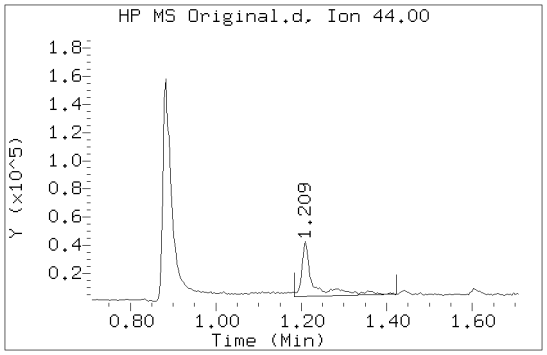
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27-Dec-2022
16:06
linh
pham




## Acetaldehyde (75-07-0)

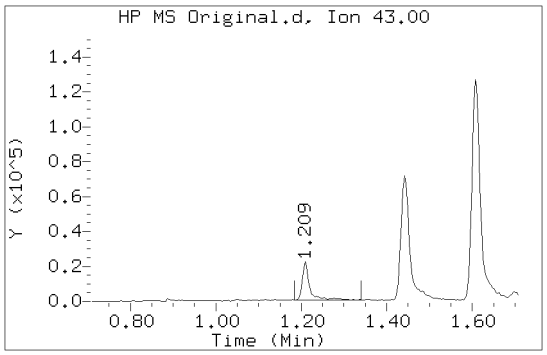
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16:03
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pham




### BEFORE

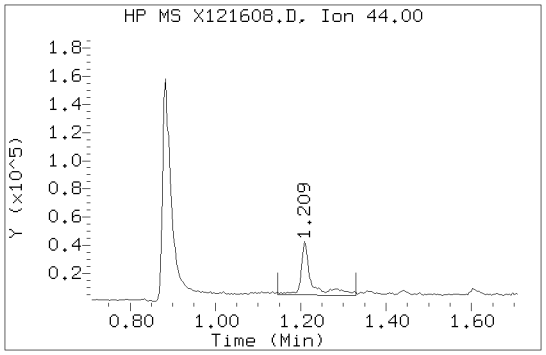
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AREA
28032
HEIGHT
22022
27-Dec-2022
16:03
linh
pham




### Reason Code:

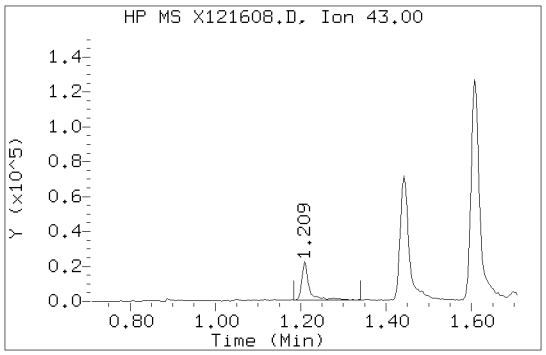
### AFTER

MASS
44
AREA
67188
HEIGHT
37862
27-Dec-2022
16:06
linh
pham




### AFTER

MASS
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28032
HEIGHT
22022
27-Dec-2022
16:06
linh
pham



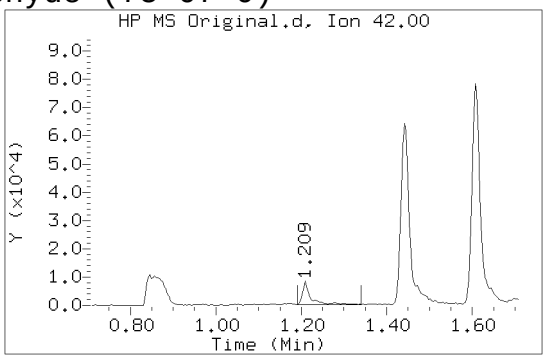
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InstruID : voa6.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

Reason Code:

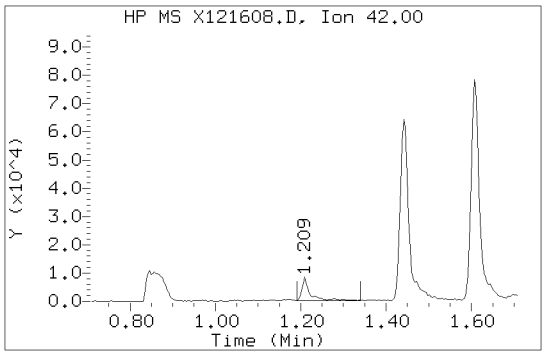
BEFORE

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HEIGHT
8504
27-Dec-2022
16:03
linh
pham




AFTER

MASS
42
AREA
11352
HEIGHT
8504
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Lab Smp Id: VSTD100  Client Smp ID: VSTD100
Inj Date  : 16-DEC-2022 14:25
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD100;VSTD100;1;8;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 10  Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 454640 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 80329 | 2000.00 | 1932.89 |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 300004 | 100.000 | 96.14 |
| 25 Methacrylonitrile | 41 | 3.822 | 3.822 | (0.915) | 296105 | 100.000 | 91.97 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 1010956 | 2000.00 | 1976.95 |
| 13 Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 413876 | 1000.00 | 1000.23 |
| 14 Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 756242 | 100.000 | 95.96 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 447087 | 1000.00 | 963.76 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 330416 | 100.000 | 100.93 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.890 | (1.159) | 144667 | 100.000 | 100.47 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 107798 | 400.000 | 394.60(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 146540 | 100.000 | 94.79(M) |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 857105 | 100.000 | 100.18 |
| 200 Dimethyl Disulfide | 94 | 6.194 | 6.194 | (0.808) | 912573 | 100.000 | 101.09 |
| 139 Diethyl ether | 59 | 1.752 | 1.752 | (0.420) | 288002 | 100.000 | 94.80 |
| 130 Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 318062 | 100.000 | 89.65 |
| 40 Methyl Methacrylate | 41 | 5.606 | 5.606 | (1.342) | 295199 | 100.000 | 95.22 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 311883 | 100.000 | 96.06 |
| 132 n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 124057 | 2000.00 | 1971.40 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 109518 | 200.000 | 196.74 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 330416 | 2000.00 | 1871.09 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 1772216 | 100.000 | 95.31 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D Page 2
Report Date: 27-Dec-2022 16:07

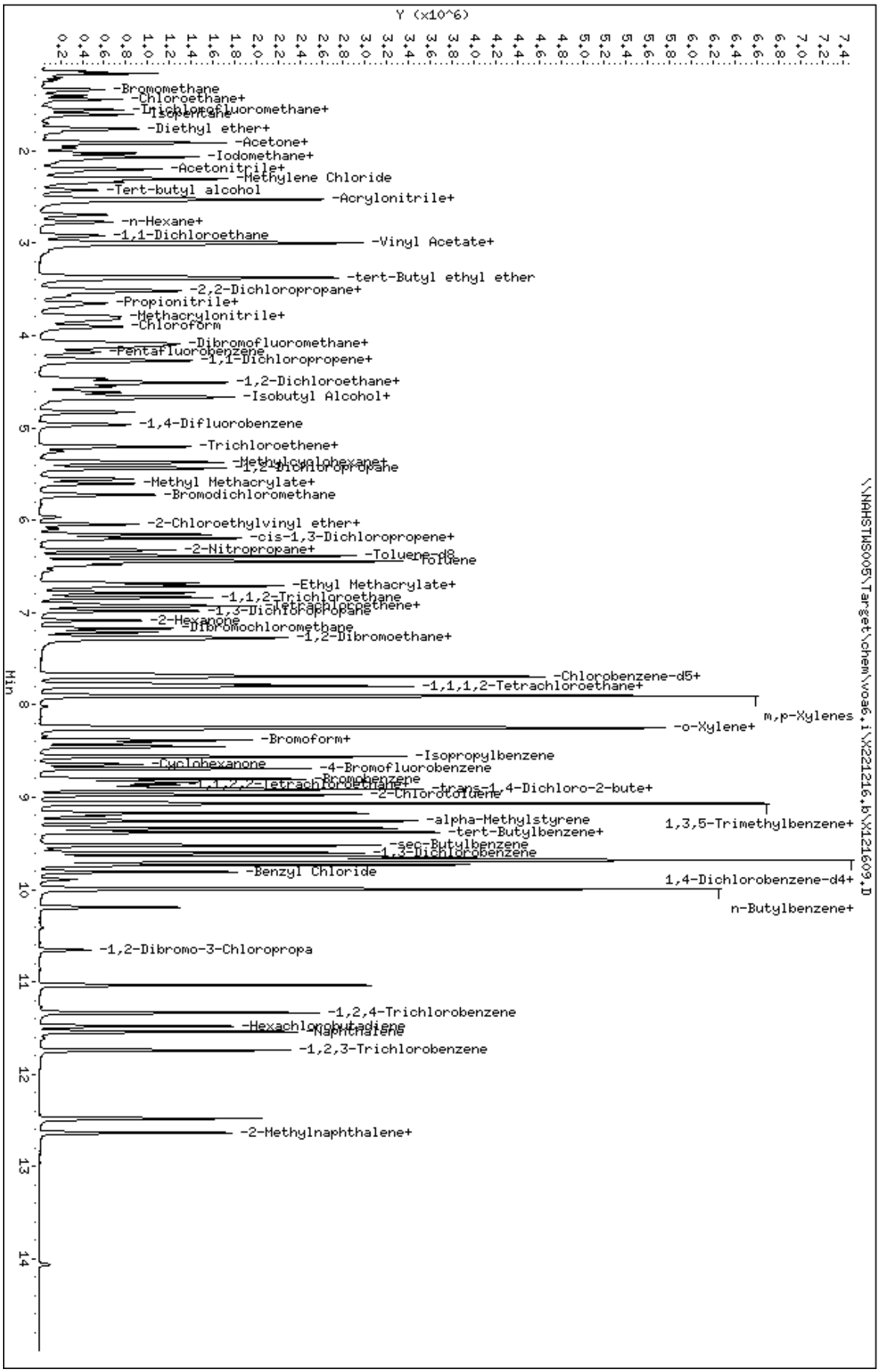
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT ( ug/l) | ON-COL ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 308372 | 100.000 | 99.90(M) |
| | 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 901265 | 100.000 | 103.44 |
| | 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 309019 | 100.000 | 96.81 |
| | 3 | Chloromethane | 50 | 1.078 | 1.078 | (0.258) | 388163 | 100.000 | 92.40 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 390567 | 100.000 | 98.34 |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 284165 | 100.000 | 93.02 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 261091 | 100.000 | 94.45 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 543907 | 100.000 | 97.86 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 60756 | 200.000 | 192.70 |
| | 10 | Acetone | 43 | 1.970 | 1.970 | (0.472) | 243517 | 200.000 | 190.92 |
| | 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 329394 | 100.000 | 95.46 |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 958603 | 200.000 | 197.72 |
| | 16 | Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 235604 | 200.000 | 201.32 |
| | 17 | Methylene Chloride | 84 | 2.300 | 2.300 | (0.550) | 423827 | 100.000 | 89.54 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 1078258 | 100.000 | 95.46 |
| | 19 | Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 1765599 | 200.000 | 195.57 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 376933 | 100.000 | 97.60 |
| | 21 | Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 1955305 | 200.000 | 197.21 |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 641083 | 100.000 | 94.59 |
| | 24 | 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 264221 | 200.000 | 192.38(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 554902 | 100.000 | 96.43 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.843) | 443532 | 100.000 | 94.37 |
| | 28 | Chloroform | 83 | 3.904 | 3.904 | (0.935) | 715830 | 100.000 | 94.23 |
| | 29 | Bromochloromethane | 128 | 3.792 | 3.792 | (0.908) | 239022 | 100.000 | 92.88 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 438954 | 100.000 | 100.72 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 583361 | 100.000 | 96.79 |
| | 32 | 1,1-Dichloropropene | 75 | 4.275 | 4.275 | (0.861) | 496096 | 100.000 | 101.35 |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 553661 | 100.000 | 98.01 |
| | 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 487488 | 100.000 | 93.26 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.466 | 4.466 | (1.069) | 455890 | 100.000 | 98.67 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 689427 | 50.0000 | |
| | 37 | Benzene | 78 | 4.508 | 4.508 | (0.908) | 1590142 | 100.000 | 96.58 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 456948 | 100.000 | 97.85 |
| | 39 | Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 587419 | 100.000 | 95.07 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.217) | 345852 | 200.000 | 196.75 |
| | 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 420835 | 100.000 | 96.09 |
| | 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 280146 | 100.000 | 94.11 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.322 | 6.322 | (0.824) | 671115 | 200.000 | 188.25 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 735867 | 100.000 | 101.41 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.668 | 7.668 | (1.000) | 666948 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.386 | 6.386 | (0.833) | 1602890 | 100.000 | 97.25 |
| | 50 | Toluene | 91 | 6.446 | 6.446 | (0.841) | 1761917 | 100.000 | 95.57 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.678 | 6.678 | (1.345) | 618784 | 100.000 | 102.75 |
| | 52 | 2-Hexanone | 43 | 7.087 | 7.087 | (0.924) | 458639 | 200.000 | 189.09 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 342194 | 100.000 | 92.52 |
| | 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.911) | 682500 | 100.000 | 93.75 |
| | 55 | Dibromochloromethane | 129 | 7.173 | 7.173 | (0.935) | 521219 | 100.000 | 97.64 |
| | 56 | Tetrachloroethene | 164 | 6.925 | 6.925 | (0.903) | 373651 | 100.000 | 97.96 |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 453499 | 100.000 | 98.07 |
| | 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 326538 | 100.000 | 98.00 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 1229287 | 100.000 | 94.01 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.773 | 7.773 | (1.014) | 472962 | 100.000 | 97.19 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 612289 | 100.000 | 99.40 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 1556563 | 200.000 | 196.03 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 767814 | 100.000 | 97.97 |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 1350780 | 100.000 | 102.83 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 367943 | 100.000 | 99.50 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 1818857 | 100.000 | 101.58 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 554091 | 100.000 | 90.03 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 615584 | 100.000 | 99.86 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 386107 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 407425 | 100.000 | 94.83(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 2152414 | 100.000 | 100.64 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 602819 | 100.000 | 95.16 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 1603520 | 100.000 | 101.49 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 1326500 | 100.000 | 94.51 |
| | 77 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.939) | 1587855 | 100.000 | 99.24 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 1287608 | 100.000 | 99.56 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 1640529 | 100.000 | 98.68 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 1778581 | 100.000 | 103.36 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.999) | 1606121 | 100.000 | 104.16 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 1039293 | 100.000 | 98.84 |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 1114780 | 100.000 | 97.16 |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 1009234 | 100.000 | 94.18 |
| | 87 n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 1425779 | 100.000 | 94.31 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 1054319 | 100.000 | 97.36 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 94321 | 100.000 | 95.78 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.338 | 11.338 | (1.173) | 697257 | 100.000 | 102.03 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 299042 | 100.000 | 97.63 |
| | 92 Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 1592534 | 100.000 | 102.42 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.215) | 642199 | 100.000 | 98.12 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 820465 | 200.000 | |
| M | 95 Xylenes (total) | 106 | | | | 2324377 | 300.000 | |
| | 141 Cyclohexane | 56 | 4.118 | 4.118 | (0.986) | 432198 | 100.000 | 93.19 |
| | 138 Freon TF | 101 | 1.913 | 1.913 | (0.458) | 327614 | 100.000 | 98.16 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 862071 | 100.000 | 102.15(A) |
| | 146 Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 196542 | 100.000 | 96.07 |
| | 148 Tert-Butyl alcohol | 59 | 2.427 | 2.427 | (0.581) | 592215 | 2000.00 | 1881.19 |
| | 149 Isopropyl Alcohol | 45 | 2.093 | 2.093 | (0.501) | 321288 | 2000.00 | 1954.21 |

## QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121609.D
Date : 16-DEC-2022 14:25
Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

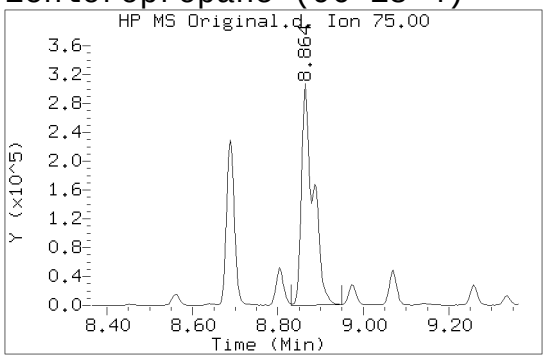
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Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

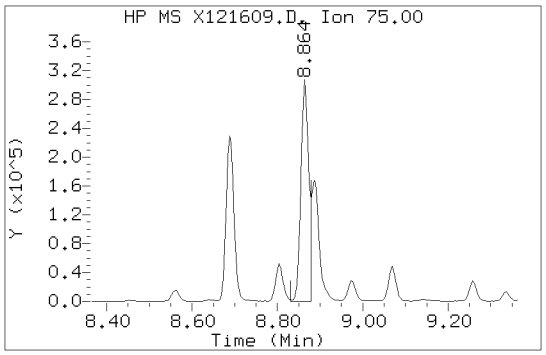
**BEFORE**

MASS
75
AREA
602953
HEIGHT
307037
27-Dec-2022
16:03
linh
pham



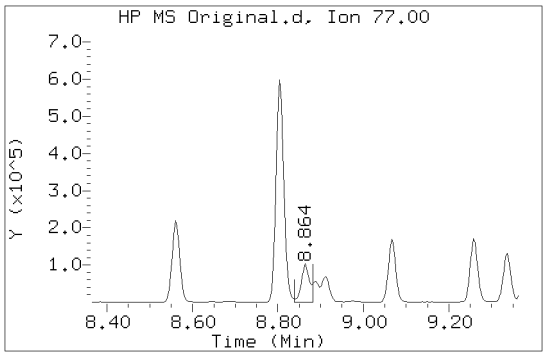

**AFTER**

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HEIGHT
307037
27-Dec-2022
16:06
linh
pham



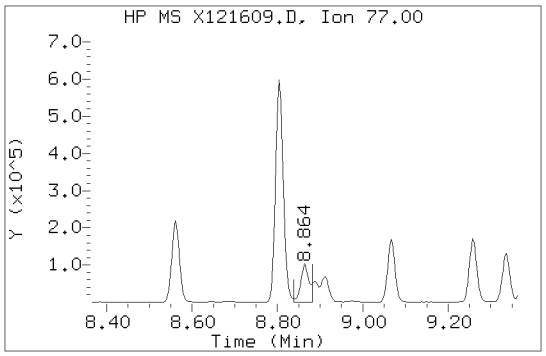

**BEFORE**

MASS
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AREA
149362
HEIGHT
103354
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
77
AREA
149362
HEIGHT
103354
27-Dec-2022
16:06
linh
pham

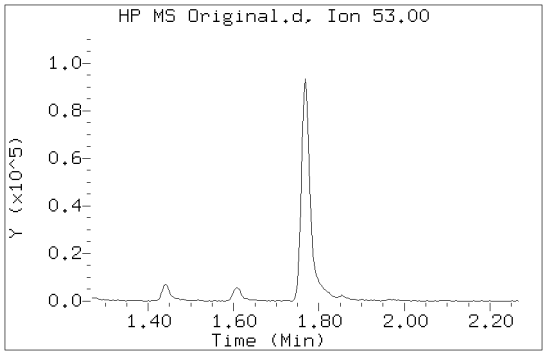



## Chloroprene (126-99-8)

Reason Code:

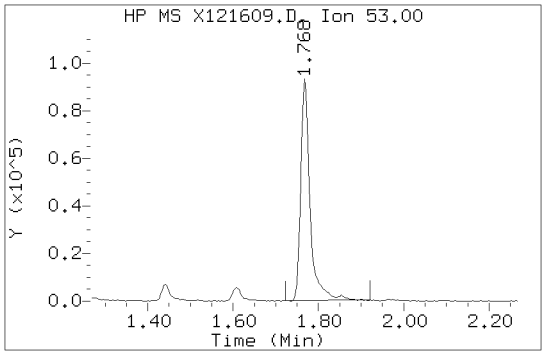
**BEFORE**

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AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham



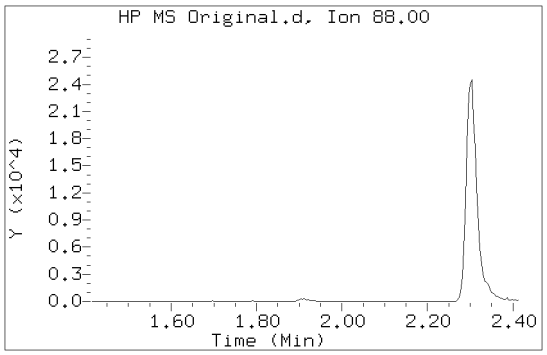

**AFTER**

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HEIGHT
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16:06
linh
pham



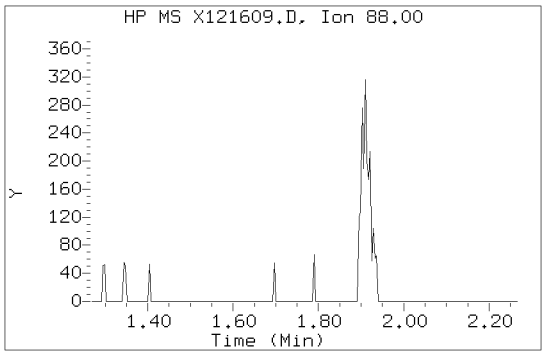

**BEFORE**

MASS
88
AREA
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HEIGHT
0
27-Dec-2022
16:03
linh
pham




**AFTER**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham

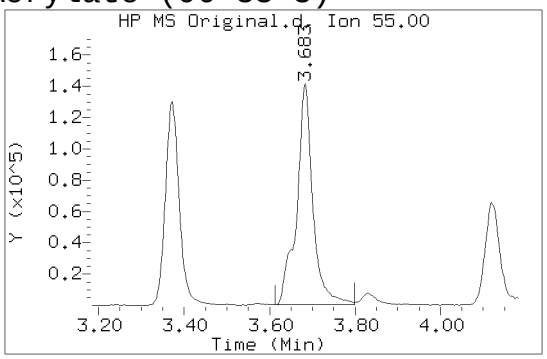


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Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

## Methyl Acrylate (96-33-3)

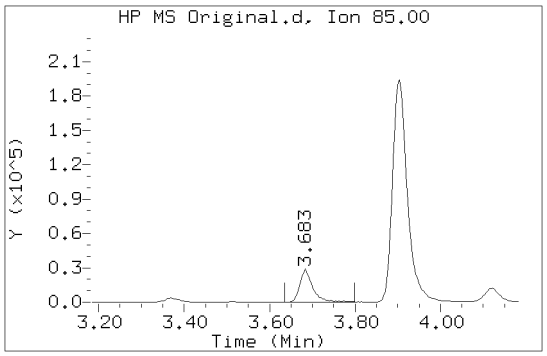
### BEFORE

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AREA
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HEIGHT
141345
27-Dec-2022
16:03
linh
pham




### BEFORE

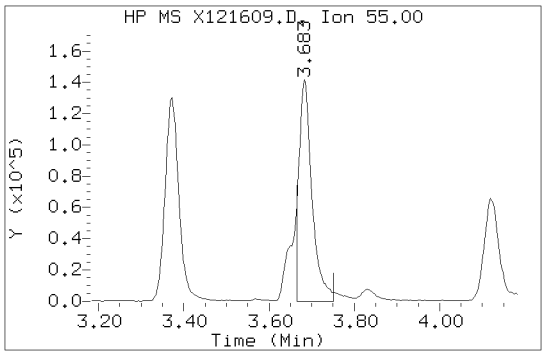
MASS
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AREA
62241
HEIGHT
29192
27-Dec-2022
16:03
linh
pham




### Reason Code:

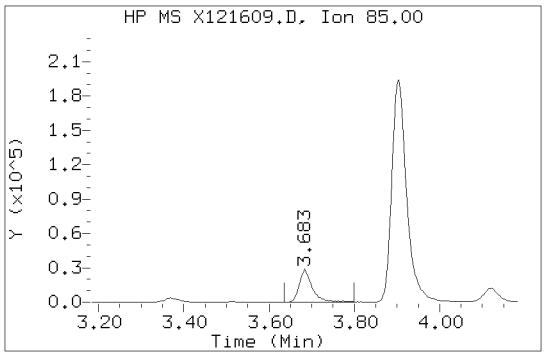
### AFTER

MASS
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AREA
308372
HEIGHT
141781
27-Dec-2022
16:06
linh
pham




### AFTER

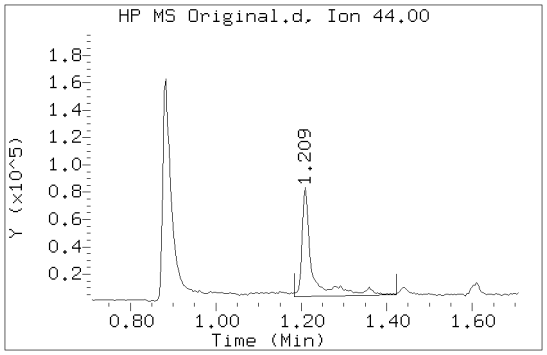
MASS
85
AREA
62241
HEIGHT
29192
27-Dec-2022
16:06
linh
pham




## Acetaldehyde (75-07-0)

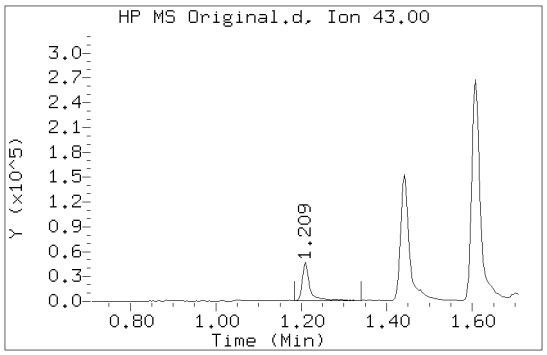
### BEFORE

MASS
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AREA
137215
HEIGHT
79995
27-Dec-2022
16:03
linh
pham




### BEFORE

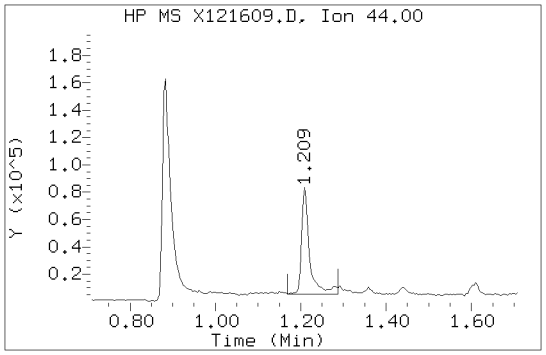
MASS
43
AREA
58307
HEIGHT
46134
27-Dec-2022
16:03
linh
pham




### Reason Code:

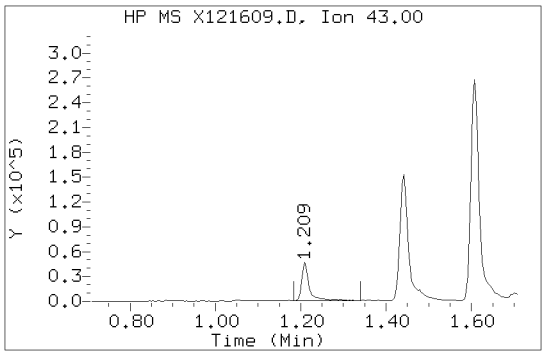
### AFTER

MASS
44
AREA
107798
HEIGHT
78310
27-Dec-2022
16:06
linh
pham




### AFTER

MASS
43
AREA
58307
HEIGHT
46134
27-Dec-2022
16:06
linh
pham



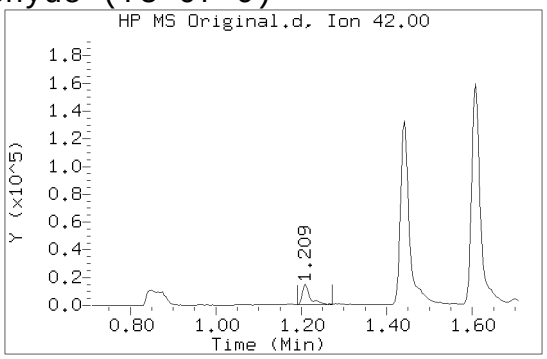
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

Acetaldehyde (75-07-0)

Reason Code:

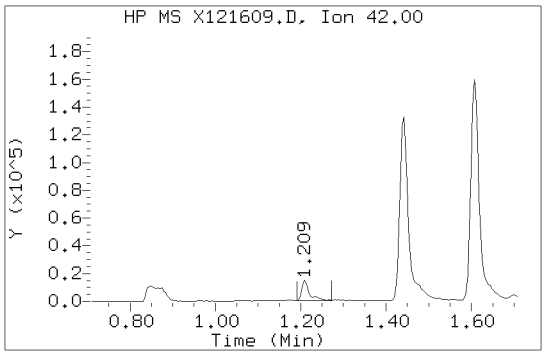
BEFORE

MASS
42
AREA
19613
HEIGHT
14674
27-Dec-2022
16:03
linh
pham




AFTER

MASS
42
AREA
19613
HEIGHT
14674
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D
Lab Smp Id: VSTD150  Client Smp ID: VSTD150
Inj Date  : 16-DEC-2022 14:46
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD150;VSTD150;1;9;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:25  Cal File: X121609.D
Als bottle: 11  Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.177 | 4.177 | (1.000) | 447266 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 128845 | 3000.00 | 3151.41 |
| 140 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 468966 | 150.000 | 152.77 |
| 25 Methacrylonitrile | 41 | 3.818 | 3.818 | (0.914) | 457301 | 150.000 | 144.39 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 1595753 | 3000.00 | 3171.99 |
| 13 Acetonitrile | 39 | 2.194 | 2.194 | (0.525) | 642798 | 1500.00 | 1579.09 |
| 14 Allyl Chloride | 41 | 2.194 | 2.194 | (0.525) | 1164663 | 150.000 | 150.22 |
| 4 Propionitrile | 54 | 3.649 | 3.649 | (0.873) | 694740 | 1500.00 | 1522.31 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 533876 | 150.000 | 165.78 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.889 | 8.889 | (1.159) | 234252 | 150.000 | 161.53 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 161053 | 600.000 | 611.34(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 225733 | 150.000 | 148.43 |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 1351001 | 150.000 | 157.73 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 1420820 | 150.000 | 156.27 |
| 139 Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 443624 | 150.000 | 148.44 |
| 130 Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 516433 | 150.000 | 147.97 |
| 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 465959 | 150.000 | 152.78 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.712 | (1.352) | 517063 | 150.000 | 157.90 |
| 132 n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 210842 | 3000.00 | 3100.52 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 162133 | 300.000 | 297.65 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 150 | Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 533876 | 3000.00 | 3073.09 |
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 2744011 | 150.000 | 147.41 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D Page 2
Report Date: 27-Dec-2022 16:07

