

LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 11

2024

Bate Stamp Numbers

01231437 – 01232082

Prepared for

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

1976–2024

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

VOLUME 11

2024

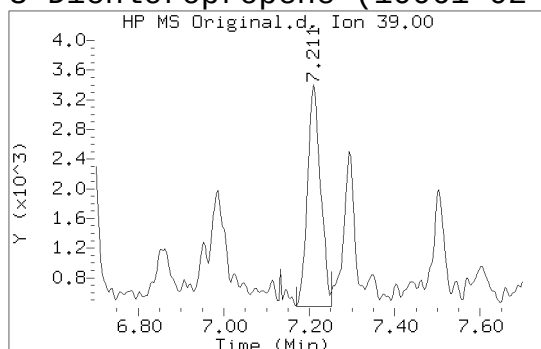
- A. Title: Report (Cont'd) – Draft Final Ninth Annual Remedial Action Operation Report, LHAAP-50, Former Sump Water Tank, Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas, March 2024
- Author(s): Department of the Army
- Recipient: Environmental Protection Agency and Texas Commission on Environmental Quality
- Date: March 13, 2024
- Bate Stamp: 01231437–01232040
-
- B. Title: Minutes – Final Monthly Managers' Meeting (MMM), Longhorn Army Ammunition Plant, February 21, 2024
- Author(s): Department of the Army
- Recipient: All Parties
- Date: March 15, 2024
- Bate Stamp: 01232041–01232082

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

trans-1,3-Dichloropropene (10061-02-6)

BEFORE

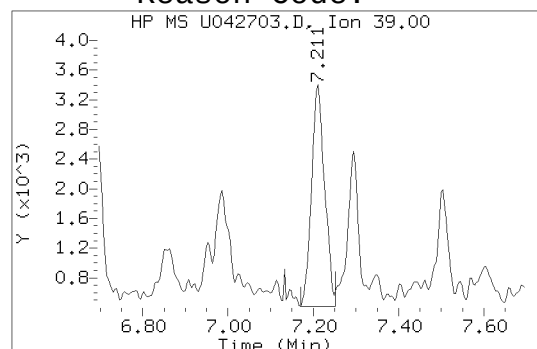
MASS
39
AREA
6425
HEIGHT
2987
01-May-2023
12:42
linh
pham



AFTER

MASS
39
AREA
6425
HEIGHT
2987
03-May-2023
09:43
linh
pham

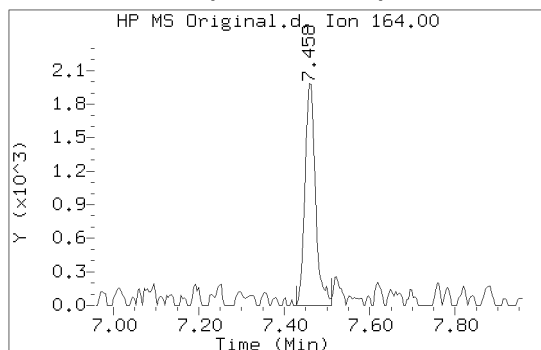
Reason Code:



Tetrachloroethene (127-18-4)

BEFORE

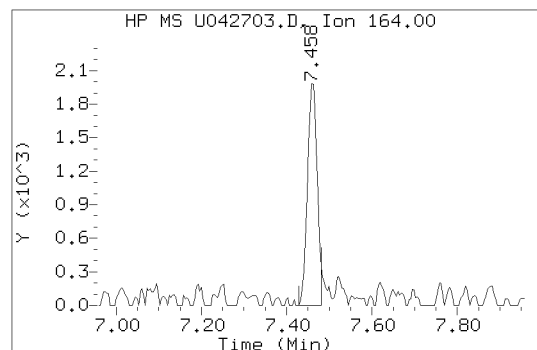
MASS
164
AREA
3485
HEIGHT
1983
01-May-2023
12:42
linh
pham



AFTER

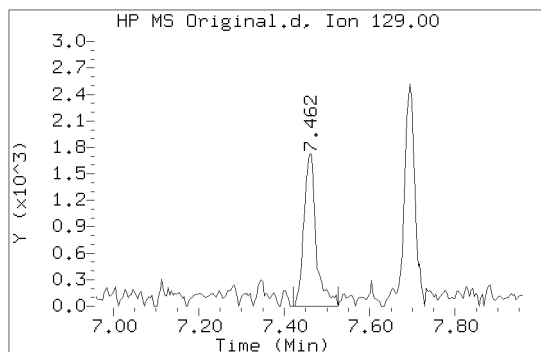
MASS
164
AREA
3235
HEIGHT
1983
03-May-2023
09:43
linh
pham

Reason Code:



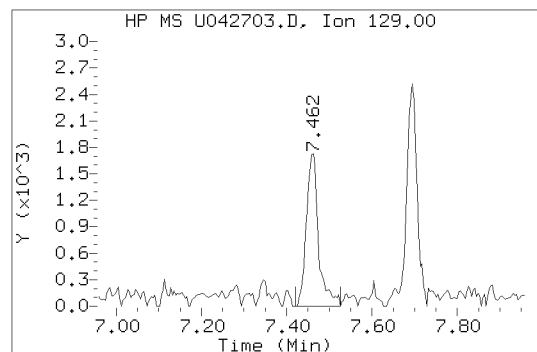
BEFORE

MASS
129
AREA
3499
HEIGHT
1730
01-May-2023
12:42
linh
pham



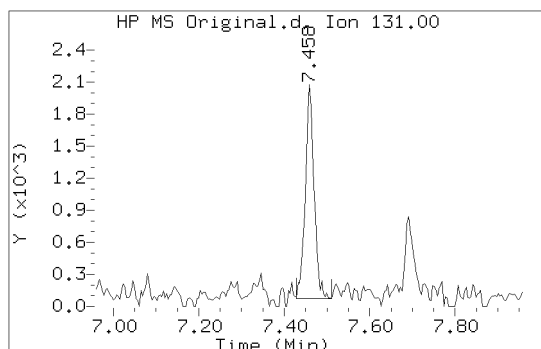
AFTER

MASS
129
AREA
3499
HEIGHT
1730
03-May-2023
09:43
linh
pham



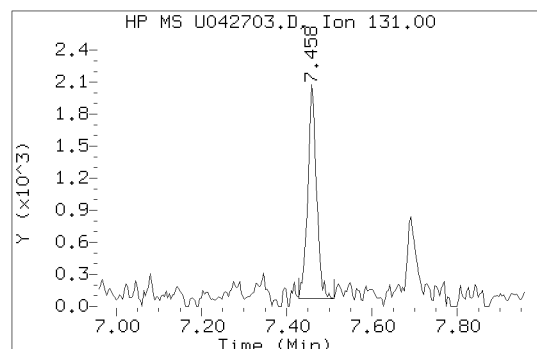
BEFORE

MASS
131
AREA
2899
HEIGHT
2001
01-May-2023
12:42
linh
pham



AFTER

MASS
131
AREA
2899
HEIGHT
2001
03-May-2023
09:43
linh
pham

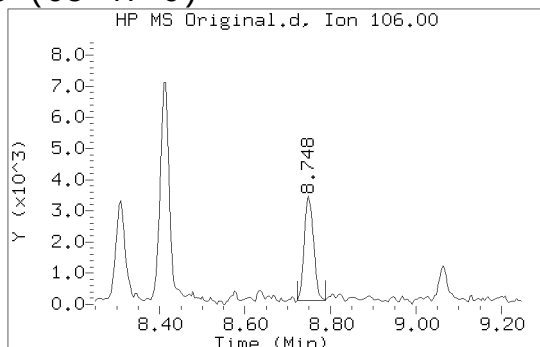


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

o-Xylene (95-47-6)

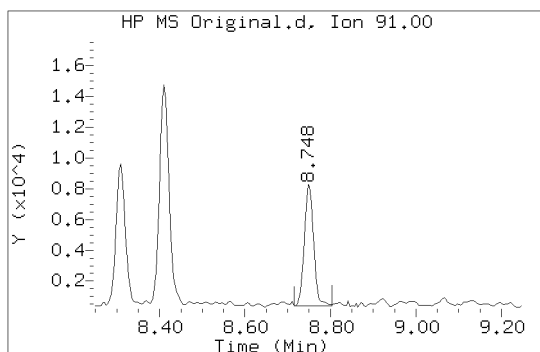
BEFORE

MASS
106
AREA
5232
HEIGHT
3364
01-May-2023
12:42
linh



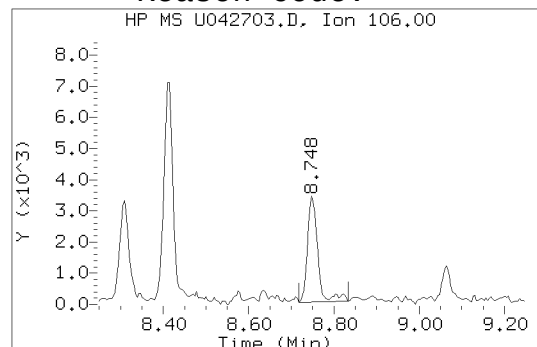
BEFORE

MASS
91
AREA
12163
HEIGHT
7879
01-May-2023
12:42
linh
pham



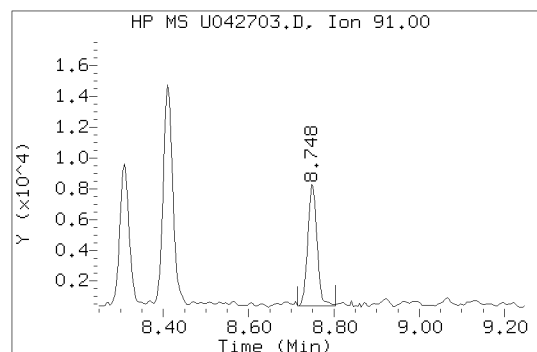
AFTER

MASS
106
AREA
5828
HEIGHT
3413
03-May-2023
09:43
linh



AFTER

MASS
91
AREA
12163
HEIGHT
7879
03-May-2023
09:43
linh
pham

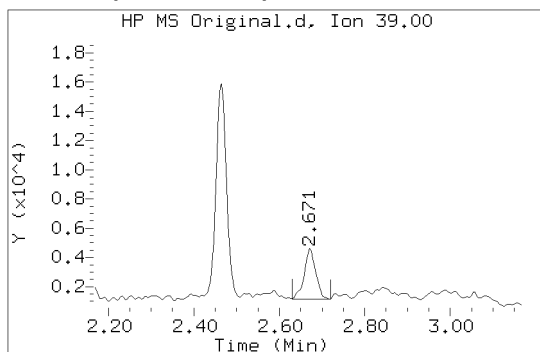


Reason Code:

Acetonitrile (75-05-8)

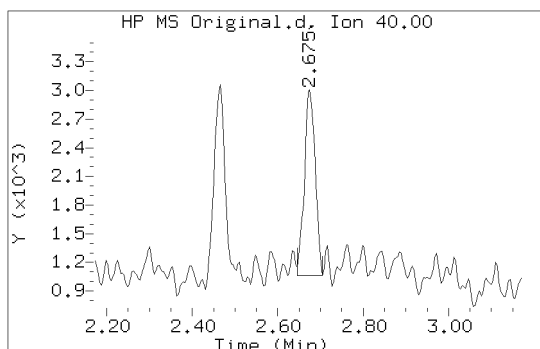
BEFORE

MASS
172.8
AREA
2740
HEIGHT
1906
01-May-2023
12:42
linh
pham



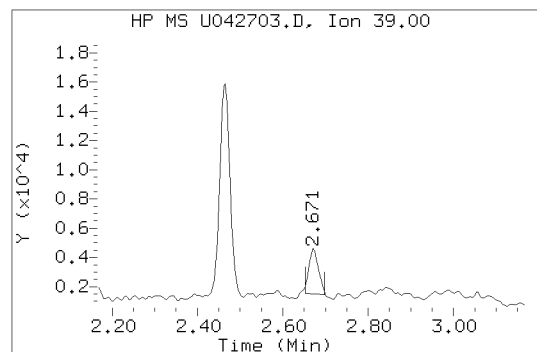
BEFORE

MASS
175
AREA
1750
HEIGHT
910
01-May-2023
12:42
linh
pham



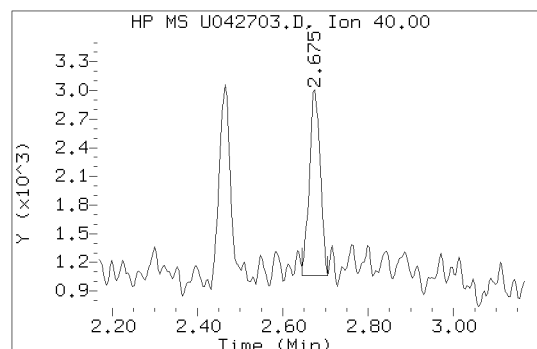
AFTER

MASS
39
AREA
4869
HEIGHT
3108
03-May-2023
09:43
linh
pham



AFTER

MASS
40
AREA
3479
HEIGHT
1946
03-May-2023
09:43
linh
pham



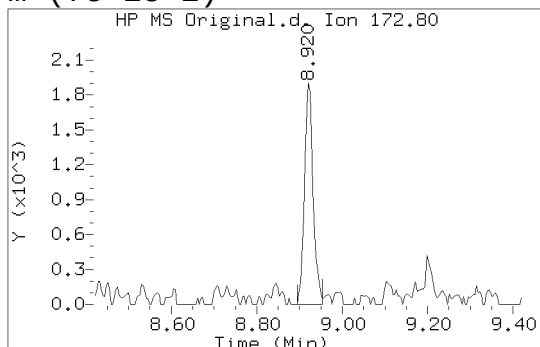
Reason Code:



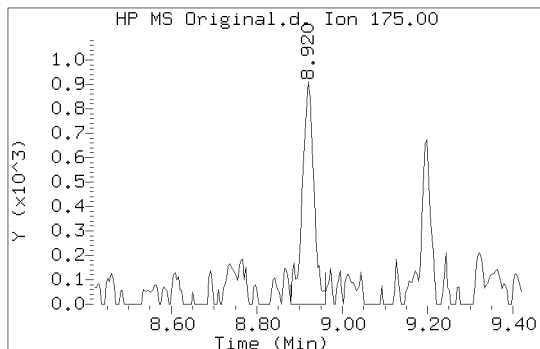
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

Bromoform (75-25-2)**BEFORE**

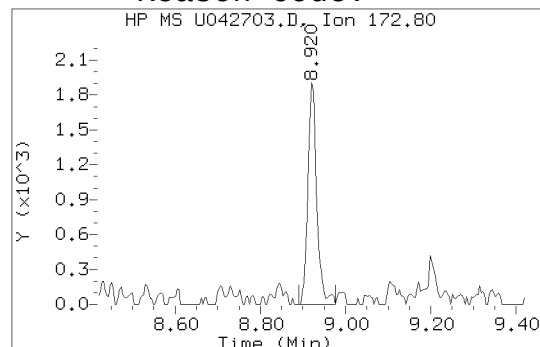
MASS
39
AREA
6512
HEIGHT
3472
01-May-2023
12:42
linh

**BEFORE**

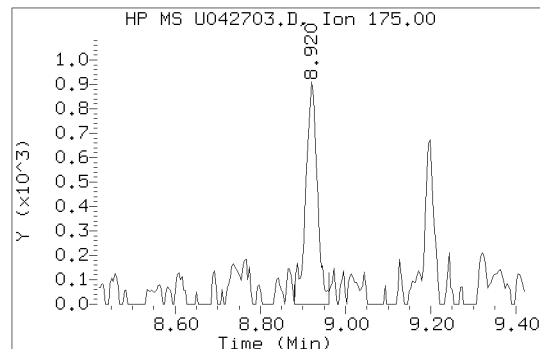
MASS
40
AREA
3479
HEIGHT
1946
01-May-2023
12:42
linh
pham

**AFTER**

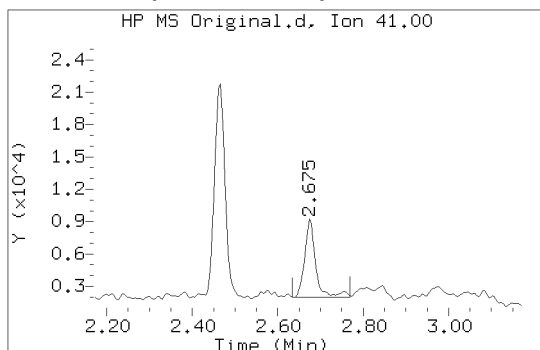
MASS
172.8
AREA
2821
HEIGHT
1906
03-May-2023
09:43
linh

**AFTER**

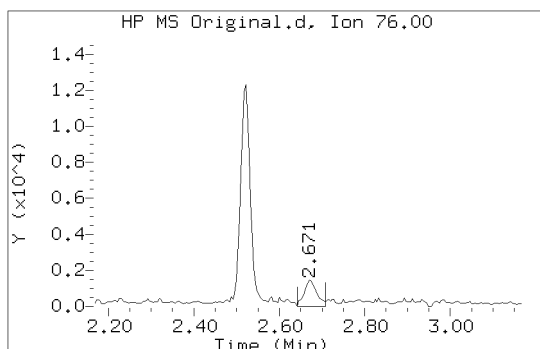
MASS
175
AREA
1750
HEIGHT
910
03-May-2023
09:43
linh
pham

**Reason Code:****Allyl chloride (107-05-1)****BEFORE**

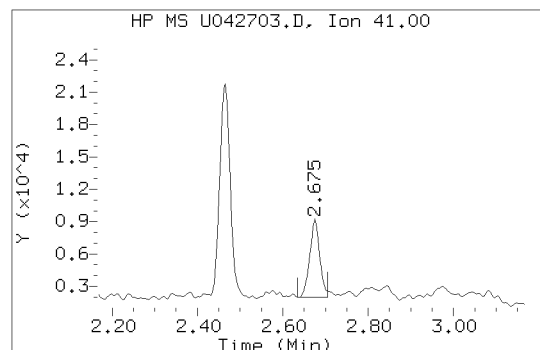
MASS
41
AREA
13149
HEIGHT
7276
01-May-2023
12:42
linh
pham

**BEFORE**

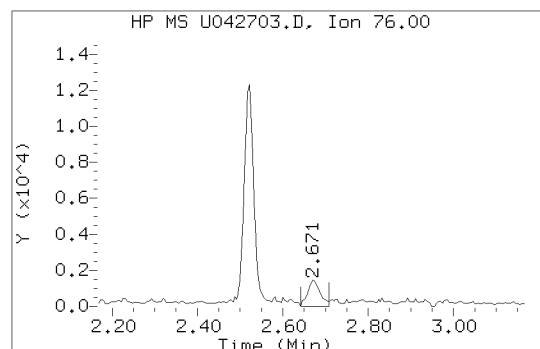
MASS
76
AREA
3015
HEIGHT
1443
01-May-2023
12:42
linh
pham

**AFTER**

MASS
41
AREA
11848
HEIGHT
7276
03-May-2023
09:43
linh
pham

**AFTER**

MASS
76
AREA
3015
HEIGHT
1443
03-May-2023
09:43
linh
pham

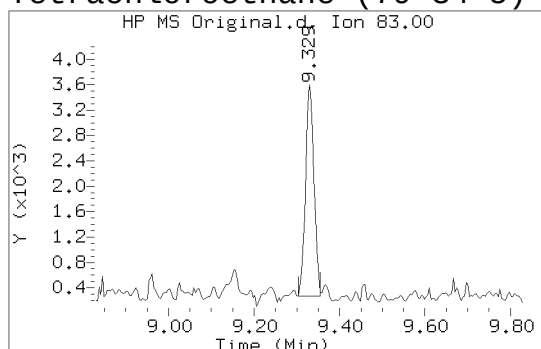
**Reason Code:**

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

1,1,2,2-Tetrachloroethane (79-34-5)

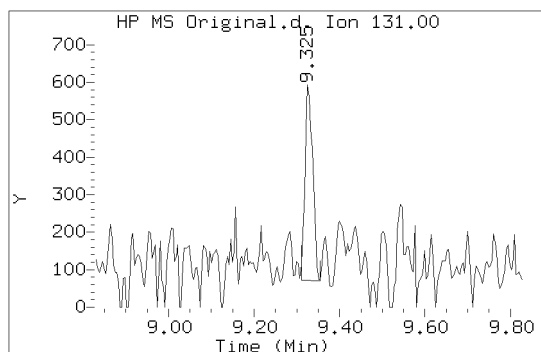
BEFORE

MASS
83
AREA
4662
HEIGHT
3332
01-May-2023
12:42
linh



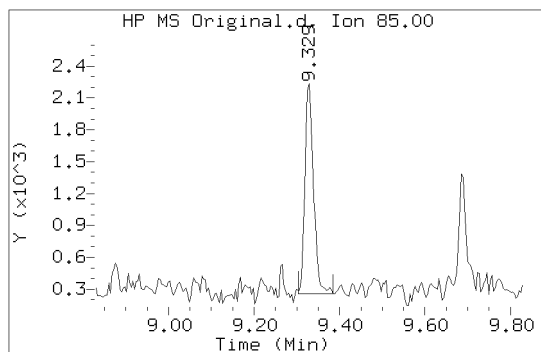
BEFORE

MASS
131
AREA
674
HEIGHT
521
01-May-2023
12:42
linh
pham



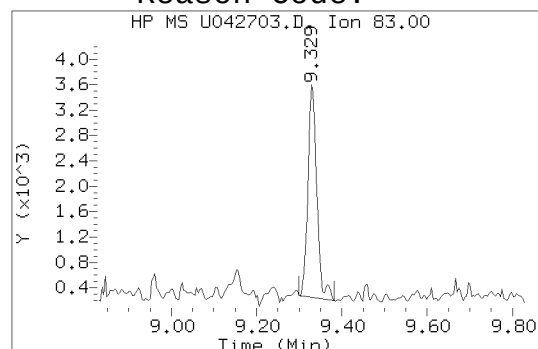
BEFORE

MASS
85
AREA
2834
HEIGHT
1977
01-May-2023
12:42
linh
pham



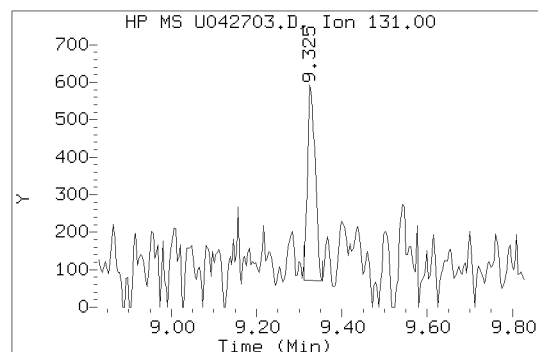
AFTER

MASS
83
AREA
4944
HEIGHT
3352
03-May-2023
09:43
linh



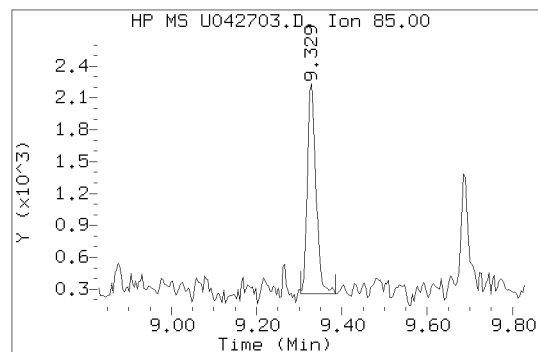
AFTER

MASS
131
AREA
674
HEIGHT
521
03-May-2023
09:43
linh
pham



AFTER

MASS
85
AREA
2834
HEIGHT
1977
03-May-2023
09:43
linh
pham

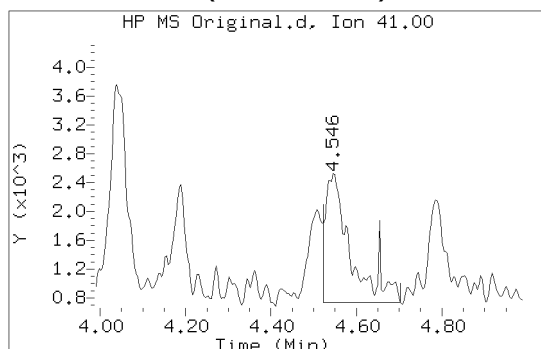


Reason Code:

Methacrylonitrile (126-98-7)

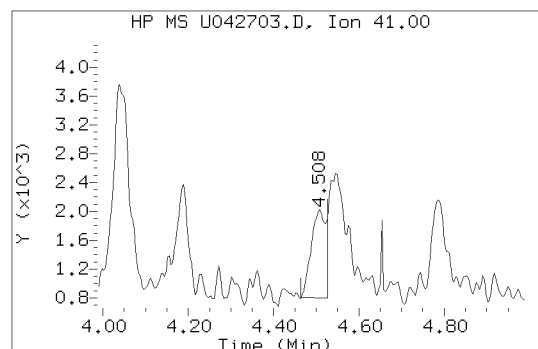
BEFORE

MASS
75
AREA
4700
HEIGHT
2426
01-May-2023
12:42
linh
pham



AFTER

MASS
41
AREA
3025
HEIGHT
1225
03-May-2023
09:43
linh
pham



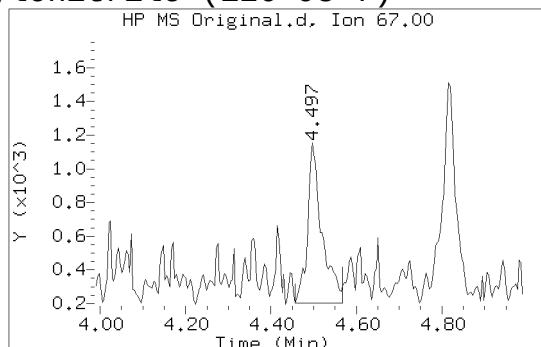
Reason Code:

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

Methacrylonitrile (126-98-7)

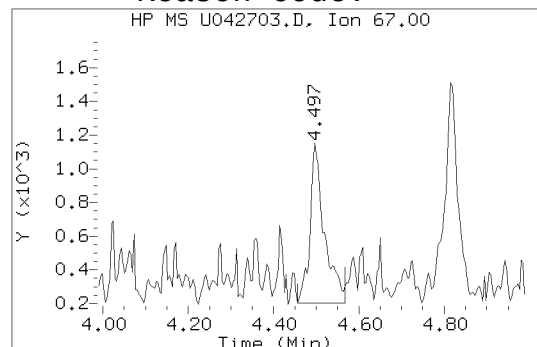
BEFORE

MASS
77
AREA
1169
HEIGHT
808
01-May-2023
12:42
linh
pham



AFTER

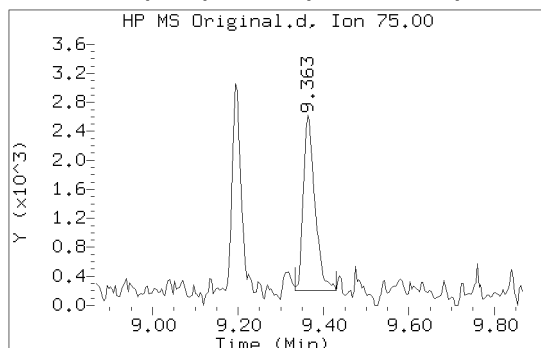
MASS
67
AREA
2259
HEIGHT
950
03-May-2023
09:43
linh
pham



1,2,3-Trichloropropane (96-18-4)

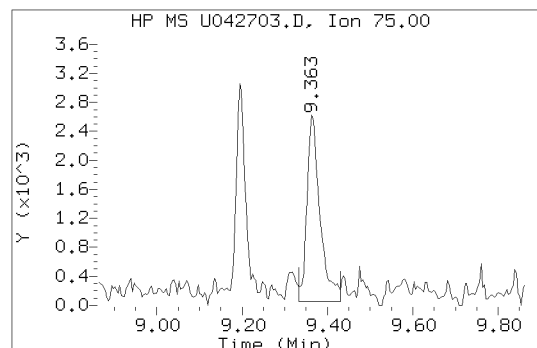
BEFORE

MASS
41
AREA
7288
HEIGHT
1784
01-May-2023
12:42
linh
pham



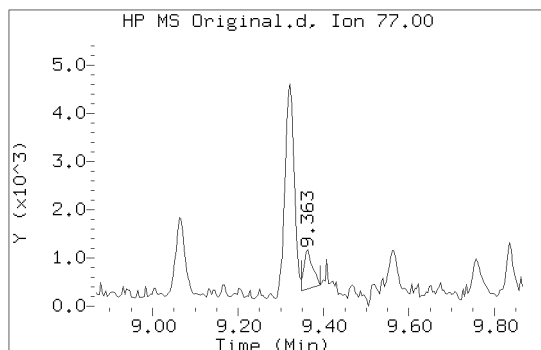
AFTER

MASS
75
AREA
5568
HEIGHT
2569
03-May-2023
09:43
linh
pham



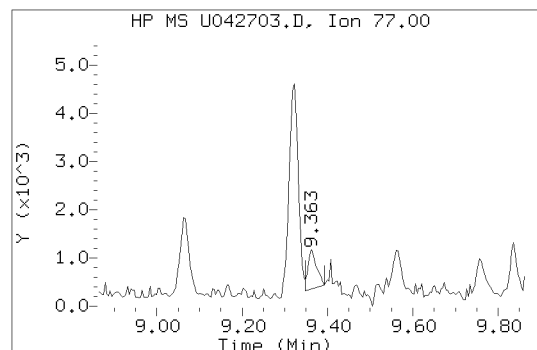
BEFORE

MASS
67
AREA
2259
HEIGHT
950
01-May-2023
12:42
linh
pham



AFTER

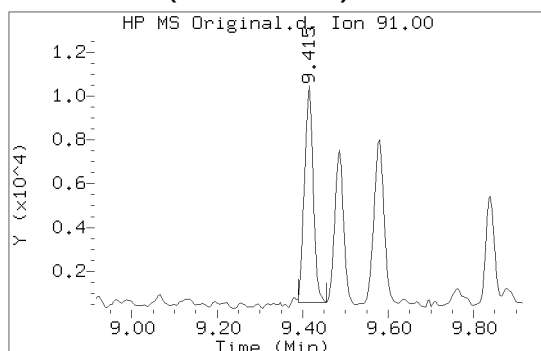
MASS
77
AREA
1169
HEIGHT
808
03-May-2023
09:43
linh
pham



n-Propylbenzene (106-65-1)

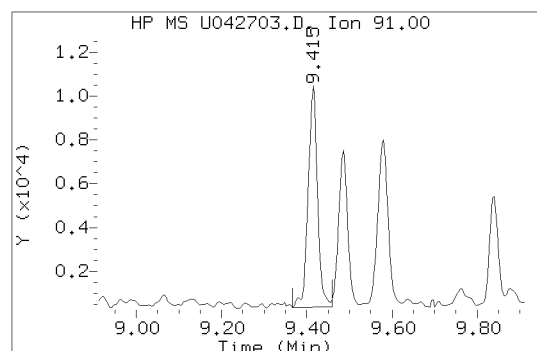
BEFORE

MASS
91
AREA
14483
HEIGHT
9883
01-May-2023
12:42
linh
pham



AFTER

MASS
91
AREA
15917
HEIGHT
10117
03-May-2023
09:43
linh
pham

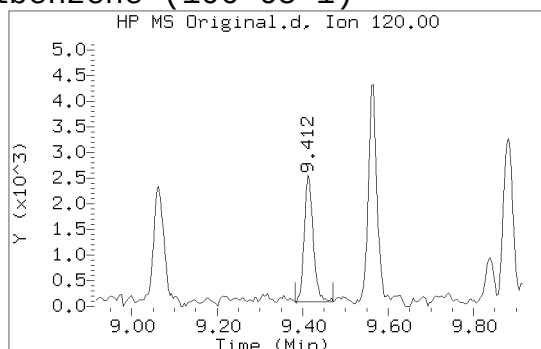


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

n-Propylbenzene (106-65-1)

BEFORE

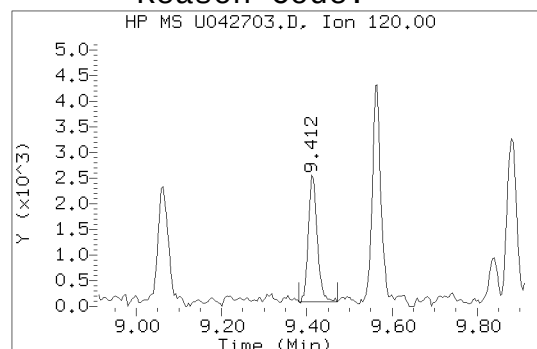
MASS
120
AREA
3681
HEIGHT
2469
01-May-2023
12:42
linh
pham



AFTER

MASS
120
AREA
3681
HEIGHT
2469
03-May-2023
09:43
linh
pham

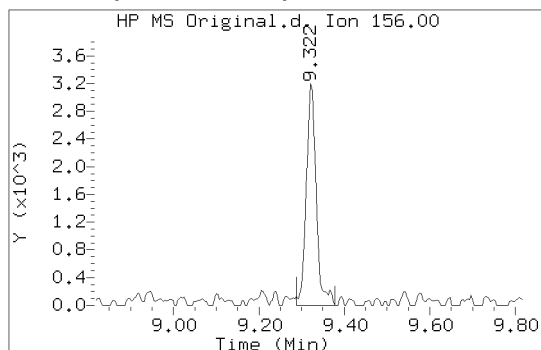
Reason Code:



Bromobenzene (108-86-1)

BEFORE

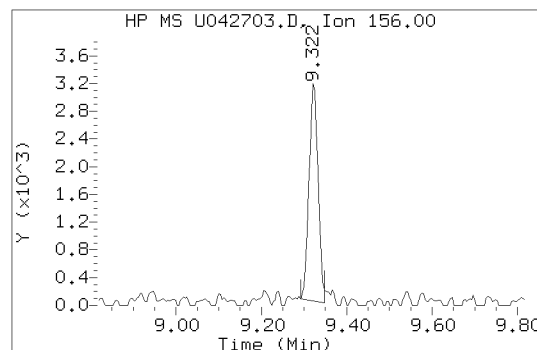
MASS
156
AREA
5304
HEIGHT
3198
01-May-2023
12:42
linh
pham



AFTER

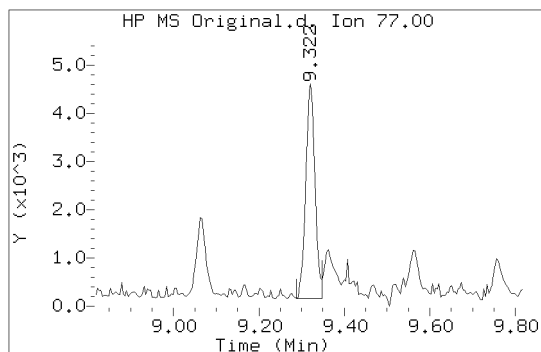
MASS
156
AREA
4770
HEIGHT
3134
03-May-2023
09:43
linh
pham

Reason Code:



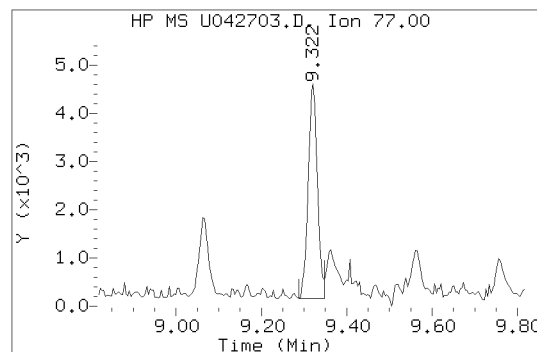
BEFORE

MASS
77
AREA
6879
HEIGHT
4449
01-May-2023
12:42
linh
pham



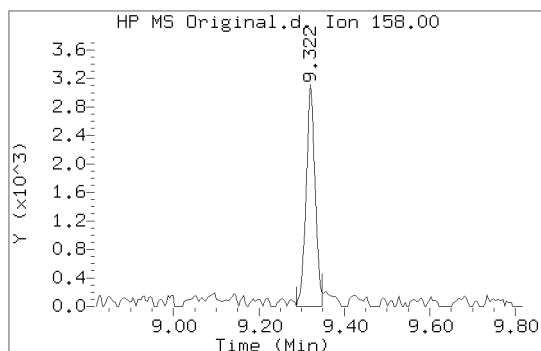
AFTER

MASS
77
AREA
6879
HEIGHT
4449
03-May-2023
09:43
linh
pham



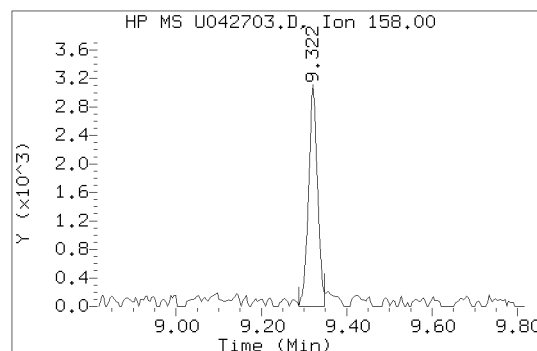
BEFORE

MASS
158
AREA
4675
HEIGHT
3111
01-May-2023
12:42
linh
pham



AFTER

MASS
158
AREA
4675
HEIGHT
3111
03-May-2023
09:43
linh
pham

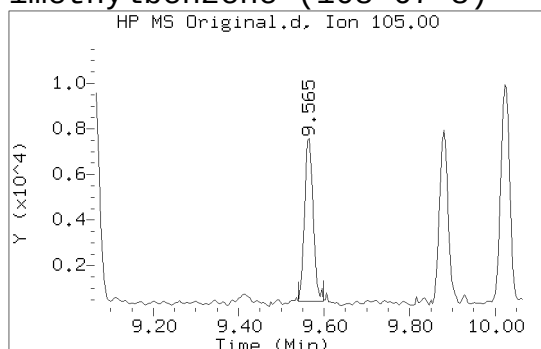


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

1,3,5-Trimethylbenzene (108-67-8)

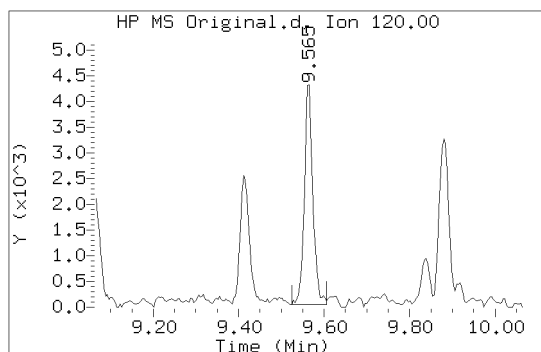
BEFORE

MASS
105
AREA
10268
HEIGHT
7147
01-May-2023
12:42
linh



BEFORE

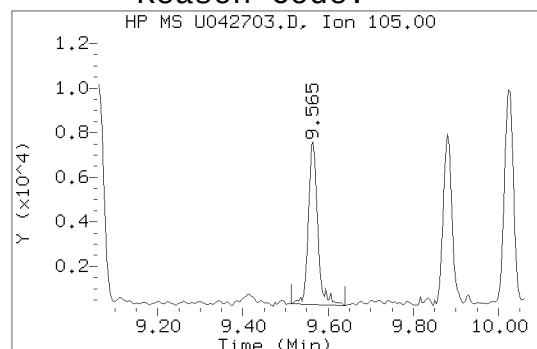
MASS
120
AREA
6050
HEIGHT
4268
01-May-2023
12:42
linh
pham



AFTER

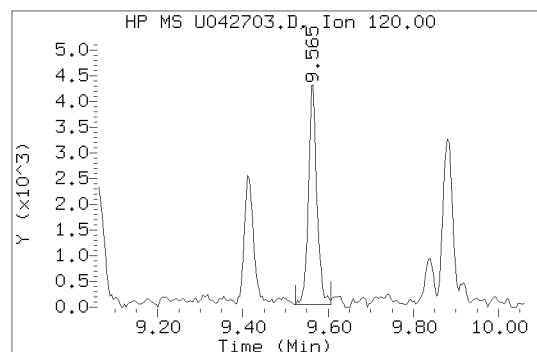
MASS
105
AREA
11517
HEIGHT
7310
03-May-2023
09:43
linh

Reason Code:



AFTER

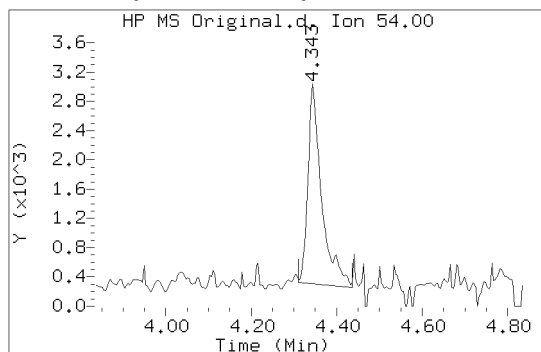
MASS
120
AREA
6050
HEIGHT
4268
03-May-2023
09:43
linh
pham



Propionitrile (107-12-0)

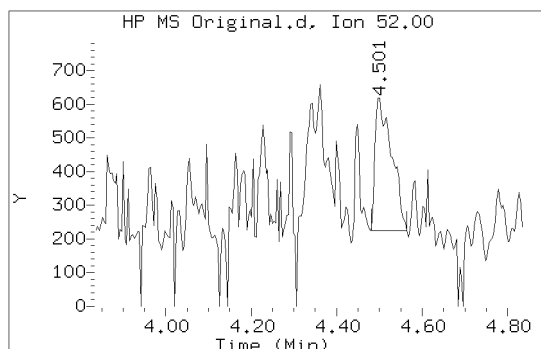
BEFORE

MASS
54
AREA
6115
HEIGHT
2733
01-May-2023
12:42
linh
pham



BEFORE

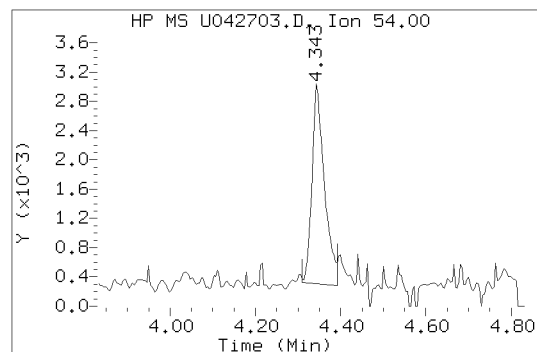
MASS
52
AREA
1064
HEIGHT
395
01-May-2023
12:42
linh
pham



AFTER

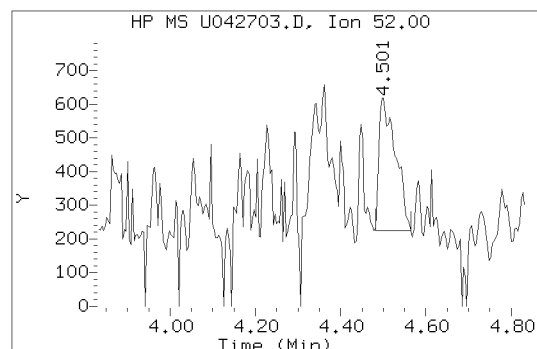
MASS
54
AREA
5570
HEIGHT
2733
03-May-2023
09:43
linh
pham

Reason Code:



AFTER

MASS
52
AREA
1064
HEIGHT
395
03-May-2023
09:43
linh
pham

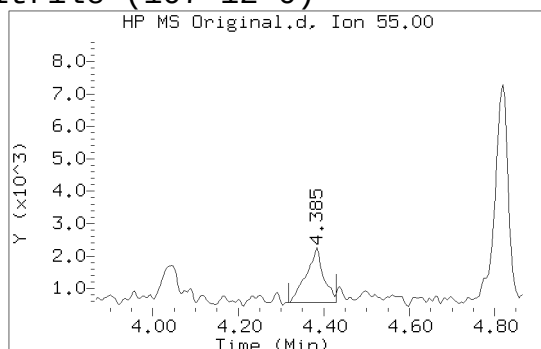


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

Propionitrile (107-12-0)

BEFORE

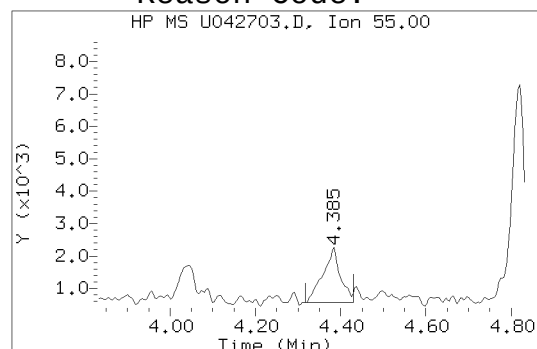
MASS
55
AREA
4881
HEIGHT
1715
01-May-2023
12:42
linh
pham



AFTER

MASS
55
AREA
4881
HEIGHT
1715
03-May-2023
09:43
linh
pham

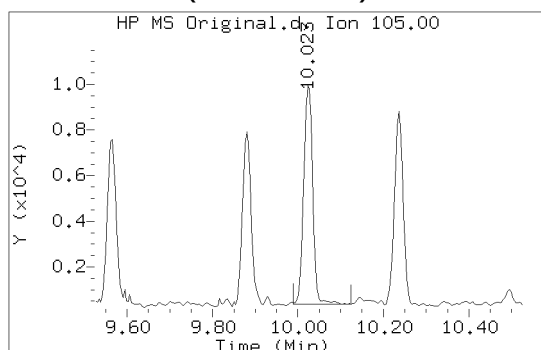
Reason Code:



sec-Butylbenzene (135-98-8)

BEFORE

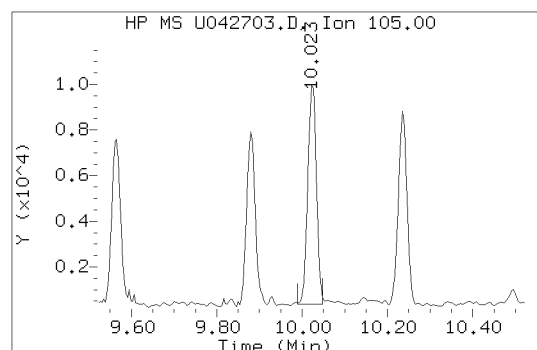
MASS
105
AREA
14235
HEIGHT
9559
01-May-2023
12:42
linh
pham



AFTER

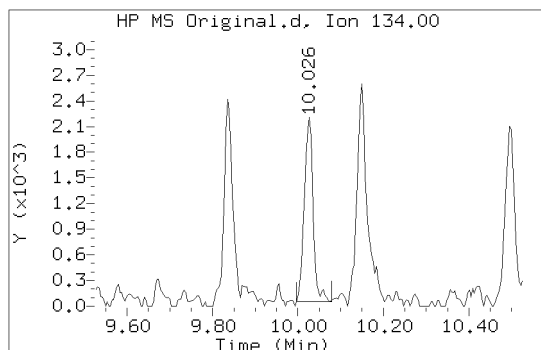
MASS
105
AREA
13938
HEIGHT
9559
03-May-2023
09:43
linh
pham

Reason Code:



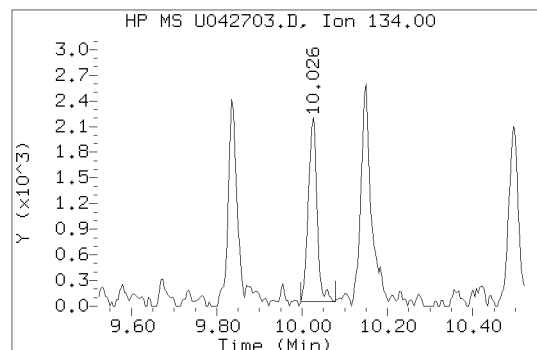
BEFORE

MASS
134
AREA
3131
HEIGHT
2155
01-May-2023
12:42
linh
pham



AFTER

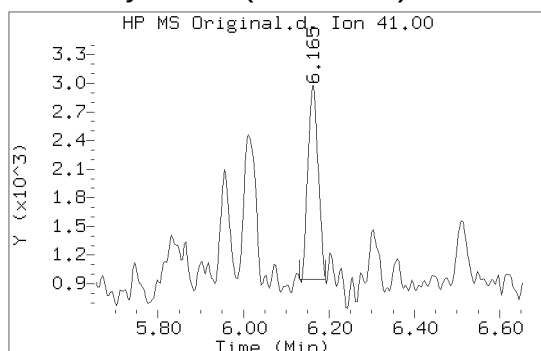
MASS
134
AREA
3131
HEIGHT
2155
03-May-2023
09:43
linh
pham



Methyl Methacrylate (80-62-6)

BEFORE

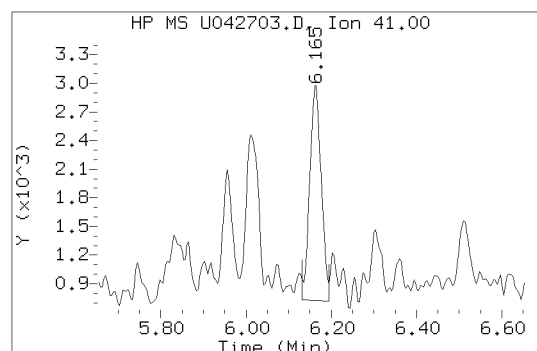
MASS
119
AREA
12064
HEIGHT
8413
01-May-2023
12:42
linh
pham



AFTER

MASS
41
AREA
4328
HEIGHT
2247
03-May-2023
09:43
linh
pham

Reason Code:

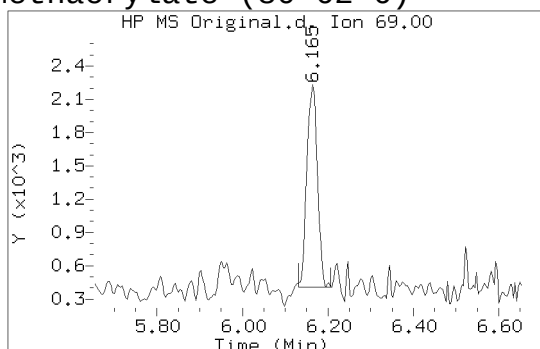


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

Methyl Methacrylate (80-62-6)

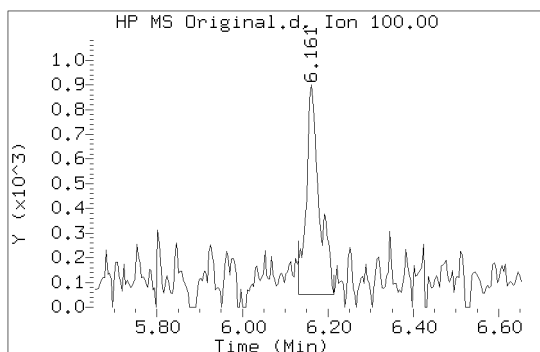
BEFORE

MASS
134
AREA
4469
HEIGHT
2599
01-May-2023
12:42
linh



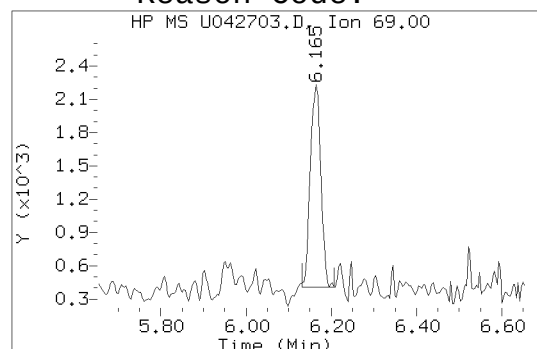
BEFORE

MASS
91
AREA
4073
HEIGHT
2121
01-May-2023
12:42
linh
pham



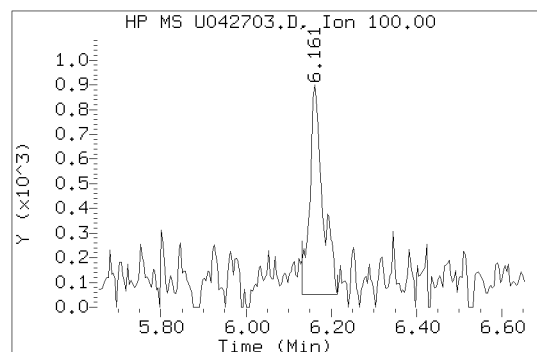
AFTER

MASS
69
AREA
3195
HEIGHT
1825
03-May-2023
09:43
linh



AFTER

MASS
100
AREA
1818
HEIGHT
848
03-May-2023
09:43
linh
pham

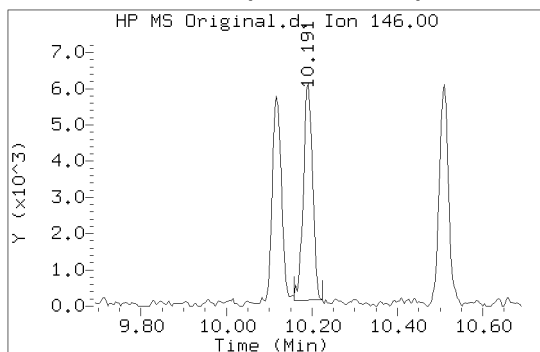


Reason Code:

1,4-Dichlorobenzene (106-46-7)

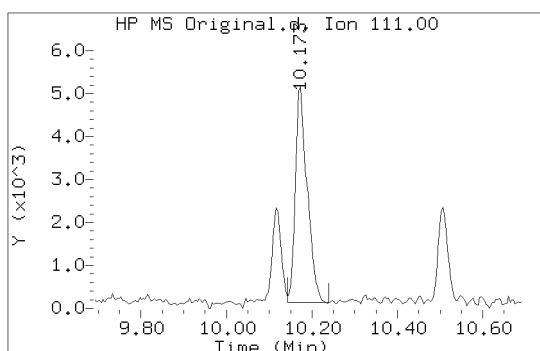
BEFORE

MASS
146
AREA
9187
HEIGHT
5970
01-May-2023
12:42
linh
pham



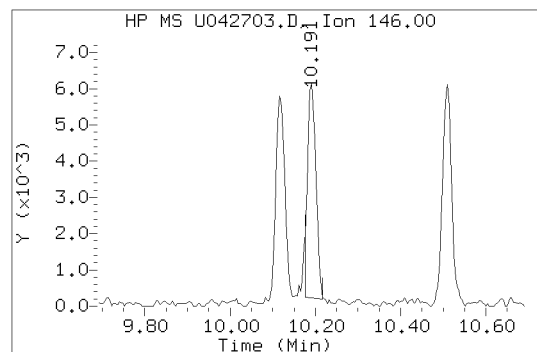
BEFORE

MASS
111
AREA
9828
HEIGHT
5034
01-May-2023
12:42
linh
pham



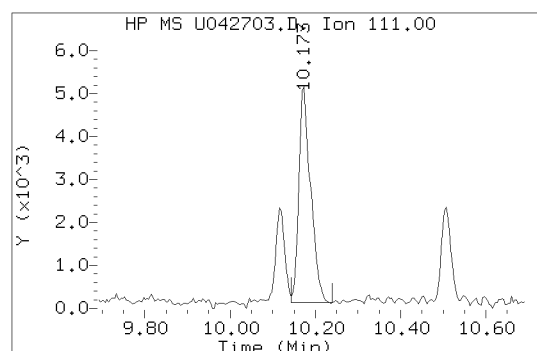
AFTER

MASS
146
AREA
8402
HEIGHT
5910
03-May-2023
09:43
linh
pham



AFTER

MASS
111
AREA
9828
HEIGHT
5034
03-May-2023
09:43
linh
pham



Reason Code:

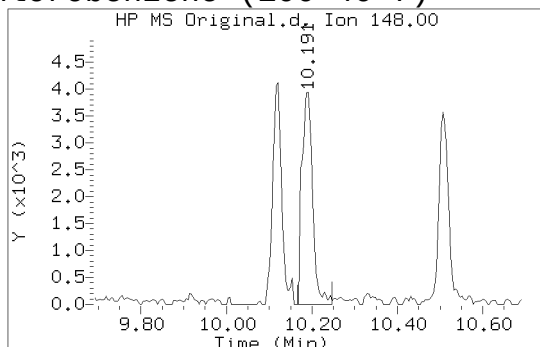


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

1,4-Dichlorobenzene (106-46-7)

BEFORE

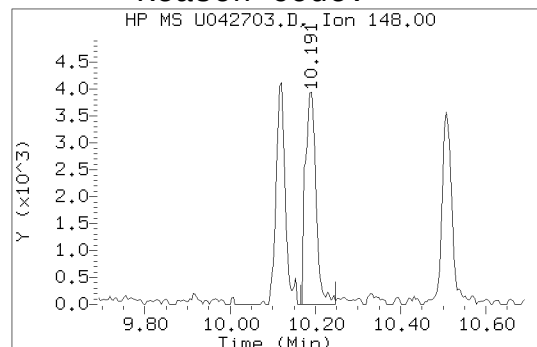
MASS
148
AREA
7029
HEIGHT
3944
01-May-2023
12:42
linh
pham



AFTER

MASS
148
AREA
7029
HEIGHT
3944
03-May-2023
09:43
linh
pham

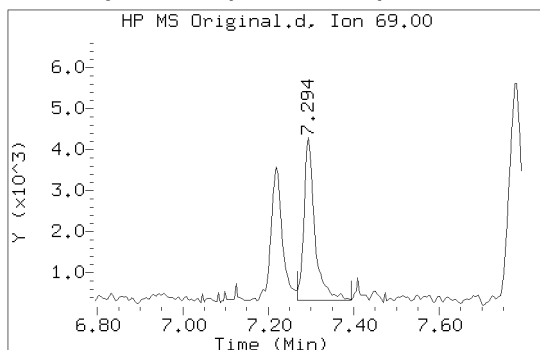
Reason Code:



Ethyl Methacrylate (97-63-2)

BEFORE

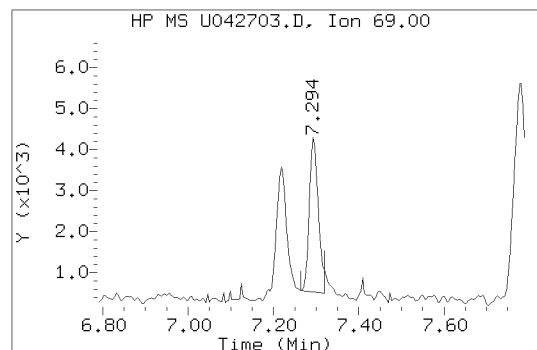
MASS
69
AREA
7161
HEIGHT
3968
01-May-2023
12:42
linh
pham



AFTER

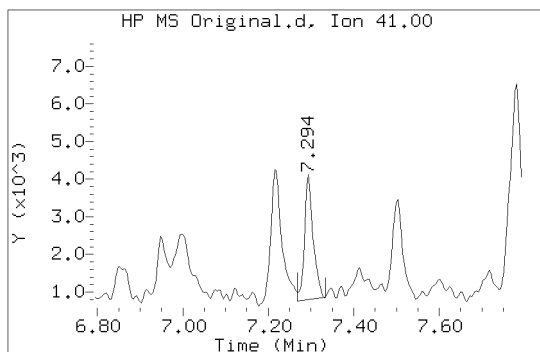
MASS
69
AREA
5613
HEIGHT
3761
03-May-2023
09:43
linh
pham

Reason Code:



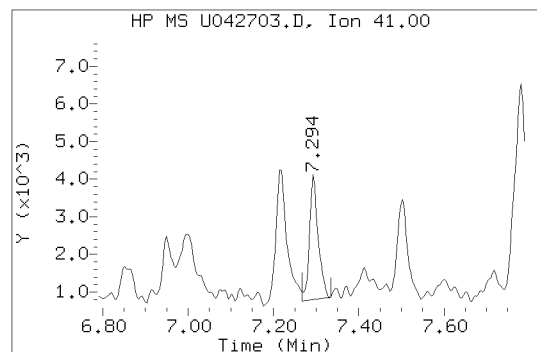
BEFORE

MASS
41
AREA
4709
HEIGHT
3329
01-May-2023
12:42
linh
pham



AFTER

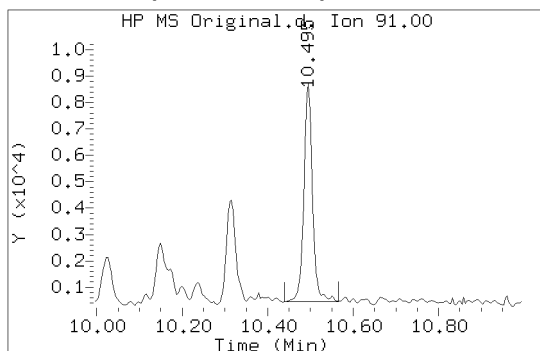
MASS
41
AREA
4709
HEIGHT
3329
03-May-2023
09:43
linh
pham



n-Butylbenzene (104-51-8)

BEFORE

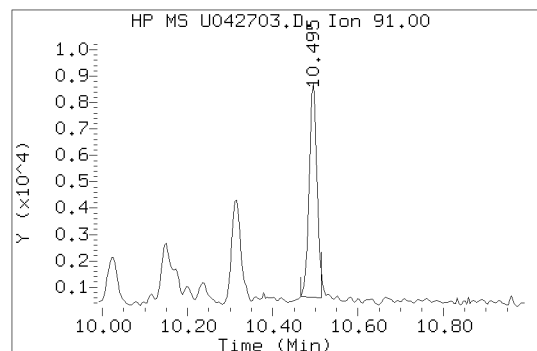
MASS
91
AREA
11941
HEIGHT
8258
01-May-2023
12:42
linh
pham



AFTER

MASS
91
AREA
10626
HEIGHT
8089
03-May-2023
09:43
linh
pham

Reason Code:

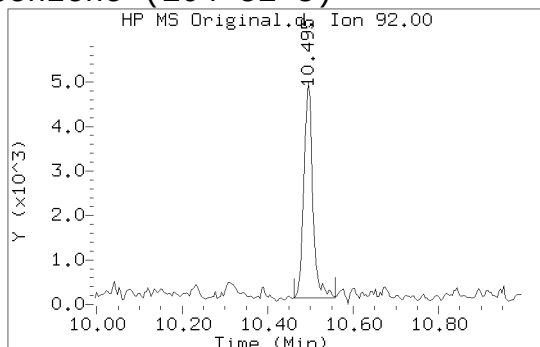


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

n-Butylbenzene (104-51-8)

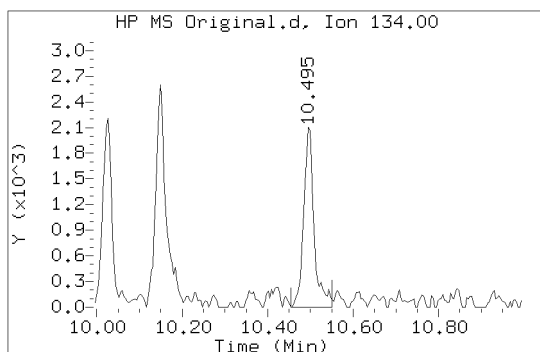
BEFORE

MASS
92
AREA
7192
HEIGHT
4844
01-May-2023
12:42
linh



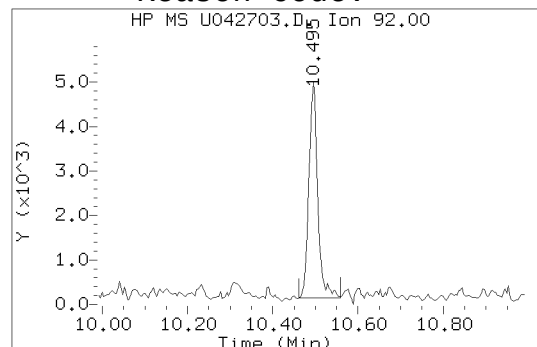
BEFORE

MASS
134
AREA
3631
HEIGHT
2103
01-May-2023
12:42
linh
pham



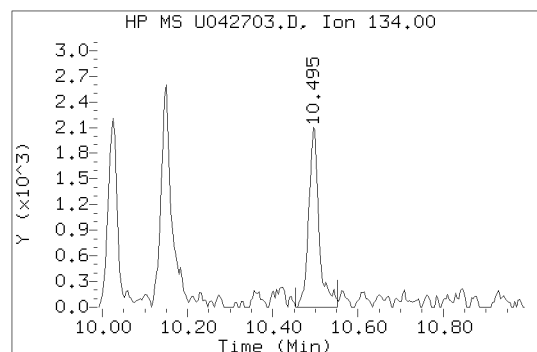
AFTER

MASS
92
AREA
7192
HEIGHT
4844
03-May-2023
09:43
linh



AFTER

MASS
134
AREA
3631
HEIGHT
2103
03-May-2023
09:43
linh
pham

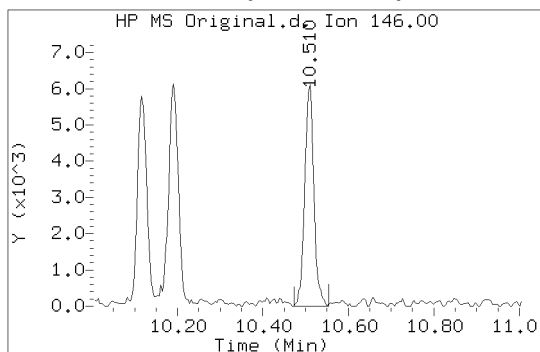


Reason Code:

1,2-Dichlorobenzene (95-50-1)

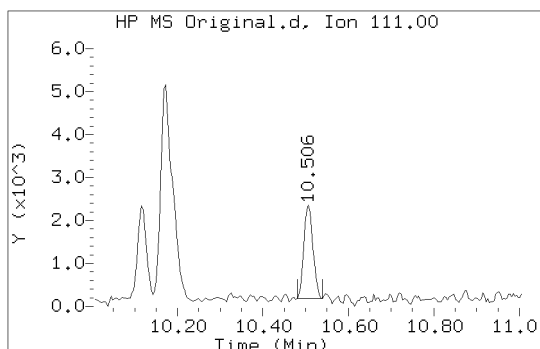
BEFORE

MASS
146
AREA
9331
HEIGHT
6124
01-May-2023
12:42
linh
pham



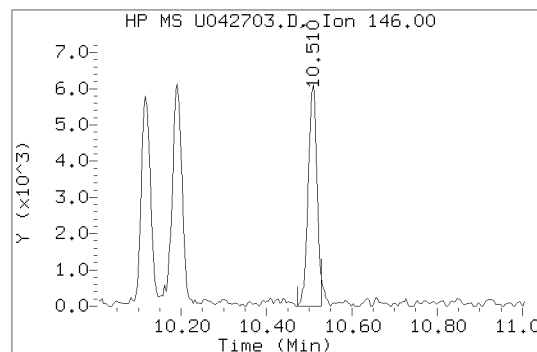
BEFORE

MASS
111
AREA
3321
HEIGHT
2189
01-May-2023
12:42
linh
pham



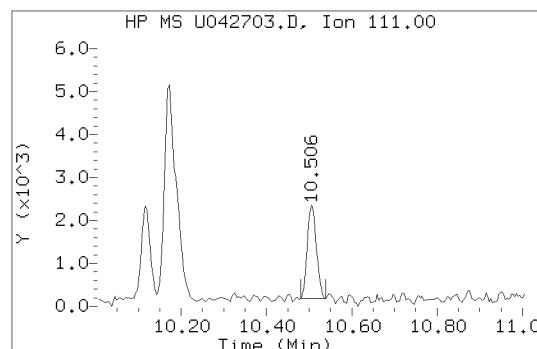
AFTER

MASS
146
AREA
8986
HEIGHT
6124
03-May-2023
09:43
linh
pham



AFTER

MASS
111
AREA
3321
HEIGHT
2189
03-May-2023
09:43
linh
pham



Reason Code:

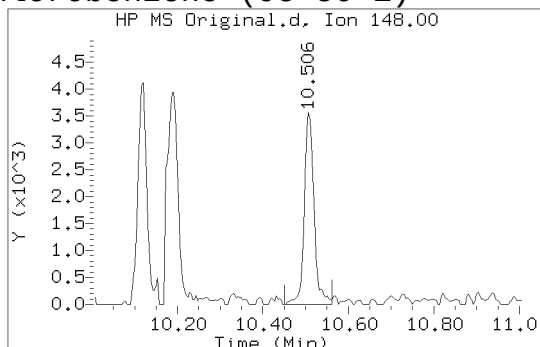


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

1,2-Dichlorobenzene (95-50-1)

BEFORE

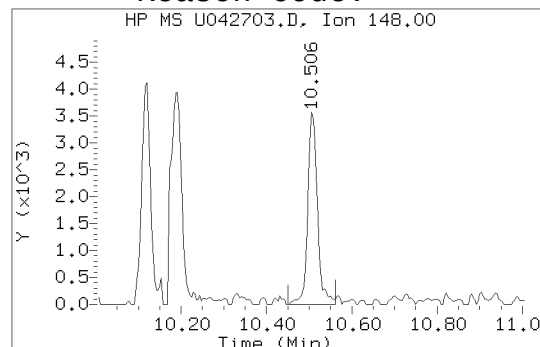
MASS
148
AREA
5788
HEIGHT
3570
01-May-2023
12:42
linh
pham



AFTER

MASS
148
AREA
5788
HEIGHT
3570
03-May-2023
09:43
linh
pham

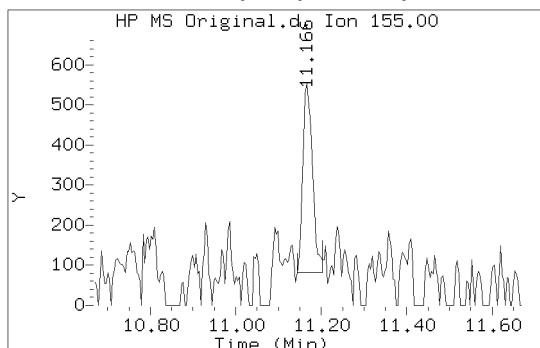
Reason Code:



1,2-Dibromo-3-Chloropropane (96-12-8)

BEFORE

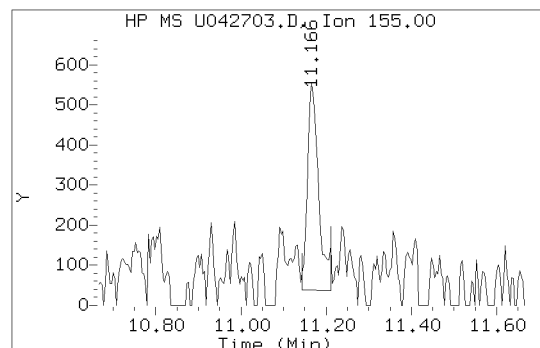
MASS
155
AREA
753
HEIGHT
471
01-May-2023
12:42
linh
pham



AFTER

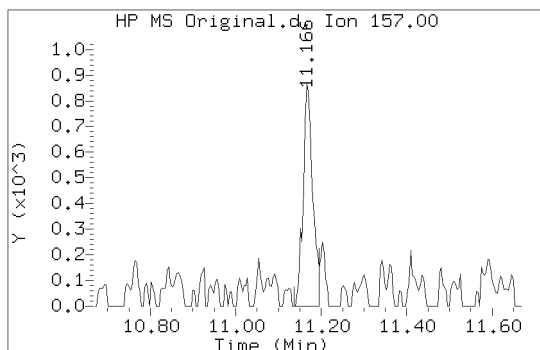
MASS
155
AREA
964
HEIGHT
514
03-May-2023
09:43
linh
pham

Reason Code:



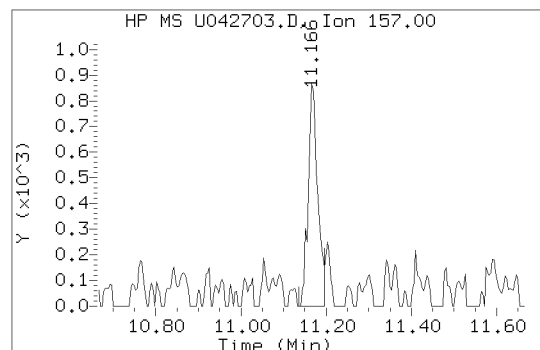
BEFORE

MASS
157
AREA
1382
HEIGHT
866
01-May-2023
12:42
linh
pham



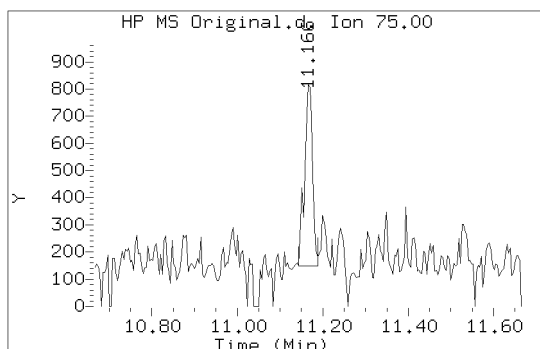
AFTER

MASS
157
AREA
1382
HEIGHT
866
03-May-2023
09:43
linh
pham



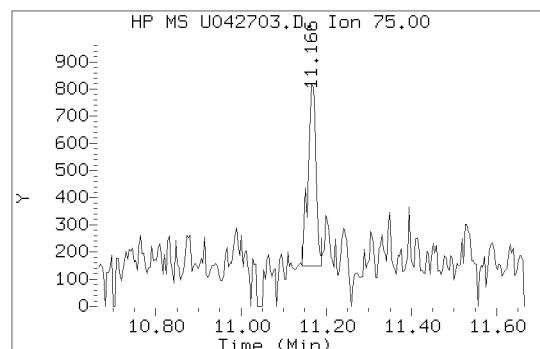
BEFORE

MASS
75
AREA
894
HEIGHT
667
01-May-2023
12:42
linh
pham



AFTER

MASS
75
AREA
894
HEIGHT
667
03-May-2023
09:43
linh
pham

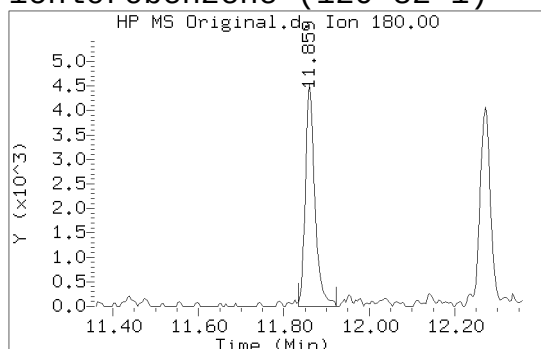


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

1,2,4-Trichlorobenzene (120-82-1)

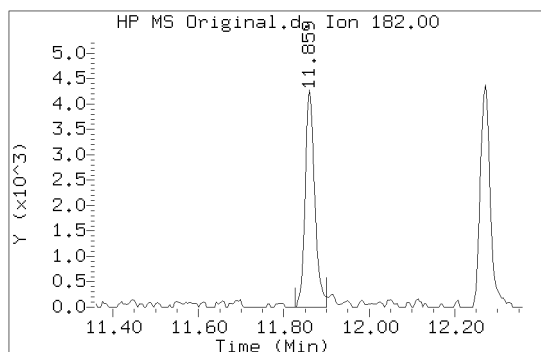
BEFORE

MASS
180
AREA
7127
HEIGHT
4525
01-May-2023
12:42
linh



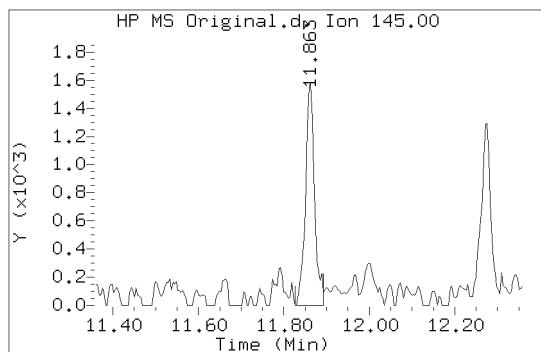
BEFORE

MASS
182
AREA
6807
HEIGHT
4271
01-May-2023
12:42
linh
pham



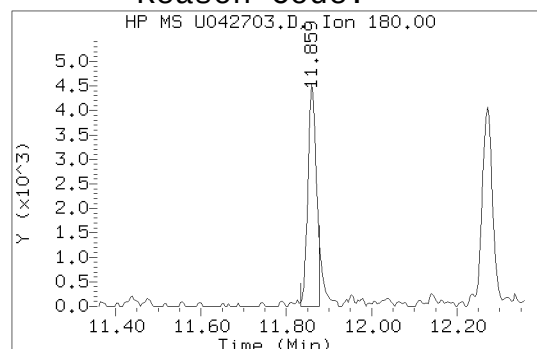
BEFORE

MASS
145
AREA
2362
HEIGHT
1575
01-May-2023
12:42
linh
pham



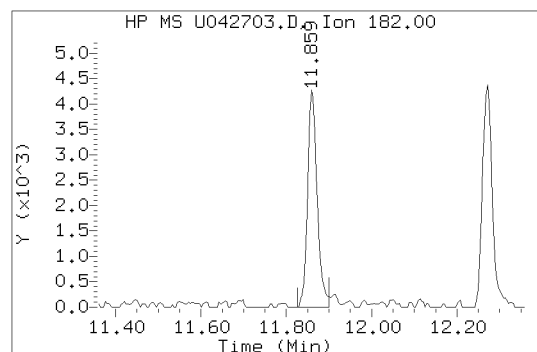
AFTER

MASS
180
AREA
6409
HEIGHT
4525
03-May-2023
09:43
linh



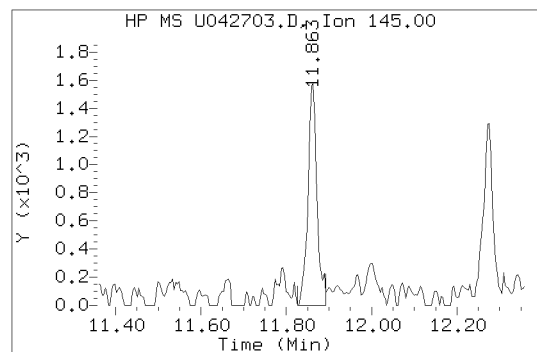
AFTER

MASS
182
AREA
6807
HEIGHT
4271
03-May-2023
09:43
linh
pham



AFTER

MASS
145
AREA
2362
HEIGHT
1575
03-May-2023
09:43
linh
pham

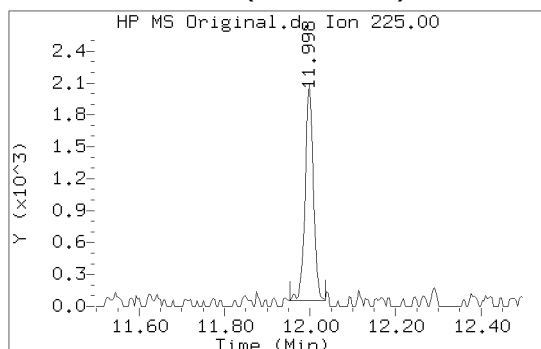


Reason Code:

Hexachlorobutadiene (87-68-3)

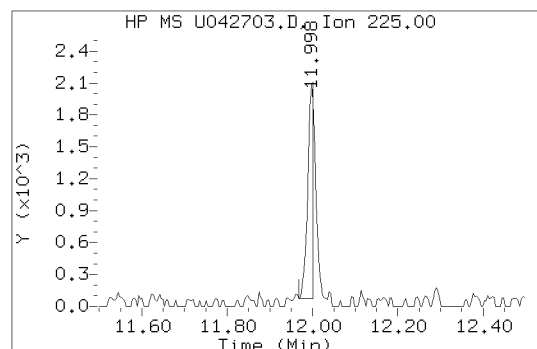
BEFORE

MASS
225
AREA
2766
HEIGHT
2029
01-May-2023
12:42
linh
pham



AFTER

MASS
225
AREA
1936
HEIGHT
2013
03-May-2023
09:43
linh
pham



Reason Code:

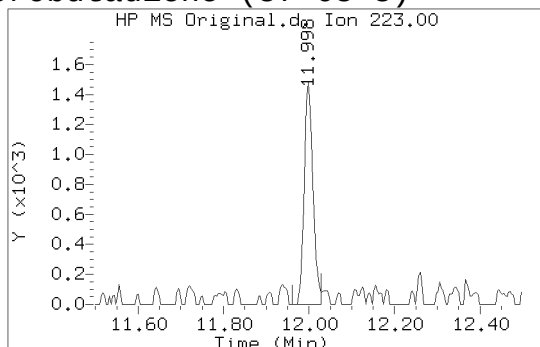


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

Hexachlorobutadiene (87-68-3)

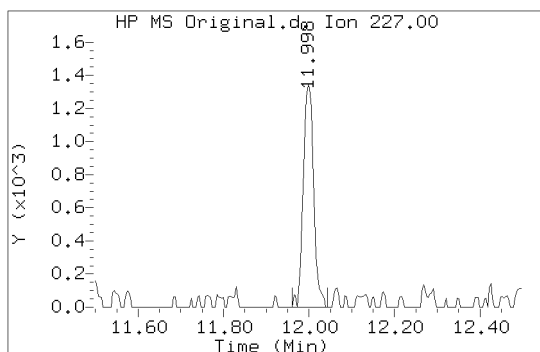
BEFORE

MASS
223
AREA
2154
HEIGHT
1479
01-May-2023
12:42
linh



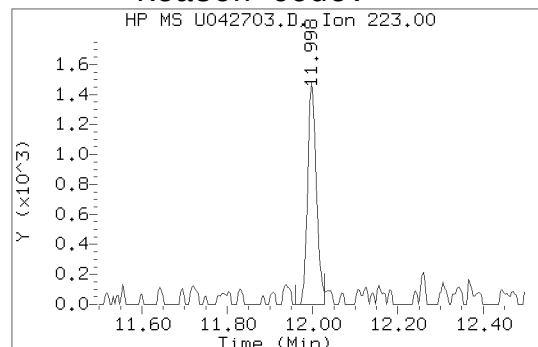
BEFORE

MASS
227
AREA
2330
HEIGHT
1342
01-May-2023
12:42
linh
pham



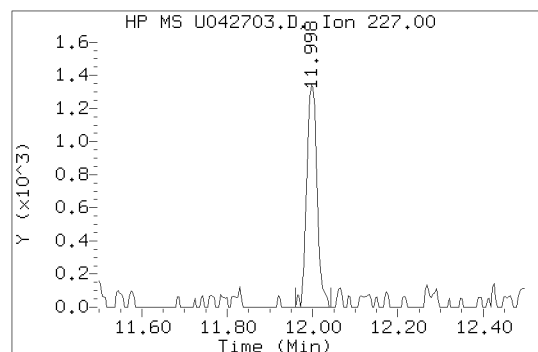
AFTER

MASS
223
AREA
2154
HEIGHT
1479
03-May-2023
09:43
linh



AFTER

MASS
227
AREA
2330
HEIGHT
1342
03-May-2023
09:43
linh
pham

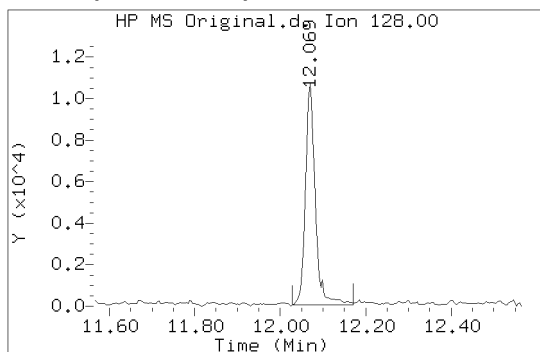


Reason Code:

Naphthalene (91-20-3)

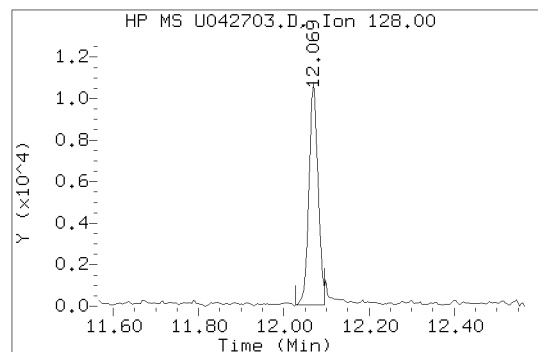
BEFORE

MASS
128
AREA
17558
HEIGHT
10654
01-May-2023
12:42
linh
pham



AFTER

MASS
128
AREA
16258
HEIGHT
10654
03-May-2023
09:43
linh
pham

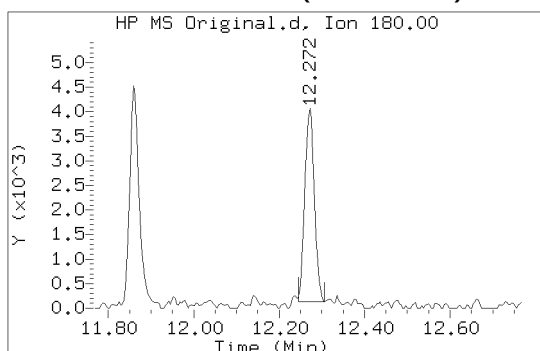


Reason Code:

1,2,3-Trichlorobenzene (87-61-6)

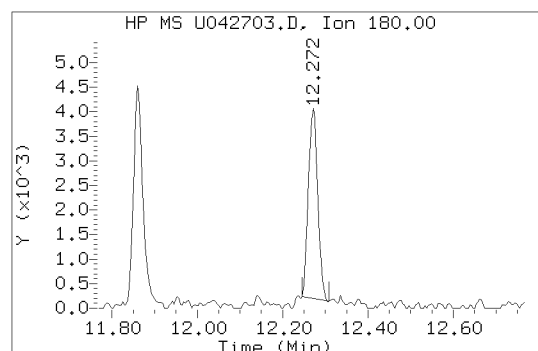
BEFORE

MASS
180
AREA
6278
HEIGHT
3941
01-May-2023
12:42
linh
pham



AFTER

MASS
180
AREA
6035
HEIGHT
3872
03-May-2023
09:43
linh
pham



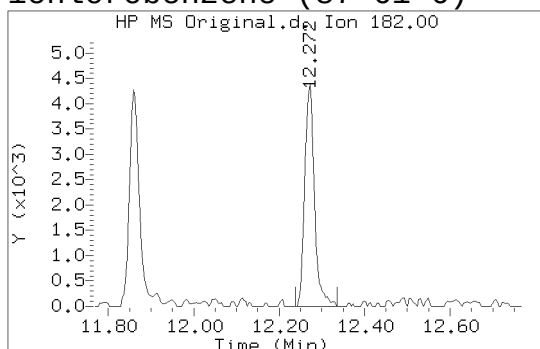
Reason Code:

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

1,2,3-Trichlorobenzene (87-61-6)

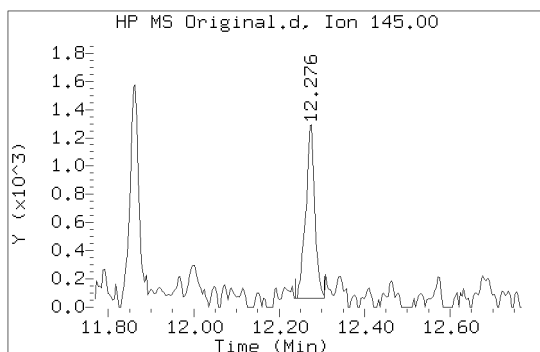
BEFORE

MASS
182
AREA
7128
HEIGHT
4376
01-May-2023
12:42
linh



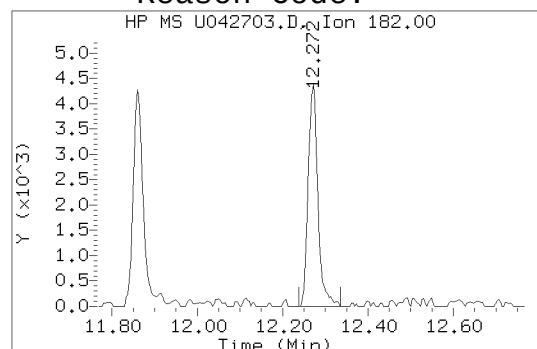
BEFORE

MASS
145
AREA
1852
HEIGHT
1230
01-May-2023
12:42
linh
pham



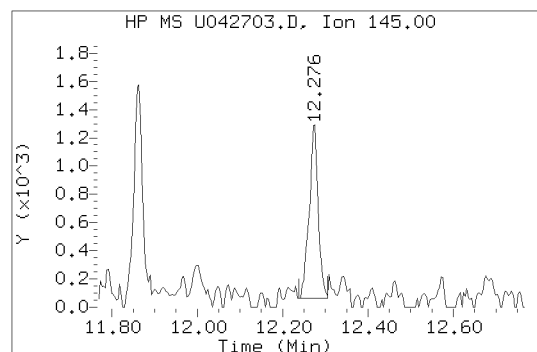
AFTER

MASS
182
AREA
7128
HEIGHT
4376
03-May-2023
09:43
linh



AFTER

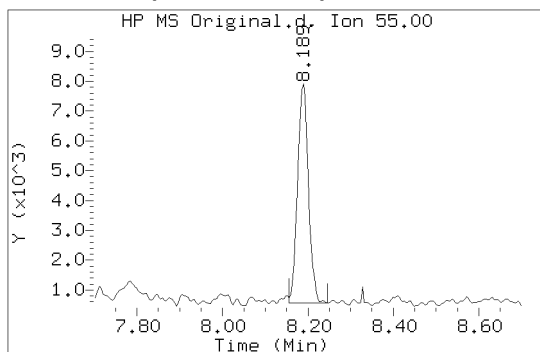
MASS
145
AREA
1852
HEIGHT
1230
03-May-2023
09:43
linh
pham



1-Chlorohexane (544-10-5)

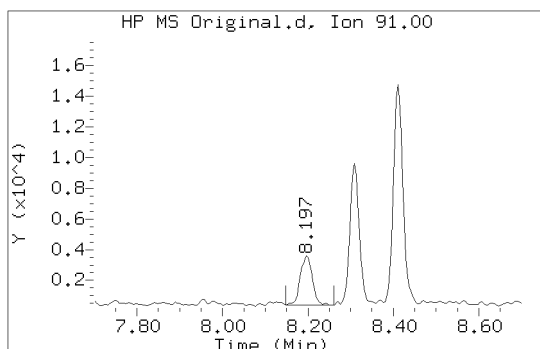
BEFORE

MASS
55
AREA
13321
HEIGHT
7350
01-May-2023
12:42
linh
pham



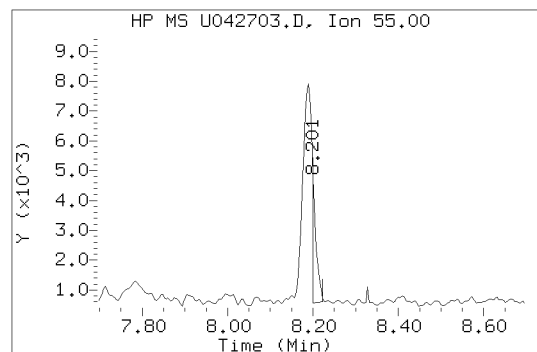
BEFORE

MASS
91
AREA
6490
HEIGHT
3229
01-May-2023
12:42
linh
pham



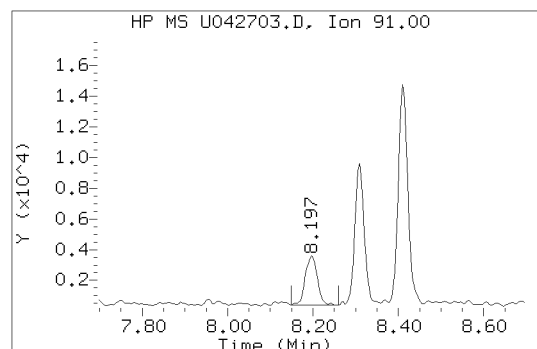
AFTER

MASS
55
AREA
2561
HEIGHT
4232
03-May-2023
09:43
linh
pham



AFTER

MASS
91
AREA
6490
HEIGHT
3229
03-May-2023
09:43
linh
pham

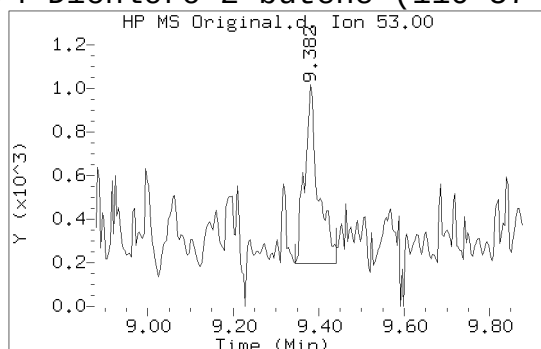


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

trans-1,4-Dichloro-2-butene (110-57-6)

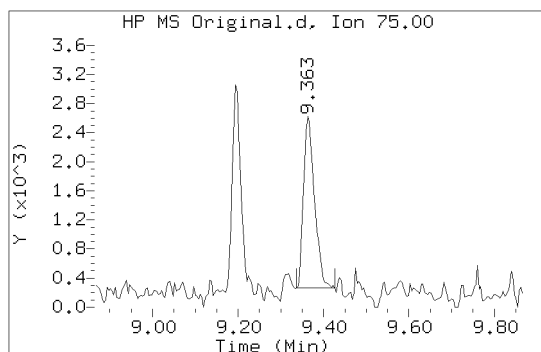
BEFORE

MASS
53
AREA
1839
HEIGHT
821
01-May-2023
12:42
linh



BEFORE

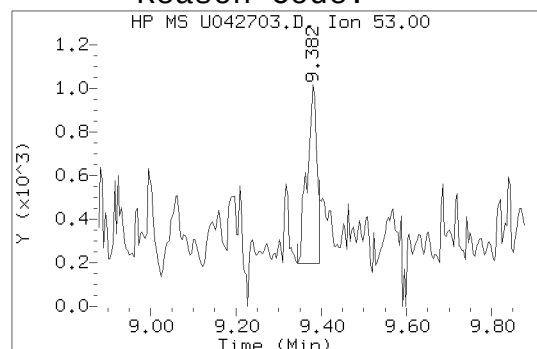
MASS
75
AREA
4337
HEIGHT
2364
01-May-2023
12:42
linh
pham



AFTER

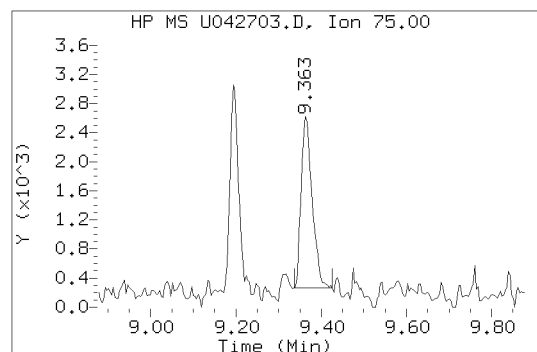
MASS
53
AREA
1334
HEIGHT
821
03-May-2023
09:43
linh

Reason Code:



AFTER

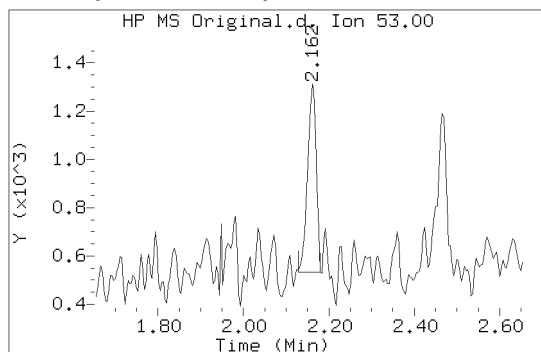
MASS
75
AREA
4337
HEIGHT
2364
03-May-2023
09:43
linh
pham



Chloroprene (126-99-8)

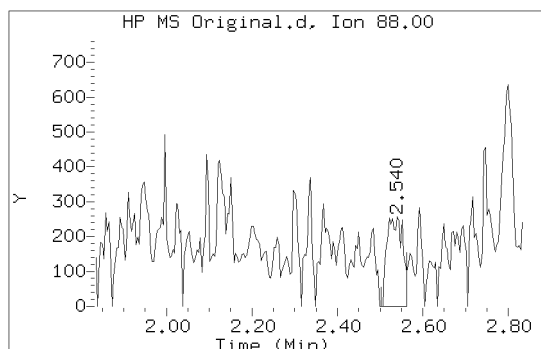
BEFORE

MASS
53
AREA
1120
HEIGHT
781
01-May-2023
12:42
linh
pham



BEFORE

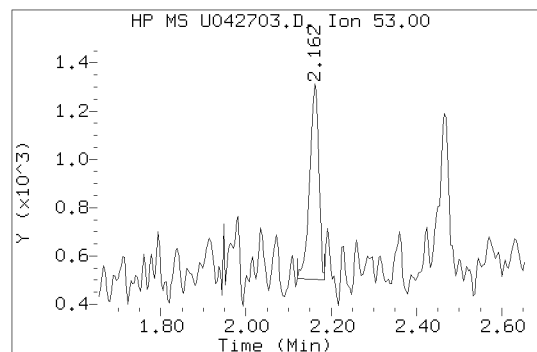
MASS
88
AREA
659
HEIGHT
257
01-May-2023
12:42
linh
pham



AFTER

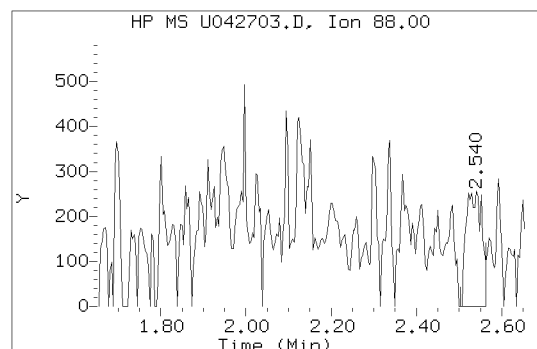
MASS
53
AREA
1230
HEIGHT
809
03-May-2023
09:43
linh
pham

Reason Code:



AFTER

MASS
88
AREA
659
HEIGHT
257
03-May-2023
09:43
linh
pham

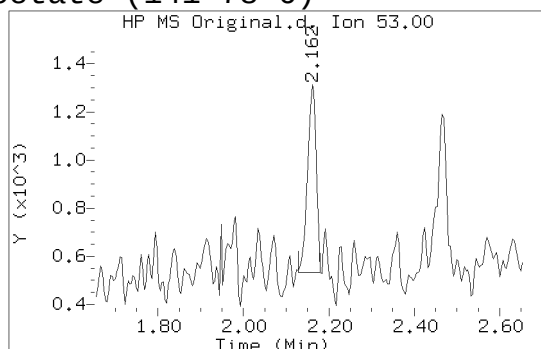


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

Ethyl Acetate (141-78-6)

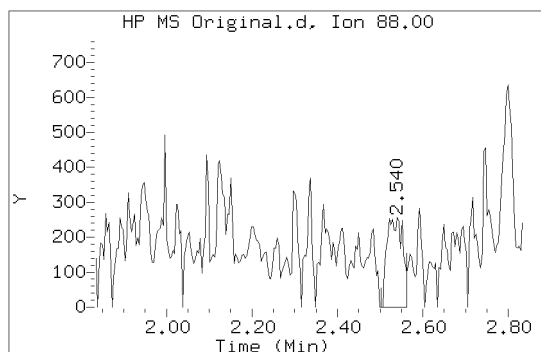
BEFORE

MASS
55
AREA
4881
HEIGHT
1715
01-May-2023
12:42
linh



BEFORE

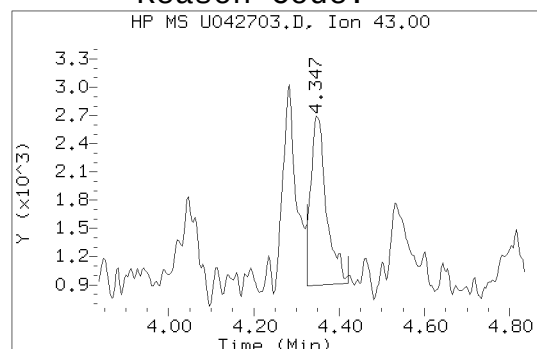
MASS
85
AREA
836
HEIGHT
452
01-May-2023
12:42
linh
pham



Reason Code:

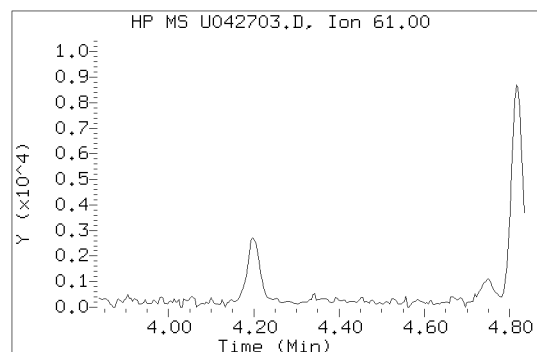
AFTER

MASS
43
AREA
4676
HEIGHT
1799
03-May-2023
09:43
linh



AFTER

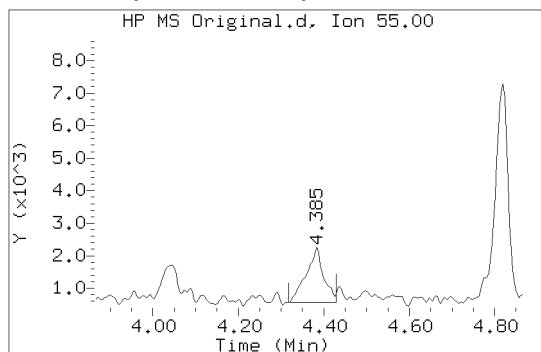
MASS
61
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



Cyclohexanone (108-94-1)

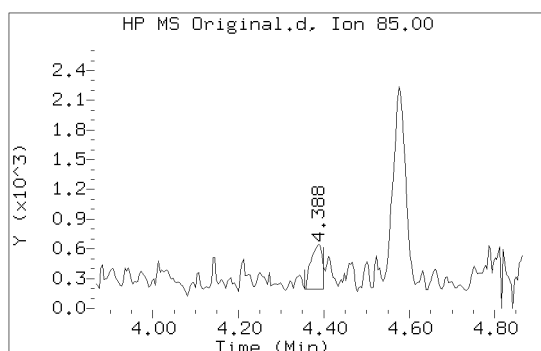
BEFORE

MASS
57
AREA
3885
HEIGHT
1847
01-May-2023
12:42
linh
pham



BEFORE

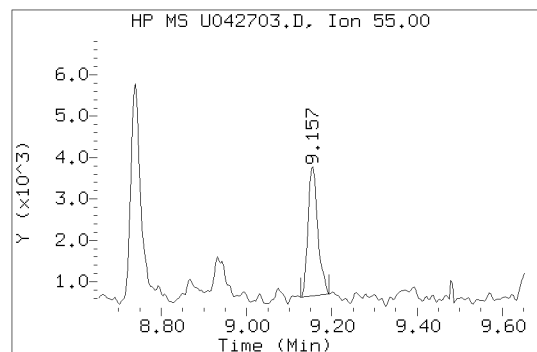
MASS
41
AREA
3839
HEIGHT
1518
01-May-2023
12:42
linh
pham



Reason Code:

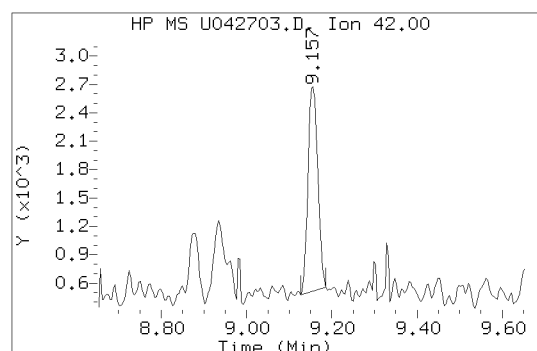
AFTER

MASS
55
AREA
5089
HEIGHT
3111
03-May-2023
09:43
linh
pham



AFTER

MASS
42
AREA
3523
HEIGHT
2160
03-May-2023
09:43
linh
pham

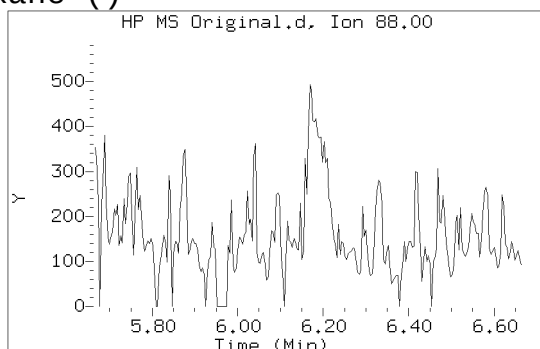


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

1,4-Dioxane ()

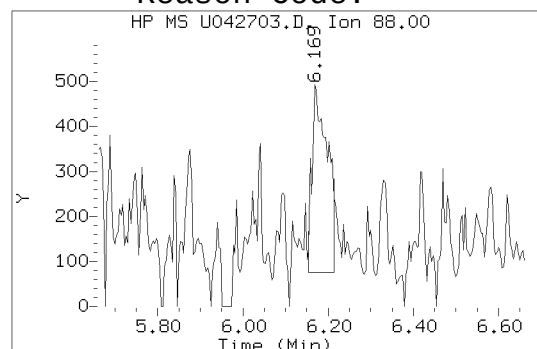
BEFORE

MASS
59
AREA
3524
HEIGHT
2205
01-May-2023
12:42
linh



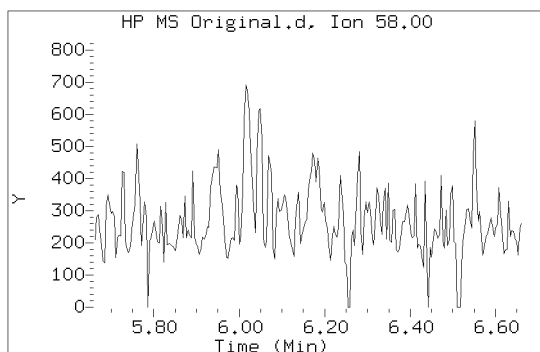
AFTER

MASS
88
AREA
1065
HEIGHT
418
03-May-2023
09:43
linh



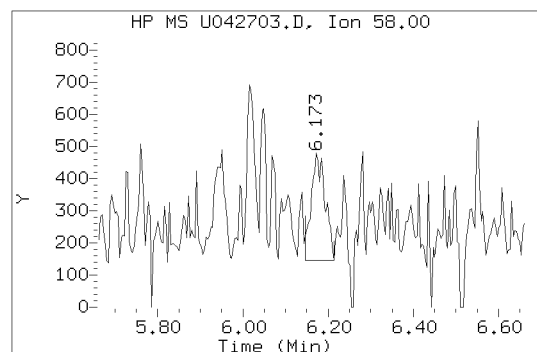
BEFORE

MASS
74
AREA
1936
HEIGHT
1244
01-May-2023
12:42
linh
pham



AFTER

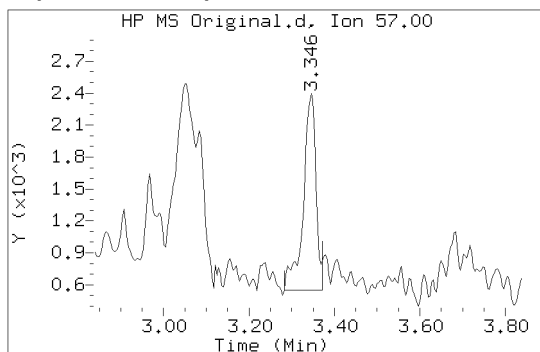
MASS
58
AREA
773
HEIGHT
334
03-May-2023
09:43
linh
pham



n-Hexane (110-54-3)

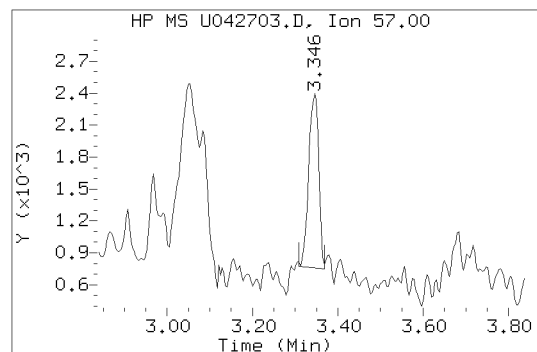
BEFORE

MASS
54
AREA
3223
HEIGHT
2658
01-May-2023
12:42
linh
pham



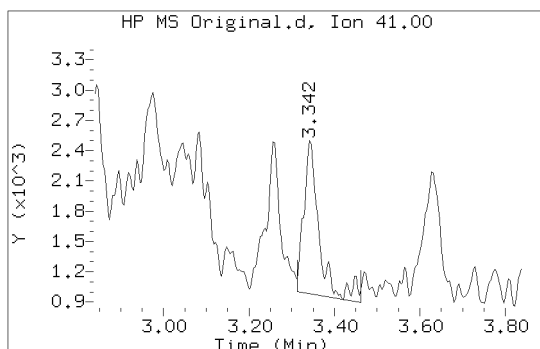
AFTER

MASS
57
AREA
2717
HEIGHT
1635
03-May-2023
09:43
linh
pham



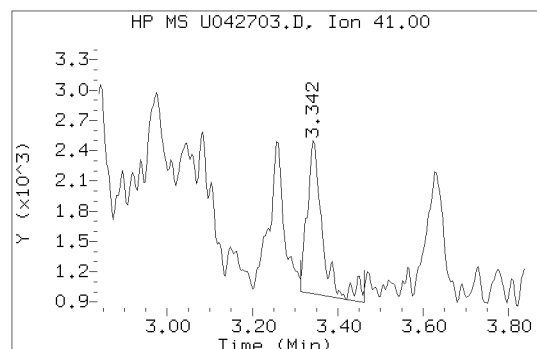
BEFORE

MASS
53
AREA
2014
HEIGHT
2003
01-May-2023
12:42
linh
pham



AFTER

MASS
41
AREA
3839
HEIGHT
1518
03-May-2023
09:43
linh
pham

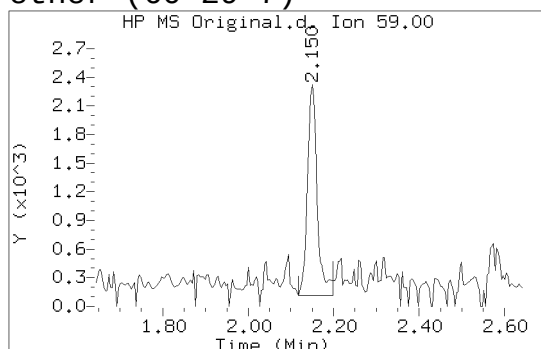


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

Diethyl ether (60-29-7)

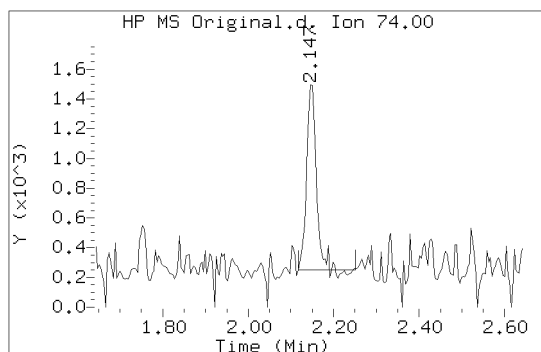
BEFORE

MASS
56
AREA
17501
HEIGHT
6624
01-May-2023
12:42
linh



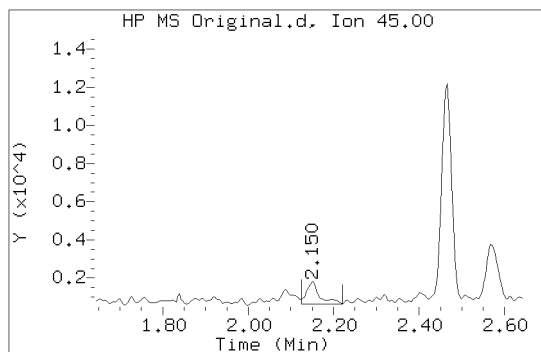
BEFORE

MASS
84
AREA
21327
HEIGHT
8708
01-May-2023
12:42
linh
pham



BEFORE

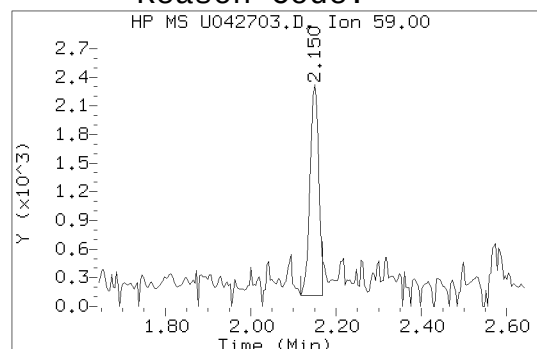
MASS
69
AREA
26365
HEIGHT
12634
01-May-2023
12:42
linh
pham



Reason Code:

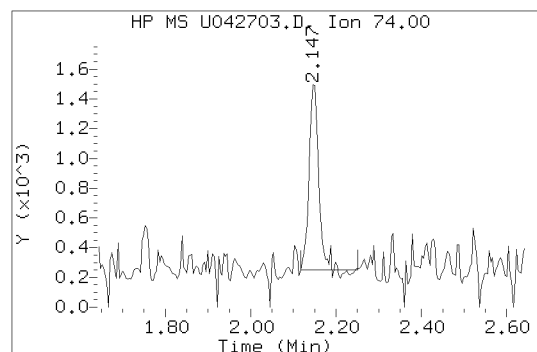
AFTER

MASS
59
AREA
3203
HEIGHT
2205
03-May-2023
09:43
linh



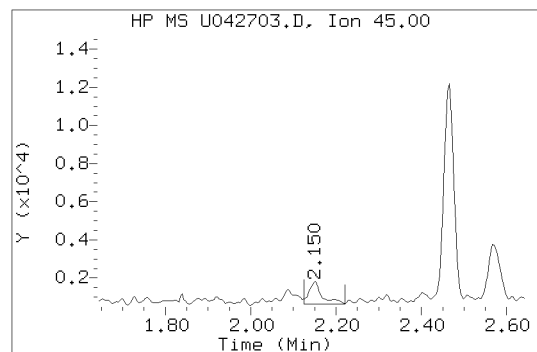
AFTER

MASS
74
AREA
1936
HEIGHT
1244
03-May-2023
09:43
linh
pham



AFTER

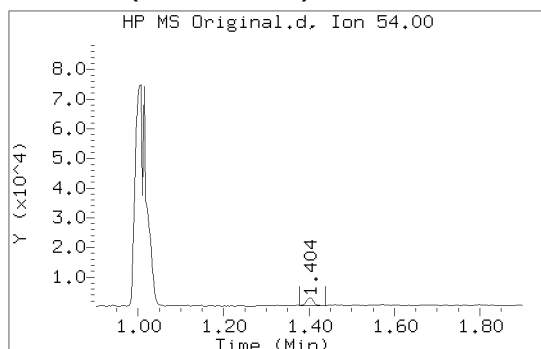
MASS
45
AREA
2448
HEIGHT
1159
03-May-2023
09:43
linh
pham



1,3-Butadiene (106-99-0)

BEFORE

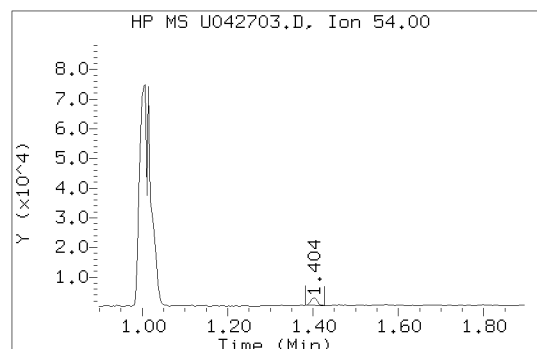
MASS
42
AREA
5006
HEIGHT
2382
01-May-2023
12:42
linh
pham



Reason Code:

AFTER

MASS
54
AREA
2850
HEIGHT
2543
03-May-2023
09:43
linh
pham

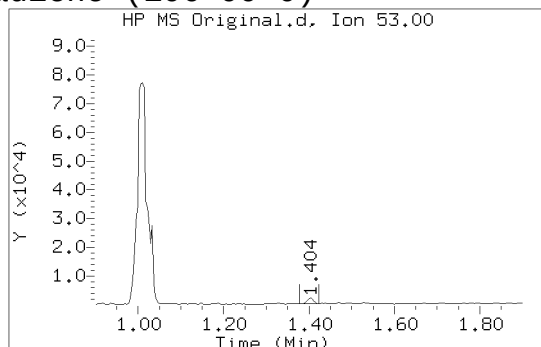


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

1,3-Butadiene (106-99-0)

BEFORE

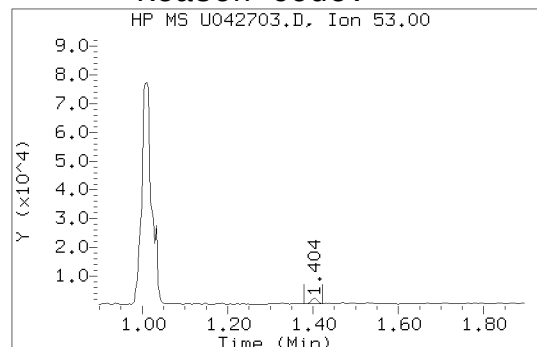
MASS
71
AREA
2637
HEIGHT
1303
01-May-2023
12:42
linh
pham



AFTER

MASS
53
AREA
2014
HEIGHT
2003
03-May-2023
09:43
linh
pham

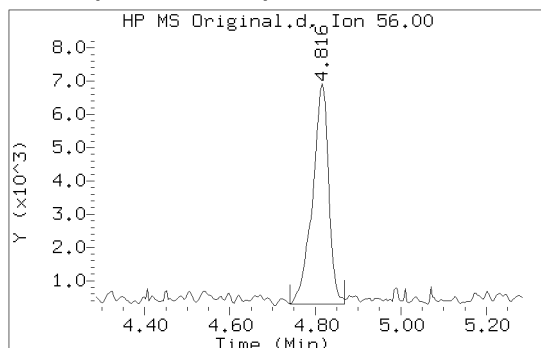
Reason Code:



Cyclohexane (110-82-7)

BEFORE

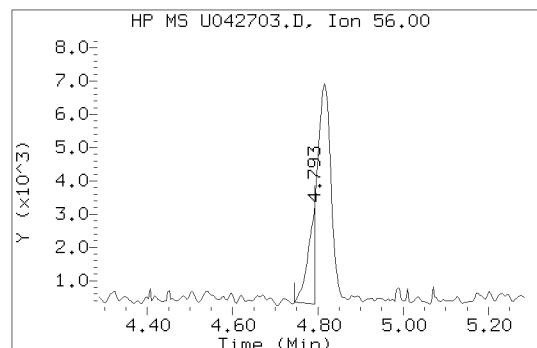
MASS
101
AREA
3090
HEIGHT
1517
01-May-2023
12:42
linh
pham



AFTER

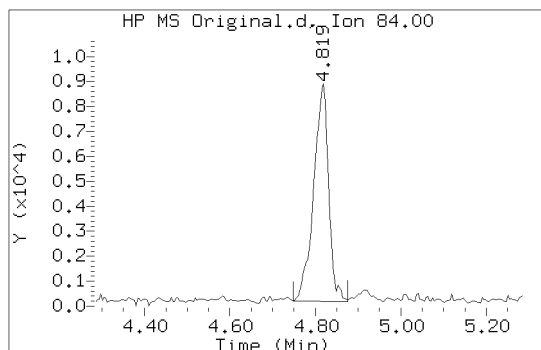
MASS
56
AREA
3518
HEIGHT
2973
03-May-2023
09:43
linh
pham

Reason Code:



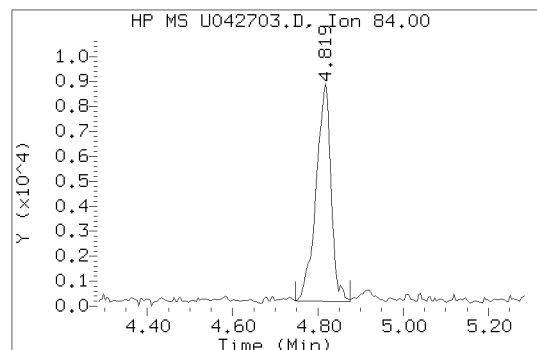
BEFORE

MASS
151
AREA
3189
HEIGHT
1715
01-May-2023
12:42
linh
pham



AFTER

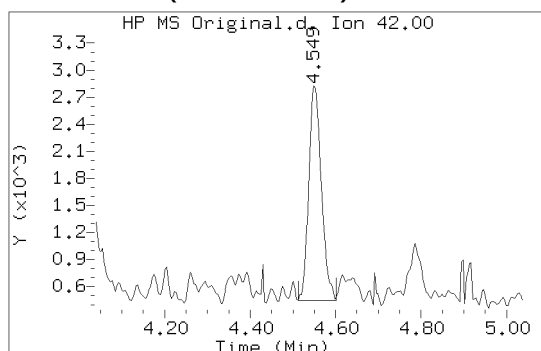
MASS
84
AREA
21327
HEIGHT
8708
03-May-2023
09:43
linh
pham



Tetrahydrofuran (109-99-9)

BEFORE

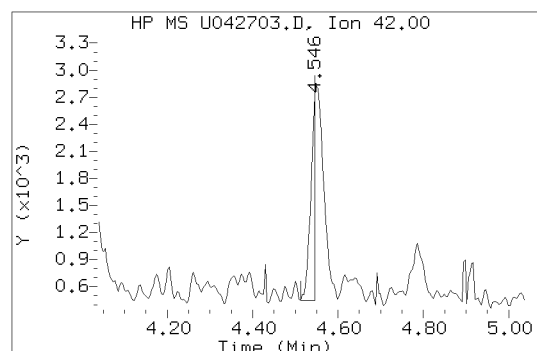
MASS
118
AREA
4910
HEIGHT
3333
01-May-2023
12:42
linh
pham



AFTER

MASS
42
AREA
1815
HEIGHT
2286
03-May-2023
09:43
linh
pham

Reason Code:

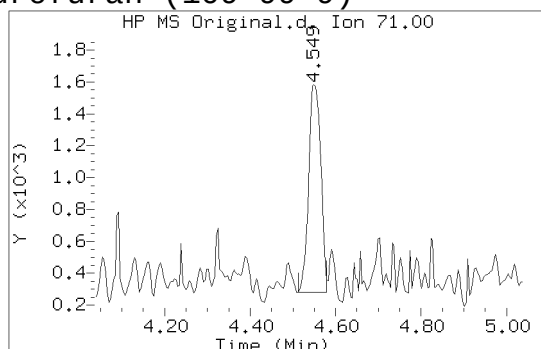


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

Tetrahydrofuran (109-99-9)

BEFORE

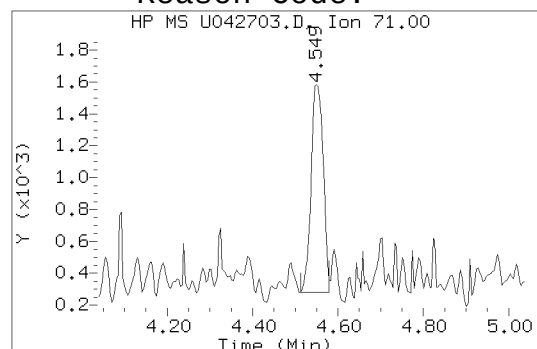
MASS
103
AREA
2957
HEIGHT
1808
01-May-2023
12:42
linh
pham



AFTER

MASS
71
AREA
2637
HEIGHT
1303
03-May-2023
09:43
linh
pham

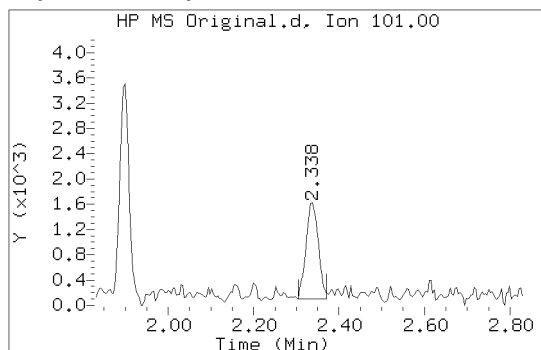
Reason Code:



Freon TF (76-13-1)

BEFORE

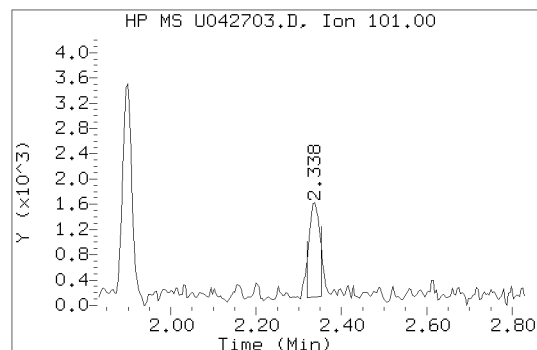
MASS
55
AREA
9663
HEIGHT
4429
01-May-2023
12:42
linh
pham



AFTER

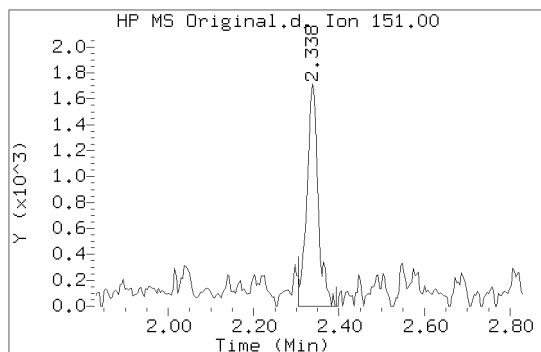
MASS
101
AREA
2536
HEIGHT
1487
03-May-2023
09:43
linh
pham

Reason Code:



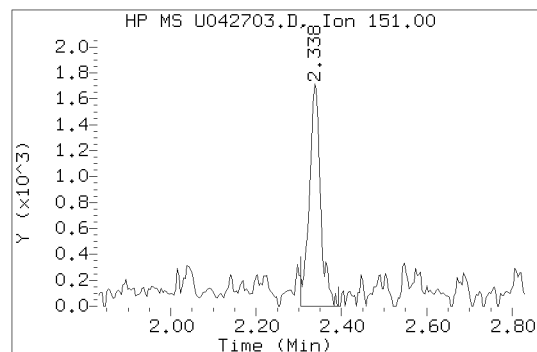
BEFORE

MASS
83
AREA
4668
HEIGHT
2252
01-May-2023
12:42
linh
pham



AFTER

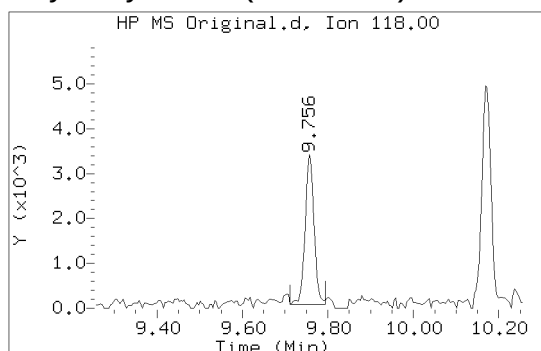
MASS
151
AREA
3189
HEIGHT
1715
03-May-2023
09:43
linh
pham



alpha-Methylstyrene (98-83-9)

BEFORE

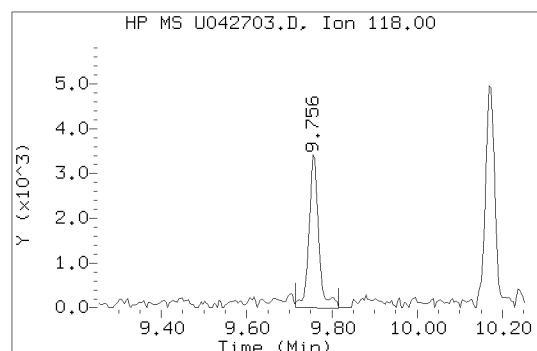
MASS
43
AREA
4110
HEIGHT
1656
01-May-2023
12:42
linh
pham



AFTER

MASS
118
AREA
5587
HEIGHT
3424
03-May-2023
09:43
linh
pham

Reason Code:

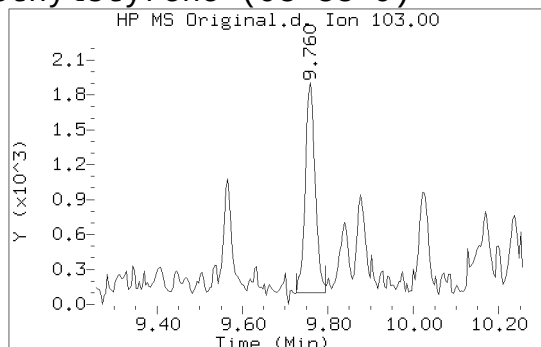


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

alpha-Methylstyrene (98-83-9)

BEFORE

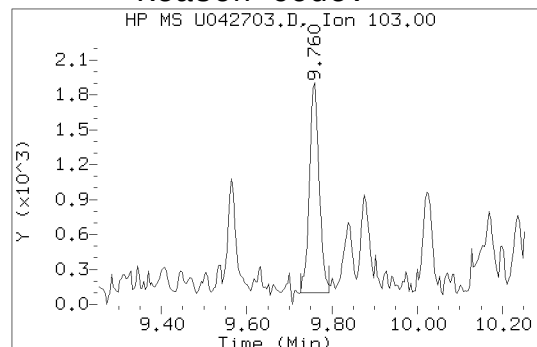
MASS
74
AREA
704
HEIGHT
476
01-May-2023
12:42
linh
pham



AFTER

MASS
103
AREA
2957
HEIGHT
1808
03-May-2023
09:43
linh
pham

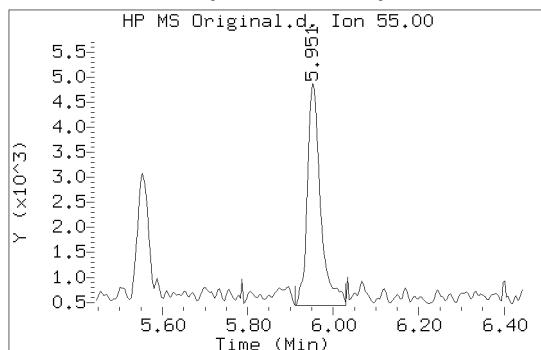
Reason Code:



Methylcyclohexane (108-87-2)

BEFORE

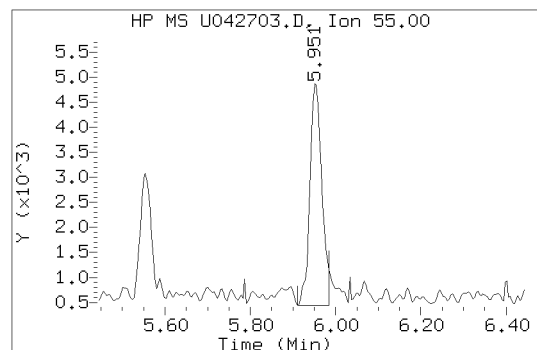
MASS
59
AREA
10336
HEIGHT
4326
01-May-2023
12:42
linh
pham



AFTER

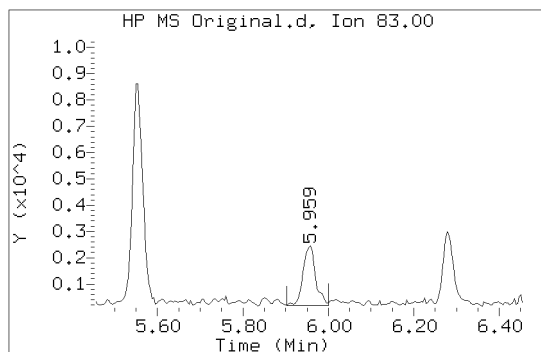
MASS
55
AREA
8829
HEIGHT
4429
03-May-2023
09:43
linh
pham

Reason Code:



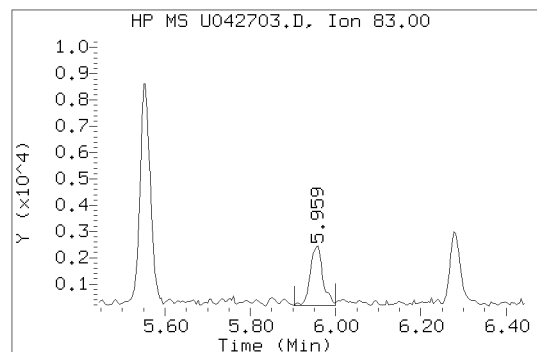
BEFORE

MASS
41
AREA
6139
HEIGHT
1293
01-May-2023
12:42
linh
pham



AFTER

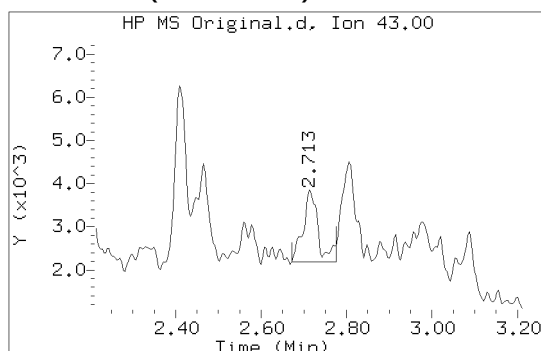
MASS
83
AREA
4668
HEIGHT
2252
03-May-2023
09:43
linh
pham



Methyl Acetate (79-20-9)

BEFORE

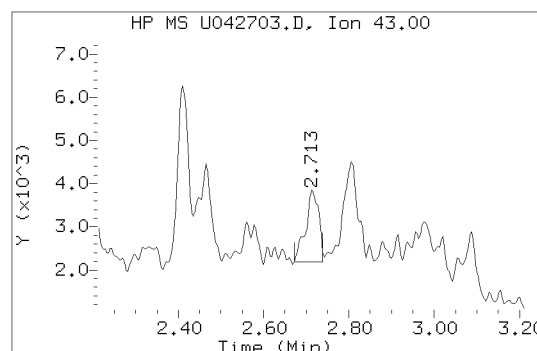
MASS
45
AREA
5594
HEIGHT
2891
01-May-2023
12:42
linh
pham



AFTER

MASS
43
AREA
3553
HEIGHT
1656
03-May-2023
09:43
linh
pham

Reason Code:

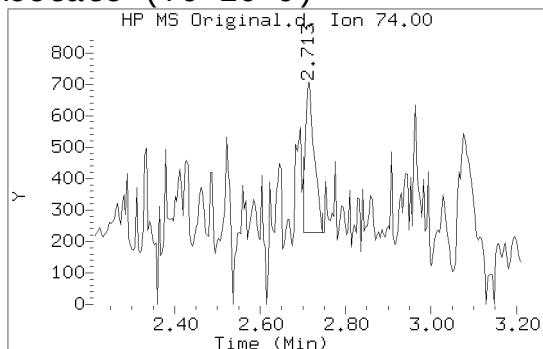


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

Methyl Acetate (79-20-9)

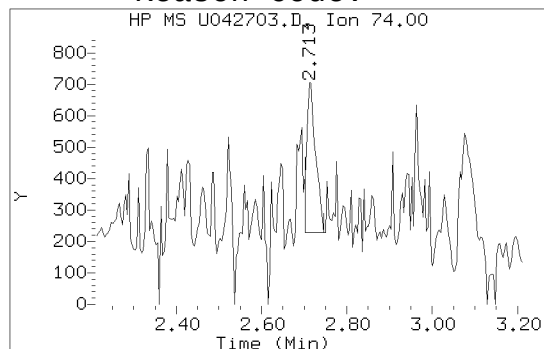
BEFORE

MASS
59
AREA
1940
HEIGHT
661
01-May-2023
12:42
linh
pham



AFTER

MASS
74
AREA
704
HEIGHT
476
03-May-2023
09:43
linh
pham

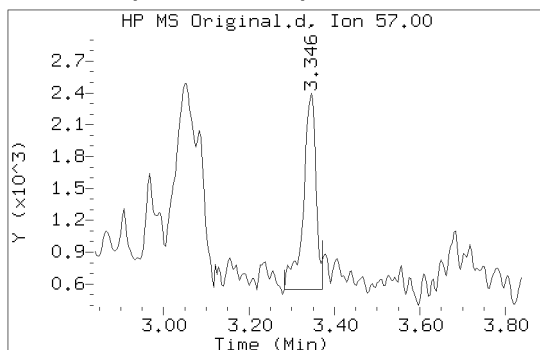


Reason Code:

Allyl alcohol (107-18-6)

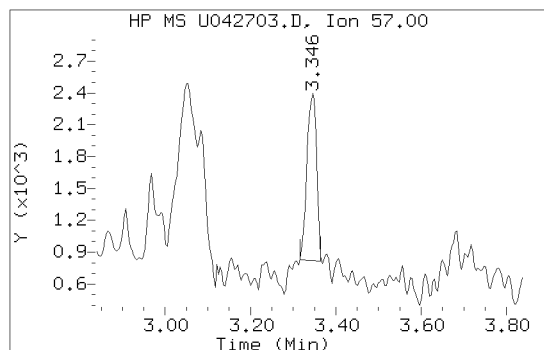
BEFORE

MASS
45
AREA
25225
HEIGHT
14206
01-May-2023
12:42
linh
pham



AFTER

MASS
57
AREA
2507
HEIGHT
1575
03-May-2023
09:43
linh
pham

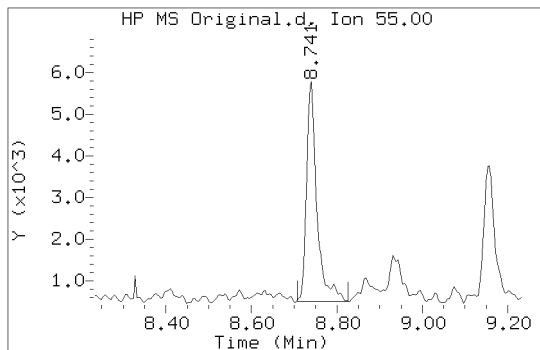


Reason Code:

Butyl acrylate (141-32-2)

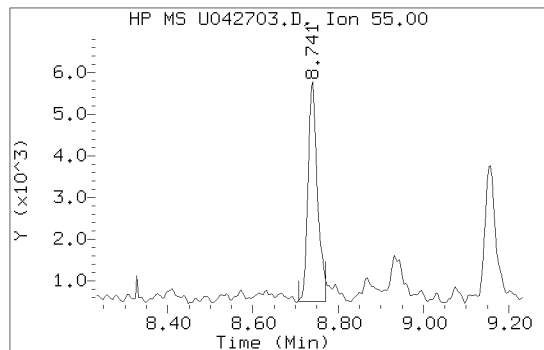
BEFORE

MASS
105
AREA
12365
HEIGHT
8539
01-May-2023
12:42
linh
pham



AFTER

MASS
55
AREA
8357
HEIGHT
5277
03-May-2023
09:43
linh
pham



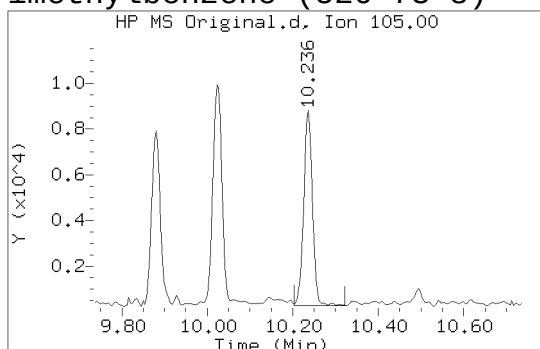
Reason Code:

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

1,2,3-Trimethylbenzene (526-73-8)

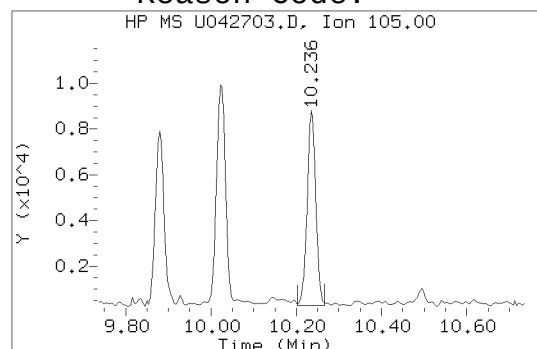
BEFORE

MASS
44
AREA
0
HEIGHT
0
01-May-2023
12:42
linh
pham



AFTER

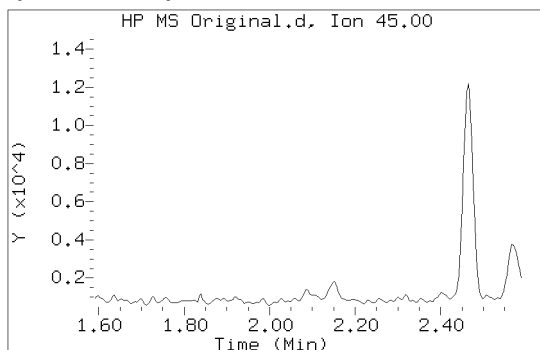
MASS
105
AREA
12190
HEIGHT
8539
03-May-2023
09:43
linh
pham



Ethanol (64-17-5)

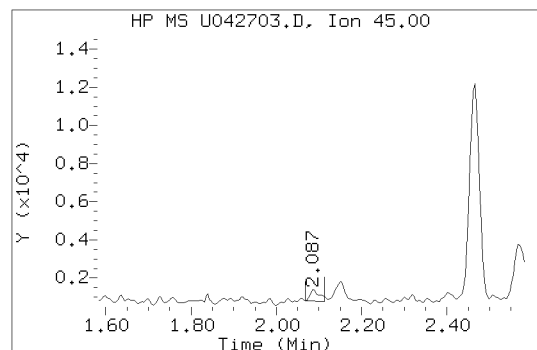
BEFORE

MASS
94
AREA
7965
HEIGHT
4194
01-May-2023
12:42
linh
pham



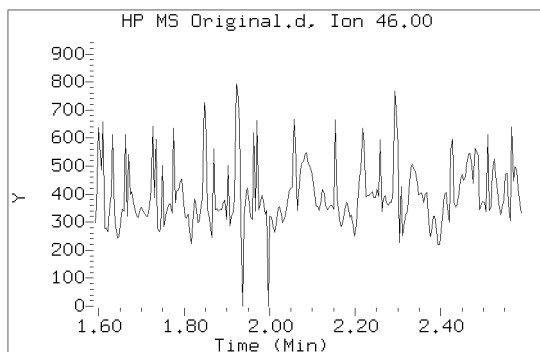
AFTER

MASS
45
AREA
942
HEIGHT
622
03-May-2023
09:43
linh
pham



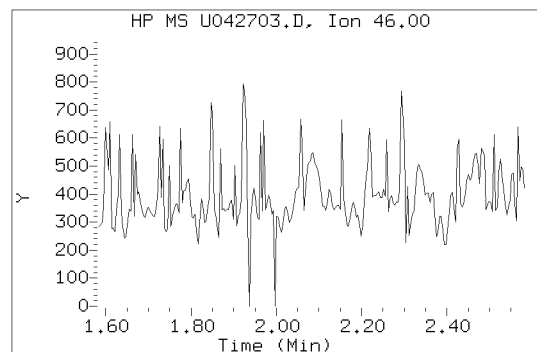
BEFORE

MASS
79
AREA
4053
HEIGHT
2353
01-May-2023
12:42
linh
pham



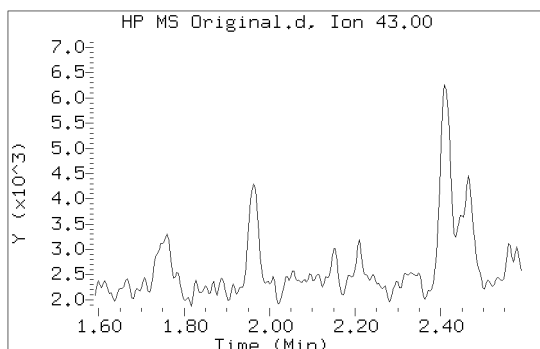
AFTER

MASS
46
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



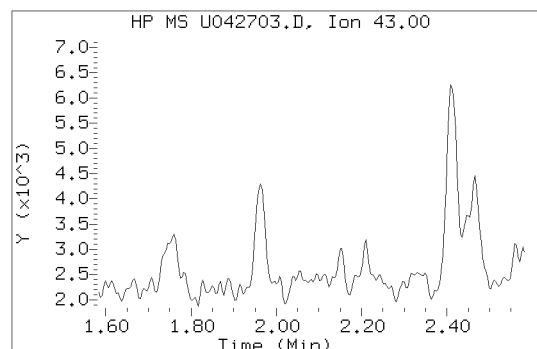
BEFORE

MASS
45
AREA
4744
HEIGHT
2525
01-May-2023
12:42
linh
pham



AFTER

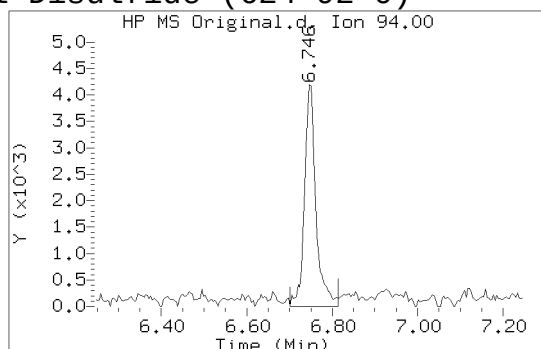
MASS
43
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



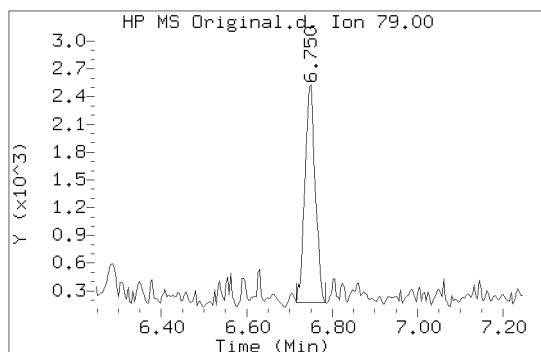
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

Dimethyl Disulfide (624-92-0)**BEFORE**

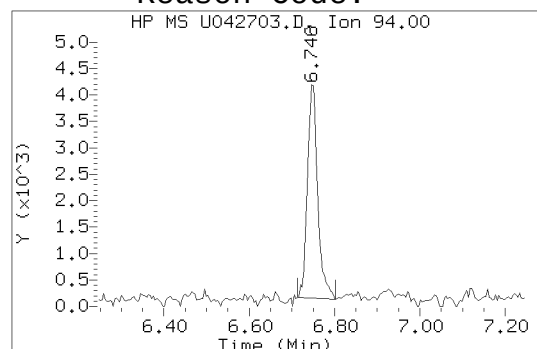
MASS
113
AREA
4548
HEIGHT
2302
01-May-2023
12:42
linh

**BEFORE**

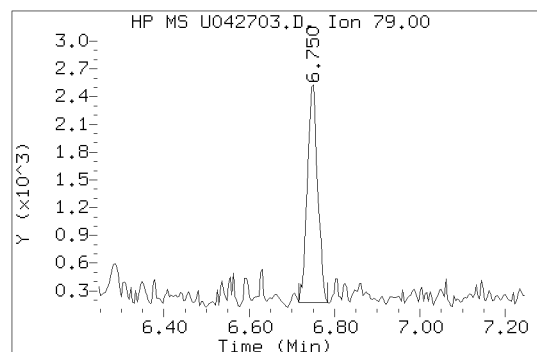
MASS
111
AREA
4350
HEIGHT
2196
01-May-2023
12:42
linh
pham

**AFTER**

MASS
94
AREA
6931
HEIGHT
4039
03-May-2023
09:43
linh

**AFTER**

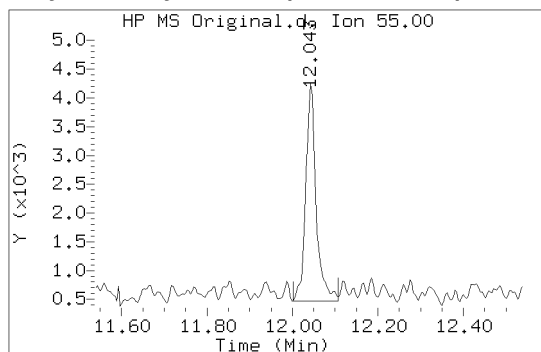
MASS
79
AREA
4053
HEIGHT
2353
03-May-2023
09:43
linh
pham



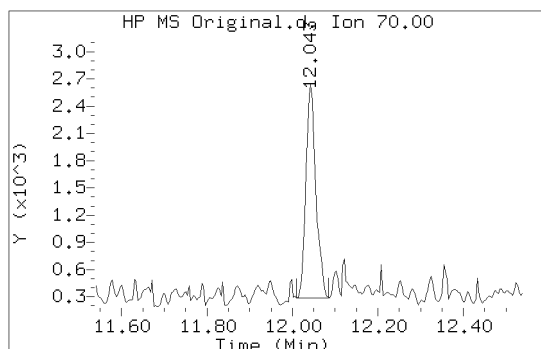
Reason Code:

2-Ethylhexyl Acrylate (103-11-7)**BEFORE**

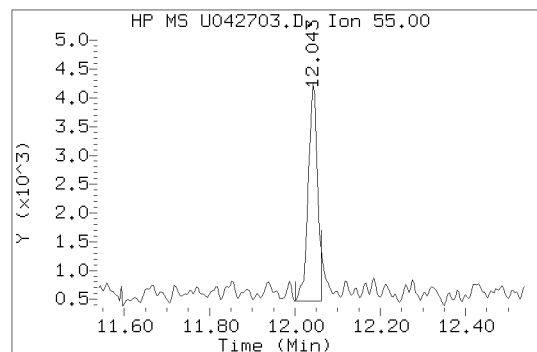
MASS
65
AREA
6056
HEIGHT
3132
01-May-2023
12:42
linh
pham

**BEFORE**

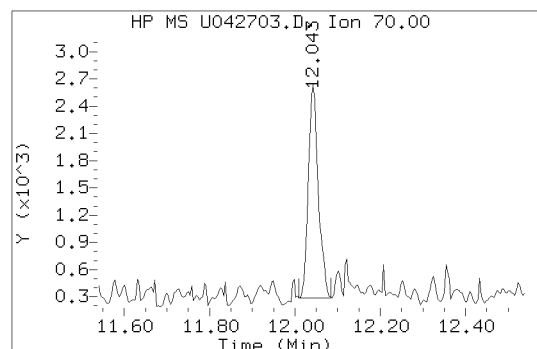
MASS
102
AREA
1780
HEIGHT
824
01-May-2023
12:42
linh
pham

**AFTER**

MASS
55
AREA
5825
HEIGHT
3770
03-May-2023
09:43
linh
pham

**AFTER**

MASS
70
AREA
3895
HEIGHT
2346
03-May-2023
09:43
linh
pham



Reason Code:

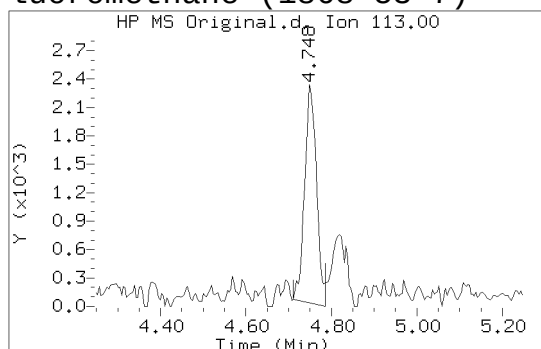


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
 Inj Date : 27-APR-2023 12:12
 InstruID : VOA9.i
 LabSampID : VSTS000.5

Dibromofluoromethane (1868-53-7)

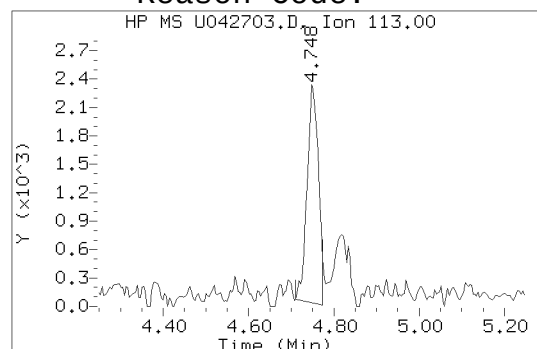
BEFORE

MASS
98
AREA
14459
HEIGHT
8626
01-May-2023
12:42
linh



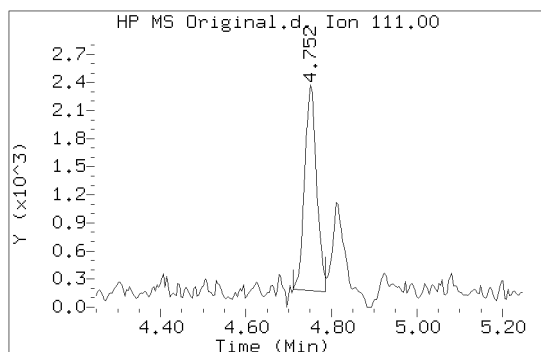
AFTER

MASS
113
AREA
4375
HEIGHT
2302
03-May-2023
09:43
linh



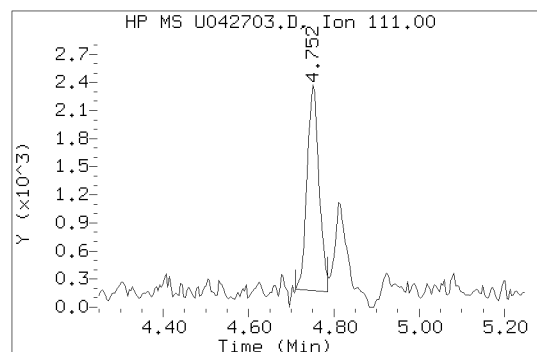
BEFORE

MASS
99
AREA
1544
HEIGHT
848
01-May-2023
12:42
linh
pham



AFTER

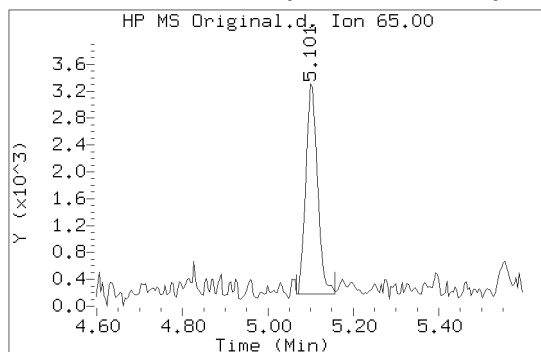
MASS
111
AREA
4350
HEIGHT
2196
03-May-2023
09:43
linh
pham



1,2-Dichloroethane-d4 (17060-07-0)

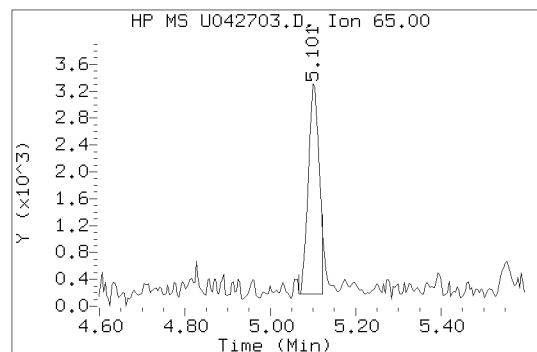
BEFORE

MASS
95
AREA
9760
HEIGHT
6096
01-May-2023
12:42
linh
pham



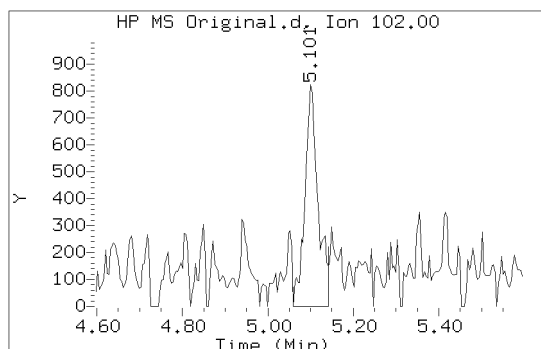
AFTER

MASS
65
AREA
5644
HEIGHT
3132
03-May-2023
09:43
linh
pham



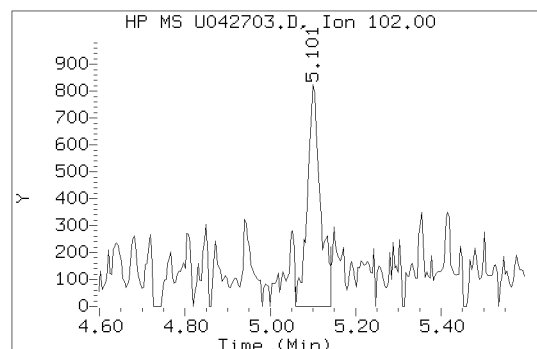
BEFORE

MASS
174
AREA
8565
HEIGHT
5180
01-May-2023
12:42
linh
pham



AFTER

MASS
102
AREA
1780
HEIGHT
824
03-May-2023
09:43
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042704.D Page 1
 Report Date: 03-May-2023 09:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042704.D
 Lab Smp Id: VSTS001 Client Smp ID: VSTD001
 Inj Date : 27-APR-2023 12:56
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTS001;VSTD001;1;3;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\8260C.m
 Meth Date : 03-May-2023 09:43 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 12:12 Cal File: U042703.D
 Als bottle: 5 Calibration Sample, Level: 3
 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

		QUANT SIG				AMOUNTS	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	713901	50.0000	
2 Dichlorodifluoromethane	85	1.164	1.164	(0.242)	4521	1.00000	3.63(a)
3 Chloromethane	50	1.295	1.295	(0.269)	6551	1.00000	0.96(a)
5 Vinyl Chloride	62	1.374	1.374	(0.285)	7785	1.00000	1.08(a)
6 Bromomethane	94	1.621	1.621	(0.337)	5245	1.00000	2.30(aM)
7 Chloroethane	64	1.700	1.700	(0.353)	4559	1.00000	0.96(a)
11 1,1-Dichloroethene	96	2.330	2.330	(0.484)	4927	1.00000	0.92(a)
15 Iodomethane	142	2.468	2.468	(0.513)	6906	2.00000	2.94(aM)
18 Methyl tert-butyl ether	73	3.083	3.083	(0.640)	21181	1.00000	1.02(a)
19 Carbon Disulfide	76	2.517	2.517	(0.523)	29725	2.00000	1.85(a)
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	5781	1.00000	0.94(a)
22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	11458	1.00000	1.02(a)
24 2-Butanone	43	4.275	4.275	(0.888)	6850	2.00000	1.96(aM)
26 2,2-Dichloropropane	77	4.185	4.185	(0.869)	9481	1.00000	1.01(a)
27 cis-1,2-Dichloroethene	96	4.197	4.197	(0.872)	7882	1.00000	1.08(a)
28 Chloroform	83	4.575	4.575	(0.950)	12088	1.00000	1.03(a)
29 Bromochloromethane	128	4.470	4.470	(0.928)	3694	1.00000	1.01(a)
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	7399	1.00000	0.25(a)
31 1,1,1-Trichloroethane	97	4.748	4.748	(0.986)	11442	1.00000	1.10(a)
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	8159	1.00000	1.02(a)



33 1,2-Dichloroethane	62	5.179	5.179 (0.933)	11346	1.00000	1.12(a)
34 Carbon Tetrachloride	117	4.909	4.909 (0.884)	7972	1.00000	3.37(a)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042704.D Page 2
 Report Date: 03-May-2023 09:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	9967	1.00000	0.21(a)
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1050193	50.0000	
37 Benzene	78	5.141	5.141	(0.926)	24357	1.00000	0.97(a)
38 Trichloroethene	130	5.790	5.790	(1.043)	6530	1.00000	0.91(a)
39 Bromodichloromethane	83	6.281	6.281	(1.131)	8560	1.00000	0.95(a)
42 1,2-Dichloropropane	63	6.015	6.015	(1.083)	6619	1.00000	1.03(a)
44 Dibromomethane	93	6.120	6.120	(1.102)	4733	1.00000	1.04(a)
45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	17095	2.00000	2.13(a)
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	11455	1.00000	1.02(a)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	971741	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	25286	1.00000	1.04(a)
50 Toluene	91	6.982	6.982	(0.853)	26511	1.00000	0.99(a)
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	8259	1.00000	0.86(a)
52 2-Hexanone	43	7.597	7.597	(0.928)	11916	2.00000	2.11(a)
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	5046	1.00000	0.98(a)
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	11484	1.00000	1.01(a)
55 Dibromochloromethane	129	7.690	7.690	(0.940)	7587	1.00000	1.00(a)
56 Tetrachloroethene	164	7.462	7.462	(0.912)	6184	1.00000	1.07(a)
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	6643	1.00000	0.98(a)
59 Chlorobenzene	112	8.211	8.211	(1.003)	18655	1.00000	1.01(a)
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	7395	1.00000	1.04(a)
61 Ethylbenzene	106	8.309	8.309	(1.015)	8804	1.00000	0.97(a)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	20136	2.00000	1.81(a)
63 o-Xylene	106	8.748	8.748	(1.069)	10127	1.00000	0.90(a)
64 Styrene	104	8.763	8.763	(1.071)	16738	1.00000	0.89(a)
66 Bromoform	173	8.920	8.920	(1.090)	5450	1.00000	0.98(a)
67 Isopropylbenzene	105	9.062	9.062	(1.107)	25523	1.00000	0.94(a)
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	9806	1.00000	1.04(a)
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	11803	1.00000	0.16(a)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	543740	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	10871	1.00000	1.03(a)
73 n-Propylbenzene	91	9.411	9.411	(0.925)	27123	1.00000	0.90(a)
74 Bromobenzene	156	9.321	9.321	(0.916)	9318	1.00000	1.06(a)
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	18438	1.00000	0.85(a)
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	20552	1.00000	1.03(a)
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	23021	1.00000	0.99(a)
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	18227	1.00000	2.09(a)
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	19773	1.00000	0.89(a)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	21732	1.00000	0.79(a)
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	17689	1.00000	3.48(a)
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	14882	1.00000	0.98(a)
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	16123	1.00000	1.01(a)
87 n-Butylbenzene	91	10.494	10.494	(1.032)	16188	1.00000	3.91(a)
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	15945	1.00000	1.03(a)
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	2085	1.00000	3.29(aM)
90 1,2,4-Trichlorobenzene	180	11.859	11.859	(1.166)	11591	1.00000	1.03(a)
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	12106	1.00000	1.10(a)
M 94 1,2-Dichloroethylene (total)	96				13663	2.00000	(a)
140 1,3-Butadiene	54	1.400	1.400	(0.291)	4567	1.00000	0.78(a)
146 Methyl Acetate	43	2.716	2.716	(0.564)	7431	1.00000	1.20(aM)
148 Tert-Butyl alcohol	59	2.975	2.975	(0.618)	21125	20.0000	24.28(a)
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	12443	20.0000	25.18



72 trans-1,4-Dichloro-2-butene	53	9.381	9.381 (1.146)	2321	1.00000	0.88(a)
12 Isobutyl Alcohol	43	5.284	5.284 (1.097)	22387	20.0000	19.93(a)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042704.D Page 3

Report Date: 03-May-2023 09:43

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
13 Acetonitrile	39	2.671	2.671	(0.555)	9487	10.0000	10.29
40 Methyl Methacrylate	41	6.157	6.157	(1.279)	8834	1.00000	1.12
4 Propionitrile	54	4.343	4.343	(0.902)	12042	10.0000	11.05(a)
136 n-Hexane	57	3.338	3.338	(0.693)	4851	1.00000	0.60(a)
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	12727	1.00000	0.92(a)
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	20450	1.00000	0.95(a)
167 Ethanol	45	2.086	2.086	(0.433)	1807	20.0000	21.55(M)
164 Dicyclopentadiene	66	10.198	10.198	(1.003)	26219	1.00000	0.97(a)
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	8731	1.00000	3.15(a)
156 Diisopropyl ether	45	3.623	3.623	(0.752)	22999	1.00000	1.03(Ta)
151 4-Methyl-2-pentanol	45	7.214	7.214	(1.299)	38443	20.0000	20.17
150 Allyl alcohol	57	3.338	3.338	(0.693)	4851	20.0000	12.36
86 Benzyl Chloride	91	10.311	10.311	(1.260)	12479	1.00000	3.89(a)
162 Butyl acrylate	55	8.736	8.736	(1.067)	14520	1.00000	0.95(a)
139 Diethyl ether	59	2.146	2.146	(0.446)	6253	1.00000	1.15(a)
203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	9585	1.00000	1.00(aM)
134 Cyclohexanone	55	9.152	9.152	(0.900)	7460	20.0000	24.63(aM)
130 Ethyl Acetate	43	4.350	4.350	(0.903)	8185	1.00000	0.99(aM)

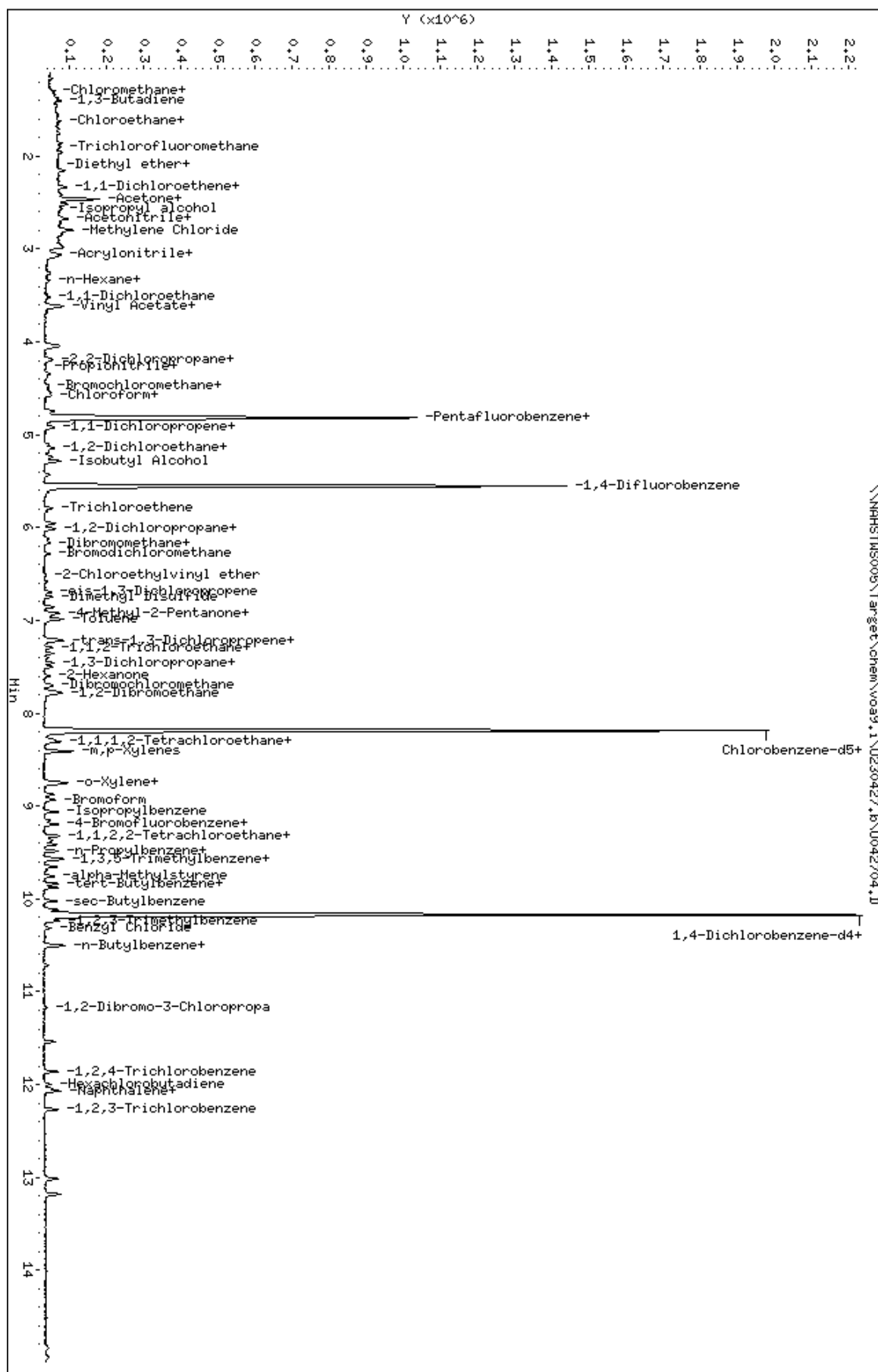
QC Flag Legend

- T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230427.b\U042704.D
 Date : 27-APR-2023 12:56
 Client ID: VSTD001
 Sample Info: VSTD001;VSTD001;1;3;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: V089.i
 Operator: PC
 Column diameter: 0.18

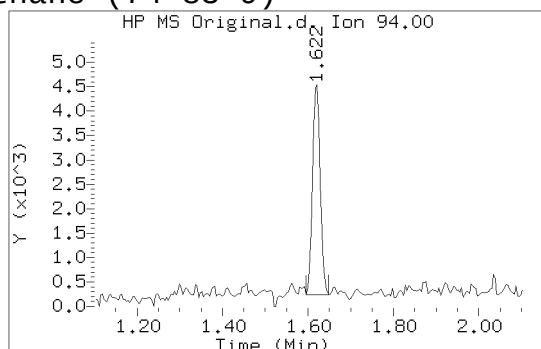


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042704.D
 Inj Date : 27-APR-2023 12:56
 InstruID : VOA9.i
 LabSampID : VSTS001

Bromomethane (74-83-9)

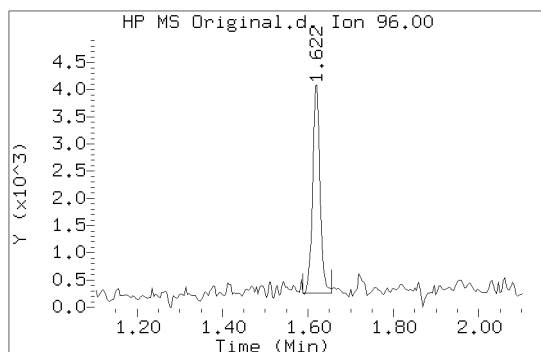
BEFORE

MASS
94
AREA
5494
HEIGHT
4300
01-May-2023
12:42
linh



BEFORE

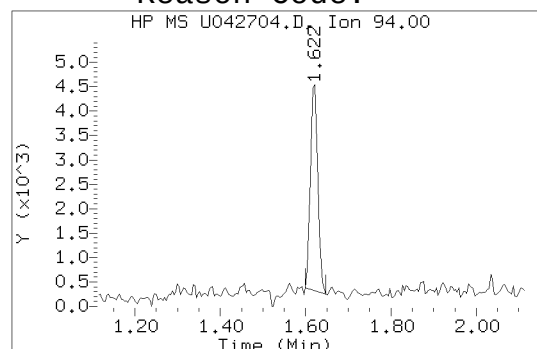
MASS
96
AREA
4683
HEIGHT
3829
01-May-2023
12:42
linh
pham



Reason Code:

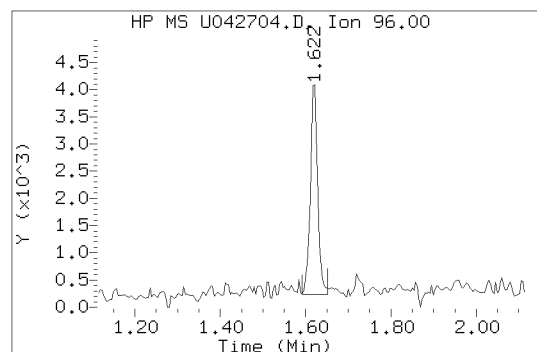
AFTER

MASS
94
AREA
5245
HEIGHT
4216
03-May-2023
09:43
linh



AFTER

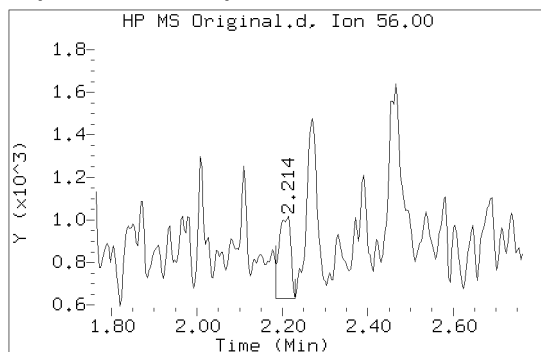
MASS
96
AREA
4735
HEIGHT
3847
03-May-2023
09:43
linh
pham



Acrolein (107-02-8)

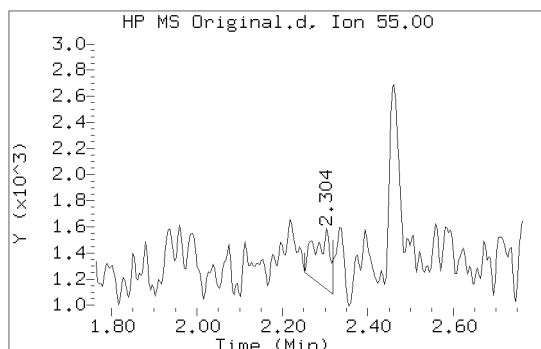
BEFORE

MASS
56
AREA
741
HEIGHT
388
01-May-2023
12:42
linh
pham



BEFORE

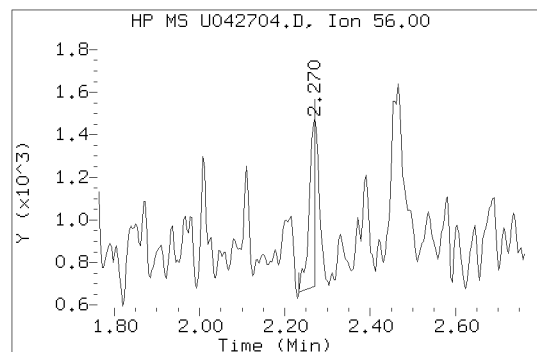
MASS
55
AREA
1098
HEIGHT
465
01-May-2023
12:42
linh
pham



Reason Code:

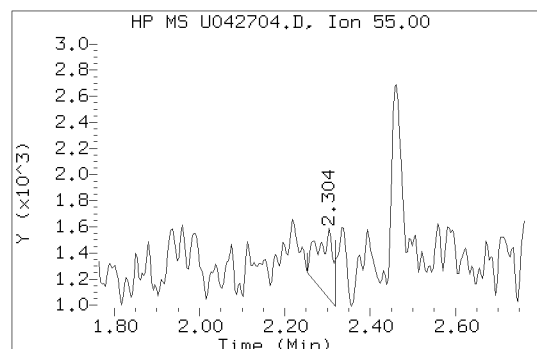
AFTER

MASS
56
AREA
814
HEIGHT
786
03-May-2023
09:43
linh
pham



AFTER

MASS
55
AREA
1296
HEIGHT
538
03-May-2023
09:43
linh
pham

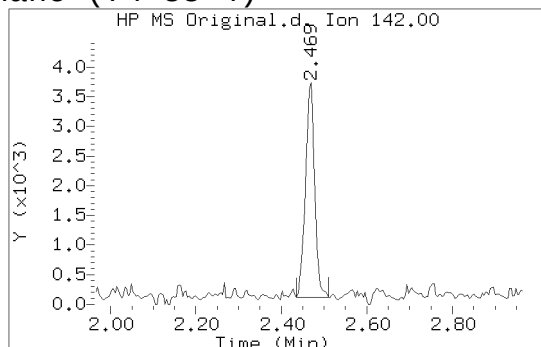


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042704.D
 Inj Date : 27-APR-2023 12:56
 InstruID : VOA9.i
 LabSampID : VSTS001

Iodomethane (74-88-4)

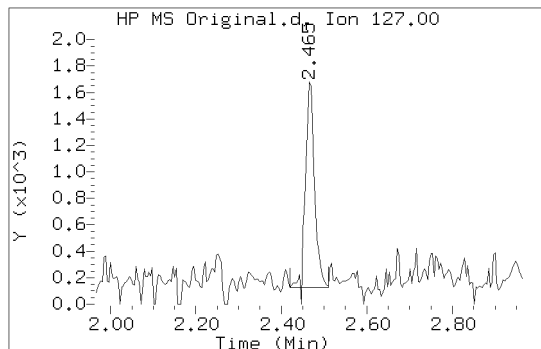
BEFORE

MASS
142
AREA
5529
HEIGHT
3614
01-May-2023
12:42
linh



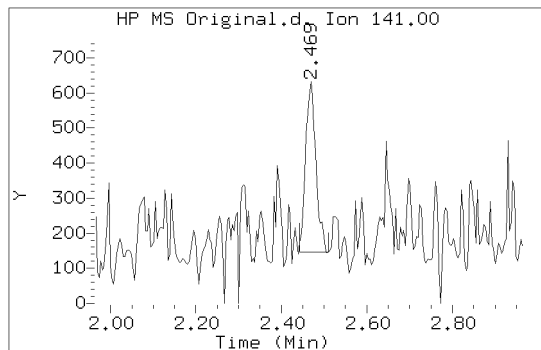
BEFORE

MASS
127
AREA
2332
HEIGHT
1555
01-May-2023
12:42
linh
pham



BEFORE

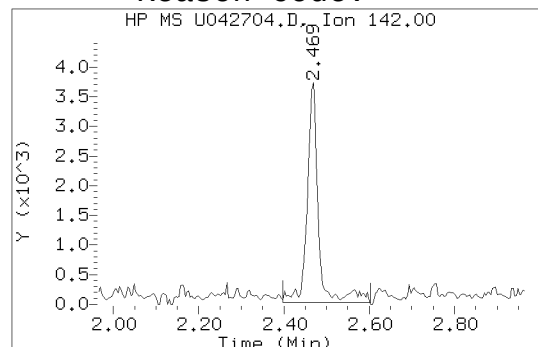
MASS
141
AREA
828
HEIGHT
485
01-May-2023
12:42
linh
pham



Reason Code:

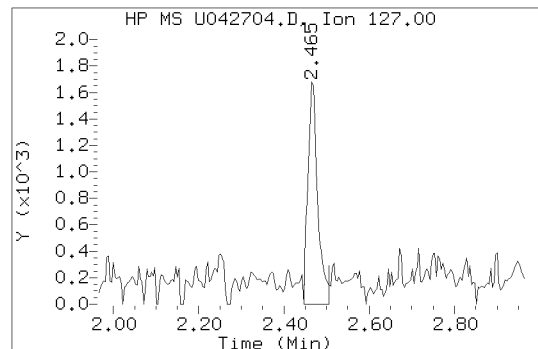
AFTER

MASS
142
AREA
6906
HEIGHT
3703
03-May-2023
09:43
linh



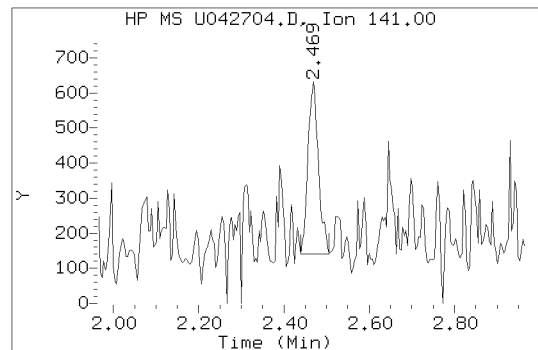
AFTER

MASS
127
AREA
2744
HEIGHT
1680
03-May-2023
09:43
linh
pham



AFTER

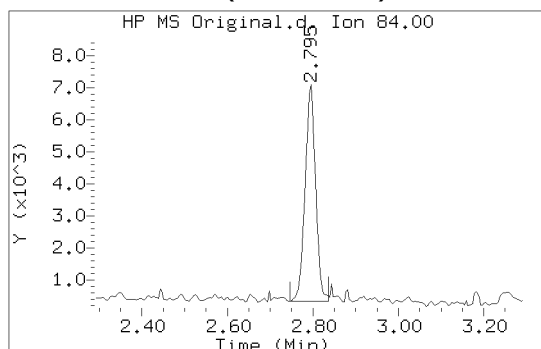
MASS
141
AREA
852
HEIGHT
491
03-May-2023
09:43
linh
pham



Methylene Chloride (75-09-2)

BEFORE

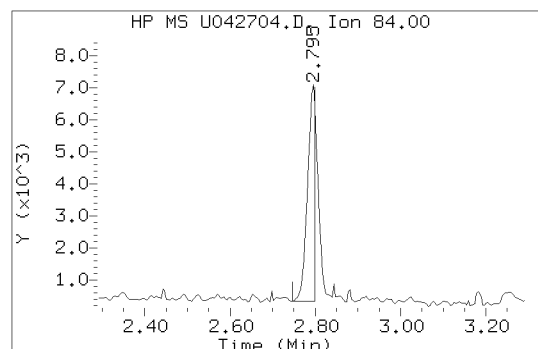
MASS
84
AREA
11780
HEIGHT
6759
01-May-2023
12:42
linh
pham



Reason Code:

AFTER

MASS
84
AREA
8403
HEIGHT
6759
03-May-2023
09:43
linh
pham

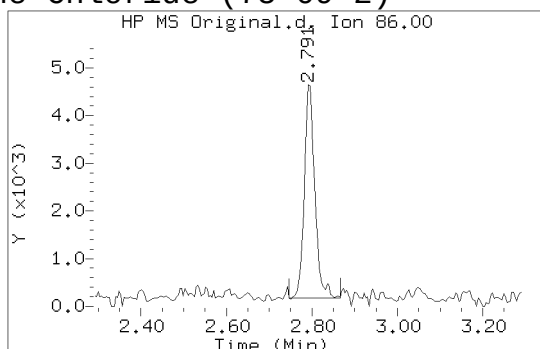


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042704.D
 Inj Date : 27-APR-2023 12:56
 InstruID : VOA9.i
 LabSampID : VSTS001

Methylene Chloride (75-09-2)

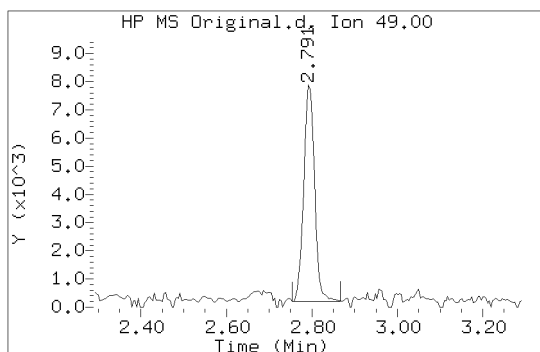
BEFORE

MASS
86
AREA
7749
HEIGHT
4466
01-May-2023
12:42
linh



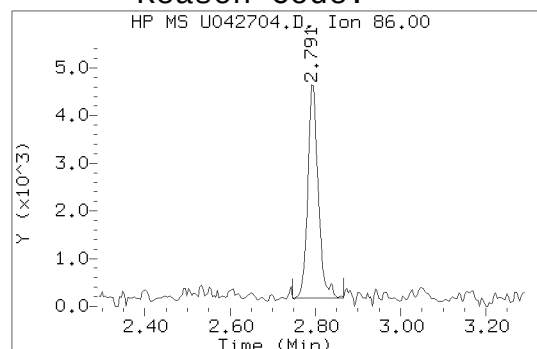
BEFORE

MASS
49
AREA
13918
HEIGHT
7683
01-May-2023
12:42
linh
pham



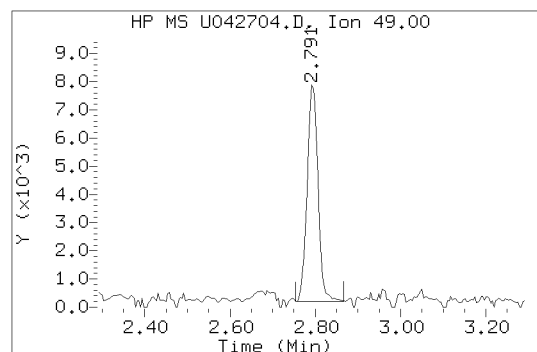
AFTER

MASS
86
AREA
7749
HEIGHT
4466
03-May-2023
09:43
linh



AFTER

MASS
49
AREA
13918
HEIGHT
7683
03-May-2023
09:43
linh
pham

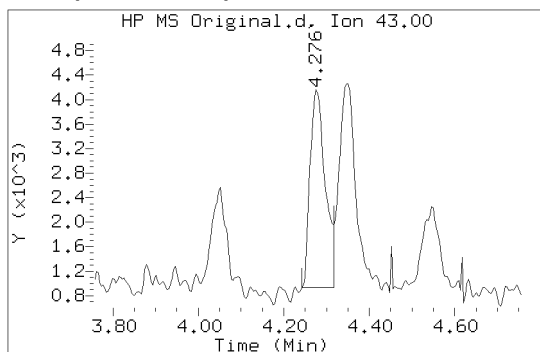


Reason Code:

