

LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 22

2024

Bate Stamp Numbers

01251928 – 01253905

Prepared for

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

1976–2024

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

VOLUME 22

2024

A. Title: Report (Cont'd) – Appendix C, File 2 to Quarterly Evaluation Report, 3rd Quarter (July-September) 2023, Groundwater Treatment Plant, Longhorn Army Ammunition Plant Karnack, Texas

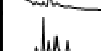
Author(s): PCI-Bhate JV

Recipient: Environmental Protection Agency and Texas Commission on Environmental Quality

Date: May 16, 2024

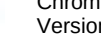
Bate Stamp: 01251928–01253905

Sequence: 082423
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	 STD1		Calibration	GA1	1.00	1	Anions Program ISO37mM 150mm short 0.4 Constant current
	 STD2		Calibration	GA2	1.00	2	Anions Program ISO37mM 150mm short 0.4 Constant current
	 STD3		Calibration	GA3	1.00	3	Anions Program ISO37mM 150mm short 0.4 Constant current
	 STD4		Calibration	GA4	1.00	4	Anions Program ISO37mM 150mm short 0.4 Constant current
	 STD5		Calibration	GA5	1.00	5	Anions Program ISO37mM 150mm short 0.4 Constant current
	 STD6		Calibration	GA6	1.00	6	Anions Program ISO37mM 150mm short 0.4 Constant current
	 ICV		Unknown	GA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 ICB		Unknown	R5	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 MBLK-199346	REP	Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 LCS-199346	REP	Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080722-03	REP	Unknown	RA1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080722-03MS	REP	Unknown	RA2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080722-03MSD	REP	Unknown	RA3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080722-03DF5	REP	Unknown	RA4	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080722-13DF5	REP	Unknown	RA5	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080805-07DF10	REP	Unknown	RA6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080844-02	REP	Unknown	RA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080844-03	REP	Unknown	RA8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081386-02	REP	Unknown	RB2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081386-03	REP	Unknown	RB3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081386-04	REP	Unknown	RB4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081226-03	REP	Unknown	RB5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

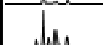


Sequence: 082423
Last Update Operator: alsht.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	 HS23081374-02DF2	REP	Unknown	RB6	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081374-03DF2	REP	Unknown	RB7	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081374-04DF2	REP	Unknown	RB8	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081374-05	REP	Unknown	RC1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081374-06	REP	Unknown	RC2	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081374-07	REP	Unknown	RC3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081374-08DF2	REP	Unknown	RC4	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081374-09	REP	Unknown	RC5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081374-10	REP	Unknown	RC6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081374-11	REP	Unknown	RC7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 MBLK	300-W-SH	Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 LCS		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081441-01		Unknown	RC8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081441-01MS		Unknown	RD1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081441-01MSD		Unknown	RD2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081441-02		Unknown	RD3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081441-03		Unknown	RD4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081441-04		Unknown	RD5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081485-01		Unknown	RD6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081386-01	REP	Unknown	RB1	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081441-02MS		Unknown	RD7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current



Sequence: 082423
Last Update Operator: alsht.nouser

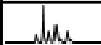
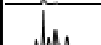
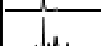
CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	 HS23081441-02MSD	300-W-SH-1	Unknown	RD8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081441-03MS		Unknown	RE1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081441-03MSD		Unknown	RE2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081441-04MS		Unknown	RE3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081441-04MSD		Unknown	RE4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-02		Unknown	RE5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-02DF5		Unknown	RE6	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-03		Unknown	RE7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-03DF5		Unknown	RE8	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-01DF5		Unknown	GA7	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-01DF100		Unknown	GA8	100.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-04		Unknown	GA1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-04DF5		Unknown	GA2	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-05		Unknown	GA3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-06		Unknown	GA4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-06DF5		Unknown	GA5	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081484-07		Unknown	GA6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081454-01		Unknown	GB1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081454-02DF5		Unknown	GB2	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 MBLK		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
	 HS23081488-01		Unknown	GB3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081488-01MS		Unknown	GB4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current



Sequence: 082423
Last Update Operator: alsht.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	HS23081488-01MSD		Unknown	GB5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-02		Unknown	GB6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-02MS		Unknown	GB7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-02MSD		Unknown	GB8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-03		Unknown	GC1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-04		Unknown	GC2	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-05		Unknown	GC3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-06		Unknown	GC4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-07		Unknown	GC5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-08		Unknown	GC6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-09		Unknown	GC7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-10		Unknown	GC8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081488-11		Unknown	GD1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081512-01		Unknown	GD2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081512-02		Unknown	GD3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081512-03		Unknown	GD4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081512-04		Unknown	GD5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081512-05		Unknown	GD6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081512-05DF10		Unknown	GD7	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081512-06	300-W-SH-1	Unknown	GD8	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	MBLK	9056-W-SH	Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

Sequence: 082423
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	 LCS		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081487-01		Unknown	GE1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081487-01MS		Unknown	GE2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081487-01MSD		Unknown	GE3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081487-01DF10		Unknown	GE4	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081040-01		Unknown	GE5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081040-01DF10		Unknown	GE6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081076-01DF2		Unknown	GE7	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081076-01DF40		Unknown	GE8	40.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080849-01		Unknown	BA1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080849-02		Unknown	BA2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080849-03		Unknown	BA3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080849-04		Unknown	BA4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080849-05		Unknown	BA5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080849-06		Unknown	BA6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23080849-07		Unknown	BA7	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

Sequence: 082423
Last Update Operator: alsht.nouser

Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		STD1	5.0	Finished	8/8/2023 9:18:53 AM -05:00
Anions Processing Method ISO		STD2	5.0	Finished	8/8/2023 9:24:41 AM -05:00
Anions Processing Method ISO		STD3	5.0	Finished	8/8/2023 9:30:41 AM -05:00
Anions Processing Method ISO		STD4	5.0	Finished	8/8/2023 9:36:40 AM -05:00
Anions Processing Method ISO		STD5	5.0	Finished	8/8/2023 9:42:29 AM -05:00
Anions Processing Method ISO		STD6	5.0	Finished	8/8/2023 9:48:17 AM -05:00
Anions Processing Method ISO		ICV	5.0	Finished	8/8/2023 9:59:54 AM -05:00
Anions Processing Method ISO		ICB	5.0	Finished	8/8/2023 10:05:42 AM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/24/2023 9:07:48 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/24/2023 9:19:22 AM -05:00
Anions Processing Method ISO		MBLK-199346	5.0	Finished	8/24/2023 9:30:57 AM -05:00
Anions Processing Method ISO		LCS-199346	5.0	Finished	8/24/2023 9:36:44 AM -05:00
Anions Processing Method ISO		HS23080722-03	5.0	Finished	8/24/2023 9:56:54 AM -05:00
Anions Processing Method ISO		HS23080722-03MS	5.0	Finished	8/24/2023 10:02:42 AM -05:00
Anions Processing Method ISO		HS23080722-03MSD	5.0	Finished	8/24/2023 10:08:29 AM -05:00
Anions Processing Method ISO		HS23080722-03DF5	5.0	Finished	8/24/2023 10:14:16 AM -05:00
Anions Processing Method ISO		HS23080722-13DF5	5.0	Finished	8/24/2023 10:20:04 AM -05:00
Anions Processing Method ISO		HS23080805-07DF10	5.0	Finished	8/24/2023 10:25:51 AM -05:00
Anions Processing Method ISO		HS23080844-02	5.0	Finished	8/24/2023 10:31:38 AM -05:00
Anions Processing Method ISO		HS23080844-03	5.0	Finished	8/24/2023 10:37:25 AM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	8/24/2023 10:43:13 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/24/2023 10:54:47 AM -05:00
Anions Processing Method ISO		HS23081386-02	5.0	Finished	8/24/2023 11:12:09 AM -05:00
Anions Processing Method ISO		HS23081386-03	5.0	Finished	8/24/2023 11:17:57 AM -05:00
Anions Processing Method ISO		HS23081386-04	5.0	Finished	8/24/2023 11:23:44 AM -05:00
Anions Processing Method ISO		HS23081226-03	5.0	Finished	8/24/2023 11:29:31 AM -05:00



Sequence: 082423
Last Update Operator: alshs.nouser

Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		HS23081374-02DF2	5.0	Finished	8/24/2023 11:35:19 AM -05:00
Anions Processing Method ISO		HS23081374-03DF2	5.0	Finished	8/24/2023 11:41:06 AM -05:00
Anions Processing Method ISO		HS23081374-04DF2	5.0	Finished	8/24/2023 11:46:54 AM -05:00
Anions Processing Method ISO		HS23081374-05	5.0	Finished	8/24/2023 11:52:41 AM -05:00
Anions Processing Method ISO		HS23081374-06	5.0	Finished	8/24/2023 11:58:28 AM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/24/2023 12:10:03 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/24/2023 12:15:50 PM -05:00
Anions Processing Method ISO		HS23081374-07	5.0	Finished	8/24/2023 12:27:25 PM -05:00
Anions Processing Method ISO		HS23081374-08DF2	5.0	Finished	8/24/2023 12:33:12 PM -05:00
Anions Processing Method ISO		HS23081374-09	5.0	Finished	8/24/2023 12:39:00 PM -05:00
Anions Processing Method ISO		HS23081374-10	5.0	Finished	8/24/2023 12:44:47 PM -05:00
Anions Processing Method ISO		HS23081374-11	5.0	Finished	8/24/2023 12:50:35 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	8/24/2023 1:02:09 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/24/2023 1:13:44 PM -05:00
Anions Processing Method ISO		MBLK	5.0	Finished	8/24/2023 1:25:19 PM -05:00
Anions Processing Method ISO		LCS	5.0	Finished	8/24/2023 1:31:06 PM -05:00
Anions Processing Method ISO		HS23081441-01	5.0	Finished	8/24/2023 1:37:05 PM -05:00
Anions Processing Method ISO		HS23081441-01MS	5.0	Finished	8/24/2023 1:42:52 PM -05:00
Anions Processing Method ISO		HS23081441-01MSD	5.0	Finished	8/24/2023 1:48:39 PM -05:00
Anions Processing Method ISO		HS23081441-02	5.0	Finished	8/24/2023 1:54:27 PM -05:00
Anions Processing Method ISO		HS23081441-03	5.0	Finished	8/24/2023 2:00:14 PM -05:00
Anions Processing Method ISO		HS23081441-04	5.0	Finished	8/24/2023 2:06:02 PM -05:00
Anions Processing Method ISO		HS23081485-01	5.0	Finished	8/24/2023 2:11:49 PM -05:00
Anions Processing Method ISO		HS23081386-01	5.0	Finished	8/24/2023 2:17:36 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/24/2023 2:23:24 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/24/2023 2:34:59 PM -05:00
Anions Processing Method ISO		HS23081441-02MS	5.0	Finished	8/24/2023 2:46:34 PM -05:00



Sequence: 082423
Last Update Operator: alshs.nouser

Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		HS23081441-02MSD	5.0	Finished	8/24/2023 2:52:21 PM -05:00
Anions Processing Method ISO		HS23081441-03MS	5.0	Finished	8/24/2023 2:58:20 PM -05:00
Anions Processing Method ISO		HS23081441-03MSD	5.0	Finished	8/24/2023 3:04:18 PM -05:00
Anions Processing Method ISO		HS23081441-04MS	5.0	Finished	8/24/2023 3:10:06 PM -05:00
Anions Processing Method ISO		HS23081441-04MSD	5.0	Finished	8/24/2023 3:15:53 PM -05:00
Anions Processing Method ISO		HS23081484-02	5.0	Finished	8/24/2023 3:21:41 PM -05:00
Anions Processing Method ISO		HS23081484-02DF5	5.0	Finished	8/24/2023 3:27:28 PM -05:00
Anions Processing Method ISO		HS23081484-03	5.0	Finished	8/24/2023 3:33:15 PM -05:00
Anions Processing Method ISO		HS23081484-03DF5	5.0	Finished	8/24/2023 3:39:03 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	8/24/2023 3:56:25 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/24/2023 4:08:00 PM -05:00
Anions Processing Method ISO		HS23081484-01DF5	5.0	Finished	8/24/2023 4:19:46 PM -05:00
Anions Processing Method ISO		HS23081484-01DF100	5.0	Finished	8/24/2023 4:25:33 PM -05:00
Anions Processing Method ISO		HS23081484-04	5.0	Finished	8/24/2023 4:31:21 PM -05:00
Anions Processing Method ISO		HS23081484-04DF5	5.0	Finished	8/24/2023 4:37:08 PM -05:00
Anions Processing Method ISO		HS23081484-05	5.0	Finished	8/24/2023 4:42:56 PM -05:00
Anions Processing Method ISO		HS23081484-06	5.0	Finished	8/24/2023 4:48:43 PM -05:00
Anions Processing Method ISO		HS23081484-06DF5	5.0	Finished	8/24/2023 4:54:31 PM -05:00
Anions Processing Method ISO		HS23081484-07	5.0	Finished	8/24/2023 5:00:18 PM -05:00
Anions Processing Method ISO		HS23081454-01	5.0	Finished	8/24/2023 5:06:06 PM -05:00
Anions Processing Method ISO		HS23081454-02DF5	5.0	Finished	8/24/2023 5:11:53 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	8/24/2023 5:23:28 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/24/2023 5:35:03 PM -05:00
Anions Processing Method ISO		MBLK	5.0	Finished	8/24/2023 5:46:38 PM -05:00
Anions Processing Method ISO		LCS	5.0	Finished	8/24/2023 5:52:25 PM -05:00
Anions Processing Method ISO		HS23081488-01	5.0	Finished	8/24/2023 5:58:12 PM -05:00
Anions Processing Method ISO		HS23081488-01MS	5.0	Finished	8/24/2023 6:04:00 PM -05:00



Sequence: 082423
Last Update Operator: alshs.nouser

Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		HS23081488-01MSD	5.0	Finished	8/24/2023 6:09:47 PM -05:00
Anions Processing Method ISO		HS23081488-02	5.0	Finished	8/24/2023 6:15:35 PM -05:00
Anions Processing Method ISO		HS23081488-02MS	5.0	Finished	8/24/2023 6:21:22 PM -05:00
Anions Processing Method ISO		HS23081488-02MSD	5.0	Finished	8/24/2023 6:27:10 PM -05:00
Anions Processing Method ISO		HS23081488-03	5.0	Finished	8/24/2023 6:32:57 PM -05:00
Anions Processing Method ISO		HS23081488-04	5.0	Finished	8/24/2023 6:38:45 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/24/2023 6:50:20 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/24/2023 7:01:55 PM -05:00
Anions Processing Method ISO		HS23081488-05	5.0	Finished	8/24/2023 7:13:30 PM -05:00
Anions Processing Method ISO		HS23081488-06	5.0	Finished	8/24/2023 7:19:17 PM -05:00
Anions Processing Method ISO		HS23081488-07	5.0	Finished	8/24/2023 7:25:05 PM -05:00
Anions Processing Method ISO		HS23081488-08	5.0	Finished	8/24/2023 7:30:52 PM -05:00
Anions Processing Method ISO		HS23081488-09	5.0	Finished	8/24/2023 7:36:40 PM -05:00
Anions Processing Method ISO		HS23081488-10	5.0	Finished	8/24/2023 7:42:27 PM -05:00
Anions Processing Method ISO		HS23081488-11	5.0	Finished	8/24/2023 7:48:15 PM -05:00
Anions Processing Method ISO		HS23081512-01	5.0	Finished	8/24/2023 7:54:02 PM -05:00
Anions Processing Method ISO		HS23081512-02	5.0	Finished	8/24/2023 7:59:50 PM -05:00
Anions Processing Method ISO		HS23081512-03	5.0	Finished	8/24/2023 8:05:37 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	8/24/2023 8:17:12 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/24/2023 8:23:00 PM -05:00
Anions Processing Method ISO		HS23081512-04	5.0	Finished	8/24/2023 8:34:35 PM -05:00
Anions Processing Method ISO		HS23081512-05	5.0	Finished	8/24/2023 8:40:22 PM -05:00
Anions Processing Method ISO		HS23081512-05DF10	5.0	Finished	8/24/2023 8:46:10 PM -05:00
Anions Processing Method ISO		HS23081512-06	5.0	Finished	8/24/2023 8:51:57 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/24/2023 9:03:32 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/24/2023 9:15:07 PM -05:00
Anions Processing Method ISO		MBLK	5.0	Finished	8/24/2023 9:26:42 PM -05:00



Sequence: 082423
Last Update Operator: alshs.nouser

Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		LCS	5.0	Finished	8/24/2023 9:32:29 PM -05:00
Anions Processing Method ISO		HS23081487-01	5.0	Finished	8/24/2023 9:38:17 PM -05:00
Anions Processing Method ISO		HS23081487-01MS	5.0	Finished	8/24/2023 9:44:04 PM -05:00
Anions Processing Method ISO		HS23081487-01MSD	5.0	Finished	8/24/2023 9:49:51 PM -05:00
Anions Processing Method ISO		HS23081487-01DF10	5.0	Finished	8/24/2023 9:55:39 PM -05:00
Anions Processing Method ISO		HS23081040-01	5.0	Finished	8/24/2023 10:01:26 PM -05:00
Anions Processing Method ISO		HS23081040-01DF10	5.0	Finished	8/24/2023 10:07:14 PM -05:00
Anions Processing Method ISO		HS23081076-01DF2	5.0	Finished	8/24/2023 10:13:01 PM -05:00
Anions Processing Method ISO		HS23081076-01DF40	5.0	Finished	8/24/2023 10:18:49 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	8/24/2023 10:30:24 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/24/2023 10:41:59 PM -05:00
Anions Processing Method ISO		HS23080849-01	5.0	Finished	8/24/2023 10:53:45 PM -05:00
Anions Processing Method ISO		HS23080849-02	5.0	Finished	8/24/2023 10:59:32 PM -05:00
Anions Processing Method ISO		HS23080849-03	5.0	Finished	8/24/2023 11:05:19 PM -05:00
Anions Processing Method ISO		HS23080849-04	5.0	Finished	8/24/2023 11:11:07 PM -05:00
Anions Processing Method ISO		HS23080849-05	5.0	Finished	8/24/2023 11:16:54 PM -05:00
Anions Processing Method ISO		HS23080849-06	5.0	Finished	8/24/2023 11:22:42 PM -05:00
Anions Processing Method ISO		HS23080849-07	5.0	Finished	8/24/2023 11:28:29 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/24/2023 11:51:39 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/25/2023 12:03:14 AM -05:00

Sequence: 080823
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	Quad, WithOffset, 1/A	Area	6	20.1152	0.99884	-0.0155	0.2303	0.0000
2	Chloride	Lin, WithOffset, 1/A	Area	6	4.2696	0.99992	-0.0316	0.1715	0.0000
3	Nitrite,N	Quad, WithOffset, 1/A	Area	6	5.5774	0.99985	-0.0051	0.3800	-0.0045
4	Sulfate	Lin, WithOffset, 1/A	Area	6	21.8403	0.99800	-0.0271	0.1106	0.0000
5	Bromide	Quad, WithOffset, 1/A	Area	6	27.4700	0.99813	-0.0002	0.0331	0.0011
6	Nitrate	Lin, WithOffset, 1/A	Area	6	5.1550	0.99988	-0.0104	0.3739	0.0000
7	Chlorate	Quad, WithOffset, 1/A	Area	6	6.2932	0.99985	-0.0019	0.0405	-0.0004
n.a.	Phosphate	Lin, WithOffset, 1/A	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum					27.4700	0.99992			
Minimum					4.2696	0.99800			

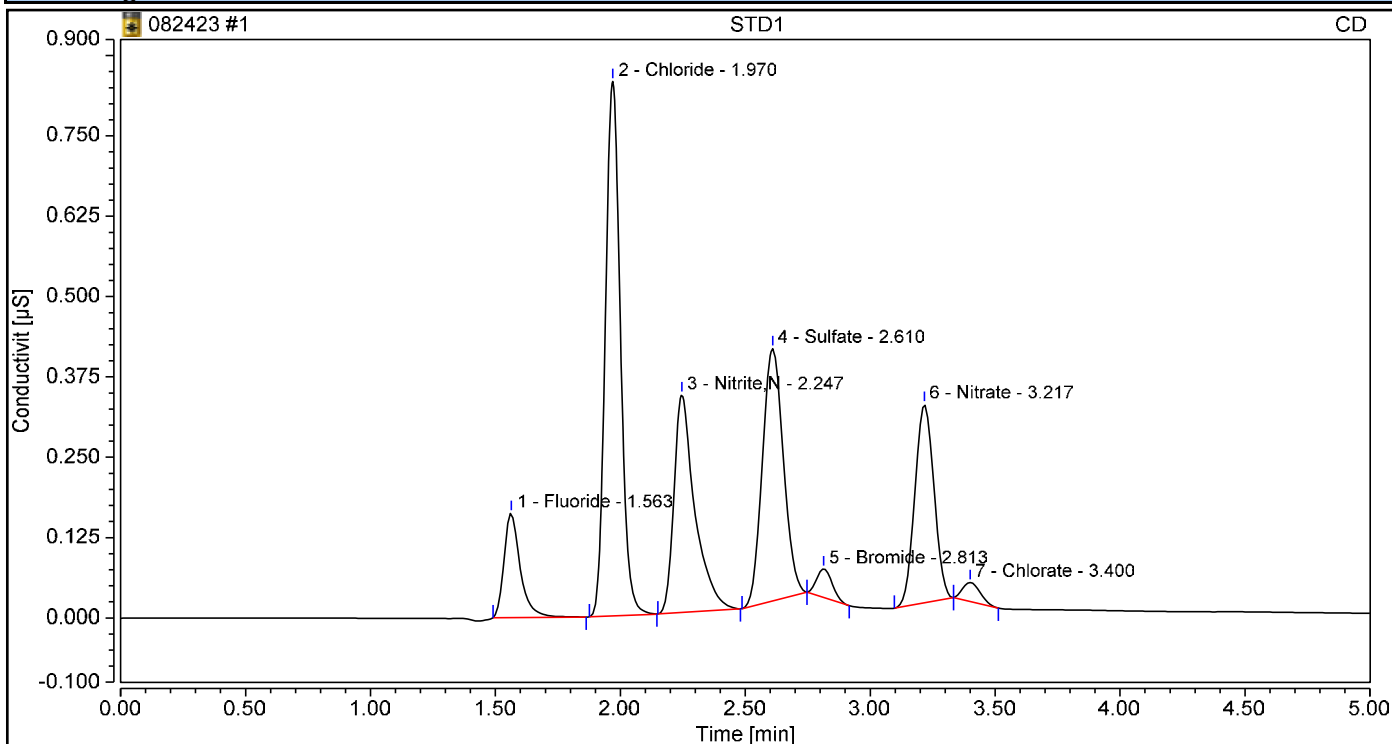


Chromatogram and Results

Injection Details

Injection Name:	STD1	Run Time (min):	5.00
Vial Number:	GA1	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	1	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:18	Sample Weight:	1.0000

Chromatogram



Integration Results

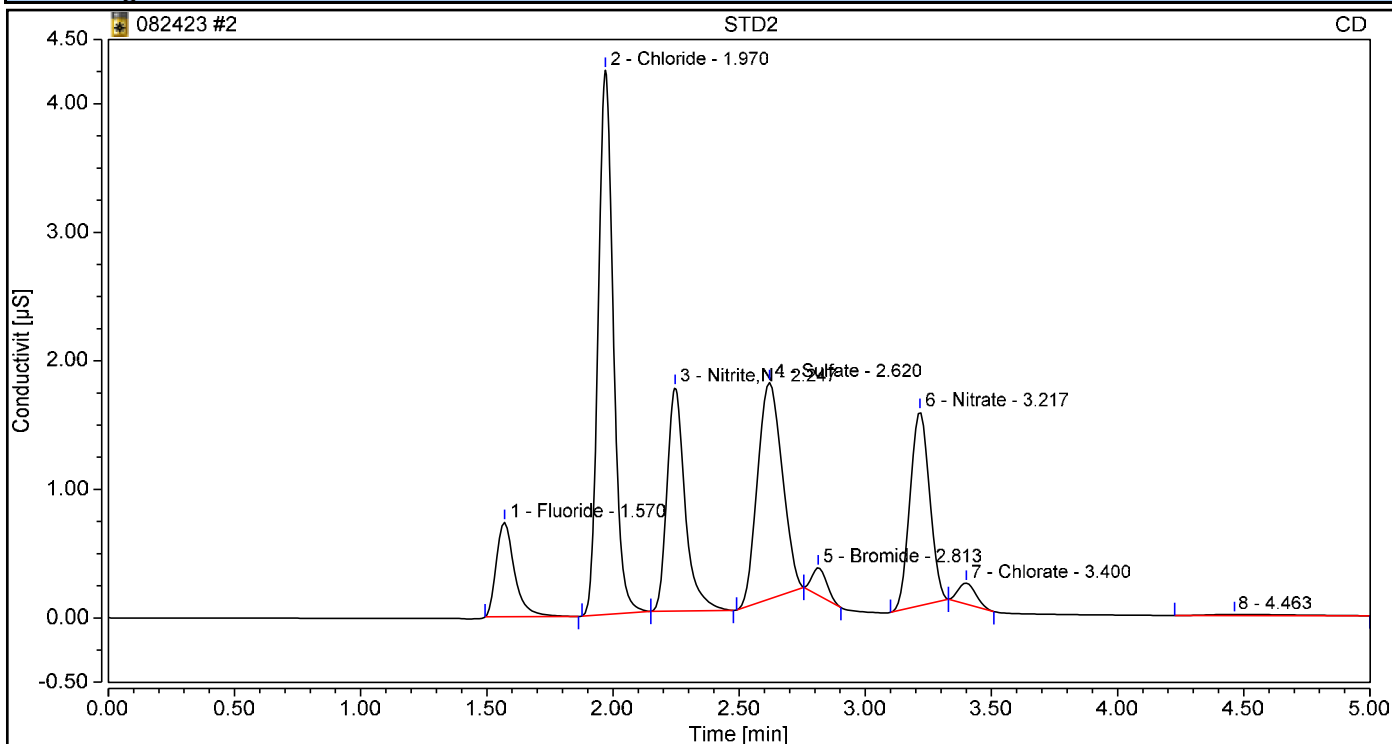
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.563	0.012	0.162	7.05	7.70	0.1207
2	Chloride	1.970	0.058	0.831	33.23	39.44	0.5225
3	Nitrite, N	2.247	0.033	0.339	18.77	16.06	0.0996
4	Sulfate	2.610	0.038	0.393	21.99	18.62	0.5916
5	Bromide	2.813	0.003	0.045	1.87	2.12	0.1046
6	Nitrate	3.217	0.027	0.309	15.71	14.65	0.1010
7	Chlorate	3.400	0.002	0.030	1.38	1.40	0.1068
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.174	2.108	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	STD2	Run Time (min):	5.00
Vial Number:	GA2	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	2	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:24	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.570	0.062	0.734	7.21	7.13	0.3362
2	Chloride	1.970	0.294	4.235	34.21	41.15	1.8982
3	Nitrite, N	2.247	0.144	1.741	16.77	16.92	0.3943
4	Sulfate	2.620	0.191	1.683	22.27	16.36	1.9750
5	Bromide	2.813	0.015	0.214	1.70	2.08	0.4420
6	Nitrate	3.217	0.137	1.512	15.90	14.69	0.3931
7	Chlorate	3.400	0.013	0.164	1.55	1.59	0.3772
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.463	0.003	0.009	0.40	0.09	n.a.
Total:			0.859	10.291	100.00	100.00	

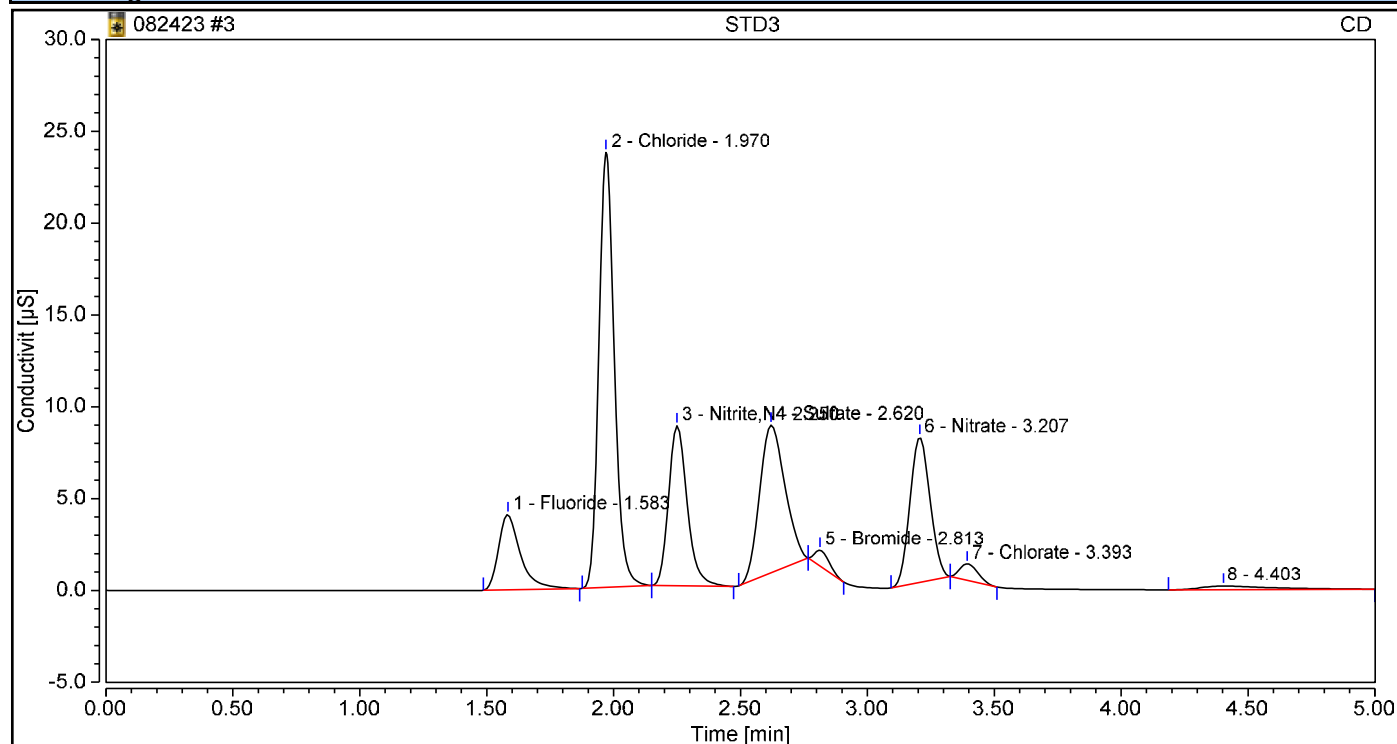


Chromatogram and Results

Injection Details

Injection Name:	STD3	Run Time (min):	5.00
Vial Number:	GA3	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	3	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:30	Sample Weight:	1.0000

Chromatogram



Integration Results

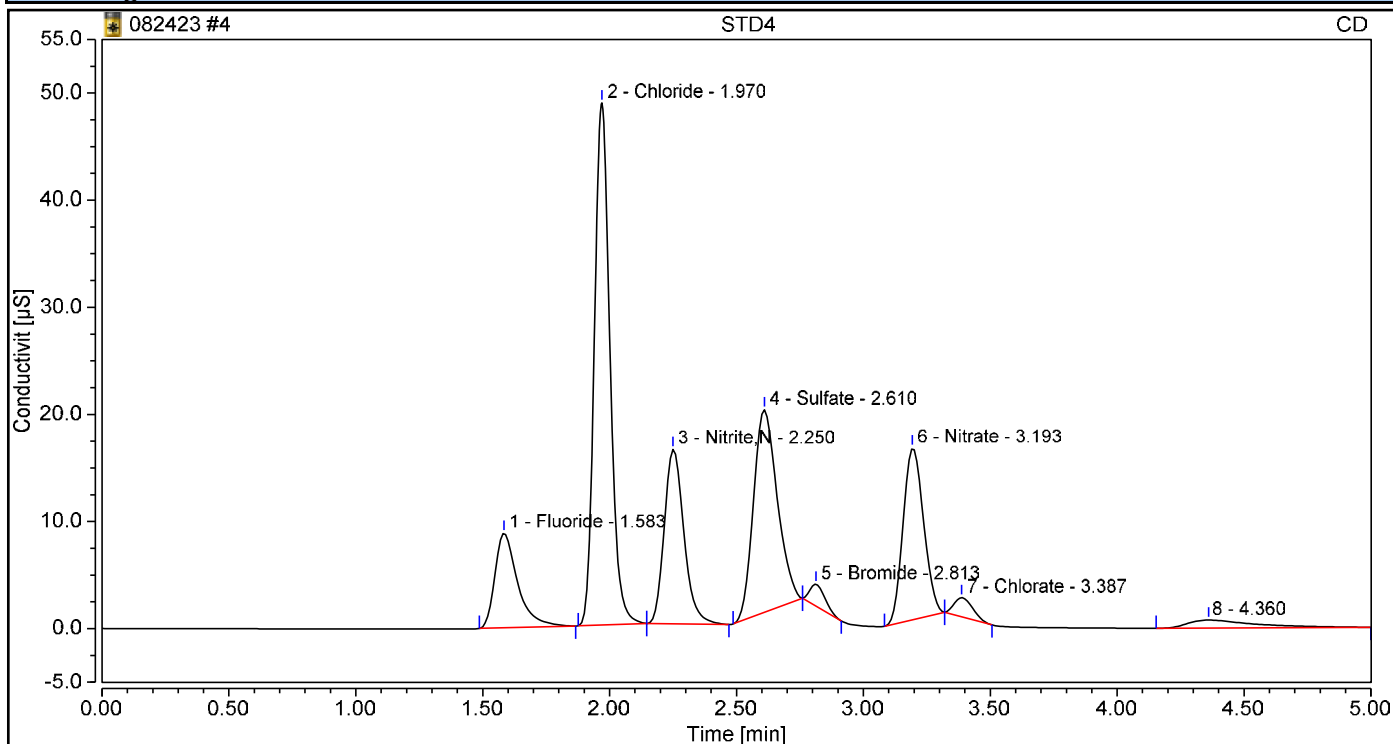
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.583	0.407	4.090	8.71	7.52	1.8358
2	Chloride	1.970	1.666	23.684	35.62	43.54	9.8990
3	Nitrite, N	2.250	0.747	8.727	15.98	16.04	2.0284
4	Sulfate	2.620	0.930	8.048	19.89	14.80	8.6573
5	Bromide	2.813	0.058	0.859	1.25	1.58	1.6790
6	Nitrate	3.207	0.728	7.896	15.57	14.52	1.9747
7	Chlorate	3.393	0.075	0.893	1.61	1.64	1.9501
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.403	0.064	0.196	1.36	0.36	n.a.
Total:			4.676	54.394	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	STD4	Run Time (min):	5.00
Vial Number:	GA4	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	4	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:36	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.583	0.916	8.843	9.23	7.80	4.0419
2	Chloride	1.970	3.451	48.740	34.77	42.99	20.3099
3	Nitrite, N	2.250	1.467	16.280	14.78	14.36	4.0682
4	Sulfate	2.610	2.054	18.903	20.70	16.67	18.8236
5	Bromide	2.813	0.144	2.051	1.45	1.81	3.8846
6	Nitrate	3.193	1.507	16.041	15.19	14.15	4.0589
7	Chlorate	3.387	0.154	1.783	1.55	1.57	4.0320
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.360	0.230	0.747	2.32	0.66	n.a.
Total:			9.924	113.388	100.00	100.00	

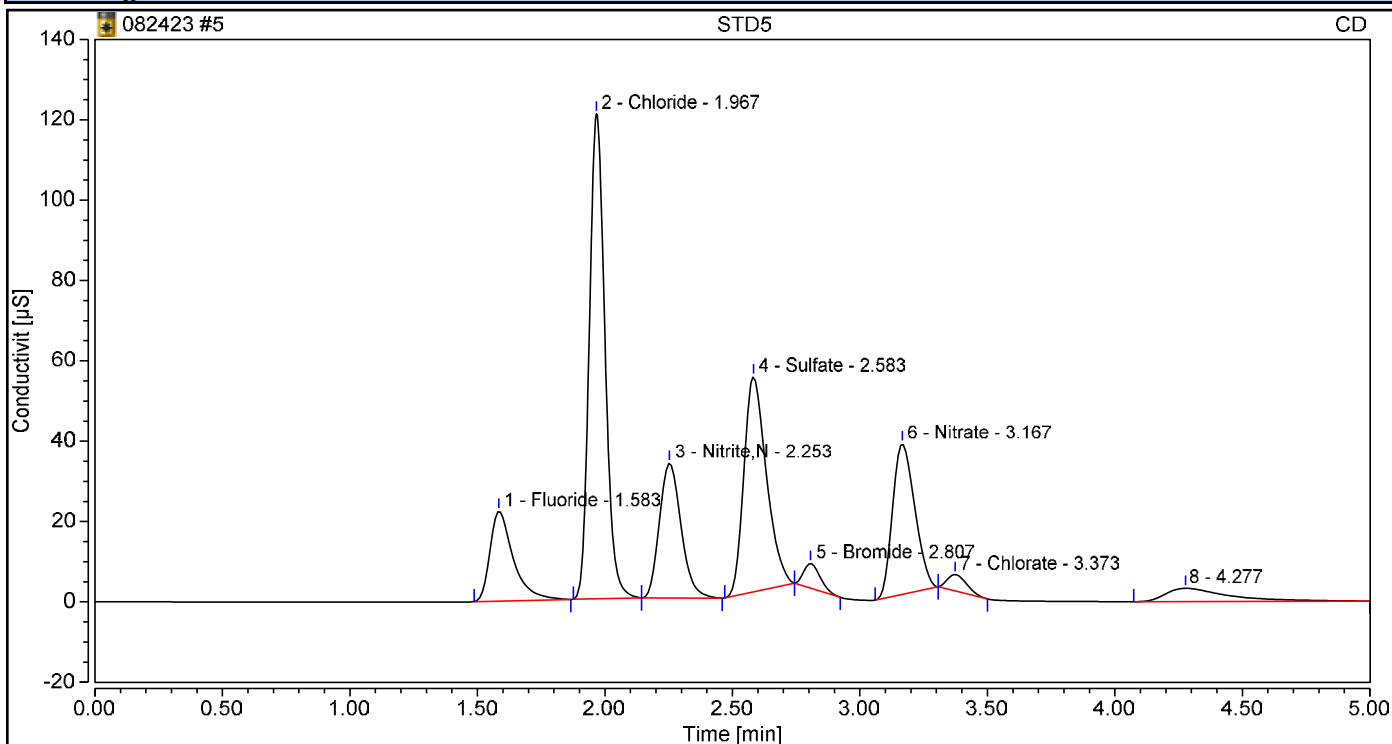


Chromatogram and Results

Injection Details

Injection Name:	STD5	Run Time (min):	5.00
Vial Number:	GA5	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	5	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:42	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.583	2.361	22.368	9.35	7.96	10.3121
2	Chloride	1.967	8.574	120.681	33.96	42.93	50.1891
3	Nitrite, N	2.253	3.298	33.531	13.06	11.93	9.8235
4	Sulfate	2.583	5.477	53.523	21.70	19.04	49.7821
5	Bromide	2.807	0.462	6.145	1.83	2.19	10.4730
6	Nitrate	3.167	3.777	37.501	14.96	13.34	10.1285
7	Chlorate	3.373	0.362	4.070	1.43	1.45	10.0896
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.277	0.935	3.315	3.70	1.18	n.a.
Total:			25.246	281.135	100.00	100.00	

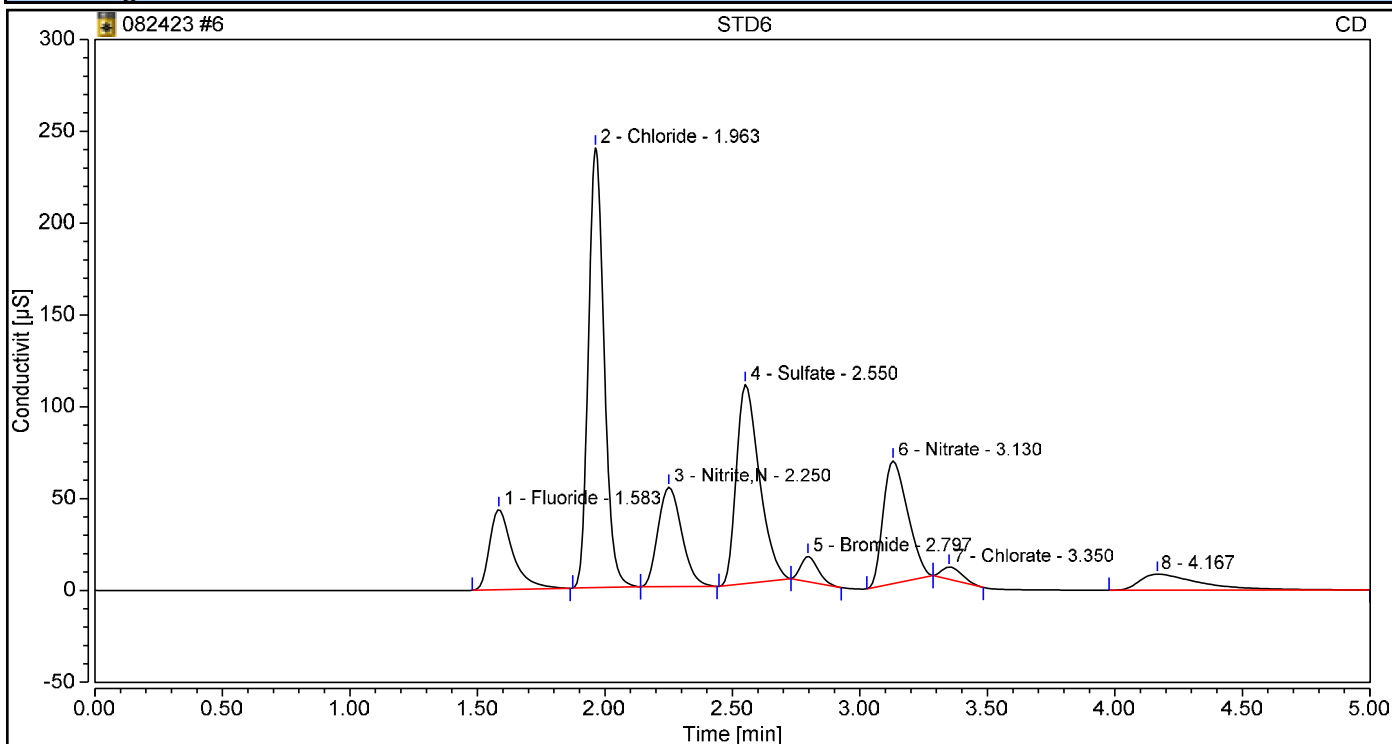


Chromatogram and Results

Injection Details

Injection Name:	STD6	Run Time (min):	5.00
Vial Number:	GA6	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	6	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:48	Sample Weight:	1.0000

Chromatogram



Integration Results

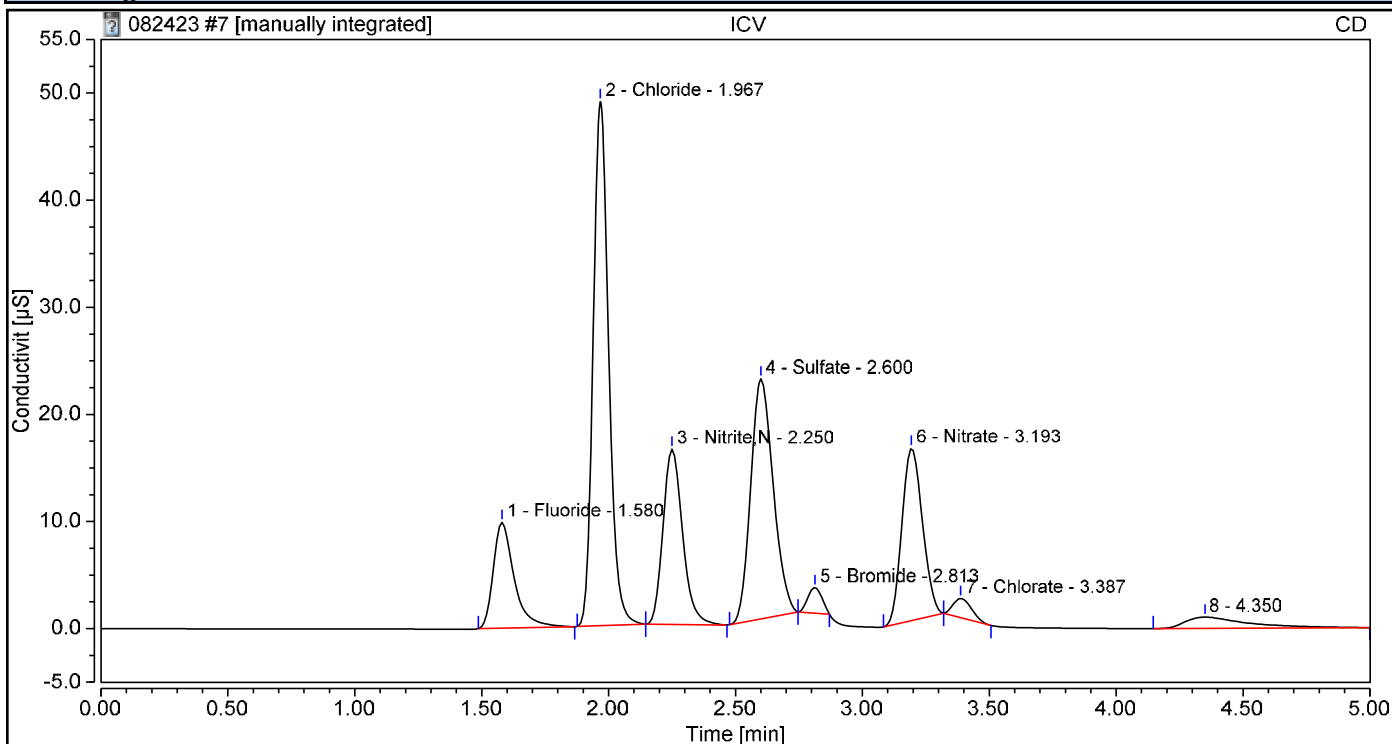
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.583	4.562	43.755	9.07	8.08	19.8533
2	Chloride	1.963	17.060	239.468	33.91	44.21	99.6814
3	Nitrite,N	2.250	5.833	54.192	11.60	10.00	20.0997
4	Sulfate	2.550	11.325	108.374	22.51	20.01	102.6704
5	Bromide	2.797	1.075	13.716	2.14	2.53	19.8561
6	Nitrate	3.130	7.410	66.773	14.73	12.33	19.8438
7	Chlorate	3.350	0.631	6.708	1.25	1.24	19.9371
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.167	2.410	8.683	4.79	1.60	n.a.
Total:			50.304	541.669	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	ICV	Run Time (min):	5.00
Vial Number:	GA7	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:59	Sample Weight:	1.0000

Chromatogram



Integration Results

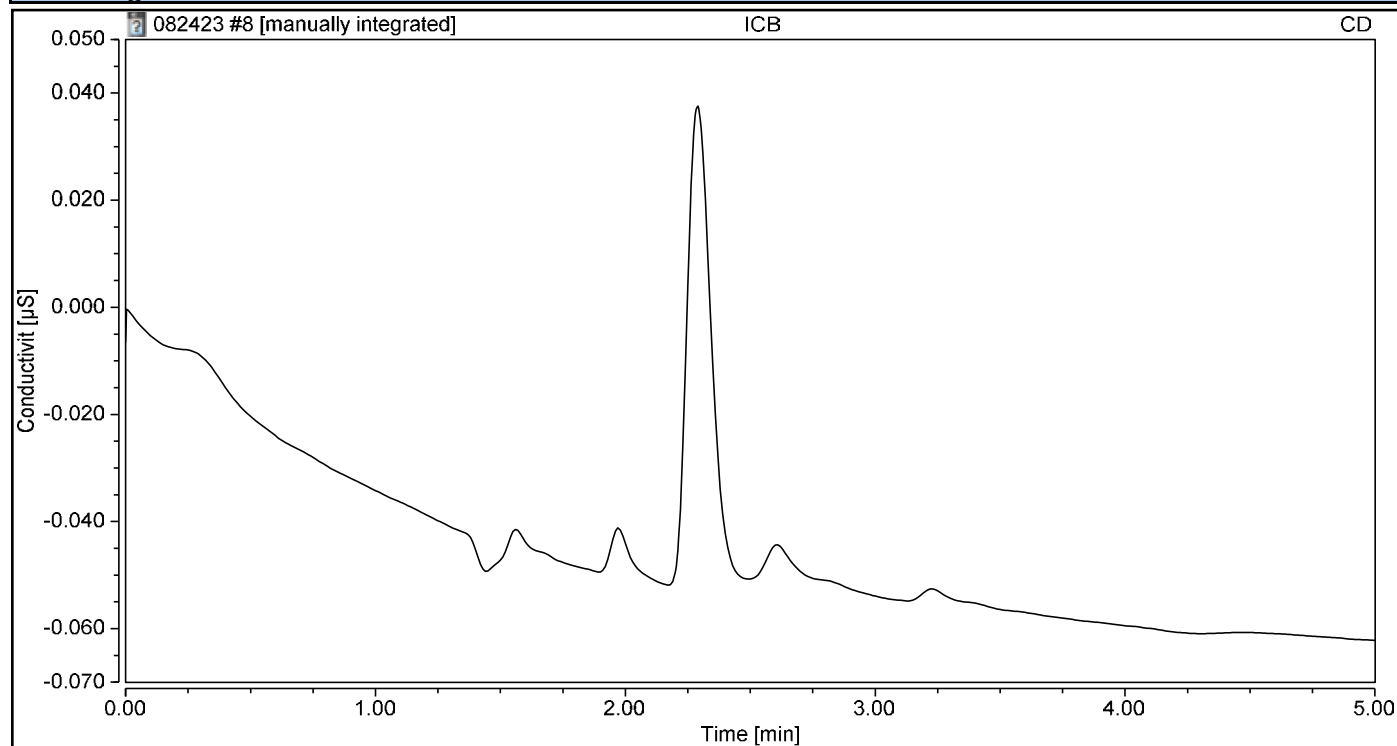
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.580	0.937	9.873	9.13	8.30	4.1371
2	Chloride	1.967	3.446	48.919	33.56	41.14	20.2850
3	Nitrite, N	2.250	1.465	16.360	14.26	13.76	4.0623
4	Sulfate	2.600	2.294	22.412	22.34	18.85	20.9964
5	Bromide	2.813	0.155	2.393	1.51	2.01	4.1359
6	Nitrate	3.193	1.514	16.091	14.74	13.53	4.0765
7	Chlorate	3.387	0.154	1.793	1.50	1.51	4.0299
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.350	0.305	1.059	2.97	0.89	n.a.
Total:			10.271	118.900	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	ICB	Run Time (min):	5.00
Vial Number:	R5	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 10:05	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.000	0.000	0.00	0.00	

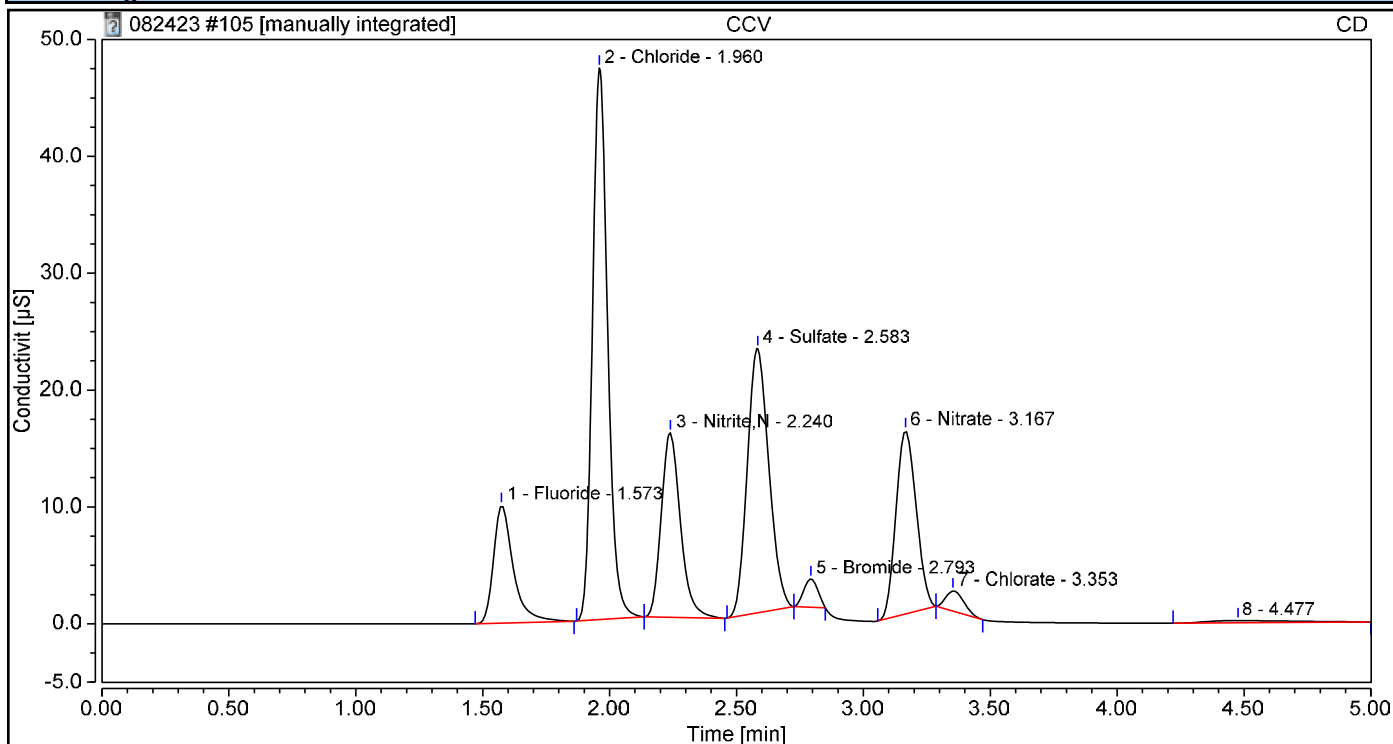


Chromatogram and Results

Injection Details

Injection Name:	CCV	Run Time (min):	5.00
Vial Number:	R1	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	24/Aug/23 21:03	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.573	0.907	10.081	9.44	8.71	4.0044
2	Chloride	1.960	3.270	47.195	34.05	40.78	19.2565
3	Nitrite, N	2.240	1.389	15.787	14.46	13.64	3.8424
4	Sulfate	2.583	2.213	22.610	23.04	19.54	20.2584
5	Bromide	2.793	0.157	2.431	1.64	2.10	4.1994
6	Nitrate	3.167	1.445	15.692	15.05	13.56	3.8934
7	Chlorate	3.353	0.146	1.731	1.52	1.50	3.8039
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.477	0.076	0.190	0.79	0.16	n.a.
Total:			9.603	115.718	100.00	100.00	

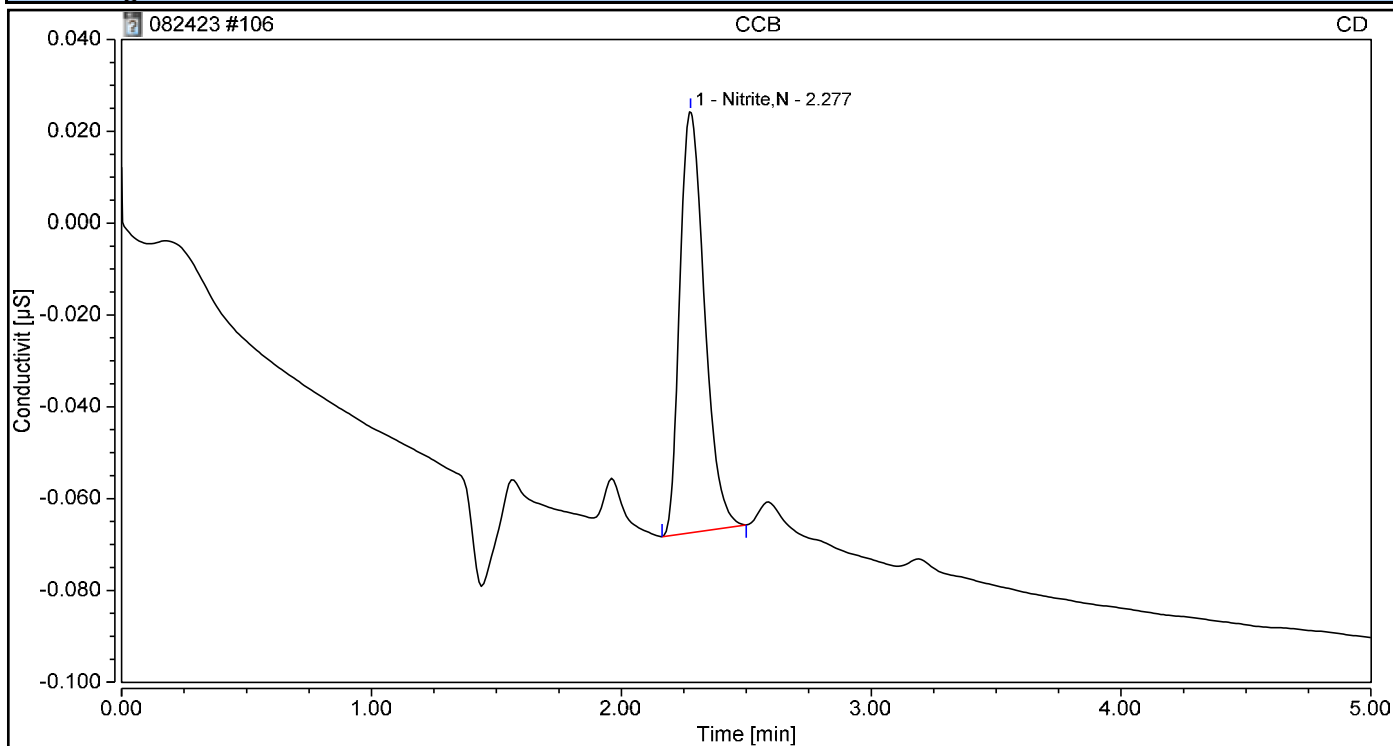


Chromatogram and Results

Injection Details

Injection Name:	CCB	Run Time (min):	5.00
Vial Number:	R6	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	24/Aug/23 21:15	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Nitrite, N	2.277	0.011	0.092	100.00	100.00	0.0411
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.011	0.092	100.00	100.00	

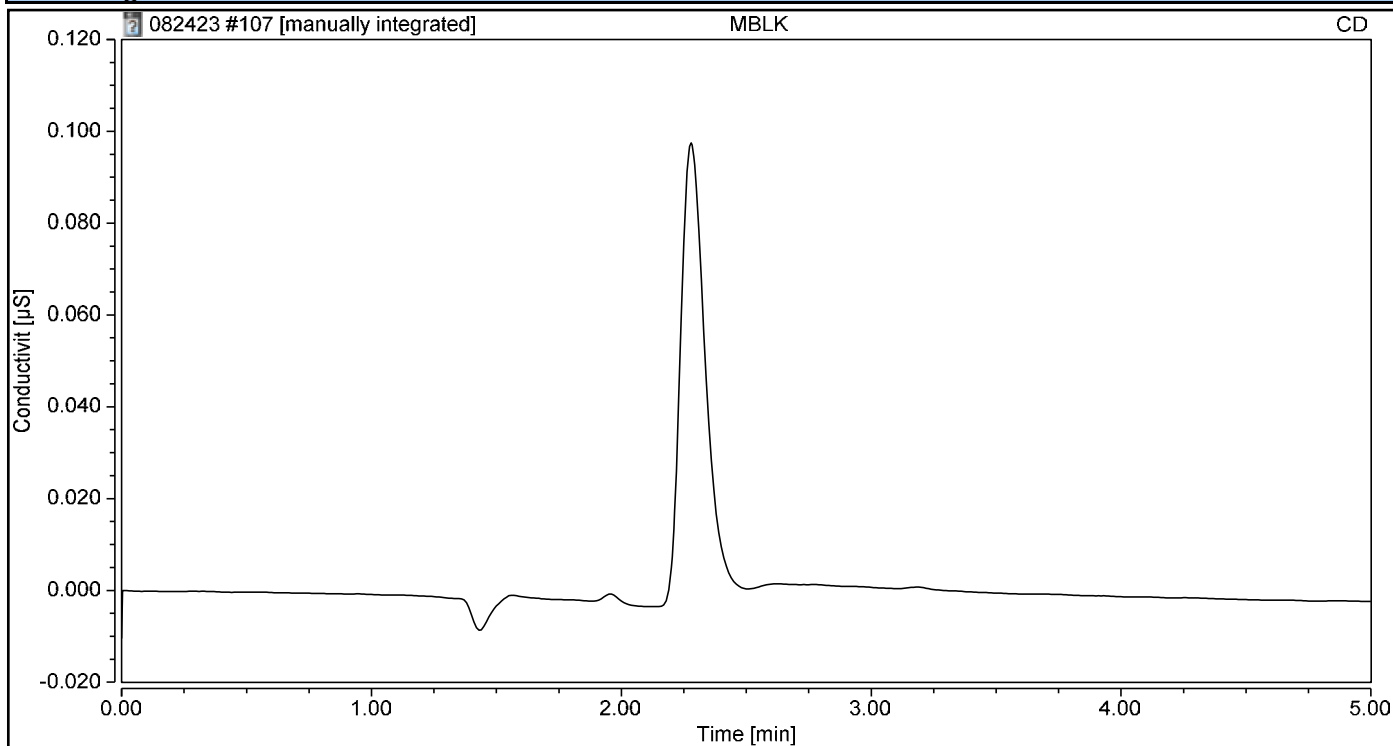


Chromatogram and Results

Injection Details

Injection Name:	MBLK	Run Time (min):	5.00
Vial Number:	R5	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	24/Aug/23 21:26	Sample Weight:	1.0000

Chromatogram



Integration Results

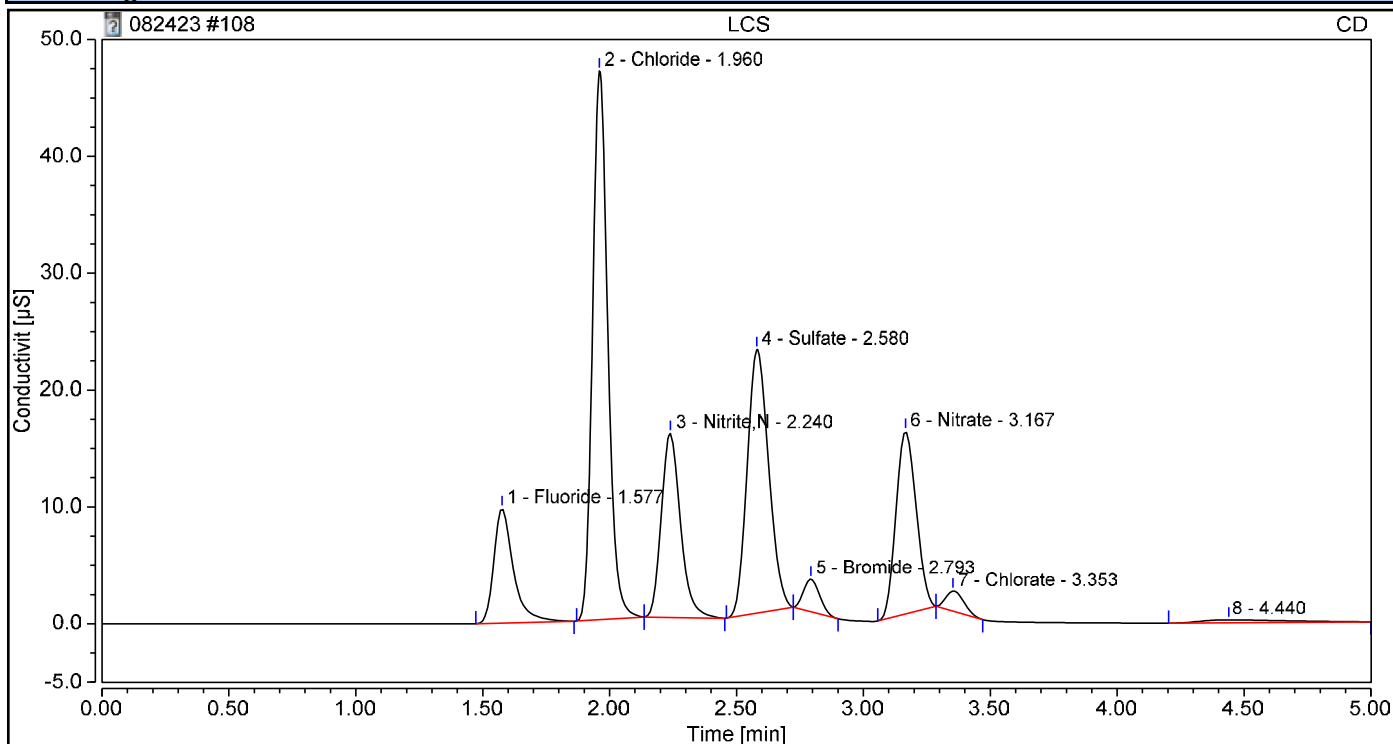
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.000	0.000	0.00	0.00	

Chromatogram and Results

Injection Details

Injection Name:	LCS	Run Time (min):	5.00
Vial Number:	R2	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	24/Aug/23 21:32	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.577	0.874	9.810	9.10	8.50	3.8637
2	Chloride	1.960	3.254	46.954	33.87	40.66	19.1637
3	Nitrite, N	2.240	1.384	15.737	14.41	13.63	3.8281
4	Sulfate	2.580	2.204	22.550	22.94	19.53	20.1758
5	Bromide	2.793	0.209	2.804	2.17	2.43	5.3901
6	Nitrate	3.167	1.441	15.633	15.00	13.54	3.8805
7	Chlorate	3.353	0.146	1.731	1.52	1.50	3.8084
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.440	0.095	0.249	0.99	0.22	n.a.
Total:			9.607	115.468	100.00	100.00	

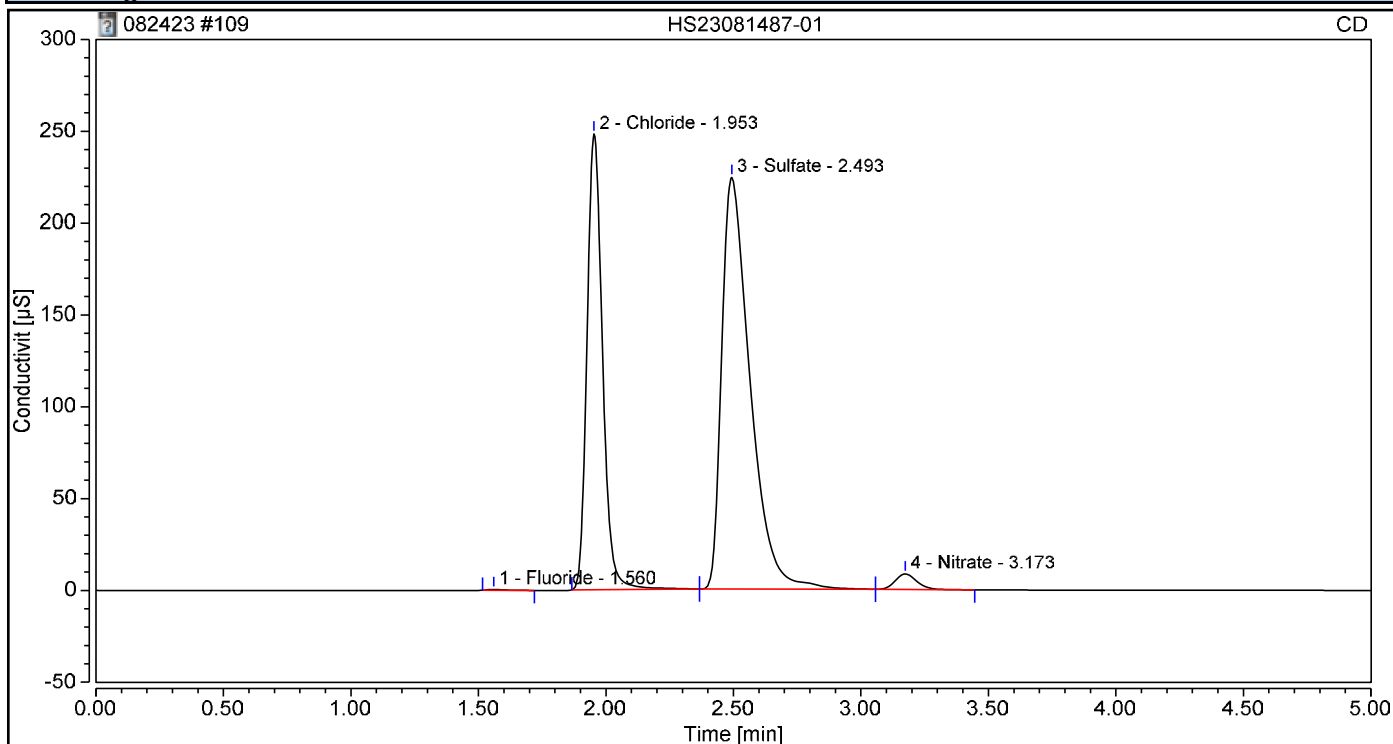


Chromatogram and Results

Injection Details

Injection Name:	HS23081487-01	Run Time (min):	5.00
Vial Number:	GE1	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	24/Aug/23 21:38	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.560	0.031	0.438	0.06	0.09	0.2001
2	Chloride	1.953	17.482	248.184	37.10	51.56	102.1441
n.a.	Nitrite, N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Sulfate	2.493	28.794	224.237	61.10	46.59	260.6723
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Nitrate	3.173	0.818	8.446	1.73	1.75	2.2141
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			47.124	481.305	100.00	100.00	

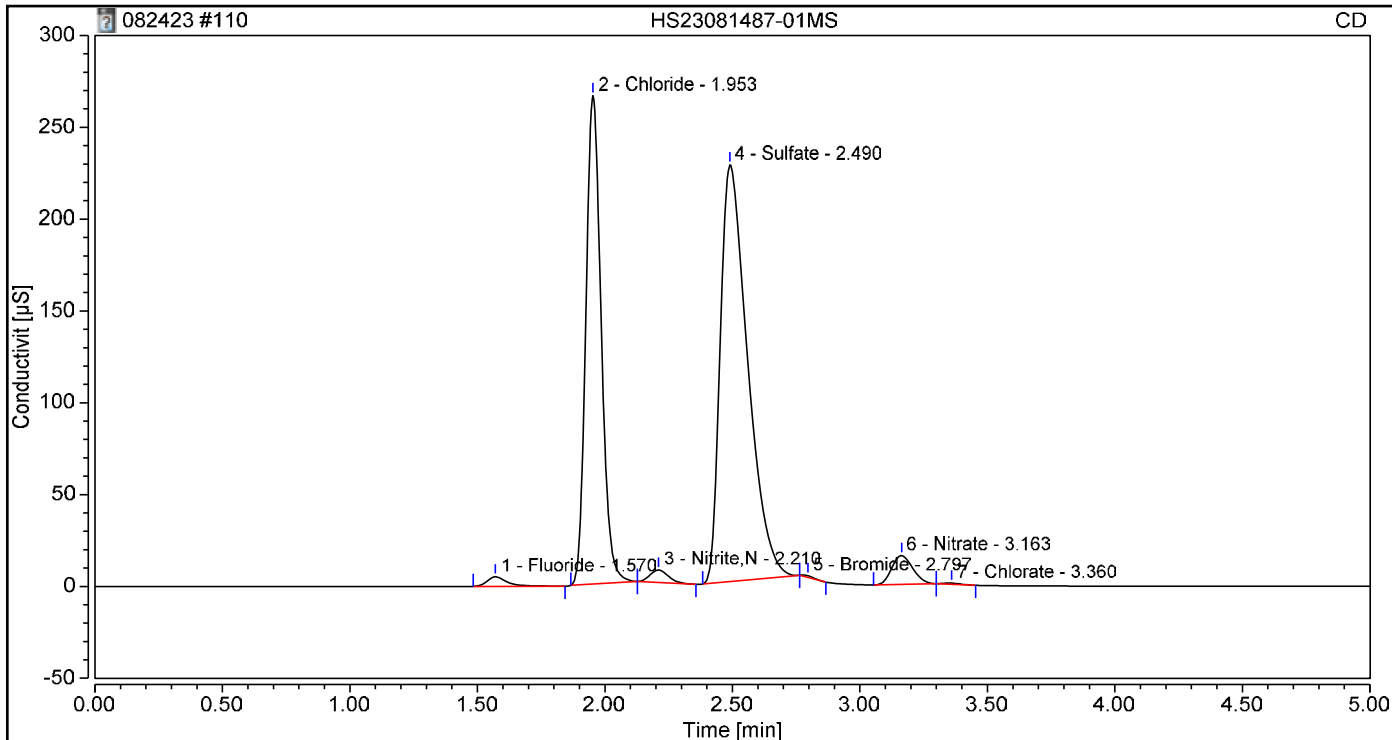


Chromatogram and Results

Injection Details

Injection Name:	HS23081487-01MS	Run Time (min):	5.00
Vial Number:	GE2	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	24/Aug/23 21:44	Sample Weight:	1.0000