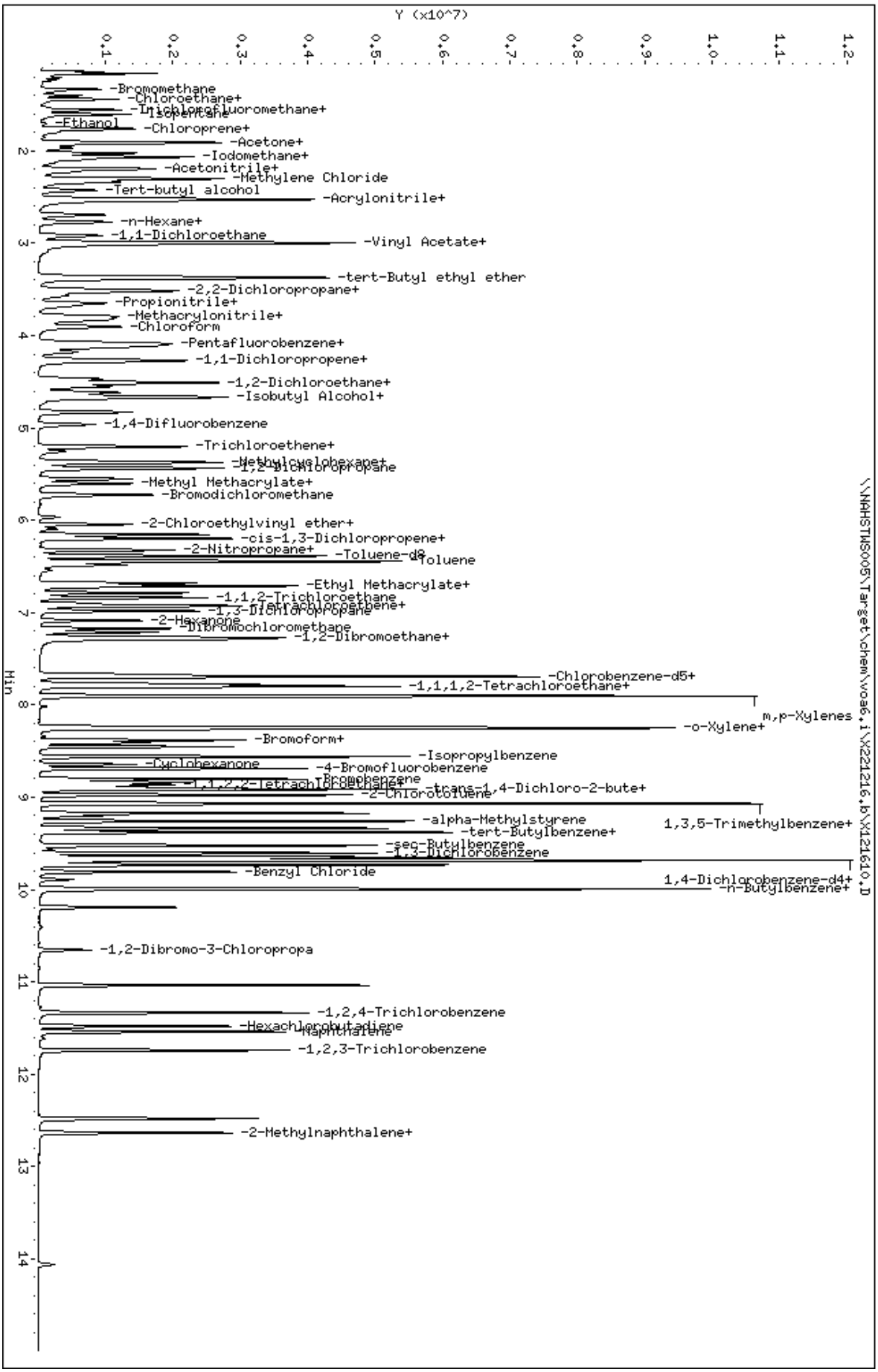
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT ( ug/l) | ON-COL ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 479571 | 150.000 | 157.93(M) |
| | 162 | Butyl acrylate | 55 | 8.248 | 8.248 | (1.076) | 1470193 | 150.000 | 167.53 |
| | 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 476130 | 150.000 | 151.40 |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 621048 | 150.000 | 148.89 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 602774 | 150.000 | 154.27 |
| | 6 | Bromomethane | 94 | 1.332 | 1.332 | (0.319) | 470318 | 150.000 | 155.29 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 409168 | 150.000 | 150.45 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 866865 | 150.000 | 158.54 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 96139 | 300.000 | 308.25 |
| | 10 | Acetone | 43 | 1.969 | 1.969 | (0.472) | 373504 | 300.000 | 297.68 |
| | 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 516820 | 150.000 | 152.24 |
| | 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 1554547 | 300.000 | 304.69 |
| | 16 | Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 371872 | 300.000 | 323.00 |
| | 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 656037 | 150.000 | 140.89 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 1661314 | 150.000 | 149.51 |
| | 19 | Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 2747788 | 300.000 | 309.38 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 579939 | 150.000 | 152.65 |
| | 21 | Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 3127175 | 300.000 | 320.61 |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 993924 | 150.000 | 149.06 |
| | 24 | 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 407629 | 300.000 | 299.97(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.506 | 3.506 | (0.839) | 858853 | 150.000 | 151.71 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.521 | 3.521 | (0.843) | 693846 | 150.000 | 150.07 |
| | 28 | Chloroform | 83 | 3.904 | 3.904 | (0.935) | 1135322 | 150.000 | 151.92 |
| | 29 | Bromochloromethane | 128 | 3.791 | 3.791 | (0.908) | 379595 | 150.000 | 149.95 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 652724 | 150.000 | 152.32 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 907111 | 150.000 | 152.99 |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 766313 | 150.000 | 155.22 |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 857022 | 150.000 | 150.42 |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.264 | (0.859) | 758288 | 150.000 | 143.83 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 686218 | 150.000 | 150.83 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 695375 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.511 | (0.909) | 2450385 | 150.000 | 147.56 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 707016 | 150.000 | 150.11 |
| | 39 | Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 932632 | 150.000 | 149.65 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.217) | 534005 | 300.000 | 301.19 |
| | 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 658007 | 150.000 | 148.96 |
| | 44 | Dibromomethane | 93 | 5.549 | 5.549 | (1.118) | 444851 | 150.000 | 148.16 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.325 | 6.325 | (0.825) | 1052577 | 300.000 | 293.14 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 1159982 | 150.000 | 158.49 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.667 | 7.667 | (1.000) | 671780 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.385 | 6.385 | (0.833) | 2346444 | 150.000 | 141.35 |
| | 50 | Toluene | 91 | 6.445 | 6.445 | (0.841) | 2724692 | 150.000 | 146.73 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 982044 | 150.000 | 161.68 |
| | 52 | 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 738082 | 300.000 | 302.12 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 540625 | 150.000 | 145.13 |
| | 54 | 1,3-Dichloropropane | 76 | 6.981 | 6.981 | (0.911) | 1079961 | 150.000 | 147.29 |
| | 55 | Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 822094 | 150.000 | 152.90 |
| | 56 | Tetrachloroethene | 164 | 6.929 | 6.929 | (0.904) | 574499 | 150.000 | 149.53 |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 715678 | 150.000 | 153.66 |
| | 58 | 1-Chlorohexane | 55 | 7.697 | 7.697 | (1.550) | 522502 | 150.000 | 155.48 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 1944205 | 150.000 | 147.62 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 744470 | 150.000 | 151.89 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 946928 | 150.000 | 152.63 |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 2421267 | 300.000 | 302.75 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 63 o-Xylene | 106 | 8.241 | 8.241 | (1.075) | 1210374 | 150.000 | 153.33 |
| | 64 Styrene | 104 | 8.260 | 8.260 | (1.077) | 2169528 | 150.000 | 163.97 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 588916 | 150.000 | 158.11 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 2877359 | 150.000 | 159.55 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 873933 | 150.000 | 141.84 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 936681 | 150.000 | 150.82 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 386546 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 702545 | 150.000 | 163.33 |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 3370402 | 150.000 | 157.41 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 952608 | 150.000 | 150.20 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 2529726 | 150.000 | 159.93 |
| | 76 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 2083510 | 150.000 | 148.28 |
| | 77 4-Chlorotoluene | 91 | 9.069 | 9.069 | (0.939) | 2540753 | 150.000 | 158.62 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 2055293 | 150.000 | 158.74 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 2613455 | 150.000 | 157.03 |
| | 81 sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.986) | 2819238 | 150.000 | 163.65 |
| | 82 p-Isopropyltoluene | 119 | 9.650 | 9.650 | (0.999) | 2542764 | 150.000 | 164.71 |
| | 83 1,3-Dichlorobenzene | 146 | 9.605 | 9.605 | (0.994) | 1650440 | 150.000 | 156.79 |
| | 84 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 1766146 | 150.000 | 153.76 |
| | 86 Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 1650494 | 150.000 | 151.23 |
| | 87 n-Butylbenzene | 91 | 9.992 | 9.992 | (1.034) | 2293126 | 150.000 | 150.43 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 1672283 | 150.000 | 154.25 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 149691 | 150.000 | 151.78 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 1094701 | 150.000 | 160.01 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 466452 | 150.000 | 150.10 |
| | 92 Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 2498440 | 150.000 | 160.50 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.738 | 11.738 | (1.215) | 991236 | 150.000 | 151.28 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 1273785 | 300.000 | |
| M | 95 Xylenes (total) | 106 | | | | 3631641 | 450.000 | |
| | 141 Cyclohexane | 56 | 4.117 | 4.117 | (0.986) | 682728 | 150.000 | 148.87 |
| | 138 Freon TF | 101 | 1.910 | 1.910 | (0.457) | 517229 | 150.000 | 157.53 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 1358300 | 150.000 | 159.57(A) |
| | 146 Methyl Acetate | 43 | 2.224 | 2.224 | (0.533) | 301298 | 150.000 | 149.70 |
| | 148 Tert-Butyl alcohol | 59 | 2.427 | 2.427 | (0.581) | 962267 | 3000.00 | 3107.07 |
| | 149 Isopropyl Alcohol | 45 | 2.093 | 2.093 | (0.501) | 514966 | 3000.00 | 3183.89 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121610.D
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Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
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Column phase: DB624

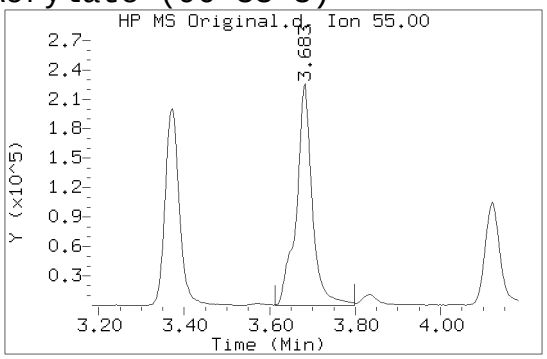
Instrument: voa6.i
Operator: PC
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InstruID : voa6.i
LabSampID : VSTD150

## Methyl Acrylate (96-33-3)

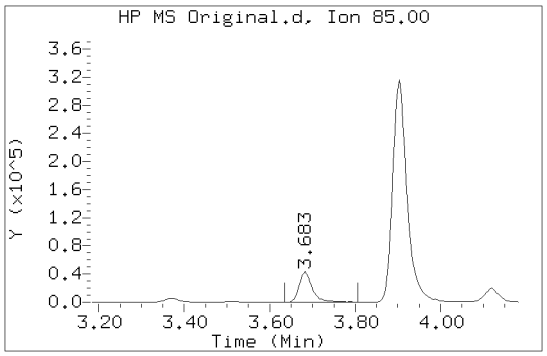
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16:04
linh
pham




### BEFORE

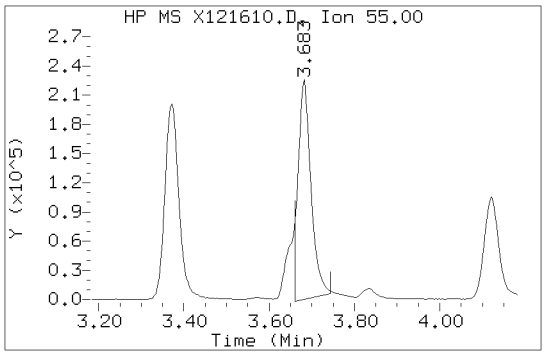
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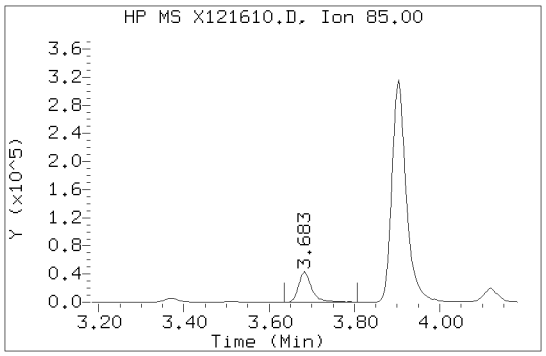
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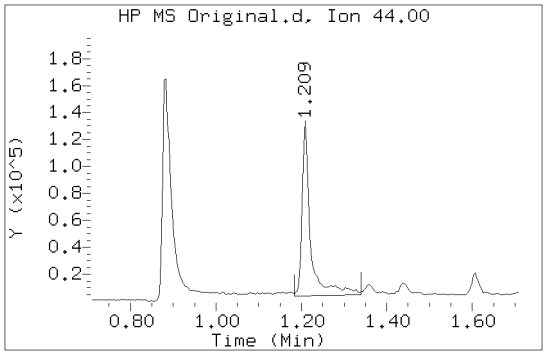
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## Acetaldehyde (75-07-0)

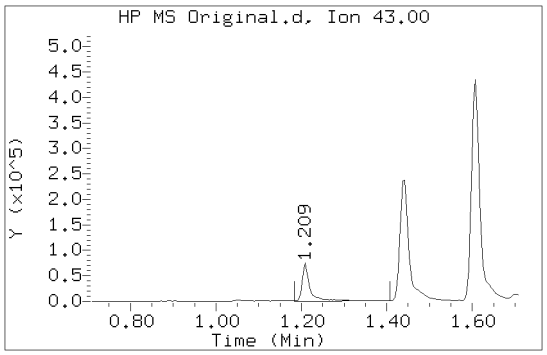
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### BEFORE

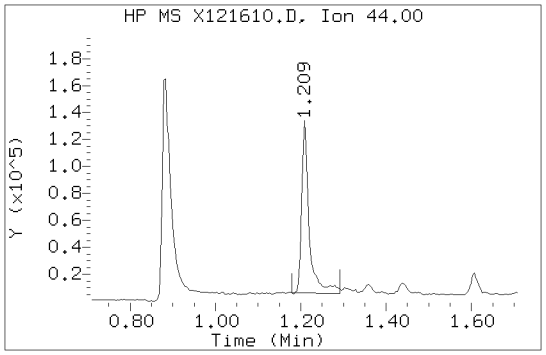
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pham




### Reason Code:

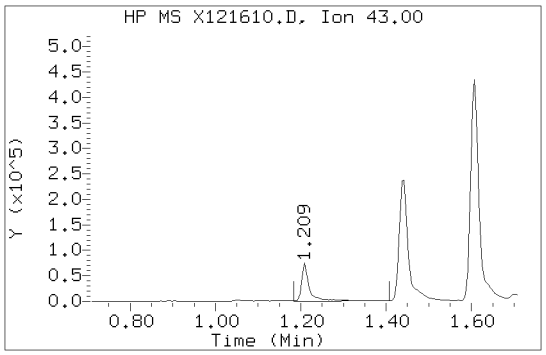
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27-Dec-2022
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### AFTER

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HEIGHT
74827
27-Dec-2022
16:06
linh
pham



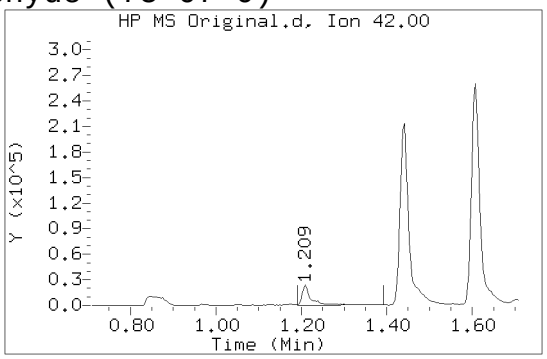
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LabSampID : VSTD150