2-Butanone (78-93-3)

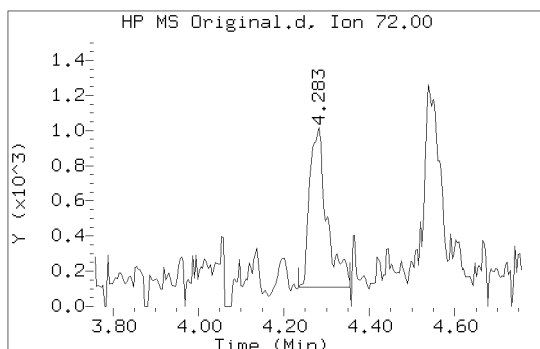
BEFORE

MASS
43
AREA
8055
HEIGHT
3234
01-May-2023
12:42
linh
pham



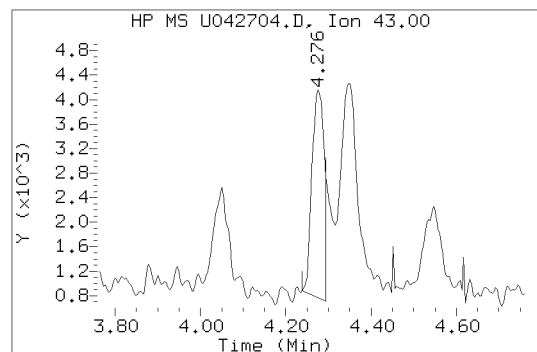
BEFORE

MASS
72
AREA
2514
HEIGHT
908
01-May-2023
12:42
linh
pham



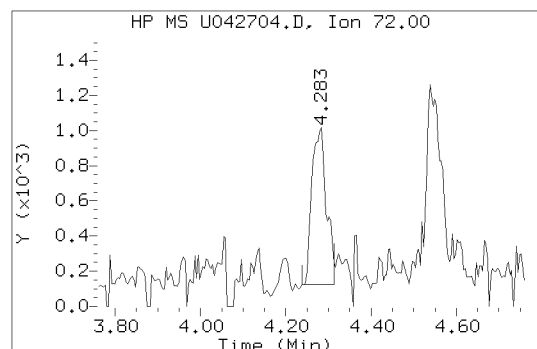
AFTER

MASS
43
AREA
6850
HEIGHT
3396
03-May-2023
09:43
linh
pham



AFTER

MASS
72
AREA
2127
HEIGHT
894
03-May-2023
09:43
linh
pham



Reason Code:

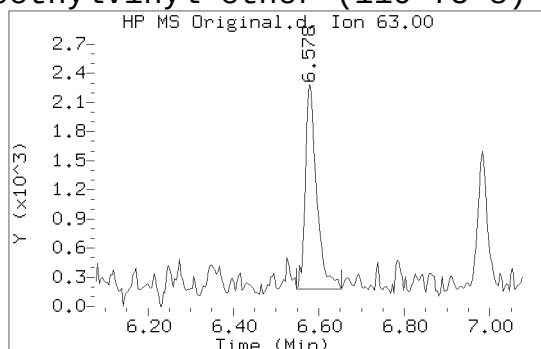


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042704.D
Inj Date : 27-APR-2023 12:56
InstruID : VOA9.i
LabSampID : VSTS001

2-Chloroethylvinyl ether (110-75-8)

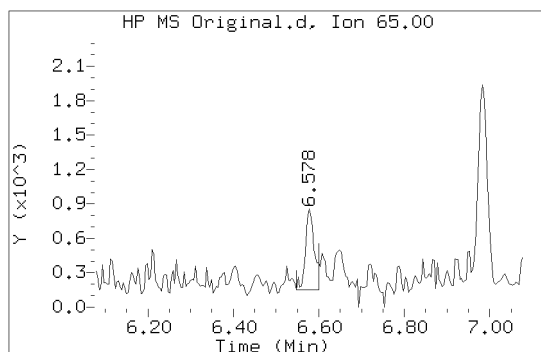
BEFORE

MASS
63
AREA
3963
HEIGHT
2107
01-May-2023
12:42
linh



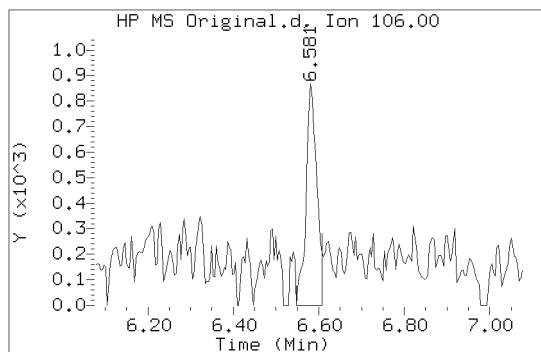
BEFORE

MASS
65
AREA
1024
HEIGHT
705
01-May-2023
12:42
linh
pham



BEFORE

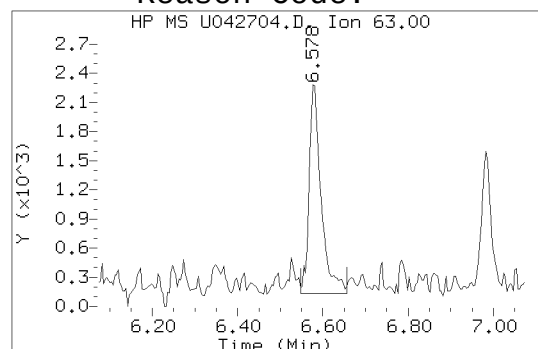
MASS
106
AREA
1528
HEIGHT
868
01-May-2023
12:42
linh
pham



Reason Code:

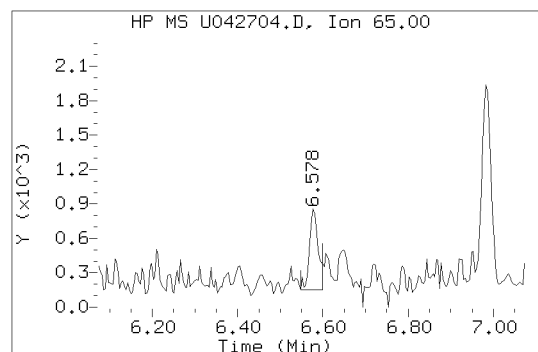
AFTER

MASS
63
AREA
4267
HEIGHT
2151
03-May-2023
09:43
linh



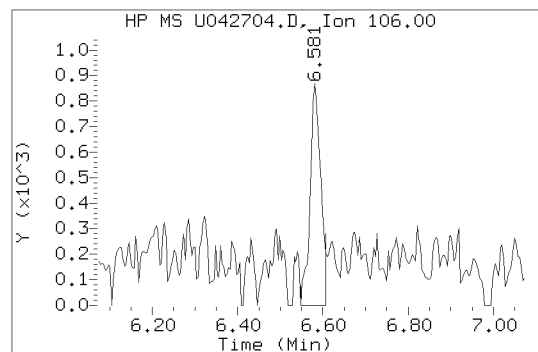
AFTER

MASS
65
AREA
1024
HEIGHT
705
03-May-2023
09:43
linh
pham



AFTER

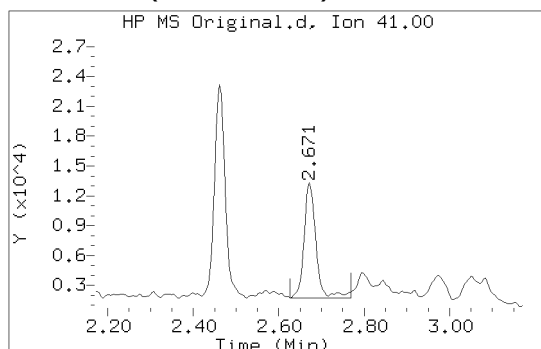
MASS
106
AREA
1528
HEIGHT
868
03-May-2023
09:43
linh
pham



Allyl Chloride (107-05-1)

BEFORE

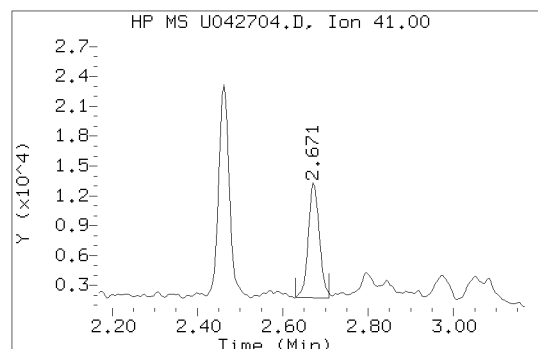
MASS
41
AREA
22723
HEIGHT
11566
01-May-2023
12:42
linh
pham



Reason Code:

AFTER

MASS
41
AREA
21336
HEIGHT
11570
03-May-2023
09:43
linh
pham

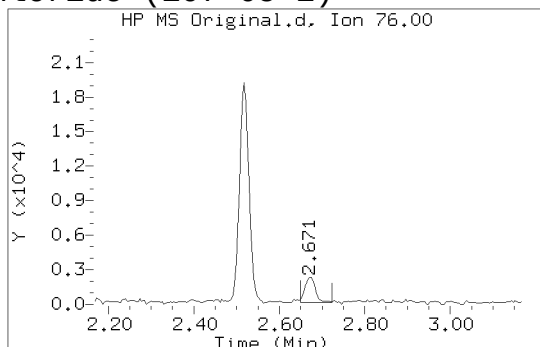


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042704.D
Inj Date : 27-APR-2023 12:56
InstruID : VOA9.i
LabSampID : VSTS001

Allyl Chloride (107-05-1)

BEFORE

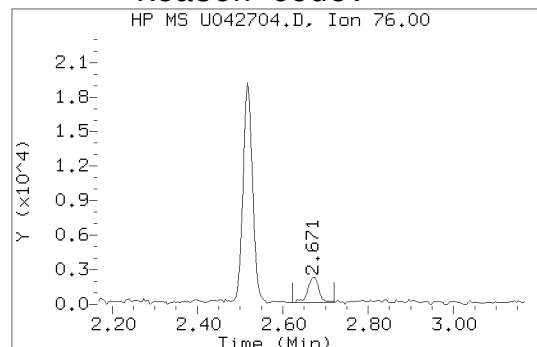
MASS
76
AREA
3777
HEIGHT
2171
01-May-2023
12:42
linh
pham



AFTER

MASS
76
AREA
4056
HEIGHT
2189
03-May-2023
09:43
linh
pham

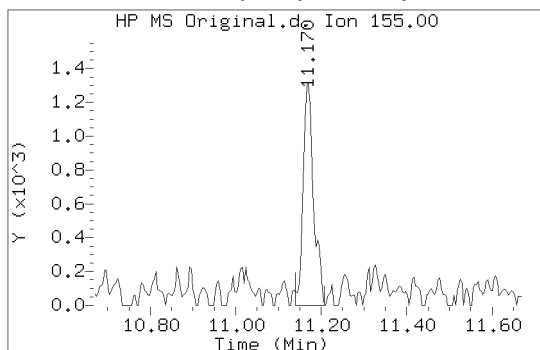
Reason Code:



1,2-Dibromo-3-Chloropropane (96-12-8)

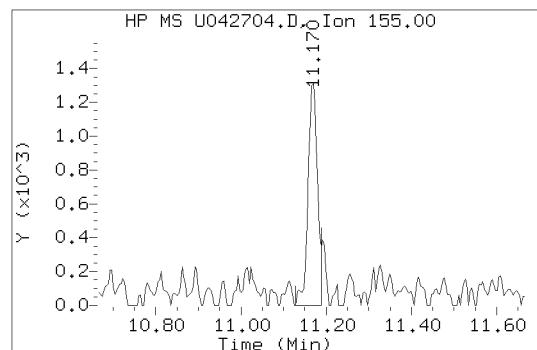
BEFORE

MASS
155
AREA
2281
HEIGHT
1310
01-May-2023
12:42
linh
pham



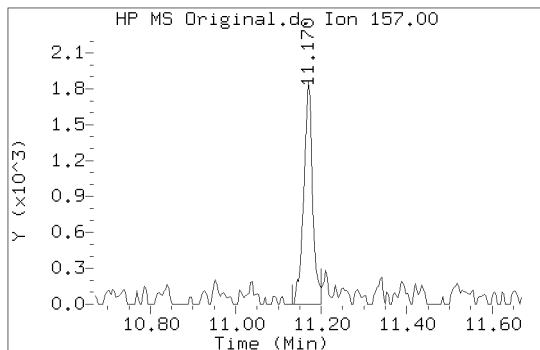
AFTER

MASS
155
AREA
2085
HEIGHT
1310
03-May-2023
09:43
linh
pham



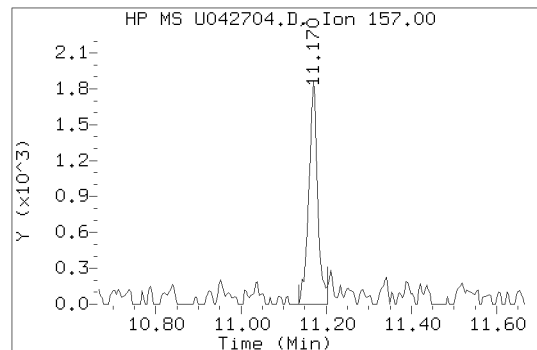
BEFORE

MASS
157
AREA
2727
HEIGHT
1858
01-May-2023
12:42
linh
pham



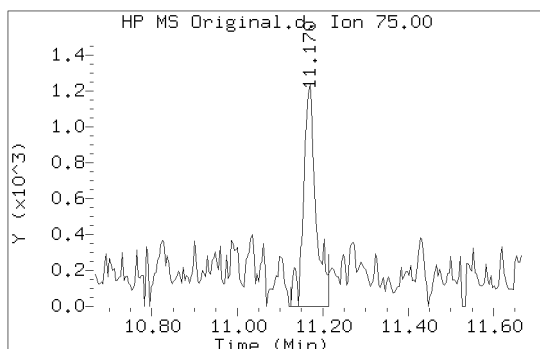
AFTER

MASS
157
AREA
2760
HEIGHT
1858
03-May-2023
09:43
linh
pham



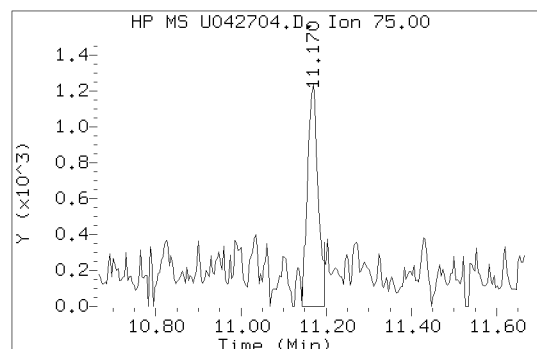
BEFORE

MASS
75
AREA
2587
HEIGHT
1235
01-May-2023
12:42
linh
pham



AFTER

MASS
75
AREA
2173
HEIGHT
1235
03-May-2023
09:43
linh
pham

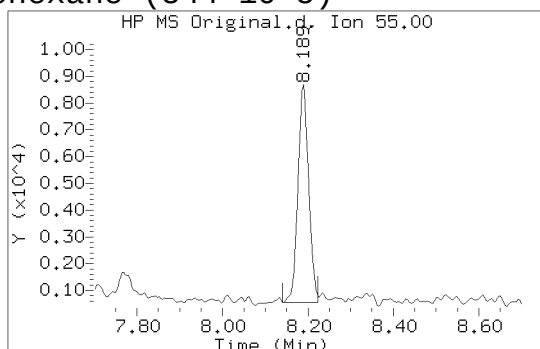


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042704.D
 Inj Date : 27-APR-2023 12:56
 InstruID : VOA9.i
 LabSampID : VSTS001

1-Chlorohexane (544-10-5)

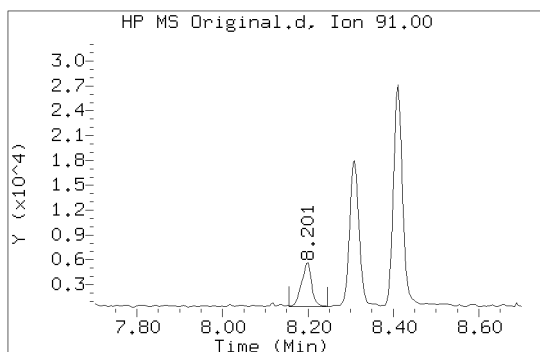
BEFORE

MASS
55
AREA
14519
HEIGHT
8143
01-May-2023
12:42
linh



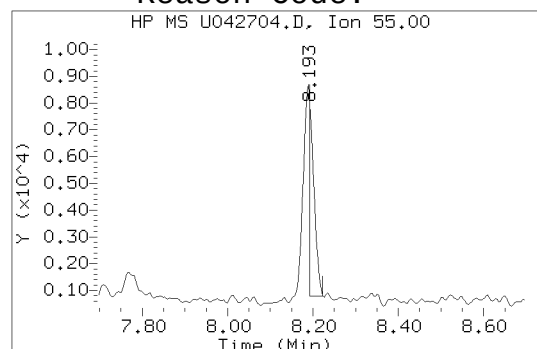
BEFORE

MASS
91
AREA
8869
HEIGHT
5258
01-May-2023
12:42
linh
pham



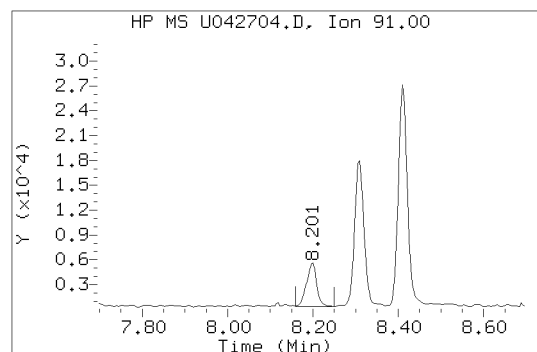
AFTER

MASS
55
AREA
5817
HEIGHT
7194
03-May-2023
09:43
linh



AFTER

MASS
91
AREA
8941
HEIGHT
5275
03-May-2023
09:43
linh
pham

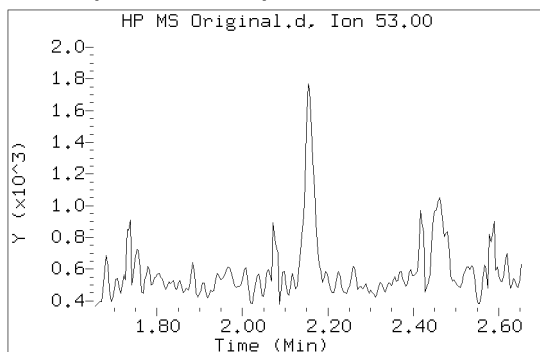


Reason Code:

Chloroprene (126-99-8)

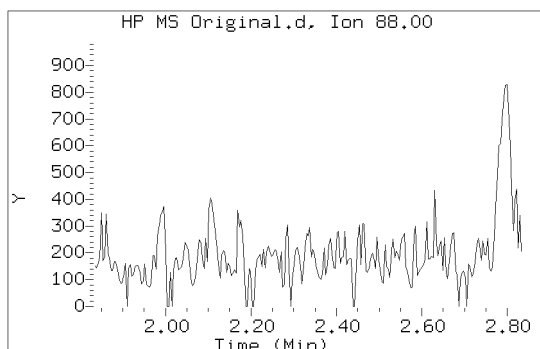
BEFORE

MASS
53
AREA
0
HEIGHT
0
01-May-2023
12:42
linh
pham



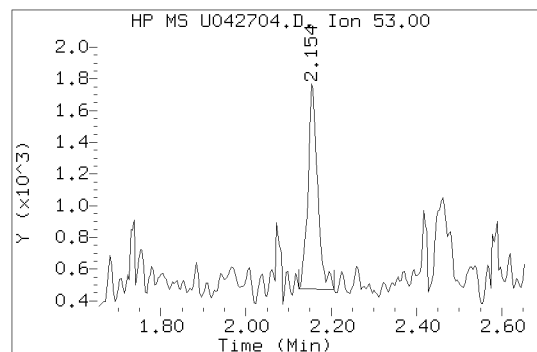
BEFORE

MASS
88
AREA
0
HEIGHT
0
01-May-2023
12:42
linh
pham



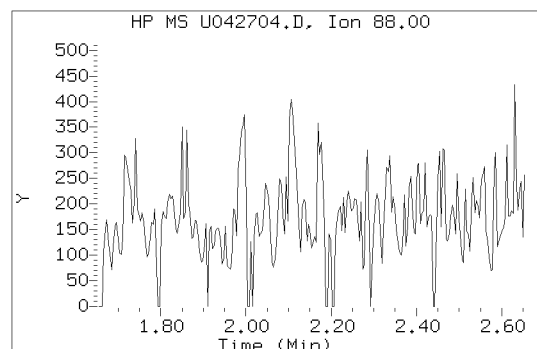
AFTER

MASS
53
AREA
2059
HEIGHT
1294
03-May-2023
09:43
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



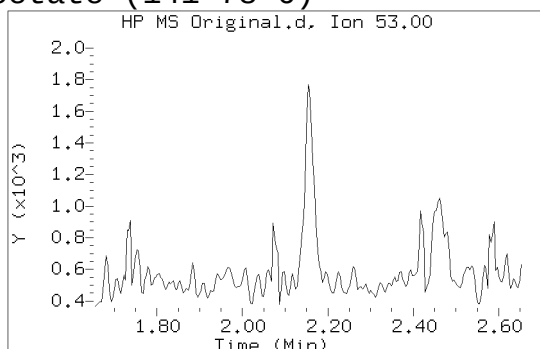
Reason Code:

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042704.D
 Inj Date : 27-APR-2023 12:56
 InstruID : VOA9.i
 LabSampID : VSTS001

Ethyl Acetate (141-78-6)

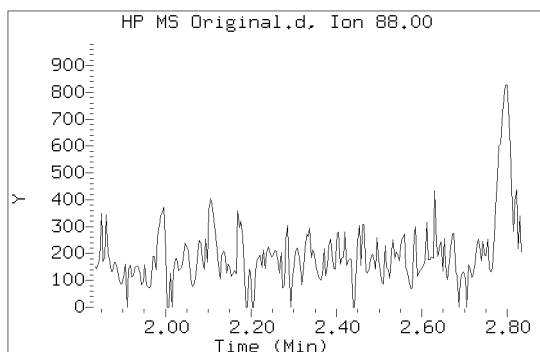
BEFORE

MASS
55
AREA
7050
HEIGHT
2851
01-May-2023
12:42
linh



BEFORE

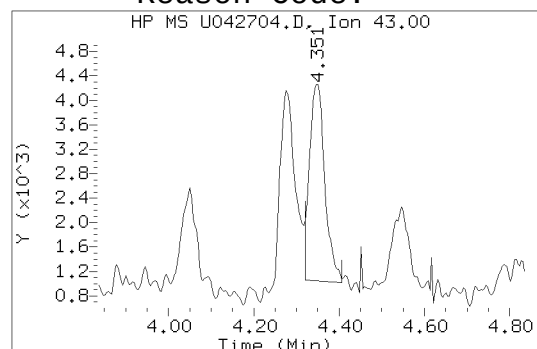
MASS
85
AREA
1220
HEIGHT
548
01-May-2023
12:42
linh
pham



AFTER

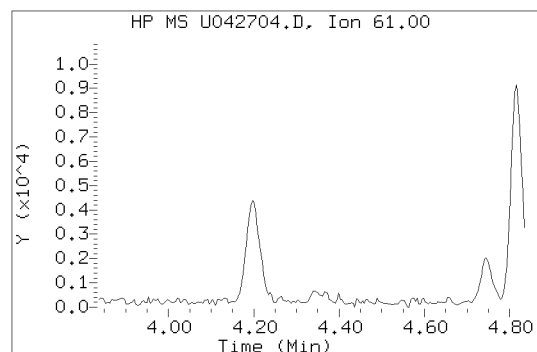
MASS
43
AREA
8185
HEIGHT
3213
03-May-2023
09:43
linh

Reason Code:



AFTER

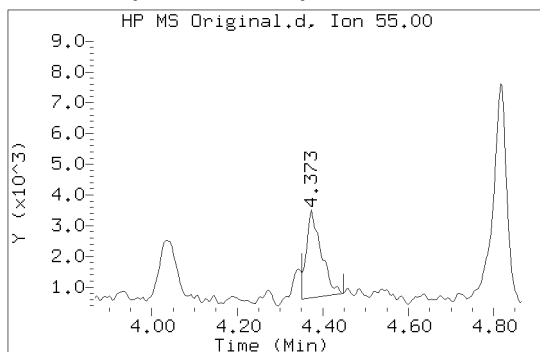
MASS
61
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



Cyclohexanone (108-94-1)

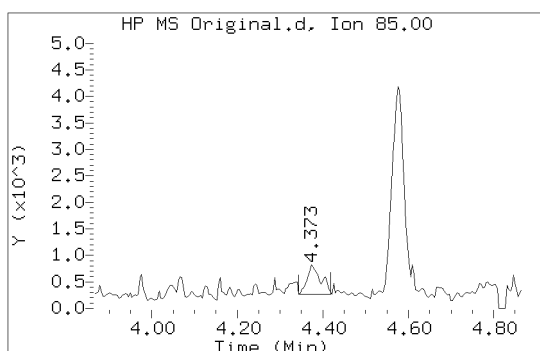
BEFORE

MASS
57
AREA
4851
HEIGHT
1908
01-May-2023
12:42
linh
pham



BEFORE

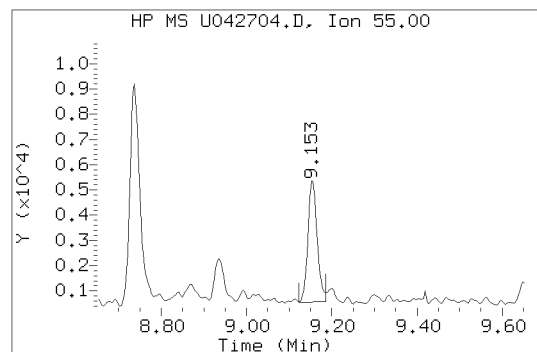
MASS
41
AREA
4593
HEIGHT
2028
01-May-2023
12:42
linh
pham



AFTER

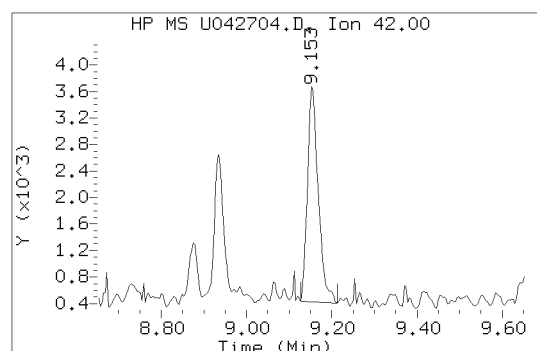
MASS
55
AREA
7460
HEIGHT
4799
03-May-2023
09:43
linh
pham

Reason Code:



AFTER

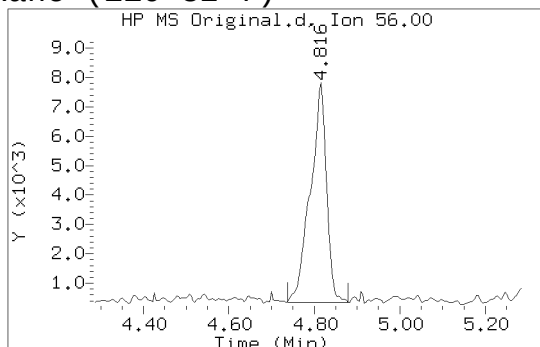
MASS
42
AREA
5808
HEIGHT
3244
03-May-2023
09:43
linh
pham



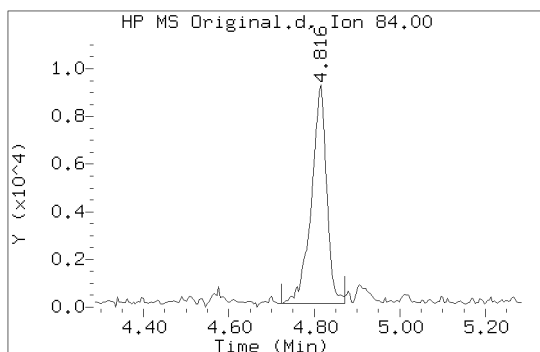
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042704.D
Inj Date : 27-APR-2023 12:56
InstruID : VOA9.i
LabSampID : VSTS001

Cyclohexane (110-82-7)**BEFORE**

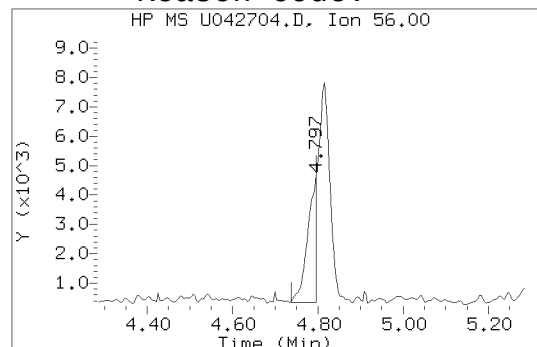
MASS
101
AREA
4343
HEIGHT
2330
01-May-2023
12:42
linh

**BEFORE**

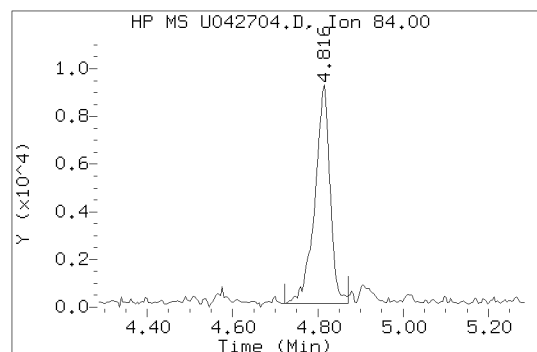
MASS
151
AREA
3570
HEIGHT
1742
01-May-2023
12:42
linh
pham

**Reason Code:****AFTER**

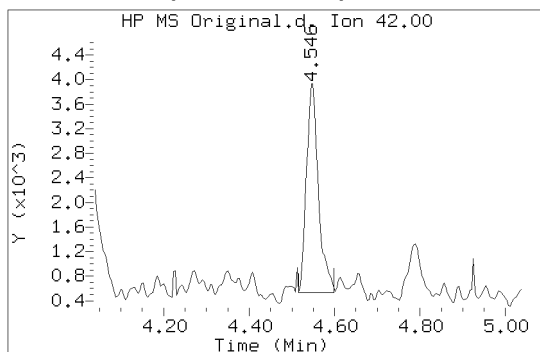
MASS
56
AREA
6485
HEIGHT
4339
03-May-2023
09:43
linh

**AFTER**

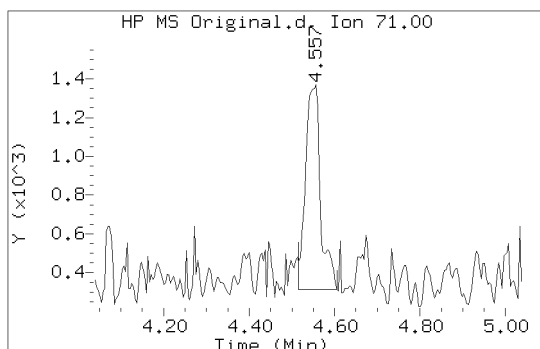
MASS
84
AREA
22922
HEIGHT
9169
03-May-2023
09:43
linh
pham

**Tetrahydrofuran (109-99-9)****BEFORE**

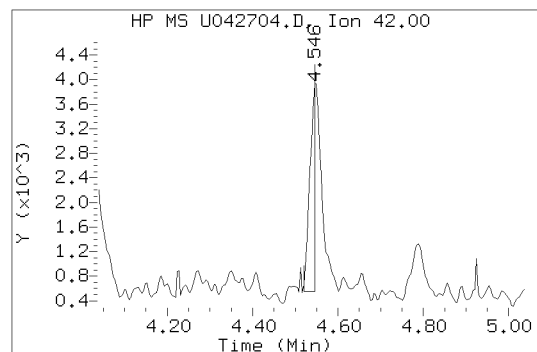
MASS
118
AREA
8731
HEIGHT
5658
01-May-2023
12:42
linh
pham

**BEFORE**

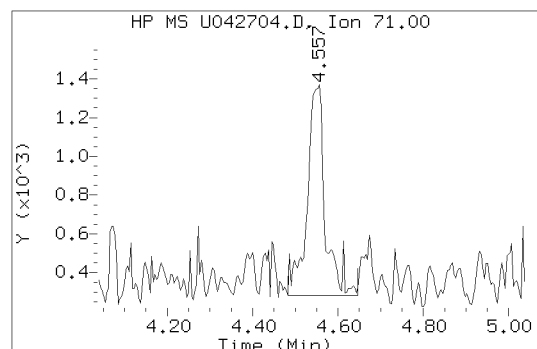
MASS
103
AREA
5098
HEIGHT
3165
01-May-2023
12:42
linh
pham

**Reason Code:****AFTER**

MASS
42
AREA
3048
HEIGHT
3378
03-May-2023
09:43
linh
pham

**AFTER**

MASS
71
AREA
3190
HEIGHT
1088
03-May-2023
09:43
linh
pham

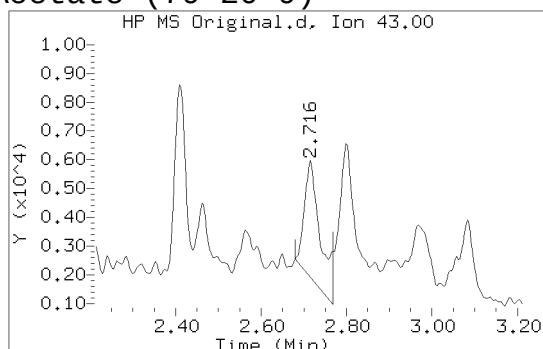


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042704.D
 Inj Date : 27-APR-2023 12:56
 InstruID : VOA9.i
 LabSampID : VSTS001

Methyl Acetate (79-20-9)

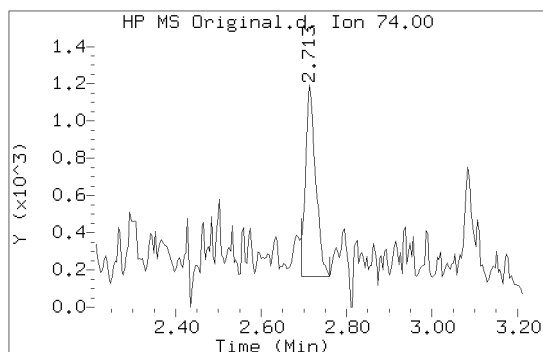
BEFORE

MASS
45
AREA
11264
HEIGHT
5770
01-May-2023
12:42
linh



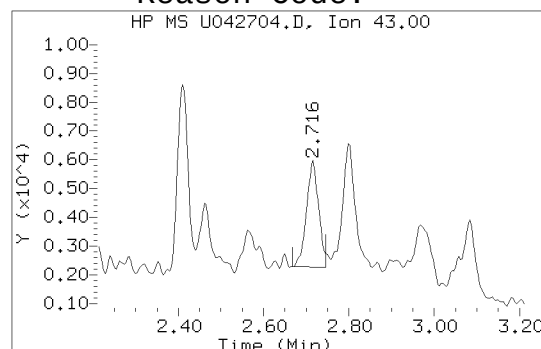
BEFORE

MASS
59
AREA
1457
HEIGHT
330
01-May-2023
12:42
linh
pham



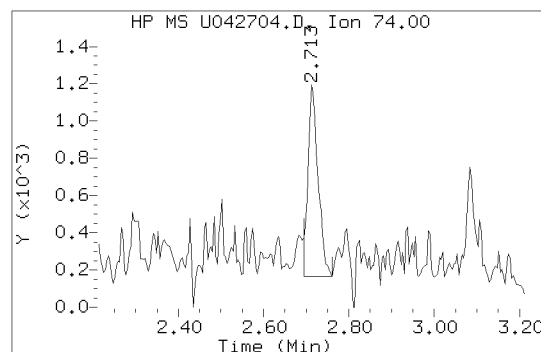
AFTER

MASS
43
AREA
7431
HEIGHT
3696
03-May-2023
09:43
linh



AFTER

MASS
74
AREA
1747
HEIGHT
1027
03-May-2023
09:43
linh
pham

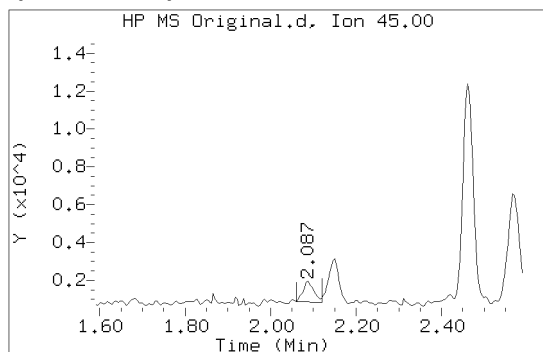


Reason Code:

Ethanol (64-17-5)

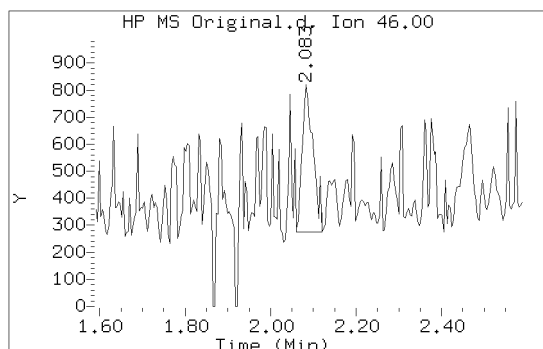
BEFORE

MASS
94
AREA
12727
HEIGHT
7191
01-May-2023
12:42
linh
pham



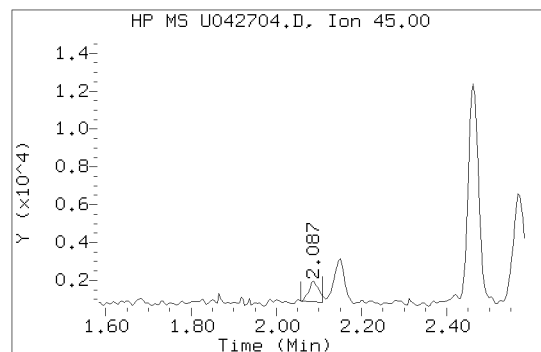
BEFORE

MASS
79
AREA
7294
HEIGHT
4030
01-May-2023
12:42
linh
pham



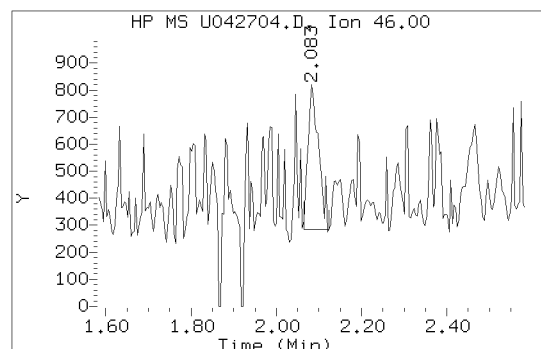
AFTER

MASS
45
AREA
1807
HEIGHT
1100
03-May-2023
09:43
linh
pham



AFTER

MASS
46
AREA
945
HEIGHT
536
03-May-2023
09:43
linh
pham



Reason Code:

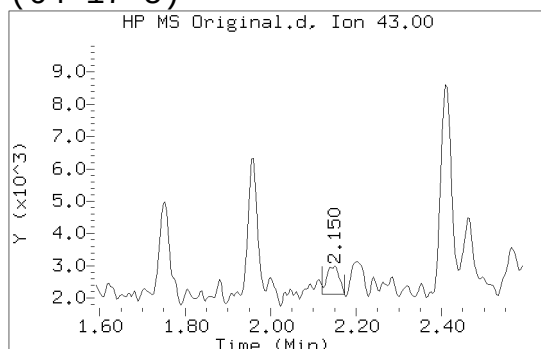


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042704.D
 Inj Date : 27-APR-2023 12:56
 InstruID : VOA9.i
 LabSampID : VSTS001

Ethanol (64-17-5)

BEFORE

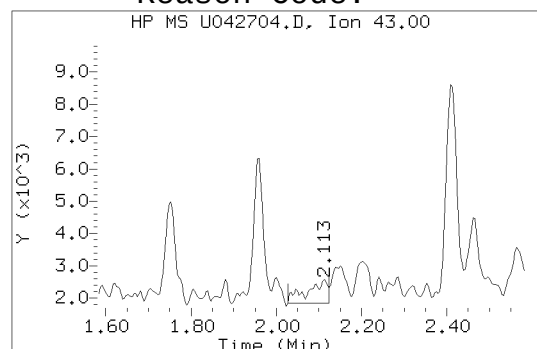
MASS
45
AREA
6708
HEIGHT
4208
01-May-2023
12:42
linh
pham



AFTER

MASS
43
AREA
2373
HEIGHT
722
03-May-2023
09:43
linh
pham

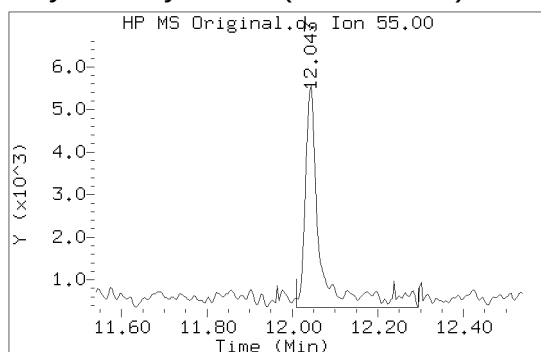
Reason Code:



2-Ethylhexyl Acrylate (103-11-7)

BEFORE

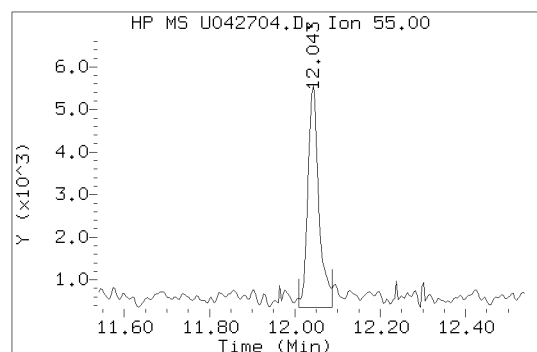
MASS
65
AREA
9682
HEIGHT
5236
01-May-2023
12:42
linh
pham



AFTER

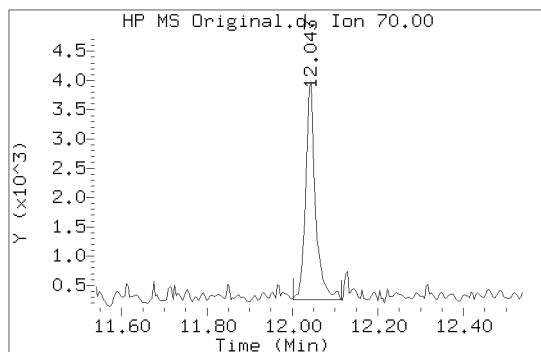
MASS
55
AREA
9585
HEIGHT
5204
03-May-2023
09:43
linh
pham

Reason Code:



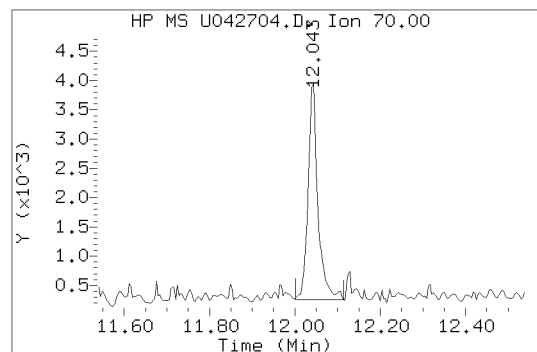
BEFORE

MASS
102
AREA
2847
HEIGHT
966
01-May-2023
12:42
linh
pham



AFTER

MASS
70
AREA
6085
HEIGHT
3686
03-May-2023
09:43
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042705.D Page 1
 Report Date: 03-May-2023 09:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042705.D
 Lab Smp Id: VSTS002 Client Smp ID: VSTD002
 Inj Date : 27-APR-2023 13:19
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTS002;VSTD002;1;4;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\8260C.m
 Meth Date : 03-May-2023 09:43 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 12:56 Cal File: U042704.D
 Als bottle: 6 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: $\text{Amt} * \text{DF} * (\text{Uf}/\text{Vo}) * 1 * \text{CpndVariable}$

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

		QUANT SIG				AMOUNTS	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.823	4.823	(1.000)	737624	50.0000	
2 Dichlorodifluoromethane	85	1.175	1.175	(0.244)	12104	2.00000	4.74(a)
3 Chloromethane	50	1.306	1.306	(0.271)	14703	2.00000	2.08(a)
5 Vinyl Chloride	62	1.385	1.385	(0.287)	14607	2.00000	1.97(a)
6 Bromomethane	94	1.633	1.633	(0.339)	10046	2.00000	3.43(a)
7 Chloroethane	64	1.711	1.711	(0.355)	10191	2.00000	2.07(a)
8 Trichlorofluoromethane	101	1.906	1.906	(0.395)	19132	2.00000	1.94(a)
10 Acetone	43	2.420	2.420	(0.502)	15331	4.00000	3.18(a)
11 1,1-Dichloroethene	96	2.341	2.341	(0.485)	10607	2.00000	1.91(a)
15 Iodomethane	142	2.476	2.476	(0.513)	15869	4.00000	4.07(a)
17 Methylene Chloride	84	2.802	2.802	(0.581)	17953	2.00000	2.33(a)
18 Methyl tert-butyl ether	73	3.091	3.091	(0.641)	39536	2.00000	1.85(a)
19 Carbon Disulfide	76	2.529	2.529	(0.524)	64294	4.00000	3.88(a)
20 trans-1,2-Dichloroethene	96	3.068	3.068	(0.636)	13194	2.00000	2.08(a)
21 Vinyl Acetate	43	3.619	3.619	(0.751)	79651	4.00000	3.68(a)
22 1,1-Dichloroethane	63	3.526	3.526	(0.731)	23066	2.00000	1.98(a)
24 2-Butanone	43	4.283	4.283	(0.888)	14132	4.00000	3.92(a)
26 2,2-Dichloropropane	77	4.189	4.189	(0.869)	19449	2.00000	2.01(a)
27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	15737	2.00000	2.10(a)
28 Chloroform	83	4.583	4.583	(0.950)	23805	2.00000	1.96(a)



29	Bromochloromethane	128	4.478	4.478 (0.928)	7824	2.00000	2.07(a)
\$ 30	Dibromofluoromethane	113	4.755	4.755 (0.986)	14813	2.00000	1.33(a)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042705.D Page 2

Report Date: 03-May-2023 09:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
31 1,1,1-Trichloroethane	97	4.752	4.752	(0.985)	21050	2.00000	1.97(a)
32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	15279	2.00000	1.86(a)
33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	20083	2.00000	1.93(a)
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	18403	2.00000	4.42(a)
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.058)	18316	2.00000	1.19(a)
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1086326	50.0000	
37 Benzene	78	5.145	5.145	(0.926)	51554	2.00000	2.00(a)
38 Trichloroethene	130	5.794	5.794	(1.042)	14963	2.00000	2.01(a)
39 Bromodichloromethane	83	6.285	6.285	(1.131)	16944	2.00000	1.83(a)
42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	12313	2.00000	1.85(a)
44 Dibromomethane	93	6.124	6.124	(1.102)	9961	2.00000	2.12(a)
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	31335	4.00000	3.84(a)
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	21218	2.00000	1.83(a)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	987361	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	51141	2.00000	2.08(a)
50 Toluene	91	6.982	6.982	(0.853)	53453	2.00000	1.97(a)
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	17270	2.00000	1.74(a)
52 2-Hexanone	43	7.597	7.597	(0.928)	22800	4.00000	3.98(a)
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	10337	2.00000	1.97(a)
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	21204	2.00000	1.84(a)
55 Dibromochloromethane	129	7.694	7.694	(0.940)	13287	2.00000	1.72(a)
56 Tetrachloroethene	164	7.458	7.458	(0.911)	11700	2.00000	2.00(a)
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	13730	2.00000	2.00(a)
58 1-Chlorohexane	55	8.193	8.193	(1.474)	11306	2.00000	1.66(aM)
59 Chlorobenzene	112	8.212	8.212	(1.003)	36654	2.00000	1.95(a)
60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	13258	2.00000	1.84(a)
61 Ethylbenzene	106	8.309	8.309	(1.015)	17288	2.00000	1.88(a)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	42624	4.00000	3.78(a)
63 o-Xylene	106	8.748	8.748	(1.069)	21527	2.00000	1.89(a)
64 Styrene	104	8.763	8.763	(1.071)	31643	2.00000	1.65(a)
66 Bromoform	173	8.920	8.920	(1.090)	9694	2.00000	1.72(a)
67 Isopropylbenzene	105	9.063	9.063	(1.107)	55212	2.00000	2.00(a)
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	18545	2.00000	1.95(a)
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	22807	2.00000	1.35(a)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	551775	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	19020	2.00000	1.77(a)
73 n-Propylbenzene	91	9.415	9.415	(0.926)	56012	2.00000	1.83(a)
74 Bromobenzene	156	9.321	9.321	(0.916)	16628	2.00000	1.87(a)
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	39136	2.00000	1.77(a)
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	41124	2.00000	2.03(a)
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	46167	2.00000	1.96(a)
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	39403	2.00000	3.11(a)
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	38997	2.00000	1.74(a)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	47014	2.00000	2.04(a)
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	38993	2.00000	4.27(a)
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	30197	2.00000	1.96(a)
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	33128	2.00000	2.06(a)
87 n-Butylbenzene	91	10.495	10.495	(1.032)	35791	2.00000	4.77(a)
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	30418	2.00000	1.93(a)
89 1,2-Dibromo-3-Chloropropane	155	11.166	11.166	(1.098)	3334	2.00000	3.87(a)
90 1,2,4-Trichlorobenzene	180	11.859	11.859	(1.166)	22416	2.00000	1.97(a)
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	21535	2.00000	1.93(a)



M 94 1,2-Dichloroethylene (total)	96			28931	4.00000	(a)
141 Cyclohexane	56	4.797	4.797 (0.995)	15056	2.00000	1.79(aM)



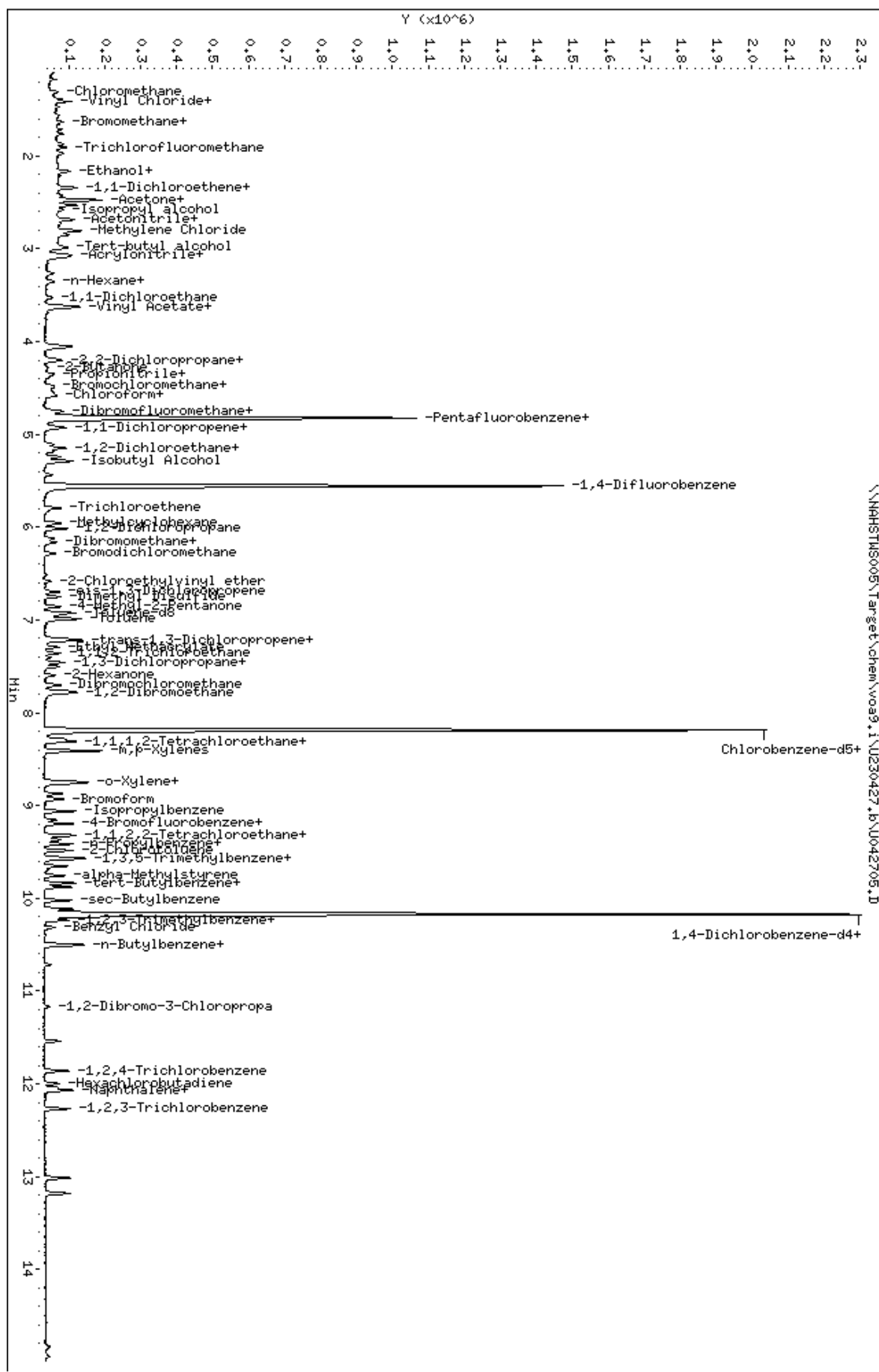
Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042705.D Page 3
 Report Date: 03-May-2023 09:43

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL -AMT (ug/l)	ON -COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
138 Freon TF	101	2.349	2.349	(0.487)	9850	2.00000	1.96(a)
140 1,3-Butadiene	54	1.411	1.411	(0.293)	11819	2.00000	1.97(a)
147 Methylcyclohexane	55	5.951	5.951	(1.071)	28980	2.00000	1.69(a)
146 Methyl Acetate	43	2.723	2.723	(0.565)	12729	2.00000	1.99(aM)
148 Tert-Butyl alcohol	59	2.982	2.982	(0.618)	35099	40.0000	39.05(a)
149 Isopropyl Alcohol	45	2.577	2.577	(0.534)	20868	40.0000	40.88
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	4277	2.00000	1.60
12 Isobutyl Alcohol	43	5.288	5.288	(1.096)	42865	40.0000	36.94
13 Acetonitrile	39	2.682	2.682	(0.556)	18153	20.0000	19.06
40 Methyl Methacrylate	41	6.157	6.157	(1.277)	13574	2.00000	1.66
4 Propionitrile	54	4.347	4.347	(0.901)	20727	20.0000	18.42(a)
136 n-Hexane	57	3.350	3.350	(0.695)	10918	2.00000	2.28(a)
131 Methyl Acrylate	55	4.380	4.380	(0.908)	20677	2.00000	2.26(a)
200 Dimethyl Disulfide	94	6.750	6.750	(0.825)	23442	2.00000	1.68(a)
23 Chloroprene	53	2.169	2.169	(0.450)	5287	2.00000	2.11(aM)
49 Ethyl Methacrylate	69	7.293	7.293	(1.312)	20608	2.00000	1.83(a)
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	33756	2.00000	1.54(a)
167 Ethanol	45	2.097	2.097	(0.435)	3208	40.0000	37.03
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	45474	2.00000	1.66(a)
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	17535	2.00000	3.81(a)
142 Tetrahydrofuran	42	4.553	4.553	(0.944)	6945	4.00000	4.29(aM)
156 Diisopropyl ether	45	3.631	3.631	(0.753)	40988	2.00000	1.78(Ta)
151 4-Methyl-2-pentanol	45	7.218	7.218	(1.299)	74040	40.0000	37.56
150 Allyl alcohol	57	3.350	3.350	(0.695)	10918	40.0000	45.95
86 Benzyl Chloride	91	10.315	10.315	(1.260)	21641	2.00000	4.47(a)
162 Butyl acrylate	55	8.736	8.736	(1.067)	26050	2.00000	1.67(a)
139 Diethyl ether	59	2.157	2.157	(0.447)	9695	2.00000	1.73(a)
203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	15277	2.00000	1.58(a)
134 Cyclohexanone	55	9.152	9.152	(0.900)	13014	40.0000	40.72(aM)
130 Ethyl Acetate	43	4.354	4.354	(0.903)	17718	2.00000	2.09(aM)

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.





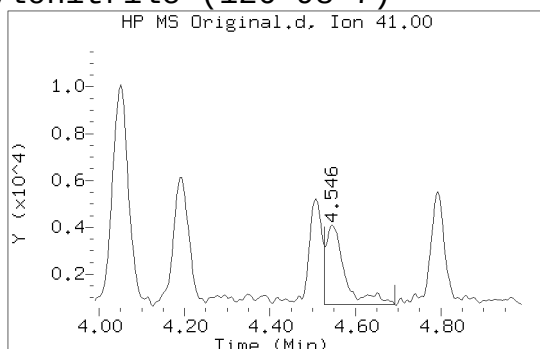
Data File: \\NAHSTMS005\Target\chem\voa9.i\U230427.b\U042705.D
 Date : 27-APR-2023 13:19
 Client ID: WSTD002
 Sample Info: WSTD002;WSTD002;1;4;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: VOA9.i
 Operator: PC
 Column diameter: 0.18

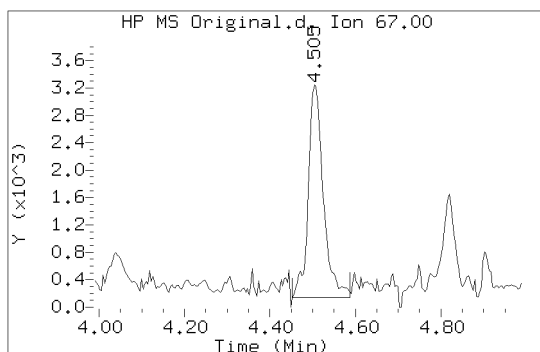
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042705.D
Inj Date : 27-APR-2023 13:19
InstruID : VOA9.i
LabSampID : VSTS002

Methacrylonitrile (126-98-7)**BEFORE**

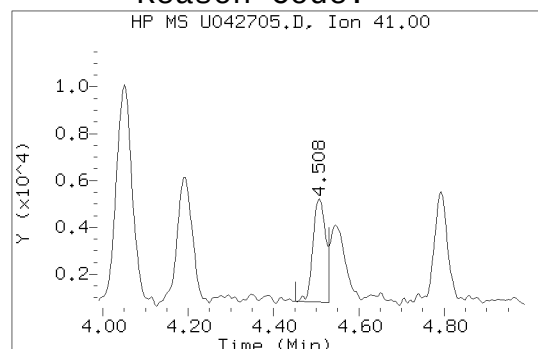
MASS
75
AREA
19020
HEIGHT
10220
01-May-2023
12:42
linh

**BEFORE**

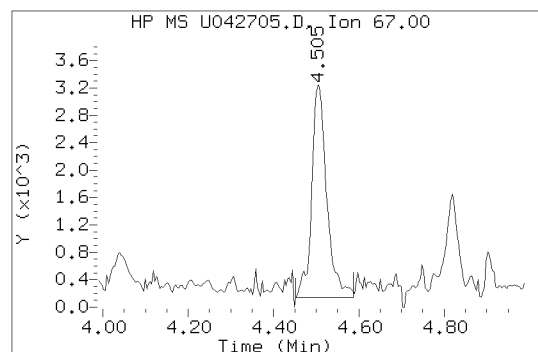
MASS
77
AREA
6674
HEIGHT
3411
01-May-2023
12:42
linh
pham

**AFTER**

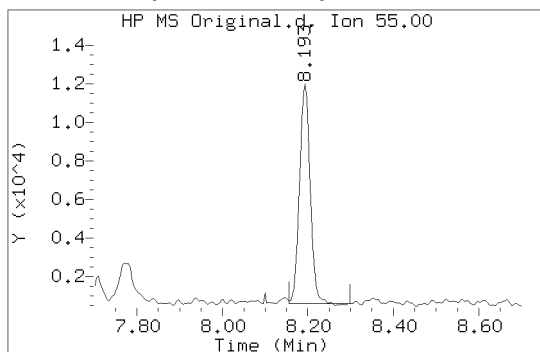
MASS
41
AREA
9602
HEIGHT
4413
03-May-2023
09:43
linh

**AFTER**

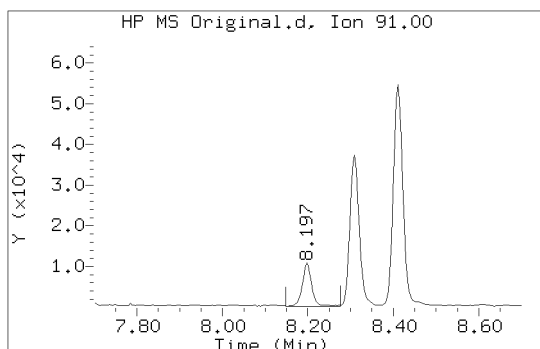
MASS
67
AREA
7721
HEIGHT
3100
03-May-2023
09:43
linh
pham

**1-Chlorohexane (544-10-5)****BEFORE**

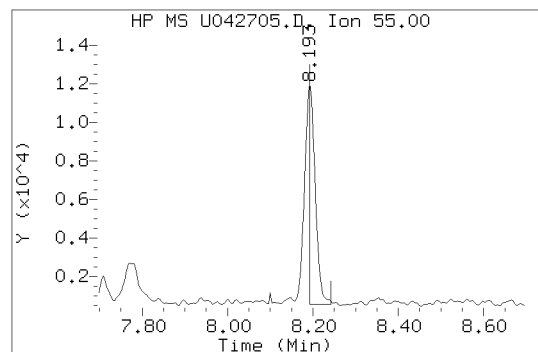
MASS
55
AREA
20097
HEIGHT
11410
01-May-2023
12:42
linh
pham

**BEFORE**

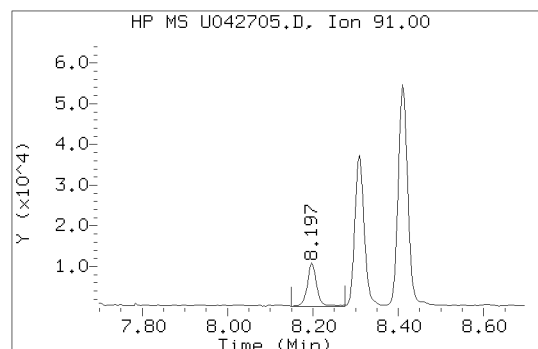
MASS
91
AREA
16587
HEIGHT
10671
01-May-2023
12:42
linh
pham

**AFTER**

MASS
55
AREA
11306
HEIGHT
11437
03-May-2023
09:43
linh
pham

**AFTER**

MASS
91
AREA
16587
HEIGHT
10671
03-May-2023
09:43
linh
pham

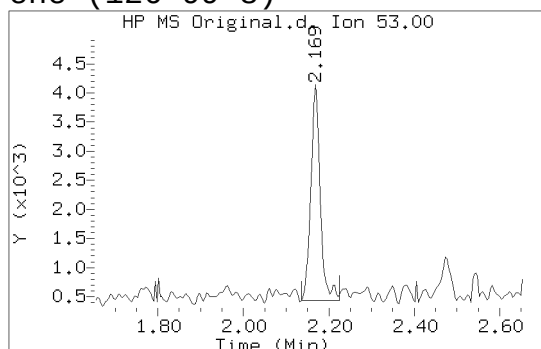


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042705.D
 Inj Date : 27-APR-2023 13:19
 InstruID : VOA9.i
 LabSampID : VSTS002

Chloroprene (126-99-8)

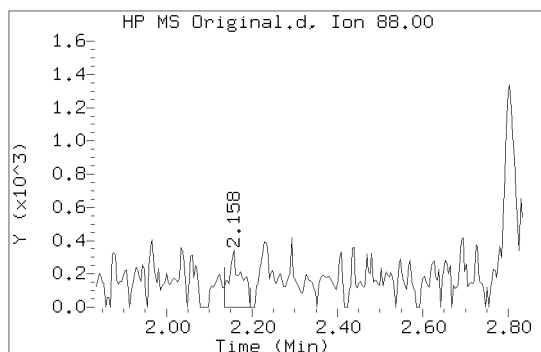
BEFORE

MASS
53
AREA
5724
HEIGHT
3705
01-May-2023
12:42
linh



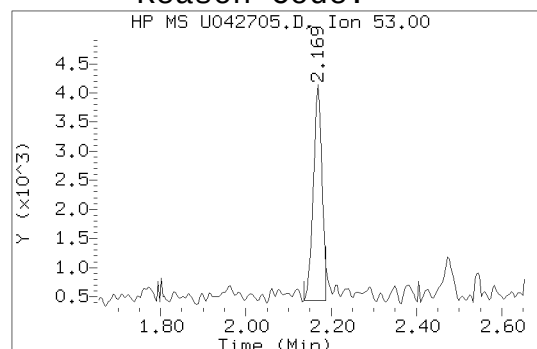
BEFORE

MASS
88
AREA
695
HEIGHT
346
01-May-2023
12:42
linh
pham



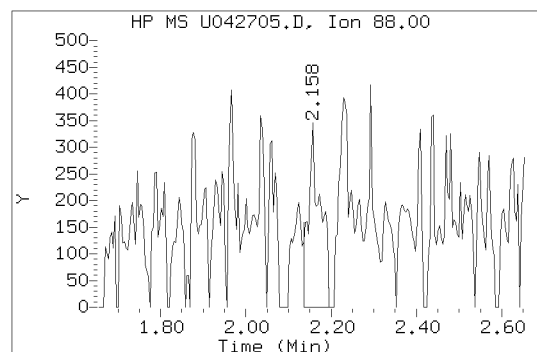
AFTER

MASS
53
AREA
5287
HEIGHT
3705
03-May-2023
09:43
linh



AFTER

MASS
88
AREA
695
HEIGHT
346
03-May-2023
09:43
linh
pham

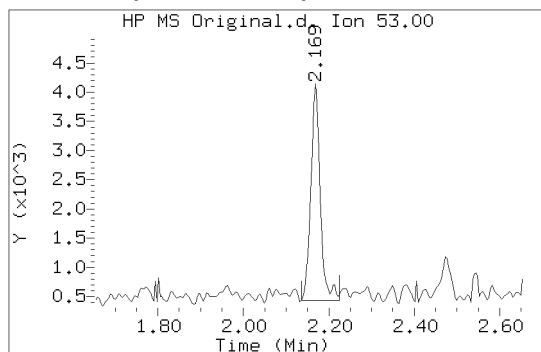


Reason Code:

Ethyl Acetate (141-78-6)

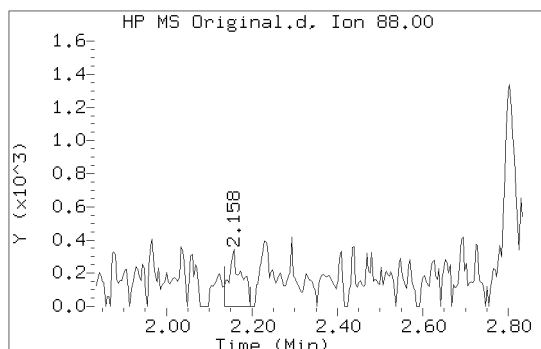
BEFORE

MASS
55
AREA
20677
HEIGHT
6012
01-May-2023
12:42
linh
pham



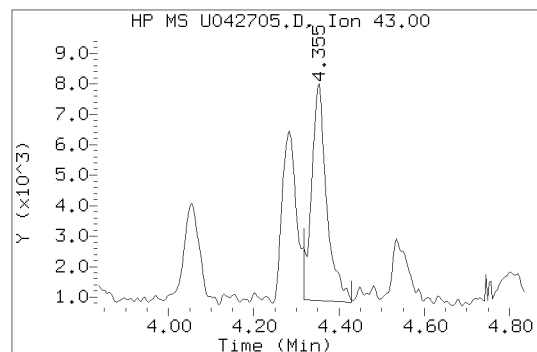
BEFORE

MASS
85
AREA
1842
HEIGHT
848
01-May-2023
12:42
linh
pham



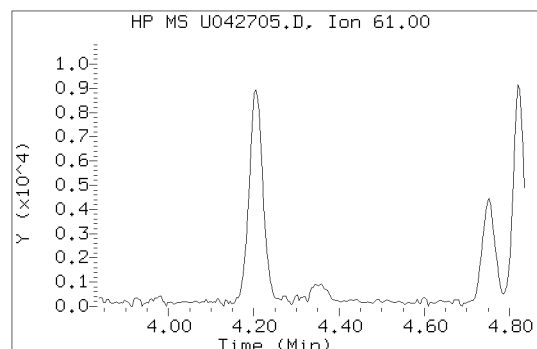
AFTER

MASS
43
AREA
17718
HEIGHT
7111
03-May-2023
09:43
linh
pham



AFTER

MASS
61
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



Reason Code:

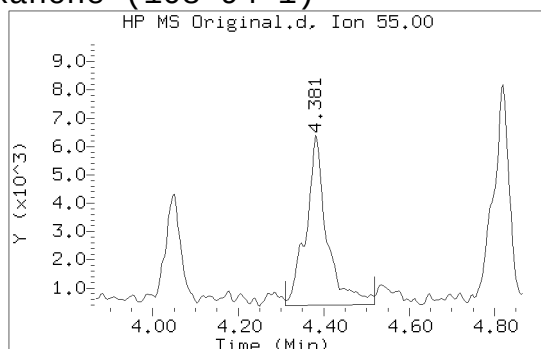


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042705.D
 Inj Date : 27-APR-2023 13:19
 InstruID : VOA9.i
 LabSampID : VSTS002

Cyclohexanone (108-94-1)

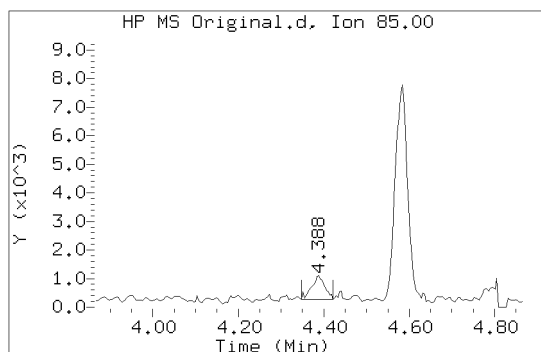
BEFORE

MASS
57
AREA
10918
HEIGHT
5389
01-May-2023
12:42
linh



BEFORE

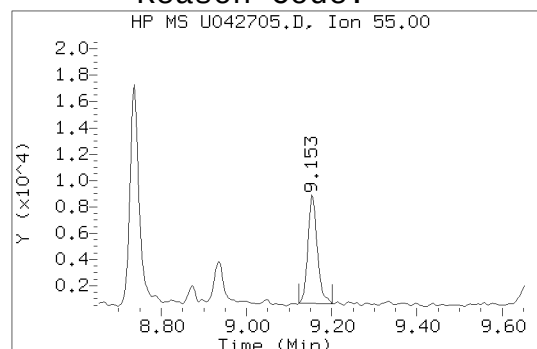
MASS
41
AREA
10343
HEIGHT
4770
01-May-2023
12:42
linh
pham



Reason Code:

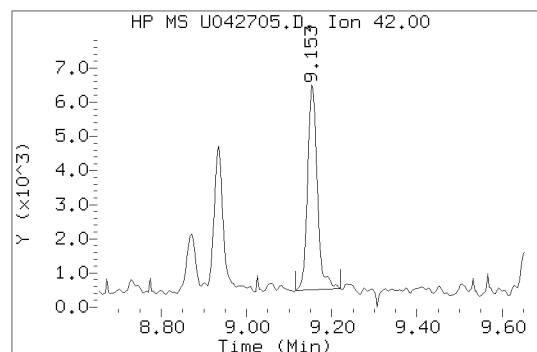
AFTER

MASS
55
AREA
13014
HEIGHT
8237
03-May-2023
09:43
linh



AFTER

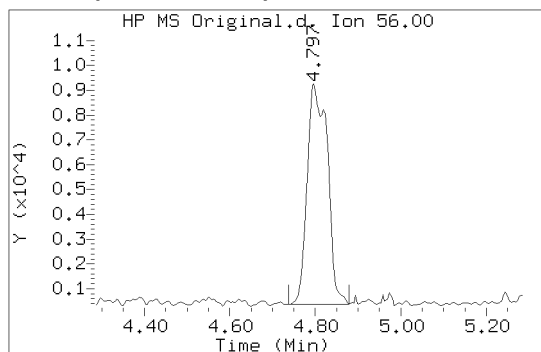
MASS
42
AREA
9767
HEIGHT
6001
03-May-2023
09:43
linh
pham



Cyclohexane (110-82-7)

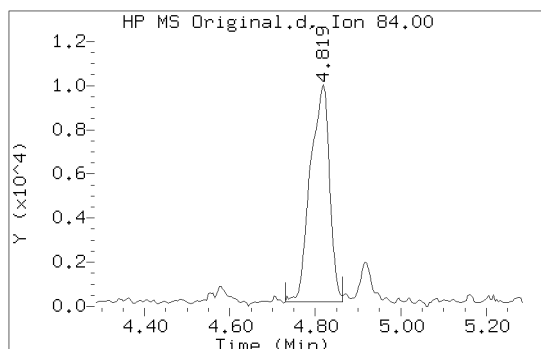
BEFORE

MASS
101
AREA
9850
HEIGHT
5195
01-May-2023
12:42
linh
pham



BEFORE

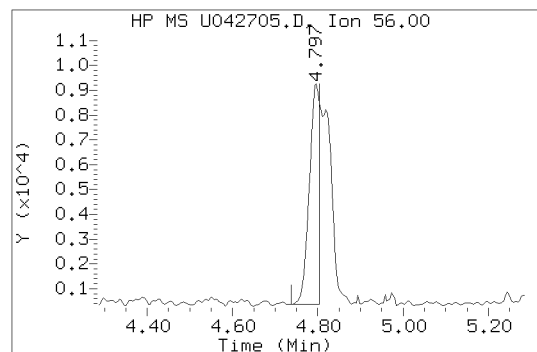
MASS
151
AREA
8653
HEIGHT
4573
01-May-2023
12:42
linh
pham



Reason Code:

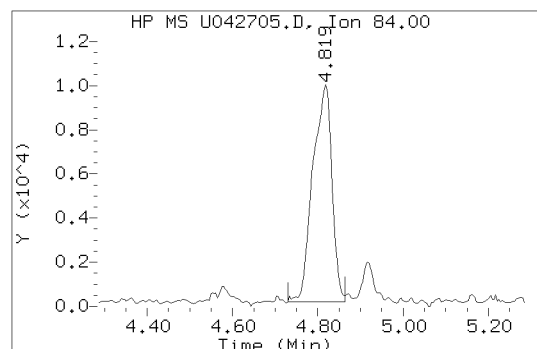
AFTER

MASS
56
AREA
15056
HEIGHT
8879
03-May-2023
09:43
linh
pham



AFTER

MASS
84
AREA
31066
HEIGHT
9850
03-May-2023
09:43
linh
pham

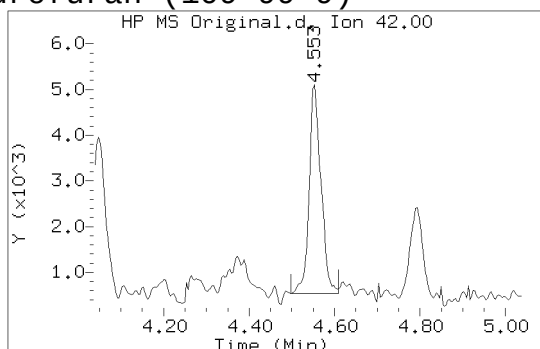


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042705.D
Inj Date : 27-APR-2023 13:19
InstruID : VOA9.i
LabSampID : VSTS002

Tetrahydrofuran (109-99-9)

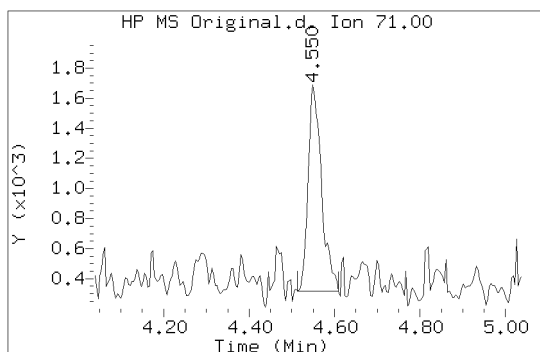
BEFORE

MASS
118
AREA
17535
HEIGHT
11952
01-May-2023
12:42
linh



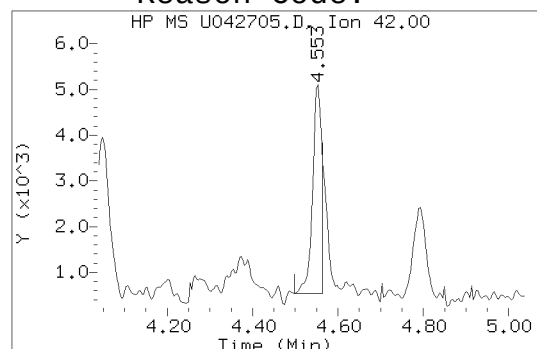
BEFORE

MASS
103
AREA
8700
HEIGHT
6544
01-May-2023
12:42
linh
pham



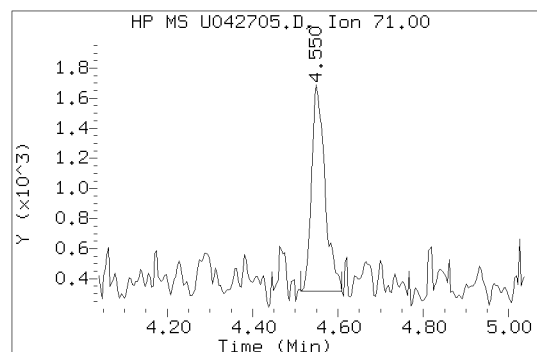
AFTER

MASS
42
AREA
6945
HEIGHT
4561
03-May-2023
09:43
linh



AFTER

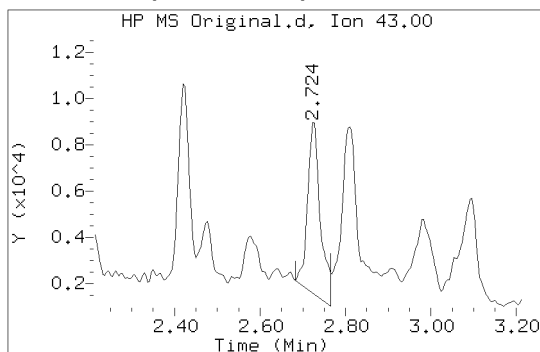
MASS
71
AREA
3027
HEIGHT
1370
03-May-2023
09:43
linh
pham



Methyl Acetate (79-20-9)

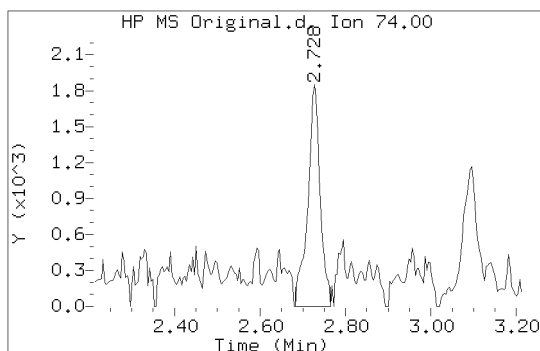
BEFORE

MASS
45
AREA
20868
HEIGHT
9906
01-May-2023
12:42
linh
pham



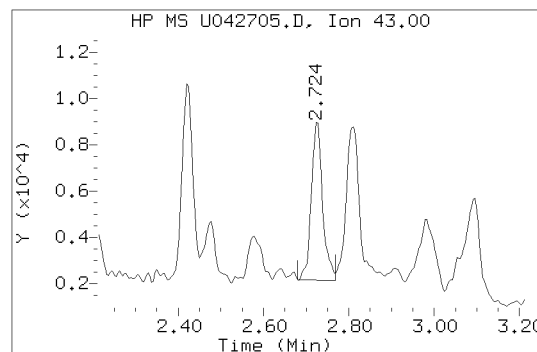
BEFORE

MASS
59
AREA
1166
HEIGHT
458
01-May-2023
12:42
linh
pham



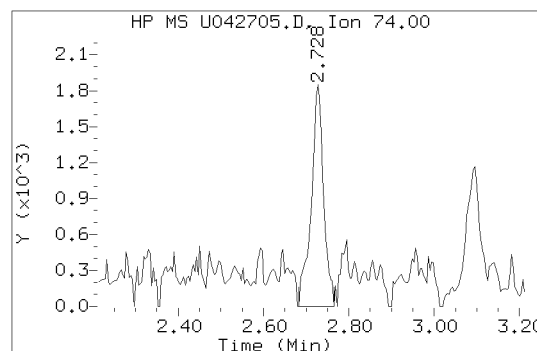
AFTER

MASS
43
AREA
12729
HEIGHT
6816
03-May-2023
09:43
linh
pham



AFTER

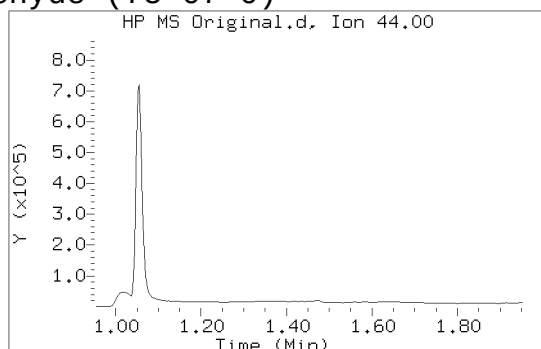
MASS
74
AREA
3721
HEIGHT
1850
03-May-2023
09:43
linh
pham



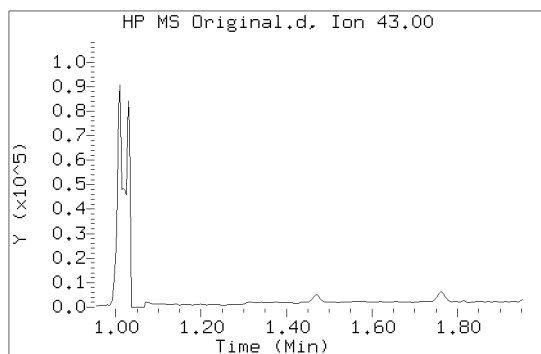
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042705.D
Inj Date : 27-APR-2023 13:19
InstruID : VOA9.i
LabSampID : VSTS002

Acetaldehyde (75-07-0)**BEFORE**

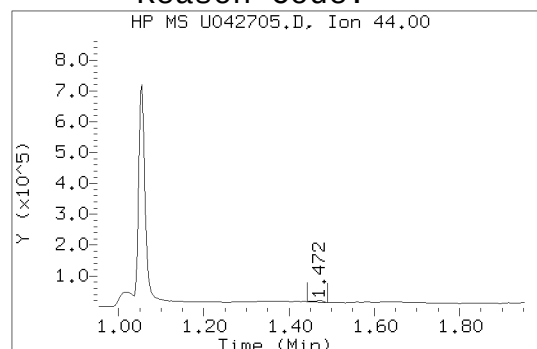
MASS
55
AREA
15277
HEIGHT
9208
01-May-2023
12:42
linh

**BEFORE**

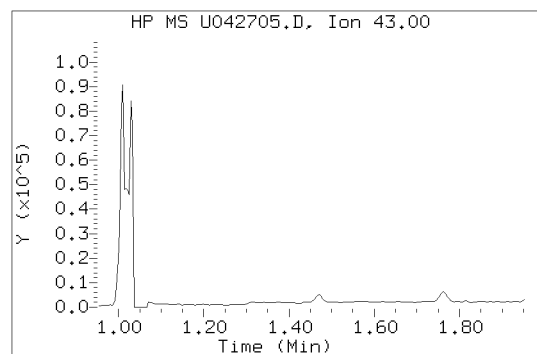
MASS
70
AREA
10112
HEIGHT
6023
01-May-2023
12:42
linh
pham

**AFTER**

MASS
44
AREA
5575
HEIGHT
4684
03-May-2023
09:43
linh

**AFTER**

MASS
43
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042706.D Page 1
 Report Date: 03-May-2023 09:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042706.D
 Lab Smp Id: VSTS005 Client Smp ID: VSTD005
 Inj Date : 27-APR-2023 13:41
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTS005;VSTD005;1;5;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\8260C.m
 Meth Date : 03-May-2023 09:43 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 13:19 Cal File: U042705.D
 Als bottle: 7 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: $\text{Amt} * \text{DF} * (\text{Uf}/\text{Vo}) * 1 * \text{CpndVariable}$

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

						AMOUNTS	
		QUANT	SIG			CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	725763	50.0000	
2 Dichlorodifluoromethane	85	1.160	1.160	(0.241)	24489	5.00000	6.64
3 Chloromethane	50	1.291	1.291	(0.268)	32464	5.00000	4.68(a)
5 Vinyl Chloride	62	1.370	1.370	(0.285)	32183	5.00000	4.42(a)
6 Bromomethane	94	1.617	1.617	(0.336)	20997	5.00000	6.18
7 Chloroethane	64	1.696	1.696	(0.352)	22090	5.00000	4.57(a)
8 Trichlorofluoromethane	101	1.891	1.891	(0.393)	39896	5.00000	4.96(aM)
9 Acrolein	56	2.259	2.259	(0.469)	3876	10.0000	10.97(MH)
10 Acetone	43	2.408	2.408	(0.500)	36867	10.0000	11.03
11 1,1-Dichloroethene	96	2.330	2.330	(0.484)	24277	5.00000	4.45(a)
15 Iodomethane	142	2.465	2.465	(0.512)	52031	10.0000	8.85
16 Acrylonitrile	53	3.061	3.061	(0.636)	31775	10.0000	10.38
17 Methylene Chloride	84	2.791	2.791	(0.580)	37402	5.00000	5.30
18 Methyl tert-butyl ether	73	3.079	3.079	(0.640)	106854	5.00000	5.08
19 Carbon Disulfide	76	2.517	2.517	(0.523)	146737	10.0000	9.01
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	28581	5.00000	4.59(a)
21 Vinyl Acetate	43	3.608	3.608	(0.749)	207762	10.0000	9.77
22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	53670	5.00000	4.70(a)
24 2-Butanone	43	4.264	4.264	(0.886)	34192	10.0000	9.65
26 2,2-Dichloropropane	77	4.182	4.182	(0.868)	44754	5.00000	4.71(a)



27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	34411	5.00000	4.67(a)
28 Chloroform	83	4.571	4.571 (0.949)	57905	5.00000	4.86(a)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042706.D Page 2

Report Date: 03-May-2023 09:43

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.470	4.470	(0.928)	18856	5.00000	5.07
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	38110	5.00000	4.91(a)
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	47937	5.00000	4.56(a)
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	37575	5.00000	4.60(a)
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	51998	5.00000	5.02
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	36619	5.00000	6.33
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	45826	5.00000	4.66(a)
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1081154	50.0000	
37 Benzene	78	5.138	5.138	(0.925)	118508	5.00000	4.62(a)
38 Trichloroethene	130	5.790	5.790	(1.043)	34619	5.00000	4.68(a)
39 Bromodichloromethane	83	6.277	6.277	(1.130)	42178	5.00000	4.58(a)
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	30709	5.00000	4.64(a)
44 Dibromomethane	93	6.120	6.120	(1.102)	22660	5.00000	4.85(a)
45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	82212	10.0000	10.10
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	51850	5.00000	4.50(a)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	986183	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	130357	5.00000	5.32
50 Toluene	91	6.982	6.982	(0.853)	129043	5.00000	4.76(a)
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	43135	5.00000	4.37(a)
52 2-Hexanone	43	7.593	7.593	(0.928)	54963	10.0000	9.61
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	24953	5.00000	4.78(a)
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	53157	5.00000	4.63(a)
55 Dibromochloromethane	129	7.690	7.690	(0.940)	34354	5.00000	4.47(a)
56 Tetrachloroethene	164	7.458	7.458	(0.911)	25697	5.00000	4.41(aM)
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	32583	5.00000	4.76(a)
58 1-Chlorohexane	55	8.193	8.193	(1.475)	30543	5.00000	6.15(M)
59 Chlorobenzene	112	8.211	8.211	(1.003)	88153	5.00000	4.71(a)
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	32900	5.00000	4.59(a)
61 Ethylbenzene	106	8.309	8.309	(1.015)	42833	5.00000	4.66(a)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	105587	10.0000	9.39(a)
63 o-Xylene	106	8.748	8.748	(1.069)	53384	5.00000	4.70(a)
64 Styrene	104	8.762	8.762	(1.071)	85988	5.00000	4.51(a)
66 Bromoform	173	8.920	8.920	(1.090)	24324	5.00000	4.32(a)
67 Isopropylbenzene	105	9.062	9.062	(1.107)	120807	5.00000	4.39(a)
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	44262	5.00000	4.65(a)
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	51785	5.00000	4.52(a)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	552437	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	47840	5.00000	4.46(a)
73 n-Propylbenzene	91	9.411	9.411	(0.925)	136104	5.00000	4.44(a)
74 Bromobenzene	156	9.317	9.317	(0.916)	40846	5.00000	4.59(a)
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	91727	5.00000	4.16(a)
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	94569	5.00000	4.68(a)
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	107749	5.00000	4.57(a)
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	84028	5.00000	5.29
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	90709	5.00000	4.04(a)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	101928	5.00000	4.75(a)
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	82800	5.00000	5.91
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	68285	5.00000	4.44(a)
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	73557	5.00000	4.56(a)
87 n-Butylbenzene	91	10.494	10.494	(1.032)	73193	5.00000	6.41
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	70639	5.00000	4.49(a)
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	8009	5.00000	6.09



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	48962	5.00000	4.30(a)
92 Naphthalene	128	12.069	12.069 (1.186)	141074	5.00000	4.50(a)

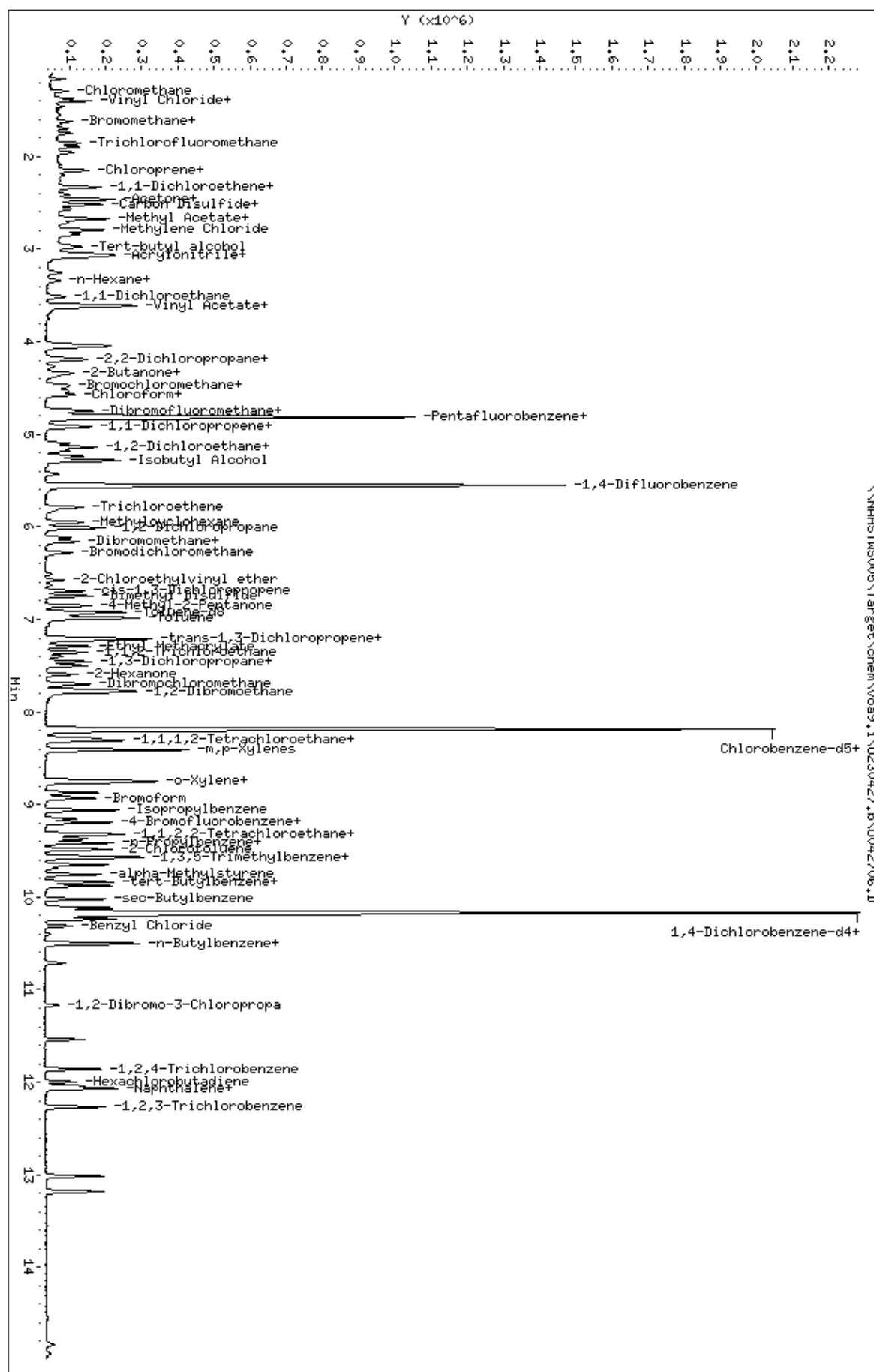
Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042706.D Page 3
 Report Date: 03-May-2023 09:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	47603	5.00000	4.27(a)
M 94 1,2-Dichloroethylene (total)	96				62992	10.0000	(a)
135 1,4-Dioxane	88	6.168	6.168	(1.281)	8295	100.000	94.36(a)
141 Cyclohexane	56	4.785	4.785	(0.994)	33340	5.00000	5.08(M)
138 Freon TF	101	2.333	2.333	(0.485)	20034	5.00000	5.01
140 1,3-Butadiene	54	1.400	1.400	(0.291)	27069	5.00000	4.59(a)
147 Methylcyclohexane	55	5.947	5.947	(1.071)	74486	5.00000	4.36(a)
146 Methyl Acetate	43	2.712	2.712	(0.563)	29979	5.00000	4.77(a)
148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	84773	100.000	95.85
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	46921	100.000	93.42
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	13353	5.00000	5.02
12 Isobutyl Alcohol	43	5.284	5.284	(1.097)	113372	100.000	99.32
13 Acetonitrile	39	2.671	2.671	(0.555)	47485	50.0000	50.68
14 Allyl Chloride	41	2.671	2.671	(0.555)	103970	5.00000	5.08
25 Methacrylonitrile	41	4.493	4.493	(0.933)	27697	5.00000	5.02(M)
40 Methyl Methacrylate	41	6.157	6.157	(1.279)	39068	5.00000	4.87
4 Propionitrile	54	4.335	4.335	(0.900)	56825	50.0000	51.33(a)
136 n-Hexane	57	3.338	3.338	(0.693)	18408	5.00000	4.47(a)
194 Acetaldehyde	44	1.456	1.456	(0.302)	13467	20.0000	20.85(M)
131 Methyl Acrylate	55	4.369	4.369	(0.907)	38996	5.00000	4.33(a)
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	65835	5.00000	4.73(a)
23 Chloroprene	53	2.154	2.154	(0.447)	11122	5.00000	4.52(a)
49 Ethyl Methacrylate	69	7.289	7.289	(1.312)	54189	5.00000	4.84(a)
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	96565	5.00000	4.41(a)
167 Ethanol	45	2.086	2.086	(0.433)	8529	100.000	100.06
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	130224	5.00000	4.77(a)
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	41259	5.00000	5.59
142 Tetrahydrofuran	42	4.545	4.545	(0.944)	16784	10.0000	10.53
156 Diisopropyl ether	45	3.619	3.619	(0.752)	111955	5.00000	4.95(Ta)
151 4-Methyl-2-pentanol	45	7.214	7.214	(1.299)	187510	100.000	95.60
150 Allyl alcohol	57	3.338	3.338	(0.693)	18408	100.000	89.83
86 Benzyl Chloride	91	10.311	10.311	(1.260)	49694	5.00000	6.27
162 Butyl acrylate	55	8.733	8.733	(1.067)	68276	5.00000	4.40(a)
139 Diethyl ether	59	2.142	2.142	(0.445)	27218	5.00000	4.94(a)
203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	38670	5.00000	4.00(a)
134 Cyclohexanone	55	9.152	9.152	(0.900)	34048	100.000	102.80(aM)
130 Ethyl Acetate	43	4.343	4.343	(0.902)	38832	5.00000	4.66(aM)

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: \\NAHSTMS005\Target\chem\voa9.i\U230427.b\U042706.D
 Date : 27-APR-2023 13:41
 Client ID: VSTD005
 Sample Info: VSTD005;VSTD005;1;5;
 Purge Volume: 5.0
 Column phase: DB624

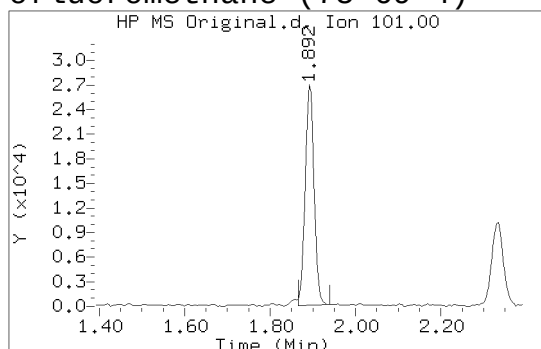
Instrument: W0A9.i
 Operator: PC
 Column diameter: 0.18



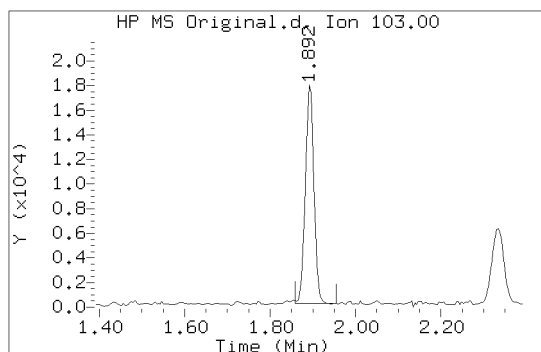
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042706.D
Inj Date : 27-APR-2023 13:41
InstruID : VOA9.i
LabSampID : VSTS005

Trichlorofluoromethane (75-69-4)**BEFORE**

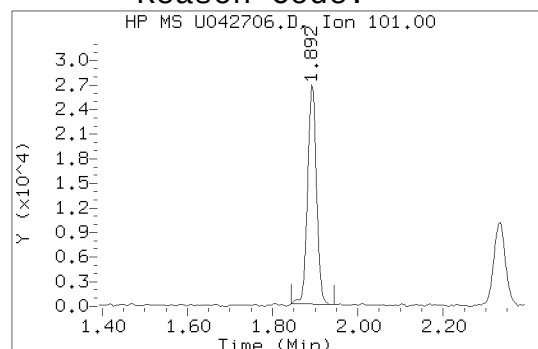
MASS
101
AREA
39835
HEIGHT
26911
01-May-2023
12:42
linh

**BEFORE**

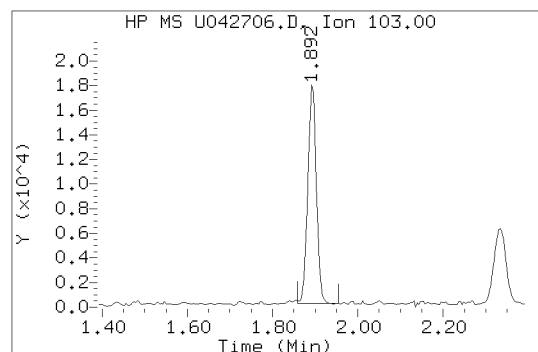
MASS
103
AREA
25382
HEIGHT
17760
01-May-2023
12:42
linh
pham

**AFTER**

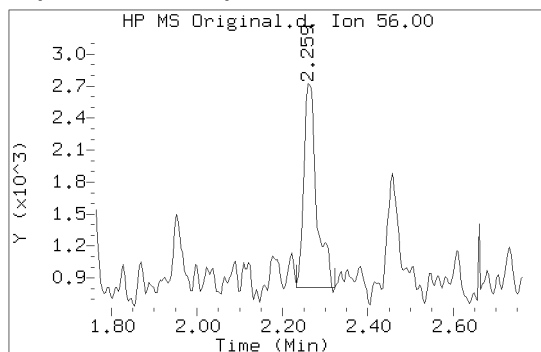
MASS
101
AREA
39896
HEIGHT
26796
03-May-2023
09:43
linh

**AFTER**

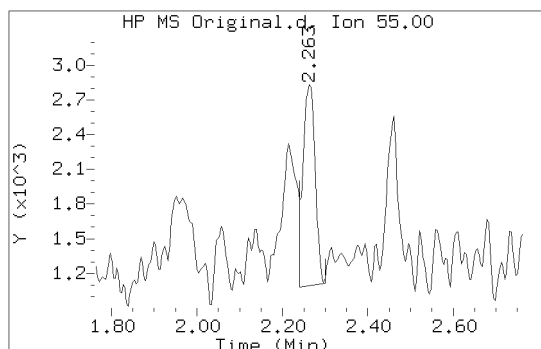
MASS
103
AREA
25382
HEIGHT
17760
03-May-2023
09:43
linh
pham

**Acrolein (107-02-8)****BEFORE**

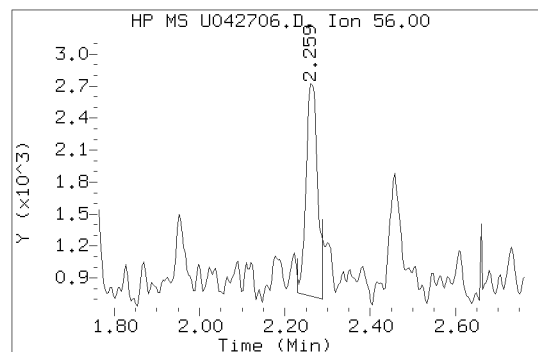
MASS
56
AREA
4026
HEIGHT
1910
01-May-2023
12:42
linh
pham

**BEFORE**

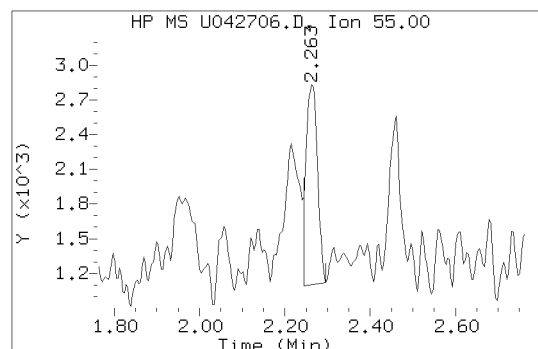
MASS
55
AREA
3551
HEIGHT
1739
01-May-2023
12:42
linh
pham

**AFTER**

MASS
56
AREA
3876
HEIGHT
1990
03-May-2023
09:43
linh
pham

**AFTER**

MASS
55
AREA
3336
HEIGHT
1730
03-May-2023
09:43
linh
pham

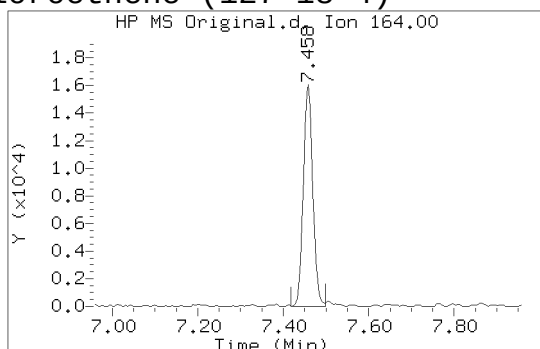


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042706.D
Inj Date : 27-APR-2023 13:41
InstruID : VOA9.i
LabSampID : VSTS005

Tetrachloroethene (127-18-4)

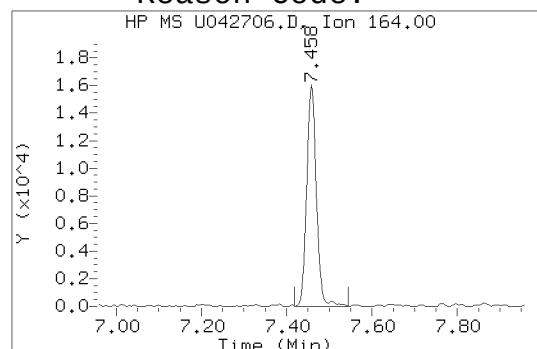
BEFORE

MASS
164
AREA
25234
HEIGHT
16057
01-May-2023
12:42
linh



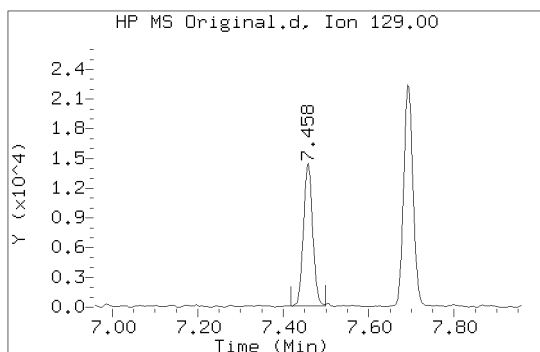
AFTER

MASS
164
AREA
25697
HEIGHT
16057
03-May-2023
09:43
linh



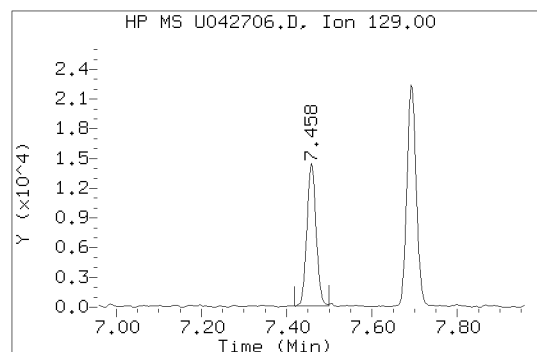
BEFORE

MASS
129
AREA
22110
HEIGHT
14449
01-May-2023
12:42
linh
pham



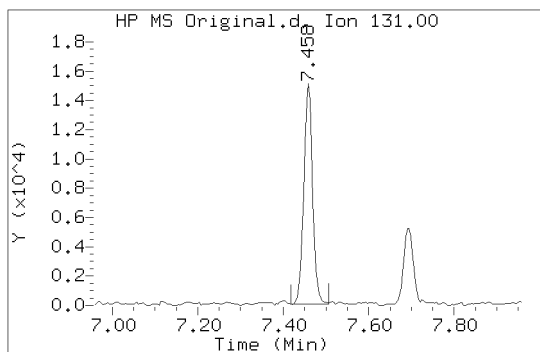
AFTER

MASS
129
AREA
22110
HEIGHT
14449
03-May-2023
09:43
linh
pham



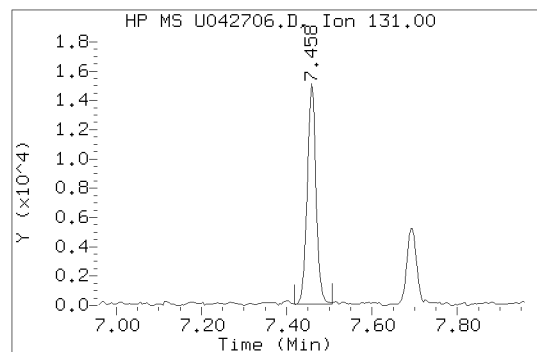
BEFORE

MASS
131
AREA
21988
HEIGHT
15068
01-May-2023
12:42
linh
pham



AFTER

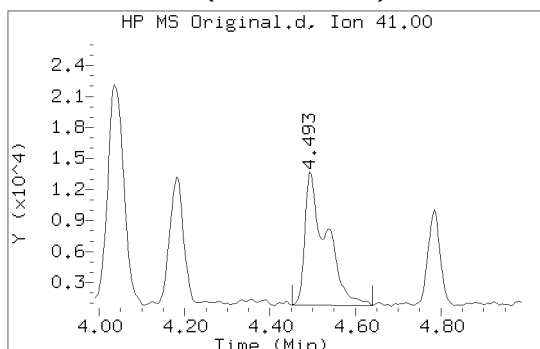
MASS
131
AREA
21988
HEIGHT
15068
03-May-2023
09:43
linh
pham



Methacrylonitrile (126-98-7)

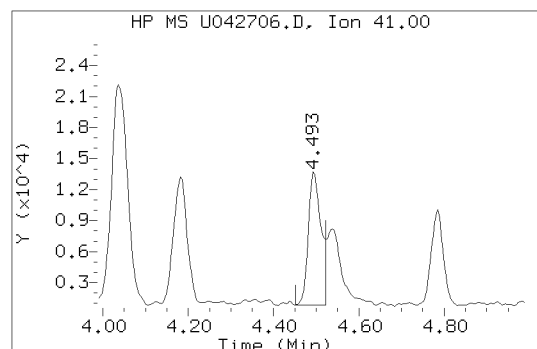
BEFORE

MASS
75
AREA
47840
HEIGHT
26246
01-May-2023
12:42
linh
pham



AFTER

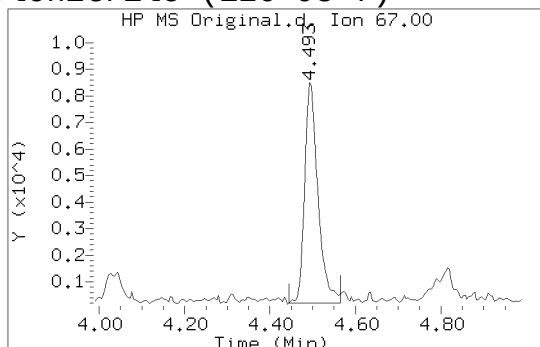
MASS
41
AREA
27697
HEIGHT
12928
03-May-2023
09:43
linh
pham



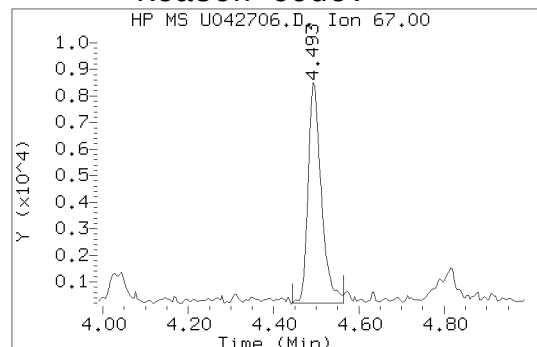
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042706.D
Inj Date : 27-APR-2023 13:41
InstruID : VOA9.i
LabSampID : VSTS005

Methacrylonitrile (126-98-7)**BEFORE**

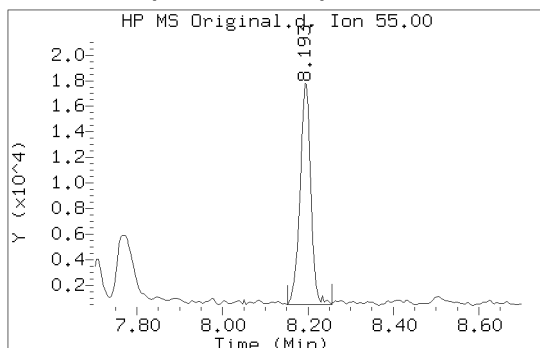
MASS
77
AREA
17206
HEIGHT
8764
01-May-2023
12:42
linh
pham

**AFTER**

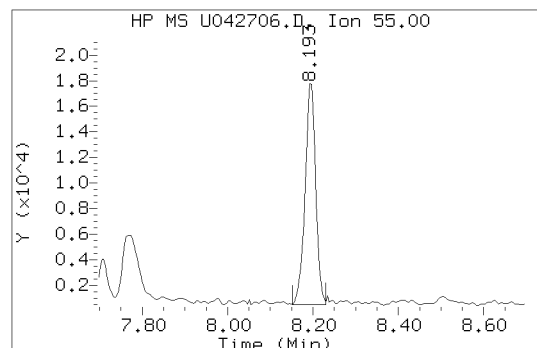
MASS
67
AREA
18182
HEIGHT
8295
03-May-2023
09:43
linh
pham

**1-Chlorohexane (544-10-5)****BEFORE**

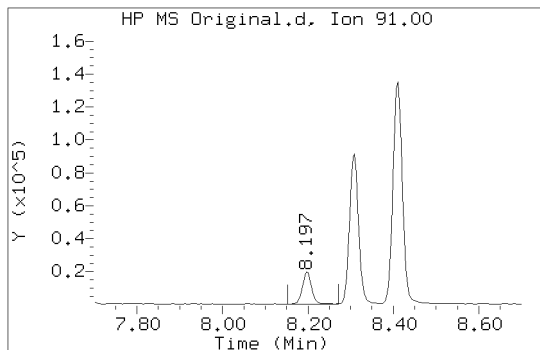
MASS
55
AREA
30958
HEIGHT
17254
01-May-2023
12:42
linh
pham

**AFTER**

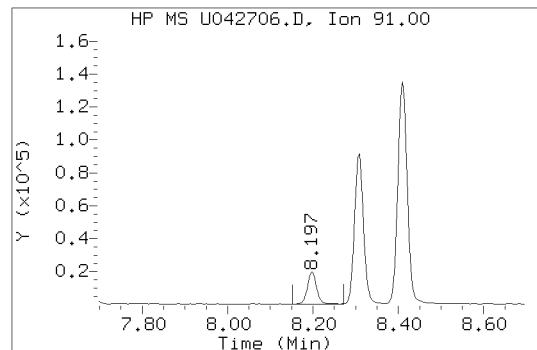
MASS
55
AREA
30543
HEIGHT
17254
03-May-2023
09:43
linh
pham

**BEFORE**

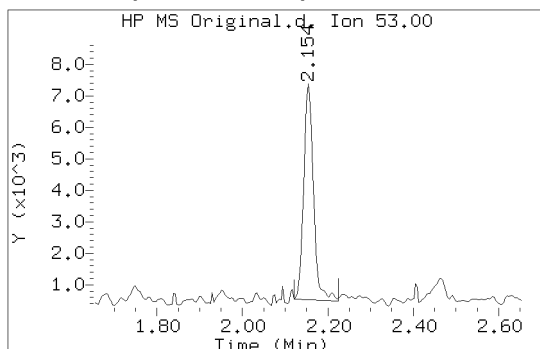
MASS
91
AREA
29132
HEIGHT
19538
01-May-2023
12:42
linh
pham

**AFTER**

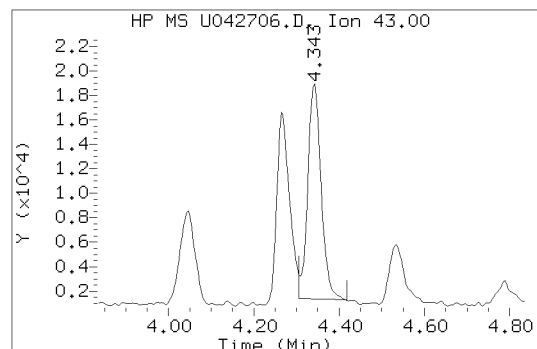
MASS
91
AREA
29132
HEIGHT
19538
03-May-2023
09:43
linh
pham

**Ethyl Acetate (141-78-6)****BEFORE**

MASS
55
AREA
38996
HEIGHT
15860
01-May-2023
12:42
linh
pham

**AFTER**

MASS
43
AREA
38832
HEIGHT
17559
03-May-2023
09:43
linh
pham

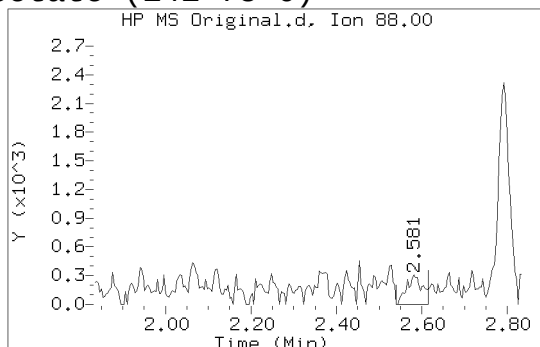


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042706.D
 Inj Date : 27-APR-2023 13:41
 InstruID : VOA9.i
 LabSampID : VSTS005

Ethyl Acetate (141-78-6)

BEFORE

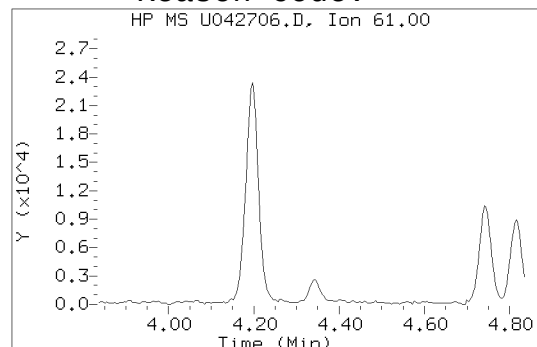
MASS
85
AREA
7115
HEIGHT
3217
01-May-2023
12:42
linh
pham



AFTER

MASS
61
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham

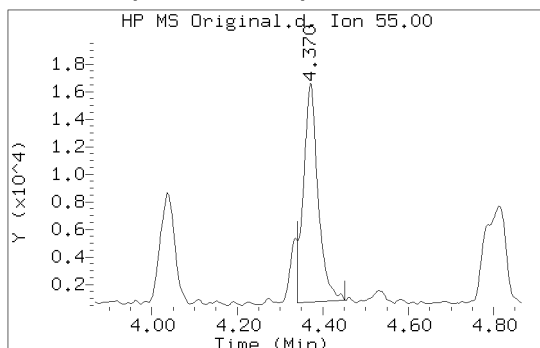
Reason Code:



Cyclohexanone (108-94-1)

BEFORE

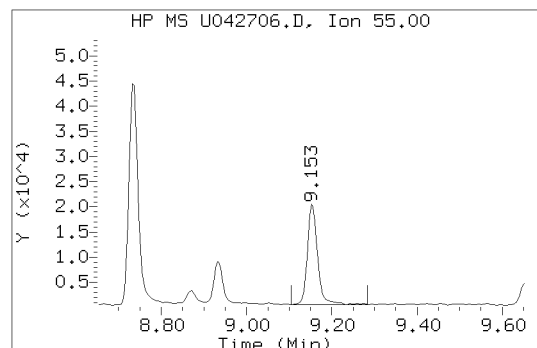
MASS
57
AREA
18408
HEIGHT
8696
01-May-2023
12:42
linh
pham



AFTER

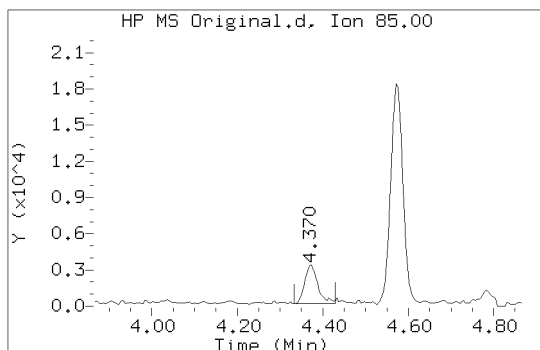
MASS
55
AREA
34048
HEIGHT
19937
03-May-2023
09:43
linh
pham

Reason Code:



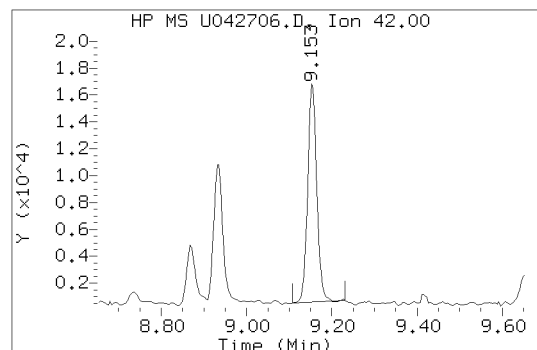
BEFORE

MASS
41
AREA
16962
HEIGHT
8035
01-May-2023
12:42
linh
pham



AFTER

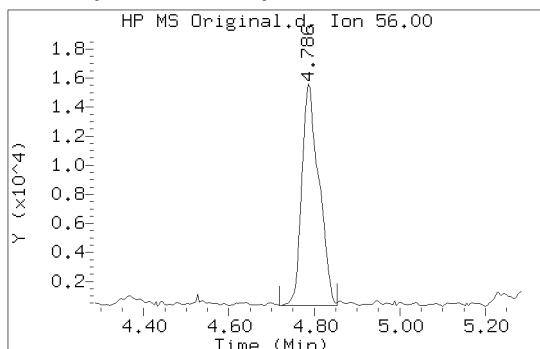
MASS
42
AREA
24485
HEIGHT
16233
03-May-2023
09:43
linh
pham



Cyclohexane (110-82-7)

BEFORE

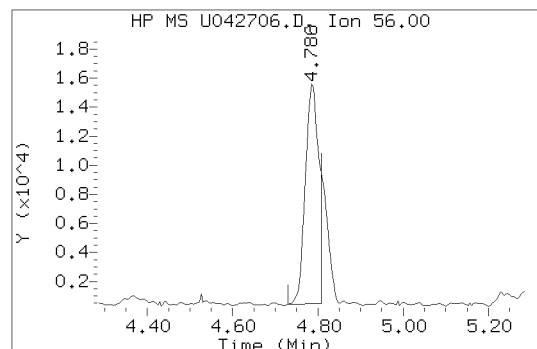
MASS
101
AREA
20034
HEIGHT
10242
01-May-2023
12:42
linh
pham



AFTER

MASS
56
AREA
33340
HEIGHT
15141
03-May-2023
09:43
linh
pham

Reason Code:

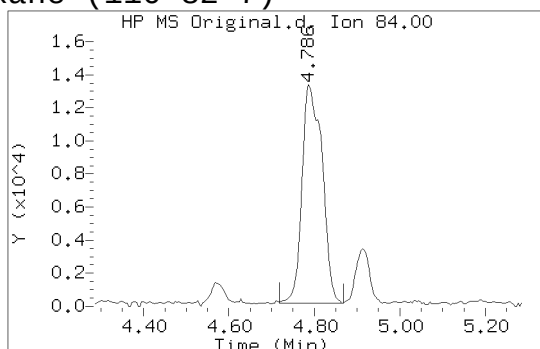


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042706.D
Inj Date : 27-APR-2023 13:41
InstruID : VOA9.i
LabSampID : VSTS005

Cyclohexane (110-82-7)

BEFORE

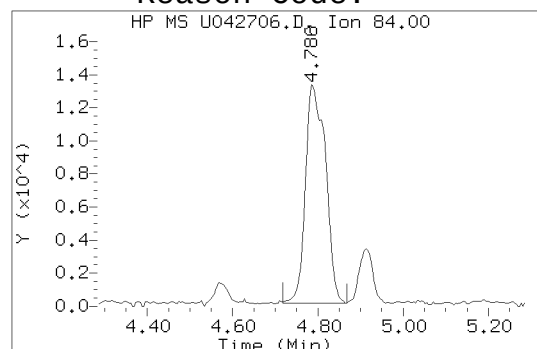
MASS
151
AREA
17990
HEIGHT
9127
01-May-2023
12:42
linh
pham



AFTER

MASS
84
AREA
43762
HEIGHT
13208
03-May-2023
09:43
linh
pham

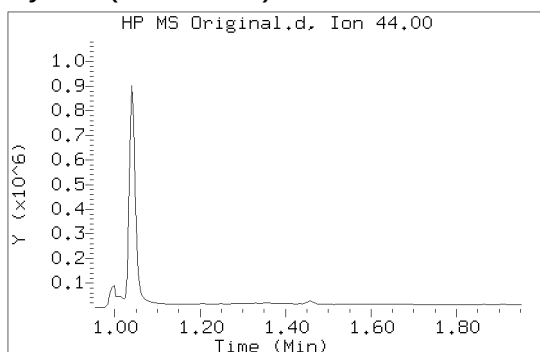
Reason Code:



Acetaldehyde (75-07-0)

BEFORE

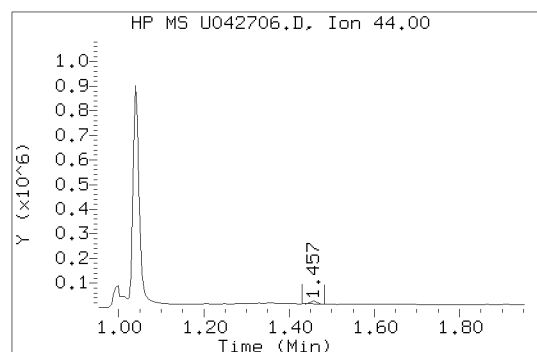
MASS
55
AREA
38670
HEIGHT
22983
01-May-2023
12:42
linh
pham



AFTER

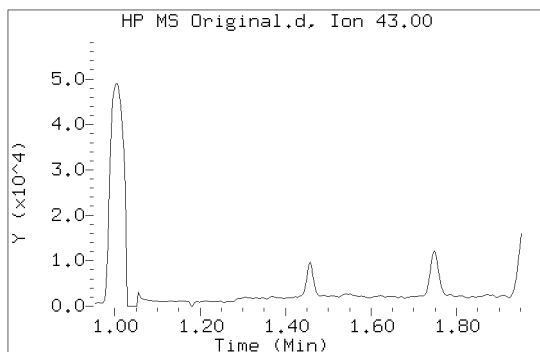
MASS
44
AREA
13467
HEIGHT
11689
03-May-2023
09:43
linh
pham

Reason Code:



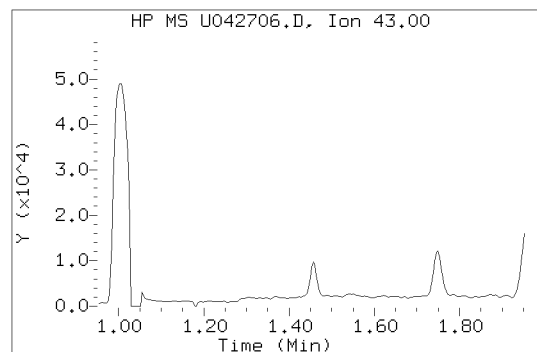
BEFORE

MASS
70
AREA
27725
HEIGHT
17754
01-May-2023
12:42
linh
pham



AFTER

MASS
43
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042707.D Page 1
 Report Date: 03-May-2023 09:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042707.D
 Lab Smp Id: VSTS020 Client Smp ID: VSTD020
 Inj Date : 27-APR-2023 14:03
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTS020;VSTD020;1;6;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\8260C.m
 Meth Date : 03-May-2023 09:43 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 13:41 Cal File: U042706.D
 Als bottle: 8 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: $\text{Amt} * \text{DF} * (\text{Uf}/\text{Vo}) * 1 * \text{CpndVariable}$

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

						AMOUNTS	
		QUANT	SIG			CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	736543	50.0000	
2 Dichlorodifluoromethane	85	1.172	1.172	(0.243)	103583	20.0000	18.35
3 Chloromethane	50	1.303	1.303	(0.270)	125477	20.0000	17.85
5 Vinyl Chloride	62	1.381	1.381	(0.287)	130087	20.0000	17.62
6 Bromomethane	94	1.629	1.629	(0.338)	66743	20.0000	17.14
7 Chloroethane	64	1.708	1.708	(0.354)	90868	20.0000	18.55
8 Trichlorofluoromethane	101	1.903	1.903	(0.395)	168140	20.0000	22.10
9 Acrolein	56	2.274	2.274	(0.472)	13247	40.0000	39.39(H)
10 Acetone	43	2.416	2.416	(0.501)	117551	40.0000	39.48
11 1,1-Dichloroethene	96	2.341	2.341	(0.486)	101209	20.0000	18.31
15 Iodomethane	142	2.476	2.476	(0.514)	278097	40.0000	37.48
16 Acrylonitrile	53	3.072	3.072	(0.638)	117080	40.0000	37.70
17 Methylene Chloride	84	2.802	2.802	(0.582)	131952	20.0000	19.21
18 Methyl tert-butyl ether	73	3.091	3.091	(0.641)	401274	20.0000	18.82
19 Carbon Disulfide	76	2.525	2.525	(0.524)	619292	40.0000	37.50
20 trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	120838	20.0000	19.12
21 Vinyl Acetate	43	3.612	3.612	(0.750)	877264	40.0000	40.65
22 1,1-Dichloroethane	63	3.522	3.522	(0.731)	220752	20.0000	19.06
24 2-Butanone	43	4.268	4.268	(0.886)	145553	40.0000	40.51
26 2,2-Dichloropropane	77	4.189	4.189	(0.869)	183640	20.0000	19.07



27 cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	143782	20.0000	19.25
28 Chloroform	83	4.579	4.579 (0.950)	238556	20.0000	19.74

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042707.D Page 2

Report Date: 03-May-2023 09:43

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====		=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128		4.474	4.474	(0.928)		75095	20.0000	19.92
\$ 30 Dibromofluoromethane	113		4.755	4.755	(0.987)		137923	20.0000	19.78
31 1,1,1-Trichloroethane	97		4.748	4.748	(0.985)		192947	20.0000	18.08
32 1,1-Dichloropropene	75		4.928	4.928	(0.887)		152997	20.0000	18.70
33 1,2-Dichloroethane	62		5.179	5.179	(0.932)		202829	20.0000	19.55
34 Carbon Tetrachloride	117		4.916	4.916	(0.885)		153313	20.0000	18.41
\$ 35 1,2-Dichloroethane-d4	65		5.104	5.104	(1.059)		171066	20.0000	19.96
* 36 1,4-Difluorobenzene	114		5.558	5.558	(1.000)		1084062	50.0000	
37 Benzene	78		5.141	5.141	(0.925)		493439	20.0000	19.19
38 Trichloroethene	130		5.794	5.794	(1.042)		139297	20.0000	18.81
39 Bromodichloromethane	83		6.281	6.281	(1.130)		179200	20.0000	19.42
41 2-Chloroethylvinyl ether	63		6.577	6.577	(1.183)		94866	40.0000	38.57
42 1,2-Dichloropropane	63		6.011	6.011	(1.082)		131654	20.0000	19.85
44 Dibromomethane	93		6.124	6.124	(1.102)		88936	20.0000	19.00
45 4-Methyl-2-Pentanone	43		6.855	6.855	(0.837)		335155	40.0000	40.54
46 cis-1,3-Dichloropropene	75		6.693	6.693	(1.204)		221818	20.0000	19.24
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)		1002079	50.0000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)		493107	20.0000	19.80
50 Toluene	91		6.982	6.982	(0.853)		530511	20.0000	19.28
51 trans-1,3-Dichloropropene	75		7.199	7.199	(1.295)		195348	20.0000	19.75
52 2-Hexanone	43		7.593	7.593	(0.928)		232620	40.0000	40.06
53 1,1,2-Trichloroethane	83		7.357	7.357	(0.899)		107304	20.0000	20.24
54 1,3-Dichloropropane	76		7.499	7.499	(0.916)		226818	20.0000	19.44
55 Dibromochloromethane	129		7.694	7.694	(0.940)		151448	20.0000	19.40
56 Tetrachloroethene	164		7.458	7.458	(0.911)		106328	20.0000	17.97
57 1,2-Dibromoethane	107		7.784	7.784	(0.951)		138215	20.0000	19.87
58 1-Chlorohexane	55		8.197	8.197	(1.475)		100584	20.0000	21.62
59 Chlorobenzene	112		8.212	8.212	(1.003)		358958	20.0000	18.87
60 1,1,1,2-Tetrachloroethane	131		8.287	8.287	(1.012)		138639	20.0000	19.04
61 Ethylbenzene	106		8.309	8.309	(1.015)		175435	20.0000	18.80
62 m,p-Xylenes	106		8.410	8.410	(1.027)		452728	40.0000	39.65
63 o-Xylene	106		8.748	8.748	(1.069)		221011	20.0000	19.18
64 Styrene	104		8.763	8.763	(1.071)		392526	20.0000	20.28
66 Bromoform	173		8.920	8.920	(1.090)		108523	20.0000	19.00
67 Isopropylbenzene	105		9.063	9.063	(1.107)		514030	20.0000	18.41
68 1,1,2,2-Tetrachloroethane	83		9.329	9.329	(0.917)		189752	20.0000	19.46
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)		197636	20.0000	20.17
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		566887	50.0000	
71 1,2,3-Trichloropropane	75		9.362	9.362	(0.920)		213048	20.0000	19.38
73 n-Propylbenzene	91		9.411	9.411	(0.925)		593486	20.0000	18.89
74 Bromobenzene	156		9.317	9.317	(0.916)		172197	20.0000	18.88
75 1,3,5-Trimethylbenzene	105		9.561	9.561	(0.940)		427584	20.0000	18.91
76 2-Chlorotoluene	91		9.482	9.482	(0.932)		397951	20.0000	19.20
77 4-Chlorotoluene	91		9.576	9.576	(0.941)		468152	20.0000	19.36
78 tert-Butylbenzene	119		9.839	9.839	(0.967)		370839	20.0000	18.76
79 1,2,4-Trimethylbenzene	105		9.880	9.880	(0.971)		451096	20.0000	19.62
81 sec-Butylbenzene	105		10.022	10.022	(0.985)		455780	20.0000	20.94
82 p-Isopropyltoluene	119		10.146	10.146	(0.997)		409668	20.0000	17.76
83 1,3-Dichlorobenzene	146		10.116	10.116	(0.994)		300475	20.0000	19.06
84 1,4-Dichlorobenzene	146		10.191	10.191	(1.002)		317257	20.0000	19.20
87 n-Butylbenzene	91		10.495	10.495	(1.032)		342114	20.0000	17.87
88 1,2-Dichlorobenzene	146		10.506	10.506	(1.033)		306582	20.0000	19.02



89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	35964	20.0000	18.96
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	218647	20.0000	18.72

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042707.D Page 3
 Report Date: 03-May-2023 09:43

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	64680	20.0000	21.47
92 Naphthalene	128	12.065	12.065	(1.186)	638135	20.0000	19.84
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	217286	20.0000	19.01
M 94 1,2-Dichloroethylene (total)	96				264620	40.0000	(a)
135 1,4-Dioxane	88	6.169	6.169	(1.280)	31573	400.000	353.91
141 Cyclohexane	56	4.789	4.789	(0.994)	144205	20.0000	23.35
138 Freon TF	101	2.341	2.341	(0.486)	84618	20.0000	22.72
140 1,3-Butadiene	54	1.408	1.408	(0.292)	112681	20.0000	18.85
147 Methylcyclohexane	55	5.947	5.947	(1.070)	289108	20.0000	16.91
146 Methyl Acetate	43	2.724	2.724	(0.565)	121196	20.0000	19.02
148 Tert-Butyl alcohol	59	2.978	2.978	(0.618)	343425	400.000	382.64
149 Isopropyl Alcohol	45	2.577	2.577	(0.535)	189149	400.000	371.10
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	53805	20.0000	19.94
12 Isobutyl Alcohol	43	5.288	5.288	(1.097)	466027	400.000	402.29
13 Acetonitrile	39	2.679	2.679	(0.556)	174562	200.000	183.58
14 Allyl Chloride	41	2.682	2.682	(0.557)	385269	20.0000	18.55
25 Methacrylonitrile	41	4.500	4.500	(0.934)	109103	20.0000	19.50
40 Methyl Methacrylate	41	6.157	6.157	(1.278)	159367	20.0000	19.60
4 Propionitrile	54	4.343	4.343	(0.901)	222789	200.000	198.32(a)
136 n-Hexane	57	3.350	3.350	(0.695)	85240	20.0000	22.24
194 Acetaldehyde	44	1.468	1.468	(0.305)	51475	80.0000	78.56(M)
131 Methyl Acrylate	55	4.373	4.373	(0.907)	184993	20.0000	20.25
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	264517	20.0000	18.71
23 Chloroprene	53	2.165	2.165	(0.449)	45837	20.0000	18.39
49 Ethyl Methacrylate	69	7.289	7.289	(1.312)	215725	20.0000	19.23
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	418919	20.0000	18.67
167 Ethanol	45	2.094	2.094	(0.435)	33816	400.000	390.92
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	486998	20.0000	17.40
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	210404	20.0000	17.89
142 Tetrahydrofuran	42	4.545	4.545	(0.943)	64291	40.0000	39.77
156 Diisopropyl ether	45	3.631	3.631	(0.753)	428704	20.0000	18.70(T)
151 4-Methyl-2-pentanol	45	7.214	7.214	(1.298)	779770	400.000	396.49
150 Allyl alcohol	57	3.350	3.350	(0.695)	85240	400.000	444.99
86 Benzyl Chloride	91	10.311	10.311	(1.260)	224999	20.0000	17.28
162 Butyl acrylate	55	8.733	8.733	(1.067)	283911	20.0000	18.03
139 Diethyl ether	59	2.154	2.154	(0.447)	100742	20.0000	18.04
203 2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	176765	20.0000	17.83
134 Cyclohexanone	55	9.153	9.153	(0.900)	132485	400.000	383.53(aM)
130 Ethyl Acetate	43	4.347	4.347	(0.902)	166730	20.0000	19.74(M)

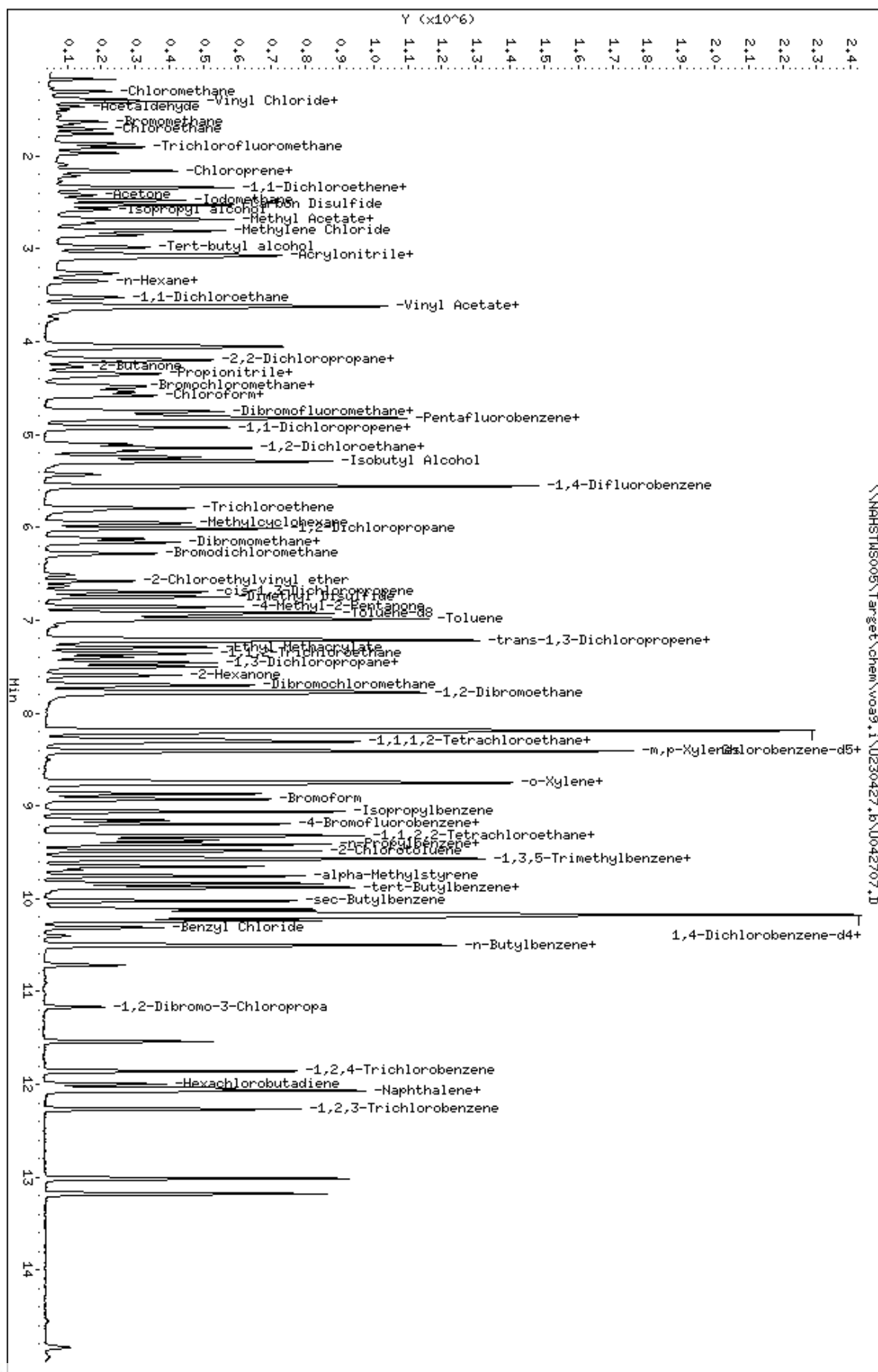
QC Flag Legend

- 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: \\NAHSTMS005\Target\chem\voa9.i\U230427.b\U042707.D
 Date : 27-APR-2023 14:03
 Client ID: WSTD020
 Sample Info: WSTD020\WSTD020\116;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W009.i
 Operator: PC
 Column diameter: 0.18

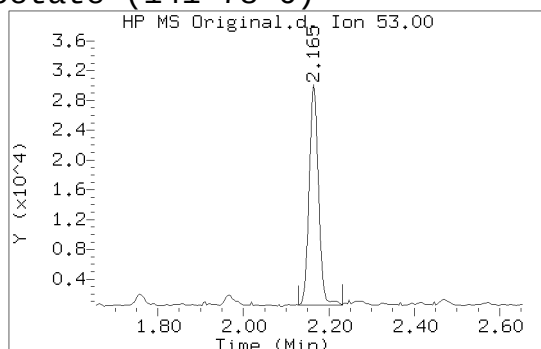


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042707.D
 Inj Date : 27-APR-2023 14:03
 InstruID : VOA9.i
 LabSampID : VSTS020

Ethyl Acetate (141-78-6)

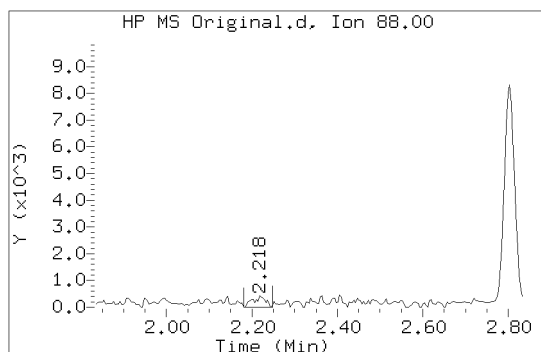
BEFORE

MASS
55
AREA
184993
HEIGHT
70180
01-May-2023
12:42
linh



BEFORE

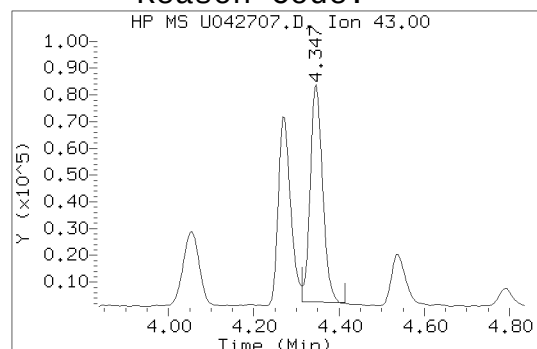
MASS
85
AREA
24373
HEIGHT
11540
01-May-2023
12:42
linh
pham



AFTER

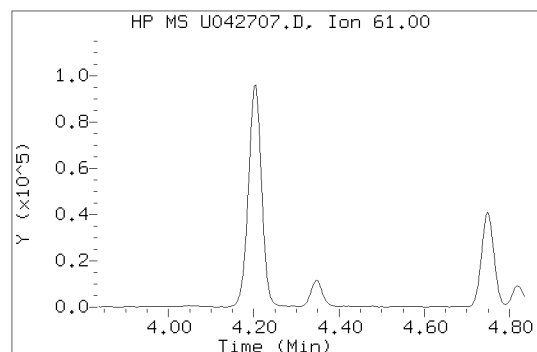
MASS
43
AREA
166730
HEIGHT
81389
03-May-2023
09:43
linh

Reason Code:



AFTER

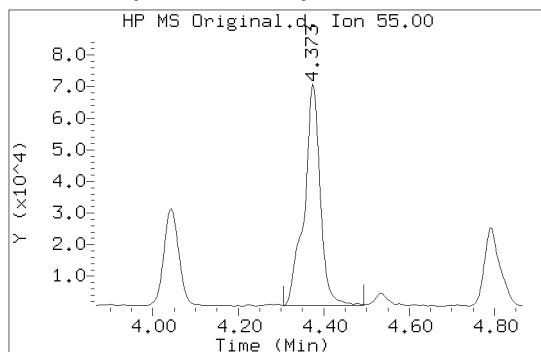
MASS
61
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



Cyclohexanone (108-94-1)

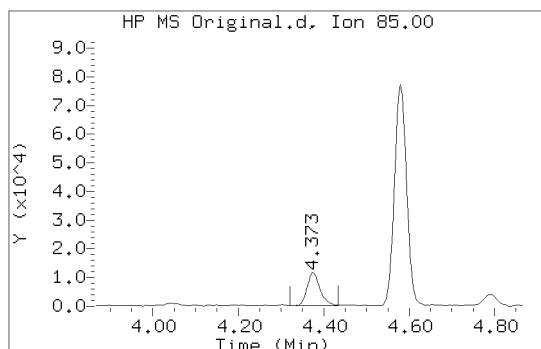
BEFORE

MASS
57
AREA
85240
HEIGHT
42251
01-May-2023
12:42
linh
pham



BEFORE

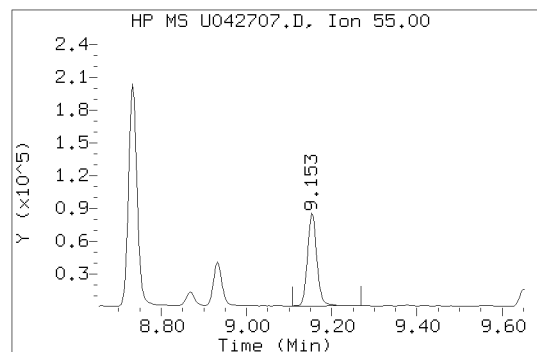
MASS
41
AREA
67385
HEIGHT
32974
01-May-2023
12:42
linh
pham



AFTER

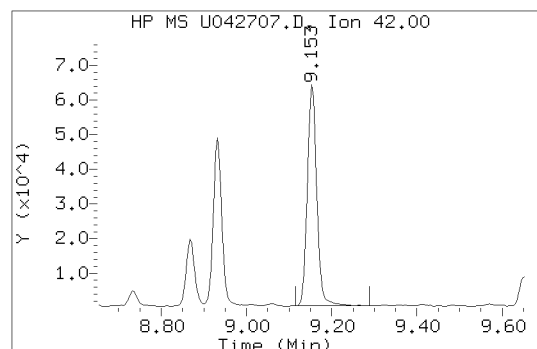
MASS
55
AREA
132485
HEIGHT
84831
03-May-2023
09:43
linh
pham

Reason Code:



AFTER

MASS
42
AREA
100083
HEIGHT
63798
03-May-2023
09:43
linh
pham

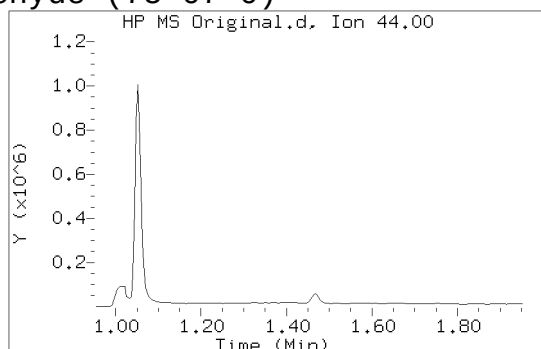


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042707.D
Inj Date : 27-APR-2023 14:03
InstruID : VOA9.i
LabSampID : VSTS020

Acetaldehyde (75-07-0)

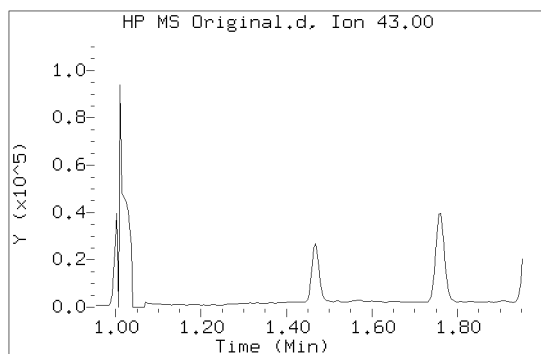
BEFORE

MASS
55
AREA
176765
HEIGHT
121063
01-May-2023
12:42
linh
pham



BEFORE

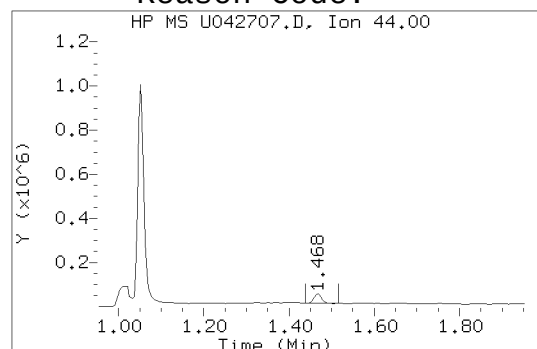
MASS
70
AREA
125244
HEIGHT
86900
01-May-2023
12:42
linh
pham



AFTER

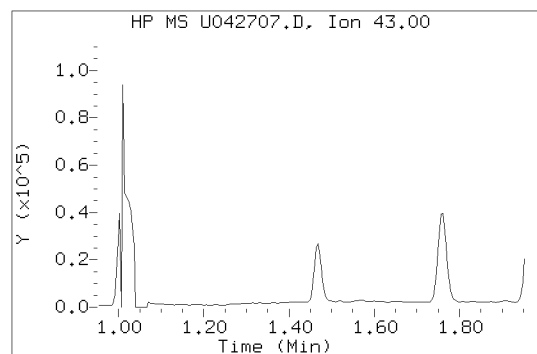
MASS
44
AREA
51475
HEIGHT
42312
03-May-2023
09:43
linh
pham

Reason Code:



AFTER

MASS
43
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042708.D Page 1
 Report Date: 03-May-2023 09:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042708.D
 Lab Smp Id: VSTS050 Client Smp ID: VSTD050
 Inj Date : 27-APR-2023 14:25
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTS050;VSTD050;1;7;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\8260C.m
 Meth Date : 03-May-2023 09:43 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:03 Cal File: U042707.D
 Als bottle: 9 Calibration Sample, Level: 7
 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						AMOUNTS	
			RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.815	4.815	(1.000)	740172	50.0000		
2 Dichlorodifluoromethane	85		1.160	1.160	(0.241)	244264	50.0000	39.11	
3 Chloromethane	50		1.292	1.292	(0.268)	331345	50.0000	46.90	
5 Vinyl Chloride	62		1.370	1.370	(0.285)	329455	50.0000	44.42	
6 Bromomethane	94		1.614	1.614	(0.335)	188810	50.0000	45.47	
7 Chloroethane	64		1.693	1.693	(0.352)	238220	50.0000	48.40	
8 Trichlorofluoromethane	101		1.891	1.891	(0.393)	395545	50.0000	48.82	
9 Acrolein	56		2.262	2.262	(0.470)	31613	100.000	94.95(H)	
10 Acetone	43		2.409	2.409	(0.500)	303424	100.000	104.93	
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)	249306	50.0000	44.90	
15 Iodomethane	142		2.465	2.465	(0.512)	810600	100.000	101.48	
16 Acrylonitrile	53		3.061	3.061	(0.636)	307261	100.000	98.45	
17 Methylene Chloride	84		2.791	2.791	(0.580)	339515	50.0000	49.69	
18 Methyl tert-butyl ether	73		3.080	3.080	(0.640)	1074664	50.0000	50.17	
19 Carbon Disulfide	76		2.514	2.514	(0.522)	1570742	100.000	94.65	
20 trans-1,2-Dichloroethene	96		3.053	3.053	(0.634)	312045	50.0000	49.14	
21 Vinyl Acetate	43		3.604	3.604	(0.749)	2276969	100.000	105.01	
22 1,1-Dichloroethane	63		3.511	3.511	(0.729)	564231	50.0000	48.49	
24 2-Butanone	43		4.260	4.260	(0.885)	364187	100.000	100.87	
26 2,2-Dichloropropane	77		4.182	4.182	(0.868)	456249	50.0000	47.14	



27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	362964	50.0000	48.35
28 Chloroform	83	4.572	4.572 (0.949)	610103	50.0000	50.23

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042708.D Page 2
 Report Date: 03-May-2023 09:43

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128		4.467	4.467	(0.928)		193717	50.0000	51.14
\$ 30 Dibromofluoromethane	113		4.748	4.748	(0.986)		335198	50.0000	49.10
31 1,1,1-Trichloroethane	97		4.740	4.740	(0.984)		482212	50.0000	44.98
32 1,1-Dichloropropene	75		4.920	4.920	(0.887)		381577	50.0000	45.90
33 1,2-Dichloroethane	62		5.175	5.175	(0.932)		524958	50.0000	49.78
34 Carbon Tetrachloride	117		4.909	4.909	(0.885)		381636	50.0000	41.43
\$ 35 1,2-Dichloroethane-d4	65		5.096	5.096	(1.058)		421021	50.0000	50.41
* 36 1,4-Difluorobenzene	114		5.550	5.550	(1.000)		1102016	50.0000	
37 Benzene	78		5.138	5.138	(0.926)		1272819	50.0000	48.70
38 Trichloroethene	130		5.786	5.786	(1.043)		353392	50.0000	46.96
39 Bromodichloromethane	83		6.277	6.277	(1.131)		465364	50.0000	49.62
41 2-Chloroethylvinyl ether	63		6.573	6.573	(1.184)		266602	100.000	106.64
42 1,2-Dichloropropane	63		6.007	6.007	(1.082)		340737	50.0000	50.55
44 Dibromomethane	93		6.120	6.120	(1.103)		234807	50.0000	49.37
45 4-Methyl-2-Pentanone	43		6.851	6.851	(0.837)		845515	100.000	99.10
46 cis-1,3-Dichloropropene	75		6.690	6.690	(1.205)		589540	50.0000	50.30
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)		1034347	50.0000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)		1179013	50.0000	45.88
50 Toluene	91		6.982	6.982	(0.853)		1361859	50.0000	47.95
51 trans-1,3-Dichloropropene	75		7.196	7.196	(1.296)		522046	50.0000	51.92
52 2-Hexanone	43		7.589	7.589	(0.927)		590867	100.000	98.59
53 1,1,2-Trichloroethane	83		7.353	7.353	(0.898)		277468	50.0000	50.71
54 1,3-Dichloropropane	76		7.499	7.499	(0.916)		594361	50.0000	49.37
55 Dibromochloromethane	129		7.691	7.691	(0.940)		407147	50.0000	50.54
56 Tetrachloroethene	164		7.458	7.458	(0.911)		266512	50.0000	43.64
57 1,2-Dibromoethane	107		7.784	7.784	(0.951)		359628	50.0000	50.10
58 1-Chlorohexane	55		8.197	8.197	(1.477)		243644	50.0000	48.90
59 Chlorobenzene	112		8.208	8.208	(1.003)		947404	50.0000	48.26
60 1,1,1,2-Tetrachloroethane	131		8.283	8.283	(1.012)		368827	50.0000	49.09
61 Ethylbenzene	106		8.305	8.305	(1.015)		460533	50.0000	47.83
62 m,p-Xylenes	106		8.407	8.407	(1.027)		1183868	100.000	100.46
63 o-Xylene	106		8.748	8.748	(1.069)		587758	50.0000	49.43
64 Styrene	104		8.763	8.763	(1.071)		1038175	50.0000	51.97
66 Bromoform	173		8.920	8.920	(1.090)		300728	50.0000	51.01
67 Isopropylbenzene	105		9.063	9.063	(1.107)		1351772	50.0000	46.92
68 1,1,2,2-Tetrachloroethane	83		9.329	9.329	(0.917)		490733	50.0000	48.57
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)		482849	50.0000	49.31
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		587520	50.0000	
71 1,2,3-Trichloropropane	75		9.362	9.362	(0.920)		568742	50.0000	49.94
73 n-Propylbenzene	91		9.411	9.411	(0.925)		1563048	50.0000	48.02
74 Bromobenzene	156		9.317	9.317	(0.916)		457907	50.0000	48.44
75 1,3,5-Trimethylbenzene	105		9.561	9.561	(0.940)		1168454	50.0000	49.86
76 2-Chlorotoluene	91		9.482	9.482	(0.932)		1017045	50.0000	47.34
77 4-Chlorotoluene	91		9.576	9.576	(0.941)		1212241	50.0000	48.38
78 tert-Butylbenzene	119		9.839	9.839	(0.967)		959353	50.0000	44.57
79 1,2,4-Trimethylbenzene	105		9.880	9.880	(0.971)		1210405	50.0000	50.81
81 sec-Butylbenzene	105		10.022	10.022	(0.985)		1197903	50.0000	49.52
82 p-Isopropyltoluene	119		10.146	10.146	(0.997)		1111605	50.0000	41.96
83 1,3-Dichlorobenzene	146		10.116	10.116	(0.994)		783099	50.0000	47.93
84 1,4-Dichlorobenzene	146		10.191	10.191	(1.002)		812140	50.0000	47.43
87 n-Butylbenzene	91		10.491	10.491	(1.031)		903220	50.0000	40.60
88 1,2-Dichlorobenzene	146		10.506	10.506	(1.033)		793024	50.0000	47.47



89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	95256	50.0000	44.92
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	539081	50.0000	44.53

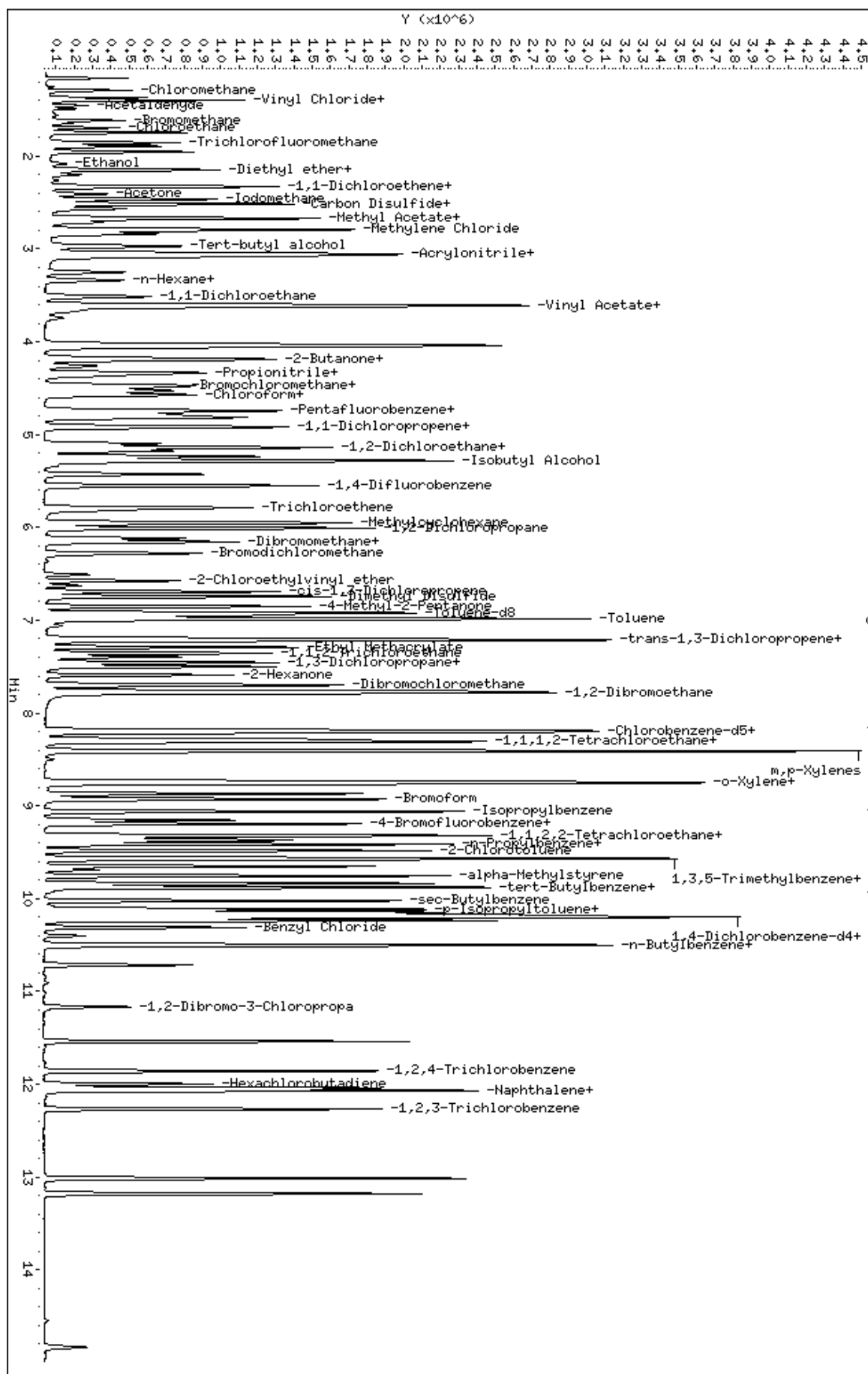
Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042708.D Page 3
 Report Date: 03-May-2023 09:43

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	165523	50.0000	49.25
92 Naphthalene	128	12.065	12.065	(1.186)	1624525	50.0000	48.75
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	535721	50.0000	45.23
M 94 1,2-Dichloroethylene (total)	96				675009	100.000	(a)
135 1,4-Dioxane	88	6.161	6.161	(1.279)	89274	1000.00	995.80
141 Cyclohexane	56	4.785	4.785	(0.994)	316940	50.0000	48.06
138 Freon TF	101	2.330	2.330	(0.484)	193298	50.0000	48.49
140 1,3-Butadiene	54	1.396	1.396	(0.290)	272518	50.0000	45.38
147 Methylcyclohexane	55	5.944	5.944	(1.071)	940295	50.0000	54.11
146 Methyl Acetate	43	2.712	2.712	(0.563)	306294	50.0000	47.84
148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	869889	1000.00	964.48
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	505593	1000.00	987.10
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	149329	50.0000	53.62
12 Isobutyl Alcohol	43	5.280	5.280	(1.097)	1183628	1000.00	1016.75
13 Acetonitrile	39	2.667	2.667	(0.554)	500211	500.000	523.48
14 Allyl Chloride	41	2.667	2.667	(0.554)	1059382	50.0000	50.76
25 Methacrylonitrile	41	4.489	4.489	(0.932)	298071	50.0000	53.01(M)
40 Methyl Methacrylate	41	6.154	6.154	(1.278)	412926	50.0000	50.55
4 Propionitrile	54	4.332	4.332	(0.900)	563631	500.000	499.27
136 n-Hexane	57	3.338	3.338	(0.693)	202205	50.0000	48.87
194 Acetaldehyde	44	1.453	1.453	(0.302)	131642	200.000	199.92(M)
131 Methyl Acrylate	55	4.365	4.365	(0.907)	481207	50.0000	52.43
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	774741	50.0000	53.11
23 Chloroprene	53	2.154	2.154	(0.447)	108905	50.0000	43.48(M)
49 Ethyl Methacrylate	69	7.289	7.289	(1.313)	578079	50.0000	50.71
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	1255823	50.0000	54.01
167 Ethanol	45	2.082	2.082	(0.433)	89307	1000.00	1027.35
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	1572587	50.0000	54.21
145 alpha-Methylstyrene	118	9.752	9.752	(0.959)	602686	50.0000	45.06
142 Tetrahydrofuran	42	4.538	4.538	(0.942)	151691	100.000	93.39
156 Diisopropyl ether	45	3.619	3.619	(0.752)	1174830	50.0000	50.99
151 4-Methyl-2-pentanol	45	7.214	7.214	(1.300)	1828218	1000.00	914.46
150 Allyl alcohol	57	3.338	3.338	(0.693)	202205	1000.00	977.35
86 Benzyl Chloride	91	10.311	10.311	(1.260)	701554	50.0000	45.97
162 Butyl acrylate	55	8.733	8.733	(1.067)	821099	50.0000	50.51
139 Diethyl ether	59	2.142	2.142	(0.445)	277645	50.0000	49.49
203 2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	568050	50.0000	55.28
134 Cyclohexanone	55	9.153	9.153	(0.900)	365160	1000.00	1016.27(M)
130 Ethyl Acetate	43	4.335	4.335	(0.900)	425958	50.0000	50.18(M)

QC Flag Legend

- 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: \\NAHSTMS005\Target\chem\voa9.i\U230427.b\U042708.D
 Date : 27-APR-2023 14:25
 Client ID: WSTD050
 Sample Info: WSTD050\WSTD050.i\17;
 Purge Volume: 5.0
 Column phase: DB624

\\NAHSTMS005\Target\chem\voa9.i\U230427.b\U042708.D

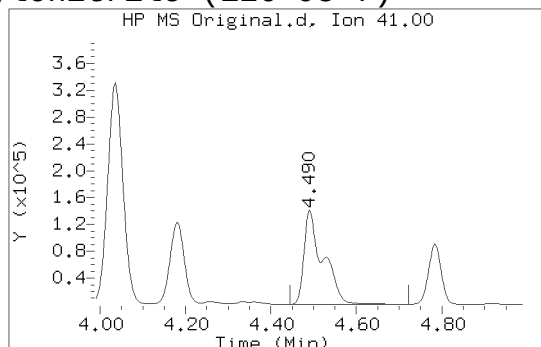
Instrument: VOA9.i
 Operator: PC
 Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042708.D
 Inj Date : 27-APR-2023 14:25
 InstruID : VOA9.i
 LabSampID : VSTS050

Methacrylonitrile (126-98-7)

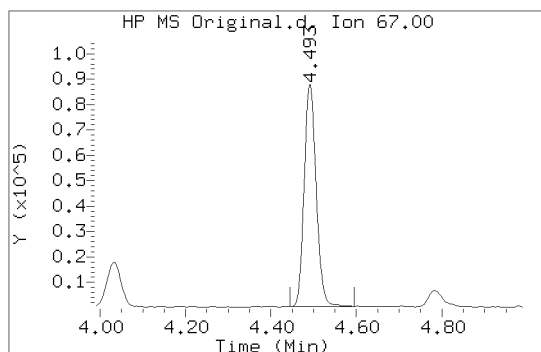
BEFORE

MASS
75
AREA
568742
HEIGHT
304257
01-May-2023
12:42
linh



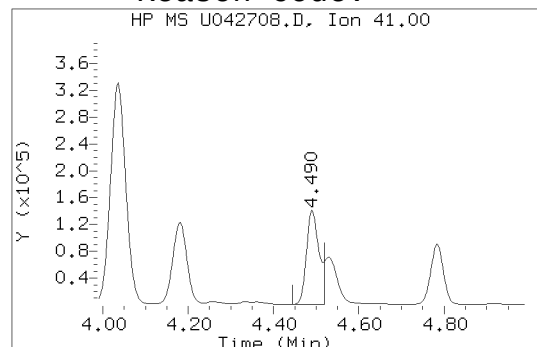
BEFORE

MASS
77
AREA
188099
HEIGHT
98407
01-May-2023
12:42
linh
pham



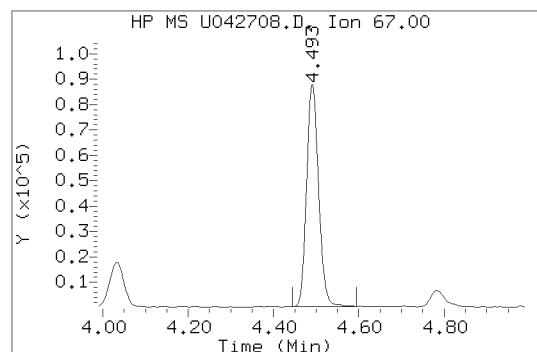
AFTER

MASS
41
AREA
298071
HEIGHT
140133
03-May-2023
09:43
linh



AFTER

MASS
67
AREA
174568
HEIGHT
87344
03-May-2023
09:43
linh
pham

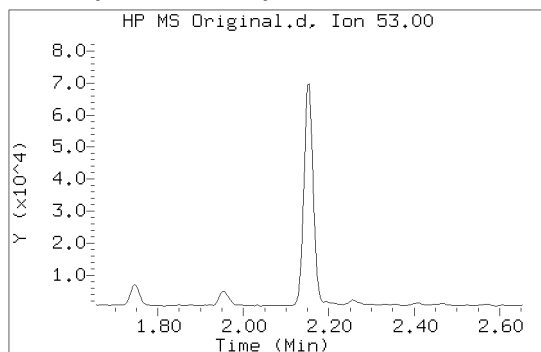


Reason Code:

Chloroprene (126-99-8)

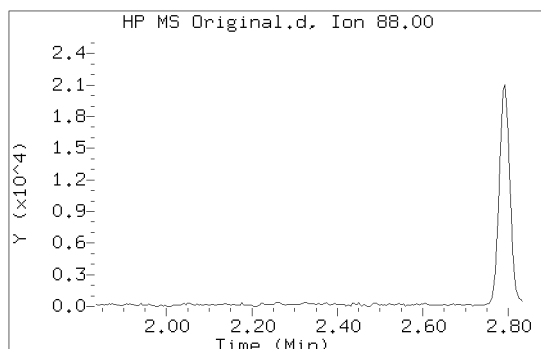
BEFORE

MASS
53
AREA
0
HEIGHT
0
01-May-2023
12:42
linh
pham



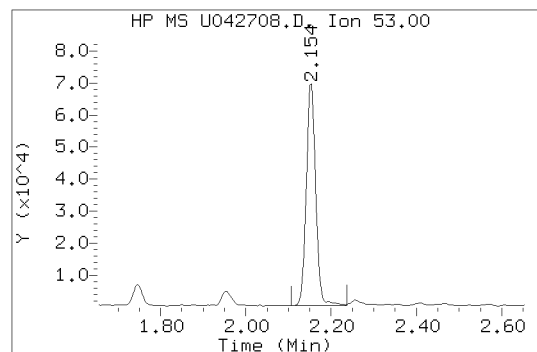
BEFORE

MASS
88
AREA
0
HEIGHT
0
01-May-2023
12:42
linh
pham



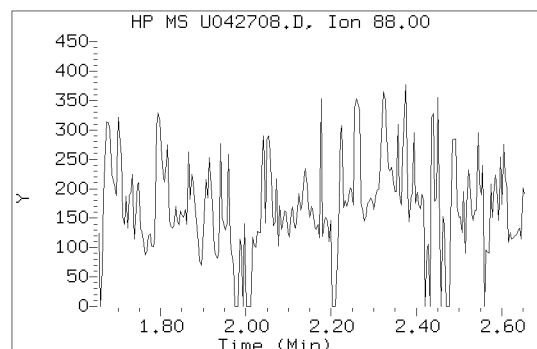
AFTER

MASS
53
AREA
108905
HEIGHT
69180
03-May-2023
09:43
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



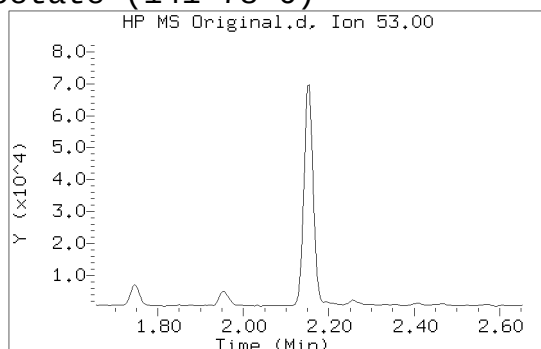
Reason Code:

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042708.D
 Inj Date : 27-APR-2023 14:25
 InstruID : VOA9.i
 LabSampID : VSTS050

Ethyl Acetate (141-78-6)

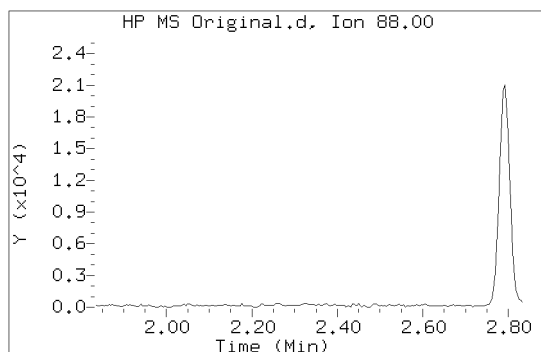
BEFORE

MASS
55
AREA
481207
HEIGHT
191739
01-May-2023
12:42
linh



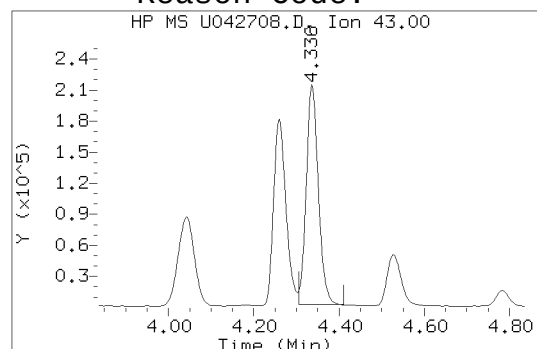
BEFORE

MASS
85
AREA
66370
HEIGHT
32379
01-May-2023
12:42
linh
pham



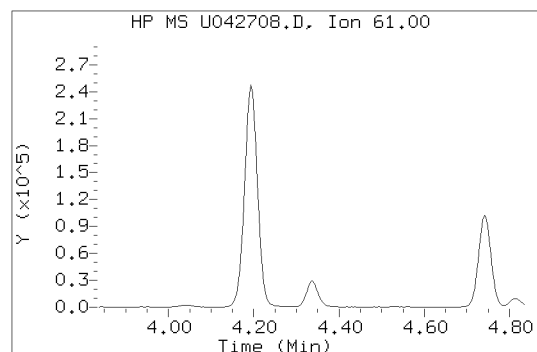
AFTER

MASS
43
AREA
425958
HEIGHT
212507
03-May-2023
09:43
linh



AFTER

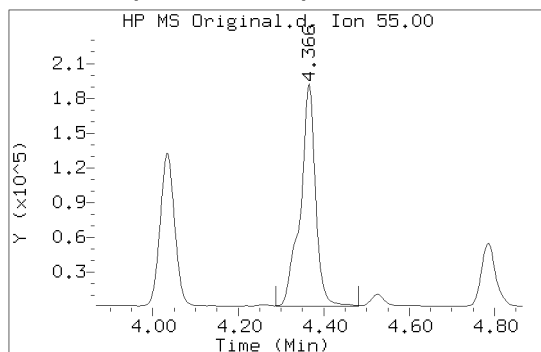
MASS
61
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



Cyclohexanone (108-94-1)

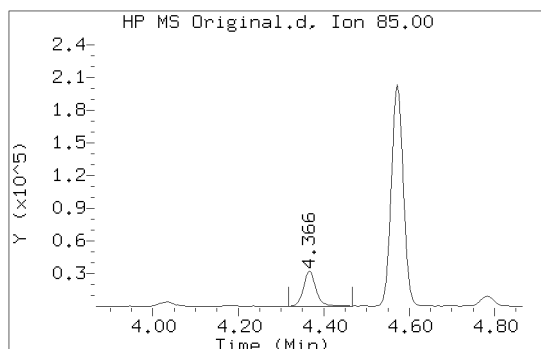
BEFORE

MASS
57
AREA
202205
HEIGHT
102546
01-May-2023
12:42
linh
pham



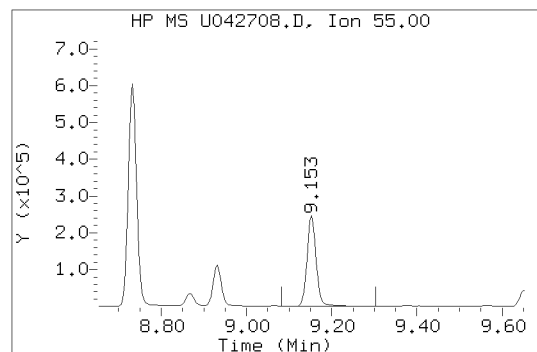
BEFORE

MASS
41
AREA
161153
HEIGHT
81748
01-May-2023
12:42
linh
pham



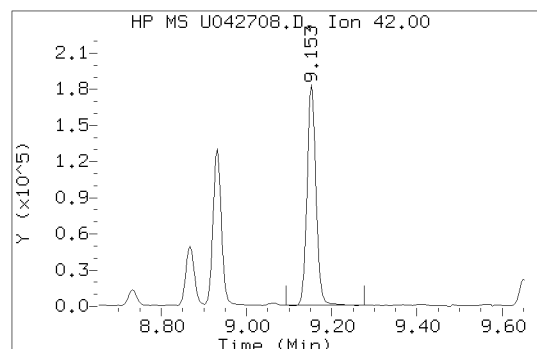
AFTER

MASS
55
AREA
365160
HEIGHT
244965
03-May-2023
09:43
linh
pham



AFTER

MASS
42
AREA
270193
HEIGHT
182906
03-May-2023
09:43
linh
pham

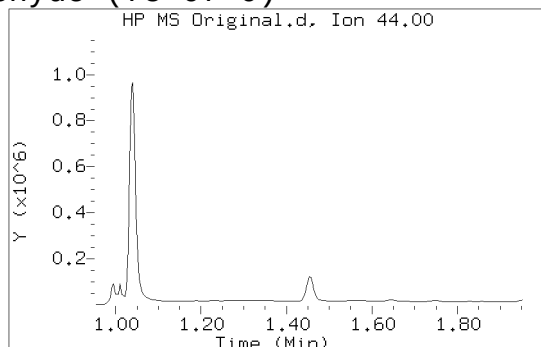


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042708.D
Inj Date : 27-APR-2023 14:25
InstruID : VOA9.i
LabSampID : VSTS050

Acetaldehyde (75-07-0)

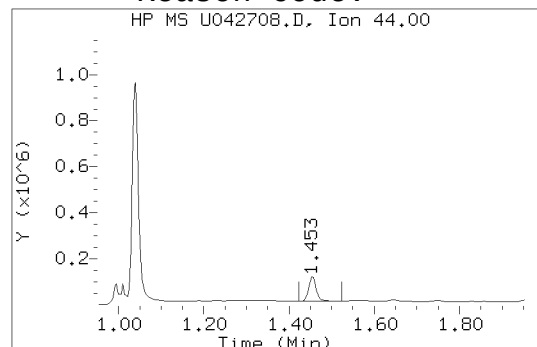
BEFORE

MASS
55
AREA
568050
HEIGHT
415159
01-May-2023
12:42
linh
pham



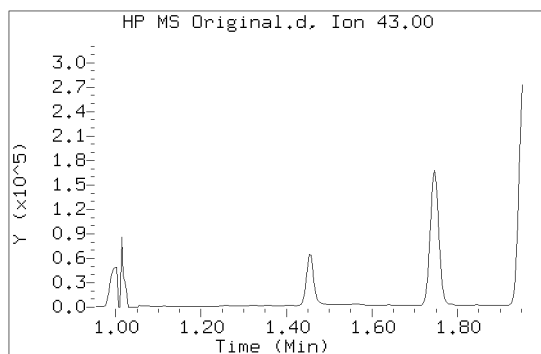
AFTER

MASS
44
AREA
131642
HEIGHT
107226
03-May-2023
09:43
linh
pham



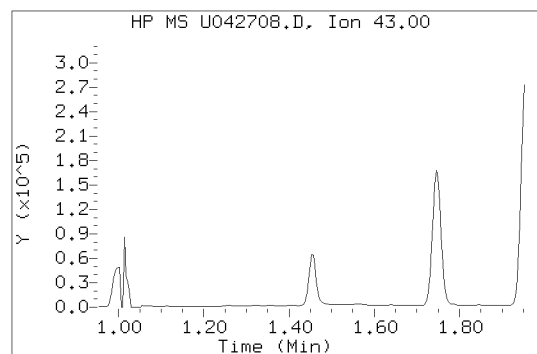
BEFORE

MASS
70
AREA
407960
HEIGHT
295104
01-May-2023
12:42
linh
pham



AFTER

MASS
43
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042709.D Page 1
 Report Date: 03-May-2023 09:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042709.D
 Lab Smp Id: VSTS100 Client Smp ID: VSTD100
 Inj Date : 27-APR-2023 14:48
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTS100;VSTD100;1;8;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\8260C.m
 Meth Date : 03-May-2023 09:43 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 10 Calibration Sample, Level: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: $\text{Amt} * \text{DF} * (\text{Uf}/\text{Vo}) * 1 * \text{CpndVariable}$

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						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.819	4.819	(1.000)		755848	50.0000	
2 Dichlorodifluoromethane	85		1.168	1.168	(0.242)		672742	100.000	100.50
3 Chloromethane	50		1.303	1.303	(0.270)		721499	100.000	100.02
5 Vinyl Chloride	62		1.382	1.382	(0.287)		798040	100.000	105.38
6 Bromomethane	94		1.621	1.621	(0.337)		454199	100.000	100.74
7 Chloroethane	64		1.704	1.704	(0.354)		523164	100.000	104.09
8 Trichlorofluoromethane	101		1.903	1.903	(0.395)		1066985	100.000	100.11
9 Acrolein	56		2.274	2.274	(0.472)		70688	200.000	209.13(H)
10 Acetone	43		2.420	2.420	(0.502)		566343	200.000	193.66
11 1,1-Dichloroethene	96		2.337	2.337	(0.485)		607128	100.000	107.08
15 Iodomethane	142		2.472	2.472	(0.513)		1746371	200.000	199.73
16 Acrylonitrile	53		3.072	3.072	(0.638)		621551	200.000	195.03
17 Methylene Chloride	84		2.799	2.799	(0.581)		700759	100.000	100.76
18 Methyl tert-butyl ether	73		3.087	3.087	(0.641)		2165735	100.000	99.01
19 Carbon Disulfide	76		2.525	2.525	(0.524)		3619756	200.000	213.59
20 trans-1,2-Dichloroethene	96		3.065	3.065	(0.636)		668681	100.000	103.13
21 Vinyl Acetate	43		3.612	3.612	(0.750)		4566780	200.000	206.24
22 1,1-Dichloroethane	63		3.522	3.522	(0.731)		1194287	100.000	100.52
24 2-Butanone	43		4.260	4.260	(0.884)		718248	200.000	194.81
26 2,2-Dichloropropane	77		4.189	4.189	(0.869)		1027517	100.000	103.97



27 cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	769132	100.000	100.34
28 Chloroform	83	4.579	4.579 (0.950)	1261573	100.000	101.73