Chromatogram



Integration Results

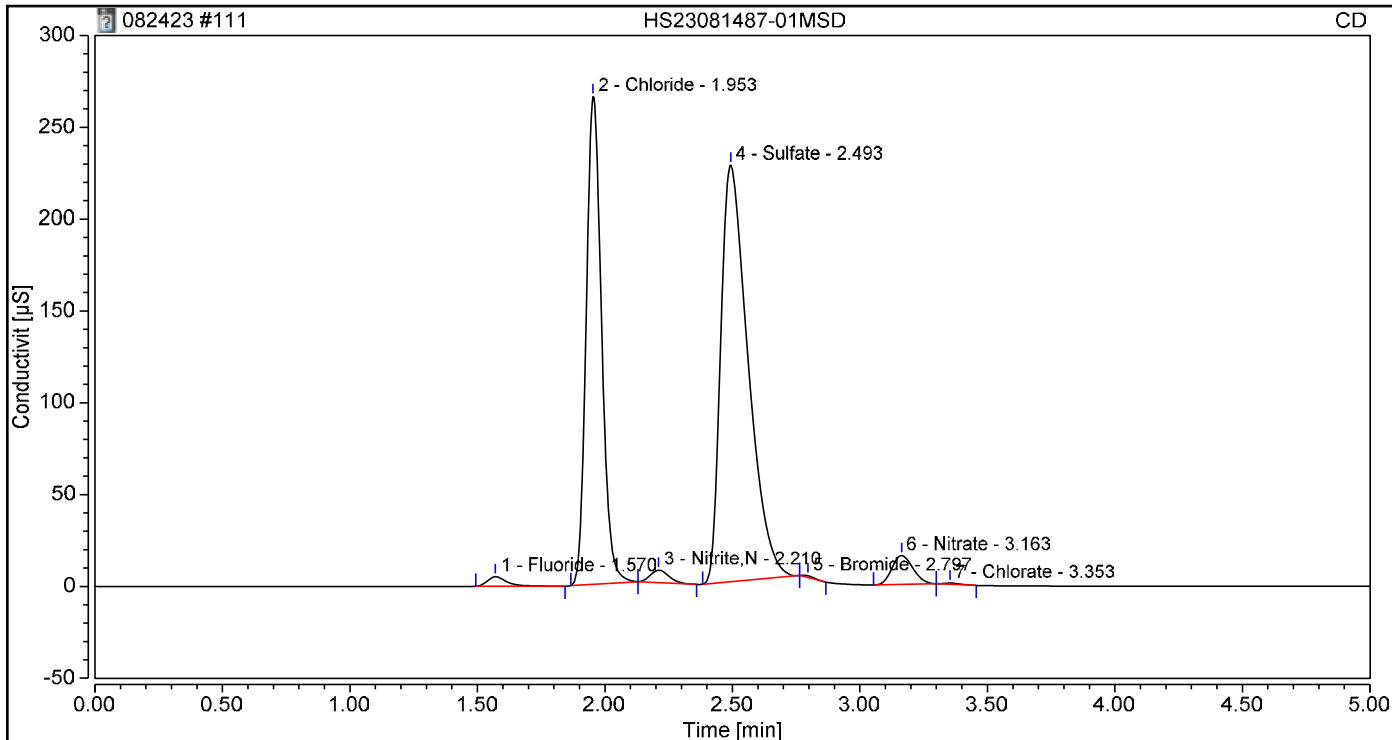
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.570	0.468	5.210	0.95	1.00	2.0988
2	Chloride	1.953	18.472	265.908	37.54	50.92	107.9177
3	Nitrite, N	2.210	0.571	6.797	1.16	1.30	1.5430
4	Sulfate	2.490	28.111	226.905	57.13	43.45	254.4953
5	Bromide	2.797	0.044	0.936	0.09	0.18	1.2948
6	Nitrate	3.163	1.492	15.770	3.03	3.02	4.0166
7	Chlorate	3.360	0.051	0.682	0.10	0.13	1.3212
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			49.208	522.207	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	HS23081487-01MSD	Run Time (min):	5.00
Vial Number:	GE3	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	24/Aug/23 21:49	Sample Weight:	1.0000

Chromatogram



Integration Results

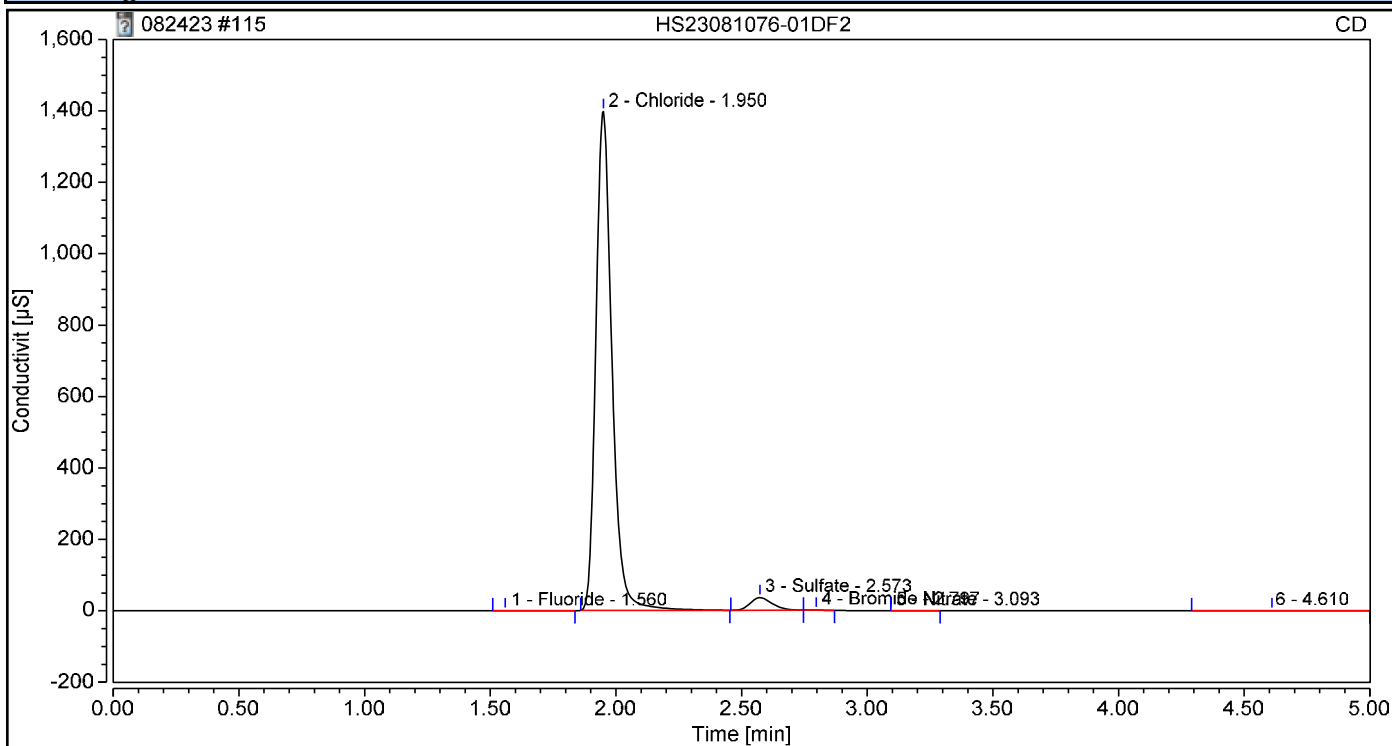
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.570	0.461	5.247	0.94	1.01	2.0670
2	Chloride	1.953	18.479	265.583	37.58	50.88	107.9608
3	Nitrite, N	2.210	0.571	6.781	1.16	1.30	1.5436
4	Sulfate	2.493	28.064	226.916	57.08	43.47	254.0741
5	Bromide	2.797	0.049	0.998	0.10	0.19	1.4235
6	Nitrate	3.163	1.493	15.810	3.04	3.03	4.0191
7	Chlorate	3.353	0.052	0.670	0.11	0.13	1.3431
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			49.168	522.004	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	HS23081076-01DF2	Run Time (min):	5.00
Vial Number:	GE7	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	2.0000
Injection Date/Time:	24/Aug/23 22:13	Sample Weight:	1.0000

Chromatogram



Integration Results

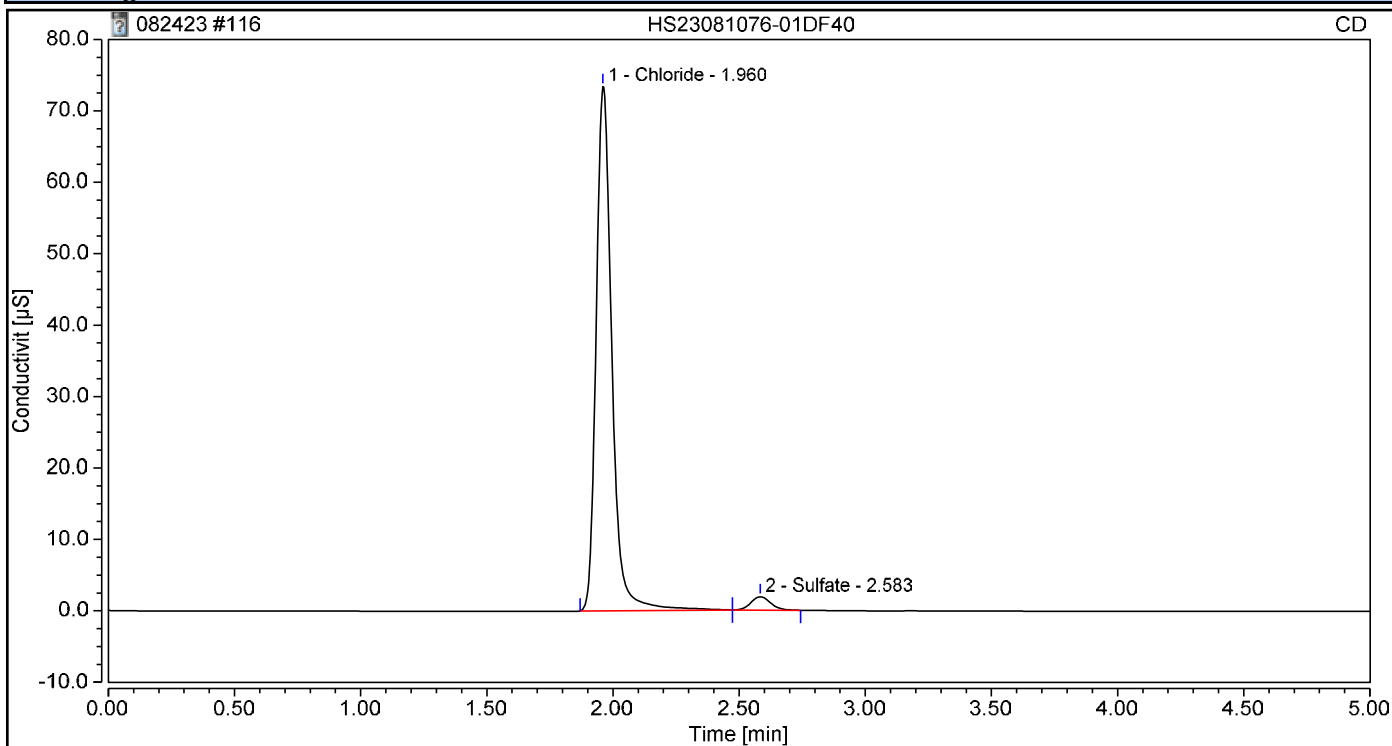
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.560	0.009	0.127	0.01	0.01	0.2131
2	Chloride	1.950	103.131	1396.812	96.61	97.48	1203.3515
n.a.	Nitrite, N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Sulfate	2.573	3.538	35.408	3.31	2.47	64.4961
4	Bromide	2.797	0.033	0.543	0.03	0.04	1.9376
5	Nitrate	3.093	0.003	0.000	0.00	0.00	0.0728
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6		4.610	0.031	0.074	0.03	0.01	n.a.
Total:			106.745	1432.964	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	HS23081076-01DF40	Run Time (min):	5.00
Vial Number:	GE8	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	40.0000
Injection Date/Time:	24/Aug/23 22:18	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	1.960	5.296	73.420	96.93	97.52	1242.8456
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Sulfate	2.583	0.168	1.866	3.07	2.48	70.4318
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			5.463	75.285	100.00	100.00	

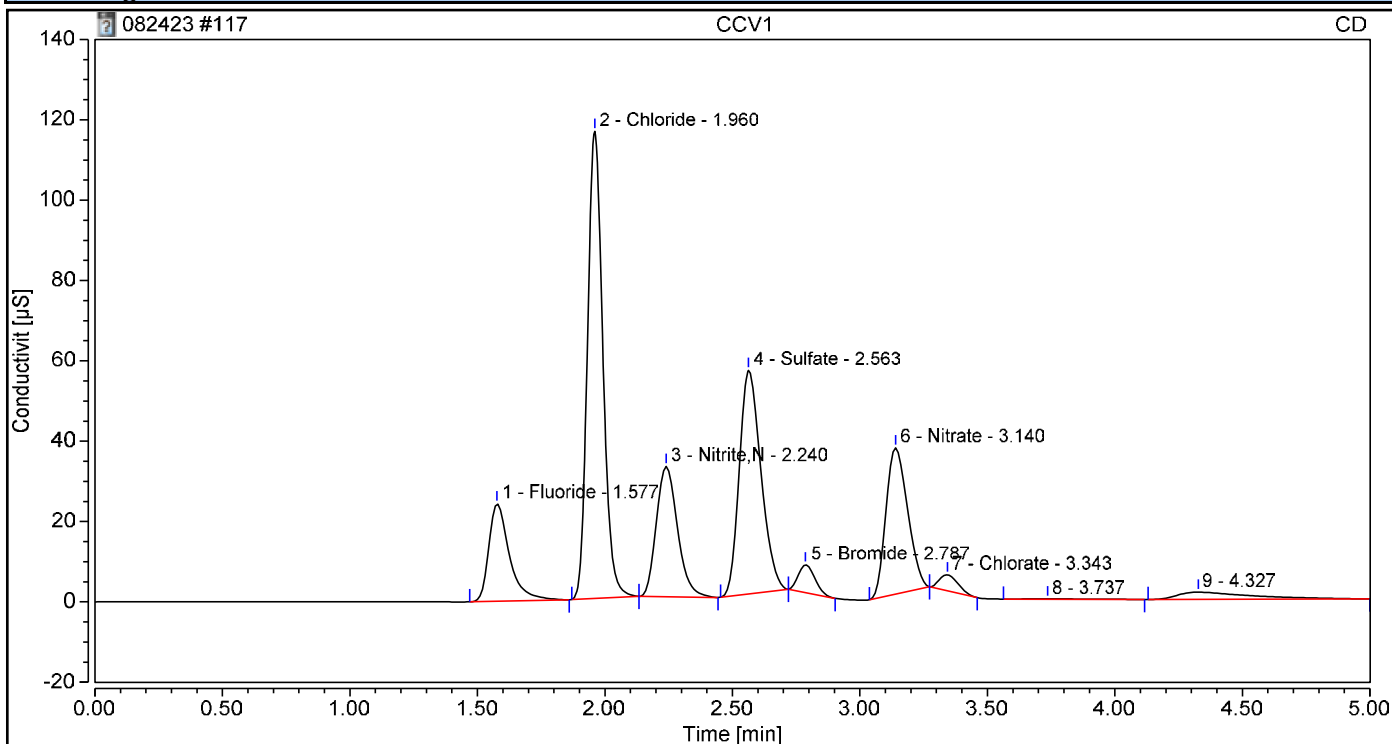


Chromatogram and Results

Injection Details

Injection Name:	CCV1	Run Time (min):	5.00
Vial Number:	R3	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	24/Aug/23 22:30	Sample Weight:	1.0000

Chromatogram



Integration Results

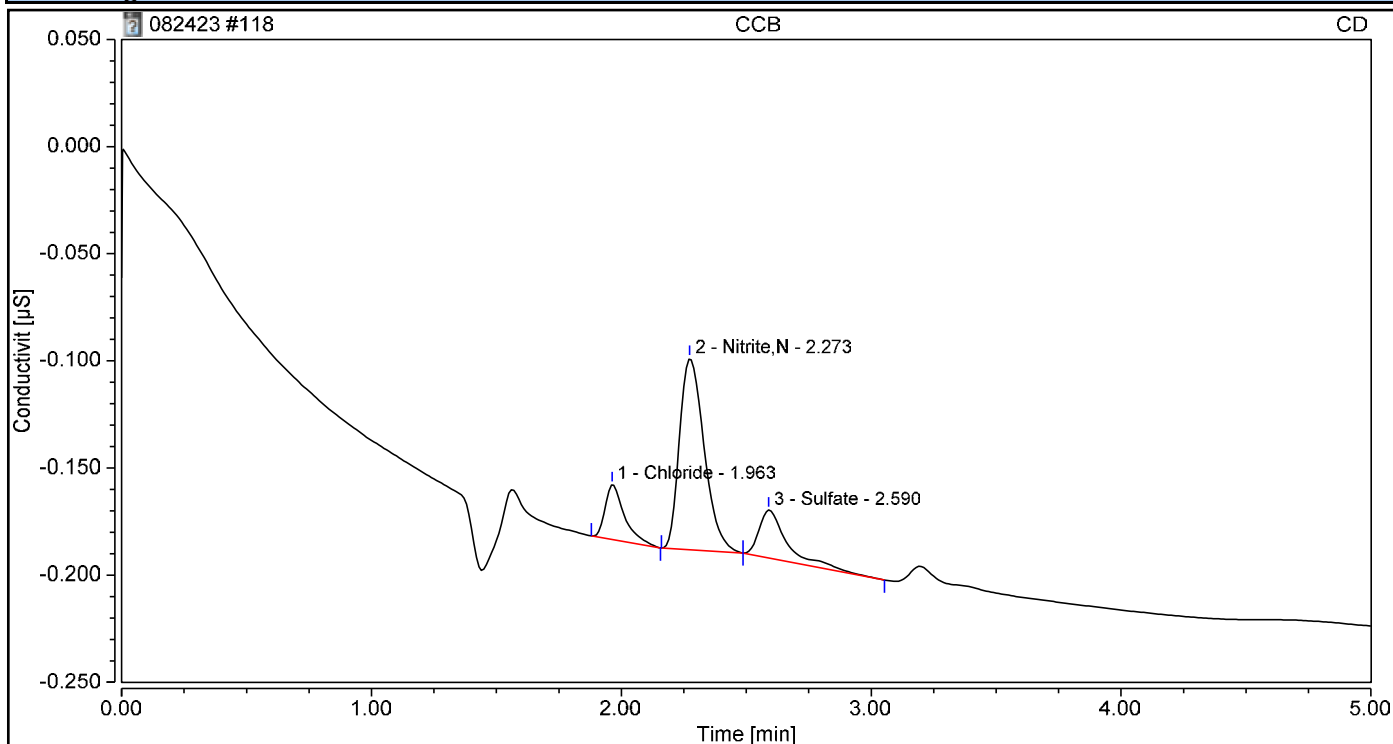
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.577	2.274	24.302	9.46	8.74	9.9355
2	Chloride	1.960	8.112	116.301	33.74	41.85	47.4989
3	Nitrite, N	2.240	3.116	32.454	12.96	11.68	9.2085
4	Sulfate	2.563	5.465	55.650	22.73	20.02	49.6698
5	Bromide	2.787	0.528	6.945	2.20	2.50	11.6315
6	Nitrate	3.140	3.580	36.421	14.89	13.11	9.6029
7	Chlorate	3.343	0.343	3.995	1.43	1.44	9.4887
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		3.737	0.018	0.052	0.08	0.02	n.a.
9		4.327	0.605	1.786	2.52	0.64	n.a.
Total:			24.042	277.908	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCB	Run Time (min):	5.00
Vial Number:	R7	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	24/Aug/23 22:41	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	1.963	0.002	0.026	14.87	18.70	0.1980
2	Nitrite, N	2.273	0.010	0.089	66.19	65.03	0.0404
3	Sulfate	2.590	0.003	0.022	18.93	16.26	0.2713
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.015	0.137	100.00	100.00	

HS23081076 Wetchem COD

ALS WO# HS23081076



ALS Laboratory Group

COD Analysis

Logbook# 32124

Method: HACH 8000 / EPA 410.4		Date: 8-24-23		Low COD-420nm		Analyst:	
SOP #: HS-WC025		Time: 14:50		High COD-620nm		TH	
WO # / SX #	Bottle #	Init Sample Vol (mL)	Prep Final Volume (mL)	Dilution Factor	Init Conc. (mg/L)	Final Conc. (mg/L)	Comments
CCW100		2	2	1	49		
MBLX					0		
LCS					99		
HS23081058-01					13		
↓ -01MS					61		
↓ -01MSD					60		
HS23080670-01					86		
HS23080685-01					45		
HS23081172-01					85		
HS23081188-01					52		
CCW100		2	2	1	98		
HS23080733-01				5	120		
HS23080737-01				4	67		
HS23080744-01					91		
HS23081161-01					59		
HS23081040-01					16		
HS23081076-01					100		
HS23080895-01					90		
HS23081342-01					88		
CCW100		2	2	1	49		
HS23080849-01				2	79		
↓ -02				1	51		
↓ -03					65		
↓ -04					53		
↓ -05					86		
↓ -06					52		
↓ -07					54		
CCW100		2	2	1	98		
LCS ID #	CCV1 ID#	CCV2 ID#	Vial Lot#:		Reviewed By:		
							
LCS Prep Date:	Prep Date:	Prep Date:	MS ID:		Pipette ID:		
Digester ID:	Digester Temp (°C):	Date/Time In Digester:	Date/Time Off Digester:		Batch ID:		
DRB 200							



HS23081076 Wetchem O&G

ALS WO# HS23081076



ALS Laboratory Group Confidential

08252023 O&G WATER

Method: O&G, HEM by EPA 1664A (SOP HS-WC036, Current Revision)

Analyst: MC	Methanol ID: 3100307905	Temp Ranges (°C)	Pan	Temp Deg C	Actual Deg C	Date	Time
Review By:	1:1 HCl ID: 3100607013	Pan Drying: 105-115	Pan 1st In:	105-115	105	08/25/2023	8:00:00 AM
Batch ID:	Na2SO4 Cartridge ID: 3100607705	Hex Evap: 68-72	Pan 1st Out:	105-115	105	08/25/2023	8:10:00 AM
LCS/MS Spike ID: 3100608004	Thermo HotBlock Setting (°C):	HotBlock: 35-50	Pan 2nd In:	105-115	105	08/25/2023	9:00:00 AM
Hexane ID: 3100307907	pH Paper ID: 3100607223		Pan 2nd Out:	105-115	105	08/25/2023	9:10:00 AM
Filter Lot: 3100607619	Pipette ID:		Pan 3rd In:	105-115			
Silica Gel:			Pan 3rd Out:	105-115			
			Oven ID:				
			Balance ID:				

	grams	mg	Accept.
Init 2.0 mg wt (1.8mg to 2.2mg required):	0.0020	2.0	Yes
Init 1000 mg wt (995mg to 1005mg required):	1.0000	1000	Yes
Final 2.0 mg wt (1.8mg to 2.2mg required):	0.0020	2.0	Yes
Final 1000 mg wt (995mg to 1005mg required):	1.0000	1000	Yes

Criteria
Change is
<0.0005 g

Criteria
Change is
<4%

$$O \& G \text{ (HEM), mg/L} = \frac{\text{Weight (HEM, mg)}}{\text{Volume (Sample Extracted, L)}}$$

Criteria
Change is
<0.0005 g

Criteria
Change is
<4%

Dish ID	Work Order #	Bottle Number	SGT	Sample Type	pH Check	1st Dry Pan Wt (g)	2nd Dry Pan Wt (g)	3rd Dry Pan Wt (g)	Passes Difference Criteria	Passes % Weight Criteria	Pan Weight (g)	Sample Vol (mL)	70 deg C O&G 1st dry Wt (g)	70 deg C O&G 2nd dry Wt (g)	70 deg C O&G 3rd dry Wt (g)	Passes Difference Criteria	Passes % Weight Criteria	O&G Weight (g)	O&G (mg/L)
1	WMBLK-08252023	1 of 2		MBLK	<2	4.0762	4.0762		Yes	Yes	4.0762	1000	4.0763	4.0763		Yes	Yes	0.0001	0.1
2	LCS-08252023	1 of 2		LCS	<2	4.1105	4.1103		Yes	Yes	4.1103	1000	4.1550	4.1550		Yes	Yes	0.0447	44.7
3	LCSD-08252023	1 of 2		LCSD	<2	4.1365	4.1364		Yes	Yes	4.1364	1000	4.1800	4.1800		Yes	Yes	0.0436	43.6
4	HS23081269-01MS	1 of 2		MS	<2	4.1468	4.1468		Yes	Yes	4.1468	1000	4.1893	4.1898		Yes	Yes	0.0430	43.0
5	HS23081269-01	1 of 2		Sample	<2	4.1347	4.1347		Yes	Yes	4.1347	255	4.1350	4.1350		Yes	Yes	0.0003	1.2
6	HS23081495-01	1 of 2		Sample	<2	4.0445	4.0445		Yes	Yes	4.0445	235	4.0554	4.0554		Yes	Yes	0.0109	46.4
7	HS23081495-02	1 of 2		Sample	<2	4.2134	4.2134		Yes	Yes	4.2134	235	4.2149	4.2149		Yes	Yes	0.0015	6.4
8	HS23081495-03	1 of 2		Sample	<2	4.1645	4.1644		Yes	Yes	4.1644	240	4.1649	4.1650		Yes	Yes	0.0006	2.5
9	HS23081495-04	1 of 2		Sample	<2	5.8408	5.8407		Yes	Yes	5.8407	235	5.8409	5.8409		Yes	Yes	0.0002	0.9
10	HS23081495-05	1 of 2		Sample	<2	4.1433	4.1434		Yes	Yes	4.1434	235	4.1439	4.1437		Yes	Yes	0.0003	1.3
11	HS23081495-06	1 of 2		Sample	<2	4.2036	4.2037		Yes	Yes	4.2037	235	4.2035	4.2038		Yes	Yes	0.0001	0.4
12	HS23081495-07	1 of 2		Sample	<2	4.1457	4.1457		Yes	Yes	4.1457	235	4.1462	4.1460		Yes	Yes	0.0003	1.3
13	HS23080849-05	1 of 2		Sample	<2	4.1578	4.1581		Yes	Yes	4.1581	230	4.1584	4.1584		Yes	Yes	0.0003	1.3
14	HS23080849-06	1 of 2		Sample	<2	5.7819	5.7819		Yes	Yes	5.7819	225	5.7821	5.7821		Yes	Yes	0.0002	0.9
15	HS23080849-07	1 of 2		Sample	<2	4.1611	4.1611		Yes	Yes	4.1611	205	4.1620	4.1619		Yes	Yes	0.0008	3.9
16	HS23080953-03	1 of 2		Sample	<2	5.8736	5.8736		Yes	Yes	5.8736	275	5.8738	5.8738		Yes	Yes	0.0002	0.7
17	HS23081035-02	1 of 2		Sample	<2	4.2647	4.2646		Yes	Yes	4.2646	250	4.2646	4.2649		Yes	Yes	0.0003	1.2
18	HS23081035-04	1 of 2		Sample	<2	4.2102	4.2102		Yes	Yes	4.2102	275	4.2105	4.2105		Yes	Yes	0.0003	1.1
19	HS23081036-07	1 of 2		Sample	<2	4.0740	4.0740		Yes	Yes	4.0740	275	4.0736	4.0740		Yes	Yes	0.0000	0.0
20	HS23081040-01	1 of 2		Sample	<2	4.2116	4.2116		Yes	Yes	4.2116	1000	4.2118	4.2117		Yes	Yes	0.0001	0.1
21	HS23081076-01	1 of 2		Sample	<2	4.1247	4.1247		Yes	Yes	4.1247	1000	4.1246	4.1246		Yes	Yes	-0.0001	-0.1
22	HS23081257-01	1 of 2		Sample	<2	4.2041	4.2040		Yes	Yes	4.2040	150	4.2043	4.2044		Yes	Yes	0.0004	2.7
23	HS23081293-01	1 of 2		Sample	<2	5.7912	5.7912		Yes	Yes	5.7912	245	5.7913	5.7914		Yes	Yes	0.0002	0.8
24	HS23081294-01	1 of 2		Sample	<2	4.2127	4.2127		Yes	Yes	4.2127	255	4.2127	4.2127		Yes	Yes	0.0000	0.0



HS23081076-E2300745-Perchlorate Report Level IV

ALS WO# HS23081076





August 21, 2023

Service Request No:E2300745

Bernadette Fini
ALS Laboratory Group
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: Perchlorates

Dear Bernadette,

Enclosed are the results of the sample(s) submitted to our laboratory August 17, 2023
For your reference, these analyses have been assigned our service request number **E2300745**.

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: Perchlorates
Sample Matrix: Water

Service Request No.: E2300745
Date Received: 08/17/23

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 II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 08/17/23

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

Data Validation Notes and Discussion**Precision and Accuracy:**

EQ2300403: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) sample was analyzed and reported in lieu of a MS/MSD for this extraction batch.

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

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



Client: ALS Environmental - US
Project: Perchlorates

Service Request:E2300745

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E2300745-001	LH18/24-SP650	8/16/2023	1300



Service Request Summary

Folder #: E2300745
Client Name: ALS Environmental - US
Project Name: Perchlorates
Project Number:

Report To: Bernadette Fini
 ALS Laboratory Group
 10450 Stancliff Road
 Houston, TX 77099-4338
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: bernadette.fini@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: TWOODS
Date Received: 08/17/23
Internal Due Date: 9/1/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

				HOUSTON
				CIO4 DOD/6850
Lab Samp No.	Client Samp No	Matrix	Collected	
E2300745-001	LH18/24-SP650	Water	08/16/23 1300	IV



Service Request Summary

Folder #: E2300745
Client Name: ALS Environmental - US
Project Name: Perchlorates
Project Number:

Report To: Bernadette Fini
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: bernadette.fini@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: TWOODS
Date Received: 08/17/23
Internal Due Date: 9/1/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:



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
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
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	343-2023	6/30/2024
Michigan Department of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Conservation	TN04016-2023	4/30/2024
Texas Commission on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932023-14	7/31/2024
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 Standcliff 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: Colorado

COC ID: 22759

SUBCONTRACT TO:

ALS Environmental
10450 Standcliff Road Suite 210
Houston, TX 77084

Phone: +1 281 530 5656

**CUSTOMER
INFORMATION:**

Company: ALS Houston
Contact: Dane J. Wacasey
Address: 10450 Standcliff 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 Standcliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS23081076
TSR: Sonia West

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
1. HS23081076-02	LH18/24-SP650_081623_AIX	Water	16 Aug 2023 13:00
6850-Perch. DOD Level II & Level IV	In separate pdf		28 Aug 2023

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

QC Level: DOD IV (DoD Data Package)

E2300745

ALS Laboratory Group
Perchlorates

5



Relinquished By:

NR

Date/Time:

Received By:

19

Date/Time:

8-17-23 1245

Cooler ID(s):

Temperature(s):

DO NOT WRITE IN THESE SPACES





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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

01251977

Prep Run#: 424977

Prep WorkFlow: GenExt28Day

Status: Prepped

Team: Semivoa GCMS/XMI

Prep Method: Method

Prep Date/Time: 8/17/23 13:11

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300744-001	LH18/24-SP650_081623_Between IX	.01	6850/CIO4 DOD			Water	10mL	
2	E2300744-002	LH18/24-SP650_081623_AIX	.01	6850/CIO4 DOD			Water	10mL	
3	E2300744-003	LH18/24-SP650_081623_BIX	.01	6850/CIO4 DOD			Water	10mL	
4	E2300745-001	LH18/24-SP650	.01	6850/CIO4 DOD			Water	10mL	
5	E2300746-001	LH18/24-SP140	.01	6850/CIO4 DOD			Water	10mL	
6	EQ2300403-01	MB		6850/CIO4			Liquid	10mL	
7	EQ2300403-02	LCS		6850/CIO4			Liquid	10mL	
8	EQ2300403-03	DLCS		6850/CIO4			Liquid	10mL	
9	K2309094-001	LGAC-INF-081423	.01	6850/CIO4			Water	10mL	
10	K2309094-002	LGAC-INT1-081423	.01	6850/CIO4			Water	10mL	
11	K2309094-003	LGAC-INT2-081423	.01	6850/CIO4			Water	10mL	
12	R2307250-005	2308071435B BLM-32-571	.01	6850/CIO4			Water	10mL	
13	R2307250-011	2308081426B BLM-32-632	.01	6850/CIO4			Water	10mL	
14	R2307325-004	2308100948A PL-12-570	.01	6850/CIO4			Water	10mL	
15	R2307325-009	2308101419A PL-12-800	.01	6850/CIO4			Water	10mL	

Spiking Solutions

Name:	Perchlorate Intermediate Stock1	Inventory ID	230342	Logbook Ref:	Perchlorate (1st Source)	Expires On:	03/07/2024
-------	---------------------------------	--------------	--------	--------------	--------------------------	-------------	------------

EQ2300403-02 1.00µL EQ2300403-02 1.00µL EQ2300403-03 1.00µL EQ2300403-03 1.00µL

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	230372	Logbook Ref:	Perchlorate Internal Standard	Expires On:	04/30/2024
-------	--------------------------------------	--------------	--------	--------------	-------------------------------	-------------	------------

E2300744-001 100.00µL E2300744-002 100.00µL E2300744-003 100.00µL E2300745-001 100.00µL E2300746-001 100.00µL EQ2300403-01 100.00µL
EQ2300403-01 100.00µL EQ2300403-02 100.00µL EQ2300403-02 100.00µL EQ2300403-03 100.00µL EQ2300403-03 100.00µL K2309094-001 100.00µL
K2309094-002 100.00µL K2309094-003 100.00µL R2307250-005 100.00µL R2307250-011 100.00µL R2307325-004 100.00µL R2307325-009 100.00µL

Preparation Materials

Water HPLC Grade HPLC water 5/18/23CG (229315) 6850 Amber Glass screw vial 2mL Screw Top Vial (221894) 6850 Luer-Lok Syringes Luer-Lok Syringes (228117)
6850 0.45um syringe filters 6850 0.45 SYRING FILTER (229979)

Preparation Steps

Step: Preparation
Started: 8/17/23 13:11
Finished: 8/18/23 08:38
By: XMI
Comments

Preparation Information Benchsheet

Prep Run#: 424977
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 8/17/23 13:11

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____	Date: _____	<u>Extracts Examined</u> Yes No
Received By: _____	Date: _____	



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: Perchlorates
Sample Matrix: Water
Sample Name: LH18/24-SP650
Lab Code: E2300745-001

Service Request: E2300745
Date Collected: 8/16/23 1300
Date Received: 8/17/23
Units: µg/L
Basis: NA

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

Analytical Method: 6850

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	0.293		0.100	0.0500	0.0250	1	8/17/23	8/18/23 11:45	424977	814330	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Perchlorates
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: EQ2300403-01

Service Request: E2300745
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	8/17/23	8/18/23 09:00	424977	814330	





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: Perchlorates
Sample Matrix: Water

Service Request: E2300745**Date Analyzed:** 8/18/23

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:** 424977

Analyte Name	Lab Control Sample EQ2300403-02			Duplicate Lab Control Sample EQ2300403-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perchlorate	0.114	0.100	114	0.102	0.100	102	84 - 119	11	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: Perchlorates
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: EQ2300403-02

Service Request: E2300745
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	0.114		0.100	0.0500	0.0250	1	8/17/23	8/18/23 09:06	424977	814330	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Perchlorates
Sample Matrix: Water
Sample Name: Duplicate Lab Control Sample
Lab Code: EQ2300403-03

Service Request: E2300745
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	0.102		0.100	0.0500	0.0250	1	8/17/23	8/18/23 09:11	424977	814330	





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





20230802

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: KN

ICAL Date: 8/2/2023

Cal. Std. xp: 03/07/2024

ICAL ID: EC2300012

Mobile Phases : A:20mM ammonium acetate in water 230388 B:Acetonitrile 229152

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB	2230802-001	Perchlorate6850c.lcm	1x		8/2/2023 13:05
2	IB	2230802-002	Perchlorate6850c.lcm	1x		8/2/2023 13:11
3	Perchlorate ICAL 1	2230802-003	Perchlorate6850c.lcm	1x	230373	8/2/2023 13:17
4	Perchlorate ICAL 2	2230802-004	Perchlorate6850c.lcm	1x	230375	8/2/2023 13:23
5	Perchlorate ICAL 3	2230802-005	Perchlorate6850c.lcm	1x	230376	8/2/2023 13:28
6	Perchlorate ICAL 4	2230802-006	Perchlorate6850c.lcm	1x	230377	8/2/2023 13:34
7	Perchlorate ICAL 5	2230802-007	Perchlorate6850c.lcm	1x	230378	8/2/2023 13:39
8	Perchlorate ICAL 6	2230802-008	Perchlorate6850c.lcm	1x	230379	8/2/2023 13:45
9	Perchlorate ICAL 7	2230802-009	Perchlorate6850c.lcm	1x	230380	8/2/2023 13:50
10	Perchlorate ICAL 8	2230802-010	Perchlorate6850c.lcm	1x	230381	8/2/2023 13:56
11	Perchlorate ICAL 9	2230802-011	Perchlorate6850c.lcm	1x	230382	8/2/2023 14:02
12	Perchlorate ICAL 10	2230802-012	Perchlorate6850c.lcm	1x	230383	8/2/2023 14:07
13	PerchlorateICV	2230802-013	Perchlorate6850c.lcm	1x	230385	8/2/2023 14:19

Initial Calibration - Detailed Report

Calibration ID: EC2300012

Instrument ID: E-LCMS-01

Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300012-01	Perchlorate ICAL 1	2230802-003	08/02/2023 13:17
02	EC2300012-02	Perchlorate ICAL 2	2230802-004	08/02/2023 13:23
03	EC2300012-03	Perchlorate ICAL 3	2230802-005	08/02/2023 13:28
04	EC2300012-04	Perchlorate ICAL 4	2230802-006	08/02/2023 13:34
05	EC2300012-05	Perchlorate ICAL 5	2230802-007	08/02/2023 13:39
06	EC2300012-06	Perchlorate ICAL 6	2230802-008	08/02/2023 13:45
07	EC2300012-07	Perchlorate ICAL 7	2230802-009	08/02/2023 13:50
08	EC2300012-08	Perchlorate ICAL 8	2230802-010	08/02/2023 13:56
09	EC2300012-09	Perchlorate ICAL 9	2230802-011	08/02/2023 14:02
10	EC2300012-10	Perchlorate ICAL 10	2230802-012	08/02/2023 14:07

Analyte**Curve Fit****Weighting****Perchlorate****Average RF**

RSD = 2.086

Average RF = 0.1475

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1428	02	0.5000	0.1421	03	0.7000	0.1457	04	1.0000	0.149
05	2.0000	0.1515	06	5.0000	0.1475	07	10.0000	0.1503	08	20.0000	0.1477
09	30.0000	0.1485	10	50.0000	0.1496						

Analyte**Perchlorate**

RSE = 2.09

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0968	-3.2	02	0.5000	0.482	-3.6	03	0.7000	0.692	-1.2
04	1.0000	1.01	1.0	05	2.0000	2.05	2.7	06	5.0000	5.00	-0.0
07	10.0000	10.2	1.9	08	20.0000	20.0	0.2	09	30.0000	30.2	0.7
10	50.0000	50.7	1.4								



Initial Calibration Verification Summary Report

Calibration ID:	EC2300012	Instrument ID:	E-LCMS-01
Datafile ID:	2230802-013	Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300012-11	T	Average RF	10	10.670	ng/mL	6.7	<= 15



Insight Report

Printed at 8/3/2023 9:30:46 AM

Method File: I:\LCMS01\DATA\20230802\20230802ICAL.lcm

Project File: I:\LCMS01\DATA\20230802\no use\20230802ICAL.dam\p

Perchlorate ICAL 1

Sample ID: Perchlorate ICAL 1

Date Acquired: 8/2/2023 1:17:39 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-003.lcd

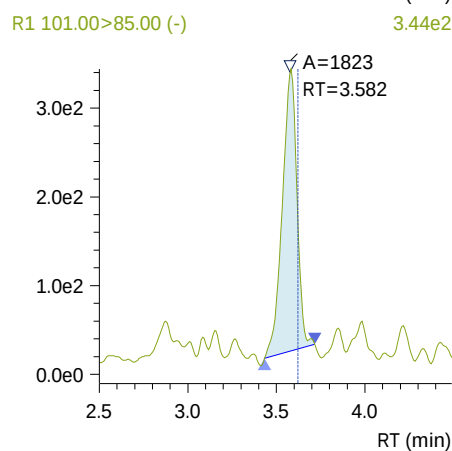
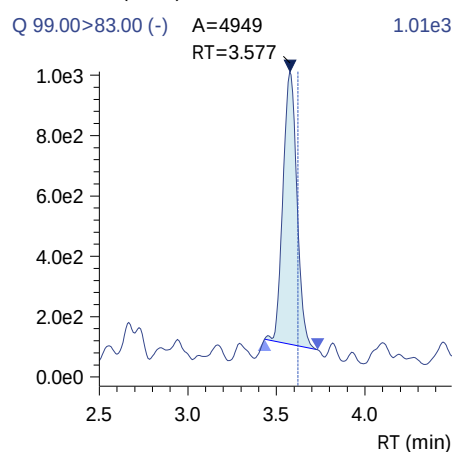
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.577	4949	346538	0.0968	ng/mL	101.00 >85.00	36.83	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.572	346538	346538	1.0000	ng/mL	----	----	

Perchlorate

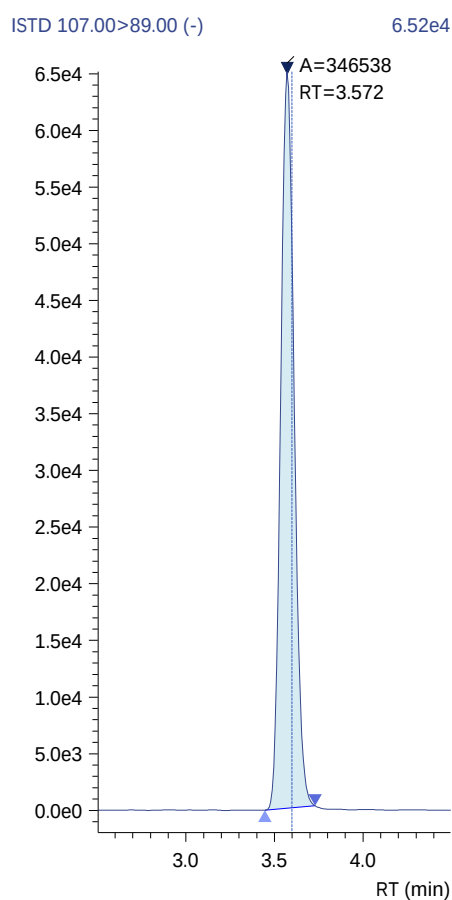
Conc 0.0968

R#1 36.83 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 2

Sample ID: Perchlorate ICAL 2

Date Acquired: 8/2/2023 1:23:13 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-004.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 1

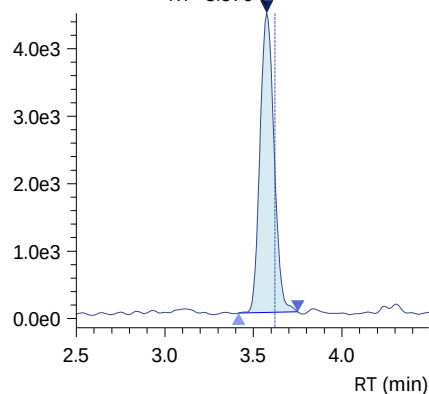
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.576	24530	345149	0.4820	ng/mL	101.00 >85.00	31.03	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.571	345149	345149	1.0000	ng/mL	----	----	

Perchlorate

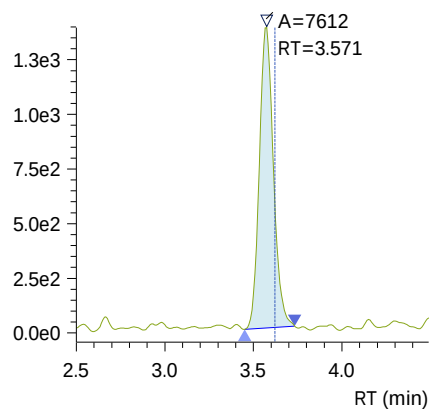
Conc 0.4820

R#1 31.03 (30.41)

Q 99.00>83.00 (-) A=24530 RT=3.576 4.53e3 ISTD 107.00>89.00 (-) 6.45e4



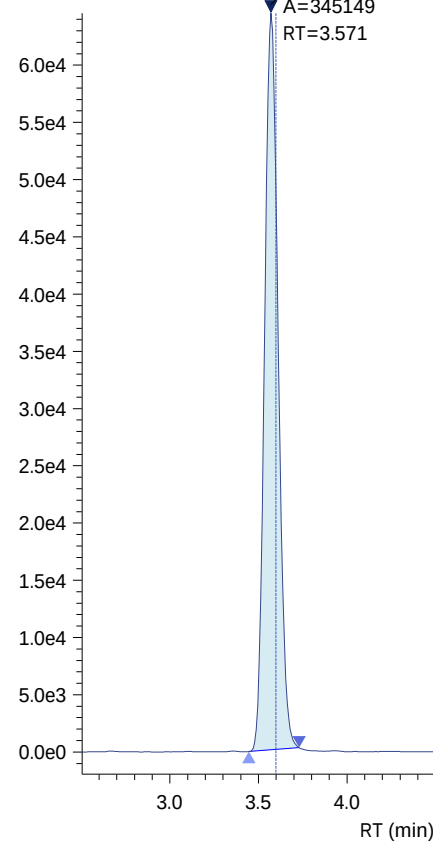
R1 101.00>85.00 (-) 1.40e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=345149 RT=3.571



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 3

Sample ID: Perchlorate ICAL 3

Date Acquired: 8/2/2023 1:28:44 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-005.lcd

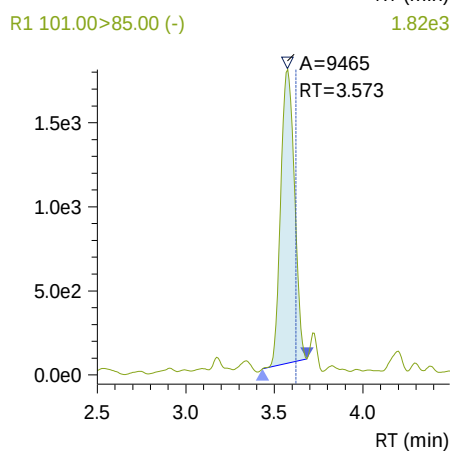
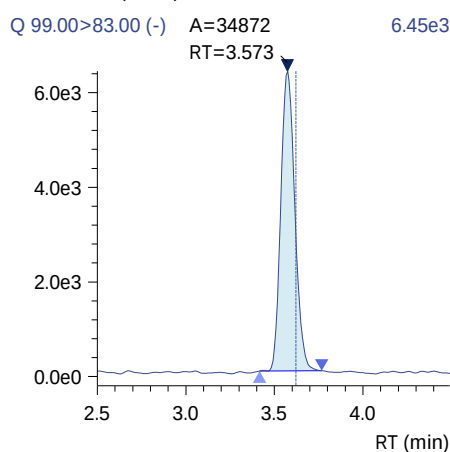
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	34872	341974	0.6915	ng/mL	101.00 >85.00	27.14	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	341974	341974	1.0000	ng/mL	----	----	

Perchlorate

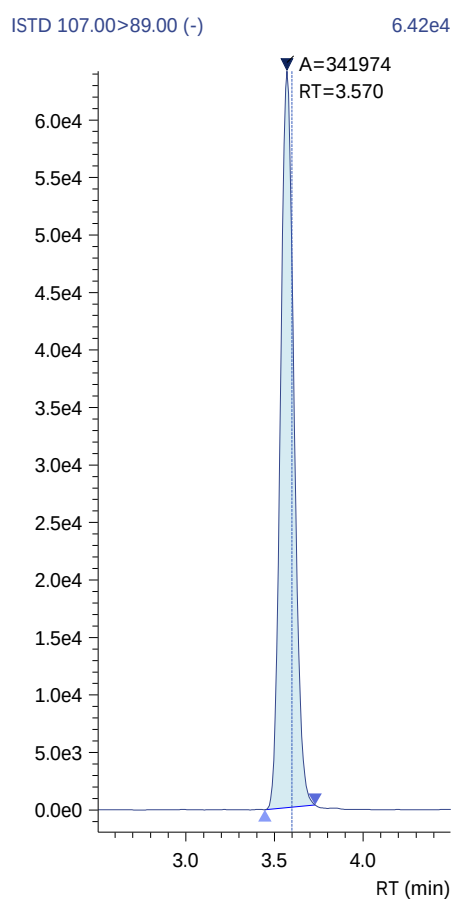
Conc 0.6915

R#1 27.14 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 4

Sample ID: Perchlorate ICAL 4

Date Acquired: 8/2/2023 1:34:20 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-006.lcd

Vial: 4 | Inj. Volume: 10.0000uL | Tray: 1

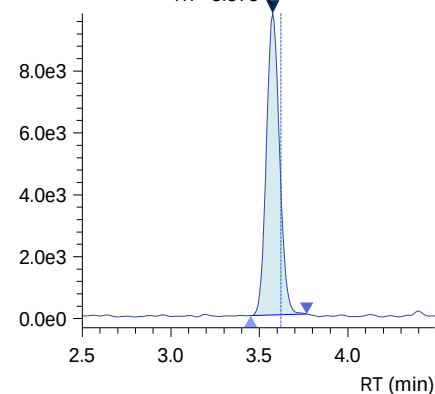
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	50483	338838	1.0104	ng/mL	101.00 >85.00	28.12	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	338838	338838	1.0000	ng/mL	----	----	

Perchlorate

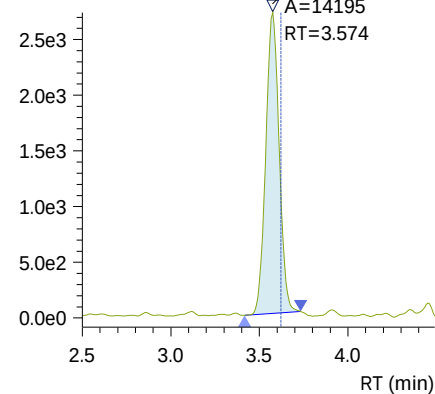
Conc 1.0104

R#1 28.12 (30.41)

Q 99.00>83.00 (-)

A=50483
RT=3.575

R1 101.00>85.00 (-)

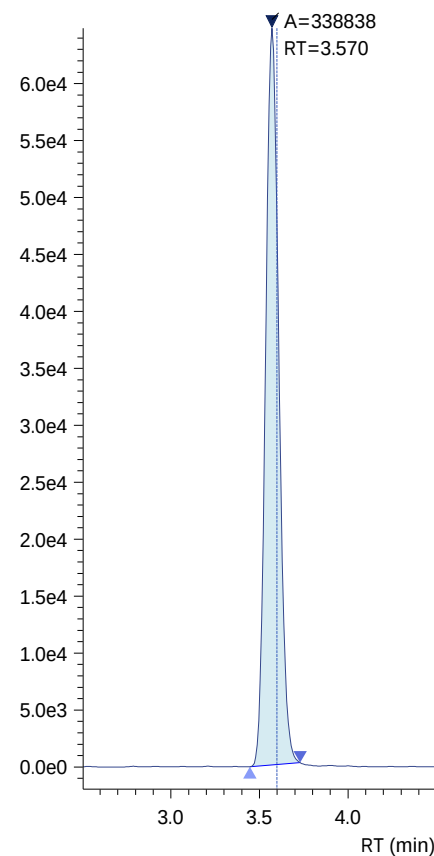
A=14195
RT=3.574

Sodium Perchlorate-18O4_IS

Conc 1.0000

9.87e3 ISTD 107.00>89.00 (-)

6.49e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 5

Sample ID: Perchlorate ICAL 5

Date Acquired: 8/2/2023 1:39:51 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-007.lcd

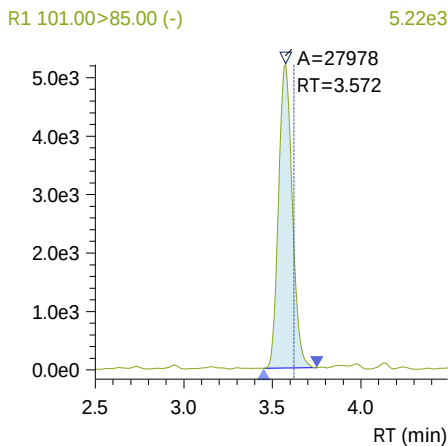
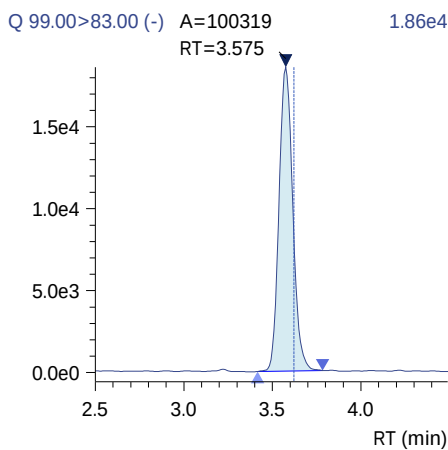
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	100319	331124	2.0545	ng/mL	101.00 >85.00	27.89	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	331124	331124	1.0000	ng/mL	----	----	

Perchlorate

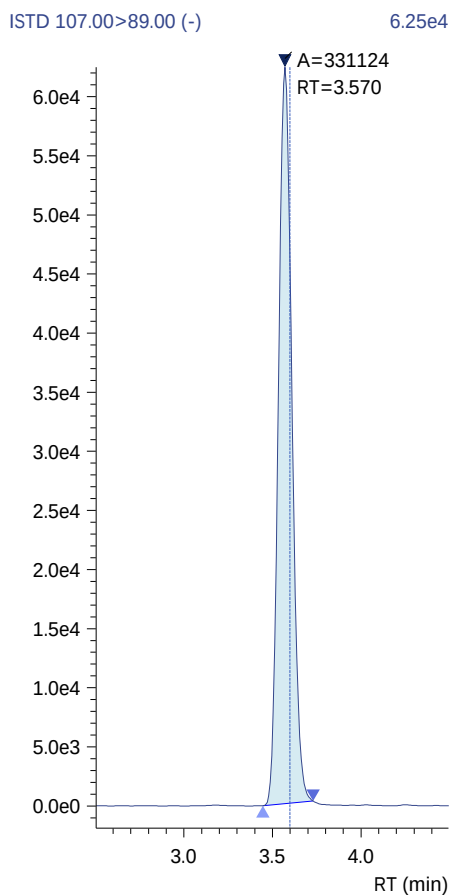
Conc 2.0545

R#1 27.89 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 6

Sample ID: Perchlorate ICAL 6

Date Acquired: 8/2/2023 1:45:24 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-008.lcd

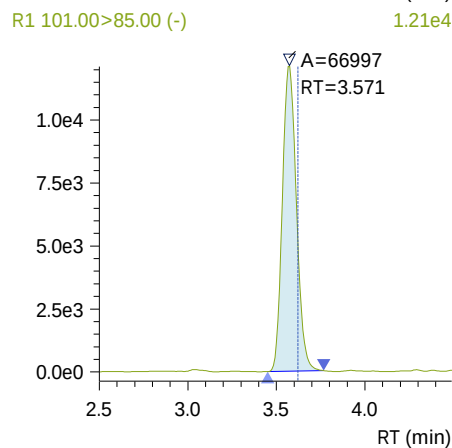
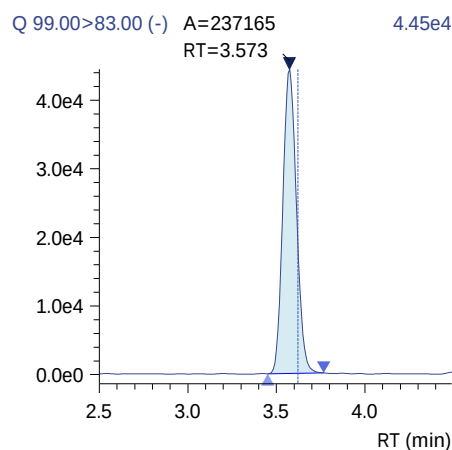
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	237165	321666	5.0000	ng/mL	101.00 >85.00	28.25	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	321666	321666	1.0000	ng/mL	----	----	

Perchlorate

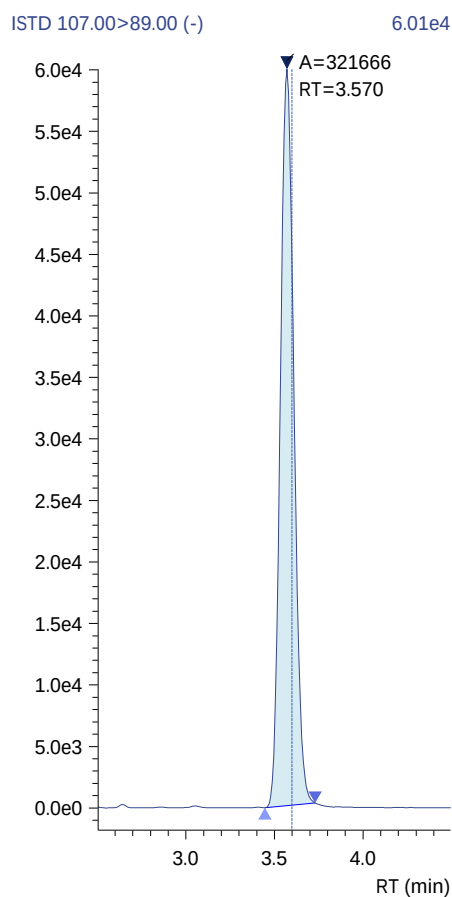
Conc 5.0000

R#1 28.25 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 7

Sample ID: Perchlorate ICAL 7

Date Acquired: 8/2/2023 1:50:57 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-009.lcd

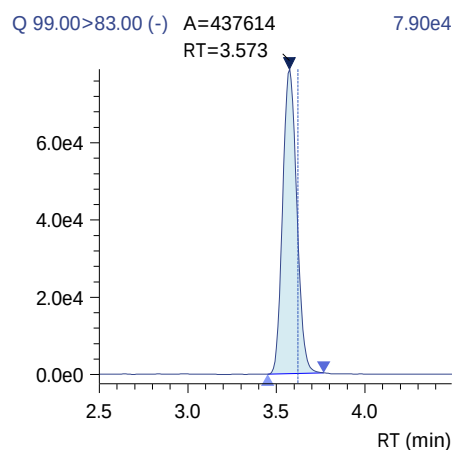
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	437614	291215	10.1905	ng/mL	101.00 >85.00	28.36	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291215	291215	1.0000	ng/mL	----	----	

Perchlorate

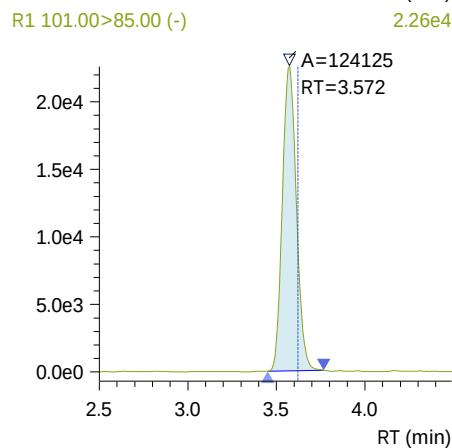
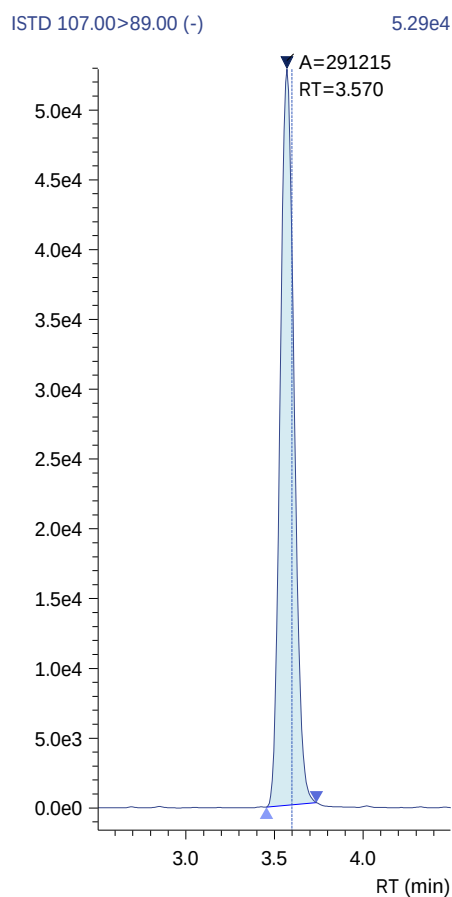
Conc 10.1905

R#1 28.36 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 8

Sample ID: Perchlorate ICAL 8

Date Acquired: 8/2/2023 1:56:33 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-010.lcd

Vial: 8 | Inj. Volume: 10.0000uL | Tray: 1

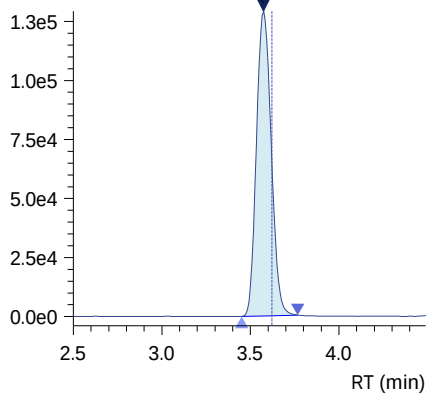
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	749856	253829	20.0336	ng/mL	101.00 >85.00	28.56	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.569	253829	253829	1.0000	ng/mL	----	----	

Perchlorate

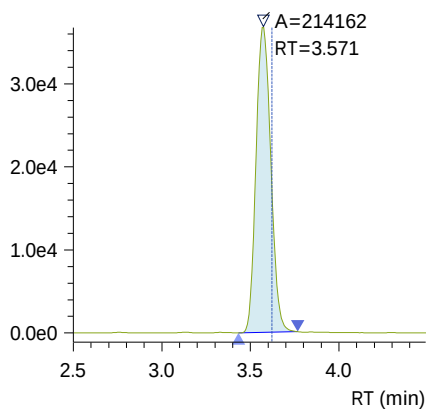
Conc 20.0336

R#1 28.56 (30.41)

Q 99.00>83.00 (-) A=749856 RT=3.574 1.29e5 ISTD 107.00>89.00 (-) 4.37e4



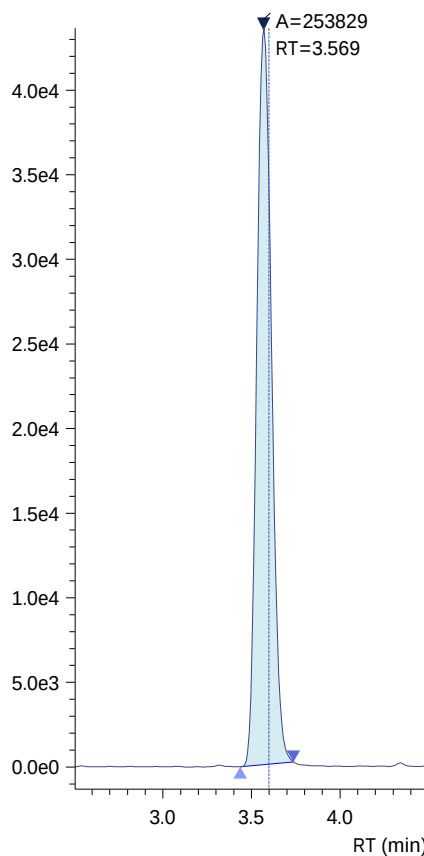
R1 101.00>85.00 (-) 3.68e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.37e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 9

Sample ID: Perchlorate ICAL 9

Date Acquired: 8/2/2023 2:02:07 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-011.lcd

Vial: 9 | Inj. Volume: 10.0000uL | Tray: 1

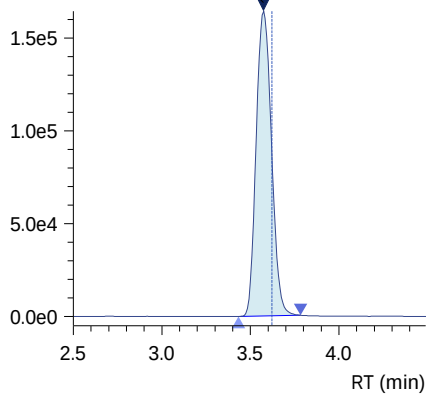
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	990671	222379	30.2105	ng/mL	101.00 >85.00	27.95	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.568	222379	222379	1.0000	ng/mL	----	----	

Perchlorate

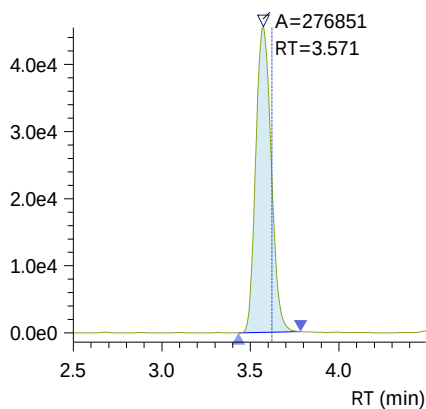
Conc 30.2105

R#1 27.95 (30.41)

Q 99.00>83.00 (-) A=990671 RT=3.574 1.64e5 ISTD 107.00>89.00 (-) 3.69e4



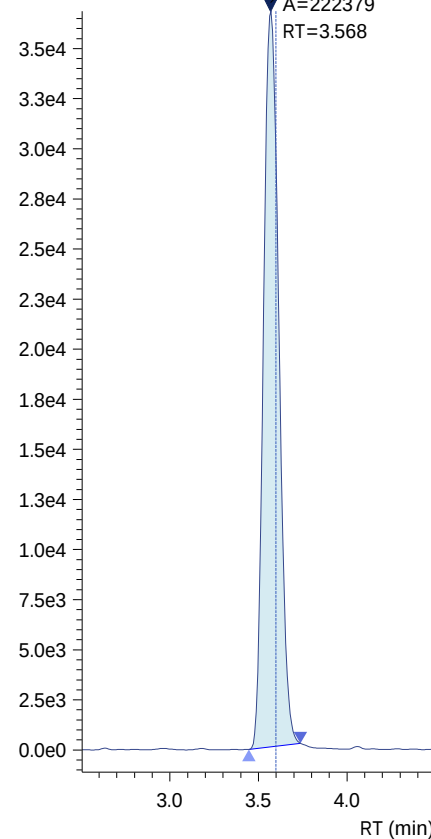
R1 101.00>85.00 (-) 4.55e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=222379 RT=3.568



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 10

Sample ID: Perchlorate ICAL 10

Date Acquired: 8/2/2023 2:07:39 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-012.lcd

Vial: 10 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	1335647	178573	50.72 20	ng/mL	101.00 >85.00	28.04	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.567	178573	178573	1.0000	ng/mL	----	----	

Perchlorate

Conc 50.7220

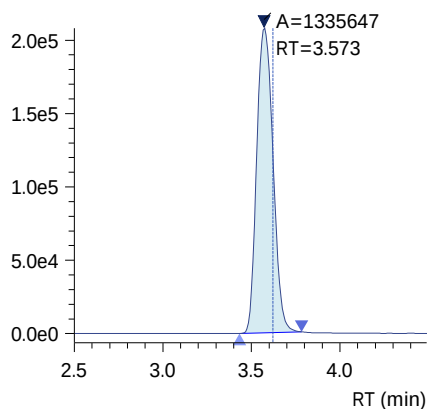
R#1 28.04 (30.41)

Q 99.00>83.00 (-)

2.08e5

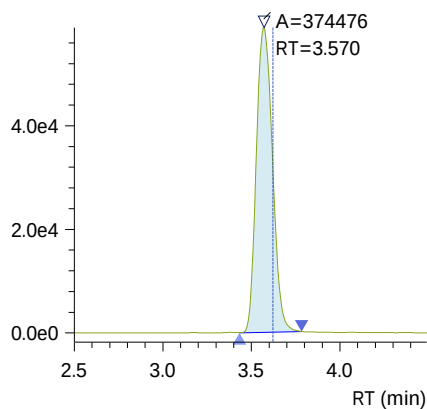
ISTD 107.00>89.00 (-)

2.78e4



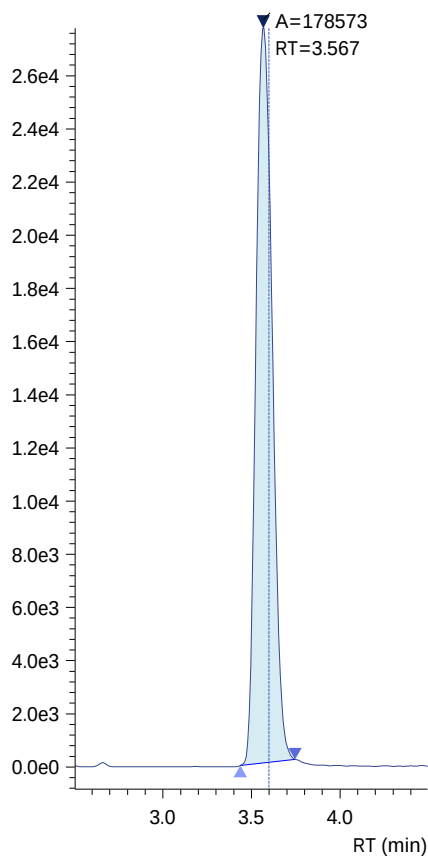
R1 101.00>85.00 (-)

5.90e4



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

PerchlorateICV

Sample ID: PerchlorateICV

Date Acquired: 8/2/2023 2:19:46 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-013.lcd

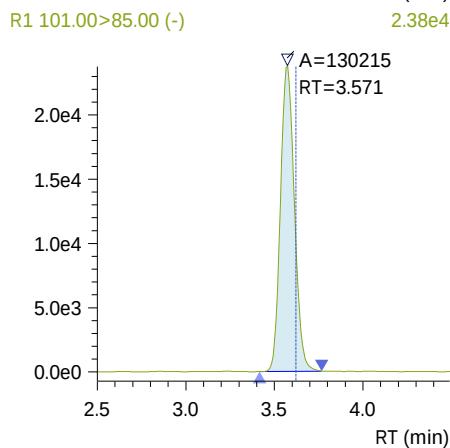
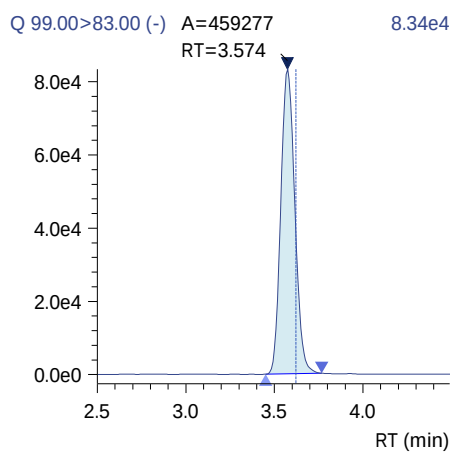
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	459277	291890	10.6703	ng/mL	101.00 >85.00	28.35	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291890	291890	1.0000	ng/mL	----	----	

Perchlorate

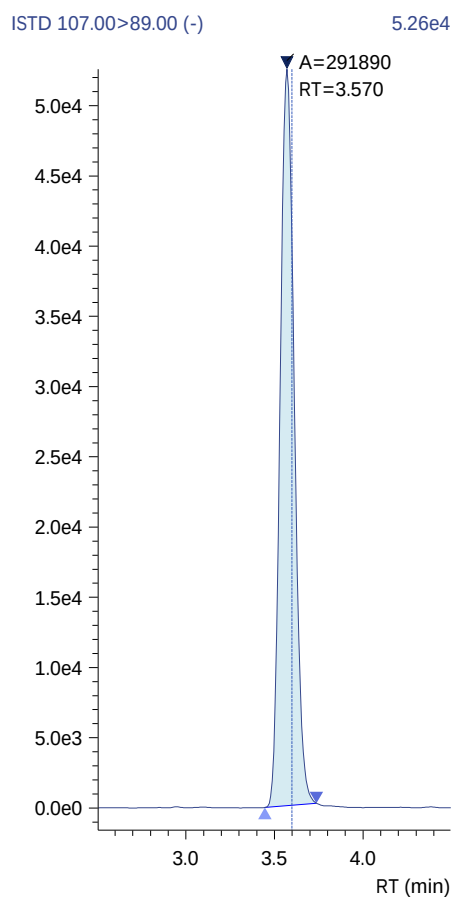
Conc 10.6703

R#1 28.35 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000





Chromatograms and Selected Ion Monitoring

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





20230818-814330

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: KN

ICAL Date: 8/2/2023

Cal. Std. xp: 02/02/2024

ICAL ID: EC2300012

Mobile Phases : A:20mM ammonium acetate in water 230388 B:Acetonitrile 229152

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB	2230818-001	Perchlorate6850c.lcm	1x		8/18/2023 8:13
2	LODV	2230818-002	Perchlorate6850c.lcm	1x	230386	8/18/2023 8:18
3	ICS	2230818-003	Perchlorate6850c.lcm	1x	DNU-IS	8/18/2023 8:24
4	ICS	2230818-004	Perchlorate6850c.lcm	1x	32103051	8/18/2023 8:30
5	CCV	2230818-005	Perchlorate6850c.lcm	1x	230380	8/18/2023 8:55
6	EQ2300403-01	2230818-006	Perchlorate6850c.lcm	1x		8/18/2023 9:00
7	EQ2300403-02	2230818-007	Perchlorate6850c.lcm	1x		8/18/2023 9:06
8	EQ2300403-03	2230818-008	Perchlorate6850c.lcm	1x		8/18/2023 9:11
9	E2300744-001	2230818-009	Perchlorate6850c.lcm	1x		8/18/2023 9:17
10	E2300744-002	2230818-010	Perchlorate6850c.lcm	1x		8/18/2023 9:22
11	E2300744-003	2230818-011	Perchlorate6850c.lcm	5x		8/18/2023 9:28
12	K2309094-001	2230818-012	Perchlorate6850c.lcm	1x		8/18/2023 9:33
13	K2309094-002	2230818-013	Perchlorate6850c.lcm	1x		8/18/2023 9:39
14	K2309094-003	2230818-014	Perchlorate6850c.lcm	1x		8/18/2023 9:44
15	R2307250-005	2230818-015	Perchlorate6850c.lcm	1x		8/18/2023 9:50
16	CCV	2230818-016	Perchlorate6850c.lcm	1x	230380	8/18/2023 11:03
17	R2307250-011	2230818-017	Perchlorate6850c.lcm	1x		8/18/2023 11:09
18	R2307325-004	2230818-018	Perchlorate6850c.lcm	1x		8/18/2023 11:14
19	R2307325-009	2230818-019	Perchlorate6850c.lcm	1x		8/18/2023 11:20
20	IB	2230818-020	Perchlorate6850c.lcm	1x		8/18/2023 11:39
21	E2300745-001	2230818-021	Perchlorate6850c.lcm	1x		8/18/2023 11:45
22	E2300746-001	2230818-022	Perchlorate6850c.lcm	2000x		8/18/2023 11:50
23	CCV	2230818-023	Perchlorate6850c.lcm	1x	230380	8/18/2023 11:56