Acetaldehyde (75-07-0)

Reason Code:

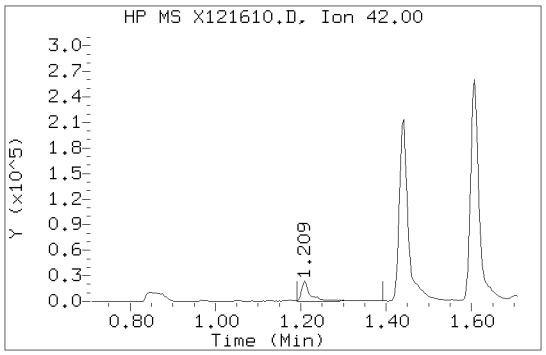
BEFORE

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HEIGHT
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27-Dec-2022
16:04
linh
pham




AFTER

MASS
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36089
HEIGHT
23932
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D  Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
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Inj Date  : 16-DEC-2022 15:07
Operator  : PC  Inst ID: voa6.i
Smp Info  : VSTD200;VSTD200;1;10;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:46  Cal File: X121610.D
Als bottle: 12  Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 450847 | 50.0000 | |
| 135 | 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 179280 | 4000.00 | 4350.17(A) |
| 140 | 1,3-Butadiene | 54 | 1.160 | 1.160 | (0.278) | 646265 | 200.000 | 208.86(A) |
| 25 | Methacrylonitrile | 41 | 3.814 | 3.814 | (0.913) | 619479 | 200.000 | 194.04 |
| 12 | Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 2146631 | 4000.00 | 4233.12(A) |
| 13 | Acetonitrile | 39 | 2.195 | 2.195 | (0.525) | 854153 | 2000.00 | 2081.63(A) |
| 14 | Allyl Chloride | 41 | 2.195 | 2.195 | (0.525) | 1558053 | 200.000 | 199.36 |
| 4 | Propionitrile | 54 | 3.649 | 3.649 | (0.873) | 933721 | 2000.00 | 2029.71(A) |
| 136 | n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 726173 | 200.000 | 223.70(A) |
| 72 | trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.890 | (1.159) | 324976 | 200.000 | 217.73(A) |
| 194 | Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 205547 | 800.000 | 780.23(M) |
| 23 | Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 315248 | 200.000 | 205.64(A) |
| 145 | alpha-Methylstyrene | 118 | 9.261 | 9.261 | (0.958) | 1880547 | 200.000 | 211.54(A) |
| 200 | Dimethyl Disulfide | 94 | 6.198 | 6.198 | (0.808) | 1929723 | 200.000 | 206.22(A) |
| 139 | Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 595638 | 200.000 | 197.72 |
| 130 | Ethyl Acetate | 43 | 3.649 | 3.649 | (0.873) | 706790 | 200.000 | 200.90(A) |
| 40 | Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 643877 | 200.000 | 209.45(A) |
| 49 | Ethyl Methacrylate | 69 | 6.715 | 6.715 | (1.353) | 735246 | 200.000 | 222.23(A) |
| 132 | n-Butanol | 56 | 5.253 | 5.253 | (1.258) | 297334 | 4000.00 | 3955.86 |
| 142 | Tetrahydrofuran | 42 | 3.840 | 3.840 | (0.919) | 219995 | 400.000 | 401.77(A) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 150 Allyl alcohol | 57 | 2.768 | 2.768 (0.663) | 726173 | 4000.00 | 4146.79(A) |
| 166 1,2,3-Trimethylbenzene | 105 | 9.733 | 9.733 (1.007) | 3701988 | 200.000 | 191.61 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D Page 2
Report Date: 27-Dec-2022 16:07

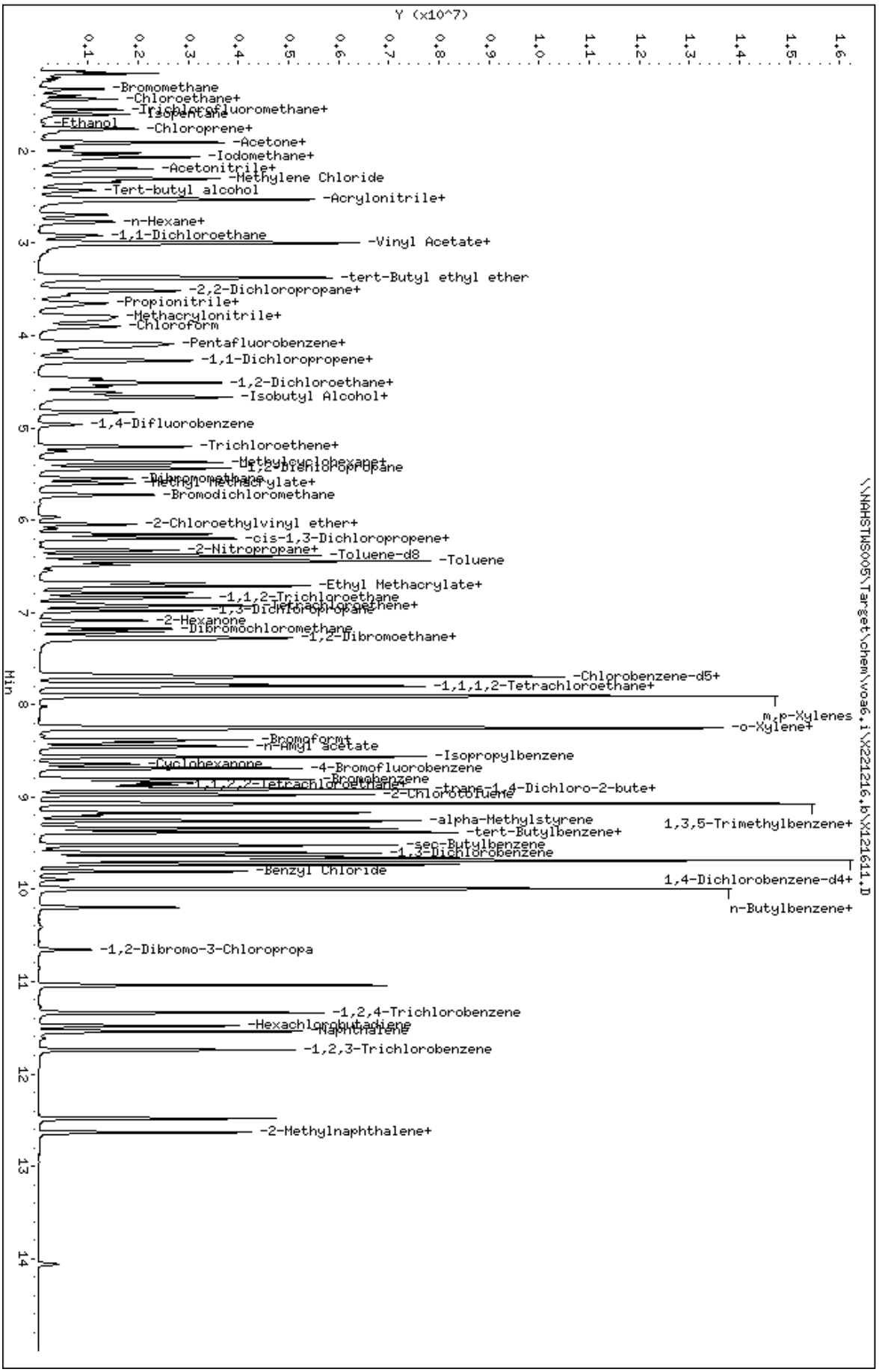
| | | | QUANT SIG | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT ( ug/l) | ON-COL ( ug/l) |
| | 131 | Methyl Acrylate | 55 | 3.683 | 3.683 | (0.882) | 646827 | 200.000 | 211.32(AM) |
| | 162 | Butyl acrylate | 55 | 8.252 | 8.252 | (1.076) | 2063916 | 200.000 | 228.52(A) |
| | 2 | Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 635808 | 200.000 | 200.44(A) |
| | 3 | Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 865151 | 200.000 | 204.92(A) |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 827926 | 200.000 | 210.21(A) |
| | 6 | Bromomethane | 94 | 1.329 | 1.329 | (0.318) | 666705 | 200.000 | 217.67(A) |
| | 7 | Chloroethane | 64 | 1.396 | 1.396 | (0.334) | 548415 | 200.000 | 200.06(A) |
| | 8 | Trichlorofluoromethane | 101 | 1.553 | 1.553 | (0.372) | 1173529 | 200.000 | 212.92(A) |
| | 9 | Acrolein | 56 | 1.437 | 1.437 | (0.344) | 125874 | 400.000 | 399.54 |
| | 10 | Acetone | 43 | 1.970 | 1.970 | (0.472) | 514105 | 400.000 | 406.50(A) |
| | 11 | 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.457) | 704695 | 200.000 | 205.94(A) |
| | 15 | Iodomethane | 142 | 2.022 | 2.022 | (0.484) | 2193685 | 400.000 | 398.07 |
| | 16 | Acrylonitrile | 53 | 2.528 | 2.528 | (0.605) | 504850 | 400.000 | 435.02(A) |
| | 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 863945 | 200.000 | 184.07 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 2237559 | 200.000 | 199.78 |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 3829593 | 400.000 | 427.76(A) |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.604) | 785444 | 200.000 | 205.10(A) |
| | 21 | Vinyl Acetate | 43 | 2.993 | 2.993 | (0.716) | 4210603 | 400.000 | 428.26(A) |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 1342786 | 200.000 | 199.79 |
| | 24 | 2-Butanone | 43 | 3.570 | 3.570 | (0.855) | 555896 | 400.000 | 404.77(AH) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.507 | (0.839) | 1175128 | 200.000 | 205.93(A) |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.522 | 3.522 | (0.843) | 927934 | 200.000 | 199.10 |
| | 28 | Chloroform | 83 | 3.904 | 3.904 | (0.935) | 1523082 | 200.000 | 202.19(A) |
| | 29 | Bromochloromethane | 128 | 3.791 | 3.791 | (0.908) | 510028 | 200.000 | 199.87 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.095 | (0.980) | 856027 | 200.000 | 198.23 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 1257327 | 200.000 | 210.37(A) |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 1048877 | 200.000 | 210.29(A) |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 1153034 | 200.000 | 200.31(A) |
| | 34 | Carbon Tetrachloride | 117 | 4.260 | 4.260 | (0.858) | 1051824 | 200.000 | 197.48 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 919752 | 200.000 | 200.47(A) |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 702551 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.511 | (0.909) | 3321582 | 200.000 | 197.98 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 973709 | 200.000 | 204.62(A) |
| | 39 | Bromodichloromethane | 83 | 5.722 | 5.722 | (1.153) | 1264834 | 200.000 | 200.88(A) |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.044 | 6.044 | (1.217) | 729151 | 400.000 | 407.06(A) |
| | 42 | 1,2-Dichloropropane | 63 | 5.437 | 5.437 | (1.095) | 895211 | 200.000 | 200.59(A) |
| | 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 600170 | 200.000 | 197.85 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.326 | 6.326 | (0.825) | 1447268 | 400.000 | 391.63 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 1583645 | 200.000 | 214.16(A) |
| * | 47 | Chlorobenzene-d5 | 117 | 7.671 | 7.671 | (1.000) | 691386 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.385 | 6.385 | (0.832) | 3061758 | 200.000 | 179.21 |
| | 50 | Toluene | 91 | 6.445 | 6.445 | (0.840) | 3757557 | 200.000 | 196.62 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.682 | (1.346) | 1365007 | 200.000 | 222.44(A) |
| | 52 | 2-Hexanone | 43 | 7.086 | 7.086 | (0.924) | 1026898 | 400.000 | 408.42(A) |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 736981 | 200.000 | 192.23 |
| | 54 | 1,3-Dichloropropane | 76 | 6.982 | 6.982 | (0.910) | 1482067 | 200.000 | 196.39 |
| | 55 | Dibromochloromethane | 129 | 7.176 | 7.176 | (0.936) | 1128140 | 200.000 | 203.88(A) |
| | 56 | Tetrachloroethene | 164 | 6.929 | 6.929 | (0.903) | 798932 | 200.000 | 202.05(A) |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.946) | 970608 | 200.000 | 202.48(A) |
| | 58 | 1-Chlorohexane | 55 | 7.698 | 7.698 | (1.550) | 746326 | 200.000 | 219.81(A) |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 2696715 | 200.000 | 198.95 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.776 | 7.776 | (1.014) | 1028448 | 200.000 | 203.88(A) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 61 Ethylbenzene | 106 | 7.799 | 7.799 (1.017) | 1312165 | 200.000 | 205.50(A) |
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.030) | 3401207 | 400.000 | 413.22(A) |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| 63 | o-Xylene | 106 | 8.241 | 8.241 | (1.074) | 1701245 | 200.000 | 209.41(A) |
| 64 | Styrene | 104 | 8.260 | 8.260 | (1.077) | 3030858 | 200.000 | 222.58(A) |
| 66 | Bromoform | 173 | 8.410 | 8.410 | (1.096) | 809693 | 200.000 | 211.22(A) |
| 67 | Isopropylbenzene | 105 | 8.563 | 8.563 | (1.116) | 4031708 | 200.000 | 217.22(A) |
| 68 | 1,1,2,2-Tetrachloroethane | 83 | 8.841 | 8.841 | (0.915) | 1186926 | 200.000 | 185.61 |
| $ 69 | 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.132) | 1277239 | 200.000 | 199.81 |
| * 70 | 1,4-Dichlorobenzene-d4 | 152 | 9.666 | 9.666 | (1.000) | 401196 | 50.0000 | |
| 71 | 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 864931 | 200.000 | 193.75(M) |
| 73 | n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 4694239 | 200.000 | 211.23(A) |
| 74 | Bromobenzene | 156 | 8.807 | 8.807 | (0.911) | 1313631 | 200.000 | 199.57 |
| 75 | 1,3,5-Trimethylbenzene | 105 | 9.070 | 9.070 | (0.938) | 3532485 | 200.000 | 215.17(A) |
| 76 | 2-Chlorotoluene | 91 | 8.976 | 8.976 | (0.929) | 2866849 | 200.000 | 196.59 |
| 77 | 4-Chlorotoluene | 91 | 9.070 | 9.070 | (0.938) | 3546402 | 200.000 | 213.32(A) |
| 78 | tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 2865820 | 200.000 | 213.26(A) |
| 79 | 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 3599947 | 200.000 | 208.40(A) |
| 81 | sec-Butylbenzene | 105 | 9.523 | 9.523 | (0.985) | 3952917 | 200.000 | 221.08(A) |
| 82 | p-Isopropyltoluene | 119 | 9.651 | 9.651 | (0.998) | 3537904 | 200.000 | 220.81(A) |
| 83 | 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 2282597 | 200.000 | 208.93(A) |
| 84 | 1,4-Dichlorobenzene | 146 | 9.684 | 9.684 | (1.002) | 2442324 | 200.000 | 204.86(A) |
| 86 | Benzyl Chloride | 91 | 9.808 | 9.808 | (1.279) | 2286488 | 200.000 | 202.63(A) |
| 87 | n-Butylbenzene | 91 | 9.995 | 9.995 | (1.034) | 3216534 | 200.000 | 202.68(A) |
| 88 | 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 2296902 | 200.000 | 204.14(A) |
| 89 | 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.102) | 205063 | 200.000 | 200.30(A) |
| 90 | 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 1524896 | 200.000 | 214.75(A) |
| 91 | Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 654615 | 200.000 | 200.27(A) |
| 92 | Naphthalene | 128 | 11.540 | 11.540 | (1.194) | 3413593 | 200.000 | 211.29(A) |
| 93 | 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.214) | 1363987 | 200.000 | 200.56(A) |
| M 94 | 1,2-Dichloroethylene (total) | 96 | | | | 1713378 | 400.000 | |
| M 95 | Xylenes (total) | 106 | | | | 5102452 | 600.000 | |
| 141 | Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 943314 | 200.000 | 203.60(A) |
| 138 | Freon TF | 101 | 1.910 | 1.910 | (0.457) | 714577 | 200.000 | 215.91(A) |
| 147 | Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 1829310 | 200.000 | 212.71(A) |
| 146 | Methyl Acetate | 43 | 2.224 | 2.224 | (0.533) | 408781 | 200.000 | 201.49(A) |
| 148 | Tert-Butyl alcohol | 59 | 2.431 | 2.431 | (0.582) | 1308623 | 4000.00 | 4191.87(A) |
| 149 | Isopropyl Alcohol | 45 | 2.093 | 2.093 | (0.501) | 697543 | 4000.00 | 4278.45(A) |

## QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121611.D
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Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

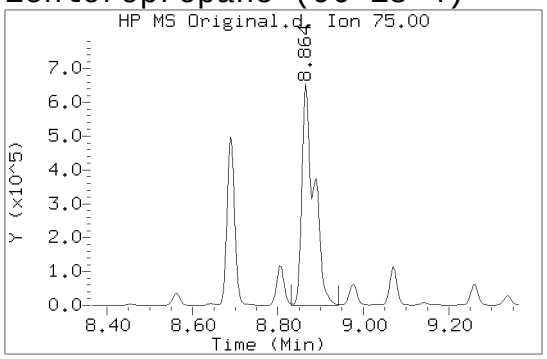
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Inj Date : 16-DEC-2022 15:07
InstruID : voa6.i
LabSampID : VSTD200

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

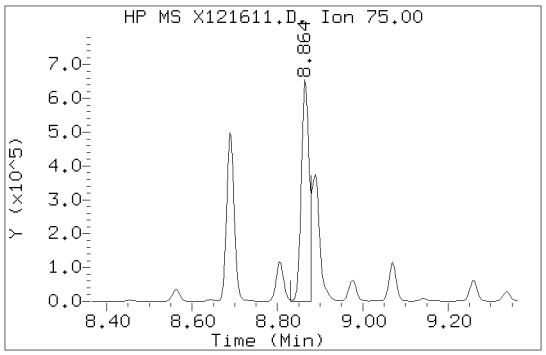
BEFORE

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27-Dec-2022
16:04
linh
pham



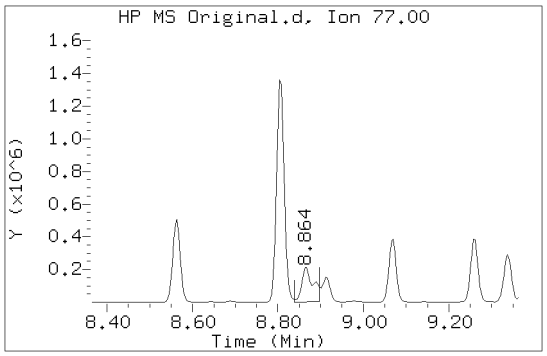

AFTER

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654512
27-Dec-2022
16:06
linh
pham



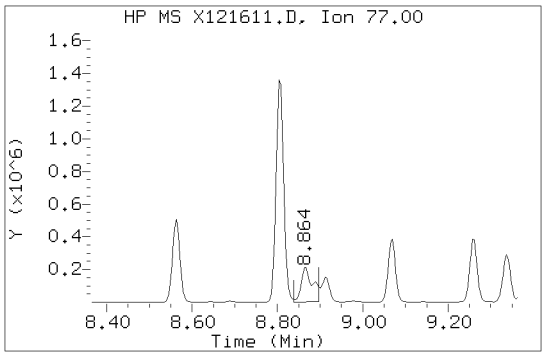

BEFORE

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211060
27-Dec-2022
16:04
linh
pham




AFTER

MASS
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AREA
412197
HEIGHT
211060
27-Dec-2022
16:06
linh
pham

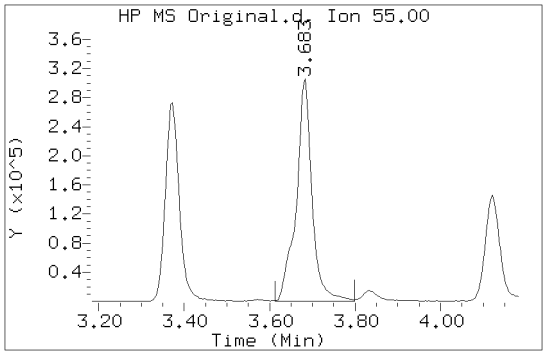



## Methyl Acrylate (96-33-3)

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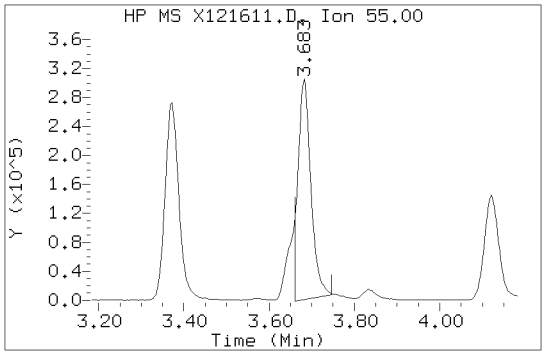
BEFORE

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HEIGHT
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27-Dec-2022
16:04
linh
pham



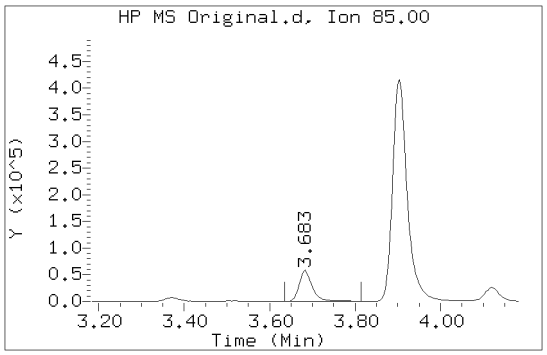

AFTER

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27-Dec-2022
16:06
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pham



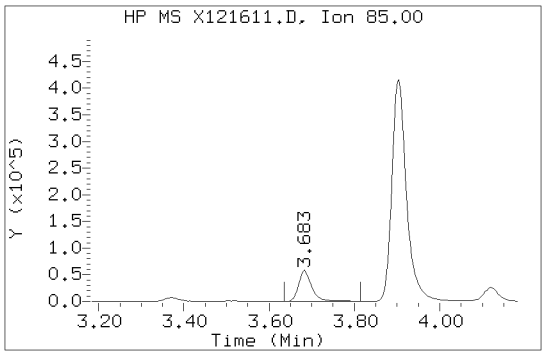

BEFORE

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HEIGHT
59160
27-Dec-2022
16:04
linh
pham




AFTER

MASS
85
AREA
126210
HEIGHT
59160
27-Dec-2022
16:06
linh
pham



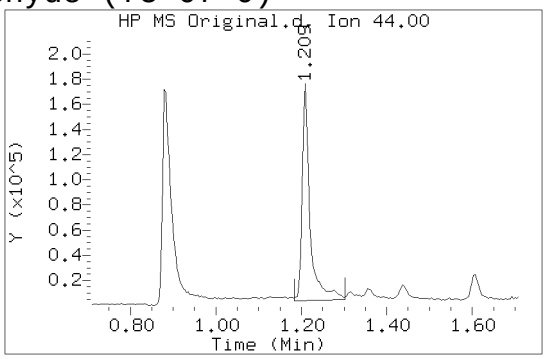
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Inj Date : 16-DEC-2022 15:07
InstruID : voa6.i
LabSampID : VSTD200

## Acetaldehyde (75-07-0)

Reason Code:

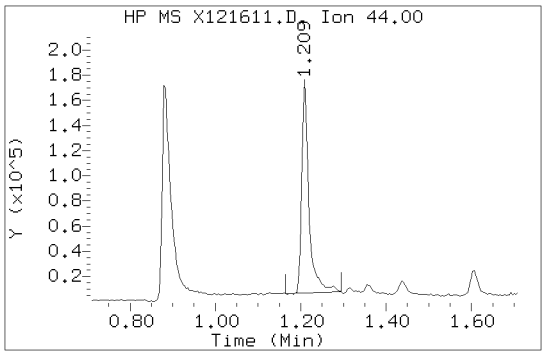
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HEIGHT
172187
27-Dec-2022
16:04
linh
pham



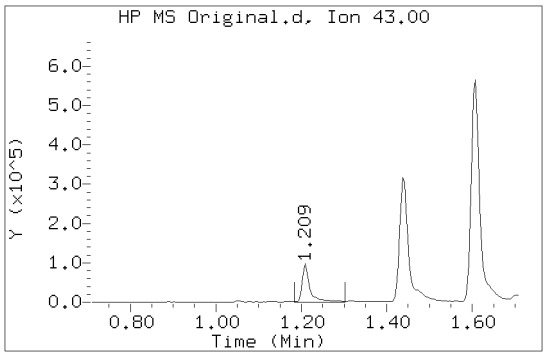

### AFTER

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27-Dec-2022
16:06
linh
pham



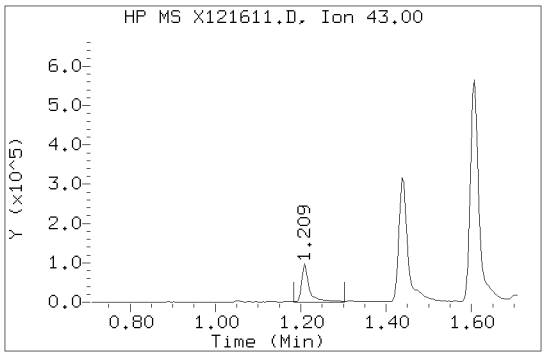

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27-Dec-2022
16:04
linh
pham



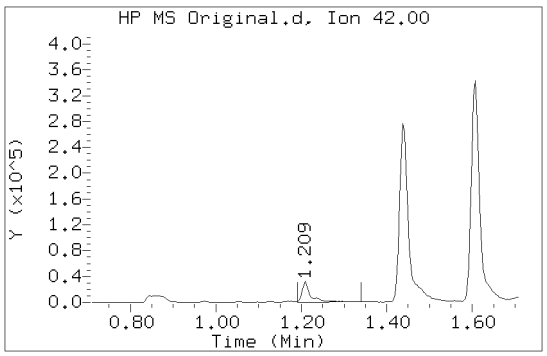

### AFTER

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HEIGHT
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16:06
linh
pham



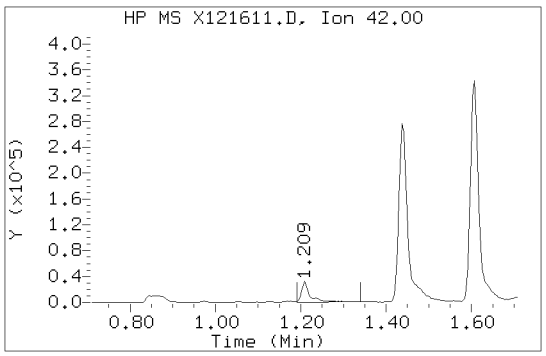

### BEFORE

MASS
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AREA
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HEIGHT
31915
27-Dec-2022
16:04
linh
pham




### AFTER

MASS
42
AREA
43931
HEIGHT
31915
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D  Page 1
Report Date: 13-Feb-2023 13:08

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
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Inj Date  : 16-DEC-2022 15:49
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Smp Info  : CCV;CCV;2;;ICV
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:38 Linh.Pham  Quant Type: ISTD
Cal Date  : 16-DEC-2022 15:07  Cal File: X121611.D
Als bottle: 14  QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 08260V6.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.178 | 4.178 | (1.000) | 457291 | 50.0000 | |
| 135 1,4-Dioxane | 88 | 5.598 | 5.598 | (1.340) | 42711 | 1021.77 | 1021.76 |
| 140 1,3-Butadiene | 54 | 1.164 | 1.160 | (0.279) | 155959 | 49.6927 | 49.69 |
| 25 Methacrylonitrile | 41 | 3.818 | 3.818 | (0.914) | 151341 | 46.7389 | 46.73 |
| 12 Isobutyl Alcohol | 43 | 4.672 | 4.672 | (1.118) | 505171 | 982.151 | 982.15 |
| 13 Acetonitrile | 39 | 2.194 | 2.195 | (0.525) | 197937 | 475.590 | 475.59 |
| 14 Allyl Chloride | 41 | 2.194 | 2.195 | (0.525) | 375064 | 47.3168 | 47.31 |
| 4 Propionitrile | 54 | 3.649 | 3.645 | (0.873) | 227186 | 486.896 | 486.89 |
| 136 n-Hexane | 57 | 2.768 | 2.768 | (0.663) | 183599 | 55.7620 | 55.76 |
| 72 trans-1,4-Dichloro-2-butene | 53 | 8.890 | 8.886 | (1.159) | 71513 | 49.7372 | 49.73 |
| 194 Acetaldehyde | 44 | 1.209 | 1.209 | (0.289) | 52697 | 179.814 | 179.81(M) |
| 23 Chloroprene | 53 | 1.767 | 1.767 | (0.423) | 74243 | 47.7493 | 47.74(M) |
| 145 alpha-Methylstyrene | 118 | 9.257 | 9.257 | (0.958) | 428317 | 51.3094 | 51.30 |
| 200 Dimethyl Disulfide | 94 | 6.198 | 6.194 | (0.808) | 437905 | 48.5791 | 48.57 |
| 139 Diethyl ether | 59 | 1.752 | 1.752 | (0.419) | 142672 | 46.6930 | 46.69 |
| 130 Ethyl Acetate | 43 | 3.653 | 3.653 | (0.874) | 171211 | 47.9808 | 47.98 |
| 40 Methyl Methacrylate | 41 | 5.602 | 5.602 | (1.341) | 148777 | 47.7146 | 47.71 |
| 49 Ethyl Methacrylate | 69 | 6.712 | 6.708 | (1.352) | 142471 | 44.0730 | 44.07 |
| 132 n-Butanol | 56 | 5.257 | 5.253 | (1.258) | 56842 | 974.397 | 974.39 |
| 142 Tetrahydrofuran | 42 | 3.840 | 3.844 | (0.919) | 61534 | 108.502 | 108.50 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 166 | 1,2,3-Trimethylbenzene | 105 | 9.729 | 9.729 (1.007) | 846843 | 46.6777 | 46.67 |
| 131 | Methyl Acrylate | 55 | 3.683 | 3.683 (0.882) | 162555 | 52.3594 | 52.35 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D Page 2
Report Date: 13-Feb-2023 13:08