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042709.D Page 2
 Report Date: 03-May-2023 09:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.474	4.474	(0.928)	388296	100.000	100.38
\$ 30 Dibromofluoromethane	113	4.752	4.752	(0.986)	731079	100.000	105.88
31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	1118961	100.000	102.22
32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	913505	100.000	108.09
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	1062191	100.000	99.08
34 Carbon Tetrachloride	117	4.917	4.917	(0.885)	967508	100.000	99.56
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	882376	100.000	104.56
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1120270	50.0000	
37 Benzene	78	5.141	5.141	(0.926)	2689145	100.000	101.21
38 Trichloroethene	130	5.790	5.790	(1.043)	789533	100.000	103.20
39 Bromodichloromethane	83	6.281	6.281	(1.131)	984631	100.000	103.29
41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.184)	555626	200.000	218.64
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	711610	100.000	103.86
44 Dibromomethane	93	6.120	6.120	(1.102)	478086	100.000	98.88
45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	1727384	200.000	198.45
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	1242793	100.000	104.31
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1055267	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	2592176	100.000	98.87
50 Toluene	91	6.982	6.982	(0.853)	2955813	100.000	102.01
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	1101264	100.000	107.75
52 2-Hexanone	43	7.589	7.589	(0.927)	1215473	200.000	198.79
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	567092	100.000	101.59
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	1218264	100.000	99.18
55 Dibromochloromethane	129	7.694	7.694	(0.940)	860469	100.000	104.71
56 Tetrachloroethene	164	7.458	7.458	(0.911)	657335	100.000	105.50
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	745435	100.000	101.79
58 1-Chlorohexane	55	8.197	8.197	(1.476)	643544	100.000	100.11
59 Chlorobenzene	112	8.212	8.212	(1.003)	2018526	100.000	100.79
60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	792078	100.000	103.34
61 Ethylbenzene	106	8.309	8.309	(1.015)	1044688	100.000	106.34
62 m,p-Xylenes	106	8.410	8.410	(1.027)	2654882	200.000	220.82
63 o-Xylene	106	8.748	8.748	(1.069)	1317010	100.000	108.58
64 Styrene	104	8.763	8.763	(1.071)	2271631	100.000	111.46
66 Bromoform	173	8.920	8.920	(1.090)	654875	100.000	108.88
67 Isopropylbenzene	105	9.063	9.063	(1.107)	3235148	100.000	110.07
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1030754	100.000	100.17
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1045731	100.000	105.97
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	598454	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	1196848	100.000	103.17
73 n-Propylbenzene	91	9.411	9.411	(0.925)	3711310	100.000	111.93
74 Bromobenzene	156	9.317	9.317	(0.916)	977691	100.000	101.55
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	2722213	100.000	114.05
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	2264164	100.000	103.47
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	2662096	100.000	104.31
78 tert-Butylbenzene	119	9.839	9.839	(0.967)	2347378	100.000	102.71
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	2782442	100.000	114.67
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	3102101	100.000	100.05
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	2815657	100.000	100.18
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	1714962	100.000	103.06
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	1784546	100.000	102.32
87 n-Butylbenzene	91	10.491	10.491	(1.031)	2358150	100.000	99.06
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	1708249	100.000	100.40



89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	211316	100.000	95.13
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	1272694	100.000	103.21

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042709.D Page 3
 Report Date: 03-May-2023 09:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	490376	100.000	100.06
92 Naphthalene	128	12.065	12.065	(1.186)	3474410	100.000	102.35
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	1246929	100.000	103.35
M 94 1,2-Dichloroethylene (total)	96				1437813	200.000	(a)
135 1,4-Dioxane	88	6.165	6.165	(1.279)	176917	2000.00	1932.48
141 Cyclohexane	56	4.789	4.789	(0.994)	941952	100.000	100.14
138 Freon TF	101	2.341	2.341	(0.486)	584371	100.000	100.11
140 1,3-Butadiene	54	1.408	1.408	(0.292)	710210	100.000	115.82
147 Methylcyclohexane	55	5.944	5.944	(1.070)	1968070	100.000	111.40(A)
146 Methyl Acetate	43	2.720	2.720	(0.564)	626385	100.000	95.80
148 Tert-Butyl alcohol	59	2.978	2.978	(0.618)	1720725	2000.00	1868.28
149 Isopropyl Alcohol	45	2.577	2.577	(0.535)	992815	2000.00	1898.14
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	303980	100.000	106.98
12 Isobutyl Alcohol	43	5.284	5.284	(1.096)	2380191	2000.00	2002.21
13 Acetonitrile	39	2.679	2.679	(0.556)	1003529	1000.00	1028.44
14 Allyl Chloride	41	2.679	2.679	(0.556)	2161786	100.000	101.43
25 Methacrylonitrile	41	4.497	4.497	(0.933)	626404	100.000	109.10(M)
40 Methyl Methacrylate	41	6.154	6.154	(1.277)	842528	100.000	101.01
4 Propionitrile	54	4.335	4.335	(0.900)	1149282	1000.00	996.93
136 n-Hexane	57	3.350	3.350	(0.695)	666132	100.000	100.06
194 Acetaldehyde	44	1.464	1.464	(0.304)	270749	400.000	402.66(M)
131 Methyl Acrylate	55	4.369	4.369	(0.907)	977750	100.000	104.33
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	1631094	100.000	109.60
23 Chloroprene	53	2.165	2.165	(0.449)	287617	100.000	112.46
49 Ethyl Methacrylate	69	7.289	7.289	(1.312)	1198738	100.000	103.44
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	2582450	100.000	109.05
167 Ethanol	45	2.098	2.098	(0.435)	174432	2000.00	1964.98
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	3196198	100.000	108.17
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	1385812	100.000	98.58
142 Tetrahydrofuran	42	4.542	4.542	(0.942)	323281	200.000	194.91
156 Diisopropyl ether	45	3.627	3.627	(0.753)	2364263	100.000	100.49
151 4-Methyl-2-pentanol	45	7.214	7.214	(1.299)	3877752	2000.00	1908.02
150 Allyl alcohol	57	3.350	3.350	(0.695)	666132	2000.00	2001.40
86 Benzyl Chloride	91	10.311	10.311	(1.260)	1516332	100.000	93.94
162 Butyl acrylate	55	8.733	8.733	(1.067)	1797349	100.000	108.38
139 Diethyl ether	59	2.154	2.154	(0.447)	565517	100.000	98.71
203 2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	1159173	100.000	110.75
134 Cyclohexanone	55	9.153	9.153	(0.900)	720507	2000.00	1966.48(M)
130 Ethyl Acetate	43	4.339	4.339	(0.900)	835167	100.000	96.36(M)

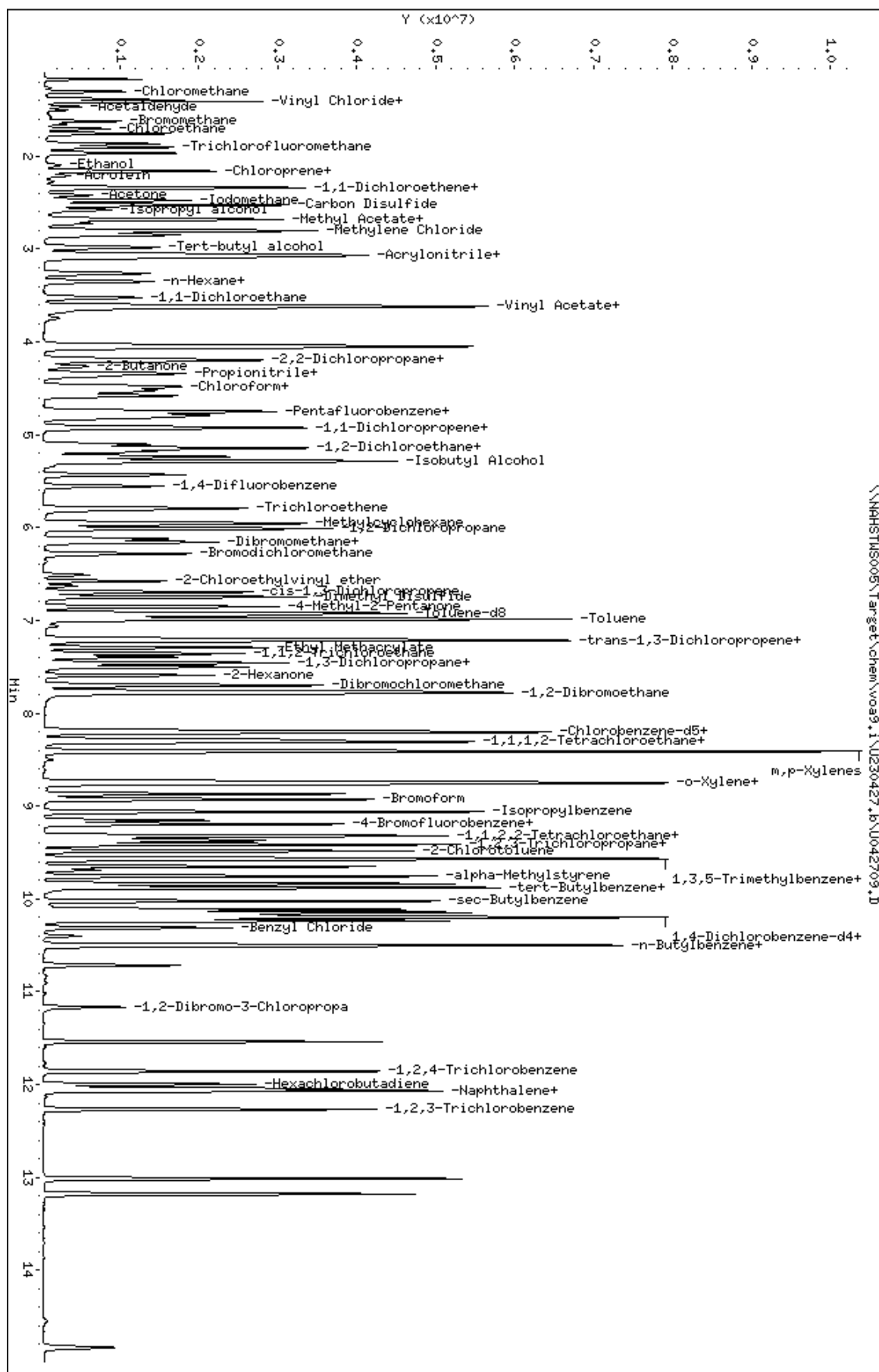
QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230427.b\U042709.J
 Date : 27-APR-2023 14:48
 Client ID: VSTD100
 Sample Info: VSTD100\VSTD100.1181
 Purge Volume: 5.0
 Column phase: DB624

Instrument: V089.1
 Operator: PC
 Column diameter: 0.18

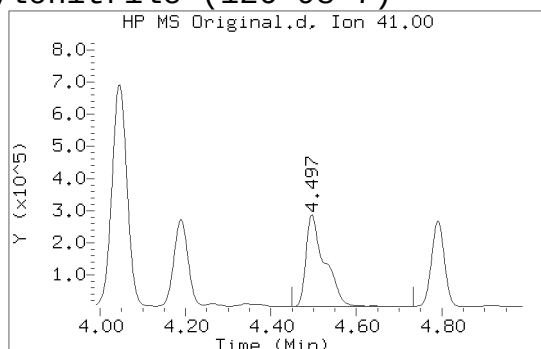


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042709.D
 Inj Date : 27-APR-2023 14:48
 InstruID : VOA9.i
 LabSampID : VSTS100

Methacrylonitrile (126-98-7)

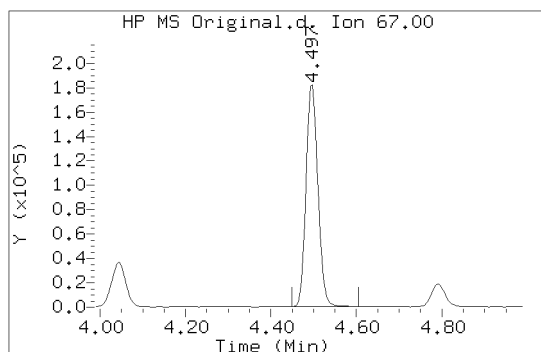
BEFORE

MASS
75
AREA
1196848
HEIGHT
627690
01-May-2023
12:42
linh



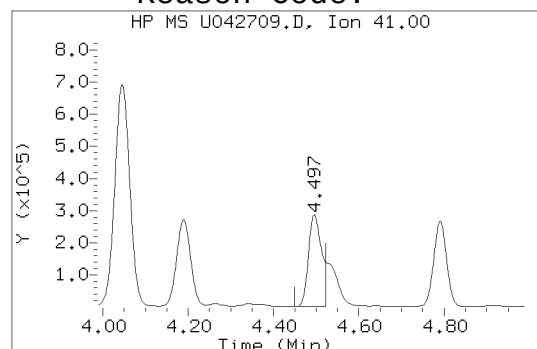
BEFORE

MASS
77
AREA
395026
HEIGHT
205177
01-May-2023
12:42
linh
pham



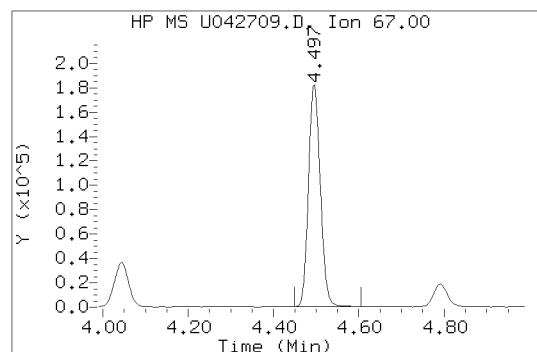
AFTER

MASS
41
AREA
626404
HEIGHT
285845
03-May-2023
09:43
linh



AFTER

MASS
67
AREA
356383
HEIGHT
181963
03-May-2023
09:43
linh
pham

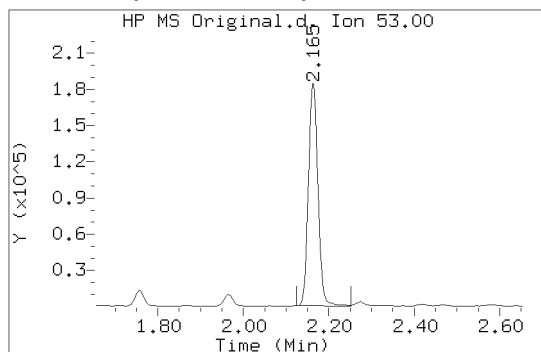


Reason Code:

Ethyl Acetate (141-78-6)

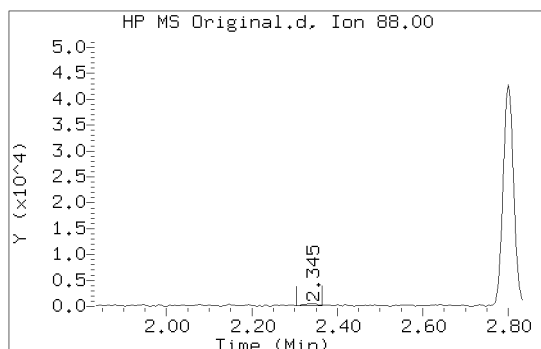
BEFORE

MASS
55
AREA
977750
HEIGHT
397080
01-May-2023
12:42
linh
pham



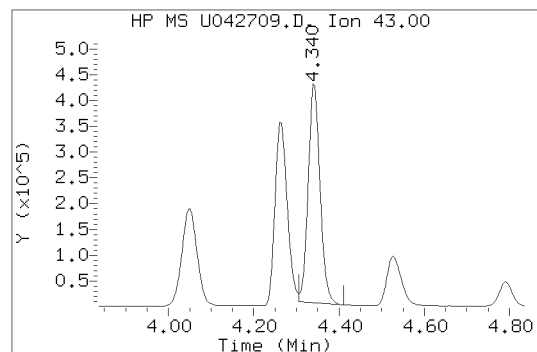
BEFORE

MASS
85
AREA
135603
HEIGHT
68878
01-May-2023
12:42
linh
pham



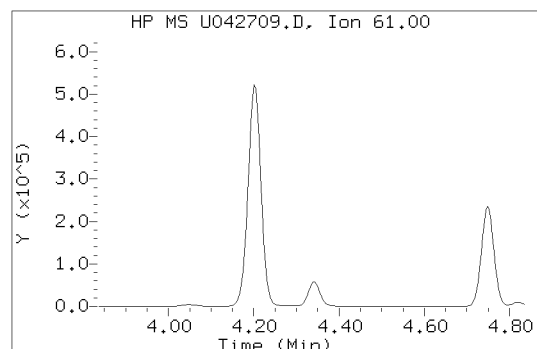
AFTER

MASS
43
AREA
835167
HEIGHT
424087
03-May-2023
09:43
linh
pham



AFTER

MASS
61
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



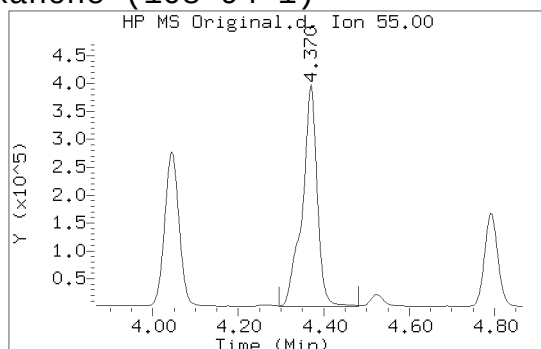
Reason Code:

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042709.D
 Inj Date : 27-APR-2023 14:48
 InstruID : VOA9.i
 LabSampID : VSTS100

Cyclohexanone (108-94-1)

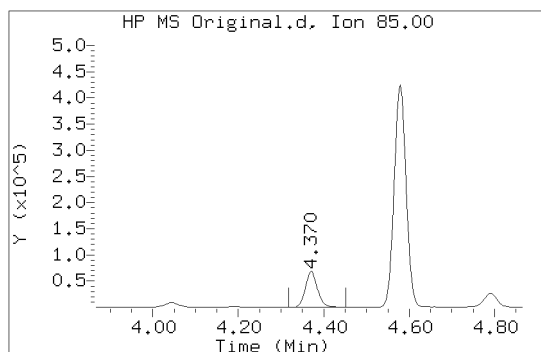
BEFORE

MASS
57
AREA
666132
HEIGHT
334393
01-May-2023
12:42
linh



BEFORE

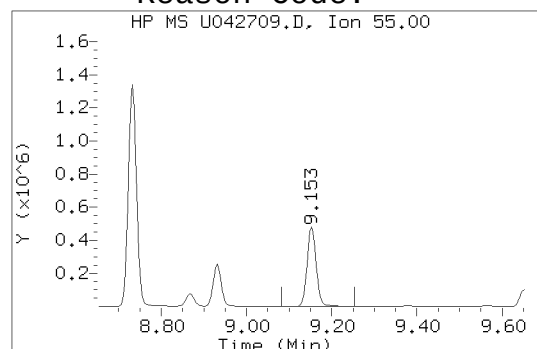
MASS
41
AREA
517224
HEIGHT
259129
01-May-2023
12:42
linh
pham



AFTER

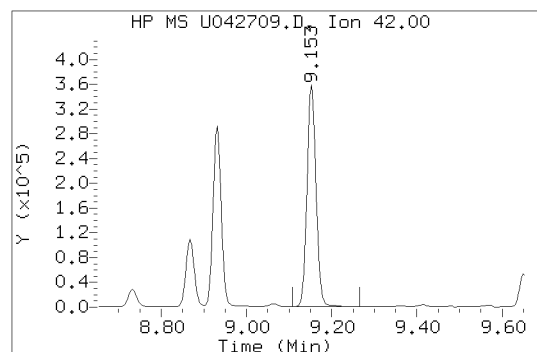
MASS
55
AREA
720507
HEIGHT
481670
03-May-2023
09:43
linh

Reason Code:



AFTER

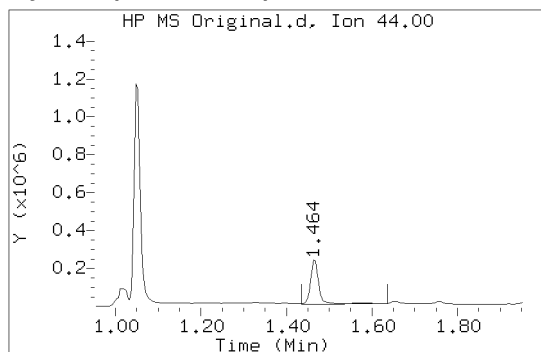
MASS
42
AREA
536836
HEIGHT
357856
03-May-2023
09:43
linh
pham



Acetaldehyde (75-07-0)

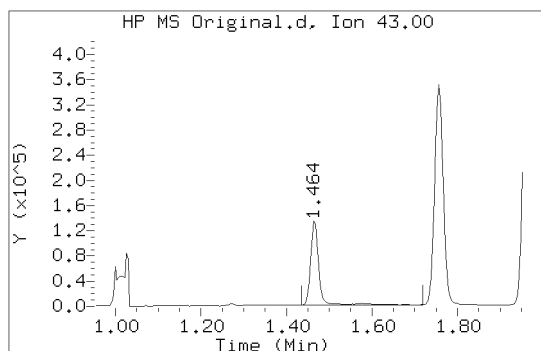
BEFORE

MASS
55
AREA
1159173
HEIGHT
852470
01-May-2023
12:42
linh
pham



BEFORE

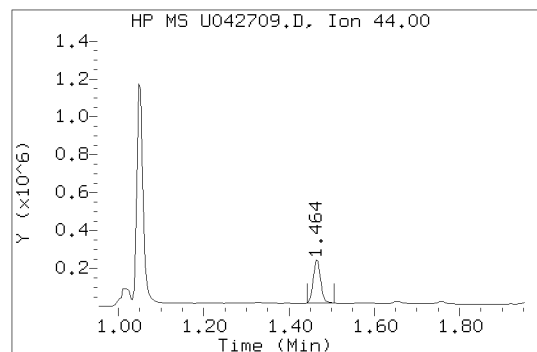
MASS
70
AREA
831293
HEIGHT
608445
01-May-2023
12:42
linh
pham



AFTER

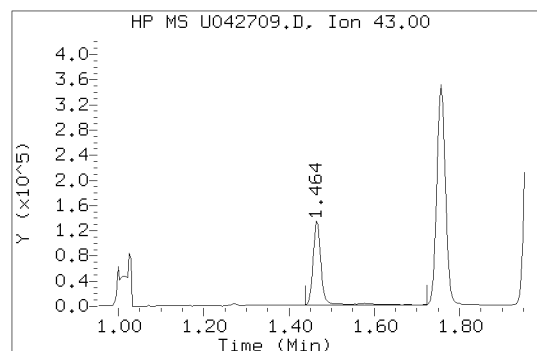
MASS
44
AREA
270749
HEIGHT
228313
03-May-2023
09:43
linh
pham

Reason Code:



AFTER

MASS
43
AREA
171222
HEIGHT
133072
03-May-2023
09:43
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042710.D Page 1
 Report Date: 03-May-2023 09:44

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042710.D
 Lab Smp Id: VSTS150 Client Smp ID: VSTD150
 Inj Date : 27-APR-2023 15:10
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTS150;VSTD150;1;9;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\8260C.m
 Meth Date : 03-May-2023 09:44 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:48 Cal File: U042709.D
 Als bottle: 11 Calibration Sample, Level: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: $\text{Amt} * \text{DF} * (\text{Uf}/\text{Vo}) * 1 * \text{CpndVariable}$

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

		QUANT SIG				AMOUNTS	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.823	4.823	(1.000)	762758	50.0000	
2 Dichlorodifluoromethane	85	1.172	1.172	(0.243)	1032473	150.000	151.30
3 Chloromethane	50	1.307	1.307	(0.271)	1125651	150.000	154.63
5 Vinyl Chloride	62	1.385	1.385	(0.287)	1202951	150.000	157.40
6 Bromomethane	94	1.621	1.621	(0.336)	739651	150.000	153.27
7 Chloroethane	64	1.704	1.704	(0.353)	777502	150.000	153.30
8 Trichlorofluoromethane	101	1.906	1.906	(0.395)	1613044	150.000	114.17
9 Acrolein	56	2.277	2.277	(0.472)	102834	300.000	301.94(H)
10 Acetone	43	2.424	2.424	(0.503)	888680	300.000	302.38
11 1,1-Dichloroethene	96	2.341	2.341	(0.485)	921083	150.000	160.98
15 Iodomethane	142	2.476	2.476	(0.513)	2625917	300.000	279.76
16 Acrylonitrile	53	3.076	3.076	(0.638)	927809	300.000	288.49
17 Methylene Chloride	84	2.802	2.802	(0.581)	1052568	150.000	150.13
18 Methyl tert-butyl ether	73	3.091	3.091	(0.641)	3232256	150.000	146.43
19 Carbon Disulfide	76	2.529	2.529	(0.524)	5445389	300.000	318.41
20 trans-1,2-Dichloroethene	96	3.068	3.068	(0.636)	1002827	150.000	153.26
21 Vinyl Acetate	43	3.616	3.616	(0.750)	6761457	300.000	302.59
22 1,1-Dichloroethane	63	3.526	3.526	(0.731)	1800879	150.000	150.20
24 2-Butanone	43	4.264	4.264	(0.884)	1111136	300.000	298.65
26 2,2-Dichloropropane	77	4.193	4.193	(0.869)	1538699	150.000	154.29



27 cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	1163610	150.000	150.43
28 Chloroform	83	4.579	4.579 (0.949)	1894682	150.000	151.39

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042710.D Page 2
 Report Date: 03-May-2023 09:44

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.478	4.478	(0.928)	566035	150.000	145.00
\$ 30 Dibromofluoromethane	113	4.755	4.755	(0.986)	1053937	150.000	151.64
31 1,1,1-Trichloroethane	97	4.752	4.752	(0.985)	1698369	150.000	153.74
32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	1394222	150.000	163.42
33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	1595568	150.000	147.44
34 Carbon Tetrachloride	117	4.920	4.920	(0.885)	1487565	150.000	150.31
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.058)	1287228	150.000	151.63
* 36 1,4-Difluorobenzene	114	5.558	5.558	(1.000)	1130920	50.0000	
37 Benzene	78	5.145	5.145	(0.926)	4037824	150.000	150.55
38 Trichloroethene	130	5.794	5.794	(1.042)	1199363	150.000	155.30
39 Bromodichloromethane	83	6.281	6.281	(1.130)	1507937	150.000	156.70
41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.183)	871302	300.000	339.63
42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	1084064	150.000	156.73
44 Dibromomethane	93	6.124	6.124	(1.102)	726742	150.000	148.89
45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	2651465	300.000	300.50
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	1893319	150.000	157.42
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1069746	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	3655731	150.000	137.55
50 Toluene	91	6.982	6.982	(0.853)	4418854	150.000	150.44
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	1681943	150.000	163.02
52 2-Hexanone	43	7.593	7.593	(0.928)	1892360	300.000	305.31
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	869516	150.000	153.66
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	1861992	150.000	149.54
55 Dibromochloromethane	129	7.694	7.694	(0.940)	1322978	150.000	158.81
56 Tetrachloroethene	164	7.458	7.458	(0.911)	999499	150.000	158.24
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	1131837	150.000	152.47
58 1-Chlorohexane	55	8.200	8.200	(1.475)	1007361	150.000	116.17
59 Chlorobenzene	112	8.212	8.212	(1.003)	3057969	150.000	150.63
60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	1205025	150.000	155.08
61 Ethylbenzene	106	8.309	8.309	(1.015)	1568720	150.000	157.53
62 m,p-Xylenes	106	8.410	8.410	(1.027)	3997284	300.000	327.97
63 o-Xylene	106	8.748	8.748	(1.069)	1971326	150.000	160.33
64 Styrene	104	8.763	8.763	(1.071)	3408147	150.000	164.96
66 Bromoform	173	8.920	8.920	(1.090)	1020405	150.000	167.36
67 Isopropylbenzene	105	9.063	9.063	(1.107)	4850273	150.000	162.78
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1570822	150.000	153.79
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1509530	150.000	151.39
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	594017	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	1851390	150.000	160.80
73 n-Propylbenzene	91	9.415	9.415	(0.926)	5552070	150.000	168.70
74 Bromobenzene	156	9.317	9.317	(0.916)	1478525	150.000	154.72
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	4057670	150.000	171.28
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	3360572	150.000	154.73
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	3943980	150.000	155.70
78 tert-Butylbenzene	119	9.839	9.839	(0.967)	3530696	150.000	151.41
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	4126357	150.000	171.32
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	4679464	150.000	117.93
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	4229682	150.000	150.17
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	2585466	150.000	156.53
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	2660888	150.000	153.71
87 n-Butylbenzene	91	10.495	10.495	(1.032)	3572280	150.000	149.51
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	2578532	150.000	152.68



89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	334502	150.000	150.36
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	1927807	150.000	157.51

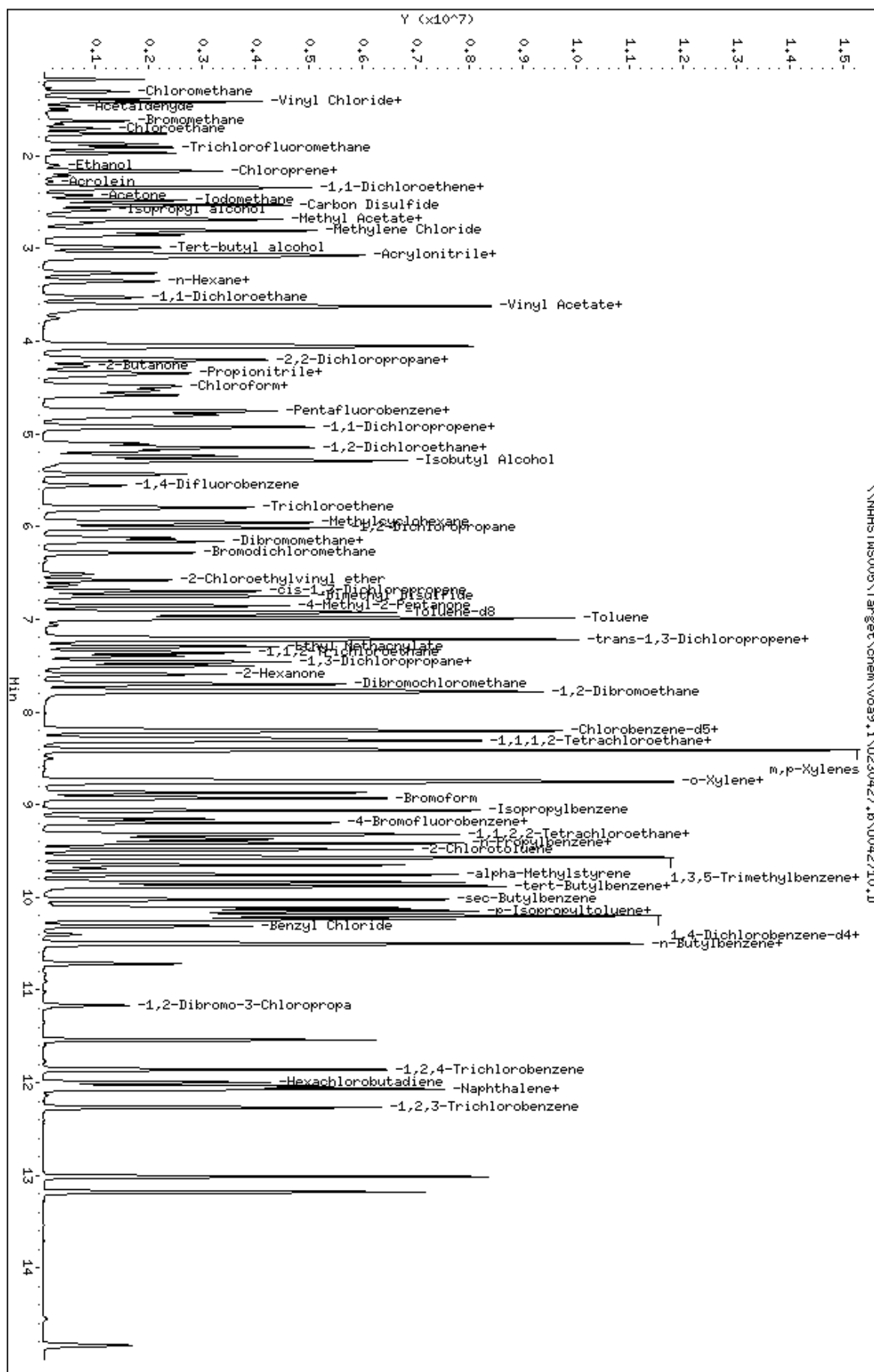
Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042710.D Page 3
 Report Date: 03-May-2023 09:44

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	765245	150.000	96.70
92 Naphthalene	128	12.065	12.065	(1.186)	5237194	150.000	155.44
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	1860484	150.000	155.36
M 94 1,2-Dichloroethylene (total)	96				2166437	300.000	(a)
135 1,4-Dioxane	88	6.165	6.165	(1.278)	268825	3000.00	2909.80
141 Cyclohexane	56	4.793	4.793	(0.994)	1460565	150.000	102.30
138 Freon TF	101	2.345	2.345	(0.486)	908276	150.000	97.77
140 1,3-Butadiene	54	1.411	1.411	(0.293)	1083627	150.000	175.11
147 Methylcyclohexane	55	5.947	5.947	(1.070)	2956892	150.000	165.80(A)
146 Methyl Acetate	43	2.727	2.727	(0.566)	929035	150.000	140.81
148 Tert-Butyl alcohol	59	2.986	2.986	(0.619)	2601696	3000.00	2799.20
149 Isopropyl Alcohol	45	2.585	2.585	(0.536)	1468012	3000.00	2781.23
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	476580	150.000	165.46
12 Isobutyl Alcohol	43	5.288	5.288	(1.096)	3608619	3000.00	3008.06
13 Acetonitrile	39	2.682	2.682	(0.556)	1493105	1500.00	1516.31
14 Allyl Chloride	41	2.682	2.682	(0.556)	3200659	150.000	148.82
25 Methacrylonitrile	41	4.500	4.500	(0.933)	898620	150.000	155.10(M)
40 Methyl Methacrylate	41	6.157	6.157	(1.277)	1273797	150.000	151.34
4 Propionitrile	54	4.343	4.343	(0.901)	1720071	1500.00	1478.54
136 n-Hexane	57	3.353	3.353	(0.695)	1037160	150.000	82.67
194 Acetaldehyde	44	1.468	1.468	(0.304)	406461	600.000	599.02(M)
131 Methyl Acrylate	55	4.373	4.373	(0.907)	1470602	150.000	155.50
200 Dimethyl Disulfide	94	6.750	6.750	(0.825)	2486704	150.000	164.84
23 Chloroprene	53	2.169	2.169	(0.450)	440857	150.000	170.82
49 Ethyl Methacrylate	69	7.293	7.293	(1.312)	1849999	150.000	158.13
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	3809923	150.000	162.08
167 Ethanol	45	2.101	2.101	(0.436)	261912	3000.00	2923.72
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	4659582	150.000	158.88
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	2091943	150.000	148.63
142 Tetrahydrofuran	42	4.545	4.545	(0.942)	473878	300.000	283.12
156 Diisopropyl ether	45	3.631	3.631	(0.753)	3535486	150.000	148.92
151 4-Methyl-2-pentanol	45	7.218	7.218	(1.299)	6058969	3000.00	2953.20
150 Allyl alcohol	57	3.353	3.353	(0.695)	1037160	3000.00	1654.73
86 Benzyl Chloride	91	10.311	10.311	(1.260)	2452672	150.000	148.06
162 Butyl acrylate	55	8.733	8.733	(1.067)	2845990	150.000	169.30
139 Diethyl ether	59	2.157	2.157	(0.447)	849604	150.000	146.95
203 2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	1639718	150.000	157.84
134 Cyclohexanone	55	9.153	9.153	(0.900)	1098107	3000.00	3018.26(M)
130 Ethyl Acetate	43	4.343	4.343	(0.901)	1276985	150.000	146.00(M)

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.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U230427.b\U042710.D
 Date : 27-APR-2023 15:10
 Client ID: WSTD150
 Sample Info: WSTD150;WSTD150;119;
 Purge Volume: 5.0
 Column phase: DB624

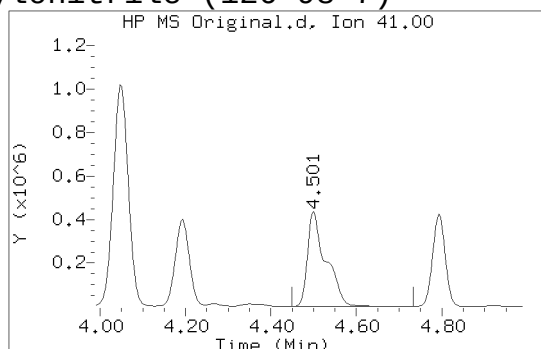
Instrument: W0A9.i
 Operator: PC
 Column diameter: 0.18

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042710.D
 Inj Date : 27-APR-2023 15:10
 InstruID : VOA9.i
 LabSampID : VSTS150

Methacrylonitrile (126-98-7)

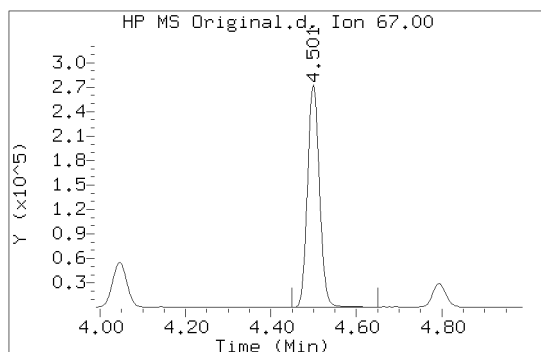
BEFORE

MASS
75
AREA
1851390
HEIGHT
964401
01-May-2023
12:42
linh



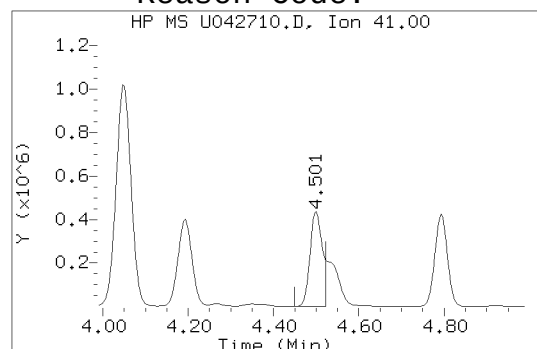
BEFORE

MASS
77
AREA
572370
HEIGHT
311875
01-May-2023
12:42
linh
pham



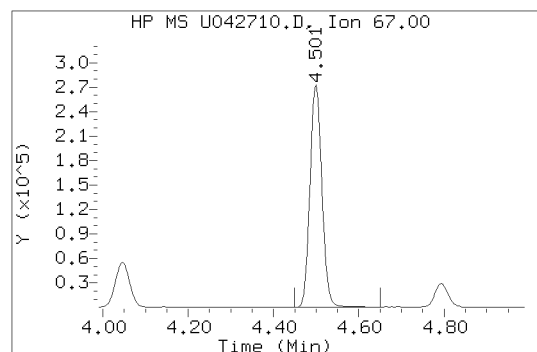
AFTER

MASS
41
AREA
898620
HEIGHT
434760
03-May-2023
09:43
linh



AFTER

MASS
67
AREA
537643
HEIGHT
272295
03-May-2023
09:43
linh
pham

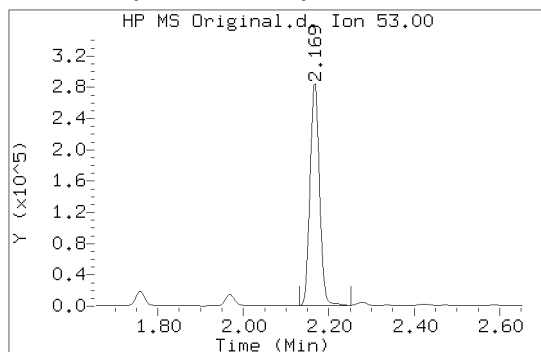


Reason Code:

Ethyl Acetate (141-78-6)

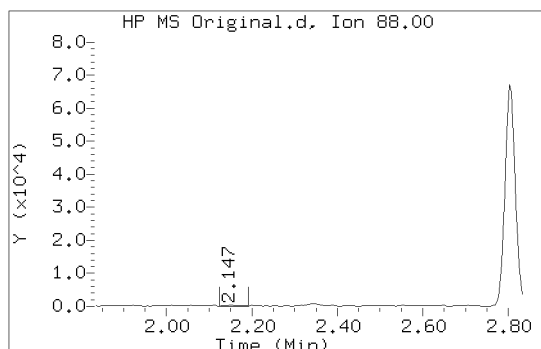
BEFORE

MASS
55
AREA
1470602
HEIGHT
606662
01-May-2023
12:42
linh
pham



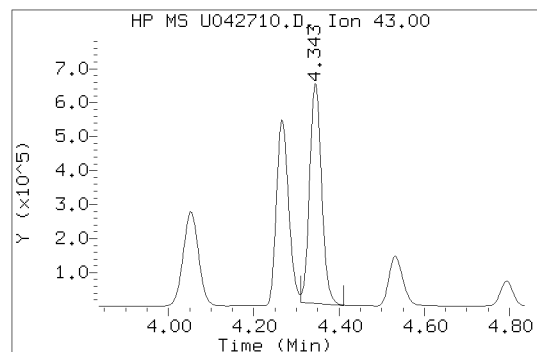
BEFORE

MASS
85
AREA
206117
HEIGHT
104324
01-May-2023
12:42
linh
pham



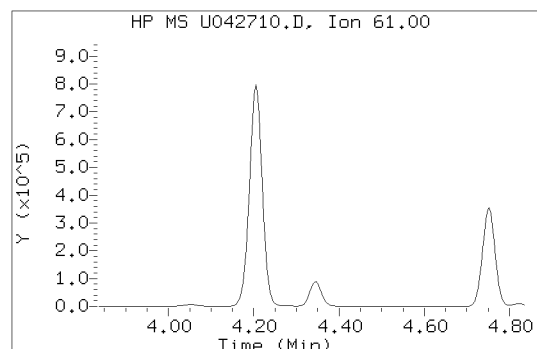
AFTER

MASS
43
AREA
1276985
HEIGHT
645261
03-May-2023
09:43
linh
pham



AFTER

MASS
61
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



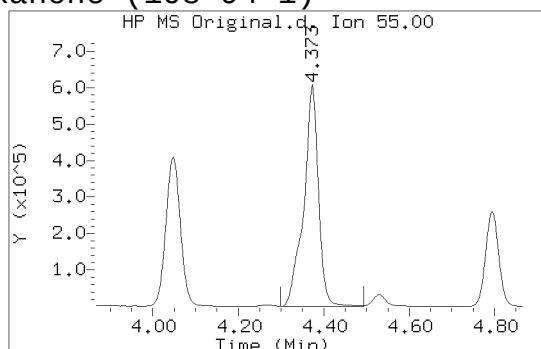
Reason Code:

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042710.D
 Inj Date : 27-APR-2023 15:10
 InstruID : VOA9.i
 LabSampID : VSTS150

Cyclohexanone (108-94-1)

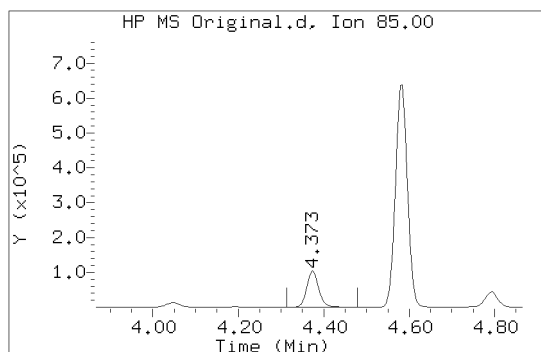
BEFORE

MASS
57
AREA
1037160
HEIGHT
521660
01-May-2023
12:42
linh



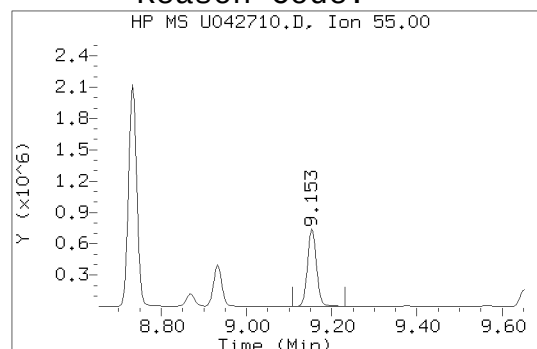
BEFORE

MASS
41
AREA
813404
HEIGHT
409317
01-May-2023
12:42
linh
pham



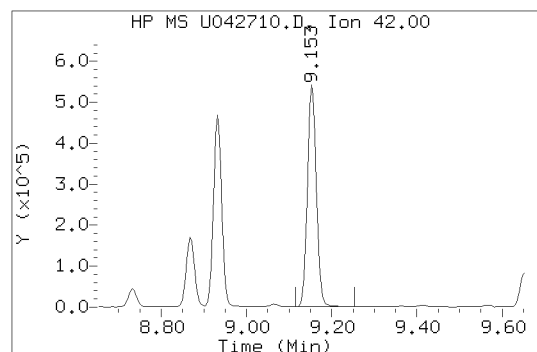
AFTER

MASS
55
AREA
1098107
HEIGHT
740112
03-May-2023
09:43
linh



AFTER

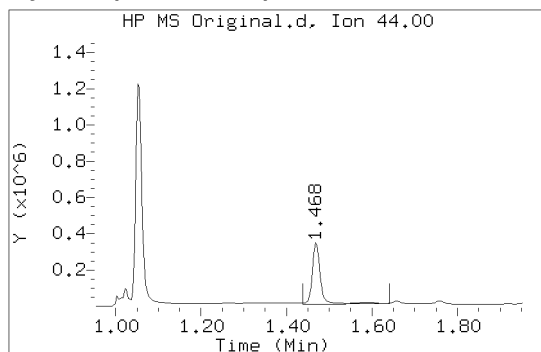
MASS
42
AREA
803931
HEIGHT
541262
03-May-2023
09:43
linh
pham



Acetaldehyde (75-07-0)

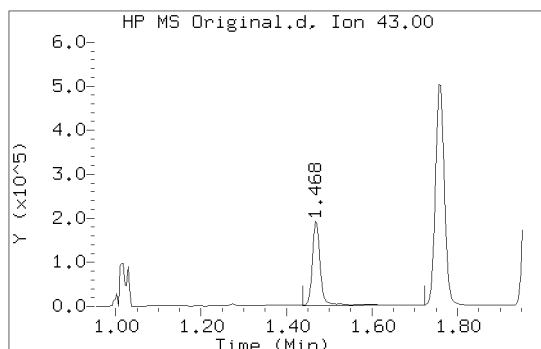
BEFORE

MASS
55
AREA
1639718
HEIGHT
1219226
01-May-2023
12:42
linh
pham



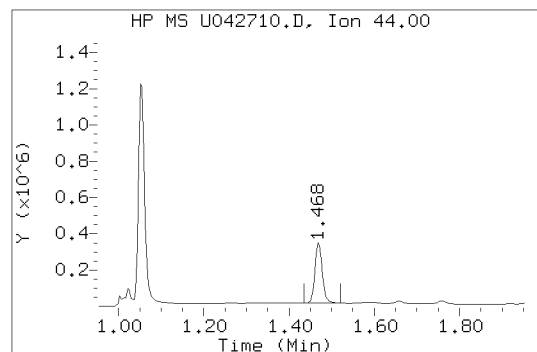
BEFORE

MASS
70
AREA
1172450
HEIGHT
871568
01-May-2023
12:42
linh
pham



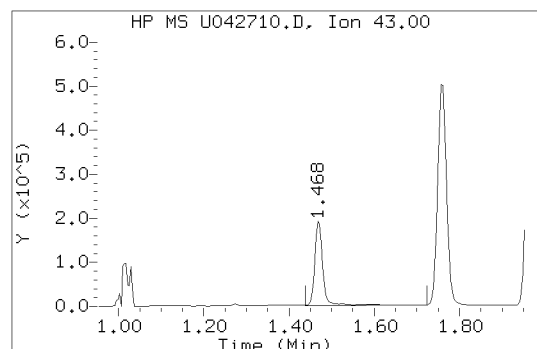
AFTER

MASS
44
AREA
406461
HEIGHT
334381
03-May-2023
09:43
linh
pham



AFTER

MASS
43
AREA
256866
HEIGHT
191750
03-May-2023
09:43
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042711.D Page 1
 Report Date: 03-May-2023 09:44

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042711.D
 Lab Smp Id: VSTS200 Client Smp ID: VSTD200
 Inj Date : 27-APR-2023 15:32
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTS200;VSTD200;1;10;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\8260C.m
 Meth Date : 03-May-2023 09:44 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 15:10 Cal File: U042710.D
 Als bottle: 12 Calibration Sample, Level: 10
 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						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.815	4.815	(1.000)		781333	50.0000	
2 Dichlorodifluoromethane	85		1.160	1.160	(0.241)		1410531	200.000	200.81(A)
3 Chloromethane	50		1.292	1.292	(0.268)		1588254	200.000	212.99(A)
5 Vinyl Chloride	62		1.370	1.370	(0.285)		1650487	200.000	210.83(A)
6 Bromomethane	94		1.603	1.603	(0.333)		1039722	200.000	198.28
7 Chloroethane	64		1.689	1.689	(0.351)		1066606	200.000	205.30(A)
8 Trichlorofluoromethane	101		1.891	1.891	(0.393)		2182279	200.000	104.93
9 Acrolein	56		2.262	2.262	(0.470)		137669	400.000	394.92(H)
10 Acetone	43		2.409	2.409	(0.500)		1055949	400.000	351.11
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)		1262355	200.000	215.39(A)
15 Iodomethane	142		2.465	2.465	(0.512)		3660290	400.000	354.82
16 Acrylonitrile	53		3.065	3.065	(0.636)		1244179	400.000	377.67
17 Methylene Chloride	84		2.791	2.791	(0.580)		1433114	200.000	199.65
18 Methyl tert-butyl ether	73		3.080	3.080	(0.640)		4379705	200.000	193.69
19 Carbon Disulfide	76		2.514	2.514	(0.522)		7406581	400.000	422.80(A)
20 trans-1,2-Dichloroethene	96		3.057	3.057	(0.635)		1375947	200.000	205.29(A)
21 Vinyl Acetate	43		3.604	3.604	(0.749)		9238734	400.000	403.63(A)
22 1,1-Dichloroethane	63		3.515	3.515	(0.730)		2452415	200.000	199.68
24 2-Butanone	43		4.257	4.257	(0.884)		1448459	400.000	380.06
26 2,2-Dichloropropane	77		4.182	4.182	(0.868)		2072282	200.000	202.86(A)



27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	1590941	200.000	200.79(A)
28 Chloroform	83	4.572	4.572 (0.949)	2578902	200.000	201.17(A)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042711.D Page 2

Report Date: 03-May-2023 09:44

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128		4.470	4.470	(0.928)		752683	200.000	188.23
\$ 30 Dibromofluoromethane	113		4.748	4.748	(0.986)		1392055	200.000	195.79
31 1,1,1-Trichloroethane	97		4.744	4.744	(0.985)		2306133	200.000	203.80(A)
32 1,1-Dichloropropene	75		4.924	4.924	(0.887)		1905325	200.000	219.35(A)
33 1,2-Dichloroethane	62		5.175	5.175	(0.932)		2161353	200.000	196.16
34 Carbon Tetrachloride	117		4.913	4.913	(0.885)		2041393	200.000	201.71(A)
\$ 35 1,2-Dichloroethane-d4	65		5.096	5.096	(1.058)		1703524	200.000	196.21
* 36 1,4-Difluorobenzene	114		5.554	5.554	(1.000)		1151472	50.0000	
37 Benzene	78		5.138	5.138	(0.925)		5506577	200.000	201.65(A)
38 Trichloroethene	130		5.790	5.790	(1.043)		1637433	200.000	208.24(A)
39 Bromodichloromethane	83		6.277	6.277	(1.130)		2040516	200.000	208.26(A)
41 2-Chloroethylvinyl ether	63		6.577	6.577	(1.184)		1196705	400.000	458.15(A)
42 1,2-Dichloropropane	63		6.011	6.011	(1.082)		1469675	200.000	208.68(A)
44 Dibromomethane	93		6.120	6.120	(1.102)		988104	200.000	198.83
45 4-Methyl-2-Pentanone	43		6.851	6.851	(0.837)		3583625	400.000	398.26
46 cis-1,3-Dichloropropene	75		6.693	6.693	(1.205)		2595720	200.000	211.97(A)
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)		1090918	50.0000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)		4701403	200.000	173.46
50 Toluene	91		6.982	6.982	(0.853)		5971512	200.000	199.36
51 trans-1,3-Dichloropropene	75		7.196	7.196	(1.296)		2308518	200.000	219.75(A)
52 2-Hexanone	43		7.589	7.589	(0.927)		2554932	400.000	404.21(A)
53 1,1,2-Trichloroethane	83		7.357	7.357	(0.899)		1182056	200.000	204.84(A)
54 1,3-Dichloropropane	76		7.499	7.499	(0.916)		2526240	200.000	198.96
55 Dibromochloromethane	129		7.694	7.694	(0.940)		1806024	200.000	212.59(A)
56 Tetrachloroethene	164		7.458	7.458	(0.911)		1362956	200.000	211.60(A)
57 1,2-Dibromoethane	107		7.784	7.784	(0.951)		1539742	200.000	203.39(A)
58 1-Chlorohexane	55		8.200	8.200	(1.476)		1396227	200.000	103.63
59 Chlorobenzene	112		8.212	8.212	(1.003)		4183499	200.000	202.07(A)
60 1,1,1,2-Tetrachloroethane	131		8.287	8.287	(1.012)		1657688	200.000	209.20(A)
61 Ethylbenzene	106		8.309	8.309	(1.015)		2172554	200.000	213.93(A)
62 m,p-Xylenes	106		8.410	8.410	(1.027)		5471887	400.000	440.25(A)
63 o-Xylene	106		8.748	8.748	(1.069)		2721162	200.000	217.02(A)
64 Styrene	104		8.763	8.763	(1.071)		4673478	200.000	221.81(A)
66 Bromoform	173		8.920	8.920	(1.090)		1396881	200.000	224.67(A)
67 Isopropylbenzene	105		9.063	9.063	(1.107)		6626360	200.000	218.08(A)
68 1,1,2,2-Tetrachloroethane	83		9.329	9.329	(0.917)		2126098	200.000	205.68(A)
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)		1988190	200.000	195.86
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		601196	50.0000	
71 1,2,3-Trichloropropane	75		9.366	9.366	(0.921)		2501321	200.000	214.65(A)
73 n-Propylbenzene	91		9.415	9.415	(0.926)		7356102	200.000	220.85(A)
74 Bromobenzene	156		9.317	9.317	(0.916)		2020721	200.000	208.94(A)
75 1,3,5-Trimethylbenzene	105		9.565	9.565	(0.940)		5545865	200.000	231.30(A)
76 2-Chlorotoluene	91		9.482	9.482	(0.932)		4598896	200.000	209.22(A)
77 4-Chlorotoluene	91		9.576	9.576	(0.941)		5415121	200.000	211.23(A)
78 tert-Butylbenzene	119		9.839	9.839	(0.967)		4819427	200.000	198.80
79 1,2,4-Trimethylbenzene	105		9.880	9.880	(0.971)		5596763	200.000	229.60(A)
81 sec-Butylbenzene	105		10.026	10.026	(0.986)		6403319	200.000	111.85
82 p-Isopropyltoluene	119		10.150	10.150	(0.998)		5771327	200.000	201.48(A)
83 1,3-Dichlorobenzene	146		10.116	10.116	(0.994)		3538426	200.000	211.67(A)
84 1,4-Dichlorobenzene	146		10.191	10.191	(1.002)		3636145	200.000	207.53(A)
87 n-Butylbenzene	91		10.495	10.495	(1.032)		4928510	200.000	202.65(A)
88 1,2-Dichlorobenzene	146		10.506	10.506	(1.033)		3528892	200.000	206.46(A)



89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	459081	200.000	203.08(A)
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	2684683	200.000	216.73(A)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042711.D Page 3
 Report Date: 03-May-2023 09:44

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	1053515	200.000	49.65
92 Naphthalene	128	12.065	12.065	(1.186)	7106270	200.000	208.40(A)
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	2579480	200.000	212.82(A)
M 94 1,2-Dichloroethylene (total)	96				2966888	400.000	(a)
135 1,4-Dioxane	88	6.165	6.165	(1.280)	352926	4000.00	3729.31
141 Cyclohexane	56	4.785	4.785	(0.994)	2012780	200.000	68.69
138 Freon TF	101	2.330	2.330	(0.484)	1248937	200.000	56.98
140 1,3-Butadiene	54	1.400	1.400	(0.291)	1486119	200.000	234.45(A)
147 Methylcyclohexane	55	5.944	5.944	(1.070)	4100641	200.000	225.84(A)
146 Methyl Acetate	43	2.712	2.712	(0.563)	1245500	200.000	184.28
148 Tert-Butyl alcohol	59	2.975	2.975	(0.618)	3459713	4000.00	3633.86
149 Isopropyl Alcohol	45	2.574	2.574	(0.534)	1932044	4000.00	3573.35
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	627701	200.000	213.70(A)
12 Isobutyl Alcohol	43	5.280	5.280	(1.097)	4815370	4000.00	3918.56
13 Acetonitrile	39	2.667	2.667	(0.554)	1963320	2000.00	1946.44
14 Allyl Chloride	41	2.671	2.671	(0.555)	4261772	200.000	193.45
25 Methacrylonitrile	41	4.489	4.489	(0.932)	1208873	200.000	203.69(AM)
40 Methyl Methacrylate	41	6.154	6.154	(1.278)	1708763	200.000	198.19
4 Propionitrile	54	4.335	4.335	(0.900)	2334611	2000.00	1959.08
136 n-Hexane	57	3.338	3.338	(0.693)	1437037	200.000	14.28
194 Acetaldehyde	44	1.453	1.453	(0.302)	505083	800.000	726.67(M)
131 Methyl Acrylate	55	4.365	4.365	(0.907)	1982358	200.000	204.63(A)
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	3402013	200.000	221.14(A)
23 Chloroprene	53	2.154	2.154	(0.447)	602956	200.000	228.07(A)
49 Ethyl Methacrylate	69	7.293	7.293	(1.313)	2538996	200.000	213.15(A)
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	5196009	200.000	218.41(A)
167 Ethanol	45	2.090	2.090	(0.434)	346088	4000.00	3771.54
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	6417096	200.000	216.19(A)
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	2902715	200.000	202.85(A)
142 Tetrahydrofuran	42	4.538	4.538	(0.942)	636768	400.000	371.39
156 Diisopropyl ether	45	3.619	3.619	(0.752)	4758762	200.000	195.68
151 4-Methyl-2-pentanol	45	7.218	7.218	(1.300)	8216870	4000.00	3933.50
150 Allyl alcohol	57	3.338	3.338	(0.693)	1437037	4000.00	289.25
86 Benzyl Chloride	91	10.311	10.311	(1.260)	3485389	200.000	205.10(A)
162 Butyl acrylate	55	8.733	8.733	(1.067)	3907054	200.000	227.91(A)
139 Diethyl ether	59	2.143	2.143	(0.445)	1159239	200.000	195.75
203 2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	2179627	200.000	207.31(A)
134 Cyclohexanone	55	9.153	9.153	(0.900)	1332894	4000.00	3619.40(M)
130 Ethyl Acetate	43	4.335	4.335	(0.900)	1759442	200.000	196.38(M)

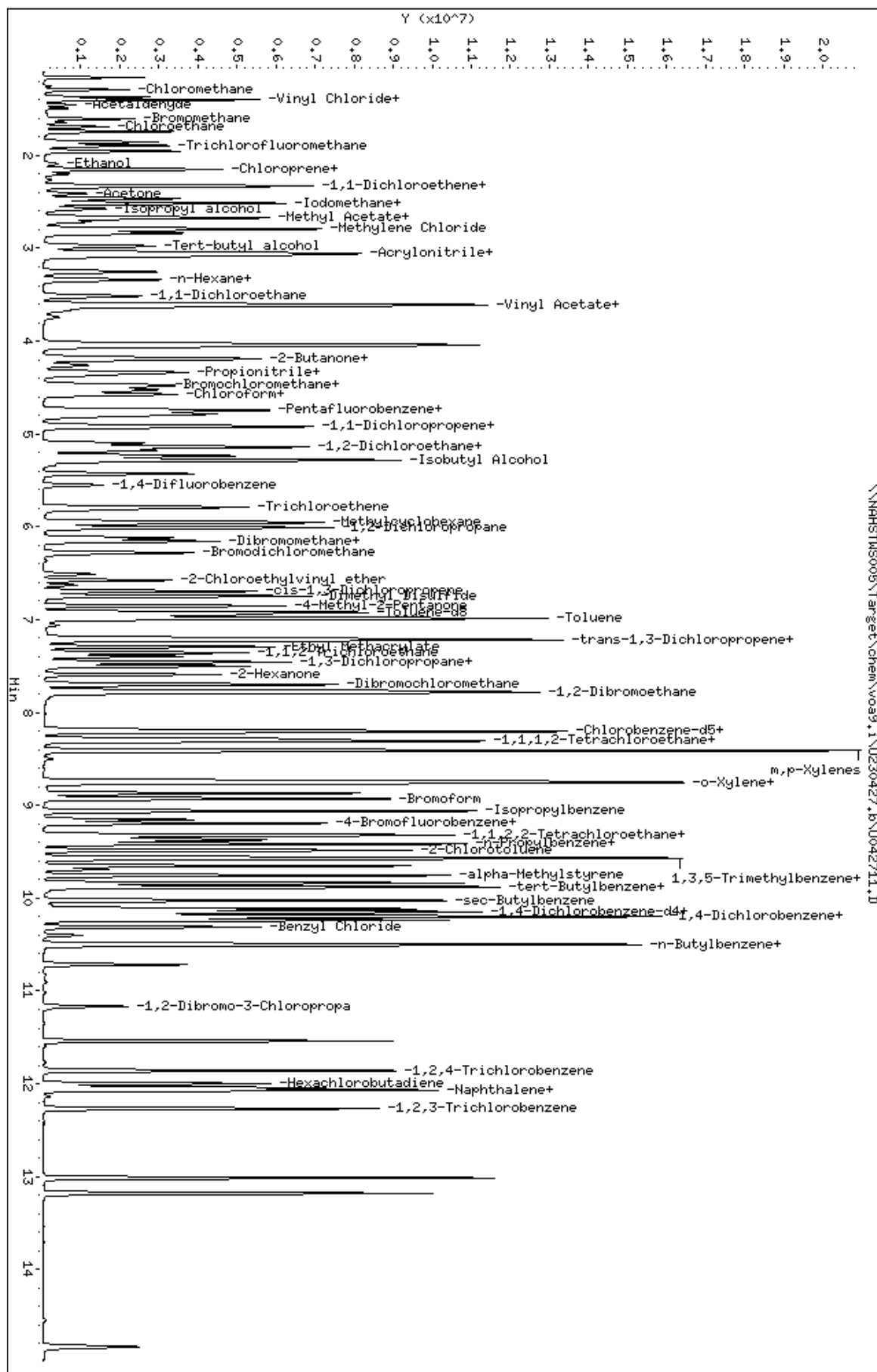
QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.



Data File: \\NAHSTMS005\Target\chem\voa9.1\U230427.1\U042711.D
 Date : 27-APR-2023 15:32
 Client ID: WSTD200
 Sample Info: WSTD200\WSTD200\1110
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W049.1
 Operator: PC
 Column diameter: 0.18

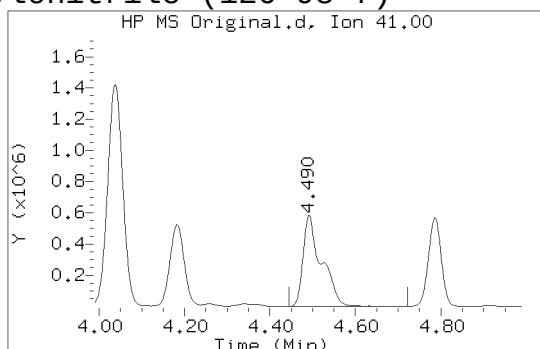


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042711.D
 Inj Date : 27-APR-2023 15:32
 InstruID : VOA9.i
 LabSampID : VSTS200

Methacrylonitrile (126-98-7)

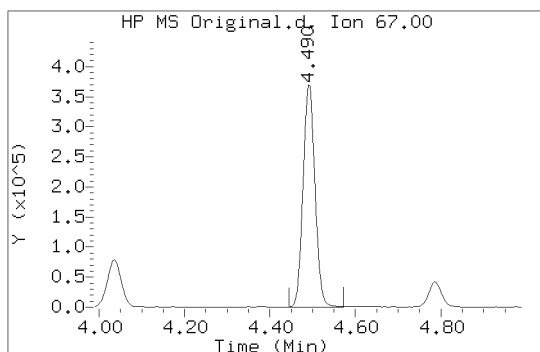
BEFORE

MASS
75
AREA
2501321
HEIGHT
1281711
01-May-2023
12:42
linh



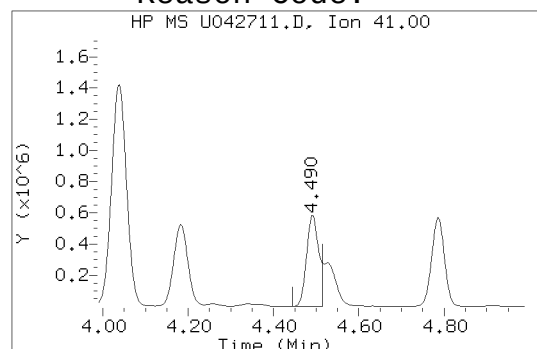
BEFORE

MASS
77
AREA
807999
HEIGHT
414083
01-May-2023
12:42
linh
pham



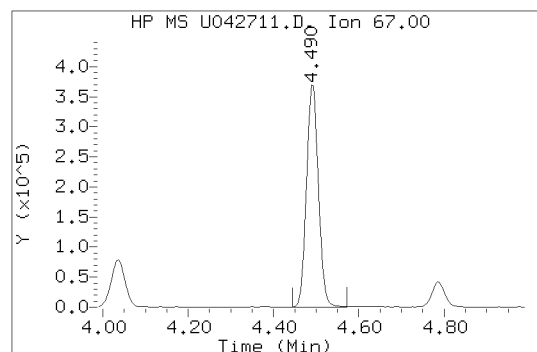
AFTER

MASS
41
AREA
1208873
HEIGHT
581608
03-May-2023
09:43
linh



AFTER

MASS
67
AREA
729871
HEIGHT
369176
03-May-2023
09:43
linh
pham

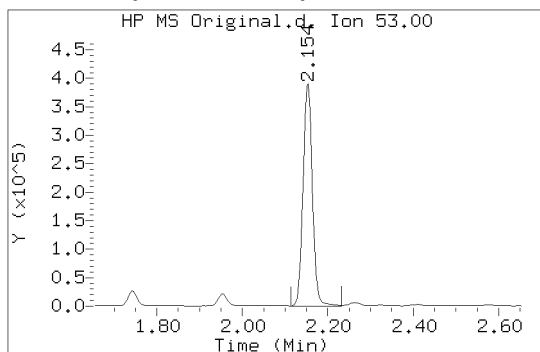


Reason Code:

Ethyl Acetate (141-78-6)

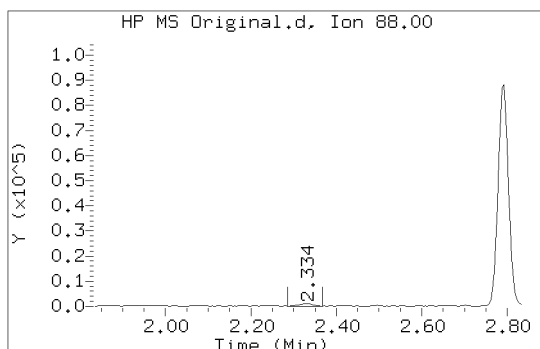
BEFORE

MASS
55
AREA
1982358
HEIGHT
817895
01-May-2023
12:42
linh
pham



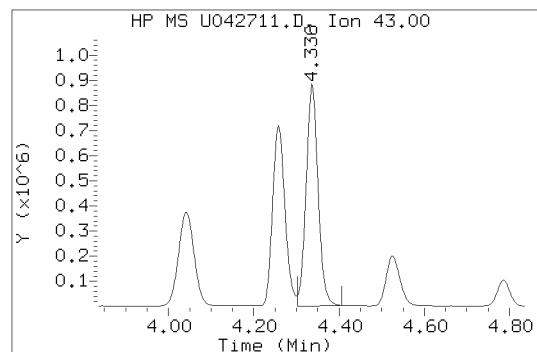
BEFORE

MASS
85
AREA
278522
HEIGHT
143212
01-May-2023
12:42
linh
pham



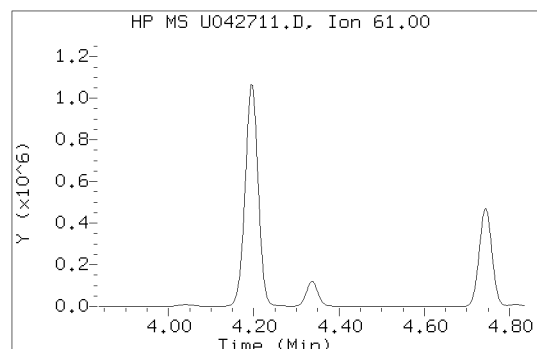
AFTER

MASS
43
AREA
1759442
HEIGHT
883893
03-May-2023
09:43
linh
pham



AFTER

MASS
61
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



Reason Code:

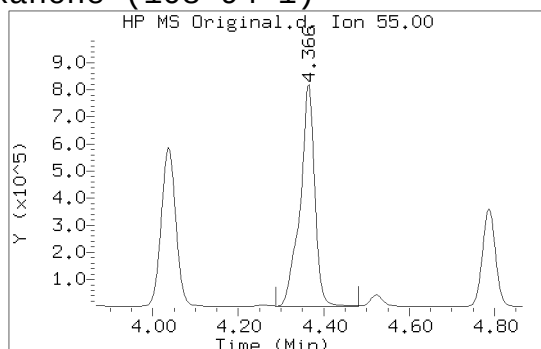


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042711.D
 Inj Date : 27-APR-2023 15:32
 InstruID : VOA9.i
 LabSampID : VSTS200

Cyclohexanone (108-94-1)

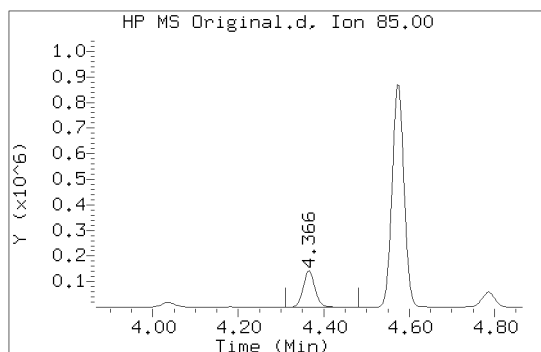
BEFORE

MASS
57
AREA
1437037
HEIGHT
729233
01-May-2023
12:42
linh



BEFORE

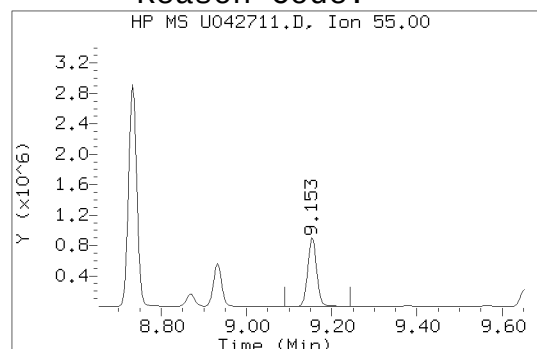
MASS
41
AREA
1107651
HEIGHT
561372
01-May-2023
12:42
linh
pham



Reason Code:

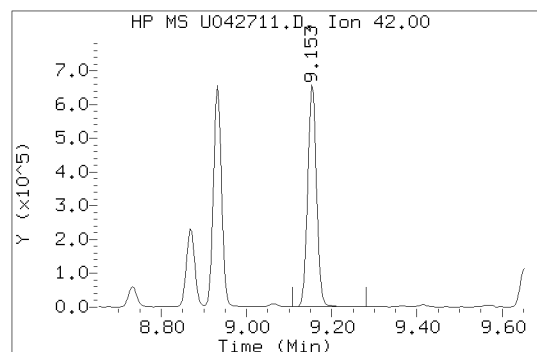
AFTER

MASS
55
AREA
1332894
HEIGHT
902814
03-May-2023
09:43
linh



AFTER

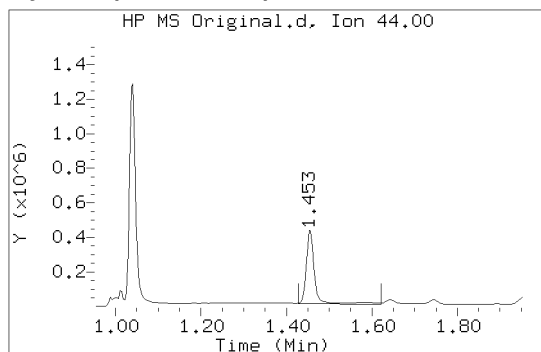
MASS
42
AREA
968253
HEIGHT
656989
03-May-2023
09:43
linh
pham



Acetaldehyde (75-07-0)

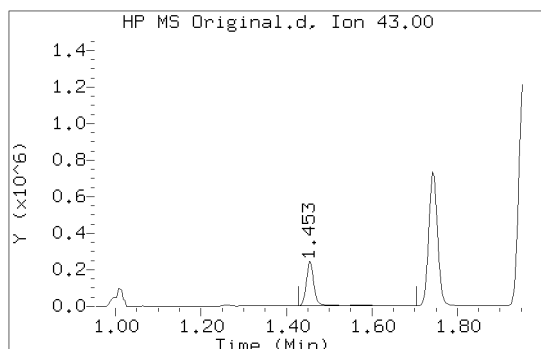
BEFORE

MASS
55
AREA
2179627
HEIGHT
1612561
01-May-2023
12:42
linh
pham



BEFORE

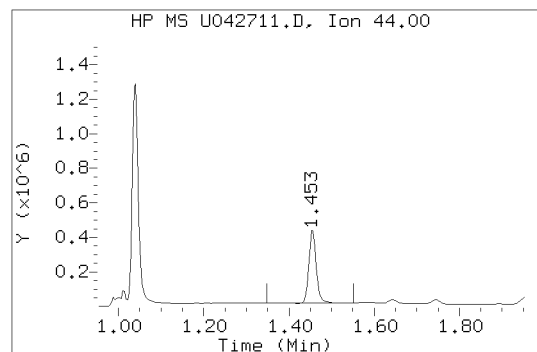
MASS
70
AREA
1574555
HEIGHT
1170597
01-May-2023
12:42
linh
pham



Reason Code:

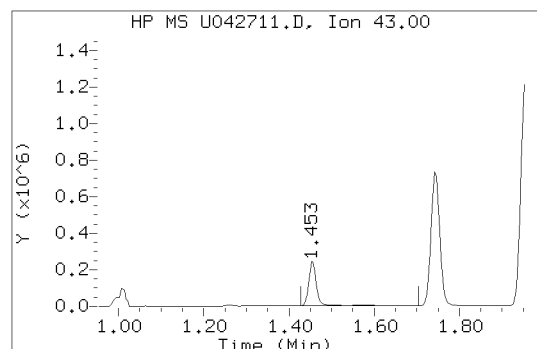
AFTER

MASS
44
AREA
505083
HEIGHT
418437
03-May-2023
09:43
linh
pham



AFTER

MASS
43
AREA
322126
HEIGHT
241633
03-May-2023
09:43
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042714.D Page 1
 Report Date: 03-May-2023 09:44

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042714.D
 Lab Smp Id: ICV Client Smp ID: ICV
 Inj Date : 27-APR-2023 16:39
 Operator : PC Inst ID: VOA9.i
 Smp Info : CCV;CCV;2;;;ICV
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\8260C.m
 Meth Date : 03-May-2023 09:44 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 15:32 Cal File: U042711.D
 Als bottle: 15 QC Sample: METHSPIKE
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: $\text{Amt} * \text{DF} * (\text{Uf}/\text{Vo}) * 1 * \text{CpndVariable}$

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						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.815	4.815	(1.000)		812462	50.0000	
2 Dichlorodifluoromethane	85		1.160	1.160	(0.241)		298739	43.2460	43.24
3 Chloromethane	50		1.291	1.292	(0.268)		374432	48.2900	48.29
5 Vinyl Chloride	62		1.374	1.370	(0.285)		359406	44.1520	44.15
6 Bromomethane	94		1.618	1.603	(0.336)		236073	51.4135	51.41
7 Chloroethane	64		1.696	1.689	(0.352)		245663	45.4753	45.47
8 Trichlorofluoromethane	101		1.895	1.891	(0.394)		473293	52.6100	52.60
9 Acrolein	56		2.262	2.262	(0.470)		34249	93.7079	93.70
10 Acetone	43		2.409	2.409	(0.500)		297237	93.4087	93.40
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)		277792	45.5830	45.58
15 Iodomethane	142		2.465	2.465	(0.512)		728830	84.2654	84.26
16 Acrylonitrile	53		3.065	3.065	(0.636)		307257	89.6954	89.69
17 Methylene Chloride	84		2.791	2.791	(0.580)		348976	46.5138	46.51
18 Methyl tert-butyl ether	73		3.080	3.080	(0.640)		1074587	45.7043	45.70
19 Carbon Disulfide	76		2.517	2.514	(0.523)		1700930	93.3767	93.37
20 trans-1,2-Dichloroethene	96		3.057	3.057	(0.635)		321746	46.1659	46.16
21 Vinyl Acetate	43		3.604	3.604	(0.749)		2326527	97.7504	97.75
22 1,1-Dichloroethane	63		3.514	3.515	(0.730)		577324	45.2069	45.20
24 2-Butanone	43		4.257	4.257	(0.884)		367227	92.6652	92.66
26 2,2-Dichloropropane	77		4.182	4.182	(0.868)		510657	48.0750	48.07



27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	378220	45.9071	45.90
28 Chloroform	83	4.572	4.572 (0.949)	618069	46.3668	46.36

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042714.D Page 2

Report Date: 03-May-2023 09:44

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.470	4.470	(0.928)	202635	48.7349	48.73
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	374589	50.0117	50.01
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	513881	43.6739	43.67
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	417634	47.8319	47.83
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	538959	48.6621	48.66
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	423864	43.6713	43.67
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	448701	48.9156	48.91
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1157454	50.0000	
37 Benzene	78	5.138	5.138	(0.925)	1303791	47.4983	47.49
38 Trichloroethene	130	5.790	5.790	(1.043)	372469	47.1245	47.12
39 Bromodichloromethane	83	6.277	6.277	(1.130)	485260	49.2718	49.27
41 2-Chloroethylvinyl ether	63	6.573	6.577	(1.184)	263761	100.459	100.45
42 1,2-Dichloropropane	63	6.007	6.011	(1.082)	354702	50.1060	50.10
44 Dibromomethane	93	6.120	6.120	(1.102)	239294	47.9037	47.90
45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	856568	96.4059	96.40
46 cis-1,3-Dichloropropene	75	6.690	6.693	(1.205)	610735	49.6177	49.61
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1077203	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1339689	50.0605	50.06
50 Toluene	91	6.982	6.982	(0.853)	1398892	47.2972	47.29
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	541163	51.2497	51.24
52 2-Hexanone	43	7.589	7.589	(0.927)	601975	96.4497	96.44
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	285998	50.1920	50.19
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	611260	48.7543	48.75
55 Dibromochloromethane	129	7.691	7.694	(0.940)	417486	49.7708	49.77
56 Tetrachloroethene	164	7.458	7.458	(0.911)	287890	45.2652	45.26
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	365630	48.9142	48.91
58 1-Chlorohexane	55	8.197	8.200	(1.476)	273181	51.7814	51.78
59 Chlorobenzene	112	8.212	8.212	(1.003)	972425	47.5685	47.56
60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	377934	48.3038	48.30
61 Ethylbenzene	106	8.309	8.309	(1.015)	470946	46.9661	46.96
62 m,p-Xylenes	106	8.410	8.410	(1.027)	1211395	98.7076	98.70
63 o-Xylene	106	8.748	8.748	(1.069)	606356	48.9744	48.97
64 Styrene	104	8.763	8.763	(1.071)	1083078	52.0610	52.06
66 Bromoform	173	8.920	8.920	(1.090)	314931	51.2977	51.29
67 Isopropylbenzene	105	9.063	9.063	(1.107)	1400552	46.6812	46.68
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	514244	48.2672	48.26
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	532966	52.3368	52.33
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	619647	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	578008	48.1256	48.12
73 n-Propylbenzene	91	9.411	9.415	(0.925)	1583586	46.1292	46.12
74 Bromobenzene	156	9.317	9.317	(0.916)	464763	46.6258	46.62
75 1,3,5-Trimethylbenzene	105	9.561	9.565	(0.940)	1206452	48.8203	48.82
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	1038775	45.8514	45.85
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1243671	47.0680	47.06
78 tert-Butylbenzene	119	9.839	9.839	(0.967)	1010620	44.5264	44.52
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	1286091	51.1897	51.18
81 sec-Butylbenzene	105	10.022	10.026	(0.985)	1300692	50.7893	50.78
82 p-Isopropyltoluene	119	10.146	10.150	(0.997)	1204502	43.0390	43.03
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	811494	47.1005	47.10
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	851830	47.1720	47.17
87 n-Butylbenzene	91	10.491	10.495	(1.031)	1017750	43.1584	43.15
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	817295	46.3931	46.39



89	1,2-Dibromo-3-Chloropropane	155	11.166	11.169 (1.098)	101761	45.4715	45.47
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	598339	46.8665	46.86

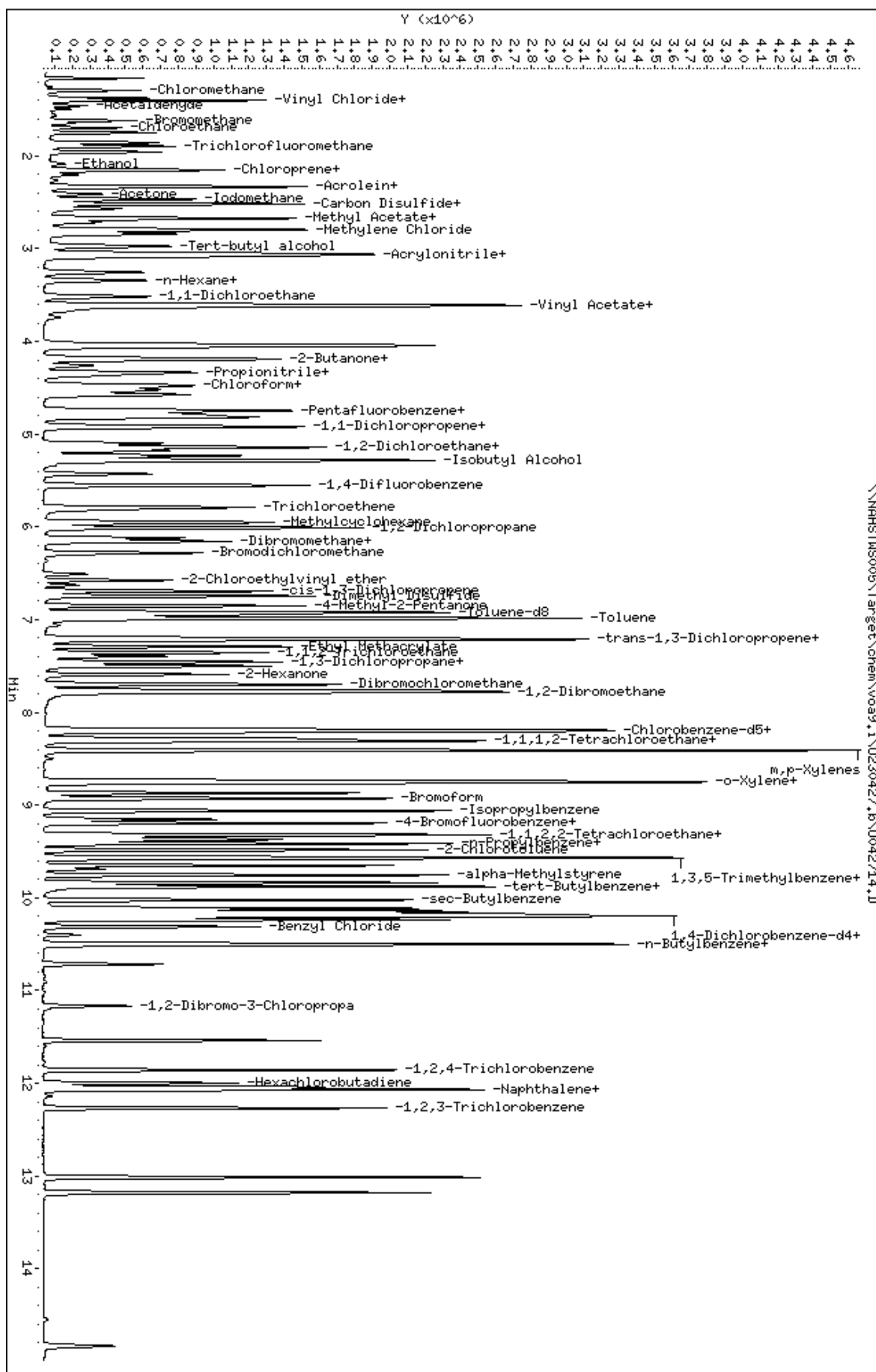
Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042714.D Page 3
 Report Date: 03-May-2023 09:44

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	200899	55.3911	55.39
92 Naphthalene	128	12.065	12.065	(1.186)	1698737	48.3350	48.33
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	573567	45.9149	45.91
M 94 1,2-Dichloroethylene (total)	96				699966	92.0730	92.07
M 95 Xylenes (total)	106				1817751	147.682	147.68
135 1,4-Dioxane	88	6.161	6.165	(1.279)	87650	890.698	890.69
141 Cyclohexane	56	4.785	4.785	(0.994)	395758	53.6376	53.63
138 Freon TF	101	2.334	2.330	(0.485)	252784	56.1758	56.17
140 1,3-Butadiene	54	1.400	1.400	(0.291)	326938	49.6016	49.60
147 Methylcyclohexane	55	5.944	5.944	(1.070)	849432	46.5405	46.54
146 Methyl Acetate	43	2.712	2.712	(0.563)	310667	44.2062	44.20
148 Tert-Butyl alcohol	59	2.971	2.975	(0.617)	838649	847.115	847.11
149 Isopropyl Alcohol	45	2.566	2.574	(0.533)	482458	858.127	858.12
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	143349	49.4255	49.42
12 Isobutyl Alcohol	43	5.280	5.280	(1.097)	1185860	928.033	928.03
13 Acetonitrile	39	2.671	2.667	(0.555)	455063	433.865	433.86
14 Allyl Chloride	41	2.671	2.671	(0.555)	1014685	44.2952	44.29
25 Methacrylonitrile	41	4.489	4.489	(0.932)	287754	46.6278	46.62(M)
40 Methyl Methacrylate	41	6.154	6.154	(1.278)	412453	46.0064	46.00
4 Propionitrile	54	4.332	4.335	(0.900)	564767	455.765	455.76
136 n-Hexane	57	3.342	3.338	(0.694)	274581	58.2320	58.23
194 Acetaldehyde	44	1.456	1.453	(0.303)	159205	220.275	220.27
131 Methyl Acrylate	55	4.365	4.365	(0.907)	481925	47.8432	47.84
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	758469	49.9303	49.93
23 Chloroprene	53	2.154	2.154	(0.447)	124817	45.4053	45.40
49 Ethyl Methacrylate	69	7.289	7.293	(1.312)	595616	49.7462	49.74
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	1157582	47.2112	47.21
167 Ethanol	45	2.086	2.090	(0.433)	83151	871.431	871.43
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	1285803	42.0301	42.03
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	642249	45.5034	45.50
142 Tetrahydrofuran	42	4.538	4.538	(0.942)	159604	89.5225	89.52
156 Diisopropyl ether	45	3.619	3.619	(0.752)	1146418	45.3351	45.33
151 4-Methyl-2-pentanol	45	7.214	7.218	(1.299)	1770034	842.955	842.95
150 Allyl alcohol	57	3.342	3.338	(0.694)	274581	1164.45	1164.45
86 Benzyl Chloride	91	10.311	10.311	(1.260)	776021	48.6395	48.63
162 Butyl acrylate	55	8.733	8.733	(1.067)	853386	50.4156	50.41
139 Diethyl ether	59	2.146	2.143	(0.446)	276702	44.9339	44.93
203 2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	492531	45.4512	45.45
134 Cyclohexanone	55	9.152	9.153	(0.900)	341967	902.630	902.63(M)
130 Ethyl Acetate	43	4.335	4.335	(0.900)	429616	46.1152	46.11(M)

QC Flag Legend

M - Compound response manually integrated.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U230427.b\U042714.D
 Date: 27-APR-2023 16:39
 Client ID: ICV
 Sample Info: CCV\CCV\2711ICV
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W049.i
 Operator: PC
 Column diameter: 0.18

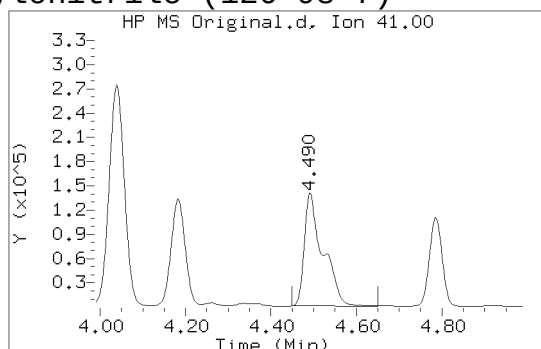


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230427.b\\U042714.D
 Inj Date : 27-APR-2023 16:39
 InstruID : VOA9.i
 LabSampID : ICV

Methacrylonitrile (126-98-7)

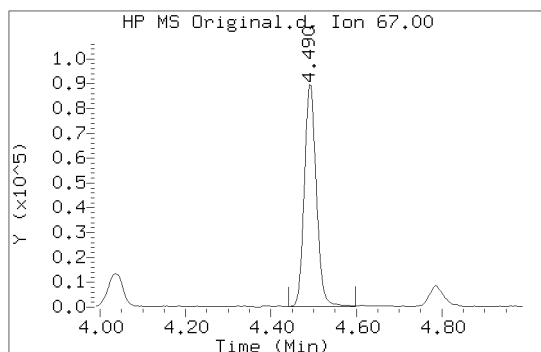
BEFORE

MASS
75
AREA
580715
HEIGHT
300597
01-May-2023
12:42
linh



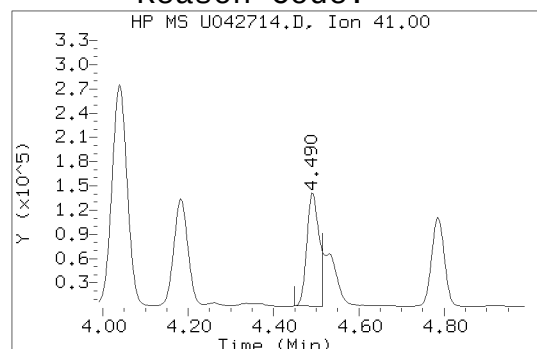
BEFORE

MASS
77
AREA
180644
HEIGHT
99220
01-May-2023
12:42
linh
pham



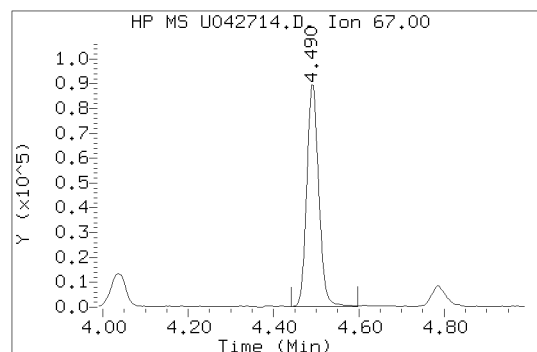
AFTER

MASS
41
AREA
287754
HEIGHT
139854
03-May-2023
09:43
linh



AFTER

MASS
67
AREA
177934
HEIGHT
89205
03-May-2023
09:43
linh
pham

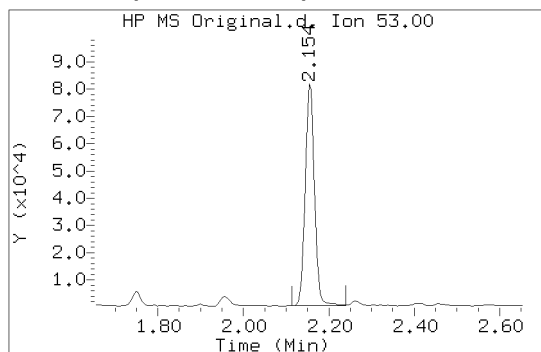


Reason Code:

Ethyl Acetate (141-78-6)

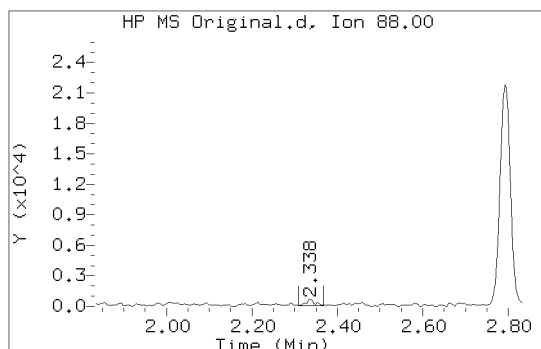
BEFORE

MASS
55
AREA
481925
HEIGHT
187336
01-May-2023
12:42
linh
pham



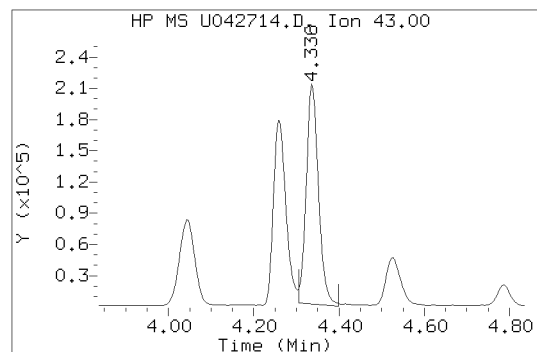
BEFORE

MASS
85
AREA
66963
HEIGHT
33814
01-May-2023
12:42
linh
pham



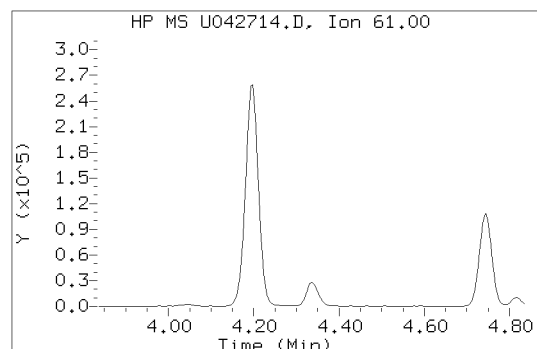
AFTER

MASS
43
AREA
429616
HEIGHT
211595
03-May-2023
09:43
linh
pham



AFTER

MASS
61
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham

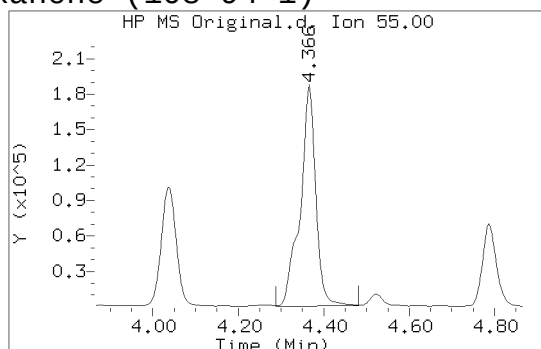


Reason Code:

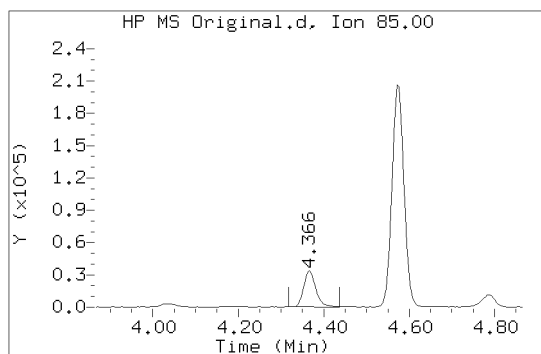
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042714.D
Inj Date : 27-APR-2023 16:39
InstruID : VOA9.i
LabSampID : ICV

Cyclohexanone (108-94-1)**BEFORE**

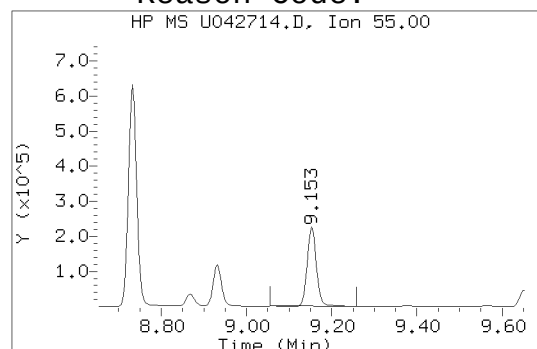
MASS
57
AREA
274581
HEIGHT
138965
01-May-2023
12:42
linh

**BEFORE**

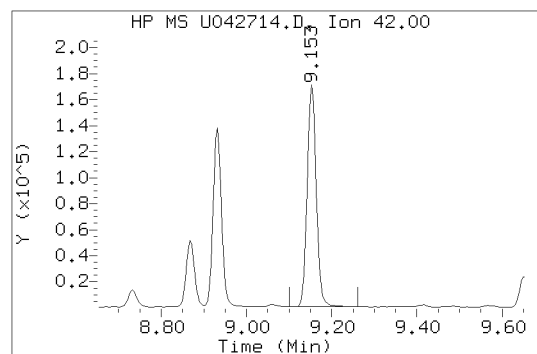
MASS
41
AREA
215075
HEIGHT
108312
01-May-2023
12:42
linh
pham

**AFTER**

MASS
55
AREA
341967
HEIGHT
225143
03-May-2023
09:43
linh

**AFTER**

MASS
42
AREA
256617
HEIGHT
170384
03-May-2023
09:43
linh
pham





Raw Data VOA9 436716

Volatiles by EPA 8260

Workorder
HS23051834

Client
Bhate Environmental Associates, Inc.

Project
LHAAP 50

06/08/2023

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\voa9.i\U230531.b\U053101.D Page 1
 Report Date: 31-May-2023 20:41

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053101.D
 Lab Smp Id: BFB Client Smp ID: BFB
 Inj Date : 31-MAY-2023 10:16
 Operator : PC Inst ID: VOA9.i
 Smp Info : BFB;BFB;3;;BFB
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\bfb.m
 Meth Date : 27-Jan-2023 08:08 apoluri Quant Type: ISTD
 Cal Date : 30-MAR-2018 18:09 Cal File: U033003.d
 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		FINAL			
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/l)	TARGET	RANGE	RATIO
====	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 bfb				CAS #: 460-00-4					
9.193	9.180 (0.000)	95	130944				0.00-	100.00	100.00
9.193	9.180 (0.000)	50	24400				15.00-	40.00	18.63
9.193	9.180 (0.000)	75	62272				30.00-	60.00	47.56
9.193	9.180 (0.000)	96	8793				5.00-	9.00	6.72
9.193	9.180 (0.000)	173	0	0.0	0.0	0.00-	2.00	0.00	
9.193	9.180 (0.000)	174	126584				50.00-	0.00	96.67
9.193	9.180 (0.000)	175	10887				5.00-	9.00	8.60
9.193	9.180 (0.000)	176	122368				95.00-	101.00	96.67
9.193	9.180 (0.000)	177	8619				5.00-	9.00	7.04



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.63
75	30.00 - 60.00% of mass 95	47.56
96	5.00 - 9.00% of mass 95	6.72
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	96.67
175	5.00 - 9.00% of mass 174	8.31 (8.60)
176	95.00 - 101.00% of mass 174	93.45 (96.67)
177	5.00 - 9.00% of mass 176	6.58 (7.04)

Data File: U053101.D
 Spectrum: Scan 2295 (9.19)
 Location of Maximum: 95.00
 Number of points: 220

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	608	90.90	629	143.90	115	200.60	69
36.00	3328	92.00	3711	144.70	241	202.90	55
37.00	7167	93.00	6041	145.90	286	203.70	61
38.00	7312	94.00	15884	146.60	167	206.00	65
39.00	5933	95.00	130944	147.10	152	208.00	104
40.00	1607	96.00	8793	148.00	509	211.20	93
41.10	4659	97.00	547	148.90	189	212.80	107
42.00	4750	98.10	1840	150.00	243	214.60	59
43.00	7064	99.30	226	150.60	64	217.40	63
44.00	2946	100.30	121	151.20	92	218.30	50
45.00	4934	101.30	193	151.80	157	220.70	58
46.20	412	102.30	89	153.00	250	222.00	53
47.00	1959	103.00	199	154.10	260	223.20	109
47.90	868	103.80	725	154.80	691	225.40	77
49.00	5366	104.90	490	155.80	64	227.80	118
50.00	24400	105.80	688	156.60	112	229.20	98
51.00	7593	106.90	773	157.20	282	230.90	53
51.90	490	107.70	145	158.80	222	232.30	77
53.00	520	108.70	557	160.50	91	233.80	206
53.90	768	108.90	516	161.10	71	235.70	147
55.00	4429	110.00	176	161.90	108	236.30	63
56.00	3151	111.00	243	163.10	85	238.60	74
57.00	4798	112.00	251	163.70	57	242.00	61
57.90	2286	112.90	307	164.40	60	242.80	52
59.00	7859	114.00	153	165.20	119	247.80	68
60.00	1980	114.70	185	165.80	90	248.50	75
61.00	5950	115.00	189	166.70	60	249.90	53
62.00	6289	115.90	651	167.20	71	250.70	74
63.00	4903	116.90	857	167.90	179	253.40	116
64.00	665	117.80	632	168.40	154	256.40	51
65.00	306	118.90	1000	169.00	168	258.80	83
65.90	249	120.20	265	170.80	1196	260.10	113
67.20	880	120.80	73	171.90	709	261.50	99
68.00	13443	121.70	101	173.90	126584	268.10	89
69.00	14072	122.00	98	175.00	10887	269.80	114
70.00	2243	122.70	109	175.90	122368	270.80	63
70.90	291	123.50	98	176.90	8619	274.90	70
71.90	895	124.00	146	177.80	381	280.30	66
73.00	6218	124.60	90	179.70	80	283.00	93
74.00	20920	126.90	2452	180.40	73	285.40	94
75.00	62272	127.90	1037	182.20	54	295.00	78
76.00	5069	128.80	356	182.90	87	296.80	59
76.90	729	129.80	677	183.70	90	305.40	55
77.80	855	130.90	217	184.90	265	306.30	91
78.90	4287	131.90	111	185.90	2213	308.50	79

79.90	1556	133.00	92	186.80	146	321.30	57
80.90	4196	133.80	67	187.80	84	325.10	75
81.90	1143	134.80	382	188.50	60	326.50	52
82.90	514	136.10	143	188.90	71	327.10	58
83.60	242	136.80	319	189.40	65	333.60	67
84.60	258	138.10	54	190.80	74	343.80	51
85.70	314	138.80	256	192.20	68	346.20	57
86.90	5287	139.70	224	193.50	72		
87.90	5721	140.80	2060	195.40	141		
89.60	134	141.80	1979	197.00	78		
90.70	639	142.90	1442	198.30	54		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053103.D Page 1
 Report Date: 08-Jun-2023 13:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053103.D
 Lab Smp Id: CCV Client Smp ID: CCV
 Inj Date : 31-MAY-2023 11:01
 Operator : PC Inst ID: VOA9.i
 Smp Info : CCV;CCV;2;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.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

						AMOUNTS	
		QUANT	SIG			CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	631167	50.0000	
2 Dichlorodifluoromethane	85	1.160	1.160	(0.241)	313772	50.0000	57.43
3 Chloromethane	50	1.295	1.295	(0.269)	502599	50.0000	83.43
5 Vinyl Chloride	62	1.374	1.374	(0.285)	350229	50.0000	55.38
6 Bromomethane	94	1.618	1.618	(0.336)	191255	50.0000	53.48
7 Chloroethane	64	1.696	1.696	(0.352)	230937	50.0000	55.02
8 Trichlorofluoromethane	101	1.895	1.895	(0.394)	430367	50.0000	60.06
9 Acrolein	56	2.262	2.262	(0.470)	33105	100.000	116.84(M)
10 Acetone	43	2.405	2.405	(0.499)	266991	100.000	108.35
11 1,1-Dichloroethene	96	2.334	2.334	(0.485)	249112	50.0000	52.61
15 Iodomethane	142	2.468	2.468	(0.513)	326729	100.000	50.32
16 Acrylonitrile	53	3.065	3.065	(0.636)	254151	100.000	95.50
17 Methylene Chloride	84	2.795	2.795	(0.580)	311169	50.0000	53.43
18 Methyl tert-butyl ether	73	3.080	3.080	(0.640)	787618	50.0000	43.12
19 Carbon Disulfide	76	2.521	2.521	(0.524)	1429991	100.000	101.05
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	278848	50.0000	51.50
21 Vinyl Acetate	43	3.604	3.604	(0.749)	1739450	100.000	94.07
22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	486674	50.0000	49.05
24 2-Butanone	43	4.264	4.264	(0.886)	291287	100.000	94.61
26 2,2-Dichloropropane	77	4.182	4.182	(0.868)	374842	50.0000	45.42

27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	318361	50.0000	49.74
28 Chloroform	83	4.571	4.571 (0.949)	522803	50.0000	50.48

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053103.D Page 2
 Report Date: 08-Jun-2023 13:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.467	4.467	(0.928)	169413	50.0000	52.44
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	275476	50.0000	47.29
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	415841	50.0000	45.49
32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	373615	50.0000	53.60
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	428630	50.0000	48.48
34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	349661	50.0000	45.04
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	308483	50.0000	43.16
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	923886	50.0000	
37 Benzene	78	5.138	5.138	(0.925)	1151109	50.0000	52.53
38 Trichloroethene	130	5.790	5.790	(1.043)	334020	50.0000	52.94
39 Bromodichloromethane	83	6.281	6.281	(1.131)	384406	50.0000	48.89
41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.184)	27874	100.000	13.30(a)
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	308691	50.0000	54.63
44 Dibromomethane	93	6.120	6.120	(1.102)	197835	50.0000	49.61
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	680507	100.000	93.38
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	464090	50.0000	47.23
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	883444	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1003765	50.0000	45.73
50 Toluene	91	6.982	6.982	(0.853)	1290382	50.0000	53.19
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	388584	50.0000	46.10
52 2-Hexanone	43	7.593	7.593	(0.928)	469990	100.000	91.81
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	250826	50.0000	53.67
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	534601	50.0000	51.99
55 Dibromochloromethane	129	7.694	7.694	(0.940)	337287	50.0000	49.02
56 Tetrachloroethene	164	7.458	7.458	(0.911)	311371	50.0000	59.69
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	310904	50.0000	50.71
58 1-Chlorohexane	55	8.196	8.196	(1.476)	243485	50.0000	56.91
59 Chlorobenzene	112	8.211	8.211	(1.003)	882054	50.0000	52.61
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	320622	50.0000	49.96
61 Ethylbenzene	106	8.305	8.305	(1.015)	436140	50.0000	53.03
62 m,p-Xylenes	106	8.410	8.410	(1.027)	1076842	100.000	106.98
63 o-Xylene	106	8.748	8.748	(1.069)	525555	50.0000	51.75
64 Styrene	104	8.763	8.763	(1.071)	884255	50.0000	51.82
66 Bromoform	173	8.920	8.920	(1.090)	223831	50.0000	44.45
67 Isopropylbenzene	105	9.062	9.062	(1.107)	1262718	50.0000	51.31
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	426246	50.0000	52.79
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	368913	50.0000	43.99
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	469592	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	385181	50.0000	42.31
73 n-Propylbenzene	91	9.411	9.411	(0.925)	1358296	50.0000	52.20
74 Bromobenzene	156	9.317	9.317	(0.916)	398271	50.0000	52.72
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	911520	50.0000	48.67
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	915114	50.0000	53.30
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1021394	50.0000	51.00
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	877251	50.0000	50.69
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	908835	50.0000	47.73
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	1143623	50.0000	57.65
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	954764	50.0000	44.88
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	679981	50.0000	52.07
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	710539	50.0000	51.92
87 n-Butylbenzene	91	10.491	10.491	(1.031)	807773	50.0000	45.04
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	676791	50.0000	50.69

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	67917	50.0000	40.31(M)
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	476501	50.0000	49.24

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053103.D Page 3
 Report Date: 08-Jun-2023 13:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	202847	50.0000	69.32
92 Naphthalene	128	12.065	12.065	(1.186)	1183402	50.0000	44.43
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	463578	50.0000	48.96
M 94 1,2-Dichloroethylene (total)	96				597209	100.000	(a)
135 1,4-Dioxane	88	6.168	6.168	(1.281)	83921	1000.00	1097.76
141 Cyclohexane	56	4.781	4.781	(0.993)	352211	50.0000	59.96(M)
138 Freon TF	101	2.334	2.334	(0.485)	232271	50.0000	64.22
147 Methylcyclohexane	55	5.947	5.947	(1.071)	696505	50.0000	47.80
146 Methyl Acetate	43	2.712	2.712	(0.563)	266355	50.0000	48.78
148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	630425	1000.00	819.69
149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	419847	1000.00	961.26
12 Isobutyl Alcohol	43	5.287	5.287	(1.098)	921122	1000.00	927.91
13 Acetonitrile	39	2.671	2.671	(0.555)	373433	500.000	458.30
14 Allyl Chloride	41	2.671	2.671	(0.555)	851999	50.0000	47.87
25 Methacrylonitrile	41	4.493	4.493	(0.933)	208489	50.0000	43.48
40 Methyl Methacrylate	41	6.157	6.157	(1.279)	298298	50.0000	42.83
4 Propionitrile	54	4.339	4.339	(0.901)	468862	500.000	487.05

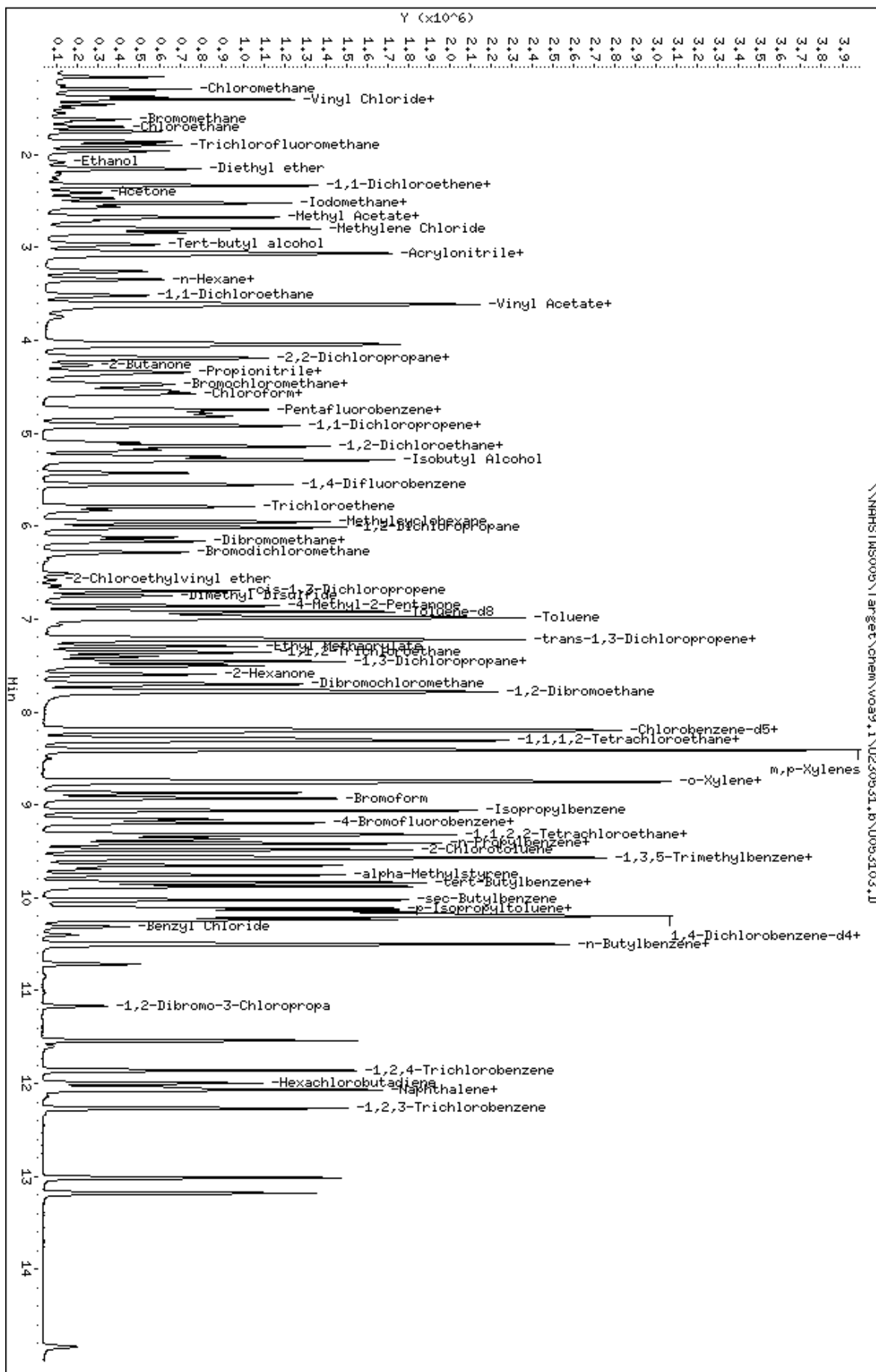
QC Flag Legend

- a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).
 M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.1\U230531.b\U053103.D
 Date : 31-MAY-2023 11:01
 Client ID: CCV
 Sample Info: CCV\CCV\277
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W0A9.1
 Operator: PC
 Column diameter: 0.18

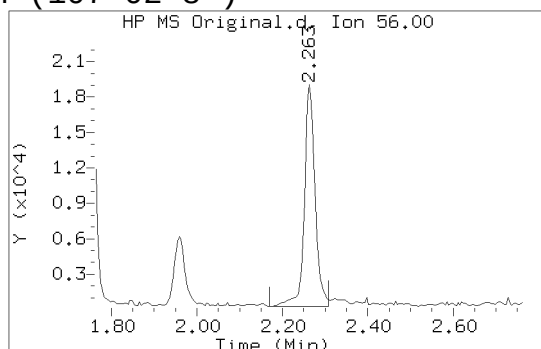


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053103.D
Inj Date : 31-MAY-2023 11:01
InstruID : VOA9.i
LabSampID : CCV

Acrolein (107-02-8)

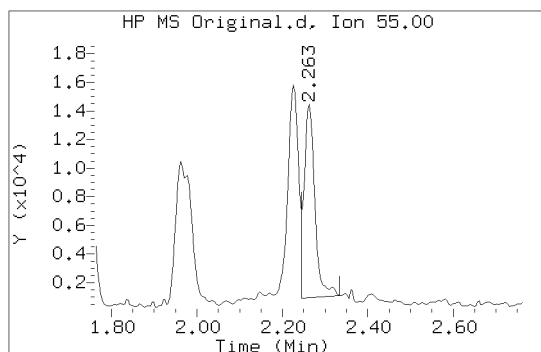
BEFORE

MASS
56
AREA
33105
HEIGHT
18765
08-Jun-2023
13:15
linh



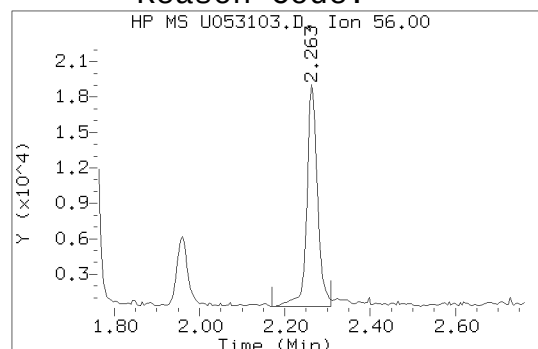
BEFORE

MASS
55
AREA
24608
HEIGHT
13523
08-Jun-2023
13:15
linh
pham



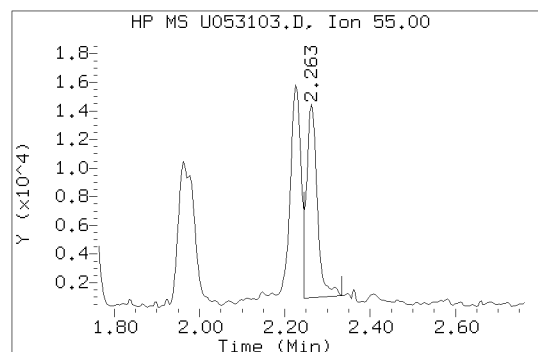
AFTER

MASS
56
AREA
33105
HEIGHT
18765
08-Jun-2023
13:15
linh



AFTER

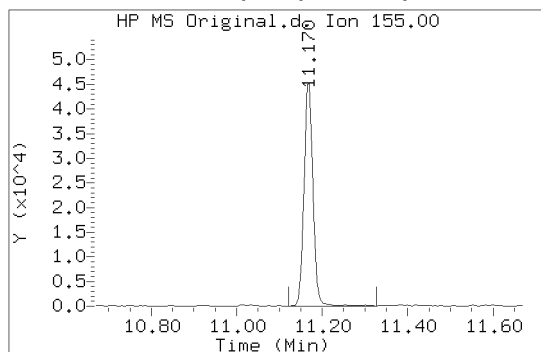
MASS
55
AREA
24608
HEIGHT
13523
08-Jun-2023
13:15
linh
pham



1,2-Dibromo-3-Chloropropane (96-12-8)

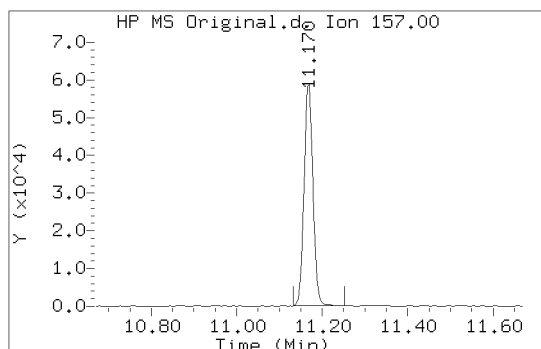
BEFORE

MASS
155
AREA
67917
HEIGHT
45088
08-Jun-2023
13:15
linh
pham



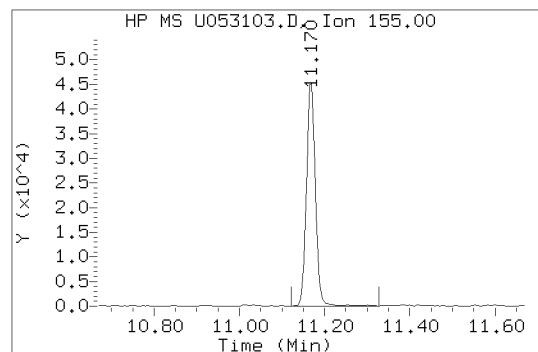
BEFORE

MASS
157
AREA
87288
HEIGHT
58629
08-Jun-2023
13:15
linh
pham



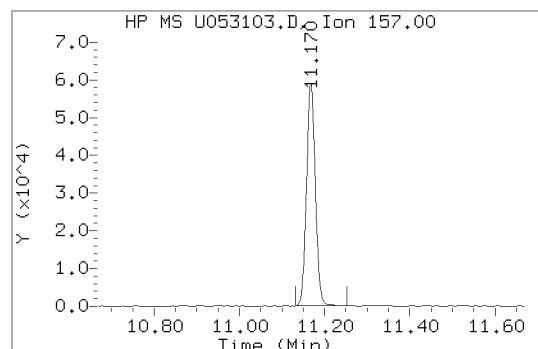
AFTER

MASS
155
AREA
67917
HEIGHT
45088
08-Jun-2023
13:15
linh
pham



AFTER

MASS
157
AREA
87288
HEIGHT
58629
08-Jun-2023
13:15
linh
pham

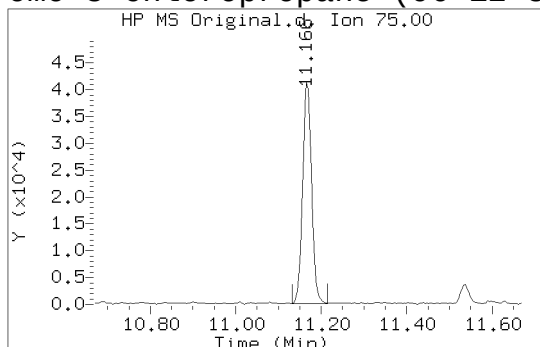


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053103.D
Inj Date : 31-MAY-2023 11:01
InstruID : VOA9.i
LabSampID : CCV

1,2-Dibromo-3-Chloropropane (96-12-8)

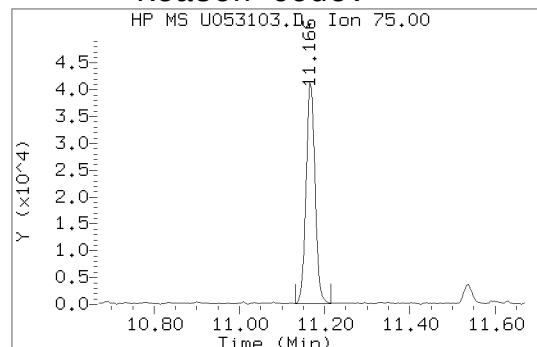
BEFORE

MASS
75
AREA
61399
HEIGHT
41167
08-Jun-2023
13:15
linh
pham



AFTER

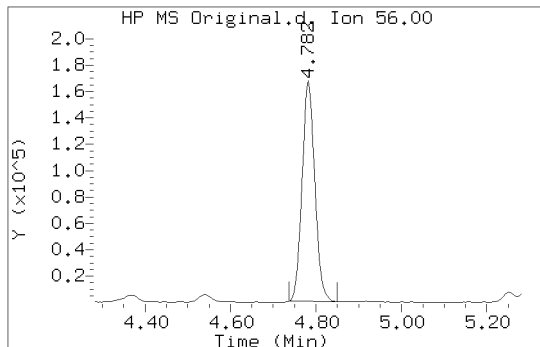
MASS
75
AREA
61399
HEIGHT
41167
08-Jun-2023
13:15
linh
pham



Cyclohexane (110-82-7)

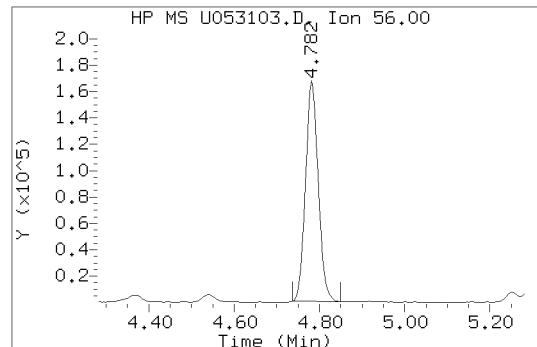
BEFORE

MASS
56
AREA
352211
HEIGHT
167392
08-Jun-2023
13:15
linh
pham



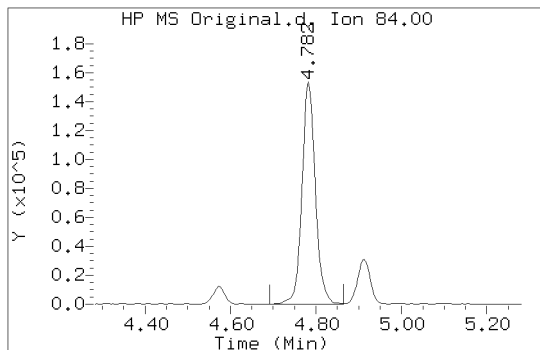
AFTER

MASS
56
AREA
352211
HEIGHT
167392
08-Jun-2023
13:15
linh
pham



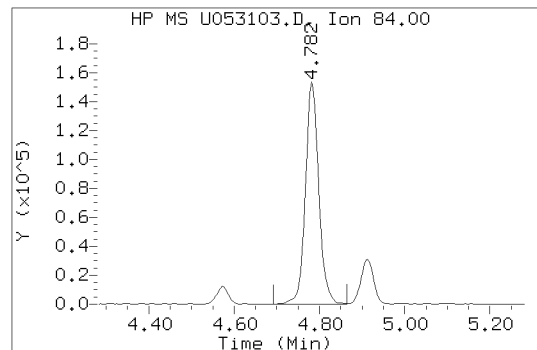
BEFORE

MASS
84
AREA
339612
HEIGHT
153664
08-Jun-2023
13:15
linh
pham



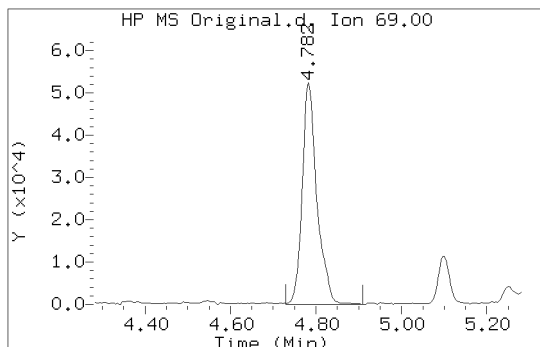
AFTER

MASS
84
AREA
339612
HEIGHT
153664
08-Jun-2023
13:15
linh
pham



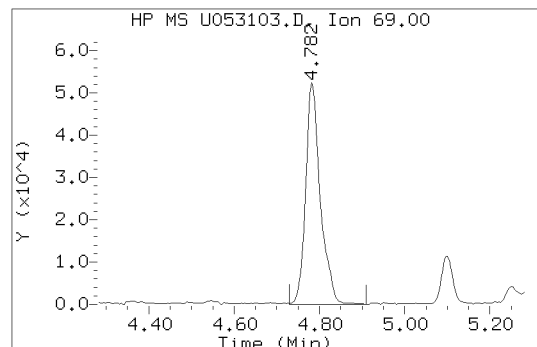
BEFORE

MASS
69
AREA
127176
HEIGHT
52416
08-Jun-2023
13:15
linh
pham



AFTER

MASS
69
AREA
127176
HEIGHT
52416
08-Jun-2023
13:15
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053104.D Page 1
 Report Date: 08-Jun-2023 13:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053104.D
 Lab Smp Id: CCB Client Smp ID: CCB
 Inj Date : 31-MAY-2023 11:23
 Operator : PC Inst ID: VOA9.i
 Smp Info : CCB;CCB;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: $\text{Amt} * \text{DF} * (\text{Uf}/\text{Vo}) * 1 * \text{CpndVariable}$

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	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168		4.815	4.815	(1.000)	740116	50.0000	
\$ 30 Dibromofluoromethane	113		4.752	4.748	(0.987)	296194	43.2939	43.29
\$ 35 1,2-Dichloroethane-d4	65		5.100	5.100	(1.059)	343824	40.9792	40.97
* 36 1,4-Difluorobenzene	114		5.554	5.554	(1.000)	1001605	50.0000	
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)	927041	50.0000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)	1129917	49.0610	49.06
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)	402742	45.8152	45.81
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)	468076	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053104.D

Date : 31-MAY-2023 11:23

Client ID: CCB

Sample Info: CCB;CCB;;;

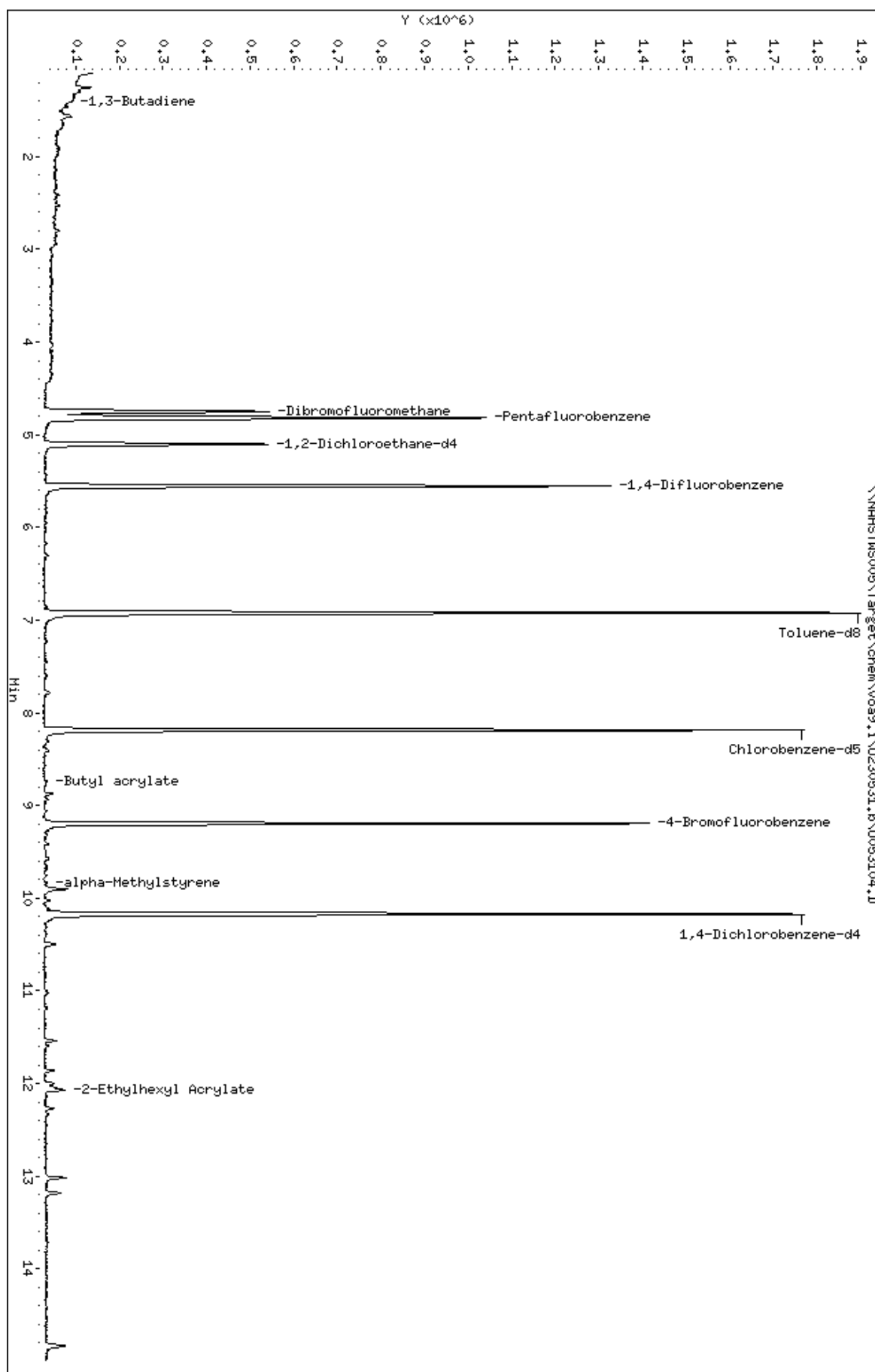
Purge Volume: 5.0

Column phase: DB624

Instrument: W0A9.i

Operator: PC

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053104.D
Inj Date : 31-MAY-2023 11:23
InstruID : VOA9.i
LabSampID : CCB

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053105.D Page 1
 Report Date: 08-Jun-2023 13:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053105.D
 Lab Smp Id: VLCSW-230531 Client Smp ID: VLCSW-230531
 Inj Date : 31-MAY-2023 11:45
 Operator : PC Inst ID: VOA9.i
 Smp Info : VLCSW-230531;VLCSW-230531;3;;LCS
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.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						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.815	4.815	(1.000)		620188	50.0000	
2 Dichlorodifluoromethane	85		1.160	1.160	(0.241)		109563	22.3070	22.30
3 Chloromethane	50		1.292	1.295	(0.268)		200045	33.7981	33.79
5 Vinyl Chloride	62		1.374	1.374	(0.285)		131826	21.2151	21.21
6 Bromomethane	94		1.618	1.618	(0.336)		79841	23.8320	23.83
7 Chloroethane	64		1.696	1.696	(0.352)		88794	21.5327	21.53
8 Trichlorofluoromethane	101		1.895	1.895	(0.394)		152521	23.7725	23.77
9 Acrolein	56		2.262	2.262	(0.470)		12556	44.4740	44.47
10 Acetone	43		2.405	2.405	(0.499)		102678	41.0398	41.03
11 1,1-Dichloroethene	96		2.330	2.334	(0.484)		94251	20.2604	20.26
15 Iodomethane	142		2.465	2.468	(0.512)		94844	16.5340	16.53
16 Acrylonitrile	53		3.065	3.065	(0.636)		101197	38.7004	38.70
17 Methylene Chloride	84		2.791	2.795	(0.580)		132614	22.9974	22.99
18 Methyl tert-butyl ether	73		3.080	3.080	(0.640)		332670	18.5357	18.53
19 Carbon Disulfide	76		2.517	2.521	(0.523)		529265	38.0632	38.06
20 trans-1,2-Dichloroethene	96		3.057	3.057	(0.635)		110422	20.7560	20.75
21 Vinyl Acetate	43		3.604	3.604	(0.749)		686569	37.7898	37.78
22 1,1-Dichloroethane	63		3.511	3.514	(0.729)		197228	20.2318	20.23
24 2-Butanone	43		4.264	4.264	(0.886)		115802	38.2805	38.28
26 2,2-Dichloropropane	77		4.182	4.182	(0.868)		138220	17.0467	17.04



27 cis-1,2-Dichloroethene	96	4.193	4.197 (0.871)	127640	20.2956	20.29
28 Chloroform	83	4.572	4.571 (0.949)	206548	20.2988	20.29

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053105.D Page 2
 Report Date: 08-Jun-2023 13:15

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.467	4.467	(0.928)	68782	21.6711	21.67
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	276133	48.2660	48.26
31 1,1,1-Trichloroethane	97	4.740	4.744	(0.984)	151572	16.8755	16.87
32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	132187	19.4613	19.46
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	176597	20.4965	20.49
34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	114557	16.8208	16.82
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.100	(1.058)	317193	45.2218	45.22
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	900416	50.0000	
37 Benzene	78	5.138	5.138	(0.925)	448546	21.0057	21.00
38 Trichloroethene	130	5.786	5.790	(1.042)	124404	20.2326	20.23
39 Bromodichloromethane	83	6.277	6.281	(1.130)	141300	18.4428	18.44
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	120514	21.8839	21.88
44 Dibromomethane	93	6.120	6.120	(1.102)	76861	19.7790	19.77
45 4-Methyl-2-Pentanone	43	6.855	6.858	(0.837)	256040	36.0294	36.02
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	161205	16.8354	16.83
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	861569	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	997356	46.5960	46.59
50 Toluene	91	6.982	6.982	(0.853)	481494	20.3540	20.35
51 trans-1,3-Dichloropropene	75	7.196	7.199	(1.296)	136861	16.6611	16.66
52 2-Hexanone	43	7.593	7.593	(0.928)	175031	35.0627	35.06
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	97933	21.4886	21.48
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	205489	20.4919	20.49
55 Dibromochloromethane	129	7.694	7.694	(0.940)	122306	18.2300	18.23
56 Tetrachloroethene	164	7.458	7.458	(0.911)	108665	21.3617	21.36
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	122293	20.4551	20.45
58 1-Chlorohexane	55	8.197	8.196	(1.476)	82093	21.2514	21.25
59 Chlorobenzene	112	8.208	8.211	(1.003)	332599	20.3419	20.34
60 1,1,1,2-Tetrachloroethane	131	8.283	8.286	(1.012)	118260	18.8978	18.89
61 Ethylbenzene	106	8.305	8.305	(1.015)	151727	18.9184	18.91
62 m,p-Xylenes	106	8.410	8.410	(1.027)	377144	38.4219	38.42
63 o-Xylene	106	8.748	8.748	(1.069)	185385	18.7208	18.72
64 Styrene	104	8.763	8.763	(1.071)	314926	18.9264	18.92
66 Bromoform	173	8.920	8.920	(1.090)	77816	15.8474	15.84
67 Isopropylbenzene	105	9.063	9.062	(1.107)	432266	18.0136	18.01
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	164121	20.6820	20.68
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	371194	45.4257	45.42
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	461529	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	145904	16.3100	16.31
73 n-Propylbenzene	91	9.411	9.411	(0.925)	453899	17.7516	17.75
74 Bromobenzene	156	9.317	9.317	(0.916)	147236	19.8314	19.83
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	300181	16.3087	16.30
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	327210	19.3911	19.39
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	363114	18.4505	18.45
78 tert-Butylbenzene	119	9.839	9.838	(0.967)	289019	18.0168	18.01
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	320117	17.1066	17.10
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	364187	20.5693	20.56
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	314170	16.8969	16.89
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	245562	19.1358	19.13
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	258344	19.2077	19.20
87 n-Butylbenzene	91	10.495	10.491	(1.032)	274245	17.6532	17.65
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	245285	18.6935	18.69
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	22094	14.8749	14.87



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	167819	17.6483	17.64
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	70177	28.2580	28.25

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053105.D Page 3

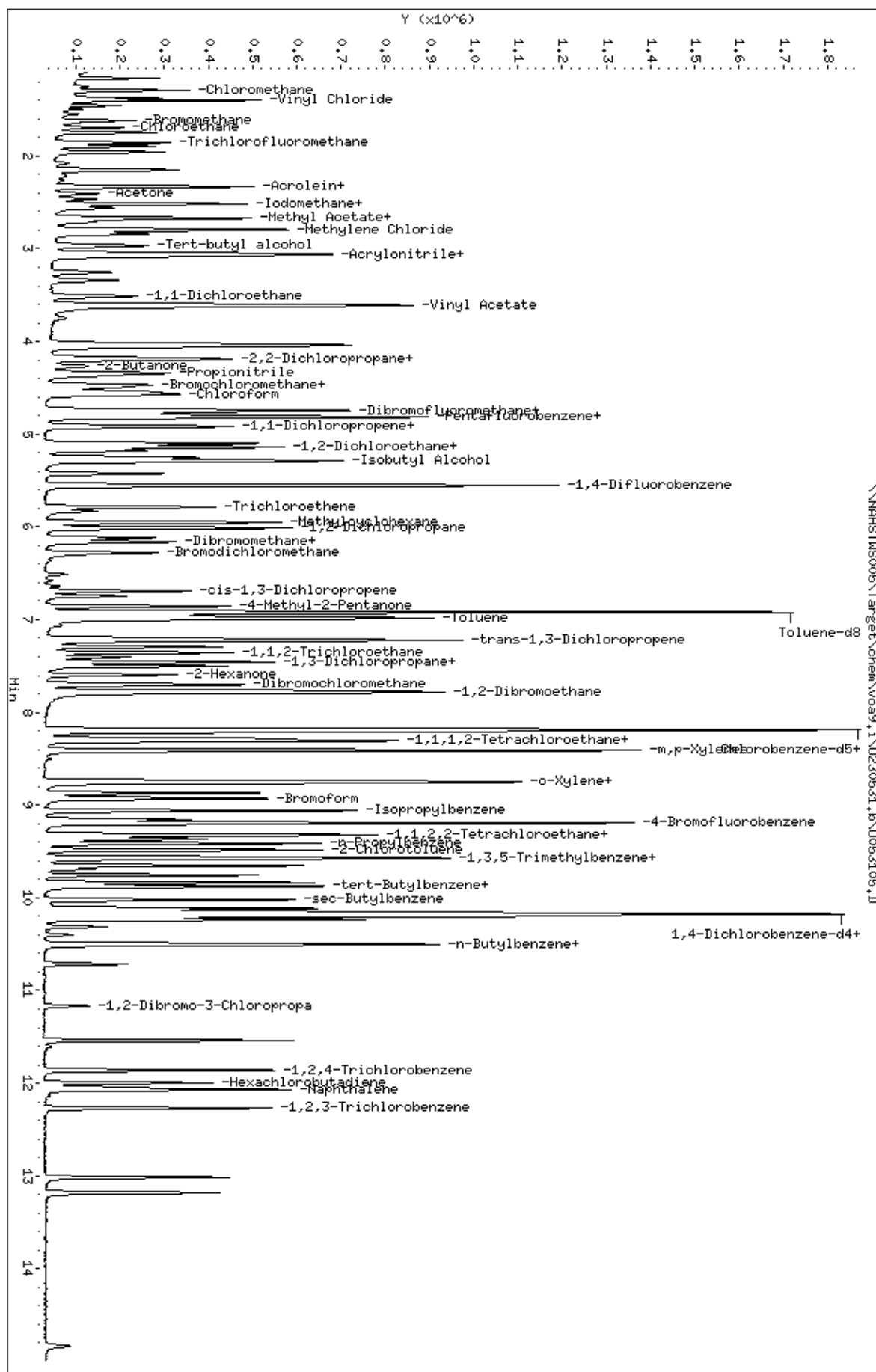
Report Date: 08-Jun-2023 13:15

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.065	(1.186)	394439	15.0682	15.06
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	162339	17.4477	17.44
M 94 1,2-Dichloroethylene (total)	96				238062	41.0516	41.05
M 95 Xylenes (total)	106				562529	57.1427	57.14
135 1,4-Dioxane	88	6.169	6.168	(1.281)	35230	468.998	468.99
141 Cyclohexane	56	4.782	4.781	(0.993)	109930	21.1900	21.19
138 Freon TF	101	2.330	2.334	(0.484)	70982	22.6428	22.64
147 Methylcyclohexane	55	5.947	5.947	(1.071)	269202	18.9601	18.96
146 Methyl Acetate	43	2.712	2.712	(0.563)	95885	17.8738	17.87
148 Tert-Butyl alcohol	59	2.963	2.967	(0.615)	247587	327.620	327.61
149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	158437	369.172	369.17
12 Isobutyl Alcohol	43	5.288	5.287	(1.098)	391619	401.489	401.48
13 Acetonitrile	39	2.667	2.671	(0.554)	154307	192.730	192.72
14 Allyl Chloride	41	2.671	2.671	(0.555)	351015	20.0739	20.07
25 Methacrylonitrile	41	4.497	4.493	(0.934)	77418	16.4341	16.43
40 Methyl Methacrylate	41	6.157	6.157	(1.279)	121040	17.6869	17.68
4 Propionitrile	54	4.339	4.339	(0.901)	186566	197.235	197.23(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).





Data File: \\NAHSTMS005\Target\chem\woa9.i\U230531.b\U053105.D
 Date: 31-May-2023 11:45
 Client ID: WLCSM-230531
 Sample Info: WLCSM-230531;WLCSM-230531;3;ILCS
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W0A9.i
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053105.D
Inj Date : 31-MAY-2023 11:45
InstruID : VOA9.i
LabSampID : VLCSW-230531

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053107.D Page 1
 Report Date: 08-Jun-2023 13:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053107.D
 Lab Smp Id: VBLKW-230531 Client Smp ID: VBLKW-230531
 Inj Date : 31-MAY-2023 12:30
 Operator : PC Inst ID: VOA9.i
 Smp Info : VBLKW-230531;VBLKW-230531;3;;BLANK
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.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	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	729612	50.0000	
\$ 30 Dibromofluoromethane	113	4.751	4.748	(0.987)	294033	43.6030	43.60
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	345908	41.8427	41.84
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	993898	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	909332	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1131260	50.0759	50.07
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	398995	46.2844	46.28
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	459395	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.1\U230531.b\U053107.D

Date : 31-MAY-2023 12:30

Client ID: VBLKM-230531

Sample Info: VBLKM-230531;VBLKM-230531;3;;BLANK

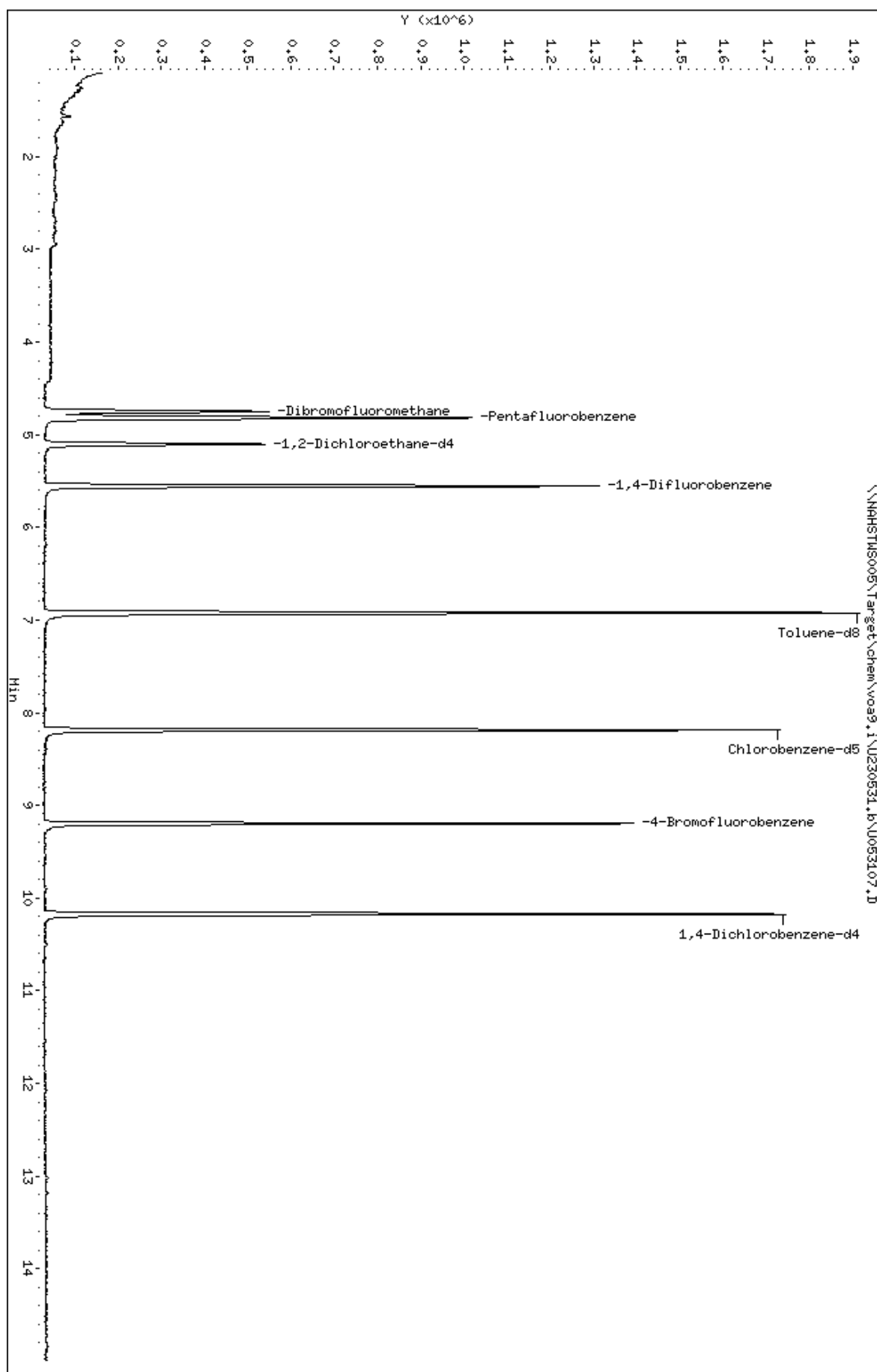
Purge Volume: 5.0

Column phase: DB624

Instrument: W0A9.1

Operator: PC

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053107.D
Inj Date : 31-MAY-2023 12:30
InstruID : VOA9.i
LabSampID : VBLKW-230531

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053108.D Page 1
 Report Date: 08-Jun-2023 13:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053108.D
 Lab Smp Id: HS23051834-10 Client Smp ID: HS23051834-10
 Inj Date : 31-MAY-2023 12:53
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-10;HS23051834-10;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 8
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	741079	50.0000	
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	297667	43.4559	43.45
\$ 35 1,2-Dichloroethane-d4	65	5.097	5.100	(1.058)	350654	41.7584	41.75
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1007184	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	928529	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1131845	49.0660	49.06
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	392037	44.4937	44.49
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	456147	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053108.D

Date : 31-May-2023 12:53

Client ID: HS23051834-10

Sample Info: HS23051834-10\HS23051834-10.i;;

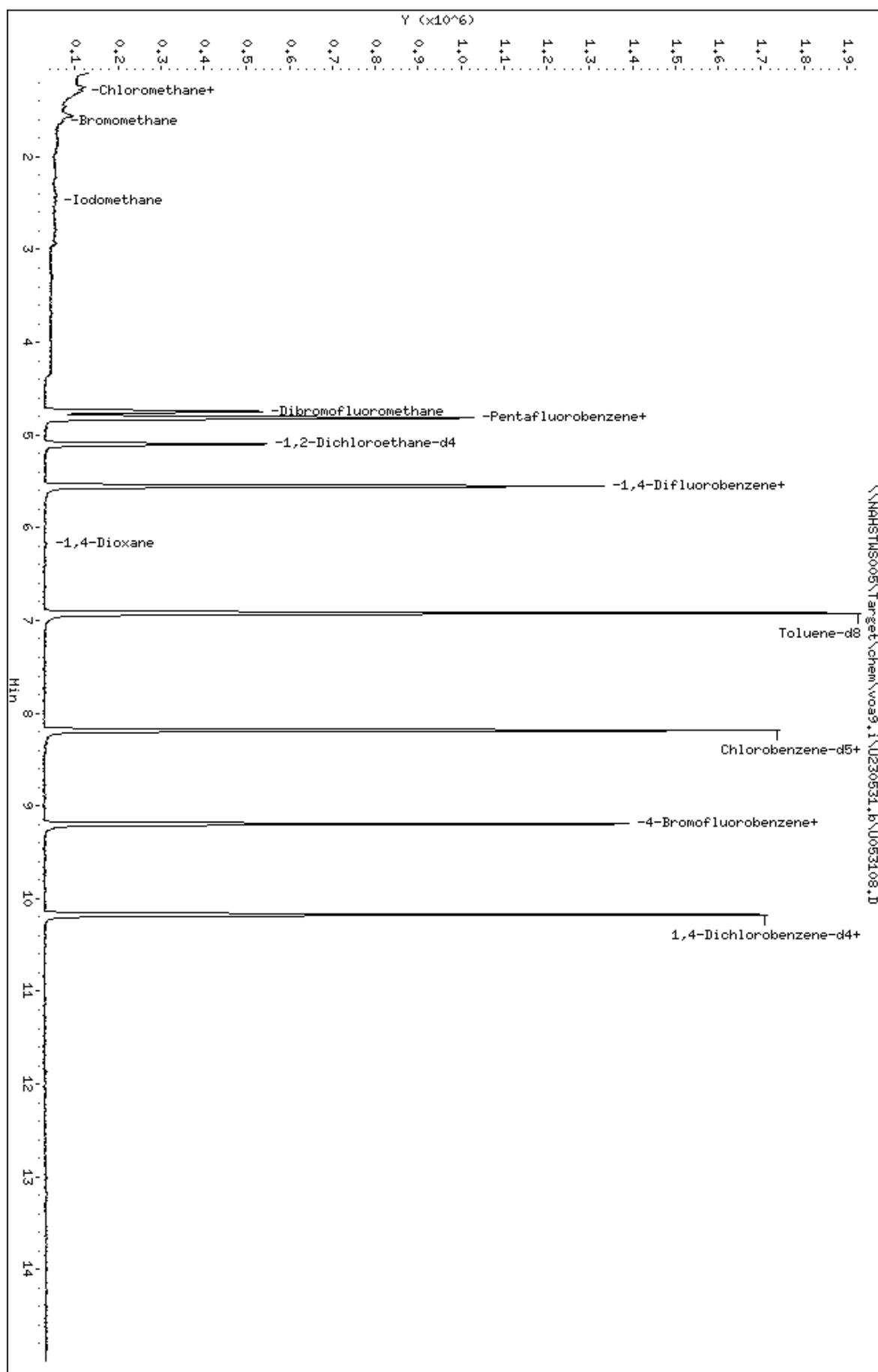
Purge Volume: 5.0

Column phase: DB624

Instrument: W069.i

Operator: PC

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053108.D
Inj Date : 31-MAY-2023 12:53
InstruID : VOA9.i
LabSampID : HS23051834-10

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053109.D Page 1
 Report Date: 08-Jun-2023 13:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053109.D
 Lab Smp Id: HS23051834-04 Client Smp ID: HS23051834-04
 Inj Date : 31-MAY-2023 13:15
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-04;HS23051834-04;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 9
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.815	4.815	(1.000)		725193	50.0000	
\$ 30 Dibromofluoromethane	113		4.748	4.748	(0.986)		298450	44.5464	44.54
\$ 35 1,2-Dichloroethane-d4	65		5.100	5.100	(1.059)		350035	42.6190	42.61
* 36 1,4-Difluorobenzene	114		5.554	5.554	(1.000)		1000380	50.0000	
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)		918036	50.0000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)		1121087	49.1551	49.15
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)		395054	45.3706	45.37
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		466638	50.0000	
27 cis-1,2-Dichloroethene	96		4.201	4.197	(0.872)		15794	2.14772	2.14(a)
38 Trichloroethene	130		5.790	5.790	(1.043)		133863	19.5955	19.59

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053109.D

Date: 31-May-2023 13:15

Client ID: HS23051834-04

Sample Info: HS23051834-04;HS23051834-04;;

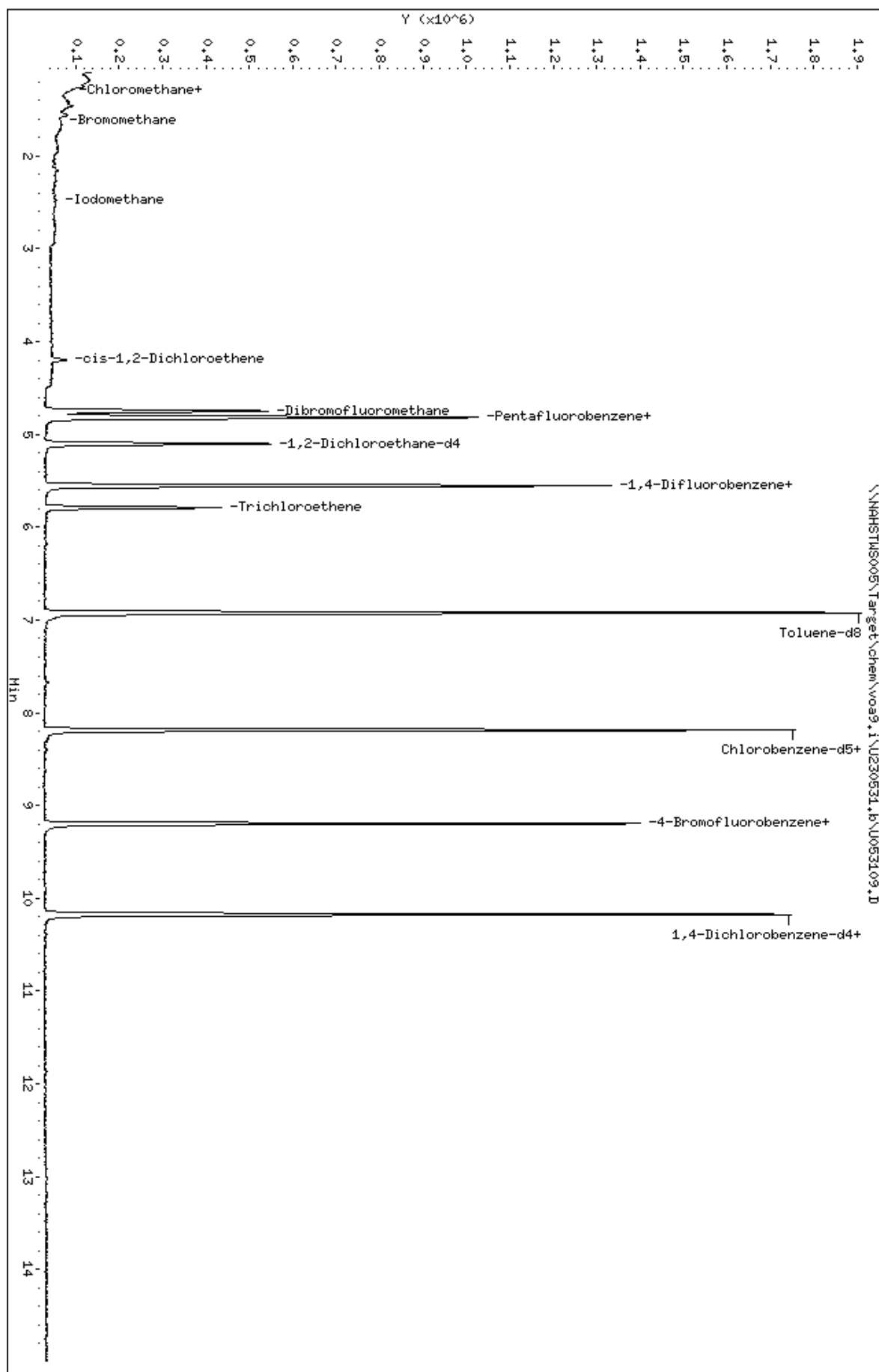
Purge Volume: 5.0

Column phase: DB624

Instrument: W0A9.i

Operator: PC

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U053109.D

Page 2

Date : 31-MAY-2023 13:15

Client ID: HS23051834-04

Instrument: VOA9.i

Sample Info: HS23051834-04;HS23051834-04;;;

Purge Volume: 5.0

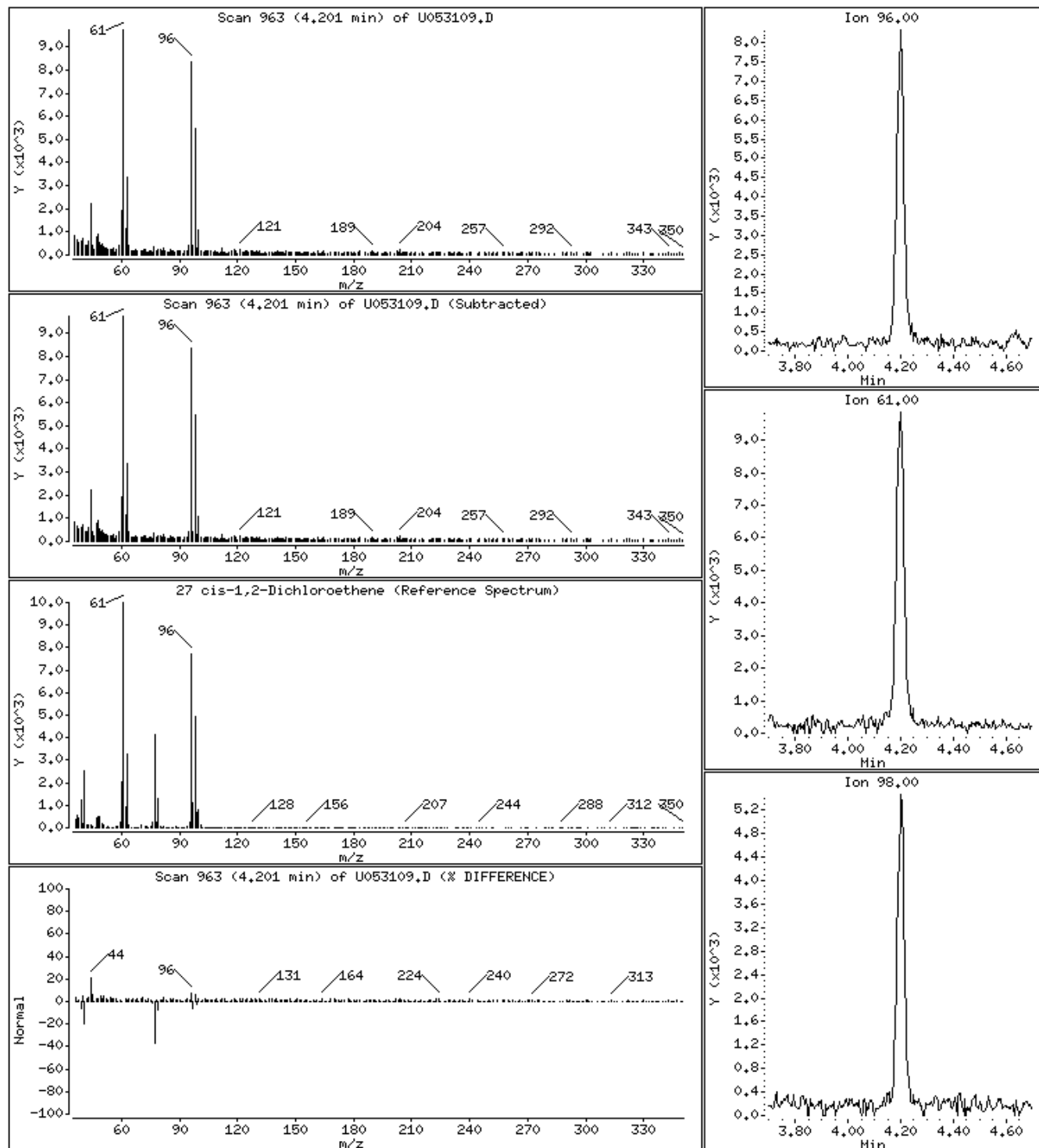
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 2.14 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053109.D

Page 3

Date : 31-MAY-2023 13:15

Client ID: HS23051834-04

Instrument: VOA9.i

Sample Info: HS23051834-04;HS23051834-04;;;

Purge Volume: 5.0

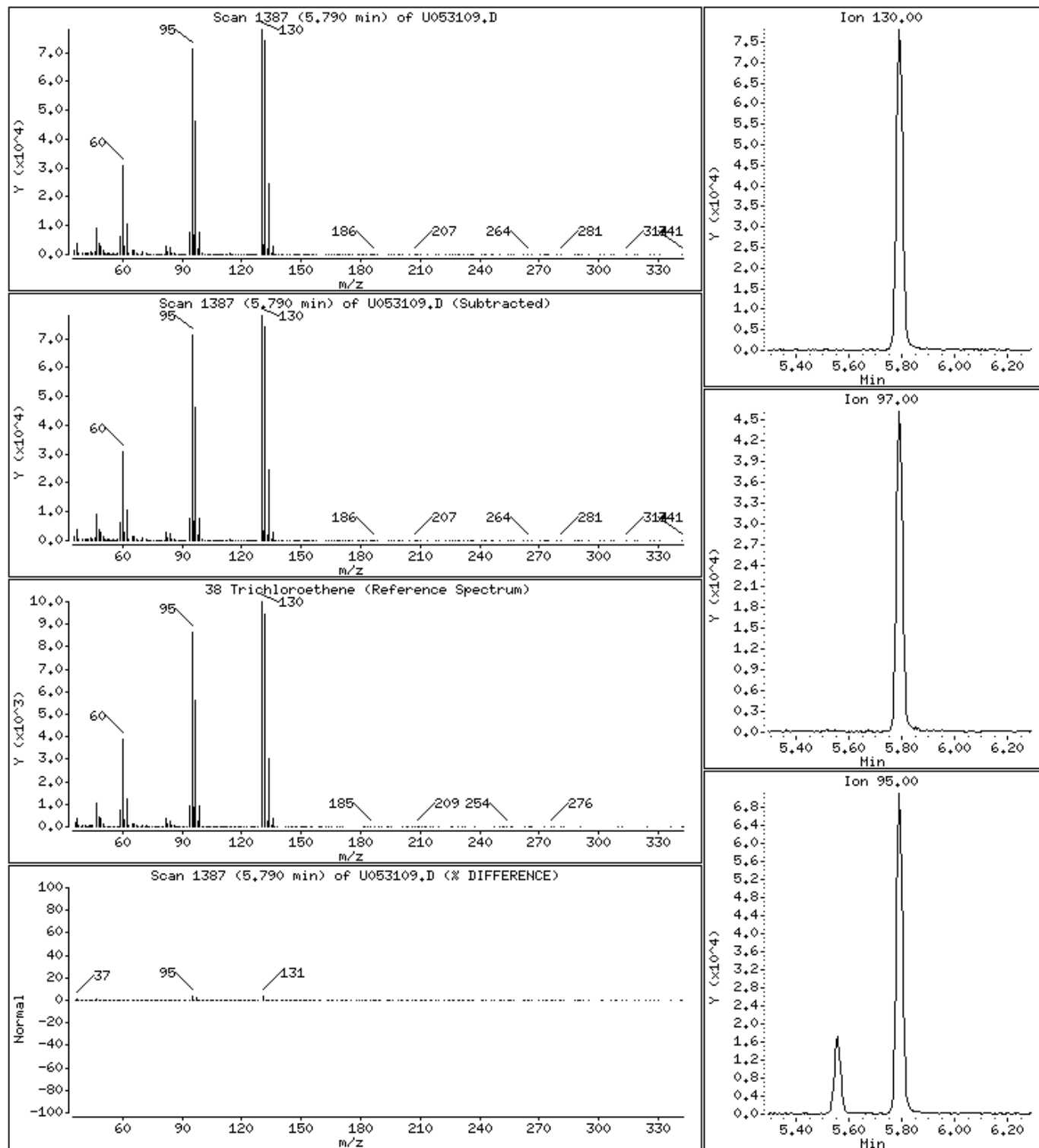
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 19.59 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053109.D
Inj Date : 31-MAY-2023 13:15
InstruID : VOA9.i
LabSampID : HS23051834-04

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053111.D Page 1
 Report Date: 08-Jun-2023 13:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053111.D
 Lab Smp Id: HS23051834-01 Client Smp ID: HS23051834-01
 Inj Date : 31-MAY-2023 14:00
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-01;HS23051834-01;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 11
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	713563	50.0000	
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	290734	44.0932	44.09
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	345509	42.7569	42.75
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	984012	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	908837	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1112063	49.2529	49.25
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	389924	45.2313	45.23
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	455492	50.0000	



Data File: \NAHSTMS005\Target\chem\voa9.i\U230531.b\U053111.D

Date : 31-May-2023 14:00

Client ID: HS23051834-01

Sample Info: HS23051834-01;HS23051834-01;;

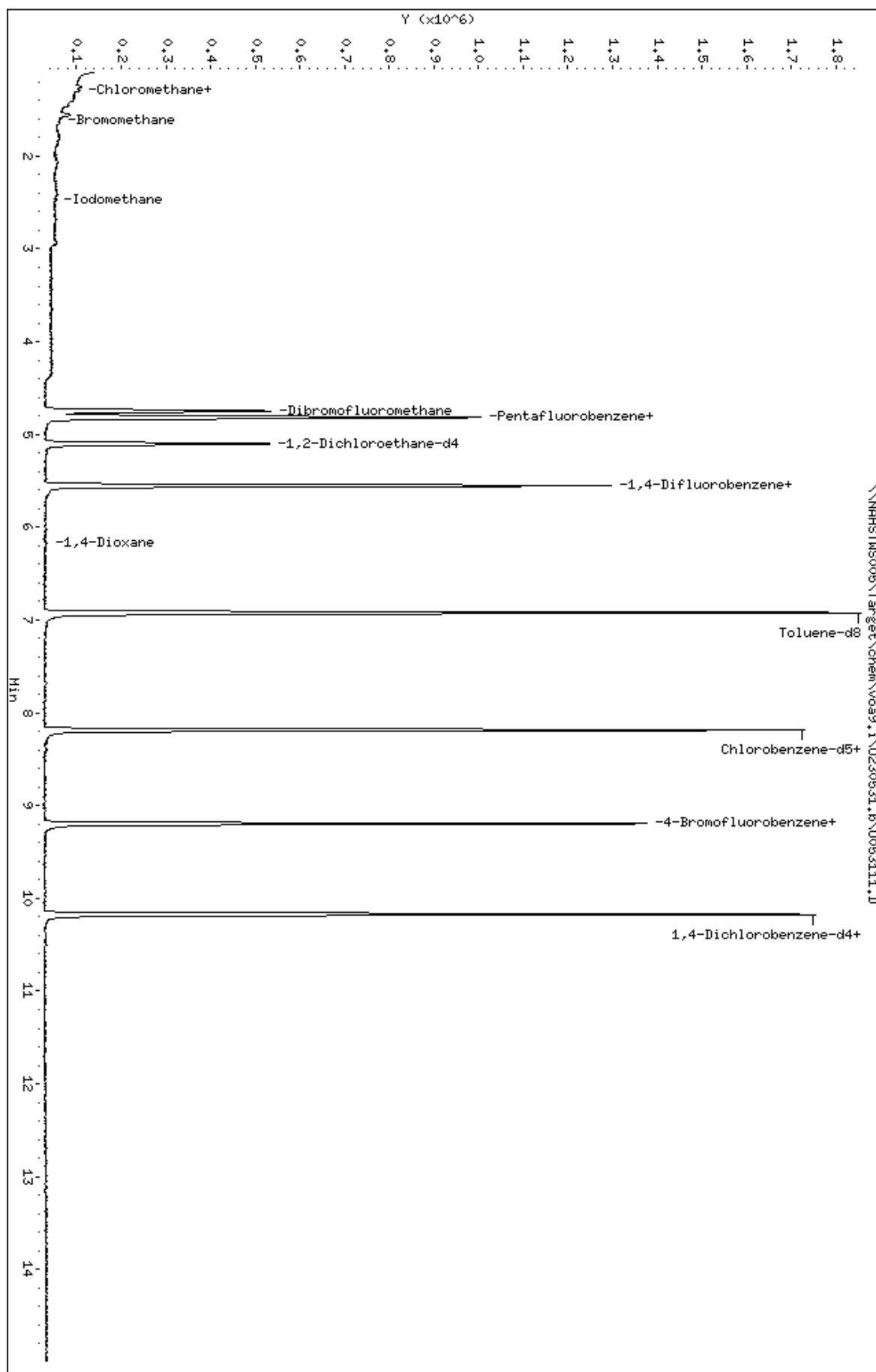
Purge Volume: 5.0

Column phase: DB624

Instrument: VOA9.i

Operator: PC

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053111.D
Inj Date : 31-MAY-2023 14:00
InstruID : VOA9.i
LabSampID : HS23051834-01

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053112.D Page 1
 Report Date: 08-Jun-2023 13:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053112.D
 Lab Smp Id: HS23051834-06 Client Smp ID: HS23051834-06
 Inj Date : 31-MAY-2023 14:22
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-06;HS23051834-06;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 12
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.815	4.815	(1.000)	692282	50.0000		
\$ 30 Dibromofluoromethane	113		4.748	4.748	(0.986)	288467	45.1143	45.11	
\$ 35 1,2-Dichloroethane-d4	65		5.100	5.100	(1.059)	340099	43.3965	43.39	
* 36 1,4-Difluorobenzene	114		5.554	5.554	(1.000)	955814	50.0000		
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)	881459	50.0000		
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)	1082592	49.4369	49.43	
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)	385964	46.1862	46.18	
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)	454876	50.0000		
5 Vinyl Chloride	62		1.378	1.374	(0.286)	3611	0.52061	0.52(a)	
27 cis-1,2-Dichloroethene	96		4.197	4.197	(0.872)	22721	3.23655	3.23(a)	
38 Trichloroethene	130		5.790	5.790	(1.043)	40001	6.12855	6.12	
56 Tetrachloroethene	164		7.458	7.458	(0.911)	7341	1.41055	1.41(a)	

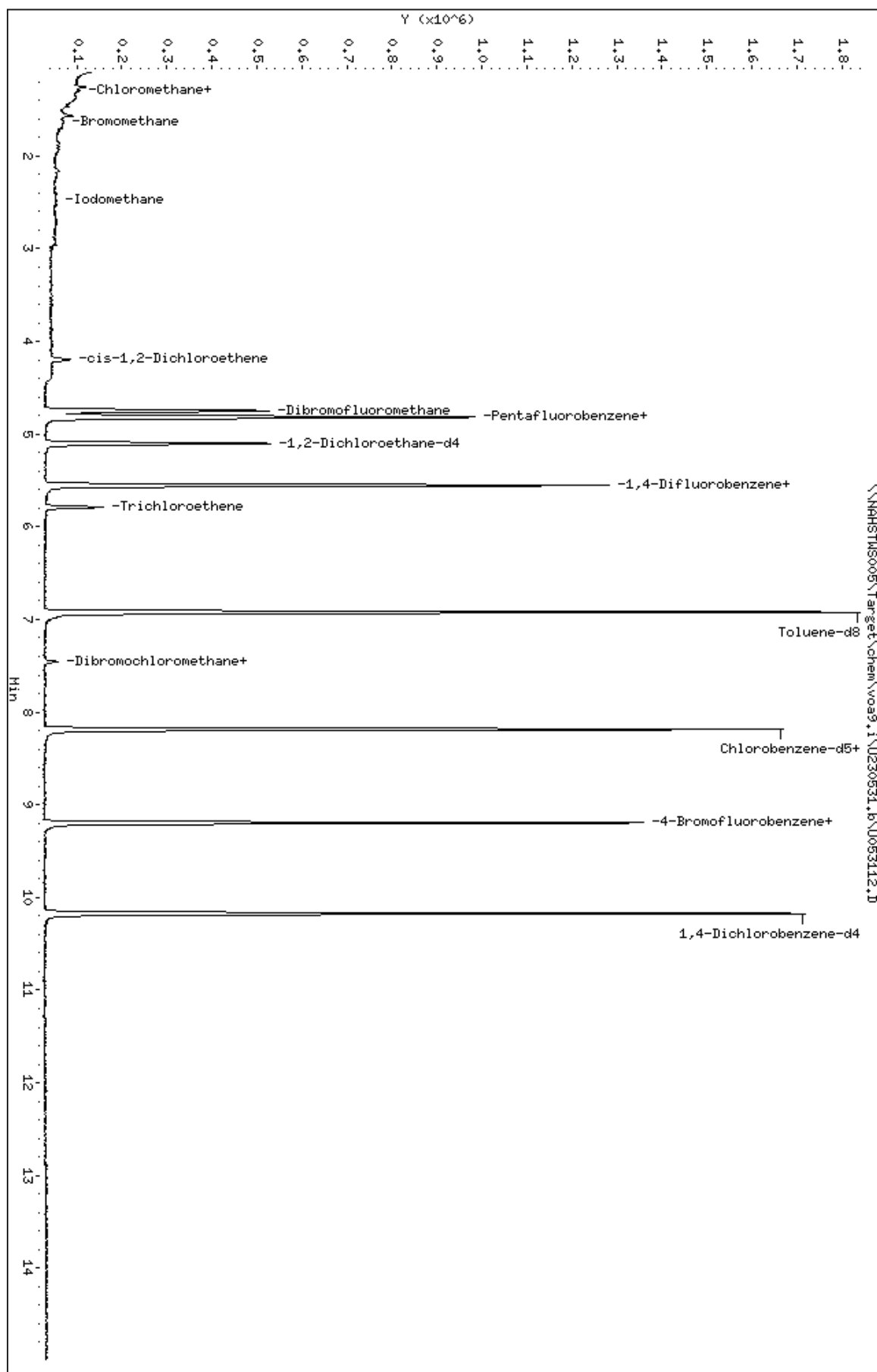
QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053112.D
Date: 31-MAY-2023 14:22
Client ID: HS23051834-06
Sample Info: HS23051834-06;HS23051834-06;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: W0A9.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053112.D

Page 2

Date : 31-MAY-2023 14:22

Client ID: HS23051834-06

Instrument: VOA9.i

Sample Info: HS23051834-06;HS23051834-06;;;

Purge Volume: 5.0

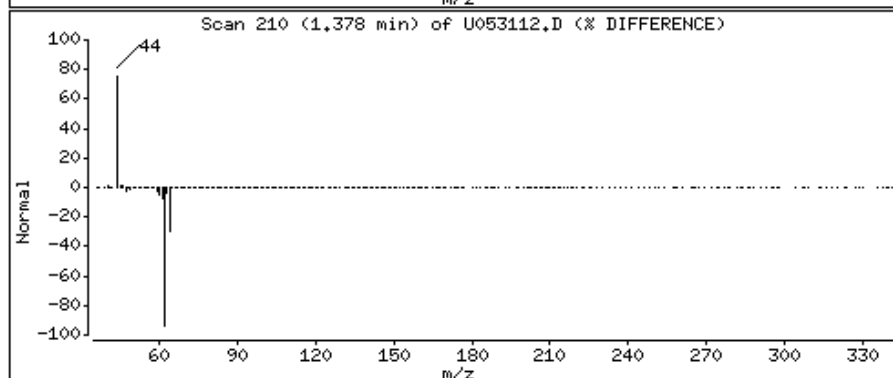
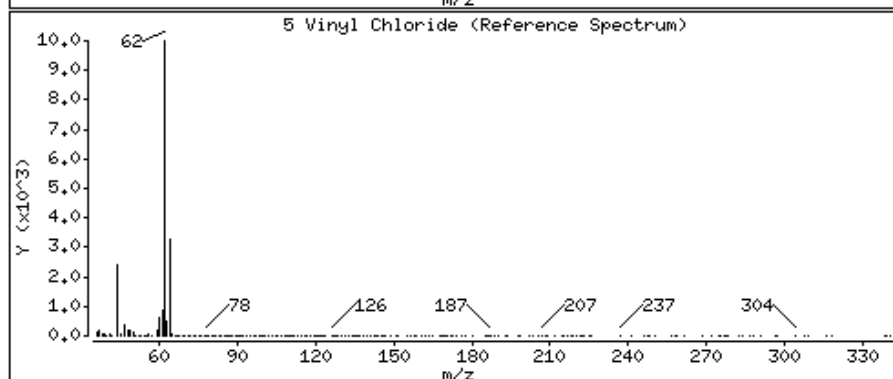
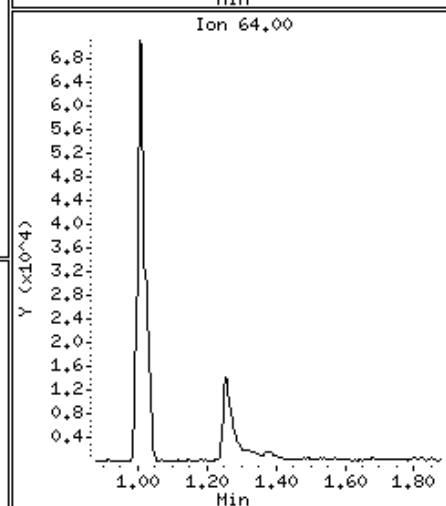
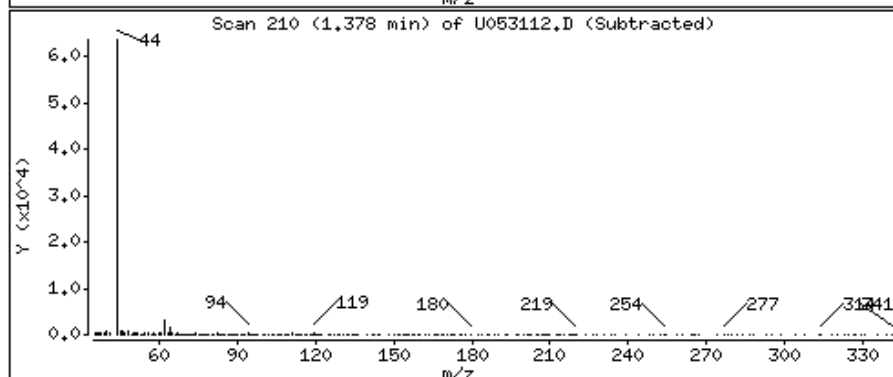
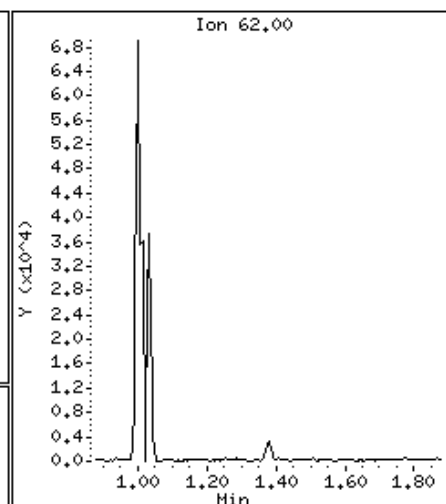
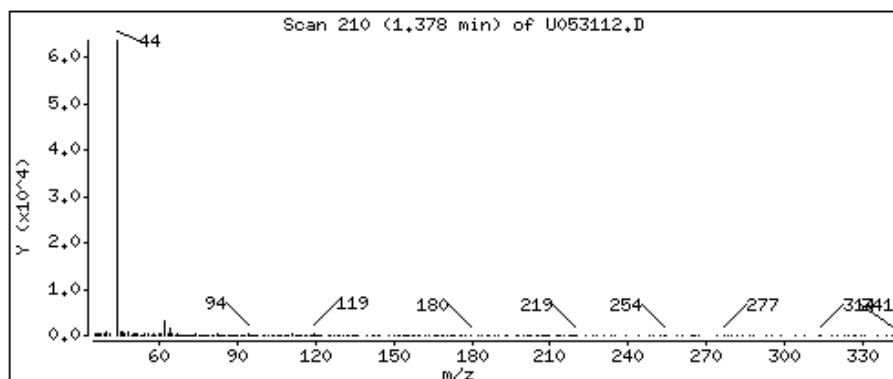
Operator: PC

Column phase: DB624

Column diameter: 0.18

5 Vinyl Chloride

Concentration: 0.52 ug/l



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053112.D

Page 3

Date : 31-MAY-2023 14:22

Client ID: HS23051834-06

Instrument: VOA9.i

Sample Info: HS23051834-06;HS23051834-06;;;

Purge Volume: 5.0

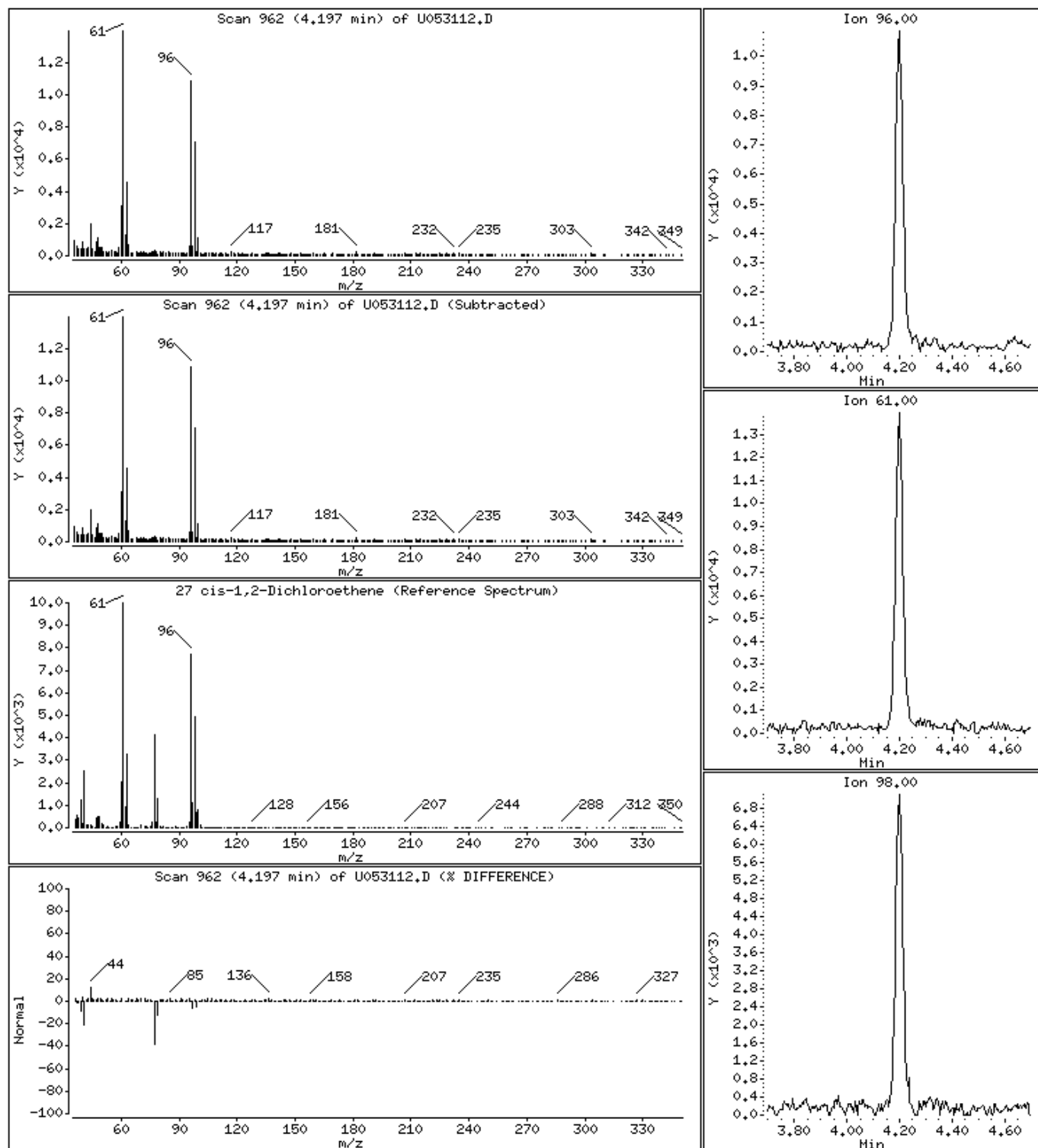
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 3.23 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053112.D

Page 4

Date : 31-MAY-2023 14:22

Client ID: HS23051834-06

Instrument: VOA9.i

Sample Info: HS23051834-06;HS23051834-06;;;

Purge Volume: 5.0

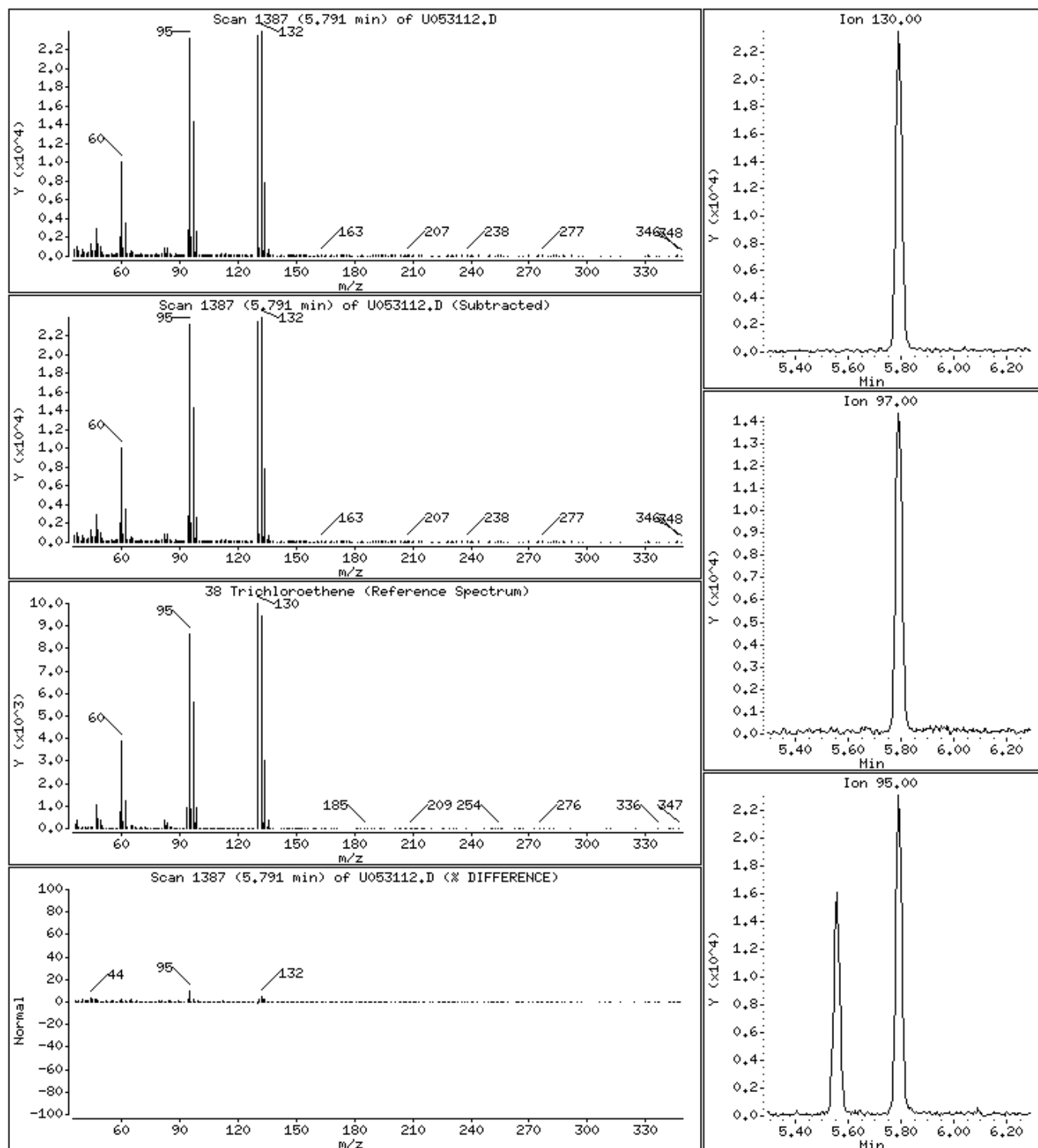
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 6.12 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053112.D

Page 5

Date : 31-MAY-2023 14:22

Client ID: HS23051834-06

Instrument: VOA9.i

Sample Info: HS23051834-06;HS23051834-06;;;

Purge Volume: 5.0

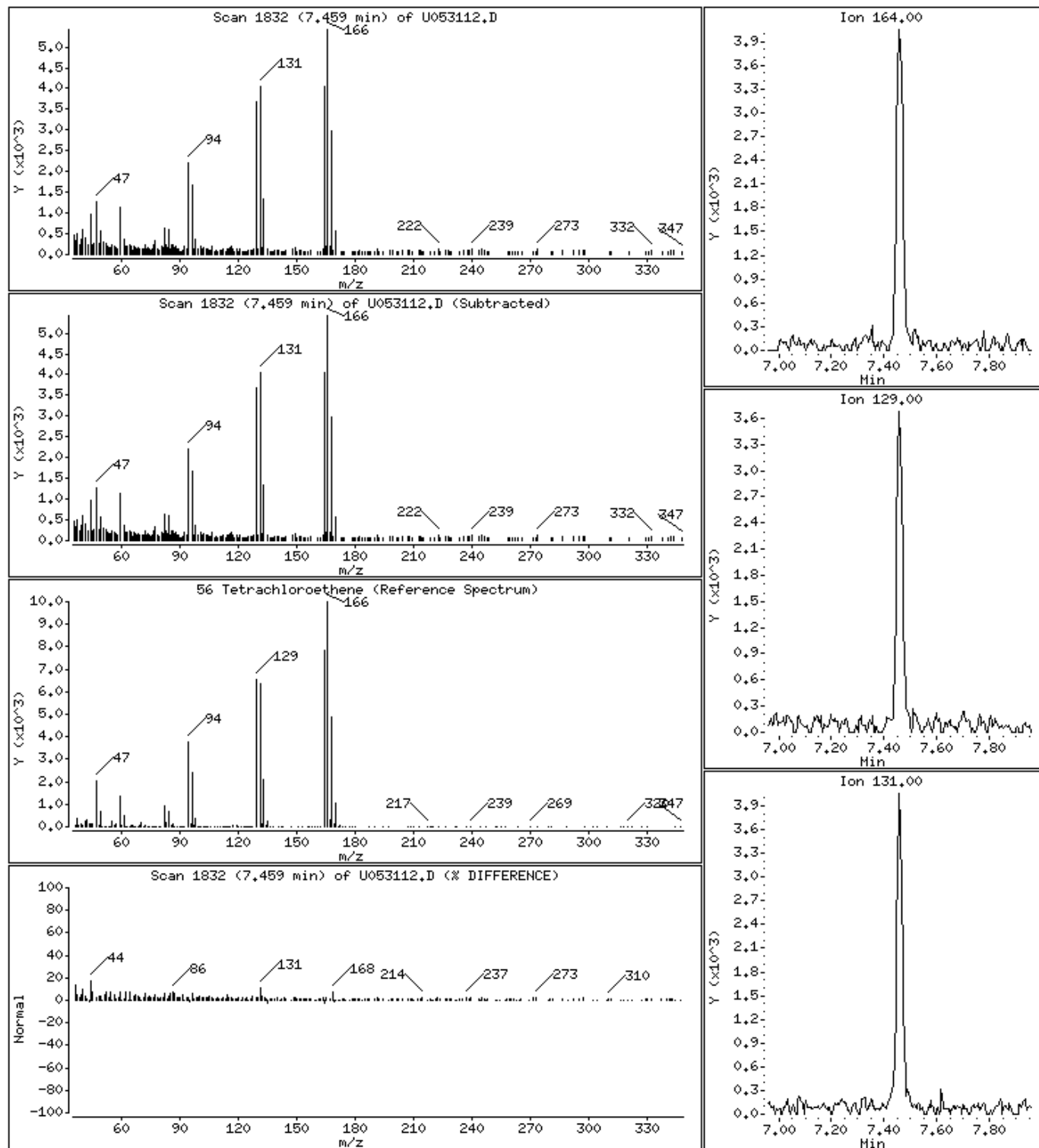
Operator: PC

Column phase: DB624

Column diameter: 0.18

56 Tetrachloroethene

Concentration: 1.41 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053112.D
Inj Date : 31-MAY-2023 14:22
InstruID : VOA9.i
LabSampID : HS23051834-06

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053113.D Page 1
 Report Date: 08-Jun-2023 13:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053113.D
 Lab Smp Id: HS23051834-07 Client Smp ID: HS23051834-07
 Inj Date : 31-MAY-2023 14:44
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-07;HS23051834-07;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 13
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.815	(1.000)	711201	50.0000	
\$ 30 Dibromofluoromethane	113	4.752	4.748	(0.986)	291631	44.3818	44.38
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	338712	42.0377	42.03
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	964563	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	894692	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1092115	49.1342	49.13
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	376198	44.3061	44.30
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	449913	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.1\U230531.b\U053113.D

Date : 31-MAY-2023 14:44

Client ID: HS23051834-07

Sample Info: HS23051834-07\HS23051834-07.1

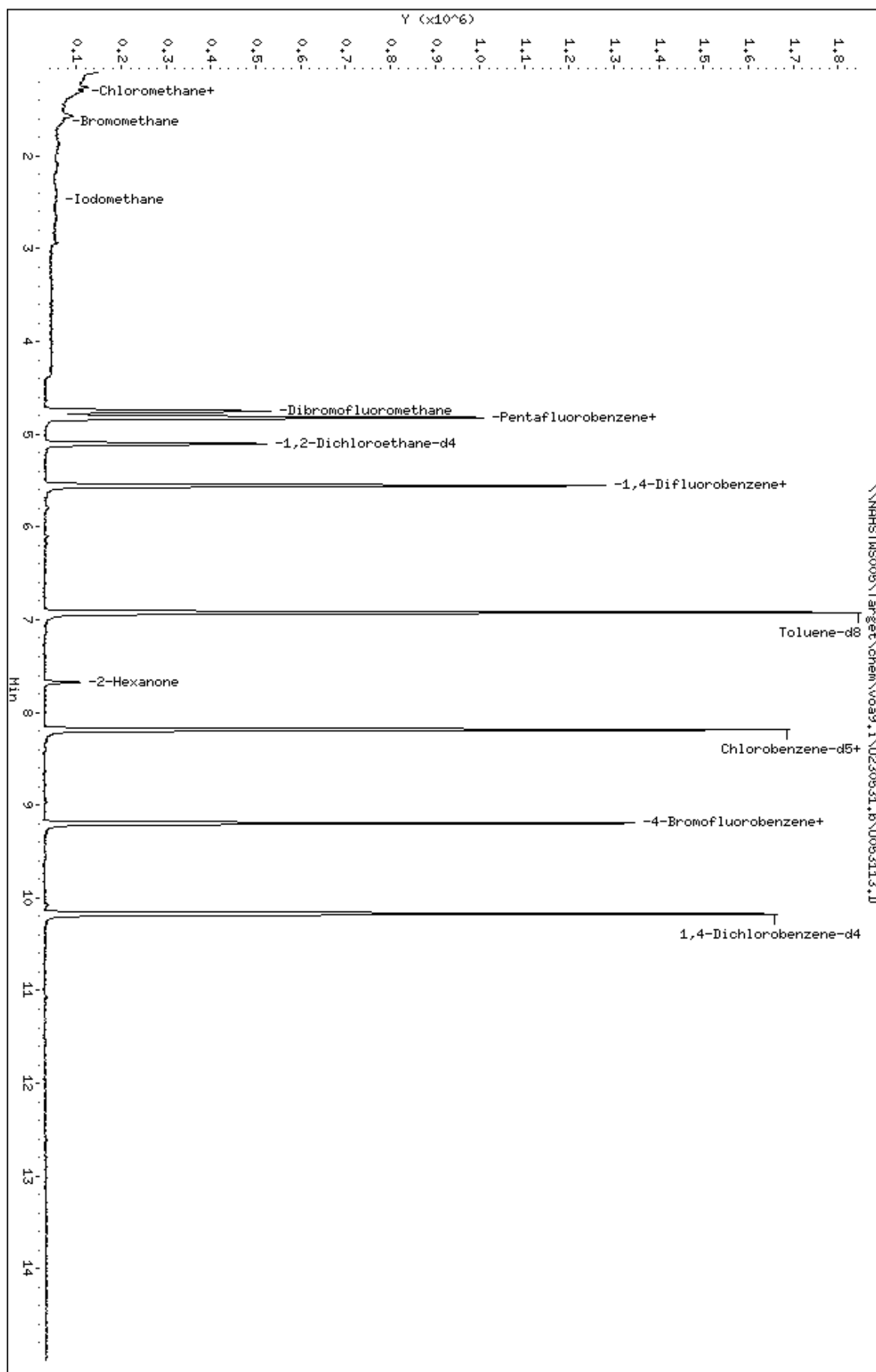
Purge Volume: 5.0

Column phase: DB624

Instrument: WDA9.1

Operator: PC

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053113.D
Inj Date : 31-MAY-2023 14:44
InstruID : VOA9.i
LabSampID : HS23051834-07

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053114.D Page 1
 Report Date: 08-Jun-2023 13:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053114.D
 Lab Smp Id: HS23051834-09 Client Smp ID: HS23051834-09
 Inj Date : 31-MAY-2023 15:07
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-09;HS23051834-09;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 14
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	721506	50.0000	
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	295247	44.2885	44.28
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	349866	42.8209	42.82
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	989648	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	921678	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1122757	49.0338	49.03
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	397885	45.5189	45.51
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	469765	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053114.D

Date : 31-MAY-2023 15:07

Client ID: HS23051834-09

Sample Info: HS23051834-09;HS23051834-09;;;

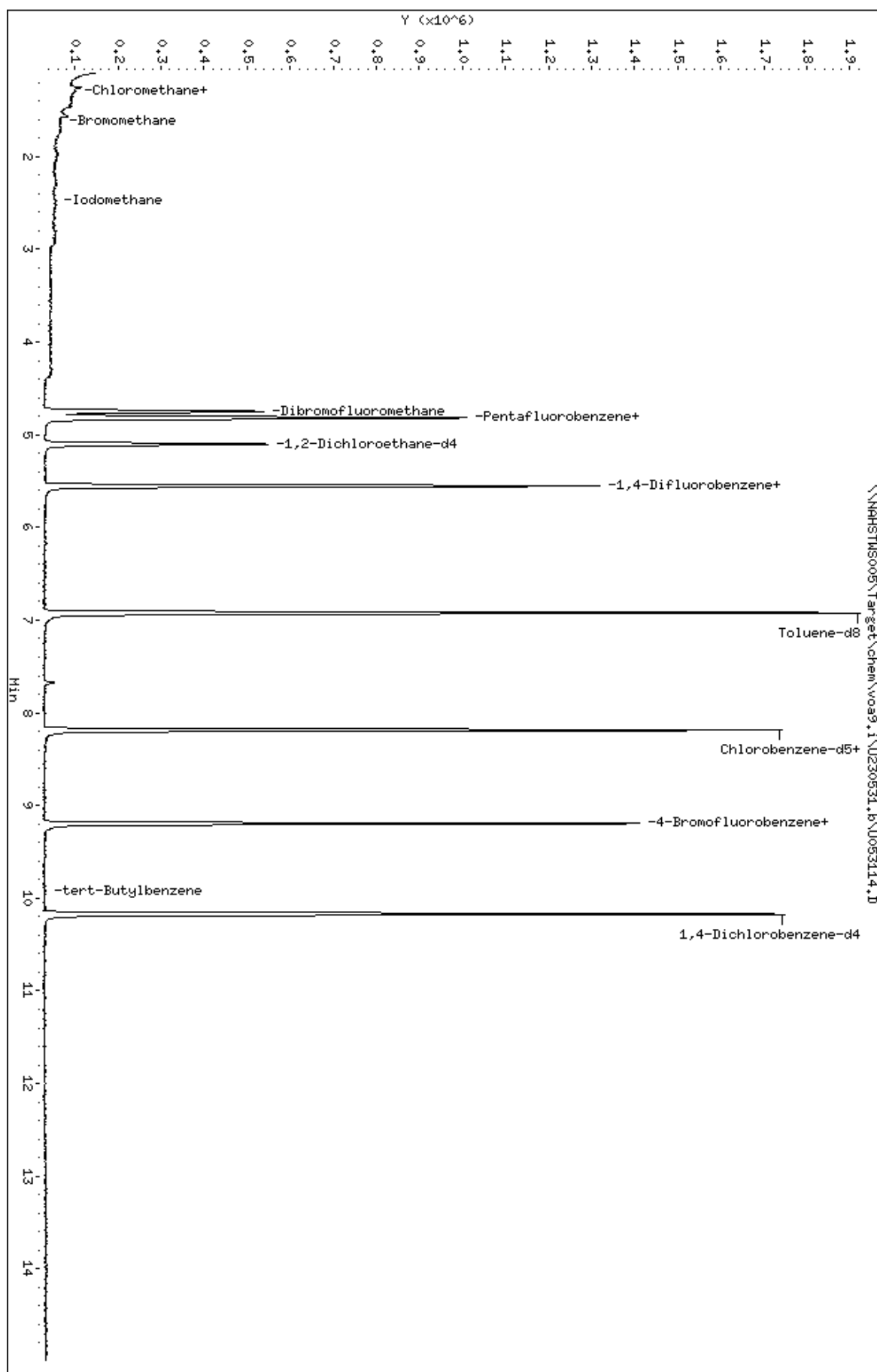
Purge Volume: 5.0

Column phase: DB624

Instrument: W049.i

Operator: PC

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053114.D
Inj Date : 31-MAY-2023 15:07
InstruID : VOA9.i
LabSampID : HS23051834-09

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053115.D Page 1
 Report Date: 08-Jun-2023 13:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053115.D
 Lab Smp Id: HS23051834-02 Client Smp ID: HS23051834-02
 Inj Date : 31-MAY-2023 15:29
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-02;HS23051834-02;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 15
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168		4.811	4.815	(1.000)	762541	50.0000	
\$ 30 Dibromofluoromethane	113		4.744	4.748	(0.986)	312787	44.3968	44.39
\$ 35 1,2-Dichloroethane-d4	65		5.096	5.100	(1.059)	369302	42.7661	42.76
* 36 1,4-Difluorobenzene	114		5.550	5.554	(1.000)	1055299	50.0000	
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)	940631	50.0000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)	1157401	49.5283	49.52
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)	402090	45.0618	45.06
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)	471474	50.0000	
11 1,1-Dichloroethene	96		2.326	2.334	(0.483)	106365	18.5961	18.59
27 cis-1,2-Dichloroethene	96		4.193	4.197	(0.871)	12518	1.61886	1.61(a)
33 1,2-Dichloroethane	62		5.175	5.175	(0.932)	63659	6.30410	6.30
38 Trichloroethene	130		5.790	5.790	(1.043)	9210392	1278.10	1278.09(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.

Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053115.D

Page 1

Date : 31-MAY-2023 15:29

Client ID: HS23051834-02

Instrument: W049.i

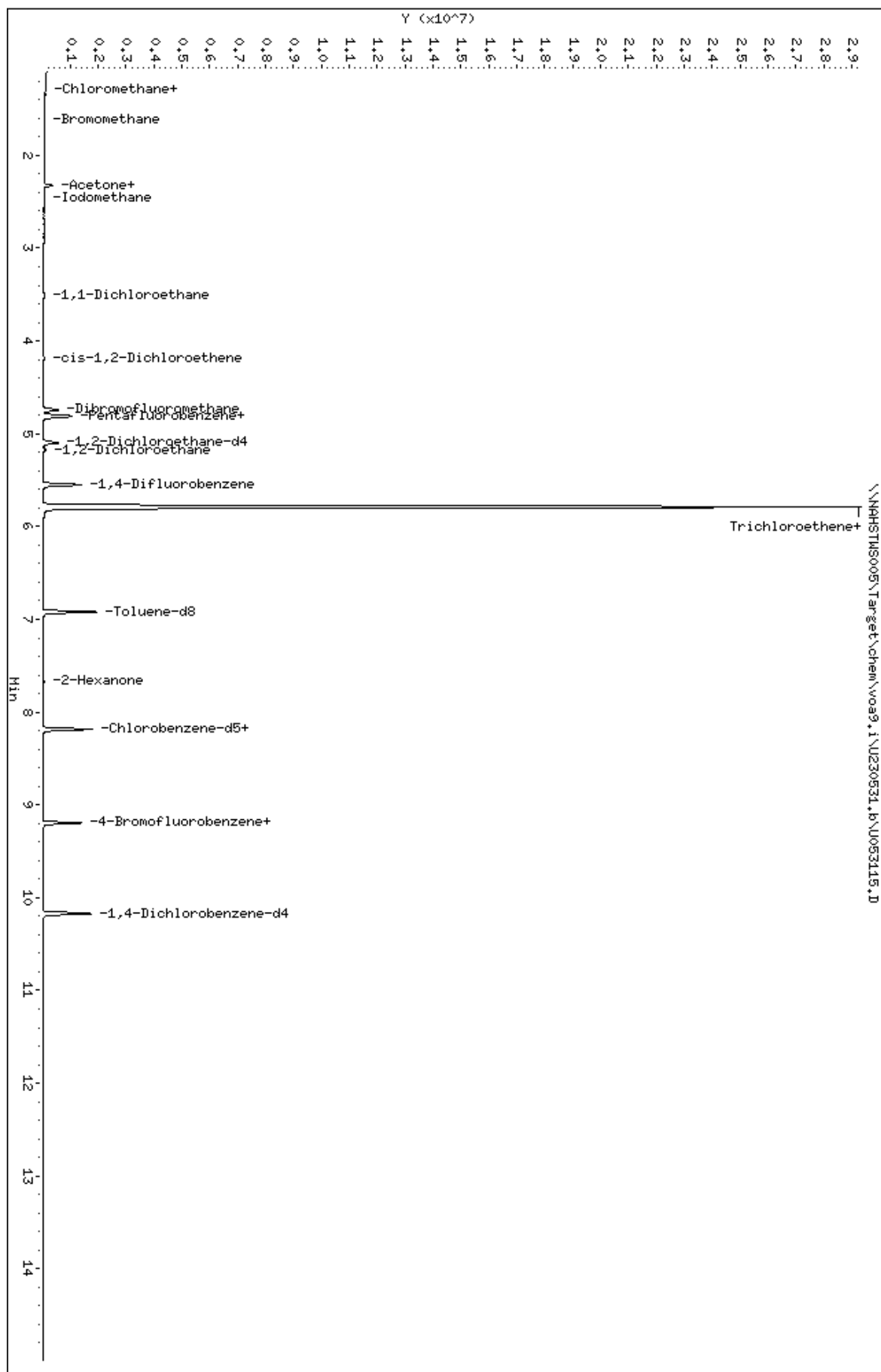
Sample Info: HS23051834-02;HS23051834-02;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTMS005\Target\chem\voa9,i\U230531,b\U053115.D

Page 2

Date : 31-MAY-2023 15:29

Client ID: HS23051834-02

Instrument: VOA9,i

Sample Info: HS23051834-02;HS23051834-02;;;

Purge Volume: 5.0

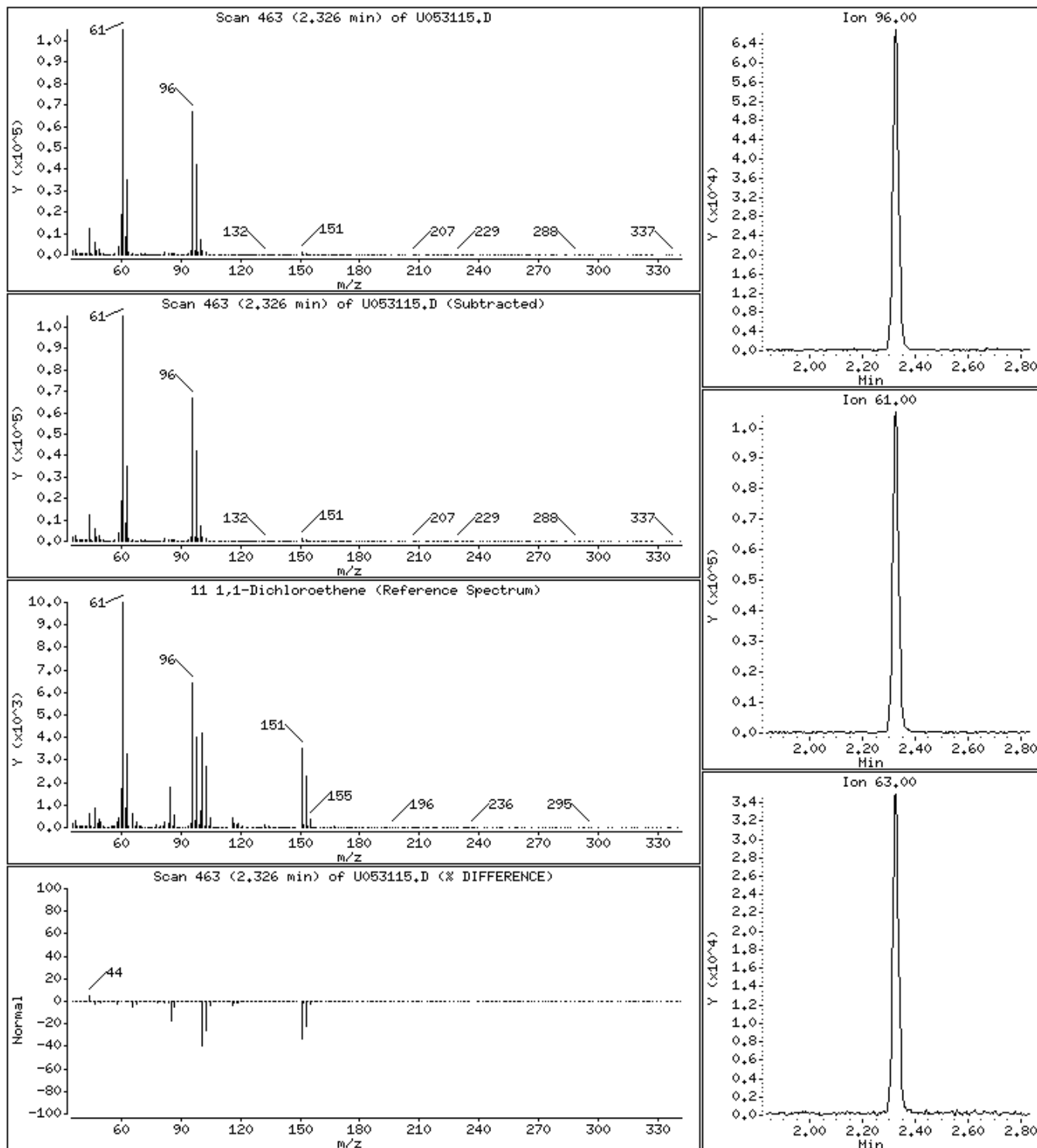
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 18.59 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053115.D

Page 3

Date : 31-MAY-2023 15:29

Client ID: HS23051834-02

Instrument: VOA9.i

Sample Info: HS23051834-02;HS23051834-02;;

Purge Volume: 5.0

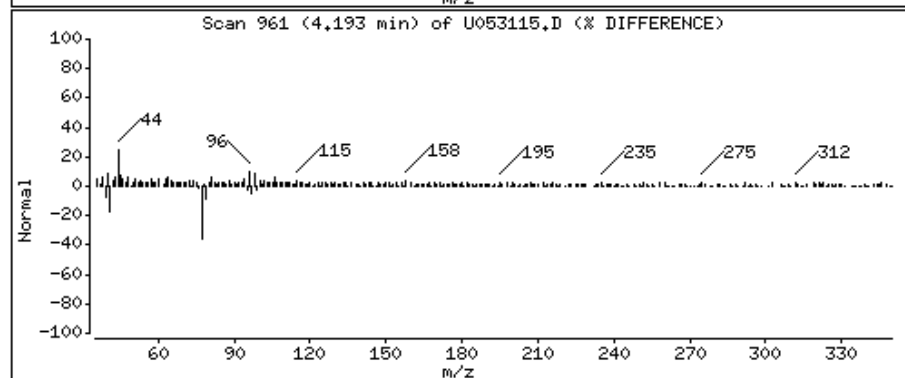
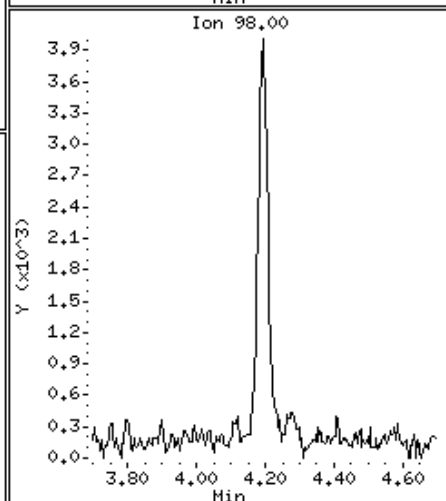
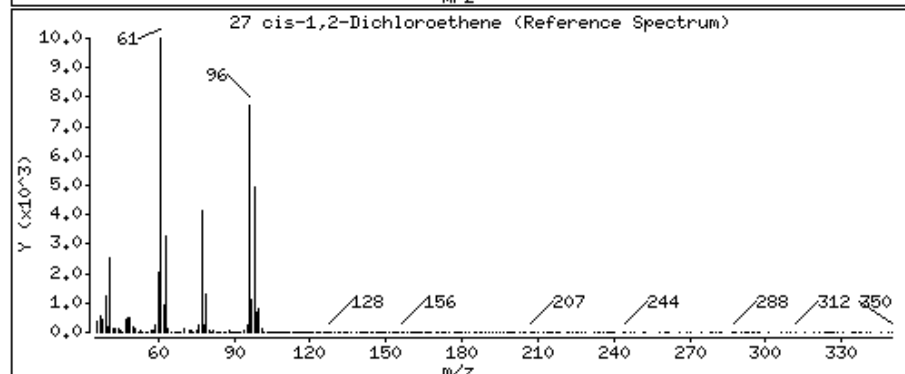
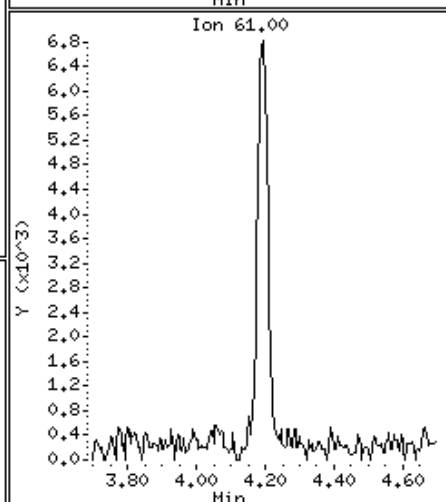
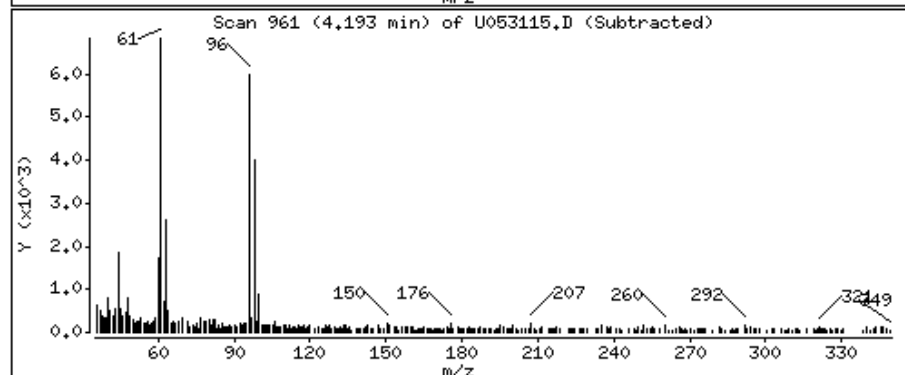
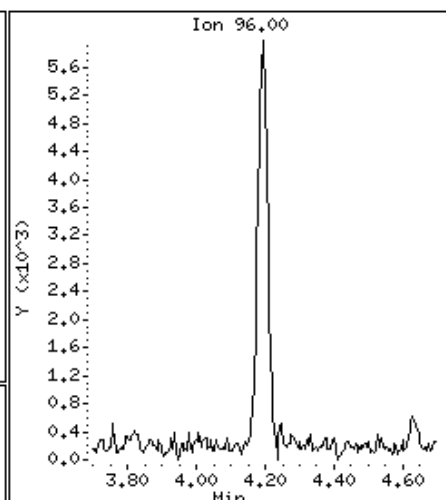
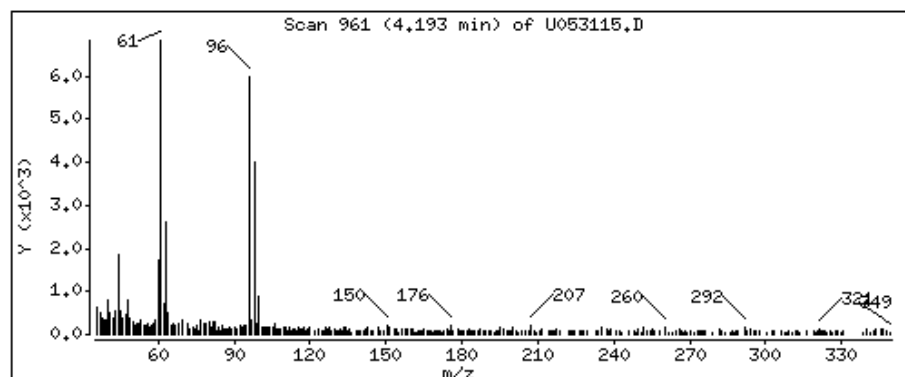
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 1.61 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U053115.D

Page 4

Date : 31-MAY-2023 15:29

Client ID: HS23051834-02

Instrument: VOA9.i

Sample Info: HS23051834-02;HS23051834-02;;;

Purge Volume: 5.0

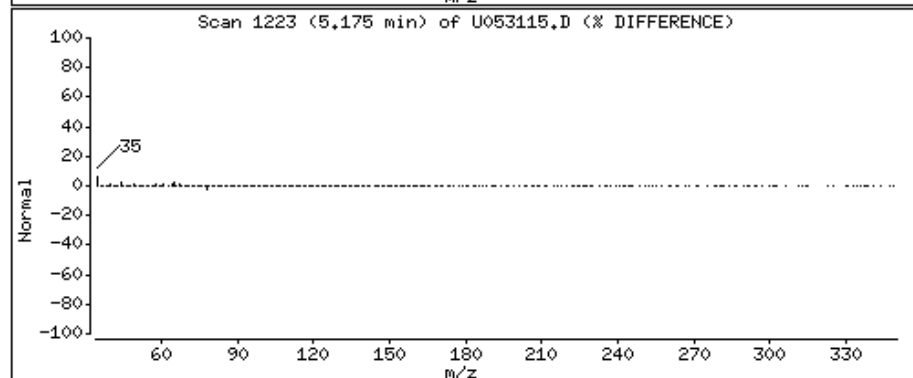
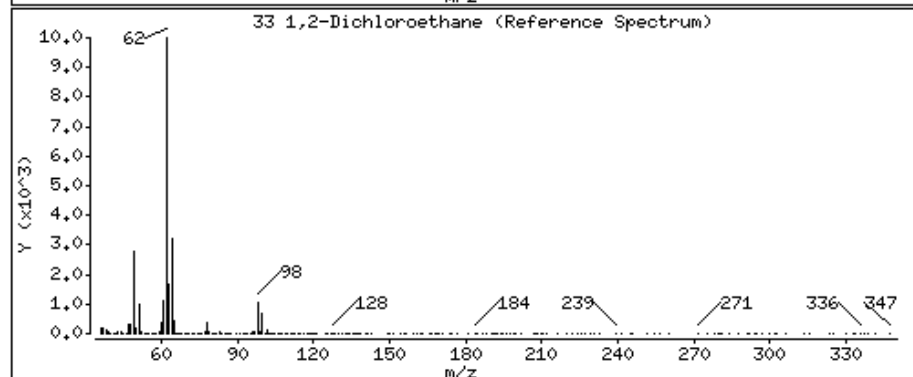
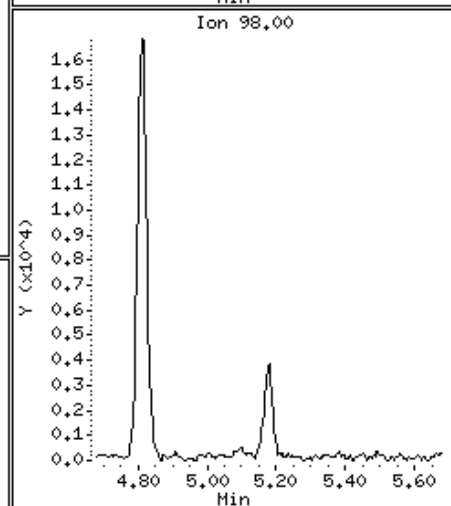
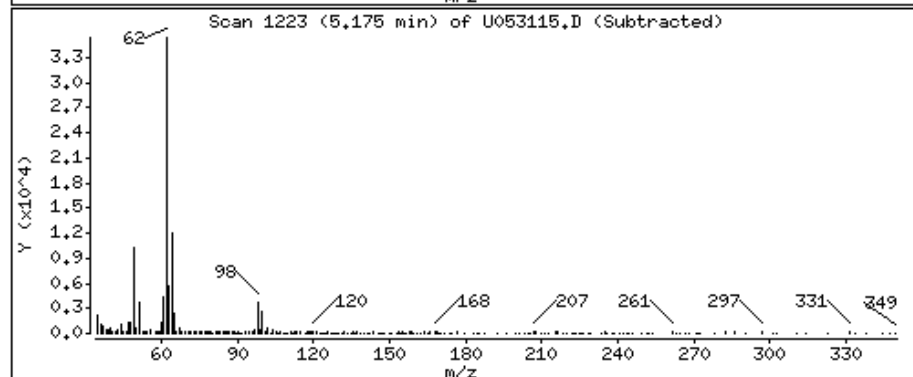
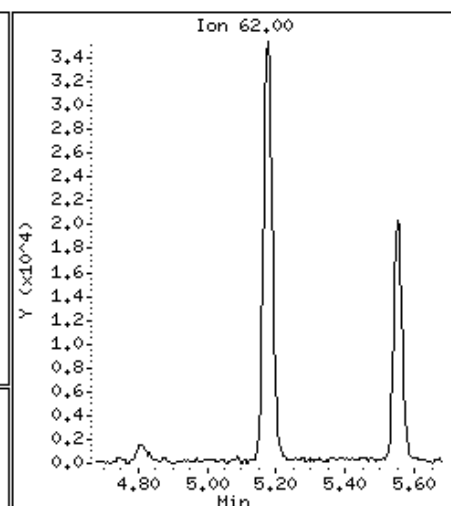
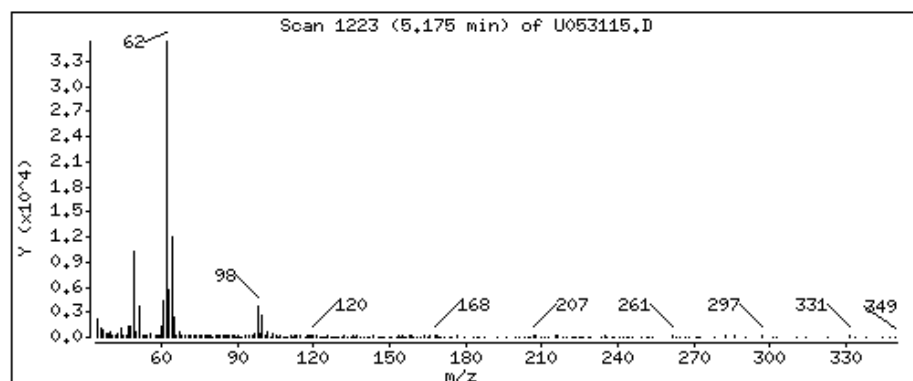
Operator: PC

Column phase: DB624

Column diameter: 0.18

33 1,2-Dichloroethane

Concentration: 6.30 ug/l



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053115.D

Page 5

Date : 31-MAY-2023 15:29

Client ID: HS23051834-02

Instrument: VOA9.i

Sample Info: HS23051834-02;HS23051834-02;;

Purge Volume: 5.0

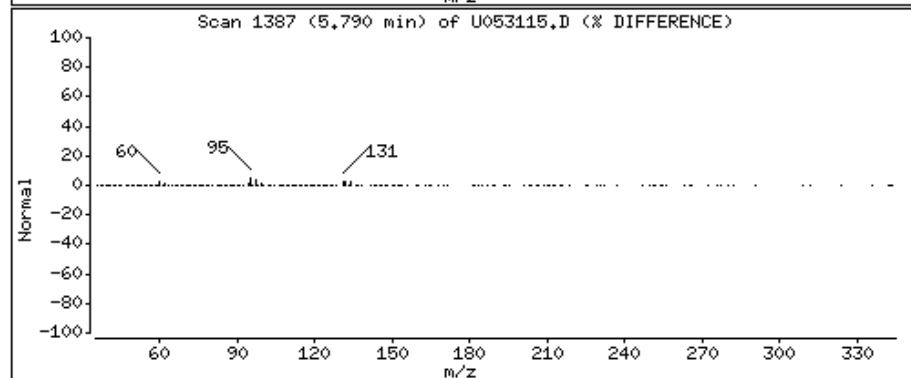
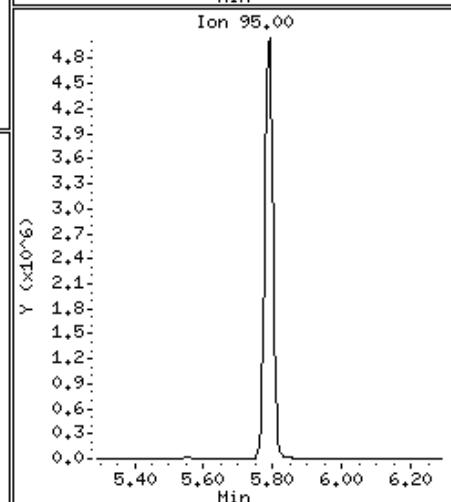
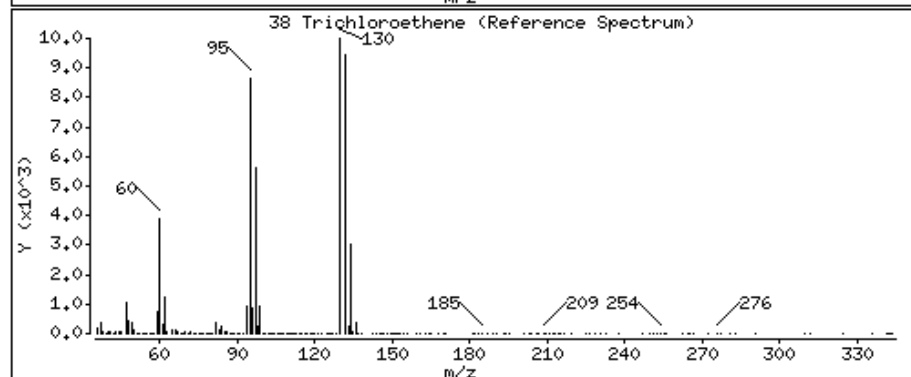
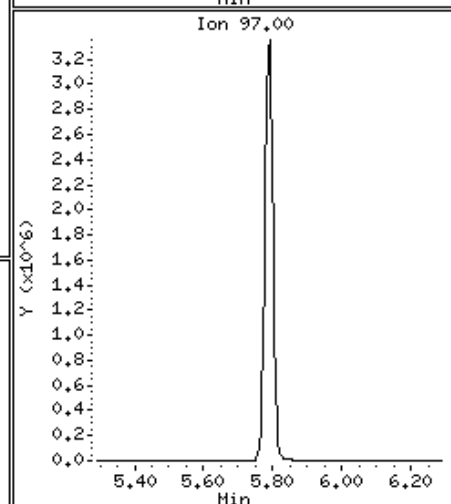
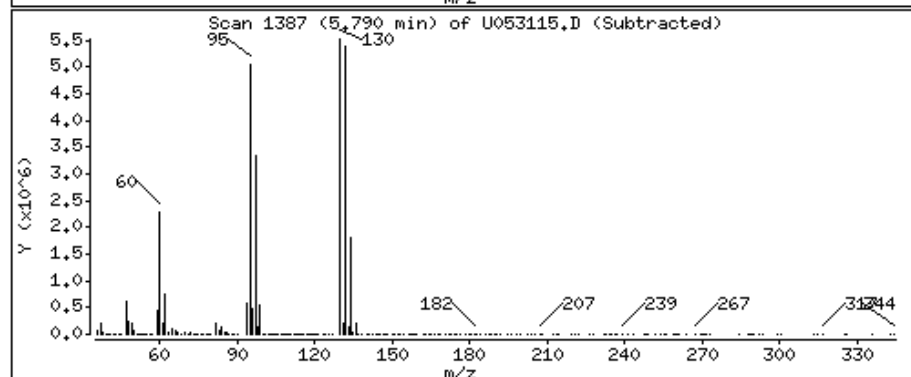
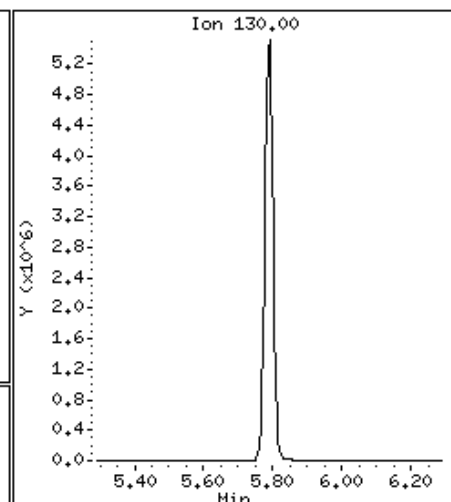
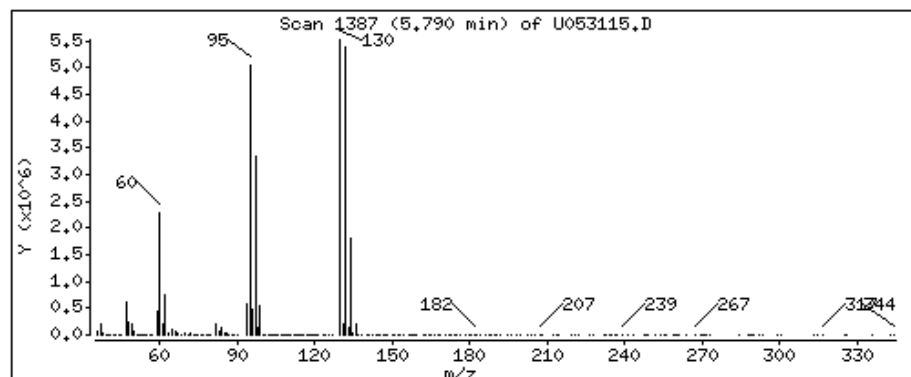
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 1278.09 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053115.D
Inj Date : 31-MAY-2023 15:29
InstruID : VOA9.i
LabSampID : HS23051834-02

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053116.D Page 1
 Report Date: 08-Jun-2023 13:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053116.D
 Lab Smp Id: HS23051834-03 Client Smp ID: HS23051834-03
 Inj Date : 31-MAY-2023 15:51
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-03;HS23051834-03;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 16
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.819	4.815 (1.000)		741543	50.0000		
\$ 30 Dibromofluoromethane	113		4.752	4.748 (0.986)		301640	44.0196	44.01	
\$ 35 1,2-Dichloroethane-d4	65		5.100	5.100 (1.058)		349881	41.6373	41.63	
* 36 1,4-Difluorobenzene	114		5.558	5.554 (1.000)		1003624	50.0000		
* 47 Chlorobenzene-d5	117		8.185	8.185 (1.000)		903944	50.0000		
\$ 48 Toluene-d8	98		6.922	6.922 (0.846)		1116800	49.7305	49.73	
\$ 69 4-Bromofluorobenzene	95		9.194	9.194 (1.123)		387355	45.1751	45.17	
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172 (1.000)		465178	50.0000		
11 1,1-Dichloroethene	96		2.337	2.334 (0.485)		106659	19.1755	19.17	
27 cis-1,2-Dichloroethene	96		4.201	4.197 (0.872)		12252	1.62933	1.62(a)	
33 1,2-Dichloroethane	62		5.179	5.175 (0.932)		63581	6.62057	6.62	
38 Trichloroethene	130		5.794	5.790 (1.042)		8967988	1308.53	1308.53(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.



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053116.D

Date : 31-May-2023 15:51

Client ID: HS23051834-03

Sample Info: HS23051834-03;HS23051834-03;;

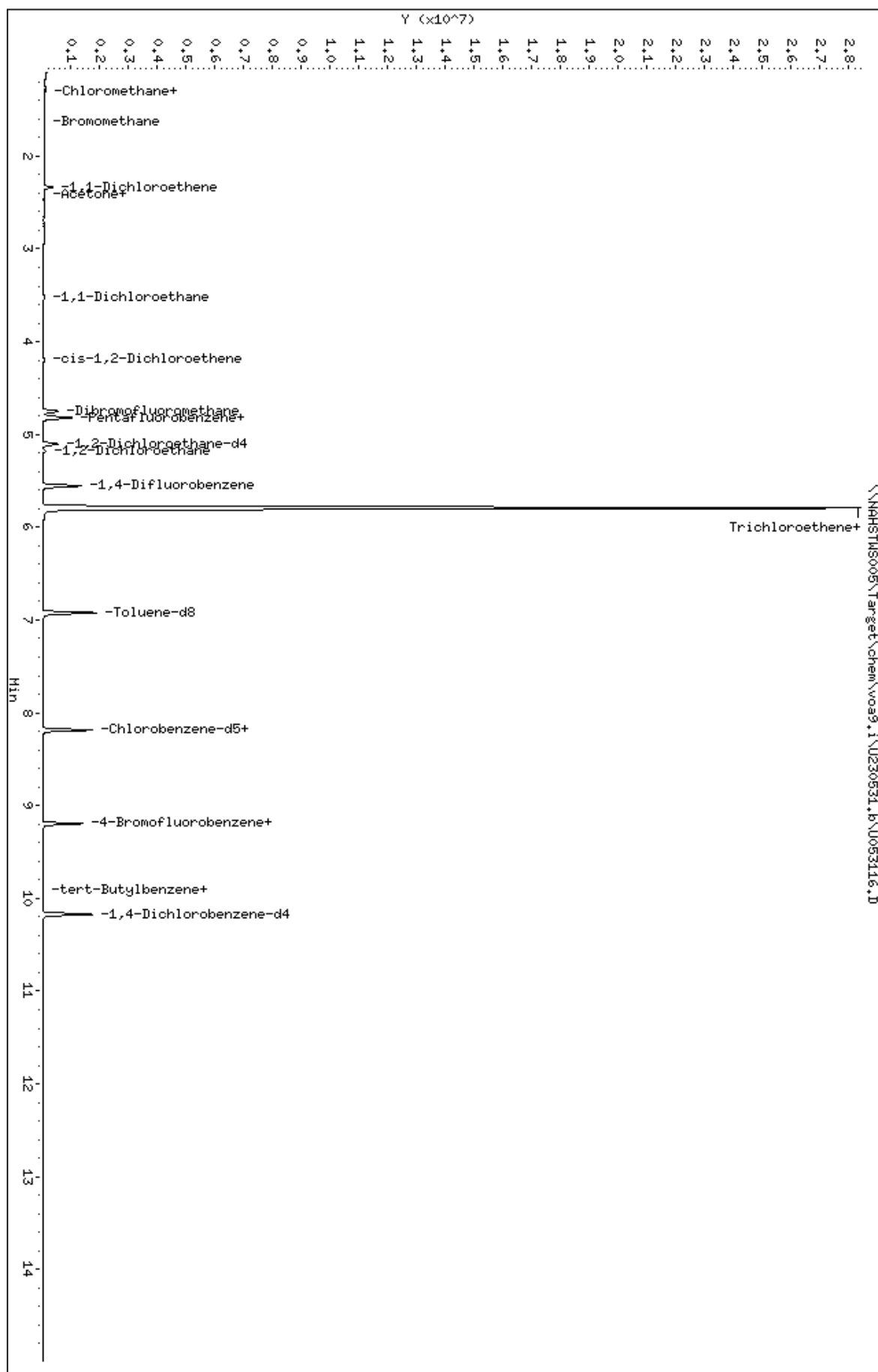
Purge Volume: 5.0

Column phase: DB624

Instrument: VOA9.i

Operator: PC

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053116.D

Page 2

Date : 31-MAY-2023 15:51

Client ID: HS23051834-03

Instrument: VOA9.i

Sample Info: HS23051834-03;HS23051834-03;;;

Purge Volume: 5.0

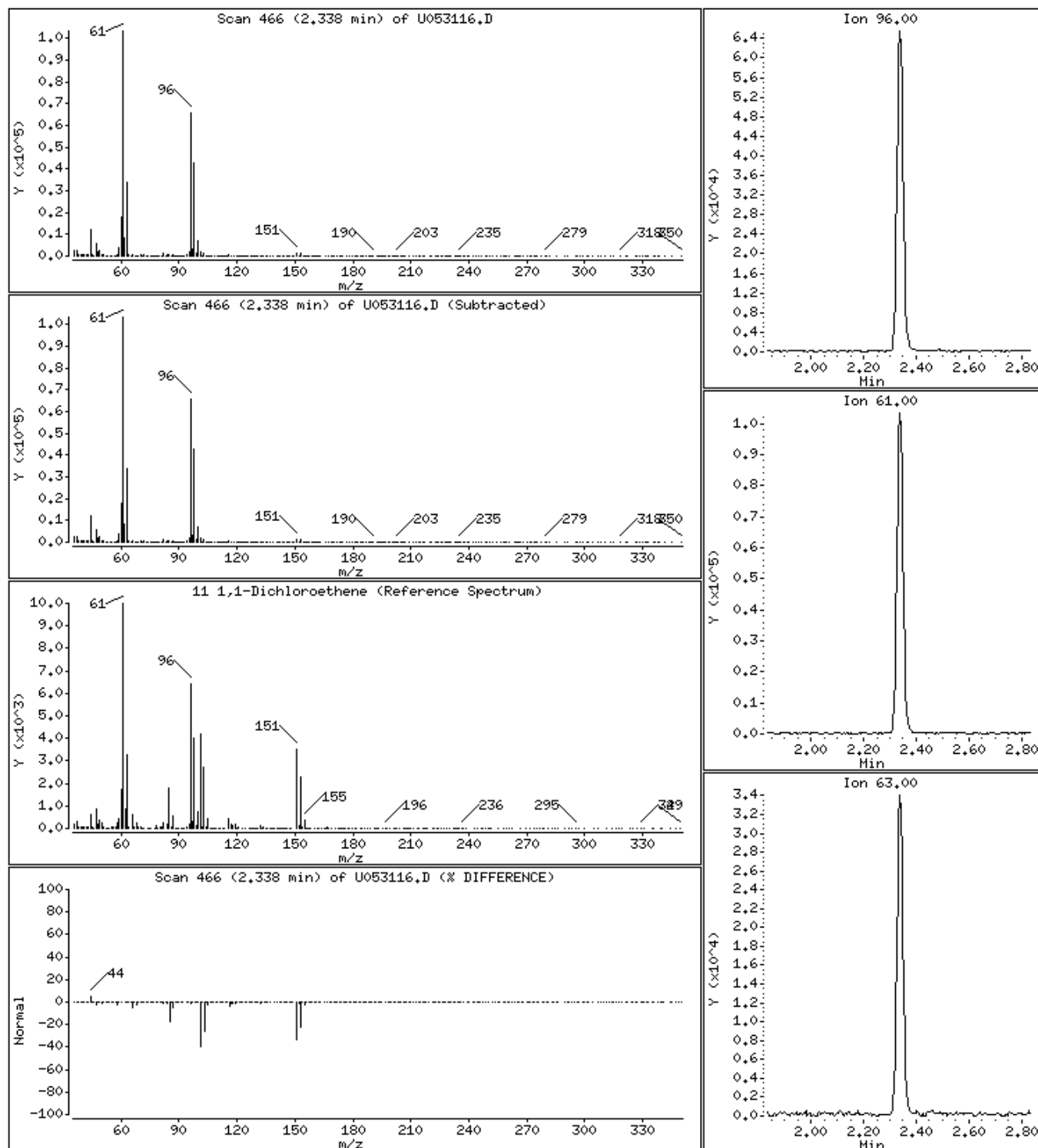
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 19.17 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053116.D

Page 3

Date : 31-MAY-2023 15:51

Client ID: HS23051834-03

Instrument: VOA9.i

Sample Info: HS23051834-03;HS23051834-03;;

Purge Volume: 5.0

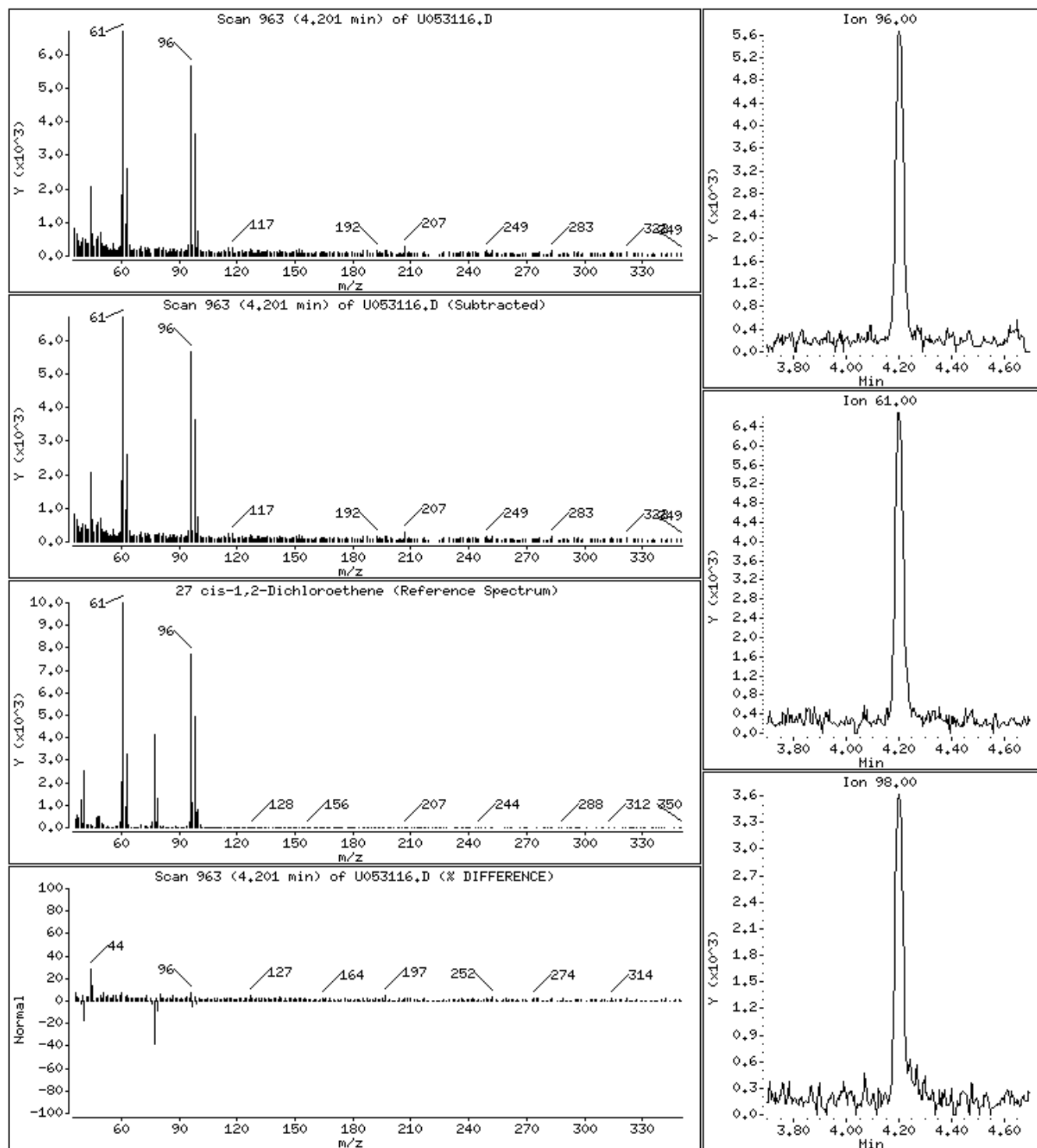
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 1.62 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230531.b\U053116.D

Page 4

Date : 31-MAY-2023 15:51

Client ID: HS23051834-03

Instrument: VOA9.i

Sample Info: HS23051834-03;HS23051834-03;;

Purge Volume: 5.0

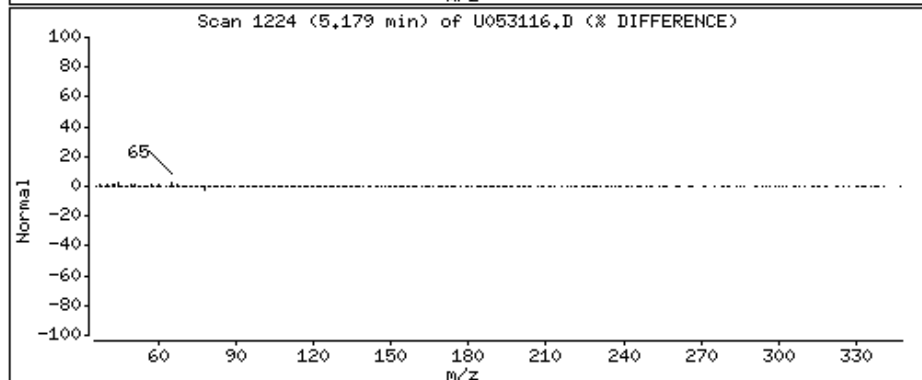
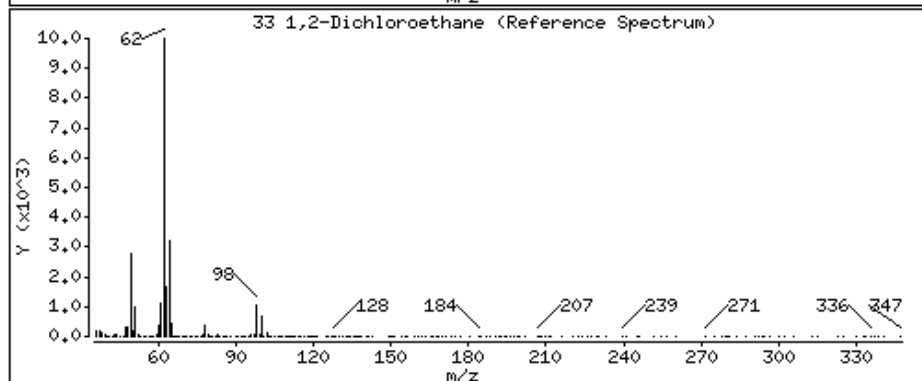
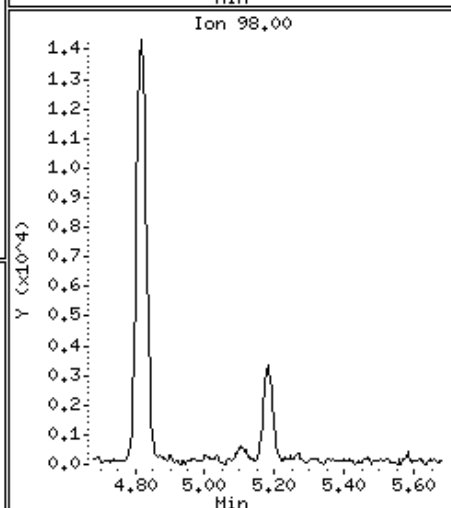
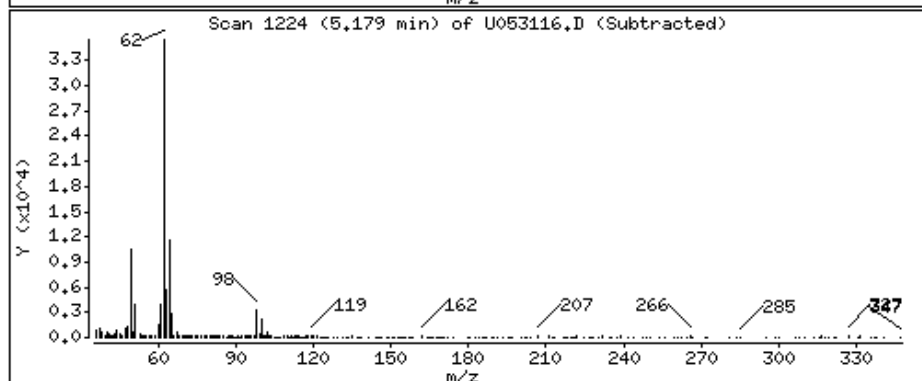
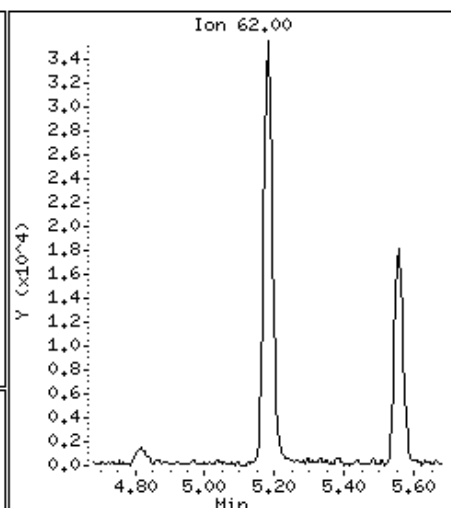
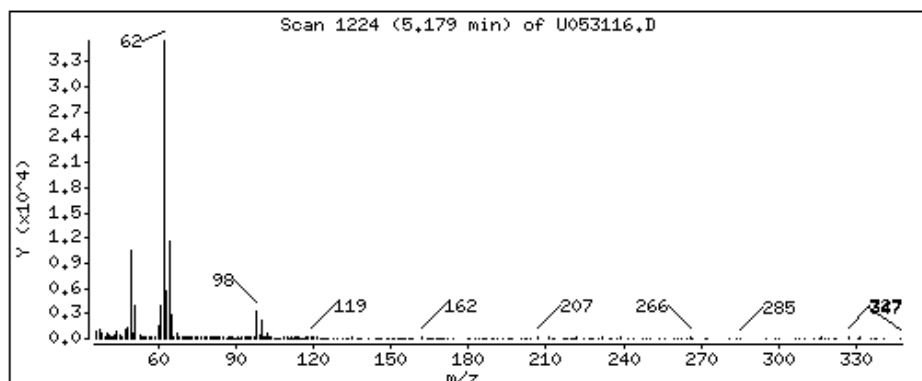
Operator: PC

Column phase: DB624

Column diameter: 0.18

33 1,2-Dichloroethane

Concentration: 6.62 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053116.D

Page 5

Date : 31-MAY-2023 15:51

Client ID: HS23051834-03

Instrument: VOA9.i

Sample Info: HS23051834-03;HS23051834-03;;;

Purge Volume: 5.0

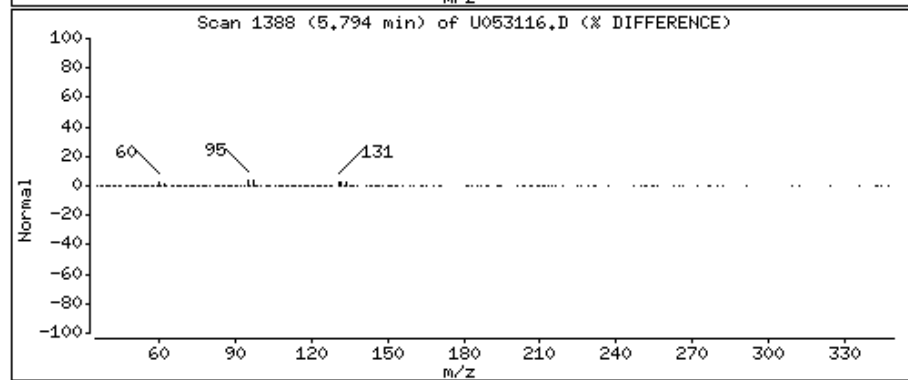
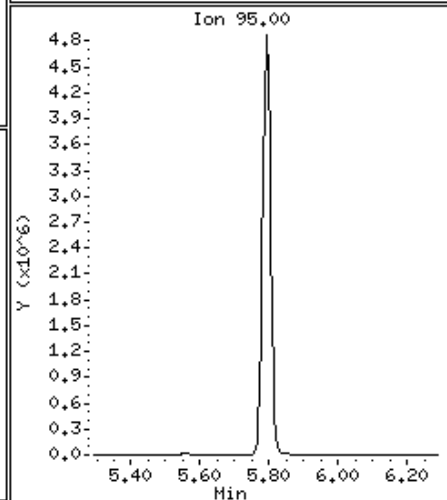
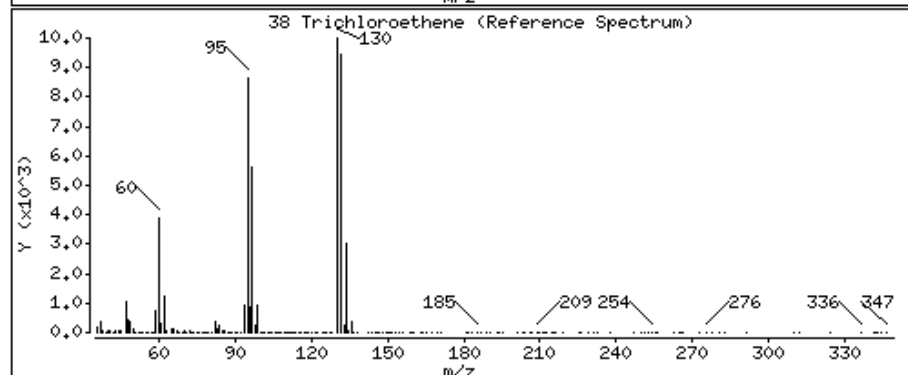
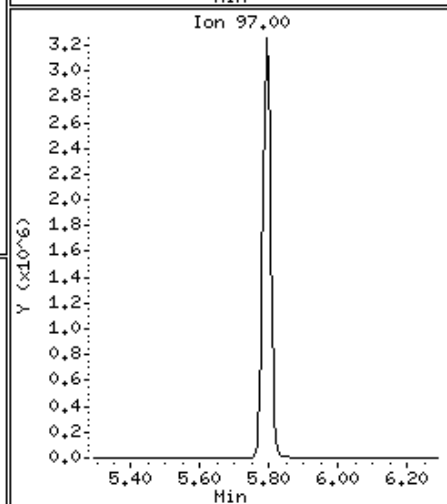
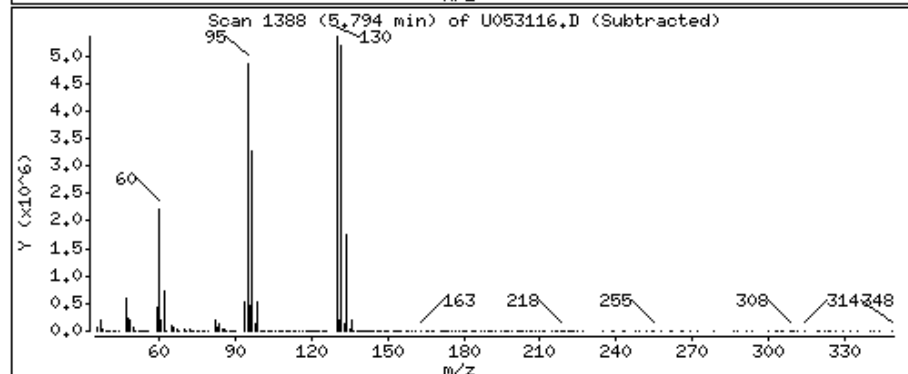
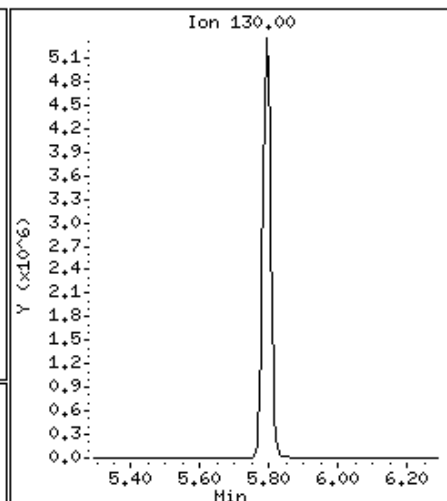
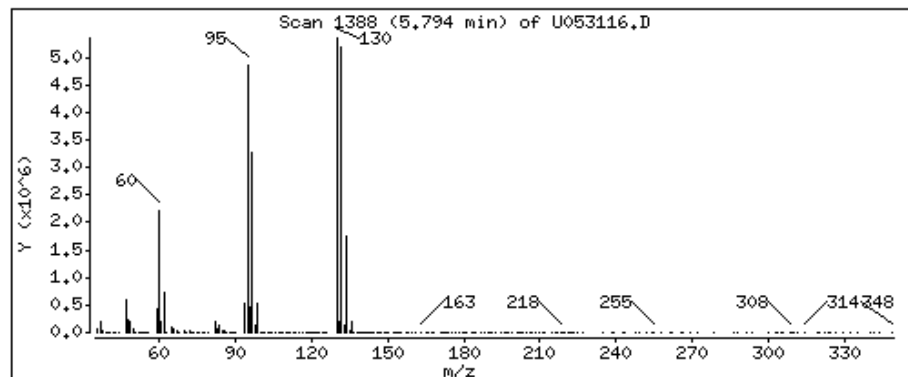
Operator: PC

Column phase: DB624

Column diameter: 0,18

38 Trichloroethene

Concentration: 1308,53 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053116.D
Inj Date : 31-MAY-2023 15:51
InstruID : VOA9.i
LabSampID : HS23051834-03

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053117.D Page 1
 Report Date: 08-Jun-2023 13:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053117.D
 Lab Smp Id: HS23051834-05 Client Smp ID: HS23051834-05
 Inj Date : 31-MAY-2023 16:14
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-05;HS23051834-05;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 17
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.811	4.815 (1.000)		710258	50.0000		
\$ 30 Dibromofluoromethane	113		4.744	4.748 (0.986)		291440	44.4122	44.41	
\$ 35 1,2-Dichloroethane-d4	65		5.096	5.100 (1.059)		345447	42.9528	42.95	
* 36 1,4-Difluorobenzene	114		5.550	5.554 (1.000)		975837	50.0000		
* 47 Chlorobenzene-d5	117		8.185	8.185 (1.000)		893823	50.0000		
\$ 48 Toluene-d8	98		6.922	6.922 (0.846)		1095712	49.3439	49.34	
\$ 69 4-Bromofluorobenzene	95		9.194	9.194 (1.123)		377685	44.5302	44.53	
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172 (1.000)		436242	50.0000		
11 1,1-Dichloroethene	96		2.326	2.334 (0.483)		16291	3.05786	3.05(a)	
27 cis-1,2-Dichloroethene	96		4.193	4.197 (0.871)		960001	133.289	133.28	
33 1,2-Dichloroethane	62		5.175	5.175 (0.932)		10888	1.16603	1.16(a)	
38 Trichloroethene	130		5.786	5.790 (1.043)		895206	134.340	134.34	
56 Tetrachloroethene	164		7.454	7.458 (0.911)		3437	0.65127	0.65(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053117.D

Date : 31-MAY-2023 16:14

Client ID: HS23051834-05

Sample Info: HS23051834-05;HS23051834-05;;

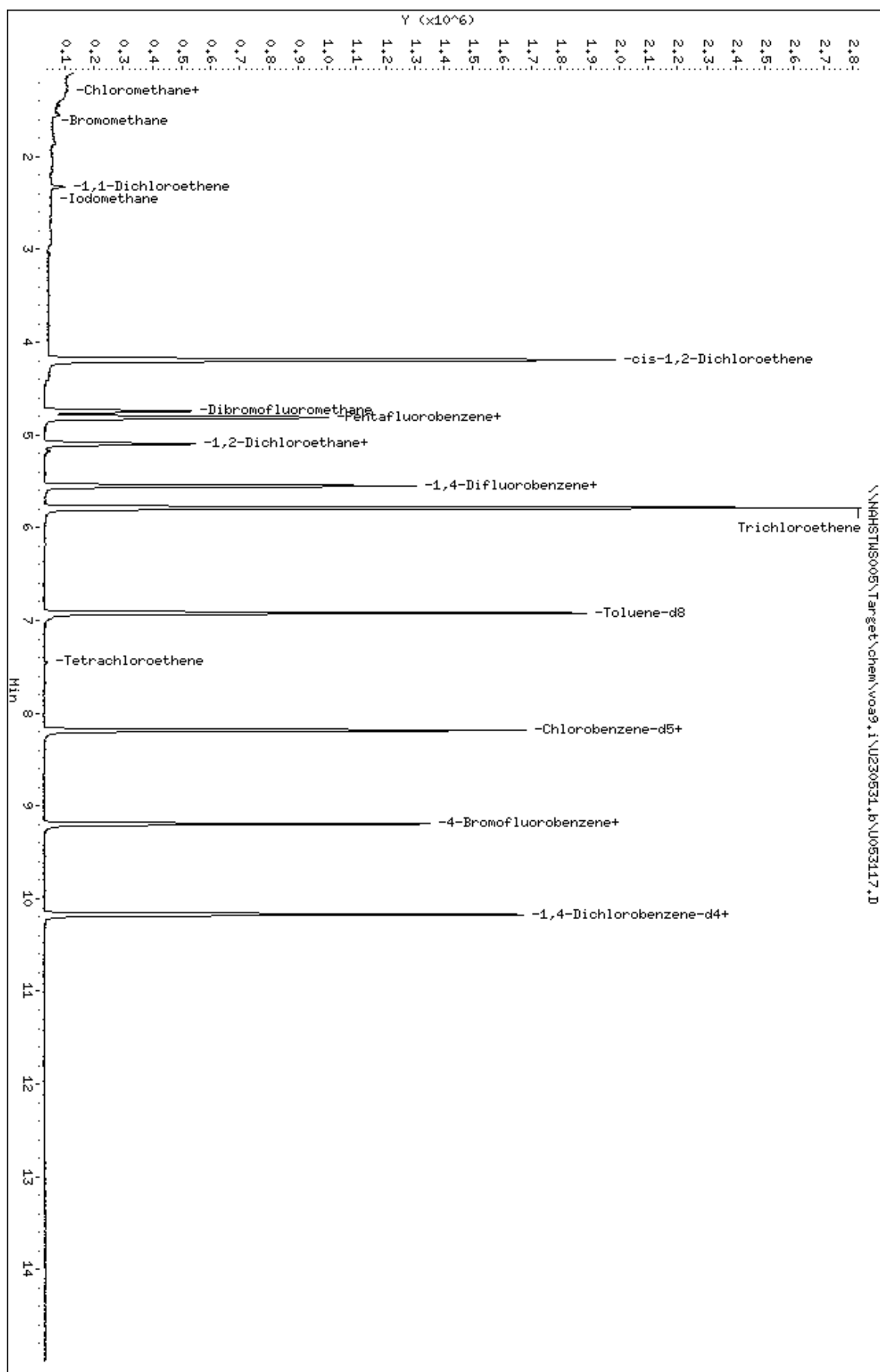
Purge Volume: 5.0

Column phase: DB624

Instrument: VOA9.i

Operator: PC

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053117.D

Page 2

Date : 31-MAY-2023 16:14

Client ID: HS23051834-05

Instrument: VOA9.i

Sample Info: HS23051834-05;HS23051834-05;;

Purge Volume: 5.0

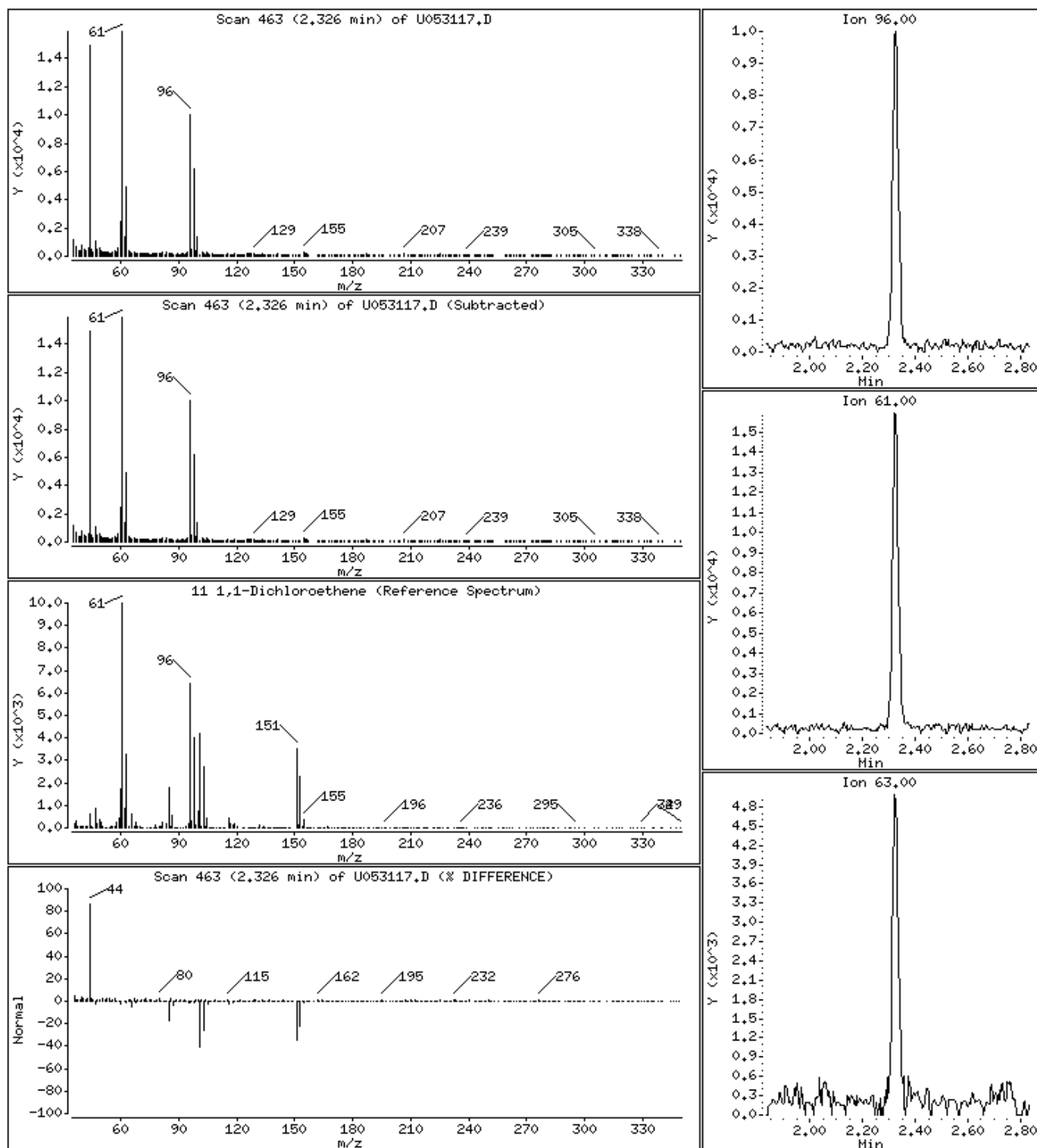
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 3.05 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U053117.D

Page 3

Date : 31-MAY-2023 16:14

Client ID: HS23051834-05

Instrument: VOA9.i

Sample Info: HS23051834-05;HS23051834-05;;

Purge Volume: 5.0

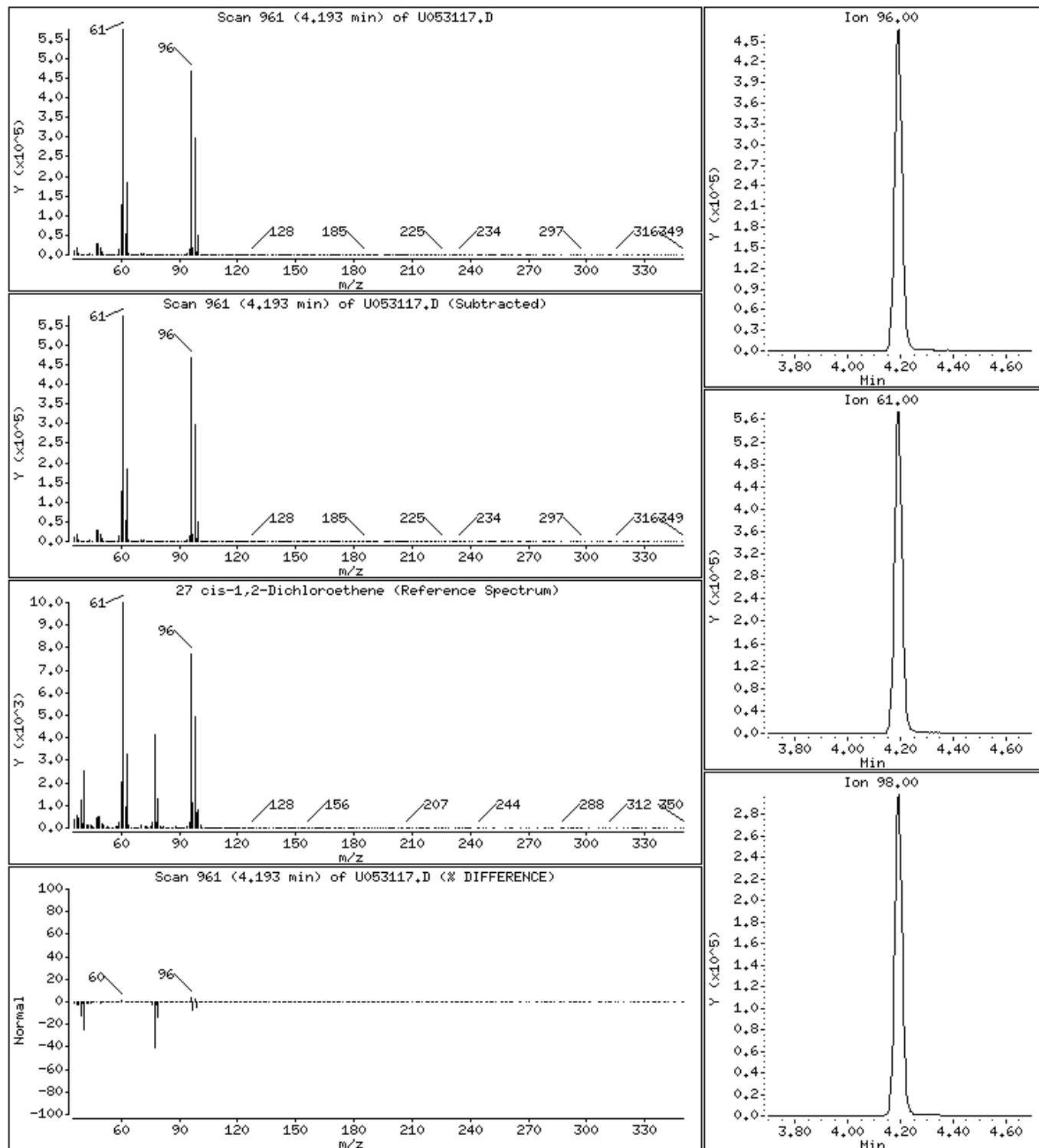
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 133.28 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230531,b\U053117.D

Page 4

Date : 31-MAY-2023 16:14

Client ID: HS23051834-05

Instrument: VOA9.i

Sample Info: HS23051834-05;HS23051834-05;;;

Purge Volume: 5.0

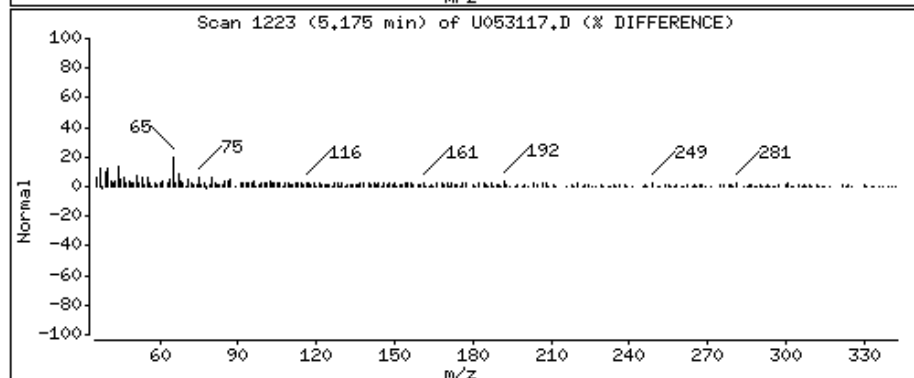
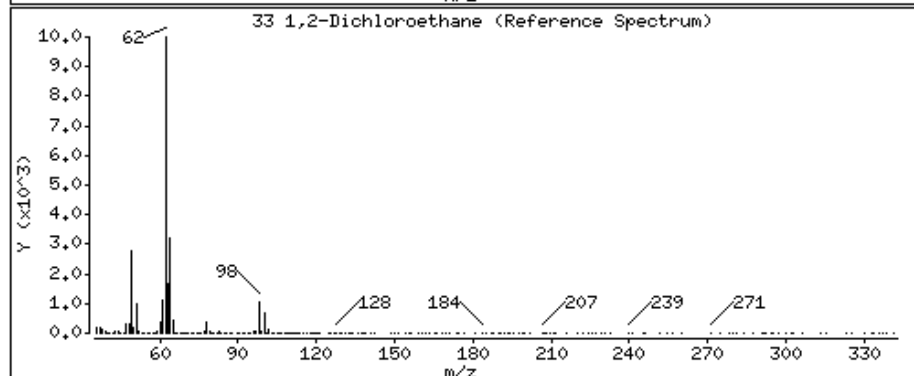
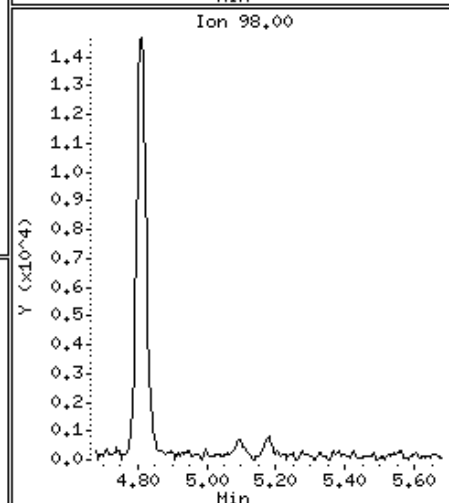
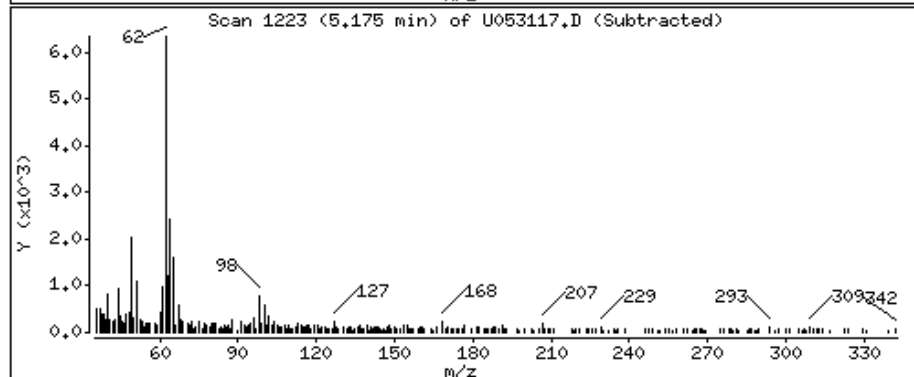
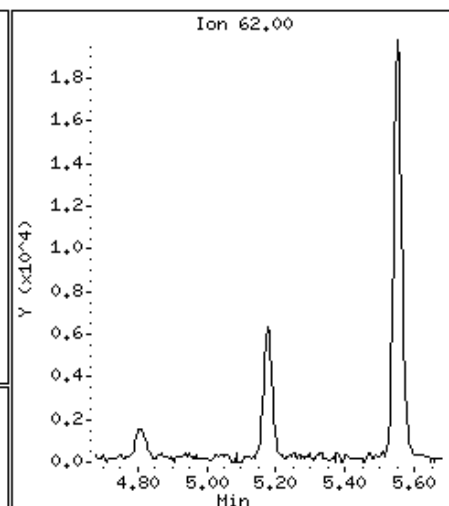
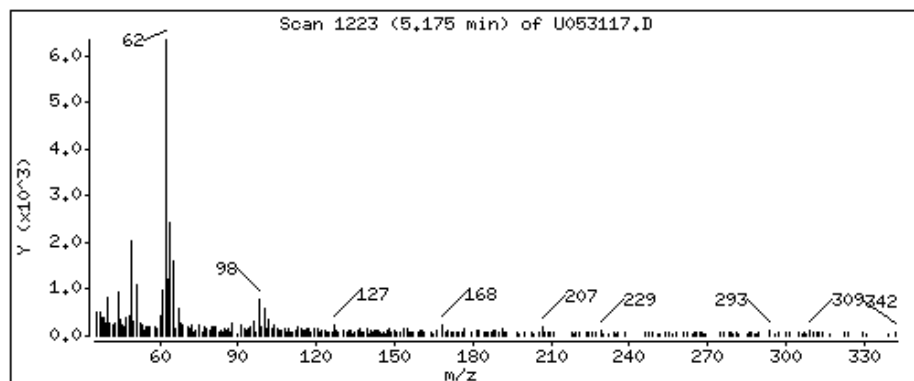
Operator: PC

Column phase: DB624

Column diameter: 0.18

33 1,2-Dichloroethane

Concentration: 1.16 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053117.D

Page 5

Date : 31-MAY-2023 16:14

Client ID: HS23051834-05

Instrument: VOA9.i

Sample Info: HS23051834-05;HS23051834-05;;;

Purge Volume: 5.0

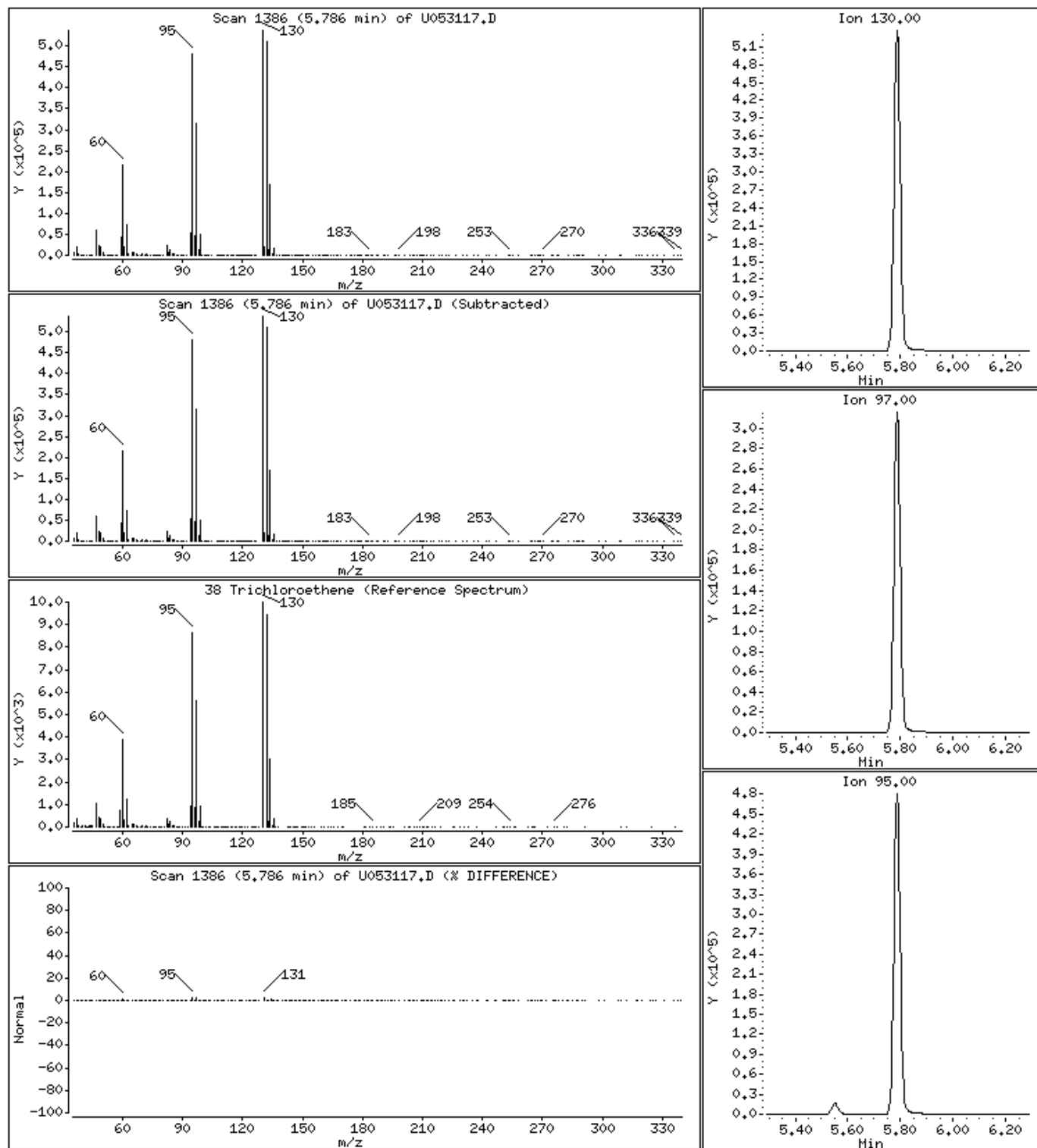
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 134.34 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053117.D

Page 6

Date : 31-MAY-2023 16:14

Client ID: HS23051834-05

Instrument: VOA9.i

Sample Info: HS23051834-05;HS23051834-05;;;

Purge Volume: 5.0

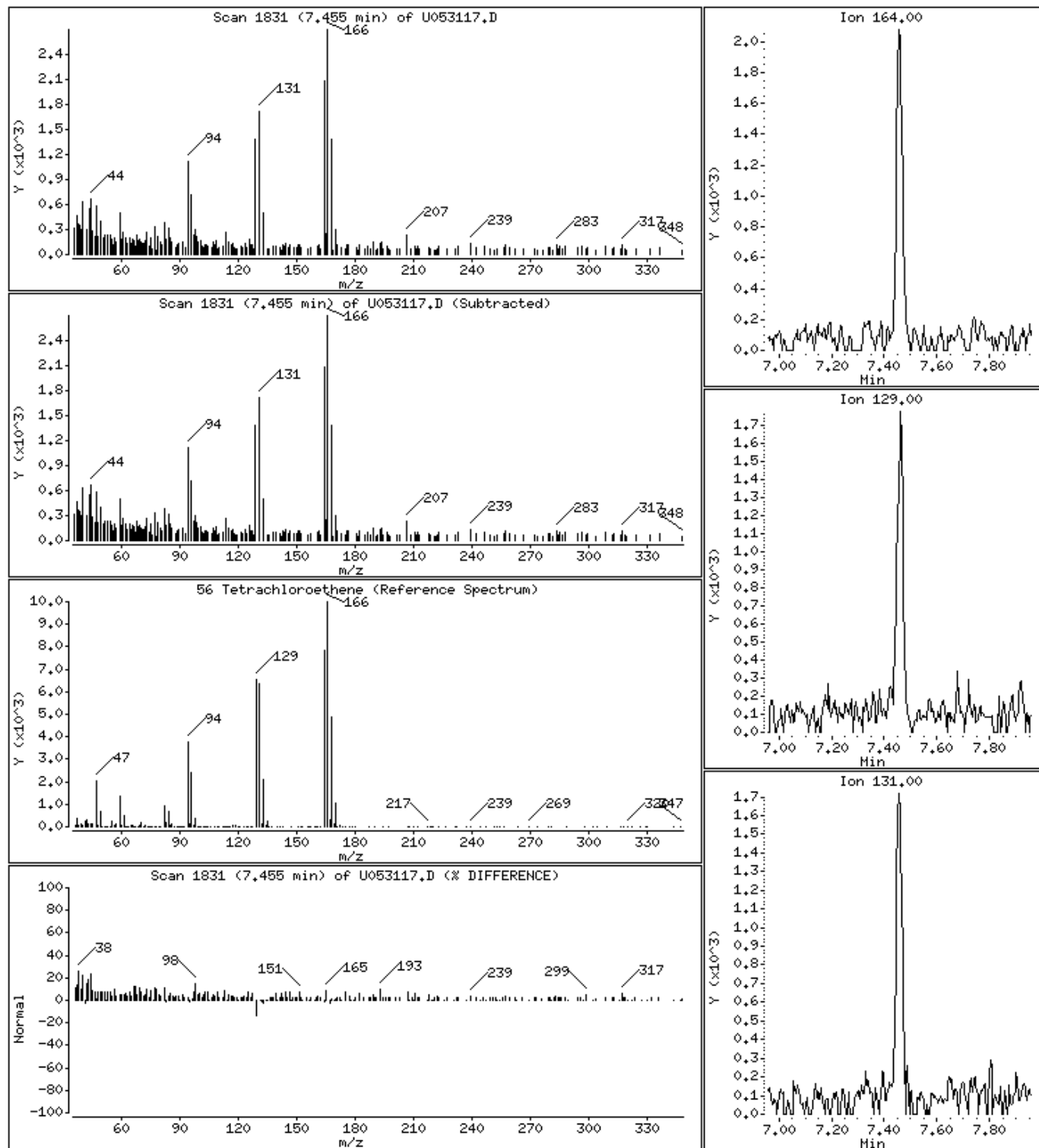
Operator: PC

Column phase: DB624

Column diameter: 0.18

56 Tetrachloroethene

Concentration: 0.65 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053117.D
Inj Date : 31-MAY-2023 16:14
InstruID : VOA9.i
LabSampID : HS23051834-05

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053119.D Page 1
 Report Date: 08-Jun-2023 13:16

ALS Laboratory Group

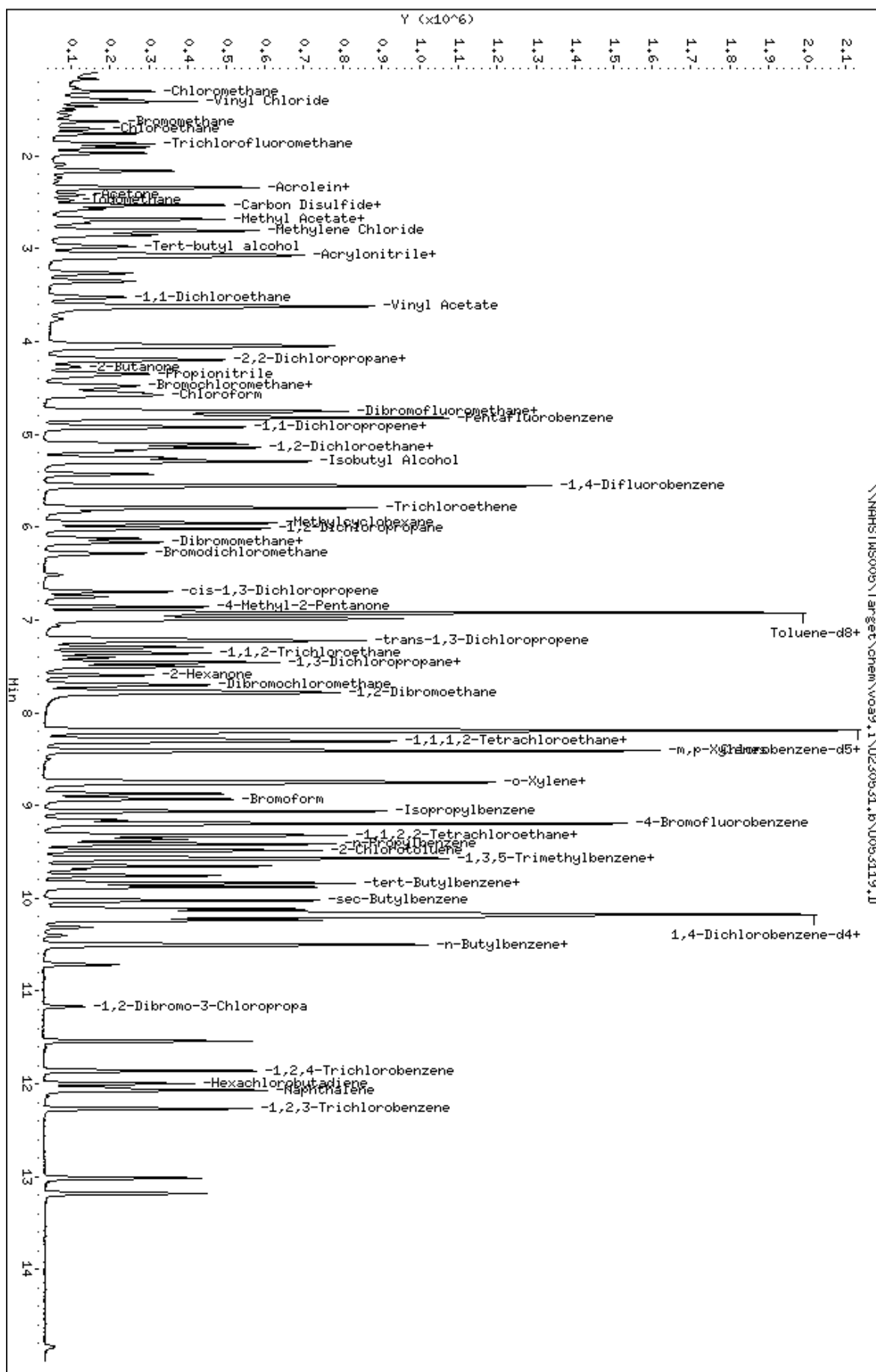
Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053119.D
 Lab Smp Id: HS23051834-04MS Client Smp ID: HS23051834-04MS
 Inj Date : 31-MAY-2023 16:59
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-04MS;HS23051834-04MS;3;;MS
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 19 QC Sample: MS
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.819	4.815	(1.000)		741942	50.0000	
\$ 30 Dibromofluoromethane	113		4.751	4.748	(0.986)		304727	44.4548	44.45
\$ 35 1,2-Dichloroethane-d4	65		5.100	5.100	(1.058)		345795	41.1161	41.11
* 36 1,4-Difluorobenzene	114		5.557	5.554	(1.000)		998986	50.0000	
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)		937528	50.0000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)		1166514	50.0835	50.08
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)		425994	47.9709	47.97
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		510750	50.0000	
5 Vinyl Chloride	62		1.381	1.374	(0.287)		105853	14.2397	14.23
11 1,1-Dichloroethene	96		2.341	2.334	(0.486)		100994	18.1473	18.14
20 trans-1,2-Dichloroethene	96		3.065	3.057	(0.636)		109655	17.2294	17.22
27 cis-1,2-Dichloroethene	96		4.200	4.197	(0.872)		144859	19.2537	19.25
33 1,2-Dichloroethane	62		5.179	5.175	(0.932)		174454	18.2499	18.24
38 Trichloroethene	130		5.790	5.790	(1.042)		276481	40.5291	40.52
56 Tetrachloroethene	164		7.458	7.458	(0.911)		130438	23.5644	23.56





Data File: \\NAHSTMS005\Target\chem\woa9.i\U230531.b\U053119.D
 Date : 31-May-2023 16:59
 Client ID: HS23051834-04HS
 Sample Info: HS23051834-04HS\HS23051834-04HS\3;1MS
 Purge Volume: 5.0
 Column phase: DB624

Instrument: WOA9.i
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053119.D
Inj Date : 31-MAY-2023 16:59
InstruID : VOA9.i
LabSampID : HS23051834-04MS

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053120.D Page 1
 Report Date: 08-Jun-2023 13:16

ALS Laboratory Group

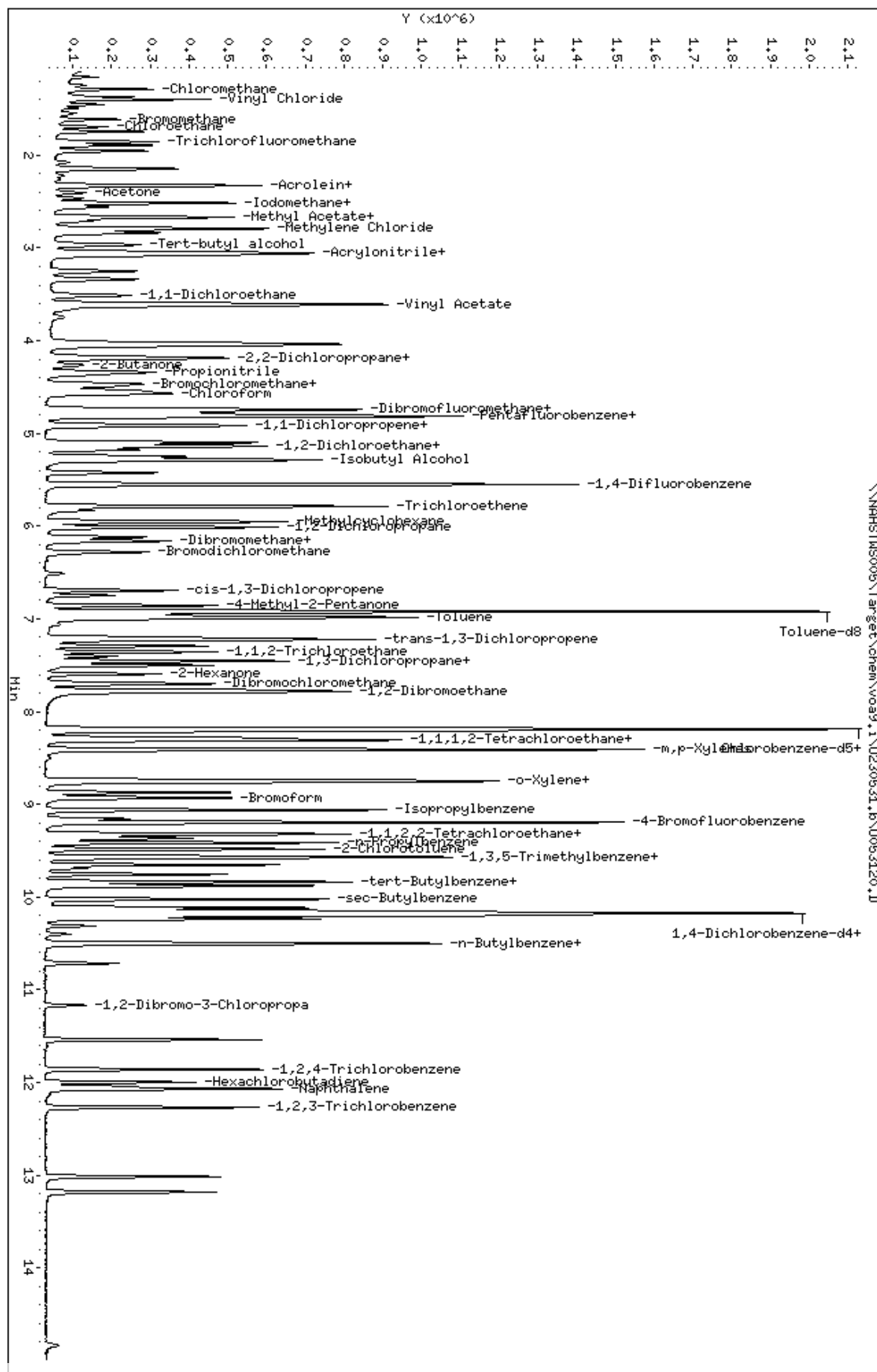
Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053120.D
 Lab Smp Id: HS23051834-04MSD Client Smp ID: HS23051834-04MSD
 Inj Date : 31-MAY-2023 17:21
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-04MSD;HS23051834-04MSD;3;;MSD
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:15 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 19 QC Sample: MSD
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.812	4.815	(1.000)		770466	50.0000	
\$ 30 Dibromofluoromethane	113		4.744	4.748	(0.986)		319035	44.8262	44.82
\$ 35 1,2-Dichloroethane-d4	65		5.096	5.100	(1.059)		357938	40.9809	40.98
* 36 1,4-Difluorobenzene	114		5.550	5.554	(1.000)		1054085	50.0000	
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)		947556	50.0000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)		1198686	50.9201	50.92
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)		421717	46.9632	46.96
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		500727	50.0000	
5 Vinyl Chloride	62		1.370	1.374	(0.285)		109420	14.1746	14.17
11 1,1-Dichloroethene	96		2.326	2.334	(0.484)		103453	17.9009	17.90
20 trans-1,2-Dichloroethene	96		3.053	3.057	(0.635)		115791	17.5199	17.51
27 cis-1,2-Dichloroethene	96		4.193	4.197	(0.871)		151087	19.3380	19.33
33 1,2-Dichloroethane	62		5.175	5.175	(0.932)		174290	17.2797	17.27
38 Trichloroethene	130		5.786	5.790	(1.043)		284189	39.4814	39.48
56 Tetrachloroethene	164		7.454	7.458	(0.911)		138672	24.7868	24.78





Data File: \\NAHSTMS005\Target\chem\voa9.i\U230531.b\U053120.D
 Date: 31-May-2023 17:21
 Client ID: HS23051834-04MSD
 Sample Info: HS23051834-04MSD;HS23051834-04MSD;3;MSD
 Purge Volume: 5.0
 Column phase: DB624

Instrument: VOA9.i
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053120.D
Inj Date : 31-MAY-2023 17:21
InstruID : VOA9.i
LabSampID : HS23051834-04MSD

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053123.D Page 1
 Report Date: 08-Jun-2023 13:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053123.D
 Lab Smp Id: CCV-END Client Smp ID: CCV-END
 Inj Date : 31-MAY-2023 18:28
 Operator : PC Inst ID: VOA9.i
 Smp Info : CCV-END;CCV-END;2;;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\8260C.m
 Meth Date : 08-Jun-2023 13:16 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 21 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260-dryclean.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

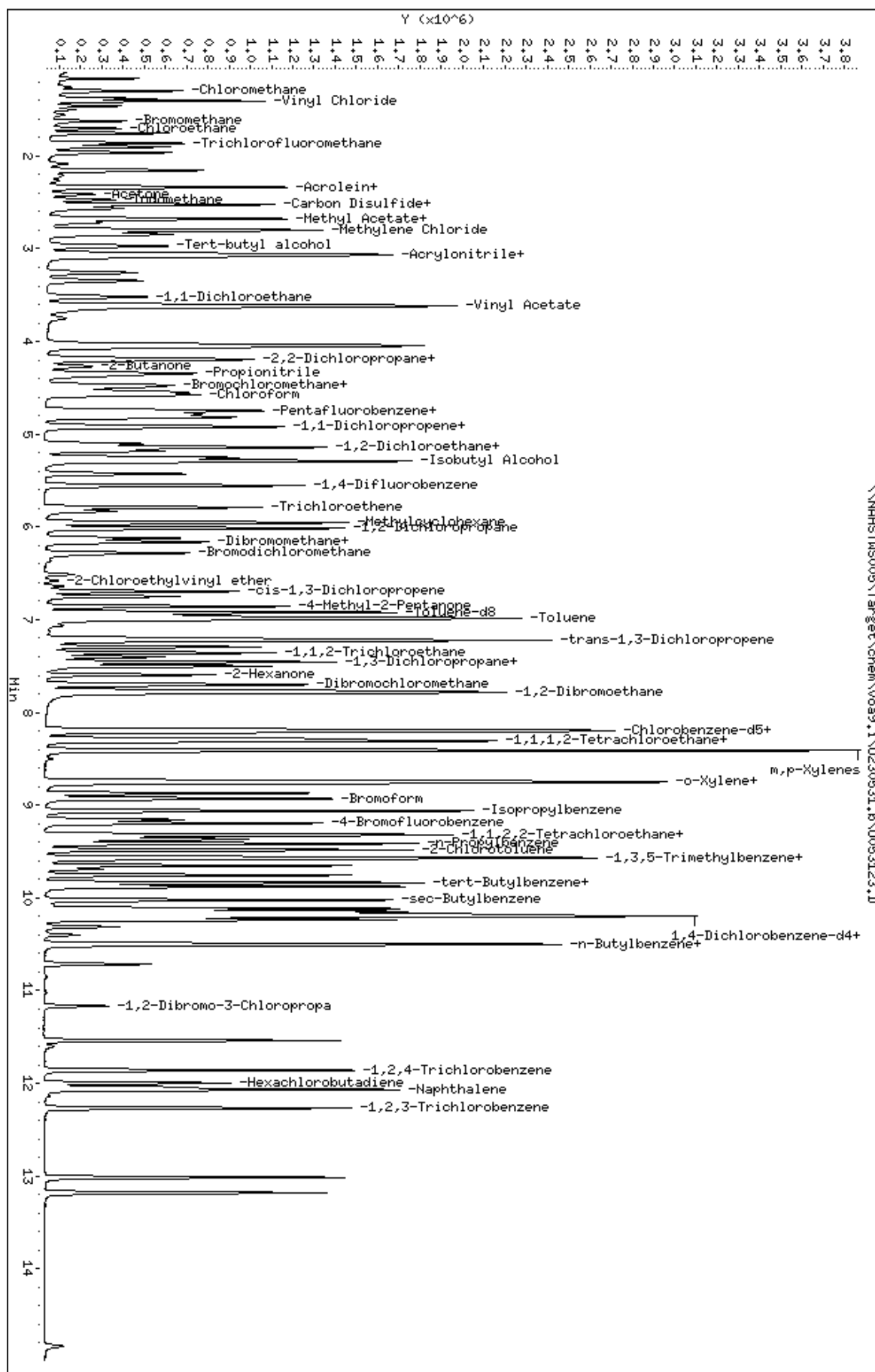
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.815	4.815	(1.000)		622756	50.0000	
\$ 30 Dibromofluoromethane	113		4.751	4.751	(0.987)		263522	50.0000	45.82
\$ 35 1,2-Dichloroethane-d4	65		5.100	5.100	(1.059)		304618	50.0000	43.20
* 36 1,4-Difluorobenzene	114		5.554	5.554	(1.000)		935184	50.0000	
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)		895891	50.0000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)		968166	50.0000	43.49
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)		353257	50.0000	41.47
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		474367	50.0000	
5 Vinyl Chloride	62		1.378	1.378	(0.286)		303822	50.0000	48.69
11 1,1-Dichloroethene	96		2.337	2.337	(0.485)		227759	50.0000	48.75
20 trans-1,2-Dichloroethene	96		3.061	3.061	(0.636)		258700	50.0000	48.42
27 cis-1,2-Dichloroethene	96		4.197	4.197	(0.872)		308314	50.0000	48.82
33 1,2-Dichloroethane	62		5.179	5.179	(0.933)		424122	50.0000	47.39
38 Trichloroethene	130		5.790	5.790	(1.043)		331117	50.0000	51.84
56 Tetrachloroethene	164		7.458	7.458	(0.911)		294318	50.0000	55.64



Data File: \\NAHSTMS005\Target\chem\voa9.1\U230531.b\U053123.D
 Date: 31-MAY-2023 18:28
 Client ID: CCV-END
 Sample Info: CCV-END;CCV-END;2;;;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W049.1
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230531.b\U053123.D
Inj Date : 31-MAY-2023 18:28
InstruID : VOA9.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS





Raw Data VOA9 436835

Volatiles by EPA 8260

Workorder
HS23051834

Client
Bhate Environmental Associates, Inc.

Project
LHAAP 50

06/08/2023

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\voa9.i\U230601.b\U060101.D Page 1
 Report Date: 01-Jun-2023 12:44

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060101.D
 Lab Smp Id: BFB Client Smp ID: BFB
 Inj Date : 01-JUN-2023 12:01
 Operator : PC Inst ID: VOA9.i
 Smp Info : BFB;BFB;3;;BFB
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\bfb.m
 Meth Date : 27-Jan-2023 08:08 apoluri Quant Type: ISTD
 Cal Date : 30-MAR-2018 18:09 Cal File: U033003.d
 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		FINAL			
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/l)	TARGET	RANGE	RATIO
====	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 bfb				CAS #: 460-00-4					
9.194	9.180 (0.000)		95	117600			0.00-	100.00	100.00
9.194	9.180 (0.000)		50	23424			15.00-	40.00	19.92
9.194	9.180 (0.000)		75	58616			30.00-	60.00	49.84
9.194	9.180 (0.000)		96	9086			5.00-	9.00	7.73
9.194	9.180 (0.000)		173	0	0.0	0.0	0.00-	2.00	0.00
9.194	9.180 (0.000)		174	107584			50.00-	0.00	91.48
9.194	9.180 (0.000)		175	9043			5.00-	9.00	8.41
9.194	9.180 (0.000)		176	105200			95.00-	101.00	97.78
9.194	9.180 (0.000)		177	7149			5.00-	9.00	6.80



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.92
75	30.00 - 60.00% of mass 95	49.84
96	5.00 - 9.00% of mass 95	7.73
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	91.48
175	5.00 - 9.00% of mass 174	7.69 (8.41)
176	95.00 - 101.00% of mass 174	89.46 (97.78)
177	5.00 - 9.00% of mass 176	6.08 (6.80)

Data File: U060101.D
 Spectrum: Scan 2293 (9.19)
 Location of Maximum: 95.00
 Number of points: 217

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4227	89.40	119	143.80	144	204.60	59
37.00	7170	90.80	685	144.80	201	205.60	85
38.00	7815	92.00	3295	145.90	167	206.60	60
39.00	7636	93.00	5696	147.00	146	207.20	72
40.00	1718	94.00	14746	147.70	332	207.70	62
41.00	6905	95.00	117600	148.80	188	213.70	91
42.00	7264	96.00	9086	149.90	281	215.70	59
43.00	11166	97.00	459	150.50	69	216.30	94
44.00	4128	98.00	3289	151.10	62	218.20	88
45.00	7680	98.90	226	152.00	184	218.90	68
46.20	618	99.80	96	152.90	229	219.40	121
47.00	2018	100.80	120	153.60	93	219.90	53
47.80	1172	101.90	119	154.00	139	221.20	90
49.00	5455	103.00	218	154.90	503	224.00	55
50.00	23424	104.00	677	156.10	118	226.40	87
51.00	7239	105.10	601	156.90	323	226.80	70
52.10	684	105.90	578	158.10	94	230.30	66
53.00	606	106.80	551	158.90	237	231.40	51
54.10	728	107.80	108	159.70	132	233.70	198
55.00	7922	108.90	429	160.40	125	234.60	123
55.90	2772	109.90	153	161.00	219	235.80	204
56.90	3749	110.60	143	161.80	84	236.50	63
58.00	3225	111.00	141	162.20	122	238.90	64
59.00	18928	111.70	166	163.70	61	245.40	89
60.00	1877	113.00	168	165.10	89	246.30	54
61.00	6201	115.00	323	165.70	82	247.00	72
62.10	5509	115.80	550	166.70	121	249.10	69
63.00	4355	116.90	875	167.80	332	250.30	84
64.00	608	117.90	594	168.90	224	250.60	74
64.90	355	119.00	524	170.10	302	251.70	55
65.80	313	119.70	156	170.90	2292	253.20	70
67.10	741	120.90	74	171.90	674	260.00	97
68.00	11927	121.50	114	173.90	107584	266.50	60
69.00	15081	122.50	115	175.00	9043	266.80	53
70.00	2508	123.70	135	175.90	105200	272.40	58
71.10	307	125.00	134	176.90	7149	273.40	76
71.90	649	126.80	3692	178.00	391	279.50	63
73.00	5456	127.90	1518	181.00	77	285.00	99
74.00	21144	128.80	310	182.30	57	286.50	122
75.00	58616	129.80	537	182.90	64	288.90	53
76.00	4757	130.90	337	184.00	137	292.90	55
76.90	1286	131.50	91	185.10	414	294.30	84
78.10	756	132.10	83	185.90	4295	295.40	54
78.90	3577	132.80	53	186.90	191	298.50	60
80.00	1519	133.60	94	189.10	61	304.70	76

80.90	3698	134.10	133	189.60	78	307.90	108
81.90	912	134.90	245	190.90	52	309.00	113
83.00	792	135.80	149	191.20	60	310.60	75
83.90	128	136.80	432	192.30	55	312.70	82
84.40	150	137.90	158	193.40	61	315.00	58
85.00	220	138.80	269	196.70	97	316.10	64
85.60	186	139.90	523	198.60	50	344.60	62
86.00	178	141.00	2645	200.10	57		
86.90	5150	141.90	4110	202.30	63		
87.90	4890	142.90	1396	204.00	77		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060101.D

Page 1

Date : 01-JUN-2023 12:01

Client ID: BFB

Instrument: VOA9.i

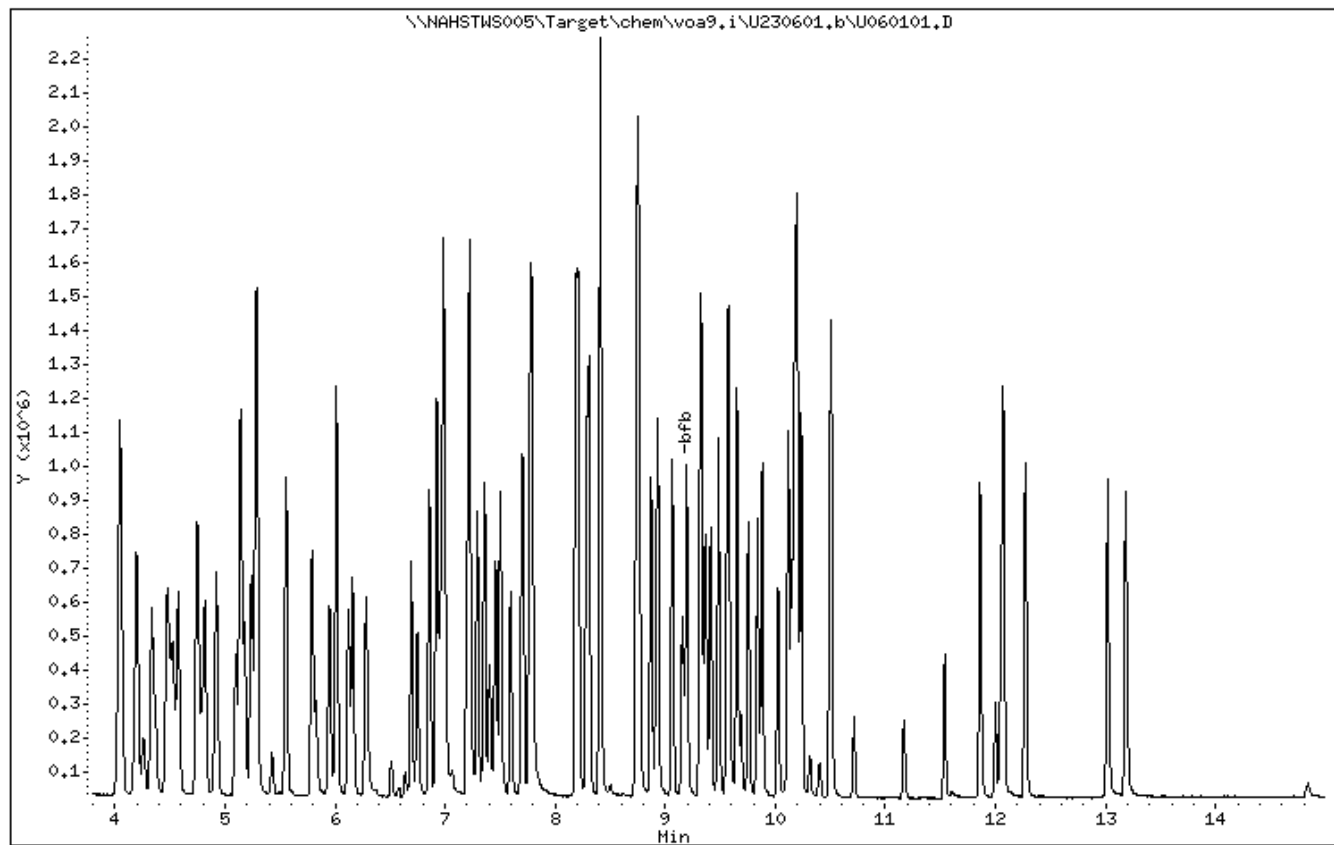
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230601.b\U060101.D

Page 2

Date : 01-JUN-2023 12:01

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

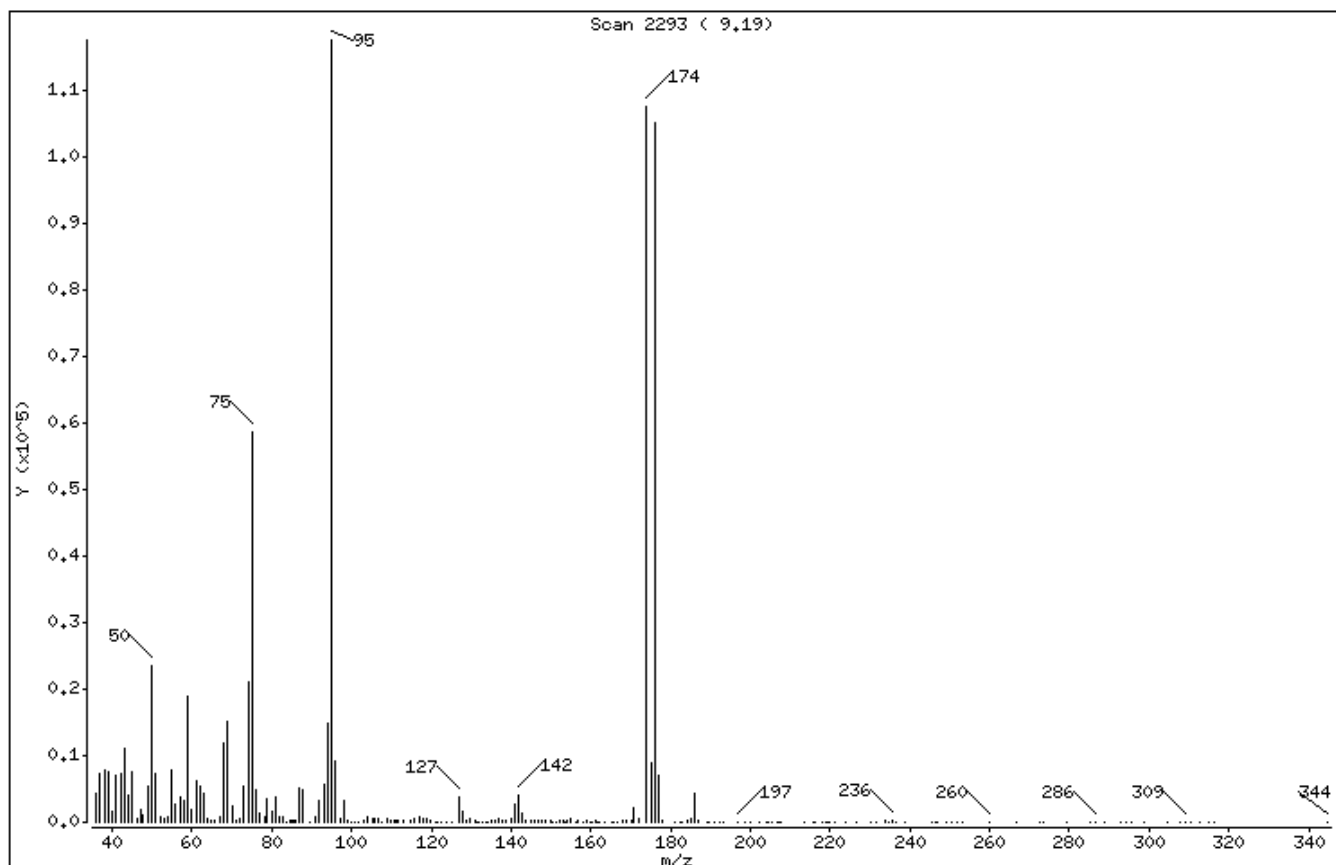
Volume Injected (uL): 2.0

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	19.92
75	30.00 - 60.00% of mass 95	49.84
96	5.00 - 9.00% of mass 95	7.73
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	91.48
175	5.00 - 9.00% of mass 174	7.69 (8.41)
176	95.00 - 101.00% of mass 174	89.46 (97.78)
177	5.00 - 9.00% of mass 176	6.08 (6.80)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060101.D

Page 3

Date : 01-JUN-2023 12:01

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: U060101.D

Spectrum: Scan 2293 (9.19)

Location of Maximum: 95.00

Number of points: 217

m/z	Y	m/z	Y	m/z	Y	m/z	Y

36.00	4227	89.40	119	143.80	144	204.60	59
37.00	7170	90.80	685	144.80	201	205.60	85
38.00	7815	92.00	3295	145.90	167	206.60	60
39.00	7636	93.00	5696	147.00	146	207.20	72
40.00	1718	94.00	14746	147.70	332	207.70	62

41.00	6905	95.00	117600	148.80	188	213.70	91
42.00	7264	96.00	9086	149.90	281	215.70	59
43.00	11166	97.00	459	150.50	69	216.30	94
44.00	4128	98.00	3289	151.10	62	218.20	88
45.00	7680	98.90	226	152.00	184	218.90	68

46.20	618	99.80	96	152.90	229	219.40	121
47.00	2018	100.80	120	153.60	93	219.90	53
47.80	1172	101.90	119	154.00	139	221.20	90
49.00	5455	103.00	218	154.90	503	224.00	55
50.00	23424	104.00	677	156.10	118	226.40	87

51.00	7239	105.10	601	156.90	323	226.80	70
52.10	684	105.90	578	158.10	94	230.30	66
53.00	606	106.80	551	158.90	237	231.40	51
54.10	728	107.80	108	159.70	132	233.70	198
55.00	7922	108.90	429	160.40	125	234.60	123

55.90	2772	109.90	153	161.00	219	235.80	204
56.90	3749	110.60	143	161.80	84	236.50	63
58.00	3225	111.00	141	162.20	122	238.90	64
59.00	18928	111.70	166	163.70	61	245.40	89
60.00	1877	113.00	168	165.10	89	246.30	54

61.00	6201	115.00	323	165.70	82	247.00	72
62.10	5509	115.80	550	166.70	121	249.10	69
63.00	4355	116.90	875	167.80	332	250.30	84
64.00	608	117.90	594	168.90	224	250.60	74
64.90	355	119.00	524	170.10	302	251.70	55

65.80	313	119.70	156	170.90	2292	253.20	70
67.10	741	120.90	74	171.90	674	260.00	97
68.00	11927	121.50	114	173.90	107584	266.50	60
69.00	15081	122.50	115	175.00	9043	266.80	53
70.00	2508	123.70	135	175.90	105200	272.40	58



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230601.b\U060101.D

Page 4

Date : 01-JUN-2023 12:01

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: U060101.D
 Spectrum: Scan 2293 (9.19)
 Location of Maximum: 95.00
 Number of points: 217

m/z	Y	m/z	Y	m/z	Y	m/z	Y

71.10	307	125.00	134	176.90	7149	273.40	76
71.90	649	126.80	3692	178.00	391	279.50	63
73.00	5456	127.90	1518	181.00	77	285.00	99
74.00	21144	128.80	310	182.30	57	286.50	122
75.00	58616	129.80	537	182.90	64	288.90	53

76.00	4757	130.90	337	184.00	137	292.90	55
76.90	1286	131.50	91	185.10	414	294.30	84
78.10	756	132.10	83	185.90	4295	295.40	54
78.90	3577	132.80	53	186.90	191	298.50	60
80.00	1519	133.60	94	189.10	61	304.70	76

80.90	3698	134.10	133	189.60	78	307.90	108
81.90	912	134.90	245	190.90	52	309.00	113
83.00	792	135.80	149	191.20	60	310.60	75
83.90	128	136.80	432	192.30	55	312.70	82
84.40	150	137.90	158	193.40	61	315.00	58

85.00	220	138.80	269	196.70	97	316.10	64
85.60	186	139.90	523	198.60	50	344.60	62
86.00	178	141.00	2645	200.10	57		
86.90	5150	141.90	4110	202.30	63		
87.90	4890	142.90	1396	204.00	77		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060103.D Page 1
 Report Date: 06-Jun-2023 16:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060103.D
 Lab Smp Id: CCV Client Smp ID: CCV
 Inj Date : 01-JUN-2023 12:45
 Operator : PC Inst ID: VOA9.i
 Smp Info : CCV;CCV;2;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\8260C.m
 Meth Date : 06-Jun-2023 16:37 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.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

		QUANT SIG				AMOUNTS	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	676710	50.0000	
2 Dichlorodifluoromethane	85	1.168	1.168	(0.242)	286265	50.0000	49.31
3 Chloromethane	50	1.303	1.303	(0.270)	483264	50.0000	74.82
5 Vinyl Chloride	62	1.381	1.381	(0.287)	339071	50.0000	50.00
6 Bromomethane	94	1.625	1.625	(0.337)	185607	50.0000	48.69
7 Chloroethane	64	1.704	1.704	(0.354)	224007	50.0000	49.78
8 Trichlorofluoromethane	101	1.902	1.902	(0.395)	407048	50.0000	54.07
9 Acrolein	56	2.270	2.270	(0.471)	32076	100.000	105.49
10 Acetone	43	2.412	2.412	(0.501)	280679	100.000	106.20
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	241751	50.0000	47.62
15 Iodomethane	142	2.476	2.476	(0.514)	372452	100.000	53.30
16 Acrylonitrile	53	3.068	3.068	(0.637)	254979	100.000	89.36
17 Methylene Chloride	84	2.798	2.798	(0.581)	304093	50.0000	48.67
18 Methyl tert-butyl ether	73	3.083	3.083	(0.640)	819292	50.0000	41.83
19 Carbon Disulfide	76	2.528	2.528	(0.525)	1414575	100.000	93.23
20 trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	275348	50.0000	47.43
21 Vinyl Acetate	43	3.612	3.612	(0.750)	1730205	100.000	87.27
22 1,1-Dichloroethane	63	3.518	3.518	(0.730)	482713	50.0000	45.38
24 2-Butanone	43	4.268	4.268	(0.886)	294295	100.000	89.15
26 2,2-Dichloropropane	77	4.189	4.189	(0.869)	357295	50.0000	40.38



27 cis-1,2-Dichloroethene	96	4.200	4.200 (0.872)	318134	50.0000	46.36
28 Chloroform	83	4.575	4.575 (0.949)	504745	50.0000	45.46

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060103.D Page 2
 Report Date: 06-Jun-2023 16:37

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.474	4.474	(0.928)	164232	50.0000	47.42
\$ 30 Dibromofluoromethane	113	4.751	4.751	(0.986)	307854	50.0000	49.33
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	408380	50.0000	41.67
32 1,1-Dichloropropene	75	4.924	4.924	(0.886)	364494	50.0000	48.79
33 1,2-Dichloroethane	62	5.179	5.179	(0.932)	415846	50.0000	43.88
34 Carbon Tetrachloride	117	4.913	4.913	(0.884)	334975	50.0000	40.53
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	345902	50.0000	45.19
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	990214	50.0000	
37 Benzene	78	5.141	5.141	(0.925)	1175204	50.0000	50.04
38 Trichloroethene	130	5.790	5.790	(1.042)	328124	50.0000	48.52
39 Bromodichloromethane	83	6.281	6.281	(1.130)	374293	50.0000	44.42
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	309005	50.0000	51.02
44 Dibromomethane	93	6.123	6.123	(1.102)	196684	50.0000	46.02
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	682445	100.000	87.15
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	457639	50.0000	43.45
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	949363	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1134685	50.0000	48.10
50 Toluene	91	6.982	6.982	(0.853)	1294330	50.0000	49.65
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	382197	50.0000	42.30
52 2-Hexanone	43	7.593	7.593	(0.928)	476080	100.000	86.55
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	248860	50.0000	49.55
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	526799	50.0000	47.67
55 Dibromochloromethane	129	7.694	7.694	(0.940)	337380	50.0000	45.63
56 Tetrachloroethene	164	7.458	7.458	(0.911)	315394	50.0000	56.26
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	314160	50.0000	47.68
58 1-Chlorohexane	55	8.196	8.196	(1.475)	232715	50.0000	51.59
59 Chlorobenzene	112	8.211	8.211	(1.003)	898639	50.0000	49.87
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	319075	50.0000	46.27
61 Ethylbenzene	106	8.309	8.309	(1.015)	437822	50.0000	49.54
62 m,p-Xylenes	106	8.410	8.410	(1.027)	1090780	100.000	100.84
63 o-Xylene	106	8.748	8.748	(1.069)	530593	50.0000	48.62
64 Styrene	104	8.763	8.763	(1.071)	890590	50.0000	48.57
66 Bromoform	173	8.920	8.920	(1.090)	228111	50.0000	42.15
67 Isopropylbenzene	105	9.062	9.062	(1.107)	1266840	50.0000	47.91
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	425412	50.0000	49.94
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	417007	50.0000	46.33
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	495435	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	384306	50.0000	40.02
73 n-Propylbenzene	91	9.411	9.411	(0.925)	1350193	50.0000	49.19
74 Bromobenzene	156	9.317	9.317	(0.916)	396351	50.0000	49.73
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	906512	50.0000	45.87
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	914144	50.0000	50.46
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1021992	50.0000	48.37
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	863788	50.0000	47.45
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	899455	50.0000	44.77
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	1116979	50.0000	54.00
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	939788	50.0000	42.06
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	670285	50.0000	48.65
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	698970	50.0000	48.41
87 n-Butylbenzene	91	10.494	10.494	(1.032)	790723	50.0000	42.02
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	662834	50.0000	47.05
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	71089	50.0000	40.01(M)



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	467803	50.0000	45.82
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	192887	50.0000	64.09

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060103.D Page 3

Report Date: 06-Jun-2023 16:37

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	1178526	50.0000	41.94
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	454707	50.0000	45.52
M 94 1,2-Dichloroethylene (total)	96				593482	100.000	(a)
135 1,4-Dioxane	88	6.172	6.172	(1.281)	89179	1000.00	1088.03
141 Cyclohexane	56	4.785	4.785	(0.993)	336727	50.0000	54.59
138 Freon TF	101	2.341	2.341	(0.486)	213064	50.0000	56.72
140 1,3-Butadiene	54	1.408	1.408	(0.292)	313335	50.0000	57.07
147 Methylcyclohexane	55	5.951	5.951	(1.071)	762706	50.0000	48.84
146 Methyl Acetate	43	2.716	2.716	(0.564)	261572	50.0000	44.68
148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	614920	1000.00	745.72
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	412862	1000.00	881.65
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	52020	50.0000	20.35
12 Isobutyl Alcohol	43	5.291	5.291	(1.098)	927344	1000.00	871.30
23 Chloroprene	53	2.165	2.165	(0.449)	101033	50.0000	44.12

QC Flag Legend

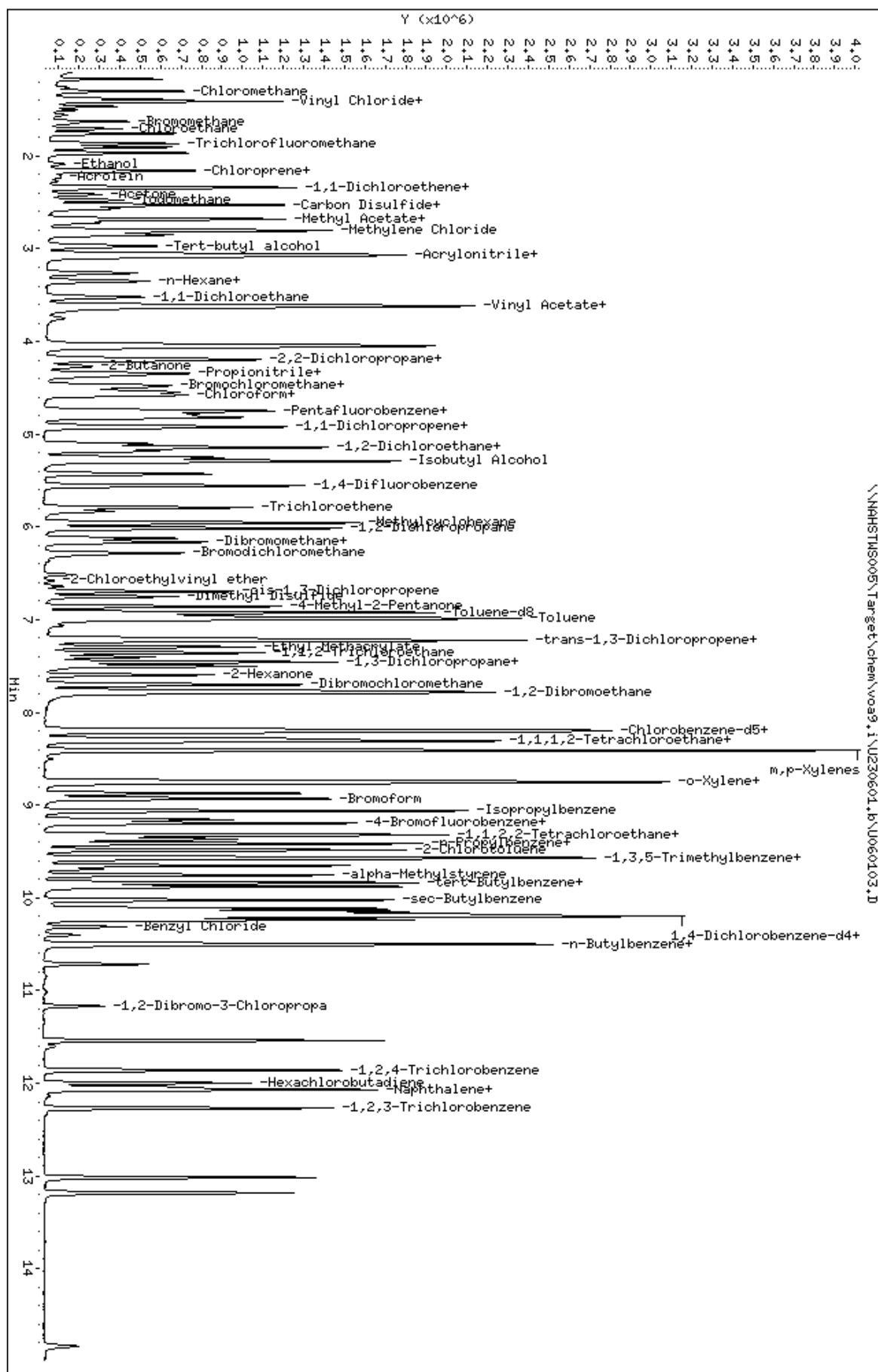
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.1\U230601.b\U060103.D
 Date : 01-JUN-2023 12:45
 Client ID: CCV
 Sample Info: CCV\CCV\2222
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W049.1
 Operator: PC
 Column diameter: 0.18

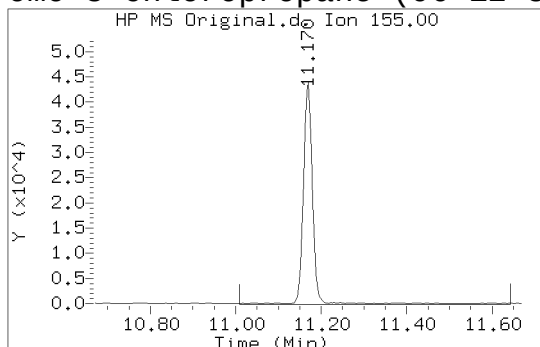


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060103.D
Inj Date : 01-JUN-2023 12:45
InstruID : VOA9.i
LabSampID : CCV

1,2-Dibromo-3-Chloropropane (96-12-8)

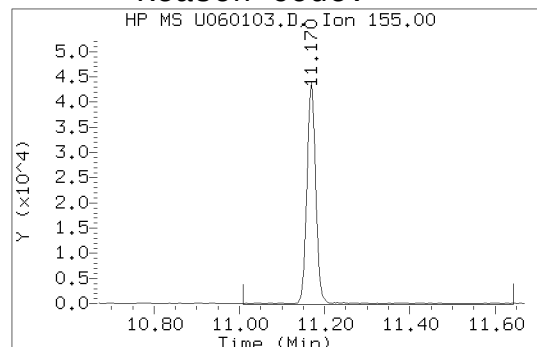
BEFORE

MASS
155
AREA
71089
HEIGHT
43966
06-Jun-2023
16:36
linh



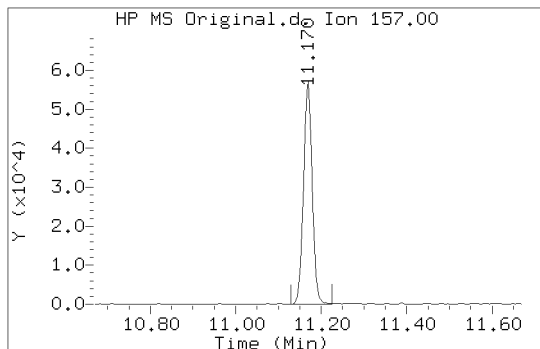
AFTER

MASS
155
AREA
71089
HEIGHT
43966
06-Jun-2023
16:36
linh



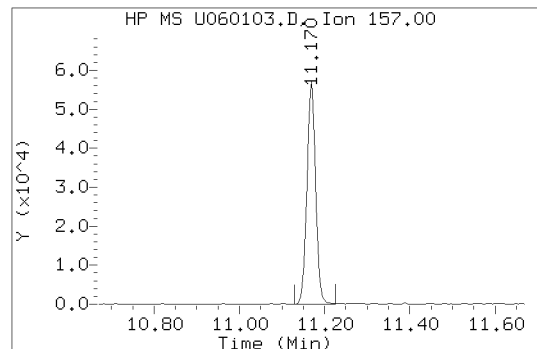
BEFORE

MASS
157
AREA
83159
HEIGHT
57000
06-Jun-2023
16:36
linh
pham



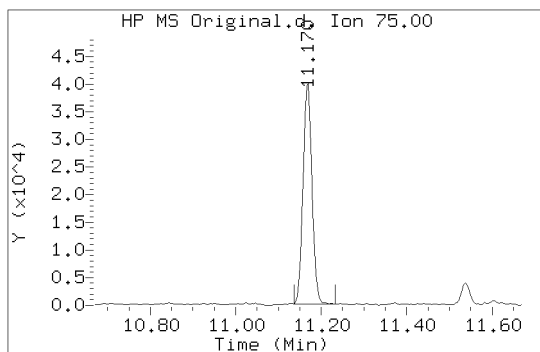
AFTER

MASS
157
AREA
83159
HEIGHT
57000
06-Jun-2023
16:36
linh
pham



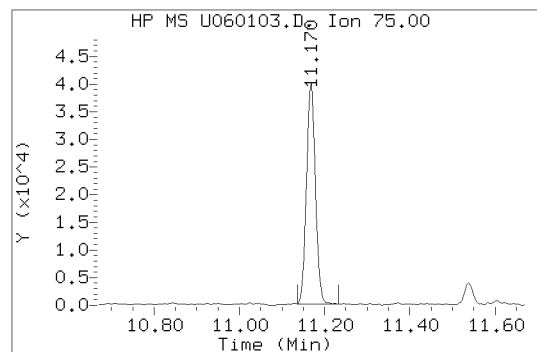
BEFORE

MASS
75
AREA
60034
HEIGHT
39872
06-Jun-2023
16:36
linh
pham



AFTER

MASS
75
AREA
60034
HEIGHT
39872
06-Jun-2023
16:36
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060104.D Page 1
 Report Date: 06-Jun-2023 16:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060104.D
 Lab Smp Id: CCB Client Smp ID: CCB
 Inj Date : 01-JUN-2023 13:07
 Operator : PC Inst ID: VOA9.i
 Smp Info : CCB;CCB;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\8260C.m
 Meth Date : 06-Jun-2023 16:37 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 4
 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	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.812	4.819	(1.000)	807891	50.0000	
\$ 30 Dibromofluoromethane	113	4.744	4.751	(0.986)	323347	43.2979	43.29
\$ 35 1,2-Dichloroethane-d4	65	5.093	5.100	(1.058)	371275	40.5274	40.52
* 36 1,4-Difluorobenzene	114	5.550	5.557	(1.000)	1112707	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	964548	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1218853	50.8647	50.86
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	414589	45.3168	45.31
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	480474	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230601.b\U060104.D

Date : 01-JUN-2023 13:07

Client ID: CCB

Sample Info: CCB;CCB;;

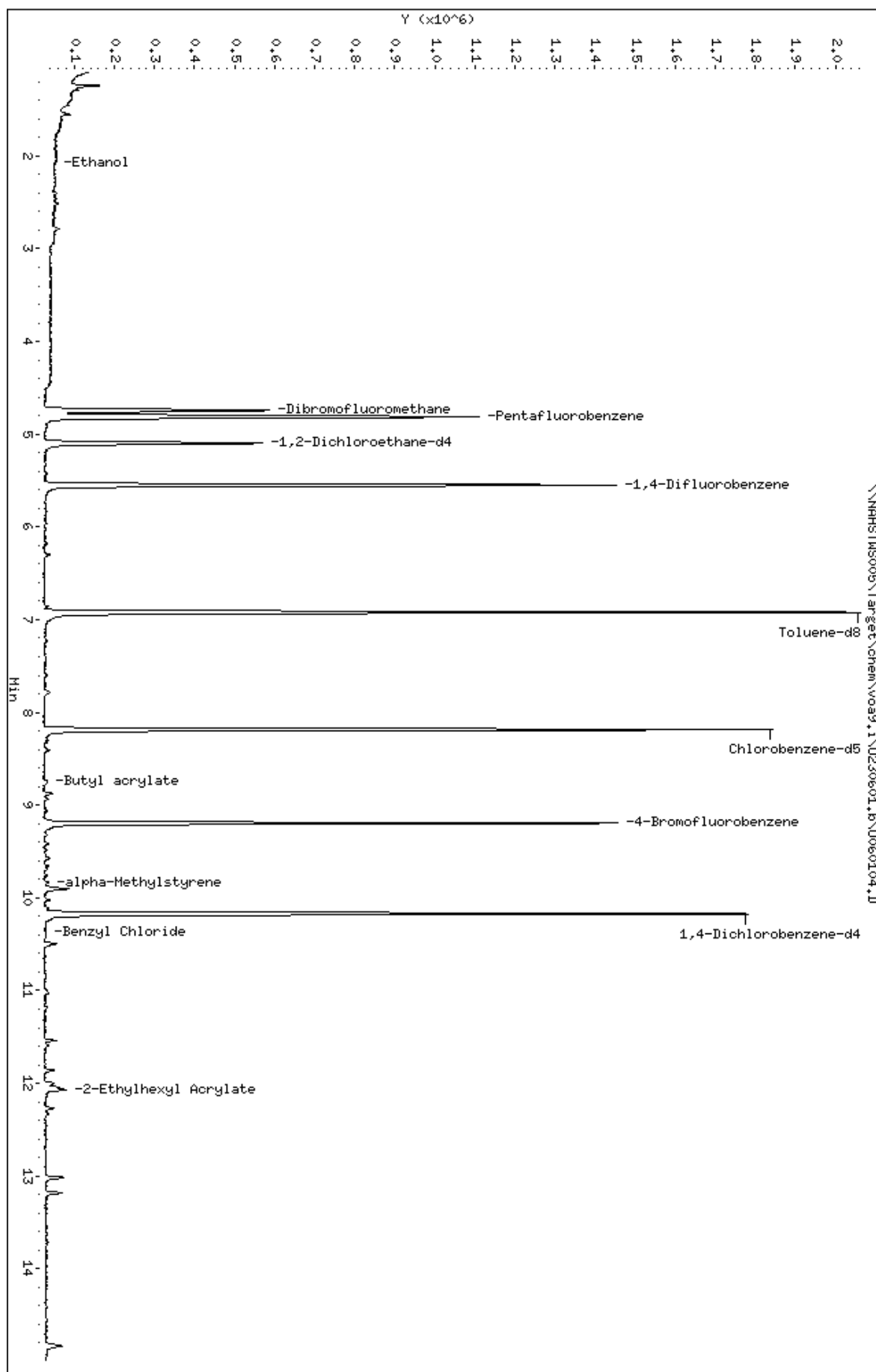
Purge Volume: 5.0

Column phase: DB624

Instrument: VDA9.i

Operator: PC

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060104.D
Inj Date : 01-JUN-2023 13:07
InstruID : VOA9.i
LabSampID : CCB

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060105.D Page 1
 Report Date: 06-Jun-2023 16:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060105.D
 Lab Smp Id: VLCSW-230601 Client Smp ID: VLCSW-230601
 Inj Date : 01-JUN-2023 13:36
 Operator : PC Inst ID: VOA9.i
 Smp Info : VLCSW-230601;VLCSW-230601;3;;LCS
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\8260C.m
 Meth Date : 06-Jun-2023 16:37 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.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: $\text{Amt} * \text{DF} * (\text{Uf}/\text{Vo}) * 1 * \text{CpndVariable}$

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						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.815	4.819	(1.000)		636299	50.0000	
2 Dichlorodifluoromethane	85		1.168	1.168	(0.243)		123684	24.2492	24.24
3 Chloromethane	50		1.299	1.303	(0.270)		213351	35.1334	35.13
5 Vinyl Chloride	62		1.381	1.381	(0.287)		144443	22.6571	22.65
6 Bromomethane	94		1.625	1.625	(0.338)		85757	24.8839	24.88
7 Chloroethane	64		1.704	1.704	(0.354)		95870	22.6600	22.66
8 Trichlorofluoromethane	101		1.899	1.902	(0.394)		181202	27.3822	27.38
9 Acrolein	56		2.266	2.270	(0.471)		13388	46.2604	46.26
10 Acetone	43		2.409	2.412	(0.500)		111073	43.3934	43.39
11 1,1-Dichloroethene	96		2.337	2.337	(0.485)		105781	22.1632	22.16
15 Iodomethane	142		2.472	2.476	(0.513)		111521	18.6368	18.63
16 Acrylonitrile	53		3.068	3.068	(0.637)		98291	36.6374	36.63
17 Methylene Chloride	84		2.798	2.798	(0.581)		133333	22.5303	22.53
18 Methyl tert-butyl ether	73		3.083	3.083	(0.640)		317781	17.2578	17.25
19 Carbon Disulfide	76		2.525	2.528	(0.524)		582692	40.8444	40.84
20 trans-1,2-Dichloroethene	96		3.061	3.065	(0.636)		117561	21.5384	21.53
21 Vinyl Acetate	43		3.608	3.612	(0.749)		681096	36.5393	36.53
22 1,1-Dichloroethane	63		3.518	3.518	(0.731)		205188	20.5154	20.51
24 2-Butanone	43		4.268	4.268	(0.886)		115012	37.0567	37.05
26 2,2-Dichloropropane	77		4.185	4.189	(0.869)		149805	18.0077	18.00



27 cis-1,2-Dichloroethene	96	4.200	4.200 (0.872)	133562	20.6995	20.69
28 Chloroform	83	4.575	4.575 (0.950)	215610	20.6529	20.65

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060105.D Page 2
 Report Date: 06-Jun-2023 16:37

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.470	4.474	(0.928)	71093	21.8321	21.83	
\$ 30 Dibromofluoromethane	113	4.752	4.751	(0.987)	295829	50.4386	50.43	
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	165013	17.9068	17.90	
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	155876	21.8968	21.89	
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	180293	19.9661	19.96	
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	137014	18.8393	18.83	
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	341440	47.4979	47.49	
* 36 1,4-Difluorobenzene	114	5.554	5.557	(1.000)	943679	50.0000		
37 Benzene	78	5.141	5.141	(0.926)	493076	22.0325	22.03	
38 Trichloroethene	130	5.790	5.790	(1.043)	139511	21.6493	21.64	
39 Bromodichloromethane	83	6.281	6.281	(1.131)	145830	18.1615	18.16	
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	127979	22.1740	22.17	
44 Dibromomethane	93	6.120	6.123	(1.102)	79770	19.5865	19.58	
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	265532	35.9926	35.99	
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	172464	17.1855	17.18	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	894424	50.0000		
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1106053	49.7761	49.77	
50 Toluene	91	6.982	6.982	(0.853)	535782	21.8169	21.81	
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	140212	16.2865	16.28	
52 2-Hexanone	43	7.597	7.593	(0.928)	182381	35.1930	35.19	
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	102236	21.6088	21.60	
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	214973	20.6502	20.65	
55 Dibromochloromethane	129	7.694	7.694	(0.940)	126721	18.1943	18.19	
56 Tetrachloroethene	164	7.458	7.458	(0.911)	131679	24.9350	24.93	
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	127681	20.5719	20.57	
58 1-Chlorohexane	55	8.197	8.196	(1.476)	105207	25.8887	25.88	
59 Chlorobenzene	112	8.212	8.211	(1.003)	372596	21.9511	21.95	
60 1,1,1,2-Tetrachloroethane	131	8.287	8.286	(1.012)	126021	19.3982	19.39	
61 Ethylbenzene	106	8.309	8.309	(1.015)	180098	21.6310	21.63	
62 m,p-Xylenes	106	8.410	8.410	(1.027)	444068	43.5781	43.57	
63 o-Xylene	106	8.748	8.748	(1.069)	212739	20.6939	20.69	
64 Styrene	104	8.763	8.763	(1.071)	352984	20.4344	20.43	
66 Bromoform	173	8.920	8.920	(1.090)	82107	16.1071	16.10	
67 Isopropylbenzene	105	9.062	9.062	(1.107)	523046	20.9960	20.99	
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	172353	21.1672	21.16	
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	412158	48.6658	48.66	
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	473569	50.0000		
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	151791	16.5367	16.53	
73 n-Propylbenzene	91	9.411	9.411	(0.925)	544535	20.7549	20.75	
74 Bromobenzene	156	9.317	9.317	(0.916)	164794	21.6320	21.63	
75 1,3,5-Trimethylbenzene	105	9.565	9.561	(0.940)	362460	19.1916	19.19	
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	382658	22.1005	22.10	
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	416766	20.6383	20.63	
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	359263	21.5450	21.54	
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	368592	19.1963	19.19	
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	458193	25.0119	25.01	
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	381521	19.4821	19.48	
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	277668	21.0876	21.08	
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	298369	21.6195	21.61	
87 n-Butylbenzene	91	10.494	10.494	(1.032)	330381	20.1698	20.16	
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	274202	20.3660	20.36	
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	23054	15.0879	15.08	



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	188270	19.2956	19.29
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	84639	32.8536	32.85

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060105.D Page 3

Report Date: 06-Jun-2023 16:37

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	439907	16.3779	16.37
93 1,2,3-Trichlorobenzene	180	12.271	12.268	(1.206)	179937	18.8474	18.84
M 94 1,2-Dichloroethylene (total)	96				251123	42.2379	42.23
M 95 Xylenes (total)	106				656807	64.2720	64.27
135 1,4-Dioxane	88	6.172	6.172	(1.282)	33907	439.956	439.95
141 Cyclohexane	56	4.785	4.785	(0.994)	162977	30.1908	30.19
138 Freon TF	101	2.341	2.341	(0.486)	101704	31.1666	31.16
140 1,3-Butadiene	54	1.408	1.408	(0.292)	127739	24.7455	24.74
147 Methylcyclohexane	55	5.951	5.951	(1.072)	260727	17.5214	17.52
146 Methyl Acetate	43	2.716	2.716	(0.564)	103298	18.7681	18.76
148 Tert-Butyl alcohol	59	2.967	2.971	(0.616)	238823	308.021	308.02
149 Isopropyl Alcohol	45	2.562	2.566	(0.532)	156107	354.533	354.53
72 trans-1,4-Dichloro-2-butene	53	9.381	9.377	(1.146)	21319	8.85273	8.85
12 Isobutyl Alcohol	43	5.291	5.291	(1.099)	396958	396.658	396.65
23 Chloroprene	53	2.161	2.165	(0.449)	42653	19.8118	19.81(M)

QC Flag Legend

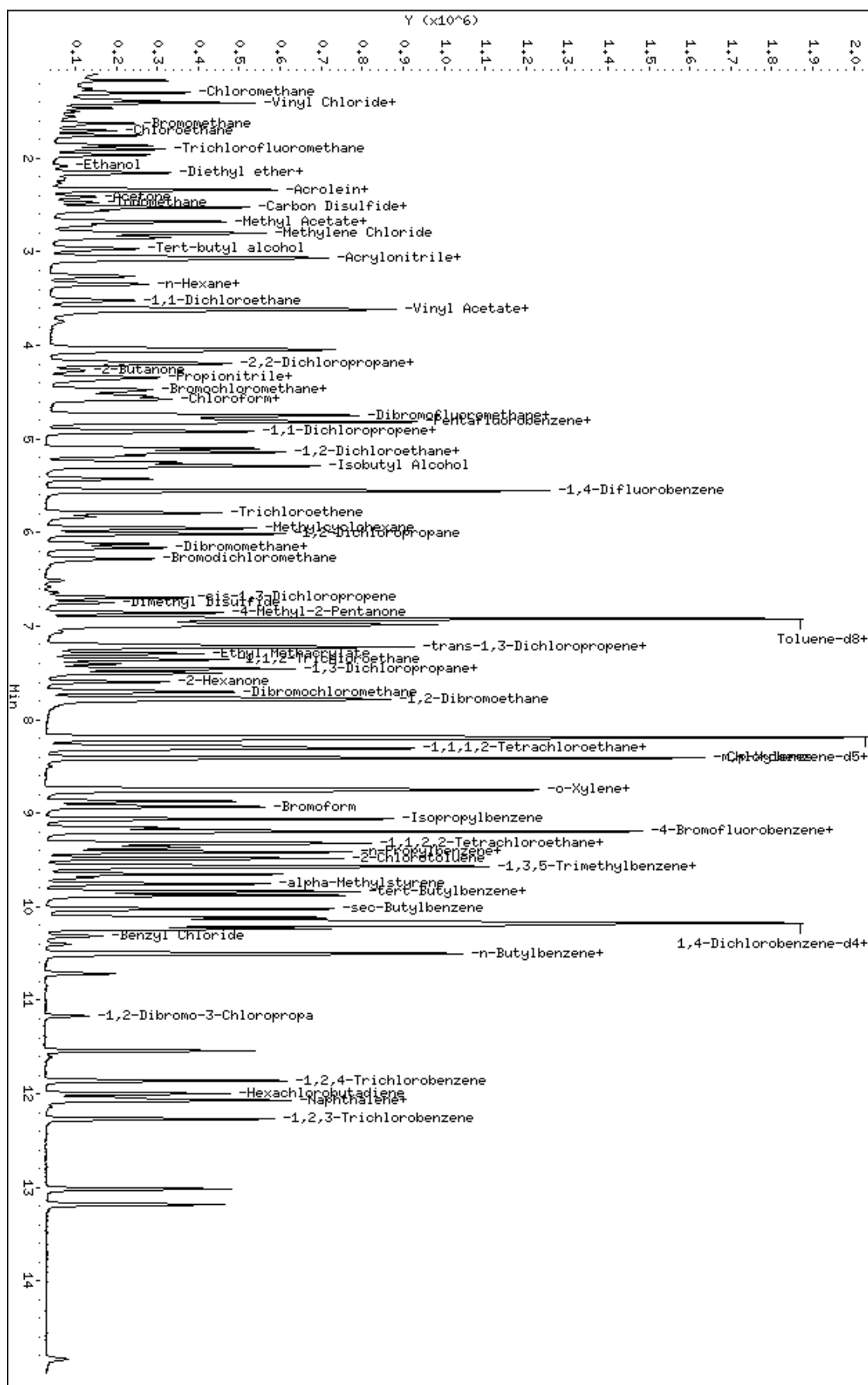
M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230601.b\U060105.D
 Date : 01-JUN-2023 13:36
 Client ID: WLCM-230601
 Sample Info: WLCM-230601;WLCM-230601;3;LCS
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W0A9.i
 Operator: PC
 Column diameter: 0.18

\\NAHSTMS005\Target\chem\voa9.i\U230601.b\U060105.D

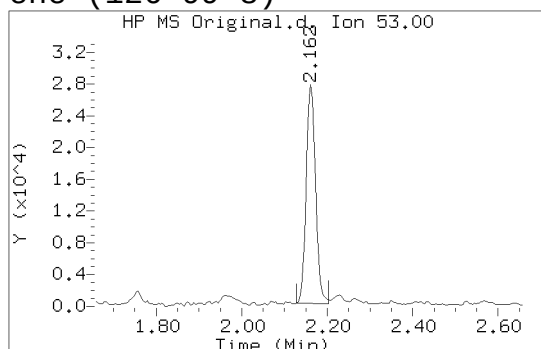


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060105.D
Inj Date : 01-JUN-2023 13:36
InstruID : VOA9.i
LabSampID : VLCSW-230601

Chloroprene (126-99-8)

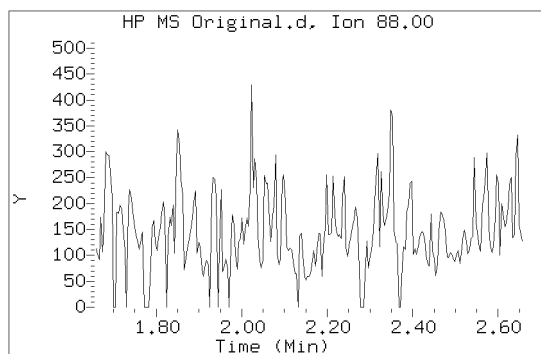
BEFORE

MASS
53
AREA
42653
HEIGHT
27561
06-Jun-2023
16:36
linh
pham



BEFORE

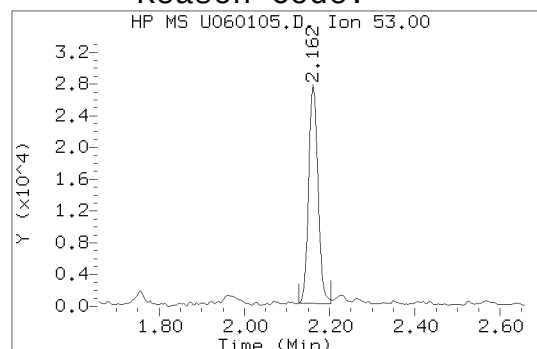
MASS
88
AREA
0
HEIGHT
0
06-Jun-2023
16:36
linh
pham



Reason Code:

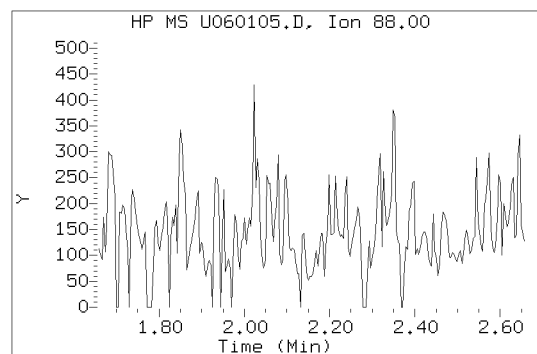
AFTER

MASS
53
AREA
42653
HEIGHT
27561
06-Jun-2023
16:36
linh



AFTER

MASS
88
AREA
0
HEIGHT
0
06-Jun-2023
16:36
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060107.D Page 1
 Report Date: 06-Jun-2023 16:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060107.D
 Lab Smp Id: VBLKW-230601 Client Smp ID: VBLKW-230601
 Inj Date : 01-JUN-2023 14:21
 Operator : PC Inst ID: VOA9.i
 Smp Info : VBLKW-230601;VBLKW-230601;3;;BLANK
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\8260C.m
 Meth Date : 06-Jun-2023 16:37 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.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	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168		4.815	4.819	(1.000)	750109	50.0000	
\$ 30 Dibromofluoromethane	113		4.748	4.751	(0.986)	302215	43.5914	43.59
\$ 35 1,2-Dichloroethane-d4	65		5.100	5.100	(1.059)	346615	40.7559	40.75
* 36 1,4-Difluorobenzene	114		5.554	5.557	(1.000)	1018476	50.0000	
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)	936384	50.0000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)	1155454	49.6692	49.66
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)	399014	44.9163	44.91
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)	465512	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230601.b\U060107.D

Date : 01-JUN-2023 14:21

Client ID: VBLKM-230601

Sample Info: VBLKM-230601;VBLKM-230601;3;BLANK

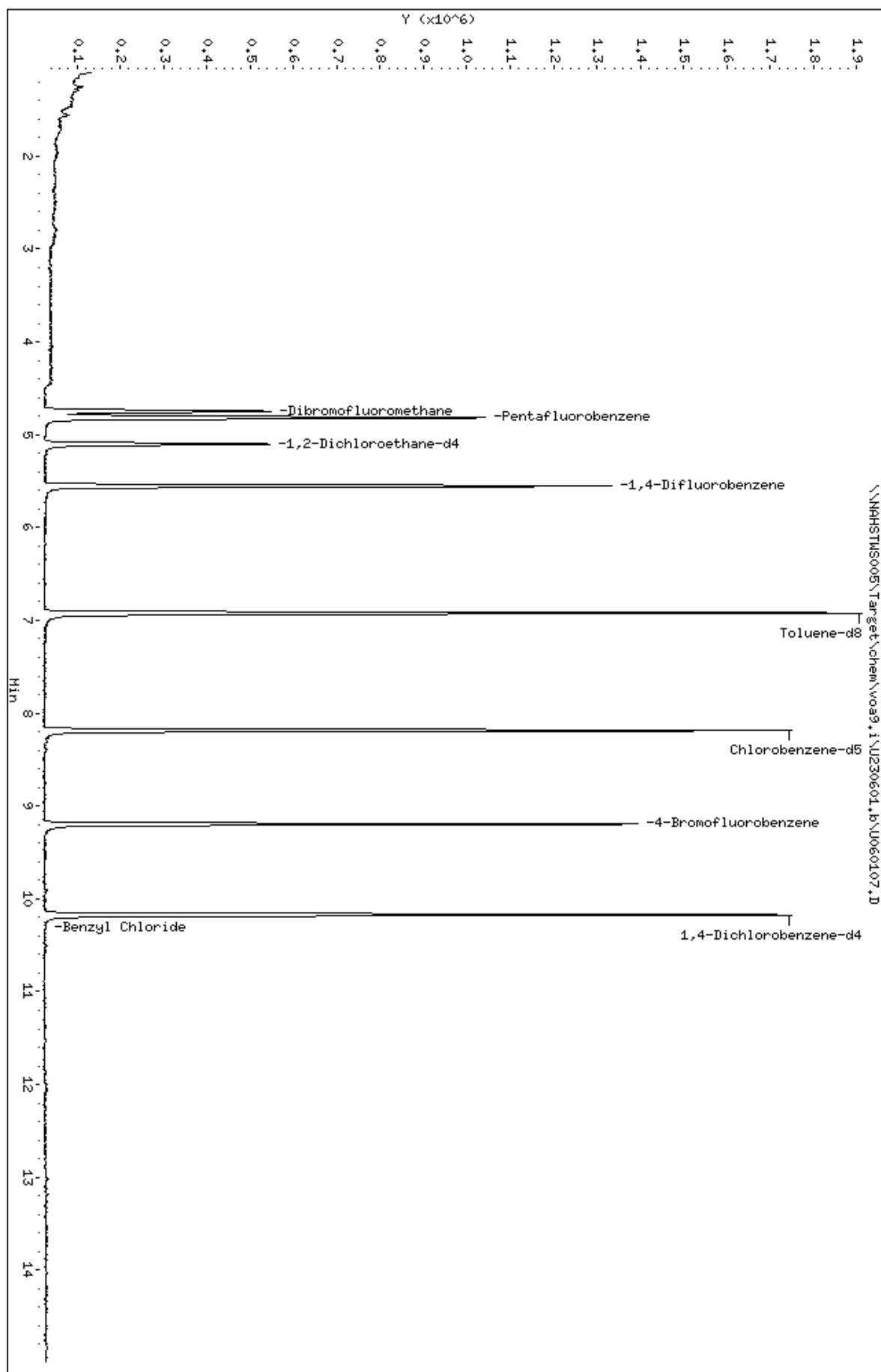
Purge Volume: 5.0

Column phase: DB624

Instrument: VDA9.i

Operator: PC

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060107.D
Inj Date : 01-JUN-2023 14:21
InstruID : VOA9.i
LabSampID : VBLKW-230601

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060110.D Page 1
 Report Date: 06-Jun-2023 16:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060110.D
 Lab Smp Id: HS23051984-01MS Client Smp ID: HS23051984-01MS
 Inj Date : 01-JUN-2023 15:28
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051984-01MS;HS23051984-01MS;3;;MS
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\8260C.m
 Meth Date : 06-Jun-2023 16:37 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 10 QC Sample: MS
 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						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.815	4.819	(1.000)		765101	50.0000	
2 Dichlorodifluoromethane	85		1.164	1.168	(0.242)		46074	9.54412	9.54
3 Chloromethane	50		1.295	1.303	(0.269)		185402	25.3912	25.39
5 Vinyl Chloride	62		1.378	1.381	(0.286)		122241	15.9465	15.94
6 Bromomethane	94		1.618	1.625	(0.336)		85447	20.8508	20.85
7 Chloroethane	64		1.700	1.704	(0.353)		93849	18.4480	18.44
8 Trichlorofluoromethane	101		1.899	1.902	(0.394)		189512	23.9385	23.93
9 Acrolein	56		2.266	2.270	(0.471)		12641	36.1067	36.10
10 Acetone	43		2.409	2.412	(0.500)		92321	29.3013	29.30
11 1,1-Dichloroethene	96		2.334	2.337	(0.485)		113321	19.7459	19.74
15 Iodomethane	142		2.469	2.476	(0.513)		99529	14.3792	14.37
16 Acrylonitrile	53		3.068	3.068	(0.637)		108471	33.6253	33.62
17 Methylene Chloride	84		2.795	2.798	(0.580)		139113	19.5080	19.50
18 Methyl tert-butyl ether	73		3.083	3.083	(0.640)		375116	16.9420	16.94
19 Carbon Disulfide	76		2.521	2.528	(0.524)		629795	36.7143	36.71
20 trans-1,2-Dichloroethene	96		3.061	3.065	(0.636)		129177	19.6824	19.68
21 Vinyl Acetate	43		3.608	3.612	(0.749)		749968	33.4609	33.46
22 1,1-Dichloroethane	63		3.514	3.518	(0.730)		225516	18.7520	18.75
24 2-Butanone	43		4.268	4.268	(0.886)		120614	32.3195	32.31
26 2,2-Dichloropropane	77		4.185	4.189	(0.869)		169702	16.9653	16.96



27 cis-1,2-Dichloroethene	96	4.197	4.200 (0.872)	146710	18.9095	18.90
28 Chloroform	83	4.575	4.575 (0.950)	247208	19.6932	19.69

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060110.D Page 2
 Report Date: 06-Jun-2023 16:37

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.470	4.474	(0.928)	77961	19.9108	19.91	
\$ 30 Dibromofluoromethane	113	4.752	4.751	(0.987)	313581	44.3599	44.35	
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	204034	18.4139	18.41	
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	181791	22.9639	22.96	
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	192502	19.1700	19.16	
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	163679	20.0503	20.05	
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	349289	40.2529	40.25	
* 36 1,4-Difluorobenzene	114	5.554	5.557	(1.000)	1049428	50.0000		
37 Benzene	78	5.138	5.141	(0.925)	543485	21.8378	21.83	
38 Trichloroethene	130	5.790	5.790	(1.043)	157036	21.9133	21.91	
39 Bromodichloromethane	83	6.281	6.281	(1.131)	160045	17.9233	17.92	
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	139201	21.6880	21.68	
44 Dibromomethane	93	6.120	6.123	(1.102)	87434	19.3049	19.30	
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	305557	38.8186	38.81	
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	189062	16.9410	16.94	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	954314	50.0000		
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1201960	50.6976	50.69	
50 Toluene	91	6.982	6.982	(0.853)	598898	22.8565	22.85	
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	155689	16.2620	16.26	
52 2-Hexanone	43	7.593	7.593	(0.928)	201802	36.4968	36.49	
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	112446	22.2752	22.27	
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	237965	21.4243	21.42	
55 Dibromochloromethane	129	7.694	7.694	(0.940)	140572	18.9164	18.91	
56 Tetrachloroethene	164	7.458	7.458	(0.911)	158133	28.0651	28.06	
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	135836	20.5123	20.51	
58 1-Chlorohexane	55	8.197	8.196	(1.476)	132727	29.2362	29.23	
59 Chlorobenzene	112	8.212	8.211	(1.003)	409339	22.6023	22.60	
60 1,1,1,2-Tetrachloroethane	131	8.283	8.286	(1.012)	139354	20.1044	20.10	
61 Ethylbenzene	106	8.309	8.309	(1.015)	204026	22.9670	22.96	
62 m,p-Xylenes	106	8.410	8.410	(1.027)	501136	46.0921	46.09	
63 o-Xylene	106	8.748	8.748	(1.069)	238476	21.7417	21.74	
64 Styrene	104	8.763	8.763	(1.071)	412363	22.3738	22.37	
66 Bromoform	173	8.920	8.920	(1.090)	87786	16.1404	16.14	
67 Isopropylbenzene	105	9.063	9.062	(1.107)	621702	23.3901	23.39	
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	186896	21.7570	21.75	
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	419482	46.3693	46.36	
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	499607	50.0000		
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	162918	16.8239	16.82	
73 n-Propylbenzene	91	9.411	9.411	(0.925)	658995	23.8085	23.80	
74 Bromobenzene	156	9.317	9.317	(0.916)	180234	22.4258	22.42	
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	421001	21.1295	21.12	
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	426142	23.3293	23.32	
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	475292	22.3099	22.30	
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	435393	24.5436	24.54	
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	421417	20.8036	20.80	
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	570597	29.2583	29.25	
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	452545	21.5553	21.55	
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	312668	22.5081	22.50	
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	326572	22.4299	22.42	
87 n-Butylbenzene	91	10.495	10.494	(1.032)	392045	22.2882	22.28	
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	305834	21.5316	21.53	
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	25115	15.5055	15.50	



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	208485	20.2538	20.25
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	91729	33.6782	33.67

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060110.D Page 3

Report Date: 06-Jun-2023 16:37

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.065	12.069	(1.186)	488236	17.2298	17.22
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	202362	20.0916	20.09
M 94 1,2-Dichloroethylene (total)	96				275887	38.5918	38.59
M 95 Xylenes (total)	106				739612	67.8338	67.83
135 1,4-Dioxane	88	6.172	6.172	(1.282)	38268	412.951	412.95
141 Cyclohexane	56	4.785	4.785	(0.994)	199962	30.7687	30.76
138 Freon TF	101	2.337	2.341	(0.485)	114097	29.1976	29.19
140 1,3-Butadiene	54	1.404	1.408	(0.292)	114171	18.3938	18.39
147 Methylcyclohexane	55	5.951	5.951	(1.072)	360541	21.7875	21.78
146 Methyl Acetate	43	2.716	2.716	(0.564)	119690	18.0855	18.08
148 Tert-Butyl alcohol	59	2.967	2.971	(0.616)	268529	288.030	288.03
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	176972	334.257	334.25
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	22468	8.74434	8.74
12 Isobutyl Alcohol	43	5.288	5.291	(1.098)	453552	376.913	376.91
23 Chloroprene	53	2.157	2.165	(0.448)	48840	18.8666	18.86(M)

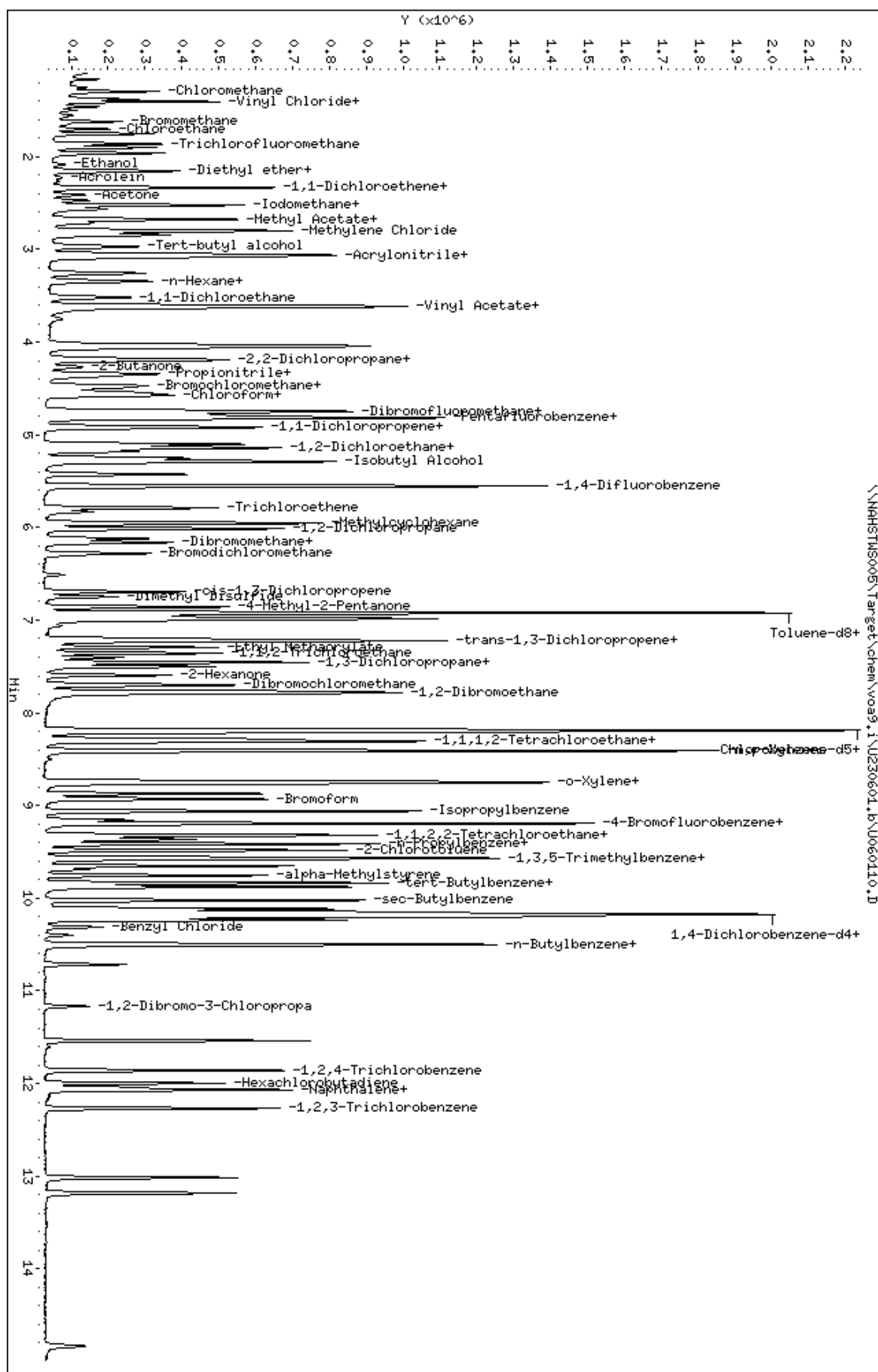
QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230601.b\U060110.D
 Date : 01-JUN-2023 15:28
 Client ID: HS23051984-01MS
 Sample Info: HS23051984-01MS;HS23051984-01MS;3;1MS
 Purge Volume: 5.0
 Column phase: DB624

Instrument: V093.1
 Operator: PC
 Column diameter: 0.18

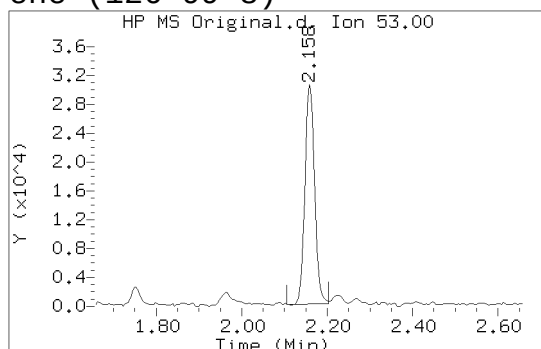


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060110.D
Inj Date : 01-JUN-2023 15:28
InstruID : VOA9.i
LabSampID : HS23051984-01MS

Chloroprene (126-99-8)

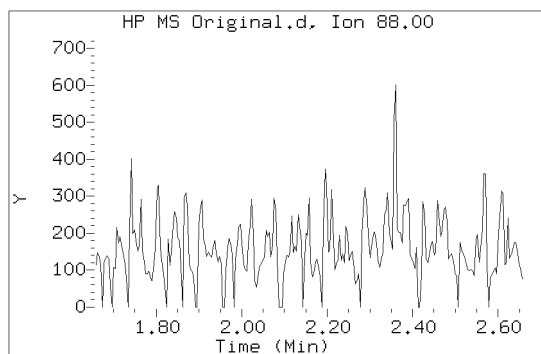
BEFORE

MASS
53
AREA
48840
HEIGHT
30432
06-Jun-2023
16:36
linh
pham



BEFORE

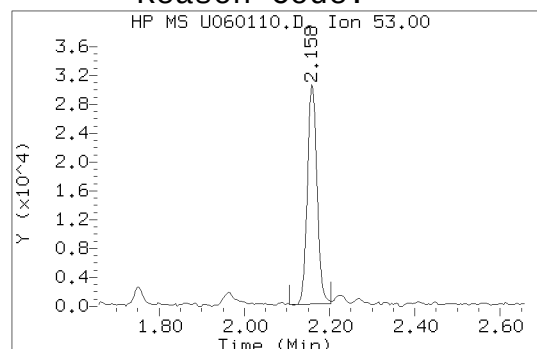
MASS
88
AREA
0
HEIGHT
0
06-Jun-2023
16:36
linh
pham



Reason Code:

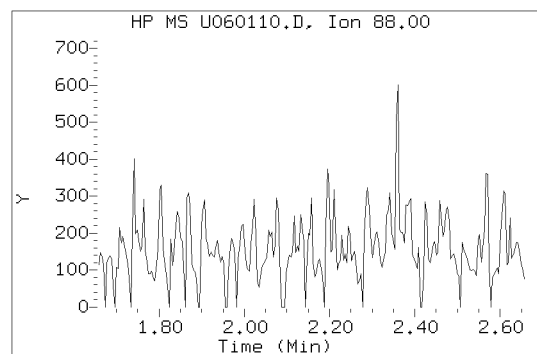
AFTER

MASS
53
AREA
48840
HEIGHT
30432
06-Jun-2023
16:36
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
06-Jun-2023
16:36
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060111.D Page 1
 Report Date: 06-Jun-2023 16:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060111.D
 Lab Smp Id: HS23051984-01MSD Client Smp ID: HS23051984-01MSD
 Inj Date : 01-JUN-2023 15:50
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051984-01MSD;HS23051984-01MSD;3;;MSD
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\8260C.m
 Meth Date : 06-Jun-2023 16:37 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 10 QC Sample: MSD
 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						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.815	4.819	(1.000)		777444	50.0000	
2 Dichlorodifluoromethane	85		1.160	1.168	(0.241)		44368	9.19880	9.19
3 Chloromethane	50		1.291	1.303	(0.268)		177837	23.9685	23.96
5 Vinyl Chloride	62		1.370	1.381	(0.285)		121062	15.5420	15.54
6 Bromomethane	94		1.614	1.625	(0.335)		82647	19.9084	19.90
7 Chloroethane	64		1.696	1.704	(0.352)		92255	17.8468	17.84
8 Trichlorofluoromethane	101		1.891	1.902	(0.393)		184343	22.9435	22.94
9 Acrolein	56		2.259	2.270	(0.469)		12500	35.1097	35.10
10 Acetone	43		2.405	2.412	(0.499)		102903	32.3593	32.35
11 1,1-Dichloroethene	96		2.330	2.337	(0.484)		111710	19.1562	19.15
15 Iodomethane	142		2.465	2.476	(0.512)		113681	15.9020	15.90
16 Acrylonitrile	53		3.061	3.068	(0.636)		111372	33.9765	33.97
17 Methylene Chloride	84		2.791	2.798	(0.580)		133743	18.4402	18.44
18 Methyl tert-butyl ether	73		3.076	3.083	(0.639)		386780	17.1915	17.19
19 Carbon Disulfide	76		2.517	2.528	(0.523)		617520	35.4272	35.42
20 trans-1,2-Dichloroethene	96		3.053	3.065	(0.634)		124888	18.7268	18.72
21 Vinyl Acetate	43		3.604	3.612	(0.749)		760560	33.3947	33.39
22 1,1-Dichloroethane	63		3.511	3.518	(0.729)		223885	18.3208	18.32
24 2-Butanone	43		4.264	4.268	(0.886)		123366	32.5321	32.53
26 2,2-Dichloropropane	77		4.178	4.189	(0.868)		165194	16.2524	16.25



27 cis-1,2-Dichloroethene	96	4.193	4.200 (0.871)	144698	18.3540	18.35
28 Chloroform	83	4.572	4.575 (0.949)	242743	19.0305	19.03

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060111.D Page 2
 Report Date: 06-Jun-2023 16:37

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.467	4.474	(0.928)	79821	20.0621	20.06
\$ 30 Dibromofluoromethane	113	4.748	4.751	(0.986)	318668	44.3639	44.36
31 1,1,1-Trichloroethane	97	4.740	4.744	(0.984)	197712	17.5601	17.56
32 1,1-Dichloropropene	75	4.920	4.924	(0.886)	178758	22.1606	22.16
33 1,2-Dichloroethane	62	5.175	5.179	(0.932)	196022	19.1573	19.15
34 Carbon Tetrachloride	117	4.909	4.913	(0.884)	161812	19.5281	19.52
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.100	(1.058)	361238	40.9877	40.98
* 36 1,4-Difluorobenzene	114	5.554	5.557	(1.000)	1069323	50.0000	
37 Benzene	78	5.138	5.141	(0.925)	536470	21.1549	21.15
38 Trichloroethene	130	5.786	5.790	(1.042)	154820	21.2021	21.20
39 Bromodichloromethane	83	6.277	6.281	(1.130)	161953	17.7995	17.79
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	140679	21.5105	21.51
44 Dibromomethane	93	6.120	6.123	(1.102)	90765	19.6676	19.66
45 4-Methyl-2-Pentanone	43	6.854	6.858	(0.837)	306197	37.2177	37.21
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	187815	16.5162	16.51
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	997448	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1228109	49.5605	49.56
50 Toluene	91	6.982	6.982	(0.853)	596853	21.7935	21.79
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	159851	16.3860	16.38
52 2-Hexanone	43	7.593	7.593	(0.928)	209837	36.3088	36.30
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	112114	21.2490	21.24
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	233931	20.1503	20.15
55 Dibromochloromethane	129	7.694	7.694	(0.940)	141264	18.1874	18.18
56 Tetrachloroethene	164	7.458	7.458	(0.911)	155154	26.3456	26.34
57 1,2-Dibromoethane	107	7.784	7.788	(0.951)	136667	19.7453	19.74
58 1-Chlorohexane	55	8.196	8.196	(1.476)	131424	28.4443	28.44
59 Chlorobenzene	112	8.208	8.211	(1.003)	409761	21.6472	21.64
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	140547	19.3997	19.39
61 Ethylbenzene	106	8.305	8.309	(1.015)	205369	22.1185	22.11
62 m,p-Xylenes	106	8.410	8.410	(1.027)	500222	44.0184	44.01
63 o-Xylene	106	8.748	8.748	(1.069)	236332	20.6144	20.61
64 Styrene	104	8.763	8.763	(1.071)	397572	20.6384	20.63
66 Bromoform	173	8.920	8.920	(1.090)	90568	15.9318	15.93
67 Isopropylbenzene	105	9.062	9.062	(1.107)	622256	22.3985	22.39
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	191893	21.1361	21.13
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	452090	47.8484	47.84
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	528033	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	166249	16.2437	16.24
73 n-Propylbenzene	91	9.411	9.411	(0.925)	655423	22.4047	22.40
74 Bromobenzene	156	9.317	9.317	(0.916)	182006	21.4271	21.42
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	419615	19.9262	19.92
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	430351	22.2914	22.29
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	483637	21.4795	21.47
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	439079	23.4833	23.48
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	423207	19.7673	19.76
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	574076	27.9335	27.93
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	457145	20.7264	20.72
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	317031	21.5936	21.59
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	329717	21.4268	21.42
87 n-Butylbenzene	91	10.491	10.494	(1.031)	397998	21.5347	21.53
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	308506	20.5504	20.55
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	26759	15.6126	15.61



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	213913	19.6624	19.66
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	93114	32.4486	32.44

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060111.D Page 3

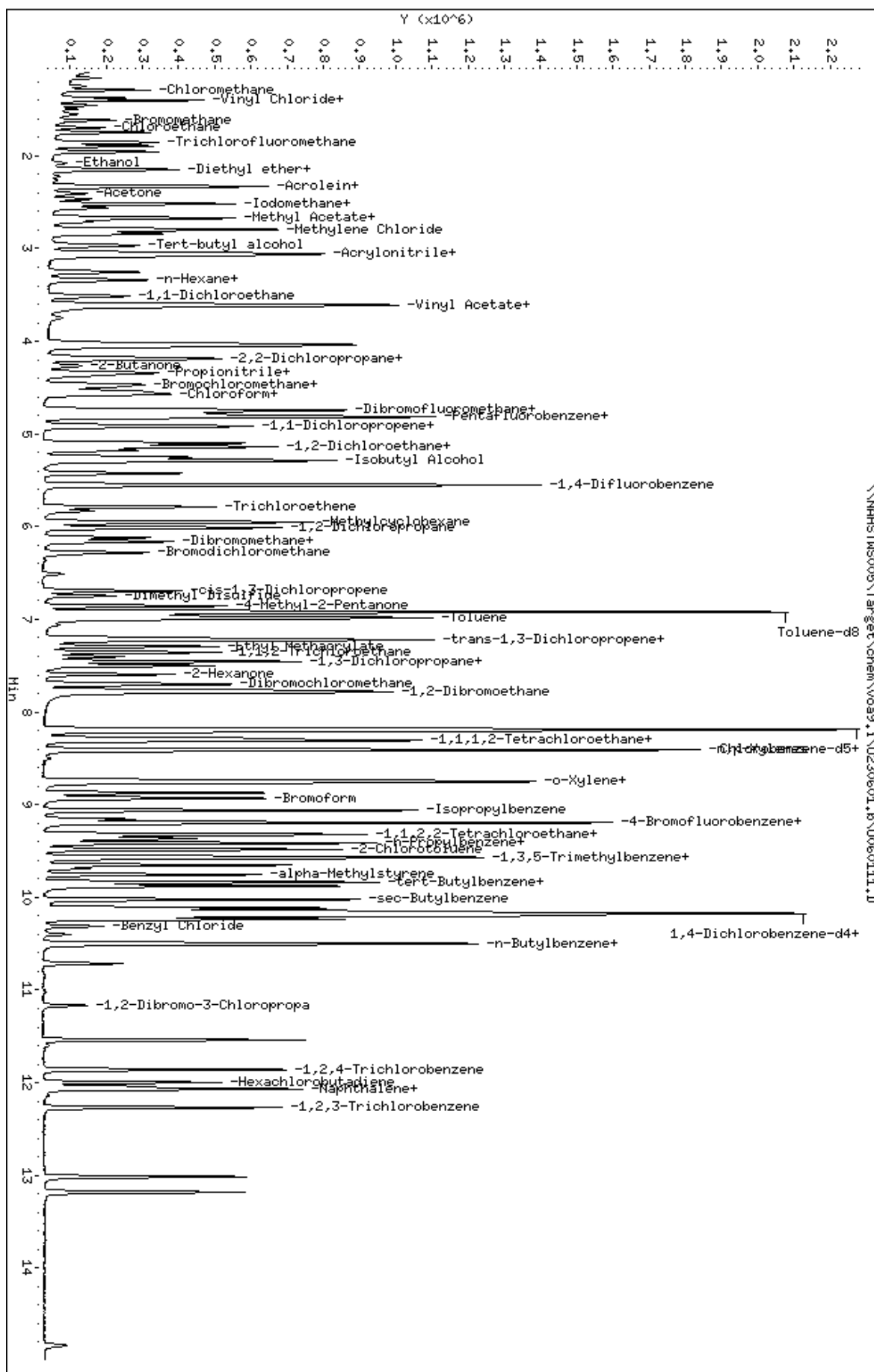
Report Date: 06-Jun-2023 16:37

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	519352	17.3412	17.34
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	205302	19.2862	19.28
M 94 1,2-Dichloroethylene (total)	96				269586	37.0808	37.08
M 95 Xylenes (total)	106				736554	64.6329	64.63
135 1,4-Dioxane	88	6.172	6.172	(1.282)	39738	422.006	422.00
141 Cyclohexane	56	4.781	4.785	(0.993)	197540	29.9640	29.96
138 Freon TF	101	2.330	2.341	(0.484)	113386	28.5889	28.58
140 1,3-Butadiene	54	1.400	1.408	(0.291)	110755	17.5601	17.56
147 Methylcyclohexane	55	5.947	5.951	(1.071)	356955	21.1695	21.16
146 Methyl Acetate	43	2.708	2.716	(0.563)	117085	17.4110	17.41
148 Tert-Butyl alcohol	59	2.963	2.971	(0.615)	283777	299.553	299.55
149 Isopropyl Alcohol	45	2.558	2.566	(0.531)	185907	345.559	345.55
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	23830	8.87335	8.87
12 Isobutyl Alcohol	43	5.288	5.291	(1.098)	466966	381.900	381.89
23 Chloroprene	53	2.154	2.165	(0.447)	50369	19.1483	19.14(M)

QC Flag Legend

M - Compound response manually integrated.