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: Perchlorates

Service Request: E2300745
Date Analyzed: 8/18/23 08:55

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230808\2230818-005
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300406-01
Analysis Lot: 814330
Signal ID: 1

Sodium Perchlorate-18O4

	<u>Area</u>	<u>RT</u>
ICAL Average ==>	297,129	3.57
Upper Limit ==>	445,694	5.57
Lower Limit ==>	148,565	1.57

Associated Analyses

Continuing Calibration Verification	EQ2300406-01	315,173	3.56
Method Blank	EQ2300403-01	333,390	3.58
Lab Control Sample	EQ2300403-02	323,357	3.58
Duplicate Lab Control Sample	EQ2300403-03	320,951	3.58

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: Perchlorates

Service Request: E2300745
Date Analyzed: 8/18/23 11:03

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230808\2230818-016
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300406-02
Analysis Lot: 814330
Signal ID: 1

Sodium Perchlorate-18O4			
		<u>Area</u>	<u>RT</u>
ICAL Average ==>		297,129	3.57
Upper Limit ==>		445,694	5.57
Lower Limit ==>		148,565	1.57
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300406-02	286,291	3.58
LH18/24-SP650	E2300745-001	332,980	3.58

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: Perchlorates

Service Request: E2300745
Date Analyzed: 8/18/23 11:56

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230808\2230818-023
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300406-03
Analysis Lot: 814330
Signal ID: 1

Sodium Perchlorate-18O4			
		<u>Area</u>	<u>RT</u>
ICAL Average ==>		297,129	3.57
Upper Limit ==>		445,694	5.57
Lower Limit ==>		148,565	1.57
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300406-03	267,826	3.58

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: Perchlorates

Service Request: E2300745
Date Analyzed: 8/18/23

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\20230808\2230818-005

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 814330
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.1	0.1475	0.1492	1.2	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: Perchlorates

Service Request: E2300745
Date Analyzed: 8/18/23

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\20230808\2230818-016

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 814330
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.96	0.1475	0.1469	-0.4	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: Perchlorates

Service Request: E2300745
Date Analyzed: 8/18/23

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\20230808\2230818-023

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 814330
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.0	0.1475	0.1478	0.2	NA	± 15 %	Average RF



Insight Report

Printed at 8/18/2023 12:17:01 PM

LODV

Sample ID: LODV

Date Acquired: 8/18/2023 8:18:39 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230817\2230818-002.lcd

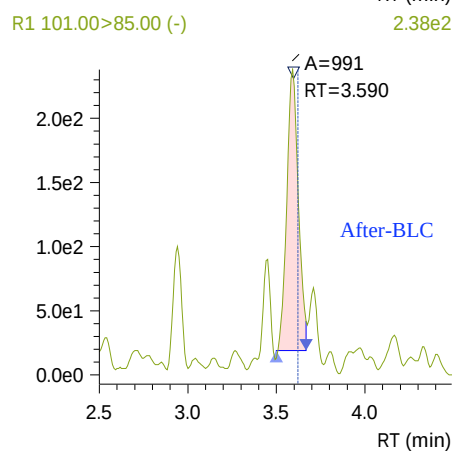
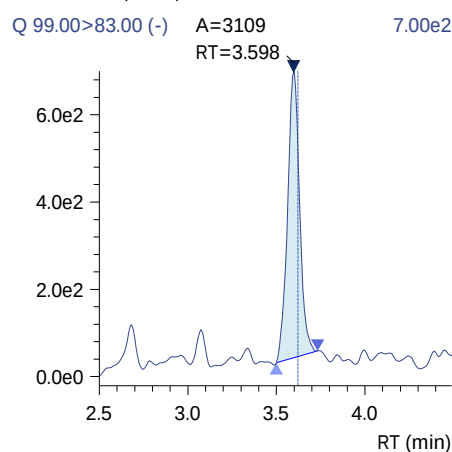
Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.598	3109	410240	0.0514	ng/mL	101.00 >85.00	31.87	19.93-37.01
Sodium Perchlorate-18O4_IS	Auto	3.590	410240	410240	1.0000	ng/mL	----	----	

Perchlorate

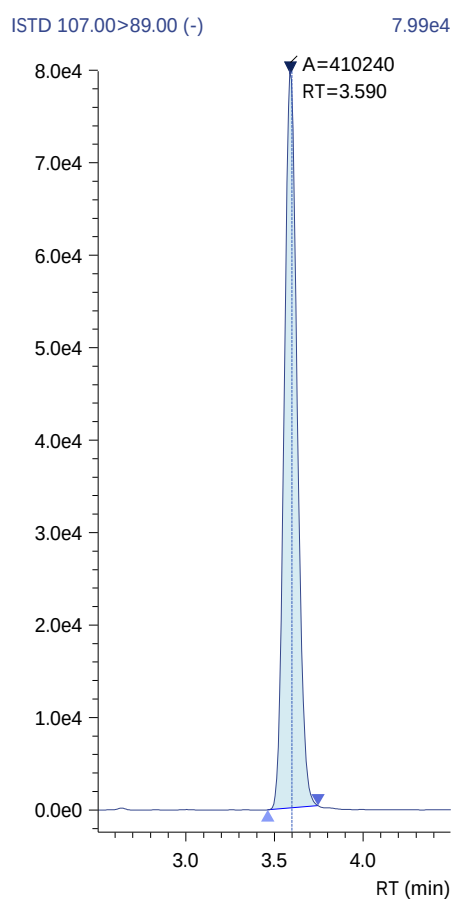
Conc 0.0514

R#1 31.87 (28.47)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2023 12:18:17 PM

Method File: I:\LCMS01\DATA\20230817\20230818.lcm

Project File: I:\LCMS01\DATA\20230817\20230818.damip

LODV

Sample ID: LODV

Date Acquired: 8/18/2023 8:18:39 AM

Acquired by: System Administrator

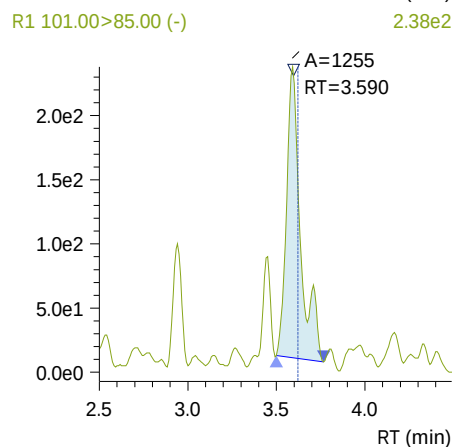
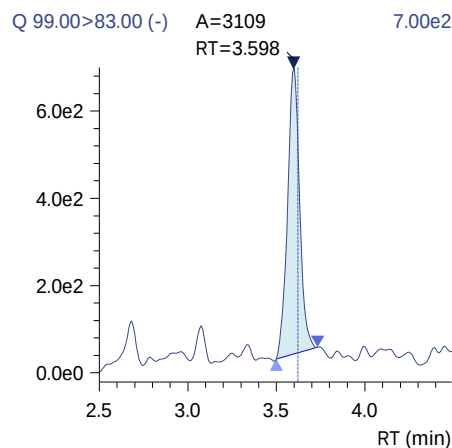
Data File: I:\LCMS01\DATA\20230817\20230818-002.lcd

Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Perchlorate

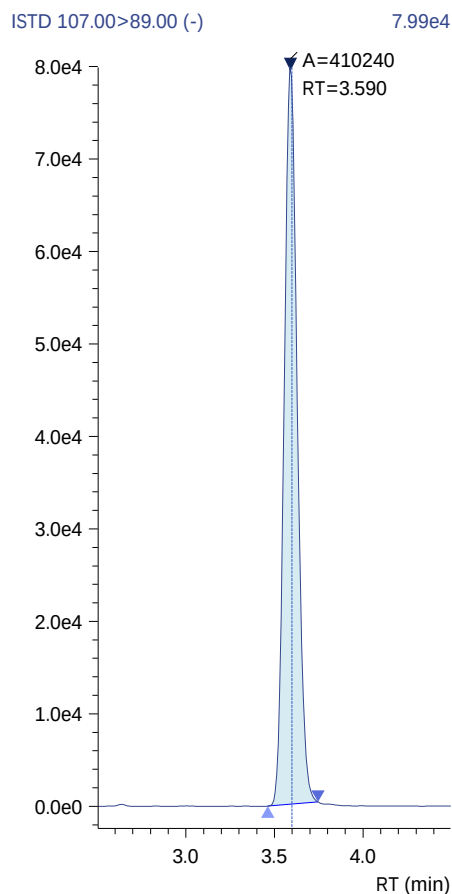
Conc 0.0514

R#1 40.36 (28.47)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2023 12:17:01 PM

ICS

Sample ID: ICS

Date Acquired: 8/18/2023 8:30:51 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230817\2230818-004.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

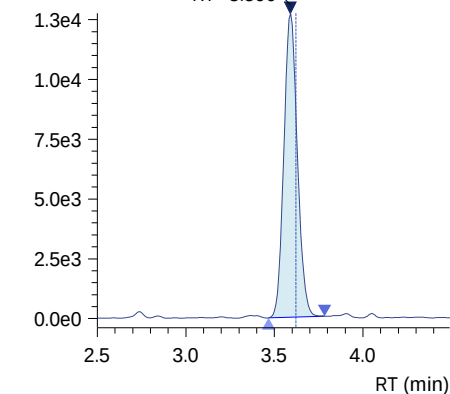
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.590	67473	415167	1.1021	ng/mL	101.00 >85.00	29.64	19.93-37.01
Sodium Perchlorate-18O4_IS	Auto	3.585	415167	415167	1.0000	ng/mL	----	----	

Perchlorate

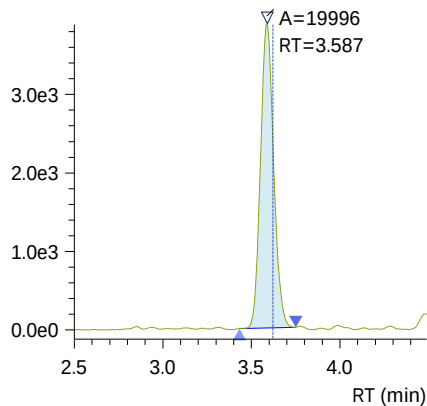
Conc 1.1021

R#1 29.64 (28.47)

Q 99.00>83.00 (-) A=67473 RT=3.590 1.28e4 ISTD 107.00>89.00 (-) 7.98e4

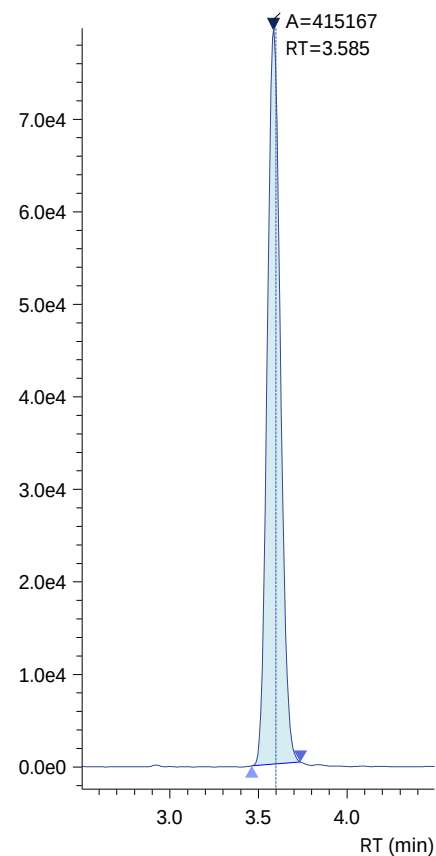


R1 101.00>85.00 (-) 3.89e3



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2023 12:17:01 PM

CCV

Sample ID: CCV

Date Acquired: 8/18/2023 8:55:10 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230817\2230818-005.lcd

Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

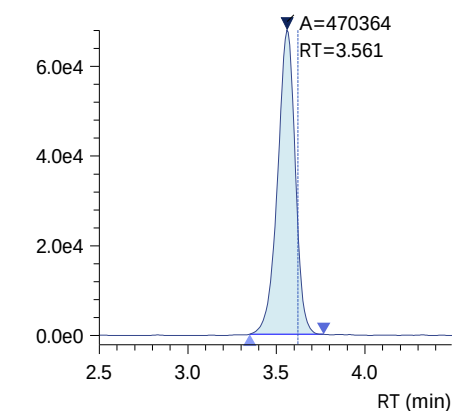
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	470364	315173	10.1206	ng/mL	101.00 >85.00	28.61	19.93-37.01
Sodium Perchlorate-18O4_IS	Auto	3.557	315173	315173	1.0000	ng/mL	----	----	

Perchlorate

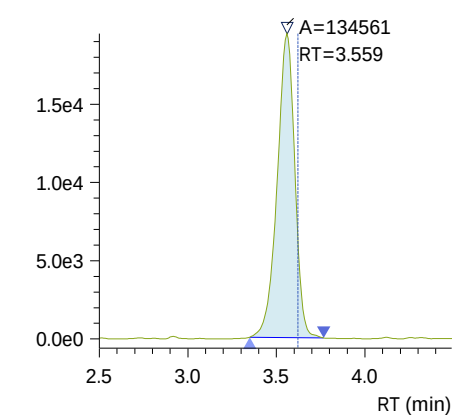
Conc 10.1206

R#1 28.61 (28.47)

Q 99.00>83.00 (-)



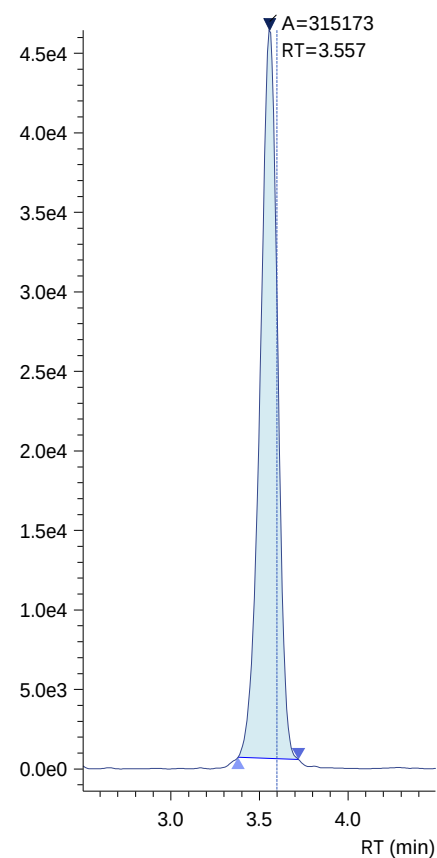
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 8/18/2023 12:17:01 PM

EQ2300403-01

Sample ID: EQ2300403-01

Date Acquired: 8/18/2023 9:00:43 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230817\2230818-006.lcd

Vial: 1 | Inj. Volume: 10.0000uL | Tray: 4

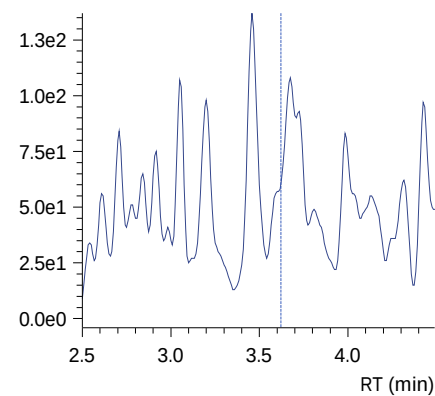
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	333390	----	ng/mL	101.00 >85.00	0.00	19.93-37.01
Sodium Perchlorate-18O4_IS	Auto	3.581	333390	333390	1.0000	ng/mL	----	----	

Perchlorate

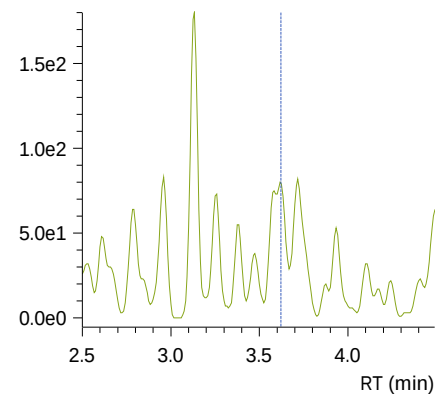
Conc ----

R#1 0.00 (28.47)

Q 99.00>83.00 (-)



R1 101.00>85.00 (-)

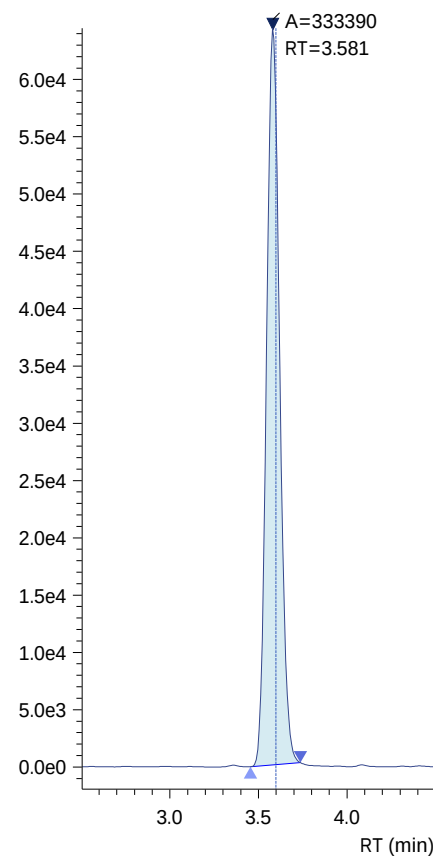


Sodium Perchlorate-18O4_IS

Conc 1.0000

1.37e2 ISTD 107.00>89.00 (-)

6.45e4



Insight Report

Printed at 8/18/2023 12:17:01 PM

EQ2300403-02

Sample ID: EQ2300403-02

Date Acquired: 8/18/2023 9:06:14 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230817\2230818-007.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 4

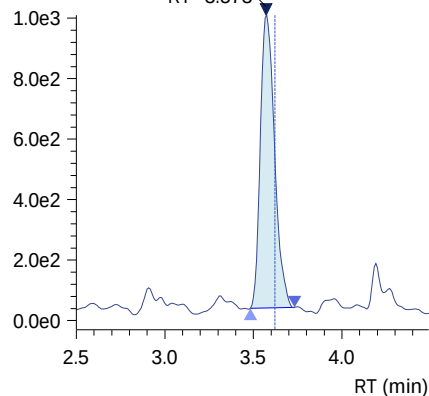
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	5416	323357	0.1136	ng/mL	101.00 >85.00	29.40	19.93-37.01
Sodium Perchlorate-18O4_IS	Auto	3.582	323357	323357	1.0000	ng/mL	----	----	

Perchlorate

Conc 0.1136

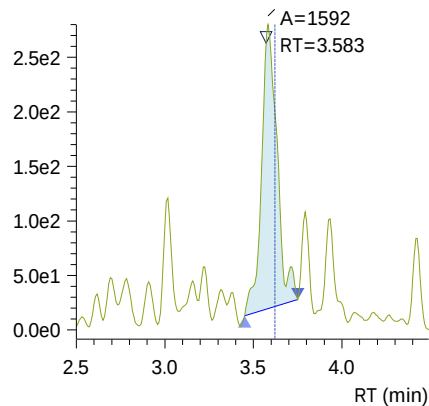
R#1 29.40 (28.47)

Q 99.00>83.00 (-) A=5416 RT=3.573 1.01e3 ISTD 107.00>89.00 (-)



R1 101.00>85.00 (-)

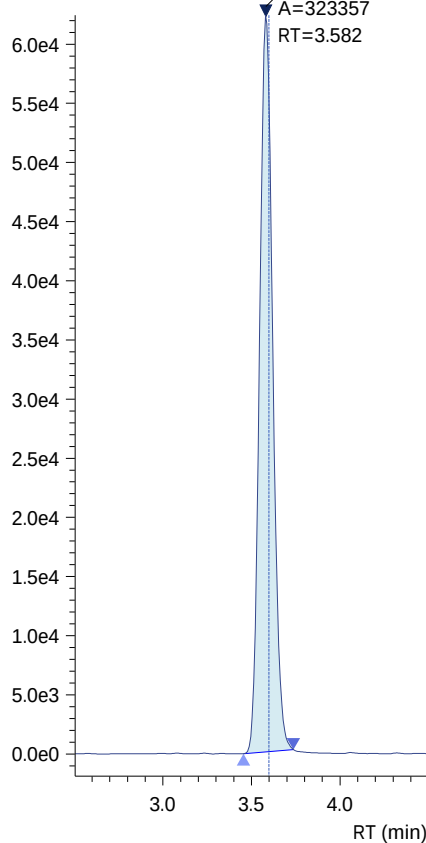
2.80e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=323357 RT=3.582 6.25e4



Insight Report

Printed at 8/18/2023 12:17:01 PM

EQ2300403-03

Sample ID: EQ2300403-03

Date Acquired: 8/18/2023 9:11:48 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230817\2230818-008.lcd

Vial: 3 | Inj. Volume: 10.0000uL | Tray: 4

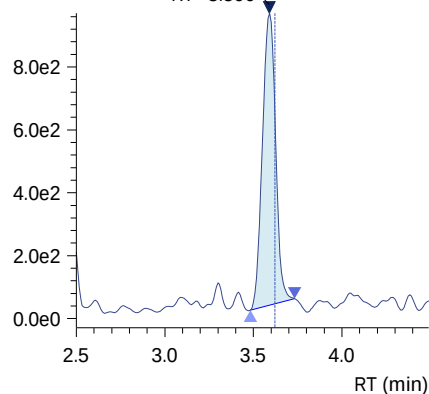
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment
Perchlorate	MI R1	3.590	4818	320951	0.1018	ng/mL	101.00 >85.00	28.80	19.93-37.01
Sodium Perchlorate-18O4_IS	Auto	3.582	320951	320951	1.0000	ng/mL	----	----	

Perchlorate

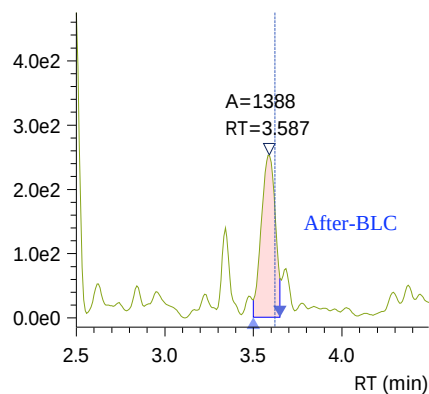
Conc 0.1018

R#1 28.80 (28.47)

Q 99.00>83.00 (-) A=4818 RT=3.590 9.71e2 ISTD 107.00>89.00 (-) 6.21e4



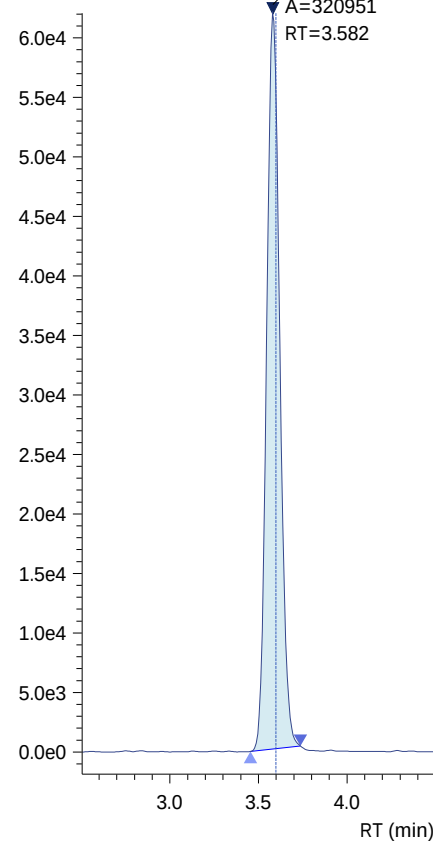
R1 101.00>85.00 (-) 4.75e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=320951 RT=3.582



Insight Report

Printed at 8/18/2023 12:18:17 PM

EQ2300403-03

Sample ID: EQ2300403-03

Date Acquired: 8/18/2023 9:11:48 AM

Acquired by: System Administrator

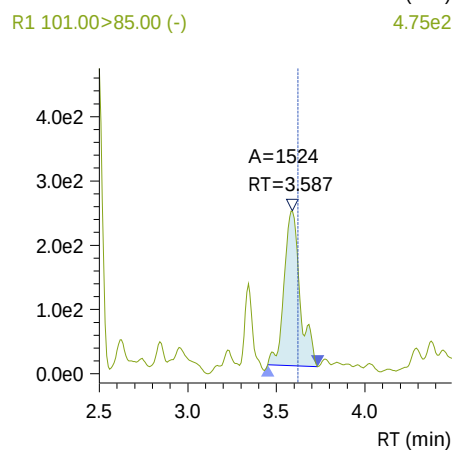
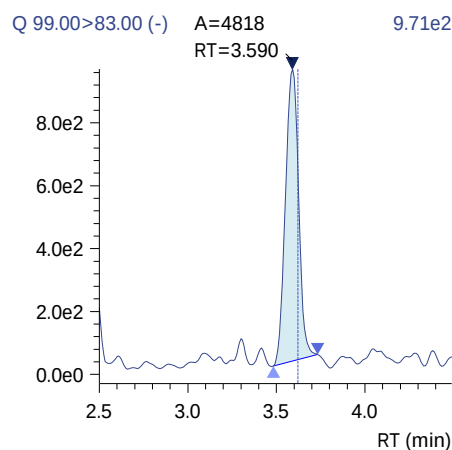
Data File: I:\LCMS01\DATA\20230817\2230818-008.lcd

Vial: 3 | Inj. Volume: 10.0000uL | Tray: 4

Perchlorate

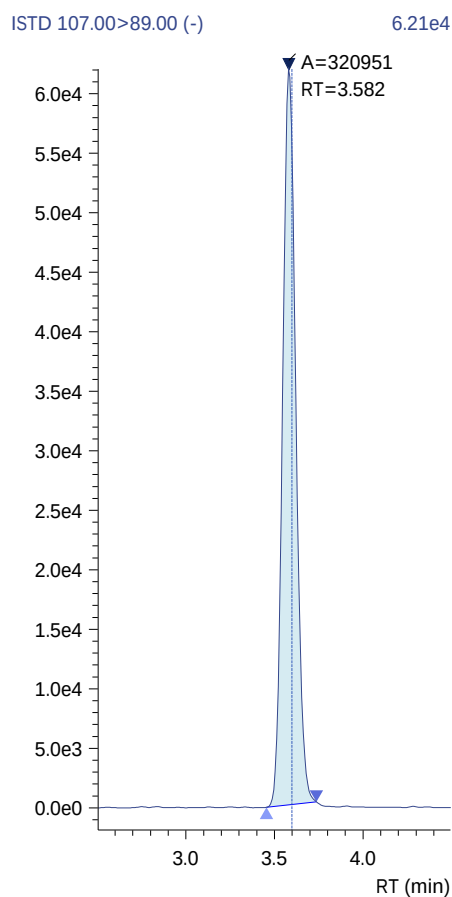
Conc 0.1018

R#1 31.64 (28.47)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2023 12:17:01 PM

CCV

Sample ID: CCV

Date Acquired: 8/18/2023 11:03:57 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230817\2230818-016.lcd

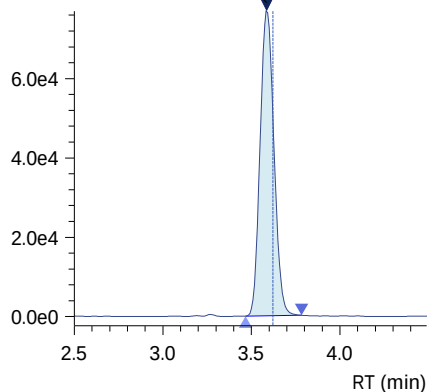
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.587	420570	286291	9.9621	ng/mL	101.00 >85.00	29.32	19.93-37.01
Sodium Perchlorate-18O4_IS	Auto	3.582	286291	286291	1.0000	ng/mL	----	----	

Perchlorate

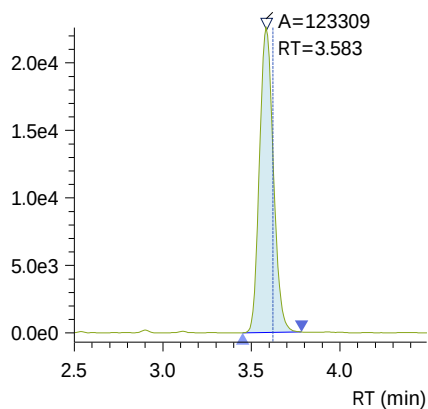
Conc 9.9621

R#1 29.32 (28.47)

Q 99.00>83.00 (-) A=420570
RT=3.587

R1 101.00>85.00 (-)

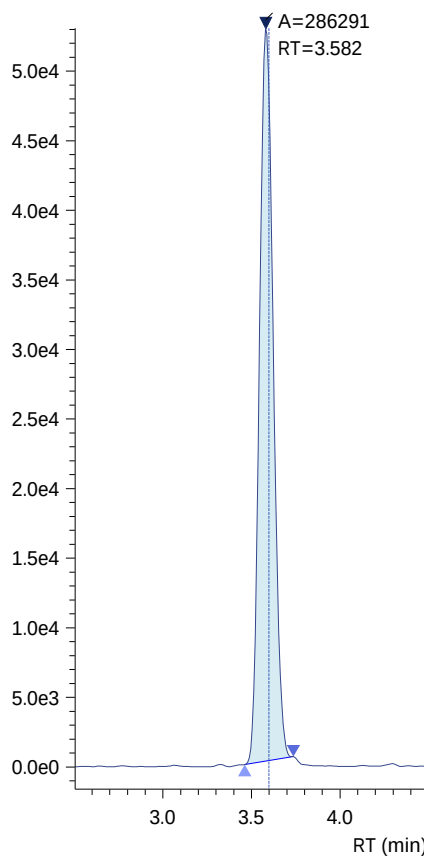
2.26e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

7.70e4 ISTD 107.00>89.00 (-) 5.31e4



Insight Report

Printed at 8/18/2023 12:17:01 PM

E2300745-001

Sample ID: E2300745-001

Date Acquired: 8/18/2023 11:45:04 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230817\2230818-021.lcd

Vial: 14 | 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	3.587	14393	332980	0.2931	ng/mL	101.00 >85.00	27.06	19.93-37.01
Sodium Perchlorate-18O4_IS	Auto	3.582	332980	332980	1.0000	ng/mL	----	----	

Perchlorate

Conc 0.2931

R#1 27.06 (28.47)

Q 99.00>83.00 (-)

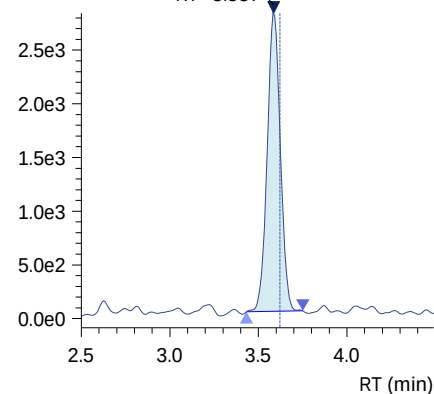
A=14393

RT=3.587

2.84e3

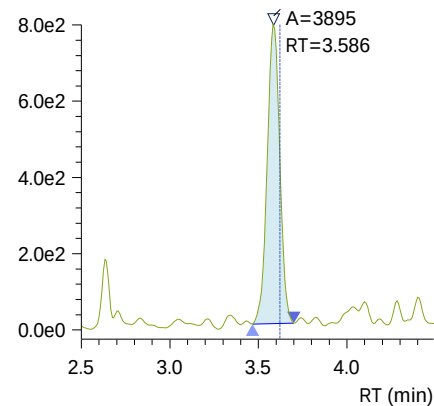
ISTD 107.00>89.00 (-)

6.45e4



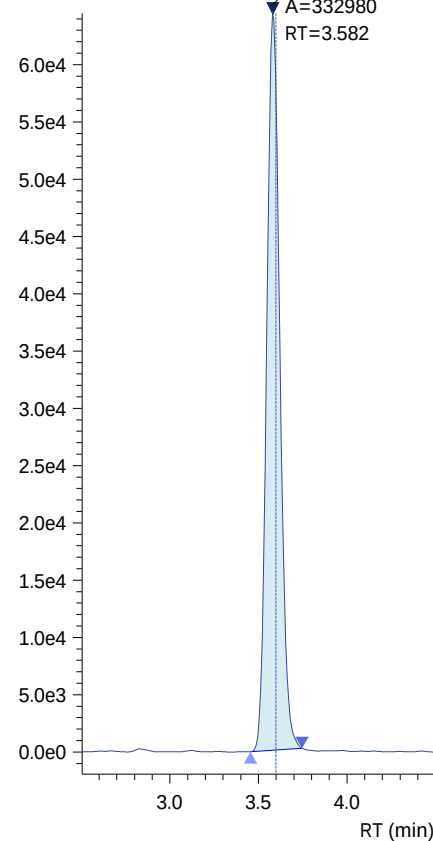
R1 101.00>85.00 (-)

8.01e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=332980
RT=3.582

Insight Report

Printed at 8/18/2023 12:17:01 PM

CCV

Sample ID: CCV

Date Acquired: 8/18/2023 11:56:06 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230817\2230818-023.lcd

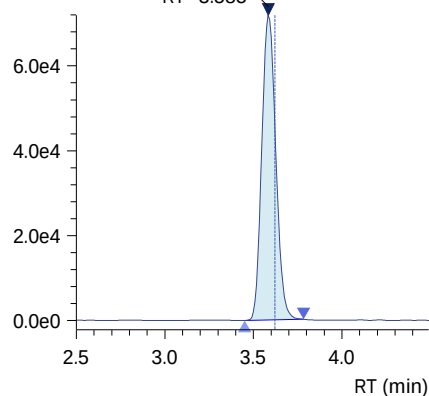
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.585	395714	267826	10.0196	ng/mL	101.00 >85.00	27.47	19.93-37.01
Sodium Perchlorate-18O4_IS	Auto	3.581	267826	267826	1.0000	ng/mL	----	----	

Perchlorate

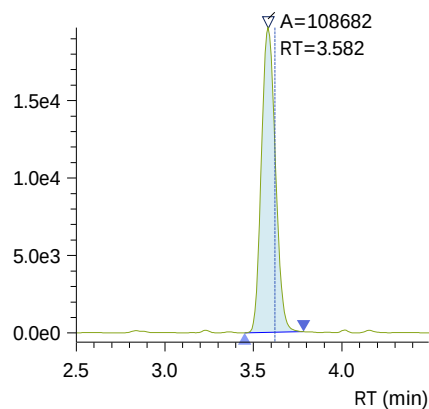
Conc 10.0196

R#1 27.47 (28.47)

Q 99.00>83.00 (-) A=395714
RT=3.585

R1 101.00>85.00 (-)

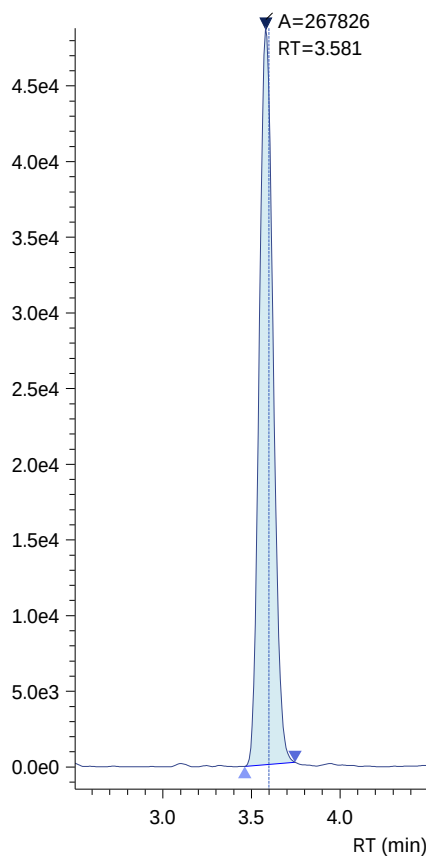
1.97e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

7.19e4 ISTD 107.00>89.00 (-) 4.88e4



HS23081419 GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES Cover Page

ALS WO# HS23081419



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

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HS23081419 E2300763 Final Report Level II

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right solutions.
right partner.

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

WorkOrder: HS23081419

**GROUNDWATER TREATMENT PLANT WEEKLY
SAMPLES**

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

30-Aug-2023



HS23081419 GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES Final

ALS WO# HS23081419





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

August 29, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23081419**

Laboratory Results for: **GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES**

Dear Marcia Olive,

ALS Environmental received 3 sample(s) on Aug 23, 2023 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: JUMOKE.LAWAL

James Guin

ALS Houston, US

Date: 29-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
Work Order: HS23081419

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23081419-01	LH18/24-SP650_082223	Water		22-Aug-2023 13:00	23-Aug-2023 10:35	☐
HS23081419-02	LH18/24-SP650_082223_BIX	Water		22-Aug-2023 13:00	23-Aug-2023 10:35	☐
HS23081419-03	LH18/24-SP650_082223_AIX	Water		22-Aug-2023 13:00	23-Aug-2023 10:35	☐



ALS Houston, US

Date: 29-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
Work Order: HS23081419

CASE NARRATIVE

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached
-

WetChemistry by Method E415.1**Batch ID: R445026**

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

WetChemistry by Method E350.3**Batch ID: R444930**

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

WetChemistry by Method E365.3**Batch ID: R444660**

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



ALS Houston, US

Date: 29-Aug-23

Client: Bhate Environmental Associates, Inc.
 Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
 Sample ID: LH18/24-SP650_082223
 Collection Date: 22-Aug-2023 13:00

ANALYTICAL REPORT

WorkOrder:HS23081419
 Lab ID:HS23081419-01
 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
AMMONIA AS N BY E350.3(ISE)		Method:E350.3						Analyst: AB
Nitrogen, Ammonia (As N)	8.8	a	0.10	0.20	0.20	mg/L	1	28-Aug-2023 10:45
ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978		Method:E365.3						Analyst: AB
Phosphorus, Total Orthophosphate (As P)	0.359	a	0.0100	0.0250	0.0250	mg/L	1	23-Aug-2023 14:59
TOTAL ORGANIC CARBON BY E415.1		Method:E415.1						Analyst: DW
Organic Carbon, Total	5.99	a	0.500	1.00	1.00	mg/L	1	28-Aug-2023 12:29

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



ALS Houston, US

Date: 29-Aug-23

Client:	Bhate Environmental Associates, Inc.	ANALYTICAL REPORT
Project:	GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES	WorkOrder:HS23081419
Sample ID:	LH18/24-SP650_082223_BIX	Lab ID:HS23081419-02
Collection Date:	22-Aug-2023 13:00	Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		Method:NA						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	25-Aug-2023 11:42

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



ALS Houston, US

Date: 29-Aug-23

Client:	Bhate Environmental Associates, Inc.	ANALYTICAL REPORT
Project:	GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES	WorkOrder:HS23081419
Sample ID:	LH18/24-SP650_082223_AIX	Lab ID:HS23081419-03
Collection Date:	22-Aug-2023 13:00	Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		Method:NA						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	25-Aug-2023 11:42

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



ALS Houston, US

Date: 29-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
WorkOrder: HS23081419

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R444660 (0)		Test Name : ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978			Matrix: Water	
HS23081419-01	LH18/24-SP650_082223	22 Aug 2023 13:00			23 Aug 2023 14:59	1
Batch ID: R444829 (0)		Test Name : SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)			Matrix: Water	
HS23081419-02	LH18/24-SP650_082223_BIX	22 Aug 2023 13:00			25 Aug 2023 11:42	1
HS23081419-03	LH18/24-SP650_082223_AIX	22 Aug 2023 13:00			25 Aug 2023 11:42	1
Batch ID: R444930 (0)		Test Name : AMMONIA AS N BY E350.3(ISE)			Matrix: Water	
HS23081419-01	LH18/24-SP650_082223	22 Aug 2023 13:00			28 Aug 2023 10:45	1
Batch ID: R445026 (0)		Test Name : TOTAL ORGANIC CARBON BY E415.1			Matrix: Water	
HS23081419-01	LH18/24-SP650_082223	22 Aug 2023 13:00			28 Aug 2023 12:29	1



ALS Houston, US

Date: 29-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
WorkOrder: HS23081419

QC BATCH REPORT

Batch ID: R444660 (0)		Instrument: UV-2450		Method: ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978						
MBLK	Sample ID: MBLK-R444660	Units: mg/L		Analysis Date: 23-Aug-2023 14:59						
Client ID:	Run ID: UV-2450_444660		SeqNo: 7505698		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.0250	0.0250								U
LCS	Sample ID: LCS-R444660	Units: mg/L		Analysis Date: 23-Aug-2023 14:59						
Client ID:	Run ID: UV-2450_444660		SeqNo: 7505697		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.248	0.0250	0.25	0	99.2	85 - 115				
MS	Sample ID: HS23081419-01MS	Units: mg/L		Analysis Date: 23-Aug-2023 14:59						
Client ID: LH18/24-SP650_082223	Run ID: UV-2450_444660		SeqNo: 7505700		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.609	0.0250	0.25	0.359	100	80 - 120				
MSD	Sample ID: HS23081419-01MSD	Units: mg/L		Analysis Date: 23-Aug-2023 14:59						
Client ID: LH18/24-SP650_082223	Run ID: UV-2450_444660		SeqNo: 7505699		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.595	0.0250	0.25	0.359	94.4	80 - 120	0.609	2.33	20	
The following samples were analyzed in this batch: HS23081419-01										



ALS Houston, US

Date: 29-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
WorkOrder: HS23081419

QC BATCH REPORT

Batch ID: R444930 (0)		Instrument: WetChem_HS		Method: AMMONIA AS N BY E350.3(ISE)						
MBLK	Sample ID: MBLK-R444930	Units: mg/L		Analysis Date: 28-Aug-2023 10:45						
Client ID:	Run ID: WetChem_HS_444930		SeqNo: 7511844		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.20	0.20								U
LCS	Sample ID: LCS-R444930	Units: mg/L		Analysis Date: 28-Aug-2023 10:45						
Client ID:	Run ID: WetChem_HS_444930		SeqNo: 7511843		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	9.409	0.20	10	0	94.1	80 - 120				
MS	Sample ID: HS23081419-01MS	Units: mg/L		Analysis Date: 28-Aug-2023 10:45						
Client ID: LH18/24-SP650_082223	Run ID: WetChem_HS_444930		SeqNo: 7511846		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	18.13	0.20	10	8.808	93.3	80 - 120				
MSD	Sample ID: HS23081419-01MSD	Units: mg/L		Analysis Date: 28-Aug-2023 10:45						
Client ID: LH18/24-SP650_082223	Run ID: WetChem_HS_444930		SeqNo: 7511845		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	18.37	0.20	10	8.808	95.6	80 - 120	18.13	1.28	20	
The following samples were analyzed in this batch: HS23081419-01										



ALS Houston, US

Date: 29-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
WorkOrder: HS23081419

QC BATCH REPORT

Batch ID: R445026 (0)		Instrument: TOC_05		Method: TOTAL ORGANIC CARBON BY E415.1						
MBLK	Sample ID: MBLK-08282023	Units: mg/L		Analysis Date: 28-Aug-2023 11:43						
Client ID:	Run ID: TOC_05_445026	SeqNo: 7514218		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U
LCS	Sample ID: LCS-08282023	Units: mg/L		Analysis Date: 28-Aug-2023 11:59						
Client ID:	Run ID: TOC_05_445026	SeqNo: 7514219		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.41	1.00	10	0	104	85 - 115				
LCSD	Sample ID: LCSD-08282023	Units: mg/L		Analysis Date: 28-Aug-2023 12:14						
Client ID:	Run ID: TOC_05_445026	SeqNo: 7514220		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.34	1.00	10	0	103	85 - 115	10.41	0.675	20	
MS	Sample ID: HS23081377-01MS	Units: mg/L		Analysis Date: 28-Aug-2023 12:47						
Client ID:	Run ID: TOC_05_445026	SeqNo: 7514308		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	33.79	1.00	10	23.04	108	80 - 120				
The following samples were analyzed in this batch: HS23081419-01										



ALS Houston, US

Date: 29-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
WorkOrder: HS23081419

**QUALIFIERS,
ACRONYMS, UNITS**

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

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



CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US

Date: 29-Aug-23

Sample Receipt Checklist

Work Order ID: HS23081419

Date/Time Received: **23-Aug-2023 10:35**

Client Name: Bhate Environmental

Received by: **Corey Grandits**Completed By: /S/ Belinda Gomez

23-Aug-2023 11:54

Reviewed by: /S/ James Guin

23-Aug-2023 15:16

eSignature

Date/Time

eSignature

Date/Time

Matrices: **W**Carrier name: **FedEx**

Shipping container/cooler in good condition?

Yes ☒No ☐Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒No ☐Not Present ☐

Custody seals intact on sample bottles?

Yes ☐No ☐Not Present ☒

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes ☐No ☐Not Present ☒

Chain of custody present?

Yes ☒No ☐

1 Page(s)

Chain of custody signed when relinquished and received?

Yes ☒No ☐

Samplers name present on COC?

Yes ☒No ☐

Chain of custody agrees with sample labels?

Yes ☒No ☐

Samples in proper container/bottle?

Yes ☒No ☐

Sample containers intact?

Yes ☒No ☐

Sufficient sample volume for indicated test?

Yes ☒No ☐

All samples received within holding time?

Yes ☒No ☐

Container/Temp Blank temperature in compliance?

Yes ☒No ☐

Temperature(s)/Thermometer(s):

1.8UC1.7C

IR31

Cooler(s)/Kit(s):

50666

Date/Time sample(s) sent to storage:

8/23/23 1155

Water - VOA vials have zero headspace?

Yes ☐No ☐No VOA vials submitted ☒

Water - pH acceptable upon receipt?

Yes ☒No ☐N/A ☐

pH adjusted?

Yes ☐No ☒N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

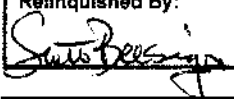
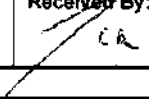
Comments:

Corrective Action:



CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stauchiff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Dane WacaseyPage 1 of 1

Project: BHATE LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS			Project No. JVPCIBH.0001			Analyses HS23081419 Bhate Environmental Associates, Inc. GROUNDWATER TREATMENT PLANT WEEKLY S 												
Job: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES																		
Prepared By: Scott Beesinger			P.O. Number															
Field Sample I.D.			Sample Matrix		Date / Time		MS / MSD	No. Of CONTAINERS	AMMONIA-N	TOTAL ORGANIC CARBON	ORTHO-PHOSPHATE	PERCHLORATE					Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_082223			Water		08/22/23 / 13:00			3	X	X						H2SO4		
LH18/24-SP650_082223			Water		08/22/23 / 13:00			1			X					NONE		
LH18/24-SP650_082223_BIX			Water		08/22/23 / 13:00			1				X				NONE		
LH18/24-SP650_082223_AIX			Water		08/22/23 / 13:00			1				X				NONE		
Additional Remarks: 24 HR. TAT on Perchlorate Samples. Standard TAT on all other parameters																		
Relinquished By: 		Date 08/22/23	Time 13:30	Received By: 		Date 8/23/23	Time 12:35	Relinquished By:		Date	Time	Received By:		Date	Time			
For Lab Use Only																		
Received At Lab By:			Date	Time	Airbill No.		Opened By:		Date	Time	Temp of Container	Seal No.	Condition					
Remarks:																		

90666 1.88

1/23/11



GREEN 10:50AM 7903 830-6193
 SCOTT BIESINGER
 ANTIM ENVIRONMENTAL & INFRASTRUCTURE
 1203 E. EAST GRAND AVE.
 FPO 212
 MARSHALL, TX 75670
 UNITED STATES US

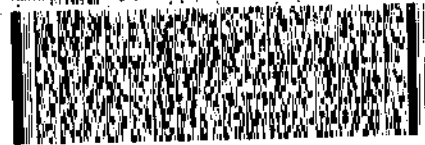
SHIP DATE: 2006/8/23
 ACTWGT: 1.00 LB
 CWT: 1221247/10000
 DIMS: 10x16x13 IN

TO SHIPPING DEPT
 ALS LABORATORY GROUP
 10450 STANCLIFF RD
 SUITE 210
 HOUSTON TX 77099

(281) 530-5666

REF: LHAAP - 67 - B081554 - RG

MAA-111111



FedEx



FedEx
 TRK# 5300 5224 2267

RETURNS MON-SAT
 WED - 23 AUG 10:30A
 PRIORITY OVERNIGHT

XA SGRA

77099
 TX-US IAH



Seal Broken By:	
Date:	
Time:	
Name:	
Company:	
CUS-TODY SEAL	
Date: 8/23/06	
Time: 1:30	
Name: Scott Biesinger	
Company: Antim Environmental & Infrastructure	
ALS	
10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5666 Fax. +1 281 530 5687	





August 24, 2023

Service Request No:E2300763

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS23081419

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory August 23, 2023
For your reference, these analyses have been assigned our service request number **E2300763**.

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: HS23081419
Sample Matrix: Water

Service Request No.: E2300763
Date Received: 08/23/23

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 II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 08/23/23

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

Data Validation Notes and Discussion**Precision and Accuracy:**

EQ2300410: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

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

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



Client: ALS Environmental - US
Project: HS23081419

Service Request:E2300763

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E2300763-001	LH18/24-SP650_082223_AIX	8/22/2023	1300
E2300763-002	LH18/24-SP650_082223_BIX	8/22/2023	1300



Service Request Summary

Folder #: E2300763
Client Name: ALS Environmental - US
Project Name: HS23081419
Project Number:

Report To: James Guin
 ALS Environmental - US
 10450 Stancliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 08/23/23
Internal Due Date: 8/24/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23081419
EDD: BASIC_WQC_CASNo
 _LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

				HOUSTON
Lab Samp No.	Client Samp No	Matrix	Collected	CIO4 DOD/6850
E2300763-001	LH18/24-SP650_082223_AIX	Water	08/22/23 1300	IV
E2300763-002	LH18/24-SP650_082223_BIX	Water	08/22/23 1300	IV



Service Request Summary

Folder #: E2300763
Client Name: ALS Environmental - US
Project Name: HS23081419
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Standcliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 08/23/23
Internal Due Date: 8/24/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23081419
EDD: BASIC_WQC_CASNo
_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush



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
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
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	343-2023	6/30/2024
Michigan Department of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Conservation	TN04016-2023	4/30/2024
Texas Commission on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932023-14	7/31/2024
Washington Department of Ecology	C819-22	11/14/2023



Chain of Custody

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Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense

COC ID: 22816

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff Road Suite 210
Houston, TX 77084

Phone: +1 281 530 5656

RUSH

CUSTOMER INFORMATION:

Company: ALS Houston
Contact: James Guin
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Email: James.Guin@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: HS23081419
TSR: Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	HS23081419-02	LH18/24-SP650_082223_BIX	Water	22 Aug 2023 13:00
	6850-Perch. DOD Level II & Level IV in separate pdf			24 Aug 2023
2.	HS23081419-03	LH18/24-SP650_082223_AIX	Water	22 Aug 2023 13:00
	6850-Perch. DOD Level II & Level IV in separate pdf			24 Aug 2023

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

QC Level: DOD IV (DoD Data Package)

E2300763

ALS Environmental - US
HS23081419

5



Relinquished By: _____

Date/Time: _____

Received By: _____

Date/Time: 8-23-23 1205

Cooler ID(s): _____

Temperature(s): _____

ALSO GLOBAL CORP. 10450 STANCLIFF RD. SUITE 210 HOUSTON, TX 77084





Cooler Receipt Form

Project Chemist JK

Client/Project

ALS

Thermometer ID

1R31

Date/Time Received:

8-23-23

Initials:

gy

Date/Time Logged in:

8-23-23

Initials

gy1. Method of delivery: ☐ US Mail ☐ Fed Ex ☐ UPS ☐ DHL ☒ ALS Courier ☐ Client2. Samples received in: ☒ Cooler ☐ Box ☐ Envelope ☐ Other3. 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/A

--

4. Packing Material: ☐ Inserts ☒ Baggies ☐ Bubble Wrap ☐ Gel Packs ☒ Wet Ice ☐ Sleeves ☐ Other5. 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>8-23-23</u>	<u>1204</u>	<u>gy</u>	<u>3.7</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:

E2300763**5**ALS Environmental - US
HS23081419



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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
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Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com



Preparation Information Benchsheet

Prep Run#: 425282
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 8/24/23 09:20

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300753-001	WP Perchlorate; Lot R36604-53	.01	6850/CIO4			Water	10mL	
2	E2300763-001	LH18/24-SP650_082223_AIX	.01	6850/CIO4 DOD			Water	10mL	
3	E2300763-002	LH18/24-SP650_082223_BIX	.01	6850/CIO4 DOD			Water	10mL	
4	E2300764-001	GW-MW-29D-20230821-01	.01	6850/CIO4			Ground Water	10mL	
5	E2300764-002	GW-MW-66D2-20230821-01	.01	6850/CIO4			Ground Water	10mL	
6	E2300764-003	GW-MW-89D-20230822-01	.01	6850/CIO4			Ground Water	10mL	
7	E2300764-004	GW-BROP-02-20230822-01	.01	6850/CIO4			Ground Water	10mL	
8	E2300764-005	GW-MW-16-20230822-01	.01	6850/CIO4			Ground Water	10mL	
9	E2300764-006	GW-BROP-01-20230822-01	.01	6850/CIO4			Ground Water	10mL	
10	E2300764-007	GW-MW-97-20230822-01	.01	6850/CIO4			Ground Water	10mL	
11	E2300764-008	GW-MW-14-20230822-01	.01	6850/CIO4			Ground Water	10mL	
12	E2300765-001	Condensation Water A	.01	6850/CIO4			Water	10mL	
13	E2300765-002	Condensation Water B	.01	6850/CIO4			Water	10mL	
14	E2300765-003	Condensation Water C	.01	6850/CIO4			Water	10mL	
15	E2300765-004	Condensation Water D	.01	6850/CIO4			Water	10mL	
16	E2300765-005	Condensation Water E	.01	6850/CIO4			Water	10mL	
17	EQ2300410-01	MB		6850/CIO4			Liquid	10mL	
18	EQ2300410-02	LCS		6850/CIO4			Liquid	10mL	
19	EQ2300410-03	DLCS		6850/CIO4			Liquid	10mL	

Spiking Solutions

Name:	Perchlorate Intermediate Stock1	Inventory ID	230342	Logbook Ref:	Perchlorate (1st Source)	Expires On:	03/07/2024
-------	---------------------------------	--------------	--------	--------------	--------------------------	-------------	------------

EQ2300410-02 1.00μL EQ2300410-02 1.00μL EQ2300410-03 1.00μL EQ2300410-03 1.00μL

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	230372	Logbook Ref:	Perchlorate Internal Standard	Expires On:	04/30/2024
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E2300753-001 100.00μL E2300763-001 100.00μL E2300763-002 100.00μL E2300764-001 100.00μL E2300764-002 100.00μL E2300764-003 100.00μL
E2300764-004 100.00μL E2300764-005 100.00μL E2300764-006 100.00μL E2300764-007 100.00μL E2300764-008 100.00μL E2300765-001 100.00μL
E2300765-002 100.00μL E2300765-003 100.00μL E2300765-004 100.00μL E2300765-005 100.00μL EQ2300410-01 100.00μL EQ2300410-01 100.00μL
EQ2300410-02 100.00μL EQ2300410-02 100.00μL EQ2300410-03 100.00μL EQ2300410-03 100.00μL



Preparation Information Benchsheet

Prep Run#: 425282
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 8/24/23 09:20

Preparation Steps

Step: Preparation
Started: 8/24/23 09:20
Finished: 8/24/23 13:42
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____	Date: _____	<u>Extracts Examined</u>
Received By: _____	Date: _____	Yes No



Analytical Results

ALS Environmental - Houston Specialties Laboratory
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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23081419
Sample Matrix: Water
Sample Name: LH18/24-SP650_082223_AIX
Lab Code: E2300763-001

Service Request: E2300763
Date Collected: 8/22/23 1300
Date Received: 8/23/23
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	10.3		0.100	0.0500	0.0250	1	8/24/23	8/24/23 13:10	425282	815049	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23081419
Sample Matrix: Water
Sample Name: LH18/24-SP650_082223_BIX
Lab Code: E2300763-002

Service Request: E2300763
Date Collected: 8/22/23 1300
Date Received: 8/23/23
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	307		2.00	1.00	0.500	20	8/24/23	8/24/23 13:16	425282	815049	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23081419
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: EQ2300410-01

Service Request: E2300763
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	8/24/23	8/24/23 12:45	425282	815049	





Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23081419
Sample Matrix: Water

Service Request: E2300763
Date Analyzed: 8/24/23

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: 425282

Analyte Name	Lab Control Sample EQ2300410-02			Duplicate Lab Control Sample EQ2300410-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perchlorate	0.0989	0.100	99	0.115	0.100	115	84 - 119	15	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: HS23081419
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: EQ2300410-02

Service Request: E2300763
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	0.0989	J	0.100	0.0500	0.0250	1	8/24/23	8/24/23 13:03	425282	815049	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23081419
Sample Matrix: Water
Sample Name: Duplicate Lab Control Sample
Lab Code: EQ2300410-03

Service Request: E2300763
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	0.115		0.100	0.0500	0.0250	1	8/24/23	8/24/23 12:57	425282	815049	



HS23081419 Wetchem NIT-AMM_W- E350.3 -
ISE

ALS WO# HS23081419





ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

NIT AMM - V ISE 350.3

Logbook 32303

Ion Selective Electrode Logbook

[illegible]

HS23081419 Wetchem P-ORTHO

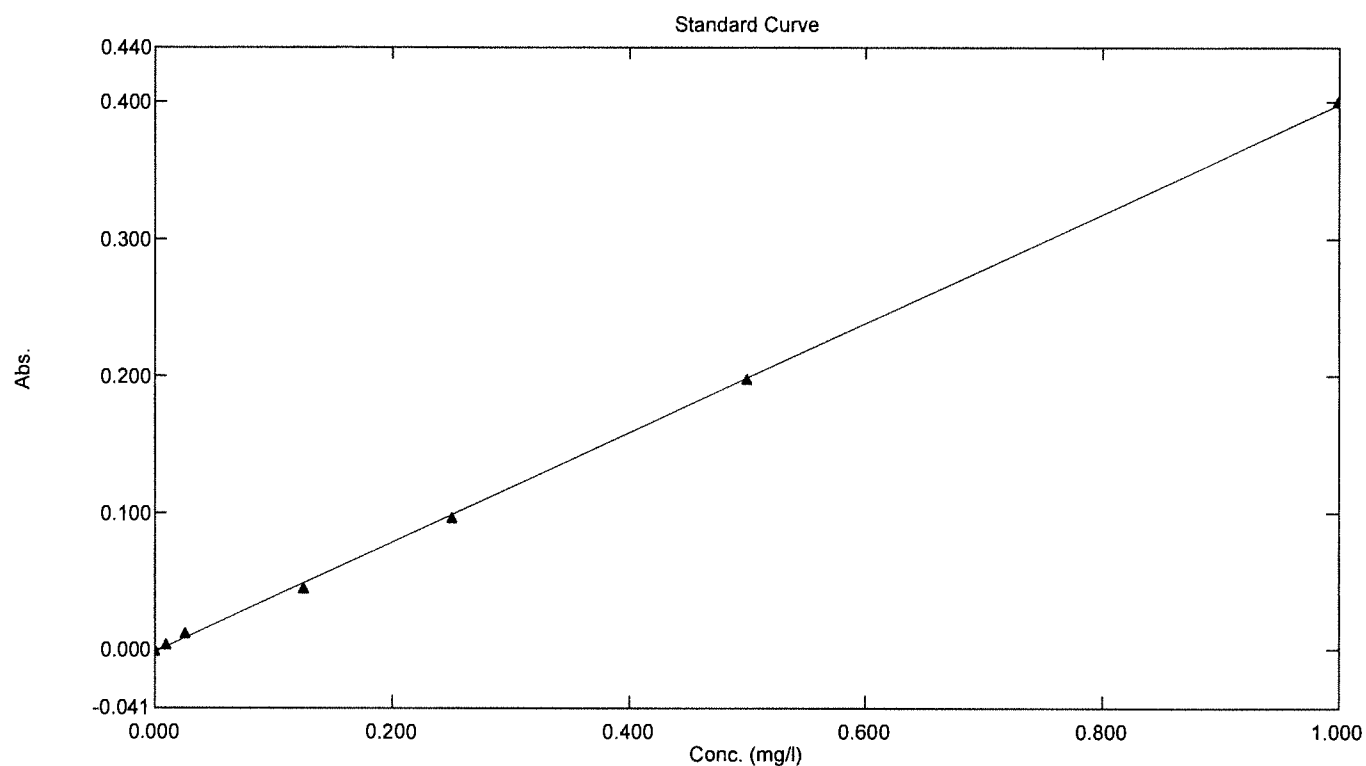
ALS WO# HS23081419



Standard Table Report

08/24/2023 05:43:27 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\P_ORTHO (365.3
METHOD)\2023\08232023_P_ORTHO_W.pho



Correlation Coefficient $r^2 = 0.99971$

Standard Table

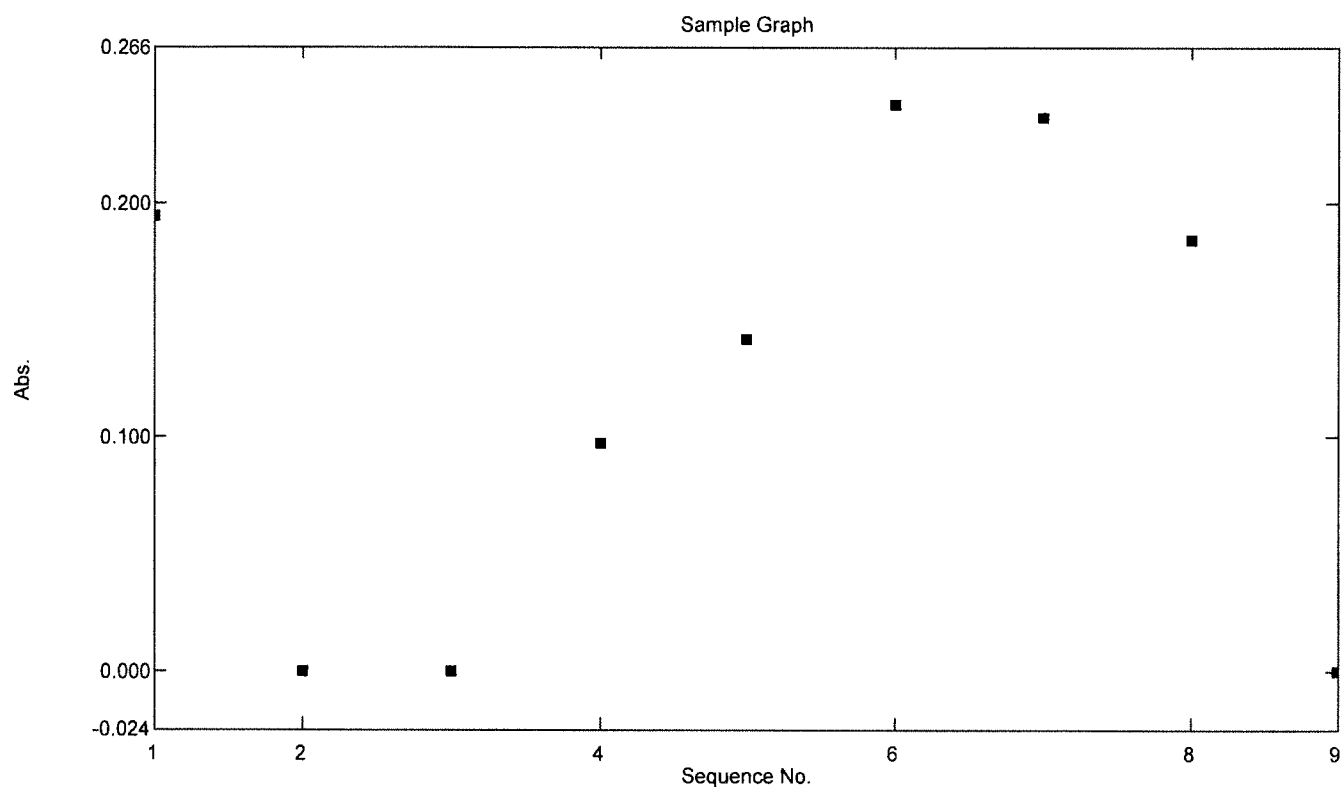
	Sample ID	Type	Ex	Conc	WL650.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.005	1.000	
3	STD3	Standard		0.025	0.012	1.000	
4	STD4	Standard		0.125	0.045	1.000	
5	STD5	Standard		0.250	0.096	1.000	
6	STD6	Standard		0.500	0.197	1.000	
7	STD7	Standard		1.000	0.400	1.000	
8							



Sample Table Report

08/24/2023 05:43:29 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\P_ORTHO (365.3
METHOD)\2023\08232023_P_ORTHO_W.pho



Sample Table

	Sample ID	Date	Time	Conc	WL650.	Comments
1	CCV	08/23/2023	02:00:32 PM	0.489	0.194	322145107 WC-24
2	CCB	08/23/2023	02:00:43 PM	0.004	0.000	11N 3100606911
3	MBLK	08/23/2023	02:00:48 PM	0.003	-0.000	A.MOLYBDATE 322143903
4	LCS	08/23/2023	02:01:05 PM	0.248	0.098	322145209 WC-23
5	HS23081419.01	08/23/2023	02:01:38 PM	0.359	0.142	A.ACID 322143902
6	HS23081419.01MS	08/23/2023	02:03:49 PM	0.609	0.242	
7	HS23081419.01MSD	08/23/2023	02:04:06 PM	0.595	0.237	
8	CCV2	08/23/2023	02:04:17 PM	0.464	0.184	
9	CCB2	08/23/2023	02:04:27 PM	0.003	0.000	
10						



HS23081419 Wetchem TOC_W

ALS WO# HS23081419



C:\TOC-L\Data\2023_06_21_002.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
1	Standard	NPOC	CALIBRATION		06_21_2023	1.000		
2	Unknown	NPOC	ICV		06_21_2023	1.000	NPOC:7.789mg/L	
3	Unknown	NPOC	ICB		06_21_2023	1.000	NPOC:0.1521mg/L	



C:\TOC-L\Data\2023_06_21_002.tlx

	Status	Date / Time	Vial
1	Completed	6/21/2023 6:	50, 51, 52, 5
2	Completed	6/21/2023 7:	57
3	Completed	6/21/2023 7:	58

TOC-Control L Report

2023_06_21_002.tlx

Instr.Information

Instrument Options
Catalyst

TOC/ASI/IC Unit/
Regular Sensitivity

Cal. Curve

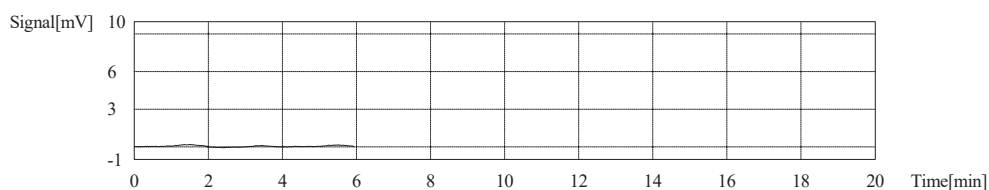
Sample Name: CALIBRATION
Sample ID:
Cal. Curve: 06_21_2023B.2023_06_21_17_09_19.cal
Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.3456	50uL	1.000	*****		6/21/2023 5:18:00 PM
2	0.2872	50uL	1.000	*****		6/21/2023 5:20:19 PM
3	0.1081	50uL	1.000	*****		6/21/2023 5:22:27 PM

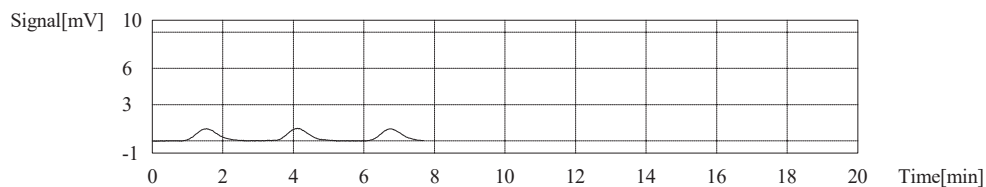
Acid Add. 1.500%
Spurge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 0.2470



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.170	50uL	1.000	*****		6/21/2023 5:31:50 PM
2	4.088	50uL	1.000	*****		6/21/2023 5:34:43 PM
3	3.977	50uL	1.000	*****		6/21/2023 5:37:25 PM

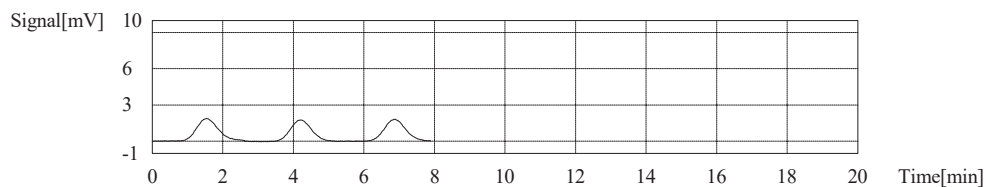
Acid Add. 1.500%
Spurge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 4.078



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.677	50uL	1.000	*****		6/21/2023 5:46:50 PM
2	7.596	50uL	1.000	*****		6/21/2023 5:49:44 PM
3	7.710	50uL	1.000	*****		6/21/2023 5:52:35 PM

Acid Add. 1.500%
Spurge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 7.661



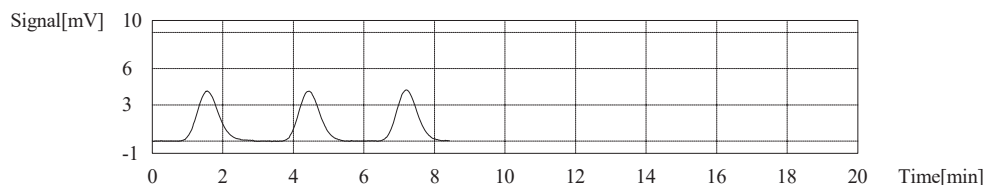
TOC-Control L Report

2023_06_21_002.tlx

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	17.78	50uL	1.000	*****		6/21/2023 6:02:16 PM
2	17.59	50uL	1.000	*****		6/21/2023 6:05:16 PM
3	17.72	50uL	1.000	*****		6/21/2023 6:08:17 PM

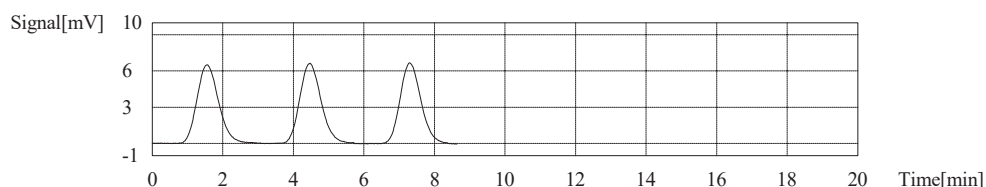
Acid Add. 1.500%
 Sparge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 17.70



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	27.66	50uL	1.000	*****		6/21/2023 6:18:00 PM
2	27.76	50uL	1.000	*****		6/21/2023 6:21:02 PM
3	27.86	50uL	1.000	*****		6/21/2023 6:24:11 PM

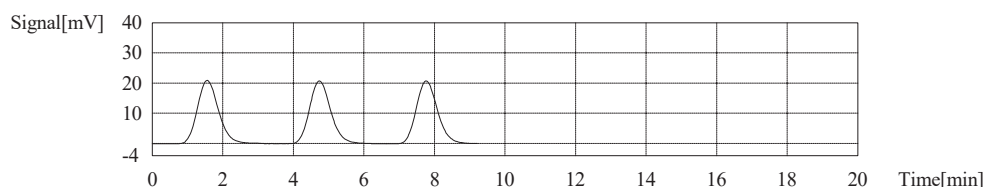
Acid Add. 1.500%
 Sparge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 27.76



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	87.98	50uL	1.000	*****		6/21/2023 6:34:09 PM
2	87.22	50uL	1.000	*****		6/21/2023 6:37:26 PM
3	87.78	50uL	1.000	*****		6/21/2023 6:40:41 PM