| | | | QUANT SIG | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN ( ug/l) | FINAL ( ug/l) |
| | 162 | Butyl acrylate | 55 | 8.249 | 8.249 | (1.076) | 417137 | 47.9449 | 47.94 |
| | 2 | Dichlorodifluoromethane | 85 | 0.972 | 0.969 | (0.233) | 166984 | 52.1924 | 52.19 |
| | 3 | Chloromethane | 50 | 1.077 | 1.077 | (0.258) | 207623 | 50.1741 | 50.17 |
| | 5 | Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 202038 | 50.5766 | 50.57 |
| | 6 | Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 153541 | 50.7886 | 50.78 |
| | 7 | Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 134354 | 48.3213 | 48.32 |
| | 8 | Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 285144 | 51.0083 | 51.00 |
| | 9 | Acrolein | 56 | 1.441 | 1.441 | (0.345) | 29687 | 95.0682 | 95.06 |
| | 10 | Acetone | 43 | 1.970 | 1.970 | (0.472) | 130747 | 101.899 | 101.89 |
| | 11 | 1,1-Dichloroethene | 96 | 1.913 | 1.910 | (0.458) | 171246 | 49.3414 | 49.34 |
| | 15 | Iodomethane | 142 | 2.026 | 2.026 | (0.485) | 440111 | 96.4856 | 96.48 |
| | 16 | Acrylonitrile | 53 | 2.532 | 2.528 | (0.606) | 119393 | 101.430 | 101.42 |
| | 17 | Methylene Chloride | 84 | 2.299 | 2.299 | (0.550) | 226449 | 47.5675 | 47.56 |
| | 18 | Methyl tert-butyl ether | 73 | 2.532 | 2.532 | (0.606) | 546711 | 48.1256 | 48.12 |
| | 19 | Carbon Disulfide | 76 | 2.067 | 2.067 | (0.495) | 894433 | 98.5011 | 98.50 |
| | 20 | trans-1,2-Dichloroethene | 96 | 2.528 | 2.524 | (0.605) | 194181 | 49.9917 | 49.99 |
| | 21 | Vinyl Acetate | 43 | 2.997 | 2.993 | (0.717) | 1044658 | 104.756 | 104.75 |
| | 22 | 1,1-Dichloroethane | 63 | 2.918 | 2.918 | (0.699) | 328530 | 48.1931 | 48.19 |
| | 24 | 2-Butanone | 43 | 3.574 | 3.574 | (0.856) | 132931 | 97.7407 | 97.74(H) |
| | 26 | 2,2-Dichloropropane | 77 | 3.507 | 3.503 | (0.839) | 295126 | 50.9895 | 50.98 |
| | 27 | cis-1,2-Dichloroethene | 96 | 3.525 | 3.522 | (0.844) | 228100 | 48.2538 | 48.25 |
| | 28 | Chloroform | 83 | 3.904 | 3.900 | (0.935) | 370227 | 48.4556 | 48.45 |
| | 29 | Bromochloromethane | 128 | 3.795 | 3.791 | (0.908) | 122310 | 47.2570 | 47.25 |
| $ | 30 | Dibromofluoromethane | 113 | 4.095 | 4.099 | (0.980) | 223563 | 50.9182 | 50.91 |
| | 31 | 1,1,1-Trichloroethane | 97 | 4.080 | 4.080 | (0.977) | 304118 | 50.1673 | 50.16 |
| | 32 | 1,1-Dichloropropene | 75 | 4.279 | 4.279 | (0.862) | 254008 | 52.1195 | 52.11 |
| | 33 | 1,2-Dichloroethane | 62 | 4.552 | 4.552 | (0.917) | 278558 | 49.5262 | 49.52 |
| | 34 | Carbon Tetrachloride | 117 | 4.264 | 4.260 | (0.859) | 255322 | 49.0600 | 49.06 |
| $ | 35 | 1,2-Dichloroethane-d4 | 65 | 4.470 | 4.470 | (1.070) | 233432 | 50.3661 | 50.36 |
| * | 36 | 1,4-Difluorobenzene | 114 | 4.965 | 4.965 | (1.000) | 686467 | 50.0000 | |
| | 37 | Benzene | 78 | 4.511 | 4.507 | (0.909) | 824422 | 50.2921 | 50.29 |
| | 38 | Trichloroethene | 130 | 5.205 | 5.205 | (1.048) | 238429 | 51.2807 | 51.28 |
| | 39 | Bromodichloromethane | 83 | 5.726 | 5.726 | (1.153) | 302844 | 49.2265 | 49.22 |
| | 41 | 2-Chloroethylvinyl ether | 63 | 6.048 | 6.044 | (1.218) | 182363 | 104.194 | 104.19 |
| | 42 | 1,2-Dichloropropane | 63 | 5.433 | 5.433 | (1.094) | 216322 | 49.6089 | 49.60 |
| | 44 | Dibromomethane | 93 | 5.550 | 5.550 | (1.118) | 145797 | 49.1915 | 49.19 |
| | 45 | 4-Methyl-2-Pentanone | 43 | 6.325 | 6.322 | (0.825) | 334751 | 94.0316 | 94.03 |
| | 46 | cis-1,3-Dichloropropene | 75 | 6.153 | 6.153 | (1.239) | 376514 | 52.1120 | 52.11 |
| * | 47 | Chlorobenzene-d5 | 117 | 7.667 | 7.668 | (1.000) | 666040 | 50.0000 | |
| $ | 48 | Toluene-d8 | 98 | 6.385 | 6.386 | (0.833) | 814721 | 49.5021 | 49.50 |
| | 50 | Toluene | 91 | 6.445 | 6.446 | (0.841) | 905906 | 49.2085 | 49.20 |
| | 51 | trans-1,3-Dichloropropene | 75 | 6.682 | 6.678 | (1.346) | 314805 | 52.5028 | 52.50 |
| | 52 | 2-Hexanone | 43 | 7.086 | 7.083 | (0.924) | 234303 | 96.7356 | 96.73 |
| | 53 | 1,1,2-Trichloroethane | 83 | 6.839 | 6.839 | (0.892) | 176962 | 47.9147 | 47.91 |
| | 54 | 1,3-Dichloropropane | 76 | 6.981 | 6.982 | (0.911) | 347689 | 47.8282 | 47.82 |
| | 55 | Dibromochloromethane | 129 | 7.176 | 7.173 | (0.936) | 263907 | 49.5095 | 49.50 |
| | 56 | Tetrachloroethene | 164 | 6.929 | 6.925 | (0.904) | 194246 | 50.9965 | 50.99 |
| | 57 | 1,2-Dibromoethane | 107 | 7.259 | 7.259 | (0.947) | 232024 | 50.2468 | 50.24 |
| | 58 | 1-Chlorohexane | 55 | 7.694 | 7.694 | (1.550) | 172462 | 51.9860 | 51.98 |
| | 59 | Chlorobenzene | 112 | 7.694 | 7.694 | (1.003) | 631235 | 48.3416 | 48.34 |
| | 60 | 1,1,1,2-Tetrachloroethane | 131 | 7.772 | 7.772 | (1.014) | 236254 | 48.6176 | 48.61 |
| | 61 | Ethylbenzene | 106 | 7.799 | 7.799 | (1.017) | 315635 | 51.3153 | 51.31 |

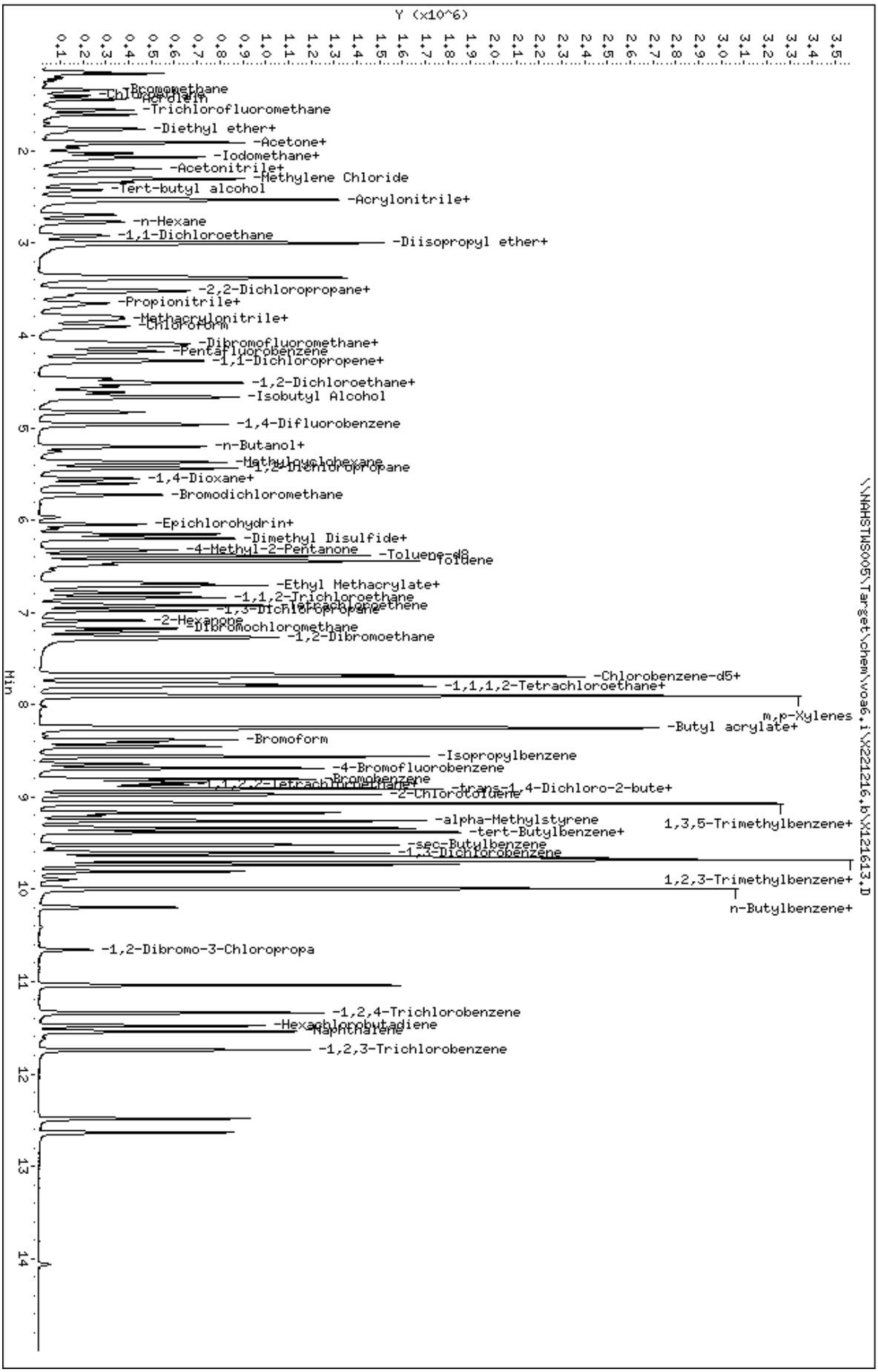
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|---|---|---|---|---|---|---|
| 62 m,p-Xylenes | 106 | 7.904 | 7.904 (1.031) | 794307 | 100.175 | 100.17 |
| 63 o-Xylene | 106 | 8.241 | 8.241 (1.075) | 389371 | 49.7531 | 49.75 |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D Page 3
Report Date: 13-Feb-2023 13:08

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/l) | FINAL ( ug/l) |
|---|---|---|---|---|---|---|---|---|
| | 64 Styrene | 104 | 8.260 | 8.256 | (1.077) | 683415 | 52.0997 | 52.09 |
| | 66 Bromoform | 173 | 8.410 | 8.410 | (1.097) | 182169 | 49.3304 | 49.33 |
| | 67 Isopropylbenzene | 105 | 8.560 | 8.560 | (1.116) | 931467 | 52.0964 | 52.09 |
| | 68 1,1,2,2-Tetrachloroethane | 83 | 8.837 | 8.837 | (0.915) | 280729 | 46.7506 | 46.75 |
| $ | 69 4-Bromofluorobenzene | 95 | 8.687 | 8.687 | (1.133) | 307493 | 49.9836 | 49.98 |
| * | 70 1,4-Dichlorobenzene-d4 | 152 | 9.662 | 9.662 | (1.000) | 376748 | 50.0000 | |
| | 71 1,2,3-Trichloropropane | 75 | 8.863 | 8.863 | (0.917) | 201551 | 48.0786 | 48.07(M) |
| | 73 n-Propylbenzene | 91 | 8.912 | 8.912 | (0.922) | 1099273 | 52.6761 | 52.67 |
| | 74 Bromobenzene | 156 | 8.803 | 8.803 | (0.911) | 306751 | 49.6271 | 49.62 |
| | 75 1,3,5-Trimethylbenzene | 105 | 9.066 | 9.066 | (0.938) | 806374 | 52.3068 | 52.30 |
| | 76 2-Chlorotoluene | 91 | 8.972 | 8.972 | (0.929) | 683941 | 49.9441 | 49.94 |
| | 77 4-Chlorotoluene | 91 | 9.069 | 9.070 | (0.939) | 800114 | 51.2527 | 51.25 |
| | 78 tert-Butylbenzene | 119 | 9.336 | 9.336 | (0.966) | 666730 | 52.8346 | 52.83 |
| | 79 1,2,4-Trimethylbenzene | 105 | 9.381 | 9.381 | (0.971) | 832541 | 51.3249 | 51.32 |
| | 81 sec-Butylbenzene | 105 | 9.519 | 9.519 | (0.985) | 909529 | 54.1700 | 54.16 |
| | 82 p-Isopropyltoluene | 119 | 9.651 | 9.647 | (0.999) | 823827 | 54.7550 | 54.75 |
| | 83 1,3-Dichlorobenzene | 146 | 9.606 | 9.606 | (0.994) | 525438 | 51.2160 | 51.21 |
| | 84 1,4-Dichlorobenzene | 146 | 9.681 | 9.681 | (1.002) | 556610 | 49.7188 | 49.71 |
| | 87 n-Butylbenzene | 91 | 9.995 | 9.992 | (1.035) | 735043 | 50.6672 | 50.66 |
| | 88 1,2-Dichlorobenzene | 146 | 9.992 | 9.992 | (1.034) | 523296 | 49.5268 | 49.52 |
| | 89 1,2-Dibromo-3-Chloropropane | 155 | 10.655 | 10.655 | (1.103) | 48516 | 50.5353 | 50.53 |
| | 90 1,2,4-Trichlorobenzene | 180 | 11.337 | 11.337 | (1.173) | 364475 | 54.6601 | 54.66 |
| | 91 Hexachlorobutadiene | 225 | 11.480 | 11.480 | (1.188) | 170927 | 57.7383 | 57.73 |
| | 92 Naphthalene | 128 | 11.544 | 11.540 | (1.195) | 799121 | 52.6729 | 52.67 |
| | 93 1,2,3-Trichlorobenzene | 180 | 11.739 | 11.739 | (1.215) | 337140 | 52.7917 | 52.79 |
| M | 94 1,2-Dichloroethylene (total) | 96 | | | | 422281 | 98.2454 | 98.24 |
| M | 95 Xylenes (total) | 106 | | | | 1183678 | 149.928 | 149.92 |
| | 141 Cyclohexane | 56 | 4.121 | 4.121 | (0.987) | 238664 | 51.7326 | 51.73 |
| | 138 Freon TF | 101 | 1.913 | 1.913 | (0.458) | 177599 | 52.9072 | 52.90 |
| | 147 Methylcyclohexane | 55 | 5.377 | 5.377 | (1.083) | 427649 | 50.8929 | 50.89 |
| | 146 Methyl Acetate | 43 | 2.228 | 2.228 | (0.533) | 99131 | 48.1755 | 48.17 |
| | 148 Tert-Butyl alcohol | 59 | 2.423 | 2.427 | (0.580) | 311463 | 983.641 | 983.64 |
| | 149 Isopropyl Alcohol | 45 | 2.090 | 2.090 | (0.500) | 170003 | 1028.04 | 1028.03 |

## QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.




Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Date : 16-DEC-2022 15:49
Client ID: ICV
Sample Info: CCV;CCV;2;;ICV
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

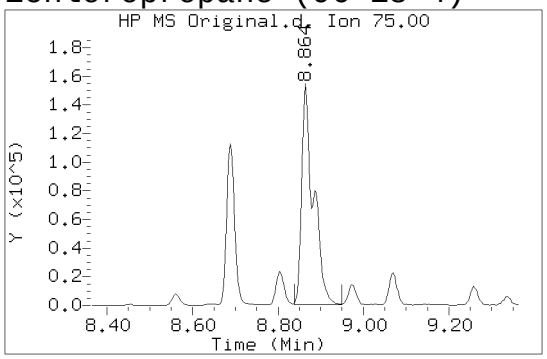
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Inj Date : 16-DEC-2022 15:49
InstruID : voa6.i
LabSampID : ICV