Data File: \\NAHSTMS005\Target\chem\w0a9.i\U230601.b\U060111.D
Date: 01-JUN-2023 15:50
Client ID: HS23051984-01MSD
Sample Info: HS23051984-01MSD\HS23051984-01MSD\3;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: W0A9.i
Operator: PC
Column diameter: 0.18

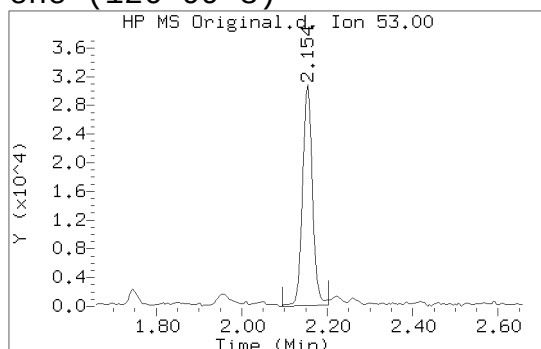


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060111.D
Inj Date : 01-JUN-2023 15:50
InstruID : VOA9.i
LabSampID : HS23051984-01MSD

Chloroprene (126-99-8)

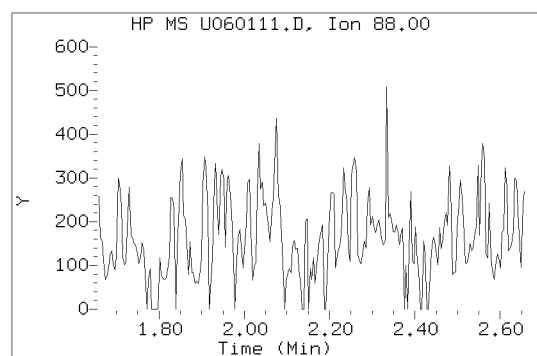
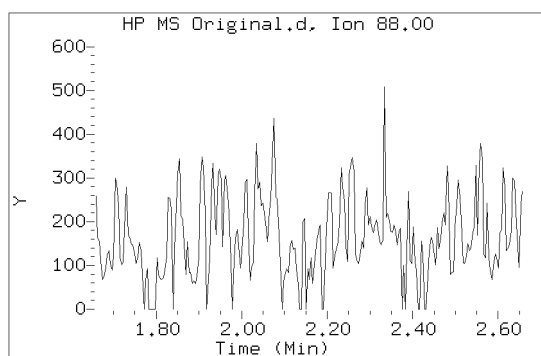
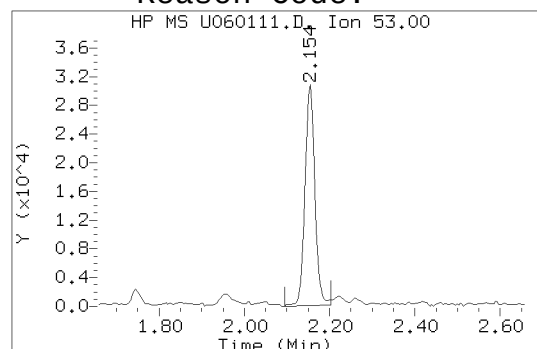
BEFORE

MASS
53
AREA
50369
HEIGHT
30789
06-Jun-2023
16:36
linh
pham
BEFORE
MASS
88
AREA
0
HEIGHT
0
06-Jun-2023
16:36
linh
pham



AFTER

MASS
53
AREA
50369
HEIGHT
30789
06-Jun-2023
16:36
linh
pham
AFTER
MASS
88
AREA
0
HEIGHT
0
06-Jun-2023
16:36
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060114.D Page 1
 Report Date: 06-Jun-2023 16:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060114.D
 Lab Smp Id: HS23051834-08 Client Smp ID: HS23051834-08
 Inj Date : 01-JUN-2023 16:58
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-08;HS23051834-08;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\8260C.m
 Meth Date : 06-Jun-2023 16:37 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 13
 Dil Factor: 1.00000
 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	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	755499	50.0000	
\$ 30 Dibromofluoromethane	113	4.751	4.751	(0.986)	301200	43.1258	43.12
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	352156	41.1212	41.12
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1033615	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	942922	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1162562	49.6283	49.62
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	404266	45.1990	45.19
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	474024	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230601.b\U060114.D

Date: 01-JUN-2023 16:58

Client ID: HS23051834-08

Sample Info: HS23051834-08;HS23051834-08;;;

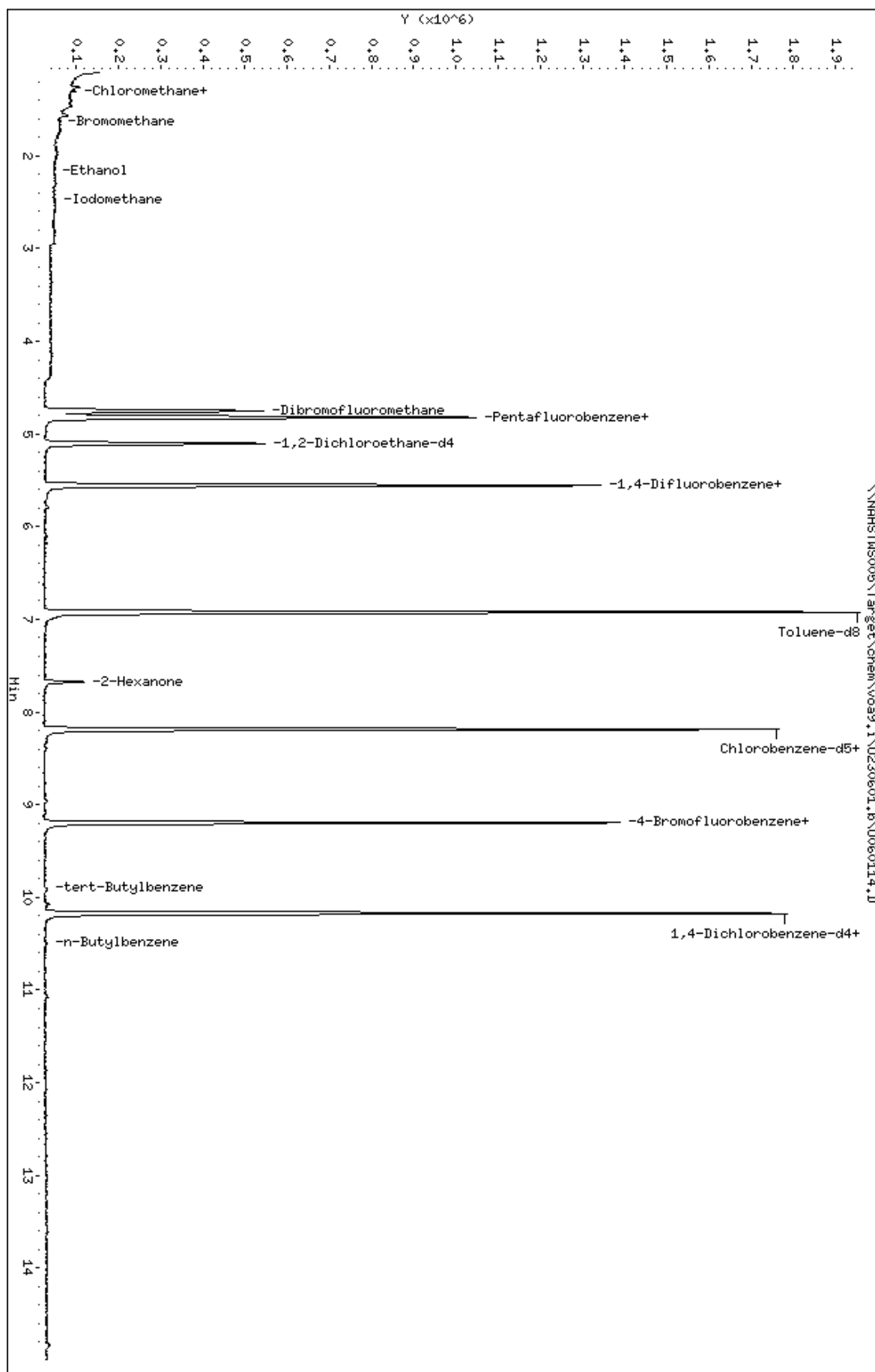
Purge Volume: 5.0

Column phase: DB624

Instrument: W099.i

Operator: PC

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060114.D
Inj Date : 01-JUN-2023 16:58
InstruID : VOA9.i
LabSampID : HS23051834-08

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060115.D Page 1
 Report Date: 06-Jun-2023 16:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060115.D
 Lab Smp Id: HS23051834-02 Client Smp ID: HS23051834-02
 Inj Date : 01-JUN-2023 17:20
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-02;HS23051834-02;;;
 Misc Info : V9;WATER;0;25;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\8260C.m
 Meth Date : 06-Jun-2023 16:37 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 14
 Dil Factor: 25.00000
 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	25.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.811	4.819	(1.000)	769254	50.0000		
\$ 30 Dibromofluoromethane	113		4.744	4.751	(0.986)	309333	43.5060	43.50	
\$ 35 1,2-Dichloroethane-d4	65		5.096	5.100	(1.059)	355941	40.8122	40.81	
* 36 1,4-Difluorobenzene	114		5.550	5.557	(1.000)	1044786	50.0000		
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)	952775	50.0000		
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)	1179045	49.8114	49.81	
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)	407673	45.1063	45.10	
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)	475345	50.0000		
11 1,1-Dichloroethene	96		2.322	2.337	(0.483)	4509	0.78144	19.53(a)	
38 Trichloroethene	130		5.786	5.790	(1.043)	310567	43.5300	1088.24	
33 1,2-Dichloroethane	62		5.550	5.179	(1.000)	33626	3.36346	84.08(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230601.b\U060115.D

Date: 01-JUN-2023 17:20

Client ID: HS23051834-02

Sample Info: HS23051834-02;HS23051834-02;;

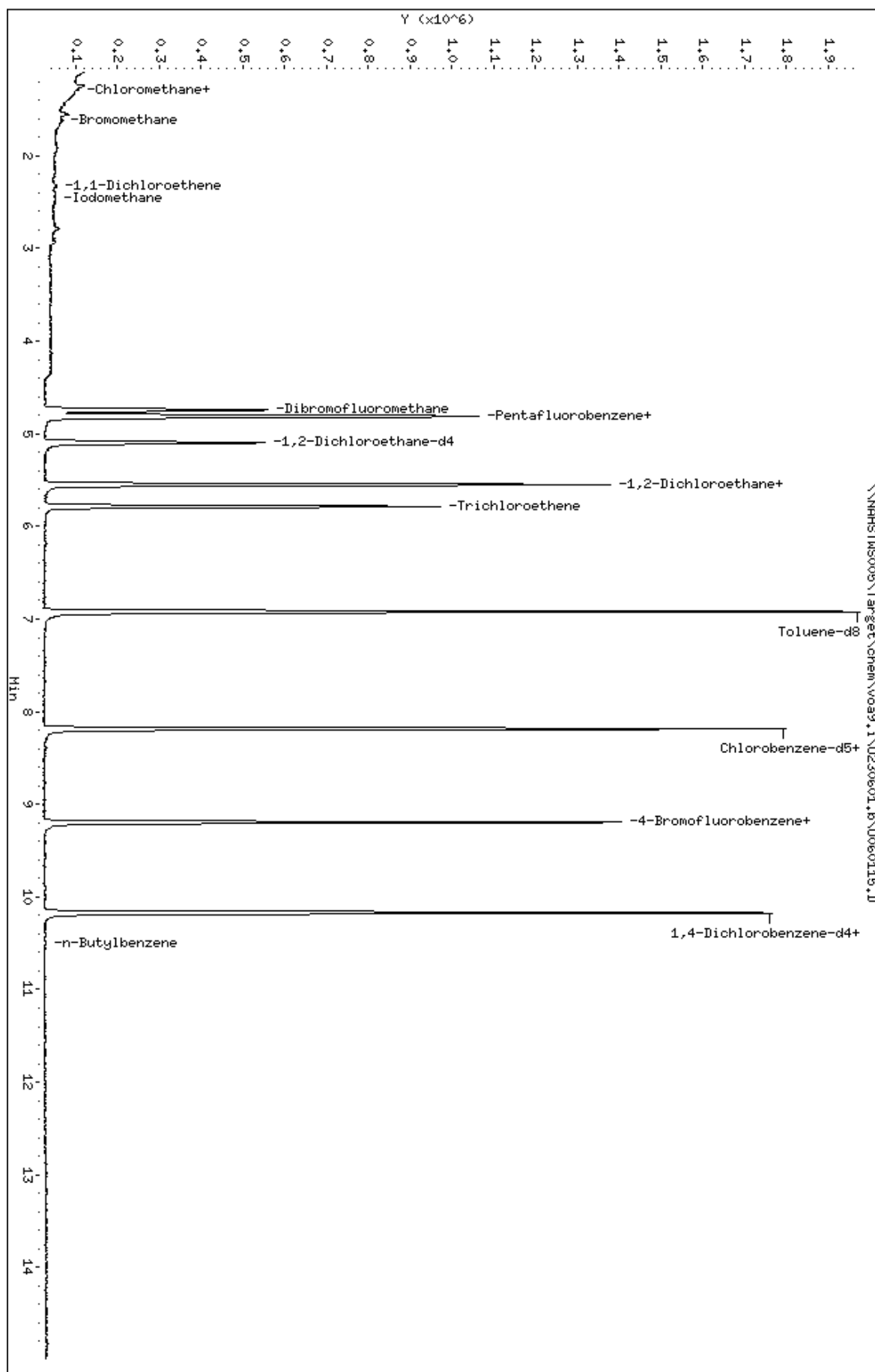
Purge Volume: 5.0

Column phase: DB624

Instrument: W093.i

Operator: PC

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U060115.D

Page 2

Date : 01-JUN-2023 17:20

Client ID: HS23051834-02

Instrument: VOA9.i

Sample Info: HS23051834-02;HS23051834-02;;

Purge Volume: 5.0

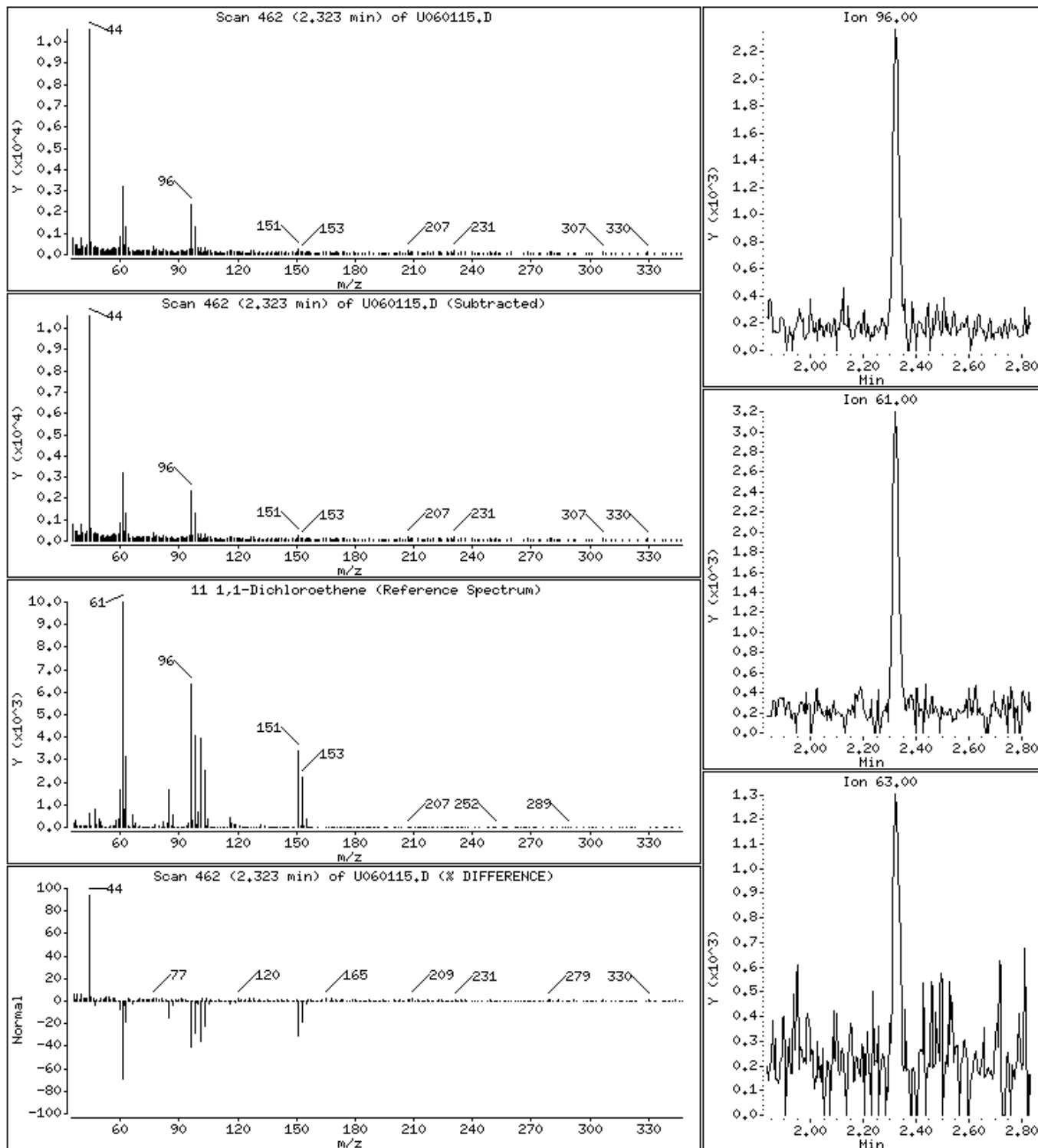
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 19.53 ug/l



Data File: \\NAHSTHS005\Target\chem\voa9.i\U230601.b\U060115.D

Page 3

Date : 01-JUN-2023 17:20

Client ID: HS23051834-02

Instrument: VOA9.i

Sample Info: HS23051834-02;HS23051834-02;;;

Purge Volume: 5.0

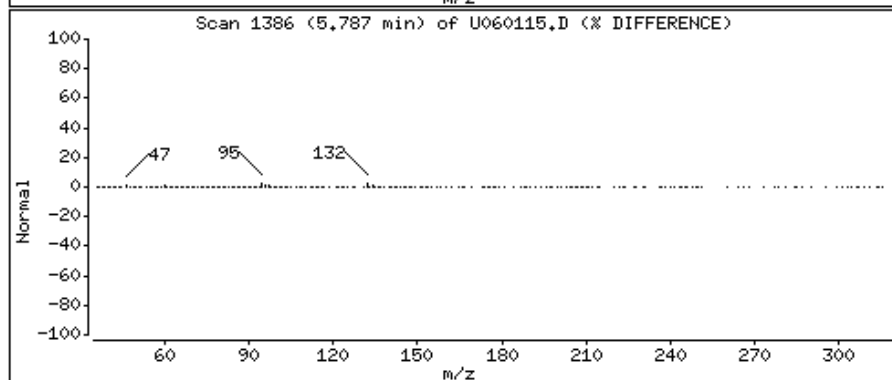
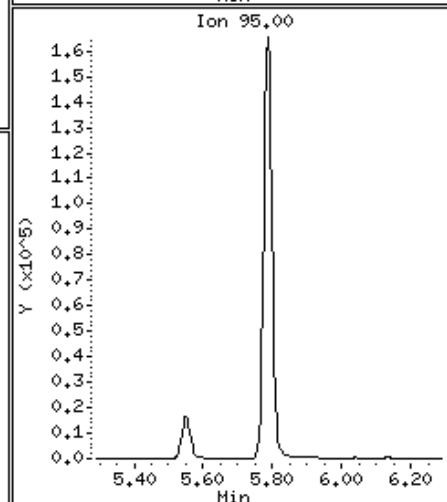
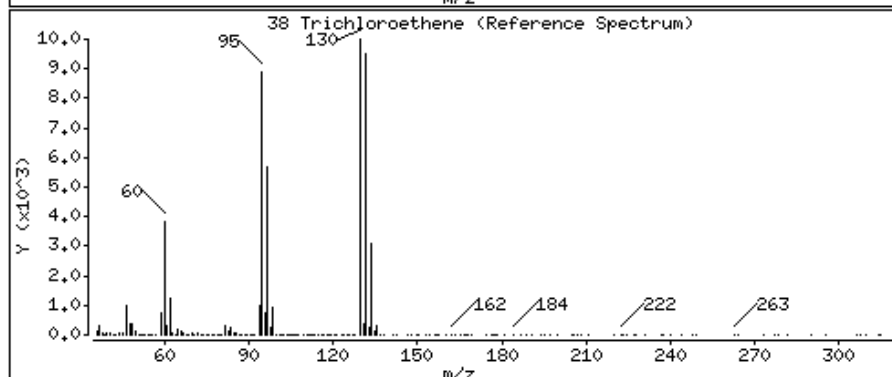
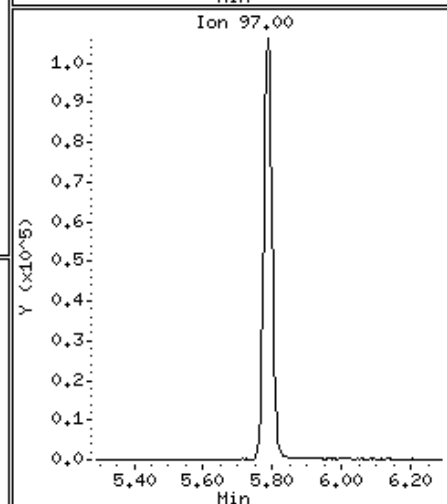
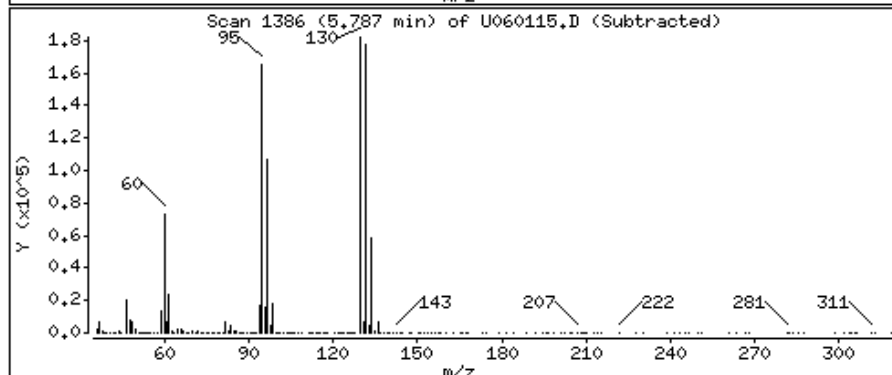
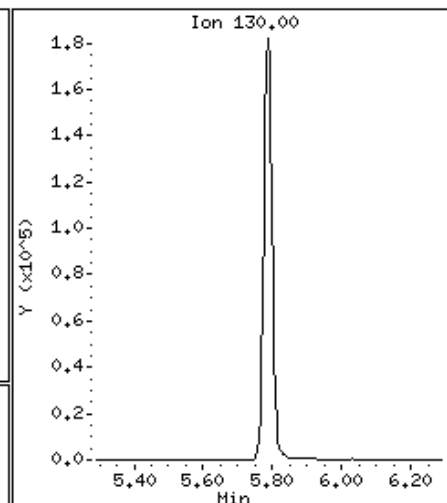
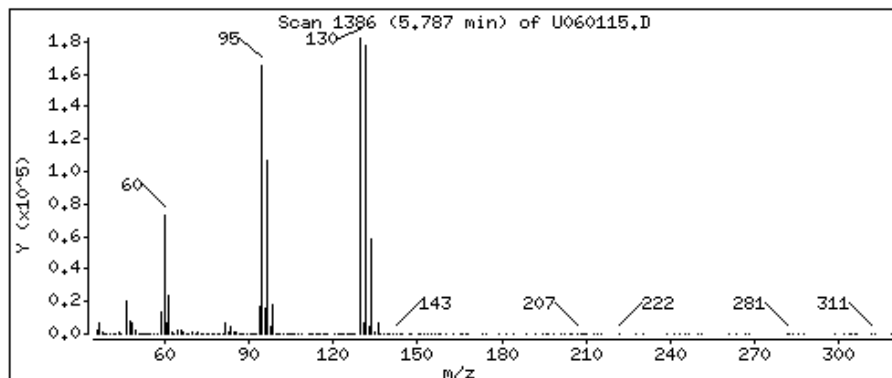
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 1088.24 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U060115.D

Page 4

Date : 01-JUN-2023 17:20

Client ID: HS23051834-02

Instrument: VOA9.i

Sample Info: HS23051834-02;HS23051834-02;;

Purge Volume: 5.0

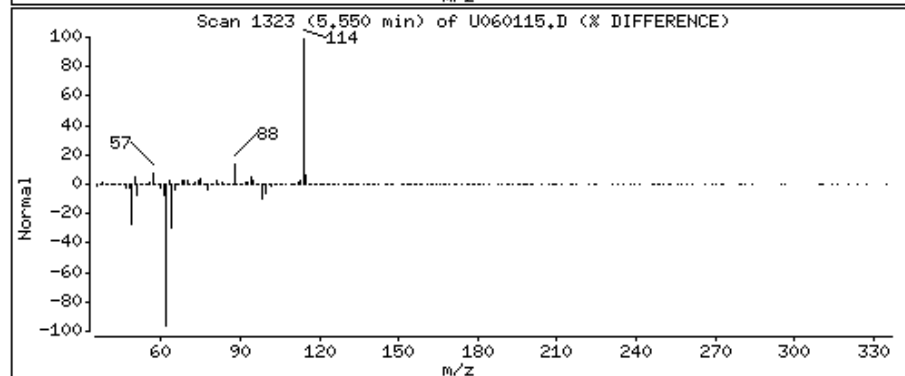
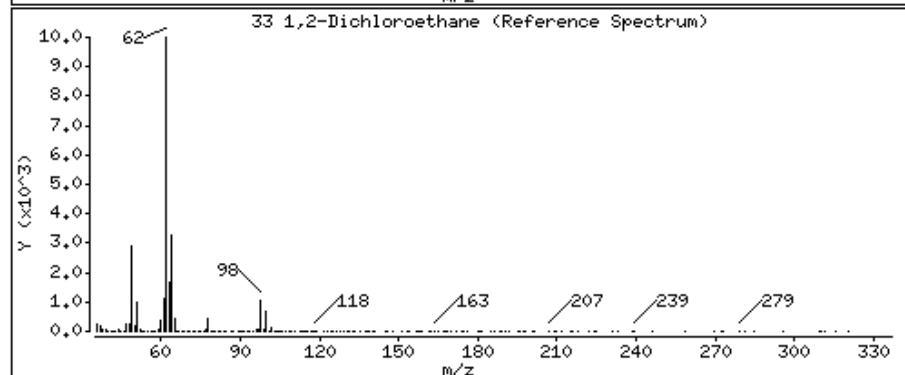
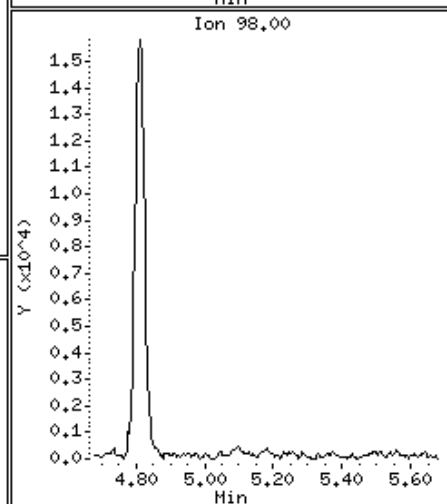
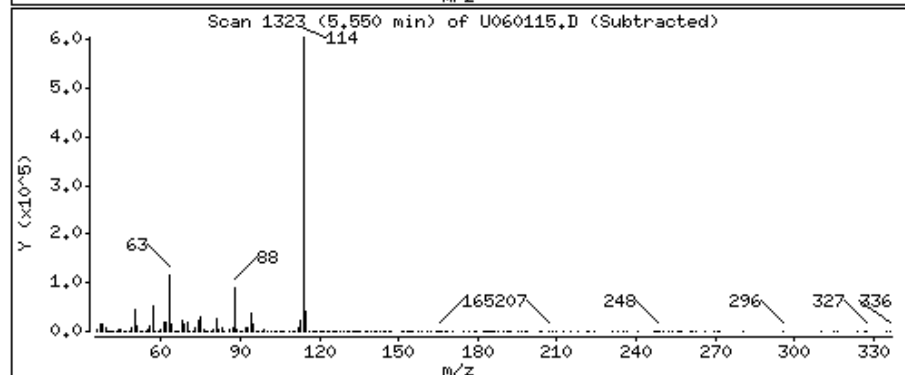
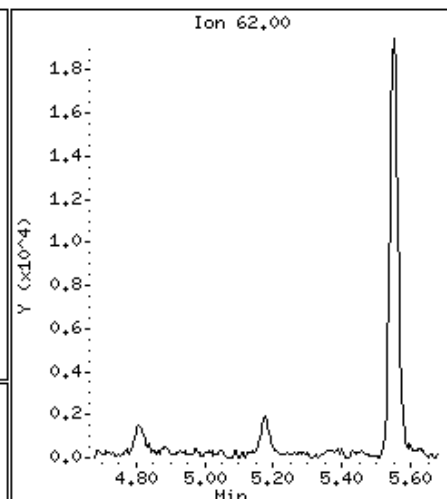
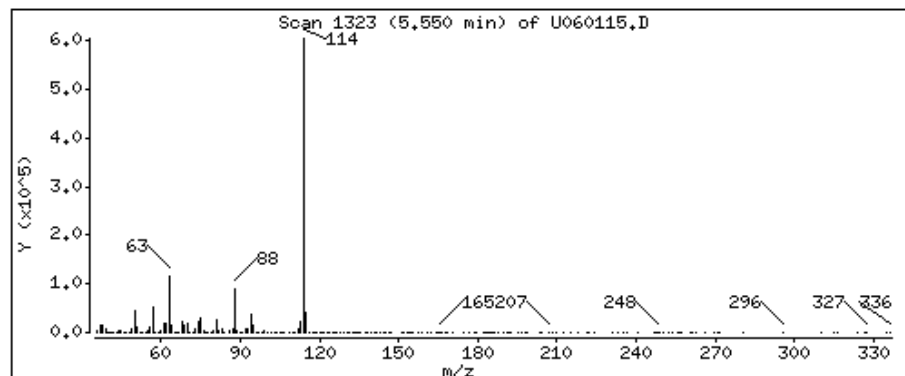
Operator: PC

Column phase: DB624

Column diameter: 0.18

33 1,2-Dichloroethane

Concentration: 84.08 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060115.D
Inj Date : 01-JUN-2023 17:20
InstruID : VOA9.i
LabSampID : HS23051834-02

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060116.D Page 1
 Report Date: 06-Jun-2023 16:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060116.D
 Lab Smp Id: HS23051834-03 Client Smp ID: HS23051834-03
 Inj Date : 01-JUN-2023 17:42
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23051834-03;HS23051834-03;;;
 Misc Info : V9;WATER;0;25;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\8260C.m
 Meth Date : 06-Jun-2023 16:37 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 15
 Dil Factor: 25.00000
 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	25.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.812	4.819	(1.000)	765013	50.0000		
\$ 30 Dibromofluoromethane	113		4.748	4.751	(0.987)	311815	44.1102	44.11	
\$ 35 1,2-Dichloroethane-d4	65		5.096	5.100	(1.059)	359507	41.4661	41.46	
* 36 1,4-Difluorobenzene	114		5.550	5.557	(1.000)	1056840	50.0000		
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)	956157	50.0000		
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)	1184580	49.8682	49.86	
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)	403296	44.4478	44.44	
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)	481553	50.0000		
38 Trichloroethene	130		5.786	5.790	(1.043)	308486	42.7451	1068.62	
33 1,2-Dichloroethane	62		5.554	5.179	(1.001)	33047	3.26785	81.69(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTMS005\Target\chem\voa3,i\U230601,b\U060116.D

Date : 01-JUN-2023 17:42

Client ID: HS23051834-03

Sample Info: HS23051834-03;HS23051834-03; ;

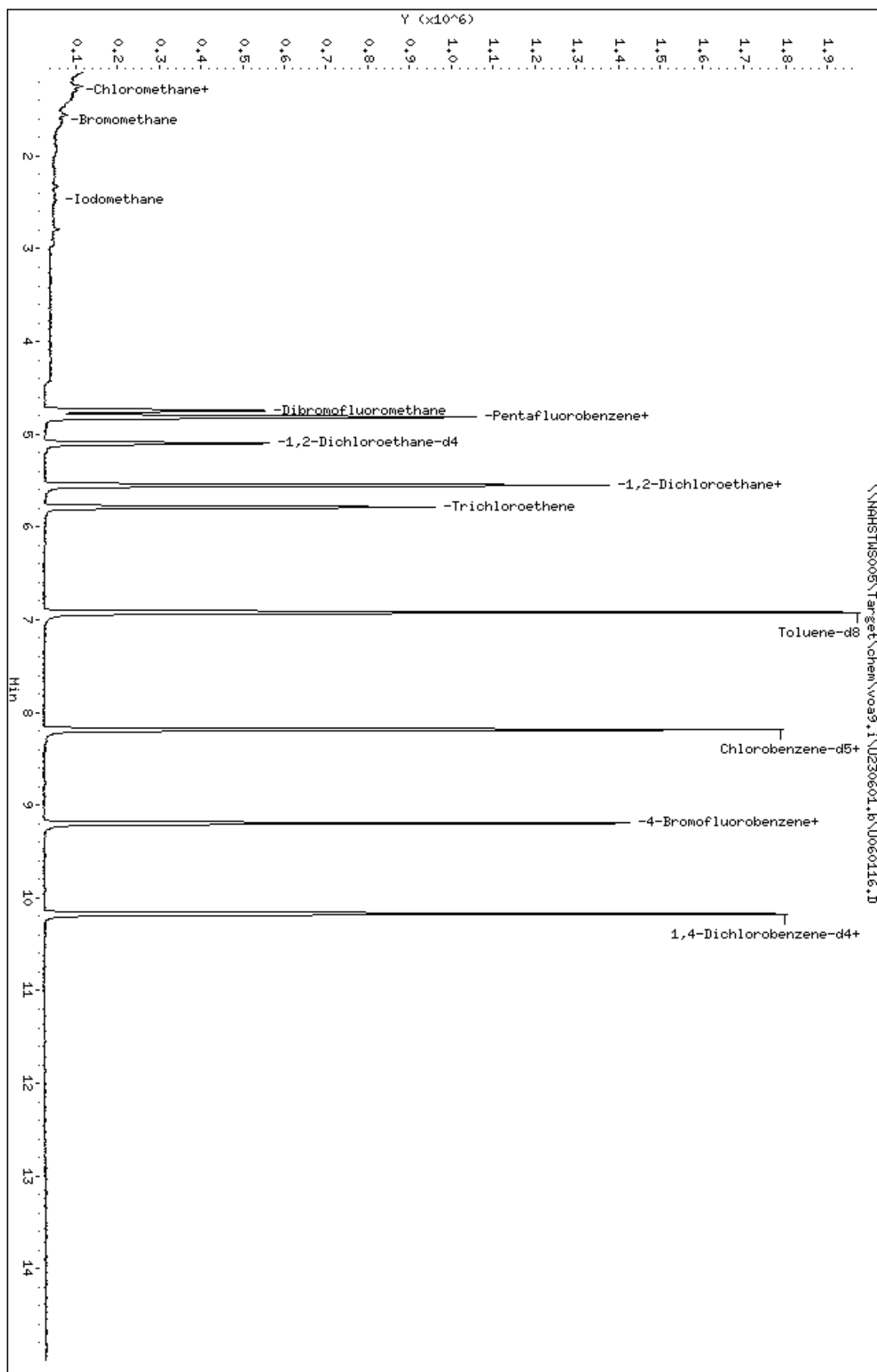
Purge Volume: 5.0

Column phase: DB624

Instrument: V0A9.i

Operator: PC

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060116.D

Page 2

Date : 01-JUN-2023 17:42

Client ID: HS23051834-03

Instrument: VOA9.i

Sample Info: HS23051834-03;HS23051834-03;;

Purge Volume: 5.0

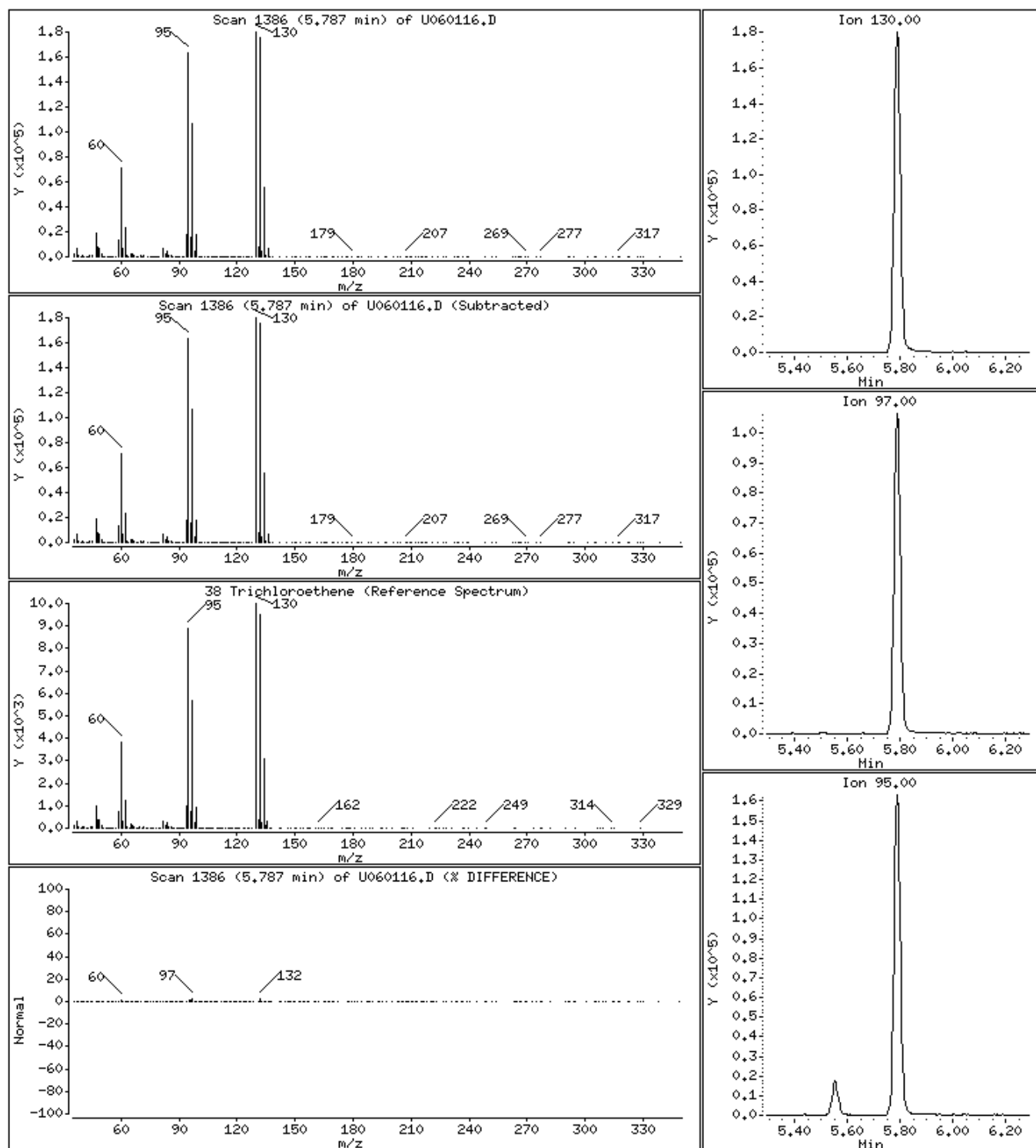
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 1068.62 ug/l



Data File: \\NAHSTHS005\Target\chem\voa9.i\U230601.b\U060116.D

Page 3

Date : 01-JUN-2023 17:42

Client ID: HS23051834-03

Instrument: VOA9.i

Sample Info: HS23051834-03;HS23051834-03;;

Purge Volume: 5.0

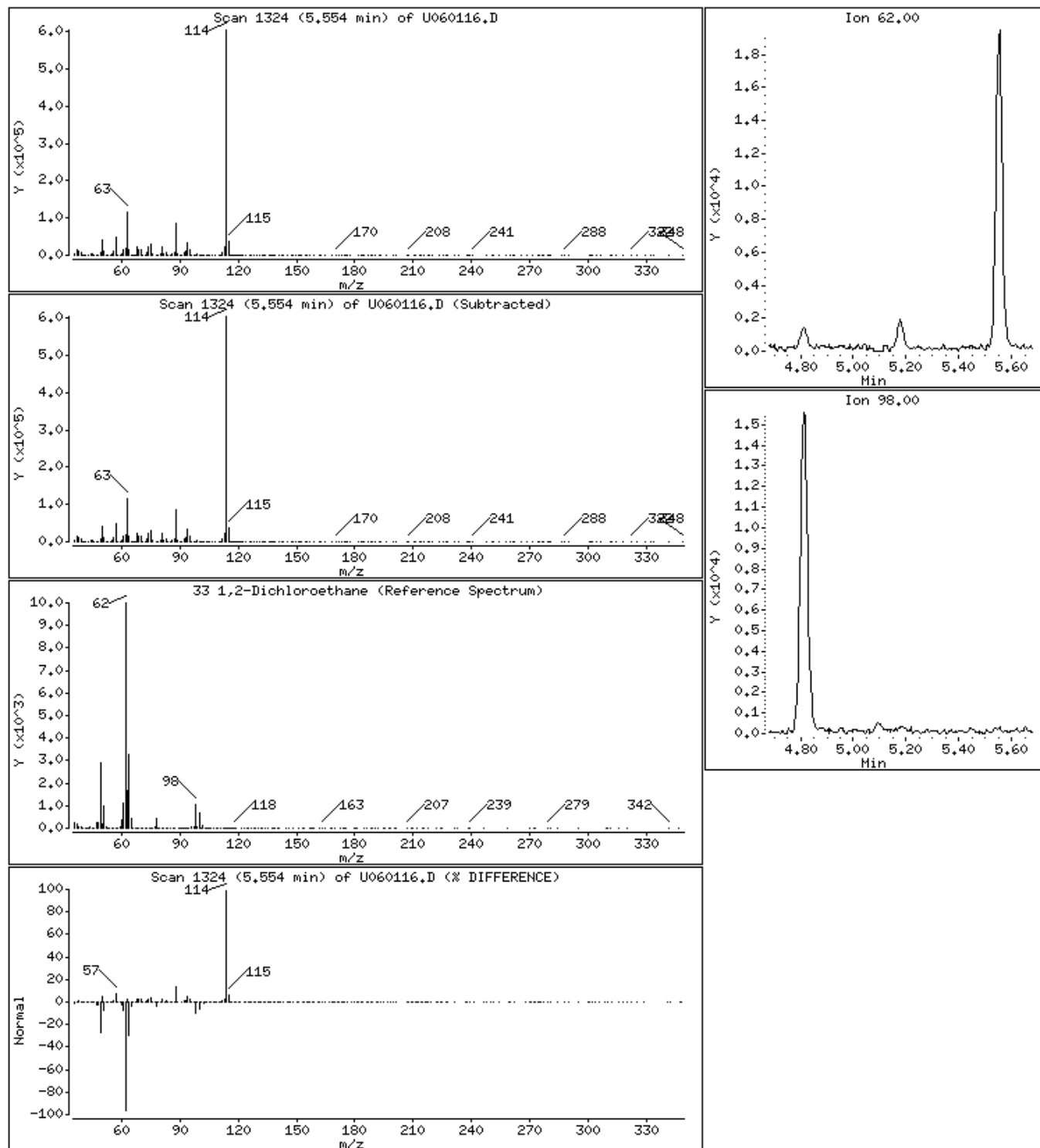
Operator: PC

Column phase: DB624

Column diameter: 0.18

33 1,2-Dichloroethane

Concentration: 81.69 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060116.D
Inj Date : 01-JUN-2023 17:42
InstruID : VOA9.i
LabSampID : HS23051834-03

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060124.D Page 1
 Report Date: 06-Jun-2023 16:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060124.D
 Lab Smp Id: CCV-END Client Smp ID: CCV-END
 Inj Date : 01-JUN-2023 20:42
 Operator : PC Inst ID: VOA9.i
 Smp Info : CCV-END;CCV-END;2;;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\8260C.m
 Meth Date : 06-Jun-2023 16:37 VOA9.i Quant Type: ISTD
 Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
 Als bottle: 23 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: $\text{Amt} * \text{DF} * (\text{Uf}/\text{Vo}) * 1 * \text{CpndVariable}$

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						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.815	4.815	(1.000)		634431	50.0000	
2 Dichlorodifluoromethane	85		1.156	1.156	(0.240)		229453	50.0000	42.58
3 Chloromethane	50		1.291	1.291	(0.268)		481568	50.0000	79.53
5 Vinyl Chloride	62		1.370	1.370	(0.285)		334113	50.0000	52.56
6 Bromomethane	94		1.614	1.614	(0.335)		188940	50.0000	52.61
7 Chloroethane	64		1.692	1.692	(0.352)		225475	50.0000	53.45
8 Trichlorofluoromethane	101		1.891	1.891	(0.393)		419439	50.0000	58.54
9 Acrolein	56		2.259	2.259	(0.469)		35688	100.000	125.38
10 Acetone	43		2.405	2.405	(0.499)		253589	100.000	102.26
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)		246578	50.0000	51.81
15 Iodomethane	142		2.465	2.465	(0.512)		264248	100.000	41.07
16 Acrylonitrile	53		3.061	3.061	(0.636)		252195	100.000	94.28
17 Methylene Chloride	84		2.791	2.791	(0.580)		312197	50.0000	53.33
18 Methyl tert-butyl ether	73		3.076	3.076	(0.639)		809972	50.0000	44.11
19 Carbon Disulfide	76		2.517	2.517	(0.523)		1370359	100.000	96.33
20 trans-1,2-Dichloroethene	96		3.053	3.053	(0.634)		276403	50.0000	50.78
21 Vinyl Acetate	43		3.604	3.604	(0.749)		1350460	100.000	72.66
22 1,1-Dichloroethane	63		3.511	3.511	(0.729)		492940	50.0000	49.43
24 2-Butanone	43		4.264	4.264	(0.886)		289244	100.000	93.46
26 2,2-Dichloropropane	77		4.178	4.178	(0.868)		315410	50.0000	38.02



27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	322919	50.0000	50.19
28 Chloroform	83	4.571	4.571 (0.949)	532518	50.0000	51.15

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060124.D Page 2
 Report Date: 06-Jun-2023 16:37

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.467	4.467	(0.928)	176316	50.0000	54.30
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	304925	50.0000	52.17
31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	414770	50.0000	45.14
32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	366694	50.0000	49.95
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	429268	50.0000	46.10
34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	342100	50.0000	42.02
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	336451	50.0000	46.92
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	973038	50.0000	
37 Benzene	78	5.138	5.138	(0.925)	1182770	50.0000	51.25
38 Trichloroethene	130	5.786	5.786	(1.042)	346752	50.0000	52.18
39 Bromodichloromethane	83	6.277	6.277	(1.130)	385200	50.0000	46.52
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	315731	50.0000	53.05
44 Dibromomethane	93	6.120	6.120	(1.102)	201640	50.0000	48.01
45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	683293	100.000	88.95
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	447109	50.0000	43.20
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	931233	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1117019	50.0000	48.28
50 Toluene	91	6.982	6.982	(0.853)	1298537	50.0000	50.78
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	378374	50.0000	42.62
52 2-Hexanone	43	7.593	7.593	(0.928)	460648	100.000	85.37
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	255752	50.0000	51.91
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	540506	50.0000	49.86
55 Dibromochloromethane	129	7.694	7.694	(0.940)	340076	50.0000	46.89
56 Tetrachloroethene	164	7.458	7.458	(0.911)	309185	50.0000	56.23
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	314028	50.0000	48.59
58 1-Chlorohexane	55	8.196	8.196	(1.476)	234739	50.0000	52.77
59 Chlorobenzene	112	8.211	8.211	(1.003)	895034	50.0000	50.64
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	323913	50.0000	47.88
61 Ethylbenzene	106	8.305	8.305	(1.015)	434731	50.0000	50.15
62 m,p-Xylenes	106	8.410	8.410	(1.027)	1072413	100.000	101.08
63 o-Xylene	106	8.748	8.748	(1.069)	524766	50.0000	49.02
64 Styrene	104	8.763	8.763	(1.071)	861500	50.0000	47.90
66 Bromoform	173	8.920	8.920	(1.090)	226749	50.0000	42.72
67 Isopropylbenzene	105	9.062	9.062	(1.107)	1249329	50.0000	48.16
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	410390	50.0000	48.90
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	408328	50.0000	46.25
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	488084	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	380439	50.0000	40.21
73 n-Propylbenzene	91	9.411	9.411	(0.925)	1296987	50.0000	47.96
74 Bromobenzene	156	9.317	9.317	(0.916)	400823	50.0000	51.05
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	852306	50.0000	43.78
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	915007	50.0000	51.27
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1003268	50.0000	48.20
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	871888	50.0000	48.57
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	849076	50.0000	42.90
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	1094182	50.0000	53.74
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	871383	50.0000	39.75
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	673296	50.0000	49.61
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	696226	50.0000	48.94
87 n-Butylbenzene	91	10.494	10.494	(1.032)	720552	50.0000	39.11
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	673652	50.0000	48.54
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	64542	50.0000	37.05



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	449918	50.0000	44.74
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	172282	50.0000	59.34

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060124.D Page 3

Report Date: 06-Jun-2023 16:37

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.065	12.065	(1.186)	1133872	50.0000	40.95
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	441533	50.0000	44.87
M 94 1,2-Dichloroethylene (total)	96				599322	100.000	(a)
135 1,4-Dioxane	88	6.168	6.168	(1.281)	86019	1000.00	1119.41
141 Cyclohexane	56	4.781	4.781	(0.993)	356928	50.0000	60.36
138 Freon TF	101	2.330	2.330	(0.484)	210125	50.0000	59.09
140 1,3-Butadiene	54	1.400	1.400	(0.291)	302827	50.0000	58.83
147 Methylcyclohexane	55	5.947	5.947	(1.071)	671618	50.0000	43.77
146 Methyl Acetate	43	2.708	2.708	(0.563)	259881	50.0000	47.35
148 Tert-Butyl alcohol	59	2.963	2.963	(0.615)	618040	1000.00	799.46
149 Isopropyl Alcohol	45	2.558	2.558	(0.531)	414715	1000.00	944.62
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	52676	50.0000	21.00
12 Isobutyl Alcohol	43	5.287	5.287	(1.098)	1002021	1000.00	1004.21
23 Chloroprene	53	2.154	2.154	(0.447)	103487	50.0000	48.21

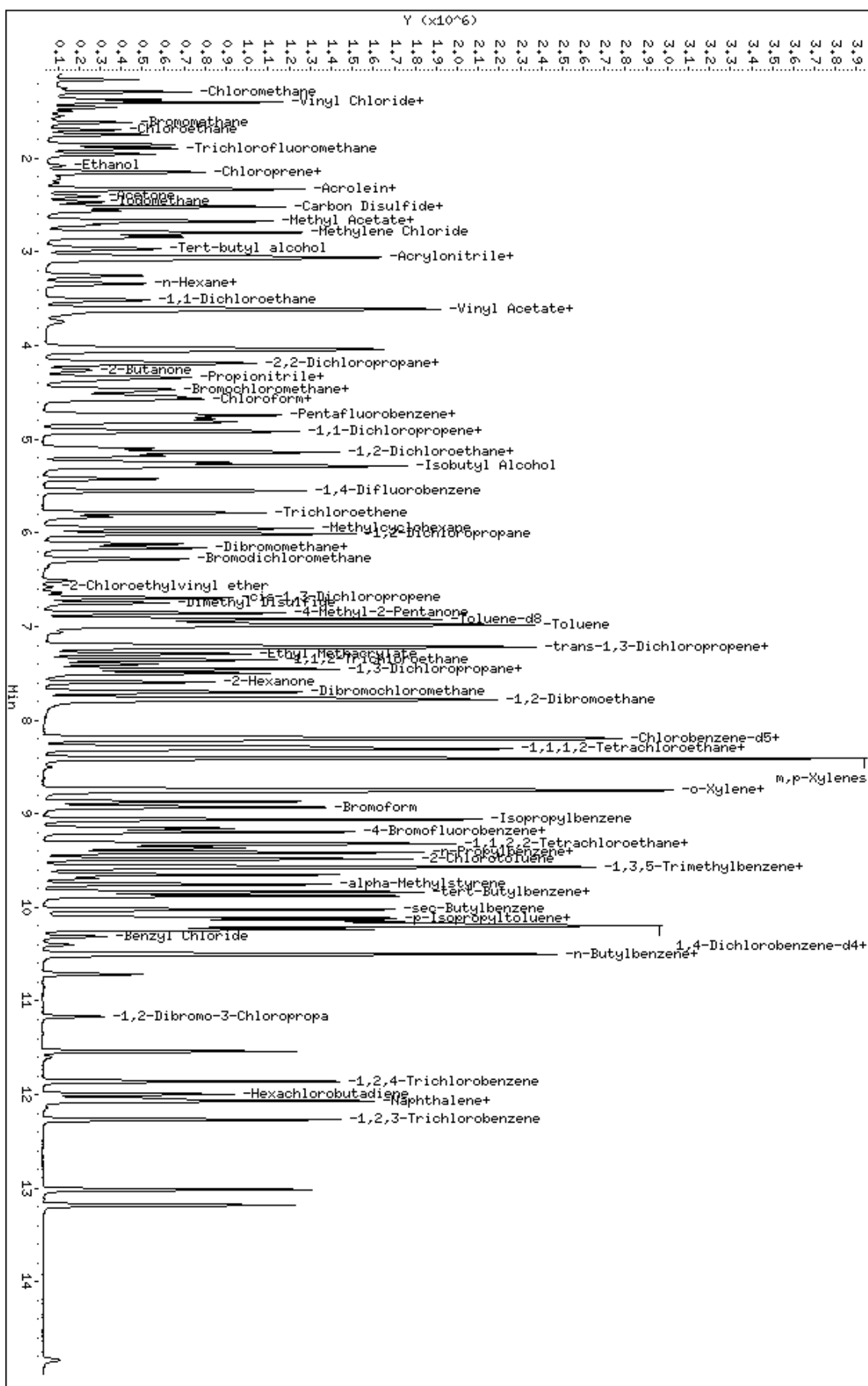
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230601.b\U060124.D
 Date : 01-JUN-2023 20:42
 Client ID: CCV-END
 Sample Info: CCV-END;CCV-END;2;1;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: VOA9.i
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230601.b\U060124.D
Inj Date : 01-JUN-2023 20:42
InstruID : VOA9.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS



HS23051834-GCSEMI-RSK-175

ALS WO# HS23051834





right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Semi-Volatiles by RSK-175

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

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 Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder

HS23051834

Semi-Volatiles by RSK-175

HS23051834-02			Collected		Received		Matrix		Basis	
50WW12_052523			05/25/23 07:55		05/26/23 10:00		Groundwater		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	ug/L	1.00	U	0.144	1.00	1.00	1	05/30/23 16:24	FID-	008
Ethene	ug/L	1.00	U	0.234	1.00	1.00	1	05/30/23 16:24	FID-	008
Methane	ug/L	14,800		53.5	250	250	500	05/30/23 16:46	FID-	010





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder

HS23051834

Semi-Volatiles by RSK-175

HS23051834-03			Collected		Received		Matrix		Basis	
50WW12_052523_a			05/25/23 07:55		05/26/23 10:00		Groundwater		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	ug/L	1.00	U	0.144	1.00	1.00	1	05/30/23 16:37	FID-	009
Ethene	ug/L	1.00	U	0.234	1.00	1.00	1	05/30/23 16:37	FID-	009
Methane	ug/L	12,100		53.5	250	250	500	05/30/23 17:09	FID-	012





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder

HS23051834

Semi-Volatiles by RSK-175

HS23051834-04			Collected		Received		Matrix		Basis	
50WW14_052523			05/25/23 08:55		05/26/23 10:00		Groundwater		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	ug/L	1.00	U	0.144	1.00	1.00	1	05/30/23 10:16	FID-	005
Ethene	ug/L	1.00	U	0.234	1.00	1.00	1	05/30/23 10:16	FID-	005
Methane	ug/L	6.76		0.107	0.500	0.500	1	05/30/23 10:16	FID-	005





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder

HS23051834

Semi-Volatiles by RSK-175

MBLK-230530				Collected			Received		Matrix	Basis
MBLK-230530				NA			NA		Aqueous	Wet
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	ug/L	1.00	U	0.144	1.00	1.00	1	05/30/23 09:36	FID-	002
Ethene	ug/L	1.00	U	0.234	1.00	1.00	1	05/30/23 09:36	FID-	002
Methane	ug/L	0.500	U	0.107	0.500	0.500	1	05/30/23 09:36	FID-	002





Form 3A

Matrix Spike/Spike Duplicate Recovery

Semi-Volatiles by RSK-175

Workorder
HS23051834

Client
Bhate Environmental Associates, Inc.

Project
LHAAP 50

06/08/2023

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 Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder

HS23051834

50WW14_052523		HS23051834-04		HS23051834-04MS		HS23051834-04MSD			
Sample Matrix	Aqueous	Run Date	05/30/23	05/30/23		05/30/23			
Units	µg/L	Run Time	10:16	10:43		10:52			
		Data File	005.D	006.D		007.D			

Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Ethane	74-131	1	0	18.94	18.04	105		18.7	18.04	104		30	1.30	
Ethene	72-133	1	0	16.83	16.80	100		16.79	16.80	100		30	0.200	
Methane	73-125	1	6.763	14.52	9.647	80		14.13	9.647	76		30	2.70	

- %Recovery / RPD Flag

* - %Recovery / RPD Outside Limits

OL - Outside Limits





right solutions.
right partner.

Form 3B

Laboratory Control Sample Recovery

Semi-Volatiles by RSK-175

Workorder
HS23051834

Client
Bhate Environmental Associates, Inc.

Project
LHAAP 50

06/08/2023

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 Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder

HS23051834

Semi-Volatiles by RSK-175

FID-4_436671_R436671	QC ID		LCS-R436671			LCSD-R436671					
QC Matrix Aqueous	Units ug/L	Run Date	05/30/23			05/30/23					
		Run Time	09:50			10:06					
Analyte	%R Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
Ethane	74-131	18.04	20.91	116		20.78	115.0		30	0.62	
Ethene	72-133	16.8	17.24	103		17.64	105.0		30	2.3	
Methane	73-125	9.647	8.486	88		8.732	90.0		30	2.86	

- %Recovery / RPD Flag

* - %Recovery / RPD Outside Limits





Form 4

Method Blank Summary

Semi-Volatiles by RSK-175

Workorder
HS23051834

Client
Bhate Environmental Associates, Inc.

Project
LHAAP 50

06/08/2023

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 Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder

HS23051834

Semi-Volatiles by RSK-175

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	MBLK-230530	002.D	05/30/23 09:36	FID-4_436671_R436671
LCS-230530	LCS	LCS-230530	003.D	05/30/23 09:50	FID-4_436671_R436671
LCSD-230530	LCSD	LCSD-230530	004.D	05/30/23 10:06	FID-4_436671_R436671
50WW14_052523	SAMP	HS23051834-04	005.D	05/30/23 10:16	FID-4_436671_R436671
50WW14_052523	MS	HS23051834-04MS	006.D	05/30/23 10:43	FID-4_436671_R436671
50WW14_052523	MSD	HS23051834-04MSD	007.D	05/30/23 10:52	FID-4_436671_R436671
50WW12_052523	SAMP	HS23051834-02	008.D	05/30/23 16:24	FID-4_436671_R436671
50WW12_052523_a	SAMP	HS23051834-03	009.D	05/30/23 16:37	FID-4_436671_R436671
50WW12_052523	SAMP	HS23051834-02	010.D	05/30/23 16:46	FID-4_436671_R436671
50WW12_052523_a	SAMP	HS23051834-03	012.D	05/30/23 17:09	FID-4_436671_R436671





Form 6

Initial Calibration Data

Semi-Volatiles by RSK-175

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

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 Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID

FID-4_322102

Semi-Volatiles by RSK-175

Calibration Files

ICAL Start Date 24-JAN-2017 0906

ICAL End Date 24-JAN-2017 1113

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 10.00 Level 7 1000.0	Level 2 25.00	Level 3 50.00	Level 4 100.00	Level 5 250.00	Level 6 500.00	Curve	b	m1	m2	%RSD or R ²	Q
Methane	969 1082	978	1020	881	961	931	AVRG		974		6.55041	
Ethene	536 829	567	565	516	665	426	AVRG		586		21.93197	
Ethane	602 999	670	659	597	809	818	AVRG		736		19.88517	
Propane	500 96509	1279	2602	4785	18294	38286	QUAD	0.97987	0.00153	-4.583e-00	0.99914	
N-Butane	438 114164	936	2034	3864	18446	42817	QUAD	2.46870	0.00183	-5.537e-00	0.99808	
Pentane	115 488	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





Form 6I

Initial Calibration Verification (ICV)

Semi-Volatiles by RSK-175

Workorder
HS23051834

Client
Bhate Environmental Associates, Inc.

Project
LHAAP 50

06/08/2023

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 Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder

HS23051834

RunID

FID-4_322102

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	





Form 7

Continuing Calibration Verification (CCV)

Semi-Volatiles by RSK-175

Workorder
HS23051834

Client
Bhate Environmental Associates, Inc.

Project
LHAAP 50

06/08/2023

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 Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder

HS23051834

RunID

FID-4_436671

Instrument ID FID-4.i Injection Date 30-MAY-2023 0921
 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	$\frac{\overline{RRF}}{RRF} / \text{Amount}$	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	793	793	0.010	18.63489	20.0	Averaged	
Ethene	586	563	563	0.010	3.87093	20.0	Averaged	
Ethane	719	762	762	0.010	-5.86398	20.0	Averaged	





Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Workorder

Project LHAAP 50

HS23051834

RunID

FID-4_436671

Instrument ID FID-4.i Injection Date 30-MAY-2023 1654
 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	828	828	0.010	15.10513	20.0	Averaged	
Ethene	586	622	622	0.010	-6.10874	20.0	Averaged	
Ethane	719	809	809	0.010	-12.37312	20.0	Averaged	





Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Workorder

Project LHAAP 50

HS23051834

RunID

FID-4_436671

Instrument ID FID-4.i Injection Date 30-MAY-2023 1848
Lab File ID 021.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	$\overline{\text{RRF}} /$ RRF / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	846	846	0.010	13.22330	20.0	Averaged	
Ethene	586	632	632	0.010	-7.95270	20.0	Averaged	
Ethane	719	829	829	0.010	-15.16165	20.0	Averaged	





Analysis Run Log

Semi-Volatiles by RSK-175

Workorder
HS23051834

Client
Bhate Environmental Associates, Inc.

Project
LHAAP 50

06/08/2023

ALS Environmental—Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com





Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder

HS23051834

RunID

FID-4_322102

Run ID	FID-4_322102	Start Date	01/24/17	EndDate	01/24/17

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
09:06	ICAL1	ICAL1	ICAL1	001.D	01/24/17	1
09:30	ICAL2	ICAL2	ICAL2	002.D	01/24/17	1
09:59	ICAL3	ICAL3	ICAL3	003.D	01/24/17	1
10:15	ICAL4	ICAL4	ICAL4	004.D	01/24/17	1
10:39	ICAL5	ICAL5	ICAL5	005.D	01/24/17	1
10:57	ICAL6	ICAL6	ICAL6	006.D	01/24/17	1
11:13	ICAL7	ICAL7	ICAL7	007.D	01/24/17	1
12:05	ICV	ICV	ICV	008.D	01/24/17	1





Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder

HS23051834

RunID

FID-4_436671

Run ID	FID-4_436671	Start Date	05/30/23	EndDate	05/30/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
09:21	RSK-CCV	CCV	RSK-CCV	001.D	05/30/23	1
09:36	MBLK-230530	MBLK	MBLK-230530	002.D	05/30/23	1
09:50	LCS-230530	LCS	LCS-230530	003.D	05/30/23	1
10:06	LCSD-230530	LCSD	LCSD-230530	004.D	05/30/23	1
10:16	50WW14_052523	SAMP	HS23051834-04	005.D	05/30/23	1
10:43	HS23051834-04MS	MS	HS23051834-04MS	006.D	05/30/23	1
10:52	HS23051834-04MSD	MSD	HS23051834-04MSD	007.D	05/30/23	1
16:24	50WW12_052523	SAMP	HS23051834-02	008.D	05/30/23	1
16:37	50WW12_052523_a	SAMP	HS23051834-03	009.D	05/30/23	1
16:46	50WW12_052523	SAMP	HS23051834-02	010.D	05/30/23	500
16:54	RSK-CCV	CCV	RSK-CCV	011.D	05/30/23	1
17:09	50WW12_052523_a	SAMP	HS23051834-03	012.D	05/30/23	500
17:18	ZZZZZZZZZZ	SAMP	HS23051772-02	013.D	05/30/23	1
17:29	ZZZZZZZZZZ	SAMP	HS23051774-02	014.D	05/30/23	1
17:41	ZZZZZZZZZZ	SAMP	HS23051708-04	015.D	05/30/23	1
17:55	ZZZZZZZZZZ	SAMP	HS23051708-05	016.D	05/30/23	1
18:03	ZZZZZZZZZZ	SAMP	HS23051708-06	017.D	05/30/23	1
18:21	ZZZZZZZZZZ	SAMP	HS23051832-02	018.D	05/30/23	1
18:31	ZZZZZZZZZZ	SAMP	HS23051916-02	019.D	05/30/23	1
18:39	ZZZZZZZZZZ	SAMP	HS23051920-01	020.D	05/30/23	1
18:48	RSK-CCV	CCV	RSK-CCV	021.D	05/30/23	1





Raw Data FID-4 322102

Semi-Volatiles by RSK-175

Workorder
HS23051834

Client
Bhate Environmental Associates, Inc.

Project
LHAAP 50

06/08/2023

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						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	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).



Data File: \\NAHSTMS005\Target\chem\FID-4.1\170124.b\001.D

Date : 24-JAN-2017 09:06

Client ID: ICAL1

Sample Info: ICAL1;ICAL1;??

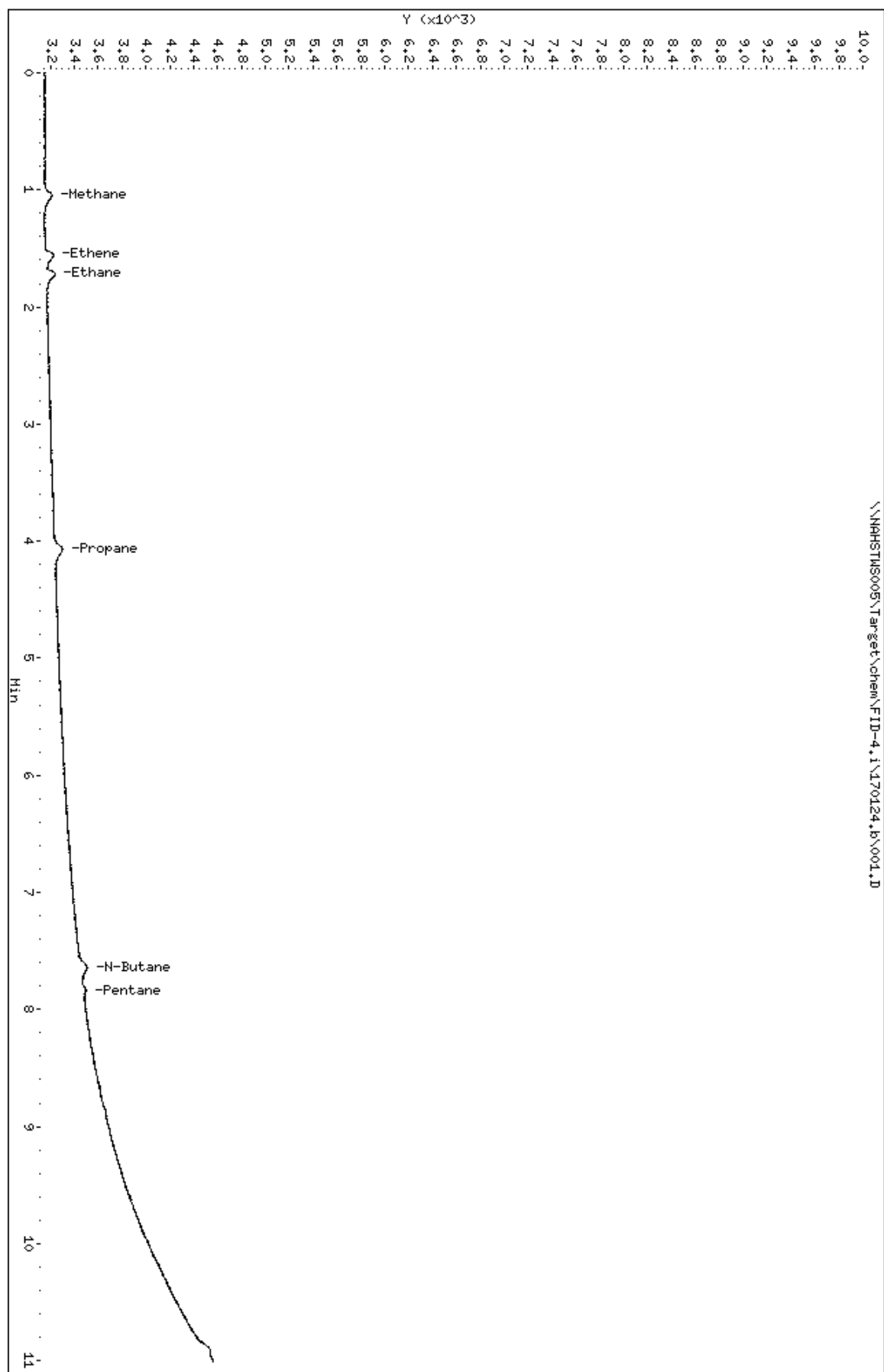
Column phase: Rtx-PL01

Instrument: FID-4.1

Operator: JA

Column diameter: 0.53

Page 1



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



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.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\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						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	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



Data File: \\NAHSTMS005\Target\chem\FID-4.i\170124.b\002.D

Date : 24-JAN-2017 09:30

Client ID: ICAL2

Sample Info: ICAL2;ICAL2;f;

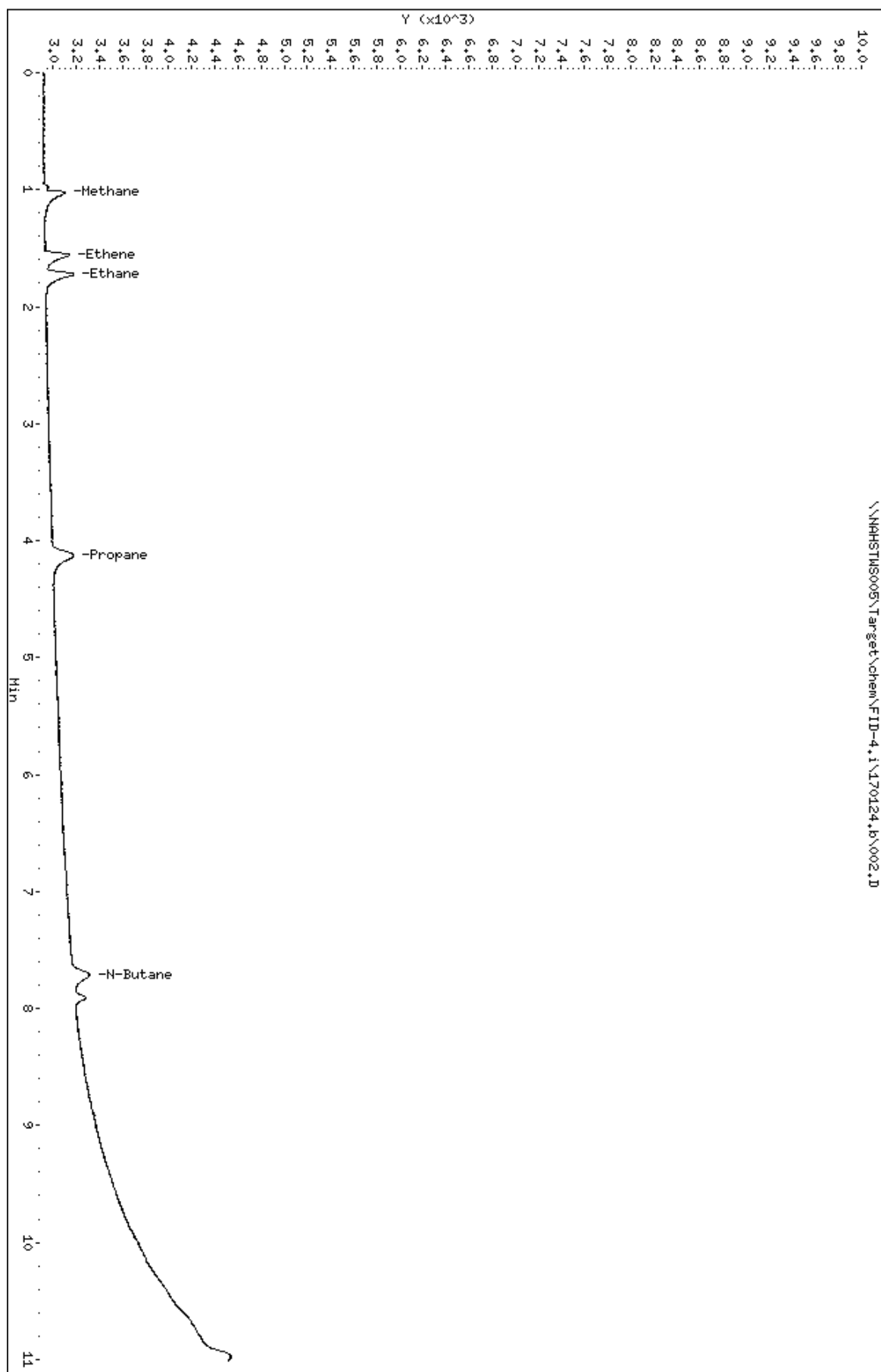
Column phase: Rtx-FL0T

Instrument: FID-4.i

Operator: MA

Column diameter: 0.53

Page 1



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



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.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\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						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		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



Data File: \\NAHSTMS005\Target\chem\FID-4.i\170124.b\003.D

Date : 24-JAN-2017 09:59

Client ID: ICAL3

Sample Info: ICAL3;ICAL3;??

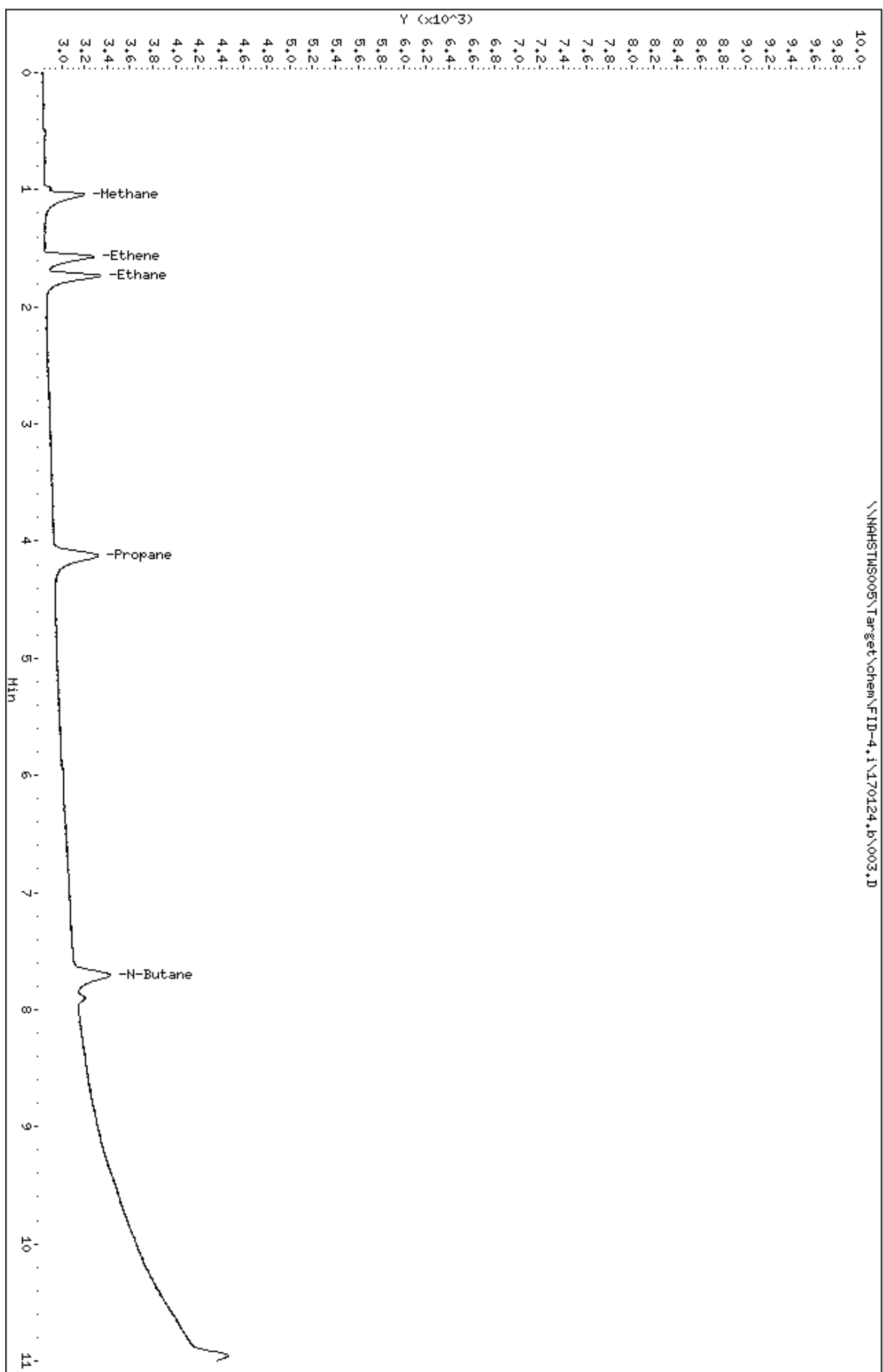
Page 1

Instrument: FID-4.i

Operator: MA

Column diameter: 0.53

Column phase: Rtx-PL0T



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
 Report Date: 28-Sep-2022 10:02

Page 1

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						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		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.



Data File: \\NAHSTMS005\Target\chem\FID-4.i\170124.b\004.D

Date : 24-JAN-2017 10:15

Client ID: ICAL4

Sample Info: ICAL4;ICAL4;;

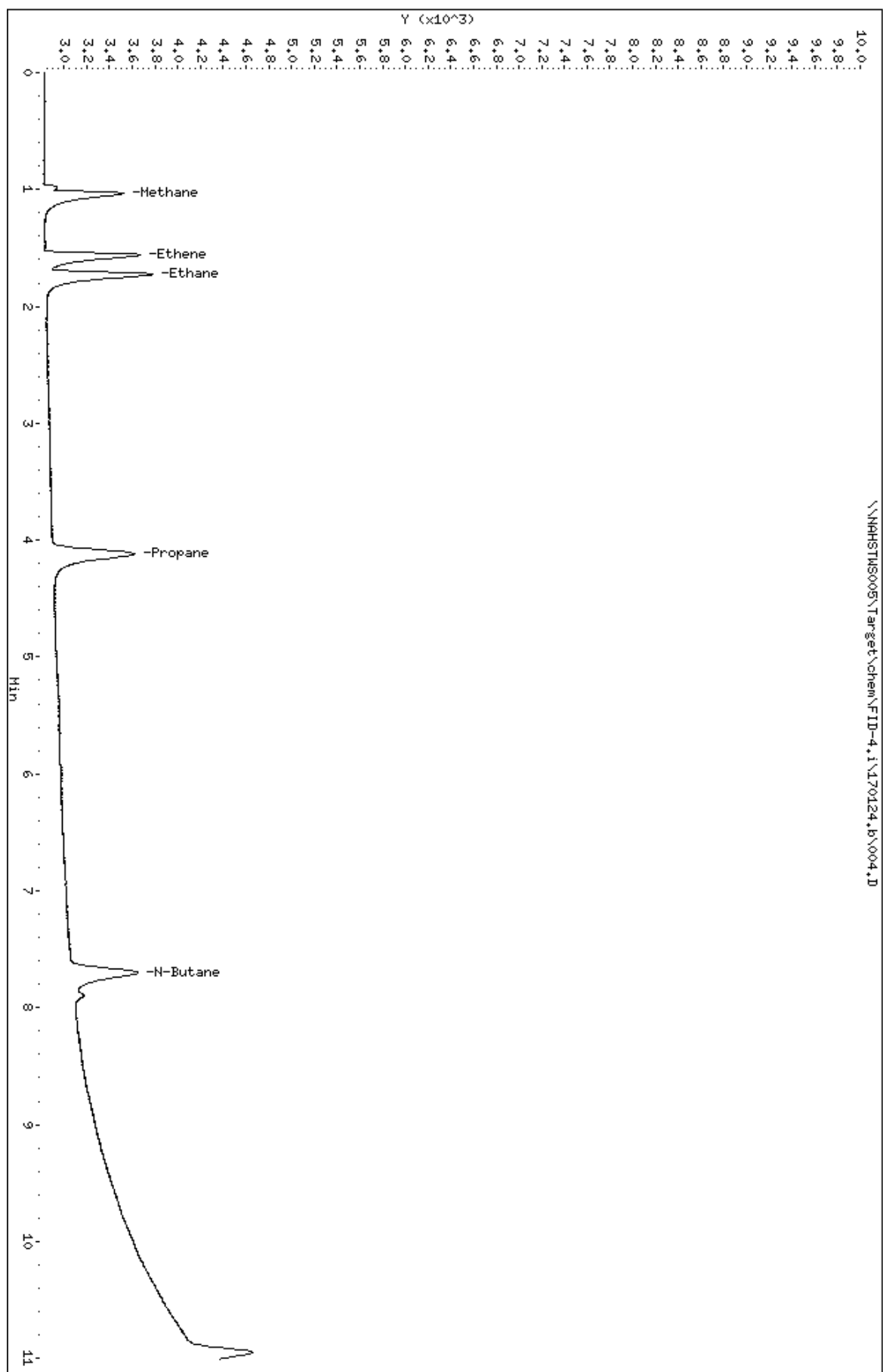
Page 1

Instrument: FID-4.i

Operator: HA

Column diameter: 0.53

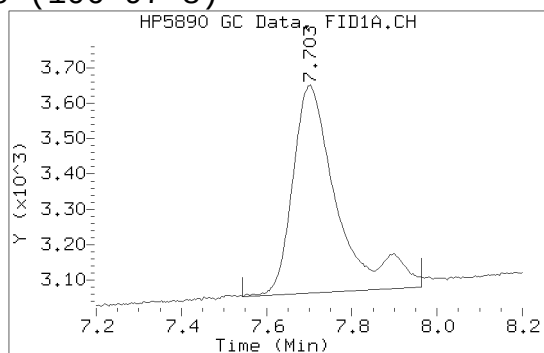
Column phase: Rtx-PL0T



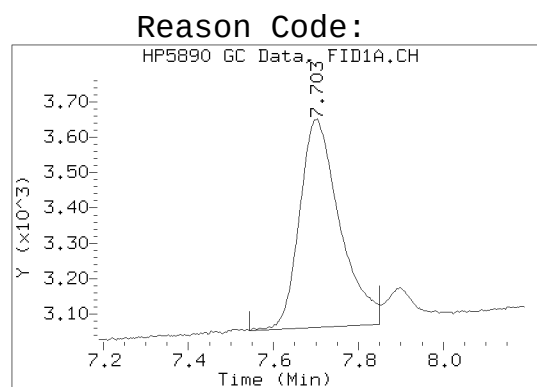
Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D
Inj Date : 24-JAN-2017 10:15
InstruID : FID-4.i
LabSampID : ICAL4

N-Butane (106-97-8)**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					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	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.



Data File: \\NAHSTMS005\Target\chem\FID-4.i\170124.b\005.D

Page 1

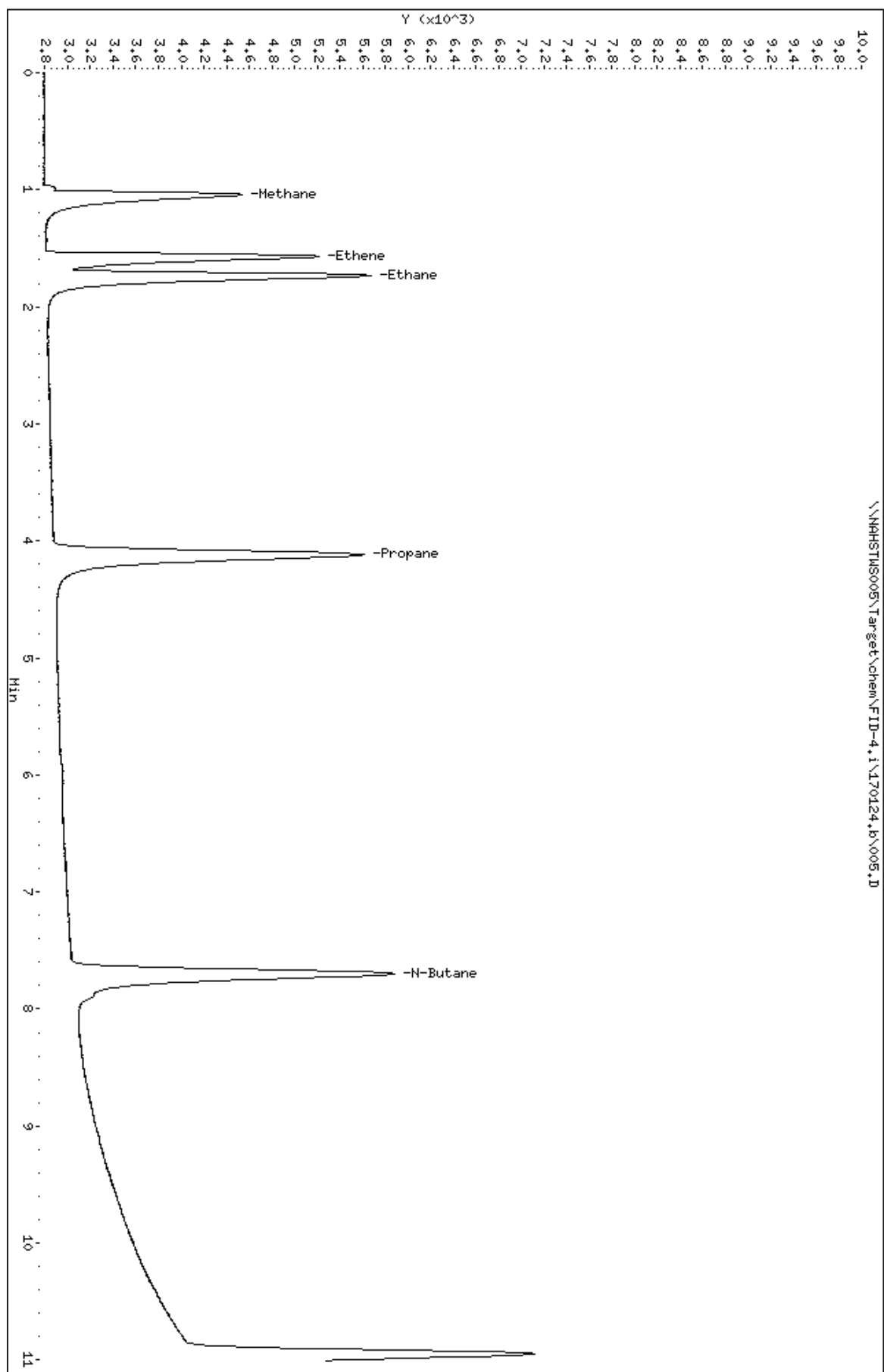
Date: 24-JAN-2017 10:39

Client ID: ICALS

Instrument: FID-4.i

Sample Info: ICALS;ICAL5;1;

Column phase: Rtx-FL0T

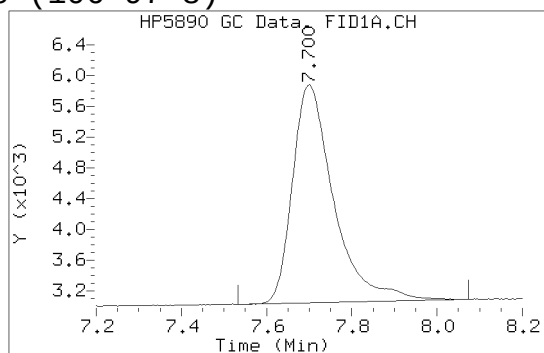
Operator: MA
Column diameter: 0.53

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)

BEFORE

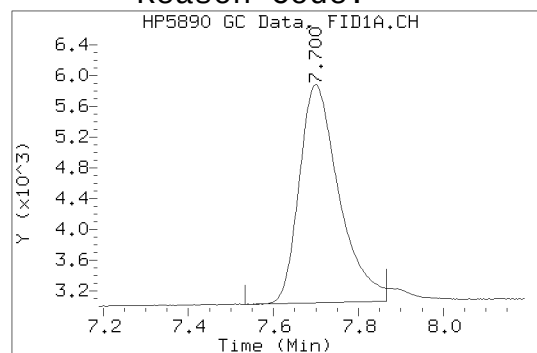
MASS
100
AREA
19142
HEIGHT
2839
28-Sep-2022
10:02
linh
pham



AFTER

MASS
100
AREA
18446
HEIGHT
2838
28-Sep-2022
10:02
linh
pham

Reason Code:



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.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\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						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	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



Data File: \\NAHSTMS005\Target\chem\FID-4.1\170124.b\006.D

Date : 24-JAN-2017 10:57

Client ID: ICAL6

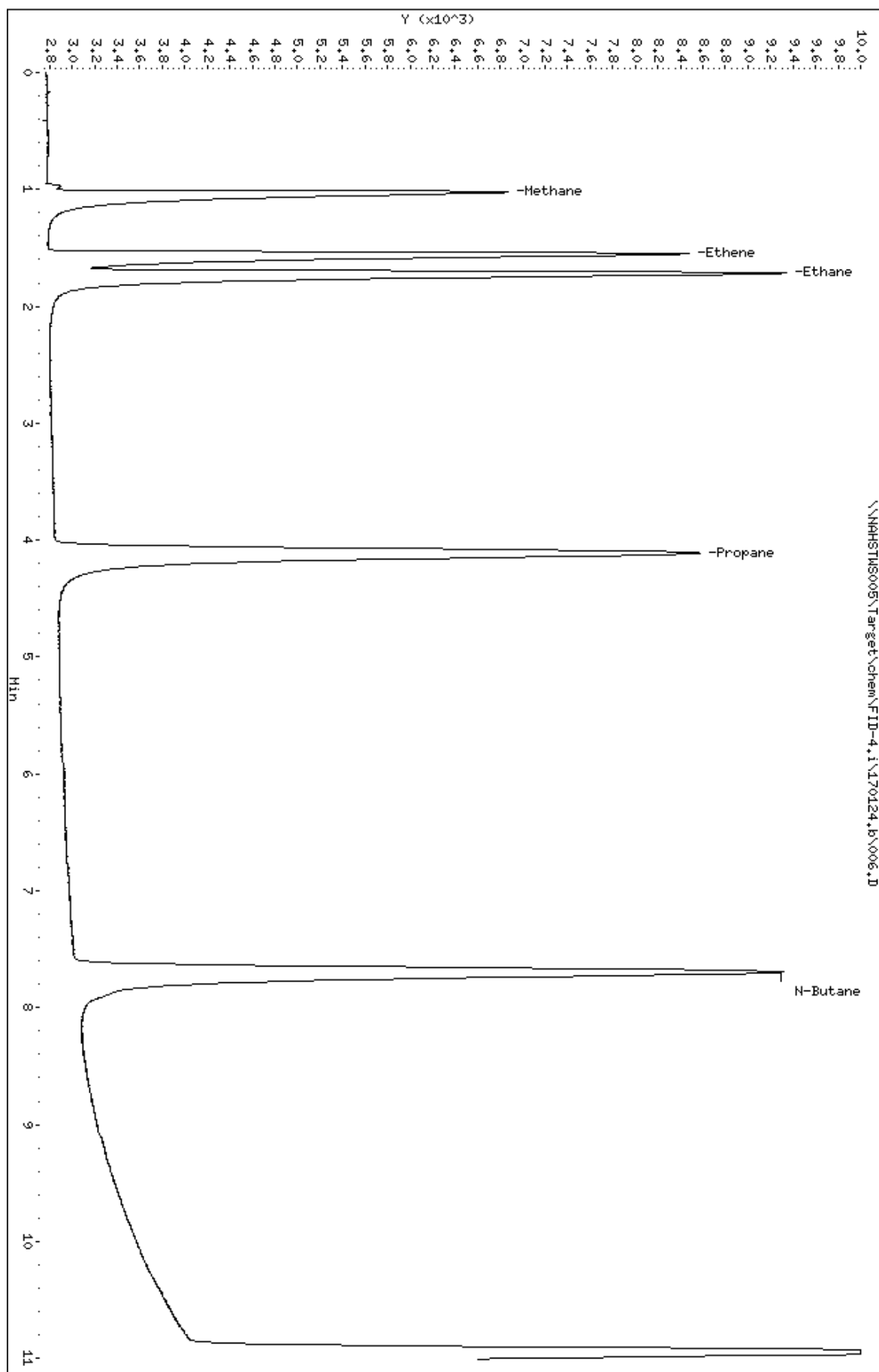
Sample Info: ICAL6;ICAL6;??

Column phase: Rtx-PL0T

Instrument: FID-4.1

Operator: HQ

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

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (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.



Data File: \\NAHSTMS005\Target\chem\FID-4,i\170124,b\007.D

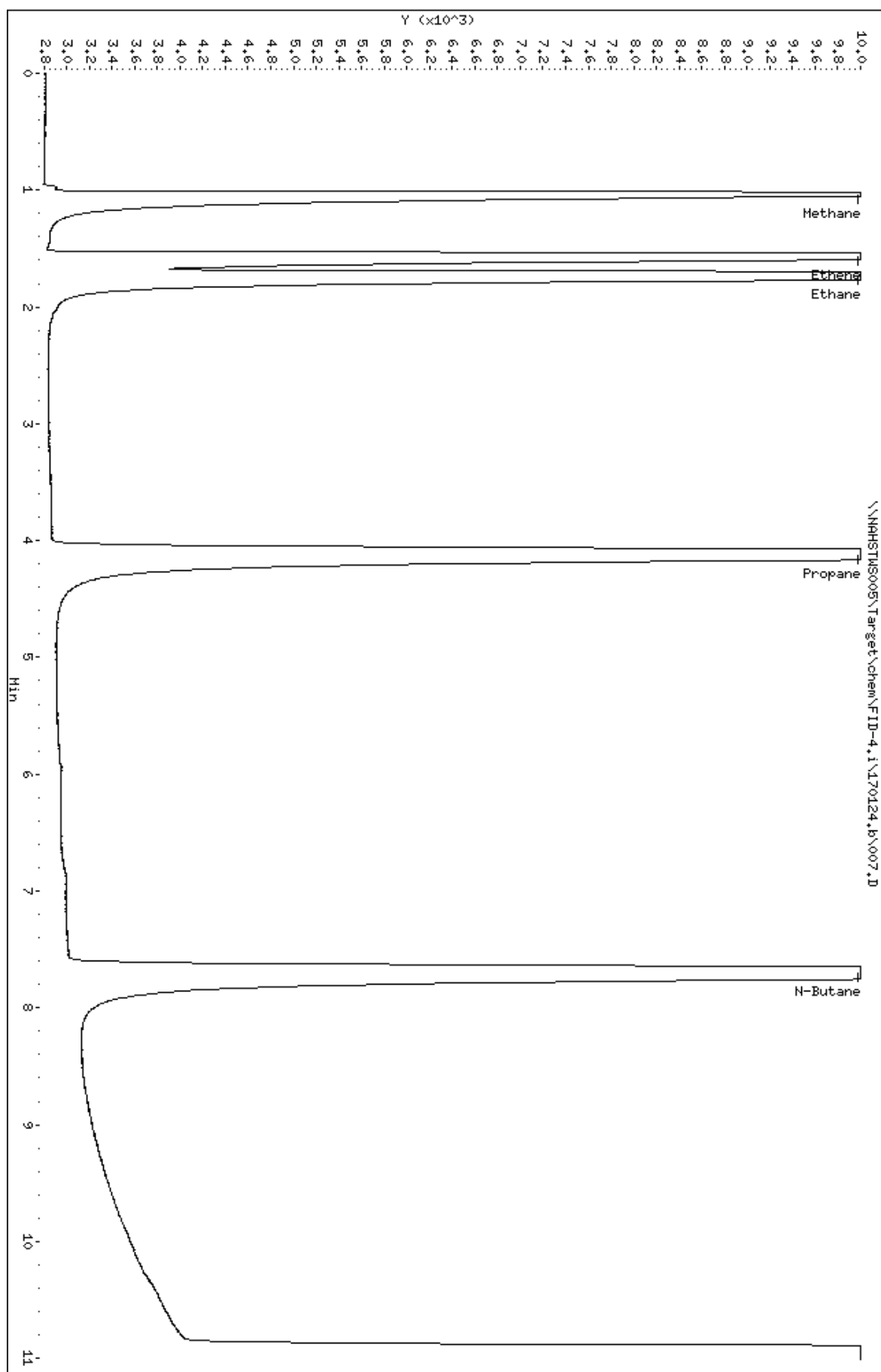
Date : 24-JAN-2017 11:13

Client ID: ICAL7

Sample Info: ICAL7;ICAL7;;

Page 1

Column phase: Rtx-PL0T

Operator: HA
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



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.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\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	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	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



Data File: \\NAHSTMS005\Target\chem\FID-4.1\170124.b\008.D

Page 1

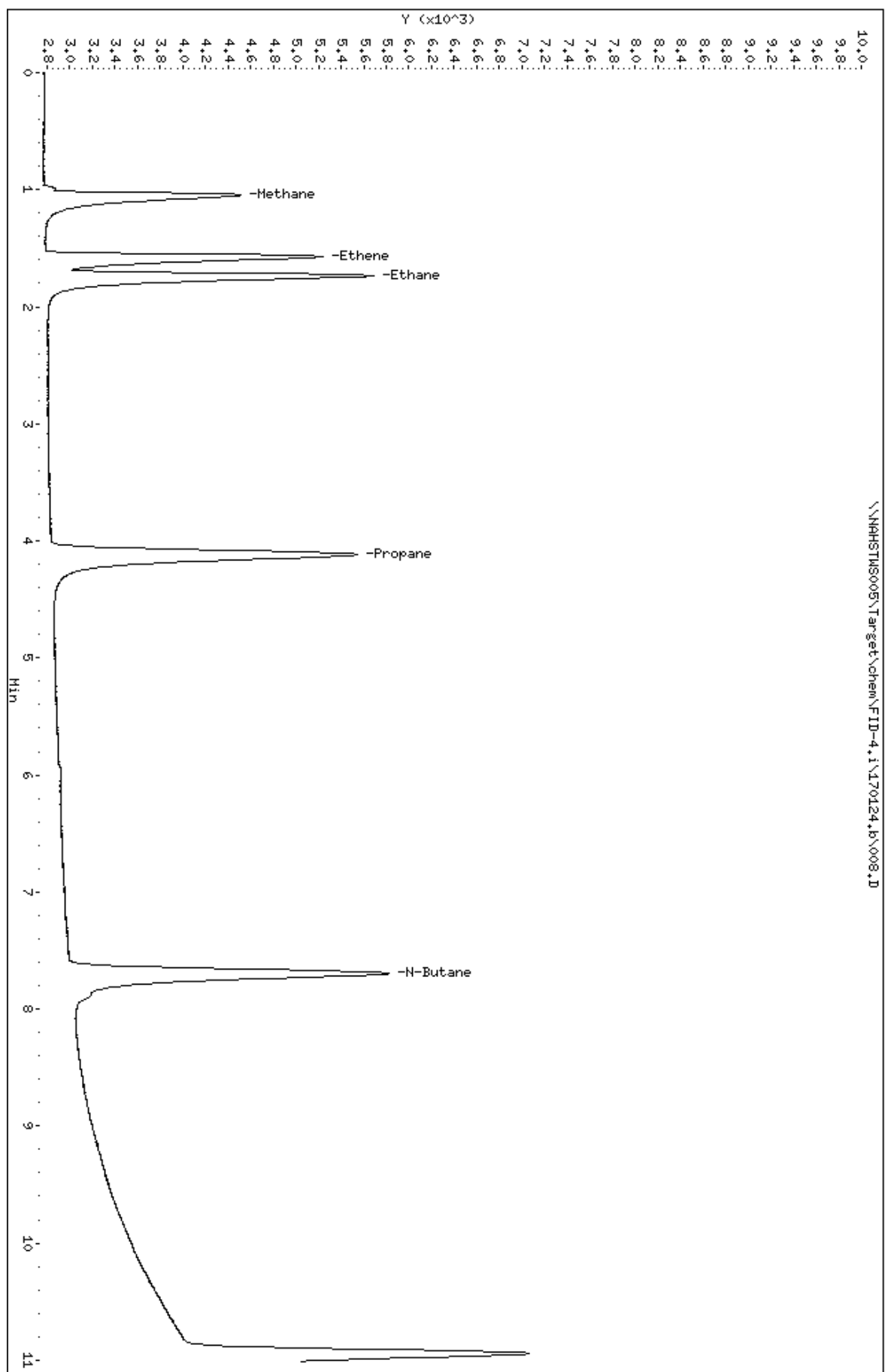
Date : 24-JAN-2017 12:05

Client ID: ICV

Instrument: FID-4.1

Sample Info: ICV;ICV;;

Column phase: Rtx-PL0T

Operator: MA
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





Raw Data FID-4 436671

Semi-Volatiles by RSK-175

Workorder
HS23051834

Client
Bhate Environmental Associates, Inc.

Project
LHAAP 50

06/08/2023

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\230530.b\001.D

Page 1

Report Date: 06-Jun-2023 15:31

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\001.D
 Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
 Inj Date : 30-MAY-2023 09:21
 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\230530.b\RSKNI3.m
 Meth Date : 06-Jun-2023 15:31 FID-4.i 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: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	ON-COL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	0.426	0.426	0.000	7653		9.64700	7.849
2 Ethene	0.640	0.640	0.000	9488		16.8500	16.197
3 Ethane	0.710	0.710	0.000	13743		18.0430	19.101



Data File: \\NAHSTMS005\Target\chem\FID-4.1\230530.b\001.D

Date : 30-MAY-2023 09:21

Client ID: RSK-CCV

Sample Info: RSK-CCV;RSK-CCV;2;4

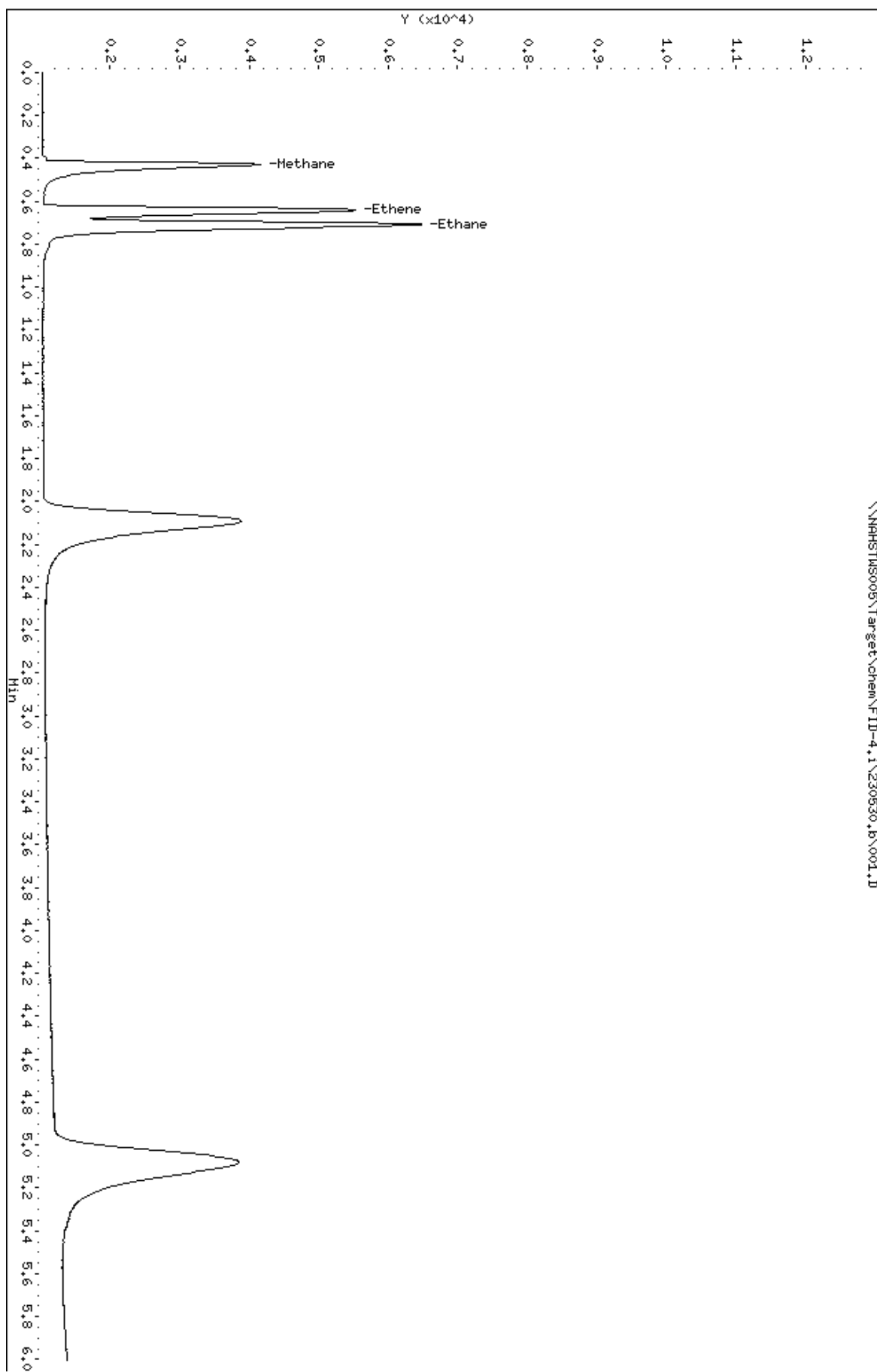
Column phase: RTX-PL0T

Instrument: FID-4.1

Operator: PL

Column diameter: 0.53

\\NAHSTMS005\Target\chem\FID-4.1\230530.b\001.D



Data File : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\001.D
Inj Date : 30-MAY-2023 09:21
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\FID-4.i\230530.b\002.D
Report Date: 06-Jun-2023 15:31

Page 1

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\002.D
Lab Smp Id: MBLK-230530 Client Smp ID: MBLK-230530
Inj Date : 30-MAY-2023 09:36
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-230530;MBLK-230530;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\RSKNI3.m
Meth Date : 06-Jun-2023 15:31 FID-4.i 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: NAHSTW7056

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)
=====	====	=====	=====	=====	=====	=====



Data File: \\NAHSTMS005\Target\chem\FID-4.i\230530.b\002.D

Date : 30-MAY-2023 09:36

Client ID: MBLK-230530

Sample Info: MBLK-230530;MBLK-230530;3;BLANK

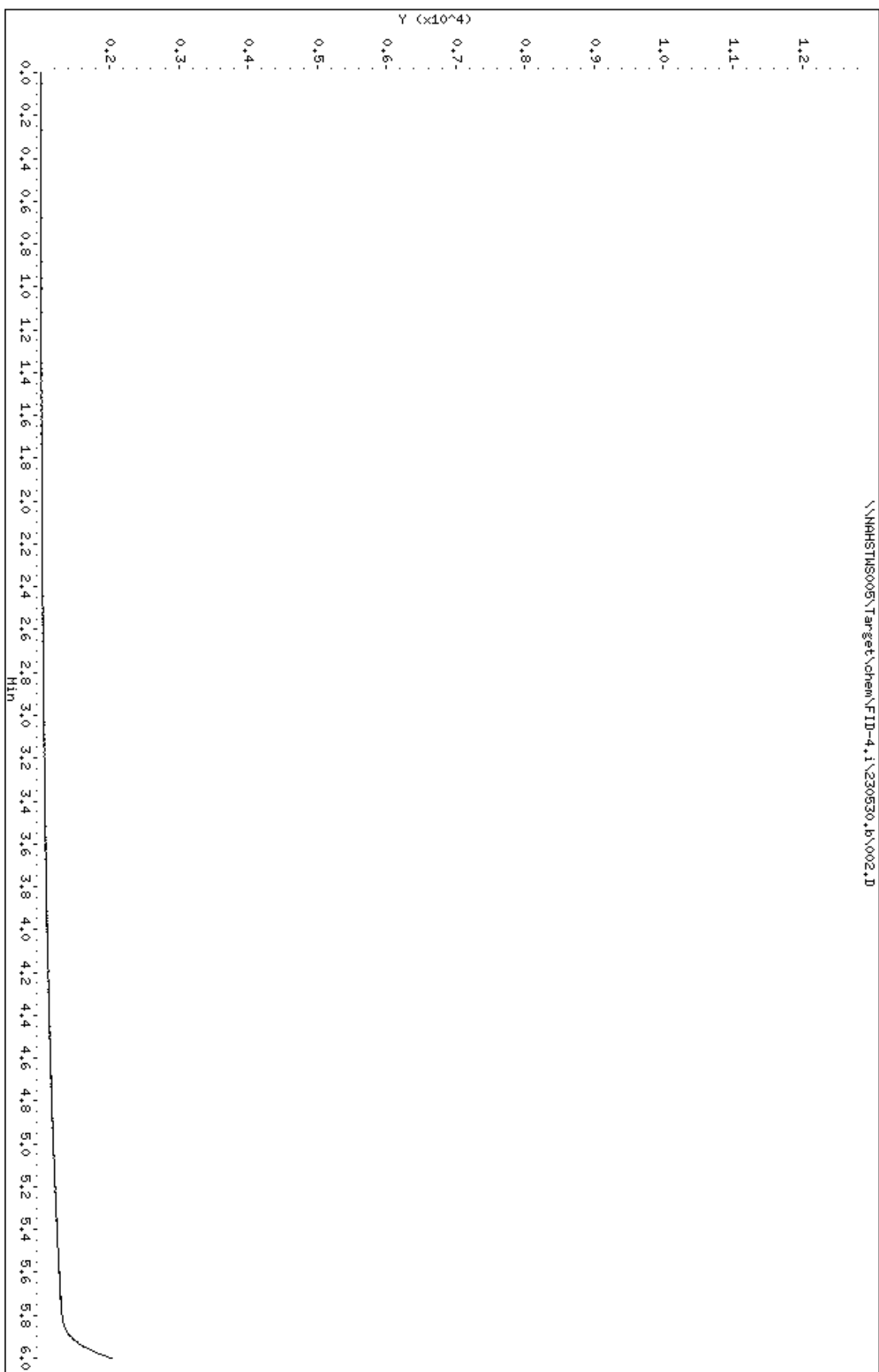
Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

Column phase: RTX-PL01

\\NAHSTMS005\Target\chem\FID-4.i\230530.b\002.D



Data File : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\002.D
Inj Date : 30-MAY-2023 09:36
InstruID : FID-4.i
LabSampID : MBLK-230530

NO MANUAL INTEGRATIONS



Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\003.D

Page 1

Report Date: 30-May-2023 10:19

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\003.D
 Lab Smp Id: LCS-230530 Client Smp ID: LCS-230530
 Inj Date : 30-MAY-2023 09:50
 Operator : PL Inst ID: FID-4.i
 Smp Info : LCS-230530;LCS-230530;3;;LCS
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
 Meth Date : 30-May-2023 09:35 samy.mata 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: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
1 Methane	0.433	0.426	0.007	8274	8.48622	8.486
2 Ethene	0.650	0.640	0.010	10099	17.2408	17.240
3 Ethane	0.716	0.710	0.006	15042	20.9065	20.906



Data File: \\nahstus005\Target\chem\FID-4.i\230530.b\003.D

Date : 30-May-2023 09:50

Client ID: LCS-230530

Sample Info: LCS-230530;LCS-230530;3;PLCS

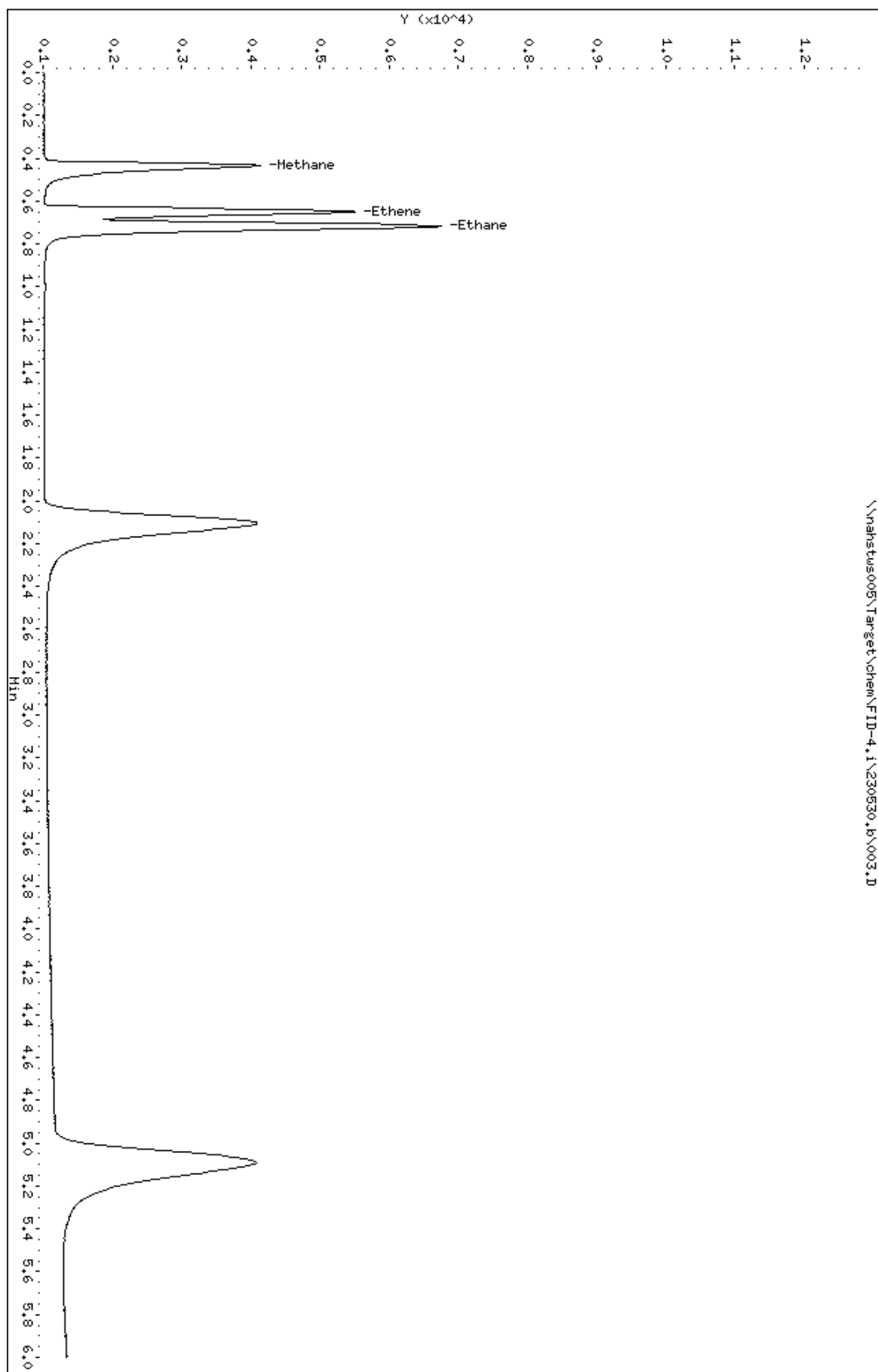
Column phase: Rtx-PL01

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

Page 1



Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\003.D
Inj Date : 30-MAY-2023 09:50
InstruID : FID-4.i
LabSampID : LCS-230530

NO MANUAL INTEGRATIONS



Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\004.D

Page 1

Report Date: 30-May-2023 10:20

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\004.D
 Lab Smp Id: LCSD-230530 Client Smp ID: LCSD-230530
 Inj Date : 30-MAY-2023 10:06
 Operator : PL Inst ID: FID-4.i
 Smp Info : LCSD-230530;LCSD-230530;3;;LCSD
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
 Meth Date : 30-May-2023 09:35 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 4 QC Sample: LCSD
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
1 Methane	0.430	0.426	0.004	8514	8.73238	8.732
2 Ethene	0.646	0.640	0.006	10334	17.6420	17.642
3 Ethane	0.713	0.710	0.003	14949	20.7772	20.777



Data File: \\nahstus005\Target\chem\FID-4,1\230530,b\004.D

Date : 30-May-2023 10:06

Client ID: LCSD-230530

Sample Info: LCSD-230530;LCSD-230530;3;LCSD

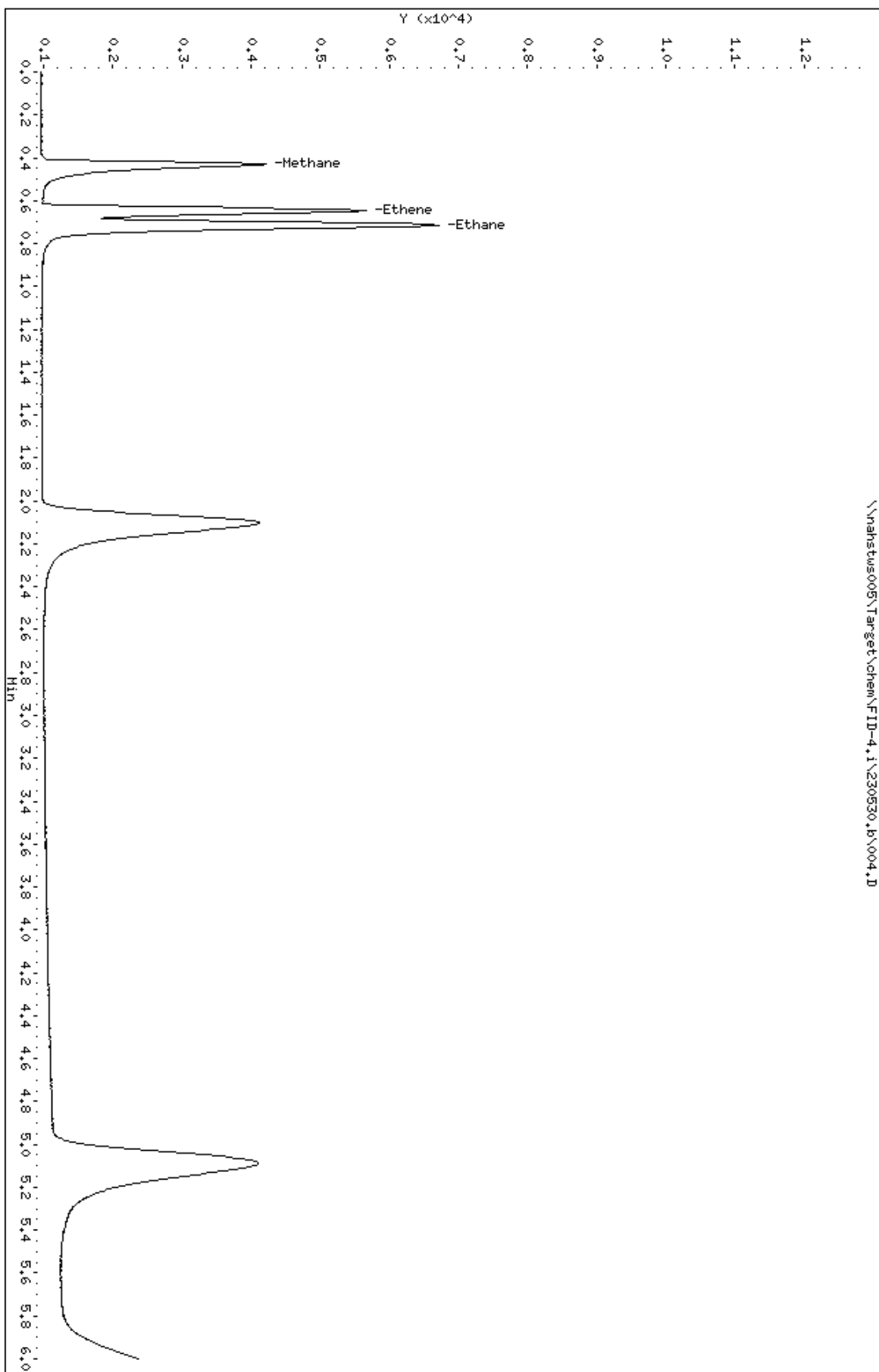
Column phase: Rtx-PL0T

Instrument: FID-4,1

Operator: PL

Column diameter: 0.53

Page 1



Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\004.D
Inj Date : 30-MAY-2023 10:06
InstruID : FID-4.i
LabSampID : LCSD-230530

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\FID-4.i\230530.b\005.D

Page 1

Report Date: 08-Jun-2023 13:17

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\005.D
 Lab Smp Id: HS23051834-04 Client Smp ID: HS23051834-04
 Inj Date : 30-MAY-2023 10:16
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS23051834-04;HS23051834-04
 Misc Info : ;1;0;1
 Comment :
 Method : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\RSKNI3.m
 Meth Date : 06-Jun-2023 15:31 FID-4.i Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 5
 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						CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE		ON-COLUMN	FINAL
						(ug/L)	(ug/L)
	=====	=====	=====	=====		=====	=====
1 Methane	0.430	0.426	0.004	6594		6.76313	6.763(M)

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\FID-4.1\230530.b\005.D

Page 1

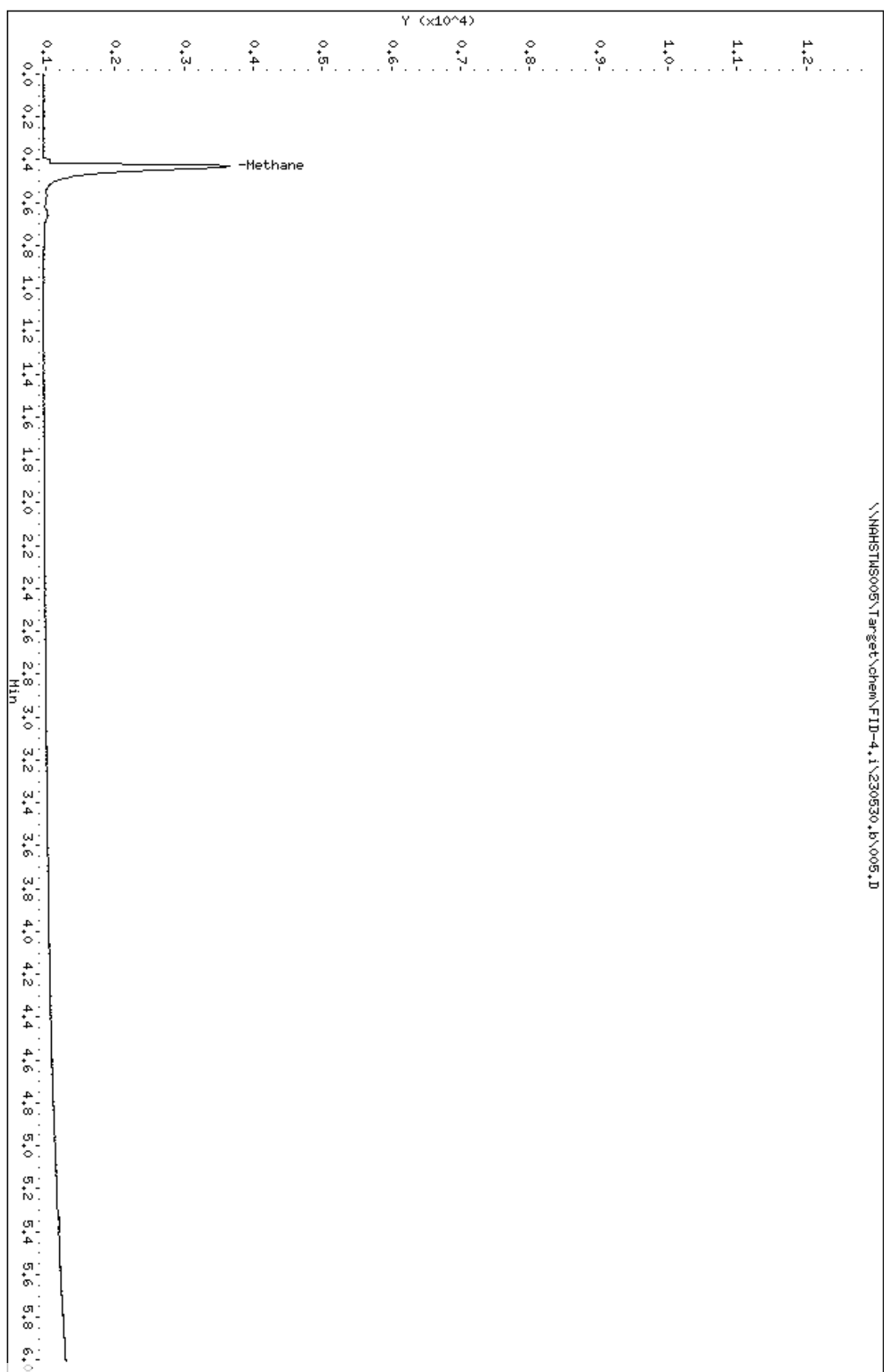
Date : 30-May-2023 10:16

Client ID: HS23051834-04

Instrument: FID-4.1

Sample Info: HS23051834-04;HS23051834-04

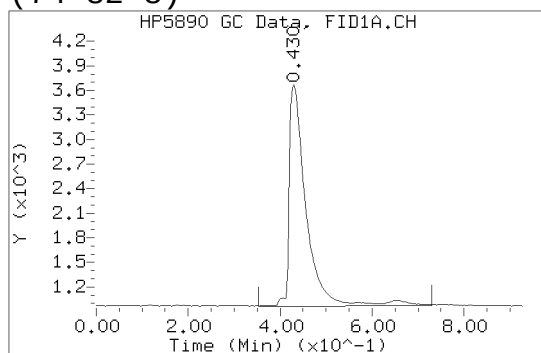
Column phase: Rtx-PL01

Operator: PL
Column diameter: 0.53

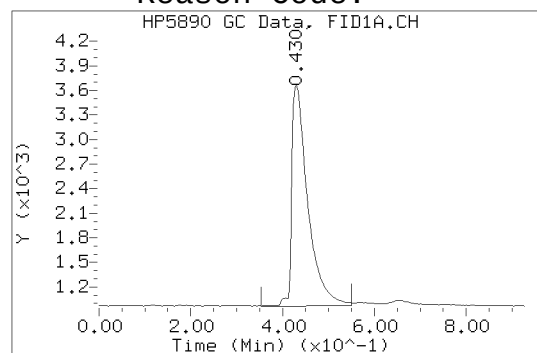
Data File : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\005.D
Inj Date : 30-MAY-2023 10:16
InstruID : FID-4.i
LabSampID : HS23051834-04

Methane (74-82-8)**BEFORE**

MASS
100
AREA
0
HEIGHT
0
30-May-2023
10:22
ALSHS
Server

**AFTER**

MASS
100
AREA
6594
HEIGHT
2702
08-Jun-2023
13:17
ALSHS
Ser

Reason Code:

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\006.D

Page 1

Report Date: 30-May-2023 10:51

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\006.D
 Lab Smp Id: HS23051834-04MS Client Smp ID: HS23051834-04MS
 Inj Date : 30-MAY-2023 10:43
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS23051834-04MS;HS23051834-04MS
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
 Meth Date : 30-May-2023 09:35 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 6 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.433	0.426	0.007	14155	14.5181	14.518(R)
2 Ethene	0.646	0.640	0.006	9859	16.8311	16.831
3 Ethane	0.716	0.710	0.006	13630	18.9440	18.943

QC Flag Legend

R - Spike/Surrogate failed recovery limits.



Data File: \\nahstus005\Target\chem\FID-4.i\230530.b\006.D

Page 1

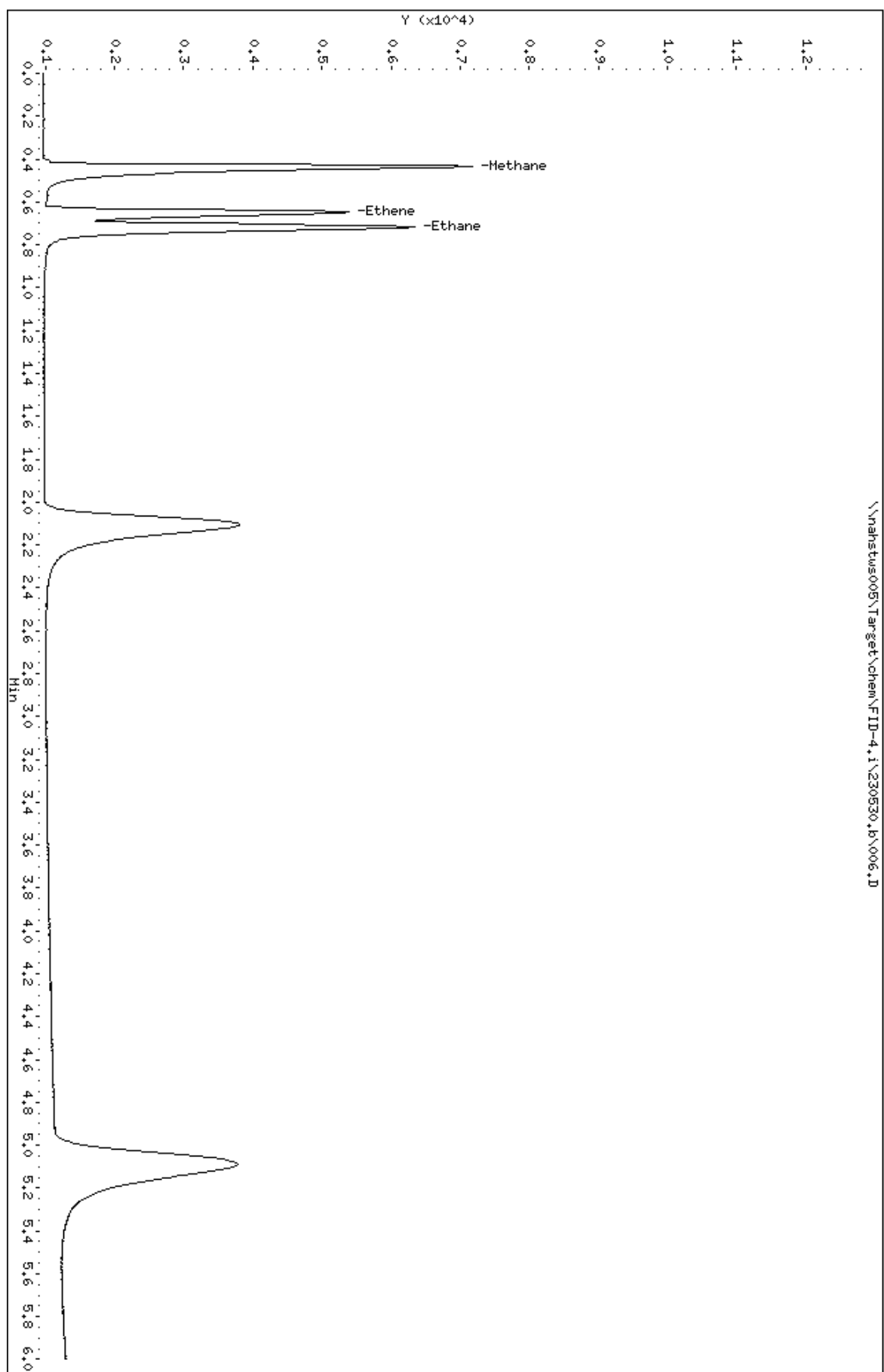
Date : 30-May-2023 10:43

Client ID: HS23051834-04MS

Instrument: FID-4.i

Sample Info: HS23051834-04MS;HS23051834-04MS

Column phase: Rtx-PL01

Operator: PL
Column diameter: 0.53

Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\006.D
Inj Date : 30-MAY-2023 10:43
InstruID : FID-4.i
LabSampID : HS23051834-04MS

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\FID-4.i\230530.b\007.D
 Report Date: 06-Jun-2023 15:31

Page 1

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\007.D
 Lab Smp Id: HS23051834-04MSD Client Smp ID: HS23051834-04MSD
 Inj Date : 30-MAY-2023 10:52
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS23051834-04MSD;HS23051834-04MSD
 Misc Info : ;1;0;1
 Comment :
 Method : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\RSKNI3.m
 Meth Date : 06-Jun-2023 15:31 FID-4.i Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 7 QC Sample: MSD
 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						CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)	
=====	====	=====	=====	=====	=====	=====	
1 Methane	0.433	0.426	0.007	13779	14.1324	14.132(R)	
2 Ethene	0.643	0.640	0.003	9835	16.7901	16.790(M)	
3 Ethane	0.713	0.710	0.003	13457	18.7035	18.703(M)	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
 M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\FID-4.i\230530.b\007.D

Date : 30-MAY-2023 10:52

Client ID: HS23051834-04HSD

Sample Info: HS23051834-04HSD\HS23051834-04HSD

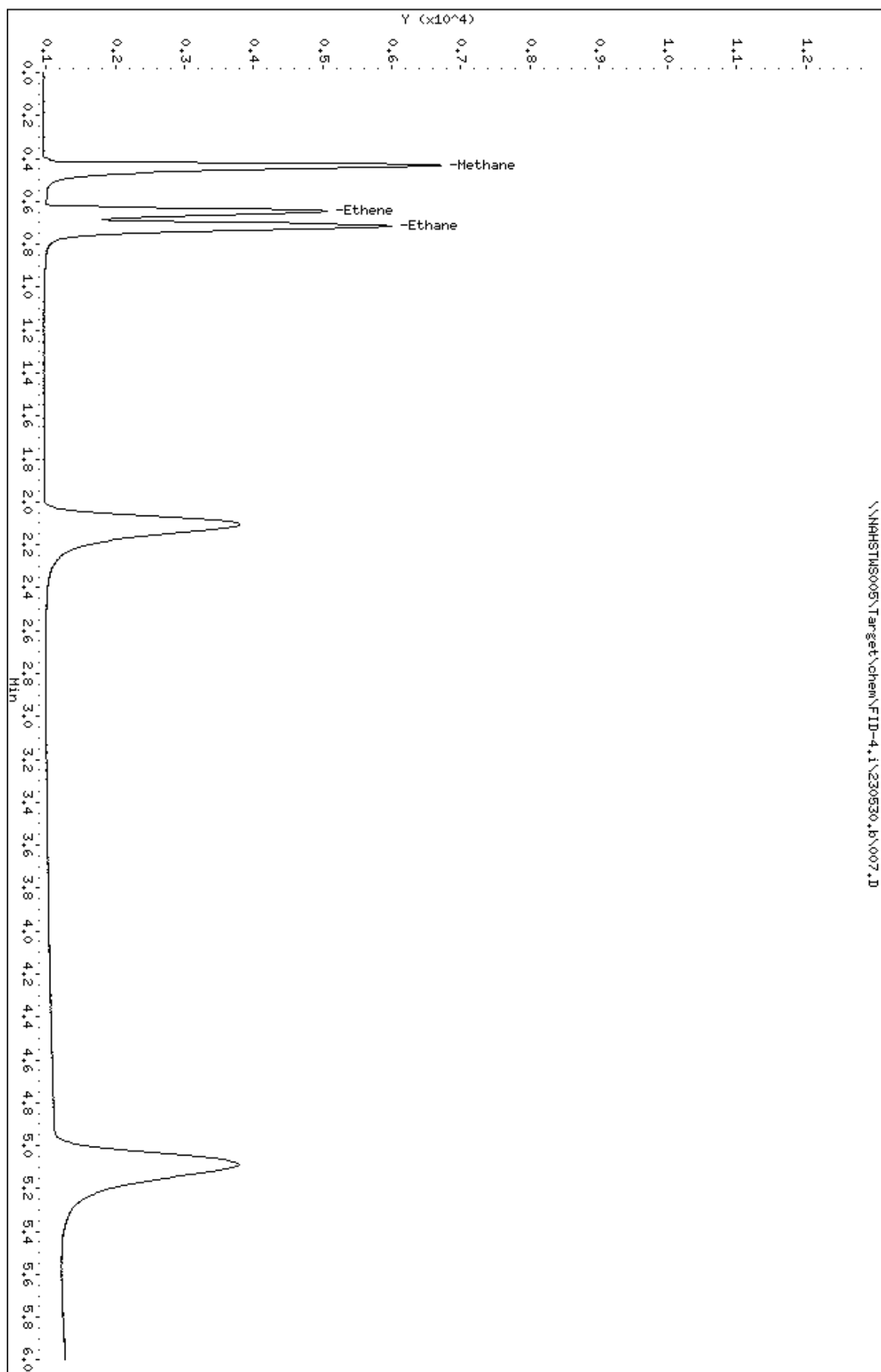
Column phase: Rtx-PL01

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

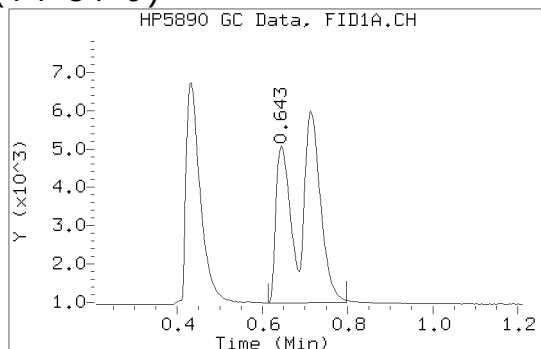
Page 1



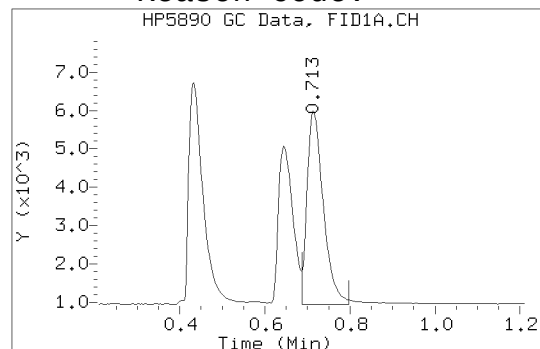
Data File : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\007.D
Inj Date : 30-MAY-2023 10:52
InstruID : FID-4.i
LabSampID : HS23051834-04MSD

Ethane (74-84-0)**BEFORE**

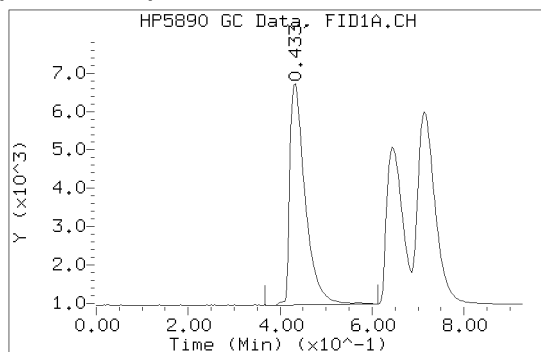
MASS
44
AREA
22616
HEIGHT
4081
30-May-2023
10:59
ALSHS
Server

**AFTER**

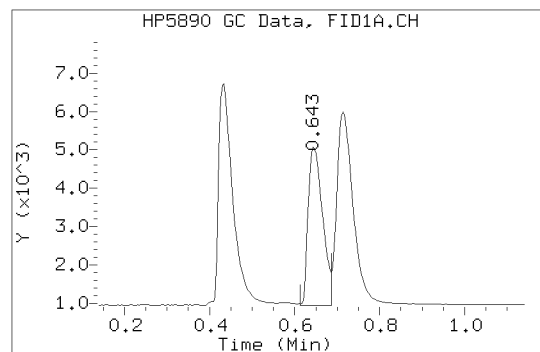
MASS
44
AREA
13457
HEIGHT
5040
06-Jun-2023
15:31
ALSHS
Ser

Reason Code:**Ethene (74-85-1)****BEFORE**

MASS
100
AREA
0
HEIGHT
0
30-May-2023
10:59
ALSHS
Server

**AFTER**

MASS
100
AREA
9835
HEIGHT
4121
06-Jun-2023
15:31
ALSHS
Ser

Reason Code:

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\008.D

Page 1

Report Date: 30-May-2023 16:36

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\008.D
 Lab Smp Id: HS23051834-02 Client Smp ID: HS23051834-02
 Inj Date : 30-MAY-2023 16:24
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS23051834-02;HS23051834-02
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
 Meth Date : 30-May-2023 09:35 samy.mata 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: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE		ON-COLUMN	FINAL
						(ug/L)	(ug/L)
	=====	=====	=====	=====		=====	=====
1 Methane	0.423	0.426	-0.003	9920809		10175.3	10175.268(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\nahstus005\Target\chem\FID-4.i\230530.b\008.D

Date : 30-MAY-2023 16:24

Client ID: HS23051834-02

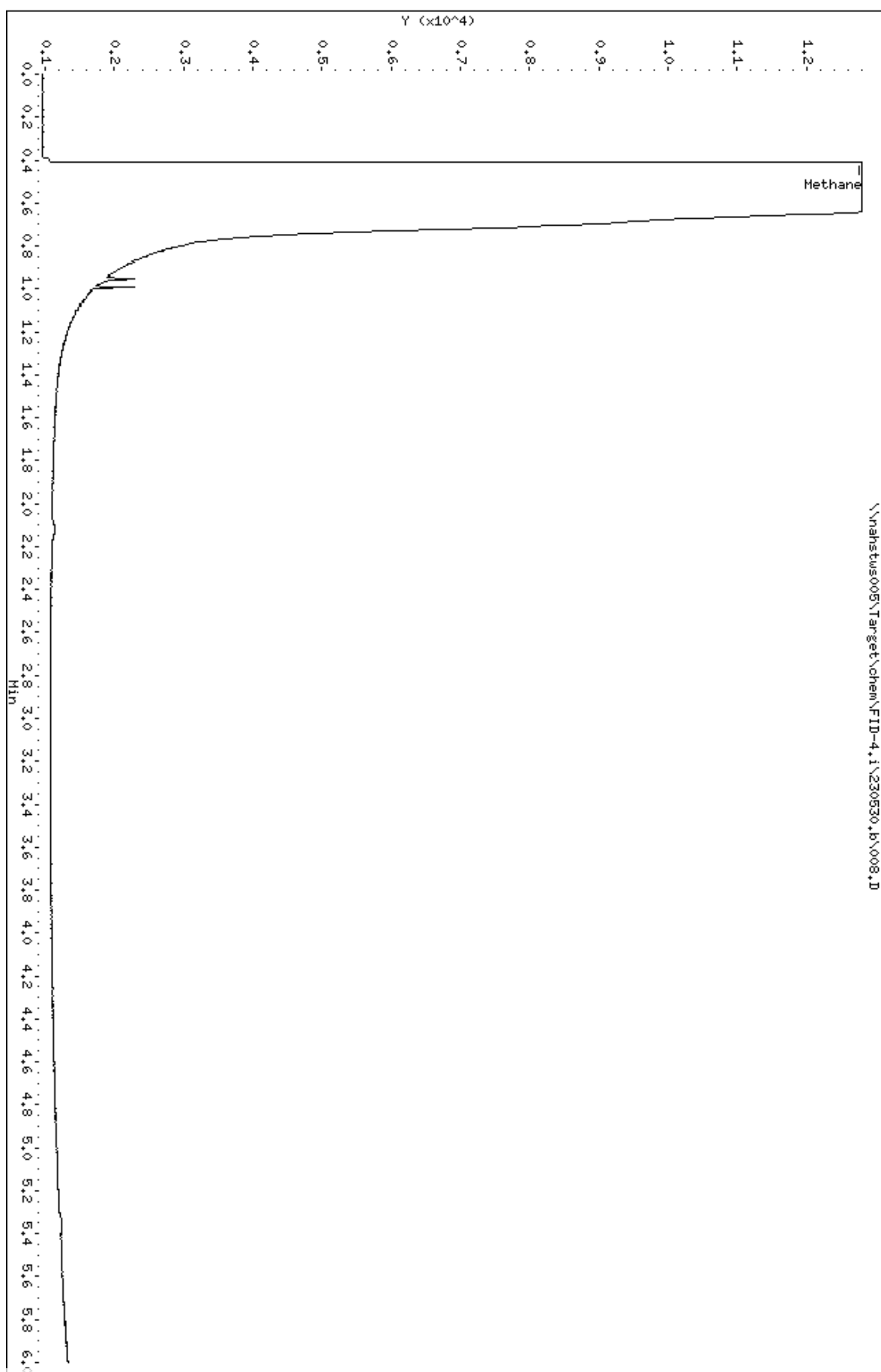
Sample Info: HS23051834-02\HS23051834-02

Column phase: Rtx-PL01

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53



Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\008.D
Inj Date : 30-MAY-2023 16:24
InstruID : FID-4.i
LabSampID : HS23051834-02

NO MANUAL INTEGRATIONS



Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\009.D

Page 1

Report Date: 30-May-2023 16:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\009.D
 Lab Smp Id: HS23051834-03 Client Smp ID: HS23051834-03
 Inj Date : 30-MAY-2023 16:37
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS23051834-03;HS23051834-03
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
 Meth Date : 30-May-2023 09:35 samy.mata 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: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE		ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====		=====	=====
1 Methane	0.433	0.426	0.007	10900116		11179.7	11179.694(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\nahstus005\Target\chem\FID-4.i\230530.b\009.D

Date : 30-MAY-2023 16:37

Client ID: HS23051834-03

Sample Info: HS23051834-03;HS23051834-03

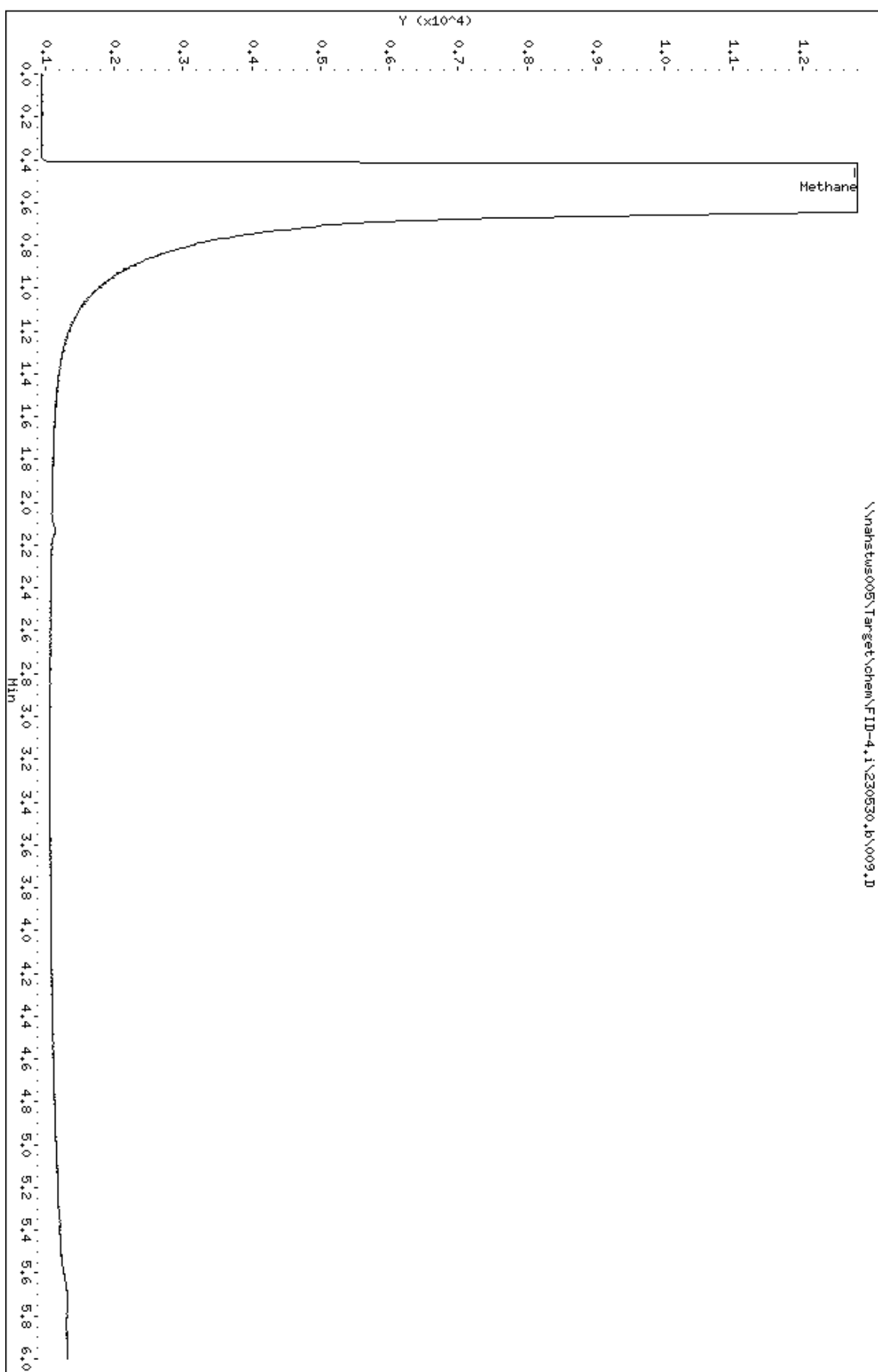
Page 1

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

Column phase: Rtx-PL01



Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\009.D
Inj Date : 30-MAY-2023 16:37
InstruID : FID-4.i
LabSampID : HS23051834-03

NO MANUAL INTEGRATIONS



Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\010.D

Page 1

Report Date: 30-May-2023 17:07

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\010.D
 Lab Smp Id: HS23051834-02 Client Smp ID: HS23051834-02
 Inj Date : 30-MAY-2023 16:46
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS23051834-02;HS23051834-02
 Misc Info : ;1;0;500
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
 Meth Date : 30-May-2023 17:07 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 10
 Dil Factor: 500.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE		ON-COLUMN	FINAL
						(ug/L)	(ug/L)
	====	=====	=====	=====		=====	=====
1 Methane	0.430	0.433	-0.003	28948		29.6905	14845.244(M)

QC Flag Legend

M - Compound response manually integrated.



Data File: \\nahstus005\Target\chem\FID-4.i\230530.b\010.D

Page 1

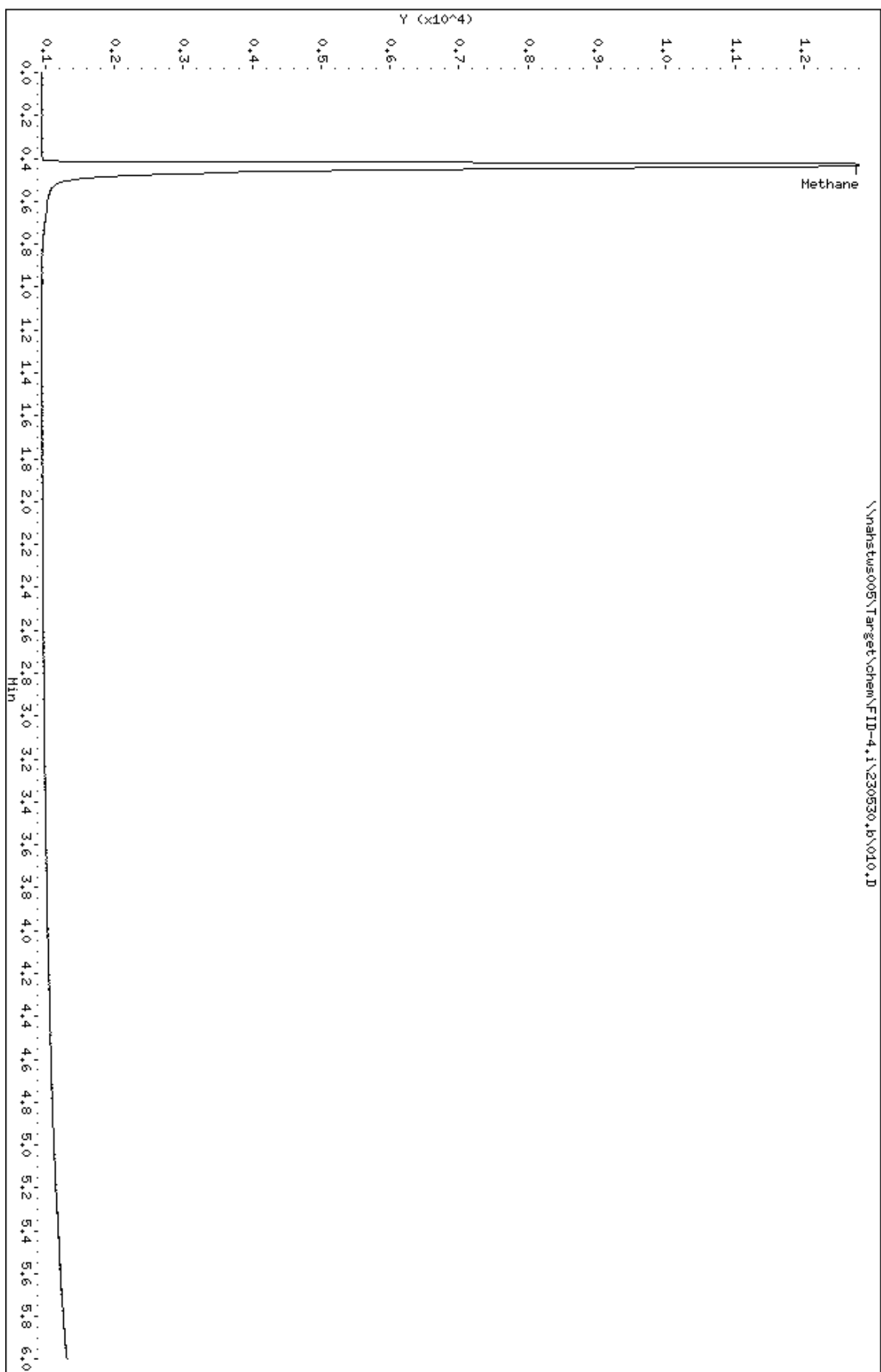
Date : 30-May-2023 16:46

Client ID: HS23051834-02

Instrument: FID-4.i

Sample Info: HS23051834-02\HS23051834-02

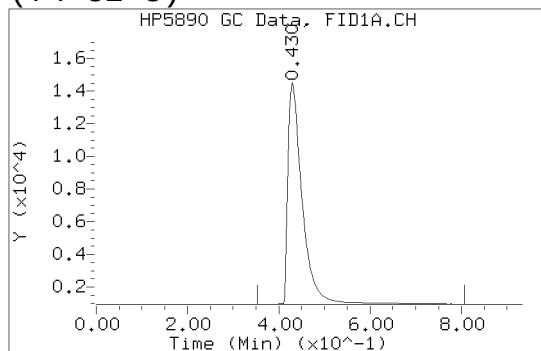
Column phase: Rtx-PL01

Operator: PL
Column diameter: 0.53

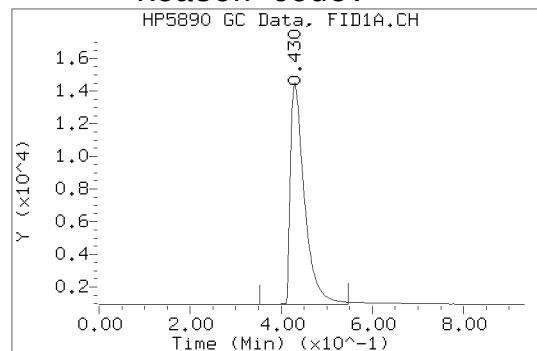
Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\010.D
Inj Date : 30-MAY-2023 16:46
InstruID : FID-4.i
LabSampID : HS23051834-02

Methane (74-82-8)**BEFORE**

MASS
100
AREA
0
HEIGHT
0
30-May-2023
16:54
ALSHS
Server

**AFTER**

MASS
100
AREA
28948
HEIGHT
13567
30-May-2023
17:07
ALSHS
Ser

Reason Code:

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\011.D

Page 1

Report Date: 30-May-2023 17:08

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\011.D
 Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
 Inj Date : 30-MAY-2023 16:54
 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\230530.b\RSKNI3.m
 Meth Date : 30-May-2023 17:07 samy.mata 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: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	ON-COL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	0.433	0.433	0.000	7985		9.64700	8.189
2 Ethene	0.646	0.646	0.000	10473		16.8500	17.879(M)
3 Ethane	0.713	0.713	0.000	14588		18.0430	20.275(M)

QC Flag Legend

M - Compound response manually integrated.



Data File: \\nahstus005\Target\chem\FID-4.i\230530.b\011.D

Date : 30-MAY-2023 16:54

Client ID: RSK-CCV

Sample Info: RSK-CCV\RSK-CCV\214

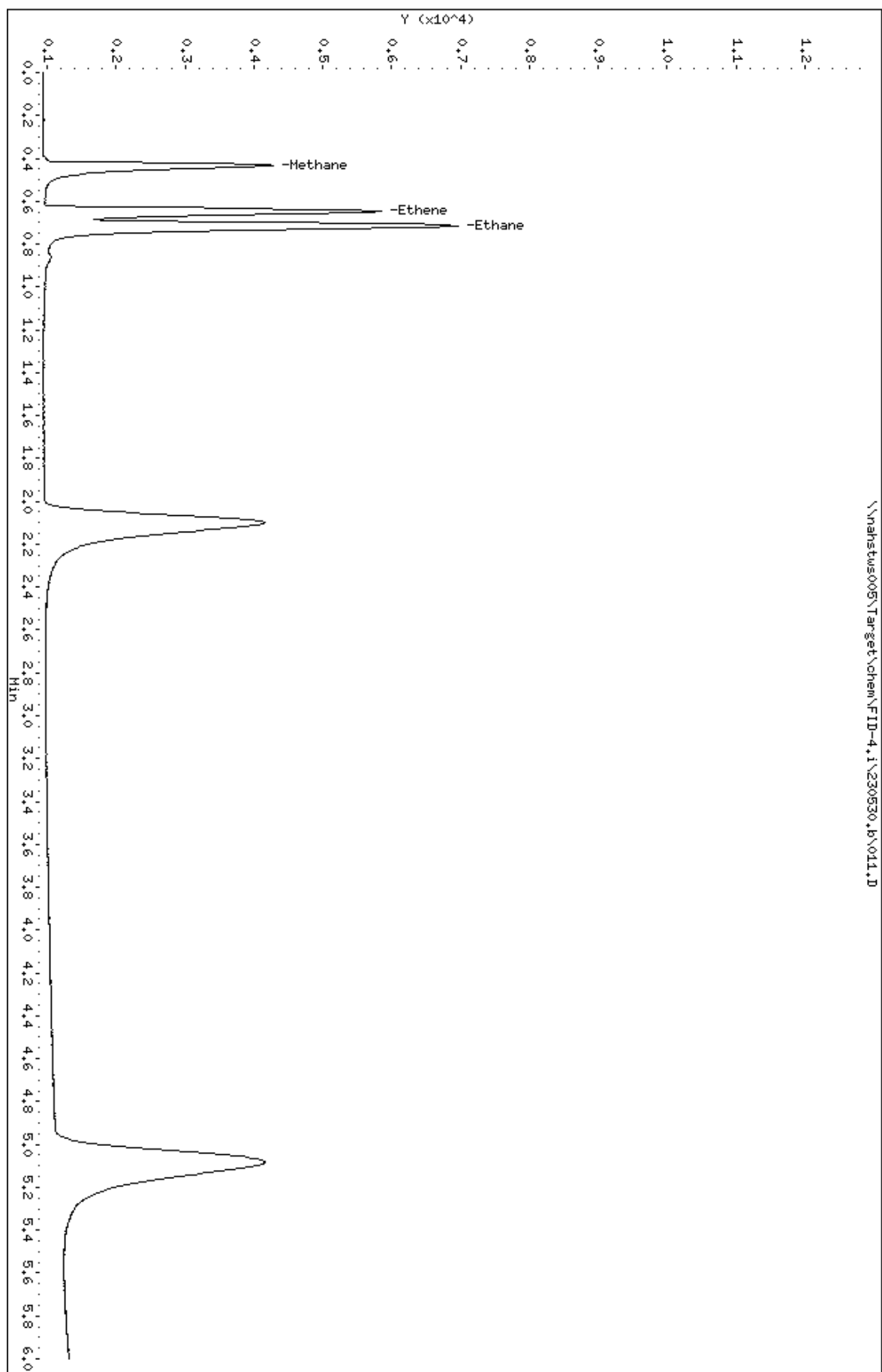
Page 1

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

Column phase: Rtx-PL01

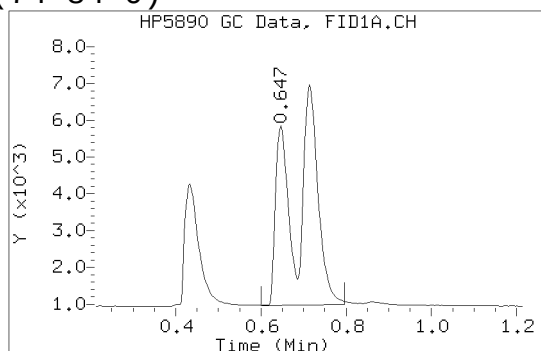


Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\011.D
 Inj Date : 30-MAY-2023 16:54
 InstruID : FID-4.i
 LabSampID : RSK-CCV

Ethane (74-84-0)

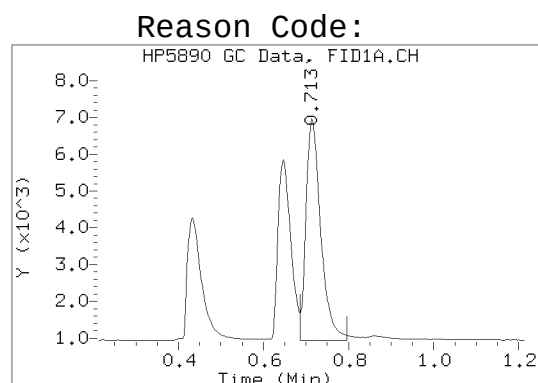
BEFORE

MASS
44
AREA
24477
HEIGHT
4890
30-May-2023
17:02
ALSHS
Server



AFTER

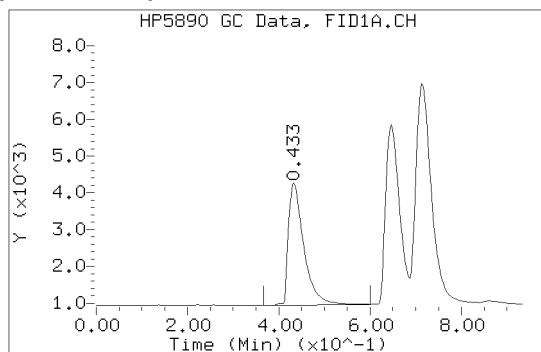
MASS
44
AREA
14588
HEIGHT
6026
30-May-2023
17:08
ALSHS
Ser



Ethene (74-85-1)

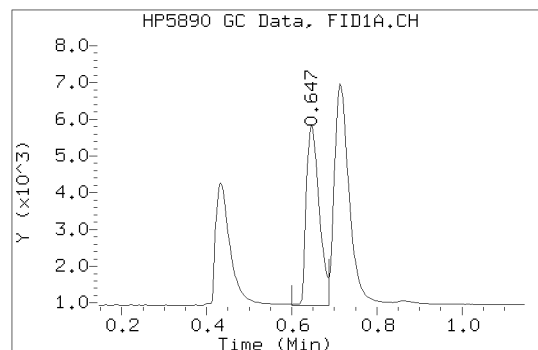
BEFORE

MASS
100
AREA
0
HEIGHT
0
30-May-2023
17:02
ALSHS
Server



AFTER

MASS
100
AREA
10473
HEIGHT
4919
30-May-2023
17:08
ALSHS
Ser



Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\012.D

Page 1

Report Date: 30-May-2023 17:59

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\012.D
 Lab Smp Id: HS23051834-03 Client Smp ID: HS23051834-03
 Inj Date : 30-MAY-2023 17:09
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS23051834-03;HS23051834-03
 Misc Info : ;1;0;500
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
 Meth Date : 30-May-2023 17:07 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 12
 Dil Factor: 500.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds					CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.430	0.433	-0.003	23579	24.1838	12091.889(M)

QC Flag Legend

M - Compound response manually integrated.