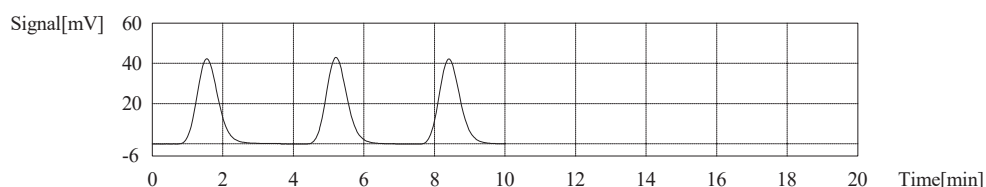
Acid Add. 1.500%
 Sparge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 87.66



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	179.6	50uL	1.000	*****		6/21/2023 6:51:07 PM
2	180.8	50uL	1.000	*****		6/21/2023 6:54:35 PM
3	177.8	50uL	1.000	*****		6/21/2023 6:57:57 PM

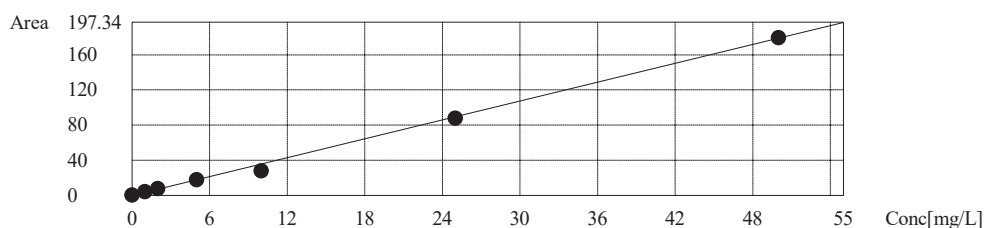
Acid Add. 1.500%
 Sparge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 179.4



TOC-Control L Report

2023_06_21_002.tlx

Slope: 3.583
 Intercept: 0.000
 r^2 : 0.9977
 r : 0.9989
 RSE(%): N/A
 Zero Shift: Yes



Sample

Sample Name: ICV
 Sample ID:
 Origin: 06_21_2023B.cal
 Status: Completed
 Chk. Result

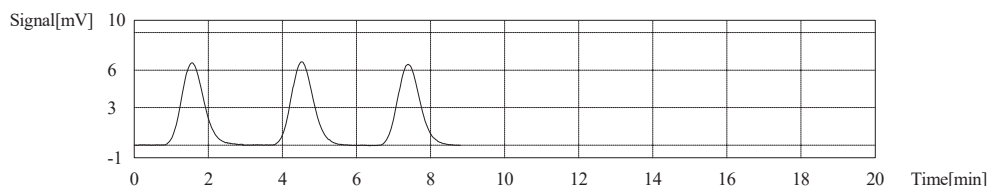
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.789mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.72	7.736mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:07:41 PM
2	28.05	7.829mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:10:48 PM
3	27.95	7.801mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:14:01 PM

Mean Area: 27.91
 Mean Conc.: 7.789mg/L



Sample

Sample Name: ICB
 Sample ID:
 Origin: 06_21_2023B.cal
 Status: Completed
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1521mg/L

1. Det

Anal.: NPOC

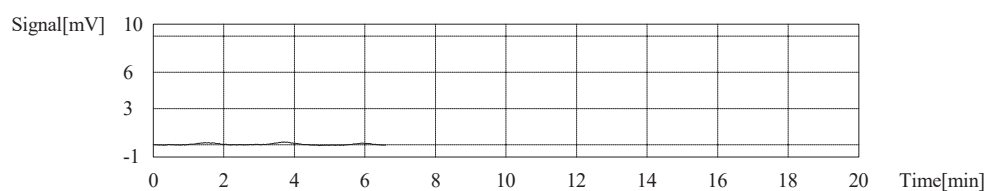
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4802	0.1340mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:23:00 PM
2	0.6284	0.1754mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:25:29 PM
3	0.5263	0.1469mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:27:52 PM



TOC-Control L Report

2023_06_21_002.tlx

Mean Area 0.5450
Mean Conc. 0.1521mg/L



	Sample Name	Sample ID	Origin	Result	Status	Date / Time	Vial
1	CCV	322145805	06_21_20	NPOC:25.93mg/L	Completed	8/28/2023 10:37:	1
2	CCB		06_21_20	NPOC:0.2497mg/L	Completed	8/28/2023 11:30:	2
3	MBLK-08282023		06_21_20	NPOC:0.000mg/L	Completed	8/28/2023 11:43:	3
4	LCS-08282023	3100607901	06_21_20	NPOC:10.41mg/L	Completed	8/28/2023 11:59:	4
5	LCSD-08282023		06_21_20	NPOC:10.34mg/L	Completed	8/28/2023 12:14:	5
6	HS23081419-01	TOC_W	06_21_20	NPOC:5.989mg/L	Completed	8/28/2023 12:29:	6
7	HS23081277-01		06_21_20	NPOC:23.04mg/L	Completed	8/28/2023 12:47:	7
8	HS23081277-01MS		06_21_20	NPOC:33.79mg/L	Completed	8/28/2023 1:05:3	8
9	HS23081277-02		06_21_20	NPOC:6.867mg/L	Completed	8/28/2023 1:20:5	9
10	HS23081277-03DF1		06_21_20	NPOC:4.147mg/L	Completed	8/28/2023 1:35:5	10
11	HS23081277-04DF1		06_21_20	NPOC:3.246mg/L	Completed	8/28/2023 1:50:4	11
12	HS23081277-05DF2		06_21_20	NPOC:2.903mg/L	Completed	8/28/2023 2:05:2	12
13	CCV	322145805	06_21_20	NPOC:25.60mg/L	Completed	8/28/2023 2:21:5	1
14	CCB		06_21_20	NPOC:0.08490mg/L	Completed	8/28/2023 2:34:5	2
15	HS23081277-06DF2		06_21_20	NPOC:7.307mg/L	Completed	8/28/2023 2:50:5	13
16	HS23081653-01		06_21_20	NPOC:5.937mg/L	Completed	8/28/2023 3:06:2	14
17	HS23081653-02		06_21_20	NPOC:53.45mg/L	Completed	8/28/2023 3:22:4	15
18	HS23081653-03		06_21_20	NPOC:1.187mg/L	Completed	8/28/2023 3:36:5	16
19	CCV	322145805	06_21_20	NPOC:25.18mg/L	Completed	8/28/2023 3:53:0	1
20	CCB		06_21_20	NPOC:0.08463mg/L	Completed	8/28/2023 4:06:1	2
21	MBLK-08282023		06_21_20	NPOC:0.07151mg/L	Completed	8/28/2023 4:19:2	3
22	LCS-08282023	3100607901	06_21_20	NPOC:10.27mg/L	Completed	8/28/2023 4:35:2	4
23	LCSD-08282023		06_21_20	NPOC:10.14mg/L	Completed	8/28/2023 4:51:1	5
24	HS23081653-04	TOC_W	06_21_20	NPOC:60.89mg/L	Completed	8/28/2023 5:07:5	17
25	HS23081653-04MS		06_21_20	NPOC:69.78mg/L	Completed	8/28/2023 5:24:1	18
26	HS23081653-05DF5		06_21_20	NPOC:0.6752mg/L	Completed	8/28/2023 5:38:1	19
27	RINSE		06_21_20	NPOC:0.1614mg/L	Completed	8/28/2023 5:51:4	37
28	HS23081653-06		06_21_20	NPOC:15.64mg/L	Completed	8/28/2023 6:07:2	20
29	HS23081675-01		06_21_20	NPOC:2.833mg/L	Completed	8/28/2023 6:22:0	21
30	HS23081675-02		06_21_20	NPOC:5.386mg/L	Completed	8/28/2023 6:37:1	22
31	HS23081675-03		06_21_20	NPOC:2.118mg/L	Completed	8/28/2023 6:51:5	23
32	CCV	322145805	06_21_20	NPOC:25.54mg/L	Completed	8/28/2023 7:08:2	28
33	CCB		06_21_20	NPOC:0.1557mg/L	Completed	8/28/2023 7:21:3	29
34	HS23081675-04		06_21_20	NPOC:3.637mg/L	Completed	8/28/2023 7:36:3	24
35	HS23081416-01	TOC_W 5310B	06_21_20	NPOC:14.37mg/L	Completed	8/28/2023 7:52:1	25
36	HS23081542-01		06_21_20	NPOC:6.185mg/L	Completed	8/28/2023 8:07:3	26
37	HS23081543-01		06_21_20	NPOC:4.830mg/L	Completed	8/28/2023 8:22:3	27
38	CCV	322145805	06_21_20	NPOC:26.09mg/L	Completed	8/28/2023 8:39:0	28
39	CCB		06_21_20	NPOC:0.2190mg/L	Completed	8/28/2023 8:52:3	29

TOC-Control L Report

2023_08_28_001.tlx

Instr.Information

Instrument Options
Catalyst

TOC/ASI/IC Unit/
Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 322145805
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

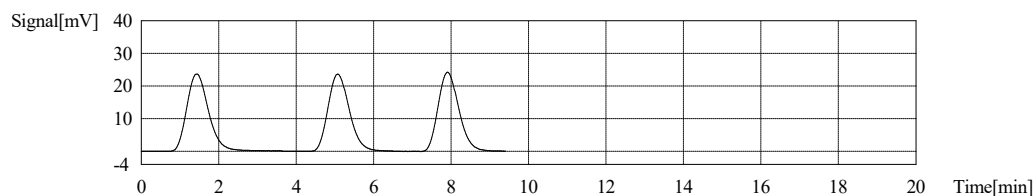
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.93mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	92.72	26.24mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 10:31:35 AM
2	90.87	25.72mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 10:34:41 AM
3	91.32	25.84mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 10:37:52 AM

Mean Area 91.64
Mean Conc. 25.93mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2497mg/L

1. Det

Anal.: NPOC

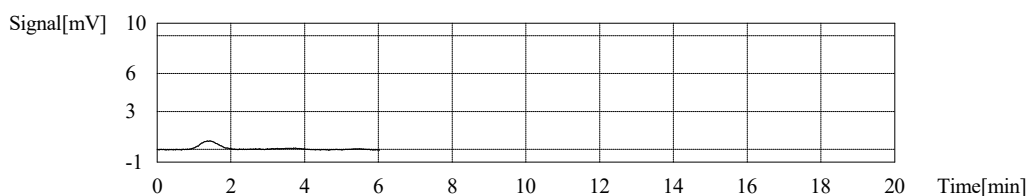
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.367	0.6699mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 11:26:34 AM
2	0.2802	0.07930mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 11:28:41 AM
3	0.000	0.000mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 11:30:48 AM



TOC-Control L Report

2023_08_28_001.tlx

Mean Area 0.8824
Mean Conc. 0.2497mg/L



Sample

Sample Name: MBLK-08282023
Sample ID:
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

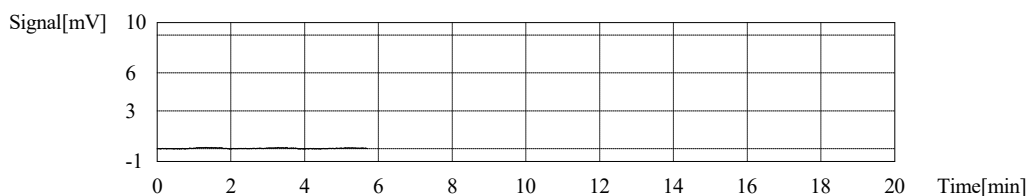
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.000mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 11:39:27 AM
2	0.000	0.000mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 11:41:34 AM
3	0.000	0.000mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 11:43:42 AM

Mean Area 0.000
Mean Conc. 0.000mg/L



Sample

Sample Name: LCS-08282023
Sample ID: 3100607901
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.41mg/L

1. Det

Anal.: NPOC

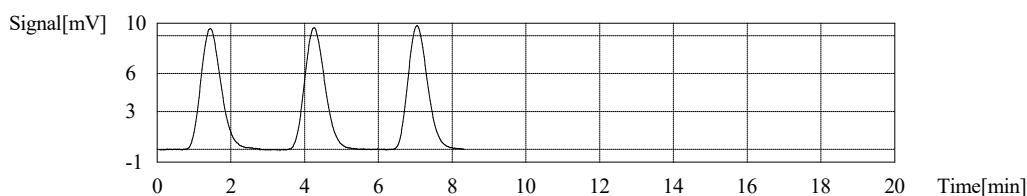
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.70	10.39mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 11:53:14 AM
2	37.17	10.52mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 11:56:19 AM
3	36.53	10.34mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 11:59:15 AM



TOC-Control L Report

2023_08_28_001.tlx

Mean Area 36.80
Mean Conc. 10.41mg/L



Sample

Sample Name: LCSD-08282023
Sample ID:
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

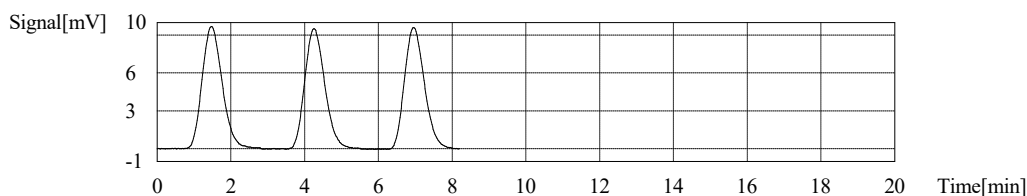
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.34mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.76	10.40mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 12:08:48 PM
2	36.27	10.26mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 12:11:46 PM
3	36.60	10.36mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 12:14:40 PM

Mean Area 36.54
Mean Conc. 10.34mg/L



Sample

Sample Name: HS23081419-01
Sample ID: TOC_W
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.989mg/L

1. Det

Anal.: NPOC

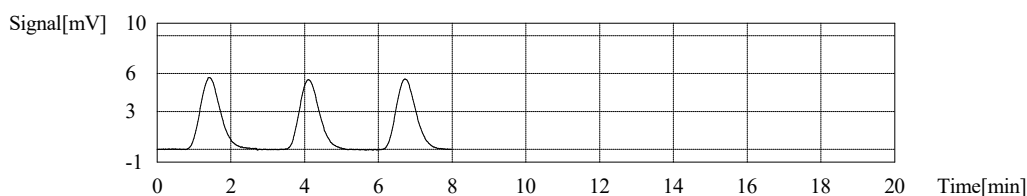
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.56	6.102mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 12:24:07 PM
2	20.87	5.907mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 12:26:59 PM
3	21.05	5.957mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 12:29:52 PM



TOC-Control L Report

2023_08_28_001.tlx

Mean Area 21.16
Mean Conc. 5.989mg/L



Sample

Sample Name: HS23081277-01
Sample ID:
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

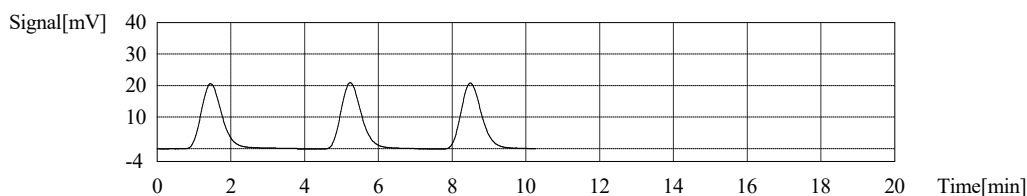
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.04mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.26	23.00mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 12:40:25 PM
2	81.46	23.05mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 12:43:54 PM
3	81.47	23.06mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 12:47:23 PM

Mean Area 81.40
Mean Conc. 23.04mg/L



Sample

Sample Name: HS23081277-01MS
Sample ID:
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.79mg/L

1. Det

Anal.: NPOC

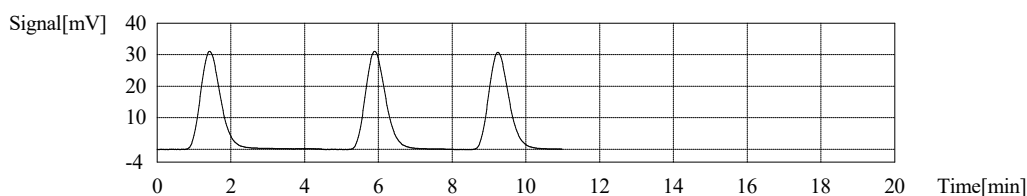
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	119.8	33.91mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 12:58:35 PM
2	120.0	33.96mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 1:02:11 PM
3	118.4	33.51mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 1:05:37 PM



TOC-Control L Report

2023_08_28_001.tlx

Mean Area 119.4
Mean Conc. 33.79mg/L



Sample

Sample Name: CCV
Sample ID: 322145805
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

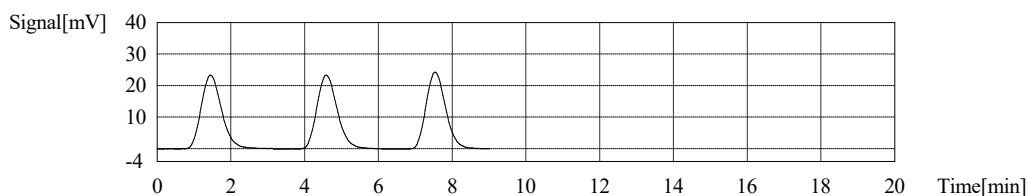
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	90.44	25.60mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 2:15:27 PM
2	90.28	25.55mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 2:18:40 PM
3	90.67	25.66mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 2:21:50 PM

Mean Area 90.46
Mean Conc. 25.60mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08490mg/L

1. Det

Anal.: NPOC

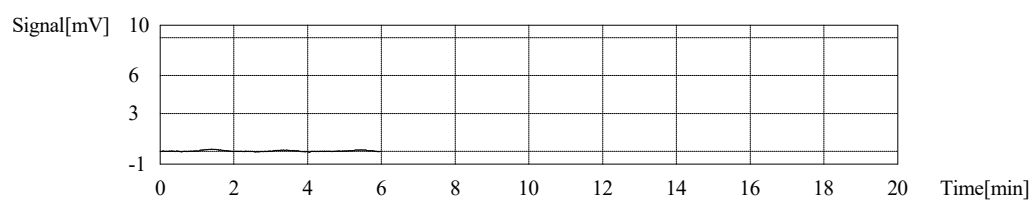
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4455	0.1261mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 2:30:32 PM
2	0.4544	0.1286mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 2:32:52 PM
3	0.000	0.000mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	8/28/2023 2:34:59 PM



TOC-Control L Report

2023_08_28_001.tlx

Mean Area 0.3000
Mean Conc. 0.08490mg/L



HS23081419 E2300763 Final Report Level IV

ALS WO# HS23081419





August 24, 2023

Service Request No:E2300763

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS23081419

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory August 23, 2023
For your reference, these analyses have been assigned our service request number **E2300763**.

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: HS23081419
Sample Matrix: Water

Service Request No.: E2300763
Date Received: 08/23/23

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 II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 08/23/23

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

Data Validation Notes and Discussion**Precision and Accuracy:**

EQ2300410: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

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

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



Client: ALS Environmental - US
Project: HS23081419

Service Request:E2300763

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E2300763-001	LH18/24-SP650_082223_BIX	8/22/2023	1300
E2300763-002	LH18/24-SP650_082223_AIX	8/22/2023	1300



Service Request Summary

Folder #: E2300763
Client Name: ALS Environmental - US
Project Name: HS23081419
Project Number:

Report To: James Guin
 ALS Environmental - US
 10450 Standcliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 08/23/23
Internal Due Date: 8/24/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23081419
EDD: BASIC_WQC_CASNo
 _LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

Rush

				HOUSTON
Lab Samp No.	Client Samp No	Matrix	Collected	CIO4 DOD/6850
E2300763-001	LH18/24-SP650_082223_BIX	Water	08/22/23 1300	IV
E2300763-002	LH18/24-SP650_082223_AIX	Water	08/22/23 1300	IV



Service Request Summary

Folder #: E2300763
Client Name: ALS Environmental - US
Project Name: HS23081419
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Standcliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 08/23/23
Internal Due Date: 8/24/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23081419
EDD: BASIC_WQC_CASNo
_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush



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
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
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	343-2023	6/30/2024
Michigan Department of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Conservation	TN04016-2023	4/30/2024
Texas Commission on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932023-14	7/31/2024
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: Dept of Defense

COC ID: 22816

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff Road Suite 210
Houston, TX 77084

Phone: +1 281 530 5656

RUSH

CUSTOMER INFORMATION:

Company: ALS Houston
Contact: James Guin
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Email: James.Guin@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: HS23081419
TSR: Holly Tignac

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
1. HS23081419-02	LH18/24-SP650_082223_BIX	Water	22 Aug 2023 13:00
	6850-Perch, DOD Level II & Level IV in separate pdf		24 Aug 2023
2. HS23081419-03	LH18/24-SP650_082223_AIX	Water	22 Aug 2023 13:00
	6850-Perch, DOD Level II & Level IV in separate pdf		24 Aug 2023

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

QC Level: DOD IV (DoD Data Package)

E2300763

ALS Environmental - US
HS23081419

5



Relinquished By: _____

Date/Time: _____

Received By: _____

Date/Time: 8-23-23 1205

Cooler ID(s): _____

Temperature(s): _____

10450 Stancliff Rd, Ste 210 Houston, TX 77099





Cooler Receipt Form

Project Chemist JK

Client/Project

ALS

Thermometer ID

1R31

Date/Time Received:

8-23-23

Initials:

gy

Date/Time Logged in:

8-23-23

Initials

gy

1. Method of delivery:

☐ US Mail☐ Fed Ex☐ UPS☐ DHL☒ ALS Courier☐ Client

2. Samples received in:

☒ Cooler☐ Box☐ Envelope☐ Other

3. Were custody seals on coolers?

☐ Yes☒ No

If yes, how many and where?

Were they intact?

☐ Yes☐ No☒ N/A

Were they signed and dated?

☐ Yes☐ No☒ N/A

4. Packing Material:

☐ Inserts☒ Baggies☐ Bubble Wrap☐ Gel Packs☒ Wet Ice☐ Sleeves☐ Other

5. Foreign or Regulated Soil?

☐ Yes☐ No

Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
		<u>8-23-23</u>	<u>1204</u>	<u>gy</u>	<u>3.7</u>	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)?

☒ Yes☐ No

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

☒ Yes☐ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)?

☒ Yes☐ No

9. Were appropriate bottles/containers and volumes received for the requested tests?

☒ Yes☐ No

10. Did sample labels and tags agree with custody documents?

☒ Yes☐ No

Notes, Discrepancies, & Resolutions:

Service request Label:

E2300763**5**ALS Environmental - US
HS23081419



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

Prep Run#: 425282
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 8/24/23 09:20

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300753-001	WP Perchlorate; Lot R36604-53	.01	6850/CIO4			Water	10mL	
2	E2300763-001	LH18/24-SP650_082223_BIX	.01	6850/CIO4 DOD			Water	10mL	
3	E2300763-002	LH18/24-SP650_082223_AIX	.01	6850/CIO4 DOD			Water	10mL	
4	E2300764-001	GW-MW-29D-20230821-01	.01	6850/CIO4			Ground Water	10mL	
5	E2300764-002	GW-MW-66D2-20230821-01	.01	6850/CIO4			Ground Water	10mL	
6	E2300764-003	GW-MW-89D-20230822-01	.01	6850/CIO4			Ground Water	10mL	
7	E2300764-004	GW-BROP-02-20230822-01	.01	6850/CIO4			Ground Water	10mL	
8	E2300764-005	GW-MW-16-20230822-01	.01	6850/CIO4			Ground Water	10mL	
9	E2300764-006	GW-BROP-01-20230822-01	.01	6850/CIO4			Ground Water	10mL	
10	E2300764-007	GW-MW-97-20230822-01	.01	6850/CIO4			Ground Water	10mL	
11	E2300764-008	GW-MW-14-20230822-01	.01	6850/CIO4			Ground Water	10mL	
12	E2300765-001	Condensation Water A	.01	6850/CIO4			Water	10mL	
13	E2300765-002	Condensation Water B	.01	6850/CIO4			Water	10mL	
14	E2300765-003	Condensation Water C	.01	6850/CIO4			Water	10mL	
15	E2300765-004	Condensation Water D	.01	6850/CIO4			Water	10mL	
16	E2300765-005	Condensation Water E	.01	6850/CIO4			Water	10mL	
17	EQ2300410-01	MB		6850/CIO4			Liquid	10mL	
18	EQ2300410-02	LCS		6850/CIO4			Liquid	10mL	
19	EQ2300410-03	DLCS		6850/CIO4			Liquid	10mL	

Spiking Solutions

Name:	Perchlorate Intermediate Stock1	Inventory ID	230342	Logbook Ref:	Perchlorate (1st Source)	Expires On:	03/07/2024
-------	---------------------------------	--------------	--------	--------------	--------------------------	-------------	------------

EQ2300410-02 1.00μL EQ2300410-02 1.00μL EQ2300410-03 1.00μL EQ2300410-03 1.00μL

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	230372	Logbook Ref:	Perchlorate Internal Standard	Expires On:	04/30/2024
-------	--------------------------------------	--------------	--------	--------------	-------------------------------	-------------	------------

E2300753-001 100.00μL E2300763-001 100.00μL E2300763-002 100.00μL E2300764-001 100.00μL E2300764-002 100.00μL E2300764-003 100.00μL
E2300764-004 100.00μL E2300764-005 100.00μL E2300764-006 100.00μL E2300764-007 100.00μL E2300764-008 100.00μL E2300765-001 100.00μL
E2300765-002 100.00μL E2300765-003 100.00μL E2300765-004 100.00μL E2300765-005 100.00μL EQ2300410-01 100.00μL EQ2300410-01 100.00μL
EQ2300410-02 100.00μL EQ2300410-02 100.00μL EQ2300410-03 100.00μL EQ2300410-03 100.00μL



Preparation Information Benchsheet

Prep Run#: 425282
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 8/24/23 09:20

Preparation Steps

Step: Preparation
Started: 8/24/23 09:20
Finished: 8/24/23 13:42
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____	Date: _____	<u>Extracts Examined</u>
Received By: _____	Date: _____	Yes No



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: HS23081419
Sample Matrix: Water
Sample Name: LH18/24-SP650_082223_BIX
Lab Code: E2300763-001

Service Request: E2300763
Date Collected: 8/22/23 1300
Date Received: 8/23/23
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	10.3		0.100	0.0500	0.0250	1	8/24/23	8/24/23 13:10	425282	815049	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23081419
Sample Matrix: Water
Sample Name: LH18/24-SP650_082223_AIX
Lab Code: E2300763-002

Service Request: E2300763
Date Collected: 8/22/23 1300
Date Received: 8/23/23
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	307		2.00	1.00	0.500	20	8/24/23	8/24/23 13:16	425282	815049	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23081419
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: EQ2300410-01

Service Request: E2300763
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	8/24/23	8/24/23 12:45	425282	815049	





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: HS23081419
Sample Matrix: Water

Service Request: E2300763
Date Analyzed: 8/24/23

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: 425282

Analyte Name	Lab Control Sample EQ2300410-02			Duplicate Lab Control Sample EQ2300410-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perchlorate	0.0989	0.100	99	0.115	0.100	115	84 - 119	15	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: HS23081419
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: EQ2300410-02

Service Request: E2300763
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	0.0989	J	0.100	0.0500	0.0250	1	8/24/23	8/24/23 13:03	425282	815049	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23081419
Sample Matrix: Water
Sample Name: Duplicate Lab Control Sample
Lab Code: EQ2300410-03

Service Request: E2300763
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	0.115		0.100	0.0500	0.0250	1	8/24/23	8/24/23 12:57	425282	815049	





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





20230802

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: KN

ICAL Date: 8/2/2023

Cal. Std. xp: 03/07/2024

ICAL ID: EC2300012

Mobile Phases : A:20mM ammonium acetate in water 230388 B:Acetonitrile 229152

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB	2230802-001	Perchlorate6850c.lcm	1x		8/2/2023 13:05
2	IB	2230802-002	Perchlorate6850c.lcm	1x		8/2/2023 13:11
3	Perchlorate ICAL 1	2230802-003	Perchlorate6850c.lcm	1x	230373	8/2/2023 13:17
4	Perchlorate ICAL 2	2230802-004	Perchlorate6850c.lcm	1x	230375	8/2/2023 13:23
5	Perchlorate ICAL 3	2230802-005	Perchlorate6850c.lcm	1x	230376	8/2/2023 13:28
6	Perchlorate ICAL 4	2230802-006	Perchlorate6850c.lcm	1x	230377	8/2/2023 13:34
7	Perchlorate ICAL 5	2230802-007	Perchlorate6850c.lcm	1x	230378	8/2/2023 13:39
8	Perchlorate ICAL 6	2230802-008	Perchlorate6850c.lcm	1x	230379	8/2/2023 13:45
9	Perchlorate ICAL 7	2230802-009	Perchlorate6850c.lcm	1x	230380	8/2/2023 13:50
10	Perchlorate ICAL 8	2230802-010	Perchlorate6850c.lcm	1x	230381	8/2/2023 13:56
11	Perchlorate ICAL 9	2230802-011	Perchlorate6850c.lcm	1x	230382	8/2/2023 14:02
12	Perchlorate ICAL 10	2230802-012	Perchlorate6850c.lcm	1x	230383	8/2/2023 14:07
13	PerchlorateICV	2230802-013	Perchlorate6850c.lcm	1x	230385	8/2/2023 14:19

Initial Calibration - Detailed Report

Calibration ID: EC2300012

Instrument ID: E-LCMS-01

Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300012-01	Perchlorate ICAL 1	2230802-003	08/02/2023 13:17
02	EC2300012-02	Perchlorate ICAL 2	2230802-004	08/02/2023 13:23
03	EC2300012-03	Perchlorate ICAL 3	2230802-005	08/02/2023 13:28
04	EC2300012-04	Perchlorate ICAL 4	2230802-006	08/02/2023 13:34
05	EC2300012-05	Perchlorate ICAL 5	2230802-007	08/02/2023 13:39
06	EC2300012-06	Perchlorate ICAL 6	2230802-008	08/02/2023 13:45
07	EC2300012-07	Perchlorate ICAL 7	2230802-009	08/02/2023 13:50
08	EC2300012-08	Perchlorate ICAL 8	2230802-010	08/02/2023 13:56
09	EC2300012-09	Perchlorate ICAL 9	2230802-011	08/02/2023 14:02
10	EC2300012-10	Perchlorate ICAL 10	2230802-012	08/02/2023 14:07

Analyte**Curve Fit****Weighting****Perchlorate****Average RF**

RSD = 2.086

Average RF = 0.1475

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1428	02	0.5000	0.1421	03	0.7000	0.1457	04	1.0000	0.149
05	2.0000	0.1515	06	5.0000	0.1475	07	10.0000	0.1503	08	20.0000	0.1477
09	30.0000	0.1485	10	50.0000	0.1496						

Analyte**Perchlorate**

RSE = 2.09

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0968	-3.2	02	0.5000	0.482	-3.6	03	0.7000	0.692	-1.2
04	1.0000	1.01	1.0	05	2.0000	2.05	2.7	06	5.0000	5.00	-0.0
07	10.0000	10.2	1.9	08	20.0000	20.0	0.2	09	30.0000	30.2	0.7
10	50.0000	50.7	1.4								



Initial Calibration Verification Summary Report

Calibration ID:	EC2300012	Instrument ID:	E-LCMS-01
Datafile ID:	2230802-013	Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300012-11	T	Average RF	10	10.670	ng/mL	6.7	<= 15



Insight Report

Printed at 8/3/2023 9:30:46 AM

Method File: I:\LCMS01\DATA\20230802\20230802ICAL.lcm

Project File: I:\LCMS01\DATA\20230802\no use\20230802ICAL.damip

Perchlorate ICAL 1

Sample ID: Perchlorate ICAL 1

Date Acquired: 8/2/2023 1:17:39 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-003.lcd

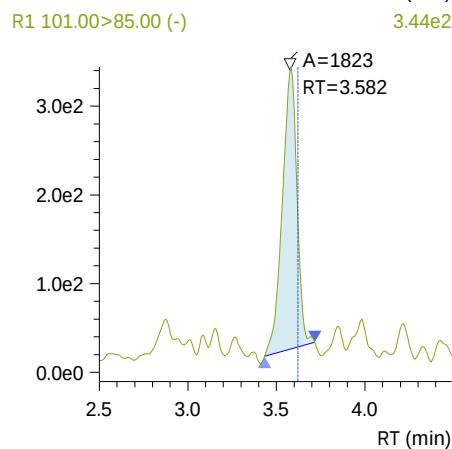
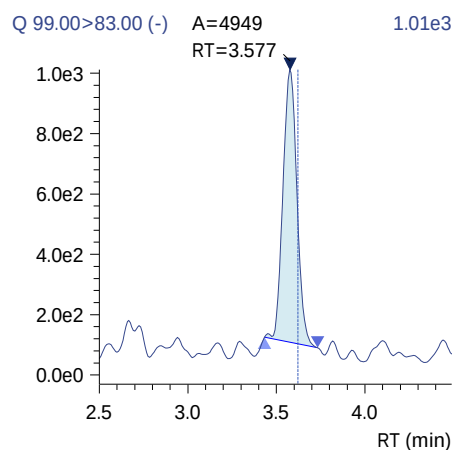
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.577	4949	346538	0.0968	ng/mL	101.00 >85.00	36.83	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.572	346538	346538	1.0000	ng/mL	----	----	

Perchlorate

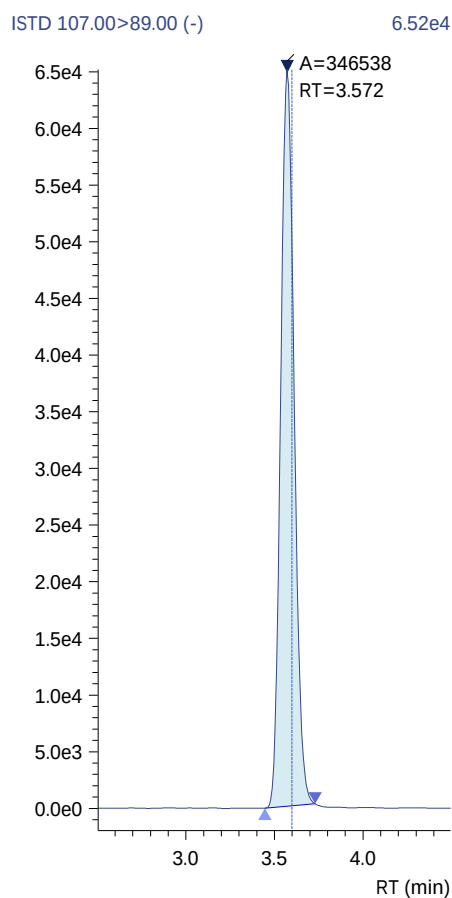
Conc 0.0968

R#1 36.83 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 2

Sample ID: Perchlorate ICAL 2

Date Acquired: 8/2/2023 1:23:13 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-004.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 1

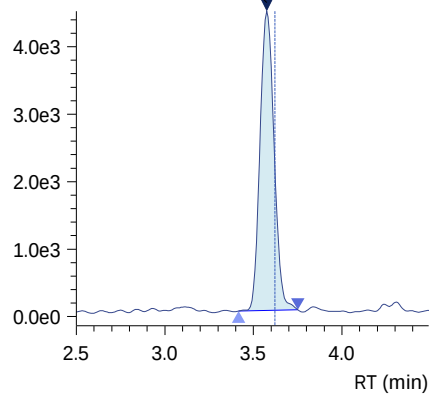
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.576	24530	345149	0.4820	ng/mL	101.00 >85.00	31.03	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.571	345149	345149	1.0000	ng/mL	----	----	

Perchlorate

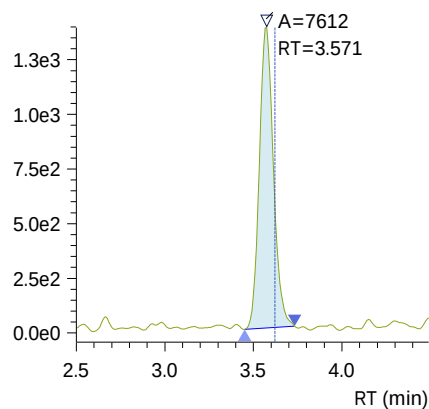
Conc 0.4820

R#1 31.03 (30.41)

Q 99.00>83.00 (-) A=24530 RT=3.576 4.53e3 ISTD 107.00>89.00 (-) 6.45e4



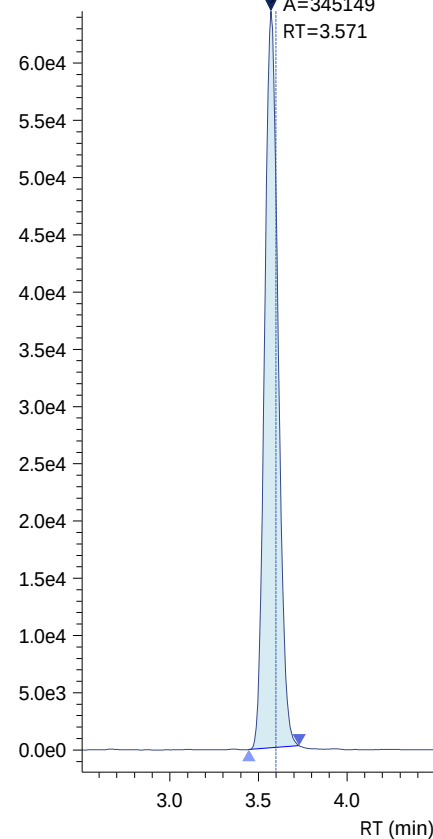
R1 101.00>85.00 (-) 1.40e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=345149 RT=3.571



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 3

Sample ID: Perchlorate ICAL 3

Date Acquired: 8/2/2023 1:28:44 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-005.lcd

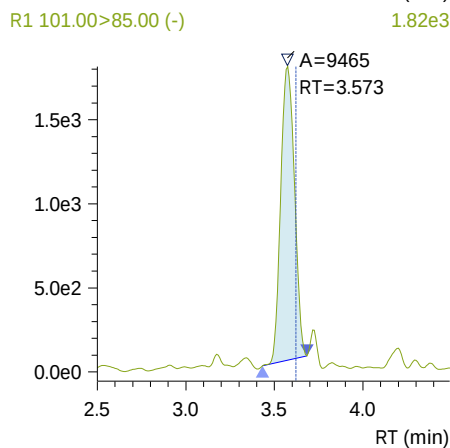
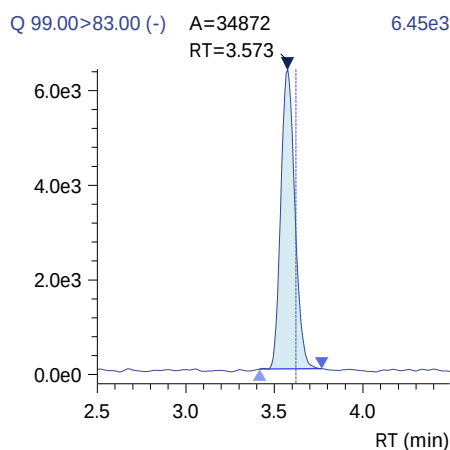
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	34872	341974	0.6915	ng/mL	101.00 >85.00	27.14	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	341974	341974	1.0000	ng/mL	----	----	

Perchlorate

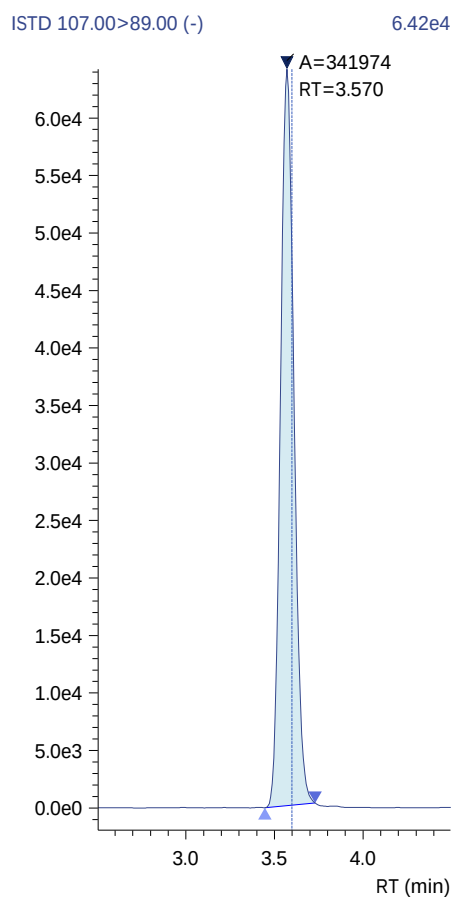
Conc 0.6915

R#1 27.14 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 4

Sample ID: Perchlorate ICAL 4

Date Acquired: 8/2/2023 1:34:20 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-006.lcd

Vial: 4 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	50483	338838	1.0104	ng/mL	101.00 >85.00	28.12	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	338838	338838	1.0000	ng/mL	----	----	

Perchlorate

Conc 1.0104

R#1 28.12 (30.41)

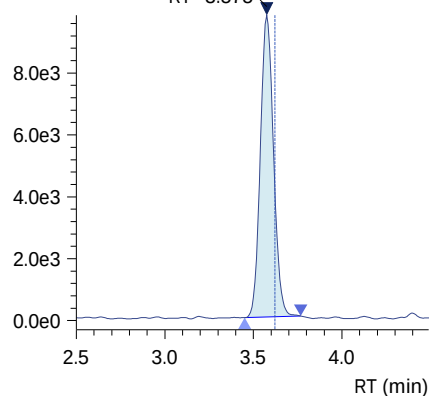
Q 99.00>83.00 (-)

A=50483
RT=3.575

9.87e3

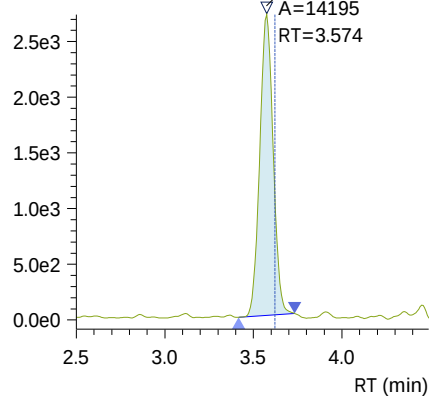
ISTD 107.00>89.00 (-)

6.49e4



R1 101.00>85.00 (-)

2.74e3

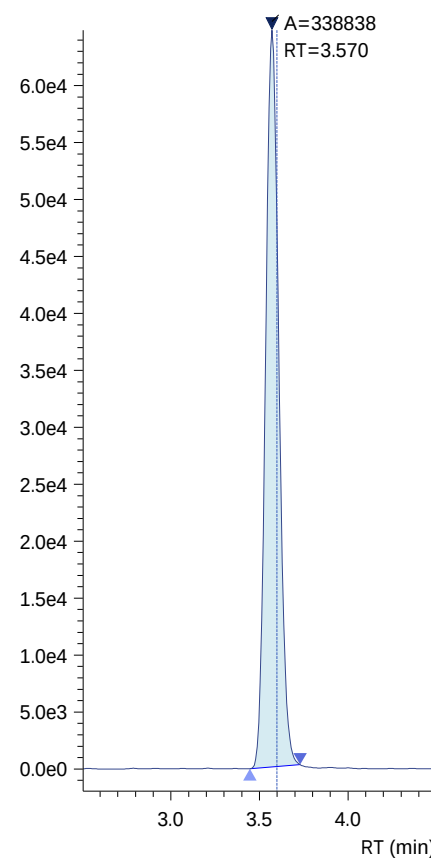
A=14195
RT=3.574

Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)

6.49e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 5

Sample ID: Perchlorate ICAL 5

Date Acquired: 8/2/2023 1:39:51 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-007.lcd

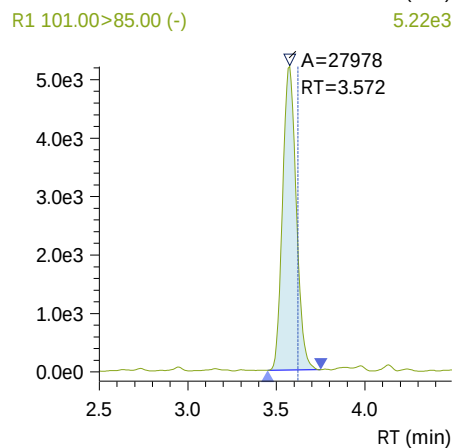
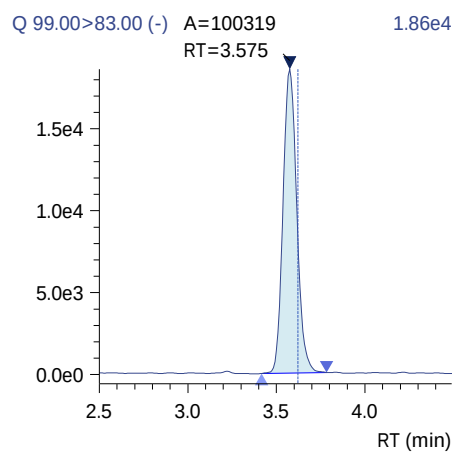
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	100319	331124	2.0545	ng/mL	101.00 >85.00	27.89	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	331124	331124	1.0000	ng/mL	----	----	

Perchlorate

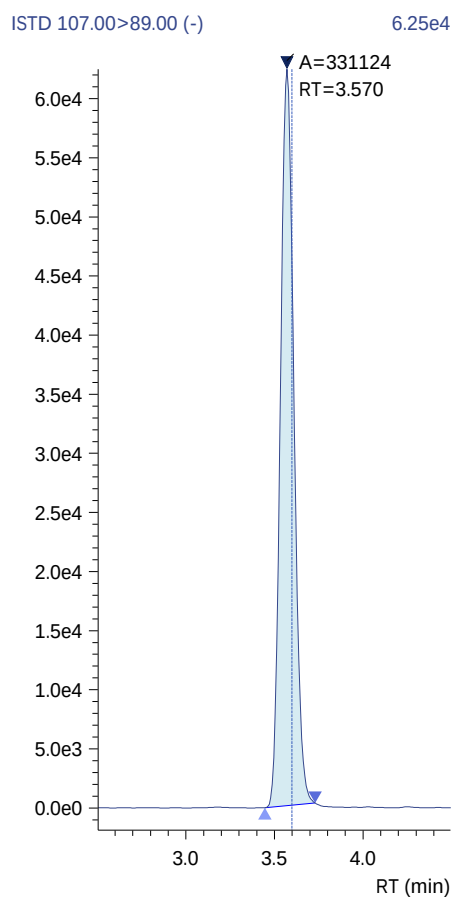
Conc 2.0545

R#1 27.89 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 6

Sample ID: Perchlorate ICAL 6

Date Acquired: 8/2/2023 1:45:24 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-008.lcd

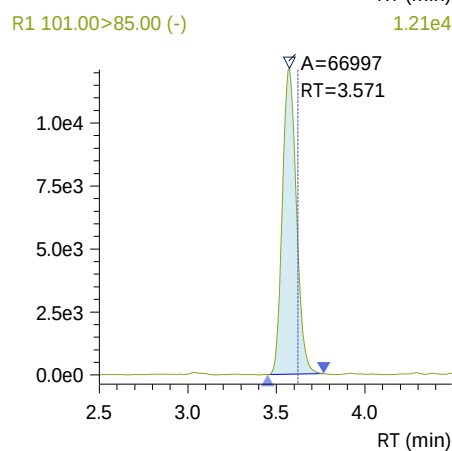
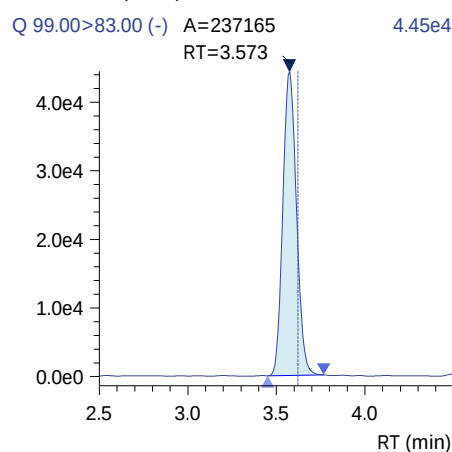
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	237165	321666	5.0000	ng/mL	101.00 >85.00	28.25	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	321666	321666	1.0000	ng/mL	----	----	

Perchlorate

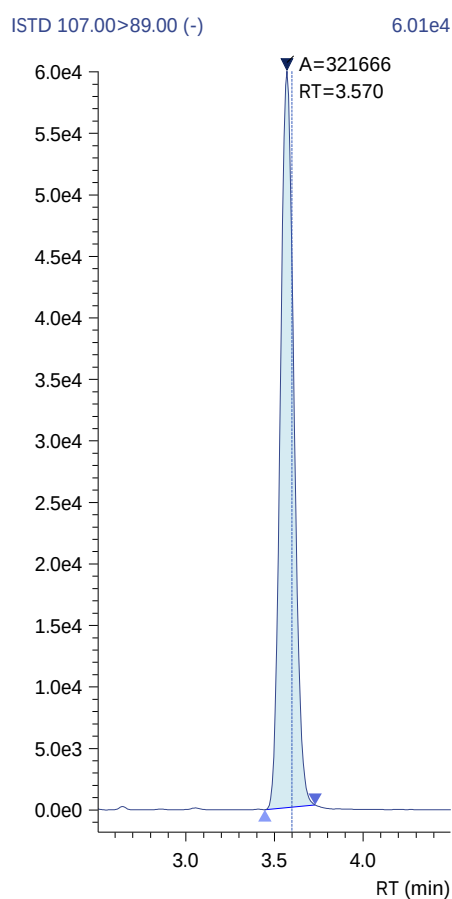
Conc 5.0000

R#1 28.25 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 7

Sample ID: Perchlorate ICAL 7

Date Acquired: 8/2/2023 1:50:57 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-009.lcd

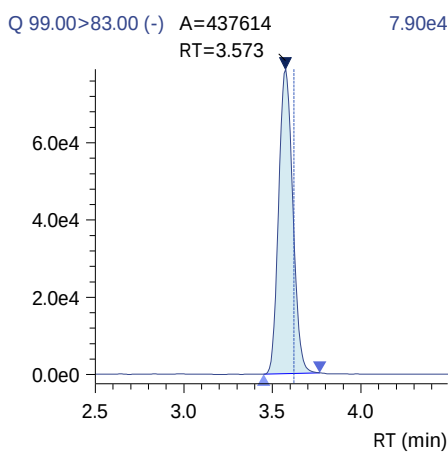
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	437614	291215	10.1905	ng/mL	101.00 >85.00	28.36	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291215	291215	1.0000	ng/mL	----	----	

Perchlorate

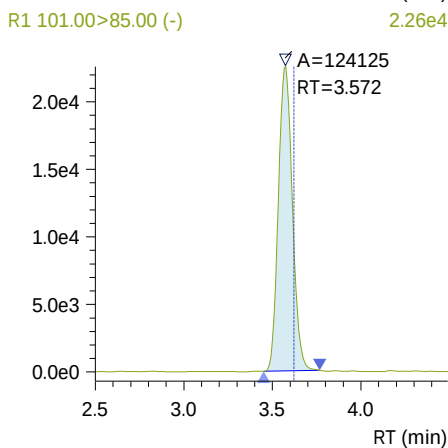
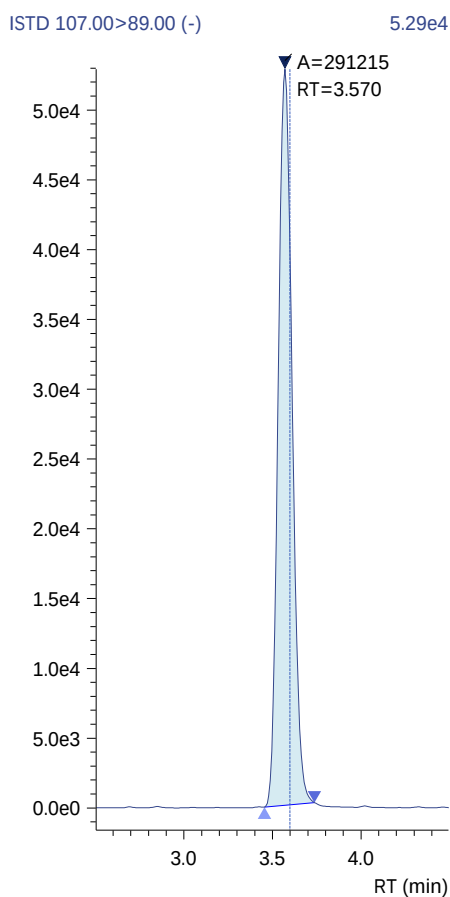
Conc 10.1905

R#1 28.36 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 8

Sample ID: Perchlorate ICAL 8

Date Acquired: 8/2/2023 1:56:33 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-010.lcd

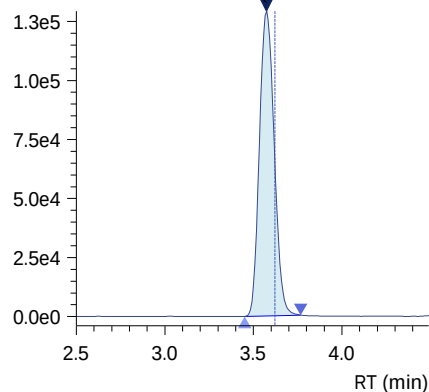
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	749856	253829	20.0336	ng/mL	101.00 >85.00	28.56	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.569	253829	253829	1.0000	ng/mL	----	----	

Perchlorate

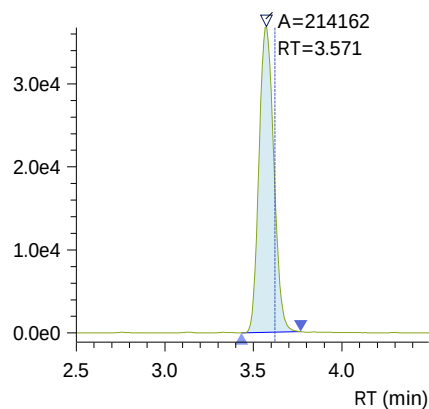
Conc 20.0336

R#1 28.56 (30.41)

Q 99.00>83.00 (-) A=749856
RT=3.574

R1 101.00>85.00 (-)

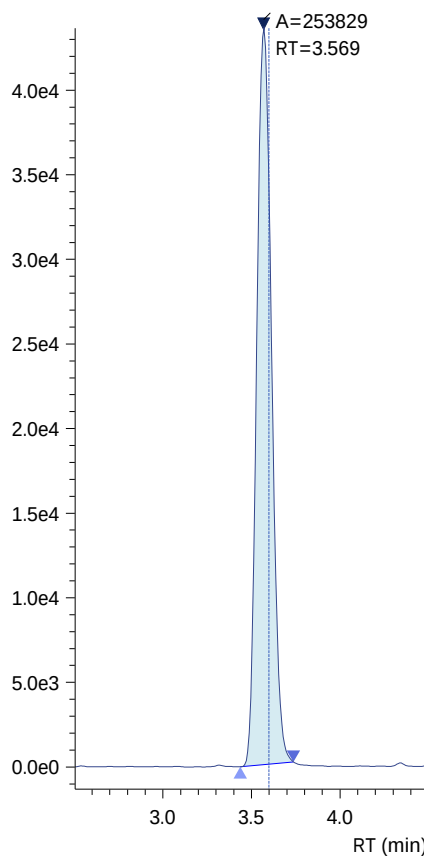
3.68e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.37e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 9

Sample ID: Perchlorate ICAL 9

Date Acquired: 8/2/2023 2:02:07 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-011.lcd

Vial: 9 | Inj. Volume: 10.0000uL | Tray: 1

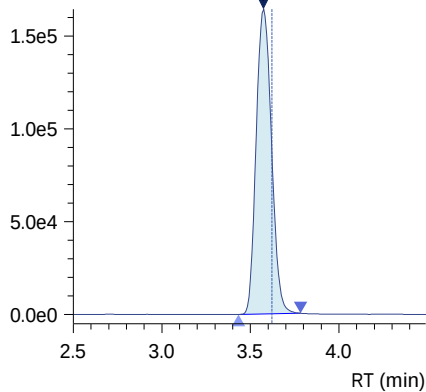
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	990671	222379	30.2105	ng/mL	101.00 >85.00	27.95	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.568	222379	222379	1.0000	ng/mL	----	----	

Perchlorate

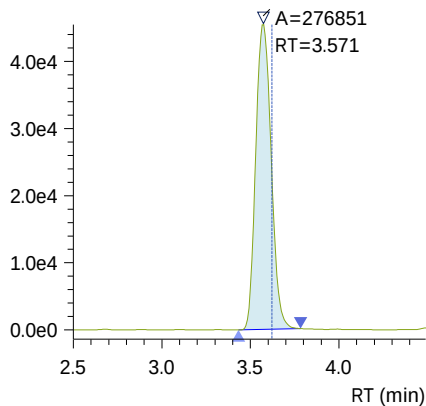
Conc 30.2105

R#1 27.95 (30.41)

Q 99.00>83.00 (-) A=990671 RT=3.574 1.64e5 ISTD 107.00>89.00 (-) 3.69e4



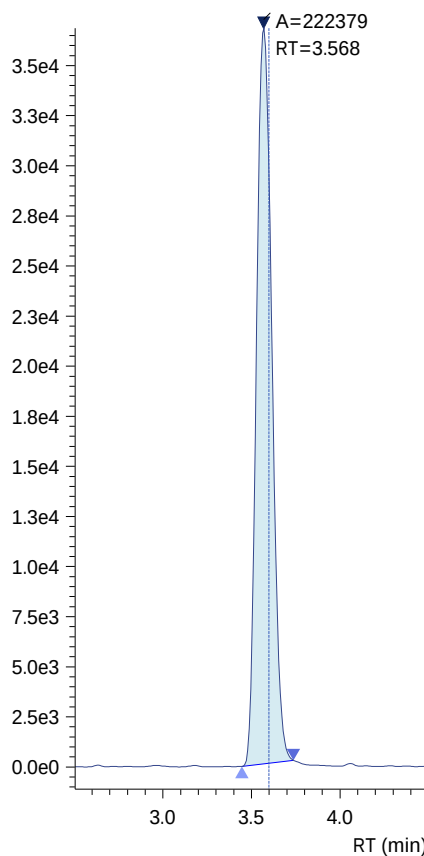
R1 101.00>85.00 (-) 4.55e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.69e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 10

Sample ID: Perchlorate ICAL 10

Date Acquired: 8/2/2023 2:07:39 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-012.lcd

Vial: 10 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	1335647	178573	50.72 20	ng/mL	101.00 >85.00	28.04	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.567	178573	178573	1.0000	ng/mL	----	----	

Perchlorate

Conc 50.7220

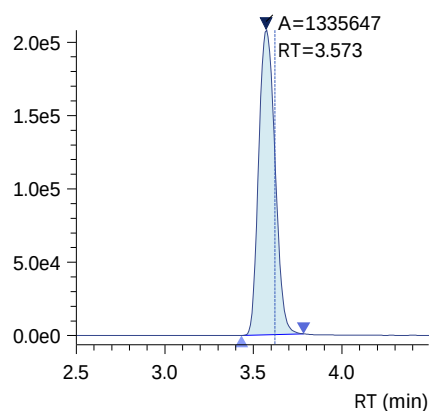
R#1 28.04 (30.41)

Q 99.00>83.00 (-)

2.08e5

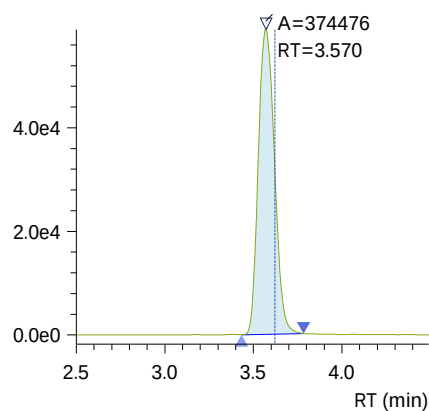
ISTD 107.00>89.00 (-)

2.78e4



R1 101.00>85.00 (-)

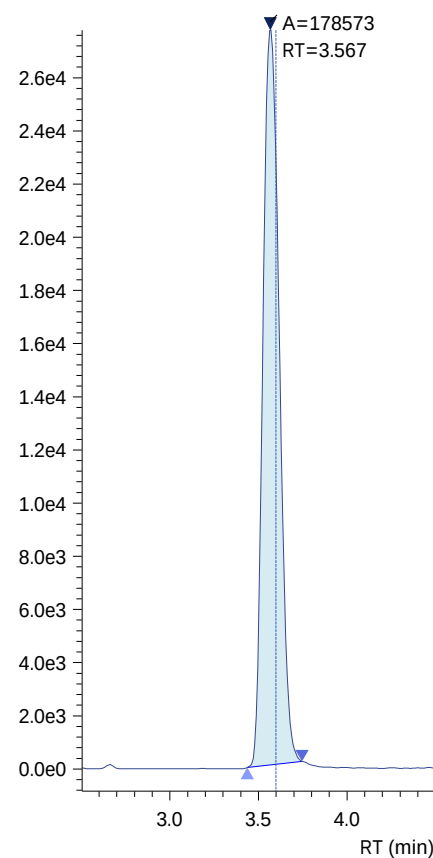
5.90e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 8/3/2023 9:30:46 AM

PerchlorateICV

Sample ID: PerchlorateICV

Date Acquired: 8/2/2023 2:19:46 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-013.lcd

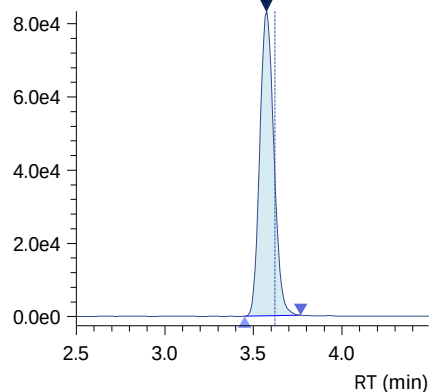
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	459277	291890	10.6703	ng/mL	101.00 >85.00	28.35	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291890	291890	1.0000	ng/mL	----	----	

Perchlorate

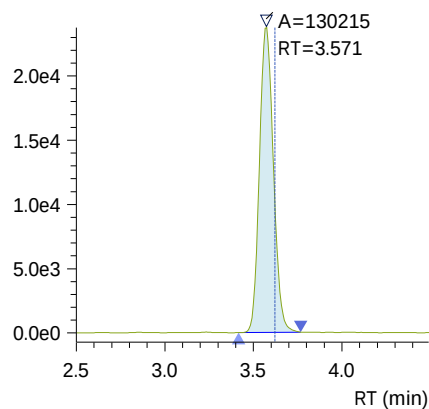
Conc 10.6703

R#1 28.35 (30.41)

Q 99.00>83.00 (-) A=459277
RT=3.574

R1 101.00>85.00 (-)

2.38e4

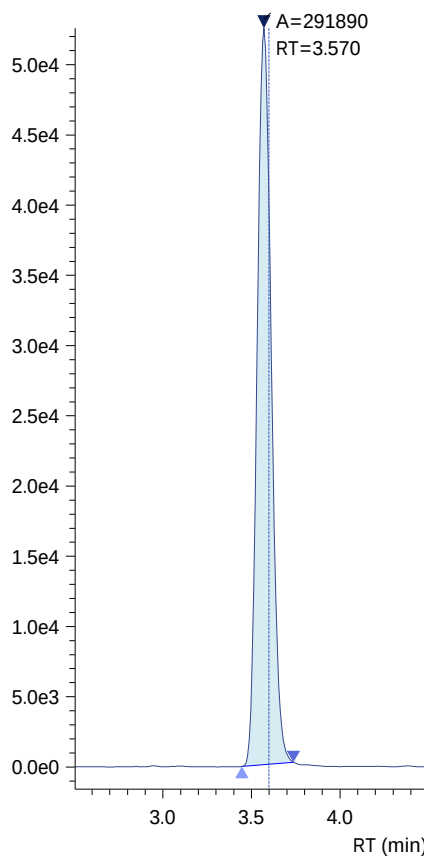


Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)

5.26e4





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





20230824-815049

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: KN

ICAL Date: 8/2/2023

Cal. Std. xp: 02/02/2024

ICAL ID: EC2300012

Mobile Phases : A:20mM ammonium acetate in water 230388 B:Acetonitrile 229152

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB	2230824-001	Perchlorate6850c.lcm	1x		8/24/2023 12:15
2	LODV	2230824-002	Perchlorate6850c.lcm	1x	230386	8/24/2023 12:21
3	ICS	2230824-003	Perchlorate6850c.lcm	1x	32103051	8/24/2023 12:33
4	CCV	2230824-004	Perchlorate6850c.lcm	1x	230380	8/24/2023 12:40
5	EQ2300410-01	2230824-005	Perchlorate6850c.lcm	1x		8/24/2023 12:45
6	EQ2300410-02	2230824-006	Perchlorate6850c.lcm	1x		8/24/2023 13:03
7	EQ2300410-03	2230824-007	Perchlorate6850c.lcm	1x		8/24/2023 12:57
8	E2300763-001	2230824-008	Perchlorate6850c.lcm	1x		8/24/2023 13:10
9	E2300763-002	2230824-009	Perchlorate6850c.lcm	20x		8/24/2023 13:16
10	E2300764-001	2230824-010	Perchlorate6850c.lcm	1000x		8/24/2023 13:21
11	E2300764-002	2230824-011	Perchlorate6850c.lcm	1x		8/24/2023 13:27
12	E2300764-003	2230824-012	Perchlorate6850c.lcm	500x		8/24/2023 13:32
13	E2300764-004	2230824-013	Perchlorate6850c.lcm	1x		8/24/2023 13:38
14	E2300764-005	2230824-014	Perchlorate6850c.lcm	1000x		8/24/2023 13:43
15	CCV	2230824-015	Perchlorate6850c.lcm	1x	230380	8/24/2023 13:49
16	E2300764-006	2230824-016	Perchlorate6850c.lcm	5000x		8/24/2023 13:54
17	E2300764-007	2230824-017	Perchlorate6850c.lcm	5000x		8/24/2023 14:00
18	E2300764-008	2230824-018	Perchlorate6850c.lcm	5000x		8/24/2023 14:06
19	E2300765-001	2230824-019	Perchlorate6850c.lcm	1x		8/24/2023 14:11
20	E2300765-002	2230824-020	Perchlorate6850c.lcm	1x		8/24/2023 14:17
21	E2300765-003	2230824-021	Perchlorate6850c.lcm	1x	DNU-CONFIRM HEAD	8/24/2023 14:22
22	E2300765-004	2230824-022	Perchlorate6850c.lcm	1x		8/24/2023 14:28
23	E2300765-005	2230824-023	Perchlorate6850c.lcm	1x		8/24/2023 14:33
24	E2300753-001	2230824-024	Perchlorate6850c.lcm	1x		8/24/2023 14:39
25	E2300765-003	2230824-025	Perchlorate6850c.lcm	1x		8/24/2023 14:44
26	CCV	2230824-026	Perchlorate6850c.lcm	1x	230380	8/24/2023 14:50

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23081419

Service Request: E2300763
Date Analyzed: 8/24/23 12:40

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230824\2230824-004
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300413-01
Analysis Lot: 815049
Signal ID: 1

Sodium Perchlorate-18O4

	<u>Area</u>	<u>RT</u>
ICAL Average ==>	297,129	3.57
Upper Limit ==>	445,694	5.57
Lower Limit ==>	148,565	1.57

Associated Analyses

Continuing Calibration Verification	EQ2300413-01	310,816	3.58
Method Blank	EQ2300410-01	363,436	3.58
Duplicate Lab Control Sample	EQ2300410-03	357,581	3.58
Lab Control Sample	EQ2300410-02	358,070	3.58
LH18/24-SP650_082223_BIX	E2300763-001	330,179	3.58
LH18/24-SP650_082223_AIX	E2300763-002	297,936	3.58

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: HS23081419

Service Request: E2300763
Date Analyzed: 8/24/23 13:49

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230824\2230824-015
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300413-02
Analysis Lot: 815049
Signal ID: 1

Sodium Perchlorate-18O4			
	<u>Area</u>	<u>RT</u>	
ICAL Average ==>	297,129	3.57	
Upper Limit ==>	445,694	5.57	
Lower Limit ==>	148,565	1.57	
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300413-02	304,822	3.58

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: HS23081419

Service Request: E2300763
Date Analyzed: 8/24/23 14:50

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230824\2230824-026
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300413-03
Analysis Lot: 815049
Signal ID: 1

Sodium Perchlorate-18O4			
	<u>Area</u>	<u>RT</u>	
ICAL Average ==>	297,129	3.57	
Upper Limit ==>	445,694	5.57	
Lower Limit ==>	148,565	1.57	
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300413-03	301,062	3.58

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: HS23081419

Service Request: E2300763
Date Analyzed: 8/24/23

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\20230824\2230824-004

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 815049
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.0	0.1475	0.1477	0.2	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23081419

Service Request: E2300763
Date Analyzed: 8/24/23

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\20230824\2230824-015

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 815049
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.1	0.1475	0.1491	1.1	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23081419

Service Request: E2300763
Date Analyzed: 8/24/23

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\20230824\2230824-026

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 815049
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.99	0.1475	0.1473	-0.1	NA	± 15 %	Average RF



Insight Report

Printed at 8/24/2023 3:03:33 PM

Method File: I:\LCMS01\DATA\20230818\20230824.lcm

Project File: I:\LCMS01\DATA\20230818\20230824.damip

IB

Sample ID: IB

Date Acquired: 8/24/2023 12:15:30 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230824\2230824-001.lcd

Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

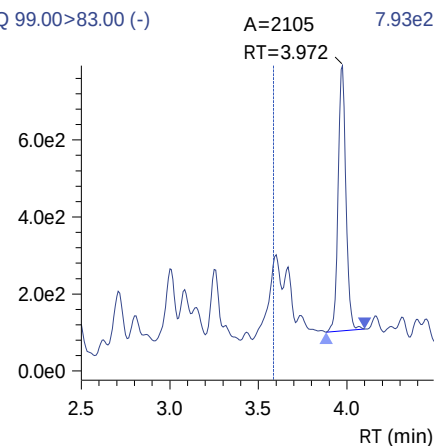
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	400483	----	ng/mL	101.00 >85.00	0.00	19.25-35.76
Sodium Perchlorate-18O4_IS	Auto	3.586	400483	400483	1.0000	ng/mL	----	----	

Perchlorate

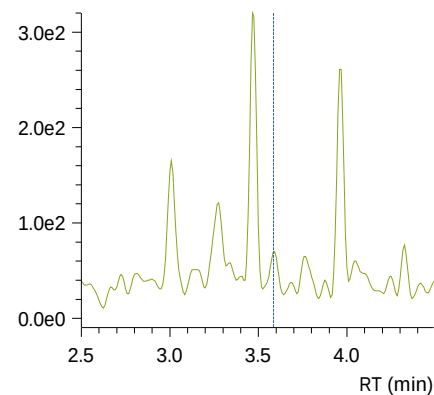
Conc ----

R#1 0.00 (27.51)

Q 99.00>83.00 (-)



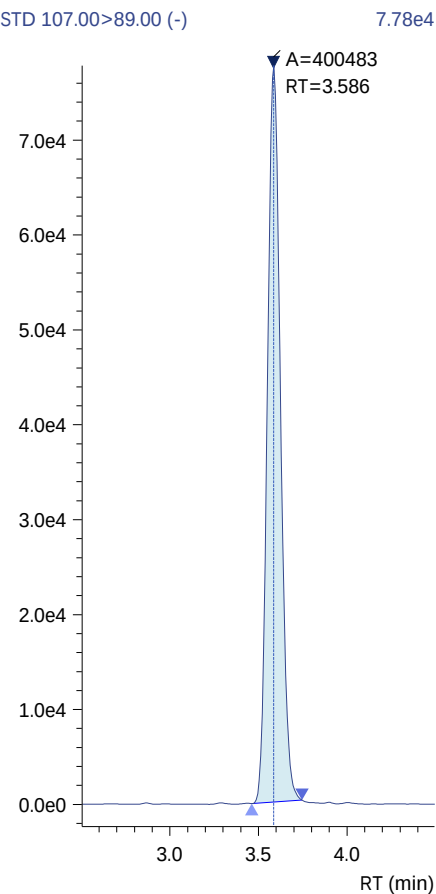
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 8/24/2023 3:03:33 PM

LODV

Sample ID: LODV

Date Acquired: 8/24/2023 12:21:38 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230824\2230824-002.lcd

Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.588	3397	365081	0.0631	ng/mL	101.00 >85.00	34.89	19.25-35.76
Sodium Perchlorate-18O4_IS	Auto	3.584	365081	365081	1.0000	ng/mL	----	----	

Perchlorate

Conc 0.0631

R#1 34.89 (27.51)

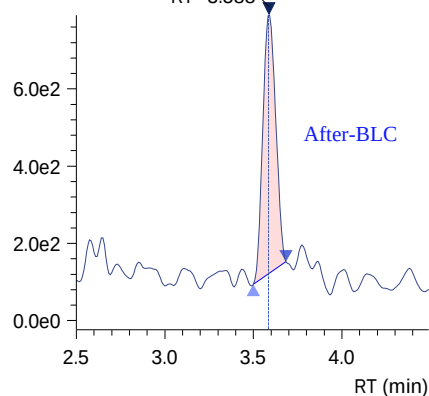
Q 99.00>83.00 (-)

A=3397
RT=3.588

7.91e2

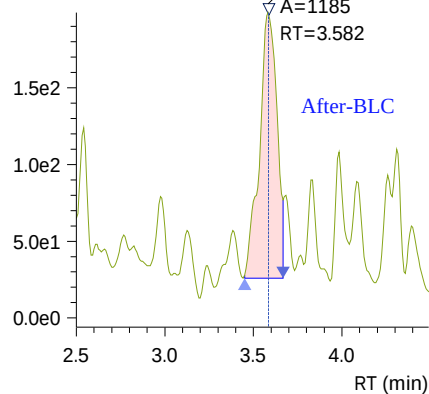
ISTD 107.00>89.00 (-)