## 1,2,3-Trichloropropane (96-18-4)

Reason Code:

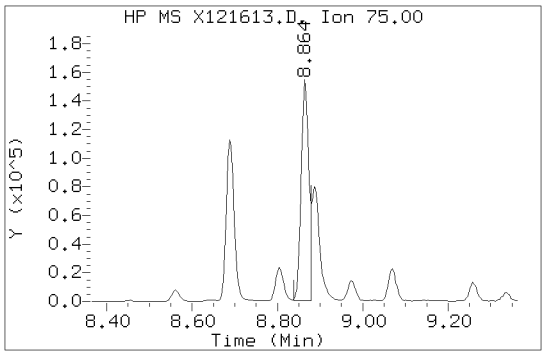
**BEFORE**

MASS
75
AREA
301229
HEIGHT
154590
27-Dec-2022
16:04
linh
pham



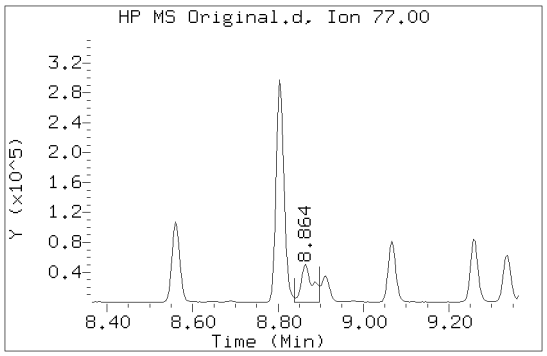

**AFTER**

MASS
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AREA
201551
HEIGHT
154590
13-Feb-2023
13:08
linh
pham



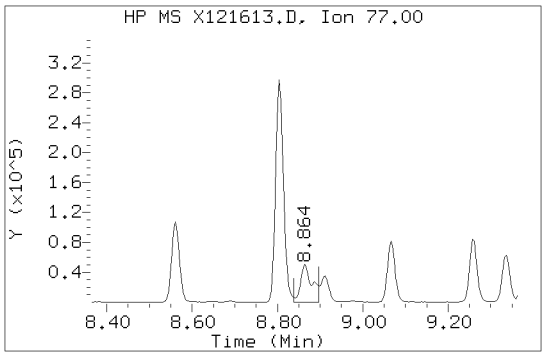

**BEFORE**

MASS
77
AREA
98445
HEIGHT
50627
27-Dec-2022
16:04
linh
pham




**AFTER**

MASS
77
AREA
98445
HEIGHT
50627
13-Feb-2023
13:08
linh
pham

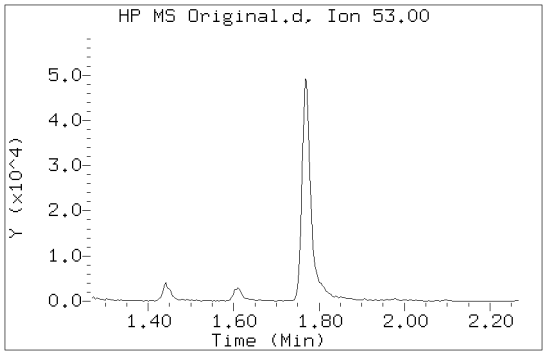



## Chloroprene (126-99-8)

Reason Code:

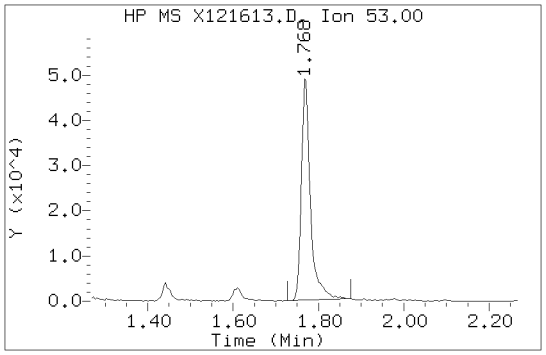
**BEFORE**

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:04
linh
pham



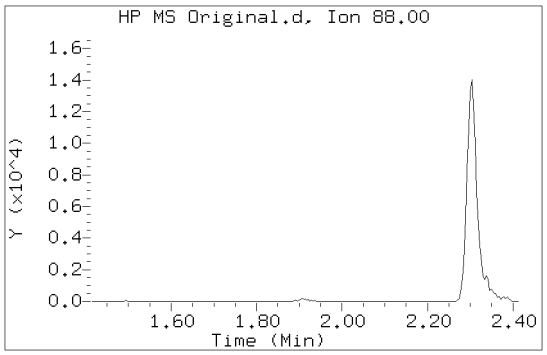

**AFTER**

MASS
53
AREA
74243
HEIGHT
48931
13-Feb-2023
13:08
linh
pham



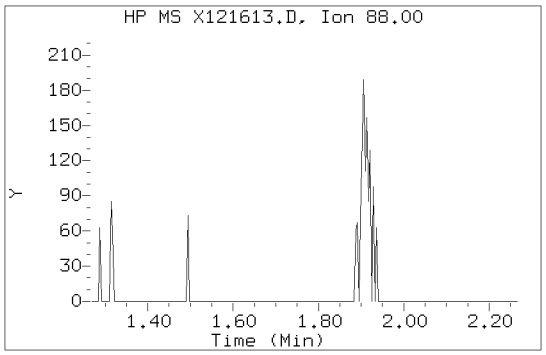

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:04
linh
pham




**AFTER**

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:08
linh
pham



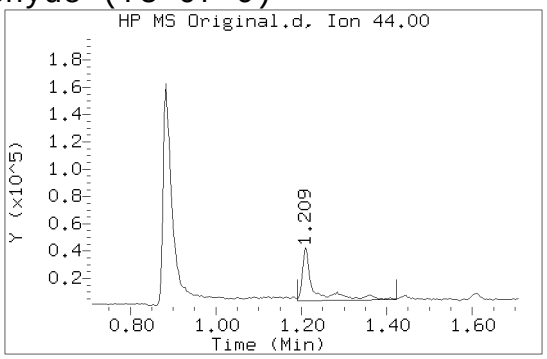
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Inj Date : 16-DEC-2022 15:49
InstruID : voa6.i
LabSampID : ICV

## Acetaldehyde (75-07-0)

Reason Code:

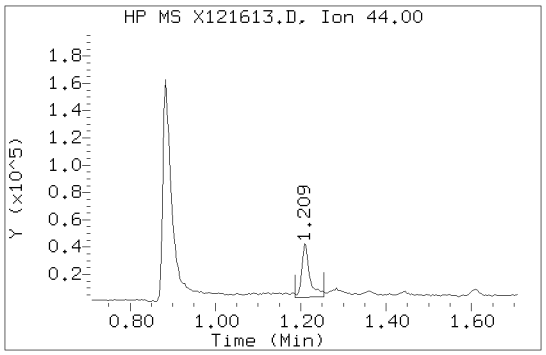
### BEFORE

MASS
44
AREA
75387
HEIGHT
39303
27-Dec-2022
16:04
linh
pham



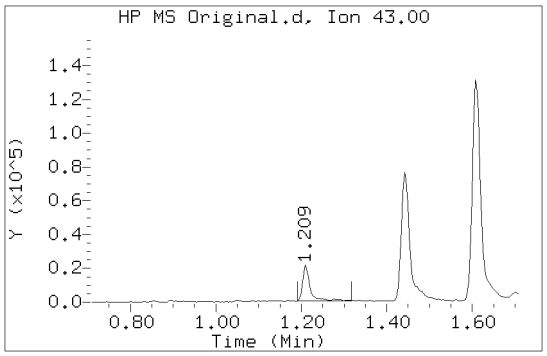

### AFTER

MASS
44
AREA
52697
HEIGHT
39303
13-Feb-2023
13:08
linh
pham



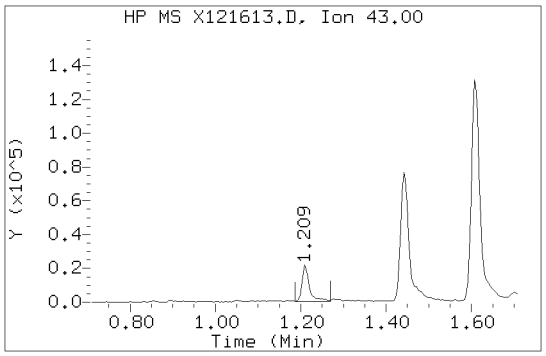

### BEFORE

MASS
43
AREA
27778
HEIGHT
21502
27-Dec-2022
16:04
linh
pham



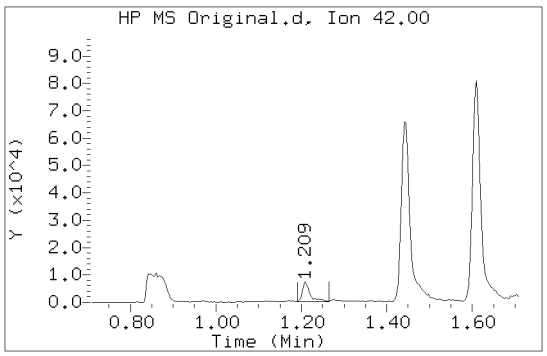

### AFTER

MASS
43
AREA
26760
HEIGHT
21664
13-Feb-2023
13:08
linh
pham



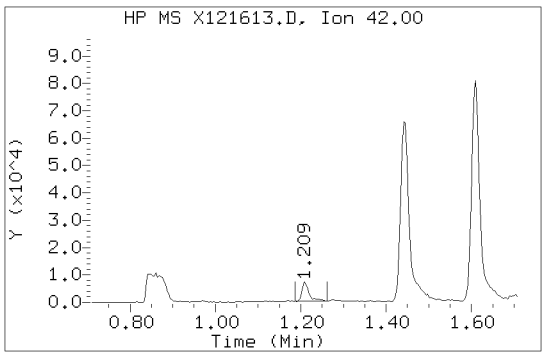

### BEFORE

MASS
42
AREA
8969
HEIGHT
7131
27-Dec-2022
16:04
linh
pham




### AFTER

MASS
42
AREA
8550
HEIGHT
7027
13-Feb-2023
13:08
linh
pham



right solutions.
right partner.

# Raw Data VOA6 426583

## Volatiles by  by EPA 8260

Workorder

HS23011136

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP 16 January 2023

02/16/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\nahstws005\Target\chem\voa6.i\X230126.b\X012601.D  Page 1
Report Date: 26-Jan-2023 09:22

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X230126.b\X012601.D
Lab Smp Id: BFB  Client Smp ID: BFB
Inj Date  : 26-JAN-2023 08:03
Operator  : FT  Inst ID: voa6.i
Smp Info  : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\nahstws005\Target\chem\voa6.i\X230126.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham  Quant Type: ISTD
Cal Date  :  Cal File:
Als bottle: 1  QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: all.sub
Target Version:  4.14  Sample Matrix: WATER
Processing Host: NAHSTW7066

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vf | 1.000 | Volumetric correction factor |
| Vi | 2.000 | Injection Volume |
| Cpnd Variable | | Local Compound Variable |

| | | | | | CONCENTRATIONS ON-COL ( ug/L) | FINAL ( ug/l) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | | CAS #: 460-00-4 | |
| 8.687 | 8.889 | ( 0.000) | 95 | 187456 | | | 0.00- 100.00 | 100.00 |
| 8.687 | 8.889 | ( 0.000) | 50 | 34488 | | | 15.00- 40.00 | 18.40 |
| 8.687 | 8.889 | ( 0.000) | 75 | 92000 | | | 30.00- 60.00 | 49.08 |
| 8.687 | 8.889 | ( 0.000) | 96 | 12978 | | | 5.00- 9.00 | 6.92 |
| 8.687 | 8.889 | ( 0.000) | 173 | 1297 | | | 0.00- 2.00 | 0.77 |
| 8.687 | 8.889 | ( 0.000) | 174 | 168896 | | | 50.00- 0.00 | 90.10 |
| 8.687 | 8.889 | ( 0.000) | 175 | 11458 | | | 5.00- 9.00 | 6.78 |
| 8.687 | 8.889 | ( 0.000) | 176 | 160704 | | | 95.00- 101.00 | 95.15 |
| 8.687 | 8.889 | ( 0.000) | 177 | 10583 | | | 5.00- 9.00 | 6.59 |

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 18.40 |
| 75 | 30.00 - 60.00% of mass 95 | 49.08 |
| 96 | 5.00 - 9.00% of mass 95 | 6.92 |
| 173 | Less than 2.00% of mass 174 | 0.69 ( 0.77) |
| 174 | Greater than 50.00% of mass 95 | 90.10 |
| 175 | 5.00 - 9.00% of mass 174 | 6.11 ( 6.78) |
| 176 | 95.00 - 101.00% of mass 174 | 85.73 ( 95.15) |
| 177 | 5.00 - 9.00% of mass 176 | 5.65 ( 6.59) |

Data File: X012601.D
Spectrum: Scan 2160 ( 8.68)
Location of Maximum: 95.00
Number of points: 117

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1682 | 68.00 | 17920 | 98.80 | 60 | 141.80 | 252 |
| 37.00 | 8977 | 69.00 | 19952 | 103.00 | 191 | 142.90 | 1604 |
| 38.00 | 8846 | 70.00 | 2261 | 103.80 | 959 | 143.70 | 98 |
| 39.00 | 3561 | 71.00 | 291 | 105.10 | 431 | 144.80 | 135 |
| 39.90 | 1481 | 71.80 | 966 | 105.90 | 831 | 145.90 | 379 |
| 41.00 | 1496 | 73.00 | 8394 | 106.70 | 405 | 146.70 | 167 |
| 42.00 | 1623 | 74.00 | 31656 | 109.10 | 208 | 147.00 | 183 |
| 42.90 | 1103 | 75.00 | 92000 | 109.70 | 145 | 147.90 | 508 |
| 43.90 | 2092 | 76.00 | 7794 | 111.00 | 153 | 149.80 | 222 |
| 45.00 | 1902 | 77.00 | 1204 | 111.80 | 123 | 151.70 | 81 |
| 46.00 | 194 | 77.90 | 871 | 112.90 | 193 | 152.70 | 102 |
| 47.00 | 2126 | 78.90 | 6237 | 114.80 | 201 | 153.80 | 195 |
| 47.90 | 1203 | 79.90 | 1894 | 115.70 | 765 | 154.90 | 622 |
| 49.00 | 7889 | 80.90 | 6241 | 116.90 | 853 | 155.80 | 82 |
| 50.00 | 34488 | 81.90 | 1278 | 117.70 | 628 | 156.80 | 397 |
| 51.00 | 11247 | 82.80 | 389 | 118.80 | 786 | 158.70 | 318 |
| 52.00 | 433 | 84.10 | 58 | 119.70 | 61 | 160.90 | 419 |
| 52.90 | 417 | 84.90 | 408 | 122.90 | 76 | 170.00 | 59 |
| 54.10 | 129 | 86.00 | 239 | 123.80 | 161 | 171.70 | 89 |
| 55.00 | 2586 | 86.90 | 7514 | 126.80 | 202 | 172.90 | 1297 |
| 56.00 | 3719 | 87.90 | 6426 | 127.90 | 897 | 173.90 | 168896 |
| 57.00 | 5461 | 90.70 | 664 | 128.90 | 325 | 174.90 | 11458 |
| 58.00 | 486 | 91.00 | 534 | 129.90 | 894 | 175.90 | 160704 |
| 59.90 | 1834 | 92.00 | 5314 | 130.70 | 306 | 176.90 | 10583 |
| 61.00 | 8655 | 93.00 | 7443 | 134.50 | 122 | 177.80 | 276 |
| 62.00 | 9189 | 94.00 | 20576 | 135.10 | 171 | 186.20 | 102 |
| 63.00 | 6761 | 95.00 | 187456 | 136.70 | 373 | 206.90 | 94 |
| 64.00 | 853 | 96.00 | 12978 | 138.80 | 85 | | |
| 65.10 | 74 | 96.90 | 357 | 139.60 | 132 | | |
| 67.10 | 523 | 98.00 | 1151 | 140.80 | 1536 | | |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012601.D