Data File: \\nahstus005\Target\chem\FID-4.i\230530.b\012.D

Date : 30-MAY-2023 17:09

Client ID: HS23051834-03

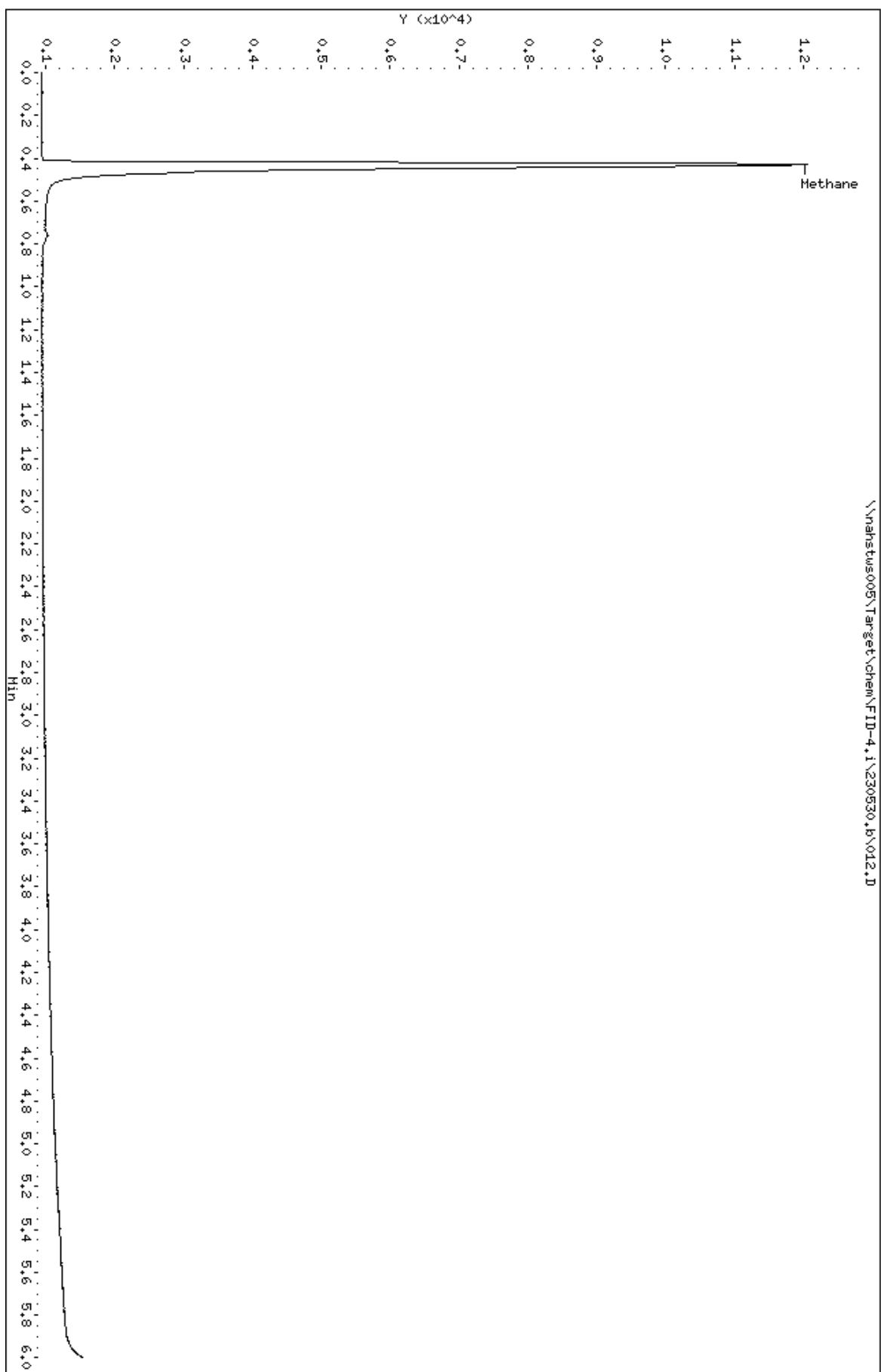
Sample Info: HS23051834-03\HS23051834-03

Column phase: RTX-PL01

Instrument: FID-4.i

Operator: PL

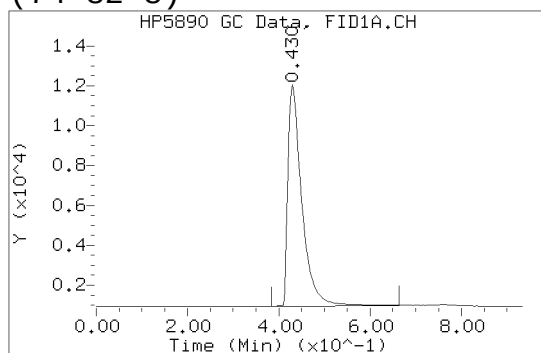
Column diameter: 0.53



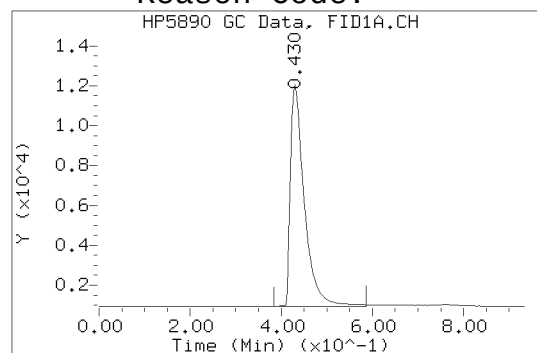
Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\012.D
Inj Date : 30-MAY-2023 17:09
InstruID : FID-4.i
LabSampID : HS23051834-03

Methane (74-82-8)**BEFORE**

MASS
100
AREA
0
HEIGHT
0
30-May-2023
17:16
ALSHS
Server

**AFTER**

MASS
100
AREA
23579
HEIGHT
11115
30-May-2023
17:59
ALSHS
Ser

Reason Code:

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\021.D

Page 1

Report Date: 30-May-2023 18:56

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\021.D
 Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
 Inj Date : 30-MAY-2023 18:48
 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\230530.b\RSKNI3.m
 Meth Date : 30-May-2023 18:56 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 21 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	ON-COL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	0.430	0.430	0.000	8162		9.64700	8.371
2 Ethene	0.643	0.643	0.000	10655		16.8500	18.190
3 Ethane	0.710	0.710	0.000	14950		18.0430	20.778



Data File: \\nahstus005\Target\chem\FID-4,i\230530,b\021.D

Date : 30-MAY-2023 18:48

Client ID: RSK-CCV

Sample Info: RSK-CCV\RSK-CCV\2;4

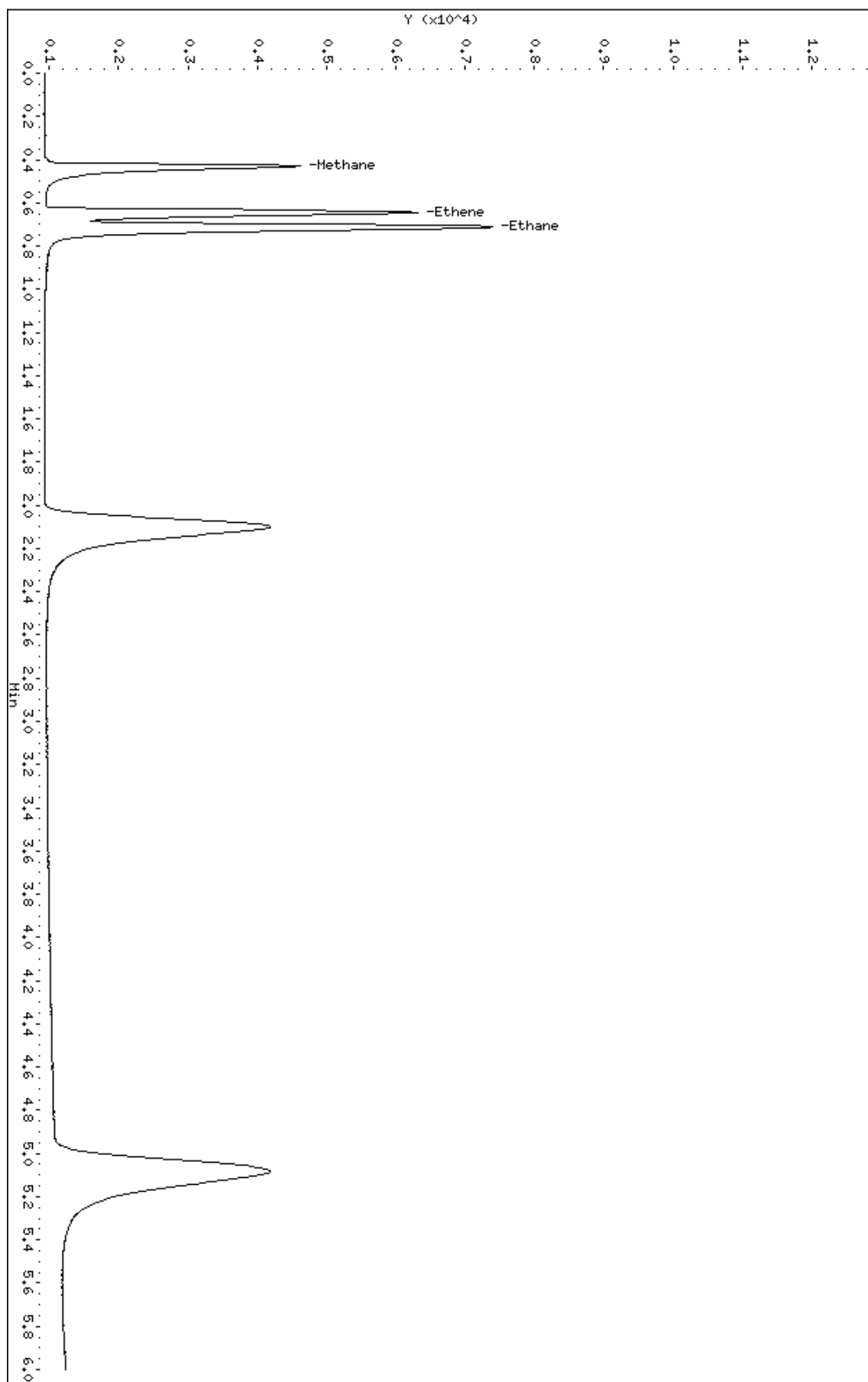
Column phase: Rtx-PL0T

Instrument: FID-4,i

Operator: PL

Column diameter: 0.53

\\nahstus005\Target\chem\FID-4,i\230530,b\021.D



Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\021.D
Inj Date : 30-MAY-2023 18:48
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS



HS23051834 Wetchem 9056_W

ALS WO# HS23051834



Sequence: 052623
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	STD1	9056-W-SH	Calibration	BA1	1.00	1	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD2		Calibration	BA2	1.00	2	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD3		Calibration	BA3	1.00	3	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD4		Calibration	BA4	1.00	4	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD5		Calibration	BA5	1.00	5	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD6		Calibration	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	R8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	MBLK		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
	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
	HS23051834-02		Unknown	GE5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051834-02DF20		Unknown	GE6	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051834-03		Unknown	GE7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051834-03DF20		Unknown	GE8	20.00		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	R8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051834-04		Unknown	BA1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051834-04MS		Unknown	BA2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051834-04MSD		Unknown	BA3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051834-04DF10		Unknown	BA4	10.00		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
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknown	R8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current



Sequence: 052623
Last Update Operator: alshs.nouser

Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		STD1	5.0	Finished	5/23/2023 2:40:38 PM -05:00
Anions Processing Method ISO		STD2	5.0	Finished	5/23/2023 2:46:28 PM -05:00
Anions Processing Method ISO		STD3	5.0	Finished	5/23/2023 2:52:17 PM -05:00
Anions Processing Method ISO		STD4	5.0	Finished	5/23/2023 2:58:07 PM -05:00
Anions Processing Method ISO		STD5	5.0	Finished	5/23/2023 3:03:57 PM -05:00
Anions Processing Method ISO		STD6	5.0	Finished	5/23/2023 3:09:46 PM -05:00
Anions Processing Method ISO		ICV	5.0	Finished	5/23/2023 3:21:25 PM -05:00
Anions Processing Method ISO		ICB	5.0	Finished	5/23/2023 3:33:05 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	5/26/2023 9:47:00 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	5/26/2023 9:58:38 PM -05:00
Anions Processing Method ISO		MBLK	5.0	Finished	5/26/2023 10:51:01 PM -05:00
Anions Processing Method ISO		LCS	5.0	Finished	5/26/2023 10:56:50 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	5/26/2023 11:25:55 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	5/26/2023 11:37:33 PM -05:00
Anions Processing Method ISO		HS23051834-02	5.0	Finished	5/27/2023 12:12:28 AM -05:00
Anions Processing Method ISO		HS23051834-02DF20	5.0	Finished	5/27/2023 12:18:17 AM -05:00
Anions Processing Method ISO		HS23051834-03	5.0	Finished	5/27/2023 12:24:06 AM -05:00
Anions Processing Method ISO		HS23051834-03DF20	5.0	Finished	5/27/2023 12:29:55 AM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	5/27/2023 12:41:33 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	5/27/2023 12:53:12 AM -05:00
Anions Processing Method ISO		HS23051834-04	5.0	Finished	5/27/2023 12:59:01 AM -05:00
Anions Processing Method ISO		HS23051834-04MS	5.0	Finished	5/27/2023 1:04:50 AM -05:00
Anions Processing Method ISO		HS23051834-04MSD	5.0	Finished	5/27/2023 1:10:39 AM -05:00
Anions Processing Method ISO		HS23051834-04DF10	5.0	Finished	5/27/2023 1:16:28 AM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	5/27/2023 2:03:00 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	5/27/2023 2:14:39 AM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	5/27/2023 3:12:49 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	5/27/2023 3:24:28 AM -05:00



Sequence: 052523
Injection #6: STD6

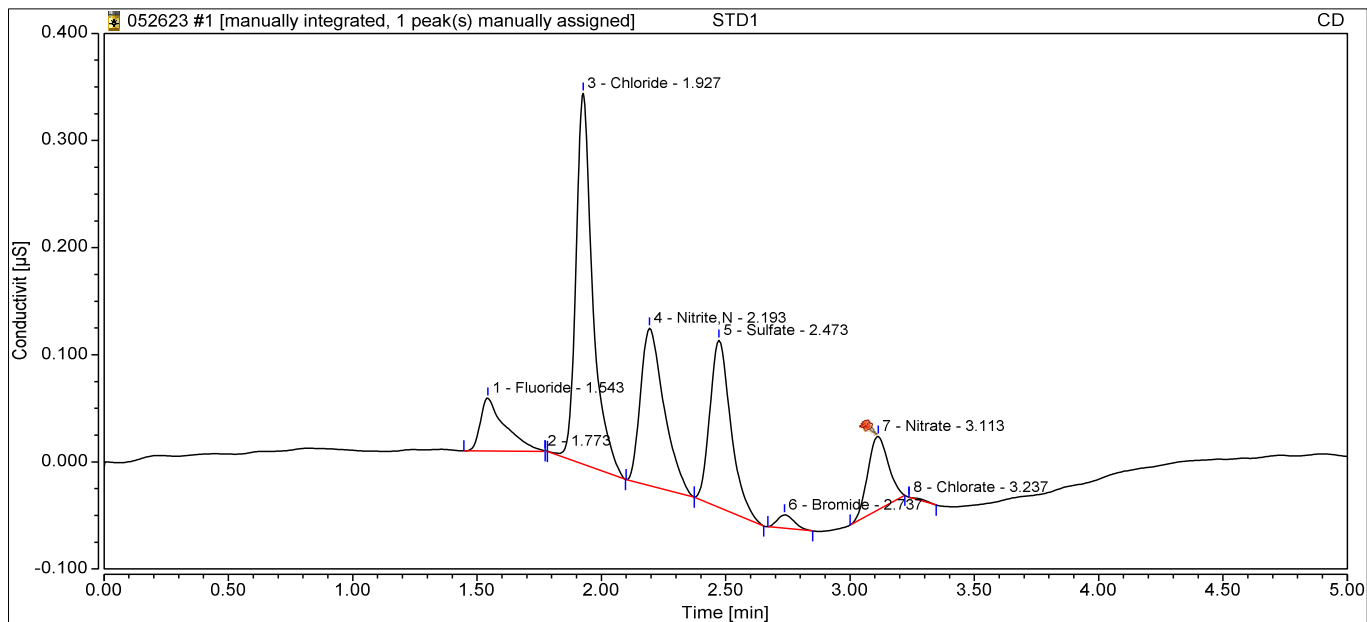
Calibration

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	83.9625	0.98326	-0.0293	0.2016	0.0000
2	Chloride	Lin, WithOffset, 1/A	Area	6	26.3672	0.99783	-0.0819	0.1581	0.0000
3	Nitrite,N	Quad, WithOffset, 1/A	Area	6	18.2290	0.99886	-0.0236	0.3308	-0.0039
4	Sulfate	Lin, WithOffset, 1/A	Area	6	13.3771	0.99939	-0.0492	0.1098	0.0000
5	Bromide	Lin, WithOffset, 1/A	Area	6	25.7663	0.99803	-0.0064	0.0574	0.0000
6	Nitrate	Lin, WithOffset, 1/A	Area	6	23.5280	0.99835	-0.0371	0.3323	0.0000
7	Chlorate	Quad, WithOffset, 1/A	Area	6	22.2900	0.99884	-0.0032	0.0268	-0.0002
n.a.	Phosphate	Lin, WithOffset, 1/A	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum					83.9625	0.99939			
Minimum					13.3771	0.98326			



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:	05/23/2023 14:40	Sample Weight:	1.0000
Run Time:			



Integration Results

No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BM *	0.006	0.1735	0.1735	1.0000
3	1.93	Chloride	BMB	0.027	0.6897	0.6897	1.0000
4	2.19	Nitrite, N	BMB	0.016	0.1203	0.1203	1.0000
5	2.47	Sulfate	BMB	0.015	0.5877	0.5877	1.0000
6	2.74	Bromide	BMB*	0.001	0.1291	0.1291	1.0000
7	3.11	Nitrate	BMB*^	0.007	0.1315	0.1315	1.0000
8	3.24	Chlorate	BMB*	0.000	0.1228	0.1228	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.072	1.95		

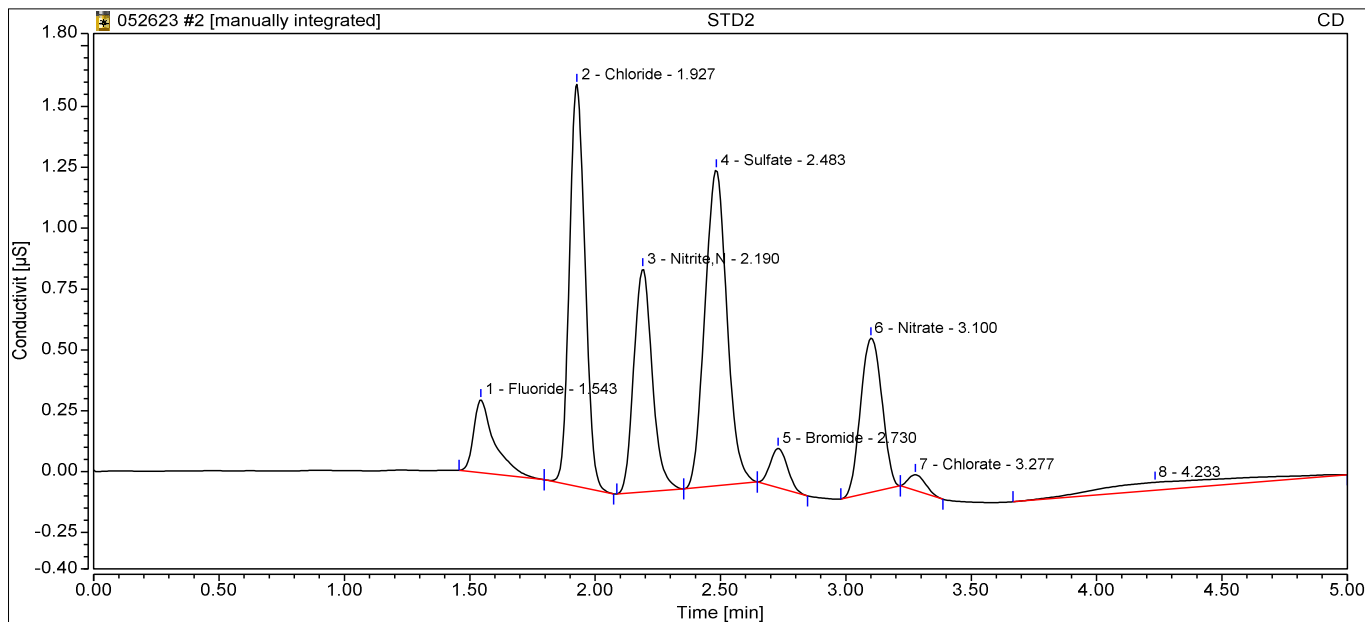
2 STD2

Sample Name: **STD2**
 Vial Number: **BA2**
 Sample Type: **Calibration Standard**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**

Recording Time: 05/23/2023 14:46

Run Time:



Integration Results

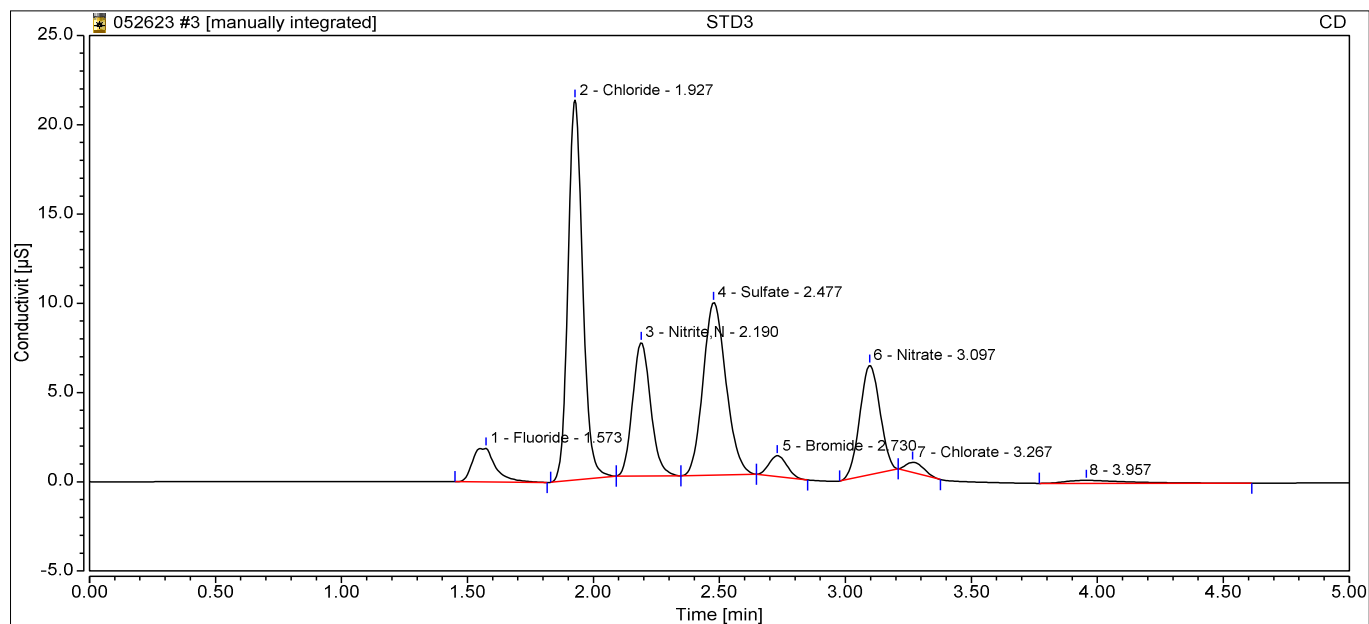
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB*	0.029	0.2885	0.2885	1.0000
2	1.93	Chloride	BMB	0.119	1.2711	1.2711	1.0000
3	2.19	Nitrite, N	BMB	0.078	0.3097	0.3097	1.0000
4	2.48	Sulfate	BMB	0.132	1.6510	1.6510	1.0000
5	2.73	Bromide	BMB	0.013	0.3384	0.3384	1.0000
6	3.10	Nitrate	BMB	0.063	0.2999	0.2999	1.0000
7	3.28	Chlorate	BMB	0.005	0.3157	0.3157	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.439	4.47		



3 STD3

Sample Name: **STD3**
 Vial Number: **BA3**
 Sample Type: **Calibration Standard**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **05/23/2023 14:52**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**

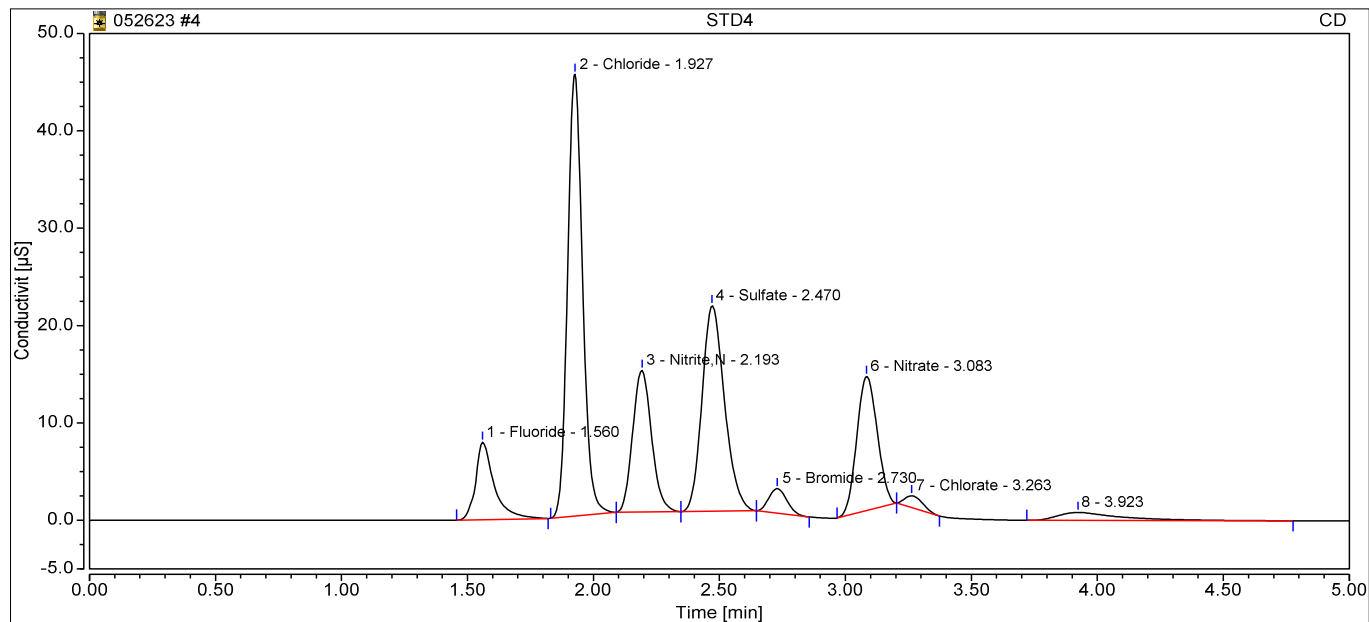


Integration Results							
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.57	Fluoride	BMB*	0.201	1.1411	1.1411	1.0000
2	1.93	Chloride	BMB	1.431	9.5666	9.5666	1.0000
3	2.19	Nitrite, N	BMB	0.622	1.9999	1.9999	1.0000
4	2.48	Sulfate	BMB	1.018	9.7219	9.7219	1.0000
5	2.73	Bromide	BMB	0.097	1.8046	1.8046	1.0000
6	3.10	Nitrate	BMB	0.567	1.8186	1.8186	1.0000
7	3.27	Chlorate	BMB	0.047	1.9131	1.9131	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	3.984	27.97		

4 STD4

Sample Name: **STD4**
 Vial Number: **BA4**
 Sample Type: **Calibration Standard**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **05/23/2023 14:58**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**



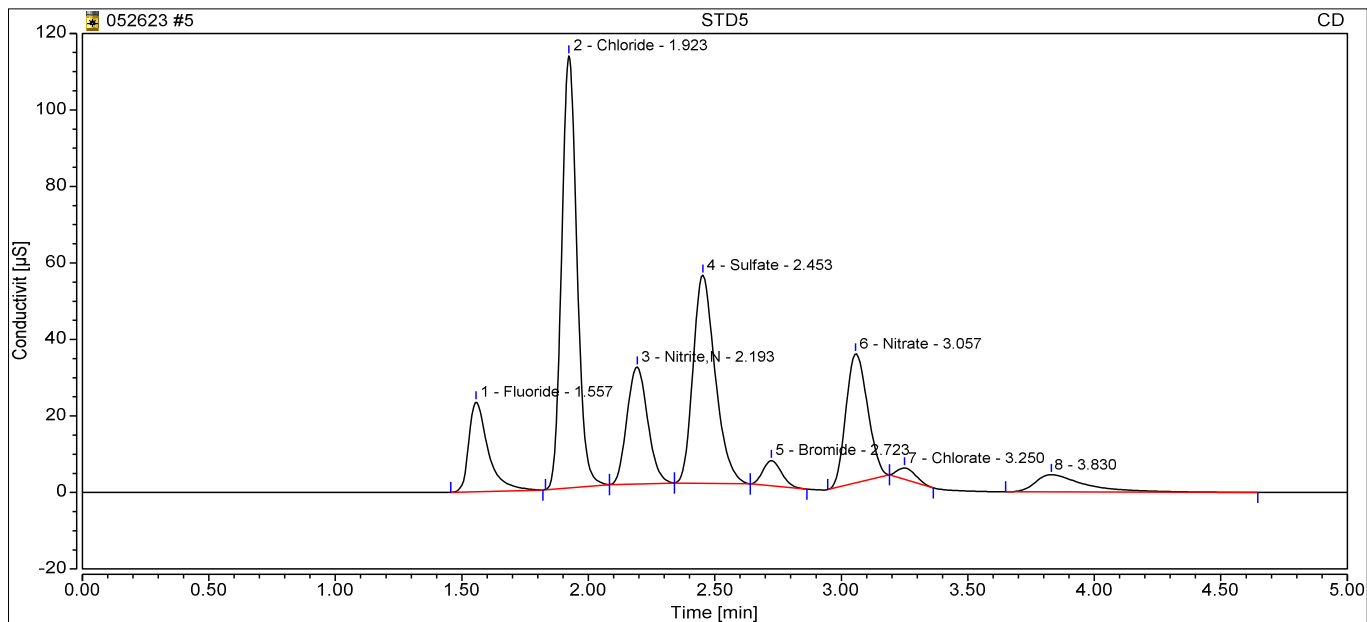
Integration Results							
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	0.680	3.5179	3.5179	1.0000
2	1.93	Chloride	BMB	3.133	20.3356	20.3356	1.0000
3	2.19	Nitrite, N	BMB	1.268	4.1039	4.1039	1.0000
4	2.47	Sulfate	BMB	2.187	20.3668	20.3668	1.0000
5	2.73	Bromide	BMB	0.210	3.7772	3.7772	1.0000
6	3.08	Nitrate	BMB	1.297	4.0160	4.0160	1.0000
7	3.26	Chlorate	BMB	0.102	4.0359	4.0359	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	8.878	60.15		



5 STD5

Sample Name: **STD5**
 Vial Number: **BA5**
 Sample Type: **Calibration Standard**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **05/23/2023 15:03**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	2.087	10.4993	10.4993	1.0000
2	1.92	Chloride	BMB	7.907	50.5276	50.5276	1.0000
3	2.19	Nitrite, N	BMB	2.889	9.9806	9.9806	1.0000
4	2.45	Sulfate	BMB	5.516	50.6794	50.6794	1.0000
5	2.72	Bromide	BMB	0.561	9.8834	9.8834	1.0000
6	3.06	Nitrate	BMB	3.355	10.2088	10.2088	1.0000
7	3.25	Chlorate	BMB	0.252	10.2519	10.2519	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	22.567	152.03		



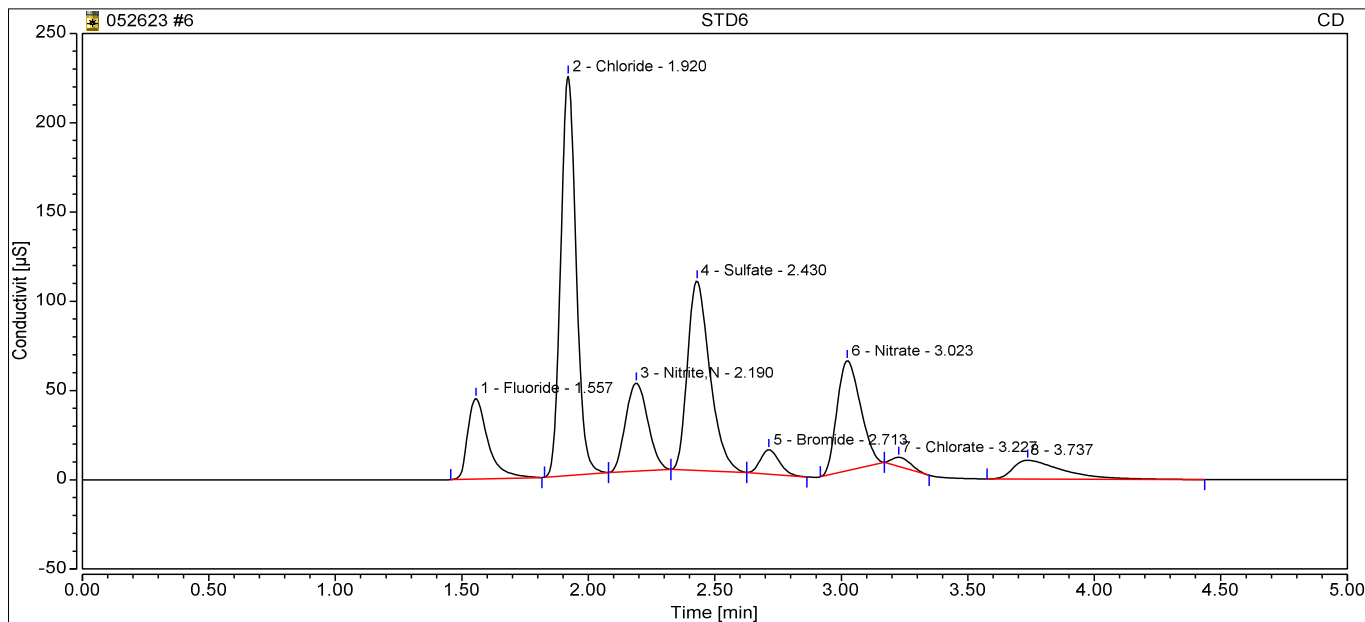
6 STD6

Sample Name: **STD6**
 Vial Number: **BA6**
 Sample Type: **Calibration Standard**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**

Recording Time: 05/23/2023 15:09

Run Time:



Integration Results

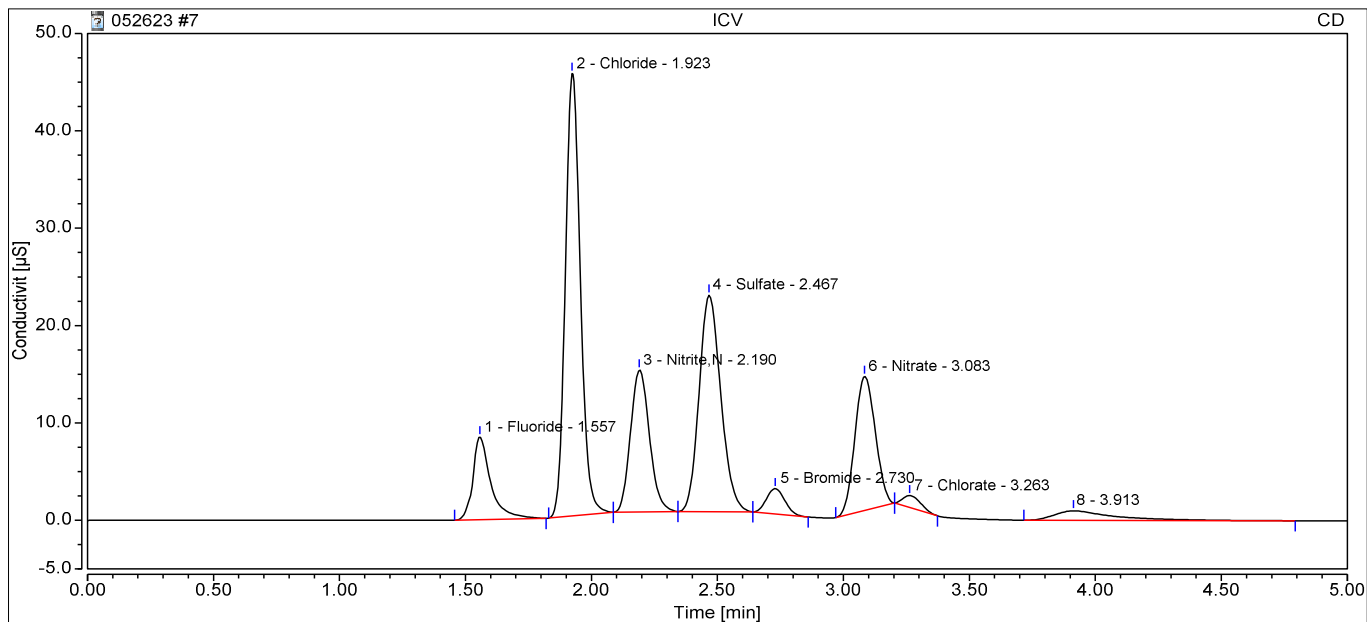
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	4.180	20.8797	20.8797	1.0000
2	1.92	Chloride	BMB	15.747	100.1095	100.1095	1.0000
3	2.19	Nitrite, N	BMB	5.028	19.9817	19.9817	1.0000
4	2.43	Sulfate	BMB	10.876	99.4931	99.4931	1.0000
5	2.71	Bromide	BMB	1.174	20.5674	20.5674	1.0000
6	3.02	Nitrate	BMB	6.617	20.0252	20.0252	1.0000
7	3.23	Chlorate	BMB	0.457	19.8555	19.8555	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	44.079	300.91		



7 ICV

Sample Name: **ICV**
 Vial Number: **BA7**
 Sample Type: **Unknown**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **05/23/2023 15:21**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**



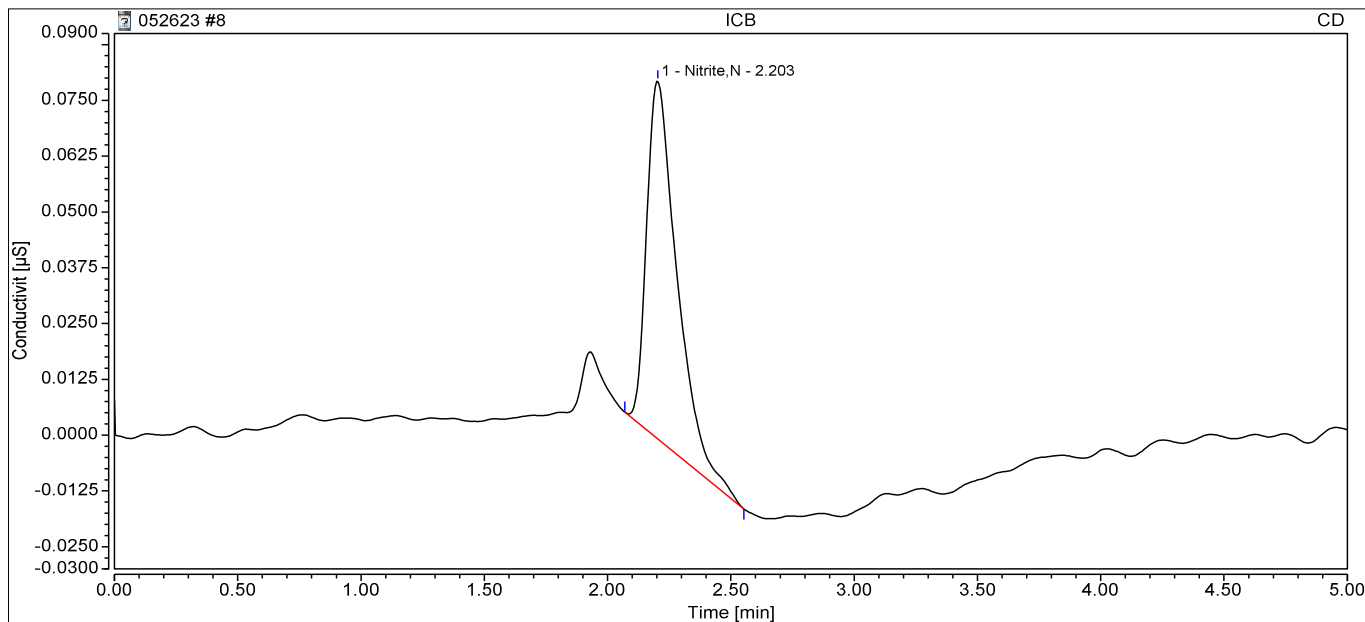
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	0.702	3.6253	3.6253	1.0000
2	1.92	Chloride	BMB	3.139	20.3704	20.3704	1.0000
3	2.19	Nitrite,N	BMB	1.269	4.1072	4.1072	1.0000
4	2.47	Sulfate	BMB	2.215	20.6152	20.6152	1.0000
5	2.73	Bromide	BMB	0.219	3.9331	3.9331	1.0000
6	3.08	Nitrate	BMB	1.297	4.0156	4.0156	1.0000
7	3.26	Chlorate	BMB	0.104	4.1133	4.1133	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	8.944	60.78		



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:	05/23/2023 15:33	Sample Weight:	1.0000
Run Time:			



Integration Results

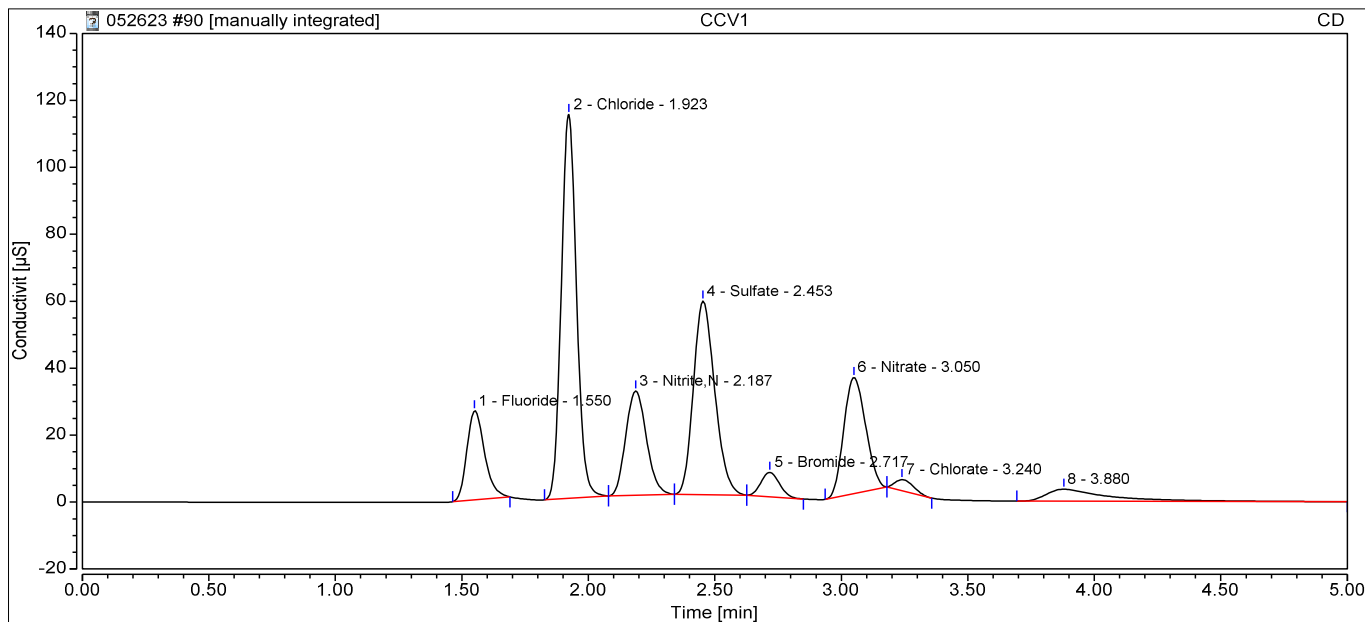
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.20	Nitrite, N	BMB	0.011	0.1062	0.1062	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	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	0.011	0.11		



90 CCV1

Sample Name: CCV1
 Vial Number: R3
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 05/26/2023 21:47
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

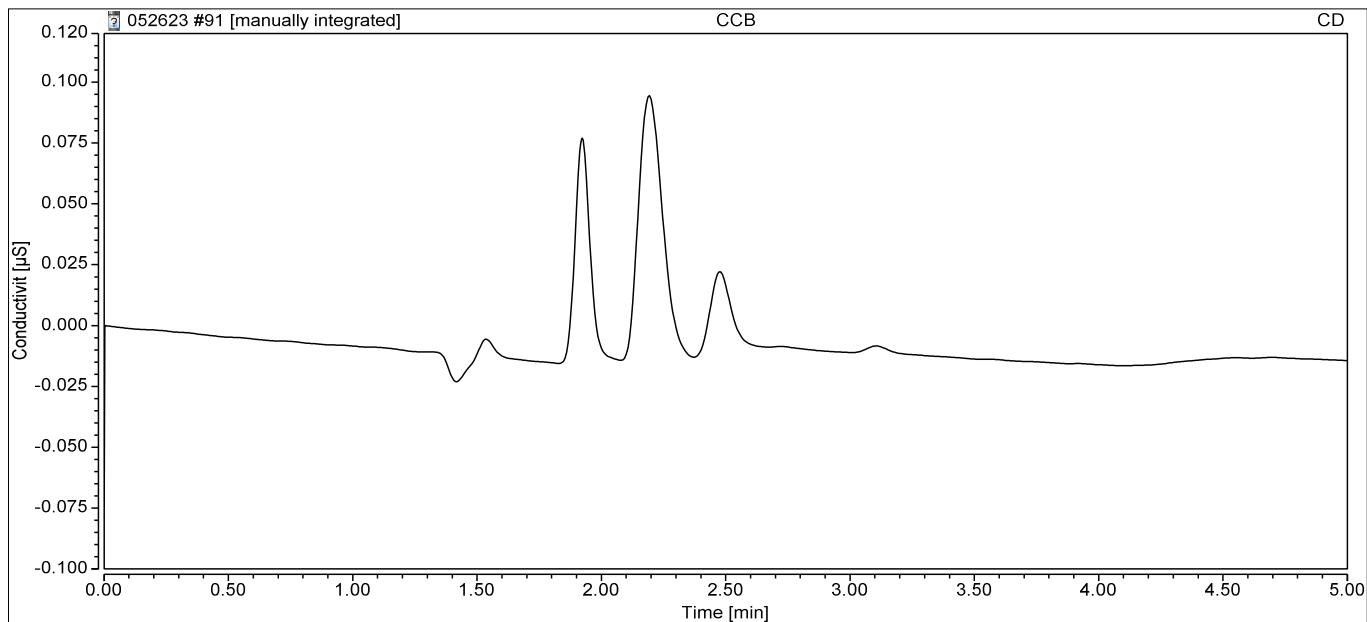
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB*	2.154	10.8276	10.8276	1.0000
2	1.92	Chloride	BMB	7.977	50.9698	50.9698	1.0000
3	2.19	Nitrite,N	BMB	2.949	10.2174	10.2174	1.0000
4	2.45	Sulfate	BMB	5.652	51.9181	51.9181	1.0000
5	2.72	Bromide	BMB	0.614	10.8010	10.8010	1.0000
6	3.05	Nitrate	BMB	3.467	10.5452	10.5452	1.0000
7	3.24	Chlorate	BMB	0.282	11.5810	11.5810	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	23.094	156.86		



91 CCB

Sample Name: CCB
 Vial Number: R8
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 05/26/2023 21:58
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

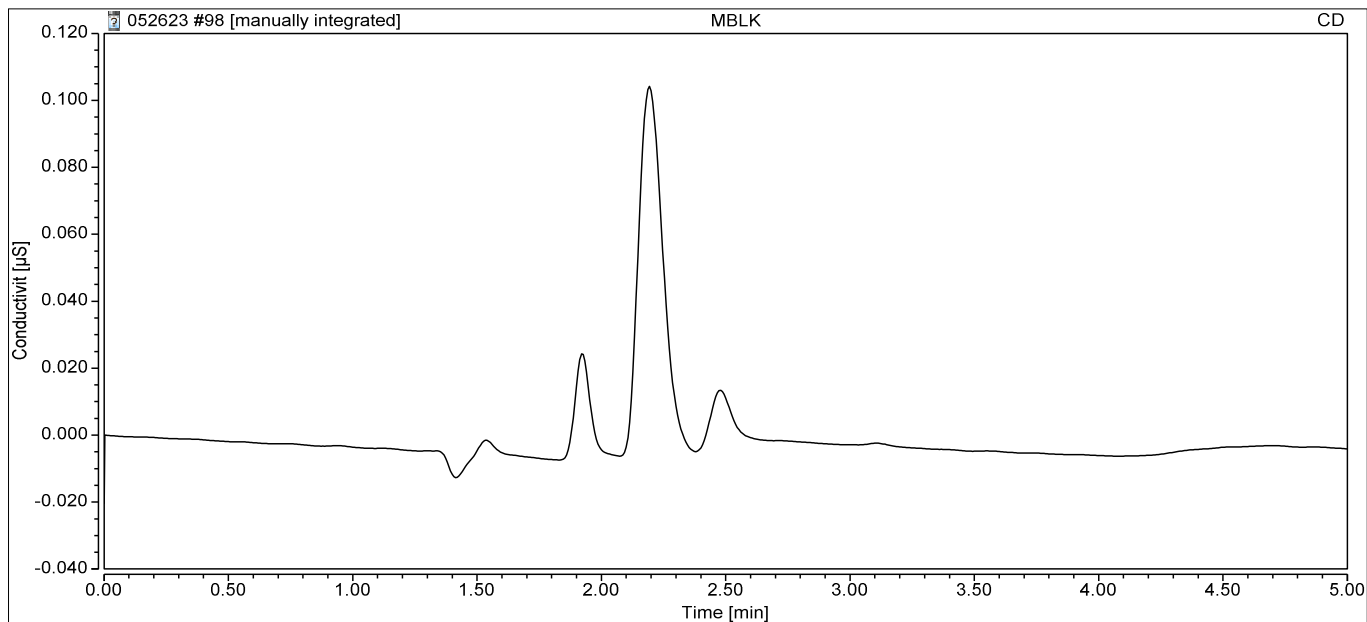
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	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	0.000	0.00		



98 MBLK

Sample Name: **MBLK**
 Vial Number: **R5**
 Sample Type: **Unknown**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **05/26/2023 22:51**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**



Integration Results

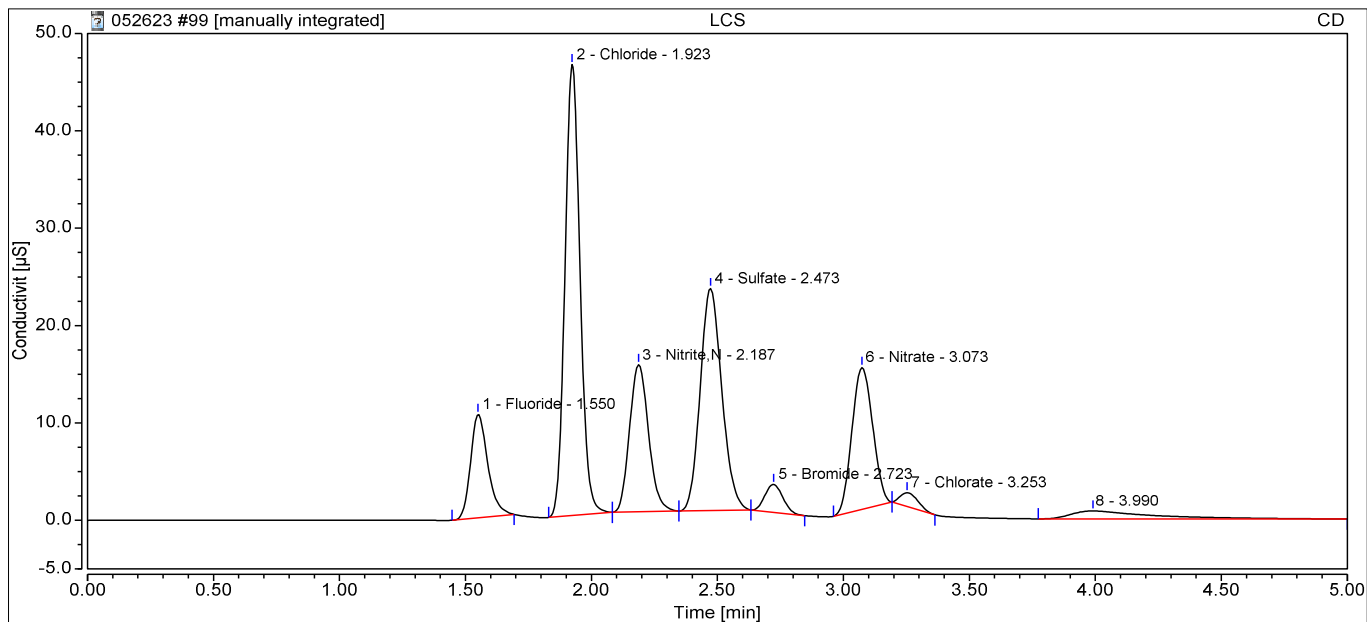
No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	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	0.000	0.00		



99 LCS

Sample Name: **LCS**
 Vial Number: **R2**
 Sample Type: **Unknown**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **05/26/2023 22:56**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**



Integration Results

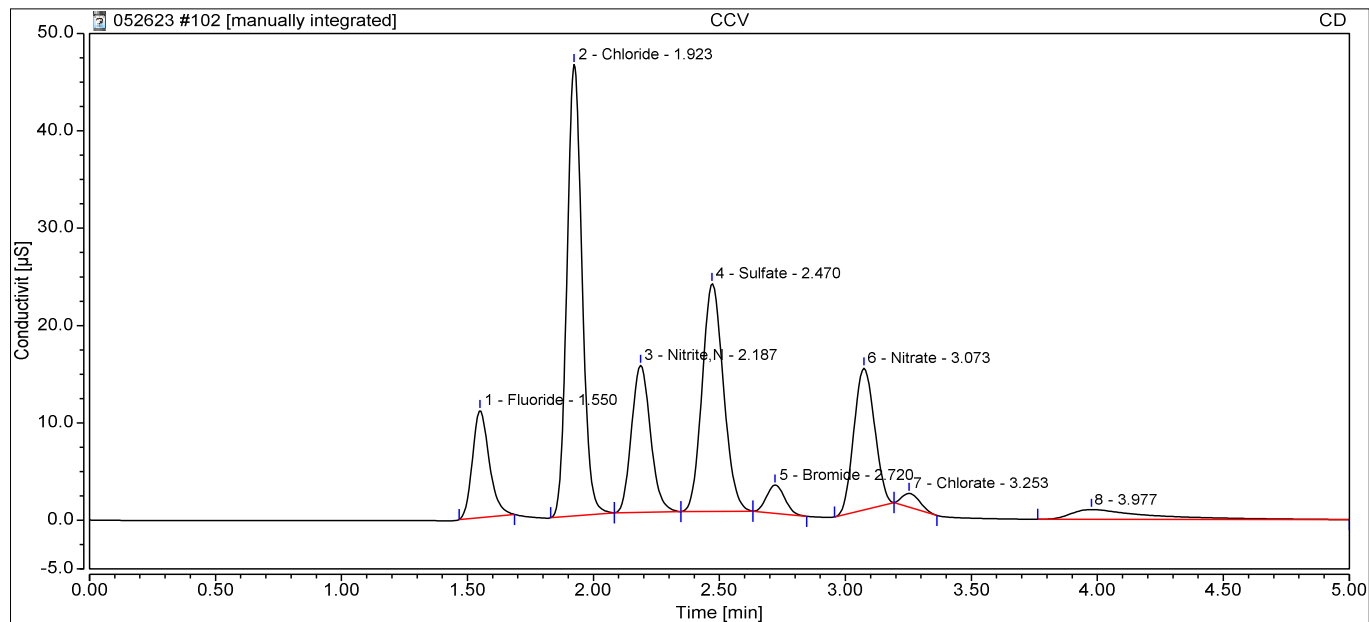
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB*	0.841	4.3180	4.3180	1.0000
2	1.92	Chloride	BMB	3.204	20.7846	20.7846	1.0000
3	2.19	Nitrite,N	BMB	1.319	4.2748	4.2748	1.0000
4	2.47	Sulfate	BMB	2.265	21.0726	21.0726	1.0000
5	2.72	Bromide	BMB	0.238	4.2508	4.2508	1.0000
6	3.07	Nitrate	BMB	1.392	4.3007	4.3007	1.0000
7	3.25	Chlorate	BMB	0.118	4.6585	4.6585	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	9.376	63.66		



102 CCV

Sample Name: **CCV**
 Vial Number: **R1**
 Sample Type: **Unknown**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **05/26/2023 23:25**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**



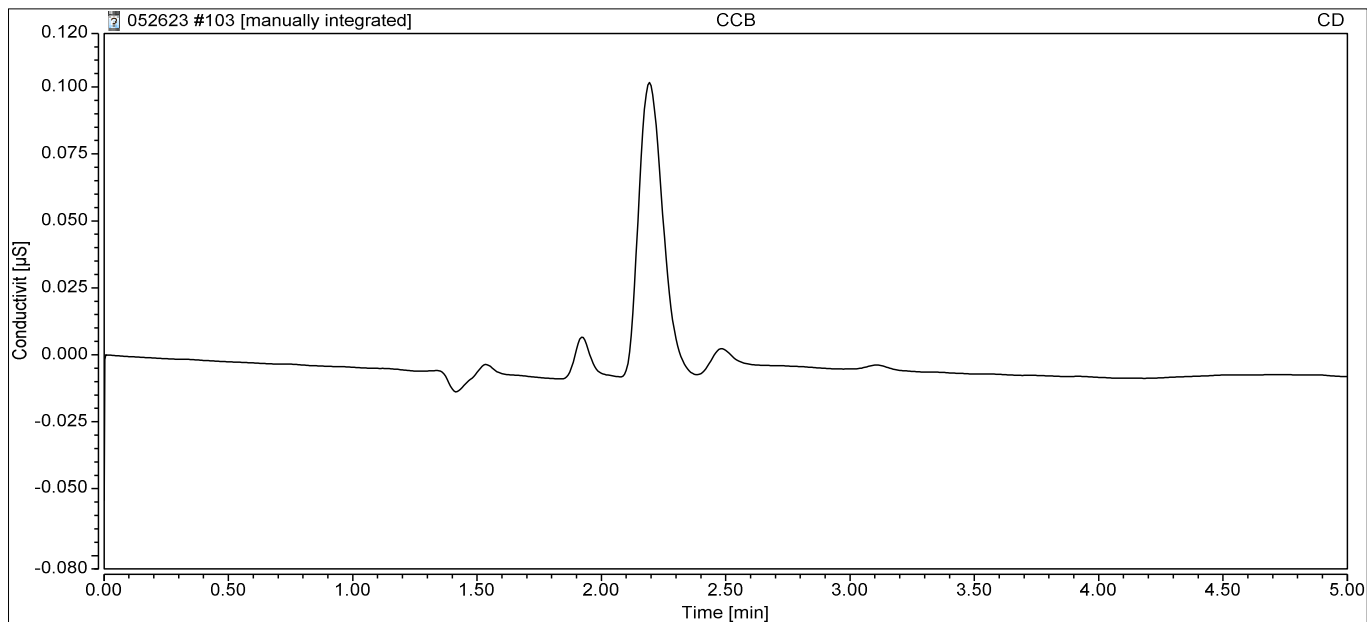
Integration Results

No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB*	0.853	4.3748	4.3748	1.0000
2	1.92	Chloride	BMB	3.204	20.7852	20.7852	1.0000
3	2.19	Nitrite, N	BMB	1.316	4.2639	4.2639	1.0000
4	2.47	Sulfate	BMB	2.295	21.3481	21.3481	1.0000
5	2.72	Bromide	BMB	0.241	4.3126	4.3126	1.0000
6	3.07	Nitrate	BMB	1.392	4.2998	4.2998	1.0000
7	3.25	Chlorate	BMB	0.116	4.6149	4.6149	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	9.417	64.00		

103 CCB

Sample Name: CCB
 Vial Number: R4
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 05/26/2023 23:37
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



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
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	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	0.000	0.00		



109 HS23051834-02

Sample Name: HS23051834-02

Vial Number: GE5

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 05/27/2023 00:12

Run Time:

Injection Volume: 5.00

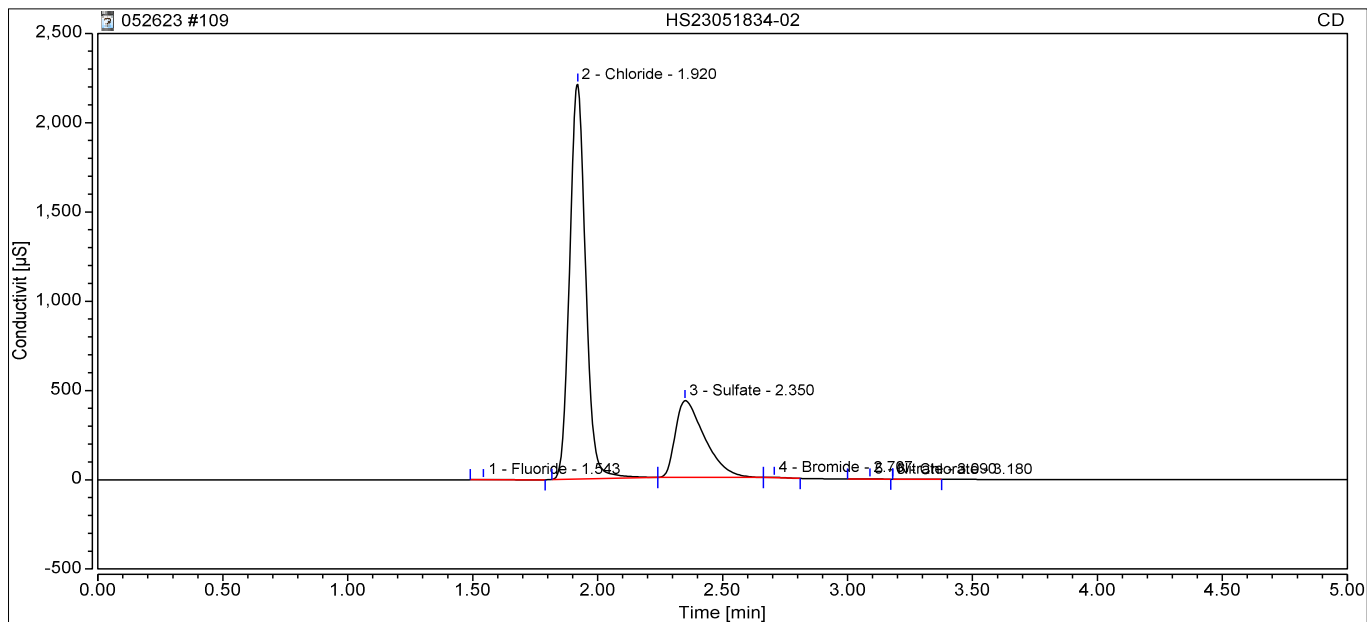
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 1.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.019	0.2409	0.2409	1.0000
2	1.92	Chloride	BMB	164.234	1039.2419	1039.2419	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.35	Sulfate	BMB	58.516	533.3417	533.3417	1.0000
4	2.71	Bromide	BMB	0.167	3.0215	3.0215	1.0000
5	3.09	Nitrate	BMB	0.018	0.1643	0.1643	1.0000
6	3.18	Chlorate	BMB	0.025	1.0713	1.0713	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	222.979	1577.08		



110 HS23051834-02DF20

Sample Name: HS23051834-02DF20

Vial Number: GE6

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 05/27/2023 00:18

Run Time:

Injection Volume: 5.00

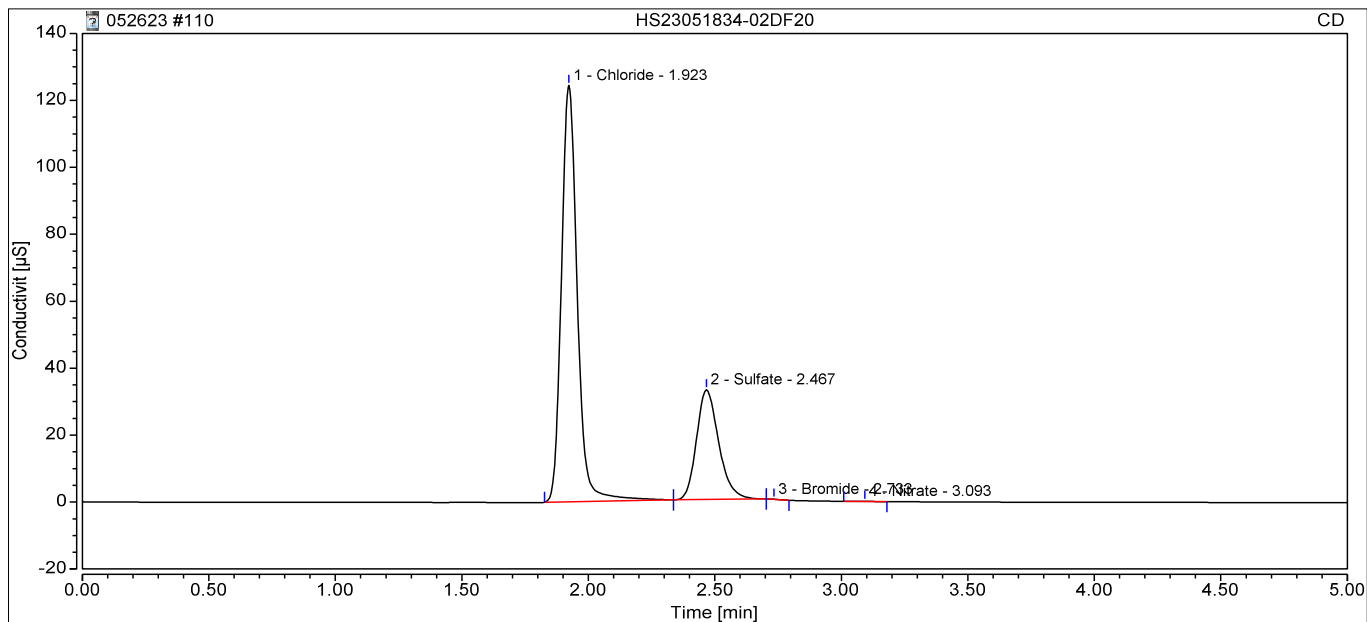
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 20.0000

Sample Weight: 1.0000



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.	20.0000
1	1.92	Chloride	BMB	9.008	57.4929	1149.8587	20.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	20.0000
2	2.47	Sulfate	BMB	3.332	30.7920	615.8398	20.0000
3	2.73	Bromide	BMB	0.002	0.1486	2.9730	20.0000
4	3.09	Nitrate	BMB	0.002	0.1184	2.3674	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			0.000	12.345	1771.04		

111 HS23051834-03

Sample Name: HS23051834-03

Vial Number: GE7

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 05/27/2023 00:24

Run Time:

Injection Volume: 5.00

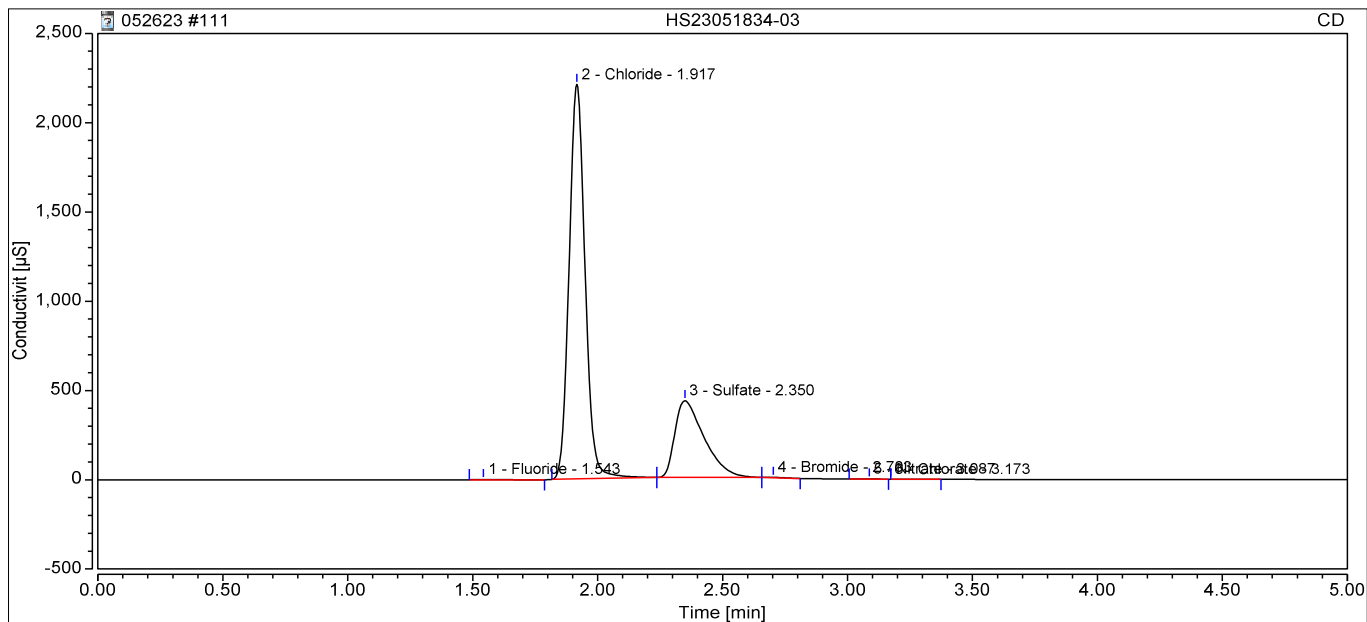
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 1.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.024	0.2648	0.2648	1.0000
2	1.92	Chloride	BMB	163.779	1036.3643	1036.3643	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.35	Sulfate	BMB	58.455	532.7851	532.7851	1.0000
4	2.70	Bromide	BMB	0.173	3.1318	3.1318	1.0000
5	3.09	Nitrate	BMB	0.015	0.1571	0.1571	1.0000
6	3.17	Chlorate	BMB	0.026	1.0940	1.0940	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	222.473	1573.80		



112 HS23051834-03DF20

Sample Name: HS23051834-03DF20

Vial Number: GE8

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 05/27/2023 00:29

Run Time:

Injection Volume: 5.00

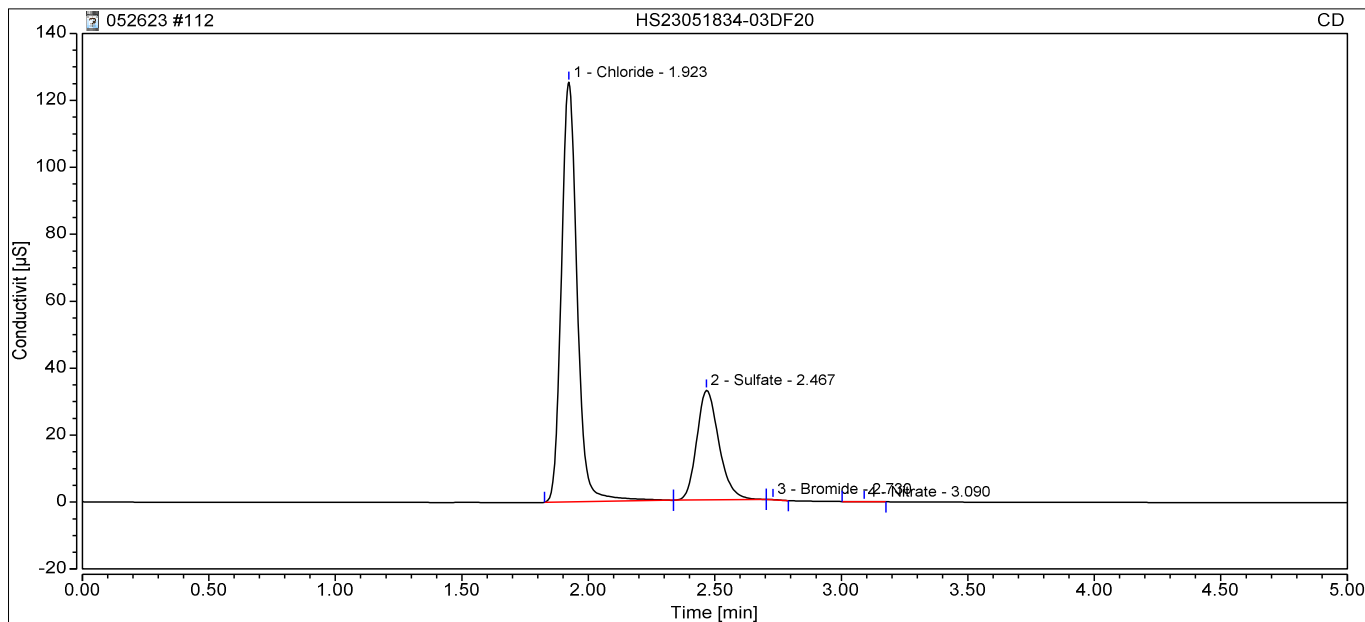
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 20.0000

Sample Weight: 1.0000



Integration Results

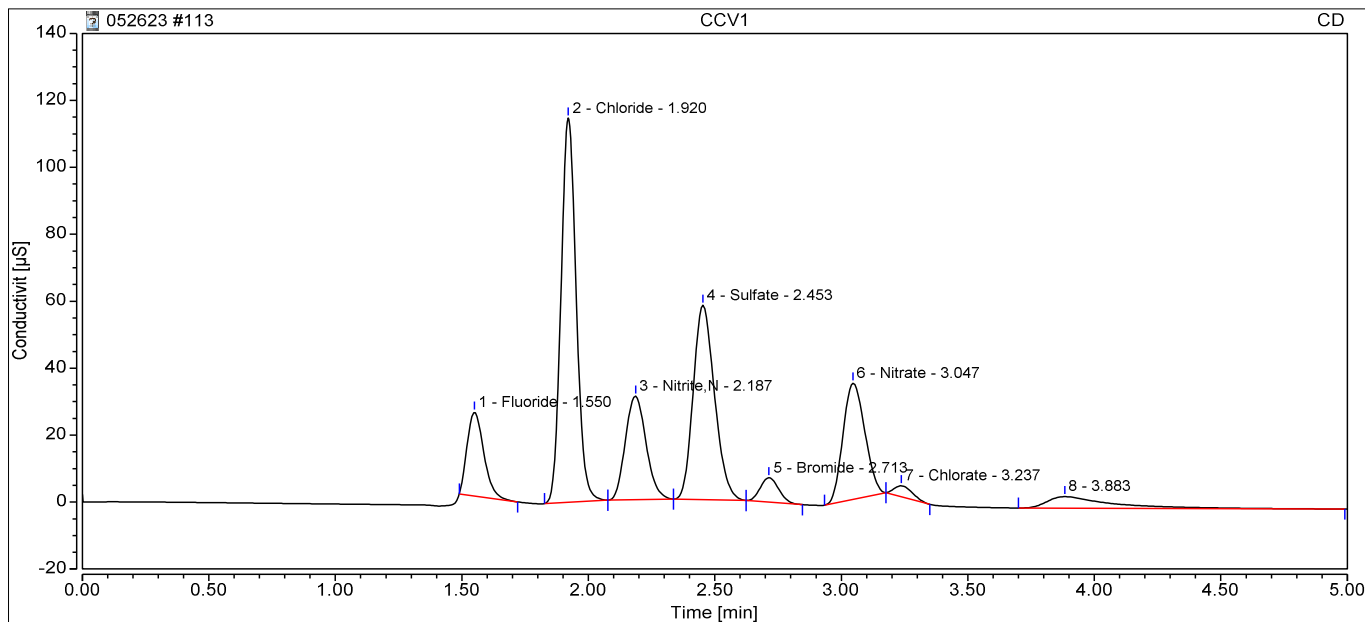
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	20.0000
1	1.92	Chloride	BMB	9.019	57.5623	1151.2459	20.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	20.0000
2	2.47	Sulfate	BMB	3.315	30.6397	612.7943	20.0000
3	2.73	Bromide	BMB	0.002	0.1462	2.9232	20.0000
4	3.09	Nitrate	BMB	0.002	0.1180	2.3600	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			0.000	12.339	1769.32		



113 CCV1

Sample Name: CCV1
 Vial Number: R3
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 05/27/2023 00:41
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

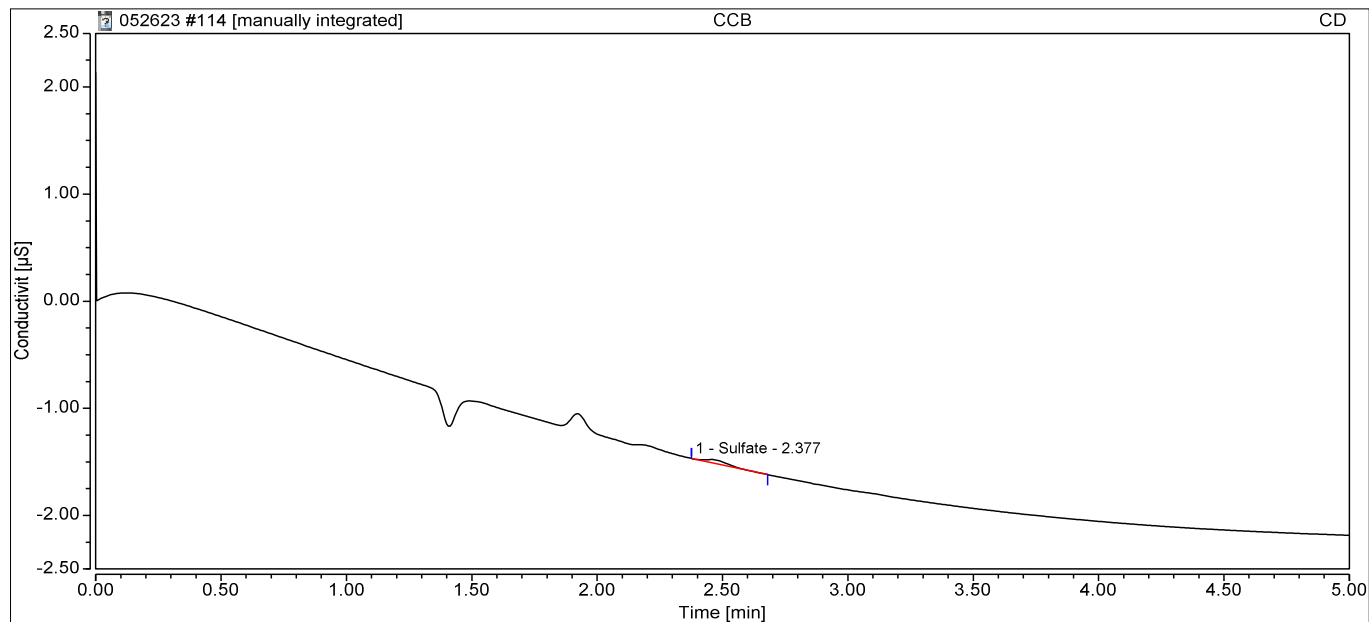
No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	1.915	9.6439	9.6439	1.0000
2	1.92	Chloride	BMB	7.988	51.0405	51.0405	1.0000
3	2.19	Nitrite, N	BMB	2.936	10.1672	10.1672	1.0000
4	2.45	Sulfate	BMB	5.669	52.0743	52.0743	1.0000
5	2.71	Bromide	BMB	0.617	10.8666	10.8666	1.0000
6	3.05	Nitrate	BMB	3.468	10.5498	10.5498	1.0000
7	3.24	Chlorate	BMB	0.278	11.3633	11.3633	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	22.871	155.71		



114 CCB

Sample Name: CCB
 Vial Number: R8
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 05/27/2023 00:53
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



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	2.38	Sulfate	BMB	0.003	0.4784	0.4784	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	0.003	0.48		



115 HS23051834-04

Sample Name: HS23051834-04

Vial Number: BA1

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 05/27/2023 00:59

Run Time:

Injection Volume: 5.00

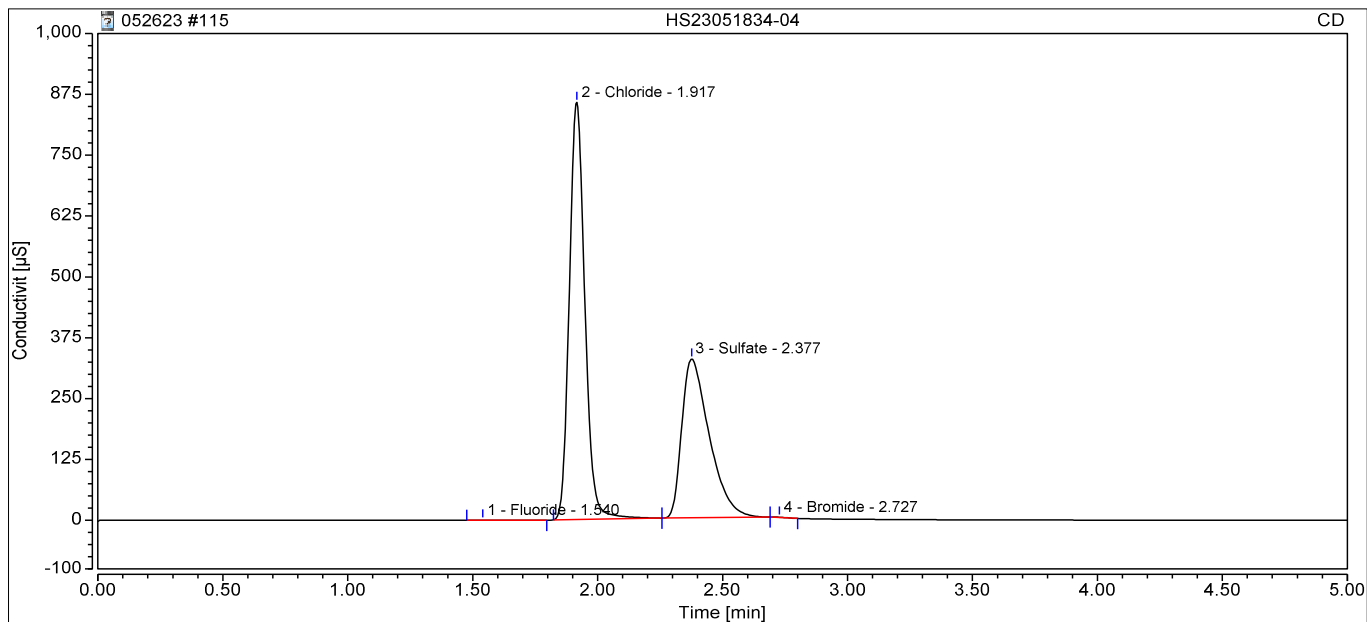
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 1.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.040	0.3421	0.3421	1.0000
2	1.92	Chloride	BMB	61.789	391.3138	391.3138	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.38	Sulfate	BMB	41.521	378.5702	378.5702	1.0000
4	2.73	Bromide	BMB	0.033	0.6892	0.6892	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	103.383	770.92		



116 HS23051834-04MS

Sample Name: HS23051834-04MS

Vial Number: BA2

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 05/27/2023 01:04

Run Time:

Injection Volume: 5.00

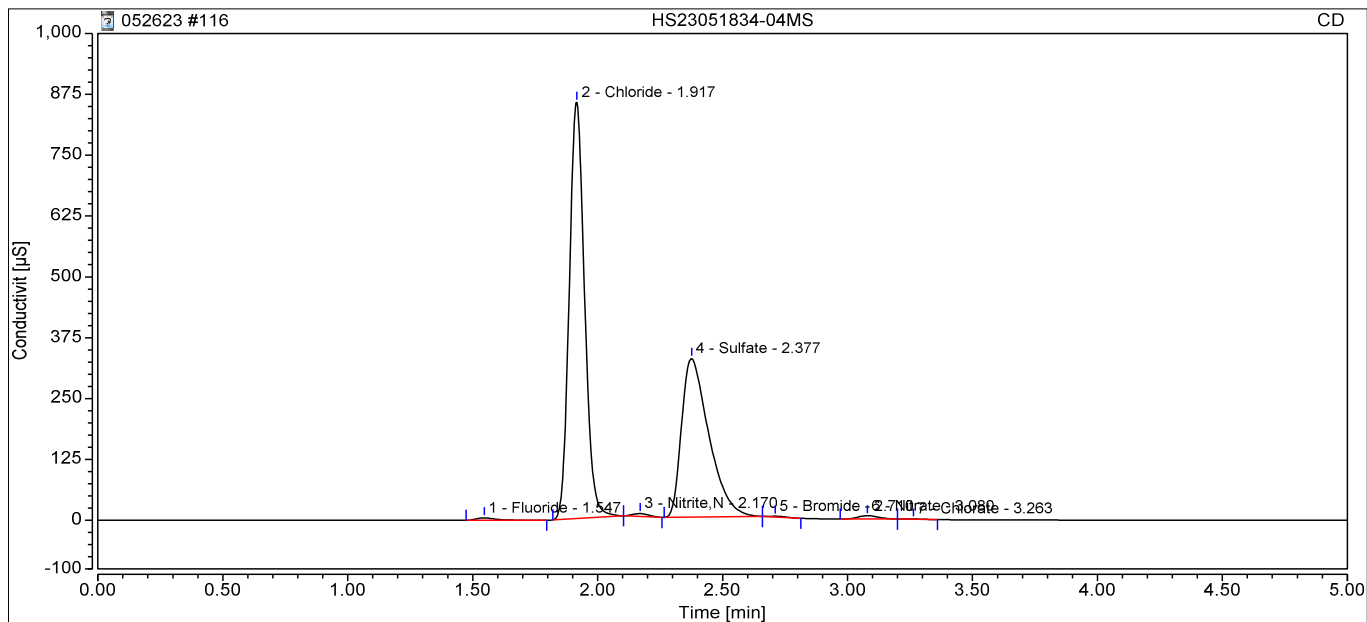
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 1.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.432	2.2891	2.2891	1.0000
2	1.92	Chloride	BMB	60.744	384.7003	384.7003	1.0000
3	2.17	Nitrite, N	BMB	0.439	1.4221	1.4221	1.0000
4	2.38	Sulfate	BMB	41.213	375.7659	375.7659	1.0000
5	2.71	Bromide	BMB	0.145	2.6341	2.6341	1.0000
6	3.08	Nitrate	BMB	0.667	2.1202	2.1202	1.0000
7	3.26	Chlorate	BMB	0.049	1.9688	1.9688	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	103.689	770.90		



117 HS23051834-04MSD

Sample Name: HS23051834-04MSD

Vial Number: BA3

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 05/27/2023 01:10

Run Time:

Injection Volume: 5.00

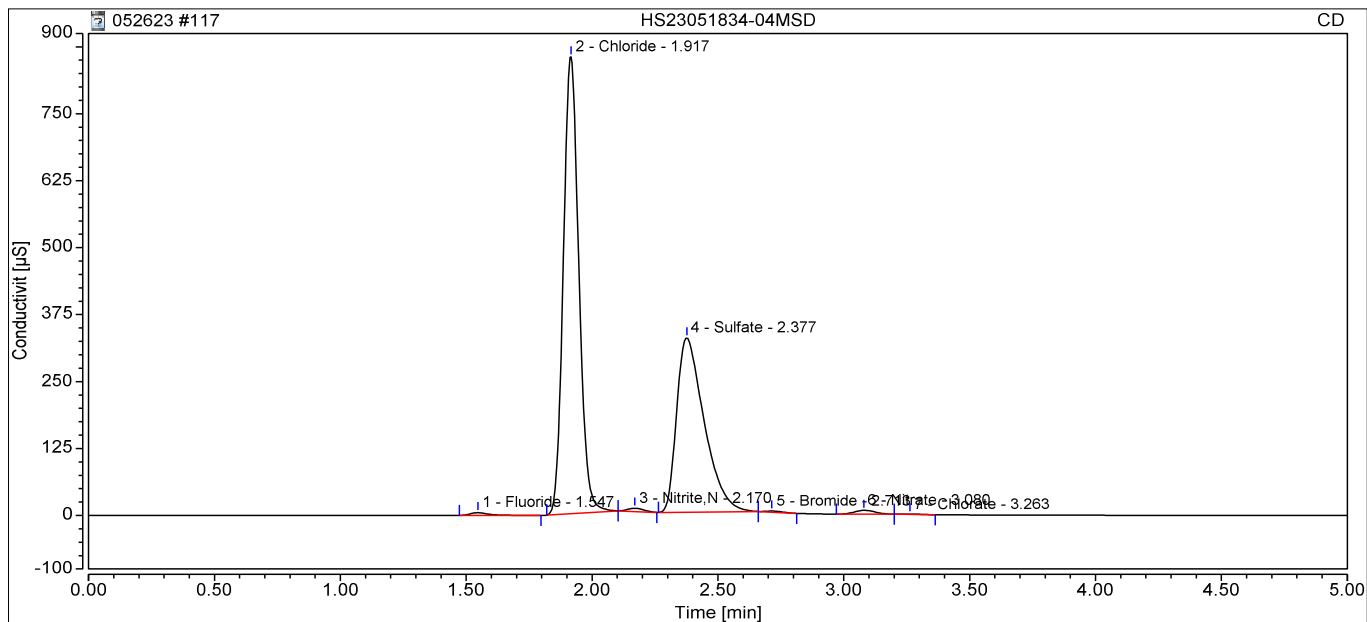
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 1.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.437	2.3141	2.3141	1.0000
2	1.92	Chloride	BMB	60.574	383.6274	383.6274	1.0000
3	2.17	Nitrite,N	BMB	0.442	1.4307	1.4307	1.0000
4	2.38	Sulfate	BMB	41.096	374.7000	374.7000	1.0000
5	2.71	Bromide	BMB	0.150	2.7195	2.7195	1.0000
6	3.08	Nitrate	BMB	0.670	2.1295	2.1295	1.0000
7	3.26	Chlorate	BMB	0.050	2.0259	2.0259	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	103.419	768.95		

118 HS23051834-04DF10

Sample Name: HS23051834-04DF10

Vial Number: BA4

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 05/27/2023 01:16

Run Time:

Injection Volume: 5.00

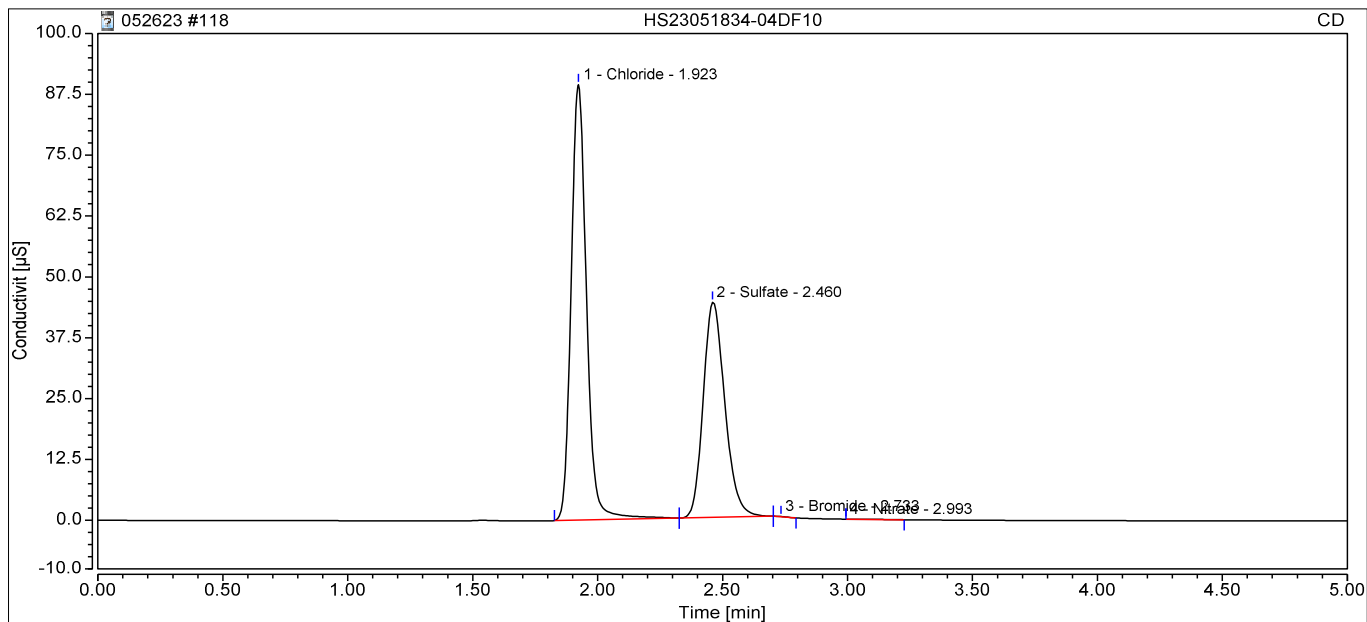
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 10.0000

Sample Weight: 1.0000



Integration Results

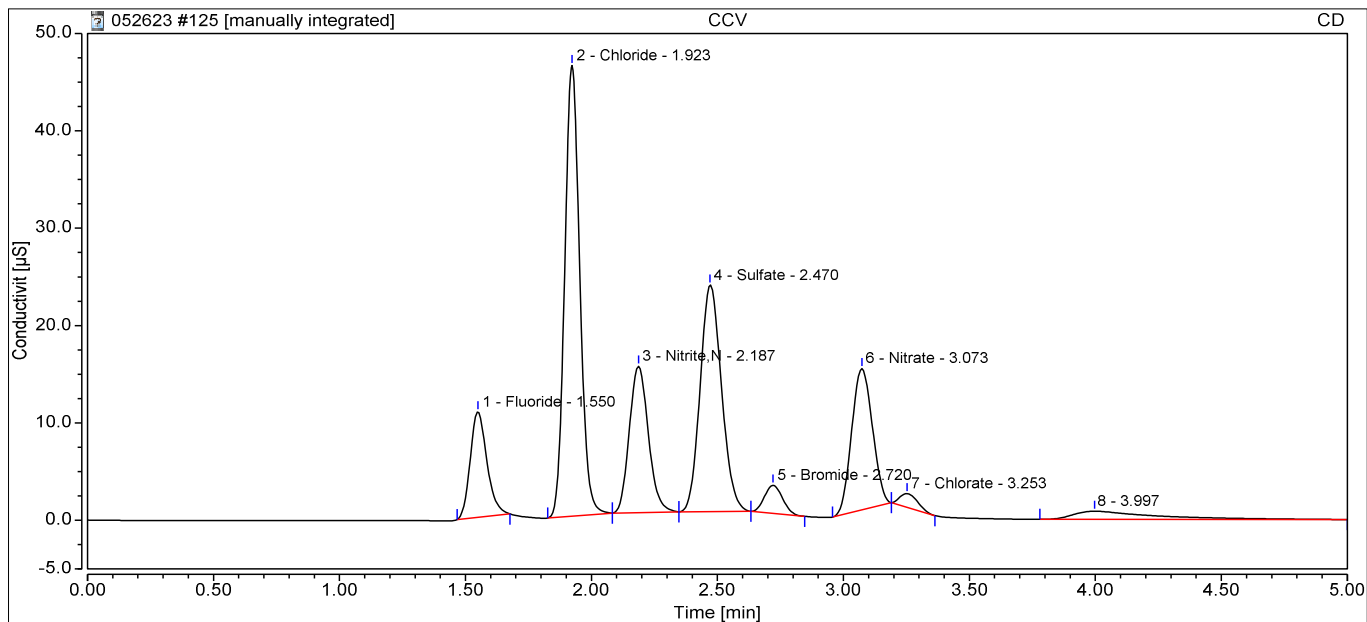
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	10.0000
1	1.92	Chloride	BMB	6.387	40.9139	409.1388	10.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	10.0000
2	2.46	Sulfate	BMB	4.427	40.7640	407.6395	10.0000
3	2.73	Bromide	BMB	0.002	0.1460	1.4595	10.0000
4	2.99	Nitrate	BMB	0.004	0.1226	1.2262	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	10.0000
Total:			0.000	10.820	819.46		



125 CCV

Sample Name: **CCV**
 Vial Number: **R1**
 Sample Type: **Unknown**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **05/27/2023 02:03**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**



Integration Results

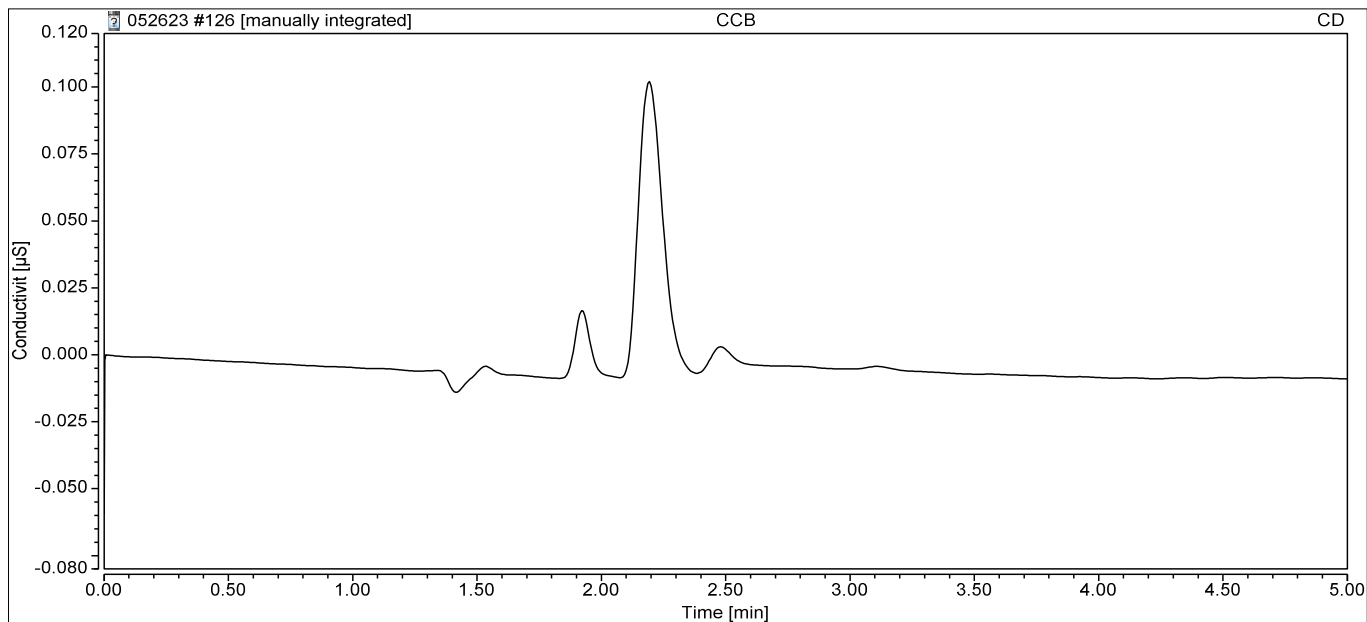
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB*	0.833	4.2780	4.2780	1.0000
2	1.92	Chloride	BMB	3.207	20.8030	20.8030	1.0000
3	2.19	Nitrite,N	BMB	1.313	4.2537	4.2537	1.0000
4	2.47	Sulfate	BMB	2.286	21.2666	21.2666	1.0000
5	2.72	Bromide	BMB	0.240	4.2901	4.2901	1.0000
6	3.07	Nitrate	BMB	1.387	4.2867	4.2867	1.0000
7	3.25	Chlorate	BMB	0.118	4.6656	4.6656	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	9.384	63.84		



126 CCB

Sample Name: CCB
 Vial Number: R4
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 05/27/2023 02:14
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

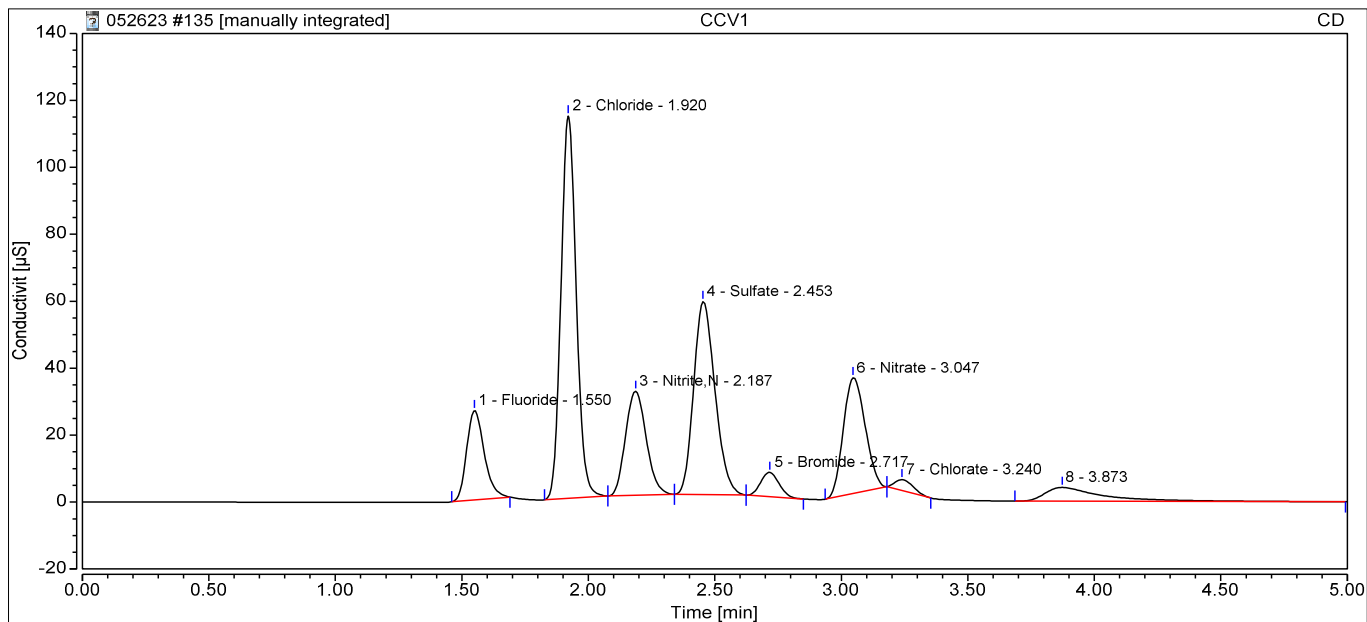
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	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	0.000	0.00		



135 CCV1

Sample Name: **CCV1**
 Vial Number: **R3**
 Sample Type: **Unknown**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **05/27/2023 03:12**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**



Integration Results

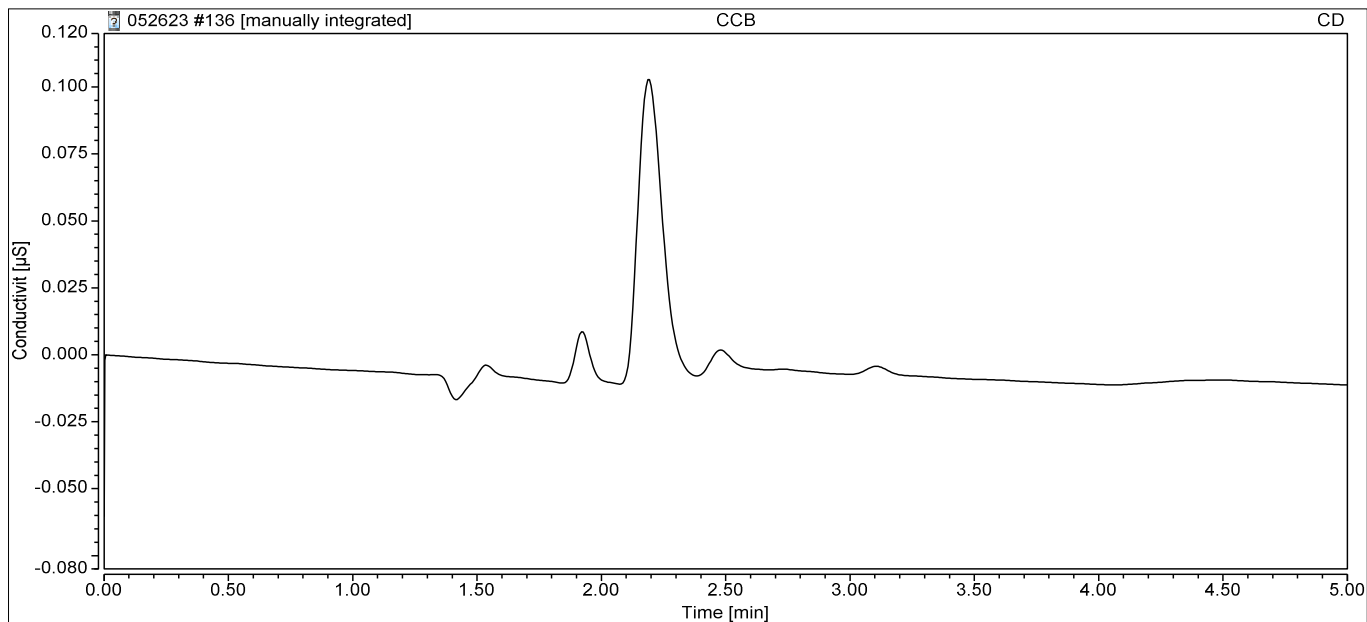
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB*	2.154	10.8301	10.8301	1.0000
2	1.92	Chloride	BMB	7.961	50.8684	50.8684	1.0000
3	2.19	Nitrite, N	BMB	2.952	10.2305	10.2305	1.0000
4	2.45	Sulfate	BMB	5.641	51.8156	51.8156	1.0000
5	2.72	Bromide	BMB	0.612	10.7762	10.7762	1.0000
6	3.05	Nitrate	BMB	3.466	10.5419	10.5419	1.0000
7	3.24	Chlorate	BMB	0.278	11.3675	11.3675	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	23.063	156.43		



136 CCB

Sample Name: CCB
 Vial Number: R8
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 05/27/2023 03:24
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



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
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	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	0.000	0.00		



HS23051834 Wetchem TOC_W

ALS WO# HS23051834



C:\TOC-L\Data\2023_03_27_002.CAL.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
1	Standard	NPOC	CAL	321104406	03_27_2023	1.000		
2	Unknown	NPOC	ICV	3100606923	03_27_2023	1.000	NPOC:10.39mg/L	
3	Unknown	NPOC	ICB		03_27_2023	1.000	NPOC:0.5513mg/	



C:\TOC-L\Data\2023_03_27_002.CAL.tlx

	Status	Date / Time	Vial
1	Completed	3/27/2023 2:55:48	1, 2, 3, 4, 5,
2	Completed	3/27/2023 3:09:01	8
3	Completed	3/27/2023 3:21:20	9



TOC-Control L Report

2023_03_27_002.CAL.tlx

Instr. Information

Instrument Options
Catalyst

TOC/ASI/IC Unit/
Regular Sensitivity

Cal. Curve

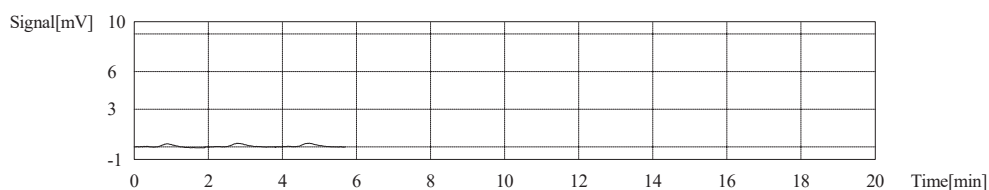
Sample Name: CAL
Sample ID: 321104406
Cal. Curve: 03_27_2023_CAL.2023_03_27_13_24_18.cal
Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.6126	50uL	1.000	*****		3/27/2023 1:32:15 PM
2	0.6651	50uL	1.000	*****		3/27/2023 1:34:25 PM
3	0.7575	50uL	1.000	*****		3/27/2023 1:36:33 PM

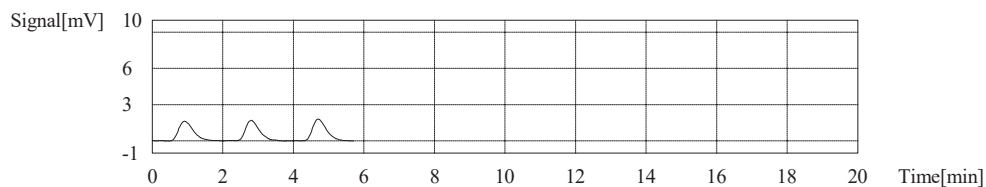
Acid Add. 1.500%
Spurge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 0.6784



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.693	50uL	1.000	*****		3/27/2023 1:44:37 PM
2	4.633	50uL	1.000	*****		3/27/2023 1:46:45 PM
3	4.978	50uL	1.000	*****		3/27/2023 1:48:53 PM

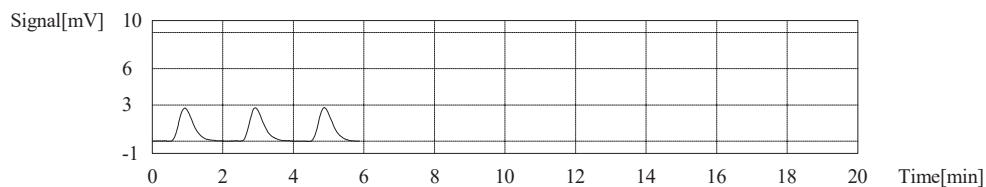
Acid Add. 1.500%
Spurge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 4.768



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.890	50uL	1.000	*****		3/27/2023 1:57:04 PM
2	7.696	50uL	1.000	*****		3/27/2023 1:59:15 PM
3	7.919	50uL	1.000	*****		3/27/2023 2:01:23 PM

Acid Add. 1.500%
Spurge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 7.835



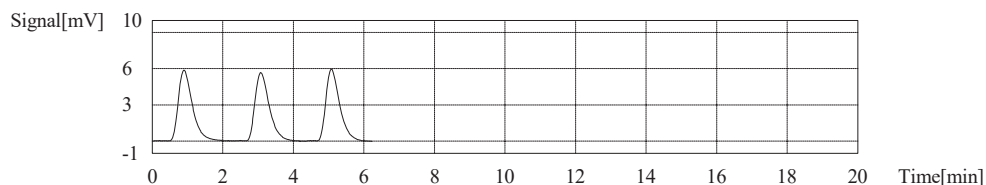
TOC-Control L Report

2023_03_27_002.CAL.tlx

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.42	50uL	1.000	*****		3/27/2023 2:09:43 PM
2	16.08	50uL	1.000	*****		3/27/2023 2:11:58 PM
3	16.30	50uL	1.000	*****		3/27/2023 2:14:15 PM

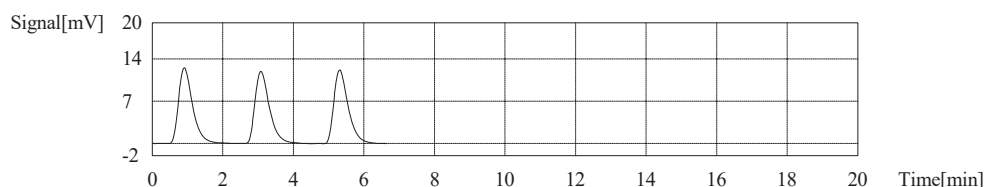
Acid Add. 1.500%
 Spurge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 16.27



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	35.01	50uL	1.000	*****		3/27/2023 2:22:35 PM
2	34.18	50uL	1.000	*****		3/27/2023 2:25:03 PM
3	34.84	50uL	1.000	*****		3/27/2023 2:27:30 PM

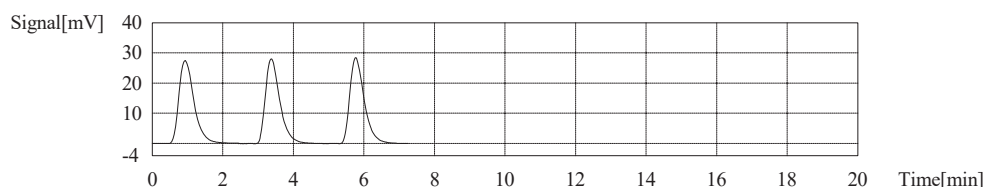
Acid Add. 1.500%
 Spurge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 34.68



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	82.45	50uL	1.000	*****		3/27/2023 2:36:07 PM
2	80.86	50uL	1.000	*****		3/27/2023 2:38:45 PM
3	82.11	50uL	1.000	*****		3/27/2023 2:41:24 PM

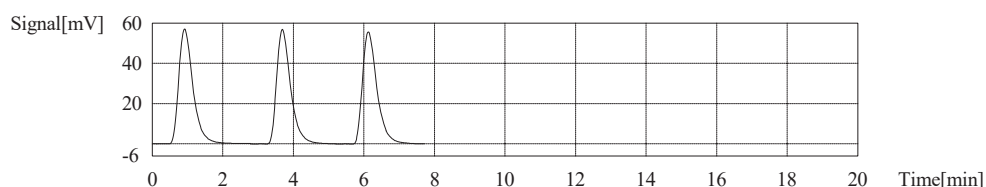
Acid Add. 1.500%
 Spurge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 81.81



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	161.9	50uL	1.000	*****		3/27/2023 2:50:21 PM
2	158.5	50uL	1.000	*****		3/27/2023 2:53:02 PM
3	161.9	50uL	1.000	*****		3/27/2023 2:55:48 PM

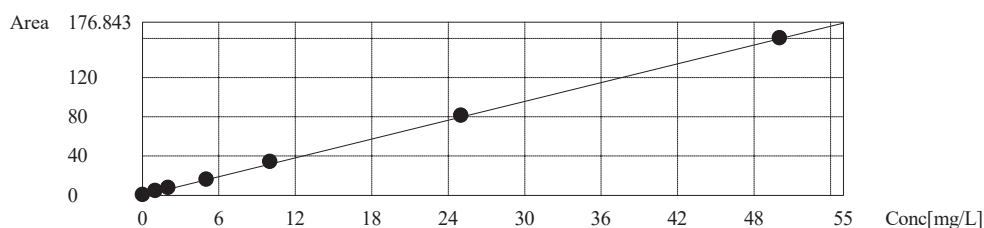
Acid Add. 1.500%
 Spurge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 160.8



TOC-Control L Report

2023_03_27_002.CAL.tlx

Slope: 3.197
 Intercept: 0.000
 r^2 : 0.9998
 r : 0.9999
 RSE(%): N/A
 Zero Shift: Yes



Sample

Sample Name: ICV
 Sample ID: 3100606923
 Origin: 03_27_2023_CAL.cal
 Status: Completed
 Chk. Result:

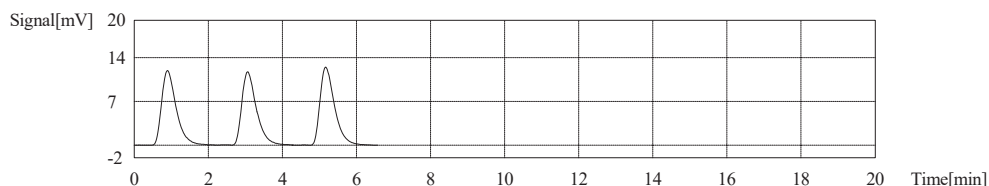
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.19	10.38mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:04:08 PM
2	32.30	10.10mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:06:30 PM
3	34.14	10.68mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:09:01 PM

Mean Area: 33.21
 Mean Conc.: 10.39mg/L



Sample

Sample Name: ICB
 Sample ID:
 Origin: 03_27_2023_CAL.cal
 Status: Completed
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5513mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.462	0.4573mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:17:05 PM
2	1.831	0.5727mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:19:13 PM
3	1.994	0.6237mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:21:20 PM

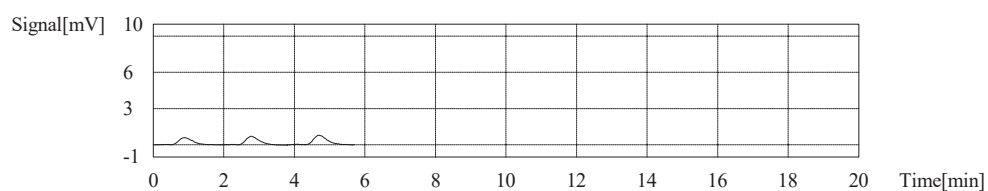


TOC-Control L Report

2023_03_27_002.CAL.tlx

Mean Area
Mean Conc.

1.762
0.5513mg/L



	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status
1	Unknown	NPOC	CCV	321107307	03_27_2023	1.000	NPOC:27.0		Completed
2	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.08		Completed
3	Unknown	NPOC	MBLK-06072023		03_27_2023	1.000	NPOC:0.11		Completed
4	Unknown	NPOC	LCS-06072023	3100606923	03_27_2023	1.000	NPOC:10.7		Completed
5	Unknown	NPOC	LCSD-06072023		03_27_2023	1.000	NPOC:10.7		Completed
6	Unknown	NPOC	HS23060259-01	TOC_W	03_27_2023	1.000	NPOC:14.3		Completed
7	Unknown	NPOC	HS23051636-01		03_27_2023	1.000	NPOC:5.94		Completed
8	Unknown	NPOC	HS23051636-01MS		03_27_2023	1.000	NPOC:17.2		Completed
9	Unknown	NPOC	HS23051636-02		03_27_2023	1.000	NPOC:9.10		Completed
10	Unknown	NPOC	HS23051636-03		03_27_2023	1.000	NPOC:6.76		Completed
11	Unknown	NPOC	HS23060055-09		03_27_2023	1.000	NPOC:1.89		Completed
12	Unknown	NPOC	HS23060055-10		03_27_2023	1.000	NPOC:2.02		Completed
13	Unknown	NPOC	CCV		03_27_2023	1.000	NPOC:26.5		Completed
14	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.17		Completed
15	Unknown	NPOC	HS23060055-11		03_27_2023	1.000	NPOC:3.41		Completed
16	Unknown	NPOC	HS23060055-12		03_27_2023	1.000	NPOC:5.17		Completed
17	Unknown	NPOC	HS23060055-13		03_27_2023	1.000	NPOC:5.83		Completed
18	Unknown	NPOC	HS23060055-14		03_27_2023	1.000	NPOC:2.82		Completed
19	Unknown	NPOC	CCV	321107307	03_27_2023	1.000	NPOC:26.9		Completed
20	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.27		Completed
21	Unknown	NPOC	MBLK-06072023		03_27_2023	1.000	NPOC:0.17		Completed
22	Unknown	NPOC	LCS-06072023	3100606923	03_27_2023	1.000	NPOC:10.5		Completed
23	Unknown	NPOC	LCSD-06072023		03_27_2023	1.000	NPOC:10.6		Completed
24	Unknown	NPOC	HS23060055-15	TOC_W	03_27_2023	1.000	NPOC:4.84		Completed
25	Unknown	NPOC	HS23060055-16		03_27_2023	1.000	NPOC:1.33		Completed
26	Unknown	NPOC	HS23051708-04		03_27_2023	1.000	NPOC:1.59		Completed
27	Unknown	NPOC	HS23051708-05		03_27_2023	1.000	NPOC:1.49		Completed
28	Unknown	NPOC	HS23051708-06		03_27_2023	1.000	NPOC:1.82		Completed
29	Unknown	NPOC	HS23051734-01		03_27_2023	1.000	NPOC:10.7		Completed
30	Unknown	NPOC	HS23051834-02		03_27_2023	1.000	NPOC:2.04		Completed
31	Unknown	NPOC	CCV		03_27_2023	1.000	NPOC:26.6		Completed
32	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.22		Completed
33	Unknown	NPOC	HS23051834-03		03_27_2023	1.000	NPOC:1.96		Completed
34	Unknown	NPOC	HS23051834-04		03_27_2023	1.000	NPOC:1.41		Completed
35	Unknown	NPOC	HS23051834-04MS		03_27_2023	1.000	NPOC:12.1		Completed
36	Unknown	NPOC	HS23041197-29		03_27_2023	1.000	NPOC:1.39		Completed
37	Unknown	NPOC	CCV		03_27_2023	1.000	NPOC:26.4		Completed
38	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.23		Completed

	Date / Time	Vial
1	6/7/2023 3:51:57 PM	1
2	6/7/2023 4:04:14 PM	2
3	6/7/2023 4:16:34 PM	3
4	6/7/2023 4:29:56 PM	4
5	6/7/2023 4:43:16 PM	5
6	6/7/2023 4:56:47 PM	6
7	6/7/2023 5:09:55 PM	7
8	6/7/2023 5:23:36 PM	8
9	6/7/2023 5:36:57 PM	9
10	6/7/2023 5:50:19 PM	10
11	6/7/2023 6:03:58 PM	11
12	6/7/2023 6:16:31 PM	12
13	6/7/2023 6:30:45 PM	1
14	6/7/2023 6:43:02 PM	2
15	6/7/2023 6:55:57 PM	13
16	6/7/2023 7:08:58 PM	14
17	6/7/2023 7:22:15 PM	15
18	6/7/2023 7:35:03 PM	16
19	6/7/2023 7:49:24 PM	1
20	6/7/2023 8:01:43 PM	2
21	6/7/2023 8:14:01 PM	3
22	6/7/2023 8:27:32 PM	4
23	6/7/2023 8:41:26 PM	5
24	6/7/2023 8:54:28 PM	17
25	6/7/2023 9:06:54 PM	18
26	6/7/2023 9:19:15 PM	19
27	6/7/2023 9:31:37 PM	20
28	6/7/2023 9:43:59 PM	21
29	6/7/2023 9:57:23 PM	22
30	6/7/2023 10:09:55 PM	23
31	6/7/2023 10:24:11 PM	28
32	6/7/2023 10:36:30 PM	29
33	6/7/2023 10:49:05 PM	24
34	6/7/2023 11:01:25 PM	25
35	6/7/2023 11:15:01 PM	26
36	6/7/2023 11:27:22 PM	27
37	6/7/2023 11:41:38 PM	28
38	6/7/2023 11:53:57 PM	29

TOC-Control L Report

2023_06_07_001.tlx

Instr.Information

Instrument Options
Catalyst

TOC/ASI/IC Unit/
Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 321107307
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

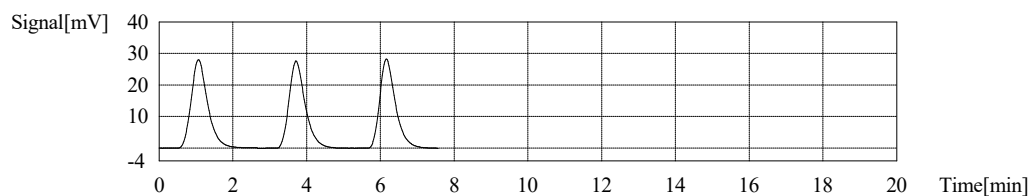
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.93mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	88.20	27.59mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 7:44:00 PM
2	85.31	26.68mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 7:46:44 PM
3	84.75	26.51mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 7:49:24 PM

Mean Area 86.09
Mean Conc. 26.93mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2711mg/L

1. Det

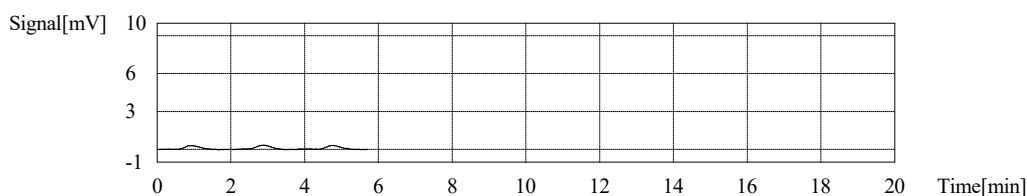
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8883	0.2779mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 7:57:28 PM
2	0.8552	0.2675mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 7:59:35 PM
3	0.8569	0.2680mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:01:43 PM

TOC-Control L Report

2023_06_07_001.tlx

Mean Area 0.8668
Mean Conc. 0.2711mg/L



Sample

Sample Name: MBLK-06072023
Sample ID:
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

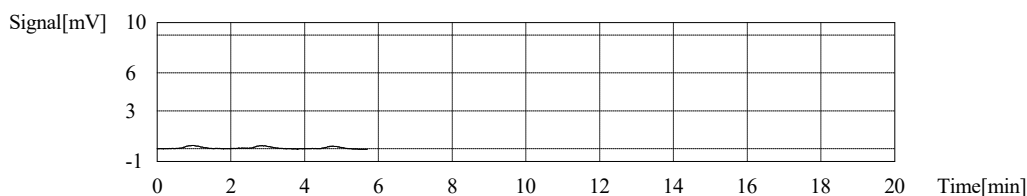
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1719mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5519	0.1726mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:09:47 PM
2	0.5459	0.1708mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:11:54 PM
3	0.5511	0.1724mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:14:01 PM

Mean Area 0.5496
Mean Conc. 0.1719mg/L



Sample

Sample Name: LCS-06072023
Sample ID: 3100606923
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.52mg/L

1. Det

Anal.: NPOC

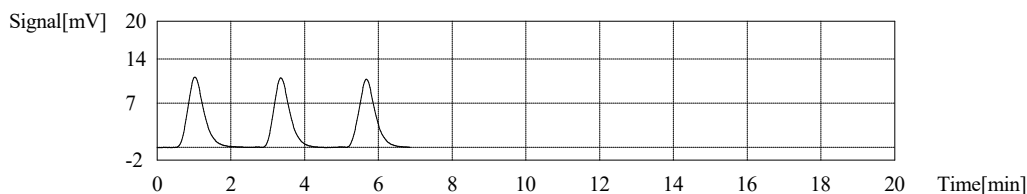
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.29	10.73mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:22:32 PM
2	33.36	10.43mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:25:03 PM
3	33.27	10.41mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:27:32 PM



TOC-Control L Report

2023_06_07_001.tlx

Mean Area 33.64
Mean Conc. 10.52mg/L



Sample

Sample Name: LCSD-06072023
Sample ID:
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

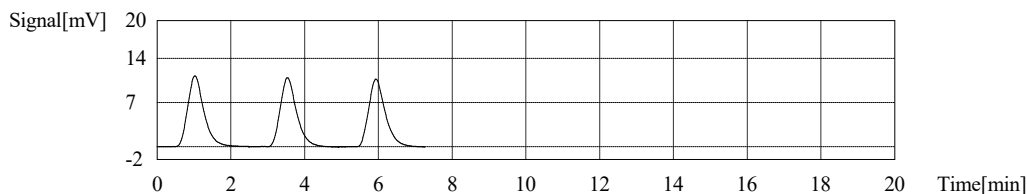
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.67mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.48	10.79mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:36:11 PM
2	33.92	10.61mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:38:51 PM
3	33.95	10.62mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:41:26 PM

Mean Area 34.12
Mean Conc. 10.67mg/L



Sample

Sample Name: HS23051834-02
Sample ID:
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.047mg/L

1. Det

Anal.: NPOC

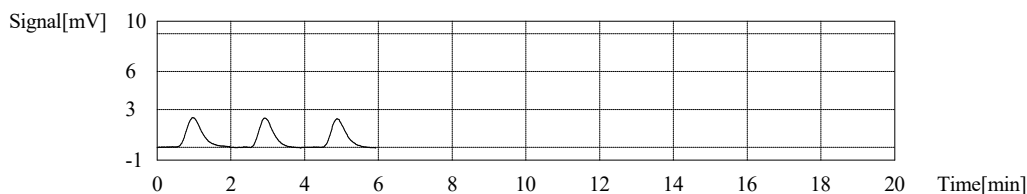
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.811	2.130mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:05:30 PM
2	6.432	2.012mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:07:41 PM
3	6.391	1.999mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:09:55 PM



TOC-Control L Report

2023_06_07_001.tlx

Mean Area 6.545
Mean Conc. 2.047mg/L



Sample

Sample Name: CCV
Sample ID: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

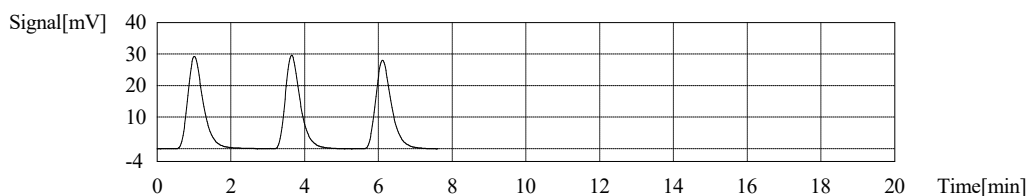
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.38	27.02mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:18:47 PM
2	84.69	26.49mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:21:27 PM
3	84.30	26.37mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:24:11 PM

Mean Area 85.12
Mean Conc. 26.63mg/L



Sample

Sample Name: CCB
Sample ID: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2232mg/L

1. Det

Anal.: NPOC

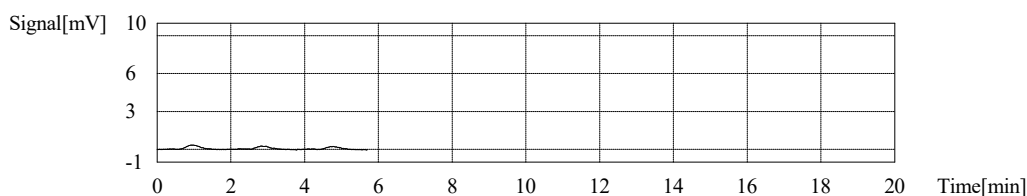
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9237	0.2889mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:32:16 PM
2	0.5935	0.1856mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:34:22 PM
3	0.6230	0.1949mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:36:30 PM



TOC-Control L Report

2023_06_07_001.tlx

Mean Area 0.7134
Mean Conc. 0.2232mg/L



Sample

Sample Name: HS23051834-03
Sample ID:
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

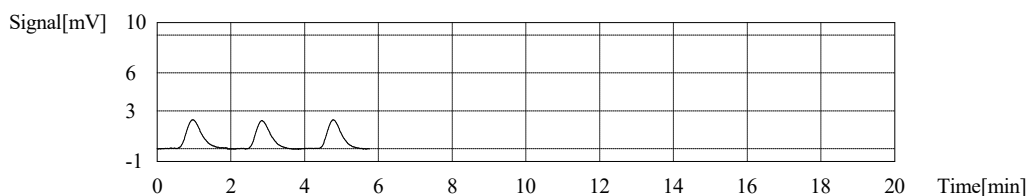
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.962mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.332	1.981mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:44:46 PM
2	6.252	1.956mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:46:56 PM
3	6.234	1.950mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:49:05 PM

Mean Area 6.273
Mean Conc. 1.962mg/L



Sample

Sample Name: HS23051834-04
Sample ID:
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.412mg/L

1. Det

Anal.: NPOC

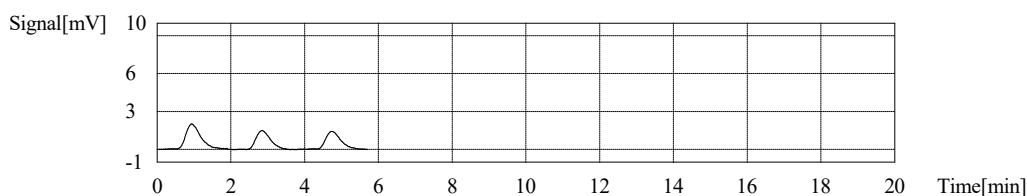
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.413	1.693mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:57:08 PM
2	4.141	1.295mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:59:17 PM
3	3.986	1.247mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:01:25 PM



TOC-Control L Report

2023_06_07_001.tlx

Mean Area 4.513
Mean Conc. 1.412mg/L



Sample

Sample Name: HS23051834-04MS
Sample ID:
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

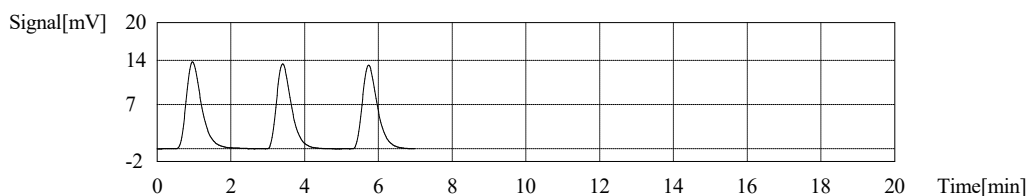
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.13mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.16	12.56mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:10:01 PM
2	38.01	11.89mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:12:35 PM
3	38.17	11.94mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:15:01 PM

Mean Area 38.78
Mean Conc. 12.13mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.41mg/L

1. Det

Anal.: NPOC

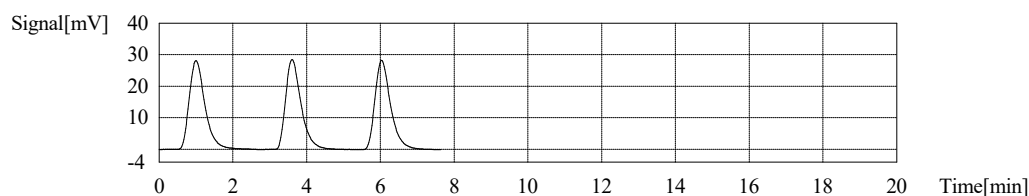
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.60	26.46mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:36:10 PM
2	83.96	26.26mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:38:48 PM
3	84.69	26.49mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:41:38 PM



TOC-Control L Report

2023_06_07_001.tlx

Mean Area 84.42
Mean Conc. 26.41mg/L



Sample

Sample Name: CCB
Sample ID: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

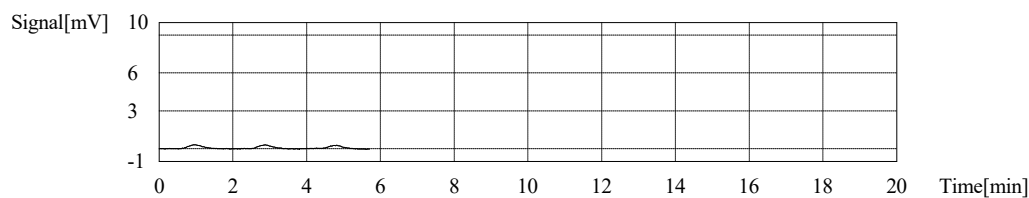
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2360mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8264	0.2585mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:49:42 PM
2	0.7908	0.2474mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:51:50 PM
3	0.6458	0.2020mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:53:57 PM

Mean Area 0.7543
Mean Conc. 0.2360mg/L



HS23051834-E2300519 Perchlorate Final Report Level IV

ALS WO# HS23051834





June 08, 2023

Service Request No:E2300519

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

Laboratory Results for: HS23051834

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory May 30, 2023
For your reference, these analyses have been assigned our service request number **E2300519**.

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 Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com



ALS Environmental

Client: ALS Environmental- US
Project: HS23051834
Sample Matrix: Ground Water

Service Request No.: E2300519
Date Received: 05/30/23

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 05/30/23.

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:**

EQ2300272: 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 batch precision (MS/DMS) measurements were determined on an unrelated sample in the extraction batch. The MS/DMS results are not included in this report.

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
Project: HS23051834

Service Request:E2300519

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E2300519-001	50WW23_052523	5/25/2023	0710
E2300519-002	50WW12_052523	5/25/2023	0755
E2300519-003	50WW12_052523_a	5/25/2023	0755
E2300519-004	50WW14_052523	5/25/2023	0855
E2300519-005	50WW05_052523	5/25/2023	0955
E2300519-006	50WW15_052523	5/25/2023	1035
E2300519-007	50WW16_052523	5/25/2023	1120
E2300519-008	50WW16_052523_a	5/25/2023	1205
E2300519-009	50WW18_052523	5/25/2023	0000



Service Request Summary

Folder #: E2300519
Client Name: ALS Environmental - US
Project Name: HS23051834
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: 05/30/23
Internal Due Date: 6/12/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051834
EDD: BASIC_WQC_CASNo
 _LOD

11 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

				Semivo a GCMS
Lab Samp No.	Client Samp No	Matrix	Collected	CIO4 DOD/6850
E2300519-001	50WW23_052523	Ground Water	05/25/23 0710	IV
E2300519-002	50WW12_052523	Ground Water	05/25/23 0755	IV
E2300519-003	50WW12_052523_a	Ground Water	05/25/23 0755	IV
E2300519-004	50WW14_052523	Ground Water	05/25/23 0855	IV
E2300519-005	50WW05_052523	Ground Water	05/25/23 0955	IV
E2300519-006	50WW15_052523	Ground Water	05/25/23 1035	IV
E2300519-007	50WW16_052523	Ground Water	05/25/23 1120	IV
E2300519-008	50WW16_052523_a	Ground Water	05/25/23 1205	IV
E2300519-009	50WW18_052523	Ground Water	05/25/23 0000	IV



Service Request Summary

Folder #: E2300519
Client Name: ALS Environmental - US
Project Name: HS23051834
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: 05/30/23
Internal Due Date: 6/12/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051834
EDD: BASIC_WQC_CASNo
 _LOD

11 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivola GCMS	CIO4 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 $\geq 10\%$ 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	CONCetration
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

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793_2024	5/27/2024
Arkansas Department of Environmental Quality	88-00356	3/27/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
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
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
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
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 Conservation	TN04016-2023	4/30/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
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 Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
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: Texas

COC ID: 21862

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff Road Suite 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: HS23051834
TSR: Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	HS23051834-01	50WW23_052523	Groundwater	25 May 2023 07:10
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
2.	HS23051834-02	50WW12_052523	Groundwater	25 May 2023 07:55
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
3.	HS23051834-03	50WW12_052523_a	Groundwater	25 May 2023 07:55
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
4.	HS23051834-04	50WW14_052523	Groundwater	25 May 2023 08:55
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
5.	HS23051834-05	50WW05_052523	Groundwater	25 May 2023 09:55
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
6.	HS23051834-06	50WW15_052523	Groundwater	25 May 2023 10:35
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
7.	HS23051834-07	50WW16_052523	Groundwater	25 May 2023 11:20
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
8.	HS23051834-08	50WW16_052523_a	Groundwater	25 May 2023 12:05

RIGHT SOLUTIONS | RIGHT PARTNER





Subcontract Chain of Custody

SAMPLING STATE: Texas

COC ID: 21862

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
6850 Perchlorate; separate Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
9. HS23051834-09	50WW18_052523	Groundwater	25 May 2023 00:00
6850 Perchlorate; separate Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023

Comments: HS23051834-04 MS/MSD

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

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____

NR

Date/Time: _____

Received By: _____

ca

Date/Time: 5-30-23 odu

Cooler ID(s): _____

Temperature(s): _____

26 May 2023

Page 2 of 2





Cooler Receipt Form

Project Chemist 04Client/Project ALS Thermometer ID 1231Date/Time Received: 5-30-23 Initials: EL Date/Time Logged in: 5-30-23 Initials: EL1. Method of delivery: ☐ US Mail ☐ Fed Ex ☐ UPS ☐ DHL ☒ ^{ALS} Courier ☐ Client2. 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/AWere they signed and dated? ☐ Yes ☐ No ☒ N/A4. 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?
<u>NA</u>		<u>5-30-23</u>	<u>0800</u>	<u>EL</u>	<u>0.8</u>	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (Ink, signed, dated, etc)? ☒ Yes ☐ No7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ☐ No8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ☐ No9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ☐ No10. 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: +1 281 530 5656
F: +1 281 530 5887
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 sample. The 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 6°C.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10°C.
- ✓ Air samples are shipped and stored cold, at 0 to 6°C
- ✓ 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 Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com



Preparation Information Benchsheet

01231848

Prep Run#: 420944

Prep WorkFlow: GenExt28Day

Status: Prepped

Team: Semivoa GCMS/XMI

Prep Method: Method

Prep Date/Time: 6/5/23 08:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300519-001	50WW23_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2300519-002	50WW12_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2300519-003	50WW12_052523_a	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2300519-004	50WW14_052523	.02	6850/ClO4 DOD			Ground Water	10mL	
5	E2300519-005	50WW05_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300519-006	50WW15_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300519-007	50WW16_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300519-008	50WW16_052523_a	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300519-009	50WW18_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300520-001	MW-18	.01	6850/ClO4			Water	10mL	
11	E2300520-002	MW-7	.01	6850/ClO4			Water	10mL	
12	E2300520-003	MW-2A	.01	6850/ClO4			Water	10mL	
13	E2300520-004	MW-2	.01	6850/ClO4			Water	10mL	
14	E2300520-005	W-8	.01	6850/ClO4			Water	10mL	
15	E2300520-006	MW-17	.01	6850/ClO4			Water	10mL	
16	E2300520-007	MW-1	.01	6850/ClO4			Water	10mL	
17	E2300520-008	W-4	.01	6850/ClO4			Water	10mL	
18	E2300520-009	MW-15	.01	6850/ClO4			Water	10mL	
19	E2300520-010	W-15	.01	6850/ClO4			Water	10mL	
20	E2300520-011	W-16	.01	6850/ClO4			Water	10mL	
21	EQ2300272-01	MB		6850/ClO4			Liquid	10mL	
22	EQ2300272-02	LCS		6850/ClO4			Liquid	10mL	
23	EQ2300272-03	DLCS		6850/ClO4			Liquid	10mL	
24	EQ2300272-04	50WW14_052523 MS	.02	6850/ClO4 DOD			Liquid	10mL	
25	EQ2300272-05	50WW14_052523 DMS	.02	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

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

EQ2300272-02 1.00µL EQ2300272-02 1.00µL EQ2300272-03 1.00µL EQ2300272-03 1.00µL EQ2300272-04 1.00µL EQ2300272-05 1.00µL

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	227244	Logbook Ref:	Perchlorate Internal Standard	Expires On:	07/31/2023

E2300519-001 100.00µL E2300519-002 100.00µL E2300519-003 100.00µL E2300519-004 100.00µL E2300519-005 100.00µL E2300519-006 100.00µL
E2300519-007 100.00µL E2300519-008 100.00µL E2300519-009 100.00µL E2300520-001 100.00µL E2300520-002 100.00µL E2300520-003 100.00µL
E2300520-004 100.00µL E2300520-005 100.00µL E2300520-006 100.00µL E2300520-007 100.00µL E2300520-008 100.00µL E2300520-009 100.00µL

Preparation Information Benchsheet

Prep Run#: 420944

Team: Semivoa GCMS/XMI

E2300520-010100.00µLE2300520-011100.00µLEQ2300272-03100.00µL

Prep WorkFlow: GenExt28Day

Prep Method: Method

EQ2300272-01100.00µLEQ2300272-01100.00µLEQ2300272-04100.00µLEQ2300272-05100.00µL

Status: Prepped

Prep Date/Time: 6/5/23 08:04

EQ2300272-02100.00µLEQ2300272-02100.00µL

Preparation Materials

Water HPLC Grade

HPLC water 5/18/23CG (229314)

6850 Amber Glass screw vial

2mL Screw Top Vial (221894)

6850 0.45um syringe filters

6850 0.45um syringe (229005)

6850 Luer-Lok Syringes

luer-lock syringes (228116)

Preparation Steps

Step: Preparation

Started: 6/5/23 08:04

Finished: 6/6/23 09:34

By: XMI

Comments

Comments:

Reviewed By: XM

Date: 06/05/23

Chain of Custody

Relinquished By:

Date:

Extracts Examined

Received By:

Date:

YesNo



Analytical Results

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: 50WW23_052523
Lab Code: E2300519-001

Service Request: E2300519
Date Collected: 5/25/23 0710
Date Received: 5/30/23
Units: µg/L
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	0.0857	J	0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 13:36	420944	806642	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: 50WW12_052523
Lab Code: E2300519-002

Service Request: E2300519
Date Collected: 5/25/23 0755
Date Received: 5/30/23
Units: µg/L
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	79100		500	250	125	5000	6/ 5/23	6/6/23 13:42	420944	806642	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: 50WW12_052523_a
Lab Code: E2300519-003

Service Request: E2300519
Date Collected: 5/25/23 0755
Date Received: 5/30/23
Units: µg/L
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	84500		500	250	125	5000	6/ 5/23	6/6/23 13:48	420944	806642	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: 50WW14_052523
Lab Code: E2300519-004

Service Request: E2300519
Date Collected: 5/25/23 0855
Date Received: 5/30/23
Units: µg/L
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	0.168		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 13:54	420944	806642	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: 50WW05_052523
Lab Code: E2300519-005

Service Request: E2300519
Date Collected: 5/25/23 0955
Date Received: 5/30/23
Units: µg/L
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	0.130		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 14:11	420944	806642	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: 50WW15_052523
Lab Code: E2300519-006

Service Request: E2300519
Date Collected: 5/25/23 1035
Date Received: 5/30/23
Units: µg/L
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	0.113		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 14:17	420944	806642	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: 50WW16_052523
Lab Code: E2300519-007

Service Request: E2300519
Date Collected: 5/25/23 1120
Date Received: 5/30/23
Units: µg/L
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	0.0369	J	0.100	0.0500	0.0250	1	6/ 5/23	6/7/23 13:41	420944	806739	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: 50WW16_052523_a
Lab Code: E2300519-008

Service Request: E2300519
Date Collected: 5/25/23 1205
Date Received: 5/30/23
Units: µg/L
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	6/ 5/23	6/7/23 09:19	420944	806739	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: 50WW18_052523
Lab Code: E2300519-009

Service Request: E2300519
Date Collected: 5/25/23 0000
Date Received: 5/30/23
Units: µg/L
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	6/ 5/23	6/7/23 09:25	420944	806739	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: Method Blank
Lab Code: EQ2300272-01

Service Request: E2300519
Date Collected: NA
Date Received: NA
Units: µg/L
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	6/ 5/23	6/6/23 12:22	420944	806642	





Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water

Service Request: E2300519
Date Analyzed: 6/ 6/23

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: 420944

Analyte Name	Lab Control Sample EQ2300272-02			Duplicate Lab Control Sample EQ2300272-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perchlorate	0.107	0.100	107	0.103	0.100	103	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
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: Lab Control Sample
Lab Code: EQ2300272-02

Service Request: E2300519
Date Collected: NA
Date Received: NA
Units: µg/L
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	0.107		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 12:27	420944	806642	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: Duplicate Lab Control Sample
Lab Code: EQ2300272-03

Service Request: E2300519
Date Collected: NA
Date Received: NA
Units: µg/L
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	0.103		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 12:33	420944	806642	



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water

Service Request: E2300519
Date Collected: 5/25/23
Date Received: 5/30/23
Date Analyzed: 6/ 6/23

Matrix Spike Summary

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

Sample Name: 50WW14_052523
Lab Code: E2300519-004

Units: µg/L
Basis: NA

Analytical Method: 6850
Prep Method: Method

Analyte Name	Sample Result	50WW14_052523MS Matrix Spike EQ2300272-04			50WW14_052523DMS Duplicate Matrix Spike EQ2300272-05			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perchlorate	0.168	0.269	0.100	100	0.260	0.100	92	84 - 119	3	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
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: 50WW14_052523
Lab Code: EQ2300272-04
Run Type: Matrix Spike

Service Request: E2300519
Date Collected: 5/25/23 0855
Date Received: 5/30/23
Units: µg/L
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	0.269		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 13:59	420944	806642	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water
Sample Name: 50WW14_052523
Lab Code: EQ2300272-05
Run Type: Duplicate Matrix Spike

Service Request: E2300519
Date Collected: 5/25/23 0855
Date Received: 5/30/23
Units: µg/L
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	0.260		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 14:05	420944	806642	





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





20230606-806642

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: GC

ICAL Date: 6/6/2023

Cal. Std. xp: 07/31/2023

ICAL ID: EC2300009

Mobile Phases : A:20mM ammonium acetate in water 32103045 B:Acetonitrile 226552

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	PERCHLORATE1	20230606-001	Perchlorate6850c.lcm	1x	227245	6/6/2023 10:49
2	PERCHLORATE2	20230606-002	Perchlorate6850c.lcm	1x	227246	6/6/2023 10:55
3	PERCHLORATE3	20230606-003	Perchlorate6850c.lcm	1x	227247	6/6/2023 11:01
4	PERCHLORATE4	20230606-004	Perchlorate6850c.lcm	1x	227248	6/6/2023 11:06
5	PERCHLORATE5	20230606-005	Perchlorate6850c.lcm	1x	227249	6/6/2023 11:12
6	PERCHLORATE6	20230606-006	Perchlorate6850c.lcm	1x	227250	6/6/2023 11:18
7	PERCHLORATE7	20230606-007	Perchlorate6850c.lcm	1x	227251	6/6/2023 11:24
8	PERCHLORATE8	20230606-008	Perchlorate6850c.lcm	1x	227252	6/6/2023 11:29
9	PERCHLORATE9	20230606-009	Perchlorate6850c.lcm	1x	227253	6/6/2023 11:35
10	PERCHLORATE10	20230606-010	Perchlorate6850c.lcm	1x	227254	6/6/2023 11:41
11	PERCHLORATEICV	20230606-011	Perchlorate6850c.lcm	1x	227256	6/6/2023 11:47
12	IB	20230606-012	Perchlorate6850c.lcm	1x		6/6/2023 11:52
13	LODV	20230606-013	Perchlorate6850c.lcm	1x	227501	6/6/2023 11:58
14	ICS	20230606-014	Perchlorate6850c.lcm	1x	32103024	6/6/2023 12:04
15	CCV	20230606-015	Perchlorate6850c.lcm	1x	227251	6/6/2023 12:16
16	EQ2300272-01	20230606-016	Perchlorate6850c.lcm	1x		6/6/2023 12:22
17	EQ2300272-02	20230606-017	Perchlorate6850c.lcm	1x		6/6/2023 12:27
18	EQ2300272-03	20230606-018	Perchlorate6850c.lcm	1x		6/6/2023 12:33
19	EQ2300273-01	20230606-019	Perchlorate6850c.lcm	1x		6/6/2023 12:39
20	EQ2300273-02	20230606-020	Perchlorate6850c.lcm	1x		6/6/2023 12:45
21	EQ2300273-03	20230606-021	Perchlorate6850c.lcm	1x		6/6/2023 12:50
22	E2300516-001	20230606-022	Perchlorate6850c.lcm	1x		6/6/2023 12:56
23	E2300516-002	20230606-023	Perchlorate6850c.lcm	1x		6/6/2023 13:02
24	E2300516-003	20230606-024	Perchlorate6850c.lcm	1x		6/6/2023 13:08
25	E2300516-004	20230606-025	Perchlorate6850c.lcm	1x		6/6/2023 13:13
26	CCV	20230606-026	Perchlorate6850c.lcm	1x	227251	6/6/2023 13:19
27	E2300516-005	20230606-027	Perchlorate6850c.lcm	1x		6/6/2023 13:25
28	E2300516-006	20230606-028	Perchlorate6850c.lcm	1x	DNU-CONFIRM PEAK	6/6/2023 13:31
29	E2300519-001	20230606-029	Perchlorate6850c.lcm	1x		6/6/2023 13:36
30	E2300519-002	20230606-030	Perchlorate6850c.lcm	5000x		6/6/2023 13:42
31	E2300519-003	20230606-031	Perchlorate6850c.lcm	5000x		6/6/2023 13:48
32	E2300519-004	20230606-032	Perchlorate6850c.lcm	1x		6/6/2023 13:54
33	EQ2300272-04	20230606-033	Perchlorate6850c.lcm	1x		6/6/2023 13:59
34	EQ2300272-05	20230606-034	Perchlorate6850c.lcm	1x		6/6/2023 14:05
35	E2300519-005	20230606-035	Perchlorate6850c.lcm	1x		6/6/2023 14:11
36	E2300519-006	20230606-036	Perchlorate6850c.lcm	1x		6/6/2023 14:17
37	CCV	20230606-037	Perchlorate6850c.lcm	1x		6/6/2023 14:23



Initial Calibration - Detailed Report

Calibration ID: EC2300009

Instrument ID: E-LCMS-01

Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300009-01	PERCHLORATE1	20230606-001	06/06/2023 10:49
02	EC2300009-02	PERCHLORATE2	20230606-002	06/06/2023 10:55
03	EC2300009-03	PERCHLORATE3	20230606-003	06/06/2023 11:01
04	EC2300009-04	PERCHLORATE4	20230606-004	06/06/2023 11:06
05	EC2300009-05	PERCHLORATE5	20230606-005	06/06/2023 11:12
06	EC2300009-06	PERCHLORATE6	20230606-006	06/06/2023 11:18
07	EC2300009-07	PERCHLORATE7	20230606-007	06/06/2023 11:24
08	EC2300009-08	PERCHLORATE8	20230606-008	06/06/2023 11:29
09	EC2300009-09	PERCHLORATE9	20230606-009	06/06/2023 11:35
10	EC2300009-10	PERCHLORATE10	20230606-010	06/06/2023 11:41

Analyte**Curve Fit****Weighting****Perchlorate****Average RF**

RSD = 3.738

Average RF = 0.1827

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.201	02	0.5000	0.1818	03	0.7000	0.1758	04	1.0000	0.1836
05	2.0000	0.1782	06	5.0000	0.1799	07	10.0000	0.1808	08	20.0000	0.1834
09	30.0000	0.1812	10	50.0000	0.1815						

Analyte**Perchlorate**

RSE = 3.74

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.110	10.0	02	0.5000	0.498	-0.5	03	0.7000	0.673	-3.8
04	1.0000	1.00	0.5	05	2.0000	1.95	-2.5	06	5.0000	4.92	-1.5
07	10.0000	9.90	-1.0	08	20.0000	20.1	0.4	09	30.0000	29.7	-0.9
10	50.0000	49.7	-0.7								



Initial Calibration Verification Summary Report

Calibration ID:	EC2300009	Instrument ID:	E-LCMS-01
Datafile ID:	20230606-011	Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300009-11	T	Average RF	10	10.016	ng/mL	0.2	<= 15



Insight Report

Printed at 6/7/2023 10:10:58 AM

Method File: I:\LCMS01\DATA\20230606\20230606.lcm

Project File: I:\LCMS01\DATA\20230606\20230606.damlp

PERCHLORATE1

Sample ID: PERCHLORATE1

Date Acquired: 6/6/2023 10:49:38 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-001.lcd

Vial: 1 | Inj. Volume: 10.0000uL | Tray: 2

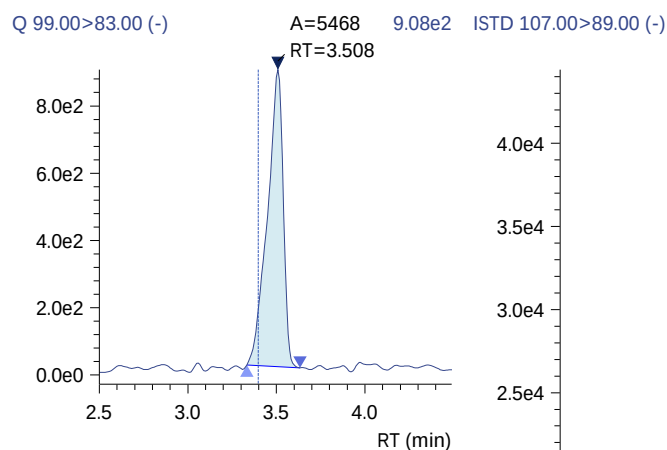
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.508	5468	272033	0.1100	ng/mL	101.00 >85.00	26.42	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.499	272033	272033	1.0000	ng/mL	----	----	

Perchlorate

Conc 0.1100

R#1 26.42 (24.52)

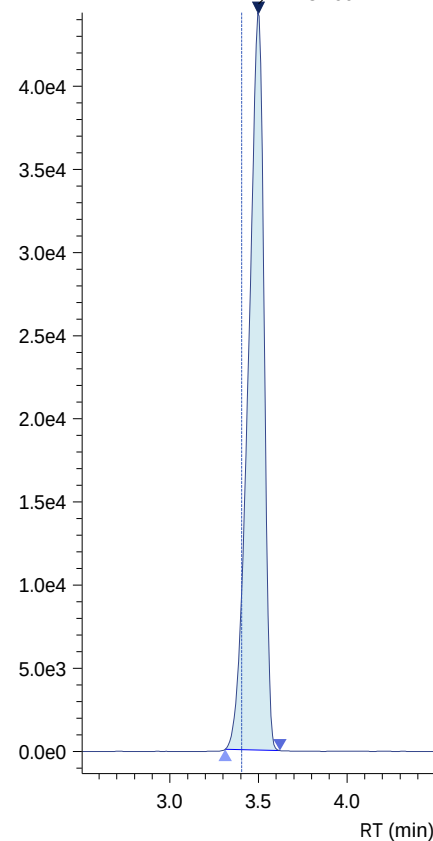
Q 99.00>83.00 (-)



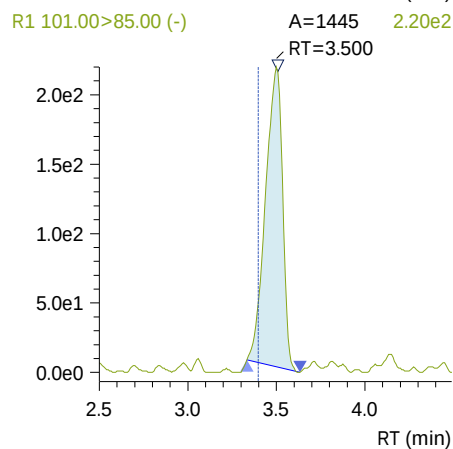
Sodium Perchlorate-18O4_IS

Conc 1.0000

A=272033 4.44e4



R1 101.00>85.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

PERCHLORATE2

Sample ID: PERCHLORATE2

Date Acquired: 6/6/2023 10:55:23 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-002.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 2

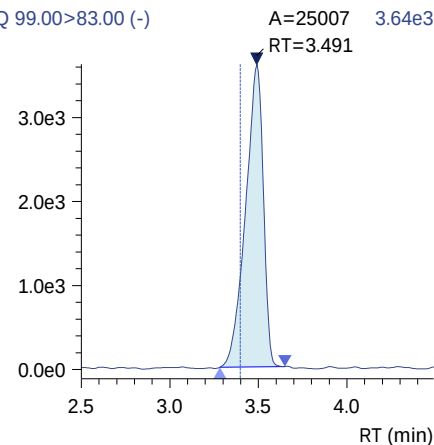
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.491	25007	275033	0.4976	ng/mL	101.00 >85.00	27.10	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.486	275033	275033	1.0000	ng/mL	----	----	

Perchlorate

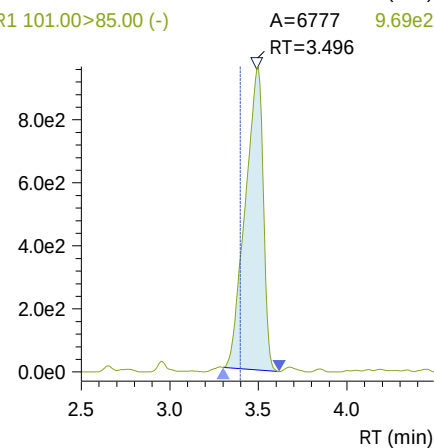
Conc 0.4976

R#1 27.10 (24.52)

Q 99.00>83.00 (-)



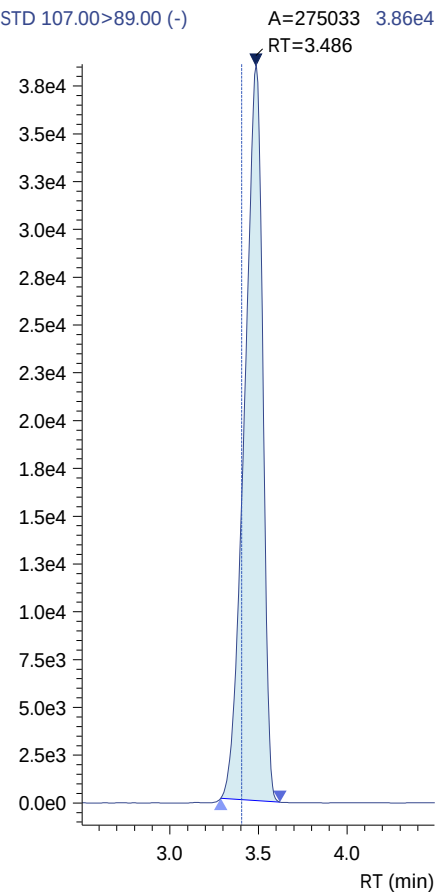
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

PERCHLORATE3

Sample ID: PERCHLORATE3

Date Acquired: 6/6/2023 11:01:08 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-003.lcd

Vial: 3 | Inj. Volume: 10.0000uL | Tray: 2

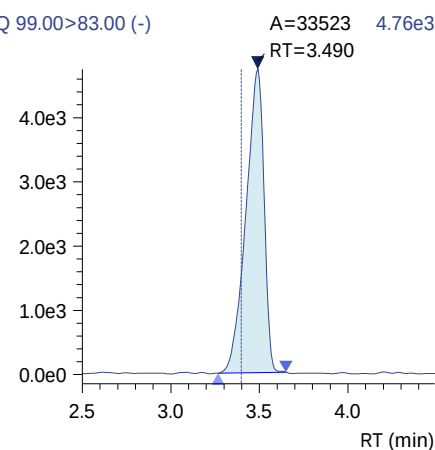
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.490	33523	272465	0.6733	ng/mL	101.00 >85.00	25.95	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.486	272465	272465	1.0000	ng/mL	----	----	

Perchlorate

Conc 0.6733

R#1 25.95 (24.52)

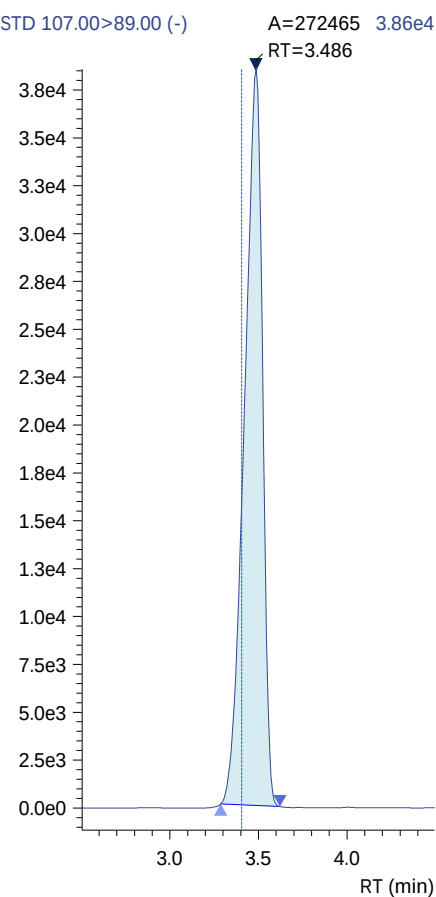
Q 99.00>83.00 (-)



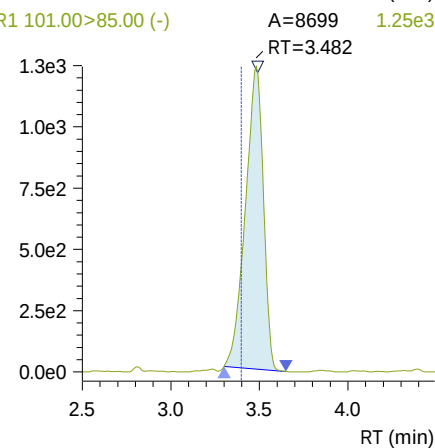
Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



R1 101.00>85.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

PERCHLORATE4

Sample ID: PERCHLORATE4

Date Acquired: 6/6/2023 11:06:52 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-004.lcd

Vial: 4 | Inj. Volume: 10.0000uL | Tray: 2

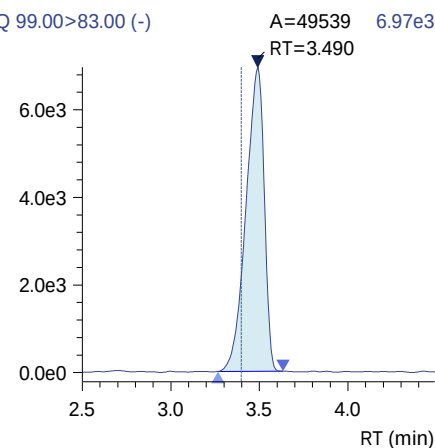
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.490	49539	269886	1.0045	ng/mL	101.00 >85.00	24.56	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.486	269886	269886	1.0000	ng/mL	----	----	

Perchlorate

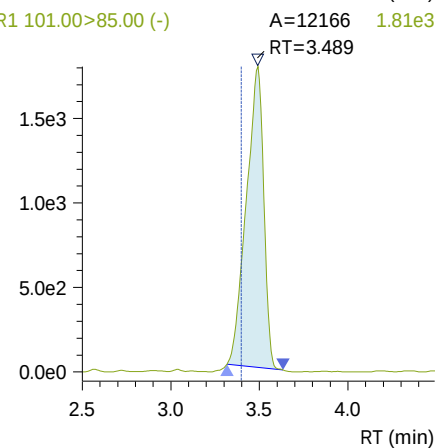
Conc 1.0045

R#1 24.56 (24.52)

Q 99.00>83.00 (-)



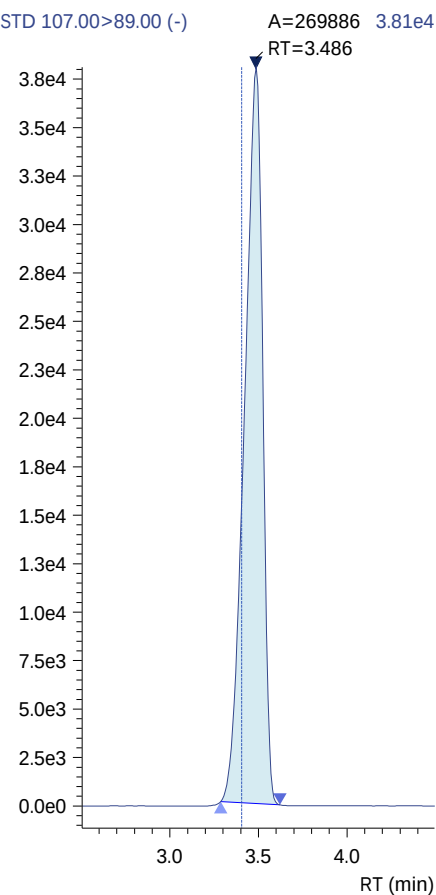
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

PERCHLORATE5

Sample ID: PERCHLORATE5

Date Acquired: 6/6/2023 11:12:36 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-005.lcd

Vial: 5 | Inj. Volume: 10.0000uL | Tray: 2

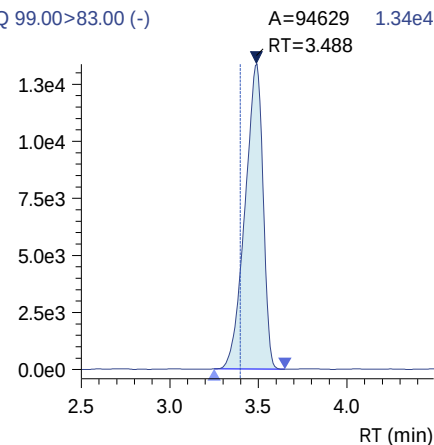
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.488	94629	265444	1.9510	ng/mL	101.00 >85.00	24.78	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.486	265444	265444	1.0000	ng/mL	----	----	

Perchlorate

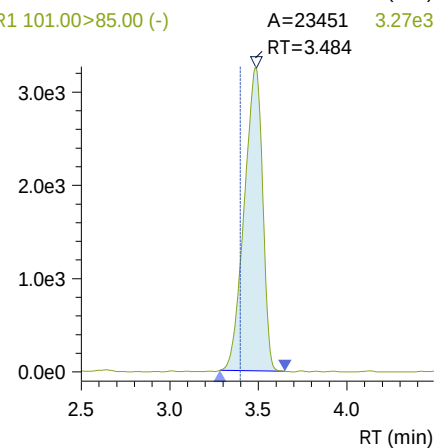
Conc 1.9510

R#1 24.78 (24.52)

Q 99.00>83.00 (-)



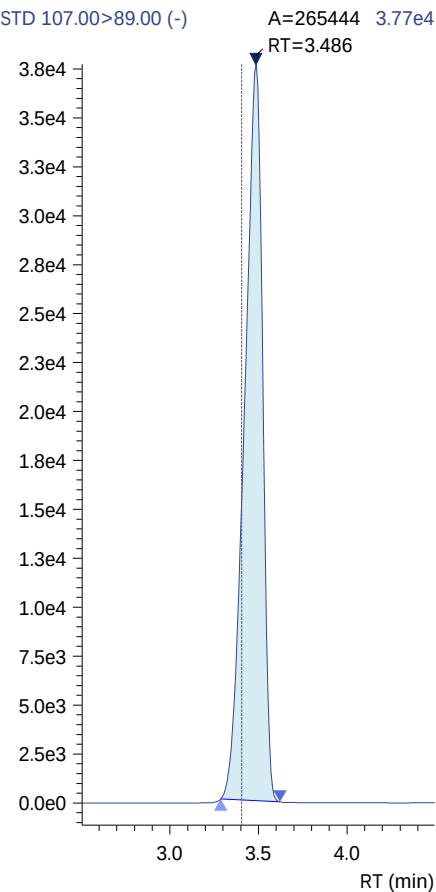
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

PERCHLORATE6

Sample ID: PERCHLORATE6

Date Acquired: 6/6/2023 11:18:22 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-006.lcd

Vial: 6 | Inj. Volume: 10.0000uL | Tray: 2

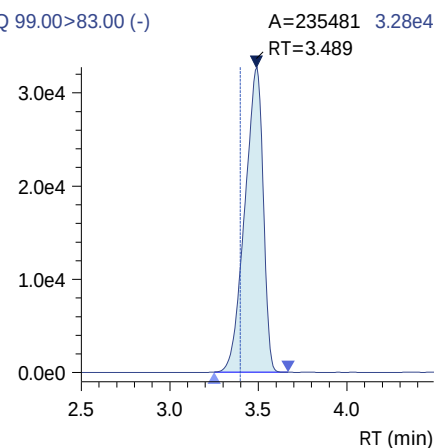
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.489	235481	261731	4.9238	ng/mL	101.00 >85.00	25.73	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.486	261731	261731	1.0000	ng/mL	----	----	

Perchlorate

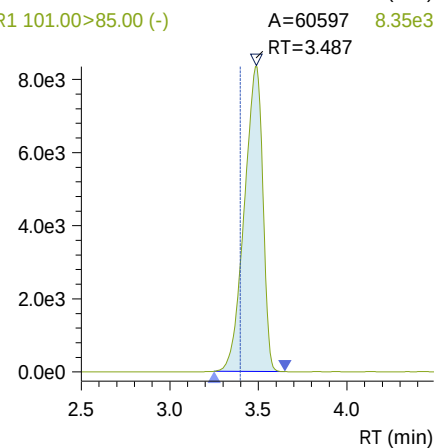
Conc 4.9238

R#1 25.73 (24.52)

Q 99.00>83.00 (-)



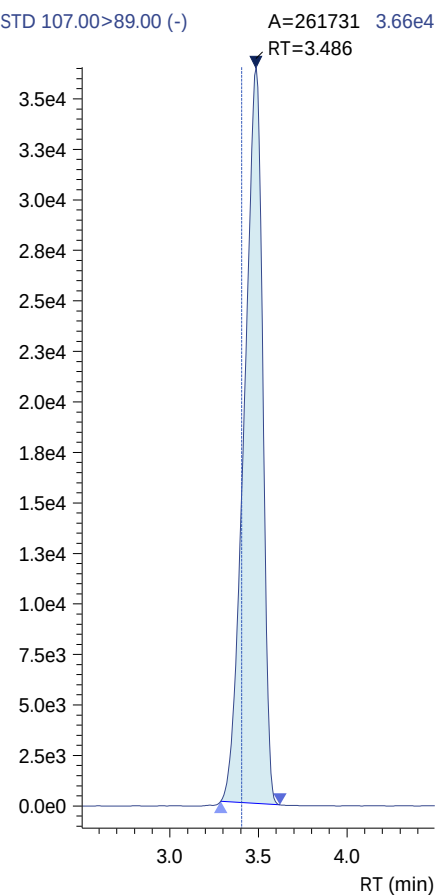
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

PERCHLORATE7

Sample ID: PERCHLORATE7

Date Acquired: 6/6/2023 11:24:09 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-007.lcd

Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

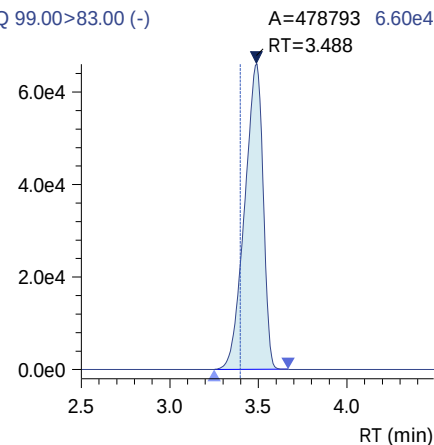
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.488	478793	264810	9.8950	ng/mL	101.00 >85.00	25.38	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.485	264810	264810	1.0000	ng/mL	----	----	

Perchlorate

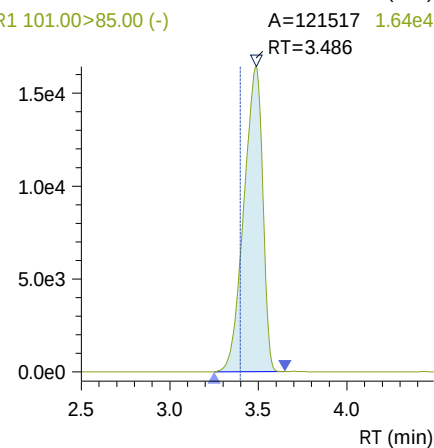
Conc 9.8950

R#1 25.38 (24.52)

Q 99.00>83.00 (-)



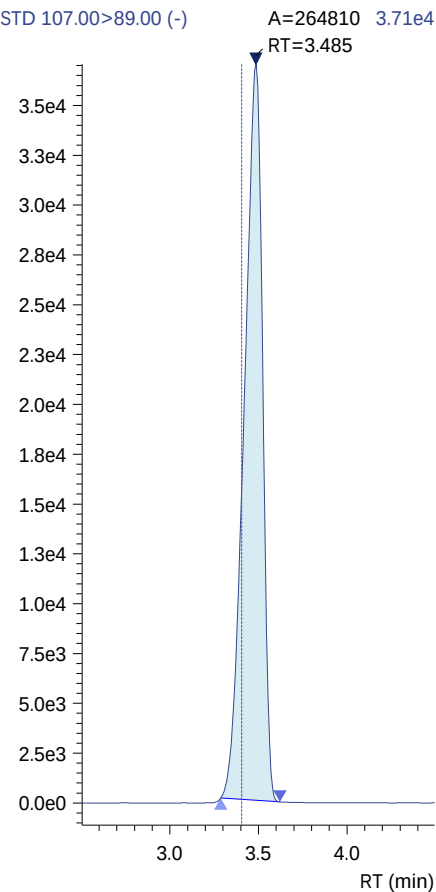
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

PERCHLORATE8

Sample ID: PERCHLORATE8

Date Acquired: 6/6/2023 11:29:53 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-008.lcd

Vial: 8 | Inj. Volume: 10.0000uL | Tray: 2

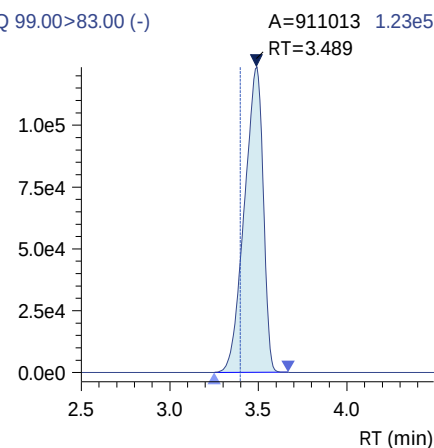
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.489	911013	248350	20.0754	ng/mL	101.00 >85.00	25.22	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.485	248350	248350	1.0000	ng/mL	----	----	

Perchlorate

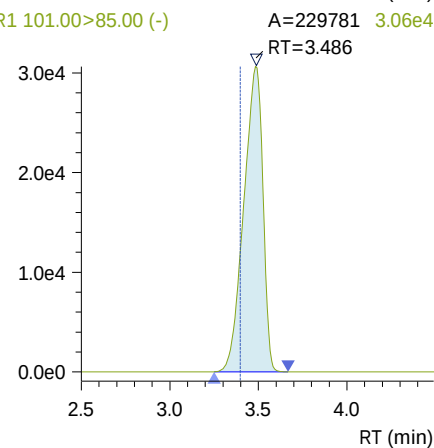
Conc 20.0754

R#1 25.22 (24.52)

Q 99.00>83.00 (-)



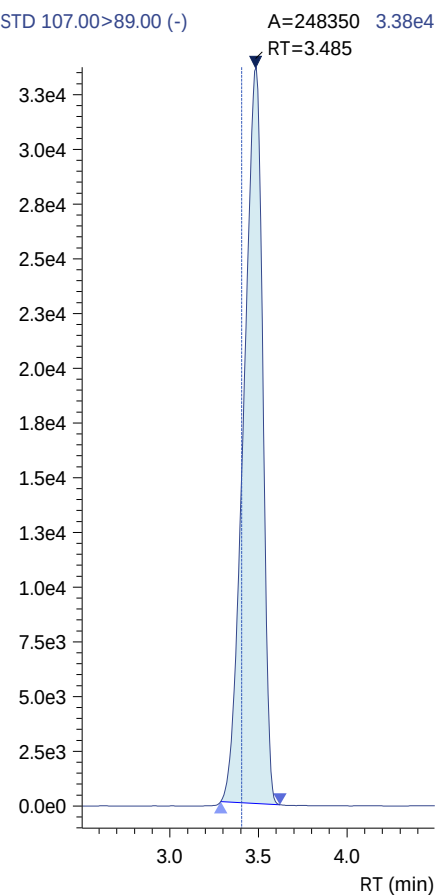
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

PERCHLORATE9

Sample ID: PERCHLORATE9

Date Acquired: 6/6/2023 11:35:36 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-009.lcd

Vial: 9 | Inj. Volume: 10.0000uL | Tray: 2

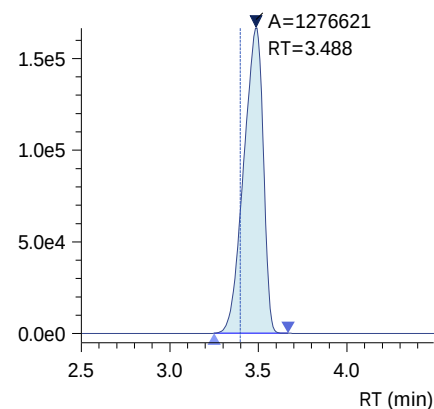
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.488	1276621	234897	29.7432	ng/mL	101.00 >85.00	25.53	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.483	234897	234897	1.0000	ng/mL	----	----	

Perchlorate

Conc 29.7432

R#1 25.53 (24.52)

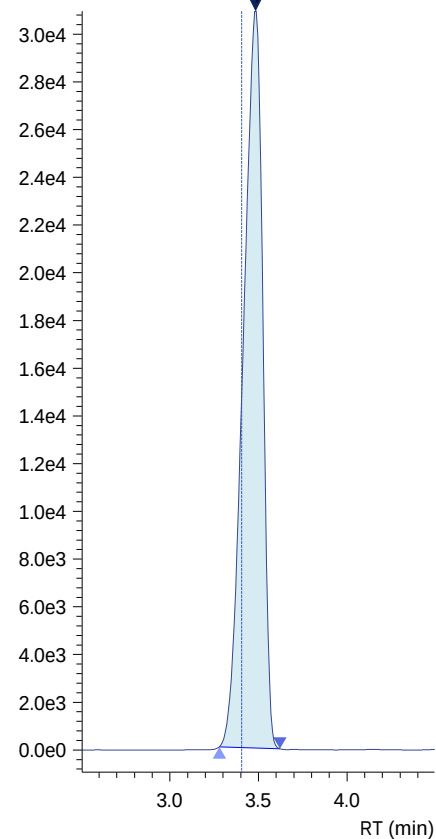
Q 99.00>83.00 (-)



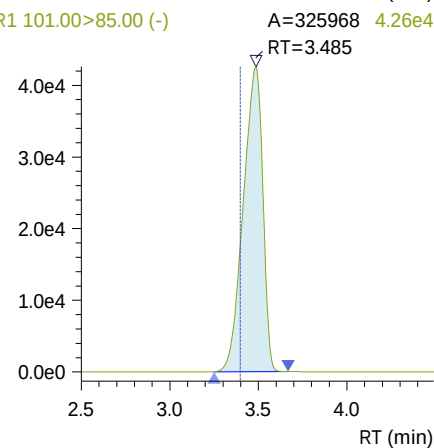
Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)

A=234897 3.10e4
RT=3.483

R1 101.00>85.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

PERCHLORATE10

Sample ID: PERCHLORATE10

Date Acquired: 6/6/2023 11:41:20 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-010.lcd

Vial: 10 | Inj. Volume: 10.0000uL | Tray: 2

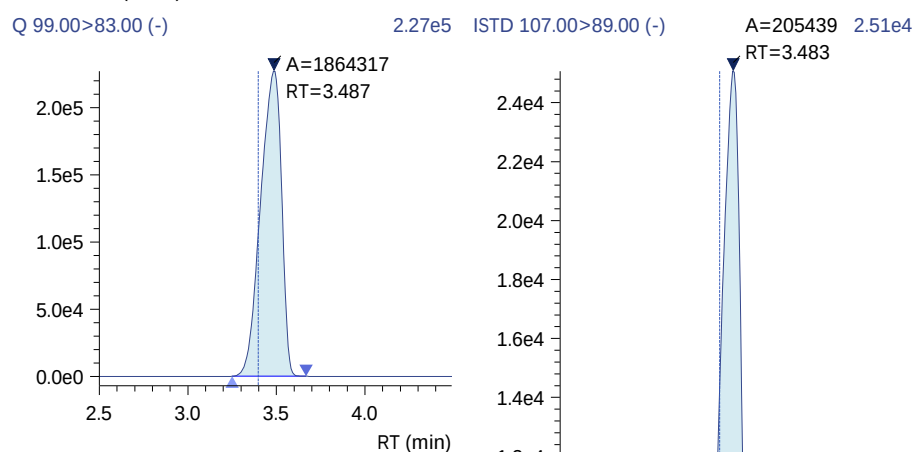
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.487	1864317	205439	49.6639	ng/mL	101.00 >85.00	25.31	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.483	205439	205439	1.0000	ng/mL	----	----	

Perchlorate

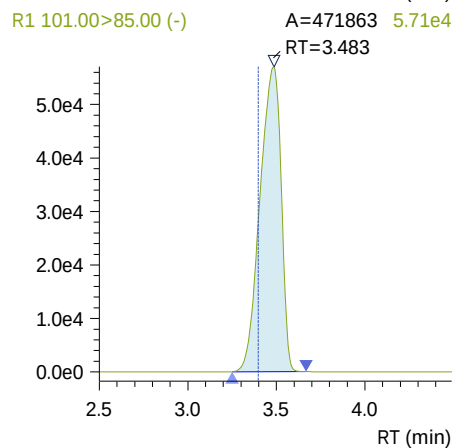
Conc 49.6639

R#1 25.31 (24.52)

Q 99.00>83.00 (-)