7.08e4



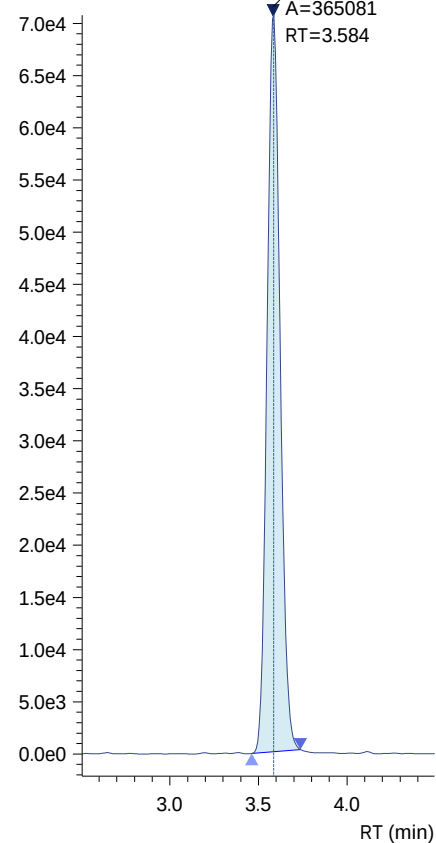
R1 101.00>85.00 (-)

1.99e2

A=1185
RT=3.582

Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/24/2023 3:08:44 PM

Method File: I:\LCMS01\DATA\20230818\20230824.lcm

Project File: I:\LCMS01\DATA\20230818\20230824.damip

LODV

Sample ID: LODV

Date Acquired: 8/24/2023 12:21:38 PM

Acquired by: System Administrator

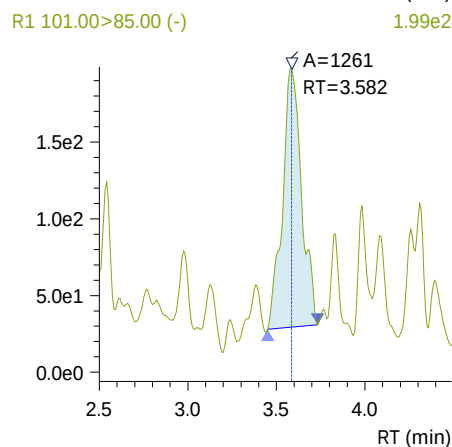
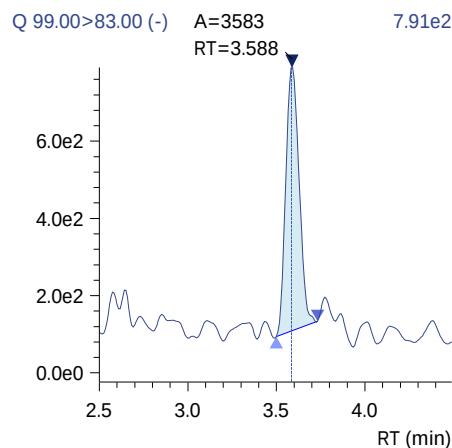
Data File: I:\LCMS01\DATA\20230824\2230824-002.lcd

Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Perchlorate

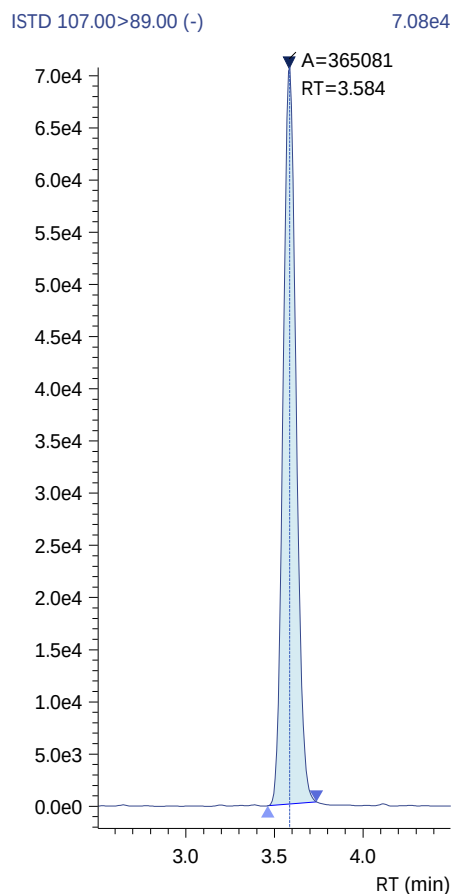
Conc 0.0666

R#1 35.20 (27.51)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/24/2023 3:03:33 PM

ICS

Sample ID: ICS

Date Acquired: 8/24/2023 12:33:58 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230824\2230824-003.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

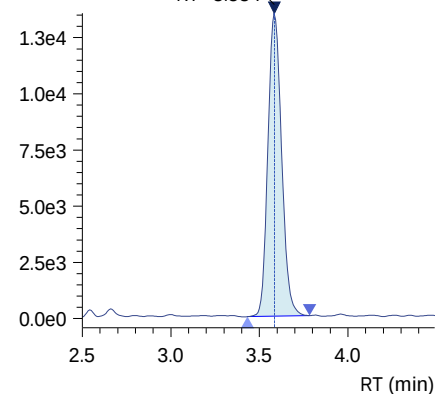
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.584	72573	438931	1.1212	ng/mL	101.00 >85.00	27.67	19.25-35.76
Sodium Perchlorate-18O4_IS	Auto	3.581	438931	438931	1.0000	ng/mL	----	----	

Perchlorate

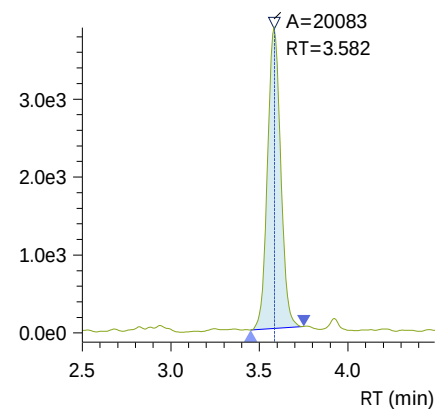
Conc 1.1212

R#1 27.67 (27.51)

Q 99.00>83.00 (-) A=72573 RT=3.584 1.36e4 ISTD 107.00>89.00 (-) 8.38e4



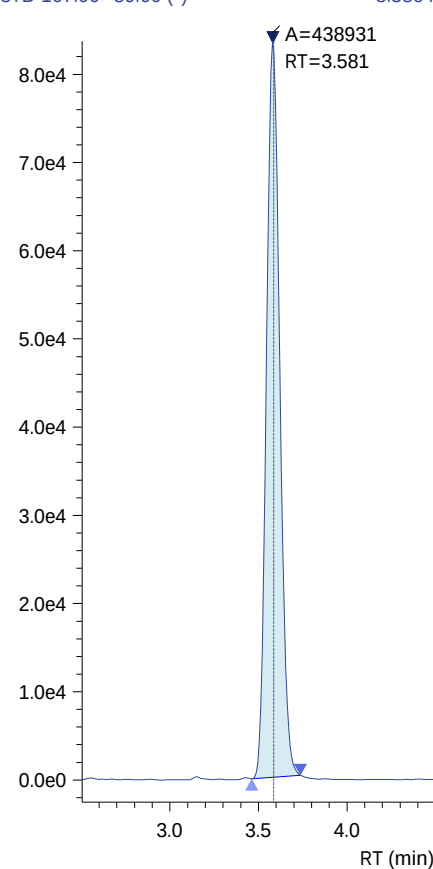
R1 101.00>85.00 (-) 3.92e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=438931 RT=3.581



Insight Report

Printed at 8/24/2023 3:03:33 PM

CCV

Sample ID: CCV

Date Acquired: 8/24/2023 12:40:11 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230824\2230824-004.lcd

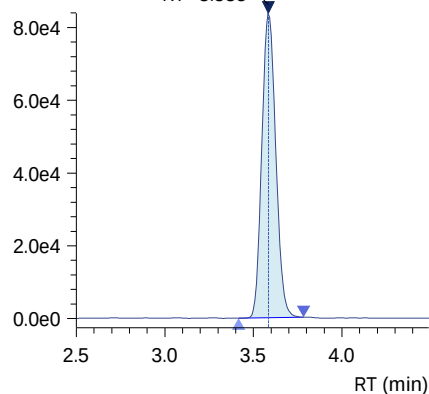
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.585	459095	310816	10.0166	ng/mL	101.00 >85.00	28.03	19.25-35.76
Sodium Perchlorate-18O4_IS	Auto	3.581	310816	310816	1.0000	ng/mL	----	----	

Perchlorate

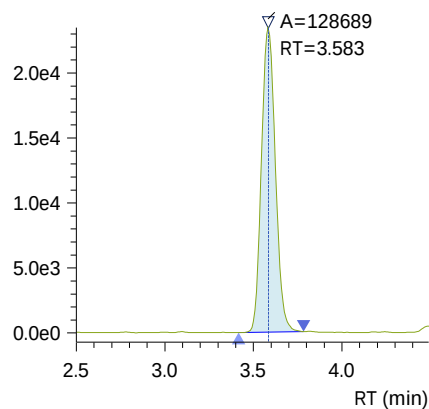
Conc 10.0166

R#1 28.03 (27.51)

Q 99.00>83.00 (-) A=459095
RT=3.585

R1 101.00>85.00 (-)

2.35e4

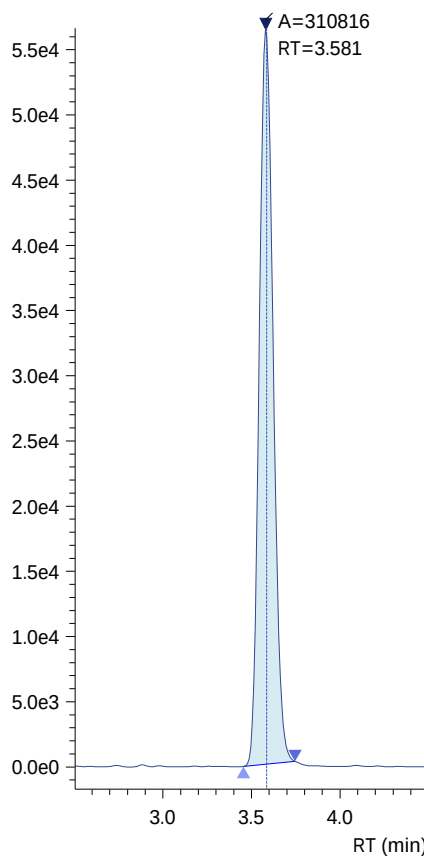


Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)

5.67e4



Insight Report

Printed at 8/24/2023 3:03:33 PM

EQ2300410-01

Sample ID: EQ2300410-01

Date Acquired: 8/24/2023 12:45:41 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230824\2230824-005.lcd

Vial: 16 | Inj. Volume: 10.0000uL | Tray: 4

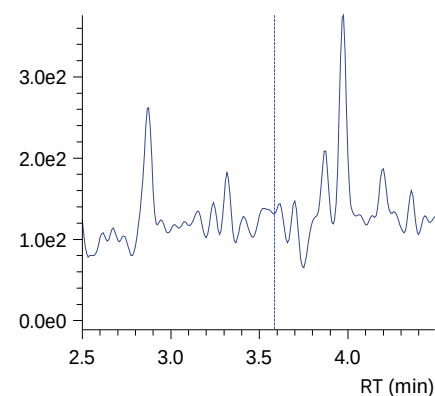
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W /B)	----	----	363436	----	ng/mL	101.00 >85.00	0.00	19.25-35.76
Sodium Perchlorate-18O4_IS	Auto	3.581	363436	363436	1.0000	ng/mL	----	----	

Perchlorate

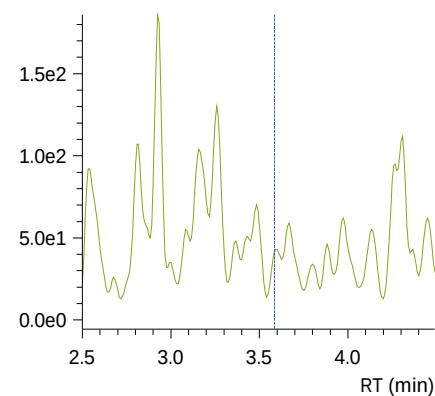
Conc ----

R#1 0.00 (27.51)

Q 99.00>83.00 (-)



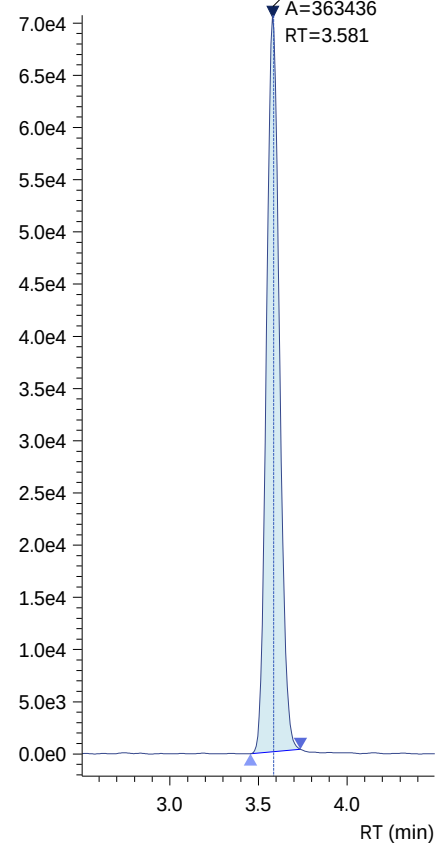
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 8/24/2023 3:08:44 PM

EQ2300410-02

Sample ID: EQ2300410-02

Date Acquired: 8/24/2023 1:03:15 PM

Acquired by: System Administrator

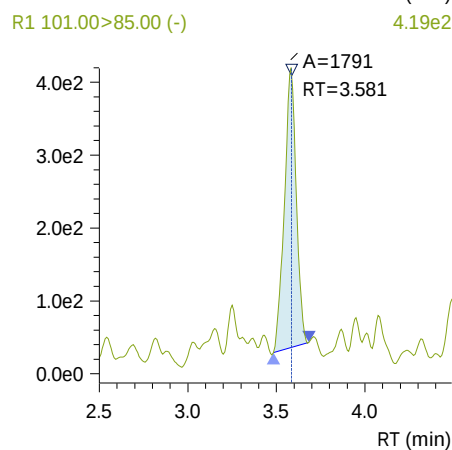
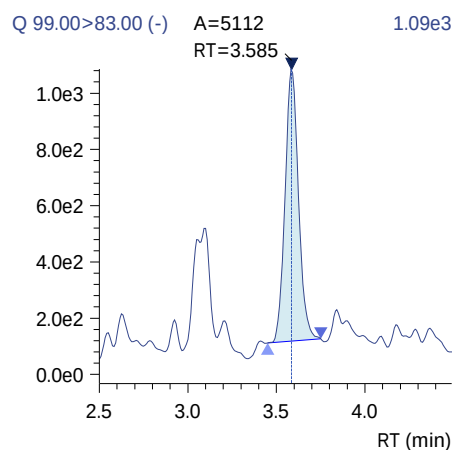
Data File: I:\LCMS01\DATA\20230824\2230824-006.lcd

Vial: 17 | Inj. Volume: 10.0000uL | Tray: 4

Perchlorate

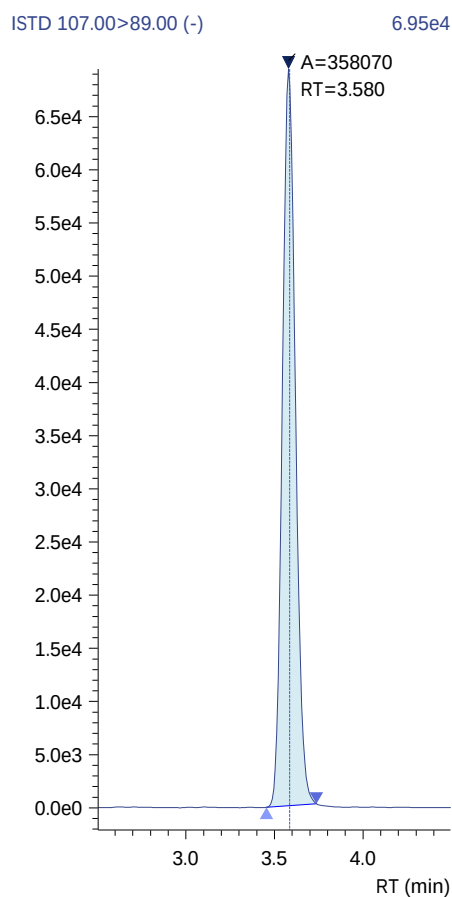
Conc 0.0968

R#1 35.02 (27.51)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/25/2023 9:49:58 AM

Method File: I:\LCMS01\DATA\20230818\20230824.lcm

Project File: I:\LCMS01\DATA\20230818\20230824.damip

EQ2300410-02

Sample ID: EQ2300410-02

Date Acquired: 8/24/2023 1:03:15 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230824\2230824-006.lcd

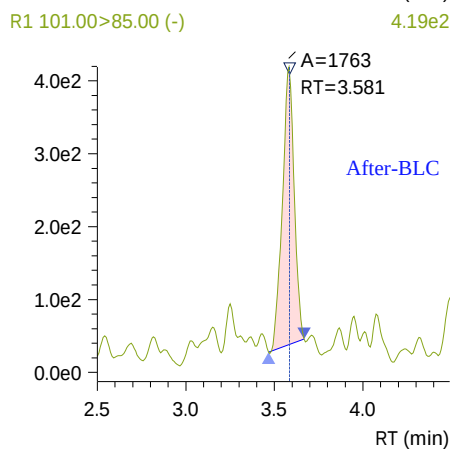
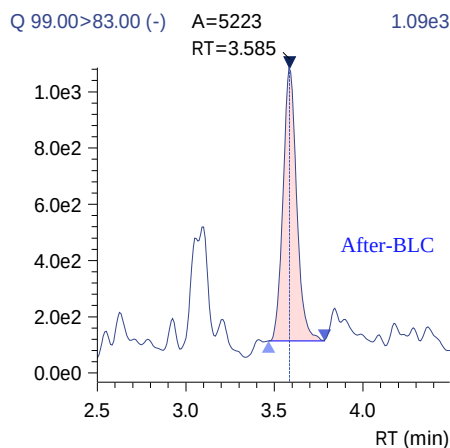
Vial: 17 | Inj. Volume: 10.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.585	5223	358070	0.0989	ng/mL	101.00 >85.00	33.75	19.25-35.76
Sodium Perchlorate-18O4_IS	Auto	3.580	358070	358070	1.0000	ng/mL	----	----	

Perchlorate

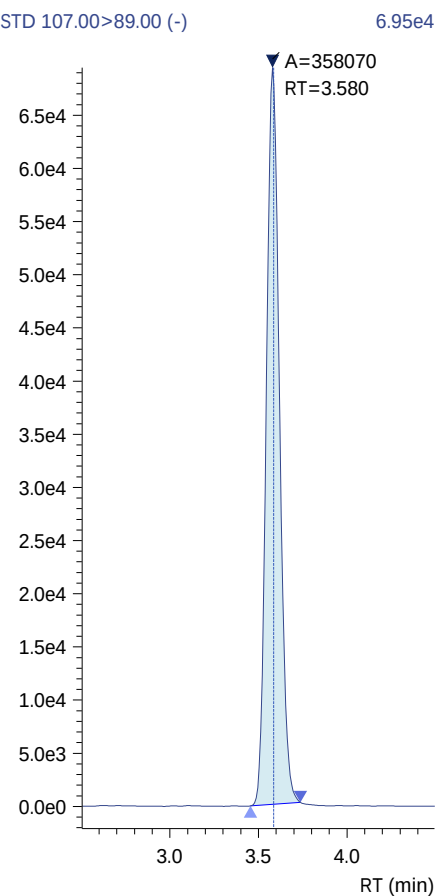
Conc 0.0989

R#1 33.75 (27.51)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/24/2023 3:03:33 PM

EQ2300410-03

Sample ID: EQ2300410-03

Date Acquired: 8/24/2023 12:57:22 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230824\2230824-007.lcd

Vial: 18 | Inj. Volume: 10.0000uL | Tray: 4

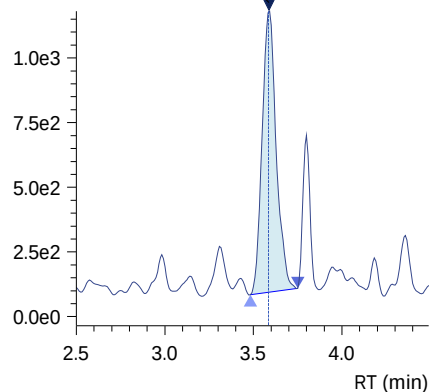
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.588	6036	357581	0.1145	ng/mL	101.00 >85.00	25.36	19.25-35.76
Sodium Perchlorate-18O4_IS	Auto	3.580	357581	357581	1.0000	ng/mL	----	----	

Perchlorate

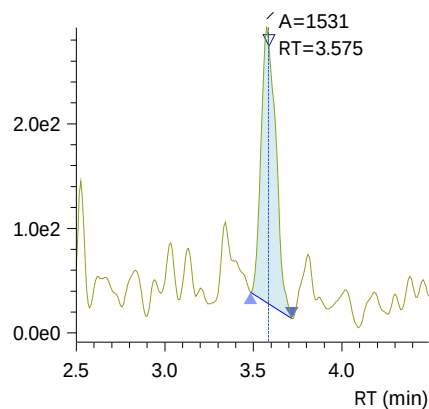
Conc 0.1145

R#1 25.36 (27.51)

Q 99.00>83.00 (-) A=6036 RT=3.588 1.18e3 ISTD 107.00>89.00 (-) 6.95e4



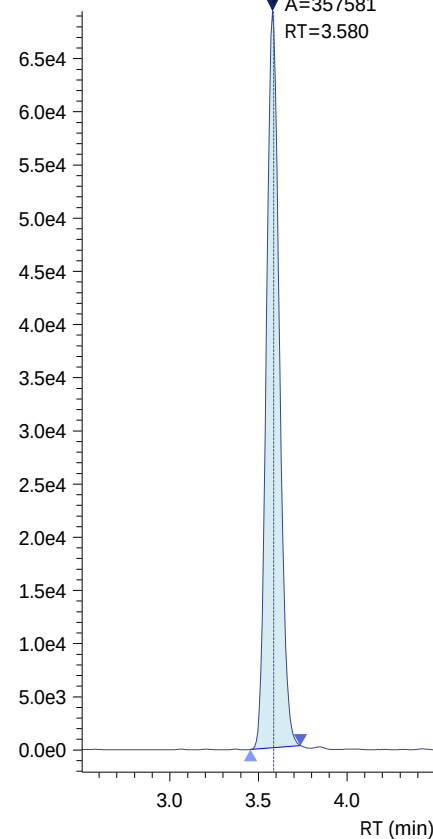
R1 101.00>85.00 (-) 2.92e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=357581 RT=3.580



Insight Report

Printed at 8/24/2023 3:03:33 PM

E2300763-001

Sample ID: E2300763-001

Date Acquired: 8/24/2023 1:10:37 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230824\2230824-008.lcd

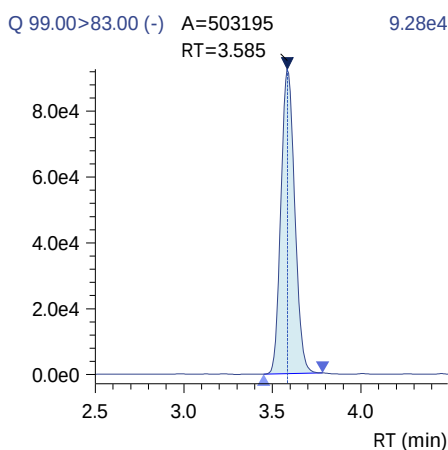
Vial: 19 | Inj. Volume: 10.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.585	503195	330179	10.3349	ng/mL	101.00 >85.00	27.63	19.25-35.76
Sodium Perchlorate-18O4_IS	Auto	3.581	330179	330179	1.0000	ng/mL	----	----	

Perchlorate

Conc 10.3349

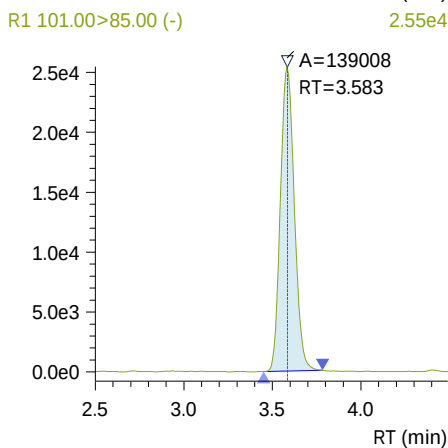
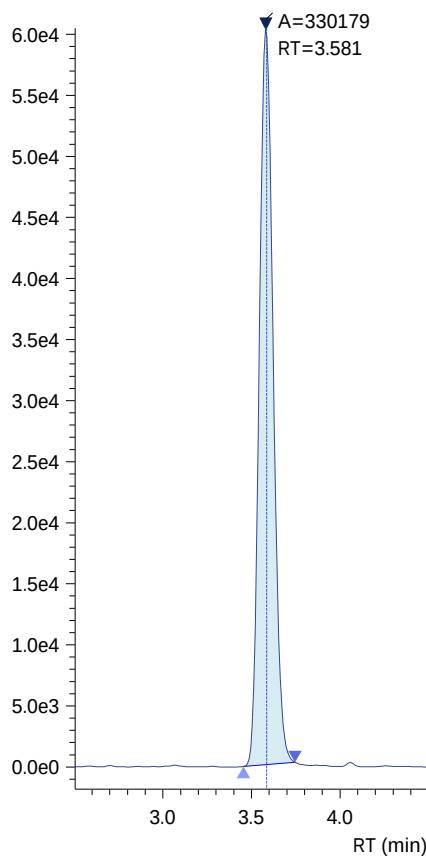
R#1 27.63 (27.51)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.05e4



Insight Report

Printed at 8/24/2023 3:03:33 PM

E2300763-002X20

Sample ID: E2300763-002

Date Acquired: 8/24/2023 1:16:07 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230824\2230824-009.lcd

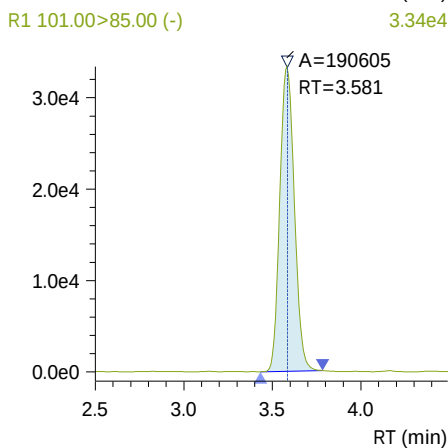
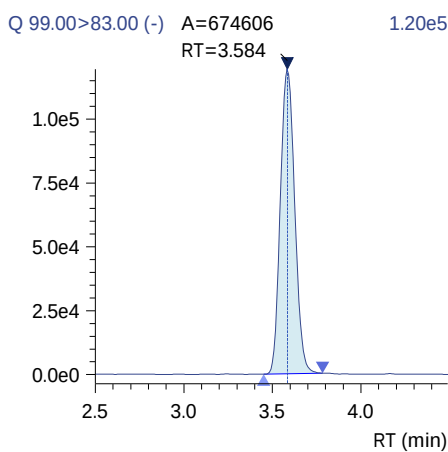
Vial: 20 | Inj. Volume: 10.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.584	674606	297936	15.3549	ng/mL	101.00 >85.00	28.25	19.25-35.76
Sodium Perchlorate-18O4_IS	Auto	3.579	297936	297936	1.0000	ng/mL	----	----	

Perchlorate

Conc 15.3549

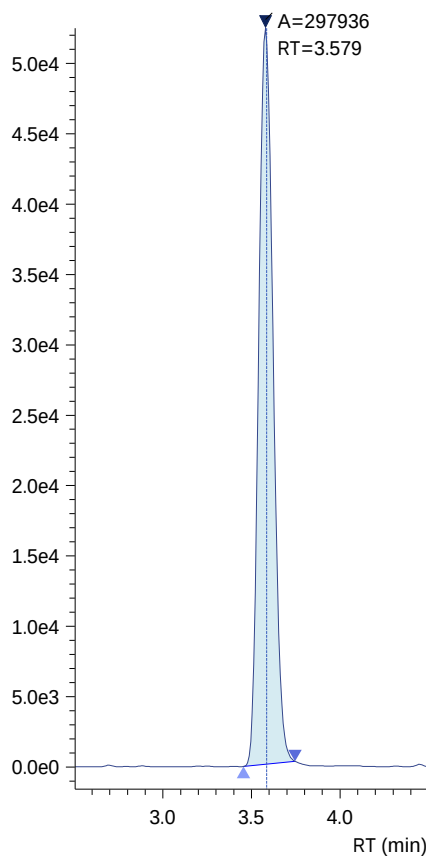
R#1 28.25 (27.51)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.25e4



Insight Report

Printed at 8/24/2023 3:03:33 PM

CCV

Sample ID: CCV

Date Acquired: 8/24/2023 1:49:25 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230824\2230824-015.lcd

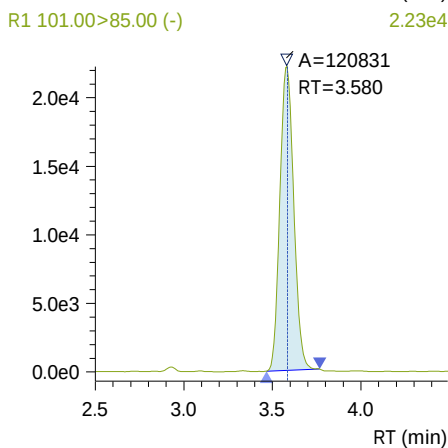
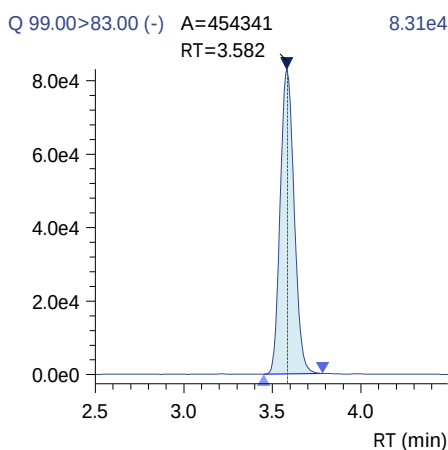
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.582	454341	304822	10.1078	ng/mL	101.00 >85.00	26.60	19.25-35.76
Sodium Perchlorate-18O4_IS	Auto	3.578	304822	304822	1.0000	ng/mL	----	----	

Perchlorate

Conc 10.1078

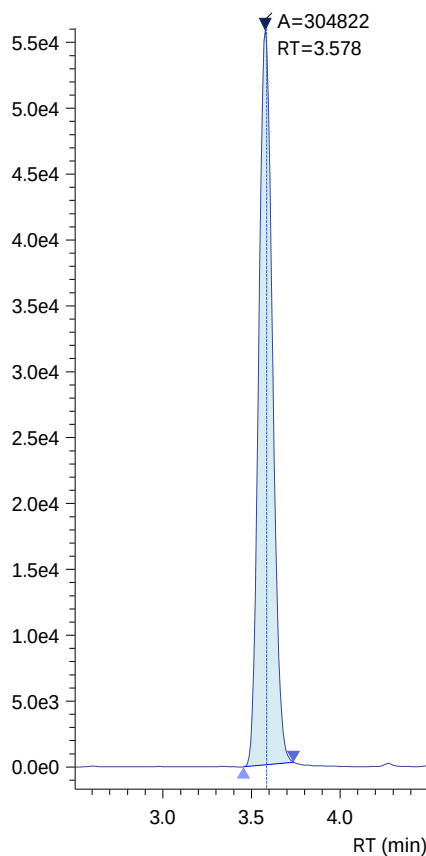
R#1 26.60 (27.51)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.61e4



HS23081423 GROUNDWATER TREATMENT PLANT BIWEEKLY SAMPLES Cover Page

ALS WO# HS23081423



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STD1

STD2

STD3

STD4

STD5

STD6

ICV

ICB

CCV

CCB

MBLK

LCS

HS23081750-01

HS23081750-01MS

HS23081750-01MSD

CCV1

CCB

CCV

CCB

HS23081423-01DF5

HS23081423-01DF50

CCV1

CCB





right solutions.
right partner.

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WorkOrder: HS23081423

**GROUNDWATER TREATMENT PLANT BI-WEEKLY
SAMPLES**

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

31-Aug-2023



HS23081423 GROUNDWATER TREATMENT PLANT BIWEEKLY SAMPLES Final

ALS WO# HS23081423





10450 Stancliff Rd. Suite 210
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August 30, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23081423**

Laboratory Results for: **GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES**

Dear Marcia Olive,

ALS Environmental received 2 sample(s) on Aug 23, 2023 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: DAYNA.FISHER

James Guin



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
Work Order: HS23081423

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23081423-01	LH18/24-SP650_082223	Water		22-Aug-2023 13:00	23-Aug-2023 10:35	☐
HS23081423-02	Trip Blank	Water	CG-071023 -04	22-Aug-2023 00:00	23-Aug-2023 10:35	☐



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
Work Order: HS23081423

CASE NARRATIVE

GCMS Volatiles by Method SW8260**Batch ID: R444793****Sample ID: CCV**

- Hexachlorobutadiene exceeded %D limits for CCV .Samples are ND for this compound.

Sample ID: HS23081324-03MS

- MS and MSD are for an unrelated sample

WetChemistry by Method SW9056**Batch ID: R445112**

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



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
 Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
 Sample ID: LH18/24-SP650_082223
 Collection Date: 22-Aug-2023 13:00

ANALYTICAL REPORT

WorkOrder:HS23081423

Lab ID:HS23081423-01

Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		Method:SW8260						Analyst: PC
1,1,1,2-Tetrachloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,1,1-Trichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,1-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,2-Dibromo-3-chloropropane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,2-Dibromoethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 17:06
2,2-Dichloropropane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	24-Aug-2023 17:06
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
2-Hexanone	1.0	U	1.0	1.0	2.0	ug/L	1	24-Aug-2023 17:06
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 17:06
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
4-Methyl-2-pentanone	1.0	U	0.70	1.0	2.0	ug/L	1	24-Aug-2023 17:06
Acetone	1.0	U	0.40	1.0	2.0	ug/L	1	24-Aug-2023 17:06
Benzene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Bromochloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Bromodichloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Carbon disulfide	1.0	U	0.60	1.0	2.0	ug/L	1	24-Aug-2023 17:06
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Chloroform	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06

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



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
 Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
 Sample ID: LH18/24-SP650_082223
 Collection Date: 22-Aug-2023 13:00

ANALYTICAL REPORT

WorkOrder:HS23081423

Lab ID:HS23081423-01

Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		Method:SW8260						Analyst: PC
Chloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
cis-1,2-Dichloroethene	3.0		0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
cis-1,3-Dichloropropene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Dibromomethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
m,p-Xylene	2.0	U	0.50	2.0	2.0	ug/L	1	24-Aug-2023 17:06
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	24-Aug-2023 17:06
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 17:06
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Toluene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
trans-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
trans-1,3-Dichloropropene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 17:06
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 17:06
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>104</i>			0	<i>81-118</i>	%REC	<i>1</i>	<i>24-Aug-2023 17:06</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>88.9</i>			0	<i>85-114</i>	%REC	<i>1</i>	<i>24-Aug-2023 17:06</i>
<i>Surr: Dibromofluoromethane</i>	<i>106</i>			0	<i>80-119</i>	%REC	<i>1</i>	<i>24-Aug-2023 17:06</i>
<i>Surr: Toluene-d8</i>	<i>105</i>			0	<i>89-112</i>	%REC	<i>1</i>	<i>24-Aug-2023 17:06</i>
ANIONS BY SW9056A		Method:SW9056						Analyst: TH
Chloride	1,200		10.0	12.5	25.0	mg/L	50	29-Aug-2023 12:53
Sulfate	76.9		1.00	1.25	2.50	mg/L	5	29-Aug-2023 12:47

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



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
 Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
 Sample ID: Trip Blank
 Collection Date: 22-Aug-2023 00:00

ANALYTICAL REPORT

WorkOrder:HS23081423

Lab ID:HS23081423-02

Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		Method:SW8260						Analyst: PC
1,1,1,2-Tetrachloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,1,1-Trichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,1-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,2-Dibromo-3-chloropropane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,2-Dibromoethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 16:25
2,2-Dichloropropane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	24-Aug-2023 16:25
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
2-Hexanone	1.0	U	1.0	1.0	2.0	ug/L	1	24-Aug-2023 16:25
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 16:25
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
4-Methyl-2-pentanone	1.0	U	0.70	1.0	2.0	ug/L	1	24-Aug-2023 16:25
Acetone	1.0	U	0.40	1.0	2.0	ug/L	1	24-Aug-2023 16:25
Benzene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Bromochloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Bromodichloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Carbon disulfide	1.0	U	0.60	1.0	2.0	ug/L	1	24-Aug-2023 16:25
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Chloroform	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25

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



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
 Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
 Sample ID: Trip Blank
 Collection Date: 22-Aug-2023 00:00

ANALYTICAL REPORT

WorkOrder:HS23081423

Lab ID:HS23081423-02

Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		Method:SW8260						Analyst: PC
Chloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
cis-1,3-Dichloropropene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Dibromomethane	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
m,p-Xylene	2.0	U	0.50	2.0	2.0	ug/L	1	24-Aug-2023 16:25
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	24-Aug-2023 16:25
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	24-Aug-2023 16:25
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Toluene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
trans-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
trans-1,3-Dichloropropene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	24-Aug-2023 16:25
Surr: 1,2-Dichloroethane-d4	101			0	81-118	%REC	1	24-Aug-2023 16:25
Surr: 4-Bromofluorobenzene	88.7			0	85-114	%REC	1	24-Aug-2023 16:25
Surr: Dibromofluoromethane	105			0	80-119	%REC	1	24-Aug-2023 16:25
Surr: Toluene-d8	105			0	89-112	%REC	1	24-Aug-2023 16:25

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



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
WorkOrder: HS23081423

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R444793 (0)		Test Name : VOLATILES ORGANICS BY METHOD 8260C			Matrix: Water	
HS23081423-01	LH18/24-SP650_082223	22 Aug 2023 13:00			24 Aug 2023 17:06	1
HS23081423-02	Trip Blank	22 Aug 2023 00:00			24 Aug 2023 16:25	1
Batch ID: R445112 (0)		Test Name : ANIONS BY SW9056A			Matrix: Water	
HS23081423-01	LH18/24-SP650_082223	22 Aug 2023 13:00			29 Aug 2023 12:53	50
HS23081423-01	LH18/24-SP650_082223	22 Aug 2023 13:00			29 Aug 2023 12:47	5



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
WorkOrder: HS23081423

QC BATCH REPORT

Batch ID: R444793 (0)		Instrument: VOA6		Method: VOLATILES ORGANICS BY METHOD 8260C					
MBLK	Sample ID: VBLKW-230824	Units: ug/L		Analysis Date: 24-Aug-2023 12:19					
Client ID:	Run ID: VOA6_444793	SeqNo: 7508746		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1,2-Tetrachloroethane	1.0	1.0							U
1,1,1-Trichloroethane	1.0	1.0							U
1,1,2,2-Tetrachloroethane	1.0	1.0							U
1,1,2-Trichloroethane	1.0	1.0							U
1,1-Dichloroethane	1.0	1.0							U
1,1-Dichloroethene	1.0	1.0							U
1,1-Dichloropropene	1.0	1.0							U
1,2,3-Trichlorobenzene	1.0	1.0							U
1,2,3-Trichloropropane	1.0	1.0							U
1,2,4-Trichlorobenzene	1.0	1.0							U
1,2,4-Trimethylbenzene	1.0	1.0							U
1,2-Dibromo-3-chloropropane	1.0	1.0							U
1,2-Dibromoethane	1.0	1.0							U
1,2-Dichlorobenzene	1.0	1.0							U
1,2-Dichloroethane	1.0	1.0							U
1,2-Dichloropropane	1.0	1.0							U
1,3,5-Trimethylbenzene	1.0	1.0							U
1,3-Dichlorobenzene	1.0	1.0							U
1,3-Dichloropropane	1.0	1.0							U
1,4-Dichlorobenzene	1.0	1.0							U
2,2-Dichloropropane	1.0	1.0							U
2-Butanone	1.0	2.0							U
2-Chlorotoluene	1.0	1.0							U
2-Hexanone	1.0	2.0							U
4-Chlorotoluene	1.0	1.0							U
4-Isopropyltoluene	1.0	1.0							U
4-Methyl-2-pentanone	1.0	2.0							U
Acetone	1.0	2.0							U
Benzene	1.0	1.0							U
Bromobenzene	1.0	1.0							U
Bromochloromethane	1.0	1.0							U
Bromodichloromethane	1.0	1.0							U
Bromoform	1.0	1.0							U
Bromomethane	1.0	1.0							U



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
WorkOrder: HS23081423

QC BATCH REPORT

Batch ID: R444793 (0)		Instrument: VOA6		Method: VOLATILES ORGANICS BY METHOD 8260C					
MBLK	Sample ID: VBLKW-230824	Units: ug/L		Analysis Date: 24-Aug-2023 12:19					
Client ID:	Run ID: VOA6_444793	SeqNo: 7508746		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Carbon disulfide	1.0	2.0							U
Carbon tetrachloride	1.0	1.0							U
Chlorobenzene	1.0	1.0							U
Chloroethane	1.0	1.0							U
Chloroform	1.0	1.0							U
Chloromethane	1.0	1.0							U
cis-1,2-Dichloroethene	1.0	1.0							U
cis-1,3-Dichloropropene	1.0	1.0							U
Dibromochloromethane	1.0	1.0							U
Dibromomethane	1.0	1.0							U
Dichlorodifluoromethane	1.0	1.0							U
Ethylbenzene	1.0	1.0							U
Hexachlorobutadiene	1.0	1.0							U
Isopropylbenzene	1.0	1.0							U
m,p-Xylene	2.0	2.0							U
Methylene chloride	1.0	2.0							U
Naphthalene	1.0	1.0							U
n-Butylbenzene	1.0	1.0							U
n-Propylbenzene	1.0	1.0							U
o-Xylene	1.0	1.0							U
sec-Butylbenzene	1.0	1.0							U
Styrene	1.0	1.0							U
tert-Butylbenzene	1.0	1.0							U
Tetrachloroethene	1.0	1.0							U
Toluene	1.0	1.0							U
trans-1,2-Dichloroethene	1.0	1.0							U
trans-1,3-Dichloropropene	1.0	1.0							U
Trichloroethene	1.0	1.0							U
Trichlorofluoromethane	1.0	1.0							U
Vinyl chloride	1.0	1.0							U
Surr: 1,2-Dichloroethane-d4	50.01	1.0	50	0	100	81 - 118			
Surr: 4-Bromofluorobenzene	44.15	1.0	50	0	88.3	85 - 114			
Surr: Dibromofluoromethane	51.21	1.0	50	0	102	80 - 119			
Surr: Toluene-d8	52.66	1.0	50	0	105	89 - 112			



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
WorkOrder: HS23081423

QC BATCH REPORT

Batch ID: R444793 (0)		Instrument: VOA6		Method: VOLATILES ORGANICS BY METHOD 8260C						
LCS		Sample ID: VLCSW-230824		Units: ug/L		Analysis Date: 24-Aug-2023 11:38				
Client ID:		Run ID: VOA6_444793		SeqNo: 7508745		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	19.15	1.0	20	0	95.8	78 - 124				
1,1,1-Trichloroethane	18.46	1.0	20	0	92.3	74 - 131				
1,1,2,2-Tetrachloroethane	18.92	1.0	20	0	94.6	71 - 121				
1,1,2-Trichloroethane	19.61	1.0	20	0	98.1	80 - 119				
1,1-Dichloroethane	17.44	1.0	20	0	87.2	77 - 125				
1,1-Dichloroethene	17.88	1.0	20	0	89.4	71 - 131				
1,1-Dichloropropene	18.8	1.0	20	0	94.0	78 - 125				
1,2,3-Trichlorobenzene	17.95	1.0	20	0	89.7	69 - 129				
1,2,3-Trichloropropane	18.62	1.0	20	0	93.1	73 - 122				
1,2,4-Trichlorobenzene	18.28	1.0	20	0	91.4	69 - 130				
1,2,4-Trimethylbenzene	17.42	1.0	20	0	87.1	76 - 124				
1,2-Dibromo-3-chloropropane	17.7	1.0	20	0	88.5	62 - 128				
1,2-Dibromoethane	19.4	1.0	20	0	97.0	77 - 121				
1,2-Dichlorobenzene	18.23	1.0	20	0	91.2	80 - 119				
1,2-Dichloroethane	18.99	1.0	20	0	94.9	73 - 128				
1,2-Dichloropropane	18.11	1.0	20	0	90.5	78 - 122				
1,3,5-Trimethylbenzene	17.28	1.0	20	0	86.4	75 - 124				
1,3-Dichlorobenzene	18.42	1.0	20	0	92.1	80 - 119				
1,3-Dichloropropane	18.88	1.0	20	0	94.4	80 - 119				
1,4-Dichlorobenzene	18.43	1.0	20	0	92.2	79 - 118				
2,2-Dichloropropane	18.73	1.0	20	0	93.6	60 - 139				
2-Butanone	33.52	2.0	40	0	83.8	56 - 143				
2-Chlorotoluene	18.12	1.0	20	0	90.6	79 - 122				
2-Hexanone	34.19	2.0	40	0	85.5	57 - 139				
4-Chlorotoluene	18.38	1.0	20	0	91.9	78 - 122				
4-Isopropyltoluene	17.41	1.0	20	0	87.1	77 - 127				
4-Methyl-2-pentanone	34.89	2.0	40	0	87.2	67 - 130				
Acetone	32.22	2.0	40	0	80.6	39 - 160				
Benzene	18.49	1.0	20	0	92.5	79 - 120				
Bromobenzene	19.89	1.0	20	0	99.4	80 - 120				
Bromochloromethane	19.73	1.0	20	0	98.6	78 - 123				
Bromodichloromethane	18.69	1.0	20	0	93.4	79 - 125				
Bromoform	19.52	1.0	20	0	97.6	66 - 130				
Bromomethane	20.73	1.0	20	0	104	53 - 141				



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
WorkOrder: HS23081423

QC BATCH REPORT

Batch ID: R444793 (0)		Instrument: VOA6		Method: VOLATILES ORGANICS BY METHOD 8260C					
LCS		Sample ID: VLCSW-230824		Units: ug/L		Analysis Date: 24-Aug-2023 11:38			
Client ID:		Run ID: VOA6_444793		SeqNo: 7508745		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Carbon disulfide	34.36	2.0	40	0	85.9	64 - 133			
Carbon tetrachloride	18.16	1.0	20	0	90.8	72 - 136			
Chlorobenzene	18.84	1.0	20	0	94.2	82 - 118			
Chloroethane	18.3	1.0	20	0	91.5	60 - 138			
Chloroform	19.05	1.0	20	0	95.3	79 - 124			
Chloromethane	20.54	1.0	20	0	103	50 - 139			
cis-1,2-Dichloroethene	19.63	1.0	20	0	98.1	78 - 123			
cis-1,3-Dichloropropene	18.25	1.0	20	0	91.2	75 - 124			
Dibromochloromethane	19.57	1.0	20	0	97.8	74 - 126			
Dibromomethane	18.49	1.0	20	0	92.4	79 - 123			
Dichlorodifluoromethane	19.21	1.0	20	0	96.1	32 - 152			
Ethylbenzene	18.42	1.0	20	0	92.1	79 - 121			
Hexachlorobutadiene	25.79	1.0	20	0	129	66 - 134			
Isopropylbenzene	17.6	1.0	20	0	88.0	72 - 131			
m,p-Xylene	36.82	2.0	40	0	92.0	80 - 121			
Methylene chloride	18.27	2.0	20	0	91.4	74 - 124			
Naphthalene	16.86	1.0	20	0	84.3	61 - 128			
n-Butylbenzene	17.01	1.0	20	0	85.0	75 - 128			
n-Propylbenzene	18.13	1.0	20	0	90.7	76 - 126			
o-Xylene	18.18	1.0	20	0	90.9	78 - 122			
sec-Butylbenzene	17.52	1.0	20	0	87.6	77 - 126			
Styrene	19.37	1.0	20	0	96.8	78 - 123			
tert-Butylbenzene	17.74	1.0	20	0	88.7	78 - 124			
Tetrachloroethene	18.59	1.0	20	0	92.9	74 - 129			
Toluene	18.55	1.0	20	0	92.8	80 - 121			
trans-1,2-Dichloroethene	17.95	1.0	20	0	89.8	75 - 124			
trans-1,3-Dichloropropene	17.86	1.0	20	0	89.3	73 - 127			
Trichloroethene	19.49	1.0	20	0	97.4	79 - 123			
Trichlorofluoromethane	17.6	1.0	20	0	88.0	65 - 141			
Vinyl chloride	17.91	1.0	20	0	89.5	58 - 137			
Surr: 1,2-Dichloroethane-d4	51.24	1.0	50	0	102	81 - 118			
Surr: 4-Bromofluorobenzene	49.16	1.0	50	0	98.3	85 - 114			
Surr: Dibromofluoromethane	51.94	1.0	50	0	104	80 - 119			
Surr: Toluene-d8	47.95	1.0	50	0	95.9	89 - 112			



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
WorkOrder: HS23081423

QC BATCH REPORT

Batch ID: R444793 (0)		Instrument: VOA6		Method: VOLATILES ORGANICS BY METHOD 8260C					
MS		Sample ID: HS23081324-03MS		Units: ug/L		Analysis Date: 24-Aug-2023 15:24			
Client ID:		Run ID: VOA6_444793		SeqNo: 7508755		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1,2-Tetrachloroethane	21.49	1.0	20	0	107	78 - 124			
1,1,1-Trichloroethane	21.11	1.0	20	0	106	74 - 131			
1,1,2,2-Tetrachloroethane	18.81	1.0	20	0	94.1	71 - 121			
1,1,2-Trichloroethane	20.78	1.0	20	0	104	80 - 119			
1,1-Dichloroethane	18.11	1.0	20	0	90.6	77 - 125			
1,1-Dichloroethene	20.66	1.0	20	0	103	71 - 131			
1,1-Dichloropropene	23.42	1.0	20	0	117	78 - 125			
1,2,3-Trichlorobenzene	20.01	1.0	20	0	100	69 - 129			
1,2,3-Trichloropropane	18.78	1.0	20	0	93.9	73 - 122			
1,2,4-Trichlorobenzene	21.44	1.0	20	0	107	69 - 130			
1,2,4-Trimethylbenzene	21.63	1.0	20	0	108	76 - 124			
1,2-Dibromo-3-chloropropane	17.79	1.0	20	0	88.9	62 - 128			
1,2-Dibromoethane	20.6	1.0	20	0	103	77 - 121			
1,2-Dichlorobenzene	20.96	1.0	20	0	105	80 - 119			
1,2-Dichloroethane	19.75	1.0	20	0	98.8	73 - 128			
1,2-Dichloropropane	19.88	1.0	20	0	99.4	78 - 122			
1,3,5-Trimethylbenzene	22.41	1.0	20	0	112	75 - 124			
1,3-Dichlorobenzene	21.83	1.0	20	0	109	80 - 119			
1,3-Dichloropropane	20.62	1.0	20	0	103	80 - 119			
1,4-Dichlorobenzene	21.73	1.0	20	0	109	79 - 118			
2,2-Dichloropropane	20.47	1.0	20	0	102	60 - 139			
2-Butanone	28.05	2.0	40	0	70.1	56 - 143			
2-Chlorotoluene	22.4	1.0	20	0	112	79 - 122			
2-Hexanone	34.02	2.0	40	0	85.0	57 - 139			
4-Chlorotoluene	22.08	1.0	20	0	110	78 - 122			
4-Isopropyltoluene	23.7	1.0	20	0	119	77 - 127			
4-Methyl-2-pentanone	35.5	2.0	40	0	88.7	67 - 130			
Acetone	26.8	2.0	40	0	67.0	39 - 160			
Benzene	20.89	1.0	20	0	104	79 - 120			
Bromobenzene	22.05	1.0	20	0	110	80 - 120			
Bromochloromethane	18.51	1.0	20	0	92.6	78 - 123			
Bromodichloromethane	19.48	1.0	20	0	97.4	79 - 125			
Bromoform	19.79	1.0	20	0	99.0	66 - 130			
Bromomethane	22.3	1.0	20	0	112	53 - 141			



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
WorkOrder: HS23081423

QC BATCH REPORT

Batch ID: R444793 (0)		Instrument: VOA6		Method: VOLATILES ORGANICS BY METHOD 8260C					
MS		Sample ID: HS23081324-03MS		Units: ug/L		Analysis Date: 24-Aug-2023 15:24			
Client ID:		Run ID: VOA6_444793		SeqNo: 7508755		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Carbon disulfide	40.17	2.0	40	0	100	64 - 133			
Carbon tetrachloride	23.25	1.0	20	0	116	72 - 136			
Chlorobenzene	21.52	1.0	20	0	108	82 - 118			
Chloroethane	19.5	1.0	20	0	97.5	60 - 138			
Chloroform	19.54	1.0	20	0	97.7	79 - 124			
Chloromethane	20.88	1.0	20	0	104	50 - 139			
cis-1,2-Dichloroethene	20.15	1.0	20	0	101	78 - 123			
cis-1,3-Dichloropropene	19.24	1.0	20	0	96.2	75 - 124			
Dibromochloromethane	20.55	1.0	20	0	103	74 - 126			
Dibromomethane	18.65	1.0	20	0	93.3	79 - 123			
Dichlorodifluoromethane	20.66	1.0	20	0	103	32 - 152			
Ethylbenzene	22.94	1.0	20	0	115	79 - 121			
Hexachlorobutadiene	31.78	1.0	20	0	159	66 - 134			S
Isopropylbenzene	23.37	1.0	20	0	117	72 - 131			
m,p-Xylene	46.02	2.0	40	0	115	80 - 121			
Methylene chloride	18.21	2.0	20	0	91.1	74 - 124			
Naphthalene	18.23	1.0	20	0	91.2	61 - 128			
n-Butylbenzene	22.82	1.0	20	0	114	75 - 128			
n-Propylbenzene	24.14	1.0	20	0	121	76 - 126			
o-Xylene	22.01	1.0	20	0	110	78 - 122			
sec-Butylbenzene	24.79	1.0	20	0	124	77 - 126			
Styrene	22.64	1.0	20	0	113	78 - 123			
tert-Butylbenzene	24.2	1.0	20	0	121	78 - 124			
Tetrachloroethene	25.54	1.0	20	0	128	74 - 129			
Toluene	22.06	1.0	20	0	110	80 - 121			
trans-1,2-Dichloroethene	19.14	1.0	20	0	95.7	75 - 124			
trans-1,3-Dichloropropene	18.22	1.0	20	0	91.1	73 - 127			
Trichloroethene	23.09	1.0	20	0	115	79 - 123			
Trichlorofluoromethane	22.04	1.0	20	0	110	65 - 141			
Vinyl chloride	20.66	1.0	20	0	103	58 - 137			
Surr: 1,2-Dichloroethane-d4	49.84	1.0	50	0	99.7	81 - 118			
Surr: 4-Bromofluorobenzene	46.59	1.0	50	0	93.2	85 - 114			
Surr: Dibromofluoromethane	51.2	1.0	50	0	102	80 - 119			
Surr: Toluene-d8	51.9	1.0	50	0	104	89 - 112			



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
WorkOrder: HS23081423

QC BATCH REPORT

Batch ID: R444793 (0)		Instrument: VOA6		Method: VOLATILES ORGANICS BY METHOD 8260C						
MSD		Sample ID: HS23081324-03MSD		Units: ug/L		Analysis Date: 24-Aug-2023 15:44				
Client ID:		Run ID: VOA6_444793		SeqNo: 7508756		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.17	1.0	20	0	106	78 - 124	21.49	1.51	20	
1,1,1-Trichloroethane	20.54	1.0	20	0	103	74 - 131	21.11	2.75	20	
1,1,2,2-Tetrachloroethane	19.54	1.0	20	0	97.7	71 - 121	18.81	3.8	20	
1,1,2-Trichloroethane	20.71	1.0	20	0	104	80 - 119	20.78	0.332	20	
1,1-Dichloroethane	17.64	1.0	20	0	88.2	77 - 125	18.11	2.61	20	
1,1-Dichloroethene	19.2	1.0	20	0	96.0	71 - 131	20.66	7.37	20	
1,1-Dichloropropene	22.55	1.0	20	0	113	78 - 125	23.42	3.79	20	
1,2,3-Trichlorobenzene	21.36	1.0	20	0	107	69 - 129	20.01	6.53	20	
1,2,3-Trichloropropane	20.59	1.0	20	0	103	73 - 122	18.78	9.2	20	
1,2,4-Trichlorobenzene	22.14	1.0	20	0	111	69 - 130	21.44	3.21	20	
1,2,4-Trimethylbenzene	22.23	1.0	20	0	111	76 - 124	21.63	2.7	20	
1,2-Dibromo-3-chloropropane	18.32	1.0	20	0	91.6	62 - 128	17.79	2.94	20	
1,2-Dibromoethane	20.58	1.0	20	0	103	77 - 121	20.6	0.0871	20	
1,2-Dichlorobenzene	21.8	1.0	20	0	109	80 - 119	20.96	3.92	20	
1,2-Dichloroethane	19.74	1.0	20	0	98.7	73 - 128	19.75	0.0545	20	
1,2-Dichloropropane	19.8	1.0	20	0	99.0	78 - 122	19.88	0.408	20	
1,3,5-Trimethylbenzene	22.96	1.0	20	0	115	75 - 124	22.41	2.39	20	
1,3-Dichlorobenzene	22.3	1.0	20	0	112	80 - 119	21.83	2.12	20	
1,3-Dichloropropane	20.48	1.0	20	0	102	80 - 119	20.62	0.694	20	
1,4-Dichlorobenzene	22.34	1.0	20	0	112	79 - 118	21.73	2.73	20	
2,2-Dichloropropane	20.01	1.0	20	0	100	60 - 139	20.47	2.28	20	
2-Butanone	29.91	2.0	40	0	74.8	56 - 143	28.05	6.42	20	
2-Chlorotoluene	22.24	1.0	20	0	111	79 - 122	22.4	0.701	20	
2-Hexanone	35.77	2.0	40	0	89.4	57 - 139	34.02	5.01	20	
4-Chlorotoluene	22.32	1.0	20	0	112	78 - 122	22.08	1.07	20	
4-Isopropyltoluene	24.19	1.0	20	0	121	77 - 127	23.7	2.06	20	
4-Methyl-2-pentanone	36.19	2.0	40	0	90.5	67 - 130	35.5	1.93	20	
Acetone	27.84	2.0	40	0	69.6	39 - 160	26.8	3.83	20	
Benzene	20.91	1.0	20	0	105	79 - 120	20.89	0.0845	20	
Bromobenzene	22.3	1.0	20	0	111	80 - 120	22.05	1.13	20	
Bromochloromethane	18.72	1.0	20	0	93.6	78 - 123	18.51	1.11	20	
Bromodichloromethane	19.59	1.0	20	0	97.9	79 - 125	19.48	0.52	20	
Bromoform	20.06	1.0	20	0	100	66 - 130	19.79	1.34	20	
Bromomethane	20.68	1.0	20	0	103	53 - 141	22.3	7.53	20	



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
WorkOrder: HS23081423

QC BATCH REPORT

Batch ID: R444793 (0)		Instrument: VOA6		Method: VOLATILES ORGANICS BY METHOD 8260C					
MSD		Sample ID: HS23081324-03MSD		Units: ug/L		Analysis Date: 24-Aug-2023 15:44			
Client ID:		Run ID: VOA6_444793		SeqNo: 7508756		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Carbon disulfide	38.9	2.0	40	0	97.2	64 - 133	40.17	3.22	20
Carbon tetrachloride	22.63	1.0	20	0	113	72 - 136	23.25	2.71	20
Chlorobenzene	21.46	1.0	20	0	107	82 - 118	21.52	0.302	20
Chloroethane	18.83	1.0	20	0	94.1	60 - 138	19.5	3.5	20
Chloroform	19.39	1.0	20	0	96.9	79 - 124	19.54	0.815	20
Chloromethane	20.56	1.0	20	0	103	50 - 139	20.88	1.53	20
cis-1,2-Dichloroethene	19.99	1.0	20	0	100.0	78 - 123	20.15	0.773	20
cis-1,3-Dichloropropene	19.05	1.0	20	0	95.3	75 - 124	19.24	0.978	20
Dibromochloromethane	21.2	1.0	20	0	106	74 - 126	20.55	3.12	20
Dibromomethane	19.54	1.0	20	0	97.7	79 - 123	18.65	4.67	20
Dichlorodifluoromethane	20.41	1.0	20	0	102	32 - 152	20.66	1.24	20
Ethylbenzene	21.96	1.0	20	0	110	79 - 121	22.94	4.35	20
Hexachlorobutadiene	32.73	1.0	20	0	164	66 - 134	31.78	2.95	20 S
Isopropylbenzene	22.88	1.0	20	0	114	72 - 131	23.37	2.13	20
m,p-Xylene	44.63	2.0	40	0	112	80 - 121	46.02	3.07	20
Methylene chloride	18.05	2.0	20	0	90.3	74 - 124	18.21	0.876	20
Naphthalene	19.26	1.0	20	0	96.3	61 - 128	18.23	5.46	20
n-Butylbenzene	22.93	1.0	20	0	115	75 - 128	22.82	0.474	20
n-Propylbenzene	24.2	1.0	20	0	121	76 - 126	24.14	0.233	20
o-Xylene	21.53	1.0	20	0	108	78 - 122	22.01	2.21	20
sec-Butylbenzene	24.9	1.0	20	0	124	77 - 126	24.79	0.433	20
Styrene	22.06	1.0	20	0	110	78 - 123	22.64	2.59	20
tert-Butylbenzene	24.36	1.0	20	0	122	78 - 124	24.2	0.675	20
Tetrachloroethene	24.45	1.0	20	0	122	74 - 129	25.54	4.35	20
Toluene	21.55	1.0	20	0	108	80 - 121	22.06	2.38	20
trans-1,2-Dichloroethene	18.64	1.0	20	0	93.2	75 - 124	19.14	2.66	20
trans-1,3-Dichloropropene	18.27	1.0	20	0	91.4	73 - 127	18.22	0.311	20
Trichloroethene	22.19	1.0	20	0	111	79 - 123	23.09	3.97	20
Trichlorofluoromethane	20.89	1.0	20	0	104	65 - 141	22.04	5.35	20
Vinyl chloride	19.76	1.0	20	0	98.8	58 - 137	20.66	4.46	20
Surr: 1,2-Dichloroethane-d4	49.4	1.0	50	0	98.8	81 - 118	49.84	0.886	20
Surr: 4-Bromofluorobenzene	45.55	1.0	50	0	91.1	85 - 114	46.59	2.24	20
Surr: Dibromofluoromethane	51.19	1.0	50	0	102	80 - 119	51.2	0.0272	20
Surr: Toluene-d8	52.21	1.0	50	0	104	89 - 112	51.9	0.589	20



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY
SAMPLES
WorkOrder: HS23081423

QC BATCH REPORT**Batch ID:** R444793 (0)**Instrument:** VOA6**Method:** VOLATILES ORGANICS BY METHOD
8260C

The following samples were analyzed in this batch: HS23081423-01 HS23081423-02



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
WorkOrder: HS23081423

QC BATCH REPORT

Batch ID: R445112 (0)		Instrument: ICS-Integrion		Method: ANIONS BY SW9056A						
MBLK	Sample ID: MBLK	Units: mg/L		Analysis Date: 29-Aug-2023 09:18						
Client ID:	Run ID: ICS-Integrion_445112		SeqNo: 7516166		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.250	0.500								U
Sulfate	0.250	0.500								U

LCS	Sample ID: LCS	Units: mg/L		Analysis Date: 29-Aug-2023 09:24						
Client ID:	Run ID: ICS-Integrion_445112		SeqNo: 7516167		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.38	0.500	20	0	96.9	80 - 120				
Sulfate	20.29	0.500	20	0	101	80 - 120				

MS	Sample ID: HS23081750-01MS	Units: mg/L		Analysis Date: 29-Aug-2023 09:36						
Client ID:	Run ID: ICS-Integrion_445112		SeqNo: 7516169		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	63.41	0.500	10	54.82	85.8	80 - 120				O
Sulfate	31.45	0.500	10	22.67	87.8	80 - 120				

MSD	Sample ID: HS23081750-01MSD	Units: mg/L		Analysis Date: 29-Aug-2023 09:42						
Client ID:	Run ID: ICS-Integrion_445112		SeqNo: 7516170		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	63.32	0.500	10	54.82	85.0	80 - 120	63.41	0.133	20	O
Sulfate	31.41	0.500	10	22.67	87.4	80 - 120	31.45	0.133	20	

The following samples were analyzed in this batch: HS23081423-01



ALS Houston, US

Date: 30-Aug-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES
WorkOrder: HS23081423

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

Unit Reported	Description
mg/L	Milligrams per Liter



CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US

Date: 30-Aug-23

Sample Receipt Checklist

Work Order ID: HS23081423

Date/Time Received: **23-Aug-2023 10:35**

Client Name: Bhate Environmental

Received by: **Corey Grandits**Completed By: /S/ Belinda Gomez

23-Aug-2023 12:05

Reviewed by: /S/ James Guin

23-Aug-2023 15:18

eSignature

Date/Time

eSignature

Date/Time

Matrices: **W**Carrier name: **FedEx**

Shipping container/cooler in good condition?

Yes ☒No ☐Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒No ☐Not Present ☐

Custody seals intact on sample bottles?

Yes ☐No ☐Not Present ☒

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes ☐No ☐Not Present ☒

Chain of custody present?

Yes ☒No ☐

1 Page(s)

Chain of custody signed when relinquished and received?

Yes ☒No ☐

Samplers name present on COC?

Yes ☒No ☐

Chain of custody agrees with sample labels?

Yes ☒No ☐

Samples in proper container/bottle?

Yes ☒No ☐

Sample containers intact?

Yes ☒No ☐

Sufficient sample volume for indicated test?

Yes ☒No ☐

All samples received within holding time?

Yes ☒No ☐

Container/Temp Blank temperature in compliance?

Yes ☒No ☐

Temperature(s)/Thermometer(s):

1.8uc/1.7c

ir31

Cooler(s)/Kit(s):

50666

Date/Time sample(s) sent to storage:

8/23/23 1208

Water - VOA vials have zero headspace?

Yes ☒No ☐No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☒No ☐N/A ☐

pH adjusted?

Yes ☐No ☒N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210, Houston, Tx. 77099 ATTN: Dane Wacasey

Page 1 of 1

Project: BHATE LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS						Project No. JVPCIBH.0001													
Job: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES																			
Prepared By: Scott Beesinger				P.O Number															
Field Sample I.D.		Sample Matrix		Date / Time		MS / MSD	No. OF CONTAINERS	VOC	CHLORIDE, SULFATE	Anhydrous Ammonia							HS23081423 Bhate Environmental Associates, Inc. GROUNDWATER TREATMENT PLANT BI-WEEKLY 		
LH18/24-SP650_082223	Water	08/22/23 / 13:00	3	3														Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_082223	Water	08/22/23 / 13:00	1	1														NONE	
Trip Blank	Water	08/22/23	2	2														HCL	
Additional Remarks: Standard TAT on all parameters																			
Relinquished By:		Date	Time	Received By:		Date	Time	Relinquished By:		Date	Time	Received By:		Date	Time				
[Signature]		08/22/23	13:30	[Signature]		08/23/23	10:34												
9For Lab Use Only																			
Received At Lab By:				Date	Time	Airbill No.	Opened By:		Date	Time	Temp of Container	Seal No.	Condition						
Remarks																			

(Word) S-11-ces\Forms\Chain of Custody - BiWeekly



ORIGIN ID: SGRA (803) 930-6183
 SCOTT BEESINGER
 APT: ENVIRONMENTAL & INFRASTRUCTURE
 1203-B EAST GRAND AVE
 PMB 202
 MARSHALL, TX 75670
 UNITED STATES US

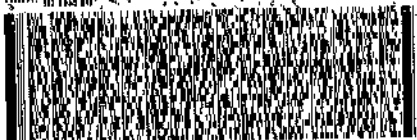
SHIP DATE: 280812
 ACTWT: 1.00 LB HW
 CAD: 02212470750
 DIMS: 15x16x13 IN

10 SHIPPING DEPT
 ALS LABORATORY GROUP
 10450 STANCLIFF RD
 SUITE 210
 HOUSTON TX 77099

(281) 530-5656

REF: LHAAP-67-B081554-RG

BMA: 11111111



FedEx
 Express



FedEx

TRK# 5300 5224 2267

0221

XA SGRA



RETURNS MON-SAT
 WED - 23 AUG 10:30A
 PRIORITY OVERNIGHT

77099

TX-US IAH

0221 0224

CUS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5857		Seal Broken By: Date:	
Date: 8/22/03 Time: 1300 Name: Scott Beesinger Company: BHS City: Houston, TX		Seal Broken By: Date:	



ALS

10450 Stancliff Rd., Suite 210
 Houston, Texas 77099
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CUS
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Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5857

Date: 8/22/03
Time: 1300
Name: Scott Beesinger
Company: BHS
City: Houston, TX

Seal Broken By:
Date:

Date:



HS23081423-MSVOA-SW8260

ALS WO# HS23081423





right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS23081423

Client

Bhate Environmental Associates, Inc.

Project

GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

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.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

Volatiles by EPA Volatiles Organics by Method 8260C

HS23081423-01				Collected			Received		Matrix	Basis
LH18/24-SP650_082223				08/22/23 13:00			08/23/23 10:35		Water	Wet
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	08/24/23 17:06	VOA6_444793	X082421.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	08/24/23 17:06	VOA6_444793	X082421.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

Volatiles by EPA Volatiles Organics by Method 8260C

HS23081423-01				Collected			Received		Matrix	Basis
LH18/24-SP650_082223				08/22/23 13:00			08/23/23 10:35		Water	Wet
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
cis-1,2-Dichloroethene	ug/L	3.0		0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 17:06	VOA6_444793	X082421.D





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

Volatiles by EPA Volatiles Organics by Method 8260C

HS23081423-02				Collected			Received		Matrix	Basis
Trip Blank				08/22/23 00:00			08/23/23 10:35		Water	Wet
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	08/24/23 16:25	VOA6_444793	X082419.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	08/24/23 16:25	VOA6_444793	X082419.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Bromoform	uq/L	1.0	U	0.40	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

Volatiles by EPA Volatiles Organics by Method 8260C

HS23081423-02				Collected			Received		Matrix	Basis
Trip Blank				08/22/23 00:00			08/23/23 10:35		Water	Wet
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 16:25	VOA6_444793	X082419.D





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

Volatiles by EPA Volatiles Organics by Method 8260C

VBLKW-230824				Collected				Received		Matrix		Basis	
VBLKW-230824				NA				NA		Aqueous		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date		Run ID		DataFile	
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 12:19		VOA6_444793		X082407.D	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

Volatiles by EPA Volatiles Organics by Method 8260C

VBLKW-230824				Collected			Received		Matrix	Basis
VBLKW-230824				NA			NA		Aqueous	Wet
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	08/24/23 12:19	VOA6_444793	X082407.D





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Form 2

System Monitoring Compound Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23081423

Client
Bhate Environmental Associates, Inc.

Project
GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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HS23081423

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6-444793

CCB-CCB	Analyzed	Conc Units	Dilution
CCB	08/24/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	49.19	50	98.4		80-120
4-Bromofluorobenzene	44.18	50	88.4		80-120
Dibromofluoromethane	50.16	50	100		80-120
Toluene-d8	52.81	50	106		80-120

CCV-CCV	Analyzed	Conc Units	Dilution
CCV	08/24/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	49.51	50	99.0		80-120
4-Bromofluorobenzene	50.51	50	101		80-120
Dibromofluoromethane	52.63	50	105		80-120
Toluene-d8	48.16	50	96.3		80-120

HS23081324-03MS	Analyzed	Conc Units	Dilution
BatchQC	08/24/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	49.84	50	99.7		81-118
4-Bromofluorobenzene	46.59	50	93.2		85-114
Dibromofluoromethane	51.2	50	102		80-119
Toluene-d8	51.9	50	104		89-112





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HS23081423

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Volatiles by EPA Volatiles Organics by Method 8260C

VOA6-444793

HS23081324-03MSD	Analyzed	Conc Units	Dilution
BatchQC	08/24/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	49.4	50	98.8		81-118
4-Bromofluorobenzene	45.55	50	91.1		85-114
Dibromofluoromethane	51.19	50	102		80-119
Toluene-d8	52.21	50	104		89-112

HS23081423-01	Analyzed	Conc Units	Dilution
LH18/24-SP650_082223	08/24/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	52	50	104		81-118
4-Bromofluorobenzene	44	50	88.9		85-114
Dibromofluoromethane	53	50	106		80-119
Toluene-d8	52	50	105		89-112

HS23081423-02	Analyzed	Conc Units	Dilution
Trip Blank	08/24/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51	50	101		81-118
4-Bromofluorobenzene	44	50	88.7		85-114
Dibromofluoromethane	52	50	105		80-119
Toluene-d8	53	50	105		89-112





Form 2 - System Monitoring Compound Recovery

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HS23081423

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6-444793

VBLKW-230824	Analyzed	Conc Units	Dilution
VBLKW-230824	08/24/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	50.01	50	100		81-118
4-Bromofluorobenzene	44.15	50	88.3		85-114
Dibromofluoromethane	51.21	50	102		80-119
Toluene-d8	52.66	50	105		89-112

VLCSW-230824	Analyzed	Conc Units	Dilution
VLCSW-230824	08/24/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51.24	50	102		81-118
4-Bromofluorobenzene	49.16	50	98.3		85-114
Dibromofluoromethane	51.94	50	104		80-119
Toluene-d8	47.95	50	95.9		89-112





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Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23081423

Client
Bhate Environmental Associates, Inc.