Date : 26-JAN-2023 08:03

Client ID: BFB

Instrument: voa6.i

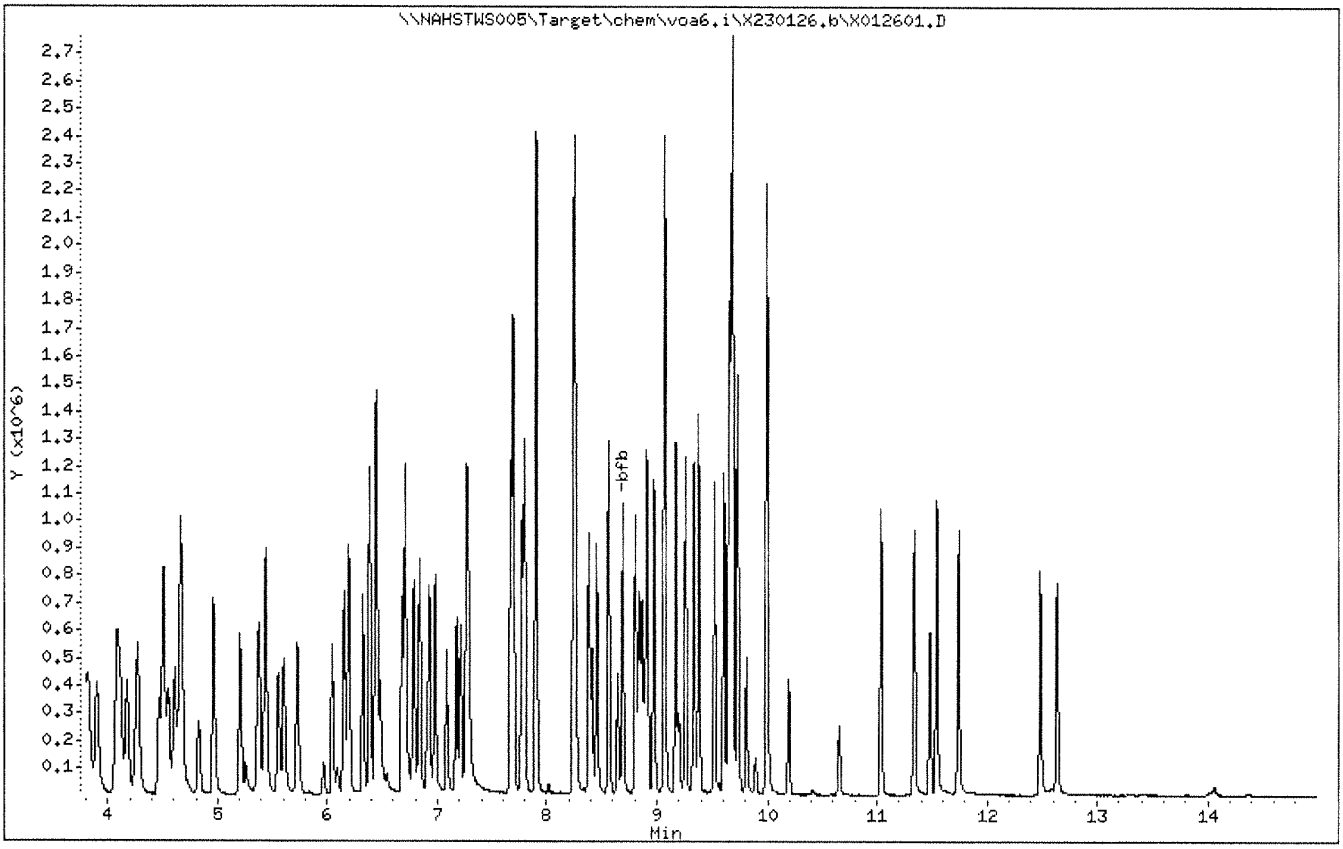
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: FT

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012601.D



Date : 26-JAN-2023 08:03

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

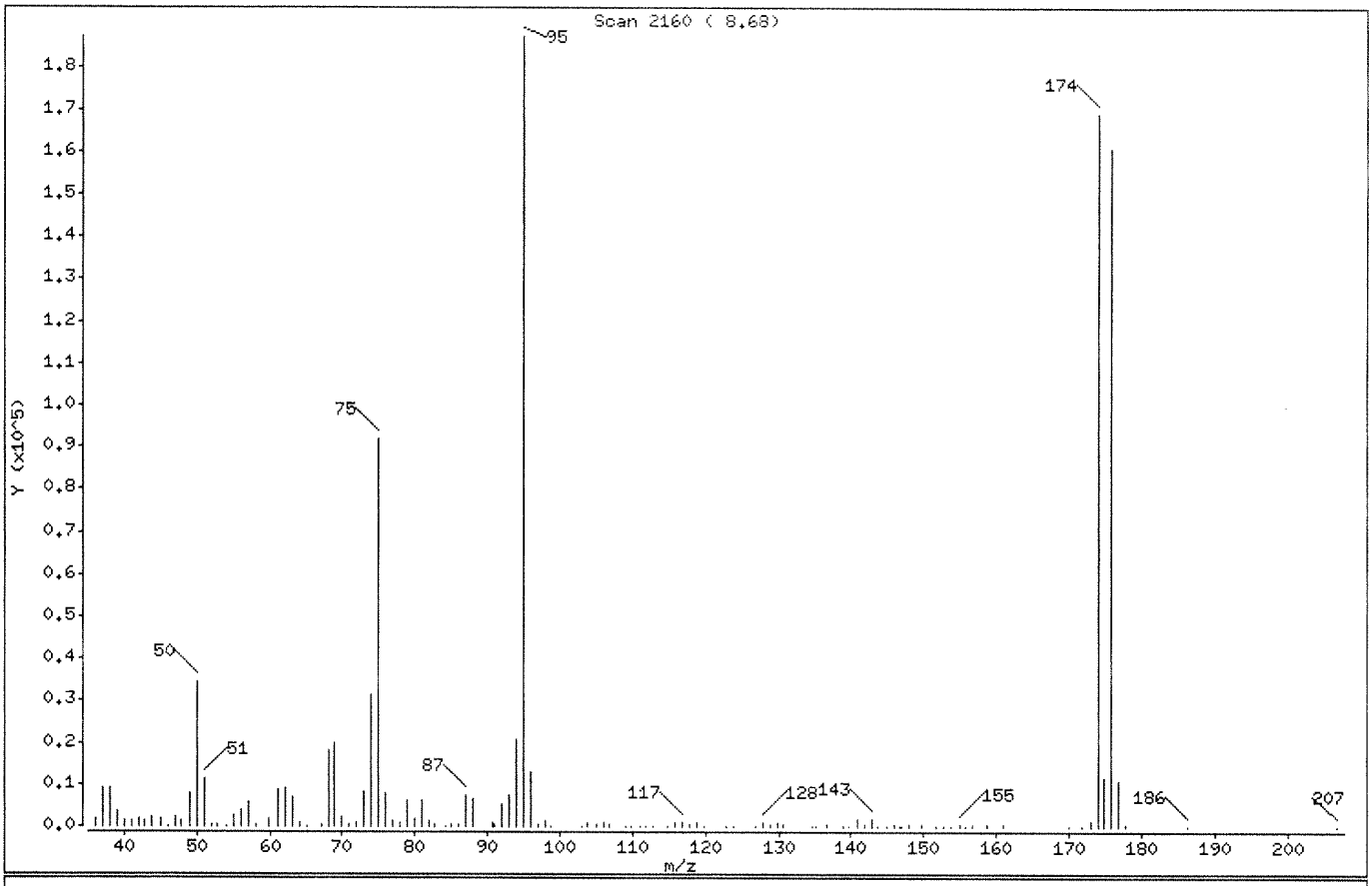
Volume Injected (uL): 2.0

Operator: FT

Column phase: DB624

Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 18.40 |
| 75 | 30.00 - 60.00% of mass 95 | 49.08 |
| 96 | 5.00 - 9.00% of mass 95 | 6.92 |
| 173 | Less than 2.00% of mass 174 | 0.69 ( 0.77) |
| 174 | Greater than 50.00% of mass 95 | 90.10 |
| 175 | 5.00 - 9.00% of mass 174 | 6.11 ( 6.78) |
| 176 | 95.00 - 101.00% of mass 174 | 85.73 ( 95.15) |
| 177 | 5.00 - 9.00% of mass 176 | 5.65 ( 6.59) |

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012601.D



Date : 26-JAN-2023 08:03

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: FT

Column phase: DB624

Column diameter: 0.25

Data File: X012601.D
Spectrum: Scan 2160 ( 8.68)
Location of Maximum: 95.00
Number of points: 117

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1682 | 68.00 | 17920 | 98.80 | 60 | 141.80 | 252 |
| 37.00 | 8977 | 69.00 | 19952 | 103.00 | 191 | 142.90 | 1604 |
| 38.00 | 8846 | 70.00 | 2261 | 103.80 | 959 | 143.70 | 98 |
| 39.00 | 3561 | 71.00 | 291 | 105.10 | 431 | 144.80 | 135 |
| 39.90 | 1481 | 71.80 | 966 | 105.90 | 831 | 145.90 | 379 |
| 41.00 | 1496 | 73.00 | 8394 | 106.70 | 405 | 146.70 | 167 |
| 42.00 | 1623 | 74.00 | 31656 | 109.10 | 208 | 147.00 | 183 |
| 42.90 | 1103 | 75.00 | 92000 | 109.70 | 145 | 147.90 | 508 |
| 43.90 | 2092 | 76.00 | 7794 | 111.00 | 153 | 149.80 | 222 |
| 45.00 | 1902 | 77.00 | 1204 | 111.80 | 123 | 151.70 | 81 |
| 46.00 | 194 | 77.90 | 871 | 112.90 | 193 | 152.70 | 102 |
| 47.00 | 2126 | 78.90 | 6237 | 114.80 | 201 | 153.80 | 195 |
| 47.90 | 1203 | 79.90 | 1894 | 115.70 | 765 | 154.90 | 622 |
| 49.00 | 7889 | 80.90 | 6241 | 116.90 | 853 | 155.80 | 82 |
| 50.00 | 34488 | 81.90 | 1278 | 117.70 | 628 | 156.80 | 397 |
| 51.00 | 11247 | 82.80 | 389 | 118.80 | 786 | 158.70 | 318 |
| 52.00 | 433 | 84.10 | 58 | 119.70 | 61 | 160.90 | 419 |
| 52.90 | 417 | 84.90 | 408 | 122.90 | 76 | 170.00 | 59 |
| 54.10 | 129 | 86.00 | 239 | 123.80 | 161 | 171.70 | 89 |
| 55.00 | 2586 | 86.90 | 7514 | 126.80 | 202 | 172.90 | 1297 |
| 56.00 | 3719 | 87.90 | 6426 | 127.90 | 897 | 173.90 | 168896 |
| 57.00 | 5461 | 90.70 | 664 | 128.90 | 325 | 174.90 | 11458 |
| 58.00 | 486 | 91.00 | 534 | 129.90 | 894 | 175.90 | 160704 |
| 59.90 | 1834 | 92.00 | 5314 | 130.70 | 306 | 176.90 | 10583 |
| 61.00 | 8655 | 93.00 | 7443 | 134.50 | 122 | 177.80 | 276 |
| 62.00 | 9189 | 94.00 | 20576 | 135.10 | 171 | 186.20 | 102 |
| 63.00 | 6761 | 95.00 | 187456 | 136.70 | 373 | 206.90 | 94 |
| 64.00 | 853 | 96.00 | 12978 | 138.80 | 85 | | |
| 65.10 | 74 | 96.90 | 357 | 139.60 | 132 | | |
| 67.10 | 523 | 98.00 | 1151 | 140.80 | 1536 | | |

Data File : \\nahstws005\Target\chem\voa6.i\X230126.b\X012601.D
Inj Date  : 26-JAN-2023 08:03
InstruID  : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012602.D  Page 1
Report Date: 13-Feb-2023 13:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\X012602.D
Lab Smp Id: CCV  Client Smp ID: CCV
Inj Date  : 26-JAN-2023 08:24
Operator  : FT  Inst ID: voa6.i
Smp Info  : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method    : \\NAHSTWS005\Target\chem\voa6.i\X230126.b\8260W.m
Meth Date : 13-Feb-2023 13:32 voa6.i  Quant Type: ISTD
Cal Date  : 16-DEC-2022 14:04  Cal File: X121608.D
Als bottle: 2  Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: 00000_8260.sub
Target Version:  4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 5.000 | ng unit correction factor |
| Vo | 5.000 | sample purged |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/l) | ON-COL ( ug/l) |
|---|---|---|---|---|---|---|---|
| * 1 Pentafluorobenzene | 168 | 4.174 | 4.174 | (1.000) | 555954 | 50.0000 | |
| 2 Dichlorodifluoromethane | 85 | 0.969 | 0.969 | (0.232) | 164224 | 50.0000 | 42.29 |
| 3 Chloromethane | 50 | 1.074 | 1.074 | (0.257) | 218627 | 50.0000 | 43.75 |
| 4 Propionitrile | 54 | 3.645 | 3.645 | (0.873) | 275700 | 500.000 | 486.00 |
| 5 Vinyl Chloride | 62 | 1.141 | 1.141 | (0.273) | 227677 | 50.0000 | 46.88 |
| 6 Bromomethane | 94 | 1.336 | 1.336 | (0.320) | 153467 | 50.0000 | 42.06 |
| 7 Chloroethane | 64 | 1.400 | 1.400 | (0.335) | 142913 | 50.0000 | 42.27 |
| 8 Trichlorofluoromethane | 101 | 1.557 | 1.557 | (0.373) | 344761 | 50.0000 | 50.72 |
| 9 Acrolein | 56 | 1.441 | 1.441 | (0.345) | 33596 | 100.000 | 88.68 |
| 10 Acetone | 43 | 1.966 | 1.966 | (0.471) | 125873 | 100.000 | 80.68 |
| 11 1,1-Dichloroethene | 96 | 1.910 | 1.910 | (0.458) | 199744 | 50.0000 | 47.33 |
| 12 Isobutyl Alcohol | 43 | 4.669 | 4.669 | (1.119) | 670475 | 1000.00 | 1072.20 |
| 13 Acetonitrile | 39 | 2.194 | 2.194 | (0.526) | 264577 | 500.000 | 522.89 |
| 14 Allyl Chloride | 41 | 2.194 | 2.194 | (0.526) | 475830 | 50.0000 | 49.37 |
| 15 Iodomethane | 142 | 2.022 | 2.022 | (0.485) | 550411 | 100.000 | 99.04 |
| 16 Acrylonitrile | 53 | 2.528 | 2.528 | (0.606) | 146528 | 100.000 | 102.39 |
| 17 Methylene Chloride | 84 | 2.299 | 2.299 | (0.551) | 257169 | 50.0000 | 44.43 |
| 18 Methyl tert-butyl ether | 73 | 2.528 | 2.528 | (0.606) | 663705 | 50.0000 | 48.05 |
| 19 Carbon Disulfide | 76 | 2.063 | 2.063 | (0.494) | 1115374 | 100.000 | 101.03 |
| 20 trans-1,2-Dichloroethene | 96 | 2.524 | 2.524 | (0.605) | 235262 | 50.0000 | 49.81 |