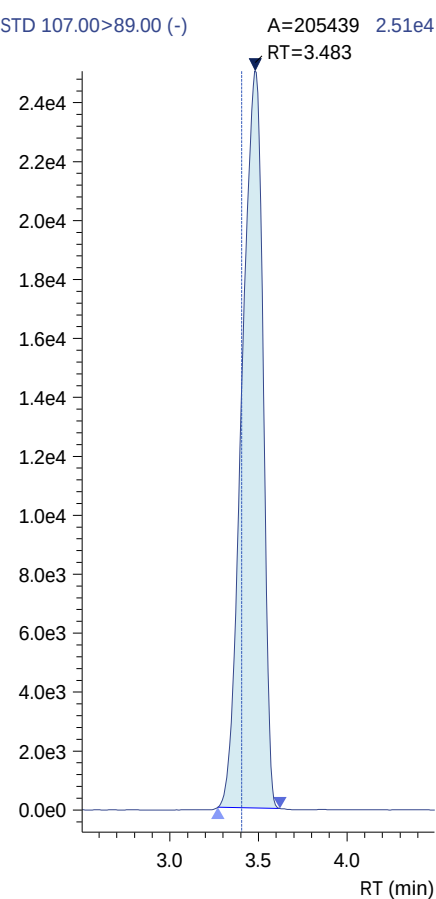


R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/7/2023 10:10:58 AM

PERCHLORATEICV

Sample ID: PERCHLORATEICV

Date Acquired: 6/6/2023 11:47:07 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-011.lcd

Vial: 11 | Inj. Volume: 10.0000uL | Tray: 2

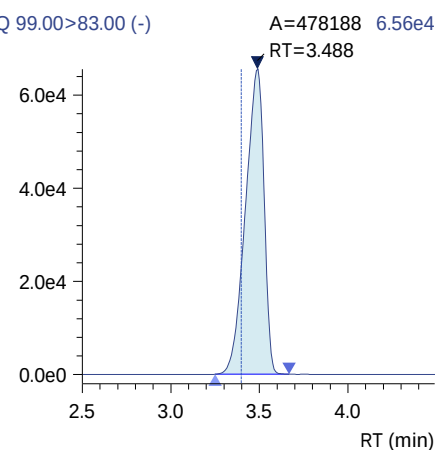
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.488	478188	261294	10.0155	ng/mL	101.00 >85.00	25.02	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.484	261294	261294	1.0000	ng/mL	----	----	

Perchlorate

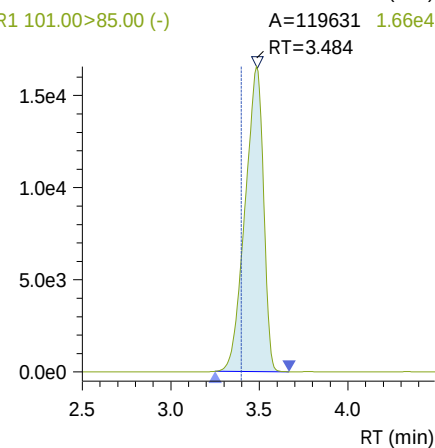
Conc 10.0155

R#1 25.02 (24.52)

Q 99.00>83.00 (-)



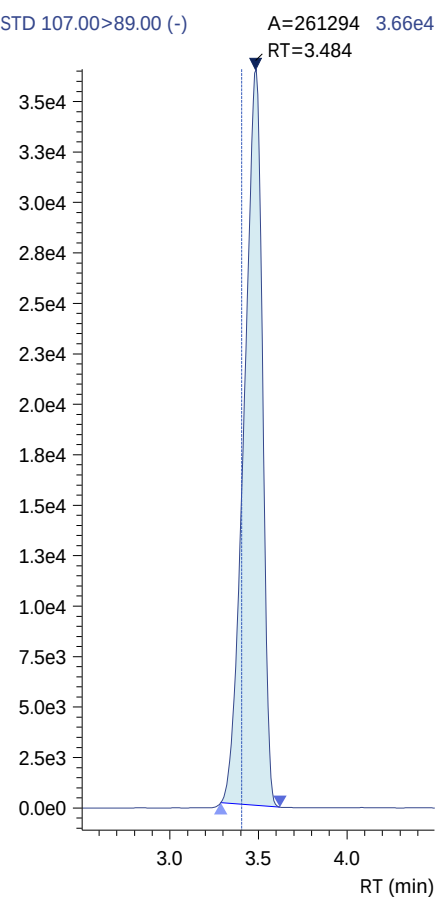
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)





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





20230606-806642

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: GC

ICAL Date: 6/6/2023

Cal. Std. xp: 07/31/2023

ICAL ID: EC2300009

Mobile Phases : A:20mM ammonium acetate in water 32103045 B:Acetonitrile 226552

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	PERCHLORATE1	20230606-001	Perchlorate6850c.lcm	1x	227245	6/6/2023 10:49
2	PERCHLORATE2	20230606-002	Perchlorate6850c.lcm	1x	227246	6/6/2023 10:55
3	PERCHLORATE3	20230606-003	Perchlorate6850c.lcm	1x	227247	6/6/2023 11:01
4	PERCHLORATE4	20230606-004	Perchlorate6850c.lcm	1x	227248	6/6/2023 11:06
5	PERCHLORATE5	20230606-005	Perchlorate6850c.lcm	1x	227249	6/6/2023 11:12
6	PERCHLORATE6	20230606-006	Perchlorate6850c.lcm	1x	227250	6/6/2023 11:18
7	PERCHLORATE7	20230606-007	Perchlorate6850c.lcm	1x	227251	6/6/2023 11:24
8	PERCHLORATE8	20230606-008	Perchlorate6850c.lcm	1x	227252	6/6/2023 11:29
9	PERCHLORATE9	20230606-009	Perchlorate6850c.lcm	1x	227253	6/6/2023 11:35
10	PERCHLORATE10	20230606-010	Perchlorate6850c.lcm	1x	227254	6/6/2023 11:41
11	PERCHLORATEICV	20230606-011	Perchlorate6850c.lcm	1x	227256	6/6/2023 11:47
12	IB	20230606-012	Perchlorate6850c.lcm	1x		6/6/2023 11:52
13	LODV	20230606-013	Perchlorate6850c.lcm	1x	227501	6/6/2023 11:58
14	ICS	20230606-014	Perchlorate6850c.lcm	1x	32103024	6/6/2023 12:04
15	CCV	20230606-015	Perchlorate6850c.lcm	1x	227251	6/6/2023 12:16
16	EQ2300272-01	20230606-016	Perchlorate6850c.lcm	1x		6/6/2023 12:22
17	EQ2300272-02	20230606-017	Perchlorate6850c.lcm	1x		6/6/2023 12:27
18	EQ2300272-03	20230606-018	Perchlorate6850c.lcm	1x		6/6/2023 12:33
19	EQ2300273-01	20230606-019	Perchlorate6850c.lcm	1x		6/6/2023 12:39
20	EQ2300273-02	20230606-020	Perchlorate6850c.lcm	1x		6/6/2023 12:45
21	EQ2300273-03	20230606-021	Perchlorate6850c.lcm	1x		6/6/2023 12:50
22	E2300516-001	20230606-022	Perchlorate6850c.lcm	1x		6/6/2023 12:56
23	E2300516-002	20230606-023	Perchlorate6850c.lcm	1x		6/6/2023 13:02
24	E2300516-003	20230606-024	Perchlorate6850c.lcm	1x		6/6/2023 13:08
25	E2300516-004	20230606-025	Perchlorate6850c.lcm	1x		6/6/2023 13:13
26	CCV	20230606-026	Perchlorate6850c.lcm	1x	227251	6/6/2023 13:19
27	E2300516-005	20230606-027	Perchlorate6850c.lcm	1x		6/6/2023 13:25
28	E2300516-006	20230606-028	Perchlorate6850c.lcm	1x	DNU-CONFIRM PEAK	6/6/2023 13:31
29	E2300519-001	20230606-029	Perchlorate6850c.lcm	1x		6/6/2023 13:36
30	E2300519-002	20230606-030	Perchlorate6850c.lcm	5000x		6/6/2023 13:42
31	E2300519-003	20230606-031	Perchlorate6850c.lcm	5000x		6/6/2023 13:48
32	E2300519-004	20230606-032	Perchlorate6850c.lcm	1x		6/6/2023 13:54
33	EQ2300272-04	20230606-033	Perchlorate6850c.lcm	1x		6/6/2023 13:59
34	EQ2300272-05	20230606-034	Perchlorate6850c.lcm	1x		6/6/2023 14:05
35	E2300519-005	20230606-035	Perchlorate6850c.lcm	1x		6/6/2023 14:11
36	E2300519-006	20230606-036	Perchlorate6850c.lcm	1x		6/6/2023 14:17
37	CCV	20230606-037	Perchlorate6850c.lcm	1x		6/6/2023 14:23



20230607-806739

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: GC

ICAL Date: 6/6/2023

Cal. Std. xp: 07/31/2023

ICAL ID: EC2300009

Mobile Phases : A:20mM ammonium acetate in water 32103045 B:Acetonitrile 226552

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB	20230607-001	Perchlorate6850c.lcm	1x		6/7/2023 8:41
2	LODV	20230607-002	Perchlorate6850c.lcm	1x	227501	6/7/2023 8:51
3	ICS	20230607-003	Perchlorate6850c.lcm	1x	32103024	6/7/2023 8:57
4	CCV	20230607-004	Perchlorate6850c.lcm	1x	227251	6/7/2023 9:03
5	E2300519-007	20230607-005	Perchlorate6850c.lcm	1x	DNU-CONFIRM PEAK	6/7/2023 9:14
6	E2300519-008	20230607-006	Perchlorate6850c.lcm	1x		6/7/2023 9:19
7	E2300519-009	20230607-007	Perchlorate6850c.lcm	1x		6/7/2023 9:25
8	E2300520-001	20230607-008	Perchlorate6850c.lcm	1x		6/7/2023 9:31
9	E2300520-002	20230607-009	Perchlorate6850c.lcm	1x		6/7/2023 9:37
10	E2300520-003	20230607-010	Perchlorate6850c.lcm	1x		6/7/2023 9:42
11	E2300520-004	20230607-011	Perchlorate6850c.lcm	1x		6/7/2023 9:48
12	E2300520-005	20230607-012	Perchlorate6850c.lcm	1x		6/7/2023 9:54
13	E2300520-006	20230607-013	Perchlorate6850c.lcm	1x		6/7/2023 9:59
14	E2300520-007	20230607-014	Perchlorate6850c.lcm	1x		6/7/2023 10:05
15	CCV	20230607-015	Perchlorate6850c.lcm	1x	227251	6/7/2023 10:11
16	E2300520-008	20230607-016	Perchlorate6850c.lcm	1x		6/7/2023 10:17
17	E2300520-009	20230607-017	Perchlorate6850c.lcm	1x		6/7/2023 10:22
18	E2300520-010	20230607-018	Perchlorate6850c.lcm	1x		6/7/2023 10:28
19	E2300520-011	20230607-019	Perchlorate6850c.lcm	1x		6/7/2023 10:34
20	E2300525-001	20230607-020	Perchlorate6850c.lcm	1x		6/7/2023 10:40
21	EQ2300273-04	20230607-021	Perchlorate6850c.lcm	1x		6/7/2023 10:45
22	EQ2300273-05	20230607-022	Perchlorate6850c.lcm	1x		6/7/2023 10:51
23	E2300516-006	20230607-023	Perchlorate6850c.lcm	1x		6/7/2023 11:03
24	E2300528-001	20230607-024	Perchlorate6850c.lcm	1x		6/7/2023 11:20
25	E2300528-002	20230607-025	Perchlorate6850c.lcm	1x		6/7/2023 11:31
26	CCV	20230607-026	Perchlorate6850c.lcm	1x	227251	6/7/2023 11:37
27	EQ2300273-06	20230607-027	Perchlorate6850c.lcm	1x	DNU-RR	6/7/2023 11:43
28	EQ2300273-07	20230607-028	Perchlorate6850c.lcm	1x		6/7/2023 11:48
29	E2300528-003	20230607-029	Perchlorate6850c.lcm	1x		6/7/2023 11:54
30	E2300528-004	20230607-030	Perchlorate6850c.lcm	1x		6/7/2023 12:00
31	E2300528-005	20230607-031	Perchlorate6850c.lcm	500x		6/7/2023 12:06
32	E2300528-006	20230607-032	Perchlorate6850c.lcm	5000x		6/7/2023 12:11
33	EQ2300274-01	20230607-033	Perchlorate6850c.lcm	1x		6/7/2023 12:17
34	E2300529-001	20230607-034	Perchlorate6850c.lcm	1x		6/7/2023 12:25
35	EQ2300274-02	20230607-035	Perchlorate6850c.lcm	1x	DNU-IR	6/7/2023 12:31
36	EQ2300274-03	20230607-036	Perchlorate6850c.lcm	1x	DNU-IR	6/7/2023 12:36
37	CCV	20230607-037	Perchlorate6850c.lcm	1x	227251	6/7/2023 12:42





20230607-806739

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: GC

ICAL Date: 6/6/2023

Cal. Std. xp: 07/31/2023

ICAL ID: EC2300009

Mobile Phases : A:20mM ammonium acetate in water 32103045 B:Acetonitrile 226552

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
38	EQ2300274-02	20230607-038	Perchlorate6850c.lcm	1x		6/7/2023 13:29
39	EQ2300274-03	20230607-039	Perchlorate6850c.lcm	1x		6/7/2023 13:36
40	E2300519-007	20230607-040	Perchlorate6850c.lcm	1x		6/7/2023 13:41
41	E2300529-002	20230607-041	Perchlorate6850c.lcm	1x		6/7/2023 13:47
42	E2300529-003	20230607-042	Perchlorate6850c.lcm	1x		6/7/2023 13:53
43	E2300529-004	20230607-043	Perchlorate6850c.lcm	1x		6/7/2023 13:59
44	E2300529-005	20230607-044	Perchlorate6850c.lcm	1x		6/7/2023 14:05
45	E2300529-006	20230607-045	Perchlorate6850c.lcm	1x		6/7/2023 14:10
46	E2300529-007	20230607-046	Perchlorate6850c.lcm	1x		6/7/2023 14:16
47	E2300529--008	20230607-047	Perchlorate6850c.lcm	1000x		6/7/2023 14:22
48	CCV	20230607-048	Perchlorate6850c.lcm	1x	227251	6/7/2023 14:27
49	E2300530-001	20230607-049	Perchlorate6850c.lcm	1x		6/7/2023 15:02
50	E2300530-002	20230607-050	Perchlorate6850c.lcm	1x		6/7/2023 15:08
51	E2300530-003	20230607-051	Perchlorate6850c.lcm	1x		6/7/2023 15:13
52	E2300530-004	20230607-052	Perchlorate6850c.lcm	1x		6/7/2023 15:19
53	E2300530-005	20230607-053	Perchlorate6850c.lcm	1x		6/7/2023 15:25
54	E2300529-009	20230607-054	Perchlorate6850c.lcm	1x		6/7/2023 15:31
55	E2300529-010	20230607-055	Perchlorate6850c.lcm	1x		6/7/2023 15:36
56	E2300529-011	20230607-056	Perchlorate6850c.lcm	1x		6/7/2023 15:44
57	E2300529-012	20230607-057	Perchlorate6850c.lcm	1x		6/7/2023 15:50
58	EQ2300273-06	20230607-058	Perchlorate6850c.lcm	1x		6/7/2023 15:56
59	CCV	20230607-059	Perchlorate6850c.lcm	1x	227251	6/7/2023 16:01

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834

Service Request: E2300519
Date Analyzed: 6/6/23 12:16

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230606\20230606-015
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300280-01
Analysis Lot: 806642
Signal ID: 1

Sodium Perchlorate-18O4

	<u>Area</u>	<u>RT</u>
ICAL Average ==>	257,009	3.49
Upper Limit ==>	385,514	5.49
Lower Limit ==>	128,505	1.49

Associated Analyses

Continuing Calibration Verification	EQ2300280-01	263,663	3.48
Method Blank	EQ2300272-01	281,716	3.48
Lab Control Sample	EQ2300272-02	231,477	3.48
Duplicate Lab Control Sample	EQ2300272-03	255,437	3.48

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: HS23051834

Service Request: E2300519
Date Analyzed: 6/6/23 13:19

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230606\20230606-026
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300280-03
Analysis Lot: 806642
Signal ID: 1

Sodium Perchlorate-18O4

	<u>Area</u>	<u>RT</u>
ICAL Average ==>	257,009	3.49
Upper Limit ==>	385,514	5.49
Lower Limit ==>	128,505	1.49

Associated Analyses

Continuing Calibration Verification	EQ2300280-03	259,328	3.48
50WW23_052523	E2300519-001	276,729	3.48
50WW12_052523	E2300519-002	242,662	3.48
50WW12_052523_a	E2300519-003	237,709	3.48
50WW14_052523	E2300519-004	274,736	3.48
50WW14_052523MS	EQ2300272-04	271,881	3.48
50WW14_052523DMS	EQ2300272-05	273,526	3.48
50WW05_052523	E2300519-005	277,275	3.48
50WW15_052523	E2300519-006	275,892	3.48

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: HS23051834

Service Request: E2300519
Date Analyzed: 6/6/23 14:23

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230606\20230606-037
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300280-02
Analysis Lot: 806642
Signal ID: 1

Sodium Perchlorate-18O4			
	<u>Area</u>	<u>RT</u>	
ICAL Average ==>	257,009	3.49	
Upper Limit ==>	385,514	5.49	
Lower Limit ==>	128,505	1.49	
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300280-02	256,116	3.48

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: HS23051834

Service Request: E2300519
Date Analyzed: 6/7/23 09:03

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230607\20230607-004
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300285-01
Analysis Lot: 806739
Signal ID: 1

Sodium Perchlorate-18O4			
		<u>Area</u>	<u>RT</u>
ICAL Average ==>		257,009	3.49
Upper Limit ==>		385,514	5.49
Lower Limit ==>		128,505	1.49
Associated Analyses			
Continuing Calibration Verification	EQ2300285-01	291,896	3.49
50WW16_052523_a	E2300519-008	289,284	3.49
50WW18_052523	E2300519-009	306,267	3.49

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: HS23051834

Service Request: E2300519
Date Analyzed: 6/7/23 10:11

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230607\20230607-015
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300285-02
Analysis Lot: 806739
Signal ID: 1

Sodium Perchlorate-18O4			
	<u>Area</u>	<u>RT</u>	
ICAL Average ==>	257,009	3.49	
Upper Limit ==>	385,514	5.49	
Lower Limit ==>	128,505	1.49	
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300285-02	324,598	3.49

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: HS23051834

Service Request: E2300519
Date Analyzed: 6/7/23 11:37

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230607\20230607-026
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300285-03
Analysis Lot: 806739
Signal ID: 1

Sodium Perchlorate-1804			
	<u>Area</u>	<u>RT</u>	
ICAL Average ==>	257,009	3.49	
Upper Limit ==>	385,514	5.49	
Lower Limit ==>	128,505	1.49	
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300285-03	315,149	3.49

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: HS23051834

Service Request: E2300519
Date Analyzed: 6/7/23 12:42

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230607\20230607-037
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300285-04
Analysis Lot: 806739
Signal ID: 1

Sodium Perchlorate-18O4			
		<u>Area</u>	<u>RT</u>
ICAL Average ==>		257,009	3.49
Upper Limit ==>		385,514	5.49
Lower Limit ==>		128,505	1.49
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300285-04	227,499	3.49
50WW16_052523	E2300519-007	283,273	3.49

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: HS23051834

Service Request: E2300519
Date Analyzed: 6/7/23 14:27

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230607\20230607-048
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300285-05
Analysis Lot: 806739
Signal ID: 1

Sodium Perchlorate-1804			
	<u>Area</u>	<u>RT</u>	
ICAL Average ==>	257,009	3.49	
Upper Limit ==>	385,514	5.49	
Lower Limit ==>	128,505	1.49	
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300285-05	279,459	3.49

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: HS23051834

Service Request: E2300519
Date Analyzed: 6/7/23 16:01

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230607\20230607-059
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300285-06
Analysis Lot: 806739
Signal ID: 1

Sodium Perchlorate-18O4			
	<u>Area</u>	<u>RT</u>	
ICAL Average ==>	257,009	3.49	
Upper Limit ==>	385,514	5.49	
Lower Limit ==>	128,505	1.49	
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300285-06	268,982	3.49

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: HS23051834

Service Request: E2300519
Date Analyzed: 6/ 6/23

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\20230606\20230606-015

Calibration Date: 6/6/23
Calibration ID: EC2300009
Analysis Lot: 806642
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.96	0.1827	0.1819	-0.4	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834

Service Request: E2300519
Date Analyzed: 6/ 6/23

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\20230606\20230606-037

Calibration Date: 6/6/23
Calibration ID: EC2300009
Analysis Lot: 806642
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.80	0.1827	0.1791	-2.0	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834

Service Request: E2300519
Date Analyzed: 6/ 6/23

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\20230606\20230606-026

Calibration Date: 6/6/23
Calibration ID: EC2300009
Analysis Lot: 806642
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.98	0.1827	0.1824	-0.2	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834

Service Request: E2300519
Date Analyzed: 6/ 7/23

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\20230607\20230607-004

Calibration Date: 6/6/23
Calibration ID: EC2300009
Analysis Lot: 806739
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.78	0.1827	0.1787	-2.2	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834

Service Request: E2300519
Date Analyzed: 6/ 7/23

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\20230607\20230607-015

Calibration Date: 6/6/23
Calibration ID: EC2300009
Analysis Lot: 806739
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.91	0.1827	0.1810	-0.9	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834

Service Request: E2300519
Date Analyzed: 6/ 7/23

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\20230607\20230607-026

Calibration Date: 6/6/23
Calibration ID: EC2300009
Analysis Lot: 806739
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.91	0.1827	0.1811	-0.9	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834

Service Request: E2300519
Date Analyzed: 6/ 7/23

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\20230607\20230607-037

Calibration Date: 6/6/23
Calibration ID: EC2300009
Analysis Lot: 806739
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.63	0.1827	0.1759	-3.7	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834

Service Request: E2300519
Date Analyzed: 6/ 7/23

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\20230607\20230607-048

Calibration Date: 6/6/23
Calibration ID: EC2300009
Analysis Lot: 806739
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.92	0.1827	0.1813	-0.8	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834

Service Request: E2300519
Date Analyzed: 6/ 7/23

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\20230607\20230607-059

Calibration Date: 6/6/23
Calibration ID: EC2300009
Analysis Lot: 806739
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.85	0.1827	0.1800	-1.5	NA	± 15 %	Average RF



Insight Report

Printed at 6/7/2023 10:10:58 AM

IB

Sample ID: IB

Date Acquired: 6/6/2023 11:52:53 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-012.lcd

Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

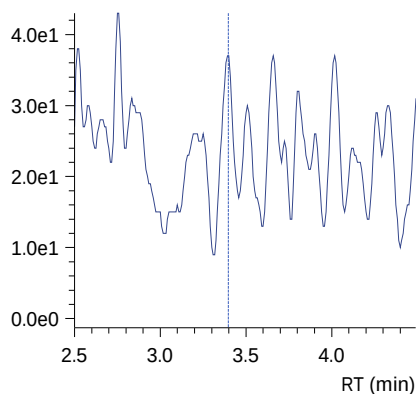
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	259303	----	ng/mL	101.00 >85.00	0.00	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.484	259303	259303	1.0000	ng/mL	----	----	

Perchlorate

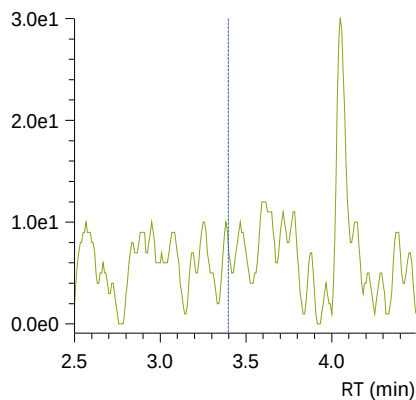
Conc ----

R#1 0.00 (24.52)

Q 99.00>83.00 (-)



R1 101.00>85.00 (-)

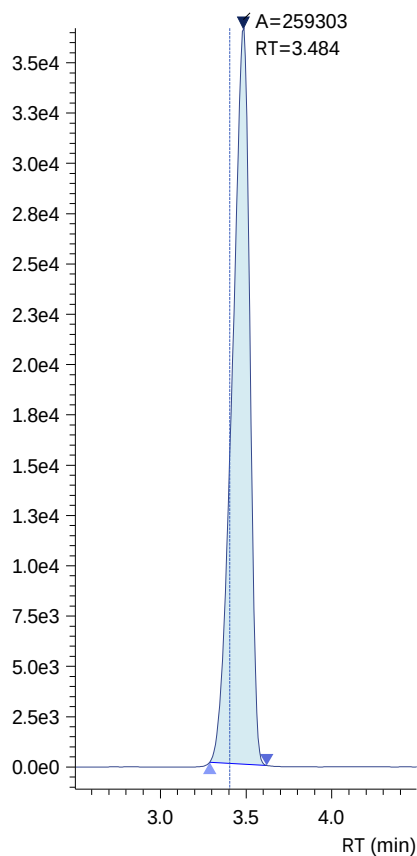


Sodium Perchlorate-18O4_IS

Conc 1.0000

4.30e1 ISTD 107.00>89.00 (-)

3.67e4



Insight Report

Printed at 6/7/2023 10:10:58 AM

LODV

Sample ID: LODV

Date Acquired: 6/6/2023 11:58:37 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-013.lcd

Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

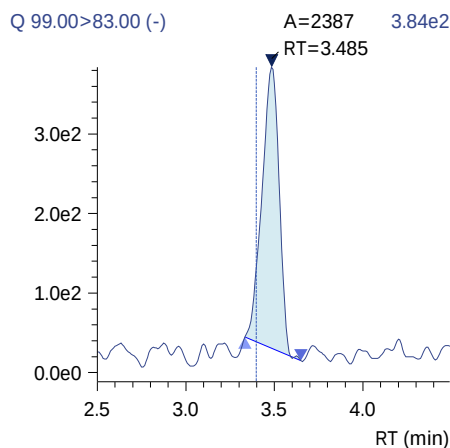
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.485	2387	257935	0.0506	ng/mL	101.00 >85.00	27.11	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.484	257935	257935	1.0000	ng/mL	----	----	

Perchlorate

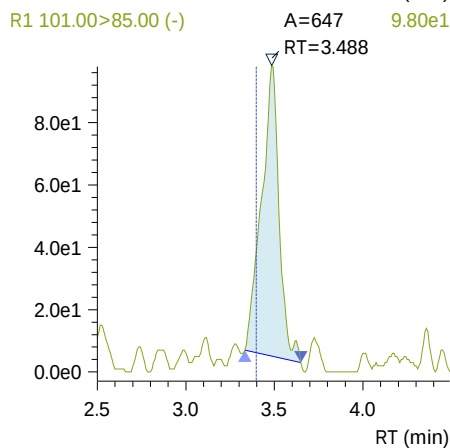
Conc 0.0506

R#1 27.11 (24.52)

Q 99.00>83.00 (-)



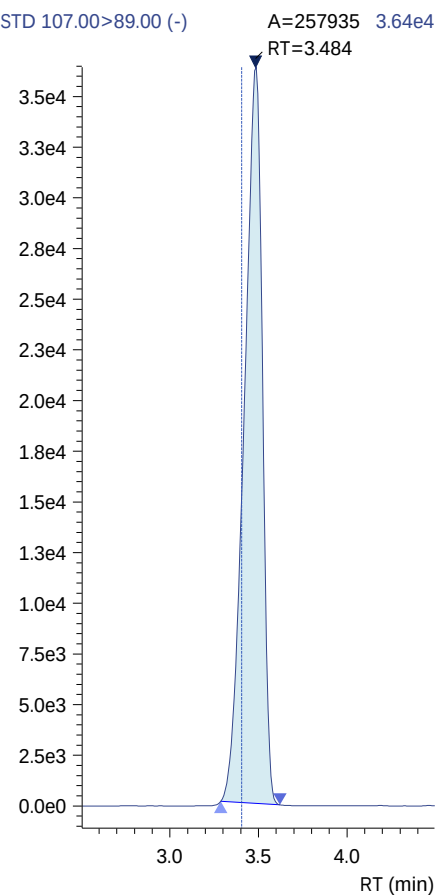
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

ICS

Sample ID: ICS

Date Acquired: 6/6/2023 12:04:23 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-014.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

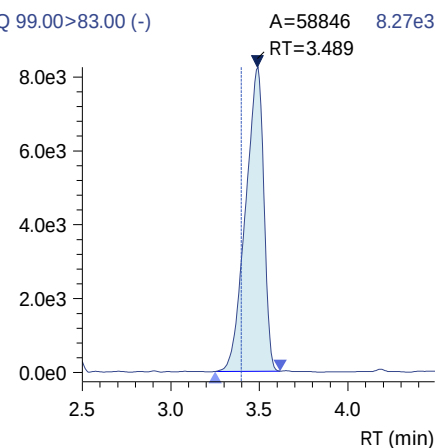
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.489	58846	301715	1.0674	ng/mL	101.00 >85.00	25.38	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.484	301715	301715	1.0000	ng/mL	----	----	

Perchlorate

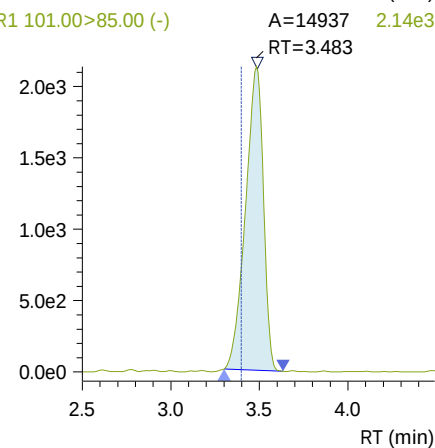
Conc 1.0674

R#1 25.38 (24.52)

Q 99.00>83.00 (-)



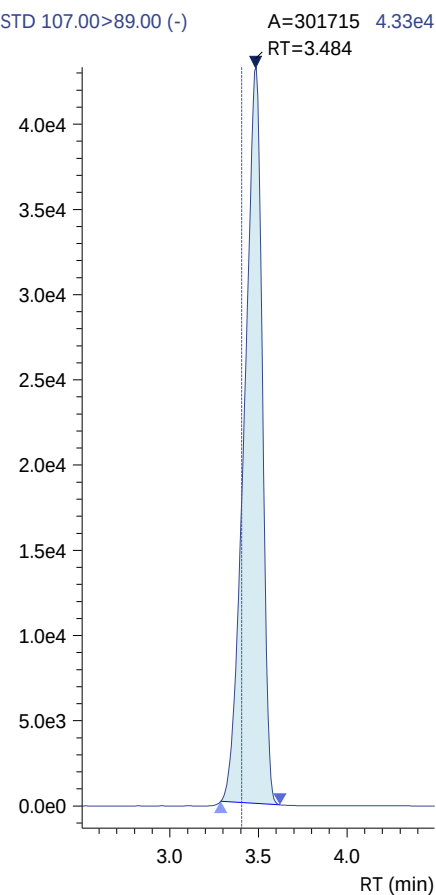
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

CCV

Sample ID: CCV

Date Acquired: 6/6/2023 12:16:20 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-015.lcd

Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

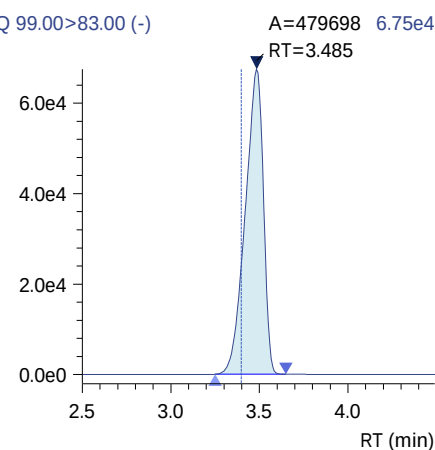
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.485	479698	263663	9.9568	ng/mL	101.00 >85.00	25.26	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.481	263663	263663	1.0000	ng/mL	----	----	

Perchlorate

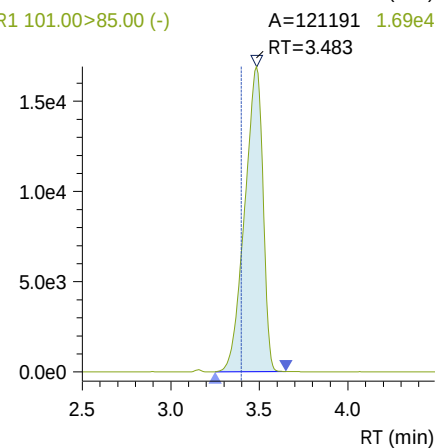
Conc 9.9568

R#1 25.26 (24.52)

Q 99.00>83.00 (-)



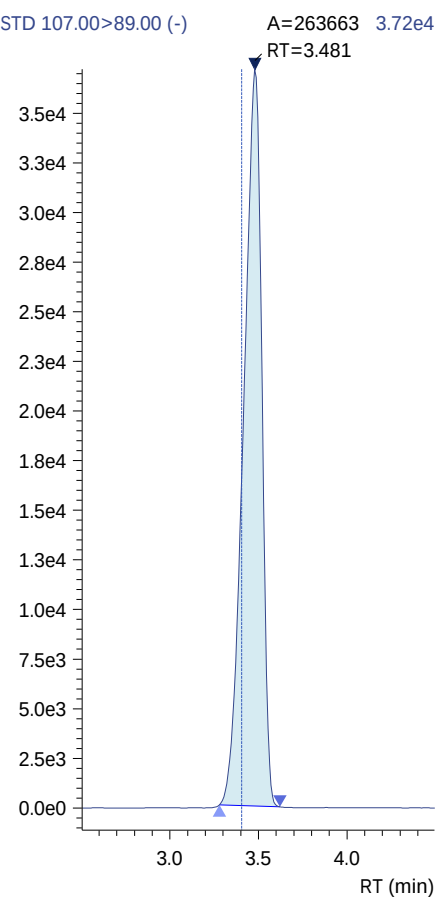
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

EQ2300272-01

Sample ID: EQ2300272-01

Date Acquired: 6/6/2023 12:22:12 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-016.lcd

Vial: 37 | Inj. Volume: 10.0000uL | Tray: 4

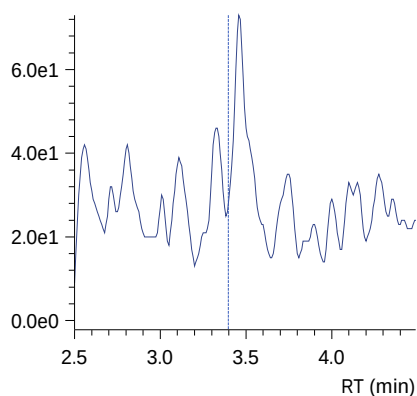
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	281716	----	ng/mL	101.00 >85.00	0.00	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.483	281716	281716	1.0000	ng/mL	----	----	

Perchlorate

Conc ----

R#1 0.00 (24.52)

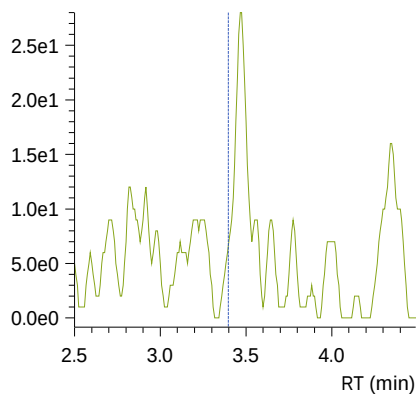
Q 99.00>83.00 (-)



R1 101.00>85.00 (-)

7.30e1 ISTD 107.00>89.00 (-)

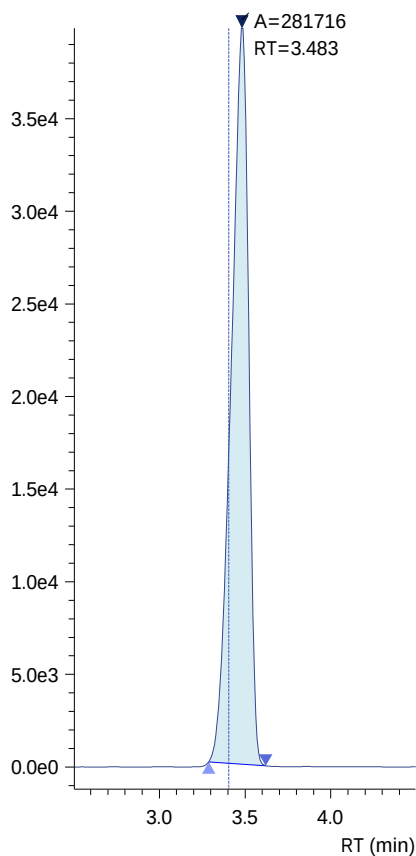
2.80e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

3.99e4



Insight Report

Printed at 6/7/2023 10:10:58 AM

EQ2300272-02

Sample ID: EQ2300272-02

Date Acquired: 6/6/2023 12:27:58 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-017.lcd

Vial: 38 | Inj. Volume: 10.0000uL | Tray: 4

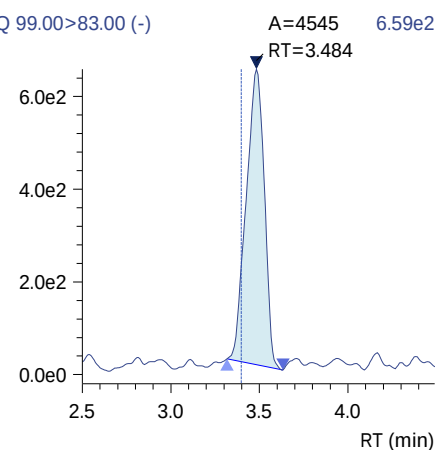
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.484	4545	231477	0.1074	ng/mL	101.00 >85.00	26.56	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.483	231477	231477	1.0000	ng/mL	----	----	

Perchlorate

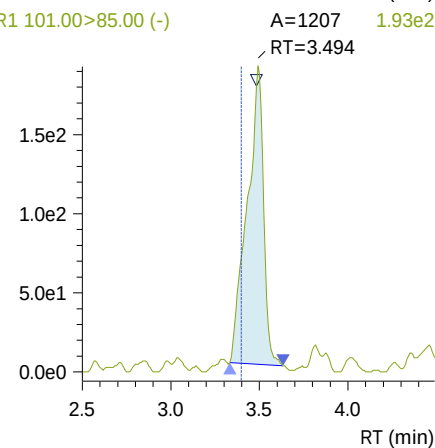
Conc 0.1074

R#1 26.56 (24.52)

Q 99.00>83.00 (-)



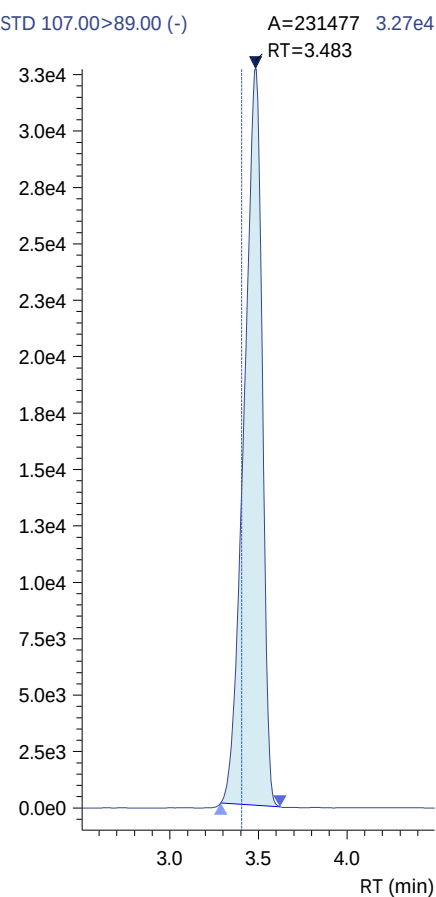
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

EQ2300272-03

Sample ID: EQ2300272-03

Date Acquired: 6/6/2023 12:33:41 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-018.lcd

Vial: 39 | Inj. Volume: 10.0000uL | Tray: 4

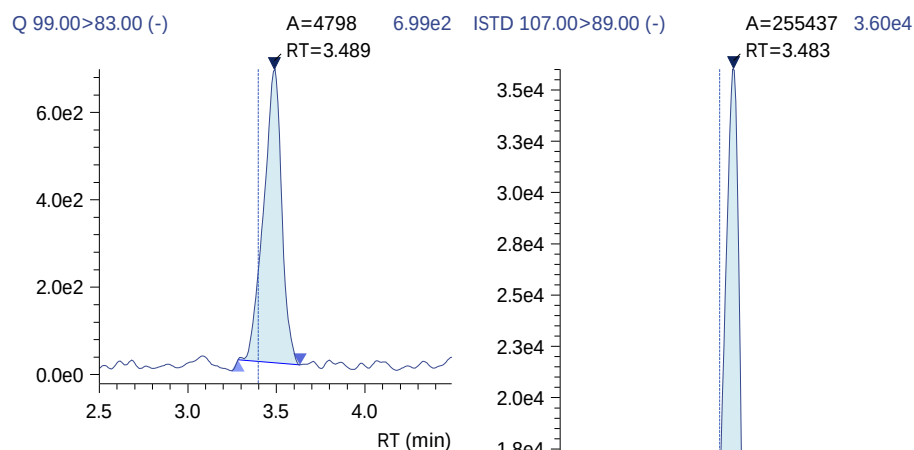
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.489	4798	255437	0.1028	ng/mL	101.00 >85.00	20.21	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.483	255437	255437	1.0000	ng/mL	----	----	

Perchlorate

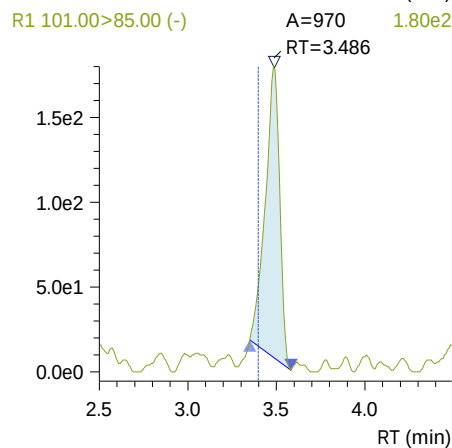
Conc 0.1028

R#1 20.21 (24.52)

Q 99.00>83.00 (-)



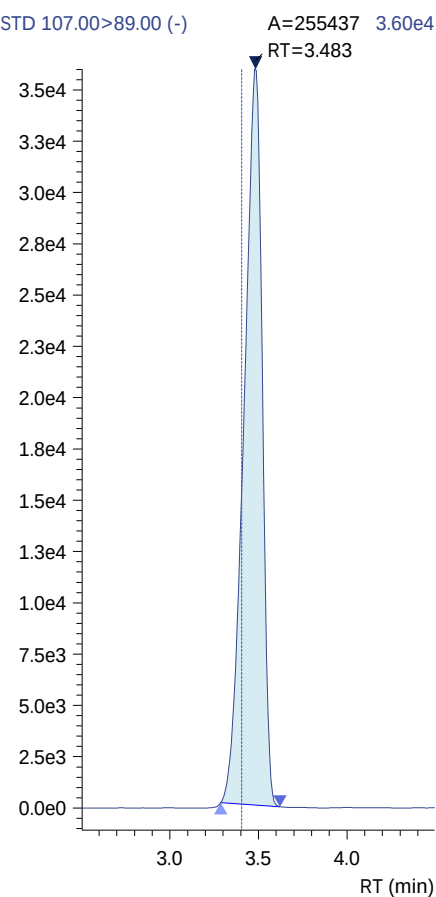
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

CCV

Sample ID: CCV

Date Acquired: 6/6/2023 1:19:42 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-026.lcd

Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

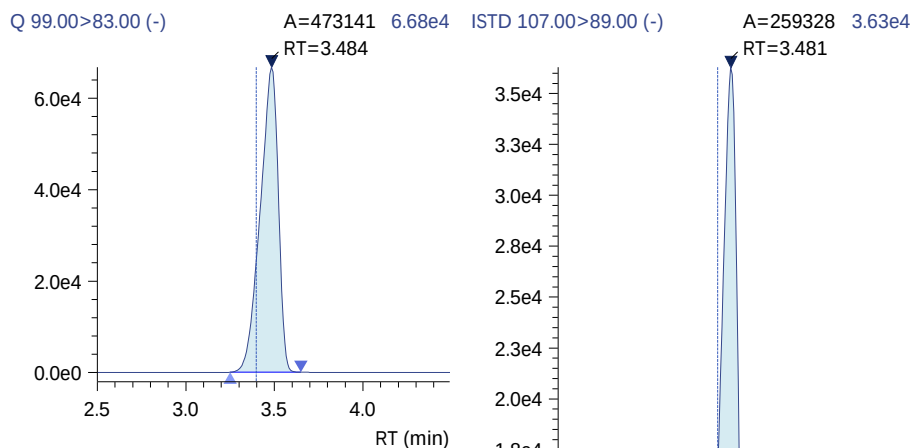
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.484	473141	259328	9.9849	ng/mL	101.00 >85.00	25.32	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.481	259328	259328	1.0000	ng/mL	----	----	

Perchlorate

Conc 9.9849

R#1 25.32 (24.52)

Q 99.00>83.00 (-)

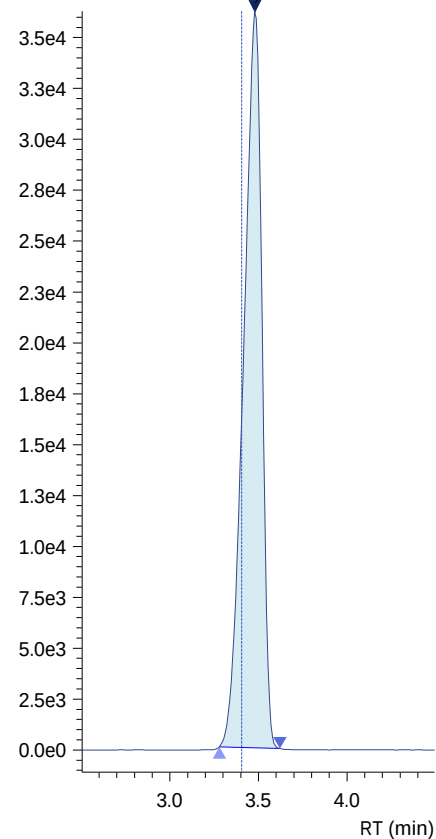


Sodium Perchlorate-18O4_IS

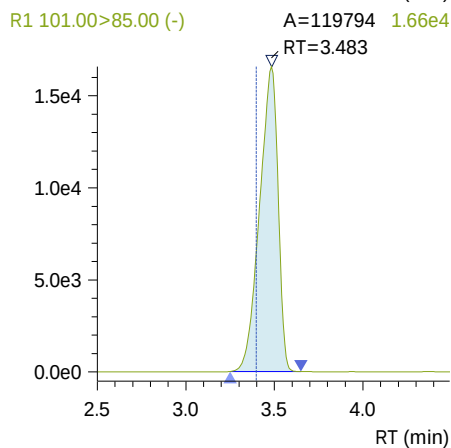
Conc 1.0000

ISTD 107.00>89.00 (-)

A=259328 3.63e4 RT=3.481



R1 101.00>85.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

E2300519-001

Sample ID: E2300519-001

Date Acquired: 6/6/2023 1:36:58 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-029.lcd

Vial: 7 | Inj. Volume: 10.0000uL | Tray: 3

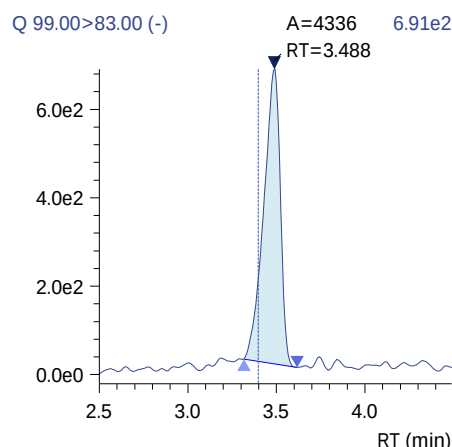
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.488	4336	276729	0.0857	ng/mL	101.00 >85.00	27.25	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.483	276729	276729	1.0000	ng/mL	----	----	

Perchlorate

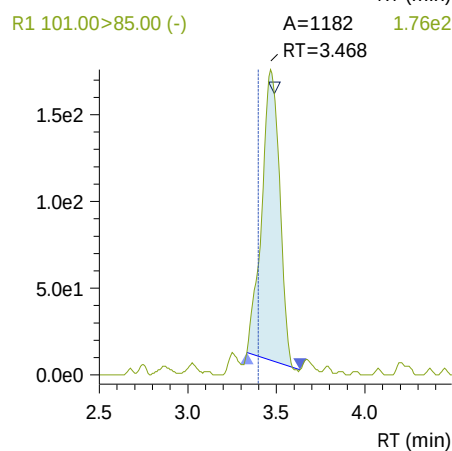
Conc 0.0857

R#1 27.25 (24.52)

Q 99.00>83.00 (-)



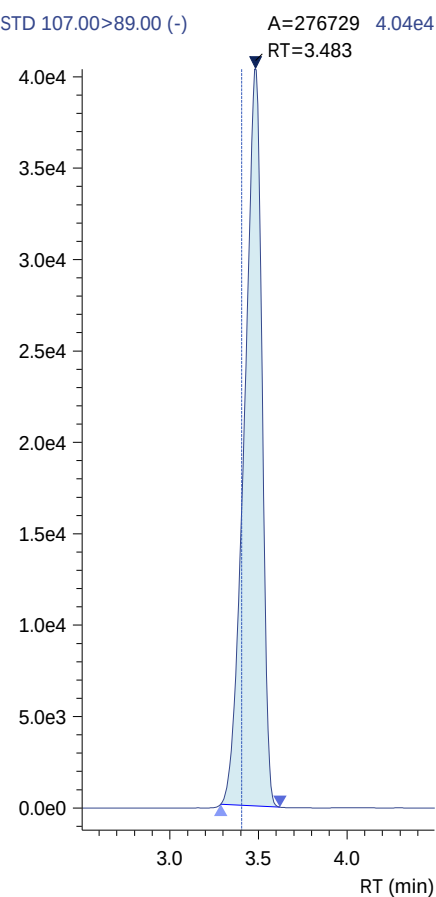
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

E2300519-002X5K

Sample ID: E2300519-002

Date Acquired: 6/6/2023 1:42:42 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-030.lcd

Vial: 8 | Inj. Volume: 10.0000uL | Tray: 3

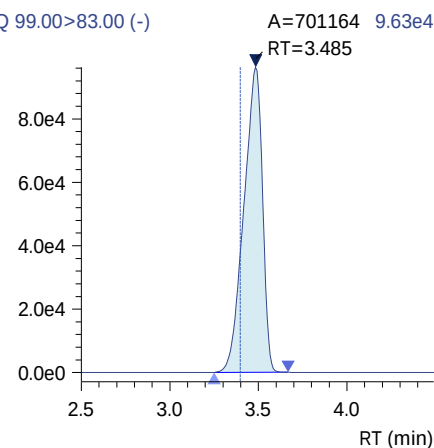
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.485	701164	242662	15.8133	ng/mL	101.00 >85.00	25.45	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.481	242662	242662	1.0000	ng/mL	----	----	

Perchlorate

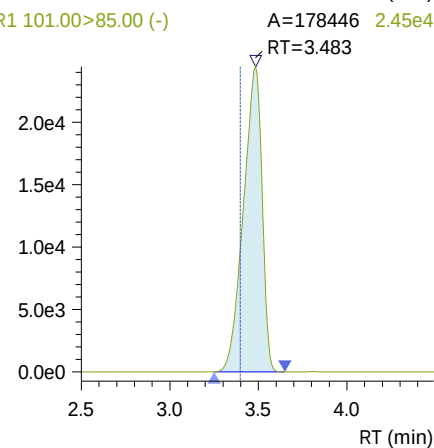
Conc 15.8133

R#1 25.45 (24.52)

Q 99.00>83.00 (-)



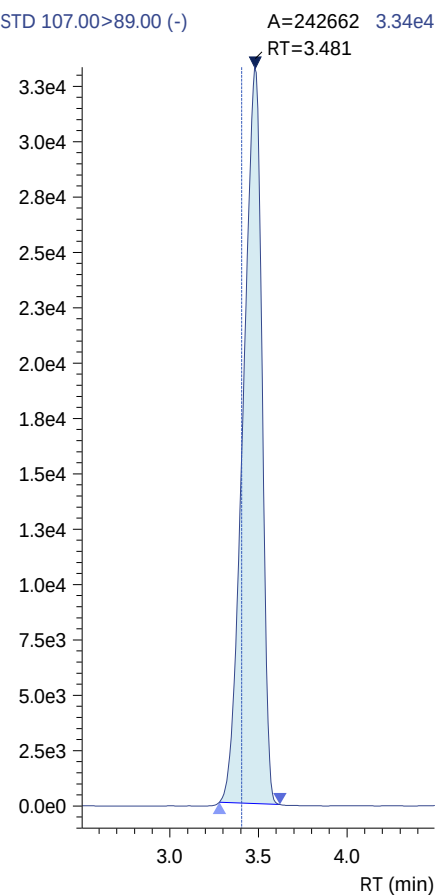
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

E2300519-003X5K

Sample ID: E2300519-003

Date Acquired: 6/6/2023 1:48:25 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-031.lcd

Vial: 9 | Inj. Volume: 10.0000uL | Tray: 3

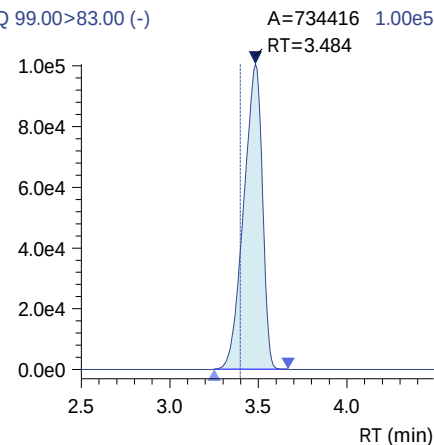
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.484	734416	237709	16.9083	ng/mL	101.00 >85.00	25.42	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.481	237709	237709	1.0000	ng/mL	----	----	

Perchlorate

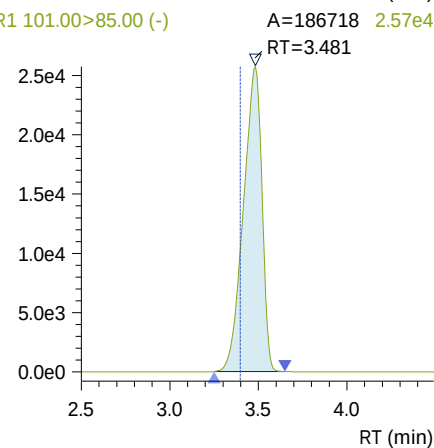
Conc 16.9083

R#1 25.42 (24.52)

Q 99.00>83.00 (-)



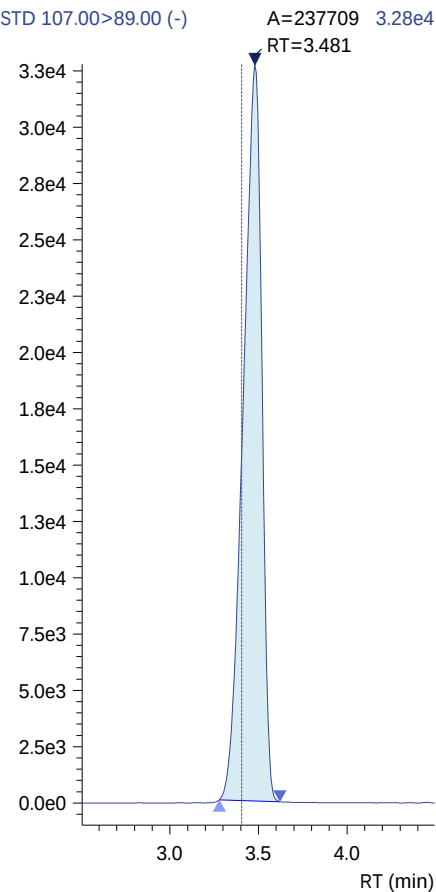
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

E2300519-004

Sample ID: E2300519-004

Date Acquired: 6/6/2023 1:54:12 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-032.lcd

Vial: 10 | Inj. Volume: 10.0000uL | Tray: 3

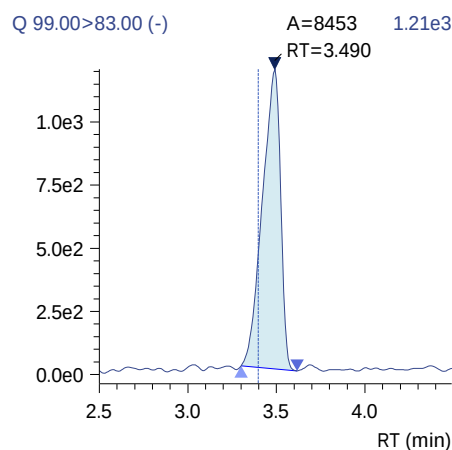
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.490	8453	274736	0.1684	ng/mL	101.00 >85.00	22.92	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.483	274736	274736	1.0000	ng/mL	----	----	

Perchlorate

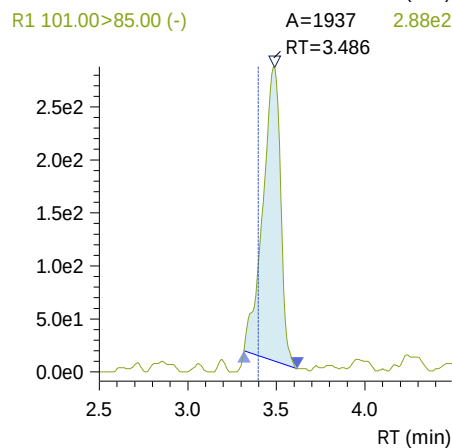
Conc 0.1684

R#1 22.92 (24.52)

Q 99.00>83.00 (-)



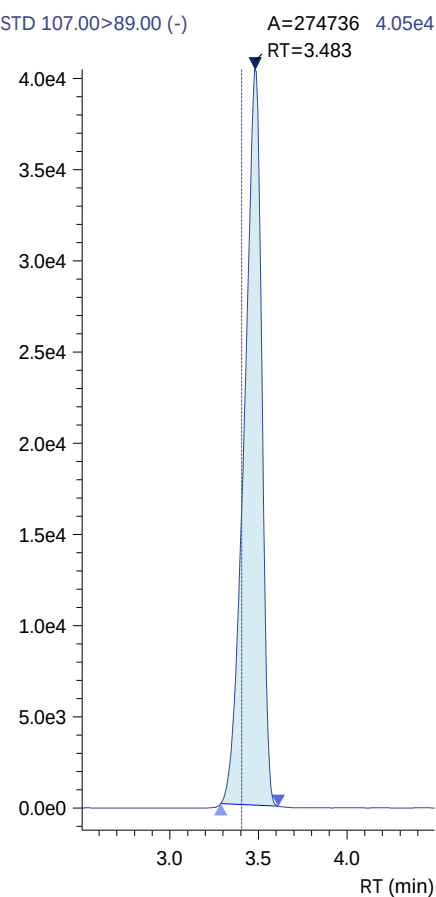
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

EQ2300272-04

Sample ID: EQ2300272-04

Date Acquired: 6/6/2023 1:59:58 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-033.lcd

Vial: 52 | Inj. Volume: 10.0000uL | Tray: 4

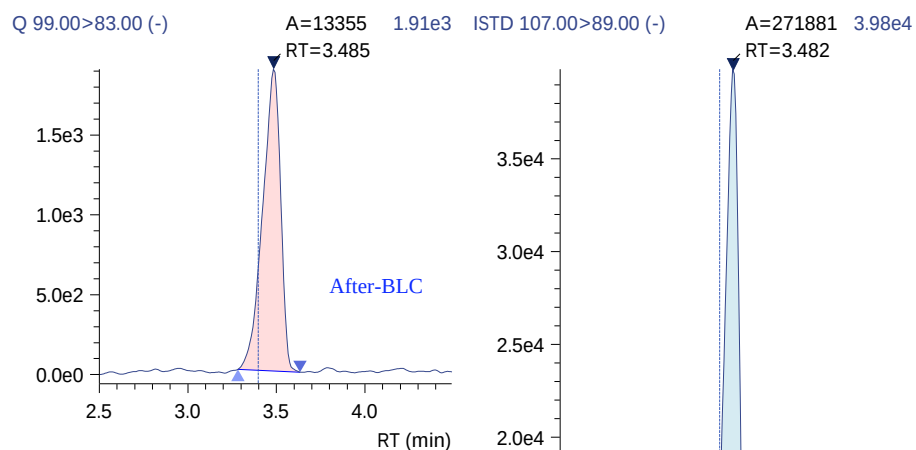
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.485	13355	271881	0.2688	ng/mL	101.00 >85.00	24.76	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.482	271881	271881	1.0000	ng/mL	----	----	

Perchlorate

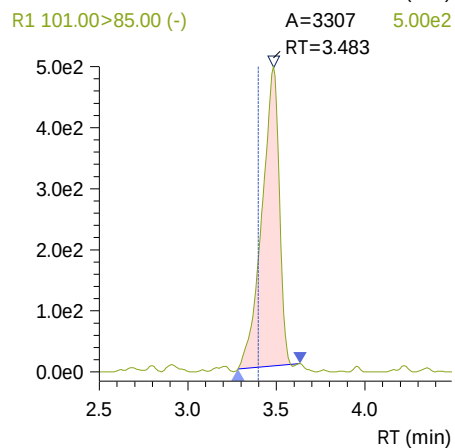
Conc 0.2688

R#1 24.76 (24.52)

Q 99.00>83.00 (-)



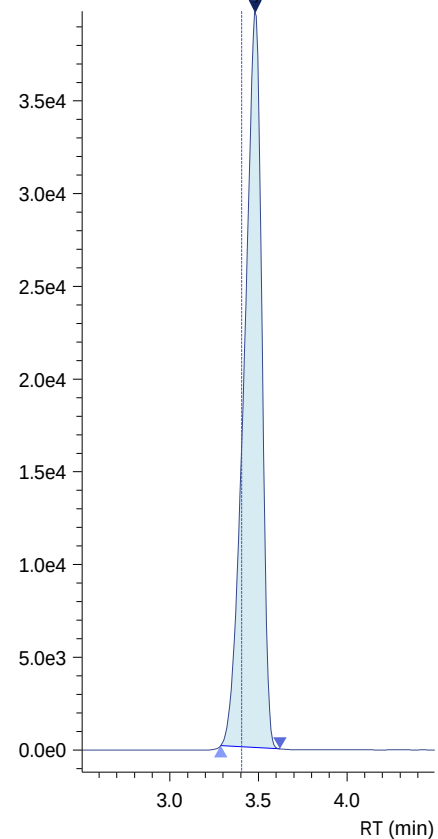
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=271881 3.98e4



Insight Report

Printed at 6/7/2023 10:13:10 AM

EQ2300272-04

Sample ID: EQ2300272-04

Date Acquired: 6/6/2023 1:59:58 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-033.lcd

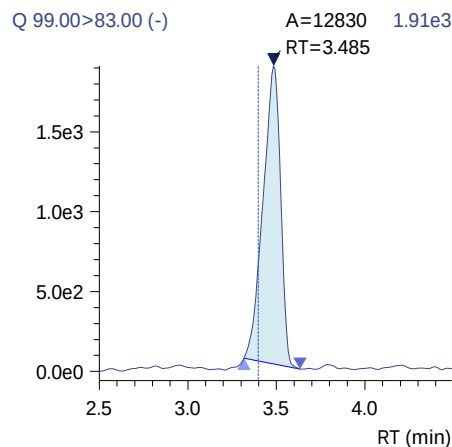
Vial: 52 | Inj. Volume: 10.0000uL | Tray: 4

Perchlorate

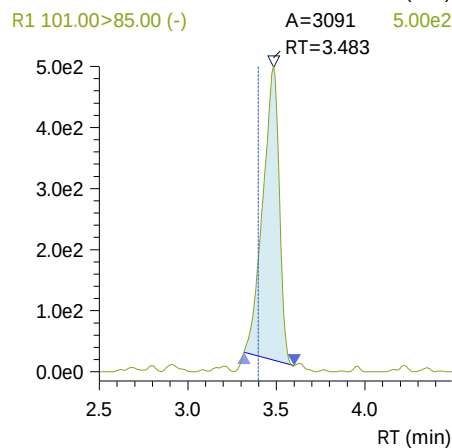
Conc 0.2583

R#1 24.09 (24.52)

Q 99.00>83.00 (-)



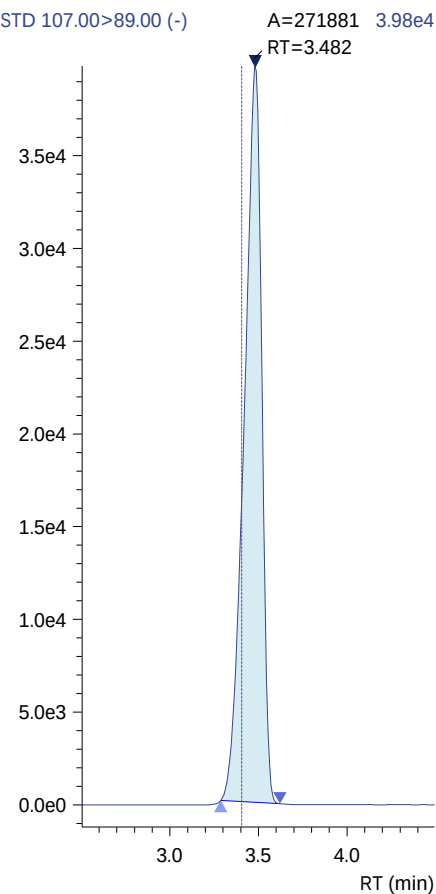
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

EQ2300272-05

Sample ID: EQ2300272-05

Date Acquired: 6/6/2023 2:05:44 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-034.lcd

Vial: 53 | Inj. Volume: 10.0000uL | Tray: 4

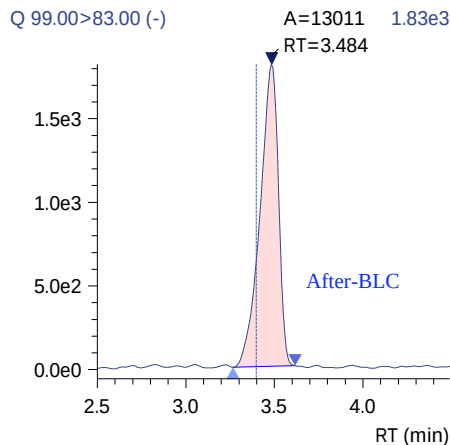
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.484	13011	273526	0.2603	ng/mL	101.00 >85.00	27.97	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.482	273526	273526	1.0000	ng/mL	----	----	

Perchlorate

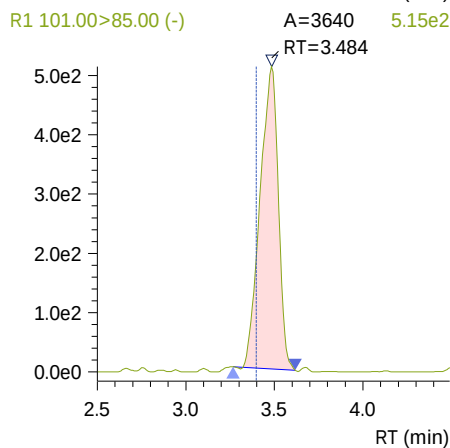
Conc 0.2603

R#1 27.97 (24.52)

Q 99.00>83.00 (-)



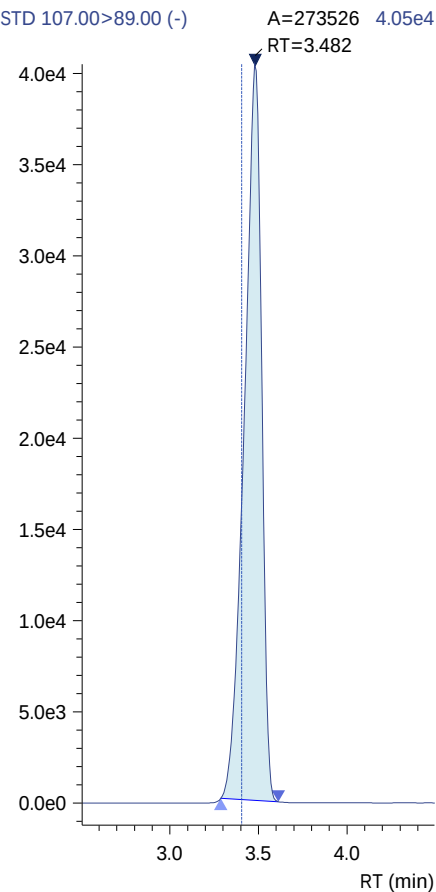
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:13:10 AM

EQ2300272-05

Sample ID: EQ2300272-05

Date Acquired: 6/6/2023 2:05:44 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-034.lcd

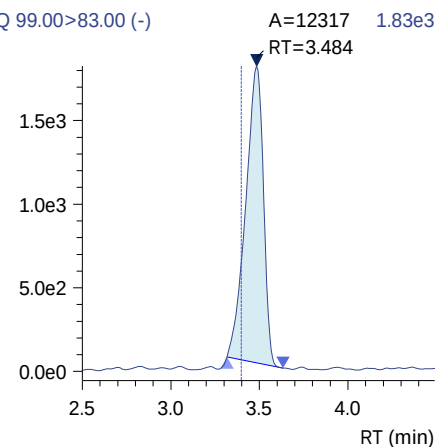
Vial: 53 | Inj. Volume: 10.0000uL | Tray: 4

Perchlorate

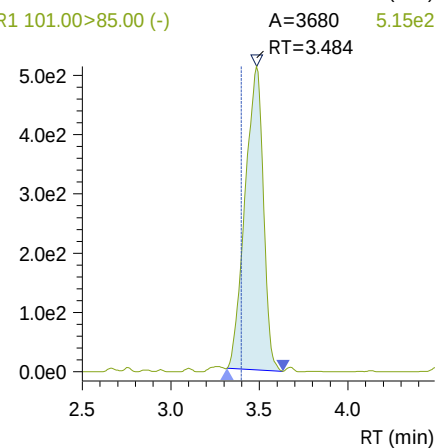
Conc 0.2464

R#1 29.88 (24.52)

Q 99.00>83.00 (-)



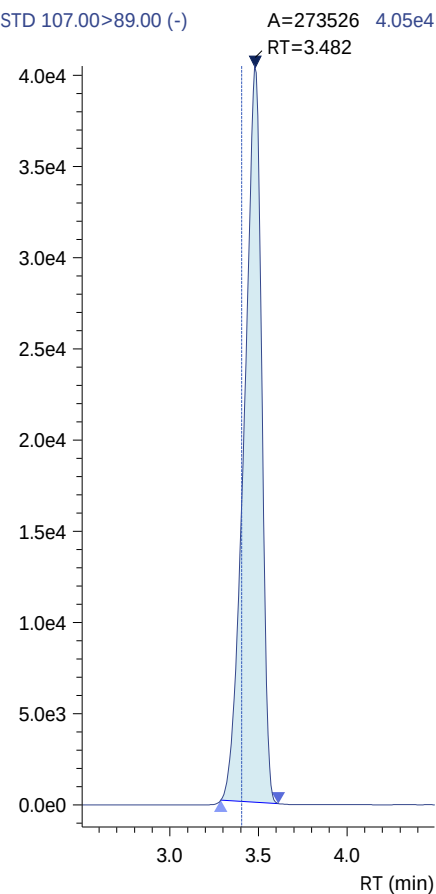
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

E2300519-005

Sample ID: E2300519-005

Date Acquired: 6/6/2023 2:11:30 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-035.lcd

Vial: 11 | Inj. Volume: 10.0000uL | Tray: 3

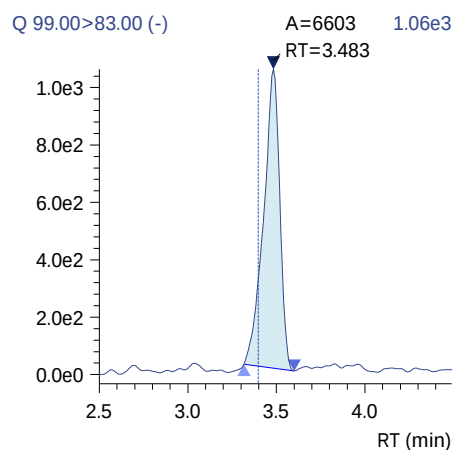
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.483	6603	277275	0.1303	ng/mL	101.00 >85.00	26.39	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.481	277275	277275	1.0000	ng/mL	----	----	

Perchlorate

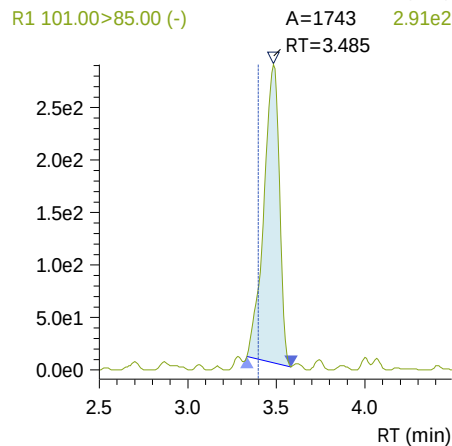
Conc 0.1303

R#1 26.39 (24.52)

Q 99.00>83.00 (-)



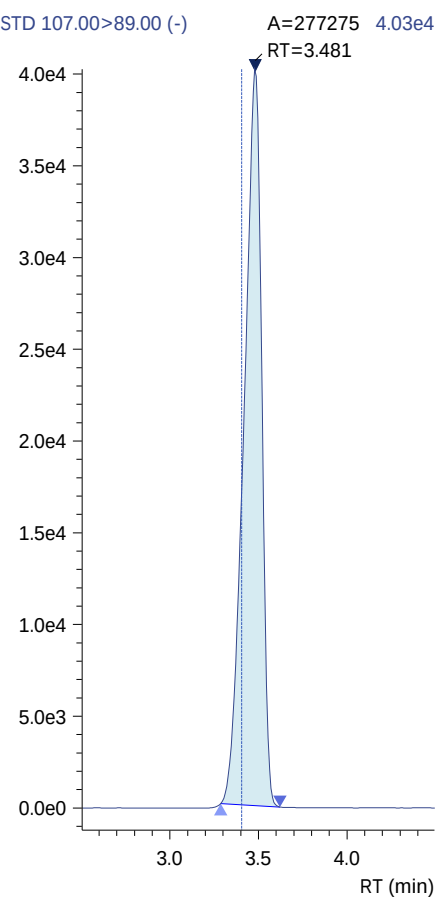
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

E2300519-006

Sample ID: E2300519-006

Date Acquired: 6/6/2023 2:17:14 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-036.lcd

Vial: 12 | Inj. Volume: 10.0000uL | Tray: 3

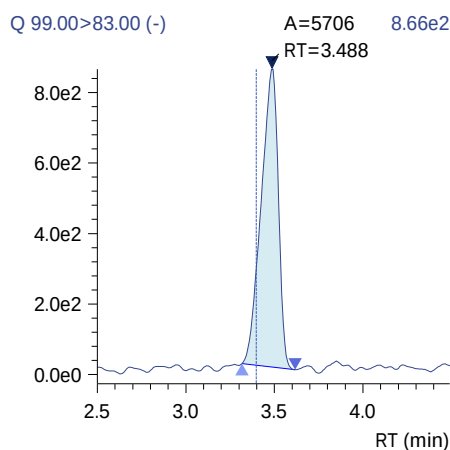
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.488	5706	275892	0.1132	ng/mL	101.00 >85.00	27.60	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.481	275892	275892	1.0000	ng/mL	----	----	

Perchlorate

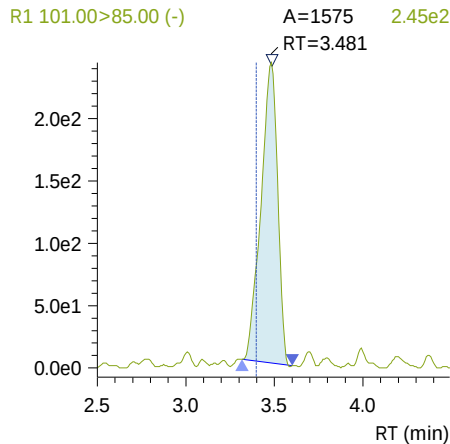
Conc 0.1132

R#1 27.60 (24.52)

Q 99.00>83.00 (-)



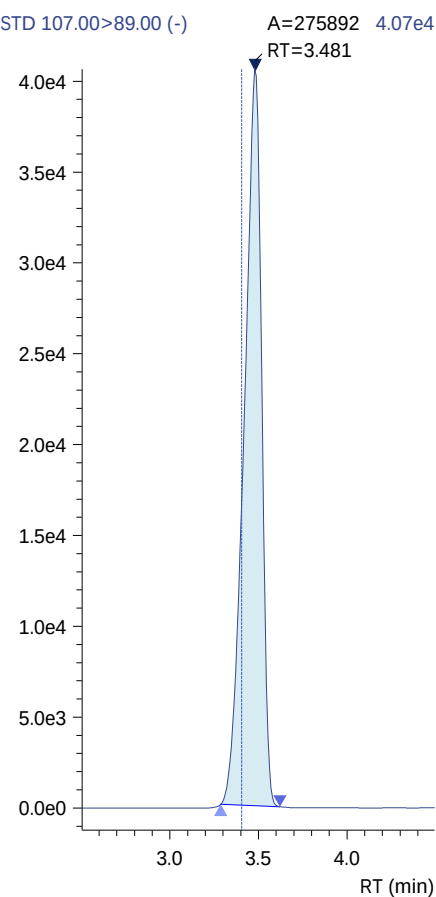
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/7/2023 10:10:58 AM

CCV

Sample ID: CCV

Date Acquired: 6/6/2023 2:23:01 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230606\20230606-037.lcd

Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

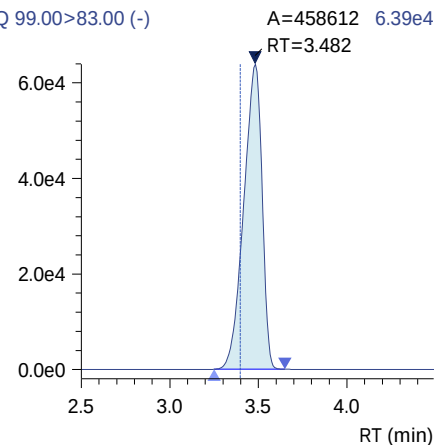
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.482	458612	256116	9.7997	ng/mL	101.00 >85.00	25.67	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.480	256116	256116	1.0000	ng/mL	----	----	

Perchlorate

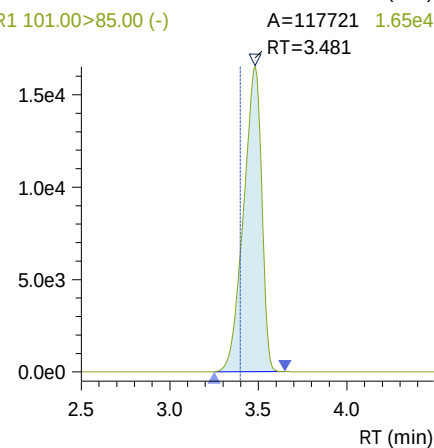
Conc 9.7997

R#1 25.67 (24.52)

Q 99.00>83.00 (-)



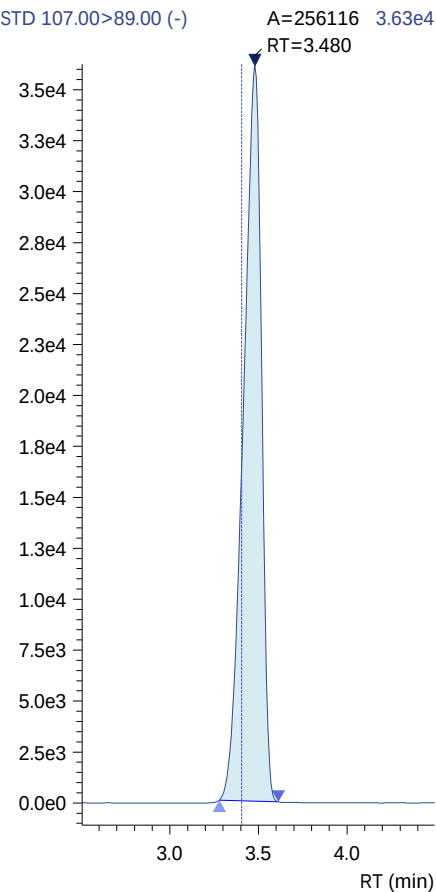
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/8/2023 10:17:10 AM

Method File: I:\LCMS01\DATA\20230607\20230607.lcm

Project File: I:\LCMS01\DATA\20230607\20230607.damip

IB

Sample ID: IB

Date Acquired: 6/7/2023 8:41:34 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-001.lcd

Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

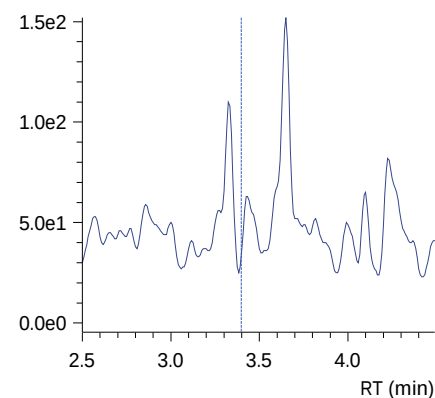
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W /B)	----	----	363589	----	ng/mL	101.00 >85.00	0.00	18.06-33.55
Sodium Perchlorate-18O4_IS	Auto	3.472	363589	363589	1.0000	ng/mL	----	----	

Perchlorate

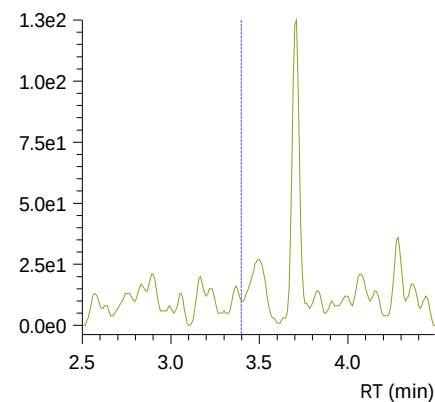
Conc ----

R#1 0.00 (25.81)

Q 99.00>83.00 (-)



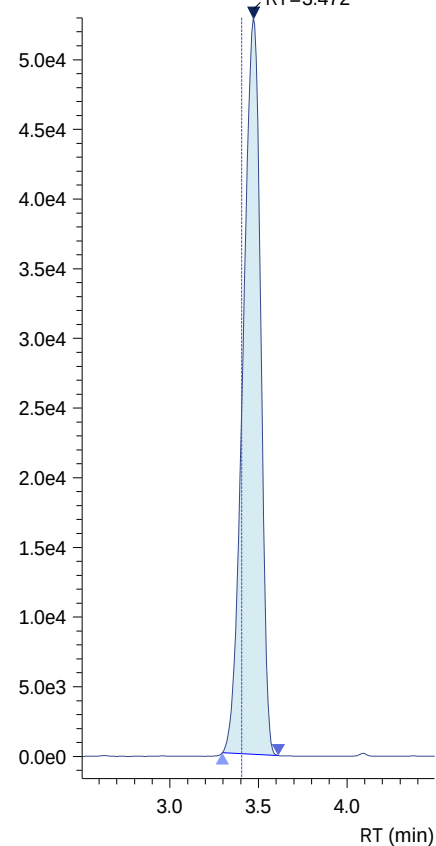
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

1.52e2 ISTD 107.00>89.00 (-)

A=363589 5.30e4
RT=3.472

Insight Report

Printed at 6/8/2023 10:19:47 AM

Method File: I:\LCMS01\DATA\20230607\20230607.lcm

Project File: I:\LCMS01\DATA\20230607\20230607.damip

LODV

Sample ID: LODV

Date Acquired: 6/7/2023 8:51:37 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-002.lcd

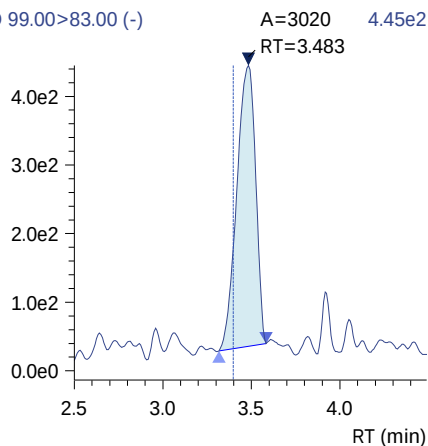
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Perchlorate

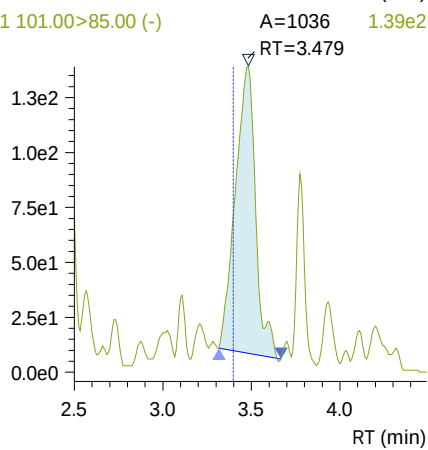
Conc 0.0500

R#1 34.31 (25.81)

Q 99.00>83.00 (-)



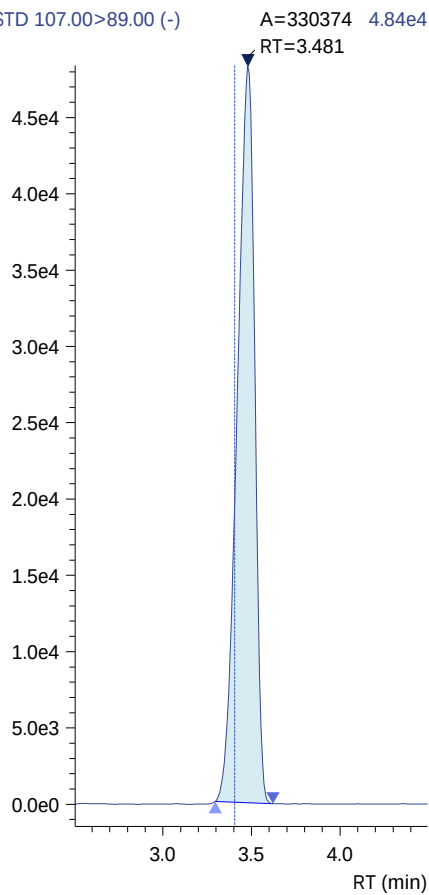
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/8/2023 10:17:10 AM

LODV

Sample ID: LODV

Date Acquired: 6/7/2023 8:51:37 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-002.lcd

Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

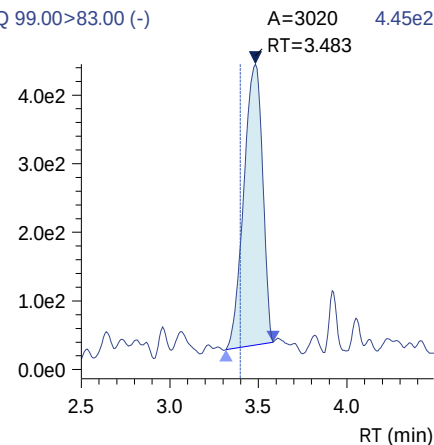
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.483	3020	330374	0.0500	ng/mL	101.00 >85.00	29.54	18.06-33.55
Sodium Perchlorate-18O4_IS	Auto	3.481	330374	330374	1.0000	ng/mL	----	----	

Perchlorate

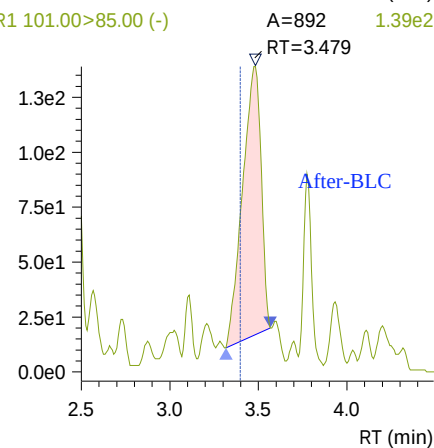
Conc 0.0500

R#1 29.54 (25.81)

Q 99.00>83.00 (-)



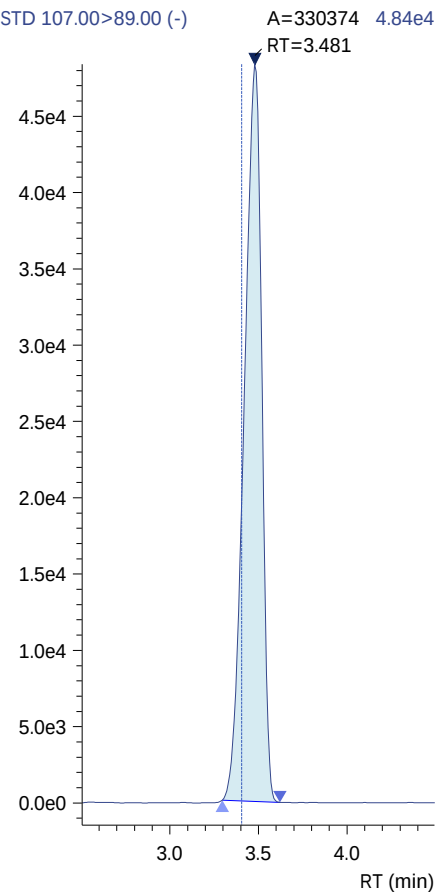
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/8/2023 10:17:10 AM

ICS

Sample ID: ICS

Date Acquired: 6/7/2023 8:57:21 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-003.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

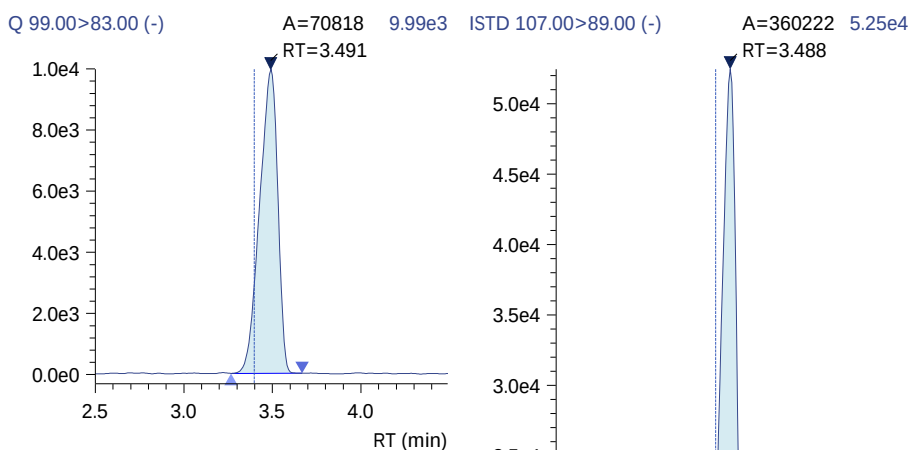
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.491	70818	360222	1.0759	ng/mL	101.00 >85.00	24.69	18.06-33.55
Sodium Perchlorate-18O4_IS	Auto	3.488	360222	360222	1.0000	ng/mL	----	----	

Perchlorate

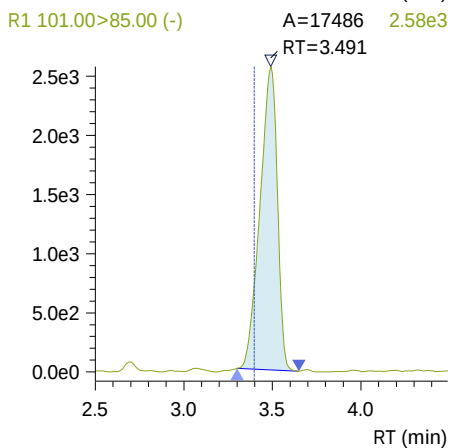
Conc 1.0759

R#1 24.69 (25.81)

Q 99.00>83.00 (-)

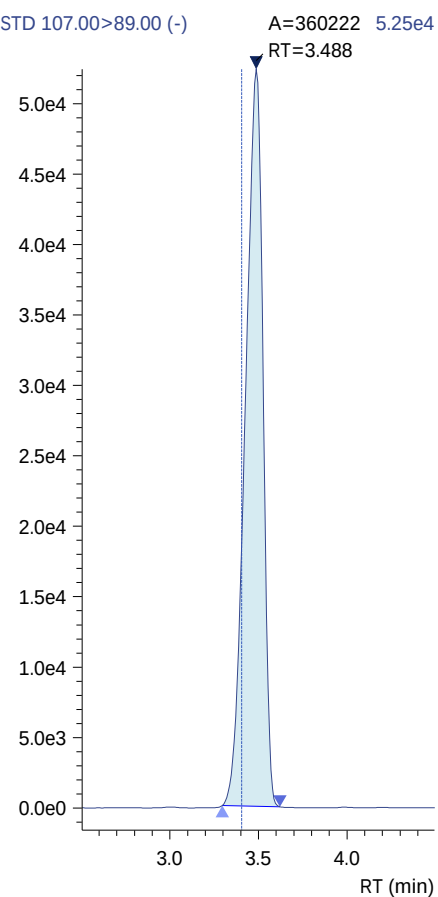


R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/8/2023 10:17:10 AM

CCV

Sample ID: CCV

Date Acquired: 6/7/2023 9:03:06 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-004.lcd

Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

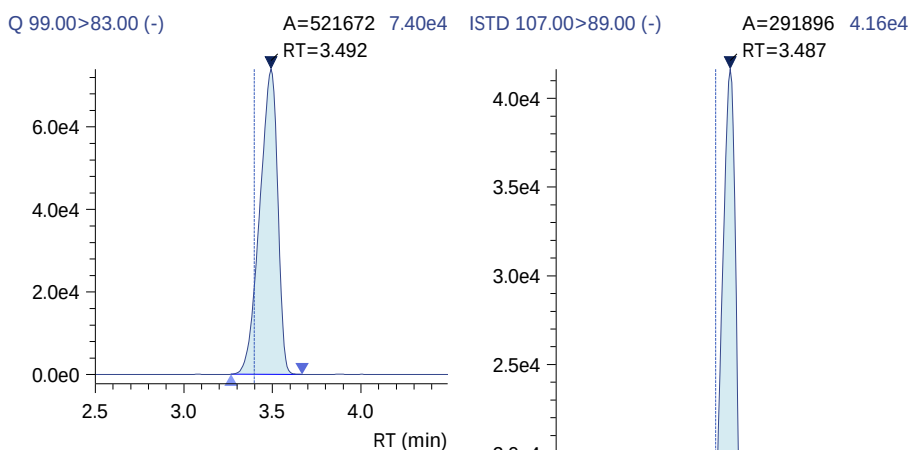
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.492	521672	291896	9.7808	ng/mL	101.00 >85.00	25.19	18.06-33.55
Sodium Perchlorate-18O4_IS	Auto	3.487	291896	291896	1.0000	ng/mL	----	----	

Perchlorate

Conc 9.7808

R#1 25.19 (25.81)

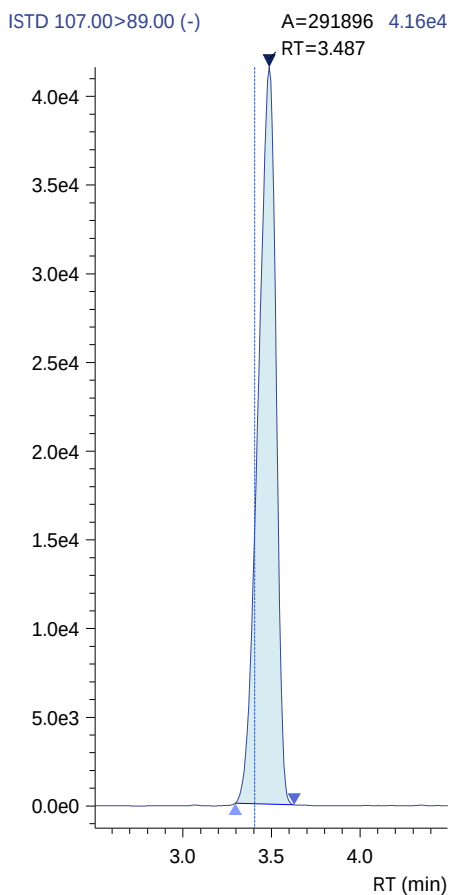
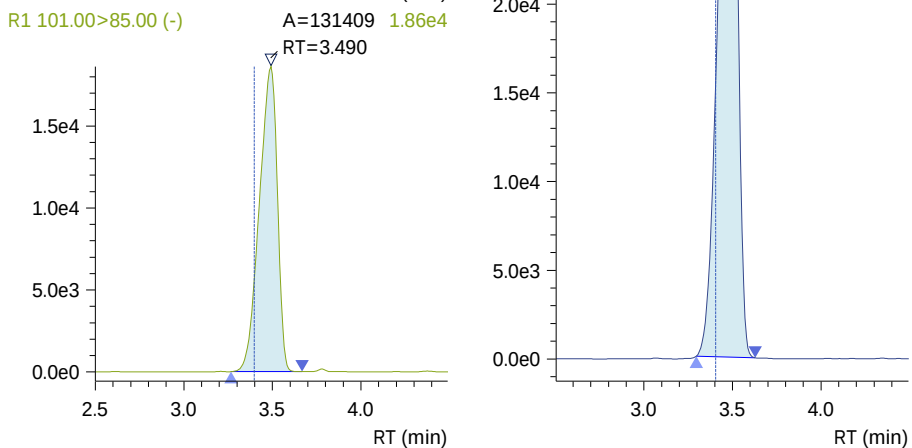
Q 99.00>83.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

R1 101.00>85.00 (-)



Insight Report

Printed at 6/8/2023 10:17:10 AM

E2300519-008

Sample ID: E2300519-008

Date Acquired: 6/7/2023 9:19:49 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-006.lcd

Vial: 14 | Inj. Volume: 10.0000uL | Tray: 3

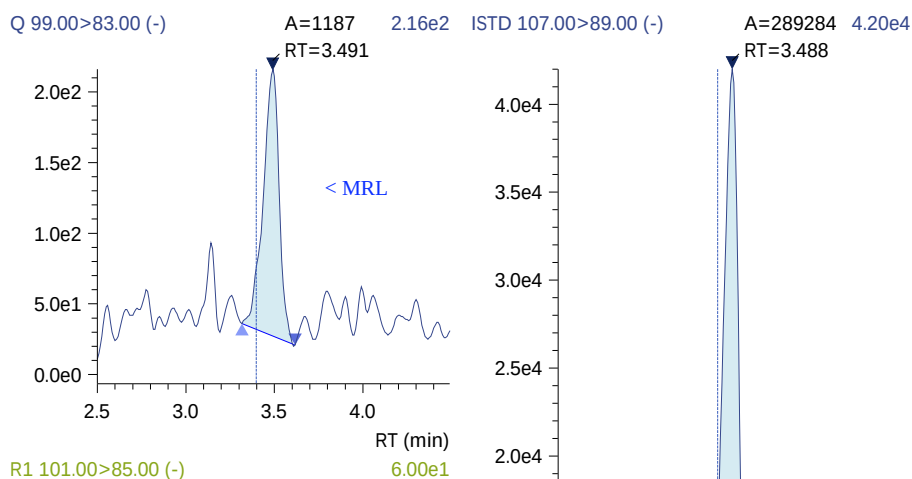
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.491	1187	289284	0.0225	ng/mL	101.00 >85.00	0.00	18.06-33.55
Sodium Perchlorate-18O4_IS	Auto	3.488	289284	289284	1.0000	ng/mL	----	----	

Perchlorate

Conc 0.0225

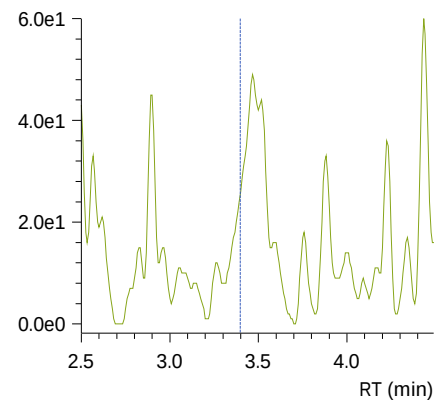
R#1 0.00 (25.81)

Q 99.00>83.00 (-)



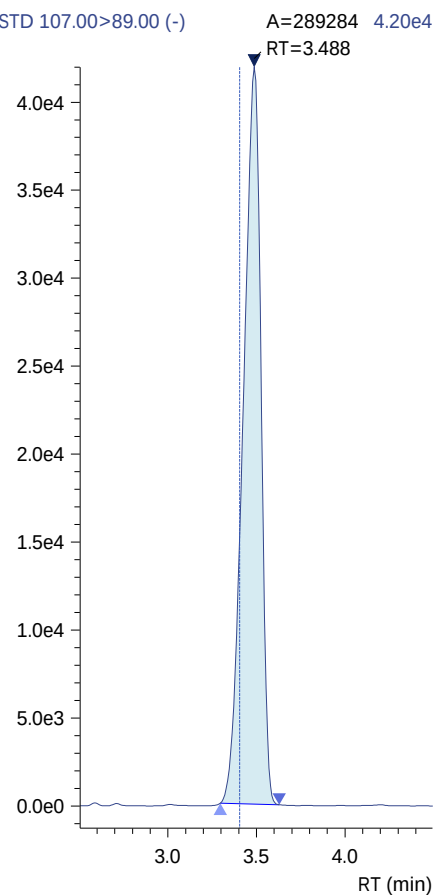
R1 101.00>85.00 (-)

6.00e1



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/8/2023 10:17:10 AM

E2300519-009

Sample ID: E2300519-009

Date Acquired: 6/7/2023 9:25:34 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-007.lcd

Vial: 15 | Inj. Volume: 10.0000uL | Tray: 3

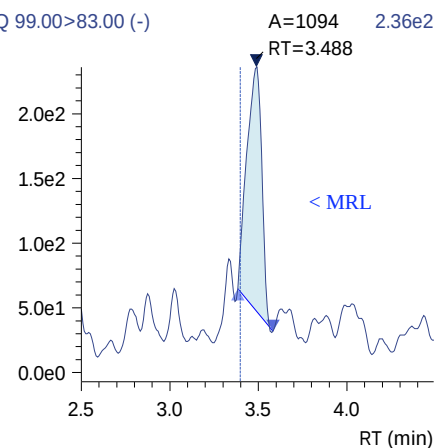
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.488	1094	306267	0.0196	ng/mL	101.00 >85.00	0.00	18.06-33.55
Sodium Perchlorate-18O4_IS	Auto	3.488	306267	306267	1.0000	ng/mL	----	----	

Perchlorate

Conc 0.0196

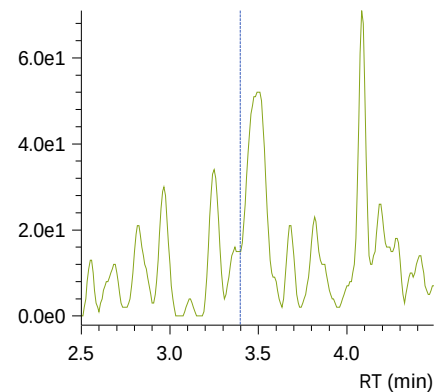
R#1 0.00 (25.81)

Q 99.00>83.00 (-)



R1 101.00>85.00 (-)

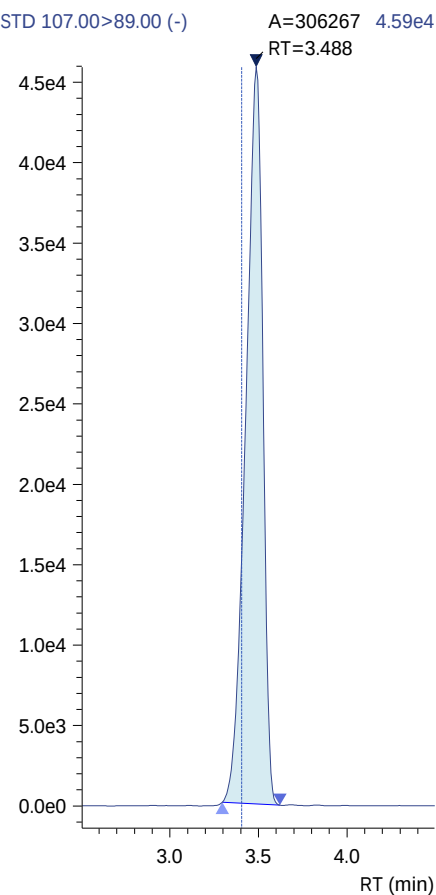
7.10e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/8/2023 10:17:10 AM

CCV

Sample ID: CCV

Date Acquired: 6/7/2023 10:11:28 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-015.lcd

Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

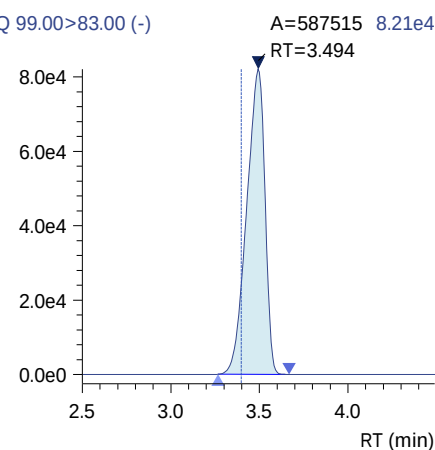
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.494	587515	324598	9.9055	ng/mL	101.00 >85.00	25.33	18.06-33.55
Sodium Perchlorate-18O4_IS	Auto	3.490	324598	324598	1.0000	ng/mL	----	----	

Perchlorate

Conc 9.9055

R#1 25.33 (25.81)

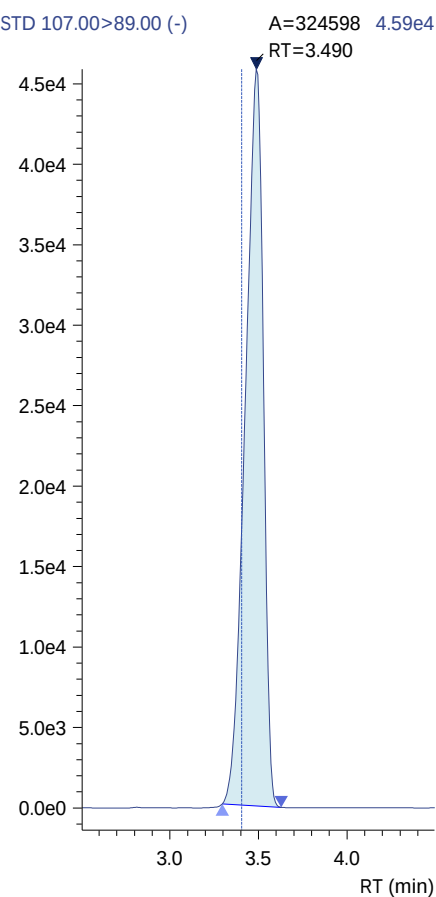
Q 99.00>83.00 (-)



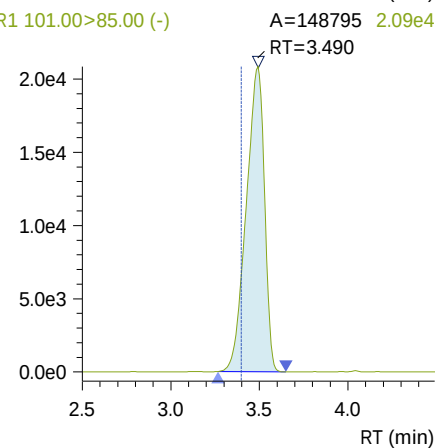
Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



R1 101.00>85.00 (-)



Insight Report

Printed at 6/8/2023 10:17:10 AM

CCV

Sample ID: CCV

Date Acquired: 6/7/2023 12:42:37 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-037.lcd

Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

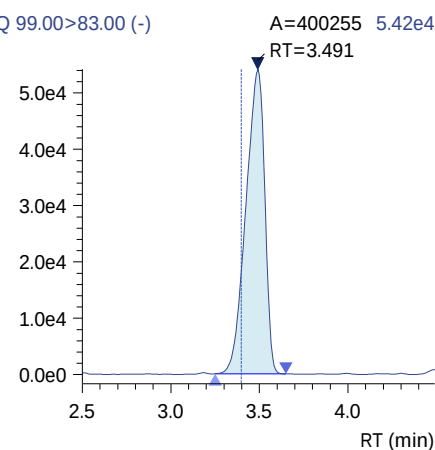
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.491	400255	227499	9.6285	ng/mL	101.00 >85.00	26.14	18.06-33.55
Sodium Perchlorate-18O4_IS	Auto	3.488	227499	227499	1.0000	ng/mL	----	----	

Perchlorate

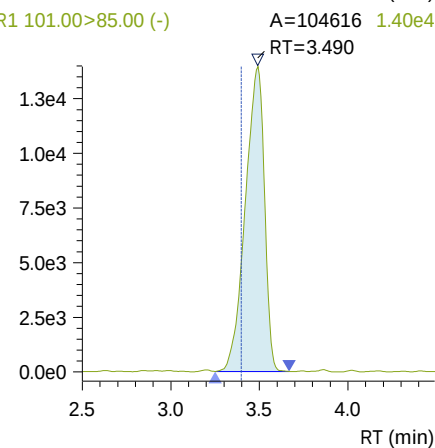
Conc 9.6285

R#1 26.14 (25.81)

Q 99.00>83.00 (-)



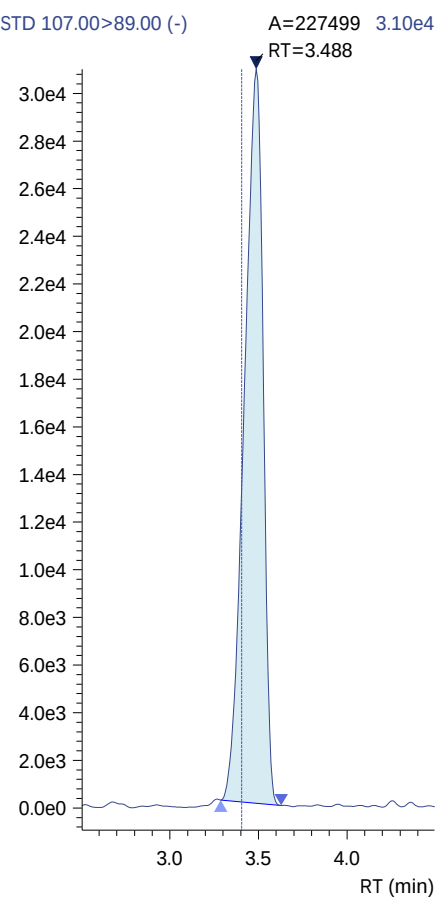
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/8/2023 10:19:47 AM

E2300519-007

Sample ID: E2300519-007

Date Acquired: 6/7/2023 1:41:58 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-040.lcd

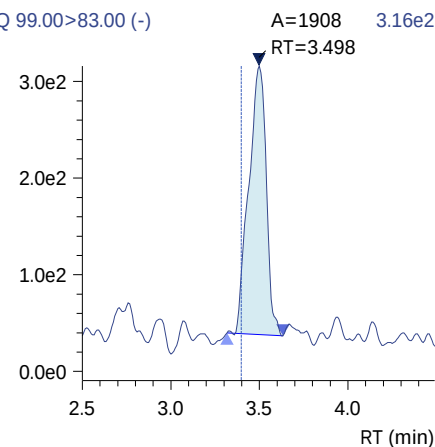
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 3

Perchlorate

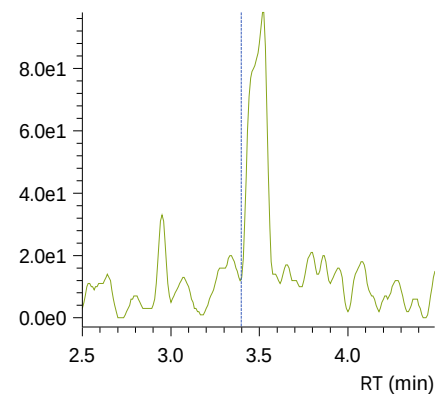
Conc 0.0369

R#1 0.00 (25.81)

Q 99.00>83.00 (-)



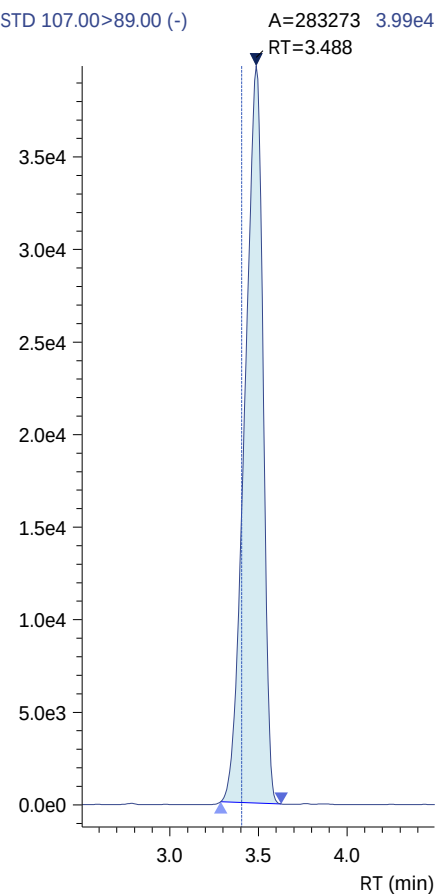
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/8/2023 10:17:10 AM

E2300519-007

Sample ID: E2300519-007

Date Acquired: 6/7/2023 1:41:58 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-040.lcd

Vial: 13 | Inj. Volume: 10.0000uL | Tray: 3

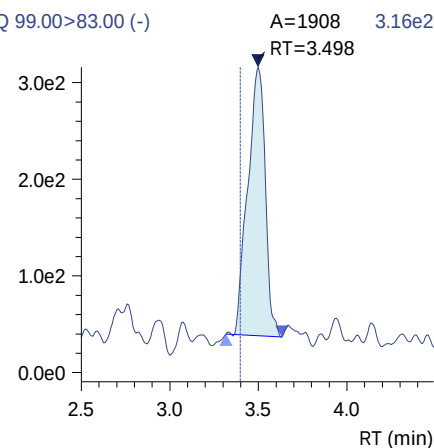
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.498	1908	283273	0.0369	ng/mL	101.00 >85.00	27.63	18.06-33.55
Sodium Perchlorate-18O4_IS	Auto	3.488	283273	283273	1.0000	ng/mL	----	----	

Perchlorate

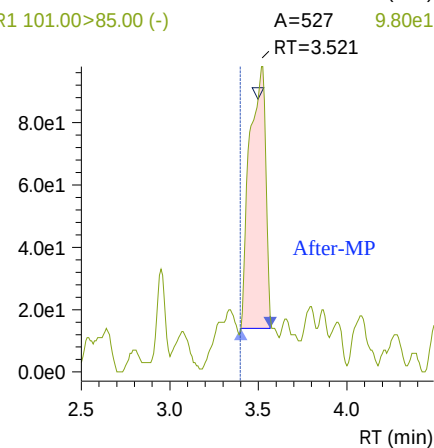
Conc 0.0369

R#1 27.63 (25.81)

Q 99.00>83.00 (-)



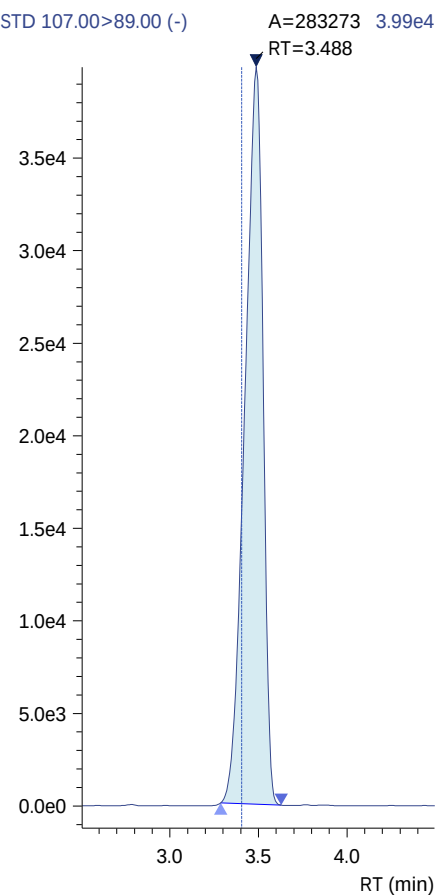
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 6/8/2023 10:17:10 AM

CCV

Sample ID: CCV

Date Acquired: 6/7/2023 2:27:59 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230607\20230607-048.lcd

Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

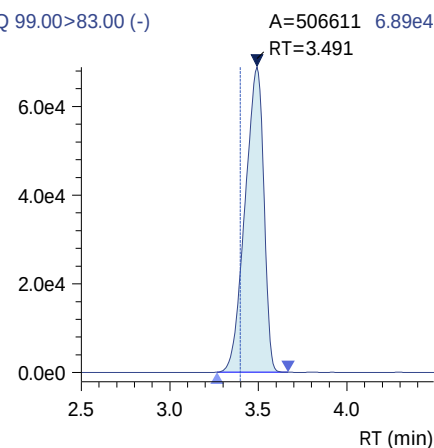
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.491	506611	279459	9.9211	ng/mL	101.00 >85.00	26.00	18.06-33.55
Sodium Perchlorate-18O4_IS	Auto	3.489	279459	279459	1.0000	ng/mL	----	----	

Perchlorate

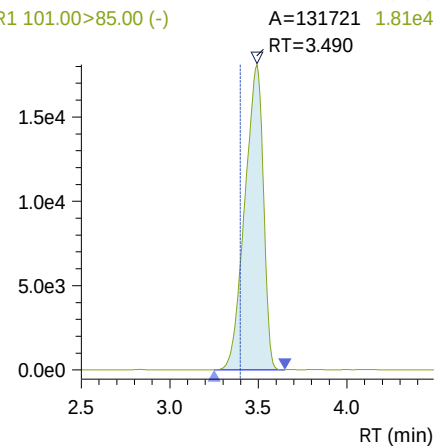
Conc 9.9211

R#1 26.00 (25.81)

Q 99.00>83.00 (-)



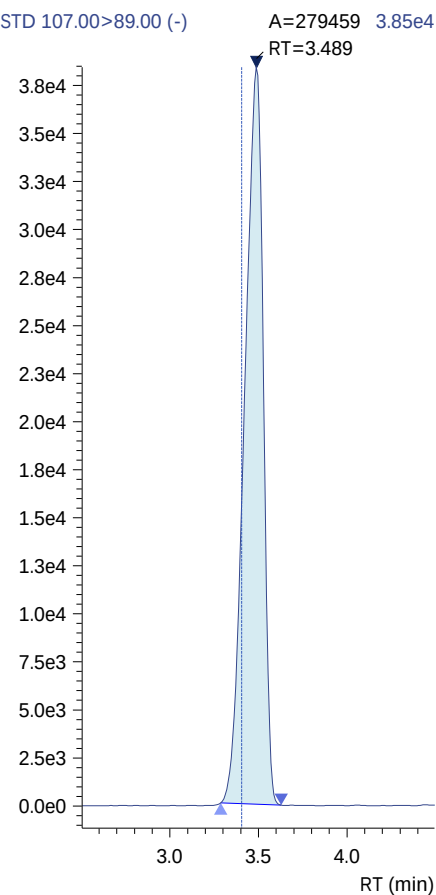
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



HS23051834 Eurofin Lab J128779-1
Std_Tal_L4 Rev(1) Final Report

ALS WO# HS23051834





ANALYTICAL REPORT

PREPARED FOR

Attn: Dane Wacasey
ALS Group USA, Corp
10450 Stancliff Rd.
Suite 210
Houston TX 77099

Generated 6/29/2023 10:43 AM Revision 1

JOB DESCRIPTION

HS23051834

JOB NUMBER

410-128779-1

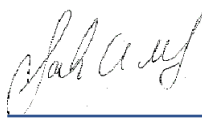
Eurofins Lancaster Laboratories Environment Testing, LLC

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
6/29/2023 10:43 AM
Revision 1

Authorized for release by
Sarah Nelms, Project Manager
sarah.nelms@et.eurofinsus.com
Designee for
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.

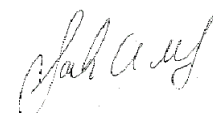


Table of Contents

Cover Page	1
Data Summaries	5
Definitions	5
Case Narrative	6
Detection Summary	7
Client Sample Results	8
Default Detection Limits	9
QC Sample Results	10
QC Association	11
Chronicle	12
Certification Summary	13
Method Summary	14
Sample Summary	15
Manual Integration Summary	16
Reagent Traceability	17
Organic Sample Data	18
GC VOA	18
Method RSK-175 CO2 DOD	18
Method RSK-175 CO2 DOD QC Summary	19
Method RSK-175 CO2 DOD Sample Data	23
Standards Data	32
Method RSK-175 CO2 DOD ICAL Data	32
Method RSK-175 CO2 DOD CCAL Data	50
Raw QC Data	70
Method RSK-175 CO2 DOD Blank Data	70
Method RSK-175 CO2 DOD LCS/LCSD Data	73
Method RSK-175 CO2 DOD MS/MSD Data	76
Method RSK-175 CO2 DOD Run Logs	82
Method RSK-175 CO2 DOD Prep Data	85
Shipping and Receiving Documents	87
Client Chain of Custody	88
Sample Receipt Checklist	89

Definitions/Glossary

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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
410-128779-1REVISION

The report being provided is a revision of the original report sent on 6/13/2023. The report (revision 1) is being revised due to Raw data did not pull through, client requested that it be revised to show raw data.

Receipt

The samples were received on 6/1/2023 10:08 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 2.2°C

GC VOA

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: HS23051834

Job ID: 410-128779-1

Client Sample ID: 50WW12_052523

Lab Sample ID: 410-128779-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	64000		12000		2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 50WW12_052523_a

Lab Sample ID: 410-128779-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	64000		12000		2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 50WW14_052523

Lab Sample ID: 410-128779-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	49000	J1	12000		2600	ug/L	1		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.



Client Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

Client Sample ID: 50WW12_052523

Lab Sample ID: 410-128779-1

Date Collected: 05/25/23 07:55

Matrix: Water

Date Received: 06/01/23 10:08

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	64000		12000		2600	ug/L		06/06/23 15:12	1

Client Sample ID: 50WW12_052523_a

Lab Sample ID: 410-128779-2

Date Collected: 05/25/23 07:55

Matrix: Water

Date Received: 06/01/23 10:08

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	64000		12000		2600	ug/L		06/06/23 15:20	1

Client Sample ID: 50WW14_052523

Lab Sample ID: 410-128779-3

Date Collected: 05/25/23 08:55

Matrix: Water

Date Received: 06/01/23 10:08

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	49000	J1	12000		2600	ug/L		06/06/23 15:28	1



Default Detection Limits

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

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: HS23051834

Job ID: 410-128779-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-383371/1-A

Matrix: Water

Analysis Batch: 383299

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 383371

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	2600	U	12000		2600	ug/L		06/06/23 11:17	1

Lab Sample ID: LCS 410-383371/2-A

Matrix: Water

Analysis Batch: 383299

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 383371

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon dioxide	35800	34700		ug/L		97	80 - 122

Lab Sample ID: 410-128779-3 MS

Matrix: Water

Analysis Batch: 383299

Client Sample ID: 50WW14_052523

Prep Type: Total/NA

Prep Batch: 383371

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon dioxide	49000	J1	35800	68900	J1	ug/L		56	80 - 122

Lab Sample ID: 410-128779-3 MSD

Matrix: Water

Analysis Batch: 383299

Client Sample ID: 50WW14_052523

Prep Type: Total/NA

Prep Batch: 383371

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon dioxide	49000	J1	35800	70100	J1	ug/L		59	80 - 122	2	30



QC Association Summary

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

GC VOA

Analysis Batch: 383299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-128779-1	50WW12_052523	Total/NA	Water	RSK-175	383371
410-128779-2	50WW12_052523_a	Total/NA	Water	RSK-175	383371
410-128779-3	50WW14_052523	Total/NA	Water	RSK-175	383371
MB 410-383371/1-A	Method Blank	Total/NA	Water	RSK-175	383371
LCS 410-383371/2-A	Lab Control Sample	Total/NA	Water	RSK-175	383371
410-128779-3 MS	50WW14_052523	Total/NA	Water	RSK-175	383371
410-128779-3 MSD	50WW14_052523	Total/NA	Water	RSK-175	383371

Prep Batch: 383371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-128779-1	50WW12_052523	Total/NA	Water	RSK-175	
410-128779-2	50WW12_052523_a	Total/NA	Water	RSK-175	
410-128779-3	50WW14_052523	Total/NA	Water	RSK-175	
MB 410-383371/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-383371/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
410-128779-3 MS	50WW14_052523	Total/NA	Water	RSK-175	
410-128779-3 MSD	50WW14_052523	Total/NA	Water	RSK-175	



Lab Chronicle

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

Client Sample ID: 50WW12_052523

Lab Sample ID: 410-128779-1

Date Collected: 05/25/23 07:55

Matrix: Water

Date Received: 06/01/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 15:12

Client Sample ID: 50WW12_052523_a

Lab Sample ID: 410-128779-2

Date Collected: 05/25/23 07:55

Matrix: Water

Date Received: 06/01/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 15:20

Client Sample ID: 50WW14_052523

Lab Sample ID: 410-128779-3

Date Collected: 05/25/23 08:55

Matrix: Water

Date Received: 06/01/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 15:28

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: HS23051834

Job ID: 410-128779-1

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: HS23051834

Job ID: 410-128779-1

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: HS23051834

Job ID: 410-128779-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-128779-1	50WW12_052523	Water	05/25/23 07:55	06/01/23 10:08
410-128779-2	50WW12_052523_a	Water	05/25/23 07:55	06/01/23 10:08
410-128779-3	50WW14_052523	Water	05/25/23 08:55	06/01/23 10:08



GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-128779-1

SDG No.: _____

Instrument ID: 19506-B Analysis Batch Number: 369251Lab Sample ID: IC 410-369251/5 Client Sample ID: _____Date Analyzed: 04/27/23 09:59 Lab File ID: 312023_04_27BB.0005.d GC Column: HP Plot ID: 0.53 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon dioxide	2.06	Baseline Smoothing	WN7O	04/28/23 07:18

Lab Sample ID: IC 410-369251/10 Client Sample ID: _____Date Analyzed: 04/27/23 10:37 Lab File ID: 312023_04_27BB.0010.d GC Column: HP Plot ID: 0.53 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon dioxide	1.98	Baseline Smoothing	WN7O	04/28/23 07:17



Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-128779-1

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 RECOVERYLab Name: Eurofins Lancaster Laboratories
Environment Testing, LLC

Job No.: 410-128779-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: 312023_06_6BB.0009.d

Lab ID: LCS 410-383371/2-A

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Carbon dioxide	35800	34700	97	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.: 410-128779-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: 312023_06_6BB.0034.d

Lab ID: 410-128779-3 MS

Client ID: 50WW14_052523 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Carbon dioxide	35800	49000	68900	56	80-122	J1

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.: 410-128779-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: 312023_06_6BB.0035.d

Lab ID: 410-128779-3 MSD

Client ID: 50WW14_052523 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Carbon dioxide	35800	70100	59	2	30	80-122	J1

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.: 410-128779-1

SDG No.:

Lab File ID: 312023_06_6BB.0008.d

Lab Sample ID: MB 410-383371/1-A

Matrix: Water

Heated Purge: (Y/N) N

Instrument ID: 19506-B

Date Analyzed: 06/06/2023 11:17

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
CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-128779-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: 50WW12_052523 Lab Sample ID: 410-128779-1

Matrix: Water Lab File ID: 312023_06_6BB.0031.d

Analysis Method: RSK-175 Date Collected: 05/25/2023 07:55

Sample wt/vol: 5 (mL) Date Analyzed: 06/06/2023 15:12

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.: 383299 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	64000		12000	2600

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0031.d
 Lims ID: 410-128779-A-1-A
 Client ID: HS23051834-02
 Sample Type: Client
 Inject. Date: 06-Jun-2023 15:12:00 ALS Bottle#: 0 Worklist Smp#: 31
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0085856-031
 Operator ID: Instrument ID: 19506-B
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 06-Jun-2023 16:34:42 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1667

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.049	2.054	-0.005	210042075H	63840	



Report Date: 06-Jun-2023 16:34:45

Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0031.d

Injection Date: 06-Jun-2023 15:12:00

Instrument ID: 19506-B

Operator ID:

Lims ID: 410-128779-A-1-A

Lab Sample ID: 410-128779-1

Worklist Smp#: 31

Client ID: HS23051834-02

Purge Vol: 1.000 mL

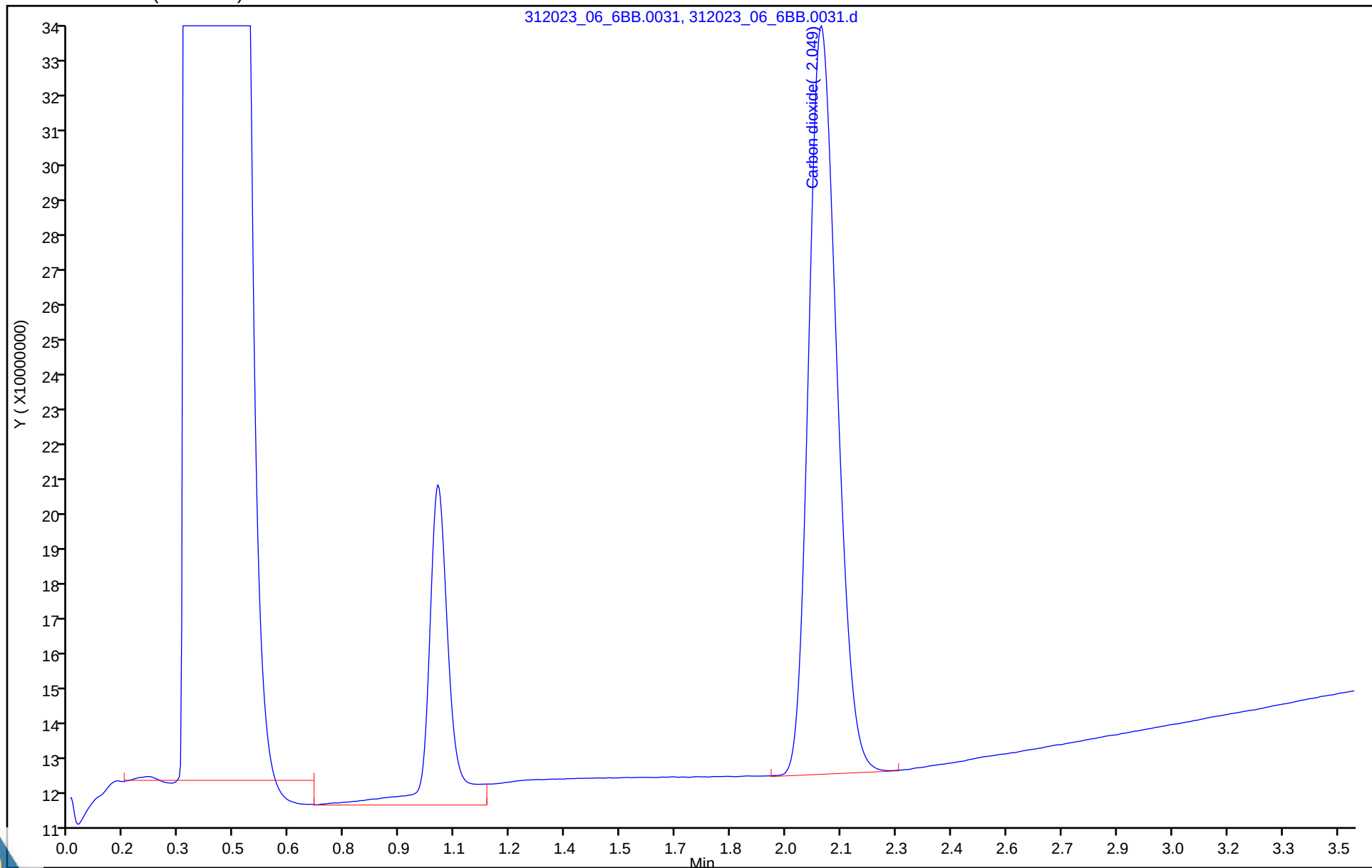
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-128779-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: 50WW12_052523_a Lab Sample ID: 410-128779-2

Matrix: Water Lab File ID: 312023_06_6BB.0032.d

Analysis Method: RSK-175 Date Collected: 05/25/2023 07:55

Sample wt/vol: 5 (mL) Date Analyzed: 06/06/2023 15:20

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.: 383299 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	64000		12000	2600



Report Date: 06-Jun-2023 16:34:45

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0032.d
 Lims ID: 410-128779-A-2-A
 Client ID: HS23051834-03
 Sample Type: Client
 Inject. Date: 06-Jun-2023 15:20:00 ALS Bottle#: 0 Worklist Smp#: 32
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0085856-032
 Operator ID: Instrument ID: 19506-B
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 06-Jun-2023 16:34:42 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1667

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.049	2.054	-0.005	209813305H	63771	



Report Date: 06-Jun-2023 16:34:45

Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0032.d

Injection Date: 06-Jun-2023 15:20:00

Instrument ID: 19506-B

Operator ID:

Lims ID: 410-128779-A-2-A

Lab Sample ID: 410-128779-2

Worklist Smp#: 32

Client ID: HS23051834-03

Purge Vol: 1.000 mL

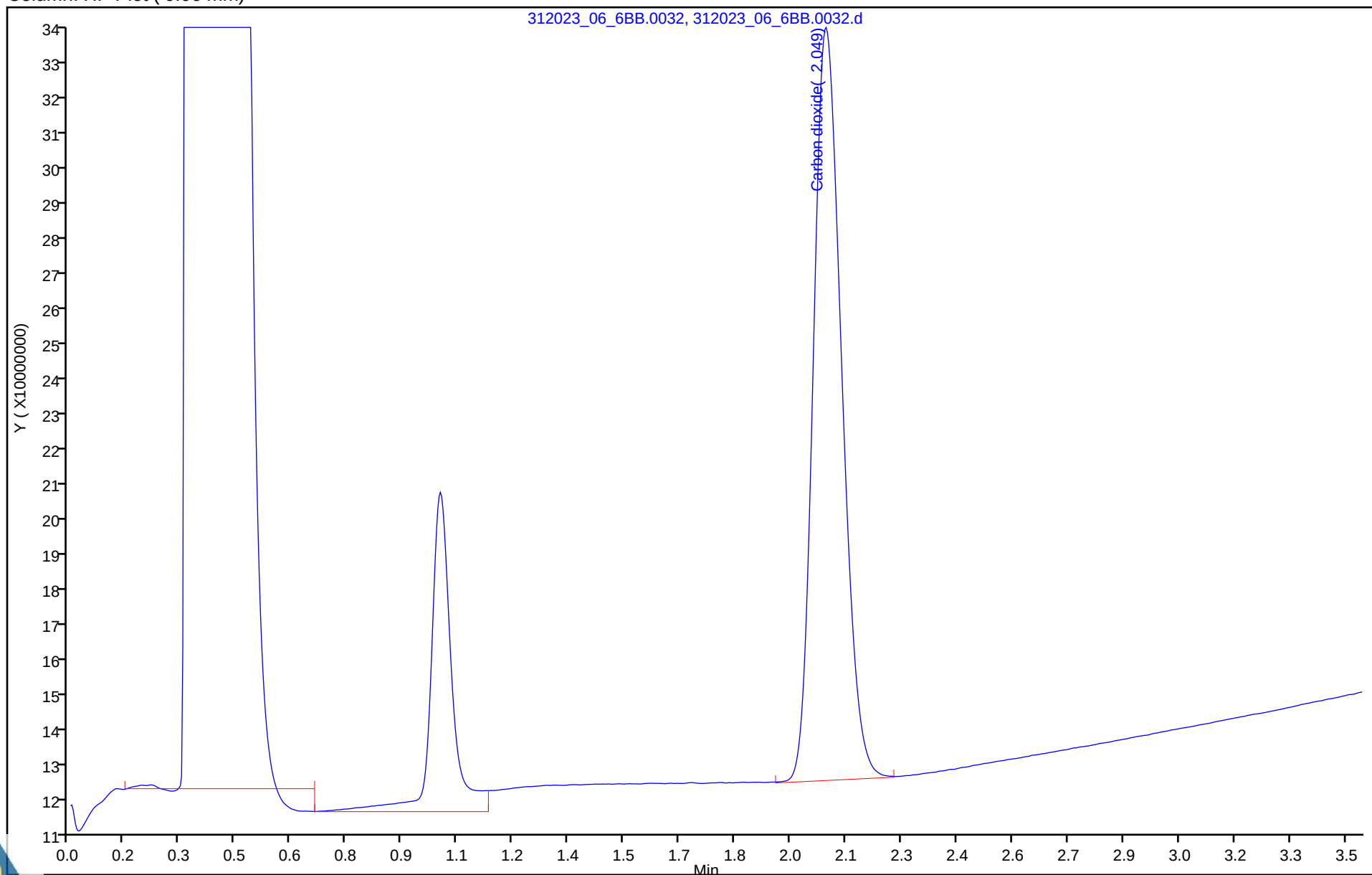
Dil. Factor: 1.0000

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 Job No.: 410-128779-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: 50WW14_052523 Lab Sample ID: 410-128779-3

Matrix: Water Lab File ID: 312023_06_6BB.0033.d

Analysis Method: RSK-175 Date Collected: 05/25/2023 08:55

Sample wt/vol: 5 (mL) Date Analyzed: 06/06/2023 15:28

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.: 383299 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	49000	J1	12000	2600



Report Date: 06-Jun-2023 16:34:45

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0033.d
 Lims ID: 410-128779-A-3-A
 Client ID: HS23051834-04
 Sample Type: Client
 Inject. Date: 06-Jun-2023 15:28:00 ALS Bottle#: 0 Worklist Smp#: 33
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0085856-033
 Operator ID: Instrument ID: 19506-B
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 06-Jun-2023 16:34:42 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1667

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.052	2.054	-0.002	160827455H	48882	



Report Date: 06-Jun-2023 16:34:45

Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0033.d

Injection Date: 06-Jun-2023 15:28:00

Instrument ID: 19506-B

Operator ID:

Lims ID: 410-128779-A-3-A

Lab Sample ID: 410-128779-3

Worklist Smp#: 33

Client ID: HS23051834-04

Purge Vol: 1.000 mL

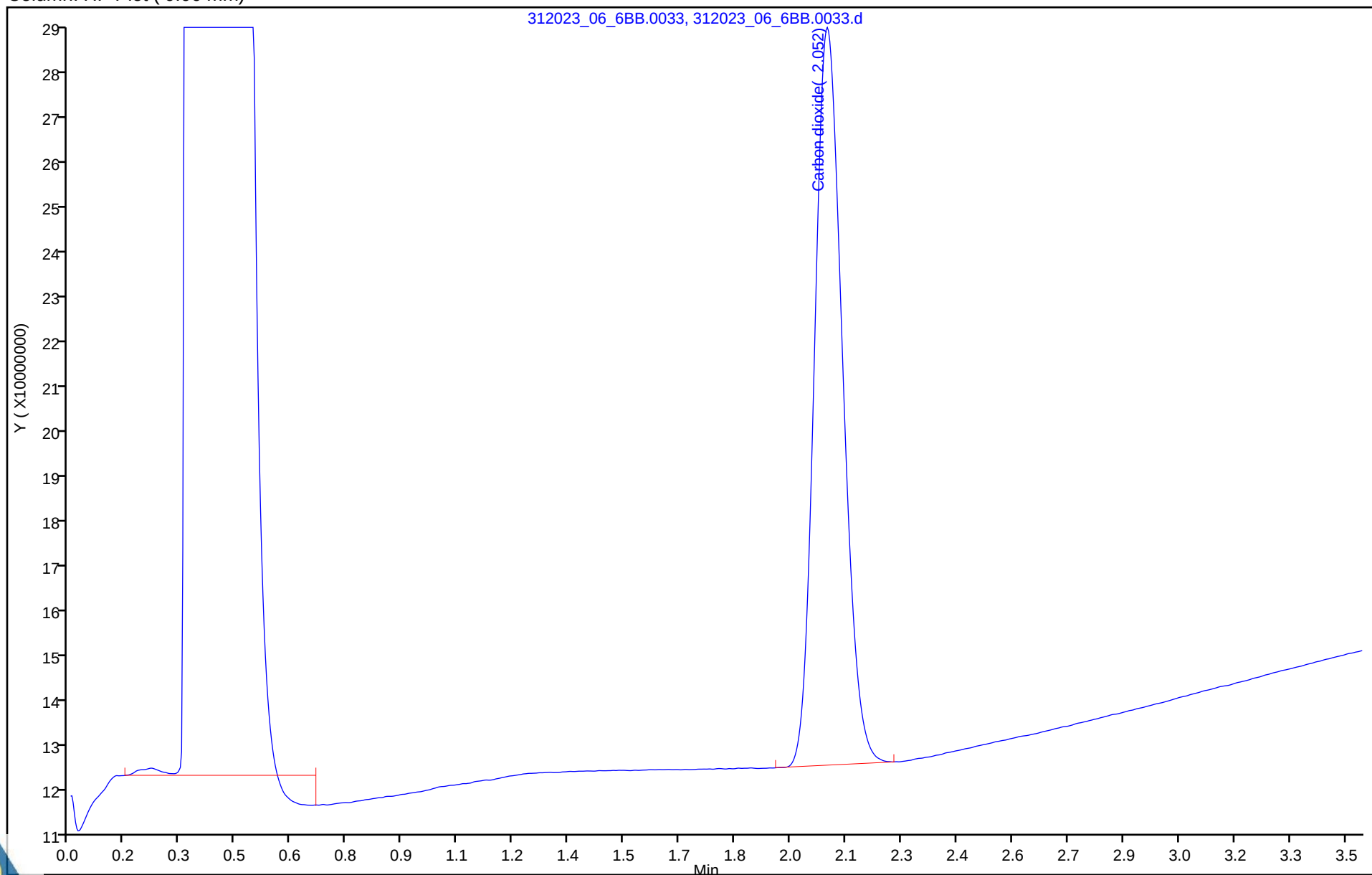
Dil. Factor: 1.0000

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 Env Job No.: 410-128779-1 Analy Batch No.: 369251

SDG No.: _____

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

Calibration Start Date: 04/27/2023 09:59 Calibration End Date: 04/27/2023 10:37 Calibration ID: 49603

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-369251/5	312023_04_27BB.0005.d
Level 2	IC 410-369251/6	312023_04_27BB.0006.d
Level 3	ICRT 410-369251/7	312023_04_27BB.0007.d
Level 4	IC 410-369251/8	312023_04_27BB.0008.d
Level 5	IC 410-369251/9	312023_04_27BB.0009.d
Level 6	IC 410-369251/10	312023_04_27BB.0010.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Carbon dioxide	2.060	2.059	2.054	2.043	2.024	1.983					2.024 - 2.084	2.037



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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-128779-1 Analy Batch No.: 369251

SDG No.: _____

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

Calibration Start Date: 04/27/2023 09:59 Calibration End Date: 04/27/2023 10:37 Calibration ID: 49603

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-369251/5	312023_04_27BB.0005.d
Level 2	IC 410-369251/6	312023_04_27BB.0006.d
Level 3	ICRT 410-369251/7	312023_04_27BB.0007.d
Level 4	IC 410-369251/8	312023_04_27BB.0008.d
Level 5	IC 410-369251/9	312023_04_27BB.0009.d
Level 6	IC 410-369251/10	312023_04_27BB.0010.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Carbon dioxide	Ave	41411686 989211697	70308888	121893696	297170647	561047460	10746 358200	21492	35820	89550	179100

Curve Type Legend

Ave = Average by Height



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0005.d
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 27-Apr-2023 09:59:00 ALS Bottle#: 0 Worklist Smp#: 5
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0082537-005
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 28-Apr-2023 07:19:05 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1628

First Level Reviewer: WN7O

Date: 28-Apr-2023 07:18:31

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.060	2.054	0.006	41411686H	10746	12587	M

QC Flag Legend

Processing Flags

H - Response Measured by Height

Review Flags

M - Manually Integrated

Reagents:

EPH_CO2MS_00004

Amount Added: 30.00

Units: uL



Report Date: 28-Apr-2023 07:19:05

Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0005.d

Injection Date: 27-Apr-2023 09:59:00

Instrument ID: 19506-B

Operator ID:

Lims ID: ic

Worklist Smp#: 5

Client ID:

Purge Vol: 1.000 mL

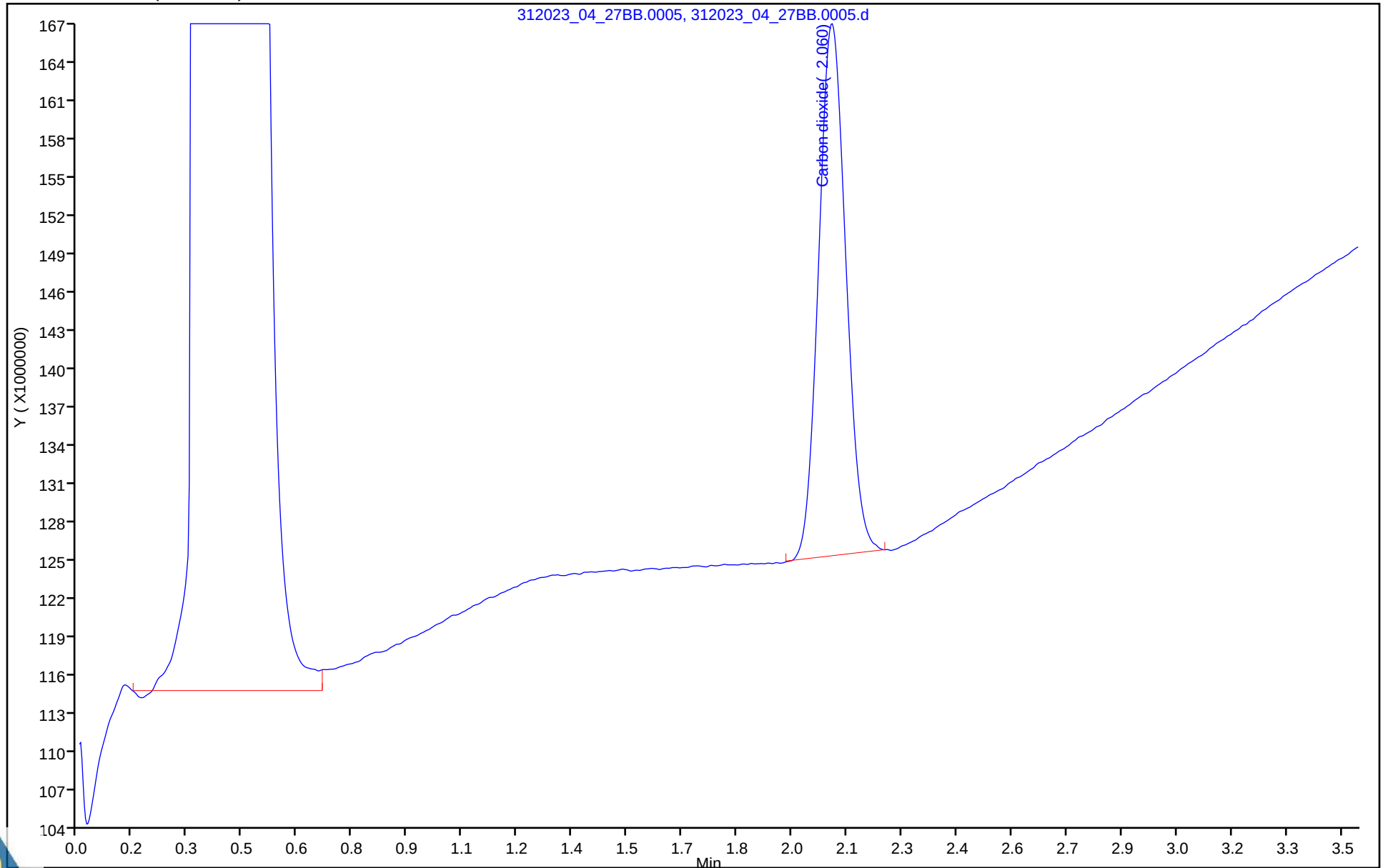
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0005.d
Injection Date: 27-Apr-2023 09:59:00 Instrument ID: 19506-B
Lims ID: ic
Client ID:
Operator ID:
Purge Vol: 1.000 mL
Method: RSK_CO2_19506B
Column: HP Plot (0.00 mm)

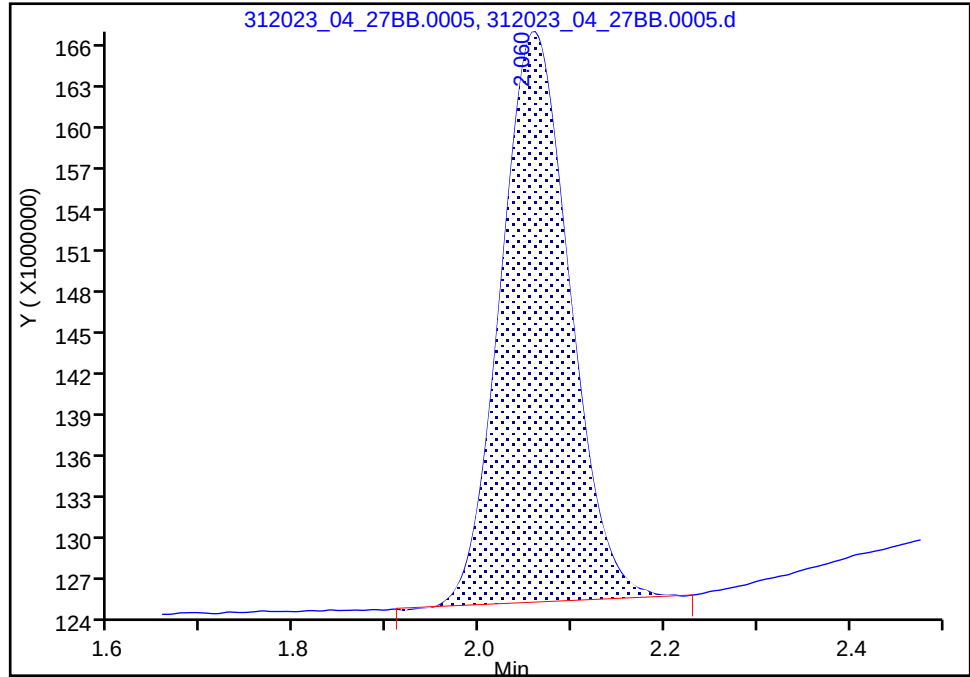
ALS Bottle#: 0 Worklist Smp#: 5
Dil. Factor: 1.0000
Limit Group: GCV - RSK175 CO2
Detector: OFIDA

1 Carbon dioxide, CAS: 124-38-9

Signal: 1

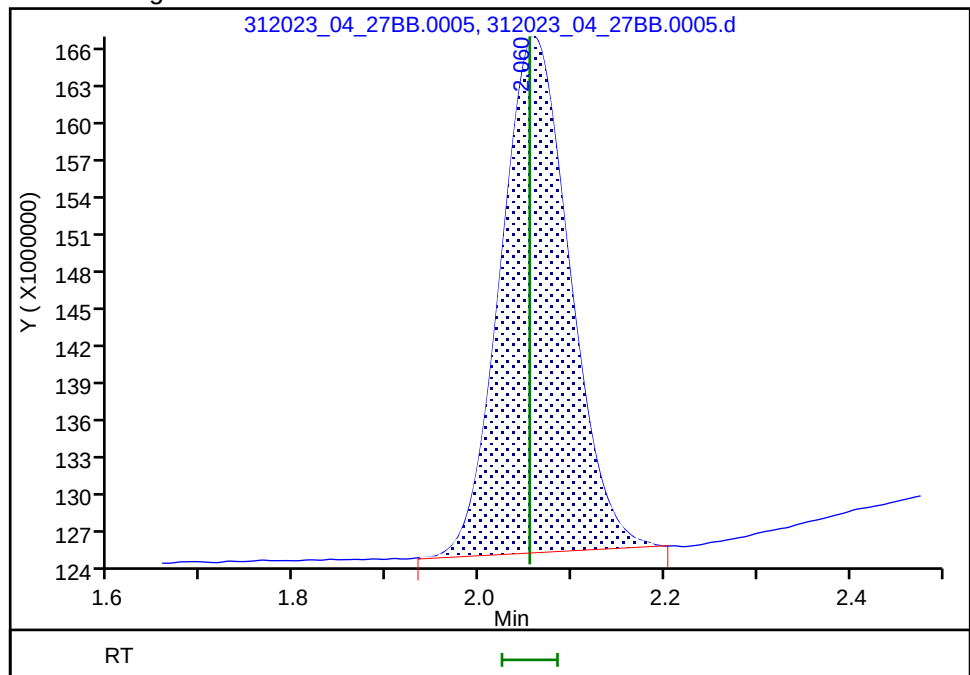
RT: 2.06
Height: 40493056
Amount: 12361
Amount Units: ug/l

Processing Integration Results



RT: 2.06
Height: 41411686
Amount: 12587
Amount Units: ug/l

Manual Integration Results



Report Date: 28-Apr-2023 07:19:06

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0006.d
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 27-Apr-2023 10:06:00 ALS Bottle#: 0 Worklist Smp#: 6
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0082537-006
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 28-Apr-2023 07:19:06 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.059	2.054	0.005	70308888H	21492	21370	

Reagents:

EPH_CO2MS_00004

Amount Added: 60.00

Units: uL



Report Date: 28-Apr-2023 07:19:06

Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0006.d

Injection Date: 27-Apr-2023 10:06:00

Instrument ID: 19506-B

Operator ID:

Lims ID: ic

Worklist Smp#: 6

Client ID:

Purge Vol: 1.000 mL

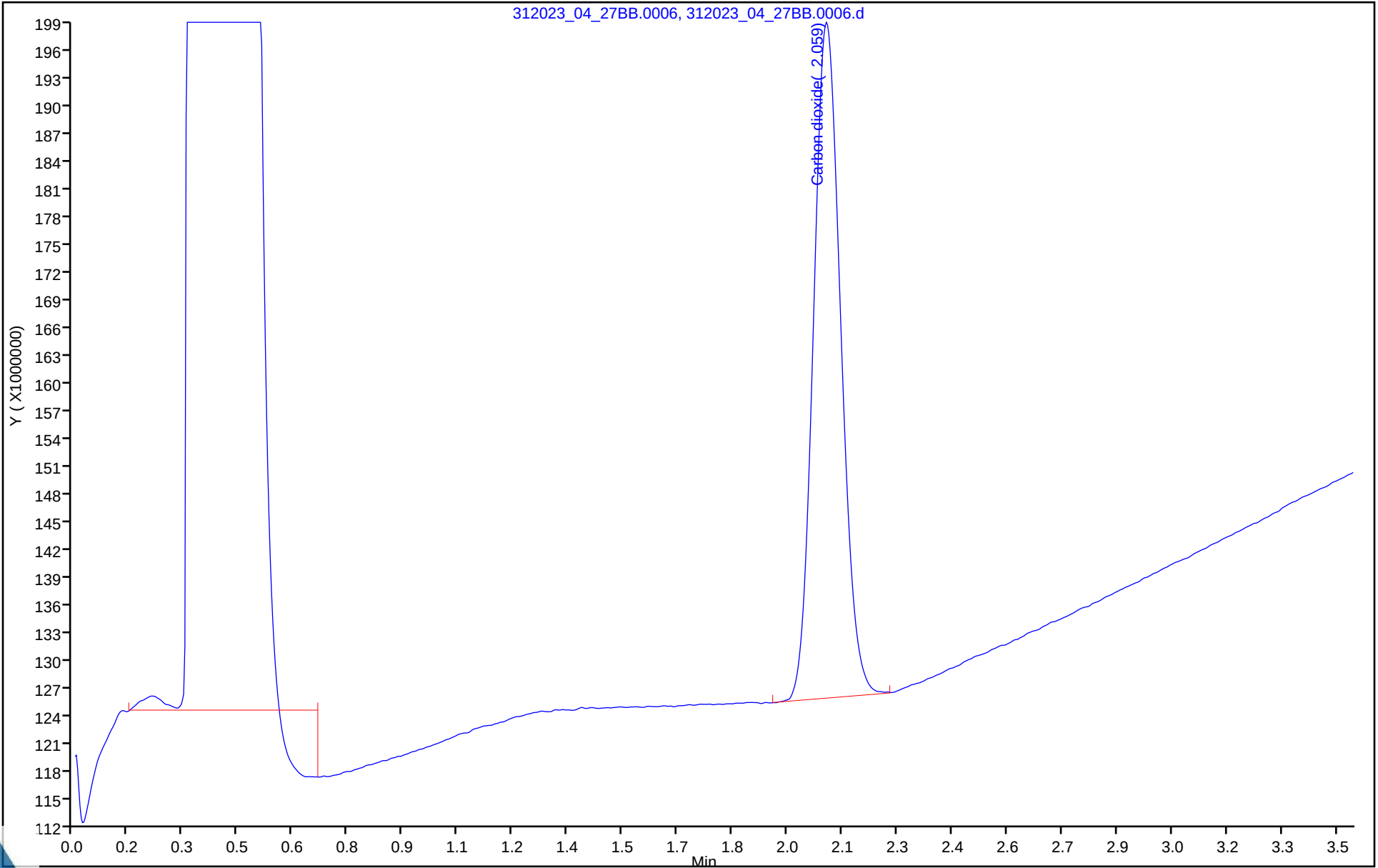
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Report Date: 28-Apr-2023 07:19:08

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0007.d
 Lims ID: icrt
 Client ID:
 Sample Type: ICRT Calib Level: 3
 Inject. Date: 27-Apr-2023 10:14:00 ALS Bottle#: 0 Worklist Smp#: 7
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0082537-007
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 28-Apr-2023 07:19:08 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

1 Carbon dioxide	2.054	2.054	0.000	121893696H	35820	37048	

Reagents:

EPH_CO2MS_00004

Amount Added: 100.00

Units: uL



Report Date: 28-Apr-2023 07:19:08

Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0007.d

Injection Date: 27-Apr-2023 10:14:00

Instrument ID: 19506-B

Operator ID:

Lims ID: icrt

Worklist Smp#: 7

Client ID:

Purge Vol: 1.000 mL

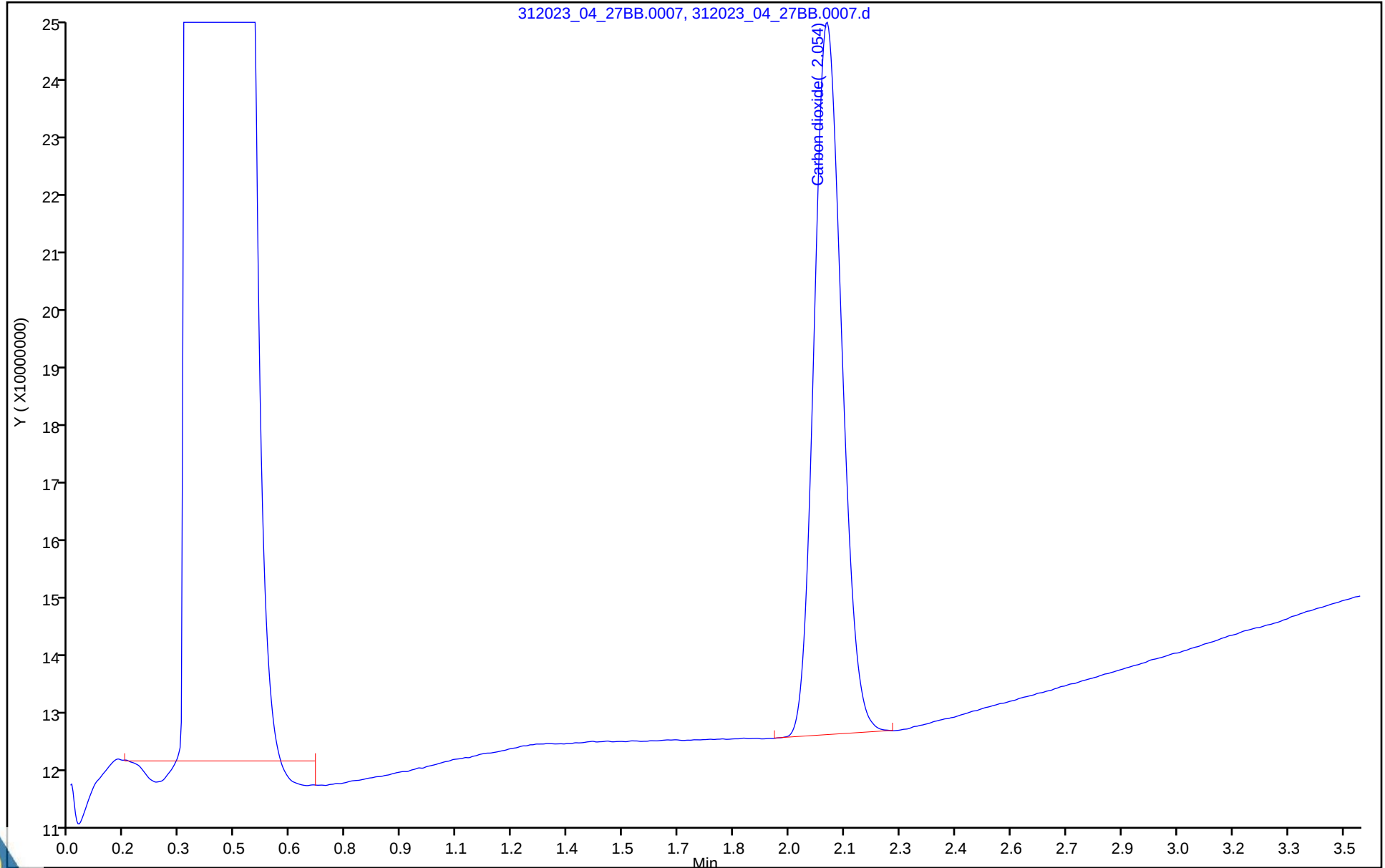
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Report Date: 28-Apr-2023 07:19:09

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0008.d
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 27-Apr-2023 10:22:00 ALS Bottle#: 0 Worklist Smp#: 8
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0082537-008
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 28-Apr-2023 07:19:09 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

1 Carbon dioxide	2.043	2.054	-0.011	297170647H	89550	90322	

Reagents:

EPH_CO2MS_00004

Amount Added: 250.00

Units: uL



Report Date: 28-Apr-2023 07:19:09

Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0008.d

Injection Date: 27-Apr-2023 10:22:00

Instrument ID: 19506-B

Operator ID:

Lims ID: ic

Worklist Smp#: 8

Client ID:

Purge Vol: 1.000 mL

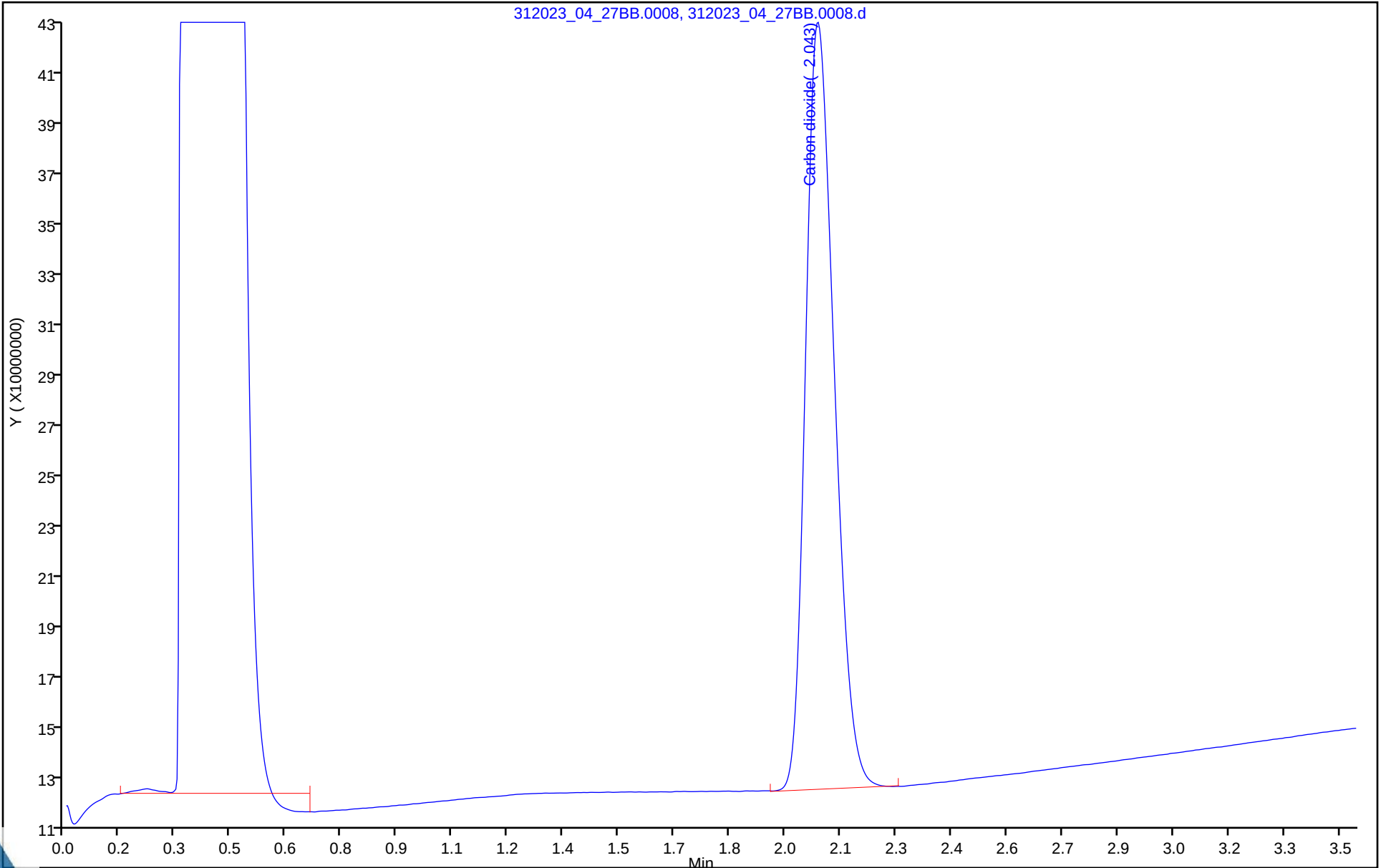
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Report Date: 28-Apr-2023 07:19:10

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0009.d
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 27-Apr-2023 10:30:00 ALS Bottle#: 0 Worklist Smp#: 9
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0082537-009
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 28-Apr-2023 07:19:10 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

1 Carbon dioxide	2.024	2.054	-0.030	561047460H	179100	170525	

Reagents:

EPH_CO2MS_00004

Amount Added: 500.00

Units: uL



Report Date: 28-Apr-2023 07:19:10

Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0009.d

Injection Date: 27-Apr-2023 10:30:00

Instrument ID: 19506-B

Operator ID:

Lims ID: ic

Worklist Smp#: 9

Client ID:

Purge Vol: 1.000 mL

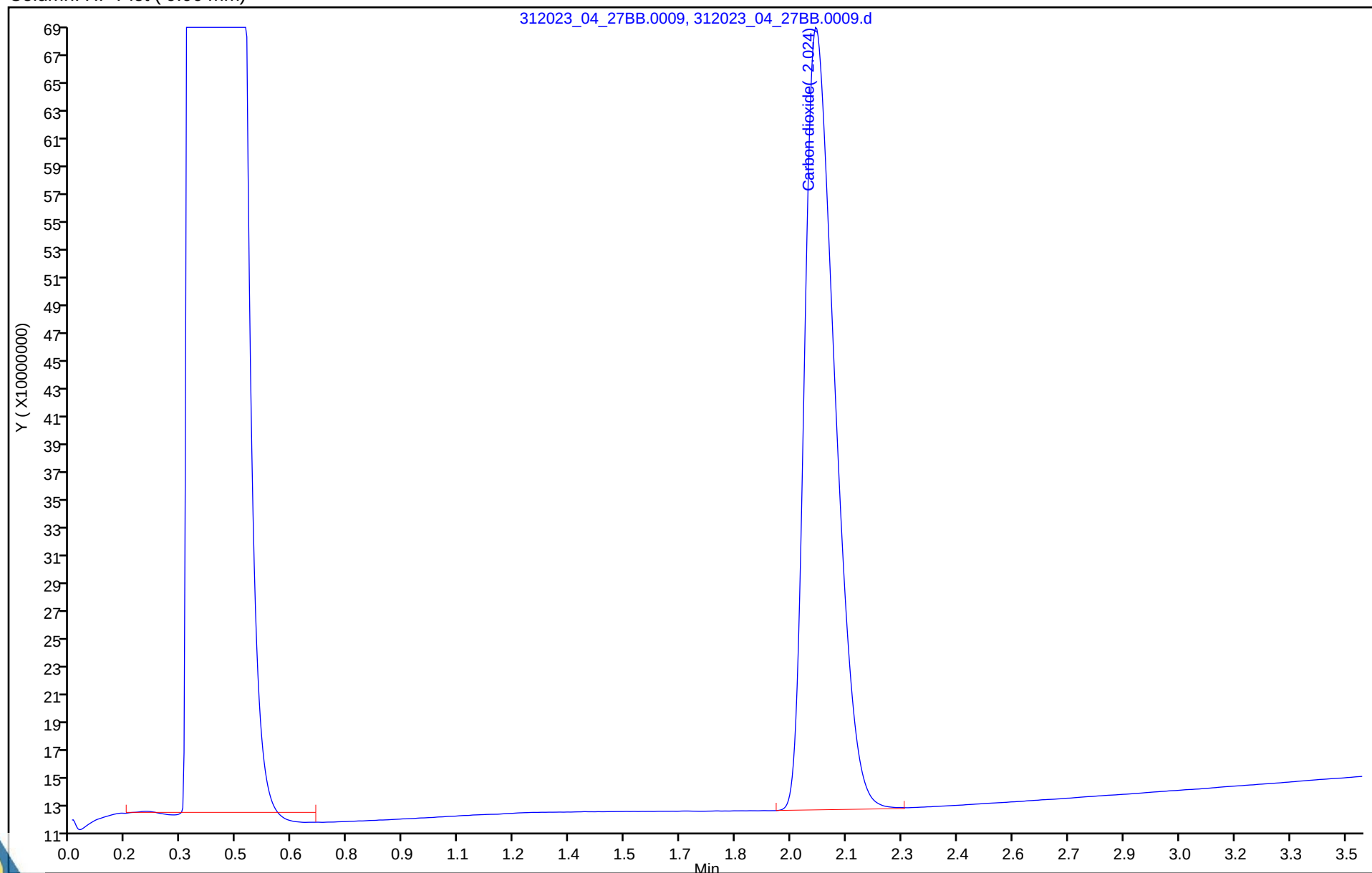
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 27-Apr-2023 10:37:00 ALS Bottle#: 0 Worklist Smp#: 10
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0082537-010
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 28-Apr-2023 07:19:11 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1628

First Level Reviewer: WN7O

Date: 28-Apr-2023 07:17:52

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

1 Carbon dioxide	1.983	2.054	-0.071	989211697H	358200	300661	Ma

QC Flag Legend

Processing Flags

H - Response Measured by Height

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

EPH_CO2MS_00004

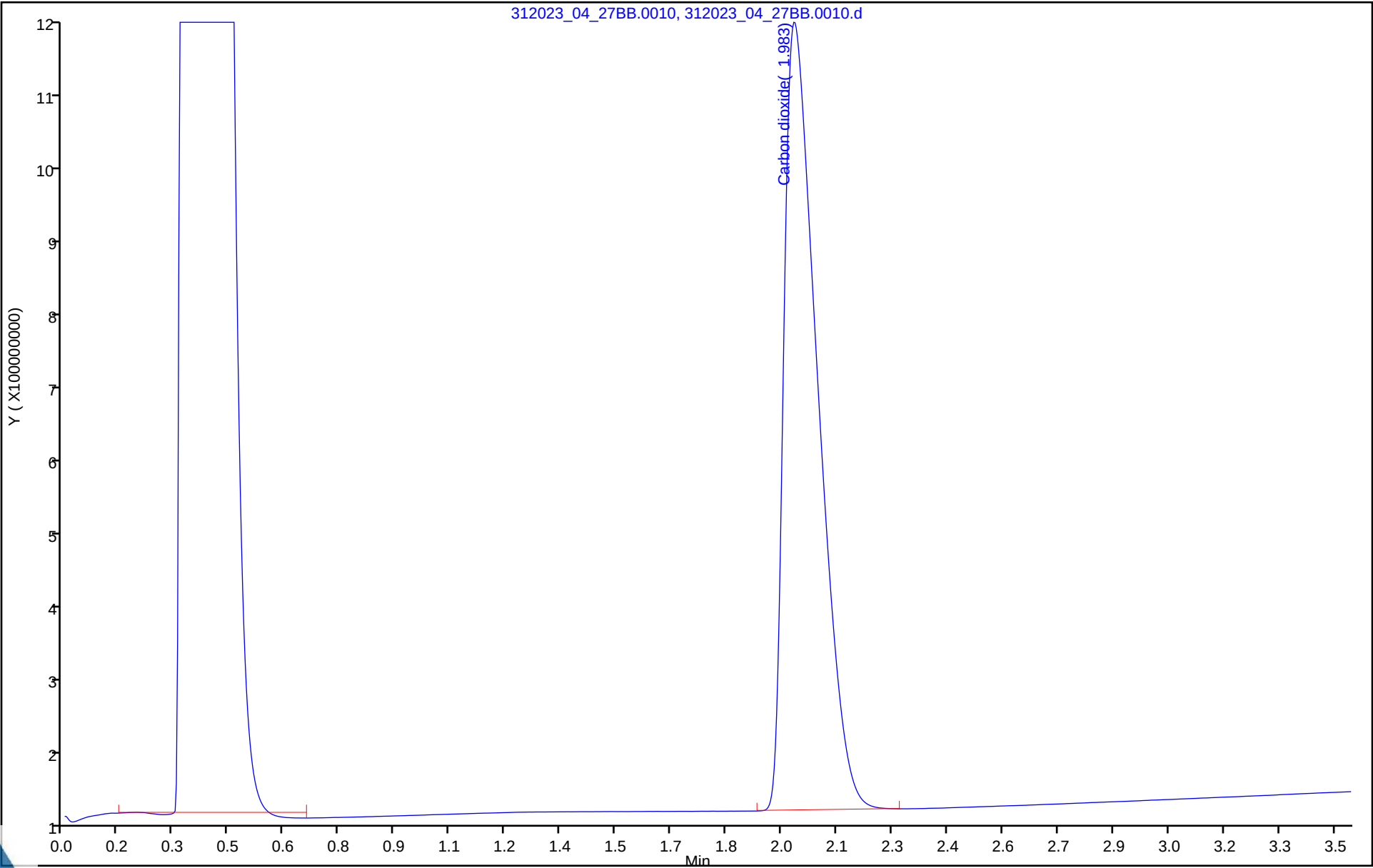
Amount Added: 1000.00

Units: uL



Report Date: 28-Apr-2023 07:19:12 Chrom Revision: 2.3 20-Apr-2023 08:27:48
Eurofins Lancaster Laboratories Environment Testing, LLC
Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
Injection Date: 27-Apr-2023 10:37:00 Instrument ID: 19506-B
Lims ID: ic
Client ID:
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2
Column: HP Plot (0.00 mm)

Operator ID:
Worklist Smp#: 10
ALS Bottle#: 0



Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d

Injection Date: 27-Apr-2023 10:37:00

Instrument ID: 19506-B

Lims ID: ic

Client ID:

Operator ID:

ALS Bottle#:

0

Worklist Smp#:

10

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

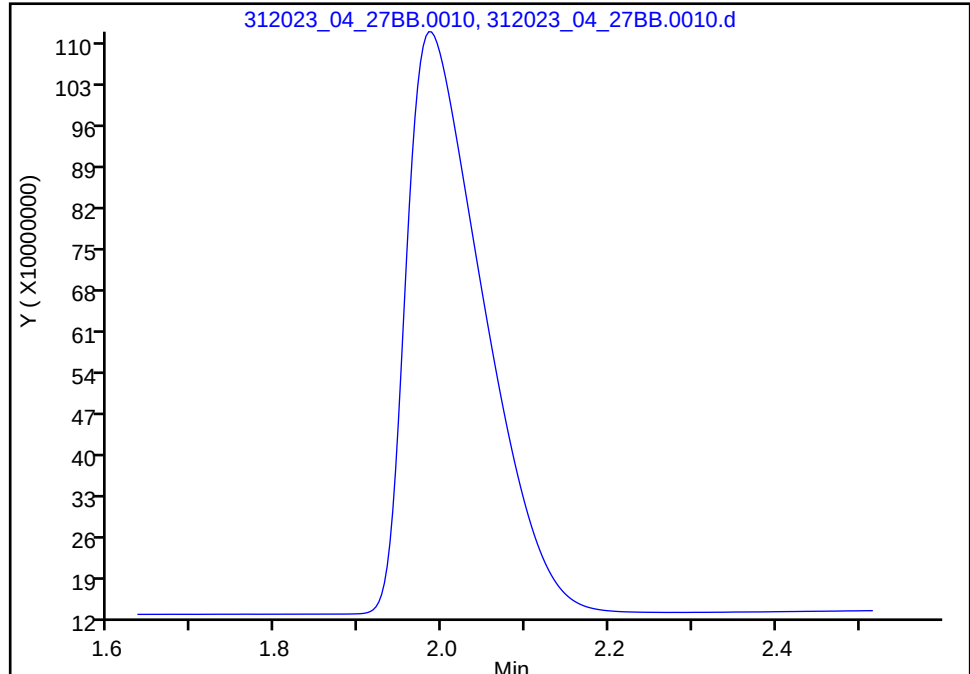
1 Carbon dioxide, CAS: 124-38-9

Signal: 1

Not Detected

Expected RT: 2.05

Processing Integration Results



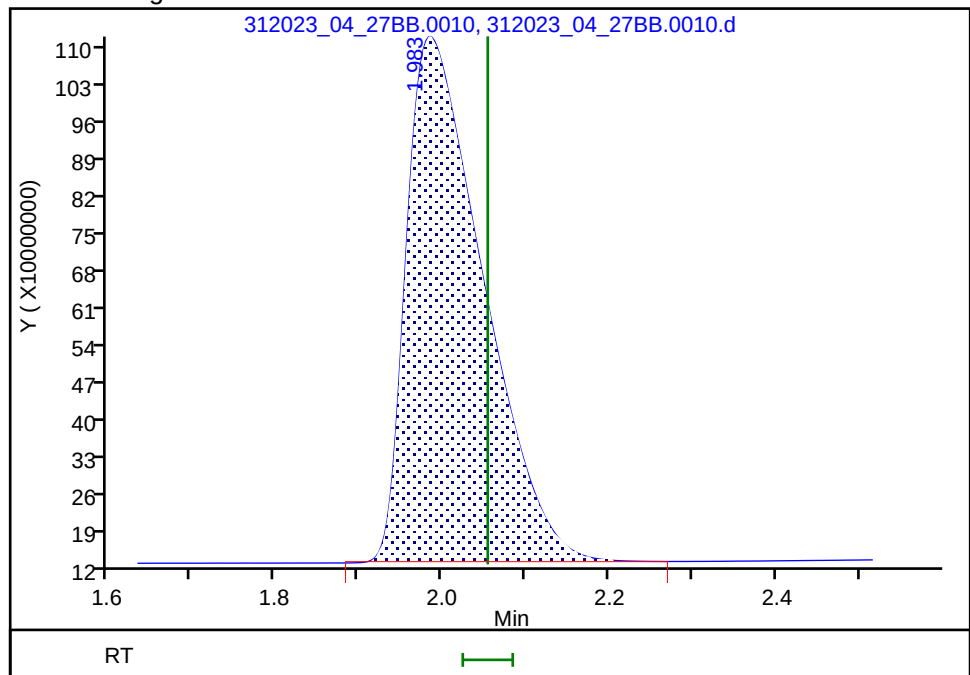
RT: 1.98

Height: 989211697

Amount: 300661

Amount Units: ug/l

Manual Integration Results



Audit Reason: Baseline Smoothing

Page 48 of 89

06/29/2023



Reviewer: WN7O, 28-Apr-2023 07:17:41

Audit Action: Manually Integrated

Calibration

/ Carbon dioxide

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

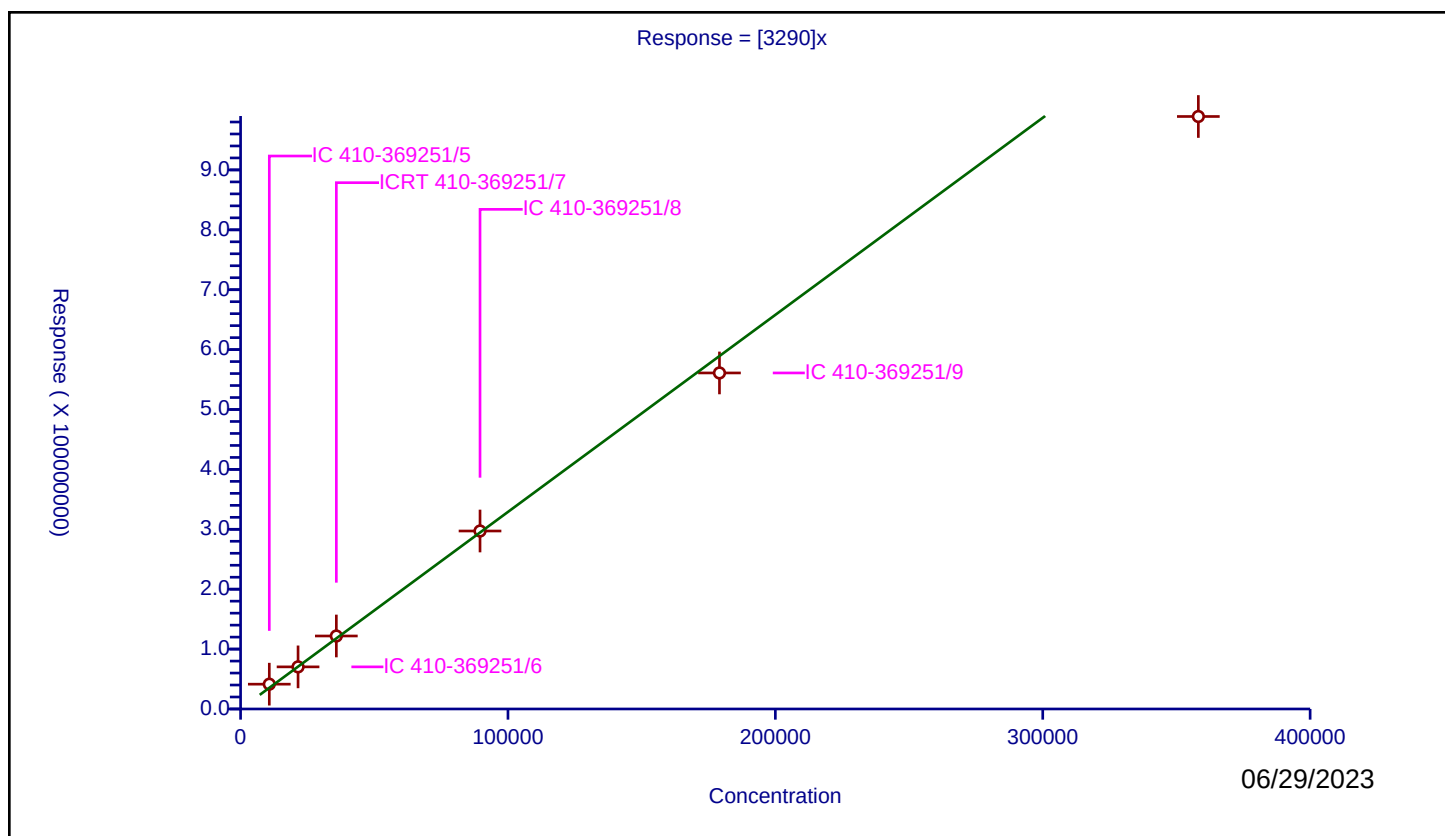
Curve Coefficients

Intercept: 0
Slope: 3290

Error Coefficients

Standard Error: 85700000
Relative Standard Error: 10.8
Correlation Coefficient: 0.995
Coefficient of Determination (Adjusted): 0.977