Project
GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

ALS Environmental–Houston Laboratory

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Form 3A - Matrix Spike/Spike Duplicate Recovery

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Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6-444793

BatchQC (HS23081324-03)				HS23081324-03MS				HS23081324-03MSD						
Sample Matrix Aqueous		Run Date		08/24/23		08/24/23		08/24/23						
Result Units ug/L		Run Time		15:24		15:44		15:44						
		Data File		X082416.D		X082417.D								
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1,1,2-Tetrachloroethane	78-124	1	0	21.49	20	107		21.17	20	106		20	1.51	
1,1,1-Trichloroethane	74-131	1	0	21.11	20	106		20.54	20	103		20	2.75	
1,1,2,2-Tetrachloroethane	71-121	1	0	18.81	20	94		19.54	20	98		20	3.8	
1,1,2-Trichloroethane	80-119	1	0	20.78	20	104		20.71	20	104		20	0.332	
1,1-Dichloroethane	77-125	1	0	18.11	20	91		17.64	20	88		20	2.61	
1,1-Dichloroethene	71-131	1	0	20.66	20	103		19.2	20	96		20	7.37	
1,1-Dichloropropene	78-125	1	0	23.42	20	117		22.55	20	113		20	3.79	
1,2,3-Trichlorobenzene	69-129	1	0	20.01	20	100		21.36	20	107		20	6.53	
1,2,3-Trichloropropane	73-122	1	0	18.78	20	94		20.59	20	103		20	9.2	
1,2,4-Trichlorobenzene	69-130	1	0	21.44	20	107		22.14	20	111		20	3.21	
1,2,4-Trimethylbenzene	76-124	1	0	21.63	20	108		22.23	20	111		20	2.7	
1,2-Dibromo-3-chloropropane	62-128	1	0	17.79	20	89		18.32	20	92		20	2.94	
1,2-Dibromoethane	77-121	1	0	20.6	20	103		20.58	20	103		20	0.0871	
1,2-Dichlorobenzene	80-119	1	0	20.96	20	105		21.8	20	109		20	3.92	
1,2-Dichloroethane	73-128	1	0	19.75	20	99		19.74	20	99		20	0.0545	
1,2-Dichloropropane	78-122	1	0	19.88	20	99		19.8	20	99		20	0.408	
1,3,5-Trimethylbenzene	75-124	1	0	22.41	20	112		22.96	20	115		20	2.39	
1,3-Dichlorobenzene	80-119	1	0	21.83	20	109		22.3	20	112		20	2.12	
1,3-Dichloropropane	80-119	1	0	20.62	20	103		20.48	20	102		20	0.694	
1,4-Dichlorobenzene	79-118	1	0	21.73	20	109		22.34	20	112		20	2.73	
2,2-Dichloropropane	60-139	1	0	20.47	20	102		20.01	20	100		20	2.28	
2-Butanone	56-143	1	0	28.05	40	70		29.91	40	75		20	6.42	
2-Chlorotoluene	79-122	1	0	22.4	20	112		22.24	20	111		20	0.701	
2-Hexanone	57-139	1	0	34.02	40	85		35.77	40	89		20	5.01	
4-Chlorotoluene	78-122	1	0	22.08	20	110		22.32	20	112		20	1.07	
4-Isopropyltoluene	77-127	1	0	23.7	20	119		24.19	20	121		20	2.06	
4-Methyl-2-pentanone	67-130	1	0	35.5	40	89		36.19	40	90		20	1.93	
Acetone	39-160	1	0	26.8	40	67		27.84	40	70		20	3.83	
Benzene	79-120	1	0	20.89	20	104		20.91	20	105		20	0.0845	
Bromobenzene	80-120	1	0	22.05	20	110		22.3	20	111		20	1.13	
Bromochloromethane	78-123	1	0	18.51	20	93		18.72	20	94		20	1.11	
Bromodichloromethane	79-125	1	0	19.48	20	97		19.59	20	98		20	0.52	
Bromoform	66-130	1	0	19.79	20	99		20.06	20	100		20	1.34	
Bromomethane	53-141	1	0	22.3	20	112		20.68	20	103		20	7.53	

Q - %Recovery / RPD Flag

* - %Recovery / RPD Outside Limits

OL - Outside Limits

%R - %Recovery

DF - Dilution Factor

Amt - Amount (weight or volume)





Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6-444793

BatchQC (HS23081324-03)				HS23081324-03MS				HS23081324-03MSD						
Sample Matrix Aqueous		Run Date		08/24/23				08/24/23						
Result Units ug/L		Run Time		15:24				15:44						
		Data File		X082416.D				X082417.D						
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Carbon disulfide	64-133	1	0	40.17	40	100		38.9	40	97		20	3.22	
Carbon tetrachloride	72-136	1	0	23.25	20	116		22.63	20	113		20	2.71	
Chlorobenzene	82-118	1	0	21.52	20	108		21.46	20	107		20	0.302	
Chloroethane	60-138	1	0	19.5	20	98		18.83	20	94		20	3.5	
Chloroform	79-124	1	0	19.54	20	98		19.39	20	97		20	0.815	
Chloromethane	50-139	1	0	20.88	20	104		20.56	20	103		20	1.53	
cis-1,2-Dichloroethene	78-123	1	0	20.15	20	101		19.99	20	100		20	0.773	
cis-1,3-Dichloropropene	75-124	1	0	19.24	20	96		19.05	20	95		20	0.978	
Dibromochloromethane	74-126	1	0	20.55	20	103		21.2	20	106		20	3.12	
Dibromomethane	79-123	1	0	18.65	20	93		19.54	20	98		20	4.67	
Dichlorodifluoromethane	32-152	1	0	20.66	20	103		20.41	20	102		20	1.24	
Ethylbenzene	79-121	1	0	22.94	20	115		21.96	20	110		20	4.35	
Hexachlorobutadiene	66-134	1	0	31.78	20	159		32.73	20	164		20	2.95	
Isopropylbenzene	72-131	1	0	23.37	20	117		22.88	20	114		20	2.13	
m,p-Xylene	80-121	1	0	46.02	40	115		44.63	40	112		20	3.07	
Methylene chloride	74-124	1	0	18.21	20	91		18.05	20	90		20	0.876	
Naphthalene	61-128	1	0	18.23	20	91		19.26	20	96		20	5.46	
n-Butylbenzene	75-128	1	0	22.82	20	114		22.93	20	115		20	0.474	
n-Propylbenzene	76-126	1	0	24.14	20	121		24.2	20	121		20	0.233	
o-Xylene	78-122	1	0	22.01	20	110		21.53	20	108		20	2.21	
sec-Butylbenzene	77-126	1	0	24.79	20	124		24.9	20	124		20	0.433	
Styrene	78-123	1	0	22.64	20	113		22.06	20	110		20	2.59	
tert-Butylbenzene	78-124	1	0	24.2	20	121		24.36	20	122		20	0.675	
Tetrachloroethene	74-129	1	0	25.54	20	128		24.45	20	122		20	4.35	
Toluene	80-121	1	0	22.06	20	110		21.55	20	108		20	2.38	
trans-1,2-Dichloroethene	75-124	1	0	19.14	20	96		18.64	20	93		20	2.66	
trans-1,3-Dichloropropene	73-127	1	0	18.22	20	91		18.27	20	91		20	0.311	
Trichloroethene	79-123	1	0	23.09	20	115		22.19	20	111		20	3.97	
Trichlorofluoromethane	65-141	1	0	22.04	20	110		20.89	20	104		20	5.35	
Vinyl chloride	58-137	1	0	20.66	20	103		19.76	20	99		20	4.46	

Q - %Recovery / RPD Flag

* - %Recovery / RPD Outside Limits

OL - Outside Limits

%R - %Recovery

DF - Dilution Factor

Amt - Amount (weight or volume)





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Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS23081423

Client

Bhate Environmental Associates, Inc.

Project

GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

SAMPLENUM

Volatiles by EPA Volatiles Organics by Method 8260C

VLCSW-230824

VOA6_444793			VLCSW-230824		
Spike Matrix Aqueous		Run Date	08/24/23		
Result Units ug/L		Run Time	11:38		
		Data File	X082405.D		
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q
1,1,1,2-Tetrachloroethane	78-124	20	19.15	95.8	
1,1,1-Trichloroethane	74-131	20	18.46	92.3	
1,1,2,2-Tetrachloroethane	71-121	20	18.92	94.6	
1,1,2-Trichloroethane	80-119	20	19.61	98.1	
1,1-Dichloroethane	77-125	20	17.44	87.2	
1,1-Dichloroethene	71-131	20	17.88	89.4	
1,1-Dichloropropene	78-125	20	18.8	94.0	
1,2,3-Trichlorobenzene	69-129	20	17.95	89.7	
1,2,3-Trichloropropane	73-122	20	18.62	93.1	
1,2,4-Trichlorobenzene	69-130	20	18.28	91.4	
1,2,4-Trimethylbenzene	76-124	20	17.42	87.1	
1,2-Dibromo-3-chloropropane	62-128	20	17.7	88.5	
1,2-Dibromoethane	77-121	20	19.4	97.0	
1,2-Dichlorobenzene	80-119	20	18.23	91.2	
1,2-Dichloroethane	73-128	20	18.99	94.9	
1,2-Dichloropropane	78-122	20	18.11	90.5	
1,3,5-Trimethylbenzene	75-124	20	17.28	86.4	
1,3-Dichlorobenzene	80-119	20	18.42	92.1	
1,3-Dichloropropane	80-119	20	18.88	94.4	
1,4-Dichlorobenzene	79-118	20	18.43	92.2	
2,2-Dichloropropane	60-139	20	18.73	93.6	
2-Butanone	56-143	40	33.52	83.8	
2-Chlorotoluene	79-122	20	18.12	90.6	
2-Hexanone	57-139	40	34.19	85.5	
4-Chlorotoluene	78-122	20	18.38	91.9	
4-Isopropyltoluene	77-127	20	17.41	87.1	
4-Methyl-2-pentanone	67-130	40	34.89	87.2	
Acetone	39-160	40	32.22	80.6	
Benzene	79-120	20	18.49	92.5	
Bromobenzene	80-120	20	19.89	99.4	
Bromochloromethane	78-123	20	19.73	98.6	
Bromodichloromethane	79-125	20	18.69	93.4	
Bromoform	66-130	20	19.52	97.6	
Bromomethane	53-141	20	20.73	104	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)





Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

SAMPLENUM

Volatiles by EPA Volatiles Organics by Method 8260C

VLCSW-230824

VOA6_444793			VLCSW-230824		
Spike Matrix Aqueous		Run Date	08/24/23		
Result Units ug/L		Run Time	11:38		
		Data File	X082405.D		
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q
Carbon disulfide	64-133	40	34.36	85.9	
Carbon tetrachloride	72-136	20	18.16	90.8	
Chlorobenzene	82-118	20	18.84	94.2	
Chloroethane	60-138	20	18.3	91.5	
Chloroform	79-124	20	19.05	95.3	
Chloromethane	50-139	20	20.54	103	
cis-1,2-Dichloroethene	78-123	20	19.63	98.1	
cis-1,3-Dichloropropene	75-124	20	18.25	91.2	
Dibromochloromethane	74-126	20	19.57	97.8	
Dibromomethane	79-123	20	18.49	92.4	
Dichlorodifluoromethane	32-152	20	19.21	96.1	
Ethylbenzene	79-121	20	18.42	92.1	
Hexachlorobutadiene	66-134	20	25.79	129	
Isopropylbenzene	72-131	20	17.6	88.0	
m,p-Xylene	80-121	40	36.82	92.0	
Methylene chloride	74-124	20	18.27	91.4	
Naphthalene	61-128	20	16.86	84.3	
n-Butylbenzene	75-128	20	17.01	85.0	
n-Propylbenzene	76-126	20	18.13	90.7	
o-Xylene	78-122	20	18.18	90.9	
sec-Butylbenzene	77-126	20	17.52	87.6	
Styrene	78-123	20	19.37	96.8	
tert-Butylbenzene	78-124	20	17.74	88.7	
Tetrachloroethene	74-129	20	18.59	92.9	
Toluene	80-121	20	18.55	92.8	
trans-1,2-Dichloroethene	75-124	20	17.95	89.8	
trans-1,3-Dichloropropene	73-127	20	17.86	89.3	
Trichloroethene	79-123	20	19.49	97.4	
Trichlorofluoromethane	65-141	20	17.6	88.0	
Vinyl chloride	58-137	20	17.91	89.5	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)





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Form 4

Method Blank Summary

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23081423

Client
Bhate Environmental Associates, Inc.

Project
GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

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Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

Volatiles by EPA Volatiles Organics by Method 8260C

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230824	X082407.D	08/24/23 12:19	VOA6_444793
VLCSW-230824	LCS	VLCSW-230824	X082405.D	08/24/23 11:38	VOA6_444793
BatchQC	MS	HS23081324-03MS	X082416.D	08/24/23 15:24	VOA6_444793
BatchQC	MSD	HS23081324-03MSD	X082417.D	08/24/23 15:44	VOA6_444793
Trip Blank	SAMP	HS23081423-02	X082419.D	08/24/23 16:25	VOA6_444793
LH18/24-SP650_082223	SAMP	HS23081423-01	X082421.D	08/24/23 17:06	VOA6_444793





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Form 5

Instrument Performance Check

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23081423

Client
Bhate Environmental Associates, Inc.

Project
GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

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Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6-443843

Tune File		08/11/23 8/11/2023	This check applies to the following analyses				
m / e	Ion Abundance Criterion	%RA	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
50	15.0 - 40.0% of mass 95	21.9 (21.9)	1	VSTD000.25	ICAL1	8/11/2023	X081102 VSTD000.25
75	30.0 - 60.0% of mass 95	53.6 (53.6)	2	VSTD000.5	ICAL2	8/11/2023	X081103 VSTD000.5
95	Base peak, 100% RA	100 (100)	3	VSTD001	ICAL3	8/11/2023	X081104 VSTD001
96	5.0 - 9.0% of mass 95	6.7 (6.67)	4	VSTD002	ICAL4	8/11/2023	X081105 VSTD002
173	Less than 2.0% of mass 174	1.1 (1.2) 1	5	VSTD005	ICAL5	8/11/2023	X081106 VSTD005
174	50.0 - 120.0% of mass 95	89.8 (89.8)	6	VSTD020	ICAL6	8/11/2023	X081107 VSTD020
175	4.0 - 9.0% of mass 174	7.4 (8.29) 1	7	VSTD050	ICAL7	8/11/2023	X081108 VSTD050
176	93.0 - 101.0% of mass 174	87.4 (97.3) 1	8	VSTD100	ICAL8	8/11/2023	X081109 VSTD100
177	5.0 - 9.0% of mass 176	6.1 (6.98) 2	9	VSTD150	ICAL9	8/11/2023	X081110 VSTD150
%RA - Percent Relative Abundance			10	VSTD200	ICAL	8/11/2023	X081111 VSTD200
			11	CCV	ICV	8/11/2023	X081113 CCV





Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6-444793

Tune File X082401.D 08/24/23 8/24/2023			This check applies to the following analyses					
m / e	Ion Abundance Criterion	%RA		Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
50	15.0 - 40.0% of mass 95	20.5 (20.5)	1	CCV	CCV	8/24/2023	X082403	CCV
75	30.0 - 60.0% of mass 95	50.2 (50.2)	2	CCB	CCB	8/24/2023	X082404	CCB
95	Base peak, 100% RA	100 (100)	3	VLCSW-	LCS	8/24/2023	X082405	VLCSW-230824
96	5.0 - 9.0% of mass 95	7.3 (7.31)	4	VBLKW-	MBLK	8/24/2023	X082407	VBLKW-230824
173	Less than 2.0% of mass 174	0.8 (0.792) 1	5	HS23081324-	MS	8/24/2023	X082416	ZZZZZMS
174	50.0 - 120.0% of mass 95	94.9 (94.9)	6	HS23081324-	MSD	8/24/2023	X082417	ZZZZZMSD
175	4.0 - 9.0% of mass 174	7.3 (7.68) 1	7	HS23081423-	SAMP	8/24/2023	X082419	Trip Blank
176	93.0 - 101.0% of mass 174	91.1 (96) 1	8	HS23081423-	SAMP	8/24/2023	X082421	LH18/24-SP650_082223
177	5.0 - 9.0% of mass 176	6.3 (6.94) 2	9	CCV-	CCV_EN	8/24/2023	X082423	CCV-
%RA - Percent Relative Abundance								





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Form 6

Initial Calibration Data

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23081423

Client
Bhate Environmental Associates, Inc.

Project
GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

ALS Environmental–Houston Laboratory

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Workorder
HS23081423

RunID

VOA6_443843

Volatiles by EPA Volatiles Organics by Method 8260C

Calibration Files

Level 1..target\chem\voa6.i\230811.b\081102.d **Level 5**..target\chem\voa6.i\230811.b\081106.d
Level 2..target\chem\voa6.i\230811.b\081103.d **Level 6**..target\chem\voa6.i\230811.b\081107.d
ICAL Start Date 11-AUG-2023 1133 **Level 3**..target\chem\voa6.i\230811.b\081104.d **Level 7**..target\chem\voa6.i\230811.b\081108.d **Level 9**..target\chem\voa6.i\230811.b\081110.d
ICAL End Date 11-AUG-2023 1457 **Level 4**..target\chem\voa6.i\230811.b\081105.d **Level 8**..target\chem\voa6.i\230811.b\081109.d **Level 10**target\chem\voa6.i\230811.b\081111.d

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Dichlorodifluoromethane	NE 255633	3407 619342	4328 959873	11597 1273733	27672	99620	LINR	0.01337	0.46460		0.99850	
Chloromethane	NE 0.40302	0.57405 0.48018	0.52500 0.50465	0.47096 0.53834	0.46477	0.41794	AVRG		0.48655		11.39424	
Propionitrile	NE 0.07074	0.06787 0.07205	0.07292 0.07170	0.06349 0.07228	0.06817	0.06745	AVRG		0.06963		4.45118	
Vinyl Chloride	NE 0.55667	0.72606 0.61855	0.56186 0.60253	0.60489 0.58278	0.58952	0.55465	AVRG		0.59972		8.75575	
Bromomethane	NE 0.27995	0.35231 0.31382	0.37627 0.32529	0.33070 0.34286	0.30591	0.27830	AVRG		0.32283		10.02785	
Chloroethane	NE 0.36414	0.45634 0.38031	0.43284 0.35909	0.41782 0.35077	0.40656	0.36978	AVRG		0.39307		9.37589	
Trichlorofluoromethane	NE 0.75325	1.10623 0.89244	0.76877 0.85600	0.84856 0.81997	0.85815	0.77853	AVRG		0.85354		12.38612	
Acrolein	NE 22472	323 42571	463 67360	887 87268	2218	7342	LINR	-0.05489	0.01595		0.99825	
Acetone	NE 247355	8080 518775	9915 740284	14349 1042142	31794	100132	LINR	-0.09194	0.18484		0.99800	
1,1-Dichloroethene	NE 0.43569	0.56284 0.48537	0.48932 0.46481	0.51676 0.44882	0.49398	0.44755	AVRG		0.48279		8.24421	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits





Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Workorder
HS23081423

RunID
VOA6_443843

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 11-AUG-2023 1133

ICAL End Date 11-AUG-2023 1457

ICAL Summary Page 2 / 12

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Isobutyl Alcohol	NE 0.07652	0.08412 0.07931	0.07401 0.07954	0.07762 0.08132	0.07584	0.07709	AVRG		0.07838		3.90627	
Acetonitrile	NE 0.07456	0.07300 0.07466	0.08481 0.07260	0.08801 0.07232	0.07971	0.07431	AVRG		0.07711		7.47057	
Allyl Chloride	NE 1.44176	1.69809 1.43490	1.64719 1.38774	1.69303 1.37516	1.61564	1.41555	AVRG		1.52323		8.97832	
Iodomethane	NE 646092	2898 1612228	5195 2614120	9663 3724033	31977	171922	QUAD	0.11120	1.71280	-0.04510	0.99848	
Acrylonitrile	NE 0.22137	0.24952 0.22377	0.24284 0.21854	0.24432 0.21551	0.25192	0.22541	AVRG		0.23258		6.16962	
Methylene Chloride	NE 0.56122	0.64115 0.54894	0.71364 0.51621	0.63887 0.51110	0.71498	0.60296	AVRG		0.60545		12.80901	
Methyl tert-butyl ether	NE 1.65215	1.97638 1.61767	1.87864 1.59510	1.78399 1.58849	1.77267	1.63417	AVRG		1.72214		8.03192	
Carbon Disulfide	NE 1.34724	1.48863 1.47632	1.44347 1.42960	1.48106 1.39624	1.47715	1.35583	AVRG		1.43284		3.82349	
trans-1,2-Dichloroethene	NE 0.52456	0.63439 0.54249	0.61656 0.52259	0.56699 0.51339	0.58807	0.54041	AVRG		0.56105		7.73785	
Vinyl Acetate	NE 1.64724	1.83435 1.68753	1.67683 1.65594	1.52797 1.65375	1.61303	1.63980	AVRG		1.65961		4.84390	
1,1-Dichloroethane	NE 0.98414	1.21108 0.99880	1.23422 0.94407	1.13098 0.93091	1.06669	1.00863	AVRG		1.05661		10.60256	
Chloroprene	NE 0.18511	0.24053 0.21791	0.22398 0.21096	0.21746 0.20023	0.21465	0.19285	AVRG		0.21152		7.94039	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits





Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Workorder
HS23081423

RunID

VOA6_443843

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 11-AUG-2023 1133

ICAL End Date 11-AUG-2023 1457

ICAL Summary Page 3 / 12

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
2-Butanone	NE 0.19090	0.16626 0.20804	0.17705 0.19986	0.17177 0.20476	0.18179	0.16529	AVRG		0.18508		8.88859	
Methacrylonitrile	NE 0.48682	0.53696 0.50767	0.48185 0.50221	0.47953 0.50039	0.50962	0.48295	AVRG		0.49867		3.69719	
2,2-Dichloropropane	NE 420039	4612 949589	9399 1464683	17055 1951668	43583	162441	LINR	-0.00034	0.70909		0.99916	
cis-1,2-Dichloroethene	NE 0.52504	0.58922 0.54660	0.54283 0.52807	0.50439 0.52661	0.55456	0.53181	AVRG		0.53879		4.42802	
Chloroform	NE 0.88361	0.94895 0.91936	0.99572 0.88022	0.96143 0.87517	0.96651	0.90377	AVRG		0.92608		4.72192	
Bromochloromethane	NE 0.28903	0.30862 0.29941	0.37772 0.28783	0.31678 0.27712	0.30706	0.29309	AVRG		0.30629		9.60862	
1,1,1-Trichloroethane	NE 0.70525	0.79991 0.79429	0.67228 0.77108	0.70847 0.75445	0.76754	0.71836	AVRG		0.74351		5.94209	
1,1-Dichloropropene	NE 0.35874	0.44123 0.42677	0.35374 0.42631	0.38325 0.41429	0.36402	0.37247	AVRG		0.39342		8.57192	
1,2-Dichloroethane	NE 0.44581	0.52772 0.46238	0.52519 0.46248	0.45791 0.45826	0.48129	0.45673	AVRG		0.47531		6.40385	
Carbon Tetrachloride	NE 0.35954	0.47967 0.43348	0.39978 0.44098	0.40393 0.42221	0.43067	0.36764	AVRG		0.41532		8.99651	
Benzene	NE 1.15436	1.38413 1.23319	1.27200 1.23296	1.17750 1.21280	1.24217	1.17492	AVRG		1.23156		5.55716	
Trichloroethene	NE 0.32756	0.40599 0.35784	0.34534 0.36244	0.34459 0.35492	0.35435	0.33246	AVRG		0.35394		6.40889	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.
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Workorder
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Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 11-AUG-2023 1133

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ICAL Summary Page 4 / 12

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Bromodichloromethane	NE 0.42912	0.53776 0.45138	0.49960 0.44887	0.42015 0.45134	0.45657	0.43323	AVRG		0.45867		8.13672	
Methyl Methacrylate	NE 0.45708	0.46821 0.47469	0.46970 0.46852	0.43319 0.47446	0.45468	0.43984	AVRG		0.46004		3.27954	
2-Chloroethylvinyl ether	NE 0.10527	0.13044 0.11857	0.12050 0.11999	0.12280 0.12146	0.11033	0.10670	AVRG		0.11734		7.03256	
1,2-Dichloropropane	NE 0.32291	0.41261 0.34183	0.36231 0.34389	0.33070 0.34368	0.34126	0.32613	AVRG		0.34726		7.82046	
2-Nitropropane	NE 0.16504	0.19619 0.18033	0.20580 0.17879	0.19631 0.18450	0.18445	0.16142	AVRG		0.18365		7.90215	
Dibromomethane	NE 0.21505	0.27102 0.22287	0.28256 0.22326	0.23327 0.22465	0.24153	0.22164	AVRG		0.23732		10.02170	
4-Methyl-2-Pentanone	NE 0.33755	0.37287 0.35276	0.36808 0.35896	0.38125 0.36361	0.34499	0.34783	AVRG		0.35866		3.95589	
cis-1,3-Dichloropropene	NE 0.49701	0.60888 0.54096	0.51488 0.54667	0.47545 0.55656	0.48634	0.49691	AVRG		0.52485		8.07803	
Ethyl Methacrylate	NE 0.43754	0.47636 0.46383	0.47511 0.47685	0.44432 0.48333	0.42713	0.43820	AVRG		0.45808		4.63830	
Toluene	NE 1.30542	1.58762 1.39612	1.45153 1.40769	1.29669 1.38932	1.38586	1.31867	AVRG		1.39321		6.42306	
trans-1,3-Dichloropropene	NE 0.41239	0.51608 0.45869	0.41702 0.46634	0.40845 0.47803	0.40096	0.40651	AVRG		0.44050		9.22391	
2-Hexanone	NE 0.22991	0.23756 0.23902	0.24514 0.24226	0.24516 0.25074	0.23798	0.23897	AVRG		0.24075		2.46712	

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
1,1,2-Trichloroethane	NE 0.26299	0.30480 0.27255	0.28308 0.27293	0.27202 0.27412	0.28463	0.27234	AVRG		0.27772		4.31956	
1,3-Dichloropropane	NE 0.53265	0.64521 0.54426	0.63134 0.55126	0.54276 0.55377	0.56859	0.53964	AVRG		0.56772		7.29205	
Dibromochloromethane	NE 0.39604	0.42562 0.40981	0.40064 0.41415	0.37380 0.41796	0.38120	0.38806	AVRG		0.40081		4.38226	
Tetrachloroethene	NE 0.26579	0.32145 0.31165	0.27810 0.31659	0.25034 0.30175	0.28769	0.27284	AVRG		0.28958		8.54849	
1,2-Dibromoethane	NE 0.32798	0.36532 0.33179	0.33937 0.33669	0.33095 0.33988	0.34531	0.33603	AVRG		0.33926		3.27108	
1-Chlorohexane	NE 0.25100	0.30188 0.31383	0.31158 0.32140	0.27315 0.31291	0.27363	0.24424	AVRG		0.28929		10.11307	
Chlorobenzene	NE 0.90541	1.10534 0.95312	0.97241 0.96654	0.90938 0.96446	0.95264	0.91060	AVRG		0.95999		6.31738	
1,1,1,2-Tetrachloroethane	NE 0.35585	0.40402 0.38079	0.35426 0.38526	0.35087 0.38535	0.36062	0.36038	AVRG		0.37082		4.98176	
Ethylbenzene	NE 0.45055	0.53905 0.48903	0.45245 0.48823	0.42306 0.48059	0.48308	0.46077	AVRG		0.47409		6.90368	
m,p-Xylenes	NE 0.58130	0.68357 0.62807	0.56743 0.64071	0.54293 0.62674	0.60154	0.58590	AVRG		0.60647		7.05323	
o-Xylene	NE 0.55705	0.65150 0.60406	0.62675 0.61436	0.56336 0.61385	0.57393	0.57386	AVRG		0.59764		5.38384	
Styrene	NE 0.99646	1.04658 1.04857	0.86091 1.08065	0.85907 1.08017	0.98330	0.98879	AVRG		0.99383		8.47428	

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Bromoform	NE 0.26853	0.25707 0.29618	0.24044 0.30934	0.24432 0.31415	0.23803	0.26583	AVRG		0.27043		10.87778	
Isopropylbenzene	NE 1.37150	1.80622 1.56611	1.32978 1.60724	1.28653 1.56968	1.41994	1.40919	AVRG		1.48513		11.12077	
1,1,2,2-Tetrachloroethane	NE 0.75920	0.92909 0.76344	0.86394 0.77928	0.87075 0.78188	0.78812	0.78941	AVRG		0.81390		7.27290	
1,2,3-Trichloropropane	NE 0.58888	0.65469 0.55415	0.62918 0.60328	0.62358 0.55649	0.58743	0.58923	AVRG		0.59855		5.53581	
trans-1,4-Dichloro-2-butene	NE 0.11541	0.13890 0.12664	0.13239 0.13335	0.11790 0.13591	0.11729	0.11679	AVRG		0.12607		7.41052	
n-Propylbenzene	NE 2.80210	3.53439 3.13219	2.63209 3.15136	2.53209 3.04325	2.84258	2.93692	AVRG		2.95633		10.23808	
Bromobenzene	NE 0.75715	0.95370 0.77334	0.80509 0.77592	0.75227 0.77226	0.80991	0.79277	AVRG		0.79916		7.65867	
1,3,5-Trimethylbenzene	NE 2.02308	2.48268 2.25923	2.07330 2.34365	1.81975 2.30051	2.04869	2.10015	AVRG		2.16123		9.33218	
2-Chlorotoluene	NE 1.75224	2.20579 1.82894	2.06491 1.83303	1.79059 1.80312	1.89312	1.86633	AVRG		1.89312		7.79430	
4-Chlorotoluene	NE 2.06478	2.26845 2.19780	2.25121 2.22960	2.10906 2.22059	2.12065	2.14258	AVRG		2.17830		3.26734	
tert-Butylbenzene	NE 1.70051	2.14748 1.96448	1.73480 2.00576	1.56846 1.91951	1.81705	1.80636	AVRG		1.85160		9.51930	
1,2,4-Trimethylbenzene	NE 2.06008	2.64935 2.28018	2.26936 2.33175	1.89125 2.27563	2.13151	2.14102	AVRG		2.22557		9.44401	

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
sec-Butylbenzene	NE 2.31593	2.76225 2.81651	2.33429 2.87775	2.15274 2.71008	2.46828	2.40717	AVRG		2.53833		10.17944	
p-Isopropyltoluene	NE 2.09380	2.76970 2.50471	1.96893 2.57341	1.91469 2.45434	2.14864	2.22762	AVRG		2.29509		12.79259	
1,3-Dichlorobenzene	NE 1.34767	1.61190 1.43556	1.42934 1.45343	1.32428 1.42665	1.39947	1.38137	AVRG		1.42329		5.80050	
1,4-Dichlorobenzene	NE 1.43902	1.66298 1.51652	1.54913 1.54268	1.47867 1.51656	1.54699	1.46611	AVRG		1.52430		4.24913	
Benzyl Chloride	NE 0.72782	0.67288 0.86124	0.55546 0.91262	0.58458 0.91977	0.55707	0.64970	AVRG		0.71568		20.72330	*
n-Butylbenzene	NE 1021843	10518 2801951	15267 4582820	30922 6046266	92255	387389	LINR	0.04039	2.32851		0.99698	
1,2-Dichlorobenzene	NE 1.35288	1.53229 1.44711	1.50392 1.45906	1.36395 1.45071	1.41655	1.40391	AVRG		1.43671		4.13675	
1,2-Dibromo-3-Chloropropane	NE 0.13161	0.13979 0.14237	0.13364 0.14298	0.14414 0.14312	0.13389	0.12727	AVRG		0.13765		4.46304	
1,2,4-Trichlorobenzene	NE 0.87140	0.96424 1.01824	0.93936 1.05089	0.86817 1.02829	0.89513	0.92080	AVRG		0.95073		7.25032	
Hexachlorobutadiene	NE 188947	1914 585400	4132 NE	6937 NE	18865	73649	QUAD	-0.01661	3.35202	-1.30864	0.99909	
Naphthalene	NE 2.18673	2.64769 2.37601	2.43467 2.41023	2.42767 2.40050	2.19435	2.27928	AVRG		2.37302		5.95573	
1,2,3-Trichlorobenzene	NE 0.84155	1.12740 0.93487	0.95656 0.95660	0.86730 0.93825	0.86478	0.85096	AVRG		0.92647		9.54913	

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ICAL Start Date 11-AUG-2023 1133

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ICAL Summary Page 8 / 12

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Ethyl Acetate	NE 0.54091	0.61659 0.56275	0.58547 0.54012	0.58404 0.54797	0.59021	0.59722	AVRG		0.57392		4.72995	
Methyl Acrylate	NE 0.46382	0.53729 0.47598	0.51625 0.46839	0.49042 0.52913	0.51921	0.44523	AVRG		0.49397		6.60703	
n-Butanol	NE 143573	1373 333572	2659 550912	5108 804319	9555	50123	LINR	1.35820	0.01419		0.99642	
Ethyl Acrylate	NE 1.12556	1.26235 1.26945	1.08473 1.27971	1.12017 1.30407	1.10451	1.09383	AVRG		1.18271		7.84082	
Cyclohexanone	NE 0.02914	0.03613 0.02972	0.03766 0.02664	0.03630 0.02699	0.03301	0.03098	AVRG		0.03184		12.97281	
1,4-Dioxane	0.00610 0.00592	0.00680 0.00628	0.00660 0.00624	0.00700 0.00645	0.00628	0.00588	AVRG		0.00636		5.71059	
n-Hexane	NE 282893	4056 828407	6841 NE	12200 NE	32239	118882	QUAD	-0.02185	2.52661	-0.74331	0.99863	
Freon TF	NE 245533	3204 646829	4459 1017540	10755 1294079	27608	98415	LINR	0.02270	0.48156		0.99589	
Methyl Acetate	NE 0.43072	0.51322 0.43094	0.50555 0.40586	0.44863 0.40874	0.44649	0.45354	AVRG		0.44930		8.43501	
Methylcyclohexane	NE 0.69881	0.81433 0.79595	0.70929 0.82665	0.69720 0.83653	0.70060	0.68088	AVRG		0.75114		8.66448	
Isopropyl alcohol	NE 441739	5543 902720	10285 1400869	25882 1951400	46061	173548	LINR	-0.25785	0.03465		0.99977	
Amyl alcohol	NE NE	NE NE	0.00690 0.00109	0.00185 0.01156	0.00230	0.00114	AVRG		0.00414		102	*

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Allyl alcohol	NE 282893	4860 828407	4388 NE	12200 NE	32239	118882	QUAD	-0.39685	50.36143	-14.75731	0.99855	
4-Methyl-2-pentanol	NE 0.07326	0.11612 0.08165	0.15081 0.08922	0.10586 0.09301	0.10408	0.07923	AVRG		0.09925		23.99067	*
Tert-butyl alcohol	NE 745105	9824 1555693	18788 2402568	45475 3353385	82288	300900	LINR	-0.25928	0.05950		0.99971	
Diethyl ether	NE 0.42791	0.48305 0.41719	0.49765 0.40806	0.44762 0.40022	0.46546	0.42461	AVRG		0.44131		7.75641	
1,3-Butadiene	NE 0.46036	0.63274 0.52619	0.50215 0.51269	0.54090 0.49908	0.49939	0.46259	AVRG		0.51512		9.96029	
Cyclohexane	NE 340162	4440 918146	5861 1454384	12705 1872161	36420	130025	LINR	0.03671	0.69448		0.99609	
Tetrahydrofuran	NE 0.09363	0.11697 0.09327	0.10303 0.09239	0.09100 0.09224	0.10554	0.08975	AVRG		0.09754		9.33471	
alpha-Methylstyrene	NE 1.02875	1.23121 1.10905	0.98100 1.12766	0.94266 1.10800	0.99132	1.05181	AVRG		1.06350		8.42717	
Diisopropyl ether	NE 1.75811	2.02254 1.77715	1.90531 1.72322	1.75503 1.75247	1.81737	1.69593	AVRG		1.80079		5.69680	
Dichlorofluoromethane	NE 0.84888	NE 0.86145	NE 0.83431	0.93125 0.83443	0.89736	0.82858	AVRG		0.86232		4.45646	*
Propylene oxide	NE 0.06424	0.11812 0.05766	0.15030 0.05779	0.07718 0.05494	0.07954	0.06651	AVRG		0.08070		40.27437	*
3-Methyl-1-butanol	NE 0.00816	NE 0.00898	0.00730 0.00977	0.00944 0.01025	0.00731	0.00797	AVRG		0.00865		13.01043	*

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Butyl acrylate	NE 0.78908	0.81663 0.83421	0.79624 0.90433	0.77067 0.91868	0.74966	0.75021	AVRG		0.81441		7.58811	
Butyl methacrylate	NE 1.00856	1.17765 0.95368	1.00219 1.01349	0.96966 1.00259	1.00284	0.99037	AVRG		1.01345		6.37238	
Dicyclopentadiene	NE 1468680	16221 3267261	27109 5365427	58027 7593221	137259	526364	QUAD	-0.00191	0.38369	-0.00283	0.99996	
1,2,3-Trimethylbenzene	NE 2.21356	2.58628 2.25830	2.52247 2.34939	2.33551 2.32313	2.18072	2.11777	AVRG		2.32079		6.61312	
Ethanol	NE 75258	1086 156245	1697 233477	4283 323730	8818	29323	LINR	-0.50438	0.00577		0.99929	
tert-Butyl formate	NE 0.38162	0.58304 0.42429	NE 0.43222	0.69585 0.51008	0.49629	0.47342	AVRG		0.49960		20.07517	*
3,3-Dimethyl-1-butanol	NE 0.03749	NE 0.04006	0.07214 0.04264	0.04999 0.04341	0.04963	0.04256	AVRG		0.04724		23.15285	*
tert-Amyl methyl ether	NE 1.93994	2.42299 2.01818	2.18892 2.03326	2.18066 2.07152	2.03928	1.93316	AVRG		2.09199		7.31334	
tert-Butyl ethyl ether	NE 1.58380	1.85075 1.61689	1.87023 1.61959	1.59721 1.62889	1.64579	1.55824	AVRG		1.66349		6.89482	
tert-Amyl alcohol	NE 0.03816	0.05830 0.04243	0.04896 0.04322	0.06959 0.05101	0.04963	0.04734	AVRG		0.04985		18.83220	*
Epichlorohydrin	NE 0.02768	0.03345 0.02885	0.03057 0.02997	0.03510 0.02975	0.02973	0.03010	AVRG		0.03058		7.49678	
Isoprene	NE 0.17180	0.38017 0.19332	0.14142 0.18673	0.23738 0.18158	0.18600	0.19487	AVRG		0.20814		33.23104	*

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ICAL Summary Page 11 / 12

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
n-Amyl acetate	NE 0.67624	NE 0.73143	NE 0.78198	NE 0.79667	0.73221	0.71113	AVRG		0.73828		6.05429	*
Isopropyl acetate	NE 0.95278	1.17473 0.99604	0.94826 1.02757	0.95670 1.03080	1.03164	0.97079	AVRG		1.00992		7.00182	
n-Butyl acetate	NE 0.55783	0.58139 0.58885	0.52964 0.59863	0.55649 0.61777	0.56545	0.56554	AVRG		0.57351		4.56191	
Acetaldehyde	NE 128302	NE 249925	4717 NE	7566 NE	13449	59320	LINR	-0.17271	0.04834		0.99748	
Methyl Amyl Ketone	NE 0.82280	0.76625 0.87635	0.96635 0.95086	0.80166 0.95547	0.85420	0.83850	AVRG		0.87027		8.33273	
Dimethyl Disulfide	NE 0.69918	0.59913 0.71672	0.57986 0.74749	0.57899 0.75166	0.59986	0.65184	AVRG		0.65830		10.89510	
Isobutylene	NE 0.05515	0.07320 0.06062	0.07525 0.06306	0.06686 0.07052	0.06679	0.05900	AVRG		0.06561		10.25599	
2-Ethylhexyl Acrylate	NE 1.07240	1.03931 1.13795	0.79638 1.17365	0.96214 1.17150	0.86751	0.97195	AVRG		1.02142		13.06585	
94 1,2-Dichloroethylene (total)	NE 0.52480	0.61181 0.54455	0.57970 0.52533	0.53569 0.52000	0.57131	0.53611	AVRG		0.54992		5.65149	
95 Xylenes (total)	NE 0.54273	0.65181 0.60806	0.56564 0.61968	0.52445 0.61761	0.56197	0.54685	AVRG		0.58209		7.43849	
30 Dibromofluoromethane	NE 277572	4322 623623	5954 899883	12062 1262400	29825	119843	LINR	-0.01675	0.45102		0.99823	
35 1,2-Dichloroethane-d4	NE 321172	4095 683505	8038 1002392	13488 1400428	36656	130066	LINR	-0.02225	0.49960		0.99882	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits





Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Workorder
HS23081423

RunID

VOA6_443843

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 11-AUG-2023 1133

ICAL End Date 11-AUG-2023 1457

ICAL Summary Page 12 / 12

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
48 Toluene-d8	NE 0.98459	1.55411 1.13736	1.15990 1.05055	1.22961 1.08227	1.25336	1.13858	AVRG		1.17670		13.96851	
69 4-Bromofluorobenzene	NE 440611	8224 1004363	9648 1512449	21205 2160189	49251	175173	LINR	0.00560	0.49634		0.99943	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits





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Form 6I

Initial Calibration Verification (ICV)

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23081423

Client
Bhate Environmental Associates, Inc.

Project
GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Workorder
HS23081423

RunID

VOA6_443843

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id CCV
Data Type MS DATA
File ID X081113.D

Fraction VOA
Client Smp ID CCV
SampleType METHSPIKE
Inj Date 11-AUG-2023 15:38

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachloroethane	50.00	49.04	98.08	80-120	
1,1,1-Trichloroethane	50.00	45.55	91.12	80-120	
1,1,2,2-Tetrachloroethane	50.00	48.03	96.07	80-120	
Freon TF	50.00	43.35	86.71	80-120	
Methyl Acetate	50.00	47.61	95.23	80-120	
Cyclohexane	50.00	42.28	84.57	80-120	
Methylcyclohexane	50.00	43.16	86.33	80-120	
Carbon Disulfide	100.00	91.11	91.12	80-120	
2-Hexanone	100.00	100.30	100.30	80-120	
1,1,2-Trichloroethane	50.00	48.99	98.00	80-120	
1,1-Dichloroethane	50.00	44.61	89.24	80-120	
1,1-Dichloroethene	50.00	44.85	89.71	80-120	
1,1-Dichloropropene	50.00	46.28	92.58	80-120	
1,2,3-Trichlorobenzene	50.00	46.26	92.54	80-120	
1,2,3-Trichloropropane	50.00	50.58	101.17	80-120	
1,2,4-Trichlorobenzene	50.00	47.31	94.63	80-120	
1,2,4-Trimethylbenzene	50.00	45.73	91.46	80-120	
1,2-Dibromo-3-Chloropropane	50.00	49.55	99.11	80-120	
1,2-Dibromoethane	50.00	48.92	97.85	80-120	
Acrolein	100.00	94.82	94.82	80-120	
Acrylonitrile	100.00	89.79	89.79	80-120	
1,2-Dichlorobenzene	50.00	46.71	93.42	80-120	
1,2-Dichloroethane	50.00	47.60	95.21	80-120	
1,2-Dichloropropane	50.00	46.92	93.84	80-120	
1,3,5-Trimethylbenzene	50.00	45.53	91.07	80-120	
1,3-Dichlorobenzene	50.00	47.31	94.63	80-120	
1,3-Dichloropropane	50.00	47.80	95.62	80-120	
1,4-Dichlorobenzene	50.00	46.50	93.00	80-120	
1-Chlorohexane	50.00	43.86	87.73	80-120	
2,2-Dichloropropane	50.00	47.67	95.34	80-120	
2-Butanone	100.00	106.05	106.06	80-120	
2-Chloroethylvinyl ether	100.00	97.56	97.56	80-120	
2-Chlorotoluene	50.00	45.50	91.02	80-120	
4-Chlorotoluene	50.00	46.95	93.91	80-120	





Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Workorder
HS23081423

RunID

VOA6_443843

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id CCV
Data Type MS DATA
File ID X081113.D

Fraction VOA
Client Smp ID CCV
SampleType METHSPIKE
Inj Date 11-AUG-2023 15:38

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
p-Isopropyltoluene	50.00	45.14	90.30	80-120	
4-Methyl-2-Pentanone	100.00	98.29	98.29	80-120	
Acetone	100.00	111.66	111.67	80-120	
Acetonitrile	500.00	408.87	81.78	80-120	
Allyl Chloride	50.00	41.78	83.56	80-120	
Benzene	50.00	47.27	94.56	80-120	
Bromobenzene	50.00	47.79	95.59	80-120	
Bromochloromethane	50.00	46.58	93.18	80-120	
Bromodichloromethane	50.00	47.61	95.22	80-120	
Bromoform	50.00	52.37	104.75	80-120	
Bromomethane	50.00	49.14	98.30	80-120	
Carbon Tetrachloride	50.00	44.62	89.26	80-120	
Chlorobenzene	50.00	46.85	93.72	80-120	
Chloroethane	50.00	44.10	88.21	80-120	
Chloroform	50.00	46.14	92.28	80-120	
Chloromethane	50.00	46.79	93.60	80-120	
Chloroprene	50.00	44.24	88.49	80-120	
cis-1,2-Dichloroethene	50.00	46.74	93.49	80-120	
cis-1,3-Dichloropropene	50.00	48.57	97.14	80-120	
Dibromochloromethane	50.00	50.08	100.16	80-120	
Dibromomethane	50.00	46.76	93.54	80-120	
Dichlorodifluoromethane	50.00	45.43	90.86	80-120	
Ethylbenzene	50.00	46.69	93.39	80-120	
Ethyl Methacrylate	50.00	45.38	90.77	80-120	
Iodomethane	100.00	84.97	84.97	80-120	
Isobutyl Alcohol	1000.00	948.23	94.82	70-130	
Propionitrile	500.00	493.55	98.71	70-130	
Hexachlorobutadiene	50.00	55.74	111.50	80-120	
Isopropylbenzene	50.00	45.23	90.48	80-120	
m,p-Xylenes	100.00	93.85	93.86	80-120	
Methyl tert-butyl ether	50.00	43.73	87.46	80-120	
Methylene Chloride	50.00	44.31	88.63	80-120	
Methacrylonitrile	50.00	45.21	90.44	80-120	
Methyl Methacrylate	50.00	44.49	88.98	80-120	





Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Workorder
HS23081423

RunID

VOA6_443843

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id CCV
Data Type MS DATA
File ID X081113.D

Fraction VOA
Client Smp ID CCV
SampleType METHSPIKE
Inj Date 11-AUG-2023 15:38

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
n-Butylbenzene	50.00	41.72	83.46	80-120	
n-Propylbenzene	50.00	46.88	93.78	80-120	
Naphthalene	50.00	46.99	93.99	80-120	
o-Xylene	50.00	46.65	93.31	80-120	
sec-Butylbenzene	50.00	45.63	91.26	80-120	
Styrene	50.00	49.82	99.65	80-120	
tert-Butylbenzene	50.00	44.87	89.74	80-120	
Tetrachloroethene	50.00	46.44	92.89	80-120	
Toluene	50.00	46.60	93.20	80-120	
trans-1,2-Dichloroethene	50.00	44.38	88.76	80-120	
trans-1,3-Dichloropropene	50.00	49.15	98.31	80-120	
trans-1,4-Dichloro-2-butene	50.00	46.25	92.50	80-120	
Trichloroethene	50.00	46.39	92.78	80-120	
Trichlorofluoromethane	50.00	43.52	87.04	80-120	
Vinyl Acetate	100.00	96.33	96.34	80-120	
Vinyl Chloride	50.00	45.74	91.48	80-120	
Ethyl Acrylate	50.00	42.49	84.99	80-120	
Butyl acrylate	50.00	44.95	89.92	80-120	
1,2-Dichloroethylene (total)	100.00	91.12	91.13	80-120	
Xylenes (total)	150.00	140.51	93.67	80-120	
1,4-Dioxane	1000.00	972.68	97.27	80-120	
Dibromofluoromethane	50.00	51.73	103.47	71-125	
1,2-Dichloroethane-d4	50.00	51.05	102.10	70-125	
Toluene-d8	50.00	48.82	97.66	75-125	
4-Bromofluorobenzene	50.00	50.64	101.30	72-125	





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Form 7

Continuing Calibration Verification (CCV)

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23081423

Client
Bhate Environmental Associates, Inc.

Project
GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

ALS Environmental–Houston Laboratory

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Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Workorder
HS23081423

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6_444793

Instrument ID voa6.i
Lab File ID X082403.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 24-AUG-2023 1057
ICAL Date(s) 11-AUG-2023, 11-AUG-2023
ICAL Times 11:33, 14:57
Quant Type ISTD

Compound	RRF / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,4-Dioxane	0.00636	0.00559	0.00559	0.001	12.01024	20.0	Averaged	
1,3-Butadiene	0.51512	0.48960	0.48960	0.100	4.95416	20.0	Averaged	
Methacrylonitrile	0.49867	0.43899	0.43899	0.100	11.96713	20.0	Averaged	
Acetonitrile	0.07711	0.05976	0.05976	0.005	22.49358	20.0	Averaged	*
Dichlorodifluoromethane	50.0	54.29958	0.49834	0.100	-8.59916	20.0	Linear	
Chloromethane	0.48655	0.50659	0.50659	0.100	-4.11991	20.0	Averaged	
Vinyl Chloride	0.59972	0.60154	0.60154	0.100	-0.30252	20.0	Averaged	
Bromomethane	0.32283	0.32276	0.32276	0.100	0.01914	20.0	Averaged	
Chloroethane	0.39307	0.37192	0.37192	0.100	5.38070	20.0	Averaged	
Trichlorofluoromethane	0.85354	0.88435	0.88435	0.100	-3.60913	20.0	Averaged	
Acrolein	100	110	0.01803	0.010	-10.27694	20.0	Linear	
Acetone	100	80.40464	0.15712	0.100	19.59536	20.0	Linear	
1,1-Dichloroethene	0.48279	0.47753	0.47753	0.100	1.08928	20.0	Averaged	
Iodomethane	100	120	0.69215	0.100	-19.79029	20.0	Quadratic	
Acrylonitrile	0.23258	0.18748	0.18748	0.050	19.39030	20.0	Averaged	
Methylene Chloride	0.60545	0.54582	0.54582	0.100	9.84861	20.0	Averaged	
Methyl tert-butyl ether	1.72214	1.41951	1.41951	0.100	17.57288	20.0	Averaged	
Carbon Disulfide	1.43284	1.33899	1.33899	0.100	6.54964	20.0	Averaged	
trans-1,2-Dichloroethene	0.56105	0.52737	0.52737	0.100	6.00345	20.0	Averaged	
Vinyl Acetate	1.65961	1.42938	1.42938	0.010	13.87257	20.0	Averaged	
1,1-Dichloroethane	1.05661	0.93282	0.93282	0.200	11.71634	20.0	Averaged	
2-Butanone	0.18508	0.17335	0.17335	0.100	6.34031	20.0	Averaged	
2,2-Dichloropropane	50.0	52.09872	0.73909	0.100	-4.19745	20.0	Linear	
cis-1,2-Dichloroethene	0.53879	0.55589	0.55589	0.100	-3.17268	20.0	Averaged	
Chloroform	0.92608	0.91656	0.91656	0.200	1.02766	20.0	Averaged	
Bromochloromethane	0.30629	0.30274	0.30274	0.100	1.16016	20.0	Averaged	
30 Dibromofluoromethane	50.0	52.63114	0.48230	0.100	-5.26229	20.0	Linear	
1,1,1-Trichloroethane	0.74351	0.78846	0.78846	0.100	-6.04518	20.0	Averaged	
1,1-Dichloropropene	0.39342	0.42694	0.42694	0.100	-8.51985	20.0	Averaged	
1,2-Dichloroethane	0.47531	0.46305	0.46305	0.100	2.57898	20.0	Averaged	
Carbon Tetrachloride	0.41532	0.44128	0.44128	0.100	-6.25078	20.0	Averaged	
35 1,2-Dichloroethane-d4	50.0	49.50618	0.50578	0.100	0.98765	20.0	Linear	
Benzene	1.23156	1.24496	1.24496	0.500	-1.08781	20.0	Averaged	
Trichloroethene	0.35394	0.37491	0.37491	0.200	-5.92273	20.0	Averaged	





Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Workorder
HS23081423

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6_444793

Instrument ID voa6.i
Lab File ID X082403.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 24-AUG-2023 1057
ICAL Date(s) 11-AUG-2023, 11-AUG-2023
ICAL Times 11:33, 14:57
Quant Type ISTD

Compound	RRF / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Bromodichloromethane	0.45867	0.45505	0.45505	0.200	0.78942	20.0	Averaged	
2-Chloroethylvinyl ether	0.11734	0.11270	0.11270	0.001	3.95400	20.0	Averaged	
1,2-Dichloropropane	0.34726	0.34207	0.34207	0.100	1.49414	20.0	Averaged	
Dibromomethane	0.23732	0.22801	0.22801	0.100	3.92209	20.0	Averaged	
4-Methyl-2-Pentanone	0.35866	0.31860	0.31860	0.100	11.16879	20.0	Averaged	
cis-1,3-Dichloropropene	0.52485	0.52180	0.52180	0.200	0.58196	20.0	Averaged	
48 Toluene-d8	1.17670	1.13330	1.13330	0.100	3.68842	20.0	Averaged	
Toluene	1.39321	1.42710	1.42710	0.400	-2.43234	20.0	Averaged	
trans-1,3-Dichloropropene	0.44050	0.42862	0.42862	0.100	2.69581	20.0	Averaged	
2-Hexanone	0.24075	0.21338	0.21338	0.100	11.36617	20.0	Averaged	
1,1,2-Trichloroethane	0.27772	0.28308	0.28308	0.100	-1.93255	20.0	Averaged	
1,3-Dichloropropane	0.56772	0.56129	0.56129	0.100	1.13240	20.0	Averaged	
Dibromochloromethane	0.40081	0.42030	0.42030	0.100	-4.86302	20.0	Averaged	
Tetrachloroethene	0.28958	0.33231	0.33231	0.200	-14.75851	20.0	Averaged	
1,2-Dibromoethane	0.33926	0.34060	0.34060	0.100	-0.39412	20.0	Averaged	
1-Chlorohexane	0.28929	0.31309	0.31309	0.100	-8.22790	20.0	Averaged	
Chlorobenzene	0.95999	0.97614	0.97614	0.500	-1.68227	20.0	Averaged	
1,1,1,2-Tetrachloroethane	0.37082	0.39196	0.39196	0.100	-5.70157	20.0	Averaged	
Ethylbenzene	0.47409	0.49928	0.49928	0.100	-5.31198	20.0	Averaged	
m,p-Xylenes	0.60647	0.64825	0.64825	0.100	-6.89047	20.0	Averaged	
o-Xylene	0.59764	0.62025	0.62025	0.300	-3.78396	20.0	Averaged	
Styrene	0.99383	1.06367	1.06367	0.300	-7.02691	20.0	Averaged	
Bromoform	0.27043	0.29164	0.29164	0.100	-7.84294	20.0	Averaged	
Isopropylbenzene	1.48513	1.60904	1.60904	0.100	-8.34321	20.0	Averaged	
1,1,2,2-Tetrachloroethane	0.81390	0.77791	0.77791	0.300	4.42201	20.0	Averaged	
69 4-Bromofluorobenzene	50.0	50.51284	0.49865	0.100	-1.02567	20.0	Linear	
1,2,3-Trichloropropane	0.59855	0.59692	0.59692	0.100	0.27122	20.0	Averaged	
n-Propylbenzene	2.95633	3.32826	3.32826	0.100	-12.58082	20.0	Averaged	
Bromobenzene	0.79916	0.83339	0.83339	0.100	-4.28351	20.0	Averaged	
1,3,5-Trimethylbenzene	2.16123	2.33405	2.33405	0.100	-7.99657	20.0	Averaged	
2-Chlorotoluene	1.89312	1.98455	1.98455	0.100	-4.82960	20.0	Averaged	
4-Chlorotoluene	2.17830	2.30210	2.30210	0.100	-5.68328	20.0	Averaged	
tert-Butylbenzene	1.85160	2.08283	2.08283	0.100	-12.48792	20.0	Averaged	
1,2,4-Trimethylbenzene	2.22557	2.35981	2.35981	0.100	-6.03170	20.0	Averaged	





Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Workorder
HS23081423

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6_444793

Instrument ID voa6.i
Lab File ID X082403.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 24-AUG-2023 1057
ICAL Date(s) 11-AUG-2023, 11-AUG-2023
ICAL Times 11:33, 14:57
Quant Type ISTD

Compound	RRF / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
sec-Butylbenzene	2.53833	2.93303	2.93303	0.100	-15.54931	20.0	Averaged	*
p-Isopropyltoluene	2.29509	2.57040	2.57040	0.100	-11.99549	20.0	Averaged	
1,3-Dichlorobenzene	1.42329	1.51416	1.51416	0.600	-6.38397	20.0	Averaged	
1,4-Dichlorobenzene	1.52430	1.60914	1.60914	0.400	-5.56584	20.0	Averaged	
n-Butylbenzene	50.0	52.38739	2.34564	0.500	-4.77478	20.0	Linear	
1,2-Dichlorobenzene	1.43671	1.48903	1.48903	0.400	-3.64200	20.0	Averaged	
1,2-Dibromo-3-Chloropropane	0.13765	0.13350	0.13350	0.040	3.01356	20.0	Averaged	
1,2,4-Trichlorobenzene	0.95073	1.05697	1.05697	0.100	-11.17482	20.0	Averaged	
Hexachlorobutadiene	50.0	70.21102	0.53606	0.100	-40.42204	20.0	Quadratic	
Naphthalene	2.37302	2.33138	2.33138	0.200	1.75445	20.0	Averaged	
1,2,3-Trichlorobenzene	0.92647	0.97545	0.97545	0.010	-5.28589	20.0	Averaged	
94 1,2-Dichloroethylene (total	0.54992	0.54163	0.54163	0.200	1.50824	20.0	Averaged	
95 Xylenes (total)	0.58209	0.60540	0.60540	0.100	-4.00529	20.0	Averaged	
Cyclohexane	50.0	55.64445	0.74738	0.100	-11.28889	20.0	Linear	
Freon TF	50.0	53.29204	0.50233	0.100	-6.58407	20.0	Linear	
Methylcyclohexane	0.75114	0.66304	0.66304	0.100	11.72855	20.0	Averaged	
Methyl Acetate	0.44930	0.37315	0.37315	0.100	16.94749	20.0	Averaged	
Tert-butyl alcohol	1000	874	0.05276	0.005	12.63554	20.0	Linear	
Isopropyl alcohol	1000	855	0.03006	0.005	14.54721	20.0	Linear	



FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: _____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: V6

Instrument ID: VOA6 Calibration Date: 08/24/23 Time: 1747

Lab File ID: X082423 Init. Calib. Date(s): 08/11/23 08/11/23

Init. Calib. Times: 1133 1457

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
=====	=====	=====	=====	=====	=====	=====	=====
Dichlorodifluoromethane	41.876083	50.000000	0.3829018	0.1	16.25	50.00	LINR
Chloromethane	0.4860000	0.3893826	0.3893826	0.1	19.88	50.00	AVRG
Vinyl Chloride	0.6000000	0.4831336	0.4831336	0.1	19.48	50.00	AVRG
Bromomethane	0.3230000	0.2432870	0.2432870	0.1	24.68	50.00	AVRG
Chloroethane	0.3930000	0.3309099	0.3309099	0.1	15.80	50.00	AVRG
Trichlorofluoromethane	0.8530000	0.6864681	0.6864681	0.1	19.52	50.00	AVRG
Acrolein	125.10329	100.00000	2.04e-002	0.01	-25.10	50.00	LINR
Acetone	79.666709	100.00000	0.1557550	0.1	20.33	50.00	LINR
1,1-Dichloroethene	0.4830000	0.3872386	0.3872386	0.1	19.83	50.00	AVRG
Iodomethane	96.714636	100.00000	0.5480131	0.1	3.28	50.00	2RDR
Acrylonitrile	0.2320000	0.1882219	0.1882219	0.05	18.87	50.00	AVRG
Methylene Chloride	0.6050000	0.5096648	0.5096648	0.1	15.76	50.00	AVRG
Methyl tert-butyl ether	1.7220000	1.3935011	1.3935011	0.1	19.08	50.00	AVRG
Carbon Disulfide	1.4330000	1.1140792	1.1140792	0.1	22.26	50.00	AVRG
trans-1,2-Dichloroethene	0.5610000	0.4550708	0.4550708	0.1	18.88	50.00	AVRG
Vinyl Acetate	1.6600000	1.3449619	1.3449619	0.01	18.98	50.00	AVRG
1,1-Dichloroethane	1.0570000	0.8358881	0.8358881	0.2	20.92	50.00	AVRG
2-Butanone	0.1850000	0.1674081	0.1674081	0.1	9.51	50.00	AVRG
2,2-Dichloropropane	38.336270	50.000000	0.5439168	0.1	23.33	50.00	LINR
cis-1,2-Dichloroethene	0.5390000	0.4811958	0.4811958	0.1	10.72	50.00	AVRG
Chloroform	0.9260000	0.8194523	0.8194523	0.2	11.51	50.00	AVRG
Bromochloromethane	0.3060000	0.2747293	0.2747293	0.1	10.22	50.00	AVRG
1,1,1-Trichloroethane	0.7430000	0.6290963	0.6290963	0.1	15.33	50.00	AVRG
1,1-Dichloropropene	0.3930000	0.3266910	0.3266910	0.1	16.87	50.00	AVRG
1,2-Dichloroethane	0.4750000	0.4247026	0.4247026	0.1	10.59	50.00	AVRG
Carbon Tetrachloride	0.4150000	0.3373903	0.3373903	0.1	18.70	50.00	AVRG
Benzene	1.2310000	1.0781964	1.0781964	0.5	12.41	50.00	AVRG
Trichloroethene	0.3540000	0.3074731	0.3074731	0.2	13.14	50.00	AVRG
Bromodichloromethane	0.4580000	0.4042290	0.4042290	0.2	11.74	50.00	AVRG
2-Chloroethylvinyl ether	0.1170000	0.1011659	0.1011659	0.001	13.53	50.00	AVRG
1,2-Dichloropropane	0.3470000	0.3027518	0.3027518	0.1	12.75	50.00	AVRG
Dibromomethane	0.2370000	0.2122034	0.2122034	0.1	10.46	50.00	AVRG
4-Methyl-2-Pentanone	0.3590000	0.3061369	0.3061369	0.1	14.72	50.00	AVRG
cis-1,3-Dichloropropene	0.5250000	0.4503430	0.4503430	0.2	14.22	50.00	AVRG
Toluene	1.3930000	1.1980935	1.1980935	0.4	13.99	50.00	AVRG
trans-1,3-Dichloropropene	0.4400000	0.3712050	0.3712050	0.1	15.64	50.00	AVRG
2-Hexanone	0.2410000	0.2058667	0.2058667	0.1	14.58	50.00	AVRG
1,1,2-Trichloroethane	0.2780000	0.2586998	0.2586998	0.1	6.94	50.00	AVRG
1,3-Dichloropropane	0.5680000	0.5108894	0.5108894	0.1	10.05	50.00	AVRG
Dibromochloromethane	0.4010000	0.3794991	0.3794991	0.1	5.36	50.00	AVRG
Tetrachloroethene	0.2900000	0.2463541	0.2463541	0.2	15.05	50.00	AVRG
1,2-Dibromoethane	0.3390000	0.3147578	0.3147578	0.1	7.15	50.00	AVRG



FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: V6

Instrument ID: VOA6

Calibration Date: 08/24/23

Time: 1747

Lab File ID: X082423

Init. Calib. Date(s): 08/11/23

08/11/23

Init. Calib. Times: 1133

1457

GC Column: DB624

ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Chlorobenzene	0.9600000	0.8294263	0.8294263	0.5	13.60	50.00	AVRG
1,1,1,2-Tetrachloroethane	0.3710000	0.3358750	0.3358750	0.1	9.47	50.00	AVRG
Ethylbenzene	0.4740000	0.3905177	0.3905177	0.1	17.61	50.00	AVRG
m,p-Xylenes	0.6060000	0.5132733	0.5132733	0.1	15.30	50.00	AVRG
o-Xylene	0.5980000	0.5053493	0.5053493	0.3	15.49	50.00	AVRG
Styrene	0.9940000	0.8988206	0.8988206	0.3	9.58	50.00	AVRG
Bromoform	0.2700000	0.2630871	0.2630871	0.1	2.56	50.00	AVRG
Acetonitrile	7.7e-002	6.53e-002	6.53e-002	0.005	15.19	50.00	AVRG
Isopropylbenzene	1.4850000	1.1905731	1.1905731	0.1	19.83	50.00	AVRG
1,1,2,2-Tetrachloroethane	0.8140000	0.7268502	0.7268502	0.3	10.71	50.00	AVRG
1,2,3-Trichloropropane	0.5980000	0.5477282	0.5477282	0.1	8.41	50.00	AVRG
Methacrylonitrile	0.4990000	0.4101476	0.4101476	0.1	17.81	50.00	AVRG
n-Propylbenzene	2.9560000	2.4341789	2.4341789	0.1	17.65	50.00	AVRG
Bromobenzene	0.7990000	0.7274749	0.7274749	0.1	8.95	50.00	AVRG
1,3,5-Trimethylbenzene	2.1610000	1.7674478	1.7674478	0.1	18.21	50.00	AVRG
2-Chlorotoluene	1.8930000	1.5586993	1.5586993	0.1	17.66	50.00	AVRG
4-Chlorotoluene	2.1780000	1.8469321	1.8469321	0.1	15.20	50.00	AVRG
tert-Butylbenzene	1.8510000	1.5018883	1.5018883	0.1	18.86	50.00	AVRG
1,2,4-Trimethylbenzene	2.2260000	1.8422629	1.8422629	0.1	17.24	50.00	AVRG
sec-Butylbenzene	2.5380000	2.0298341	2.0298341	0.1	20.02	50.00	AVRG
p-Isopropyltoluene	2.2950000	1.8422381	1.8422381	0.1	19.73	50.00	AVRG
1,3-Dichlorobenzene	1.4230000	1.2434860	1.2434860	0.6	12.62	50.00	AVRG
1,4-Dichlorobenzene	1.5240000	1.3182071	1.3182071	0.4	13.50	50.00	AVRG
n-Butylbenzene	36.279083	50.000000	1.5954707	0.5	27.44	50.00	LINR
1,2-Dichlorobenzene	1.4370000	1.2738561	1.2738561	0.4	11.35	50.00	AVRG
1,2-Dibromo-3-Chloropropane	0.1380000	0.1236490	0.1236490	0.04	10.40	50.00	AVRG
1,2,4-Trichlorobenzene	0.9500000	0.8354375	0.8354375	0.1	12.06	50.00	AVRG
Hexachlorobutadiene	47.009333	50.000000	0.3272474	0.1	5.98	50.00	2RDR
Naphthalene	2.3730000	2.0517124	2.0517124	0.2	13.54	50.00	AVRG
1,2,3-Trichlorobenzene	0.9260000	0.7885114	0.7885114	0.01	14.85	50.00	AVRG
1-Chlorohexane	0.2890000	0.2089703	0.2089703	0.1	27.69	50.00	AVRG
1,4-Dioxane	6.e-003	5.58e-003	5.58e-003	0.001	7.00	50.00	AVRG
1,3-Butadiene	0.5150000	0.3962834	0.3962834	0.1	23.05	50.00	AVRG
Cyclohexane	36.645556	50.000000	0.4834970	0.1	26.71	50.00	LINR
Freon TF	36.684148	50.000000	0.3423812	0.1	26.63	50.00	LINR
Methylcyclohexane	0.7510000	0.6734306	0.6734306	0.1	10.33	50.00	AVRG
Methyl Acetate	0.4490000	0.3668737	0.3668737	0.1	18.29	50.00	AVRG
Tert-Butyl alcohol	845.40806	1000.0000	5.11e-002	0.005	15.46	50.00	LINR
Isopropyl Alcohol	817.54962	1000.0000	2.88e-002	0.005	18.24	50.00	LINR
Dibromofluoromethane	52.415961	50.000000	0.4803635	0.1	-4.83	50.00	LINR
1,2-Dichloroethane-d4	49.576165	50.000000	0.5064763	0.1	0.85	50.00	LINR



FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: _____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: V6

Instrument ID: VOA6 Calibration Date: 08/24/23 Time: 1747

Lab File ID: X082423 Init. Calib. Date(s): 08/11/23 08/11/23

Init. Calib. Times: 1133 1457

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
=====	=====	=====	=====	=====	=====	=====	=====
Toluene-d8	1.1760000	1.1249087	1.1249087	0.1	4.34	50.00	AVRG
4-Bromofluorobenzene	49.232950	50.000000	0.4859478	0.1	1.53	50.00	LINR





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Form 8

Internal Standard Area and RT Summary

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23081423

Client
Bhate Environmental Associates, Inc.

Project
GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com





Form 8 - Internal Standard Area and RT Summary

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6_444793		Pentafluorobenzene				1,4 Difluorobenzene				Chlorobenzene d5				1,4-Dichlorobenzene d4			
Sample ID	File ID	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12-HOUR STD (CCV)	X082403.D	671895	#	4.18	#	1043285	#	4.97	#	988559	#	7.67	#	570646	#	9.66	#
HS23081423-01	X082421.D	638069		4.18		933944		4.97		866214		7.67		464396		9.66	
HS23081423-02	X082419.D	639118		4.18		931265		4.97		843551		7.67		450418		9.66	
VBLKW-230824	X082407.D	646679		4.18		926287		4.97		844824		7.67		438253		9.66	
VLCSW-230824	X082405.D	651033		4.18		1018464		4.97		959137		7.67		545473		9.66	
MS-ZZZZZMS	X082416.D	673146		4.18		986643		4.97		902083		7.67		517565		9.66	
ZZZZZMSD	X082417.D	666083		4.18		976648		4.97		890738		7.67		498578		9.66	

AREA UPPER LIMIT = +100% of 12H STD IS Area

AREA LOWER LIMIT = - 50% of 12H STD IS Area

RT - Retention IS - Internal StandardTime

RT UPPER LIMIT = + 0.50 of 12H STD IS RT

RT LOWER LIMIT = - 0.50 of 12H STD IS RT

CCV - Continuing Calibration Verification

- Area or RT Limit Flag

* - Value Outside Area or RT limits

H - Hour STD - Standard





Analysis Run Log

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23081423

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Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6-443843

Run ID	VOA6_443843	Start Date	08/11/23	EndDate	08/11/23	
Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
11:13	BFB	TUNE	BFB	X081101.D	08/11/23	1
11:33	VSTD000.25	ICAL1	VSTD000.25	X081102.D	08/11/23	1
12:14	VSTD000.5	ICAL2	VSTD000.5	X081103.D	08/11/23	1
12:35	VSTD001	ICAL3	VSTD001	X081104.D	08/11/23	1
12:55	VSTD002	ICAL4	VSTD002	X081105.D	08/11/23	1
13:15	VSTD005	ICAL5	VSTD005	X081106.D	08/11/23	1
13:36	VSTD020	ICAL6	VSTD020	X081107.D	08/11/23	1
13:56	VSTD050	ICAL7	VSTD050	X081108.D	08/11/23	1
14:17	VSTD100	ICAL8	VSTD100	X081109.D	08/11/23	1
14:37	VSTD150	ICAL9	VSTD150	X081110.D	08/11/23	1
14:57	VSTD200	ICAL	VSTD200	X081111.D	08/11/23	1
15:38	CCV	ICV	CCV	X081113.D	08/11/23	1





Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Workorder

Project GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

HS23081423

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA6-444793

Run ID	VOA6_444793	Start Date	08/24/23	EndDate	08/24/23	
Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
10:17	BFB	TUNE	BFB	X082401.D	08/24/23	1
10:57	CCV	CCV	CCV	X082403.D	08/24/23	1
11:18	CCB	CCB	CCB	X082404.D	08/24/23	1
11:38	VLCSW-230824	LCS	VLCSW-230824	X082405.D	08/24/23	1
12:19	VBLKW-230824	MBLK	VBLKW-230824	X082407.D	08/24/23	1
12:40	HS23081413-02	SAMP	ZZZZZZZZZ	X082408.D	08/24/23	1
13:00	HS23081324-06	SAMP	ZZZZZZZZZ	X082409.D	08/24/23	1
13:21	HS23081413-01	SAMP	ZZZZZZZZZ	X082410.D	08/24/23	1
13:41	HS23081324-03	SAMP	ZZZZZZZZZ	X082411.D	08/24/23	1
14:02	HS23081324-04	SAMP	ZZZZZZZZZ	X082412.D	08/24/23	1
14:22	HS23081324-05	SAMP	ZZZZZZZZZ	X082413.D	08/24/23	1
14:43	HS23081324-01	SAMP	ZZZZZZZZZ	X082414.D	08/24/23	1
15:03	HS23081324-02	SAMP	ZZZZZZZZZ	X082415.D	08/24/23	1
15:24	HS23081324-03MS	MS	ZZZZZZMS	X082416.D	08/24/23	1
15:44	HS23081324-03MSD	MSD	ZZZZZZMSD	X082417.D	08/24/23	1
16:05	HS23081324-02	SAMP	ZZZZZZZZZ	X082418.D	08/24/23	20
16:25	HS23081423-02	SAMP	Trip Blank	X082419.D	08/24/23	1
16:46	HS23081487-02	SAMP	ZZZZZZZZZ	X082420.D	08/24/23	1
17:06	HS23081423-01	SAMP	LH18/24-	X082421.D	08/24/23	1
17:27	HS23081487-01	SAMP	ZZZZZZZZZ	X082422.D	08/24/23	1
17:47	CCV-	CCV_END	CCV-	X082423.D	08/24/23	1





Raw Data VOA6 443843

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23081423

Client
Bhate Environmental Associates, Inc.

Project
GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081101.D Page 1
 Report Date: 11-Aug-2023 11:44

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081101.D
 Lab Smp Id: BFB Client Smp ID: BFB
 Inj Date : 11-AUG-2023 11:13
 Operator : PC Inst ID: voa6.i
 Smp Info : BFB;BFB;3;;BFB
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\bfb.m
 Meth Date : 06-Feb-2018 12:19 pcabasca Quant Type: ISTD
 Cal Date : Cal File:
 Als bottle: 1 QC Sample: BFB
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 4.14 Sample Matrix: WATER
 Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/l)	TARGET	RANGE	RATIO
====	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 bfb				CAS #: 460-00-4					
8.687	8.889	(0.000)	95	133504			0.00-	100.00	100.00
8.687	8.889	(0.000)	50	29288			15.00-	40.00	21.94
8.687	8.889	(0.000)	75	71592			30.00-	60.00	53.63
8.687	8.889	(0.000)	96	8909			5.00-	9.00	6.67
8.687	8.889	(0.000)	173	1436			0.00-	2.00	1.20
8.687	8.889	(0.000)	174	119896			50.00-	0.00	89.81
8.687	8.889	(0.000)	175	9940			5.00-	9.00	8.29
8.687	8.889	(0.000)	176	116688			95.00-	101.00	97.32
8.687	8.889	(0.000)	177	8151			5.00-	9.00	6.99



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.94
75	30.00 - 60.00% of mass 95	53.63
96	5.00 - 9.00% of mass 95	6.67
173	Less than 2.00% of mass 174	1.08 (1.20)
174	Greater than 50.00% of mass 95	89.81
175	5.00 - 9.00% of mass 174	7.45 (8.29)
176	95.00 - 101.00% of mass 174	87.40 (97.32)
177	5.00 - 9.00% of mass 176	6.11 (6.99)

Data File: X081101.D
 Spectrum: Scan 2160 (8.68)
 Location of Maximum: 95.00
 Number of points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	1489	66.90	454	96.00	8909	139.70	97
37.00	9334	68.00	15426	97.10	317	140.90	1519
38.00	8002	69.00	16323	103.80	1007	141.70	221
39.00	2897	69.90	960	104.70	209	142.90	1486
40.00	2340	70.10	1008	105.90	671	143.70	56
40.90	128	70.90	129	106.80	182	145.70	208
43.10	411	71.80	501	109.90	155	147.70	275
44.00	3487	73.00	6125	111.00	302	148.90	79
45.00	1525	74.00	26376	111.70	142	149.80	173
46.00	235	75.00	71592	112.60	141	151.70	54
47.00	1767	76.00	6877	113.00	142	152.60	72
47.90	1117	77.00	1148	114.90	321	154.00	61
49.00	6205	78.00	937	115.60	465	154.80	330
50.00	29288	78.90	6479	116.10	489	156.90	430
51.10	8526	79.90	1839	116.80	1358	158.70	315
52.10	216	80.90	7153	117.70	508	160.90	203
55.10	453	81.90	1248	118.80	884	169.30	52
55.90	2727	82.80	135	123.90	264	170.20	191
57.00	4451	83.20	170	125.00	121	171.20	109
57.90	475	86.10	234	127.00	76	172.90	1436
60.00	1216	87.00	5967	127.80	678	173.90	119896
61.00	6884	87.90	5466	128.60	243	174.90	9940
62.00	7158	88.70	396	129.80	454	175.90	116688
63.00	6527	90.90	677	130.90	241	176.90	8151
63.80	288	91.90	4406	135.00	136	189.20	58
64.20	280	93.00	5676	136.90	208	277.90	56
65.00	63	94.00	15567	137.60	65	280.80	137
65.80	79	95.00	133504	138.80	118		

Data File: \\nahstus005\target\chem\voa6.i\230811.b\081101.d

Page 1

Date : 11-AUG-2023 11:13

Client ID: BFB

Instrument: voa6.i

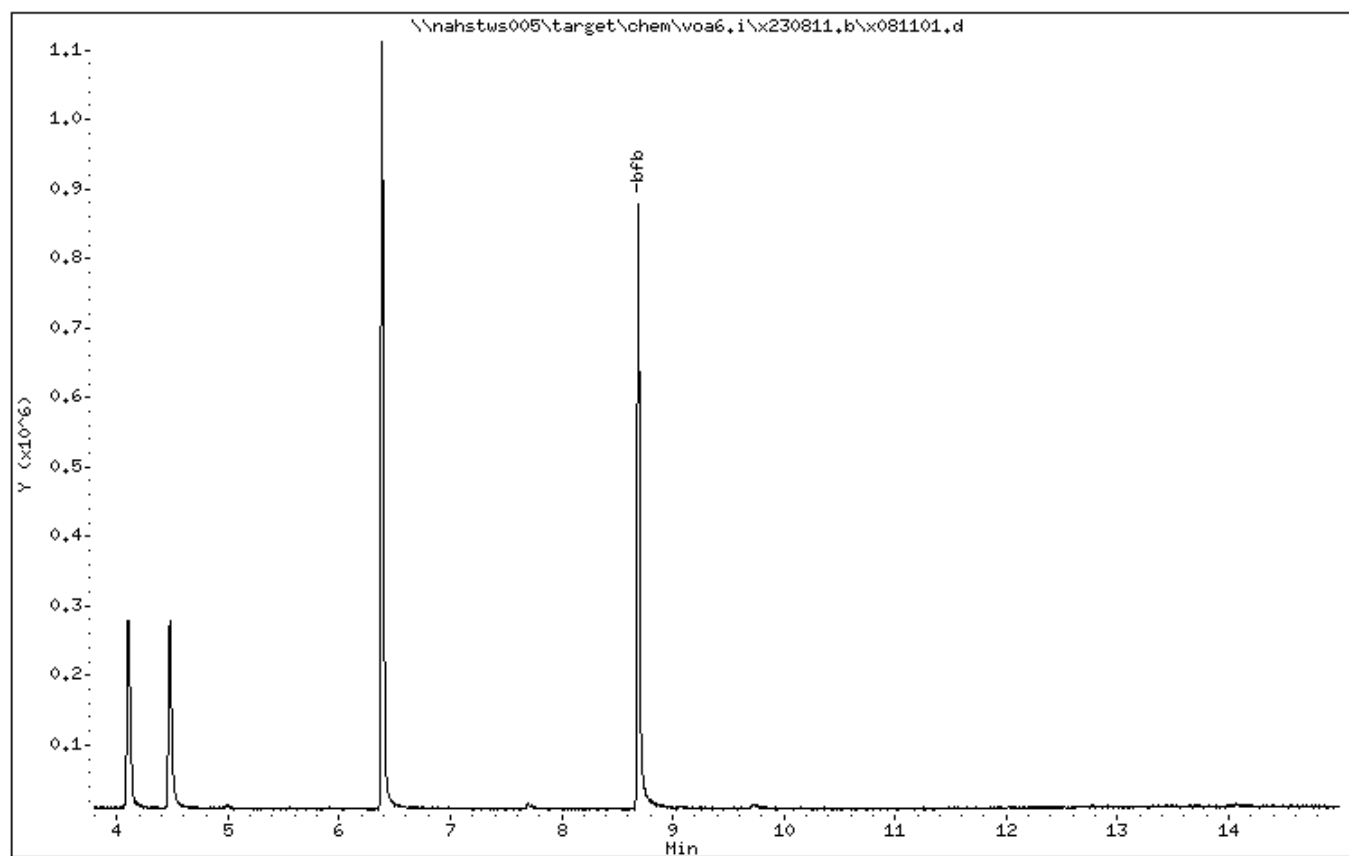
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081101.d
Inj Date : 11-AUG-2023 11:13
InstruID : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081102.D Page 1
 Report Date: 25-Aug-2023 14:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081102.D
 Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
 Inj Date : 11-AUG-2023 11:33
 Operator : PC Inst ID: voa6.i
 Smp Info : VSTD000.25;VSTD000.25;1;1;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\8260W.m
 Meth Date : 25-Aug-2023 14:14 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:36 Cal File: X081107.D
 Als bottle: 2 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V6.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)		626188	50.0000	
135 1,4-Dioxane	88		5.628	5.628	(1.346)		382	5.00000	4.79(M)
140 1,3-Butadiene	54		1.175	1.175	(0.281)		1199	0.25000	0.18
25 Methacrylonitrile	41		3.878	3.878	(0.927)		1085	0.25000	0.17
12 Isobutyl Alcohol	43		4.710	4.710	(1.126)		2698	5.00000	2.74(T)
13 Acetonitrile	39		2.210	2.210	(0.528)		2035	2.50000	2.10
14 Allyl Chloride	41		2.210	2.210	(0.528)		5209	0.25000	0.27
136 n-Hexane	57		2.783	2.783	(0.666)		1292	0.25000	
145 alpha-Methylstyrene	118		9.279	9.279	(0.960)		2569	0.25000	0.23
200 Dimethyl Disulfide	94		6.209	6.209	(0.810)		2212	0.25000	0.17
139 Diethyl ether	59		1.767	1.767	(0.423)		1799	0.25000	0.32
49 Ethyl Methacrylate	69		6.730	6.730	(1.355)		1234	0.25000	0.13
150 Allyl alcohol	57		2.783	2.783	(0.666)		1292	5.00000	
166 1,2,3-Trimethylbenzene	105		9.741	9.741	(1.008)		5876	0.25000	0.24
162 Butyl acrylate	55		8.305	8.305	(1.083)		1916	0.25000	0.12
2 Dichlorodifluoromethane	85		0.980	0.980	(0.234)		974	0.25000	0.83
3 Chloromethane	50		1.089	1.089	(0.260)		2037	0.25000	0.33
5 Vinyl Chloride	62		1.149	1.149	(0.275)		1533	0.25000	0.20
6 Bromomethane	94		1.344	1.344	(0.321)		1900	0.25000	0.46
7 Chloroethane	64		1.419	1.419	(0.339)		1390	0.25000	0.28



8 Trichlorofluoromethane	101	1.561	1.561 (0.373)	1655	0.25000	0.15
9 Acrolein	56	1.336	1.336 (0.320)	816	0.50000	1.34(T)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081102.D Page 2

Report Date: 25-Aug-2023 14:14

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
10 Acetone	43	1.985	1.985	(0.475)	6311	0.50000	
11 1,1-Dichloroethene	96	1.917	1.917	(0.459)	1653	0.25000	0.27
15 Iodomethane	142	2.033	2.033	(0.486)	1065	0.50000	5.70(T)
16 Acrylonitrile	53	2.551	2.551	(0.610)	959	0.50000	0.32
17 Methylene Chloride	84	2.307	2.307	(0.552)	7629	0.25000	1.00
18 Methyl tert-butyl ether	73	2.547	2.547	(0.609)	5833	0.25000	0.27
19 Carbon Disulfide	76	2.075	2.075	(0.496)	8609	0.50000	0.47
20 trans-1,2-Dichloroethene	96	2.532	2.532	(0.606)	1691	0.25000	0.24
22 1,1-Dichloroethane	63	2.933	2.933	(0.701)	4477	0.25000	0.33(T)
27 cis-1,2-Dichloroethene	96	3.548	3.548	(0.849)	1479	0.25000	0.21
28 Chloroform	83	3.915	3.915	(0.936)	3802	0.25000	0.32
\$ 30 Dibromofluoromethane	113	4.114	4.114	(0.984)	2815	0.25000	
31 1,1,1-Trichloroethane	97	4.088	4.088	(0.978)	1651	0.25000	0.17
32 1,1-Dichloropropene	75	4.185	4.185	(0.842)	40609	0.25000	5.22
33 1,2-Dichloroethane	62	4.582	4.582	(0.922)	2649	0.25000	0.28
34 Carbon Tetrachloride	117	4.181	4.181	(0.842)	56019	0.25000	6.83
\$ 35 1,2-Dichloroethane-d4	65	4.492	4.492	(1.074)	3418	0.25000	
* 36 1,4-Difluorobenzene	114	4.969	4.969	(1.000)	987045	50.0000	
37 Benzene	78	4.526	4.526	(0.911)	5992	0.25000	0.24
38 Trichloroethene	130	5.212	5.212	(1.049)	1686	0.25000	0.24
44 Dibromomethane	93	5.553	5.553	(1.118)	1301	0.25000	0.27
45 4-Methyl-2-Pentanone	43	6.352	6.352	(0.828)	3113	0.50000	0.46
46 cis-1,3-Dichloropropene	75	6.161	6.161	(1.240)	2810	0.25000	0.27
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	938711	50.0000	
\$ 48 Toluene-d8	98	6.401	6.401	(0.835)	10047	0.25000	0.45
50 Toluene	91	6.461	6.461	(0.843)	7422	0.25000	0.28
52 2-Hexanone	43	7.132	7.132	(0.930)	1169	0.50000	0.25
53 1,1,2-Trichloroethane	83	6.843	6.843	(0.892)	1472	0.25000	0.28
54 1,3-Dichloropropane	76	6.985	6.985	(0.911)	2926	0.25000	0.27
55 Dibromochloromethane	129	7.180	7.180	(0.936)	2180	0.25000	0.28
56 Tetrachloroethene	164	6.937	6.937	(0.905)	775	0.25000	0.14
57 1,2-Dibromoethane	107	7.281	7.281	(0.950)	1731	0.25000	0.27
58 1-Chlorohexane	55	7.671	7.671	(1.544)	8794	0.25000	1.53
59 Chlorobenzene	112	7.698	7.698	(1.004)	4792	0.25000	0.26
60 1,1,1,2-Tetrachloroethane	131	7.784	7.784	(1.015)	1491	0.25000	0.21
61 Ethylbenzene	106	7.810	7.810	(1.019)	2470	0.25000	0.27
62 m,p-Xylenes	106	7.919	7.919	(1.033)	5302	0.50000	0.46
63 o-Xylene	106	8.267	8.267	(1.078)	3049	0.25000	0.27
64 Styrene	104	8.309	8.309	(1.084)	3334	0.25000	0.17
67 Isopropylbenzene	105	8.571	8.571	(1.118)	6419	0.25000	0.23
\$ 69 4-Bromofluorobenzene	95	8.710	8.710	(1.136)	7582	0.25000	1.09
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	510942	50.0000	
71 1,2,3-Trichloropropane	75	8.882	8.882	(0.919)	2146	0.25000	0.35
73 n-Propylbenzene	91	8.931	8.931	(0.924)	6502	0.25000	0.21
74 Bromobenzene	156	8.833	8.833	(0.914)	1137	0.25000	0.13
75 1,3,5-Trimethylbenzene	105	9.081	9.081	(0.940)	5894	0.25000	0.26
76 2-Chlorotoluene	91	8.991	8.991	(0.931)	5547	0.25000	0.28
77 4-Chlorotoluene	91	9.115	9.115	(0.943)	5886	0.25000	0.26
78 tert-Butylbenzene	119	9.343	9.343	(0.967)	4589	0.25000	0.24
79 1,2,4-Trimethylbenzene	105	9.392	9.392	(0.972)	6557	0.25000	0.28
81 sec-Butylbenzene	105	9.523	9.523	(0.986)	6673	0.25000	0.25
82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	6091	0.25000	0.25



83 1,3-Dichlorobenzene	146	9.613	9.613 (0.995)	3071	0.25000	0.21
84 1,4-Dichlorobenzene	146	9.677	9.677 (1.002)	4795	0.25000	0.30

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081102.D Page 3
 Report Date: 25-Aug-2023 14:14

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
87 n-Butylbenzene	91	10.037	10.037	(1.039)	3022	0.25000	2.14
88 1,2-Dichlorobenzene	146	10.022	10.022	(1.037)	3447	0.25000	0.23
90 1,2,4-Trichlorobenzene	180	11.401	11.401	(1.180)	2133	0.25000	0.21
92 Naphthalene	128	11.615	11.615	(1.202)	6120	0.25000	0.25
93 1,2,3-Trichlorobenzene	180	11.772	11.772	(1.218)	2722	0.25000	0.28
M 94 1,2-Dichloroethylene (total)	96				3170	0.50000	
M 95 Xylenes (total)	106				8351	0.75000	
141 Cyclohexane	56	4.178	4.178	(0.999)	12532	0.25000	3.27
138 Freon TF	101	1.925	1.925	(0.460)	806	0.25000	1.26
147 Methylcyclohexane	55	5.366	5.366	(1.080)	956	0.25000	0.06
146 Methyl Acetate	43	2.258	2.258	(0.540)	2769	0.25000	0.49

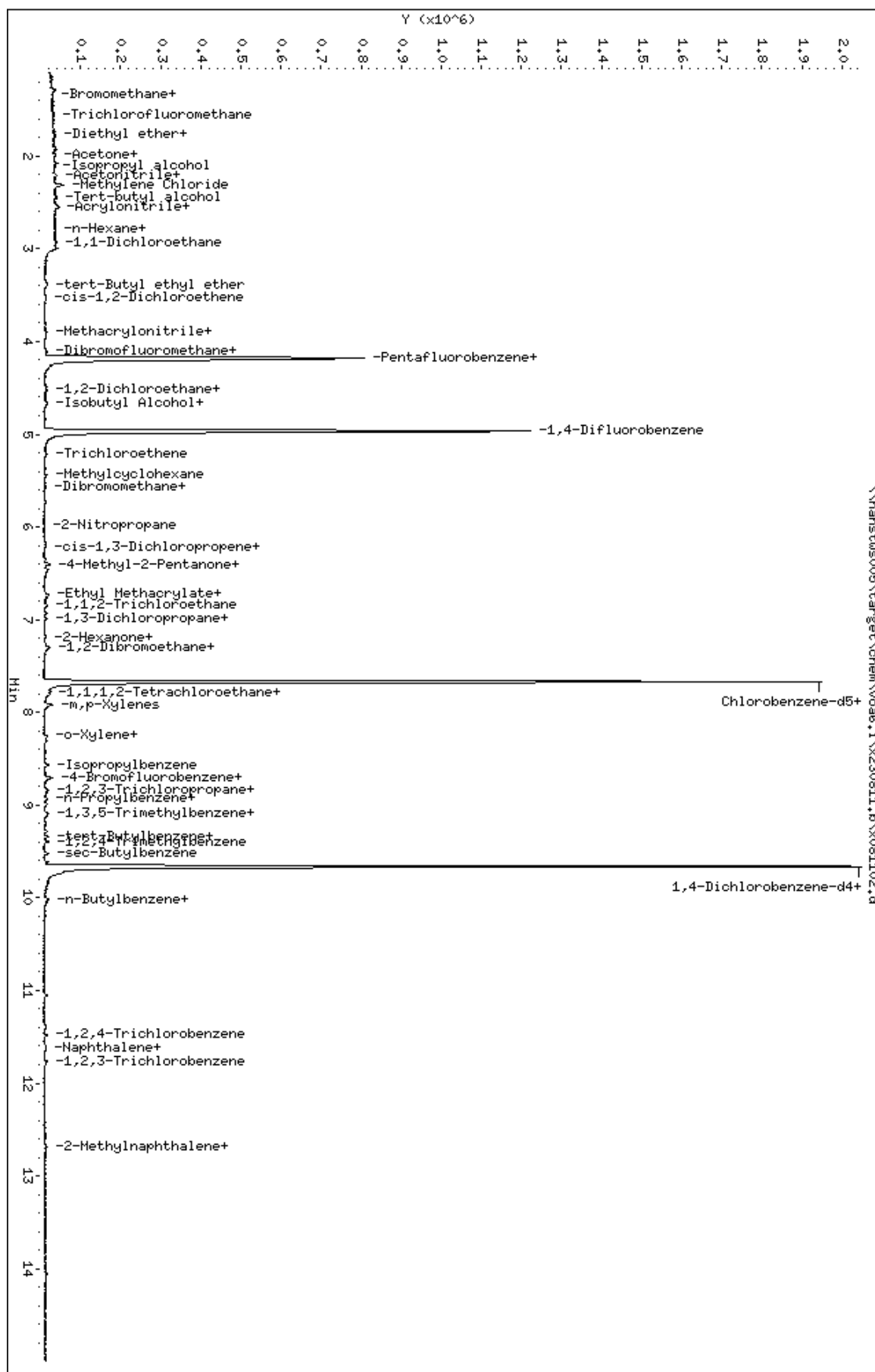
QC Flag Legend

T - Target compound detected outside RT window.
 M - Compound response manually integrated.



Data File: \\nahstus005\target\chem\voa6.i\X230811.b\X081102.d
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 Sample Info: WSTD000.25\WSTD000.25\111
 Purge Volume: 5.0
 Column phase: DB624

Instrument: voa6.i
 Operator: PC
 Column diameter: 0.18

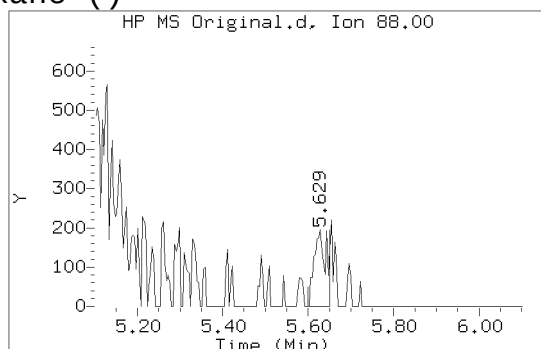


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081102.d
Inj Date : 11-AUG-2023 11:33
InstruID : voa6.i
LabSampID : VSTD000.25

1,4-Dioxane ()

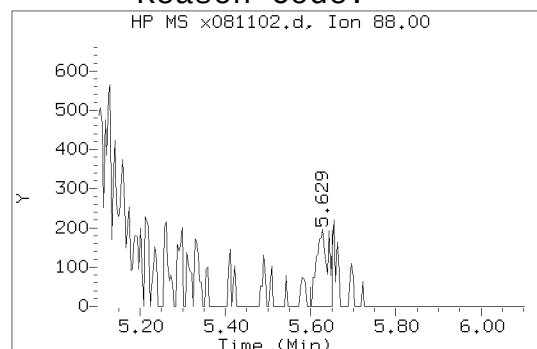
BEFORE

MASS
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AREA
382
HEIGHT
196
12-Aug-2023
22:49



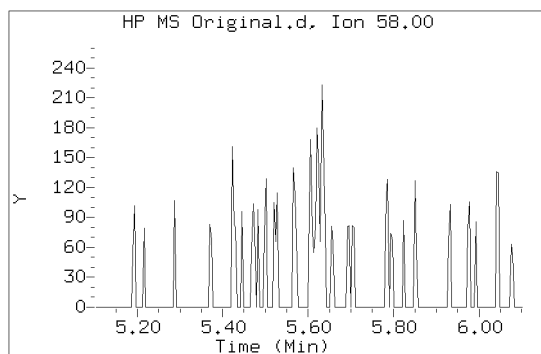
AFTER

MASS
88
AREA
382
HEIGHT
196
12-Aug-2023
22:49



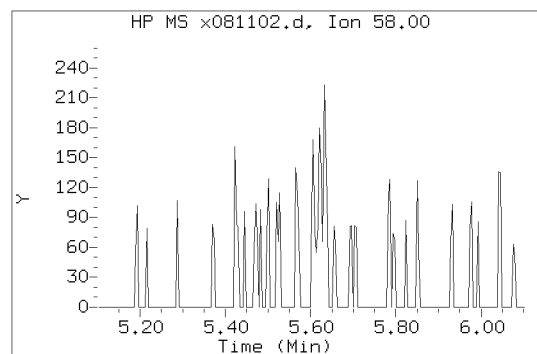
BEFORE

MASS
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AREA
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HEIGHT
0
12-Aug-2023
22:49



AFTER

MASS
58
AREA
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HEIGHT
0
12-Aug-2023
22:49



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081103.D Page 1
 Report Date: 25-Aug-2023 14:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081103.D
 Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
 Inj Date : 11-AUG-2023 12:14
 Operator : PC Inst ID: voa6.i
 Smp Info : VSTD000.5;VSTD000.5;1;2;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\8260W.m
 Meth Date : 25-Aug-2023 14:15 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 11:33 Cal File: X081102.D
 Als bottle: 3 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V6.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)		606565	50.0000	
135 1,4-Dioxane	88		5.617	5.617	(1.343)		825	10.0000	10.70(M)
140 1,3-Butadiene	54		1.171	1.171	(0.280)		3838	0.50000	0.61(M)
25 Methacrylonitrile	41		3.878	3.878	(0.927)		3257	0.50000	0.53(M)
12 Isobutyl Alcohol	43		4.699	4.699	(1.124)		10205	10.0000	10.73(M)
13 Acetonitrile	39		2.202	2.202	(0.527)		4428	5.00000	4.73(M)
14 Allyl Chloride	41		2.202	2.202	(0.527)		10300	0.50000	0.55(M)
4 Propionitrile	54		3.720	3.720	(0.890)		4117	5.00000	4.87(M)
136 n-Hexane	57		2.779	2.779	(0.665)		4056	0.50000	(M)
72 trans-1,4-Dichloro-2-butene	53		8.950	8.950	(1.167)		1260	0.50000	0.55(M)
23 Chloroprene	53		1.782	1.782	(0.426)		1459	0.50000	0.56(M)
145 alpha-Methylstyrene	118		9.272	9.272	(0.960)		5954	0.50000	0.57(M)
200 Dimethyl Disulfide	94		6.209	6.209	(0.810)		5435	0.50000	0.45
139 Diethyl ether	59		1.767	1.767	(0.423)		2930	0.50000	0.54(M)
130 Ethyl Acetate	43		3.717	3.717	(0.889)		3740	0.50000	0.53(M)
40 Methyl Methacrylate	41		5.640	5.640	(1.349)		2840	0.50000	0.50
49 Ethyl Methacrylate	69		6.805	6.805	(1.371)		4461	0.50000	0.51(H)
132 n-Butanol	56		5.370	5.370	(1.284)		1373	10.0000	75.88(TM)
142 Tetrahydrofuran	42		3.889	3.889	(0.930)		1419	1.00000	1.19(M)
150 Allyl alcohol	57		2.779	2.779	(0.665)		4860	10.0000	0.28



166 1,2,3-Trimethylbenzene	105	9.737	9.737 (1.008)	12507	0.50000	0.55
131 Methyl Acrylate	55	3.780	3.780 (0.904)	3259	0.50000	0.54(M)



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081103.D Page 2
 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
162 Butyl acrylate	55	8.286	8.286	(1.081)	7408	0.50000	0.50(M)
2 Dichlorodifluoromethane	85	0.980	0.980	(0.234)	3407	0.50000	1.27(M)
3 Chloromethane	50	1.085	1.085	(0.260)	3482	0.50000	0.58(M)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	4404	0.50000	0.60(M)
6 Bromomethane	94	1.344	1.344	(0.321)	2137	0.50000	0.54(M)
7 Chloroethane	64	1.411	1.411	(0.338)	2768	0.50000	0.58(M)
8 Trichlorofluoromethane	101	1.565	1.565	(0.374)	6710	0.50000	0.64(M)
9 Acrolein	56	1.861	1.861	(0.445)	323	1.00000	(TM)
10 Acetone	43	1.988	1.988	(0.476)	8080	1.00000	(M)
11 1,1-Dichloroethene	96	1.921	1.921	(0.459)	3414	0.50000	0.58(M)
15 Iodomethane	142	2.037	2.037	(0.487)	2898	1.00000	5.96(T)
16 Acrylonitrile	53	2.551	2.551	(0.610)	3027	1.00000	1.07(M)
17 Methylene Chloride	84	2.303	2.303	(0.551)	3889	0.50000	0.52(M)
18 Methyl tert-butyl ether	73	2.543	2.543	(0.608)	11988	0.50000	0.57
19 Carbon Disulfide	76	2.078	2.078	(0.497)	18059	1.00000	1.03(M)
20 trans-1,2-Dichloroethene	96	2.539	2.539	(0.607)	3848	0.50000	0.56(M)
21 Vinyl Acetate	43	3.019	3.019	(0.722)	22253	1.00000	1.10(M)
22 1,1-Dichloroethane	63	2.926	2.926	(0.700)	7346	0.50000	0.57(M)
24 2-Butanone	43	3.702	3.702	(0.885)	2017	1.00000	0.89(M)
26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	4612	0.50000	0.51(M)
27 cis-1,2-Dichloroethene	96	3.537	3.537	(0.846)	3574	0.50000	0.54(M)
28 Chloroform	83	3.908	3.908	(0.935)	5756	0.50000	0.51(M)
29 Bromochloromethane	128	3.803	3.803	(0.909)	1872	0.50000	0.50(M)
\$ 30 Dibromofluoromethane	113	4.110	4.110	(0.983)	4322	0.50000	(M)
31 1,1,1-Trichloroethane	97	4.088	4.088	(0.978)	4852	0.50000	0.53(M)
32 1,1-Dichloropropene	75	4.290	4.290	(0.864)	4132	0.50000	0.56(MH)
33 1,2-Dichloroethane	62	4.575	4.575	(0.921)	4942	0.50000	0.55(M)
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	4492	0.50000	0.57(MH)
\$ 35 1,2-Dichloroethane-d4	65	4.489	4.489	(1.074)	4095	0.50000	(M)
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	936474	50.0000	
37 Benzene	78	4.523	4.523	(0.911)	12962	0.50000	0.56(M)
38 Trichloroethene	130	5.212	5.212	(1.050)	3802	0.50000	0.57(M)
39 Bromodichloromethane	83	5.726	5.726	(1.153)	5036	0.50000	0.58(M)
41 2-Chloroethylvinyl ether	63	6.078	6.078	(1.224)	2443	1.00000	1.11(M)
42 1,2-Dichloropropane	63	5.441	5.441	(1.096)	3864	0.50000	0.59(M)
44 Dibromomethane	93	5.565	5.565	(1.121)	2538	0.50000	0.57
45 4-Methyl-2-Pentanone	43	6.352	6.352	(0.828)	6765	1.00000	1.03(M)
46 cis-1,3-Dichloropropene	75	6.168	6.168	(1.242)	5702	0.50000	0.58(M)
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	907144	50.0000	
\$ 48 Toluene-d8	98	6.397	6.397	(0.834)	14098	0.50000	0.66(M)
50 Toluene	91	6.457	6.457	(0.842)	14402	0.50000	0.56(M)
51 trans-1,3-Dichloropropene	75	6.704	6.704	(1.350)	4833	0.50000	0.58(M)
52 2-Hexanone	43	7.139	7.139	(0.931)	4310	1.00000	0.98
53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	2765	0.50000	0.54(M)
54 1,3-Dichloropropane	76	6.989	6.989	(0.912)	5853	0.50000	0.56
55 Dibromochloromethane	129	7.177	7.177	(0.936)	3861	0.50000	0.53(M)
56 Tetrachloroethene	164	6.929	6.929	(0.904)	2916	0.50000	0.55(M)
57 1,2-Dibromoethane	107	7.270	7.270	(0.948)	3314	0.50000	0.53(M)
58 1-Chlorohexane	55	7.698	7.698	(1.550)	2827	0.50000	0.52(MH)
59 Chlorobenzene	112	7.694	7.694	(1.003)	10027	0.50000	0.57(M)
60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	3665	0.50000	0.54(M)
61 Ethylbenzene	106	7.806	7.806	(1.018)	4890	0.50000	0.56(M)



62 m,p-Xylenes	106	7.911	7.911 (1.032)	12402	1.00000	1.12(M)
63 o-Xylene	106	8.245	8.245 (1.075)	5910	0.50000	0.54(M)



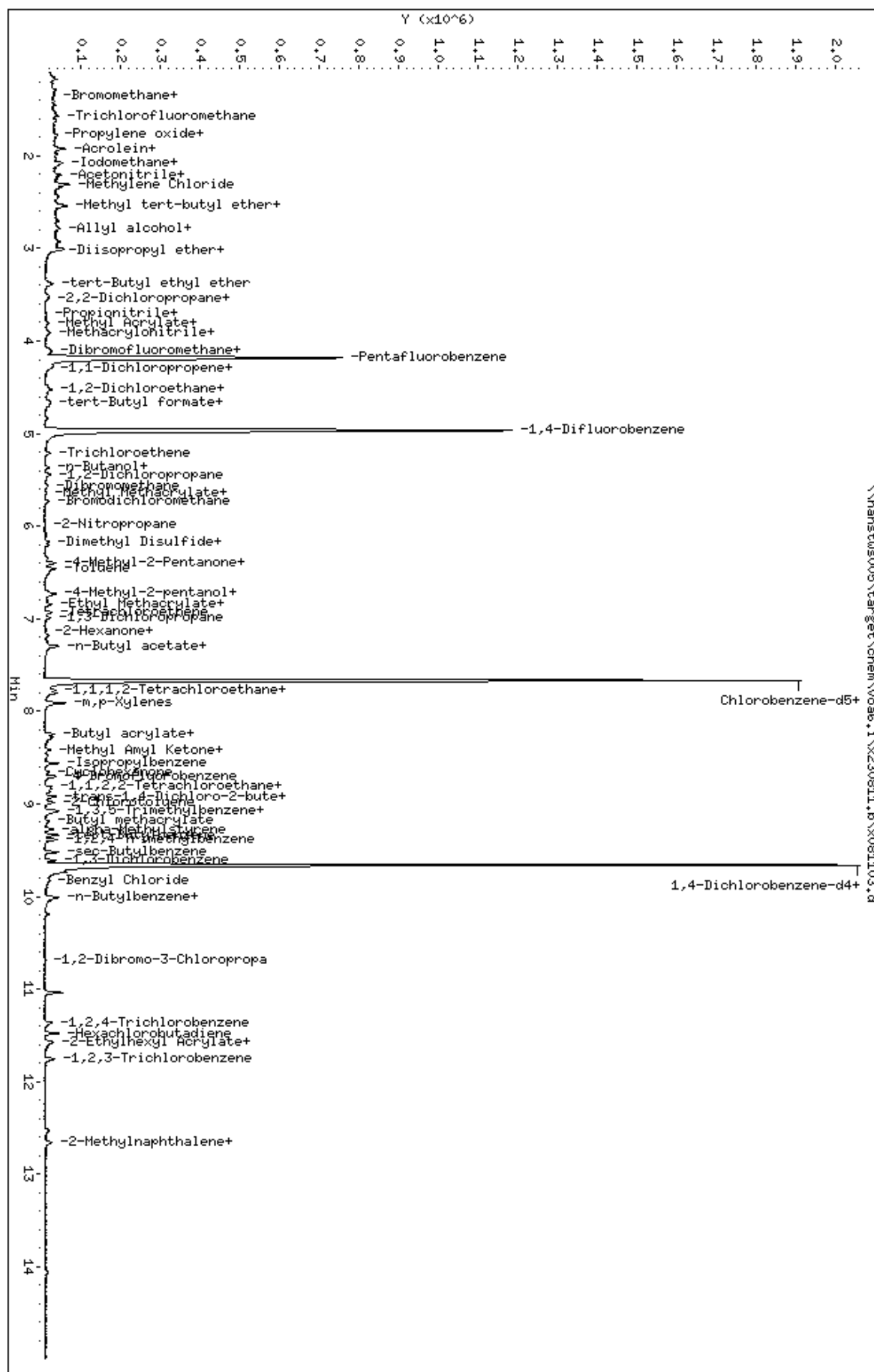
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 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
64 Styrene	104	8.286	8.286	(1.081)	9494	0.50000	0.52(M)
66 Bromoform	173	8.421	8.421	(1.098)	2332	0.50000	0.47(TM)
67 Isopropylbenzene	105	8.564	8.564	(1.117)	16385	0.50000	0.60(M)
68 1,1,2,2-Tetrachloroethane	83	8.841	8.841	(0.915)	4493	0.50000	0.57(M)
\$ 69 4-Bromofluorobenzene	95	8.699	8.699	(1.134)	8224	0.50000	1.19(M)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	483591	50.00000	
71 1,2,3-Trichloropropane	75	8.878	8.878	(0.919)	3166	0.50000	0.54(M)
73 n-Propylbenzene	91	8.923	8.923	(0.924)	17092	0.50000	0.59(M)
74 Bromobenzene	156	8.818	8.818	(0.913)	4612	0.50000	0.59(M)
75 1,3,5-Trimethylbenzene	105	9.077	9.077	(0.939)	12006	0.50000	0.57(M)
76 2-Chlorotoluene	91	8.983	8.983	(0.930)	10667	0.50000	0.58(M)
77 4-Chlorotoluene	91	9.088	9.088	(0.941)	10970	0.50000	0.52(M)
78 tert-Butylbenzene	119	9.336	9.336	(0.966)	10385	0.50000	0.57(M)
79 1,2,4-Trimethylbenzene	105	9.392	9.392	(0.972)	12812	0.50000	0.59(M)
81 sec-Butylbenzene	105	9.523	9.523	(0.986)	13358	0.50000	0.54(M)
82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	13394	0.50000	0.60(M)
83 1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	7795	0.50000	0.56(M)
84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	8042	0.50000	0.54(M)
86 Benzyl Chloride	91	9.831	9.831	(1.282)	6104	0.50000	0.47(M)
87 n-Butylbenzene	91	10.011	10.011	(1.036)	10518	0.50000	2.48(M)
88 1,2-Dichlorobenzene	146	10.007	10.007	(1.036)	7410	0.50000	0.53(M)
89 1,2-Dibromo-3-Chloropropane	155	10.689	10.689	(1.106)	676	0.50000	0.50(M)
90 1,2,4-Trichlorobenzene	180	11.368	11.368	(1.177)	4663	0.50000	0.50(M)
91 Hexachlorobutadiene	225	11.473	11.473	(1.187)	1914	0.50000	(M)
92 Naphthalene	128	11.585	11.585	(1.199)	12804	0.50000	0.55(M)
93 1,2,3-Trichlorobenzene	180	11.754	11.754	(1.216)	5452	0.50000	0.60(M)
M 94 1,2-Dichloroethylene (total)	96				7422	1.00000	
M 95 Xylenes (total)	106				18312	1.50000	
141 Cyclohexane	56	4.129	4.129	(0.987)	4440	0.50000	2.36(MH)
138 Freon TF	101	1.921	1.921	(0.459)	3204	0.50000	1.68(M)
147 Methylcyclohexane	55	5.373	5.373	(1.082)	7626	0.50000	0.54(M)
146 Methyl Acetate	43	2.243	2.243	(0.537)	3113	0.50000	0.57(M)

QC Flag Legend

T - Target compound detected outside RT window.
 M - Compound response manually integrated.
 H - Operator selected an alternate compound hit.





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 Sample Info: WSTD000.5\WSTD000.5\112;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: voa6.i
 Operator: PC
 Column diameter: 0.18

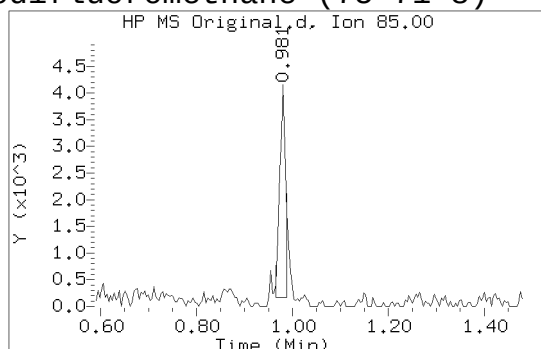


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 InstruID : voa6.i
 LabSampID : VSTD000.5

Dichlorodifluoromethane (75-71-8)

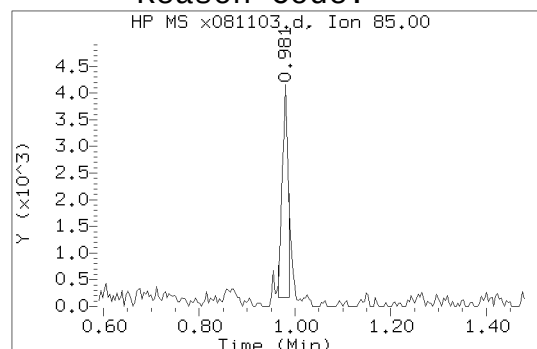
BEFORE

MASS
96
AREA
7422
HEIGHT
4583
12-Aug-2023
22:44



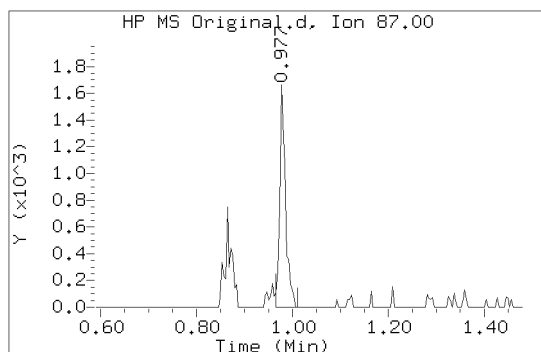
AFTER

MASS
85
AREA
3407
HEIGHT
3983
23-Aug-2023
11:12



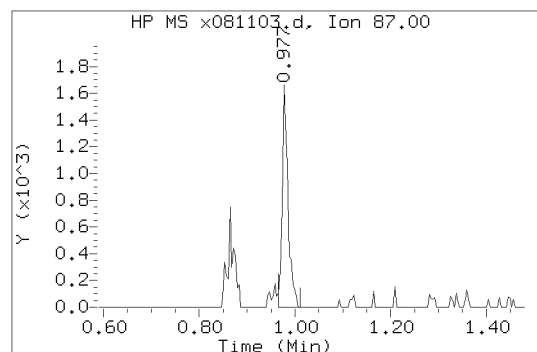
BEFORE

MASS
61
AREA
0
HEIGHT
0
12-Aug-2023
22:44



AFTER

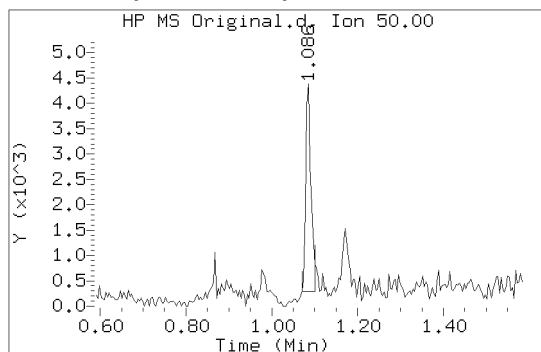
MASS
87
AREA
1433
HEIGHT
1663
23-Aug-2023
11:12



Chloromethane (74-87-3)

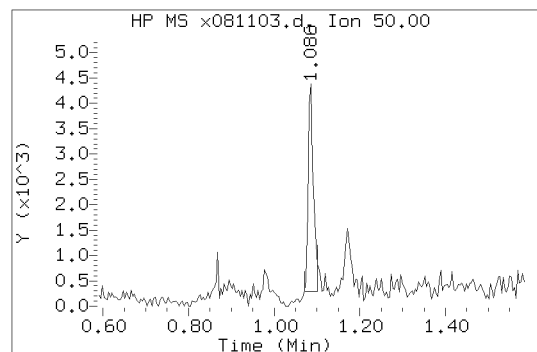
BEFORE

MASS
168
AREA
606565
HEIGHT
272385
12-Aug-2023
22:44



AFTER

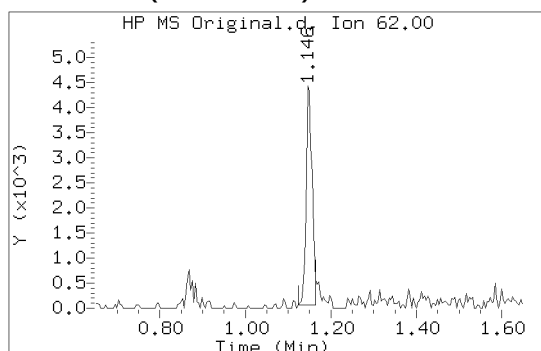
MASS
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AREA
3482
HEIGHT
4097
23-Aug-2023
11:12



Vinyl Chloride (75-01-4)

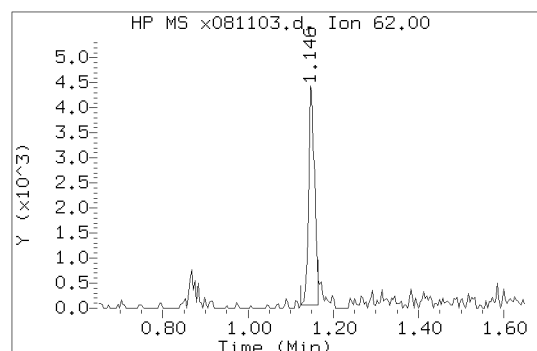
BEFORE

MASS
85
AREA
3407
HEIGHT
3983
12-Aug-2023
22:44



AFTER

MASS
62
AREA
4404
HEIGHT
4375
23-Aug-2023
11:12

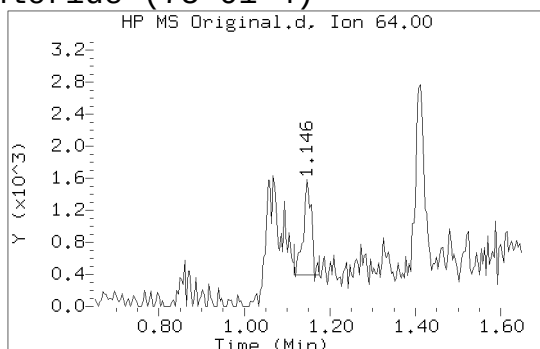


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 InstruID : voa6.i
 LabSampID : VSTD000.5

Vinyl Chloride (75-01-4)

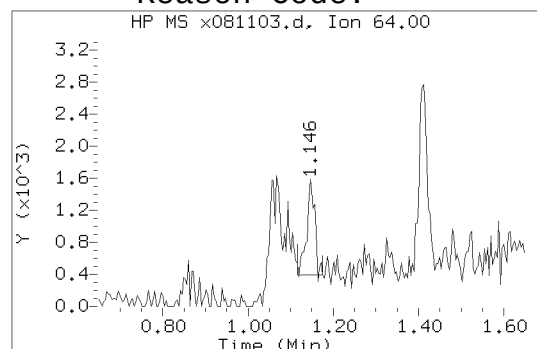
BEFORE

MASS
87
AREA
1433
HEIGHT
1663
12-Aug-2023
22:44



AFTER

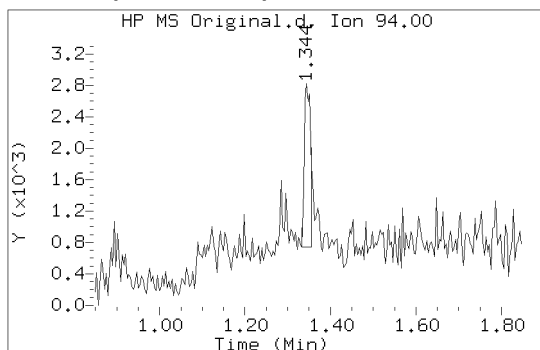
MASS
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AREA
1641
HEIGHT
1196
23-Aug-2023
11:12



Bromomethane (74-83-9)

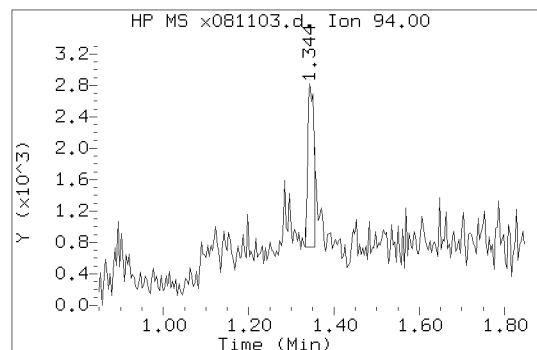
BEFORE

MASS
50
AREA
3482
HEIGHT
4097
12-Aug-2023
22:44



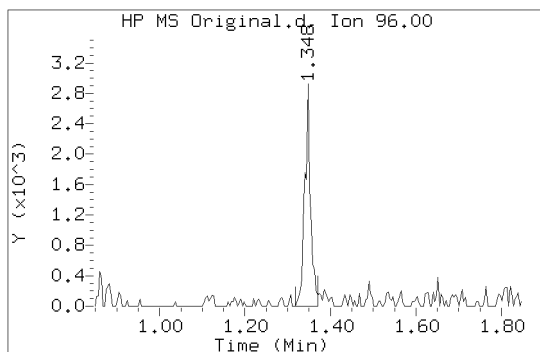
AFTER

MASS
94
AREA
2137
HEIGHT
2080
23-Aug-2023
11:12



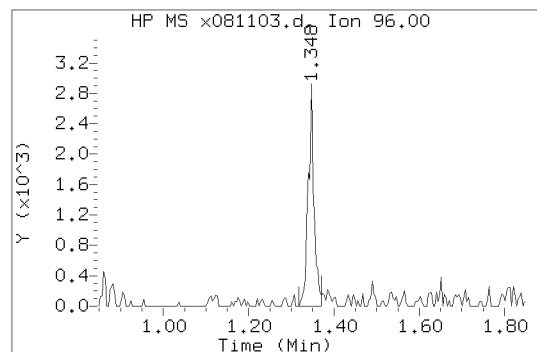
BEFORE

MASS
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AREA
1338
HEIGHT
1186
12-Aug-2023
22:44



AFTER

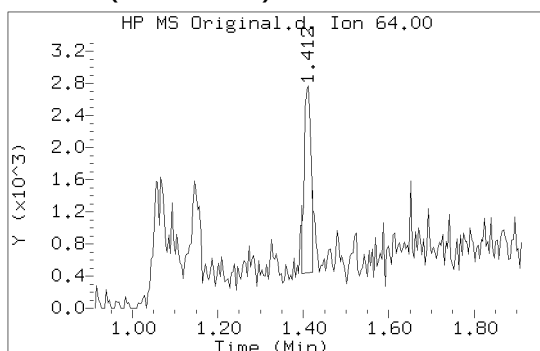
MASS
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AREA
2813
HEIGHT
2924
23-Aug-2023
11:12



Chloroethane (75-00-3)

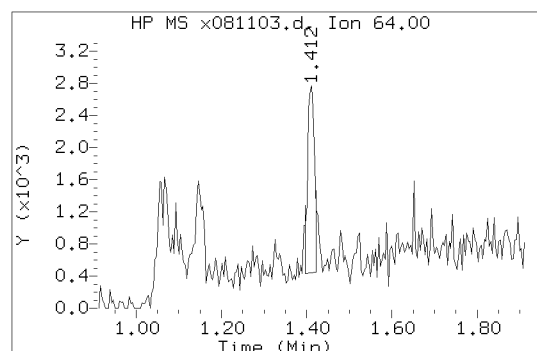
BEFORE

MASS
62
AREA
4404
HEIGHT
4375
12-Aug-2023
22:44



AFTER

MASS
64
AREA
2768
HEIGHT
2330
23-Aug-2023
11:12

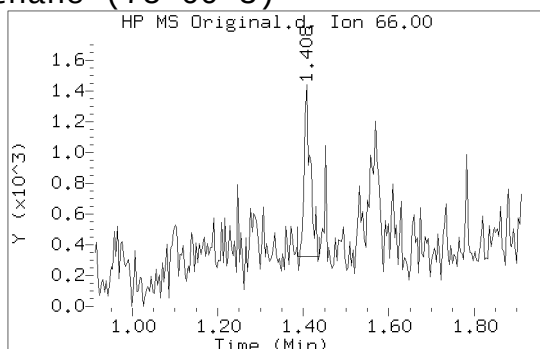


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InstruID : voa6.i
LabSampID : VSTD000.5

Chloroethane (75-00-3)

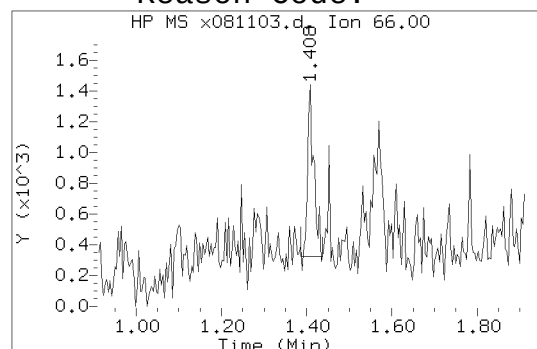
BEFORE

MASS
64
AREA
1641
HEIGHT
1196
12-Aug-2023
22:44



AFTER

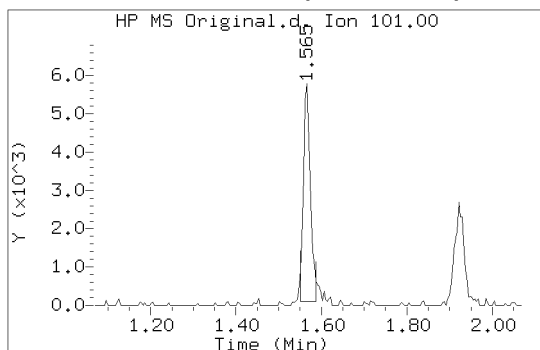
MASS
66
AREA
1131
HEIGHT
1114
23-Aug-2023
11:12



Trichlorofluoromethane (75-69-4)

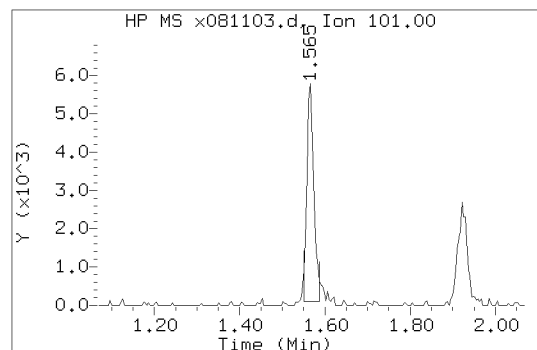
BEFORE

MASS
94
AREA
2137
HEIGHT
2080
12-Aug-2023
22:44



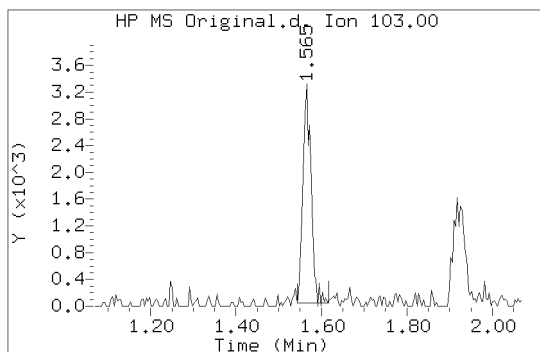
AFTER

MASS
101
AREA
6710
HEIGHT
5688
23-Aug-2023
11:12



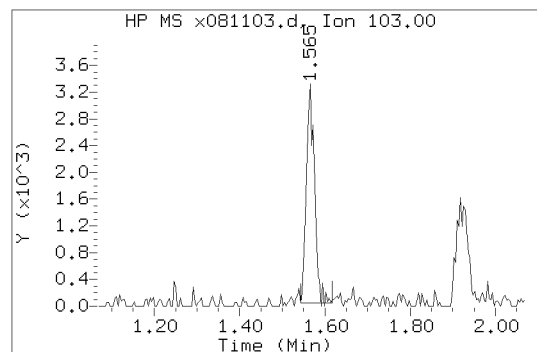
BEFORE

MASS
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AREA
2813
HEIGHT
2924
12-Aug-2023
22:44



AFTER

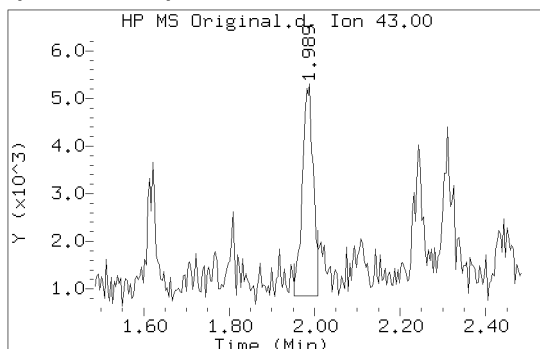
MASS
103
AREA
4414
HEIGHT
3270
23-Aug-2023
11:12



Acetone (67-64-1)

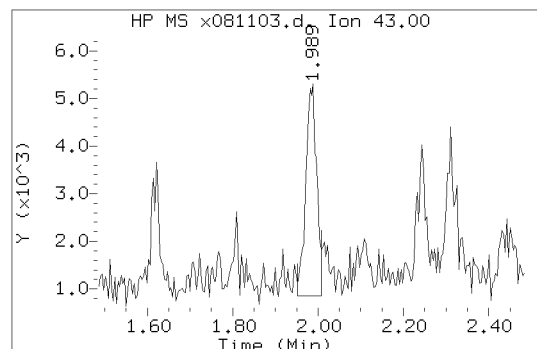
BEFORE

MASS
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AREA
2768
HEIGHT
2330
12-Aug-2023
22:44



AFTER

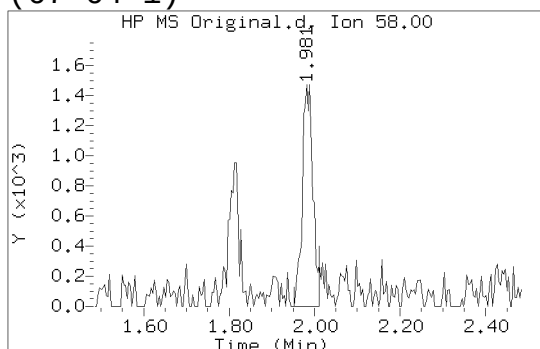
MASS
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AREA
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HEIGHT
4452
23-Aug-2023
11:12



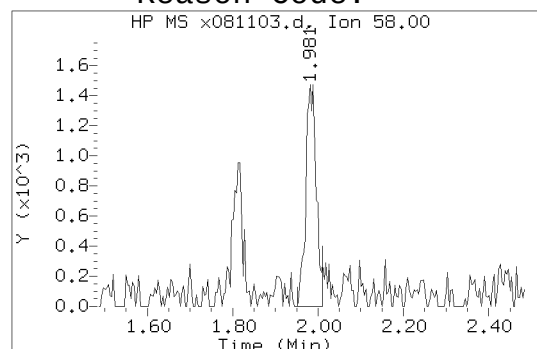
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InstruID : voa6.i
LabSampID : VSTD000.5

Acetone (67-64-1)**BEFORE**

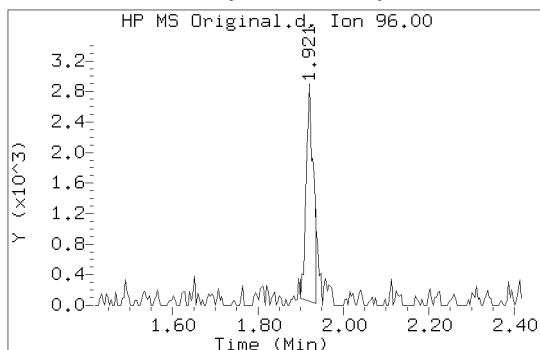
MASS
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AREA
1131
HEIGHT
1114
12-Aug-2023
22:44

**AFTER**

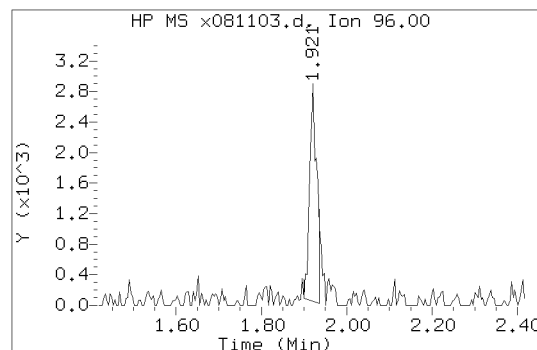
MASS
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AREA
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HEIGHT
1473
23-Aug-2023
11:12

Reason Code:**1,1-Dichloroethene (75-35-4)****BEFORE**

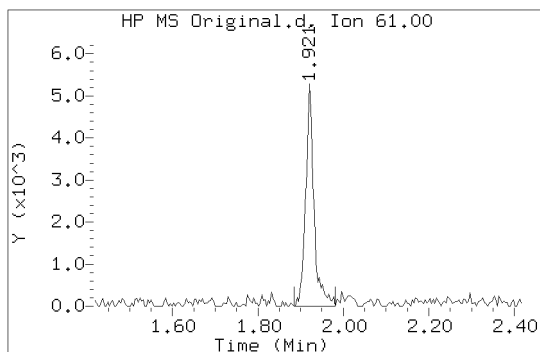
MASS
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6710
HEIGHT
5688
12-Aug-2023
22:44

**AFTER**

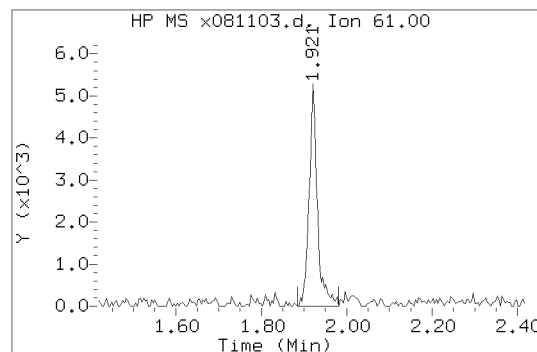
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AREA
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HEIGHT
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23-Aug-2023
11:12

Reason Code:**BEFORE**

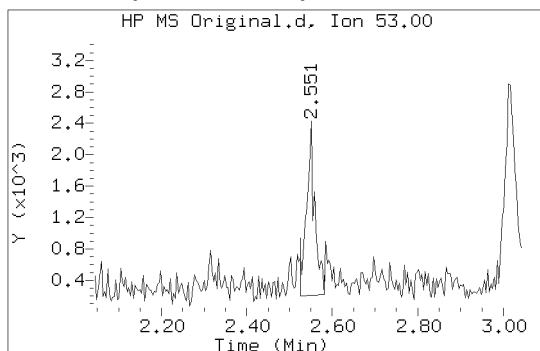
MASS
103
AREA
4414
HEIGHT
3270
12-Aug-2023
22:44

**AFTER**

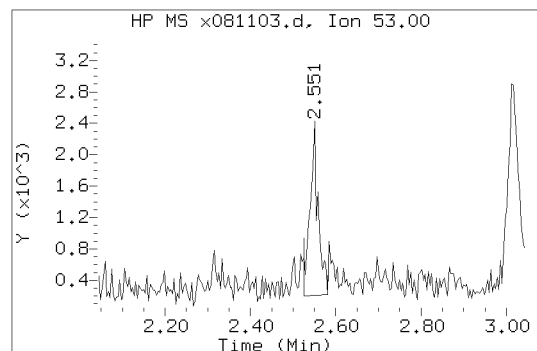
MASS
61
AREA
7312
HEIGHT
5285
23-Aug-2023
11:12

**Acrylonitrile (107-13-1)****BEFORE**

MASS
43
AREA
8080
HEIGHT
4452
12-Aug-2023
22:44

**AFTER**

MASS
53
AREA
3027
HEIGHT
2218
23-Aug-2023
11:12

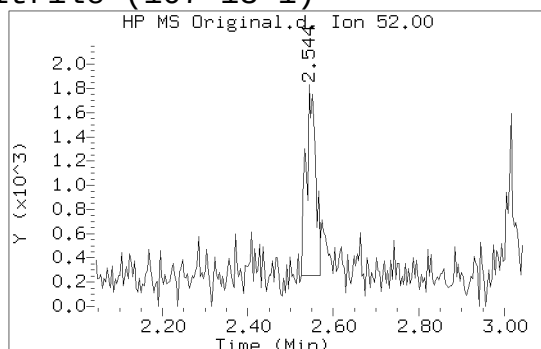
Reason Code:

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 InstruID : voa6.i
 LabSampID : VSTD000.5

Acrylonitrile (107-13-1)

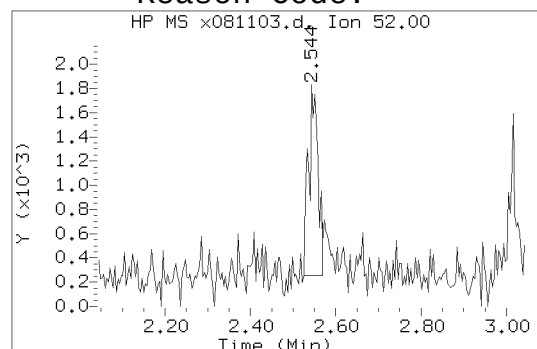
BEFORE

MASS
58
AREA
2589
HEIGHT
1473
12-Aug-2023
22:44



AFTER

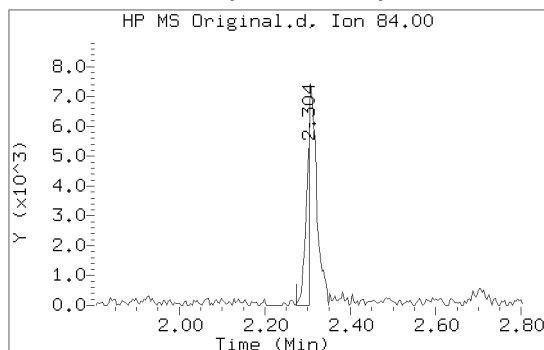
MASS
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AREA
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HEIGHT
1577
23-Aug-2023
11:12



Methylene Chloride (75-09-2)

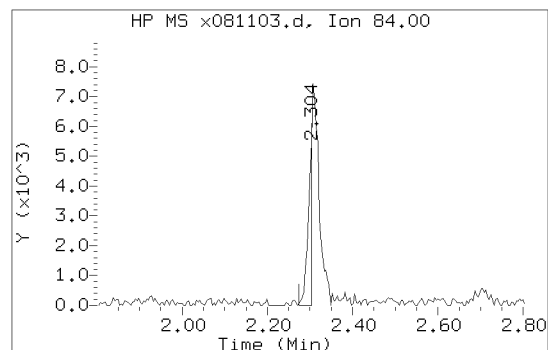
BEFORE

MASS
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AREA
3414
HEIGHT
2850
12-Aug-2023
22:44



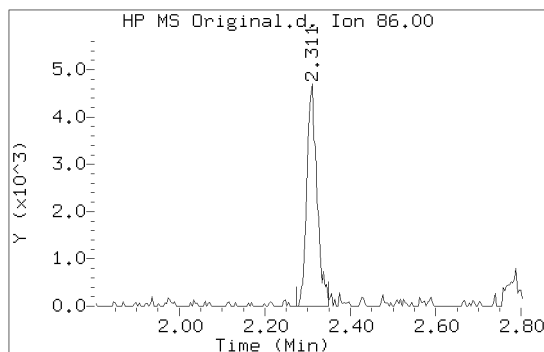
AFTER

MASS
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AREA
3889
HEIGHT
5468
23-Aug-2023
11:12



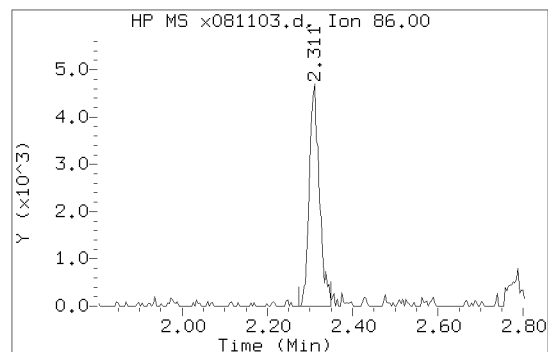
BEFORE

MASS
61
AREA
7312
HEIGHT
5285
12-Aug-2023
22:44



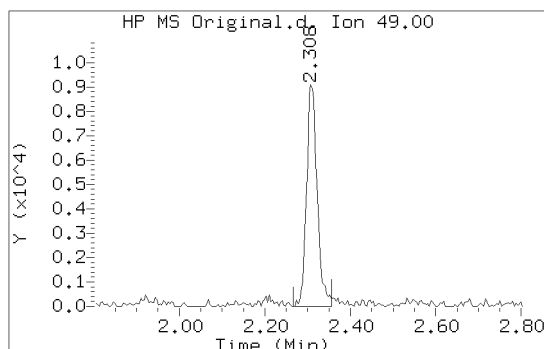
AFTER

MASS
86
AREA
7903
HEIGHT
4700
23-Aug-2023
11:12



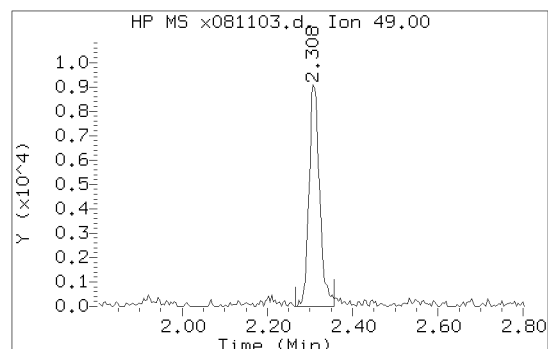
BEFORE

MASS
63
AREA
3064
HEIGHT
2093
12-Aug-2023
22:44



AFTER

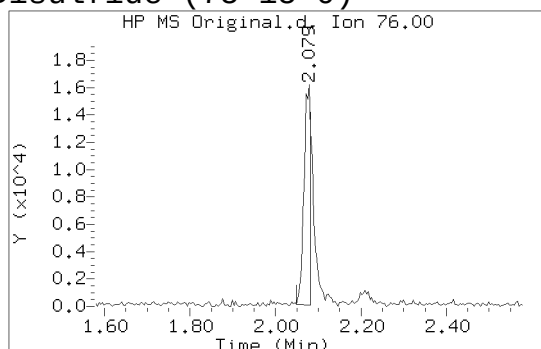
MASS
49
AREA
16117
HEIGHT
9091
23-Aug-2023
11:12



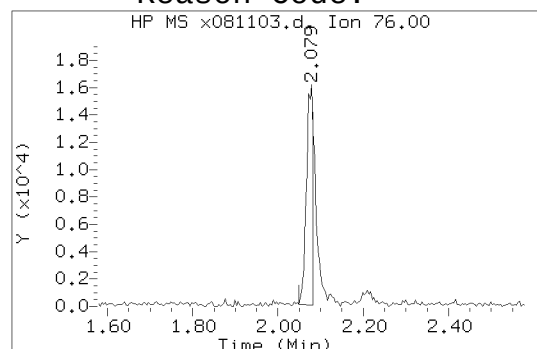
Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

Carbon Disulfide (75-15-0)**BEFORE**

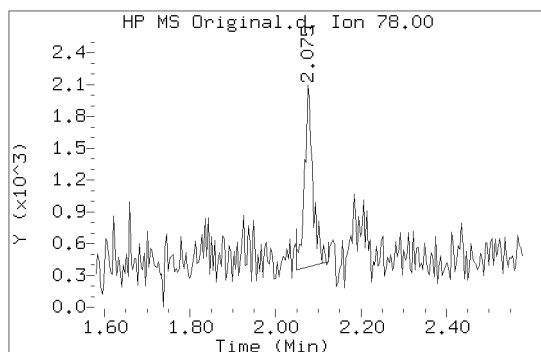
MASS
53
AREA
3027
HEIGHT
2218
12-Aug-2023
22:44

**AFTER**

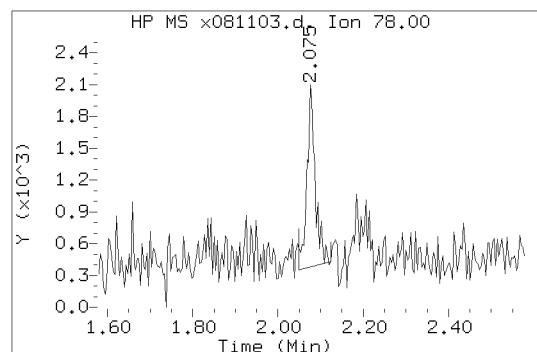
MASS
76
AREA
18059
HEIGHT
16106
23-Aug-2023
11:12

**BEFORE**

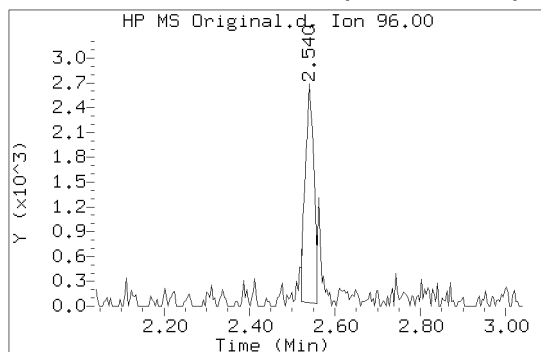
MASS
52
AREA
2521
HEIGHT
1577
12-Aug-2023
22:44

**AFTER**

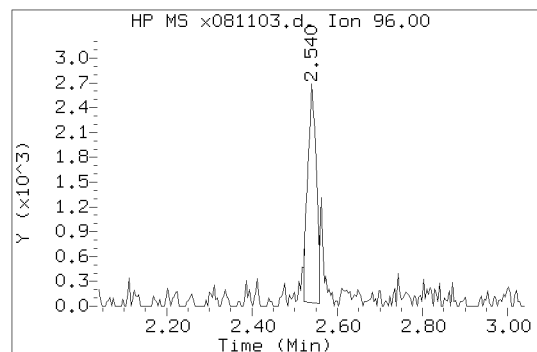
MASS
78
AREA
2390
HEIGHT
1716
23-Aug-2023
11:12