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 410-369251/5	10746.0	41411686.0			3853.683789	Y
2	IC 410-369251/6	21492.0	70308888.0			3271.398102	Y
3	ICRT 410-369251/7	35820.0	121893696.0			3402.950754	Y
4	IC 410-369251/8	89550.0	297170647.0			3318.48852	Y
5	IC 410-369251/9	179100.0	561047460.0			3132.5933	Y
6	IC 410-369251/10	358200.0	989211697.0			2761.618361	Y



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128779-1
 SDG No.: _____
 Lab Sample ID: ICV 410-369251/13 Calibration Date: 04/27/2023 11:01
 Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59
 GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 04/27/2023 10:37
 Lab File ID: 312023_04_27BB.0013.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	3290	3122		33200	35000	-5.1	15.0



FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128779-1
SDG No.: _____
Lab Sample ID: ICV 410-369251/13 Calibration Date: 04/27/2023 11:01
Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59
GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 04/27/2023 10:37
Lab File ID: 312023_04_27BB.0013.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.06	2.02	2.08



Report Date: 28-Apr-2023 08:51:00

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0013.d
 Lims ID: icv
 Client ID:
 Sample Type: ICV
 Inject. Date: 27-Apr-2023 11:01:00 ALS Bottle#: 0 Worklist Smp#: 13
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0082537-013
 Operator ID: Instrument ID: 19506-B
 Sublist:
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 28-Apr-2023 08:50:24 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1654

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

1 Carbon dioxide	2.057	2.054	0.003	109307674H	35008	33223	

Reagents:

EPH_CO2ICV_00002

Amount Added: 320.00

Units: uL



Report Date: 28-Apr-2023 08:51:00

Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0013.d

Injection Date: 27-Apr-2023 11:01:00

Instrument ID: 19506-B

Operator ID:

Lims ID: icv

Worklist Smp#: 13

Client ID:

Purge Vol: 1.000 mL

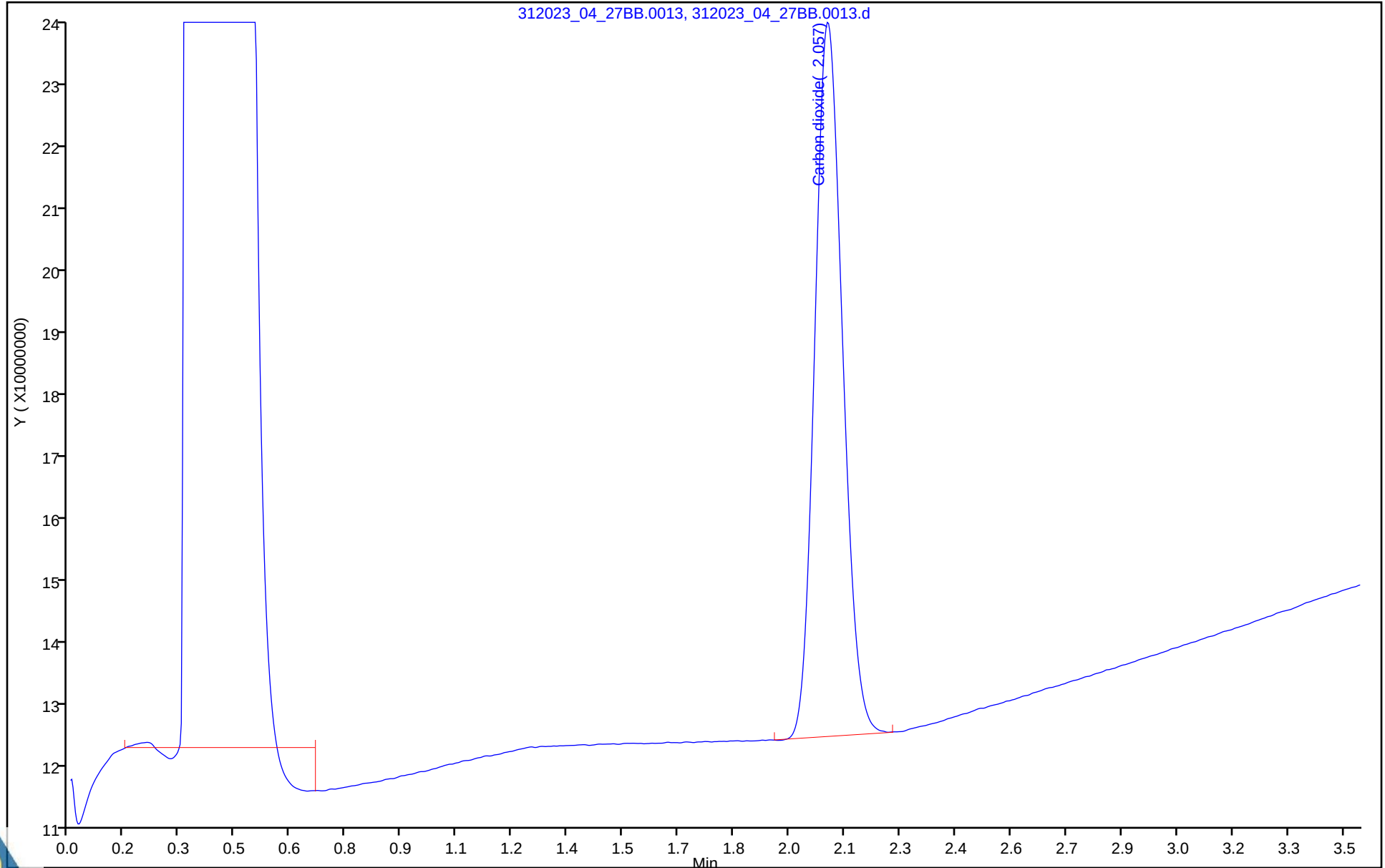
Dil. Factor: 1.0000

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.: 410-128779-1
 SDG No.: _____
 Lab Sample ID: CCVRT 410-383299/5 Calibration Date: 06/06/2023 10:41
 Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59
 GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 04/27/2023 10:37
 Lab File ID: 312023_06_6BB.0005.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	3290	3204		34900	35800	-2.6	15.0



FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128779-1
 SDG No.: _____
 Lab Sample ID: CCVRT 410-383299/5 Calibration Date: 06/06/2023 10:41
 Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59
 GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 04/27/2023 10:37
 Lab File ID: 312023_06_6BB.0005.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.05	2.02	2.08

Report Date: 06-Jun-2023 16:34:33

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0005.d
 Lims ID: ccvrt
 Client ID:
 Sample Type: CCVRT
 Inject. Date: 06-Jun-2023 10:41:00 ALS Bottle#: 0 Worklist Smp#: 5
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0085856-005
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 06-Jun-2023 16:34:33 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1667

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

1 Carbon dioxide	2.054	2.054	0.000	114766267H	35820	34882	

Reagents:

EPH_CO2MS_00004

Amount Added: 100.00

Units: uL



Report Date: 06-Jun-2023 16:34:34

Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0005.d

Injection Date: 06-Jun-2023 10:41:00

Instrument ID: 19506-B

Operator ID:

Lims ID: ccvrt

Worklist Smp#: 5

Client ID:

Purge Vol: 1.000 mL

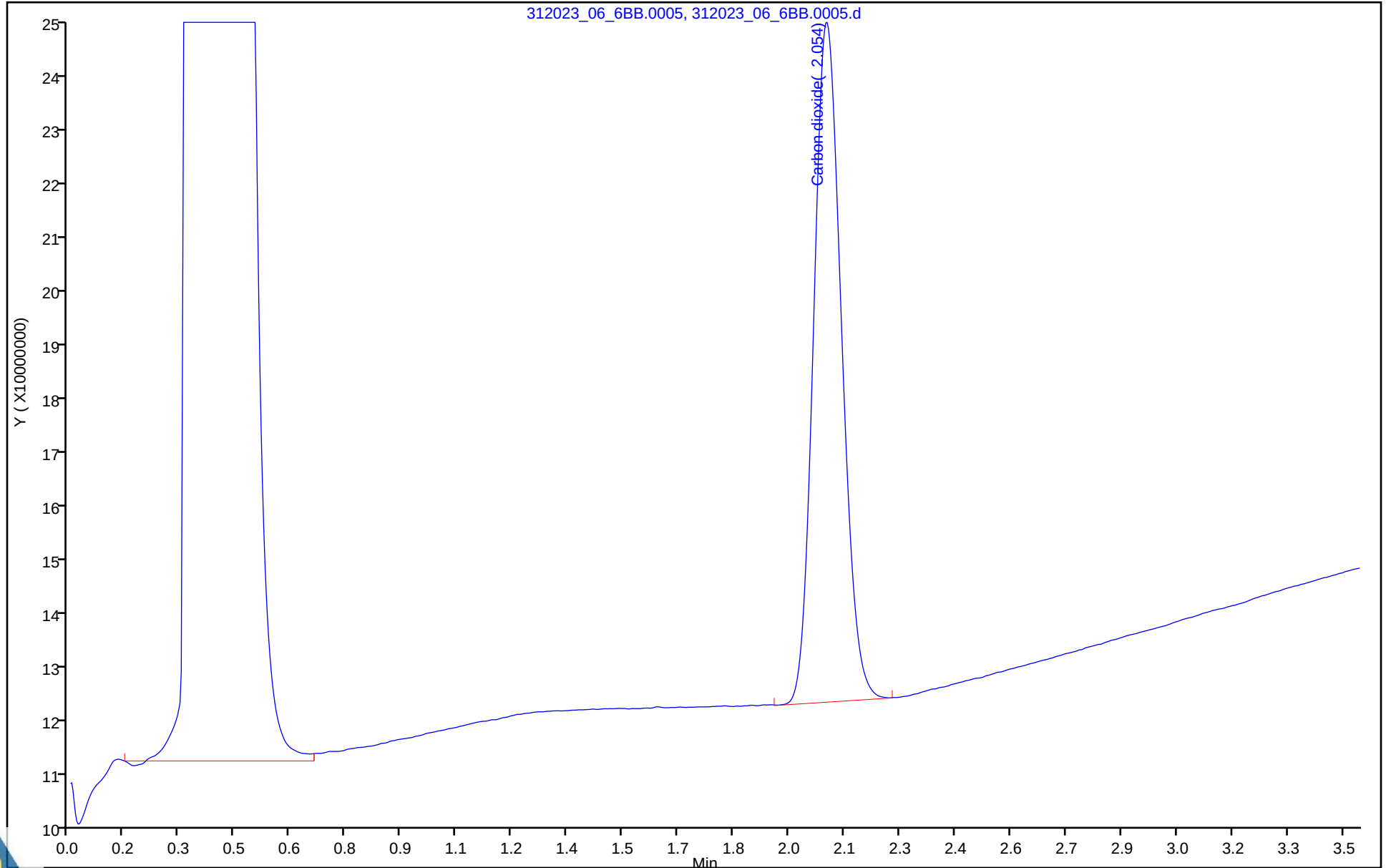
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128779-1
 SDG No.: _____
 Lab Sample ID: CCV 410-383299/16 Calibration Date: 06/06/2023 13:07
 Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59
 GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 04/27/2023 10:37
 Lab File ID: 312023_06_6BB.0016.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	3290	3123		34000	35800	-5.1	15.0



FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128779-1
SDG No.: _____
Lab Sample ID: CCV 410-383299/16 Calibration Date: 06/06/2023 13:07
Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59
GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 04/27/2023 10:37
Lab File ID: 312023_06_6BB.0016.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.05	2.02	2.08



Report Date: 06-Jun-2023 16:34:38

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0016.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 06-Jun-2023 13:07:00 ALS Bottle#: 0 Worklist Smp#: 16
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0085856-016
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 06-Jun-2023 16:34:38 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1667

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

1 Carbon dioxide	2.054	2.054	0.000	111879582H	35820	34005	

Reagents:

EPH_CO2MS_00004

Amount Added: 100.00

Units: uL



Report Date: 06-Jun-2023 16:34:38

Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0016.d

Injection Date: 06-Jun-2023 13:07:00

Instrument ID: 19506-B

Operator ID:

Lims ID: ccv

Worklist Smp#: 16

Client ID:

Purge Vol: 1.000 mL

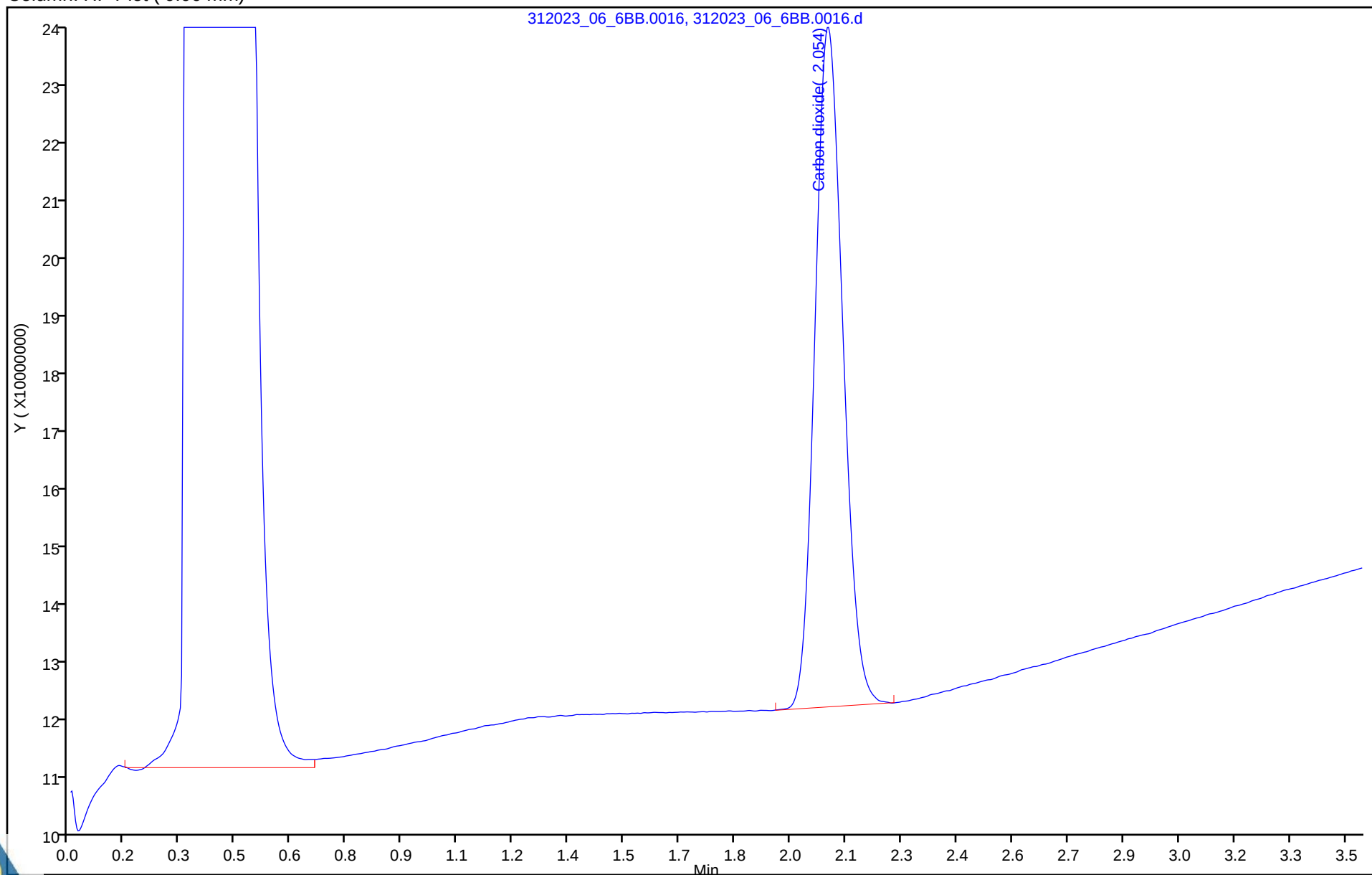
Dil. Factor: 1.0000

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.: 410-128779-1
 SDG No.: _____
 Lab Sample ID: CCV 410-383299/25 Calibration Date: 06/06/2023 14:18
 Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59
 GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 04/27/2023 10:37
 Lab File ID: 312023_06_6BB.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	3290	3019		32900	35800	-8.2	15.0



FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128779-1
SDG No.: _____
Lab Sample ID: CCV 410-383299/25 Calibration Date: 06/06/2023 14:18
Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59
GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 04/27/2023 10:37
Lab File ID: 312023_06_6BB.0025.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.05	2.02	2.08



Report Date: 06-Jun-2023 16:34:42

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0025.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 06-Jun-2023 14:18:00 ALS Bottle#: 0 Worklist Smp#: 25
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0085856-025
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 06-Jun-2023 16:34:42 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1667

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

1 Carbon dioxide	2.052	2.054	-0.002	108153467H	35820	32872	

Reagents:

EPH_CO2MS_00004

Amount Added: 100.00

Units: uL



Report Date: 06-Jun-2023 16:34:42

Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0025.d

Injection Date: 06-Jun-2023 14:18:00

Instrument ID: 19506-B

Operator ID:

Lims ID: ccv

Worklist Smp#: 25

Client ID:

Purge Vol: 1.000 mL

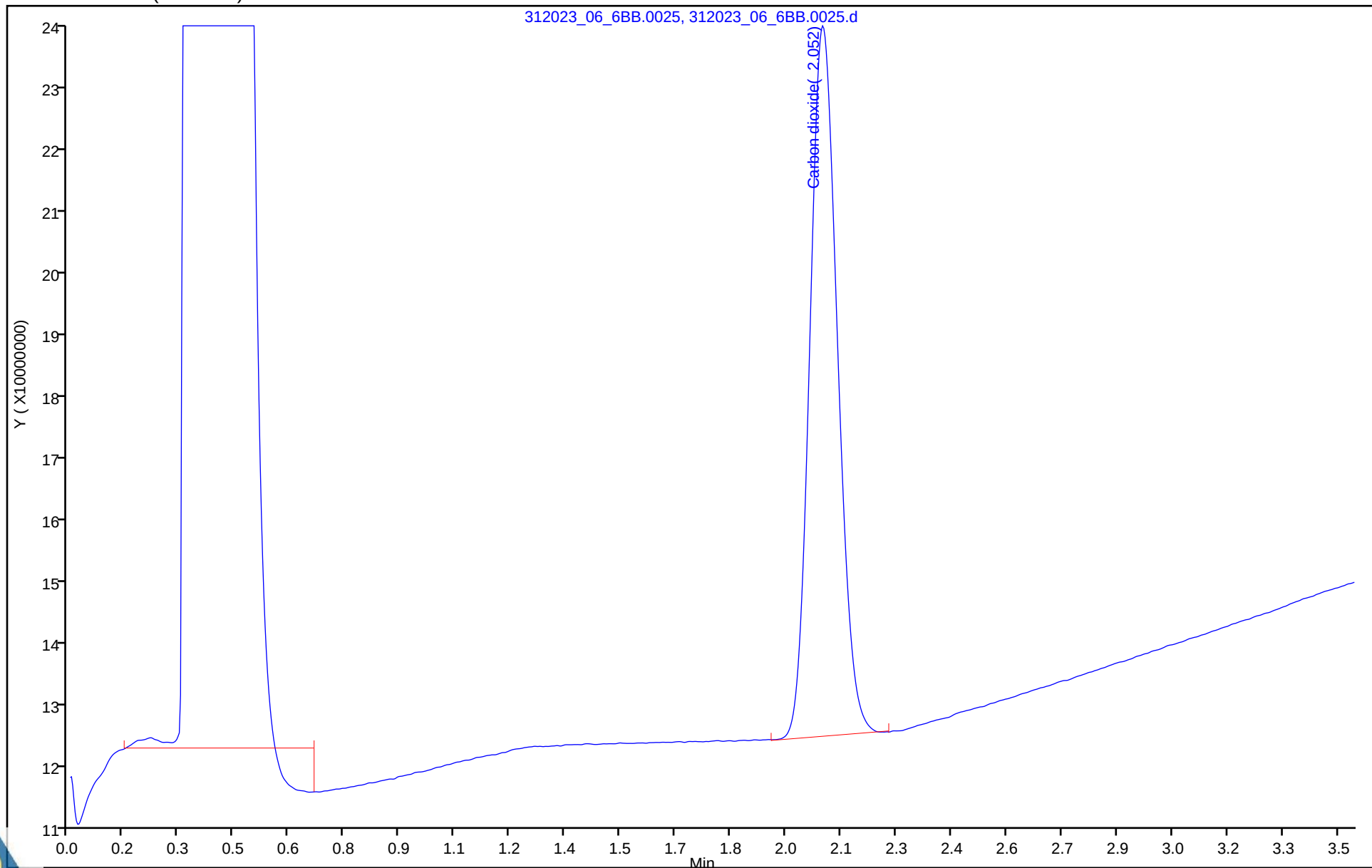
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128779-1
 SDG No.: _____
 Lab Sample ID: CCV 410-383299/36 Calibration Date: 06/06/2023 15:51
 Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59
 GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 04/27/2023 10:37
 Lab File ID: 312023_06_6BB.0036.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	3290	3121		34000	35800	-5.1	15.0



FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128779-1
SDG No.: _____
Lab Sample ID: CCV 410-383299/36 Calibration Date: 06/06/2023 15:51
Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59
GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 04/27/2023 10:37
Lab File ID: 312023_06_6BB.0036.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.05	2.02	2.08



Report Date: 06-Jun-2023 16:34:47

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0036.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 06-Jun-2023 15:51:00 ALS Bottle#: 0 Worklist Smp#: 36
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0085856-036
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 06-Jun-2023 16:34:47 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1667

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

1 Carbon dioxide	2.054	2.054	0.000	111805434H	35820	33982	

Reagents:

EPH_CO2MS_00004

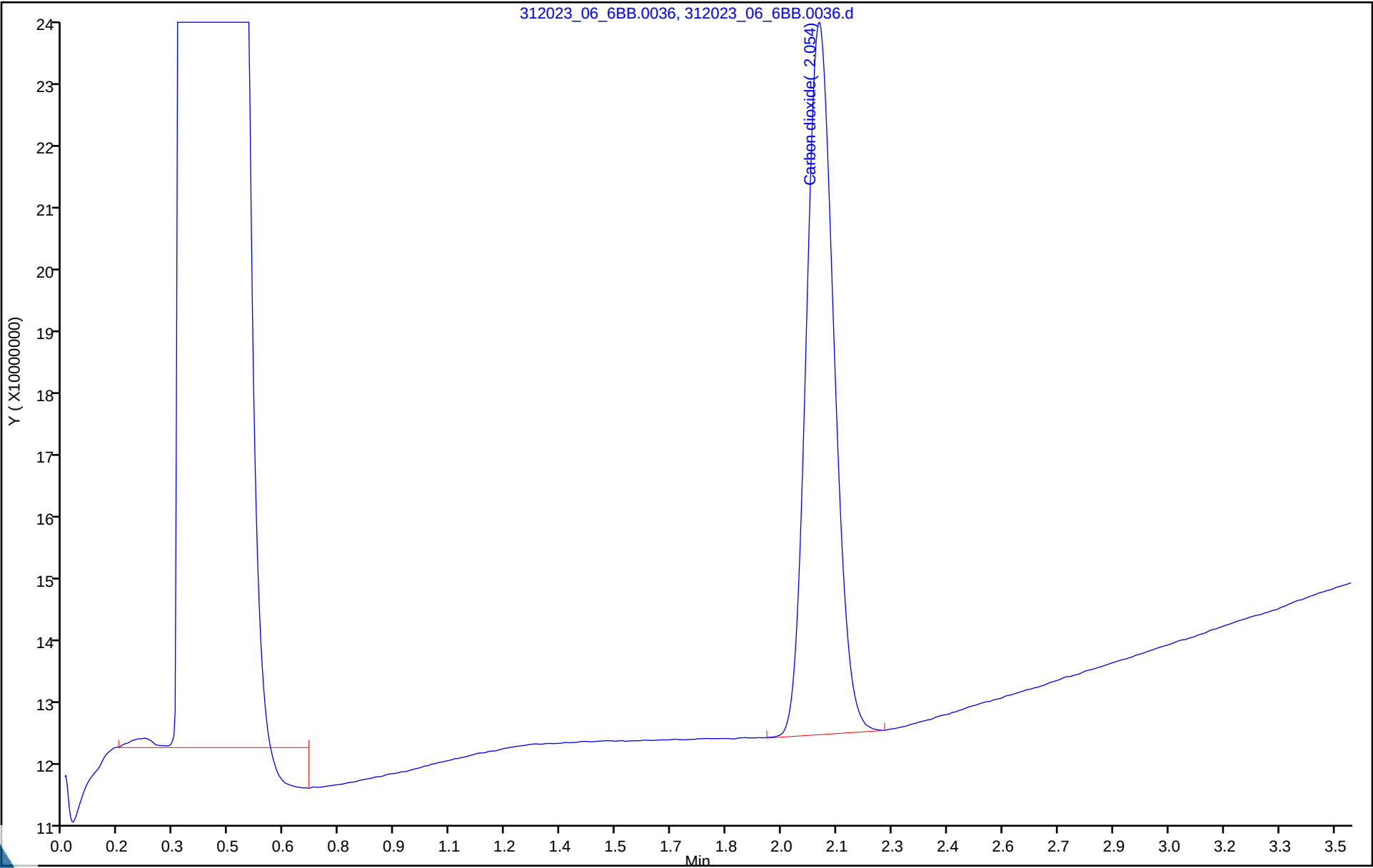
Amount Added: 100.00

Units: uL



Report Date: 06-Jun-2023 16:34:47 Chrom Revision: 2.3 05-Jun-2023 19:02:10
Eurofins Lancaster Laboratories Environment Testing, LLC
Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0036.d
Injection Date: 06-Jun-2023 15:51:00 Instrument ID: 19506-B
Lims ID: ccv
Client ID:
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2
Column: HP Plot (0.00 mm)

Operator ID:
Worklist Smp#: 36
ALS Bottle#: 0



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-128779-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: MB 410-383371/1-A

Matrix: Water Lab File ID: 312023_06_6BB.0008.d

Analysis Method: RSK-175 Date Collected: _____

Sample wt/vol: 5 (mL) Date Analyzed: 06/06/2023 11:17

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.: 383299 Units: ug/L

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



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0008.d
Lims ID: MB 410-383371/1-A
Client ID:
Sample Type: MB
Inject. Date: 06-Jun-2023 11:17:00 ALS Bottle#: 0 Worklist Smp#: 8
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 410-0085856-008
Operator ID: Instrument ID: 19506-B
Method: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m
Limit Group: GCV - RSK175 CO2
Last Update: 06-Jun-2023 16:34:33 Calib Date: 27-Apr-2023 10:37:00
Integrator: Genie
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
Column 1 : HP Plot (0.00 mm) Det: 0FIDA
Process Host: CTX1667

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.067	2.054	0.013	881879H		268.0	



Report Date: 06-Jun-2023 16:34:35

Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0008.d

Injection Date: 06-Jun-2023 11:17:00

Instrument ID: 19506-B

Operator ID:

Lims ID: MB 410-383371/1-A

Worklist Smp#: 8

Client ID:

Purge Vol: 1.000 mL

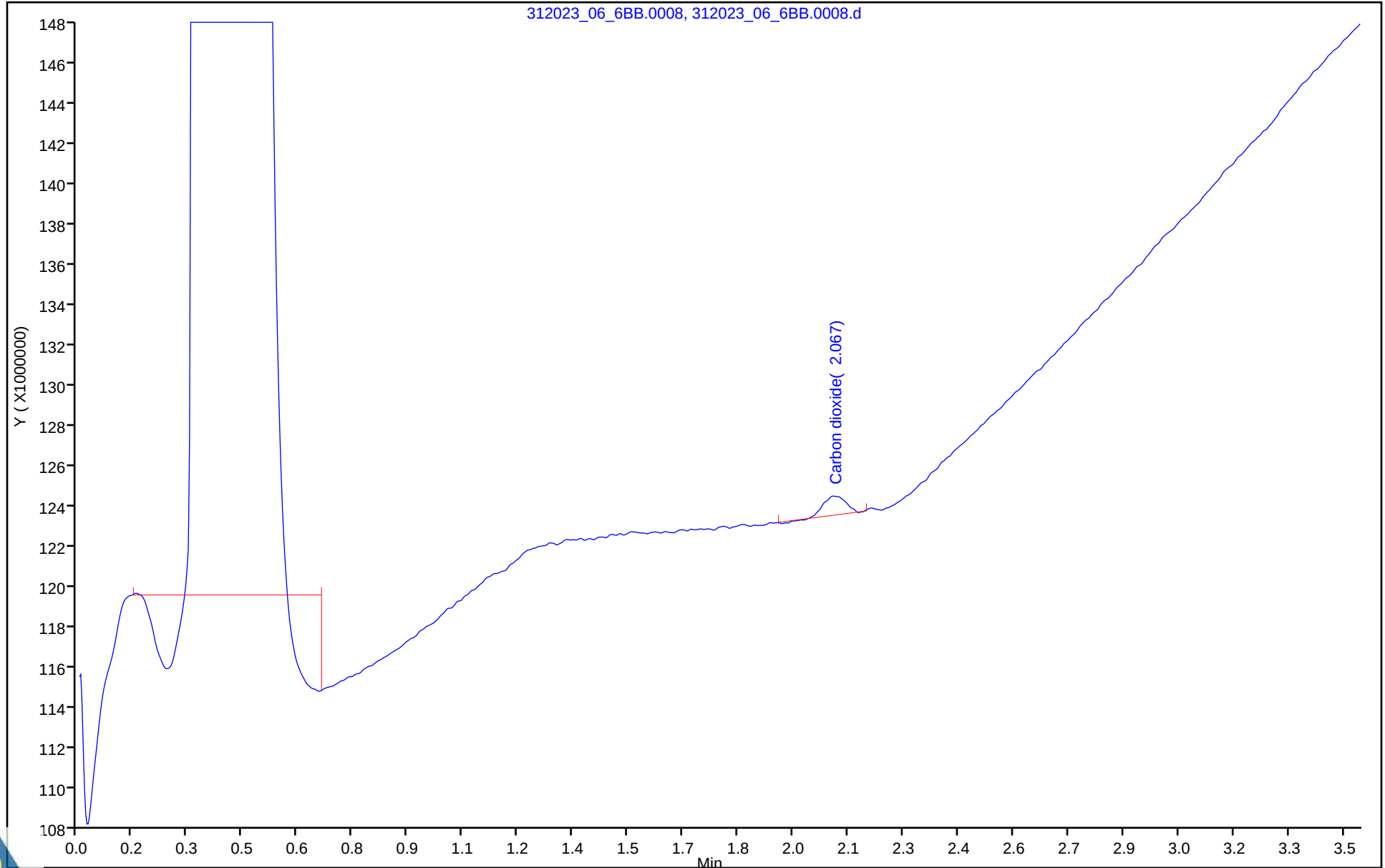
Dil. Factor: 1.0000

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 Job No.: 410-128779-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: LCS 410-383371/2-A

Matrix: Water Lab File ID: 312023_06_6BB.0009.d

Analysis Method: RSK-175 Date Collected: _____

Sample wt/vol: 5 (mL) Date Analyzed: 06/06/2023 11:25

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.: 383299 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	34700		12000	2600



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0009.d
 Lims ID: LCS 410-383371/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 06-Jun-2023 11:25:00 ALS Bottle#: 0 Worklist Smp#: 9
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0085856-009
 Operator ID: Instrument ID: 19506-B
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 06-Jun-2023 16:34:33 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1667

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.052	2.054	-0.002	114142608H	35820	34693	



Report Date: 06-Jun-2023 16:34:35

Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0009.d

Injection Date: 06-Jun-2023 11:25:00

Instrument ID: 19506-B

Operator ID:

Lims ID: LCS 410-383371/2-A

Worklist Smp#: 9

Client ID:

Purge Vol: 1.000 mL

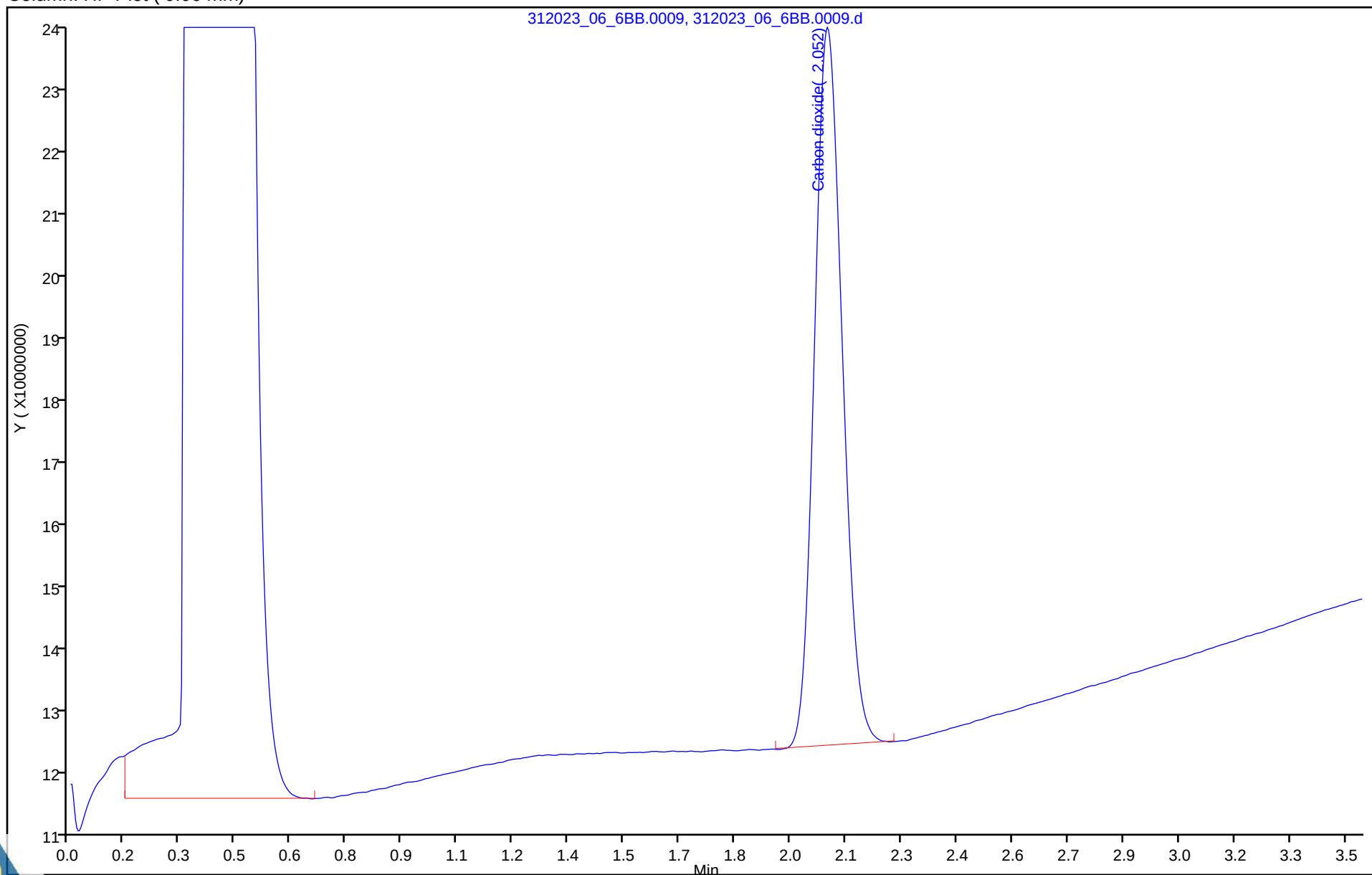
Dil. Factor: 1.0000

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 Job No.: 410-128779-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: 50WW14_052523 MS Lab Sample ID: 410-128779-3 MS

Matrix: Water Lab File ID: 312023_06_6BB.0034.d

Analysis Method: RSK-175 Date Collected: 05/25/2023 08:55

Sample wt/vol: 5 (mL) Date Analyzed: 06/06/2023 15:35

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.: 383299 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	68900	J1	12000	2600



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0034.d
 Lims ID: 410-128779-A-3-B MS
 Client ID: HS23051834-04
 Sample Type: MS
 Inject. Date: 06-Jun-2023 15:35:00 ALS Bottle#: 0 Worklist Smp#: 34
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0085856-034
 Operator ID: Instrument ID: 19506-B
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 06-Jun-2023 16:34:42 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1667

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.047	2.054	-0.007	226844080H	35820	68947	

Report Date: 06-Jun-2023 16:34:46

Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0034.d

Injection Date: 06-Jun-2023 15:35:00

Instrument ID: 19506-B

Operator ID:

Lims ID: 410-128779-A-3-B MS

Worklist Smp#: 34

Client ID: HS23051834-04

Purge Vol: 1.000 mL

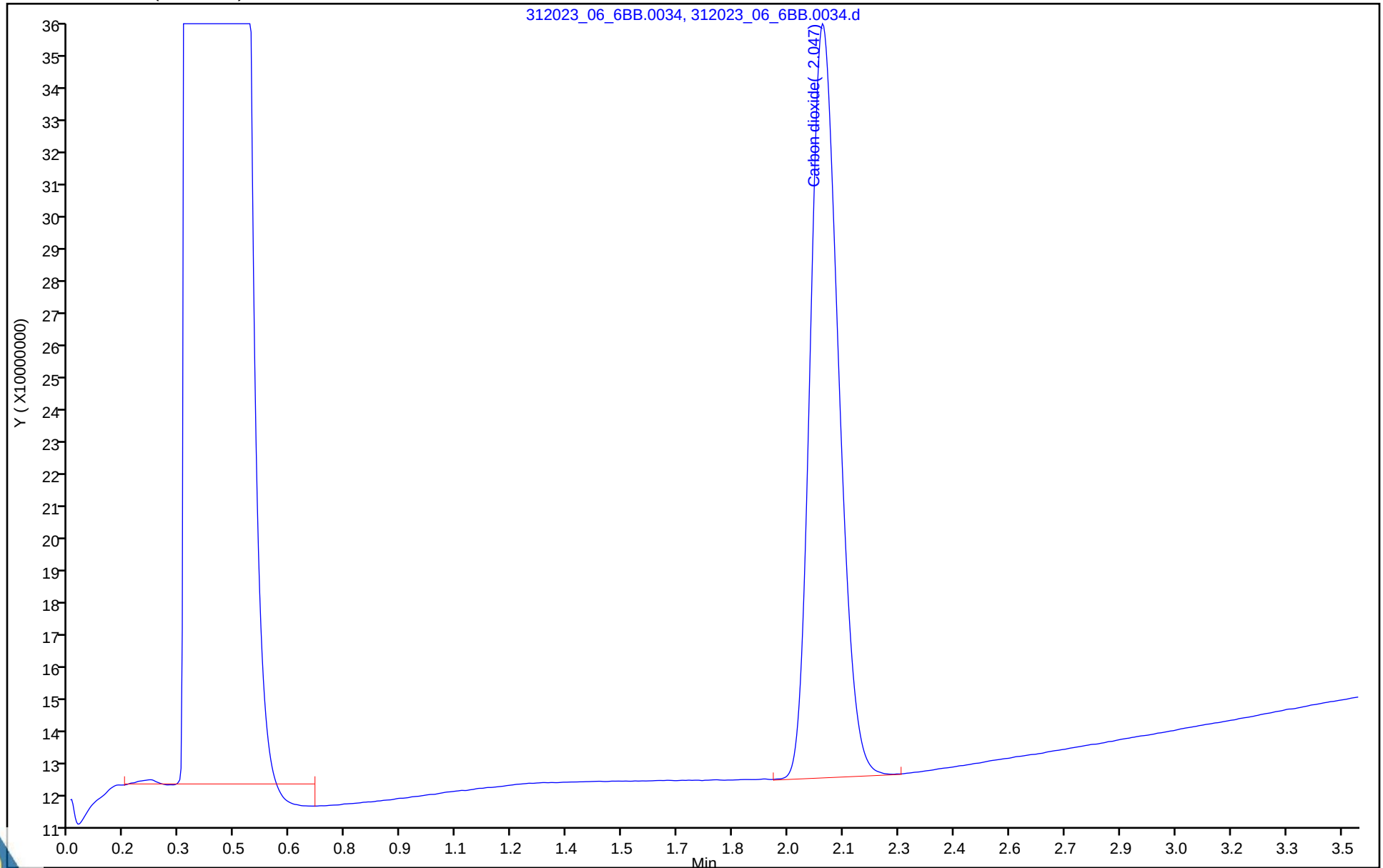
Dil. Factor: 1.0000

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 Job No.: 410-128779-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: 50WW14_052523 MSD Lab Sample ID: 410-128779-3 MSD

Matrix: Water Lab File ID: 312023_06_6BB.0035.d

Analysis Method: RSK-175 Date Collected: 05/25/2023 08:55

Sample wt/vol: 5 (mL) Date Analyzed: 06/06/2023 15:43

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.: 383299 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	70100	J1	12000	2600



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0035.d
 Lims ID: 410-128779-A-3-C MSD
 Client ID: HS23051834-04
 Sample Type: MSD
 Inject. Date: 06-Jun-2023 15:43:00 ALS Bottle#: 0 Worklist Smp#: 35
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: 410-0085856-035
 Operator ID: Instrument ID: 19506-B
 Method: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 06-Jun-2023 16:34:42 Calib Date: 27-Apr-2023 10:37:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1667

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.046	2.054	-0.008	230759571H	35820	70137	

Report Date: 06-Jun-2023 16:34:47

Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0035.d

Injection Date: 06-Jun-2023 15:43:00

Instrument ID: 19506-B

Operator ID:

Lims ID: 410-128779-A-3-C MSD

Worklist Smp#: 35

Client ID: HS23051834-04

Purge Vol: 1.000 mL

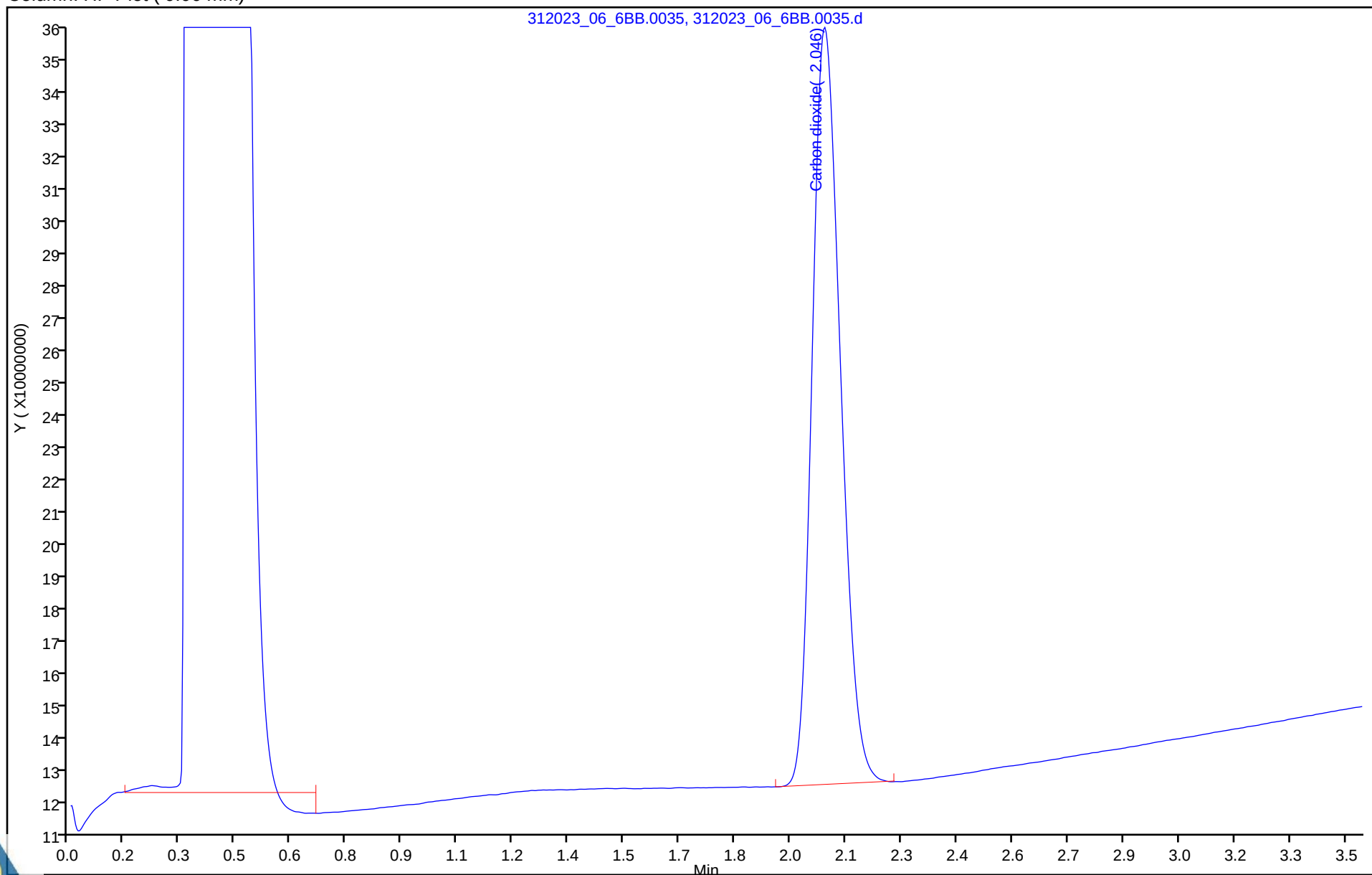
Dil. Factor: 1.0000

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 Envi Job No.: 410-128779-1

SDG No.:

Instrument ID: 19506-B

Start Date: 04/27/2023 09:16

Analysis Batch Number: 369251

End Date: 04/27/2023 17:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 410-369251/3		04/27/2023 09:16	1		HP Plot 0.53 (mm)
IC 410-369251/5		04/27/2023 09:59	1	312023_04_27BB. 0005.d	HP Plot 0.53 (mm)
IC 410-369251/6		04/27/2023 10:06	1	312023_04_27BB. 0006.d	HP Plot 0.53 (mm)
ICRT 410-369251/7		04/27/2023 10:14	1	312023_04_27BB. 0007.d	HP Plot 0.53 (mm)
IC 410-369251/8		04/27/2023 10:22	1	312023_04_27BB. 0008.d	HP Plot 0.53 (mm)
IC 410-369251/9		04/27/2023 10:30	1	312023_04_27BB. 0009.d	HP Plot 0.53 (mm)
IC 410-369251/10		04/27/2023 10:37	1	312023_04_27BB. 0010.d	HP Plot 0.53 (mm)
PIBLK 410-369251/11		04/27/2023 10:45	1		HP Plot 0.53 (mm)
ICVL 410-369251/12		04/27/2023 10:53	1		HP Plot 0.53 (mm)
ICV 410-369251/13		04/27/2023 11:01	1	312023_04_27BB. 0013.d	HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 11:45	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 11:52	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 12:01	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 12:08	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 12:16	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 12:24	1		HP Plot 0.53 (mm)
CCV 410-369251/20		04/27/2023 12:31	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 13:03	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 13:10	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 13:18	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 13:26	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 13:33	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 13:41	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 13:49	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 13:57	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 14:04	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 14:12	1		HP Plot 0.53 (mm)
CCV 410-369251/31		04/27/2023 14:20	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 14:38	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 14:50	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 14:58	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 15:06	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 15:15	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 15:23	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 15:31	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 15:39	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 15:47	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 15:56	1		HP Plot 0.53 (mm)
CCV 410-369251/42		04/27/2023 16:04	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 16:12	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 16:20	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 16:28	1		HP Plot 0.53 (mm)



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128779-1

SDG No.: _____

Instrument ID: 19506-BStart Date: 04/27/2023 09:16Analysis Batch Number: 369251End Date: 04/27/2023 17:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/27/2023 16:37	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 16:45	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 16:53	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 17:01	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 17:09	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 17:18	1		HP Plot 0.53 (mm)
ZZZZZ		04/27/2023 17:26	1		HP Plot 0.53 (mm)
CCV 410-369251/53		04/27/2023 17:34	1		HP Plot 0.53 (mm)



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128779-1

SDG No.:

Instrument ID: 19506-B

Start Date: 06/06/2023 10:41

Analysis Batch Number: 383299

End Date: 06/06/2023 16:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 410-383299/5		06/06/2023 10:41	1	312023_06_6BB.0005.d	HP Plot 0.53 (mm)
ZZZZZ		06/06/2023 11:01	1		HP Plot 0.53 (mm)
MB 410-383371/1-A		06/06/2023 11:17	1	312023_06_6BB.0008.d	HP Plot 0.53 (mm)
LCS 410-383371/2-A		06/06/2023 11:25	1	312023_06_6BB.0009.d	HP Plot 0.53 (mm)
CCV 410-383299/16		06/06/2023 13:07	1	312023_06_6BB.0016.d	HP Plot 0.53 (mm)
ZZZZZ		06/06/2023 14:10	1		HP Plot 0.53 (mm)
CCV 410-383299/25		06/06/2023 14:18	1	312023_06_6BB.0025.d	HP Plot 0.53 (mm)
ZZZZZ		06/06/2023 14:32	1		HP Plot 0.53 (mm)
ZZZZZ		06/06/2023 14:40	1		HP Plot 0.53 (mm)
ZZZZZ		06/06/2023 14:48	1		HP Plot 0.53 (mm)
ZZZZZ		06/06/2023 14:56	1		HP Plot 0.53 (mm)
ZZZZZ		06/06/2023 15:04	1		HP Plot 0.53 (mm)
410-128779-1	50WW12_052523	06/06/2023 15:12	1	312023_06_6BB.0031.d	HP Plot 0.53 (mm)
410-128779-2	50WW12_052523_a	06/06/2023 15:20	1	312023_06_6BB.0032.d	HP Plot 0.53 (mm)
410-128779-3	50WW14_052523	06/06/2023 15:28	1	312023_06_6BB.0033.d	HP Plot 0.53 (mm)
410-128779-3 MS	50WW14_052523 MS	06/06/2023 15:35	1	312023_06_6BB.0034.d	HP Plot 0.53 (mm)
410-128779-3 MSD	50WW14_052523 MSD	06/06/2023 15:43	1	312023_06_6BB.0035.d	HP Plot 0.53 (mm)
CCV 410-383299/36		06/06/2023 15:51	1	312023_06_6BB.0036.d	HP Plot 0.53 (mm)
ZZZZZ		06/06/2023 16:04	1		HP Plot 0.53 (mm)
CCV 410-383299/38		06/06/2023 16:12	1		HP Plot 0.53 (mm)

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-128779-1

SDG No.: _____

Batch Number: 369251 Batch Start Date: 04/27/23 09:16 Batch Analyst: Kennedy, Johanna CBatch Method: RSK-175 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EPH_CO2ICV 00002	EPH_CO2MS 00004		
IC 410-369251/5		RSK-175		5 mL	5 mL		30 uL		
IC 410-369251/6		RSK-175		5 mL	5 mL		60 uL		
ICRT 410-369251/7		RSK-175		5 mL	5 mL		100 uL		
IC 410-369251/8		RSK-175		5 mL	5 mL		250 uL		
IC 410-369251/9		RSK-175		5 mL	5 mL		500 uL		
IC 410-369251/10		RSK-175		5 mL	5 mL		1000 uL		
ICV 410-369251/13		RSK-175		5 mL	5 mL	320 uL			

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.: 410-128779-1

SDG No.: _____

Batch Number: 383371 Batch Start Date: 06/06/23 09:48 Batch Analyst: Omorogbe, MalachiBatch Method: RSK-175 Batch End Date: 06/06/23 14:41

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	Headspace	EPH_CO2MS 00004	
MB 410-383371/1		RSK-175, RSK-175			5 mL	5 mL			
LCS 410-383371/2		RSK-175, RSK-175			5 mL	5 mL		0.1 mL	
410-128779-A-1	50WW12_052523	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No		
410-128779-A-2	50WW12_052523_a	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No		
410-128779-A-3	50WW14_052523	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No		
410-128779-A-3 MS	50WW14_052523	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No	0.1 mL	
410-128779-A-3 MSD	50WW14_052523	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No	0.1 mL	

Batch Notes	
Pipette/Syringe/Dispenser ID	7105
pH Indicator ID	10BDH4321

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: Texas

COC ID: 21863

SUBCONTRACT TO:

Eurofins Lancaster Laboratories Env't 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: HS23051834
TSR: Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	HS23051834-02	50WW12_052523	Groundwater	25 May 2023 07:55
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			12 Jun 2023
2.	HS23051834-03	50WW12_052523_a	Groundwater	25 May 2023 07:55
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			12 Jun 2023
3.	HS23051834-04	50WW14_052523	Groundwater	25 May 2023 08:55
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			12 Jun 2023

Comments: HS23051834-04 MS/MSD

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:

MAY 30 2023

18:00

Received By:

Date/Time:

6-1-23 1008

Cooler ID(s):

Temperature(s):

RIGHT SOLUTIONS | RIGHT PARTNER

26 May 2023

Page 1 of 1



Login Sample Receipt Checklist

Client: ALS Group USA, Corp

Job Number: 410-128779-1

Login Number: 128779**List Source: Eurofins Lancaster Laboratories Environment Testing, LLC****List Number: 1****Creator: Arroyo, Haley**

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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, 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 $> 6\text{mm}$ in diameter (none, if from WV)?	True	



NINTH ANNUAL REMEDIAL ACTION OPERATION REPORT
LHAAP-50 FORMER SUMP WATER TANK

APPENDIX E
MANN-KENDALL TREND TEST RESULTS

NINTH ANNUAL REMEDIAL ACTION OPERATION REPORT
LHAAP-50 FORMER SUMP WATER TANK

This page intentionally left blank.

GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

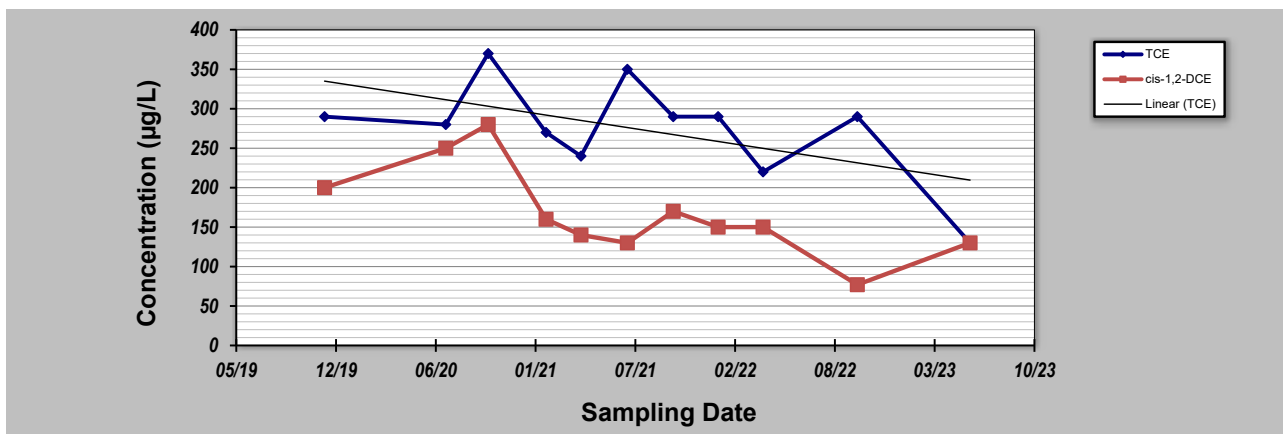
Evaluation Date: **11-Jul-23**
 Facility Name: **LHAAP-50**
 Conducted By: **Zachary Beck**

Job ID: **JVPCIBH.0001.0009**
 Constituent: **50WW05**
 Concentration Units: **µg/L**

Sampling Point ID: **TCE** **cis-1,2-DCE**

Sampling Event	Sampling Date	50WW05 CONCENTRATION (µg/L)					
1	8-Nov-19	290	200				
2	8-Jul-20	280	250				
3	1-Oct-20	370	280				
4	25-Jan-21	270	160				
5	5-Apr-21	240	140				
6	7-Jul-21	350	130				
7	7-Oct-21	290	170				
8	5-Jan-22	290	150				
9	5-Apr-22	220	150				
10	11-Oct-22	290	77				
11	25-May-23	130	130				
12							
13							
14							
15							
16							
17							
18							
19							
20							

Coefficient of Variation:	0.49	0.34					
Mann-Kendall Statistic (S):	-40	-31					
Confidence Factor:	99.3%	99.2%					
Concentration Trend:	Decreasing	Decreasing					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- ND values are shown in red italics as 1/2 the limit of detection.*

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

GSI Environmental Inc., www.gsi-net.com

GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

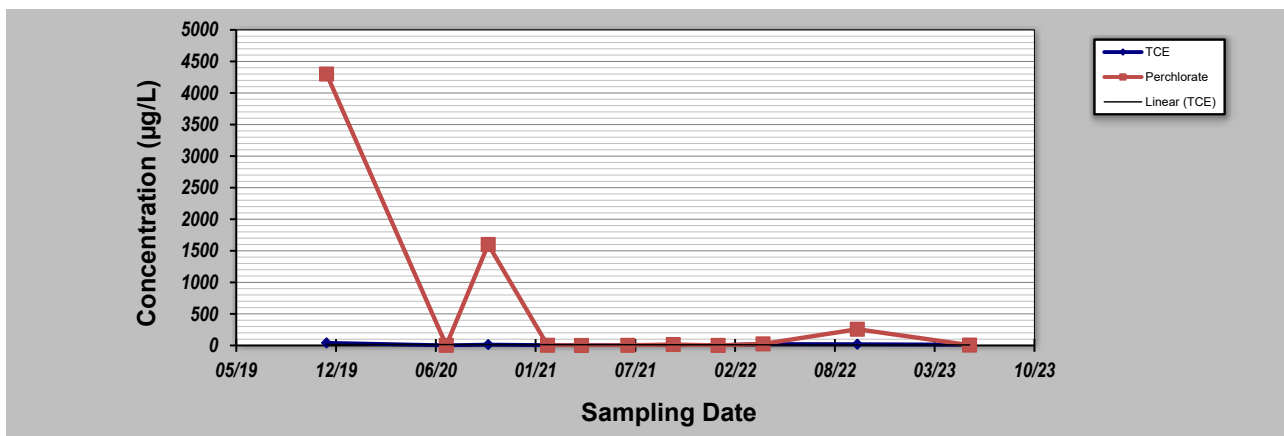
Evaluation Date: **11-Jul-23**
 Facility Name: **LHAAP-50**
 Conducted By: **Zachary Beck**

Job ID: **JVPCIBH.0001.0009**
 Constituent: **50WW06**
 Concentration Units: **µg/L**

Sampling Point ID: **TCE** **Perchlorate**

Sampling Event	Sampling Date	50WW06 CONCENTRATION (µg/L)					
1	12-Nov-19	41	4300				
2	9-Jul-20	1.3	1.69				
3	1-Oct-20	14	1600				
4	28-Jan-21	4.8	2.78				
5	6-Apr-21	3.1	0.032				
6	8-Jul-21	4.2	1.89				
7	7-Oct-21	2.8	15				
8	5-Jan-22	4.3	0.39				
9	5-Apr-22	23	24.7				
10	11-Oct-22	20	257				
11	24-May-23	13	5.79				
12							
13							
14							
15							
16							
17							
18							
19							
20							

Coefficient of Variation:	1.02	2.35					
Mann-Kendall Statistic (S):	5	-1					
Confidence Factor:	61.9%	50.0%					
Concentration Trend:	No Trend	No Trend					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- ND values are shown in red italics as 1/2 the limit of detection.*

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

GSI Environmental Inc., www.gsi-net.com

GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

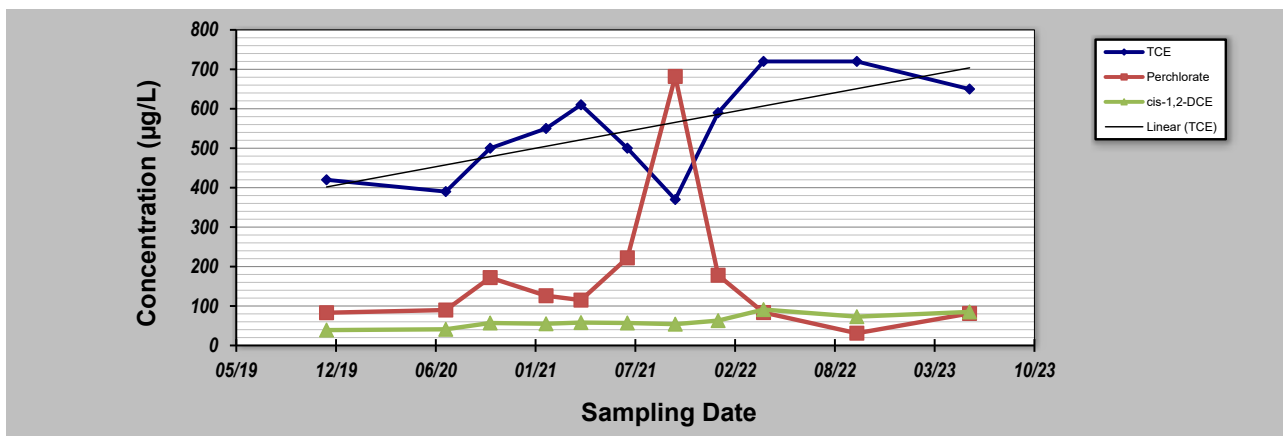
Evaluation Date: **11-Jul-23**
 Facility Name: **LHAAP-50**
 Conducted By: **Zachary Beck**

Job ID: **JVPCIBH.0001.0009**
 Constituent: **50WW08**
 Concentration Units: **µg/L**

Sampling Point ID: **TCE** **Perchlorate** **cis-1,2-DCE**

Sampling Event	Sampling Date	50WW08 CONCENTRATION (µg/L)					
1	12-Nov-19	420	83	39			
2	8-Jul-20	390	89.8	41			
3	5-Oct-20	500	172	57			
4	25-Jan-21	550	126	55			
5	5-Apr-21	610	115	58			
6	7-Jul-21	500	222	57			
7	11-Oct-21	370	682	54			
8	5-Jan-22	590	178	63			
9	6-Apr-22	720	83.4	91			
10	10-Oct-22	720	31.1	73			
11	24-May-23	650	81.1	85			
12							
13							
14							
15							
16							
17							
18							
19							
20							

Coefficient of Variation:	0.23	1.05	0.27				
Mann-Kendall Statistic (S):	29	-5	38				
Confidence Factor:	98.7%	61.9%	99.9%				
Concentration Trend:	Increasing	No Trend	Increasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- ND values are shown in red italics as 1/2 the limit of detection.*

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

GSI Environmental Inc., www.gsi-net.com

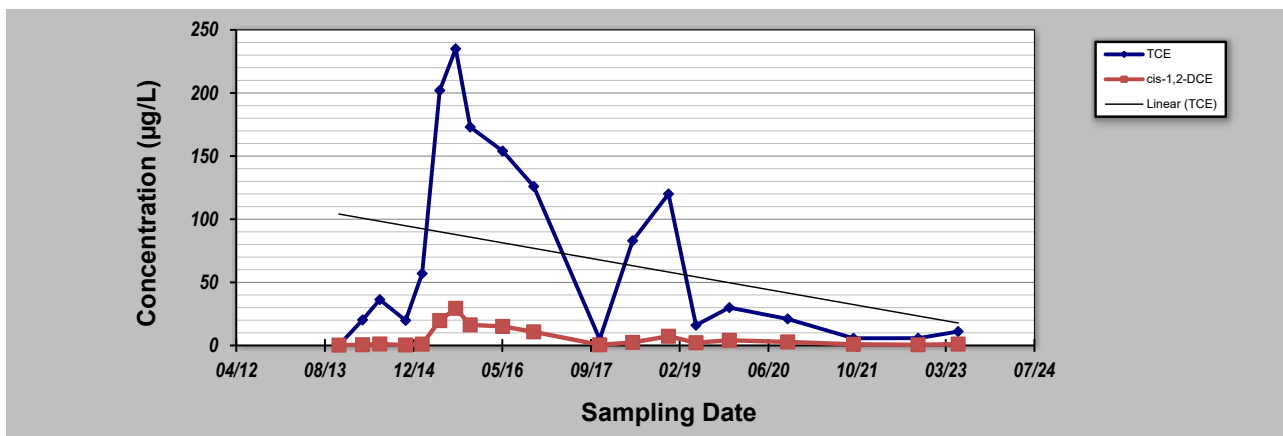
GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **11-Jul-23**
 Facility Name: **LHAAP-50**
 Conducted By: **Zachary Beck**

Job ID: **JVPCIBH.0001.0009**
 Constituent: **50WW09**
 Concentration Units: **µg/L**

Sampling Point ID: **TCE** **cis-1,2-DCE**

Sampling Event	Sampling Date	50WW09 CONCENTRATION (µg/L)					
1	1-Nov-13	0.26	0.25				
2	14-Mar-14	20.2	0.579				
3	19-Jun-14	36.3	1.16				
4	12-Nov-14	19.8	0.36				
5	13-Feb-15	57	1.04				
6	23-May-15	202	19.7				
7	21-Aug-15	235	29.4				
8	11-Nov-15	173	16.3				
9	12-May-16	154	15.1				
10	3-Nov-16	126	10.8				
11	10-Nov-17	4.9	0.5				
12	15-May-18	83	2.4				
13	3-Dec-18	120	7.3				
14	7-May-19	16	2.2				
15	11-Nov-19	30	4.1				
16	5-Oct-20	21	2.8				
17	11-Oct-21	5.7	0.93				
18	10-Oct-22	5.8	0.54				
19	24-May-23	11	1.1				
20							
Coefficient of Variation:		1.08	1.35				
Mann-Kendall Statistic (S):		-33	-3				
Confidence Factor:		86.7%	52.7%				
Concentration Trend:		No Trend	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- ND values are shown in red italics as 1/2 the limit of detection.*

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

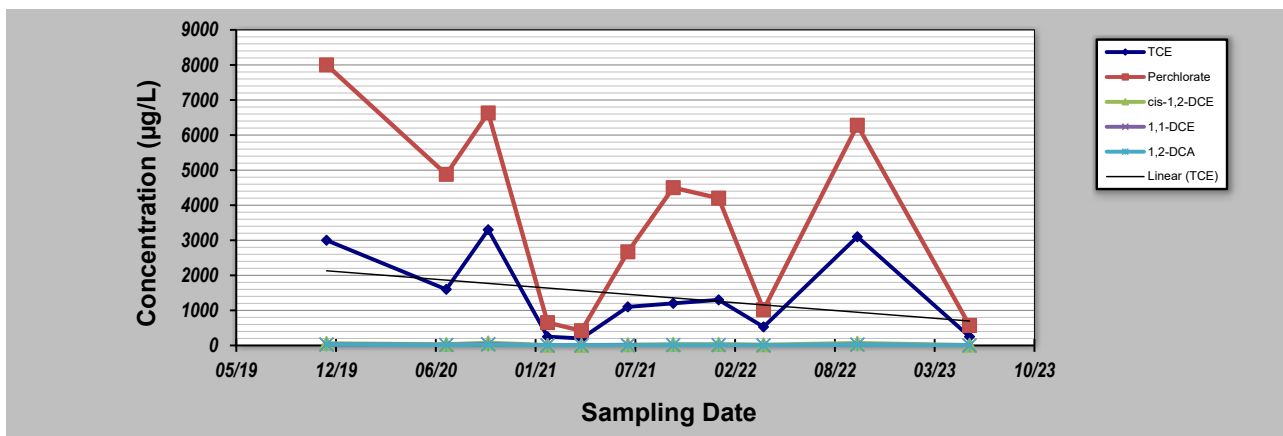
GSI Environmental Inc., www.gsi-net.com

GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **11-Jul-23**
 Facility Name: **LHAAP-50**
 Conducted By: **Zachary Beck**

Job ID: **JVPCIBH.0001.0009**
 Constituent: **50WW11**
 Concentration Units: **µg/L**

Sampling Point ID:		TCE	Perchlorate	cis-1,2-DCE	1,1-DCE	1,2-DCA		
Sampling Event	Sampling Date	50WW11 CONCENTRATION (µg/L)						
1	12-Nov-19	3000	8000	58	26	28		
2	9-Jul-20	1600	4880	29	15	13		
3	1-Oct-20	3300	6630	74	35	26		
4	28-Jan-21	250	651	6.7	2.1	2.4		
5	6-Apr-21	200	421	5.3	2	1.8		
6	8-Jul-21	1100	2670	20	9.9	0.5		
7	7-Oct-21	1200	4500	33	9.3	15		
8	6-Jan-22	1300	4200	29	9.5	12		
9	6-Apr-22	530	1020	19	3.3	3.1		
10	11-Oct-22	3100	6280	65	22	25		
11	24-May-23	250	570	8.5	2.1	1.9		
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.82	0.75	0.76	0.89	0.91		
Mann-Kendall Statistic (S):		-10	-17	-8	-16	-15		
Confidence Factor:		75.3%	89.1%	70.3%	87.5%	85.9%		
Concentration Trend:		Stable	Stable	Stable	Stable	Stable		



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- ND values are shown in red italics as 1/2 the limit of detection.*

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

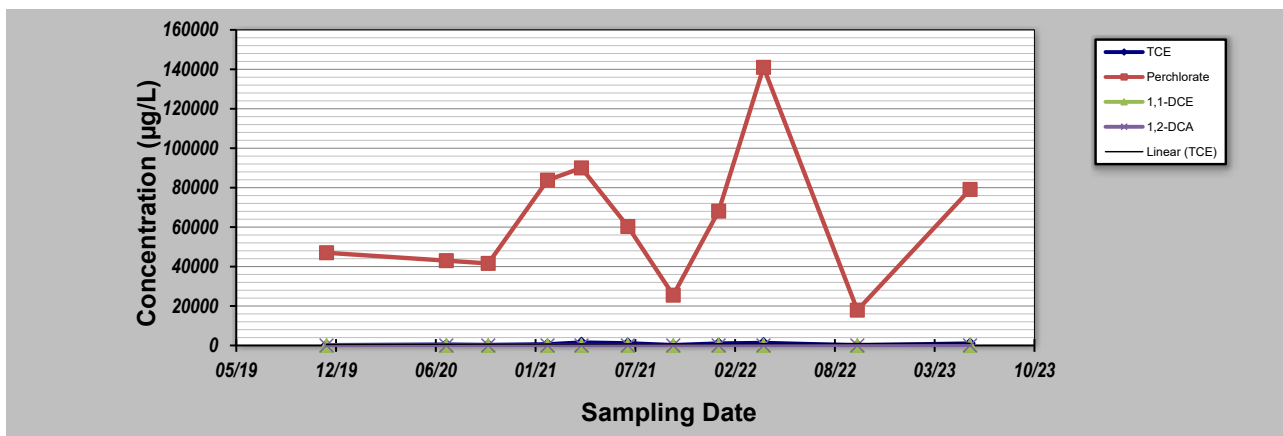
GSI Environmental Inc., www.gsi-net.com

GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **11-Jul-23**
 Facility Name: **LHAAP-50**
 Conducted By: **Zachary Beck**

Job ID: **JVPCIBH.0001.0009**
 Constituent: **50WW12**
 Concentration Units: **µg/L**

Sampling Point ID:		TCE	Perchlorate	1,1-DCE	1,2-DCA			
Sampling Event	Sampling Date	50WW12 CONCENTRATION (µg/L)						
1	12-Nov-19	280	47000	4.6	2.7			
2	9-Jul-20	550	43000	7.3	4.4			
3	1-Oct-20	380	41600	5.2	3			
4	28-Jan-21	690	83800	5.9	5.8			
5	6-Apr-21	1600	90000	17	11			
6	8-Jul-21	1200	60300	11	0.5			
7	7-Oct-21	290	25500	2.9	2.5			
8	6-Jan-22	1100	68100	12	9.3			
9	6-Apr-22	1400	141000	20	10			
10	11-Oct-22	180	17900	4.5	0.79			
11	25-May-23	1100	79100	19	6.3			
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.63	0.55	0.63	0.72			
Mann-Kendall Statistic (S):		10	5	17	7			
Confidence Factor:		75.3%	61.9%	89.1%	67.6%			
Concentration Trend:		No Trend	No Trend	No Trend	No Trend			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- ND values are shown in red italics as 1/2 the limit of detection.*

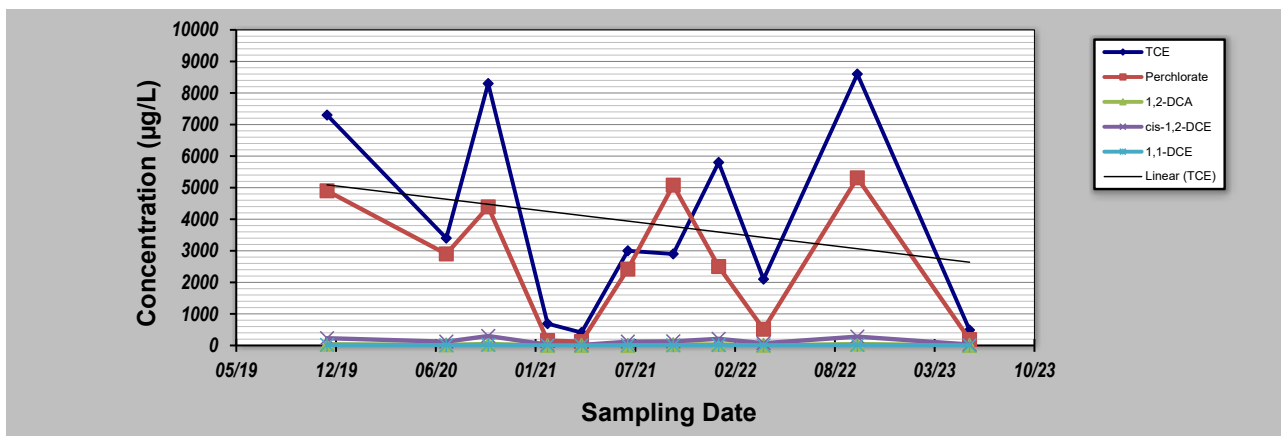
DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **11-Jul-23**
 Facility Name: **LHAAP-50**
 Conducted By: **Zachary Beck**

Job ID: **JVPCIBH.0001.0009**
 Constituent: **50WW13**
 Concentration Units: **µg/L**

Sampling Point ID:		TCE	Perchlorate	1,2-DCA	cis-1,2-DCE	1,1-DCE		
Sampling Event	Sampling Date	50WW13 CONCENTRATION (µg/L)						
1	13-Nov-19	7300	4900	39	230	17		
2	9-Jul-20	3400	2900	20	120	7.4		
3	1-Oct-20	8300	4390	47	300	17		
4	28-Jan-21	690	155	2.8	26	1		
5	6-Apr-21	410	122	1.9	16	0.95		
6	8-Jul-21	3000	2420	0.5	120	6.6		
7	7-Oct-21	2900	5080	28	130	5		
8	6-Jan-22	5800	2500	37	210	11		
9	6-Apr-22	2100	514	7.1	72	3.2		
10	11-Oct-22	8600	5310	46	280	14		
11	24-May-23	490	186	3	30	1.5		
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.79	0.81	0.89	0.73	0.80		
Mann-Kendall Statistic (S):		-9	-5	-5	-4	-12		
Confidence Factor:		72.9%	61.9%	61.9%	59.0%	79.9%		
Concentration Trend:		Stable	Stable	Stable	Stable	Stable		



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- ND values are shown in red italics as 1/2 the limit of detection.*

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

GSI Environmental Inc., www.gsi-net.com

GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **11-Jul-23**
 Facility Name: **LHAAP-50**
 Conducted By: **Zachary Beck**

Job ID: **JVPCIBH.0001.0009**
 Constituent: **50WW14**
 Concentration Units: **µg/L**

Sampling Point ID: **TCE**

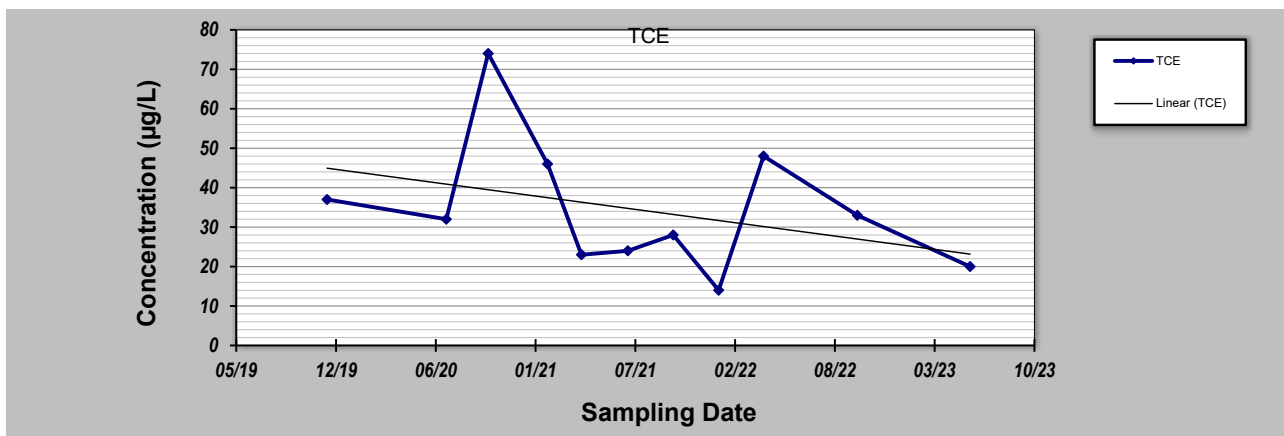
Sampling Event	Sampling Date	50WW14 CONCENTRATION (µg/L)						
1	13-Nov-19	37						
2	9-Jul-20	32						
3	1-Oct-20	74						
4	28-Jan-21	46						
5	6-Apr-21	23						
6	8-Jul-21	24						
7	7-Oct-21	28						
8	6-Jan-22	14						
9	6-Apr-22	48						
10	11-Oct-22	33						
11	25-May-23	20						
12								
13								
14								
15								
16								
17								
18								
19								
20								

Coefficient of Variation: **0.49**

Mann-Kendall Statistic (S): **-15**

Confidence Factor: **85.9%**

Concentration Trend: **Stable**



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- ND values are shown in red italics as 1/2 the limit of detection.*

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

GSI Environmental Inc., www.gsi-net.com

GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **11-Jul-23**
 Facility Name: **LHAAP-50**
 Conducted By: **Zachary Beck**

Job ID: **JVPCIBH.0001.0009**
 Constituent: **50WW15**
 Concentration Units: **µg/L**

Sampling Point ID: **TCE**

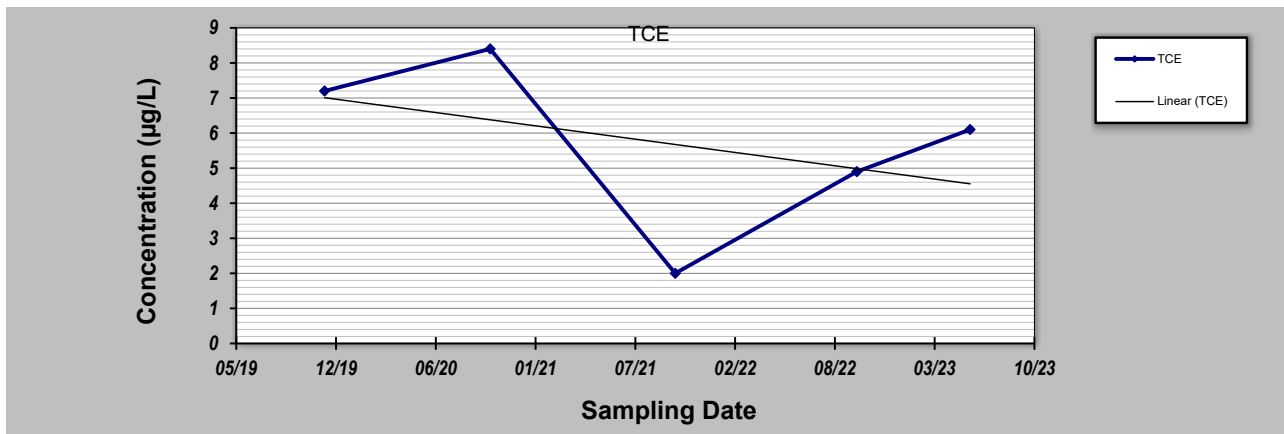
Sampling Event	Sampling Date	50WW15 CONCENTRATION (µg/L)						
1	8-Nov-19	7.2						
2	5-Oct-20	8.4						
3	11-Oct-21	2						
4	10-Oct-22	4.9						
5	25-May-23	6.1						
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Coefficient of Variation: **0.43**

Mann-Kendall Statistic (S): **-2**

Confidence Factor: **59.2%**

Concentration Trend: **Stable**



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- ND values are shown in red italics as 1/2 the limit of detection.*

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

GSI Environmental Inc., www.gsi-net.com

NINTH ANNUAL REMEDIAL ACTION OPERATION REPORT
LHAAP-50 FORMER SUMP WATER TANK

This page intentionally left blank.

NINTH ANNUAL REMEDIAL ACTION OPERATION REPORT
LHAAP-50 FORMER SUMP WATER TANK

APPENDIX F
DEGRADATION RATES

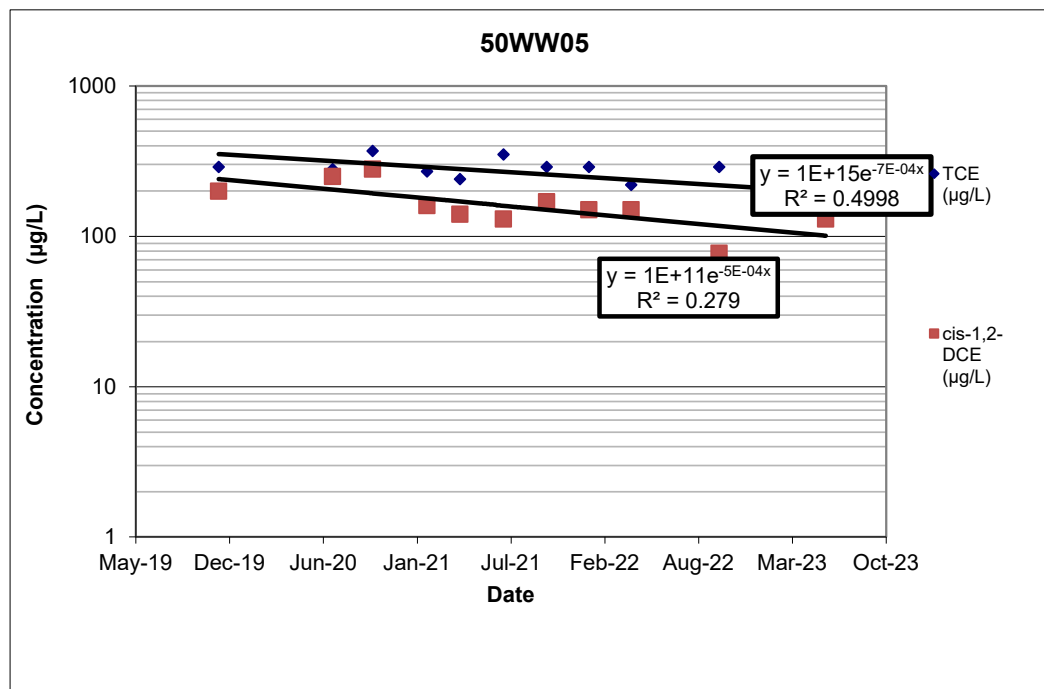
NINTH ANNUAL REMEDIAL ACTION OPERATION REPORT

LHAAP-50 FORMER SUMP WATER TANK

This page intentionally left blank.

Time-Dependent Attenuation Rate Constant and Estimated Cleanup Time 50WW05

Date	TCE (µg/L)	cis-1,2-DCE (µg/L)	
8-Nov-19	290	200	
8-Jul-20	280	250	
1-Oct-20	370	280	
25-Jan-21	270	160	
5-Apr-21	240	140	
7-Jul-21	350	130	
7-Oct-21	290	170	
5-Jan-22	290	150	
5-Apr-22	220	150	
10-Oct-22	290	77	
25-May-23	130	130	



Chemical	Attenuation Rate Constant (day ⁻¹)	Attenuation Half-life (days)	Attenuation Half-life (years)	Current Conc. (µg/L)	Target Concentration (µg/L)	Estimated Cleanup Time (years)
TCE	0.00070	990.2	2.7	130	5	12.8
cis-1,2-DCE	0.00050	1386.3	3.8	130	70	3.4

Notes:

The estimated cleanup time was calculated as the time it would take the most recent detected PCE concentration to reach the MCL using the site-specific attenuation rate, and assuming first order degradation kinetics.

µg/L - micrograms per liter

MCL - maximum contaminant level

TCE - trichloroethene

Subject: Final Monthly Managers' Meeting (MMM), Longhorn Army
Ammunition Plant (LHAAP)
Location of Meeting: WebEx
Date of Meeting: 21 February 2024 – 12:00 PM Central Daylight Time (CDT)

Attendees:

USAEC: Lena Sierocinski (LS)
USEPA: Brian Follin (BF) and Joel Reyes (JR)
USGS: Tim Bartos
USACE: Aaron Williams (AW)
BRAC: Kyle Russell (KR)
TCEQ: April Palmie (AP)
TLI: Jon Tatman (JT)
PCI/Bhate JV: Zachary Beck (ZB), Scott Beesinger (SB), Kim Nemmers, and Erin Bradley
APTIM: Praveen Srivastav (PS), William Foss (WF)
HDR: Gregory Kelly (GK), Phil Werner (PW)
FWS: Erik Duerkop (ED)

Defense Environmental Restoration Program (DERP) Performance-Based Remediation Update

There were no outstanding action items to discuss.

Groundwater Treatment Plant (GWTP) – ZB stated that repairs to the GWTP are ongoing to return the GWTP to full operational status following the severe cold weather in January 2024. ZB said on 12 January 2024, in preparation for the storm, the GWTP system was winterized. Winterization procedures included turning off the extraction well field at LHAAP-18/24 and LHAAP-17 along with placing the fluidized bed reactor (FBR) into recycle. ZB explained that the FBR continued in recycle, despite the freeze through 19 January 2024. However, as temperatures normalized on 19 January 2024, piping damage became apparent, and the air compressor shut down due to broken airlines. ZB said there have been various issues addressed in order to return the system to full operational status. ZB stated the FBR is back to operational status and is currently in recycle. However, groundwater will not be discharged and effluent samples will not be collected until the oxidation reduction potential (ORP) and potential of hydrogen (pH) measurements are corrected and in the appropriate range. ZB stated that the GWTP will be fully operational as soon as possible.

SB summarized maintenance and repairs completed to return the GWTP to full operational status. The repairs have included replacement of a 4-inch (") swing valve located on the inlet piping between the LHAAP-18/24 well field and the influent storage tank (TK-140), replacement of broken poly-vinyl chloride (PVC) piping located throughout the GWTP, and replacement of PVC fittings and piping on the interceptor collection trench (ICT) wells. SB said that several repairs have been made to the air compressors and that the FBR is in recycle but is being operated in manual mode as the system is not registering flow. SB said that an electrician will be required to determine if there is a transmitter issue or other electrical problem on the FBR. SB said that additional repairs include replacement of flow meters on the ICT wells and additional service of the air compressors. SB said that two of the air compressors are now operational but the third is in need of additional parts that will need to be repaired by a subcontractor service technician.

SB also outlined repairs made to the potable water line due to freeze damage and the low water pressure experienced at the GWTP. SB explained that another subcontractor will need to come out

and complete additional pipe welding to complete the repairs. SB said that the pump in the potable water well would be replaced once the piping is repaired.

ZB stated that there is currently flow in Harrison Bayou. SB added there is flow in low quantity; however, the intermediate range forces treaty (INF) pond was able to be drained completely prior to the decreased flow. ZB stated that earlier in February 2024, the 1st quarter surface water sampling was completed. ZB proceeded to present the validated data and stated there were little to no perchlorate detections at the surface water sampling locations.

Field Work – ZB stated the LHAAP-16 semi-annual sampling event was completed in February 2024. ZB said that sampling events at LHAAP-04 and LHAAP-46 are scheduled to be completed before the end of February 2024. PS said the LHAAP-16 stream gauges are ready to be installed and materials are on site; however, rain events have continued to result in high water levels at Harrison Bayou that restrict access and delay installation activities. PS explained that as soon as water levels recede, installation of the stream gauges will commence.

ZB asked everyone to refer to the Document and Issues (DI) Tracking Table for February 2024.

- **Tasks 1 -5** (Project Management) – ZB stated the Draft Monthly Manager Meeting (MMM) minutes for December 2023 and January 2024 are under United States Environmental Protection Agency (USEPA) review. ZB said that Texas Commission on environmental Quality (TCEQ) has provided comments to the December 2023 MMM minutes and provided no comment on the January 2024 MMM minutes via email. ZB said the Restoration Advisory Board (RAB) meeting was cancelled for February 2024; however, an email was sent to the RAB members with a summary of the sites and what would have been covered in person. ZB stated the next RAB meeting is tentatively scheduled for 20 June 2024 and Judy Vandevanter has been contacted regarding the date. LS asked to clarify the date as 19 June 2024 is a holiday. ZB stated the date of the RAB meeting is likely to shift due to the holiday, and after discussion, it was decided 27 June 2024 would be the tentative date scheduled for the next RAB meeting.
- **Task 6** (LHAAP-04) – ZB said the Year 4 Remedial Action – Operation (RA-O) Report is in progress and has a likely submittal to the regulators in March 2024. ZB said the Year 5 1st semi-annual sampling event is scheduled for the end of February 2024 and the validated data should be available for the March 2024 MMM.
- **Task 7** (LHAAP-12) – ZB stated the sampling for the 2023 Annual RA-O Report was completed in December 2023 and the report is in progress with a likely submittal date of March 2024.
- **Task 8** (LHAAP-16) – PS stated the Year 4 2nd semi-annual RA-O sampling was completed in February 2024 and the validated data will be presented at the April 2024 MMM. PS said the Year 3 RA-O Report was submitted for regulatory review on 8 February 2024.
- **Task 1022** (Option 22: LHAAP-16) - Field work update provided above.
- **Task 9** (LHAAP-18/24/GWTP) – ZB stated that semi-annual groundwater sampling was completed in December 2023, with the validated data as part of the February 2024 package. ZB explained that the key location is monitoring well 1824DPTMW07, which was installed downgradient of the ICT wells and monitoring well 18WW08 in June 2023. An increase in perchlorate concentration was observed at monitoring well 18WW08 in June 2022 and January 2023. Therefore, monitoring well 1824DPTMW07 was installed between 18WW08 and Harrison Bayou. ZB said that 1824DPTMW07 continues to display very low detections of perchlorate. ZB said the 2nd Quarter 2023 GWTP Report was submitted for

regulatory review on 21 December 2023 and comments have been received from both TCEQ and USEPA. ZB said the 3rd Quarter 2023 GWTP report will address the regulatory comments received on the 2nd Quarter GWTP Report and is scheduled for submittal in March 2024. AP indicated that some of the comments provided may require the 2nd Quarter GWTP Report to be reissued. ZB said that review of the regulatory comments is ongoing but a recommendation will be made to reissue the report if necessary.

- **Task 10** (LHAAP-37) – PS said that the Year 7 RA-O Report is in progress with a submittal date scheduled for April 2024.
- **Task 11** (LHAAP-46) – PS said that the Year 9 RA-O Report is in progress with a submittal date scheduled for March 2024. PS said that the Year 10 RA-O sampling event is being conducted in February 2024.
- **Task 12** (LHAAP-50) – ZB said that the response to comments on the Draft Year 9 RA-O Report are in progress with the Draft Final submittal scheduled for late February 2024/early March 2024. ZB said that the next Year 10 semiannual sampling event is scheduled for April 2024.
- **Task 13** (LHAAP-58) – ZB said that the Draft Final Year 9 RA-O Report was submitted 6 February 2024. The Draft Final Year 9 R-AO Report was accepted by TCEQ and is still under EPA review. ZB said that the next annual sampling event for LHAAP-58 is scheduled for June 2024.
- **Task 14** (LHAAP-67) – PS said that the Year 10 RA-O Report is in progress with a scheduled submittal date for April 2024.
- **Task 15** (LHAAP-001-R-01 and LHAAP-003-R-01) – ZB said the annual inspections at LHAAP-001-R-01 and LHAAP-003-R-01 have been delayed due to wet conditions. ZB said that the annual Long Term Management (LTM) Report is scheduled to be submitted in March 2024.
- **Task 16** (Surface Water) – ZB said that the 1st Quarter 2024 surface water samples were collected in February 2024 with the validated data package included in the February 2024 MMM. ZB said that the 2nd Quarter 2024 surface water sampling is scheduled for April 2024.
- **Task 17** (2023 Land Use Control [LUC] Management Plan) – ZB stated the LUC Management Plan has been delayed until March 2024 in order to include LUC updates for LHAAP-18/24 as well as potential additional site updates.
- **Task 18** (Administrative Record [AR]) – PS said the July 2023 through September 2023 AR update is being compiled and prepared for shipment. WF added that the October 2023 through December 2023 AR update tracking sheet is in progress. AP asked if it would be possible to move from a hardcopy AR to an electronic version only. AW indicated that there were no Army requirements for paper copies. BF said that there may be a regulatory requirement for paper copies, but that the language could potentially be updated.

Update on other DERP Sites:

- **LHAAP 18/24** – PW stated the Final 100% Remedial Design (RD) will be submitted by 23 February 2024. AP requested a summary be included of any changes made to the Final 100% RD that the regulators have not previously seen and approved. AP said that although it's a final sealed document, a review is still required if new information is presented.
- **LHAAP-29** – PW said the Final 100% RD will be submitted 26 February 2024.

- **LHAAP-47** – GK stated that regulatory approval has been received on the Draft Final Pre-Design Investigation (PDI) Report. GK said the 30% RD is in progress. AR said that the Army is attempting to award additional funds for the installation of additional monitoring wells to replace shallow monitoring wells that were dry during the last sampling event.
- **LHAAP-17** – JT said that response to comments on the Remedial Action Construction Report (RACR) are ongoing. JT said that the responses and Final document are waiting publications to be provided by the Army on the type of signal flares recovered during the time critical removal action. ZB said that regulatory comments have been received to the Draft Year 1 RAO Report with the Draft Final submittal scheduled for March 2024. ZB said that the next performance monitoring event is scheduled for March 2024 with the validated data planned to be presented at the April 2024 MMM. JR ask if there is a reason why the publications are necessary to provide more information on conditions that were flagged. JT said the open source publications don't adequately address the type of perchlorate streams that were identified.

Per- and polyfluoroalkyl substances (PFAS) Update: LS said that the PFAS Preliminary Assessment/ Site Inspection (PA/SI) Report is available to the public on the United States Army Environmental Command (USAEC) website. LS said that it will also be uploaded to the LHAAP website. LS said that the Army anticipates a 2025 award for the Remedial Investigation task.

Five-Year Review: LS said that the Five-Year Review Report was still under Army review, with a regulatory submittal scheduled for March 2024.

Transfer Update: KR and ED indicated there was no transfer update at this time. ZB asked ED about the burn schedule for LHAAP and specifically if the LHAAP-19 site is on the list of sites. ED said that an exact date is unknown, however, it's possible to be scheduled as soon as March 2024.

Schedule Next Managers' Meeting:

ZB said the next MMM will be held via WebEx on Wednesday 20 March 2024 at 11:00 AM CDT. Meeting concluded at approximately 12: 55 AM CDT.

ACRONYM LIST

AP	April Palmie
AR	Administrative Record
AW	Aaron Williams
BF	Brian Follin
CDT	Central Daylight Time
CSM	Conceptual Site Model
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
FBR	Fluidized bed reactor
Ft	Feet
GIS	Geographic Information Systems
GK	Gregory Kelly
GWTP	Groundwater Treatment Plant
ICT	Interceptor Collection Trench
INF	Intermediate-Range Nuclear Forces Treaty
JR	Joel Reyes
JT	Jonathan Tatman
KR	Kyle Russel
LHAAP	Longhorn Army Ammunition Plant
LS	Lena Sierocinski
LUC	Land Use Control
MMM	Monthly Managers' Meeting
OM&M	Operation, Maintenance, and Monitoring
ORP	Oxidation Reduction Potential
PA/SI	Preliminary Assessment/Site Inspection
PBJV	Poarch Creek Indians, Governmental Services, LLC /Bhate Environmental Associates Joint Venture
PS	Praveen Srivastav
PW	Phil Werner
RAB	Restoration Advisory Board
RACR	Remedial Action Construction Report
RA-O	Remedial Action – Operation
RTC	Response to comments
SB	Scott Beesinger
TCEQ	Texas Commission on Environmental Quality
USACE	United States Army Corps of Engineers
USAEC	United States Army Environmental Command
USEPA	United States Environmental Protection Agency
WF	William Foss
ZB	Zachary Beck

LHAAP Validated Data
February 2024 MMM

GWTP Effluent	<i>Weekly Perchlorate Sampling –January 2024</i> Perchlorate (6850)
GWTP Effluent	<i>Weekly, Bi-Weekly, and Monthly Sampling – January 2024</i> Ammonia (350.3) Ortho-Phosphate (365.3) Total Organic Carbon (415.1) VOC (8260C) Metals (6020A) Hexavalent Chromium (7196A) 1,4-Dioxane (8270D-SIM) Anions (9056)
GWTP Influent	<i>Monthly Sampling – January 2024</i> Metals (6020A) Perchlorate (6850) Hexavalent Chromium (7196A)
LHAAP-18/24	<i>Semi-Annual Sampling - December 2023</i> Metals (6020A/7470A) Perchlorate (6850) VOC (8260C) 1,4-Dioxane (8270D-SIM)
Surface Water	<i>Quarterly Sampling - January 2024</i> Perchlorate (6850)

GWTP Weekly/Effluent Perchlorate Sampling - January 2024

Location Identification: Sample Date:	Units	Daily Maximum Concentration	PCL	LH18/24-SP650_010324_BIX 1/3/24	LH18/24-SP650_010324_AIX 1/3/24	LH18/24-SP650_010324_AIX 1/3/24	LH18/24-SP650_010924_BIX 1/9/24
Location Description							
				Weekly	Weekly	Monthly Effluent	Weekly
Perchlorate (6850)							
Perchlorate	µg/L	589	17	16.2	1.97	1.41	1.71

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

µg/L - micrograms per liter

BIX - before ion exchange/AIX - after ion exchange

Bold Values- Detections

GWTP Weekly Sampling - January 2024

Location ID: Sample Date:	Units	Daily Maximum Concentration	LH18/24-SP650_010324 1/3/24	LH18/24-SP650_010924 1/9/24
Location Description			GWTP—Collected from a spigot on the discharge of effluent TK-650. Sampled Weekly.	
Ammonia as Nitrogen (350.3)				
Ammonia as Nitrogen	mg/L	NV	9.7	2.9
Ortho-Phosphate (365.3)				
Ortho-Phosphate	mg/L	NV	7.41 J	2.04
Organic Carbon (415.1)				
Total Organic Carbon (TOC)	mg/L	NV	1.97 UB	4.18

Notes:

GWTP - Groundwater Treatment Plant

TK - Tank

mg/L - milligrams per liter

NV - No Value

Bold Values- Detections

UB - considered an artifact of blank contamination

J - estimated result

GWTP Bi-Weekly Sampling - January 2024

Location Identification: Sample Date:	Units	(Bayou) Daily Maximum Concentration	(INF pond) MCL	LH18/24-SP650_010924 1/9/24
Location Description				GWTP – Collected from a spigot on the discharge of effluent TK-650. Sampled Biweekly.
Volatile Organic Compounds (8260C)				
1,1,1-Trichloroethane	µg/L	7,230	200	< 1.0 U
1,1,2-Trichloroethane	µg/L	216.9	5	< 1.0 U
1,1-Dichloroethane	µg/L	14,032	NV	< 1.0 U
1,1-Dichloroethene	µg/L	253	7	< 1.0 U
1,2-Dichloroethane	µg/L	181	5	< 1.0 U
1,2-Dichloropropane	µg/L	5	5	< 1.0 U
Acetone	µg/L	2,395	NV	< 1.0 U
Benzene	µg/L	181	5	< 1.0 U
Carbon tetrachloride	µg/L	181	5	< 1.0 U
Chlorobenzene	µg/L	47,180	100	< 1.0 U
Chloroform	µg/L	3,615	NV	< 1.0 U
cis-1,2-Dichloroethene	µg/L	NV	70	0.83 J
Ethylbenzene	µg/L	57,025	700	< 1.0 U
m,p-Xylene	µg/L	83.6	NV	< 1.0 U
Methylene chloride	µg/L	1,699	5	< 1.0 U
o-Xylene	µg/L	83.6	NV	< 1.0 U
Styrene	µg/L	5,987	100	< 1.0 U
Tetrachloroethene	µg/L	180.7	5	< 1.0 U
Toluene	µg/L	4,189	10	< 1.0 U
Trichloroethene	µg/L	181	5	< 1.0 U
Vinyl chloride	µg/L	72	2	< 1.0 U
Anions (9056)				
Chloride	mg/L	NV	NV	882
Sulfate	mg/L	NV	NV	34.7

Notes:

GWTP - Groundwater Treatment Plant

INF - Intermediate Range Nuclear Forces

MCL - Maximum Contaminant Level

TK - Tank

µg/L - micrograms per liter

mg/L - milligrams per liter

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

NV - No value

J - estimated value

Bold Values- Detections

GWTP Monthly Effluent Sampling - January 2024

Location ID: Sample Date:	Units	Daily Maximum Concentration	(INF pond) MCL	LH18/24-SP650_010324 1/3/24
Location Description				GWTP – Collected from a spigot on the discharge of effluent TK-650. Sampled monthly
Volatile Organic Compounds (8260C)				
1,1,1-Trichloroethane	µg/L	7,230	200	< 1.0 U
1,1,2-Trichloroethane	µg/L	216.9	5	< 1.0 U
1,1-Dichloroethane	µg/L	14,032	NV	< 1.0 U
1,1-Dichloroethene	µg/L	253	7	< 1.0 U
1,2-Dichloroethane	µg/L	181	5	< 1.0 U
1,2-Dichloropropane	µg/L	5	5	< 1.0 U
Acetone	µg/L	2,395	NV	< 1.0 U
Benzene	µg/L	181	5	< 1.0 U
Carbon tetrachloride	µg/L	181	5	< 1.0 U
Chlorobenzene	µg/L	47,180	100	< 1.0 U
Chloroform	µg/L	3,615	NV	< 1.0 U
cis-1,2-dichloroethene	µg/L	NV	70	1.1
Ethylbenzene	µg/L	57,025	700	< 1.0 U
m,p-Xylene	µg/L	83.6	NV	< 1.0 U
Methylene chloride	µg/L	1,699	5	< 1.0 U
o-Xylene	µg/L	83.6	NV	< 1.0 U
Styrene	µg/L	5,987	100	< 1.0 U
Tetrachloroethene	µg/L	180.7	5	< 1.0 U
Toluene	µg/L	4,189	10	< 1.0 U
Trichloroethene	µg/L	181	5	< 1.0 U
Vinyl chloride	µg/L	72	2	< 1.0 U
Metals (6020A)				
Barium	mg/L	2	2	0.177
Lead	mg/L	0.0046	0.015	< 0.00125 U
Selenium	mg/L	0.012	0.05	< 0.00250 U
Silver	mg/L	0.003	0.1	< 0.000500 U
Hexavalent Chromium (7196A)				
Hexavalent Chromium	mg/L	0.1244	NV	< 0.00500 U
Semi-Volatile Organic Compounds (8270D SIM)				
1,4-Dioxane	µg/L	134.2	NV	0.37

Notes:

GWTP - Groundwater Treatment Plant

INF - Intermediate Range Nuclear Forces

MCL - Maximum Contaminant Level

TK - Tank

SIM - Select Ion monitoring

µg/L - micrograms per liter

mg/L - milligrams per liter

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

NV - No value

Bold Values- Detections

GWTP Monthly Influent Sampling - January 2024

Location Identification: Sample Date:		Units	LH18/24-SP140_010324 1/3/24
Location Description			GWTP – Collected from a spigot on the influent to TK-140. Sampled Monthly.
Metals (6020A)			
Selenium	mg/L		< 0.00250 U
Silver	mg/L		< 0.000500 U
Hexavalent Chromium (7196A)			
Hexavalent Chromium	mg/L		< 0.00500 UJ
Perchlorate (6850)			
Perchlorate	µg/L		17,200

Notes:

GWTP - Groundwater Treatment Plant

TK - Tank

mg/L - milligrams per liter

µg/L - micrograms per liter

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

Bold Values- Detections

J - estimated value

UJ - estimated non-detect due to quality control deficiencies

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSCL/ PCL	AWD1_121323 12/13/23	AWD3_120423 12/4/23	AWD3_120423_a 12/4/23	AWD4_121223 12/12/23	18CPTMW01SW _121123 12/11/23	18CPTMW03SW _120423 12/4/23	18CPTMW04_12 0423 12/4/23	18CPTMW04SW _120423 12/4/23
Aquifer Zone:			Shallow	Shallow		Shallow	Wilcox	Wilcox	Shallow	Wilcox
Lab Package:			HS23120998-01	HS23120468-03	HS23120468-04	HS23120860-09	HS23120857-02	HS23120468-05	HS23120468-02	HS23120468-01
Well Identification:			AWD-1	AWD-3	AWD-3	AWD-4	18CPTMW01SW	18CPTMW03SW	18CPTMW04	18CPTMW04SW
Perchlorate (6850)										
Perchlorate	µg/L	17*	0.279	9.67	11.6	1,500	< 0.0500 U	0.274	217	< 0.0500 U
Volatile Organic Compounds (8260C)										
1,1,1,2-Tetrachloroethane	µg/L	110	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,1-Trichloroethane	µg/L	200	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	µg/L	14	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	µg/L	5	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	10,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloropropene	µg/L	2.9	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,3-Trichlorobenzene	µg/L	310	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,3-Trichloropropane	µg/L	0.041	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	µg/L	70	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trimethylbenzene	µg/L	5,100	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane	µg/L	0.2	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromoethane	µg/L	0.05	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	µg/L	600	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	µg/L	5	NA	2.2	2.1	< 1.0 U	< 10 U	< 1.0 U	0.73 J	< 1.0 U
1,2-Dichloropropane	µg/L	5	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3,5-Trimethylbenzene	µg/L	5,100	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	µg/L	3,100	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichloropropane	µg/L	29	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	µg/L	75	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
2,2-Dichloropropane	µg/L	42	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone	µg/L	61,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Chlorotoluene	µg/L	2,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Hexanone	µg/L	6,100	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Chlorotoluene	µg/L	2,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Isopropyltoluene	µg/L	10,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 UJ	< 1.0 U
4-Methyl-2-pentanone	µg/L	8,200	NA	< 2.0 U	< 1.0 U	< 2.0 U	< 20 U	< 2.0 U	< 2.0 U	< 1.0 U
Acetone	µg/L	92,000	NA	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 UJ
Benzene	µg/L	5	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	0.89 J	< 1.0 U	< 1.0 U
Bromobenzene	µg/L	2,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromochloromethane	µg/L	4,100	NA	< 1.0 U	< 1.0 U	< 1.0 U	11	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	µg/L	4.6	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	µg/L	36	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane	µg/L	140	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	µg/L	10,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSCL/ PCL	AWD1_121323 12/13/23	AWD3_120423 12/4/23	AWD3_120423_a 12/4/23	AWD4_121223 12/12/23	18CPTMW01SW _121123 12/11/23	18CPTMW03SW _120423 12/4/23	18CPTMW04_12 0423 12/4/23	18CPTMW04SW _120423 12/4/23
Aquifer Zone:			Shallow	Shallow		Shallow	Wilcox	Wilcox	Shallow	Wilcox
Carbon tetrachloride	µg/L	5	NA	2.9	2.9	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	µg/L	100	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	µg/L	41,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform	µg/L	1,000	NA	0.64 J	0.69 J	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane	µg/L	220	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	NA	38	41	6.0	1,800	16	9.0	< 1.0 U
cis-1,3-Dichloropropene	µg/L	5.3	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	µg/L	34	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromomethane	µg/L	380	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane	µg/L	20,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Hexachlorobutadiene	µg/L	20	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropylbenzene	µg/L	10,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
m,p-Xylene	µg/L	10,000**	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U
Methylene chloride	µg/L	5	NA	< 1.0 U	< 1.0 U	< 1.0 U	10,000	< 1.0 U	< 1.0 U	< 1.0 U
Naphthalene	µg/L	2,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
n-Butylbenzene	µg/L	4,100	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
n-Propylbenzene	µg/L	4,100	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	µg/L	10,000**	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
sec-Butylbenzene	µg/L	4,100	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Styrene	µg/L	100	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
tert-Butylbenzene	µg/L	4,100	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	NA	0.62 J	0.74 J	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	1,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	NA	< 1.0 U	< 1.0 U	< 1.0 U	7.9 J	0.66 J	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	µg/L	29	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	NA	260	270	12	88	9.9	230	< 1.0 U
Trichlorofluoromethane	µg/L	31,000	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	NA	0.45 J	0.55 J	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Metals (6020A/7470A)										
Aluminum	mg/L	100	0.991	0.0724	0.0757	0.192	0.0189	0.0207	NA	0.0204
Antimony	mg/L	0.006	0.000470 J	< 0.00125 U	< 0.00125 U	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	< 0.00125 U
Arsenic	mg/L	0.01	0.0122	< 0.00125 U	< 0.00125 U	< 0.00125 U	0.00839	0.00398 J	NA	0.00364 J
Barium	mg/L	2	0.256	0.0315	0.0325	0.149 J	1.21	0.440	NA	0.698
Beryllium	mg/L	0.004	0.000470 J	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	< 0.000500 U
Cadmium	mg/L	0.005	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	< 0.000500 U
Calcium	mg/L	NV	2.39	0.652	0.663	6.78 J	40.2	73.8	NA	26.1
Chromium	mg/L	0.1	0.00505 J	0.0126	0.0131	0.156	0.00186 J	0.00322 J	NA	0.0162
Cobalt	mg/L	6.1	0.00677	0.000294 J	0.000296 J	0.00534	0.00121 J	0.000976 J	NA	0.00141 J
Copper	mg/L	1.3	0.00141 J	< 0.00250 U	< 0.00250 U	0.00663	< 0.00250 U	< 0.00250 U	NA	< 0.00250 U

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			AWD1_121323 12/13/23	AWD3_120423 12/4/23	AWD3_120423_a 12/4/23	AWD4_121223 12/12/23	18CPTMW01SW _121123 12/11/23	18CPTMW03SW _120423 12/4/23	18CPTMW04_12 0423 12/4/23	18CPTMW04SW _120423 12/4/23
Aquifer Zone:	Units	MCL/MSC/ PCL	Shallow	Shallow		Shallow	Wilcox	Wilcox	Shallow	Wilcox
Iron	mg/L	NV	6.28	0.0925 J	0.0921 J	3.34	55.6	10.2	NA	8.69
Lead	mg/L	0.015	0.00203 J	< 0.00125 U	< 0.00125 U	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	< 0.00125 U
Magnesium	mg/L	NV	2.52	0.432	0.457	4.41	25.4	20.2	NA	15.8
Manganese	mg/L	1.1*	0.190	0.00771 J	0.00444 J	0.0497 J	0.681	0.531	NA	0.140
Nickel	mg/L	0.49*	0.0286	0.00438 J	0.00406 J	0.587	0.00166 J	0.00409 J	NA	0.00243 J
Potassium	mg/L	NV	2.32	0.466	0.474	0.428	12.4	120	NA	96.6
Selenium	mg/L	0.05	0.00233 J	0.00432 J	0.00467 J	< 0.00250 U	< 0.00250 U	< 0.00250 U	NA	< 0.00250 U
Silver	mg/L	0.51	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	< 0.000500 U
Sodium	mg/L	NV	86.4	23.3	24.5	53.5	110	239	NA	121
Thallium	mg/L	0.002	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	< 0.000500 U
Vanadium	mg/L	0.72	0.00450 UB	0.000880 J	< 0.00125 U	0.00378 UB	< 0.00125 U	< 0.00125 U	NA	< 0.00125 U
Zinc	mg/L	31	0.00900	0.00429 J	0.00367 J	0.00677	0.00524	0.00394 J	NA	0.0459
Mercury	mg/L	0.002	< 0.000100 U	< 0.000100 U	< 0.000100 U	0.0000320 J	< 0.000100 U	< 0.000100 U	NA	< 0.000100 U
1,4-Dioxane (8270 SIM)										
1,4-Dioxane	µg/L	9.1	0.30	NA	NA	0.017	0.065	0.052	0.084	< 0.0050 U

Notes:

Blue highlighting indicates concentrations above the MCL/MS/PCL

MCL/MS - Maximum Contaminant Limit/Medium-Specific
Concentrations/Protective Concentration Level

Bold values - detections

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected at the limit of detection presented.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential
Protective Concentration Level

UB - artifact of blank contamination

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSCL/ PCL	18CPTMW06_12 1123 12/11/23	18CPTMW06_12 1123_a 12/11/23	18CPTMW07_12 1323 12/13/23	18CPTMW08SW _120723 12/7/23	18CPTMW08DW _120723 12/7/23	18CPTMW10SW _121223 12/12/23	18CPTMW10DW _121223 12/12/23	18CPTMW10DW _121223_a 12/12/23
Aquifer Zone:			Wilcox	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox
Lab Package:			HS23120857-03	HS23120857-04	HS23120998-03	HS23120766-03	HS23120766-02	HS23120860-05	HS23120860-06	HS23120860-07
Well Identification:			18CPTMW06	18CPTMW06	18CPTMW07	18CPTMW08SW	18CPTMW08DW	18CPTMW10SW	18CPTMW10DW	18CPTMW10DW
Perchlorate (6850)										
Perchlorate	µg/L	17*	0.195 J	0.128 J	0.130	13,500	8,600	0.977	0.0657 J	0.0717 J
Volatile Organic Compounds (8260C)										
1,1,1,2-Tetrachloroethane	µg/L	110	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,1,1-Trichloroethane	µg/L	200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	µg/L	14	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	10,000	< 1.0 U	< 1.0 U	< 1.0 U	2.6	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloropropene	µg/L	2.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,2,3-Trichlorobenzene	µg/L	310	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,2,3-Trichloropropane	µg/L	0.041	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	µg/L	70	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trimethylbenzene	µg/L	5,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane	µg/L	0.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromoethane	µg/L	0.05	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	µg/L	600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,3,5-Trimethylbenzene	µg/L	5,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	µg/L	3,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichloropropane	µg/L	29	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	µg/L	75	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
2,2-Dichloropropane	µg/L	42	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone	µg/L	61,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
2-Chlorotoluene	µg/L	2,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
2-Hexanone	µg/L	6,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
4-Chlorotoluene	µg/L	2,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
4-Isopropyltoluene	µg/L	10,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
4-Methyl-2-pentanone	µg/L	8,200	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	NA	< 1.0 U	< 2.0 U	< 2.0 U
Acetone	µg/L	92,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Bromobenzene	µg/L	2,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Bromochloromethane	µg/L	4,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	µg/L	4.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	µg/L	36	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane	µg/L	140	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	µg/L	10,000	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			18CPTMW06_12 1123 12/11/23	18CPTMW06_12 1123_a 12/11/23	18CPTMW07_12 1323 12/13/23	18CPTMW08SW _120723 12/7/23	18CPTMW08DW _120723 12/7/23	18CPTMW10SW _121223 12/12/23	18CPTMW10DW _121223 12/12/23	18CPTMW10DW _121223_a 12/12/23
Aquifer Zone:	Units	MCL/MSCL/ PCL	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox
Carbon tetrachloride	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	µg/L	41,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane	µg/L	220	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	0.86 J	0.84 J	< 1.0 U	6.8	NA	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	µg/L	5.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	µg/L	34	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Dibromomethane	µg/L	380	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane	µg/L	20,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Hexachlorobutadiene	µg/L	20	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Isopropylbenzene	µg/L	10,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
m,p-Xylene	µg/L	10,000**	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U	NA	< 2.0 U	< 1.0 U	< 1.0 U
Methylene chloride	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Naphthalene	µg/L	2,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
n-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
n-Propylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	µg/L	10,000**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
sec-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Styrene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
tert-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	µg/L	29	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	5.7	5.5	1.5	29	NA	7.8	1.8	1.8
Trichlorofluoromethane	µg/L	31,000	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 UJ	NA	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 1.0 U	0.55 J	NA	< 1.0 U	< 1.0 U	< 1.0 U
Metals (6020A/7470A)										
Aluminum	mg/L	100	NA	NA	NA	NA	NA	NA	0.0452	0.0527
Antimony	mg/L	0.006	NA	NA	NA	NA	NA	NA	< 0.00125 U	< 0.00125 U
Arsenic	mg/L	0.01	NA	NA	NA	NA	NA	NA	0.000977 J	0.000908 J
Barium	mg/L	2	NA	NA	NA	NA	NA	NA	0.462	0.473
Beryllium	mg/L	0.004	NA	NA	NA	NA	NA	NA	< 0.000500 U	< 0.000500 U
Cadmium	mg/L	0.005	NA	NA	NA	NA	NA	NA	< 0.000500 U	< 0.000500 U
Calcium	mg/L	NV	NA	NA	NA	NA	NA	NA	70.0	69.7
Chromium	mg/L	0.1	NA	NA	NA	NA	NA	NA	0.00453 J	0.00449 J
Cobalt	mg/L	6.1	NA	NA	NA	NA	NA	NA	0.000332 J	0.000335 J
Copper	mg/L	1.3	NA	NA	NA	NA	NA	NA	< 0.00250 U	< 0.00250 U

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			18CPTMW06_12 1123 12/11/23	18CPTMW06_12 1123_a 12/11/23	18CPTMW07_12 1323 12/13/23	18CPTMW08SW _120723 12/7/23	18CPTMW08DW _120723 12/7/23	18CPTMW10SW _121223 12/12/23	18CPTMW10DW _121223 12/12/23	18CPTMW10DW _121223_a 12/12/23
Aquifer Zone:	Units	MCL/MS/PCL	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox
Iron	mg/L	NV	NA	NA	NA	NA	NA	NA	11.2	11.2
Lead	mg/L	0.015	NA	NA	NA	NA	NA	NA	< 0.00125 U	< 0.00125 U
Magnesium	mg/L	NV	NA	NA	NA	NA	NA	NA	13.9	14.0
Manganese	mg/L	1.1*	NA	NA	NA	NA	NA	NA	0.368	0.372
Nickel	mg/L	0.49*	NA	NA	NA	NA	NA	NA	0.00138 J	0.00135 J
Potassium	mg/L	NV	NA	NA	NA	NA	NA	NA	50.6	49.6
Selenium	mg/L	0.05	NA	NA	NA	NA	NA	NA	< 0.00250 U	< 0.00250 U
Silver	mg/L	0.51	NA	NA	NA	NA	NA	NA	< 0.000500 U	< 0.000500 U
Sodium	mg/L	NV	NA	NA	NA	NA	NA	NA	154	151
Thallium	mg/L	0.002	NA	NA	NA	NA	NA	NA	< 0.000500 U	< 0.000500 U
Vanadium	mg/L	0.72	NA	NA	NA	NA	NA	NA	< 0.00125 U	< 0.00125 U
Zinc	mg/L	31	NA	NA	NA	NA	NA	NA	0.00585 J	0.00358 J
Mercury	mg/L	0.002	NA	NA	NA	NA	NA	NA	< 0.000100 U	< 0.000100 U
1,4-Dioxane (8270 SIM)										
1,4-Dioxane	µg/L	9.1	< 0.0050 U	< 0.0050 U	0.034	0.096	< 0.0050 U	0.020	NA	NA

Notes:

Blue highlighting indicates concentrations above the MCL/MS/PCL

MCL/MS - Maximum Contaminant Limit/Medium-Specific Concentrations/Protective Concentration Level

Bold values - detections

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected at the limit of detection presented.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

UB - artifact of blank contamination

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSCL/ PCL	18CPTMW12SW _120423 12/4/23	18CPTMW12DW _120423 12/4/23	18CPTMW14_12 1323 12/13/23	18CPTMW15_12 1223 12/12/23	18CPTMW16_12 1923 12/19/23	18CPTMW16_12 1923-a 12/19/23	18CPTMW18_12 1423 12/14/23	18CPTMW19_12 1423 12/14/23
Aquifer Zone:			Wilcox	Wilcox	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Lab Package:			HS23120468-07	HS23120468-06	HS23120998-05	HS23120860-08	HS23121334-08	HS23121334-09	HS23121150-08	HS23121150-04
Well Identification:			18CPTMW12SW	18CPTMW12DW	18CPTMW14	18CPTMW15	18CPTMW16	18CPTMW16	18CPTMW18	18CPTMW19
Perchlorate (6850)										
Perchlorate	µg/L	17*	19.8	< 0.0500 U	8,430	0.223	0.264 J	0.456 J	0.381	1.41
Volatile Organic Compounds (8260C)										
1,1,1,2-Tetrachloroethane	µg/L	110	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,1,1-Trichloroethane	µg/L	200	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	µg/L	14	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	µg/L	5	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	10,000	< 1.0 U	< 1.0 U	< 5.0 UJ	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,1-Dichloropropene	µg/L	2.9	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,2,3-Trichlorobenzene	µg/L	310	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,2,3-Trichloropropane	µg/L	0.041	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	µg/L	70	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,2,4-Trimethylbenzene	µg/L	5,100	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane	µg/L	0.2	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,2-Dibromoethane	µg/L	0.05	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	µg/L	600	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,2-Dichloroethane	µg/L	5	< 1.0 U	< 1.0 U	16	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,2-Dichloropropane	µg/L	5	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,3,5-Trimethylbenzene	µg/L	5,100	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	µg/L	3,100	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,3-Dichloropropane	µg/L	29	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	µg/L	75	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
2,2-Dichloropropane	µg/L	42	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
2-Butanone	µg/L	61,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
2-Chlorotoluene	µg/L	2,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
2-Hexanone	µg/L	6,100	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
4-Chlorotoluene	µg/L	2,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
4-Isopropyltoluene	µg/L	10,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
4-Methyl-2-pentanone	µg/L	8,200	< 2.0 U	< 1.0 U	< 10 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Acetone	µg/L	92,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Bromobenzene	µg/L	2,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Bromochloromethane	µg/L	4,100	< 1.0 U	< 1.0 U	< 5.0 UJ	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Bromodichloromethane	µg/L	4.6	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Bromoform	µg/L	36	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Bromomethane	µg/L	140	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Carbon disulfide	µg/L	10,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 UJ	< 1.0 UJ

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			18CPTMW12SW _120423 12/4/23	18CPTMW12DW _120423 12/4/23	18CPTMW14_12 1323 12/13/23	18CPTMW15_12 1223 12/12/23	18CPTMW16_12 1923 12/19/23	18CPTMW16_12 1923-a 12/19/23	18CPTMW18_12 1423 12/14/23	18CPTMW19_12 1423 12/14/23
Aquifer Zone:	Units	MCL/MSCL/ PCL	Wilcox	Wilcox	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Carbon tetrachloride	µg/L	5	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Chlorobenzene	µg/L	100	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Chloroethane	µg/L	41,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Chloroform	µg/L	1,000	< 1.0 U	< 1.0 U	22 J	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Chloromethane	µg/L	220	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	0.73 J	< 1.0 U	3.4 J	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	µg/L	5.3	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Dibromochloromethane	µg/L	34	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Dibromomethane	µg/L	380	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Dichlorodifluoromethane	µg/L	20,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Hexachlorobutadiene	µg/L	20	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Isopropylbenzene	µg/L	10,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
m,p-Xylene	µg/L	10,000**	< 1.0 U	< 2.0 U	< 10 U	< 2.0 U	NA	NA	< 1.0 U	< 1.0 U
Methylene chloride	µg/L	5	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Naphthalene	µg/L	2,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
n-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
n-Propylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
o-Xylene	µg/L	10,000**	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
sec-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Styrene	µg/L	100	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
tert-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	< 1.0 U	< 1.0 U	3.4 J	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	µg/L	29	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	7.6	2.5	2,200 J	1.8	NA	NA	< 1.0 U	< 1.0 U
Trichlorofluoromethane	µg/L	31,000	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U
Metals (6020A/7470A)										
Aluminum	mg/L	100	0.0302	0.0132	0.0433	NA	NA	NA	0.0136	NA
Antimony	mg/L	0.006	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA
Arsenic	mg/L	0.01	0.000461 J	0.00139 J	0.00108 J	NA	NA	NA	0.000752 J	NA
Barium	mg/L	2	0.792	0.256	2.55	NA	NA	NA	0.519	NA
Beryllium	mg/L	0.004	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	NA	NA	< 0.000500 U	NA
Cadmium	mg/L	0.005	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	NA	NA	0.000245 J	NA
Calcium	mg/L	NV	62.9	27.7	332	NA	NA	NA	268	NA
Chromium	mg/L	0.1	0.00491 J	0.00291 J	0.0302	NA	NA	NA	0.00472 J	NA
Cobalt	mg/L	6.1	0.00232 J	0.000193 J	0.000656 J	NA	NA	NA	0.00921	NA
Copper	mg/L	1.3	< 0.00250 U	< 0.00250 U	< 0.00250 U	NA	NA	NA	< 0.00250 U	NA

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			18CPTMW12SW _120423 12/4/23	18CPTMW12DW _120423 12/4/23	18CPTMW14_12 1323 12/13/23	18CPTMW15_12 1223 12/12/23	18CPTMW16_12 1923 12/19/23	18CPTMW16_12 1923-a 12/19/23	18CPTMW18_12 1423 12/14/23	18CPTMW19_12 1423 12/14/23
Aquifer Zone:	Units	MCL/MSC/ PCL	Wilcox	Wilcox	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Iron	mg/L	NV	1.10	4.15	0.0599 J	NA	NA	NA	0.458	NA
Lead	mg/L	0.015	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA
Magnesium	mg/L	NV	35.8	11.0	75.3	NA	NA	NA	141	NA
Manganese	mg/L	1.1*	0.536	0.202	0.0159	NA	NA	NA	1.43	NA
Nickel	mg/L	0.49*	0.00548	< 0.00125 U	0.00155 J	NA	NA	NA	0.00940	NA
Potassium	mg/L	NV	14.8	43.5	5.15	NA	NA	NA	2.87	NA
Selenium	mg/L	0.05	< 0.00250 U	< 0.00250 U	< 0.00250 U	NA	NA	NA	< 0.00250 U	NA
Silver	mg/L	0.51	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	NA	NA	< 0.000500 U	NA
Sodium	mg/L	NV	240	153	763	NA	NA	NA	768	NA
Thallium	mg/L	0.002	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	NA	NA	< 0.000500 U	NA
Vanadium	mg/L	0.72	< 0.00125 U	< 0.00125 U	0.00189 UB	NA	NA	NA	< 0.00125 U	NA
Zinc	mg/L	31	0.0108	0.00256 J	0.00468 J	NA	NA	NA	0.0118	NA
Mercury	mg/L	0.002	< 0.000100 U	< 0.000100 U	< 0.000100 U	NA	NA	NA	< 0.000100 U	NA
1,4-Dioxane (8270 SIM)										
1,4-Dioxane	µg/L	9.1	< 0.0050 U	< 0.0050 U	0.25	0.041	0.073	0.060	< 0.0050 U	< 0.0050 U

Notes:

Blue highlighting indicates concentrations above the MCL/MSC/PCL

MCL/MSC - Maximum Contaminant Limit/Medium-Specific Concentrations/Protective Concentration Level

Bold values - detections

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected at the limit of detection presented.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

UB - artifact of blank contamination

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSCL/ PCL	18CPTMW22R_1 20723 12/7/23	18CPTMW22SW _120723 12/7/23	18CPTMW23_12 1423 12/14/23	18CPTMW24_12 1323 12/13/23	18WW02_12112 3 12/11/23	18WW06_12112 3 12/11/23	18WW08_12192 3 12/19/23	18WW10_12182 3 12/18/23
Aquifer Zone:			Shallow	Wilcox	Shallow	Shallow	Wilcox	Wilcox	Shallow	Shallow
Lab Package:			HS23120766-05	HS23120766-06	HS23121150-02	HS23120998-04	HS23120857-08	HS23120857-07	HS23121334-01	HS23121368-03
Well Identification:			18CPTMW22R	18CPTMW22SW	18CPTMW23	18CPTMW24	18WW02	18WW06	18WW08	18WW10
Perchlorate (6850)										
Perchlorate	µg/L	17*	0.199	16,700	3.37	220	< 0.0500 U	0.123	3,850	< 0.0500 U
Volatile Organic Compounds (8260C)										
1,1,1,2-Tetrachloroethane	µg/L	110	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,1-Trichloroethane	µg/L	200	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	µg/L	14	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	µg/L	5	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	10,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloropropene	µg/L	2.9	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,3-Trichlorobenzene	µg/L	310	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,3-Trichloropropane	µg/L	0.041	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	µg/L	70	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trimethylbenzene	µg/L	5,100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane	µg/L	0.2	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromoethane	µg/L	0.05	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	µg/L	600	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	µg/L	5	< 1.0 U	< 1.0 U	85	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	µg/L	5	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3,5-Trimethylbenzene	µg/L	5,100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	µg/L	3,100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichloropropane	µg/L	29	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	µg/L	75	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2,2-Dichloropropane	µg/L	42	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone	µg/L	61,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Chlorotoluene	µg/L	2,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Hexanone	µg/L	6,100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Chlorotoluene	µg/L	2,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Isopropyltoluene	µg/L	10,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Methyl-2-pentanone	µg/L	8,200	< 1.0 U	< 2.0 U	< 10 U	< 5.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 2.0 U
Acetone	µg/L	92,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromobenzene	µg/L	2,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromochloromethane	µg/L	4,100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	µg/L	4.6	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	µg/L	36	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane	µg/L	140	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	µg/L	10,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			18CPTMW22R_1 20723 12/7/23	18CPTMW22SW _120723 12/7/23	18CPTMW23_12 1423 12/14/23	18CPTMW24_12 1323 12/13/23	18WW02_12112 3 12/11/23	18WW06_12112 3 12/11/23	18WW08_12192 3 12/19/23	18WW10_12182 3 12/18/23
Aquifer Zone:	Units	MCL/MSCL/ PCL	Shallow	Wilcox	Shallow	Shallow	Wilcox	Wilcox	Shallow	Shallow
Carbon tetrachloride	µg/L	5	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	µg/L	100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	µg/L	41,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform	µg/L	1,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane	µg/L	220	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	< 1.0 U	< 1.0 U	210	17	< 1.0 U	< 1.0 U	1.3	< 1.0 U
cis-1,3-Dichloropropene	µg/L	5.3	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	µg/L	34	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromomethane	µg/L	380	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane	µg/L	20,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Hexachlorobutadiene	µg/L	20	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropylbenzene	µg/L	10,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
m,p-Xylene	µg/L	10,000**	< 1.0 U	< 2.0 U	< 20 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 1.0 U
Methylene chloride	µg/L	5	< 1.0 U	< 1.0 U	< 10 U	8.8 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Naphthalene	µg/L	2,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
n-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
n-Propylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	µg/L	10,000**	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
sec-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Styrene	µg/L	100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
tert-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	6.6	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	µg/L	29	< 1.0 U	< 1.0 U	< 10 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	< 1.0 U	1.2	1,600	43	< 1.0 U	< 1.0 U	4.0	< 1.0 U
Trichlorofluoromethane	µg/L	31,000	< 1.0 UJ	< 1.0 UJ	< 10 U	< 5.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 10 U	61	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Metals (6020A/7470A)										
Aluminum	mg/L	100	0.375	0.134	NA	0.0137	0.0454	NA	NA	NA
Antimony	mg/L	0.006	< 0.00125 U	< 0.00125 U	NA	< 0.00125 U	< 0.00125 U	NA	NA	NA
Arsenic	mg/L	0.01	0.000487 J	0.00125 J	NA	0.00486 J	< 0.00125 U	NA	NA	NA
Barium	mg/L	2	0.0687	0.311	NA	9.30	0.0384	NA	NA	NA
Beryllium	mg/L	0.004	0.000331 J	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U	NA	NA	NA
Cadmium	mg/L	0.005	< 0.000500 U	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U	NA	NA	NA
Calcium	mg/L	NV	1.08	71.3	NA	404	6.43	NA	NA	NA
Chromium	mg/L	0.1	0.000461 J	0.0376	NA	0.00585	0.0128	NA	NA	NA
Cobalt	mg/L	6.1	0.00357 J	0.000201 J	NA	0.00169 J	0.000113 J	NA	NA	NA
Copper	mg/L	1.3	0.00128 J	< 0.00250 U	NA	< 0.00250 U	< 0.00250 U	NA	NA	NA

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			18CPTMW22R_1 20723 12/7/23	18CPTMW22SW _120723 12/7/23	18CPTMW23_12 1423 12/14/23	18CPTMW24_12 1323 12/13/23	18WW02_12112 3 12/11/23	18WW06_12112 3 12/11/23	18WW08_12192 3 12/19/23	18WW10_12182 3 12/18/23
Aquifer Zone:	Units	MCL/MSC/ PCL	Shallow	Wilcox	Shallow	Shallow	Wilcox	Wilcox	Shallow	Shallow
Iron	mg/L	NV	0.330	0.0365 J	NA	5.39	0.723	NA	NA	NA
Lead	mg/L	0.015	0.000720 J	< 0.00125 U	NA	< 0.00125 U	< 0.00125 U	NA	NA	NA
Magnesium	mg/L	NV	1.10	0.837	NA	278	1.17	NA	NA	NA
Manganese	mg/L	1.1*	0.0244	0.0134	NA	0.378	0.0794	NA	NA	NA
Nickel	mg/L	0.49*	0.00209 J	0.000977 J	NA	0.00607	0.0100	NA	NA	NA
Potassium	mg/L	NV	0.0679 J	283	NA	2.27	1.75	NA	NA	NA
Selenium	mg/L	0.05	< 0.00250 U	< 0.00250 U	NA	< 0.00250 U	< 0.00250 U	NA	NA	NA
Silver	mg/L	0.51	< 0.000500 U	< 0.000500 U	NA	< 0.000500 U	< 0.00500 U	NA	NA	NA
Sodium	mg/L	NV	23.1	296	NA	1,110	32.8	NA	NA	NA
Thallium	mg/L	0.002	< 0.000500 U	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U	NA	NA	NA
Vanadium	mg/L	0.72	0.00268 J	0.00154 J	NA	0.00144 UB	0.00228 J	NA	NA	NA
Zinc	mg/L	31	0.00796	0.00585	NA	0.00511	< 0.00250 U	NA	NA	NA
Mercury	mg/L	0.002	0.0000580 UB	0.0000470 UB	NA	< 0.000100 U	< 0.000100 U	NA	NA	NA
1,4-Dioxane (8270 SIM)										
1,4-Dioxane	µg/L	9.1	< 0.0050 U	0.12	0.44	< 0.0050 U	< 0.0050 U	< 0.0050 U	0.042	< 0.0050 U

Notes:

Blue highlighting indicates concentrations above the MCL/MS/PCL

MCL/MS - Maximum Contaminant Limit/Medium-Specific
Concentrations/Protective Concentration Level

Bold values - detections

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected at the limit of detection presented.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential
Protective Concentration Level

UB - artifact of blank contamination

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSCL/ PCL	18WW10_12182 3_a 12/18/23	18WW17_12192 3 12/19/23	18WW22_12142 3 12/14/23	18WW24_12142 3 12/14/23	CO3_121923 12/19/23	CO8_121323 12/13/23	CO9_121923 12/19/23	CO9_121923_a 12/19/23
Aquifer Zone:			Shallow	Shallow	Shallow	Shallow	Wilcox	Shallow	Shallow	Shallow
Lab Package:			HS23121368-04	HS23121334-04	HS23121150-05	HS23121150-03	HS23121334-03	HS23120998-06	HS23121334-06	HS23121334-07
Well Identification:			18WW10	18WW17	18WW22	18WW24	C-03	C-08	C-09	C-09
Perchlorate (6850)										
Perchlorate	µg/L	17*	< 0.0500 U	91,100	0.439	0.282	86.0	0.843	0.708	0.742
Volatile Organic Compounds (8260C)										
1,1,1,2-Tetrachloroethane	µg/L	110	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,1-Trichloroethane	µg/L	200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	µg/L	14	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	10,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloropropene	µg/L	2.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,3-Trichlorobenzene	µg/L	310	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,3-Trichloropropane	µg/L	0.041	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	µg/L	70	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trimethylbenzene	µg/L	5,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane	µg/L	0.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromoethane	µg/L	0.05	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	µg/L	600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3,5-Trimethylbenzene	µg/L	5,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	µg/L	3,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichloropropane	µg/L	29	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	µg/L	75	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2,2-Dichloropropane	µg/L	42	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone	µg/L	61,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Chlorotoluene	µg/L	2,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Hexanone	µg/L	6,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Chlorotoluene	µg/L	2,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Isopropyltoluene	µg/L	10,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Methyl-2-pentanone	µg/L	8,200	< 1.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 1.0 U
Acetone	µg/L	92,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromobenzene	µg/L	2,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromochloromethane	µg/L	4,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	µg/L	4.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	µg/L	36	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane	µg/L	140	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	µg/L	10,000	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			18WW10_12182 3_a 12/18/23	18WW17_12192 3 12/19/23	18WW22_12142 3 12/14/23	18WW24_12142 3 12/14/23	CO3_121923 12/19/23	CO8_121323 12/13/23	CO9_121923 12/19/23	CO9_121923_a 12/19/23
Aquifer Zone:	Units	MCL/MSCL/ PCL	Shallow	Shallow	Shallow	Shallow	Wilcox	Shallow	Shallow	Shallow
Carbon tetrachloride	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	µg/L	41,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane	µg/L	220	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	µg/L	5.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	µg/L	34	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromomethane	µg/L	380	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane	µg/L	20,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Hexachlorobutadiene	µg/L	20	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropylbenzene	µg/L	10,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
m,p-Xylene	µg/L	10,000**	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 1.0 U
Methylene chloride	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Naphthalene	µg/L	2,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
n-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
n-Propylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	µg/L	10,000**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
sec-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Styrene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
tert-Butylbenzene	µg/L	4,100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	µg/L	29	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	< 1.0 U	72	< 1.0 U	< 1.0 U	< 1.0 U	9.0	< 1.0 U	< 1.0 U
Trichlorofluoromethane	µg/L	31,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Metals (6020A/7470A)										
Aluminum	mg/L	100	NA	0.00936	0.167	0.184	NA	0.0288	0.0765	0.0639
Antimony	mg/L	0.006	NA	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	< 0.00125 U	< 0.00125 U	< 0.00125 U
Arsenic	mg/L	0.01	NA	0.000625 J	0.00180 J	0.000551 J	NA	0.000545 J	0.000482 J	0.000503 J
Barium	mg/L	2	NA	2.74	0.0390	0.0388	NA	4.77	0.608	0.597
Beryllium	mg/L	0.004	NA	< 0.000500 U	< 0.000500 U	0.000487 J	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U
Cadmium	mg/L	0.005	NA	0.000369 J	< 0.000500 U	0.000209 J	NA	0.000238 J	0.000239 J	< 0.000500 U
Calcium	mg/L	NV	NA	272	8.03	67.6	NA	291	293	268
Chromium	mg/L	0.1	NA	0.189	0.0266	0.000690 J	NA	0.000978 J	0.0121 J	0.0207 J
Cobalt	mg/L	6.1	NA	0.00246 J	0.000198 J	0.00804	NA	0.00314 J	0.00103 J	0.000995 J
Copper	mg/L	1.3	NA	0.0912	0.00116 J	0.00106 J	NA	< 0.00250 U	< 0.00250 U	< 0.00250 U

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			18WW10_12182 3_a 12/18/23	18WW17_12192 3 12/19/23	18WW22_12142 3 12/14/23	18WW24_12142 3 12/14/23	CO3_121923 12/19/23	CO8_121323 12/13/23	CO9_121923 12/19/23	CO9_121923_a 12/19/23
Aquifer Zone:	Units	MCL/MSC/ PCL	Shallow	Shallow	Shallow	Shallow	Wilcox	Shallow	Shallow	Shallow
Iron	mg/L	NV	NA	1.18	0.0243 J	0.245	NA	0.790	0.327 J	0.485 J
Lead	mg/L	0.015	NA	0.00182 J	< 0.00125 U	< 0.00125 U	NA	< 0.00125 U	< 0.00125 U	< 0.00125 U
Magnesium	mg/L	NV	NA	181	0.936	52.8	NA	144	176	160
Manganese	mg/L	1.1*	NA	0.0527	0.00101 J	4.71	NA	0.353	0.123	0.105
Nickel	mg/L	0.49*	NA	0.184	0.000945 J	0.136	NA	0.00172 J	0.0142	0.0130
Potassium	mg/L	NV	NA	1.33	3.22	0.694	NA	2.11	1.37	1.33
Selenium	mg/L	0.05	NA	0.00182 J	< 0.00250 U	< 0.00250 U	NA	< 0.00250 U	< 0.00250 U	< 0.00250 U
Silver	mg/L	0.51	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U
Sodium	mg/L	NV	NA	914	46.2	1,080	NA	853	613	553
Thallium	mg/L	0.002	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U
Vanadium	mg/L	0.72	NA	0.00213 UB	0.0200	0.000796 UB	NA	0.000872 UB	0.00156 UB	0.00140 UB
Zinc	mg/L	31	NA	0.247	0.00269 J	0.0481	NA	0.00783	0.00742	0.00658
Mercury	mg/L	0.002	NA	0.0000330 J	< 0.000100 U	< 0.000100 U	NA	< 0.000100 U	< 0.000100 U	< 0.000100 U
1,4-Dioxane (8270 SIM)										
1,4-Dioxane	µg/L	9.1	< 0.0050 U	NA	< 0.0050 U	NA	< 0.0050 U	0.088	NA	NA

Notes:

Blue highlighting indicates concentrations above the MCL/MSC/PCL

MCL/MSC - Maximum Contaminant Limit/Medium-Specific Concentrations/Protective Concentration Level

Bold values - detections

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected at the limit of detection presented.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

UB - artifact of blank contamination

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSCL/ PCL	MW2_121123 12/11/23	MW3_121123 12/11/23	MW5_120723 12/7/23	MW7_120423 12/4/23	MW8_120423 12/4/23	MW9_120723 12/7/23	MW10_121823 12/18/23	MW14_121223 12/12/23
Aquifer Zone:			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Wilcox
Lab Package:			HS23120857-01	HS23120857-06	HS23120766-01	HS23120468-08	HS23120468-09	HS23120766-08	HS23121368-02	HS23120860-03
Well Identification:			MW-2	MW-3	MW-5	MW-7	MW-8	MW-9	MW-10	MW-14
Perchlorate (6850)										
Perchlorate	µg/L	17*	0.0528 J	2,890	19,300	9,700	6,070	225	< 0.0500 U	164,000
Volatile Organic Compounds (8260C)										
1,1,1,2-Tetrachloroethane	µg/L	110	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,1,1-Trichloroethane	µg/L	200	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,1,2,2-Tetrachloroethane	µg/L	14	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,1,2-Trichloroethane	µg/L	5	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,1-Dichloroethane	µg/L	10,000	18 J	2.1 J	2.6	< 5.0 U	< 1.0 U	0.51 J	< 1.0 U	27
1,1-Dichloroethene	µg/L	7	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	130
1,1-Dichloropropene	µg/L	2.9	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,2,3-Trichlorobenzene	µg/L	310	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,2,3-Trichloropropane	µg/L	0.041	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,2,4-Trichlorobenzene	µg/L	70	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,2,4-Trimethylbenzene	µg/L	5,100	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,2-Dibromo-3-chloropropane	µg/L	0.2	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,2-Dibromoethane	µg/L	0.05	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,2-Dichlorobenzene	µg/L	600	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,2-Dichloroethane	µg/L	5	< 25 U	< 5.0 U	< 1.0 U	9.2	5.2	1.9	< 1.0 U	110
1,2-Dichloropropane	µg/L	5	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,3,5-Trimethylbenzene	µg/L	5,100	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,3-Dichlorobenzene	µg/L	3,100	< 25 U	< 5.0 U	0.50 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,3-Dichloropropane	µg/L	29	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
1,4-Dichlorobenzene	µg/L	75	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
2,2-Dichloropropane	µg/L	42	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
2-Butanone	µg/L	61,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
2-Chlorotoluene	µg/L	2,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
2-Hexanone	µg/L	6,100	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
4-Chlorotoluene	µg/L	2,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
4-Isopropyltoluene	µg/L	10,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
4-Methyl-2-pentanone	µg/L	8,200	< 25 U	< 10 U	< 2.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 40 U
Acetone	µg/L	92,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Benzene	µg/L	5	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Bromobenzene	µg/L	2,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Bromochloromethane	µg/L	4,100	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Bromodichloromethane	µg/L	4.6	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Bromoform	µg/L	36	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Bromomethane	µg/L	140	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Carbon disulfide	µg/L	10,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSC/ PCL	MW2_121123 12/11/23	MW3_121123 12/11/23	MW5_120723 12/7/23	MW7_120423 12/4/23	MW8_120423 12/4/23	MW9_120723 12/7/23	MW10_121823 12/18/23	MW14_121223 12/12/23
Aquifer Zone:			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Wilcox
Carbon tetrachloride	µg/L	5	< 25 U	< 5.0 U	< 1.0 U	5.2	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Chlorobenzene	µg/L	100	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Chloroethane	µg/L	41,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Chloroform	µg/L	1,000	56	< 5.0 U	< 1.0 U	9.4	< 1.0 U	1.3	< 1.0 U	< 20 U
Chloromethane	µg/L	220	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
cis-1,2-Dichloroethene	µg/L	70	37,000	27	8.9	9.4	12	74	< 1.0 U	1,800
cis-1,3-Dichloropropene	µg/L	5.3	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Dibromochloromethane	µg/L	34	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Dibromomethane	µg/L	380	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Dichlorodifluoromethane	µg/L	20,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Ethylbenzene	µg/L	700	26	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Hexachlorobutadiene	µg/L	20	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Isopropylbenzene	µg/L	10,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
m,p-Xylene	µg/L	10,000**	< 25 U	< 10 U	< 1.0 U	< 5.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 40 U
Methylene chloride	µg/L	5	180	9.1 J	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Naphthalene	µg/L	2,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
n-Butylbenzene	µg/L	4,100	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
n-Propylbenzene	µg/L	4,100	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
o-Xylene	µg/L	10,000**	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
sec-Butylbenzene	µg/L	4,100	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Styrene	µg/L	100	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
tert-Butylbenzene	µg/L	4,100	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Tetrachloroethene	µg/L	5	42	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Toluene	µg/L	1,000	22 J	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
trans-1,2-Dichloroethene	µg/L	100	110	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	0.48 J	< 1.0 U	23
trans-1,3-Dichloropropene	µg/L	29	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
Trichloroethene	µg/L	5	3,800	170	36	1,300	410	1,300 J	< 1.0 U	9,900
Trichlorofluoromethane	µg/L	31,000	< 25 U	< 5.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 25 U
Vinyl chloride	µg/L	2	18 J	11	4.7	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	8.2 J
Metals (6020A/7470A)										
Aluminum	mg/L	100	0.0196	0.00960 J	0.0111	NA	NA	0.0181	NA	0.103
Antimony	mg/L	0.006	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	NA	< 0.00125 U	NA	< 0.00125 U
Arsenic	mg/L	0.01	0.0207	< 0.00125 U	< 0.00125 U	NA	NA	0.000497 J	NA	0.00109 J
Barium	mg/L	2	6.60	0.232	0.884	NA	NA	0.0986	NA	0.181
Beryllium	mg/L	0.004	0.000508 J	< 0.000500 U	< 0.000500 U	NA	NA	< 0.000500 U	NA	0.00133 J
Cadmium	mg/L	0.005	< 0.000500 U	< 0.000500 U	0.000654 J	NA	NA	< 0.000500 U	NA	0.00124 J
Calcium	mg/L	NV	114	14.4	20.4	NA	NA	8.58	NA	104
Chromium	mg/L	0.1	0.176	< 0.00125 U	0.119	NA	NA	0.0270	NA	0.151
Cobalt	mg/L	6.1	0.400	0.00146 J	0.00291 J	NA	NA	0.00517	NA	0.0812
Copper	mg/L	1.3	0.00115 J	0.00406 J	0.00116 J	NA	NA	< 0.00250 U	NA	0.00134 J

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			MW2_121123 12/11/23	MW3_121123 12/11/23	MW5_120723 12/7/23	MW7_120423 12/4/23	MW8_120423 12/4/23	MW9_120723 12/7/23	MW10_121823 12/18/23	MW14_121223 12/12/23
Aquifer Zone:	Units	MCL/MSC/ PCL	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Wilcox
Iron	mg/L	NV	56.8	0.0717 J	0.761	NA	NA	2.14	NA	111
Lead	mg/L	0.015	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	NA	< 0.00125 U	NA	< 0.00125 U
Magnesium	mg/L	NV	87.8	7.58	20.5	NA	NA	3.61	NA	61.1
Manganese	mg/L	1.1*	30.4	1.09	0.0850	NA	NA	0.159	NA	4.86
Nickel	mg/L	0.49*	0.184	0.00446 J	0.0860	NA	NA	0.0510	NA	0.541
Potassium	mg/L	NV	3.51	1.02	2.10	NA	NA	0.361	NA	10.9
Selenium	mg/L	0.05	0.00120 J	< 0.00250 U	< 0.00250 U	NA	NA	< 0.00250 U	NA	< 0.00250 U
Silver	mg/L	0.51	< 0.000500 U	0.00927	< 0.000500 U	NA	NA	< 0.000500 U	NA	< 0.000500 U
Sodium	mg/L	NV	298	160	104	NA	NA	19.9	NA	426
Thallium	mg/L	0.002	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	NA	< 0.000500 U	NA	< 0.000500 U
Vanadium	mg/L	0.72	0.000710 J	0.000720 J	0.00152 J	NA	NA	0.00117 J	NA	< 0.00125 U
Zinc	mg/L	31	0.0348	0.00393 J	0.0194	NA	NA	0.0956	NA	1.97
Mercury	mg/L	0.002	< 0.000100 U	< 0.000100 U	0.0000450 UB	NA	NA	0.0000450 UB	NA	< 0.000100 U
1,4-Dioxane (8270 SIM)										
1,4-Dioxane	µg/L	9.1	0.72	NA	< 0.0050 U	0.26	0.24	0.30	< 0.0050 U	41

Notes:

Blue highlighting indicates concentrations above the MCL/MS/PCL

MCL/MS - Maximum Contaminant Limit/Medium-Specific Concentrations/Protective Concentration Level

Bold values - detections

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected at the limit of detection presented.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

UB - artifact of blank contamination

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSC/ PCL	MW16_121123 12/11/23	MW17_121823 12/18/23	MW18_121823 12/18/23	MW19_121823 12/18/23	MW20_120723 12/7/23	MW21_121323 12/13/23	MW22_121123 12/11/23	MW23_121423 12/14/23
Aquifer Zone:			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Lab Package:			HS23120857-09	HS23121368-05	HS23121368-07	HS23121368-06	HS23120766-07	HS23120998-02	HS23120857-05	HS23121150-01
Well Identification:			MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23
Perchlorate (6850)										
Perchlorate	µg/L	17*	< 0.0500 U	< 0.0500 U	< 0.0500 U	< 0.0500 U	1.95	2,350	1,580	67,500
Volatile Organic Compounds (8260C)										
1,1,1,2-Tetrachloroethane	µg/L	110	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,1,1-Trichloroethane	µg/L	200	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,1,2,2-Tetrachloroethane	µg/L	14	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,1,2-Trichloroethane	µg/L	5	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,1-Dichloroethane	µg/L	10,000	0.46 J	NA	< 1.0 U	< 1.0 U	< 1.0 U	8.6 J	< 1.0 U	< 10 U
1,1-Dichloroethene	µg/L	7	3.1	NA	< 1.0 UJ	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,1-Dichloropropene	µg/L	2.9	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,2,3-Trichlorobenzene	µg/L	310	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,2,3-Trichloropropane	µg/L	0.041	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,2,4-Trichlorobenzene	µg/L	70	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,2,4-Trimethylbenzene	µg/L	5,100	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,2-Dibromo-3-chloropropane	µg/L	0.2	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,2-Dibromoethane	µg/L	0.05	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,2-Dichlorobenzene	µg/L	600	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,2-Dichloroethane	µg/L	5	15	NA	< 1.0 U	< 1.0 U	< 1.0 U	27	6.9	78
1,2-Dichloropropane	µg/L	5	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,3,5-Trimethylbenzene	µg/L	5,100	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,3-Dichlorobenzene	µg/L	3,100	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,3-Dichloropropane	µg/L	29	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
1,4-Dichlorobenzene	µg/L	75	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
2,2-Dichloropropane	µg/L	42	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
2-Butanone	µg/L	61,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
2-Chlorotoluene	µg/L	2,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
2-Hexanone	µg/L	6,100	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
4-Chlorotoluene	µg/L	2,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
4-Isopropyltoluene	µg/L	10,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
4-Methyl-2-pentanone	µg/L	8,200	< 1.0 U	NA	< 1.0 U	< 2.0 U	< 2.0 U	< 20 U	< 1.0 U	< 20 U
Acetone	µg/L	92,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Benzene	µg/L	5	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	0.76 J	< 10 U
Bromobenzene	µg/L	2,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Bromochloromethane	µg/L	4,100	< 1.0 U	NA	< 1.0 UJ	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Bromodichloromethane	µg/L	4.6	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Bromoform	µg/L	36	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Bromomethane	µg/L	140	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Carbon disulfide	µg/L	10,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 UJ	< 1.0 U	< 10 UJ

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			MW16_121123 12/11/23	MW17_121823 12/18/23	MW18_121823 12/18/23	MW19_121823 12/18/23	MW20_120723 12/7/23	MW21_121323 12/13/23	MW22_121123 12/11/23	MW23_121423 12/14/23
Aquifer Zone:	Units	MCL/MSC/ PCL	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Carbon tetrachloride	µg/L	5	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Chlorobenzene	µg/L	100	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Chloroethane	µg/L	41,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Chloroform	µg/L	1,000	< 1.0 U	NA	< 1.0 UJ	< 1.0 U	< 1.0 U	15	2.3	11
Chloromethane	µg/L	220	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
cis-1,2-Dichloroethene	µg/L	70	8.5	NA	0.67 J	3.4	< 1.0 U	4,300	5.1	27
cis-1,3-Dichloropropene	µg/L	5.3	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Dibromochloromethane	µg/L	34	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Dibromomethane	µg/L	380	< 1.0 U	NA	< 1.0 UJ	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Dichlorodifluoromethane	µg/L	20,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Ethylbenzene	µg/L	700	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Hexachlorobutadiene	µg/L	20	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Isopropylbenzene	µg/L	10,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
m,p-Xylene	µg/L	10,000**	< 1.0 U	NA	< 2.0 U	< 1.0 U	< 2.0 U	< 20 U	< 1.0 U	< 20 U
Methylene chloride	µg/L	5	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Naphthalene	µg/L	2,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
n-Butylbenzene	µg/L	4,100	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
n-Propylbenzene	µg/L	4,100	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
o-Xylene	µg/L	10,000**	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
sec-Butylbenzene	µg/L	4,100	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Styrene	µg/L	100	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
tert-Butylbenzene	µg/L	4,100	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
Tetrachloroethene	µg/L	5	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	0.74 J	< 10 U
Toluene	µg/L	1,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 10 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	19	< 1.0 U	< 10 U
trans-1,3-Dichloropropene	µg/L	29	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 10 U
Trichloroethene	µg/L	5	220	NA	4.7	2.4	< 1.0 U	6,100	360	3,100 J
Trichlorofluoromethane	µg/L	31,000	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 UJ	< 5.0 U	< 1.0 U	< 10 U
Vinyl chloride	µg/L	2	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	59	0.45 J	< 10 U
Metals (6020A/7470A)										
Aluminum	mg/L	100	NA	NA	NA	0.366	NA	0.0129	0.0207	NA
Antimony	mg/L	0.006	NA	NA	NA	< 0.00125 U	NA	< 0.00125 U	0.000459 J	NA
Arsenic	mg/L	0.01	NA	NA	NA	0.00199 J	NA	< 0.00125 U	0.000999 J	NA
Barium	mg/L	2	NA	NA	NA	0.252	NA	0.750	0.819	NA
Beryllium	mg/L	0.004	NA	NA	NA	< 0.00100 U	NA	< 0.000500 U	< 0.000500 U	NA
Cadmium	mg/L	0.005	NA	NA	NA	0.00128 J	NA	< 0.000500 U	0.000222 J	NA
Calcium	mg/L	NV	NA	NA	NA	150	NA	98.6	73.9	NA
Chromium	mg/L	0.1	NA	NA	NA	0.131	NA	0.150	0.662	NA
Cobalt	mg/L	6.1	NA	NA	NA	0.00596	NA	0.0237	0.00553	NA
Copper	mg/L	1.3	NA	NA	NA	0.00843	NA	0.00865	0.0120	NA

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			MW16_121123 12/11/23	MW17_121823 12/18/23	MW18_121823 12/18/23	MW19_121823 12/18/23	MW20_120723 12/7/23	MW21_121323 12/13/23	MW22_121123 12/11/23	MW23_121423 12/14/23
Aquifer Zone:	Units	MCL/MSC/ PCL	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Iron	mg/L	NV	NA	NA	NA	111	NA	2.90	9.80	NA
Lead	mg/L	0.015	NA	NA	NA	0.00106 J	NA	< 0.00125 U	< 0.00125 U	NA
Magnesium	mg/L	NV	NA	NA	NA	75.8	NA	71.9	21.8	NA
Manganese	mg/L	1.1*	NA	NA	NA	2.52	NA	0.834	0.125	NA
Nickel	mg/L	0.49*	NA	NA	NA	0.0774	NA	0.344	0.710	NA
Potassium	mg/L	NV	NA	NA	NA	4.89	NA	1.46	1.96	NA
Selenium	mg/L	0.05	NA	NA	NA	< 0.00250 U	NA	< 0.00250 U	< 0.00250 U	NA
Silver	mg/L	0.51	NA	NA	NA	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U	NA
Sodium	mg/L	NV	NA	NA	NA	1,130	NA	376	361	NA
Thallium	mg/L	0.002	NA	NA	NA	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U	NA
Vanadium	mg/L	0.72	NA	NA	NA	0.000775 UB	NA	0.000888 UB	0.00335 J	NA
Zinc	mg/L	31	NA	NA	NA	0.0139	NA	0.0110	0.00363 J	NA
Mercury	mg/L	0.002	NA	NA	NA	< 0.000100 U	NA	< 0.000100 U	0.0000410 J	NA
1,4-Dioxane (8270 SIM)										
1,4-Dioxane	µg/L	9.1	0.47	0.063	NA	NA	NA	0.31	NA	NA

Notes:

Blue highlighting indicates concentrations above the MCL/MS/PCL

MCL/MS - Maximum Contaminant Limit/Medium-Specific
Concentrations/Protective Concentration Level

Bold values - detections

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected at the limit of detection presented.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential
Protective Concentration Level

UB - artifact of blank contamination

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSCL/ PCL	109_120723 12/7/23	120_121223 12/12/23	125_121323 12/13/23	126_121823 12/18/23	1824DPTMW01_ 121423 12/14/23	1824DPTMW02_ 121923 12/19/23	1824DPTMW03_ 121423 12/14/23	1824DPTMW04_ 121323 12/13/23
Aquifer Zone:			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Lab Package:			HS23120766-04	HS23120860-02	HS23120998-08	HS23121368-01	HS23121150-07	HS23121334-05	HS23121150-06	HS23120998-07
Well Identification:			109	120	125	126	1824DPTMW01	1824DPTMW02	1824DPTMW03	1824DPTMW04
Perchlorate (6850)										
Perchlorate	µg/L	17*	2,700	14,200	4,370	0.131	0.707	88,300	0.0864 J	7.26
Volatile Organic Compounds (8260C)										
1,1,1,2-Tetrachloroethane	µg/L	110	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,1-Trichloroethane	µg/L	200	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	µg/L	14	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	µg/L	5	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	10,000	< 10 U	17 J	< 5.0 U	< 1.0 U	< 1.0 U	0.66 J	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 10 U	98	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloropropene	µg/L	2.9	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,3-Trichlorobenzene	µg/L	310	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,3-Trichloropropane	µg/L	0.041	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	µg/L	70	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trimethylbenzene	µg/L	5,100	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane	µg/L	0.2	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromoethane	µg/L	0.05	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	µg/L	600	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	µg/L	5	< 10 U	30	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	µg/L	5	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3,5-Trimethylbenzene	µg/L	5,100	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	µg/L	3,100	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichloropropane	µg/L	29	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	µg/L	75	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2,2-Dichloropropane	µg/L	42	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone	µg/L	61,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Chlorotoluene	µg/L	2,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Hexanone	µg/L	6,100	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U
4-Chlorotoluene	µg/L	2,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Isopropyltoluene	µg/L	10,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Methyl-2-pentanone	µg/L	8,200	< 20 U	< 50 U	< 10 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U
Acetone	µg/L	92,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromobenzene	µg/L	2,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromochloromethane	µg/L	4,100	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	µg/L	4.6	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	µg/L	36	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane	µg/L	140	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	µg/L	10,000	< 10 U	< 25 U	< 5.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			109_120723 12/7/23	120_121223 12/12/23	125_121323 12/13/23	126_121823 12/18/23	1824DPTMW01_ 121423 12/14/23	1824DPTMW02_ 121923 12/19/23	1824DPTMW03_ 121423 12/14/23	1824DPTMW04_ 121323 12/13/23
Aquifer Zone:	Units	MCL/MSC/ PCL	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Carbon tetrachloride	µg/L	5	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	µg/L	100	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	µg/L	41,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform	µg/L	1,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U
Chloromethane	µg/L	220	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	890	1,100	< 5.0 U	< 1.0 U	< 1.0 U	11	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	µg/L	5.3	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	µg/L	34	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromomethane	µg/L	380	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane	µg/L	20,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Hexachlorobutadiene	µg/L	20	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropylbenzene	µg/L	10,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
m,p-Xylene	µg/L	10,000**	< 20 U	< 25 U	< 10 U	< 1.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U
Methylene chloride	µg/L	5	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Naphthalene	µg/L	2,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
n-Butylbenzene	µg/L	4,100	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
n-Propylbenzene	µg/L	4,100	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	µg/L	10,000**	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
sec-Butylbenzene	µg/L	4,100	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Styrene	µg/L	100	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
tert-Butylbenzene	µg/L	4,100	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	1,000	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	6.6 J	11 J	< 5.0 U	< 1.0 U	< 1.0 U	0.59 J	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	µg/L	29	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	1500	7,700	< 5.0 U	< 1.0 U	< 1.0 U	230	< 1.0 U	< 1.0 U
Trichlorofluoromethane	µg/L	31,000	< 10 UJ	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	< 10 U	< 25 U	< 5.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U
Metals (6020A/7470A)										
Aluminum	mg/L	100	NA	NA	0.109	0.0334	NA	NA	NA	NA
Antimony	mg/L	0.006	NA	NA	< 0.00125 U	< 0.00125 U	NA	NA	NA	NA
Arsenic	mg/L	0.01	NA	NA	0.000696 J	0.0150	NA	NA	NA	NA
Barium	mg/L	2	NA	NA	0.0908	10.9	NA	NA	NA	NA
Beryllium	mg/L	0.004	NA	NA	< 0.000500 U	< 0.00100 U	NA	NA	NA	NA
Cadmium	mg/L	0.005	NA	NA	< 0.000500 U	0.00104 J	NA	NA	NA	NA
Calcium	mg/L	NV	NA	NA	2.52	329	NA	NA	NA	NA
Chromium	mg/L	0.1	NA	NA	0.0174	0.000994 J	NA	NA	NA	NA
Cobalt	mg/L	6.1	NA	NA	0.000823 J	0.0208	NA	NA	NA	NA
Copper	mg/L	1.3	NA	NA	0.00200 J	0.00150 J	NA	NA	NA	NA

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:			109_120723 12/7/23	120_121223 12/12/23	125_121323 12/13/23	126_121823 12/18/23	1824DPTMW01_ 121423 12/14/23	1824DPTMW02_ 121923 12/19/23	1824DPTMW03_ 121423 12/14/23	1824DPTMW04_ 121323 12/13/23
Aquifer Zone:	Units	MCL/MSC/ PCL	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Iron	mg/L	NV	NA	NA	1.45	21.0	NA	NA	NA	NA
Lead	mg/L	0.015	NA	NA	< 0.00125 U	< 0.00125 U	NA	NA	NA	NA
Magnesium	mg/L	NV	NA	NA	1.44	252	NA	NA	NA	NA
Manganese	mg/L	1.1*	NA	NA	0.0338	0.185	NA	NA	NA	NA
Nickel	mg/L	0.49*	NA	NA	0.00721	0.0142	NA	NA	NA	NA
Potassium	mg/L	NV	NA	NA	4.33	3.93	NA	NA	NA	NA
Selenium	mg/L	0.05	NA	NA	< 0.00250 U	< 0.00250 U	NA	NA	NA	NA
Silver	mg/L	0.51	NA	NA	0.000294 J	< 0.000500 U	NA	NA	NA	NA
Sodium	mg/L	NV	NA	NA	37.8	875	NA	NA	NA	NA
Thallium	mg/L	0.002	NA	NA	< 0.000500 U	< 0.000500 U	NA	NA	NA	NA
Vanadium	mg/L	0.72	NA	NA	0.00191 UB	0.00360 UB	NA	NA	NA	NA
Zinc	mg/L	31	NA	NA	0.0137	0.0302	NA	NA	NA	NA
Mercury	mg/L	0.002	NA	NA	< 0.000100 U	< 0.000100 U	NA	NA	NA	NA
1,4-Dioxane (8270 SIM)										
1,4-Dioxane	µg/L	9.1	0.062	5.1	NA	< 0.0050 U	< 0.0050 U	0.045	< 0.0050 U	0.042

Notes:

Blue highlighting indicates concentrations above the MCL/MS/PCL

MCL/MS - Maximum Contaminant Limit/Medium-Specific Concentrations/Protective Concentration Level

Bold values - detections

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected at the limit of detection presented.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

UB - artifact of blank contamination

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSCL/ PCL	1824DPTMW05_ 121223 12/12/23	1824DPTMW06_ 121223 12/12/23	1824DPTMW07_ 121923 12/19/23
Aquifer Zone:			Shallow	Wilcox	Wilcox
Lab Package:			HS23120860-01	HS23120860-04	HS23121334-02
Well Identification:			1824DPTMW05	1824DPTMW06	1824DPTMW07
Perchlorate (6850)					
Perchlorate	µg/L	17*	275,000	0.871	1.78
Volatile Organic Compounds (8260C)					
1,1,1,2-Tetrachloroethane	µg/L	110	< 25 U	< 1.0 U	< 1.0 U
1,1,1-Trichloroethane	µg/L	200	< 25 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	µg/L	14	< 25 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	µg/L	5	< 25 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	10,000	< 25 U	2.4	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 25 U	< 1.0 U	< 1.0 U
1,1-Dichloropropene	µg/L	2.9	< 25 U	< 1.0 U	< 1.0 U
1,2,3-Trichlorobenzene	µg/L	310	< 25 U	< 1.0 U	< 1.0 U
1,2,3-Trichloropropane	µg/L	0.041	< 25 U	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	µg/L	70	< 25 U	< 1.0 U	< 1.0 U
1,2,4-Trimethylbenzene	µg/L	5,100	< 25 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane	µg/L	0.2	< 25 U	< 1.0 U	< 1.0 U
1,2-Dibromoethane	µg/L	0.05	< 25 U	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	µg/L	600	< 25 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	µg/L	5	90	4.0	< 1.0 U
1,2-Dichloropropane	µg/L	5	< 25 U	< 1.0 U	< 1.0 U
1,3,5-Trimethylbenzene	µg/L	5,100	< 25 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	µg/L	3,100	< 25 U	< 1.0 U	< 1.0 U
1,3-Dichloropropane	µg/L	29	< 25 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	µg/L	75	< 25 U	< 1.0 U	< 1.0 U
2,2-Dichloropropane	µg/L	42	< 25 U	< 1.0 U	< 1.0 U
2-Butanone	µg/L	61,000	< 25 U	< 1.0 U	< 1.0 U
2-Chlorotoluene	µg/L	2,000	< 25 U	< 1.0 U	< 1.0 U
2-Hexanone	µg/L	6,100	< 25 U	< 1.0 U	< 1.0 U
4-Chlorotoluene	µg/L	2,000	< 25 U	< 1.0 U	< 1.0 U
4-Isopropyltoluene	µg/L	10,000	< 25 U	< 1.0 U	< 1.0 U
4-Methyl-2-pentanone	µg/L	8,200	< 25 U	< 2.0 U	< 2.0 U
Acetone	µg/L	92,000	< 25 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 25 U	< 1.0 U	< 1.0 U
Bromobenzene	µg/L	2,000	< 25 U	< 1.0 U	< 1.0 U
Bromochloromethane	µg/L	4,100	< 25 U	< 1.0 U	< 1.0 U
Bromodichloromethane	µg/L	4.6	< 25 U	< 1.0 U	< 1.0 U
Bromoform	µg/L	36	< 25 U	< 1.0 U	< 1.0 U
Bromomethane	µg/L	140	< 25 U	< 1.0 U	< 1.0 U
Carbon disulfide	µg/L	10,000	< 50 U	< 1.0 U	< 1.0 U

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSCL/ PCL	1824DPTMW05_ 121223 12/12/23	1824DPTMW06_ 121223 12/12/23	1824DPTMW07_ 121923 12/19/23
Aquifer Zone:			Shallow	Wilcox	Wilcox
Carbon tetrachloride	µg/L	5	33	< 1.0 U	< 1.0 U
Chlorobenzene	µg/L	100	< 25 U	< 1.0 U	< 1.0 U
Chloroethane	µg/L	41,000	< 25 U	< 1.0 U	< 1.0 U
Chloroform	µg/L	1,000	36	< 1.0 U	< 1.0 U
Chloromethane	µg/L	220	< 25 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	75	8.6	< 1.0 U
cis-1,3-Dichloropropene	µg/L	5.3	< 25 U	< 1.0 U	< 1.0 U
Dibromochloromethane	µg/L	34	< 25 U	< 1.0 U	< 1.0 U
Dibromomethane	µg/L	380	< 25 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane	µg/L	20,000	< 25 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 25 U	< 1.0 U	< 1.0 U
Hexachlorobutadiene	µg/L	20	< 25 U	< 1.0 U	< 1.0 U
Isopropylbenzene	µg/L	10,000	< 25 U	< 1.0 U	< 1.0 U
m,p-Xylene	µg/L	10,000**	< 50 U	< 1.0 U	< 2.0 U
Methylene chloride	µg/L	5	< 25 U	< 1.0 U	< 1.0 U
Naphthalene	µg/L	2,000	< 25 U	< 1.0 U	< 1.0 U
n-Butylbenzene	µg/L	4,100	< 25 U	< 1.0 U	< 1.0 U
n-Propylbenzene	µg/L	4,100	< 25 U	< 1.0 U	< 1.0 U
o-Xylene	µg/L	10,000**	< 25 U	< 1.0 U	< 1.0 U
sec-Butylbenzene	µg/L	4,100	< 25 U	< 1.0 U	< 1.0 U
Styrene	µg/L	100	< 25 U	< 1.0 U	< 1.0 U
tert-Butylbenzene	µg/L	4,100	< 25 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	< 25 U	< 1.0 U	< 1.0 U
Toluene	µg/L	1,000	< 12 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 12 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	µg/L	29	< 25 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	6,200	7.1	< 1.0 U
Trichlorofluoromethane	µg/L	31,000	< 25 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	< 25 U	< 1.0 U	< 1.0 U
Metals (6020A/7470A)					
Aluminum	mg/L	100	NA	NA	0.0751
Antimony	mg/L	0.006	NA	NA	< 0.00125 U
Arsenic	mg/L	0.01	NA	NA	0.00556
Barium	mg/L	2	NA	NA	0.302
Beryllium	mg/L	0.004	NA	NA	< 0.000500 U
Cadmium	mg/L	0.005	NA	NA	< 0.000500 U
Calcium	mg/L	NV	NA	NA	47.2
Chromium	mg/L	0.1	NA	NA	0.00575
Cobalt	mg/L	6.1	NA	NA	0.0151
Copper	mg/L	1.3	NA	NA	0.00418 J

Table 6. LHAAP-18/24 Analytical Results - December 2023

Sample Identification and Sample Date:	Units	MCL/MSC/ PCL	1824DPTMW05_ 121223 12/12/23	1824DPTMW06_ 121223 12/12/23	1824DPTMW07_ 121923 12/19/23
Aquifer Zone:			Shallow	Wilcox	Wilcox
Iron	mg/L	NV	NA	NA	25.3
Lead	mg/L	0.015	NA	NA	< 0.00125 U
Magnesium	mg/L	NV	NA	NA	31.5
Manganese	mg/L	1.1*	NA	NA	9.84
Nickel	mg/L	0.49*	NA	NA	0.0106
Potassium	mg/L	NV	NA	NA	1.13
Selenium	mg/L	0.05	NA	NA	< 0.00250 U
Silver	mg/L	0.51	NA	NA	< 0.000500 U
Sodium	mg/L	NV	NA	NA	134
Thallium	mg/L	0.002	NA	NA	< 0.000500 UJ
Vanadium	mg/L	0.72	NA	NA	< 0.00125 U
Zinc	mg/L	31	NA	NA	0.0121
Mercury	mg/L	0.002	NA	NA	< 0.000100 U
1,4-Dioxane (8270 SIM)					
1,4-Dioxane	µg/L	9.1	3.0	2.0	NA

Notes:

Blue highlighting indicates concentrations above the MCL/MSC/PCL

MCL/MSC - Maximum Contaminant Limit/Medium-Specific
Concentrations/Protective Concentration Level

Bold values - detections

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

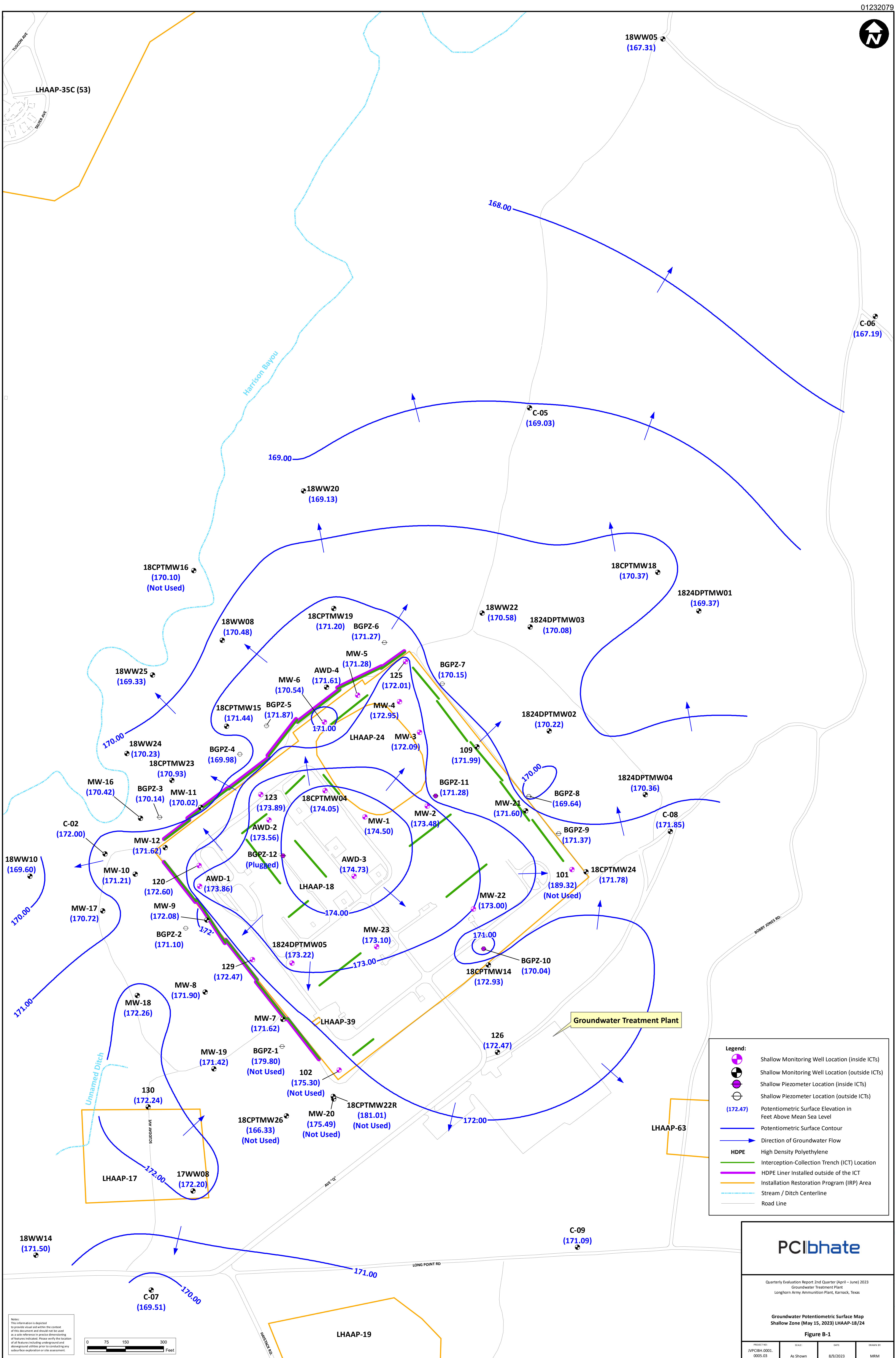
U - Undetected: The analyte was analyzed for, but not detected at the limit of detection presented.

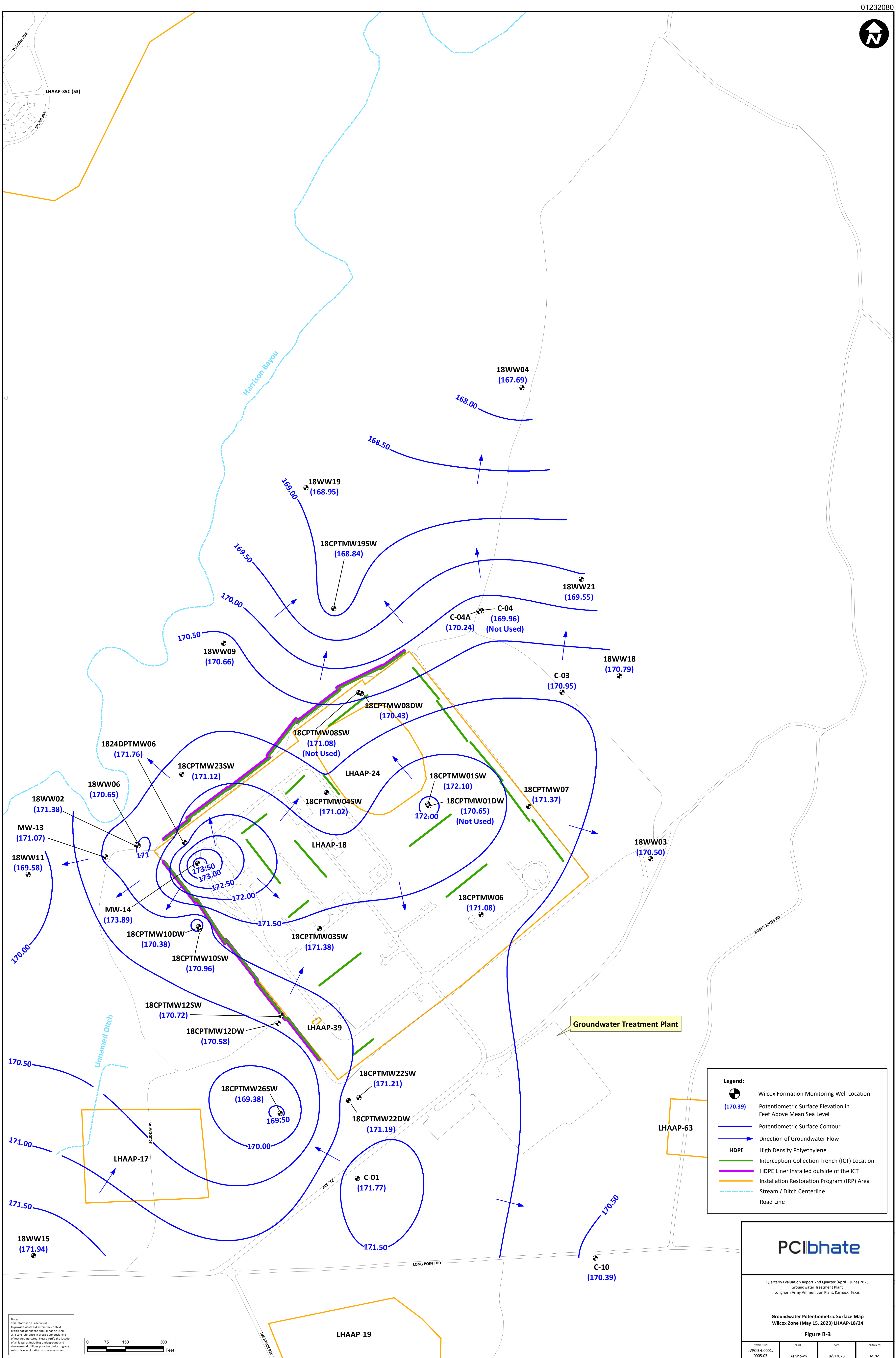
*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

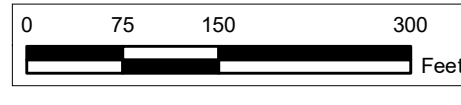
PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential
Protective Concentration Level

UB - artifact of blank contamination





Notes:
This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface exploration or site assessment.



Legend:

- Wilcox Formation Monitoring Well Location
- Potentiometric Surface Elevation in Feet Above Mean Sea Level
- Potentiometric Surface Contour
- Direction of Groundwater Flow
- HDPE Interception-Collection Trench (ICT) Location
- HDPE Liner Installed outside of the ICT
- Installation Restoration Program (IRP) Area
- Stream / Ditch Centerline
- Road Line

Quarterly Evaluation Report 2nd Quarter (April – June) 2023
Groundwater Treatment Plant
Longhorn Army Ammunition Plant, Karnack, Texas

Groundwater Potentiometric Surface Map
Wilcox Zone (May 15, 2023) LHAAP-18/24

Figure B-3

PROJECT NO: NUPCBH 0001. 0005.03	SCALE: As Shown	DATE: 8/9/2023	DRAWN BY: M/RM

LHAAP-Quarterly Surface Water Sampling

January 2024 (Quarter 1)

Location ID: Sample Date:	Units	PCL	HBW1_013024 1/30/24	HBW1_013024_a 1/30/24	HBW7_013024 1/30/24	HBW10_013024 1/30/24	GPW1_013024 1/30/24	GPW3_013024 1/30/24
Perchlorate (6850)			Harrison Bayou				Goose Prairie Creek	
Perchlorate	µg/L	17	0.0609 J	0.0693 J	0.0772 J	0.0565 J	0.0671 J	0.0490 J

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

J - estimated value between the detection limit and limit of quantitation

Longhorn Army Ammunition Plant Creek Sampling Locations