**trans-1,2-Dichloroethene (156-60-5)****BEFORE**

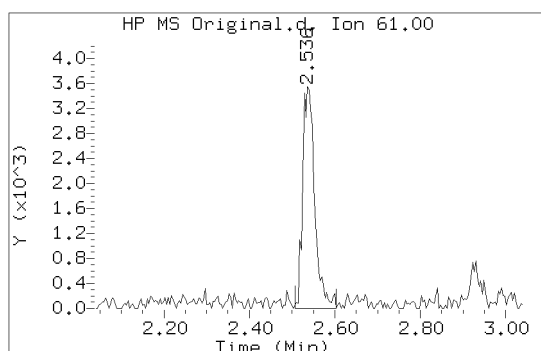
MASS
84
AREA
3889
HEIGHT
5468
12-Aug-2023
22:44

**AFTER**

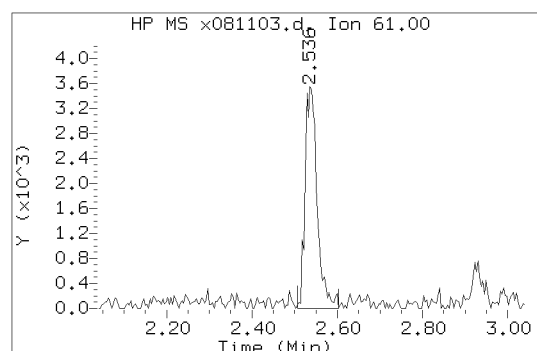
MASS
96
AREA
3848
HEIGHT
2643
23-Aug-2023
11:12

**BEFORE**

MASS
86
AREA
7903
HEIGHT
4700
12-Aug-2023
22:44

**AFTER**

MASS
61
AREA
7075
HEIGHT
3548
23-Aug-2023
11:12

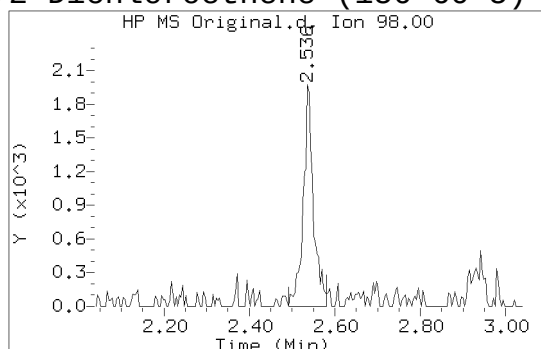


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

trans-1,2-Dichloroethene (156-60-5)

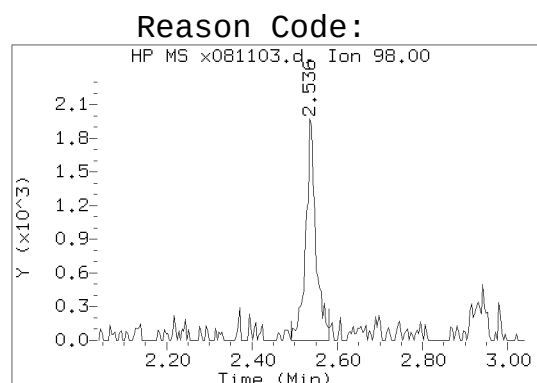
BEFORE

MASS
49
AREA
16117
HEIGHT
9091
12-Aug-2023
22:44



AFTER

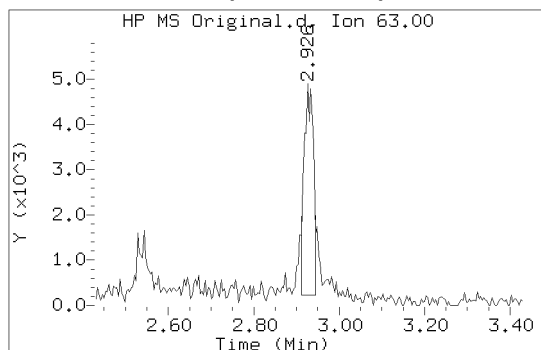
MASS
98
AREA
3286
HEIGHT
1974
23-Aug-2023
11:12



1,1-Dichloroethane (75-34-3)

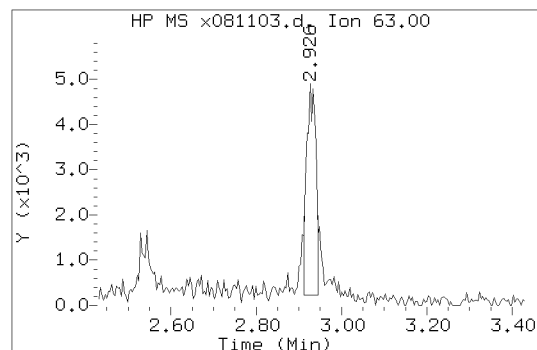
BEFORE

MASS
73
AREA
11988
HEIGHT
5726
12-Aug-2023
22:44



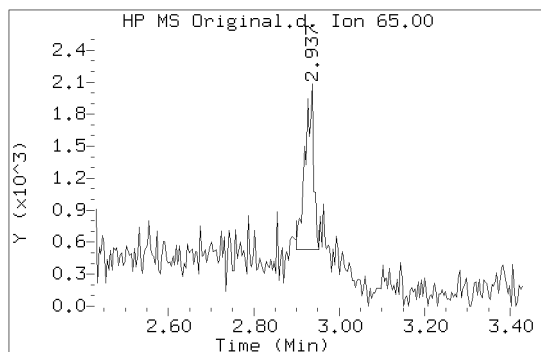
AFTER

MASS
63
AREA
7346
HEIGHT
4676
23-Aug-2023
11:12



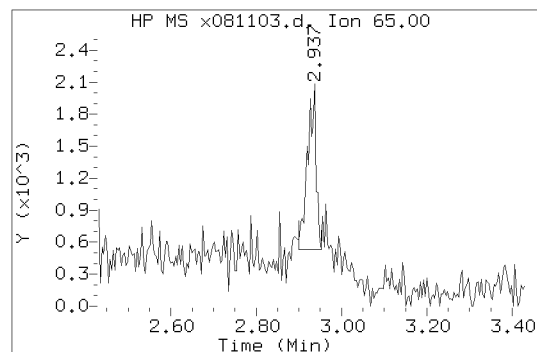
BEFORE

MASS
57
AREA
5770
HEIGHT
2619
12-Aug-2023
22:44



AFTER

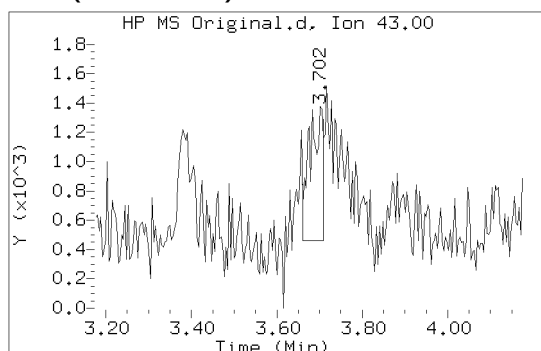
MASS
65
AREA
2162
HEIGHT
1553
23-Aug-2023
11:12



2-Butanone (78-93-3)

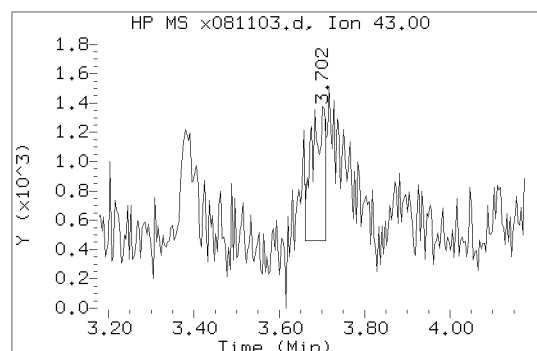
BEFORE

MASS
76
AREA
18059
HEIGHT
16106
12-Aug-2023
22:44



AFTER

MASS
43
AREA
2017
HEIGHT
919
23-Aug-2023
11:12

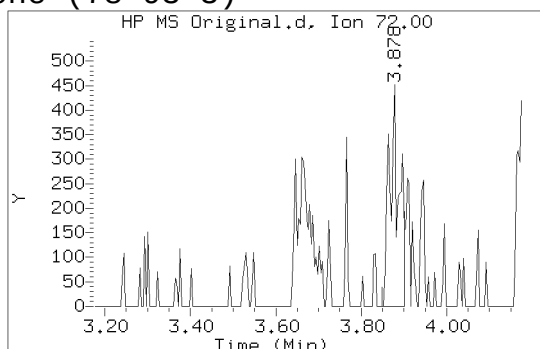


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

2-Butanone (78-93-3)

BEFORE

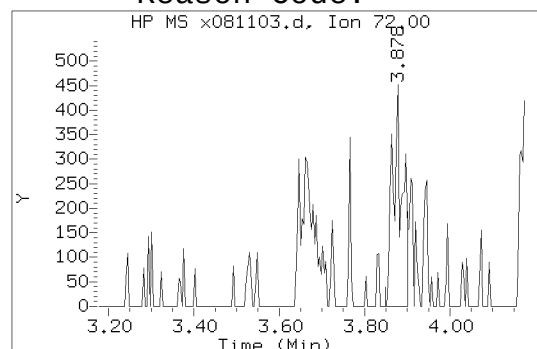
MASS
78
AREA
2390
HEIGHT
1716
12-Aug-2023
22:44



AFTER

MASS
72
AREA
703
HEIGHT
452
23-Aug-2023
11:12

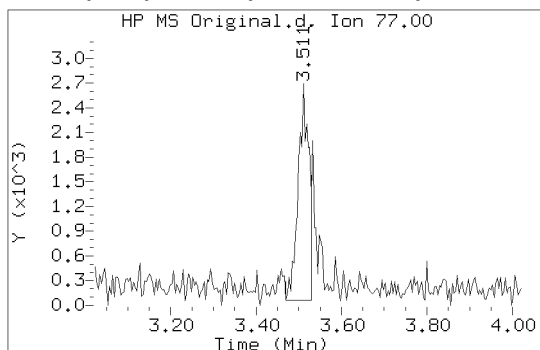
Reason Code:



2,2-Dichloropropane (594-20-7)

BEFORE

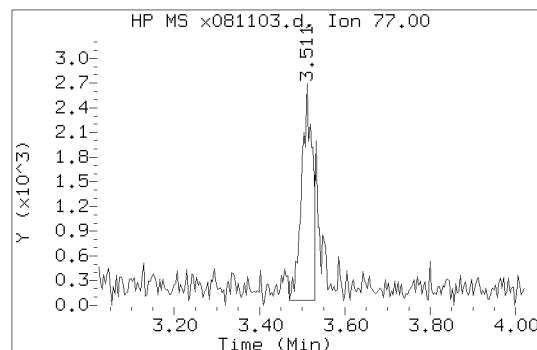
MASS
96
AREA
3848
HEIGHT
2643
12-Aug-2023
22:44



AFTER

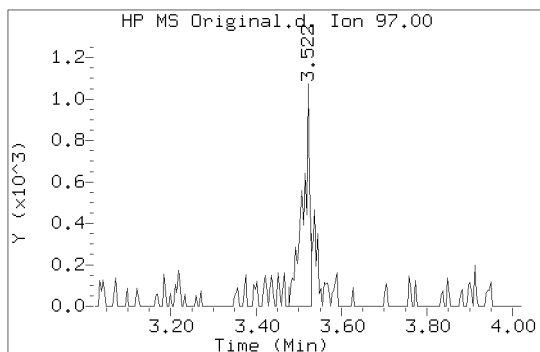
MASS
77
AREA
4612
HEIGHT
2627
23-Aug-2023
11:12

Reason Code:



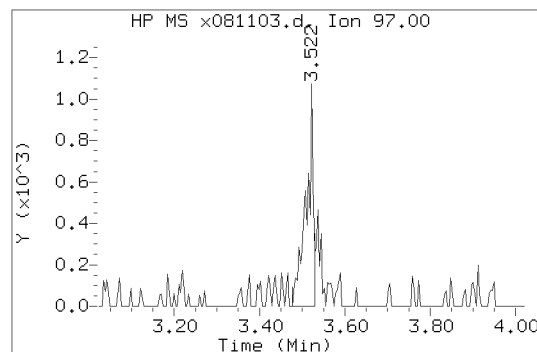
BEFORE

MASS
61
AREA
7075
HEIGHT
3548
12-Aug-2023
22:44



AFTER

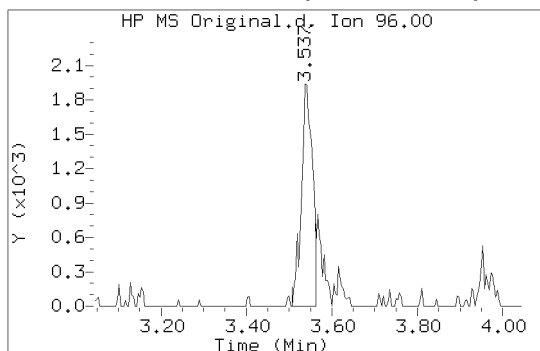
MASS
97
AREA
1245
HEIGHT
1073
23-Aug-2023
11:12



cis-1,2-Dichloroethene (156-59-2)

BEFORE

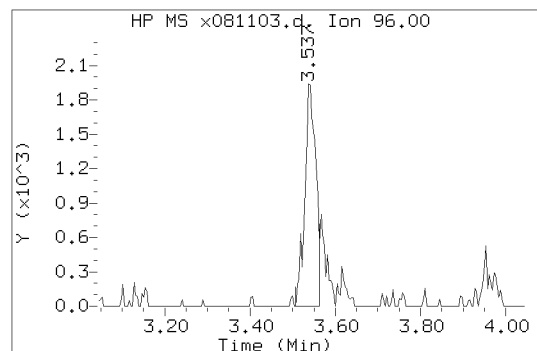
MASS
43
AREA
22253
HEIGHT
9580
12-Aug-2023
22:44



AFTER

MASS
96
AREA
3574
HEIGHT
1940
23-Aug-2023
11:12

Reason Code:

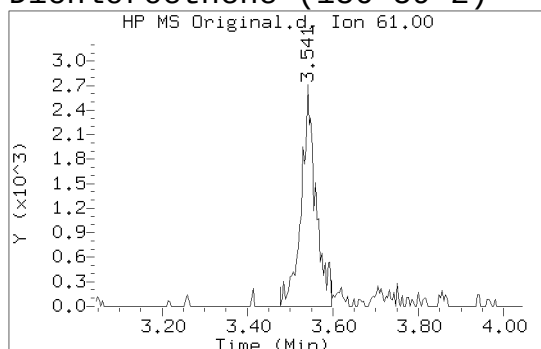


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

cis-1,2-Dichloroethene (156-59-2)

BEFORE

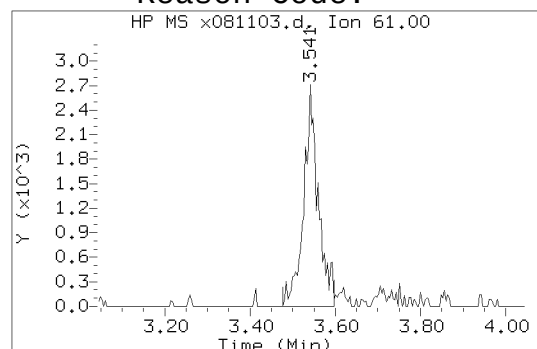
MASS
86
AREA
1808
HEIGHT
995
12-Aug-2023
22:44



AFTER

MASS
61
AREA
6484
HEIGHT
2712
23-Aug-2023
11:12

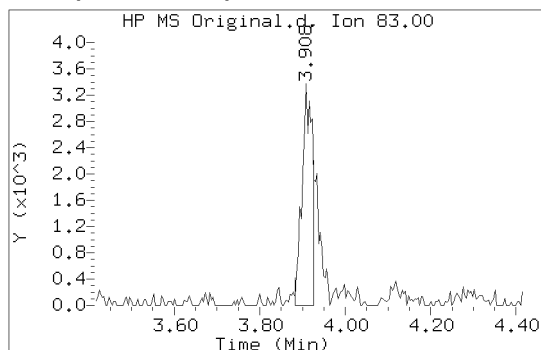
Reason Code:



Chloroform (67-66-3)

BEFORE

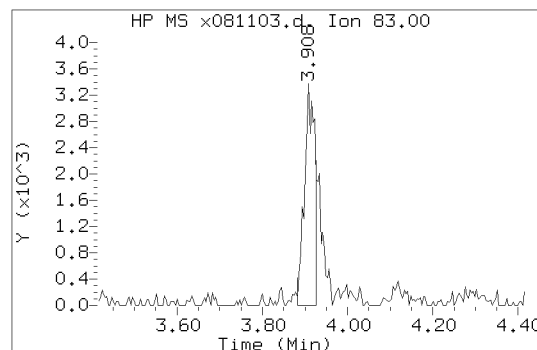
MASS
63
AREA
7346
HEIGHT
4676
12-Aug-2023
22:44



AFTER

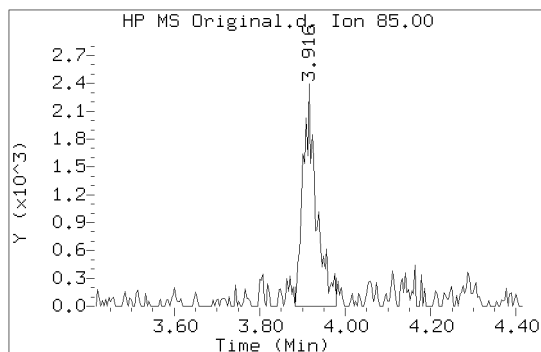
MASS
83
AREA
5756
HEIGHT
3376
23-Aug-2023
11:12

Reason Code:



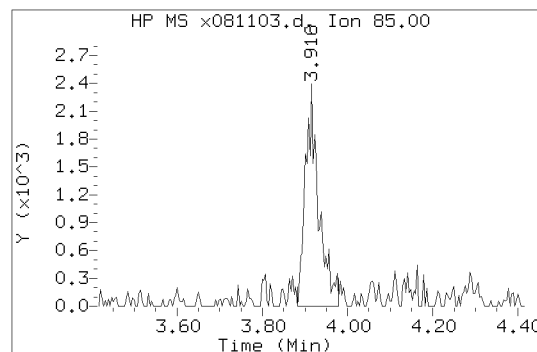
BEFORE

MASS
65
AREA
2162
HEIGHT
1553
12-Aug-2023
22:44



AFTER

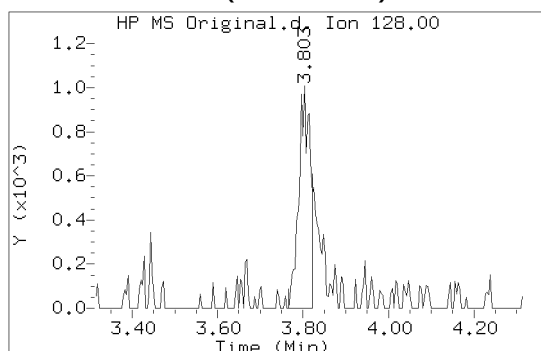
MASS
85
AREA
5228
HEIGHT
2394
23-Aug-2023
11:12



Bromochloromethane (74-97-5)

BEFORE

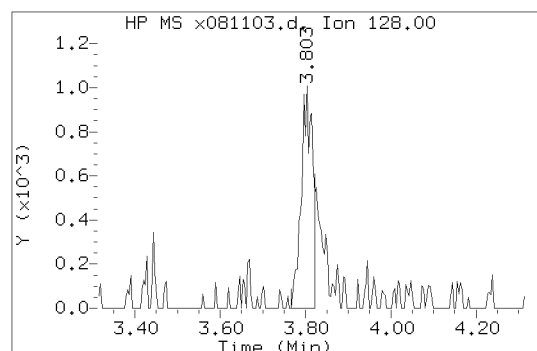
MASS
43
AREA
2017
HEIGHT
919
12-Aug-2023
22:44



AFTER

MASS
128
AREA
1872
HEIGHT
1008
23-Aug-2023
11:12

Reason Code:

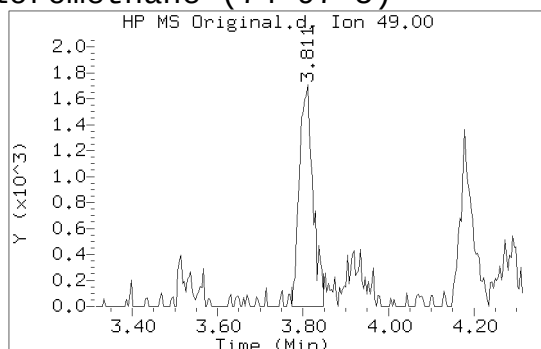


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Bromochloromethane (74-97-5)

BEFORE

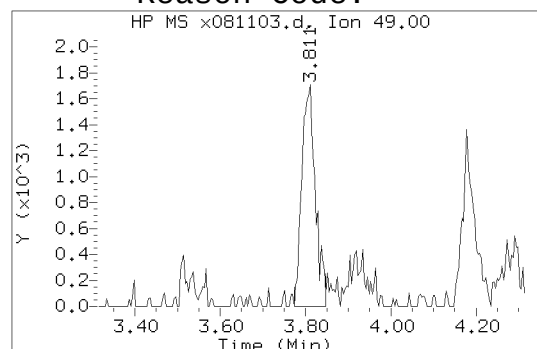
MASS
72
AREA
703
HEIGHT
452
12-Aug-2023
22:44



AFTER

MASS
49
AREA
3815
HEIGHT
1708
23-Aug-2023
11:12

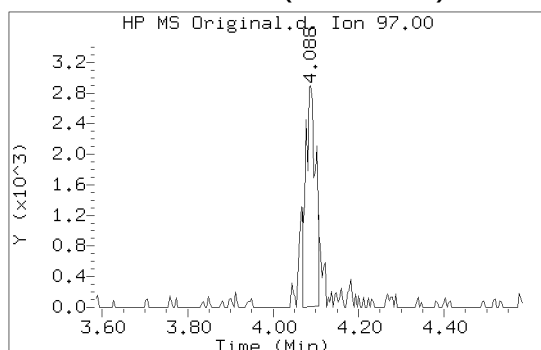
Reason Code:



1,1,1-Trichloroethane (71-55-6)

BEFORE

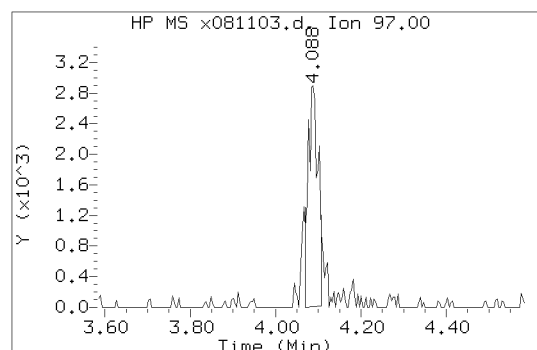
MASS
77
AREA
4612
HEIGHT
2627
12-Aug-2023
22:44



AFTER

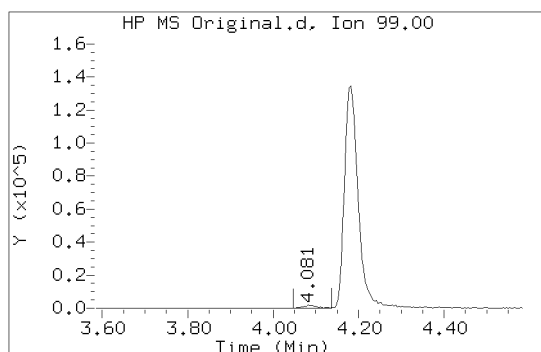
MASS
97
AREA
4852
HEIGHT
2888
23-Aug-2023
11:12

Reason Code:



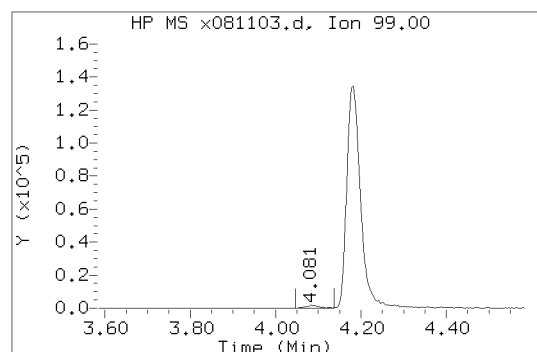
BEFORE

MASS
97
AREA
1245
HEIGHT
1073
12-Aug-2023
22:44



AFTER

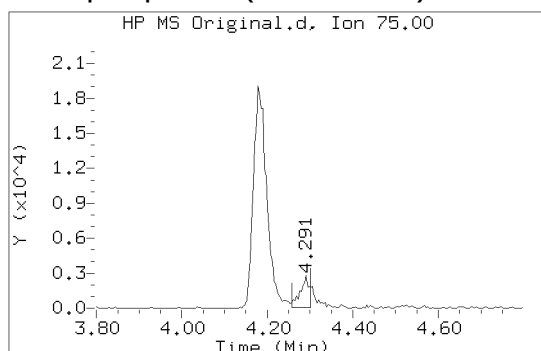
MASS
99
AREA
3886
HEIGHT
1872
23-Aug-2023
11:12



1,1-Dichloropropene (563-58-6)

BEFORE

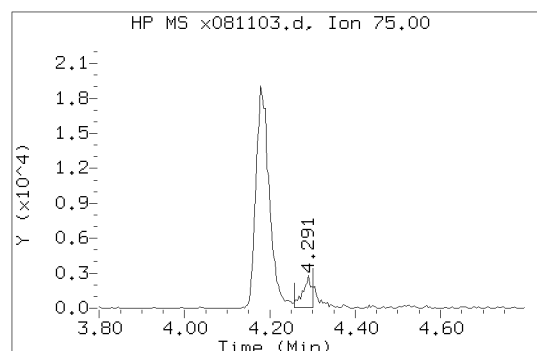
MASS
96
AREA
3574
HEIGHT
1940
12-Aug-2023
22:44



AFTER

MASS
75
AREA
4132
HEIGHT
2765
23-Aug-2023
11:12

Reason Code:

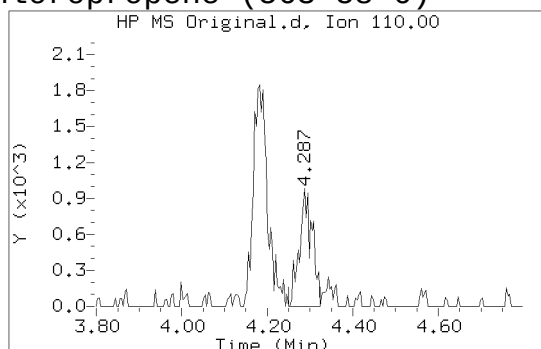


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

1,1-Dichloropropene (563-58-6)

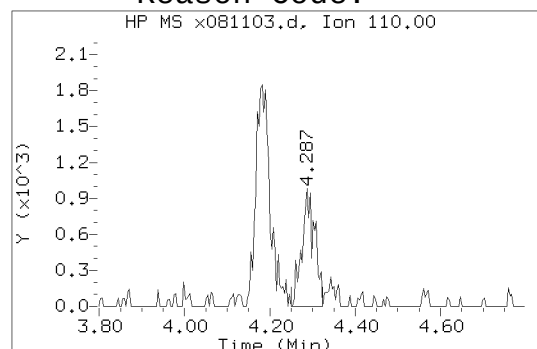
BEFORE

MASS
61
AREA
6484
HEIGHT
2712
12-Aug-2023
22:44



AFTER

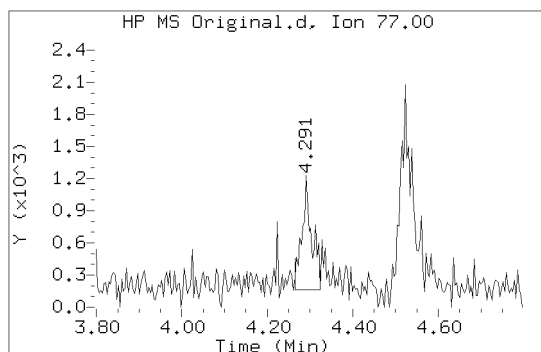
MASS
110
AREA
2063
HEIGHT
982
23-Aug-2023
11:12



Reason Code:

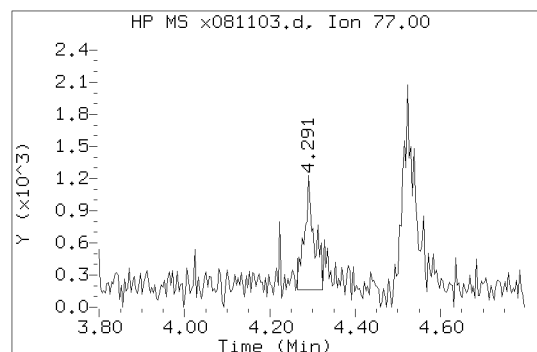
BEFORE

MASS
98
AREA
3005
HEIGHT
1467
12-Aug-2023
22:44



AFTER

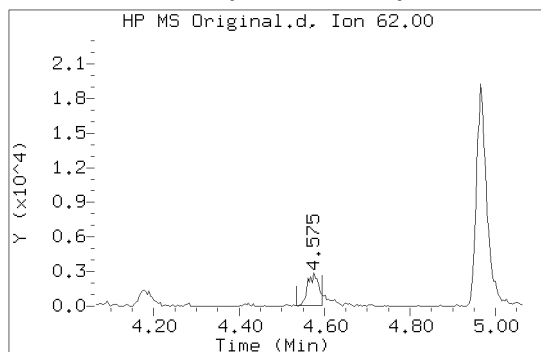
MASS
77
AREA
1739
HEIGHT
1070
23-Aug-2023
11:12



1,2-Dichloroethane (107-06-2)

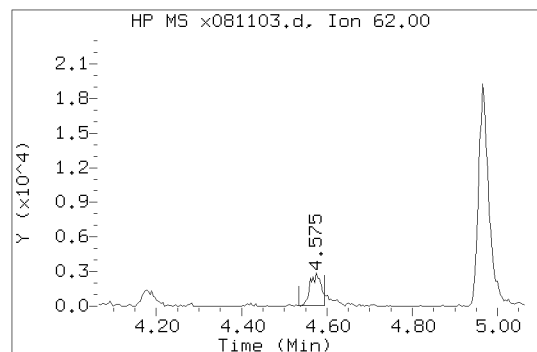
BEFORE

MASS
83
AREA
5756
HEIGHT
3376
12-Aug-2023
22:44



AFTER

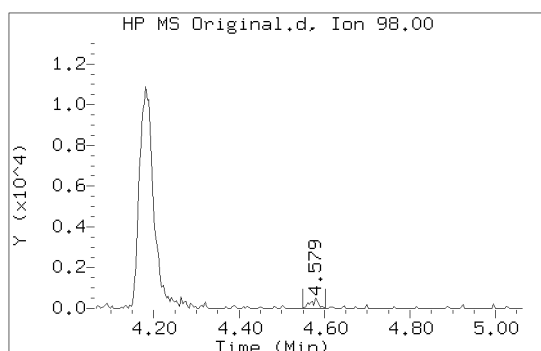
MASS
62
AREA
4942
HEIGHT
2820
23-Aug-2023
11:12



Reason Code:

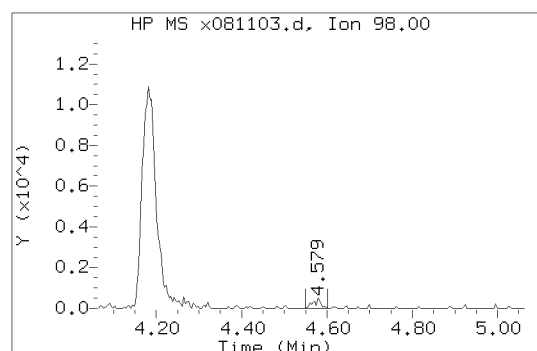
BEFORE

MASS
85
AREA
5228
HEIGHT
2394
12-Aug-2023
22:44



AFTER

MASS
98
AREA
620
HEIGHT
519
23-Aug-2023
11:12

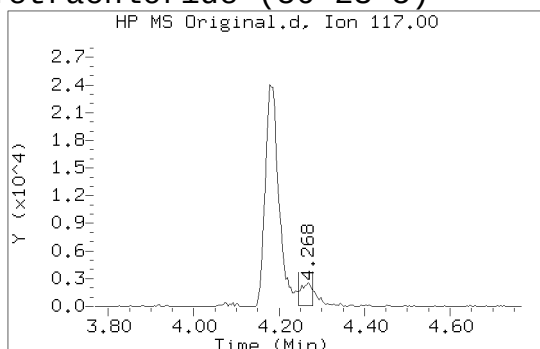


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Carbon Tetrachloride (56-23-5)

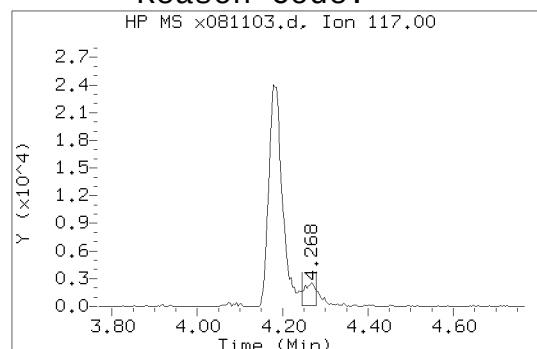
BEFORE

MASS
128
AREA
1872
HEIGHT
1008
12-Aug-2023
22:44



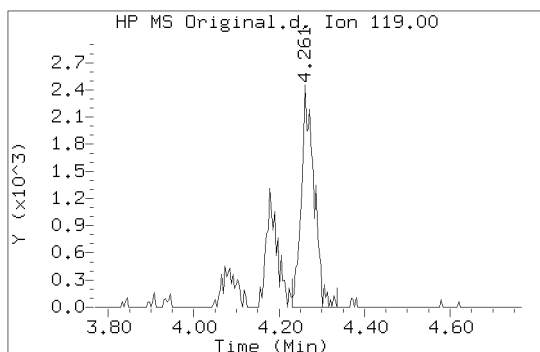
AFTER

MASS
117
AREA
4492
HEIGHT
2452
23-Aug-2023
11:12



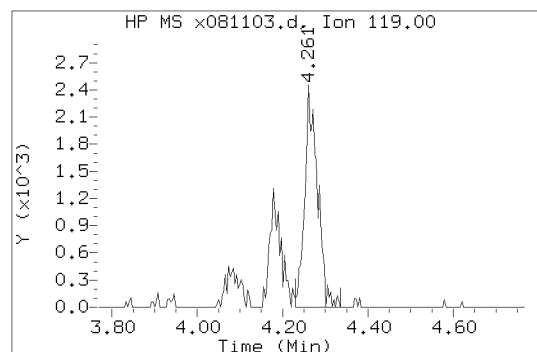
BEFORE

MASS
49
AREA
3815
HEIGHT
1708
12-Aug-2023
22:44



AFTER

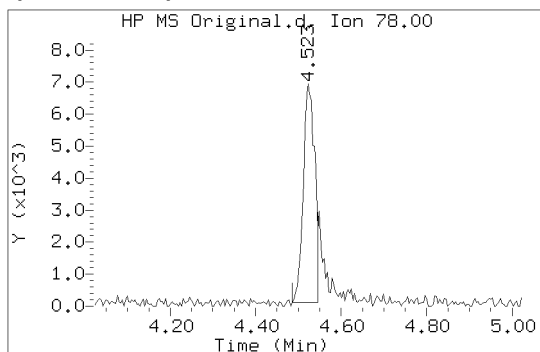
MASS
119
AREA
5136
HEIGHT
2455
23-Aug-2023
11:12



Benzene (71-43-2)

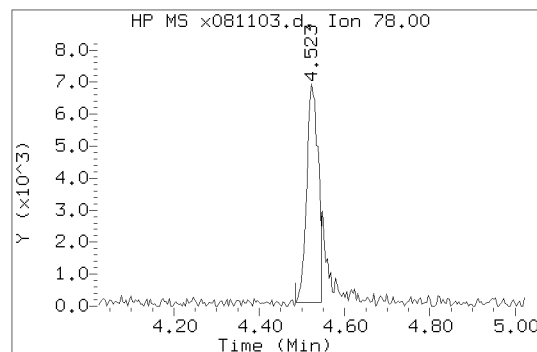
BEFORE

MASS
75
AREA
4132
HEIGHT
2765
12-Aug-2023
22:44



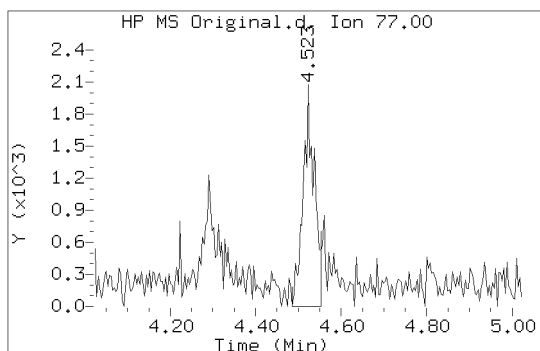
AFTER

MASS
78
AREA
12962
HEIGHT
6832
23-Aug-2023
11:12



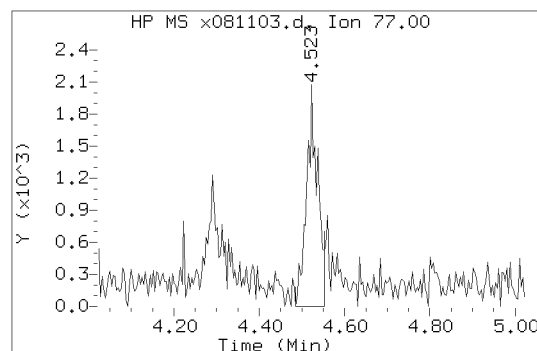
BEFORE

MASS
110
AREA
2063
HEIGHT
982
12-Aug-2023
22:44



AFTER

MASS
77
AREA
3841
HEIGHT
2074
23-Aug-2023
11:12

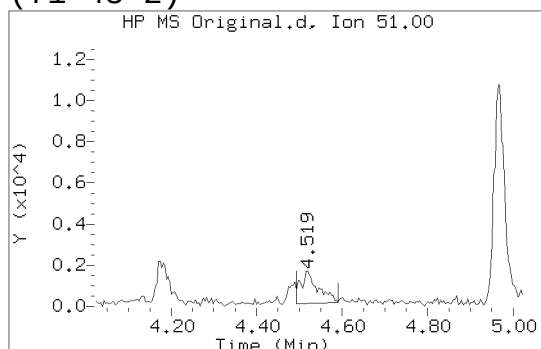


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Benzene (71-43-2)

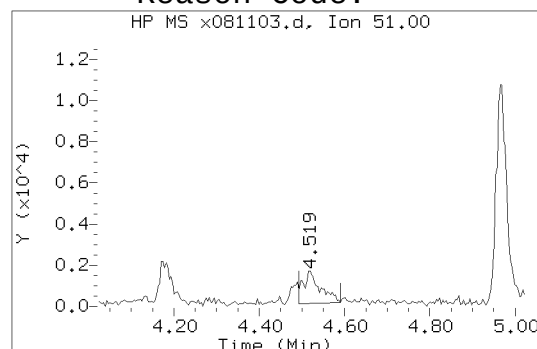
BEFORE

MASS
77
AREA
1739
HEIGHT
1070
12-Aug-2023
22:44



AFTER

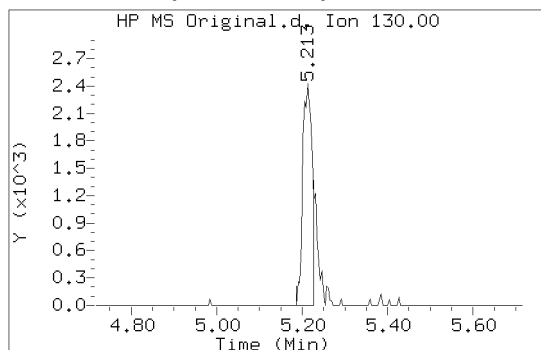
MASS
51
AREA
4527
HEIGHT
1570
23-Aug-2023
11:12



Trichloroethene (79-01-6)

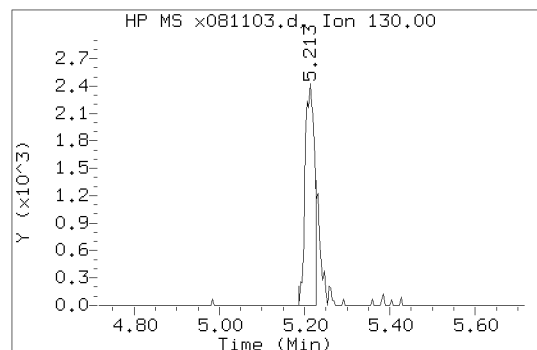
BEFORE

MASS
62
AREA
4942
HEIGHT
2820
12-Aug-2023
22:44



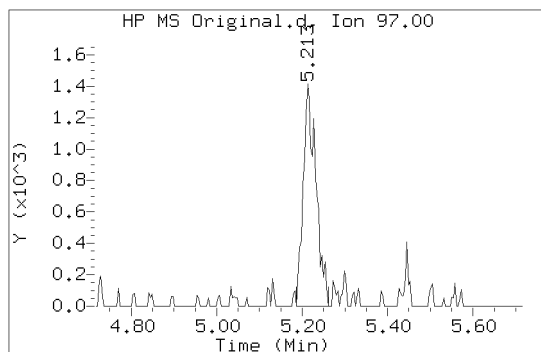
AFTER

MASS
130
AREA
3802
HEIGHT
2426
23-Aug-2023
11:12



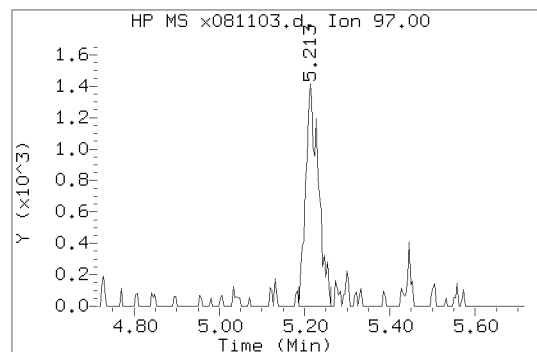
BEFORE

MASS
98
AREA
620
HEIGHT
519
12-Aug-2023
22:44



AFTER

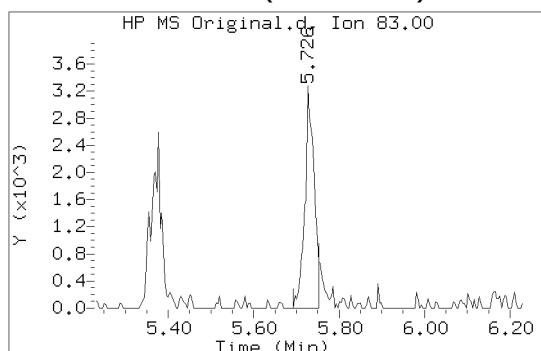
MASS
97
AREA
2959
HEIGHT
1415
23-Aug-2023
11:12



Bromodichloromethane (75-27-4)

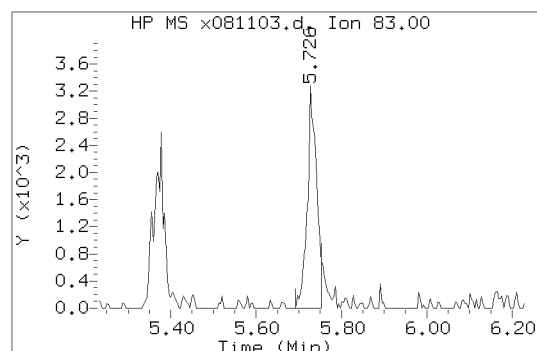
BEFORE

MASS
117
AREA
4492
HEIGHT
2452
12-Aug-2023
22:44



AFTER

MASS
83
AREA
5036
HEIGHT
3277
23-Aug-2023
11:12

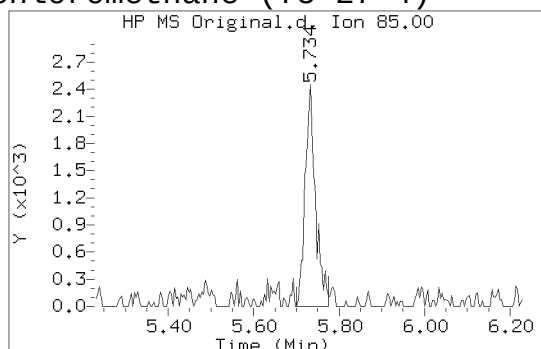


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Bromodichloromethane (75-27-4)

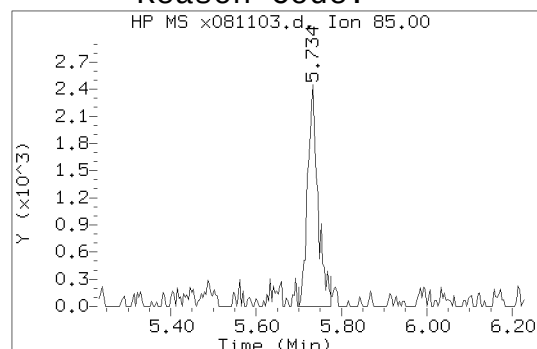
BEFORE

MASS
119
AREA
5136
HEIGHT
2455
12-Aug-2023
22:44



AFTER

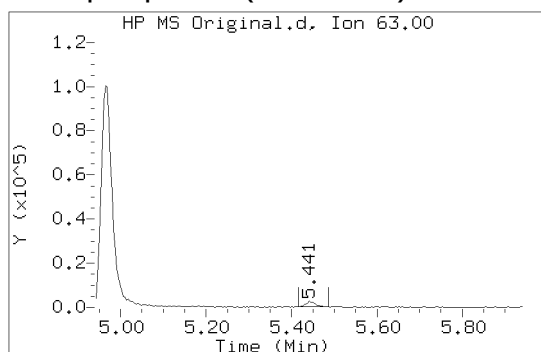
MASS
85
AREA
4196
HEIGHT
2450
23-Aug-2023
11:12



1,2-Dichloropropane (78-87-5)

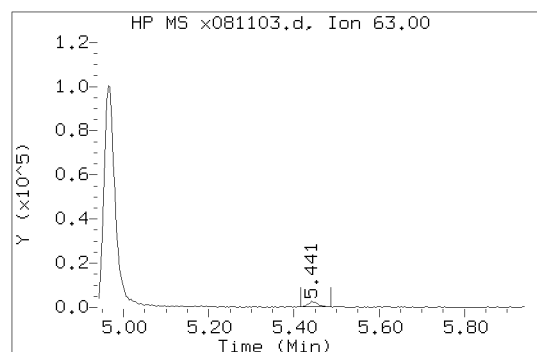
BEFORE

MASS
114
AREA
936474
HEIGHT
509441
12-Aug-2023
22:44



AFTER

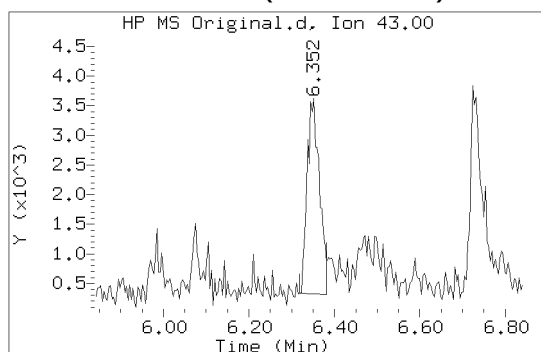
MASS
63
AREA
3864
HEIGHT
2635
23-Aug-2023
11:12



4-Methyl-2-Pentanone (108-10-1)

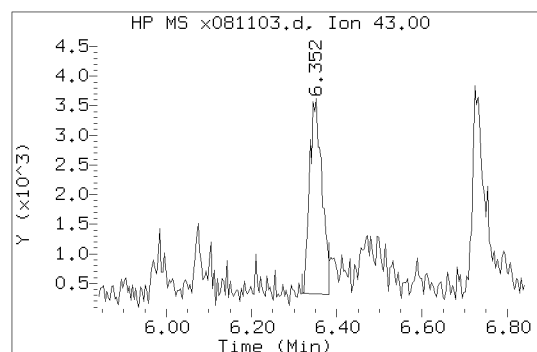
BEFORE

MASS
130
AREA
3802
HEIGHT
2426
12-Aug-2023
22:44



AFTER

MASS
43
AREA
6765
HEIGHT
3307
23-Aug-2023
11:12

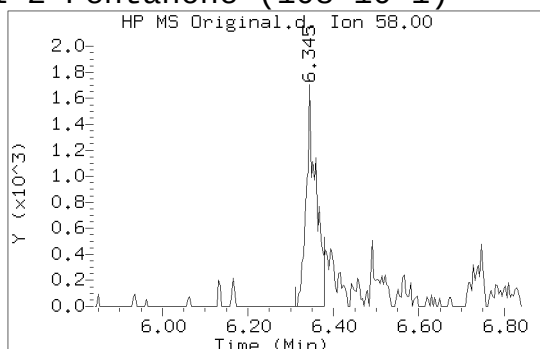


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

4-Methyl-2-Pentanone (108-10-1)

BEFORE

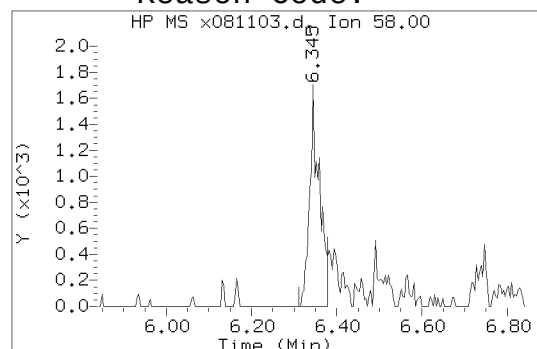
MASS
97
AREA
2959
HEIGHT
1415
12-Aug-2023
22:44



AFTER

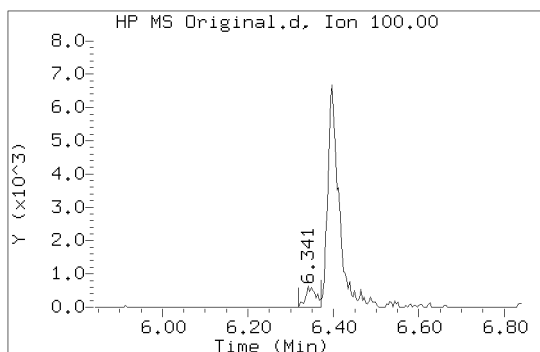
MASS
58
AREA
2754
HEIGHT
1705
23-Aug-2023
11:12

Reason Code:



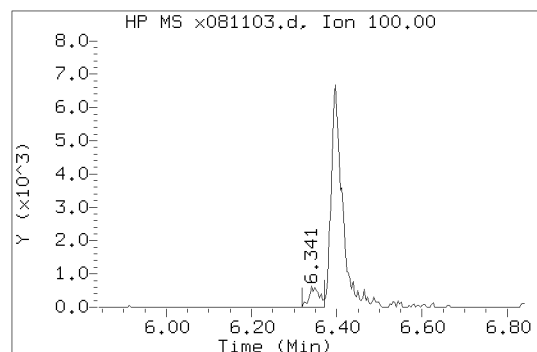
BEFORE

MASS
95
AREA
4810
HEIGHT
2295
12-Aug-2023
22:44



AFTER

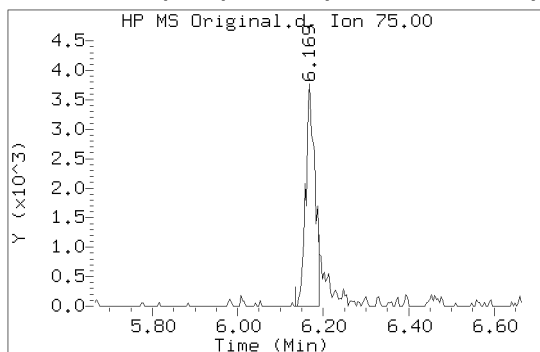
MASS
100
AREA
1094
HEIGHT
644
23-Aug-2023
11:12



cis-1,3-Dichloropropene (10061-01-5)

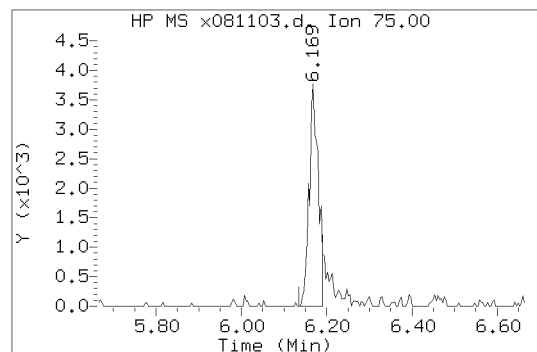
BEFORE

MASS
83
AREA
5036
HEIGHT
3277
12-Aug-2023
22:44



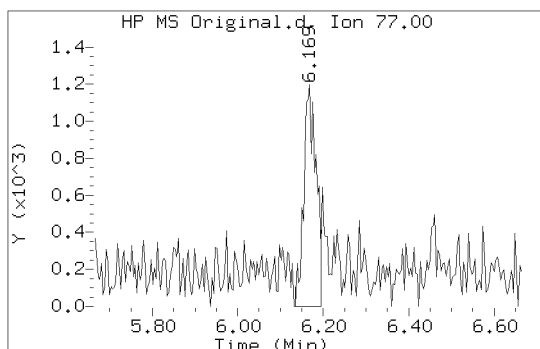
AFTER

MASS
75
AREA
5702
HEIGHT
3770
23-Aug-2023
11:12



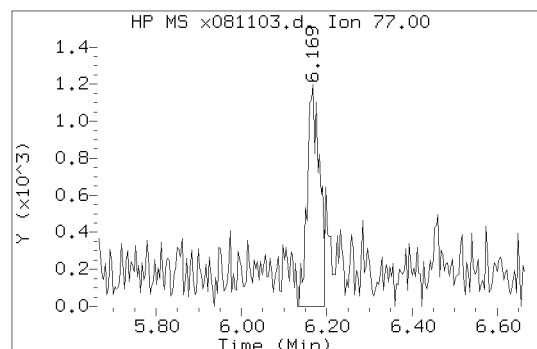
BEFORE

MASS
85
AREA
4196
HEIGHT
2450
12-Aug-2023
22:44



AFTER

MASS
77
AREA
2427
HEIGHT
1197
23-Aug-2023
11:12

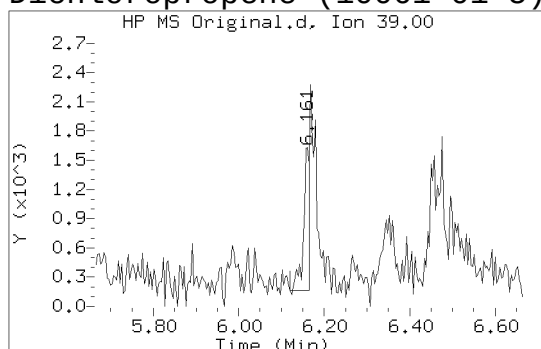


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

cis-1,3-Dichloropropene (10061-01-5)

BEFORE

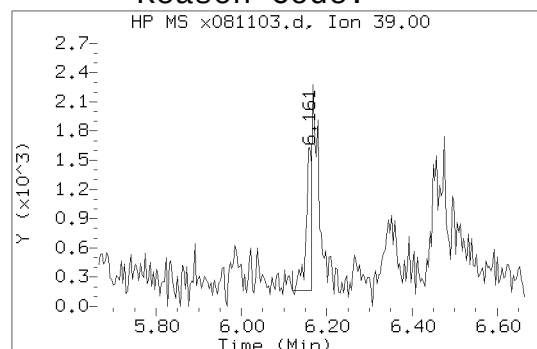
MASS
127
AREA
636
HEIGHT
452
12-Aug-2023
22:44



AFTER

MASS
39
AREA
1423
HEIGHT
1463
23-Aug-2023
11:12

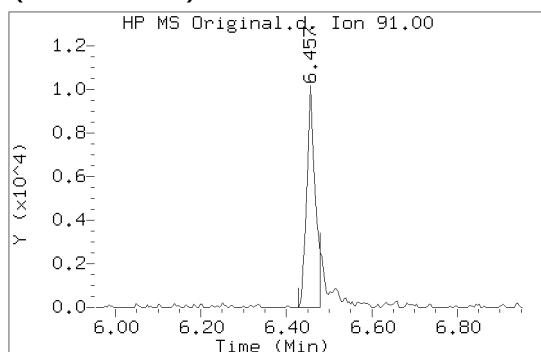
Reason Code:



Toluene (108-88-3)

BEFORE

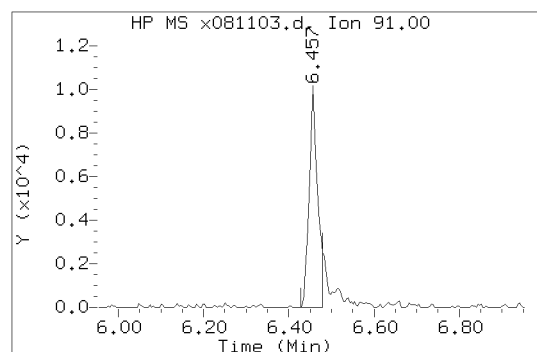
MASS
63
AREA
3864
HEIGHT
2635
12-Aug-2023
22:44



AFTER

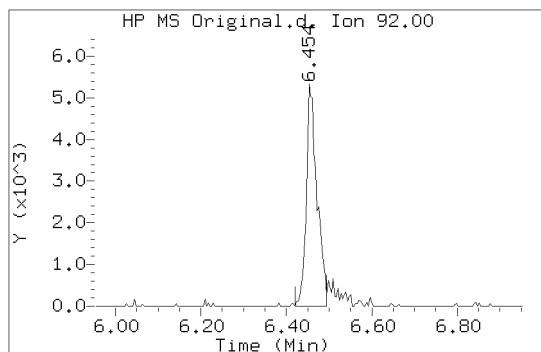
MASS
91
AREA
14402
HEIGHT
10180
23-Aug-2023
11:12

Reason Code:



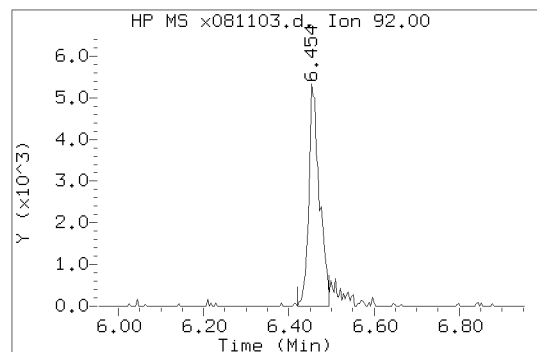
BEFORE

MASS
112
AREA
124
HEIGHT
134
12-Aug-2023
22:44



AFTER

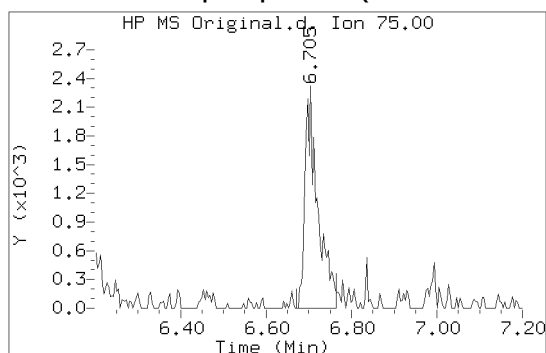
MASS
92
AREA
9443
HEIGHT
5333
23-Aug-2023
11:12



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

BEFORE

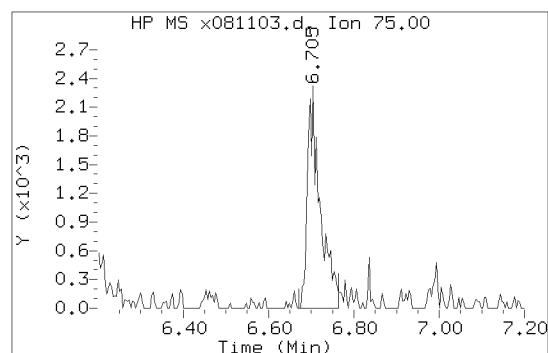
MASS
93
AREA
2538
HEIGHT
1541
12-Aug-2023
22:44



AFTER

MASS
75
AREA
4833
HEIGHT
2322
23-Aug-2023
11:12

Reason Code:

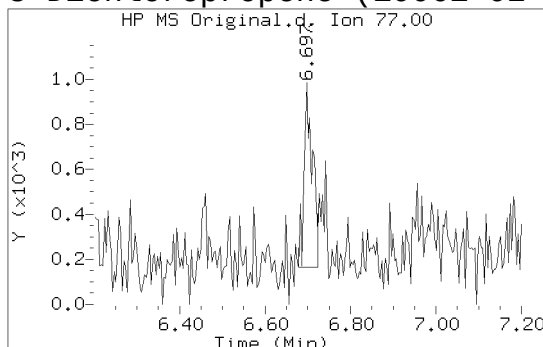


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

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

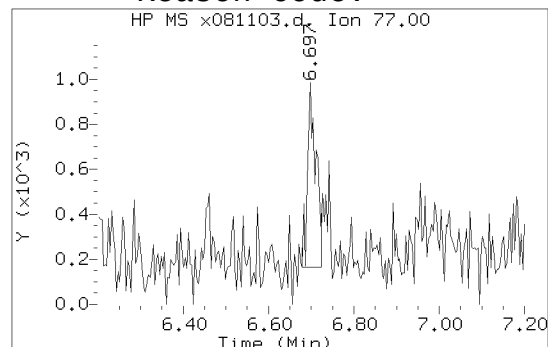
BEFORE

MASS
95
AREA
2746
HEIGHT
1704
12-Aug-2023
22:44



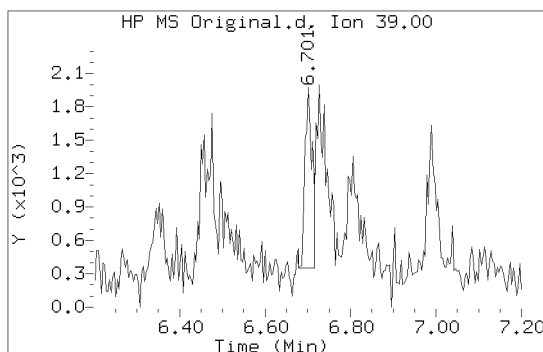
AFTER

MASS
77
AREA
1159
HEIGHT
821
23-Aug-2023
11:12



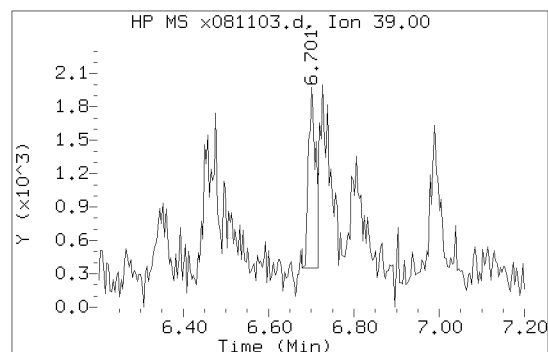
BEFORE

MASS
174
AREA
3192
HEIGHT
1917
12-Aug-2023
22:44



AFTER

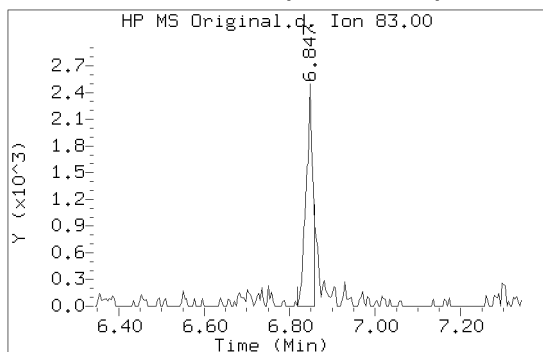
MASS
39
AREA
1956
HEIGHT
1620
23-Aug-2023
11:12



1,1,2-Trichloroethane (79-00-5)

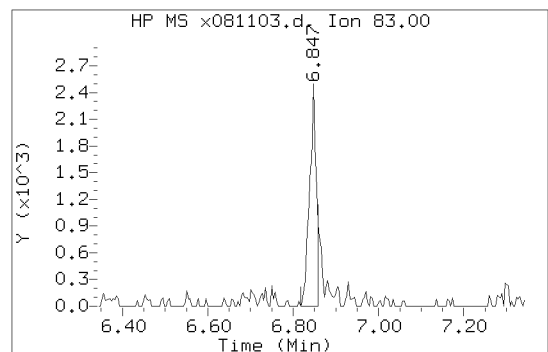
BEFORE

MASS
75
AREA
5702
HEIGHT
3770
12-Aug-2023
22:44



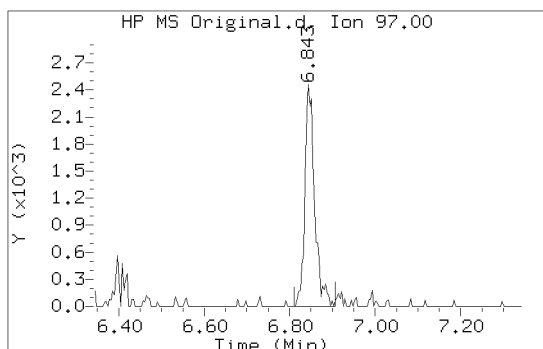
AFTER

MASS
83
AREA
2765
HEIGHT
2497
23-Aug-2023
11:12



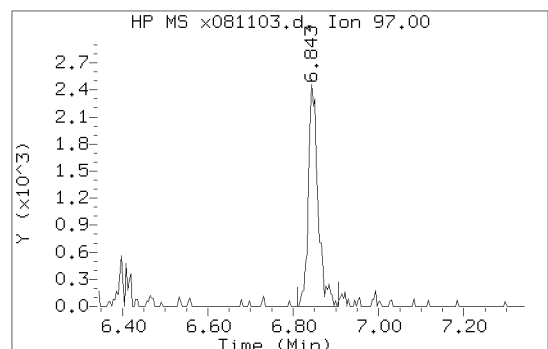
BEFORE

MASS
77
AREA
2427
HEIGHT
1197
12-Aug-2023
22:44



AFTER

MASS
97
AREA
4005
HEIGHT
2458
23-Aug-2023
11:12

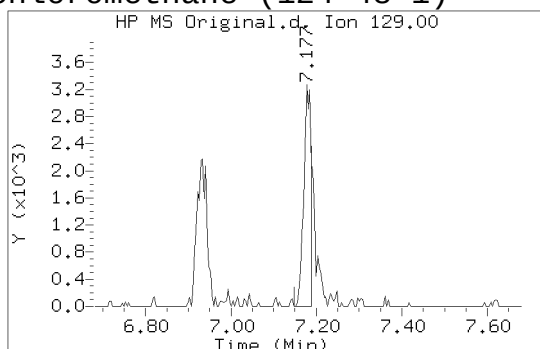


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Dibromochloromethane (124-48-1)

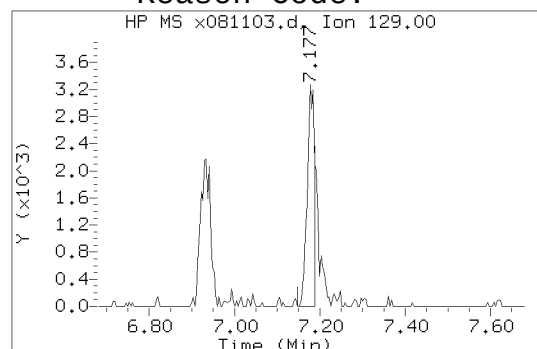
BEFORE

MASS
91
AREA
14402
HEIGHT
10180
12-Aug-2023
22:44



AFTER

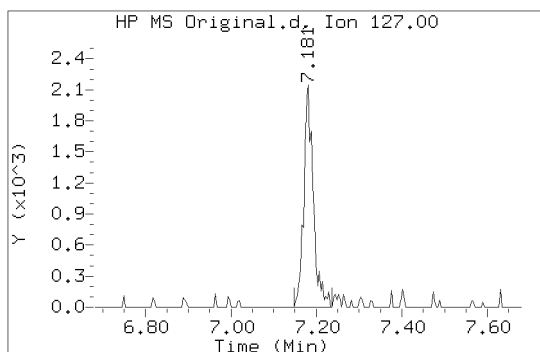
MASS
129
AREA
3861
HEIGHT
3271
23-Aug-2023
11:12



Reason Code:

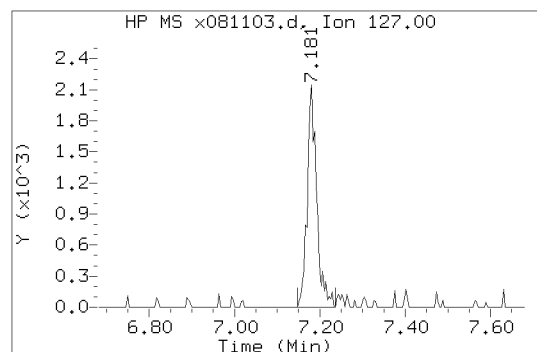
BEFORE

MASS
92
AREA
9443
HEIGHT
5333
12-Aug-2023
22:44



AFTER

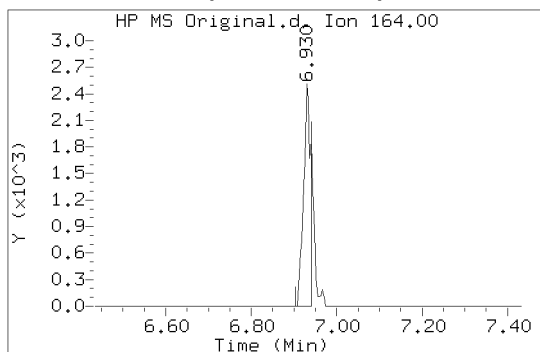
MASS
127
AREA
3398
HEIGHT
2147
23-Aug-2023
11:12



Tetrachloroethene (127-18-4)

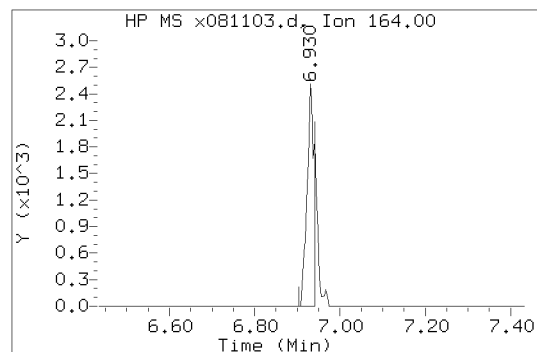
BEFORE

MASS
75
AREA
4833
HEIGHT
2322
12-Aug-2023
22:44



AFTER

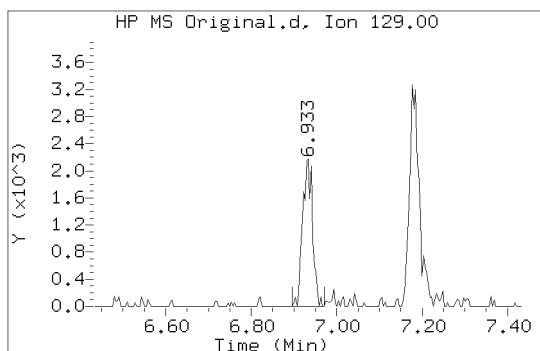
MASS
164
AREA
2916
HEIGHT
2512
23-Aug-2023
11:12



Reason Code:

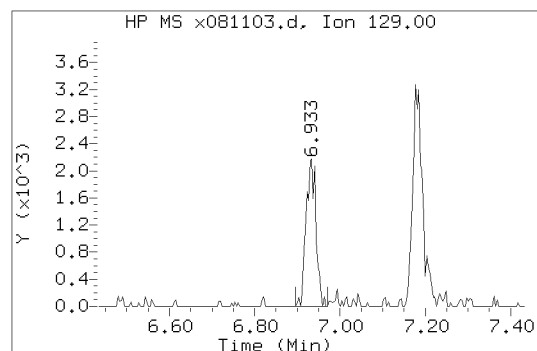
BEFORE

MASS
77
AREA
1159
HEIGHT
821
12-Aug-2023
22:44



AFTER

MASS
129
AREA
3586
HEIGHT
2175
23-Aug-2023
11:12

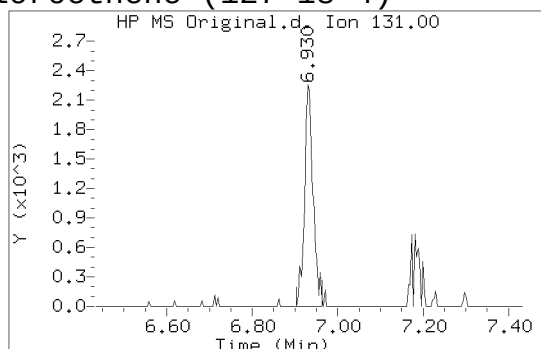


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Tetrachloroethene (127-18-4)

BEFORE

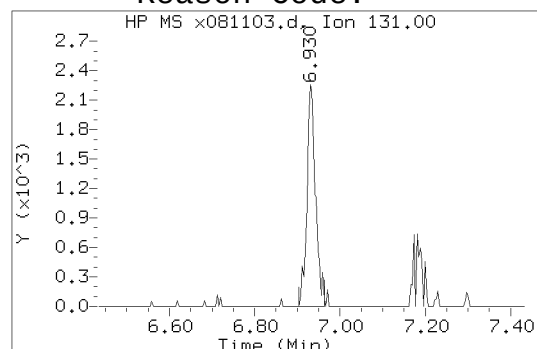
MASS
39
AREA
1956
HEIGHT
1620
12-Aug-2023
22:44



AFTER

MASS
131
AREA
3239
HEIGHT
2257
23-Aug-2023
11:12

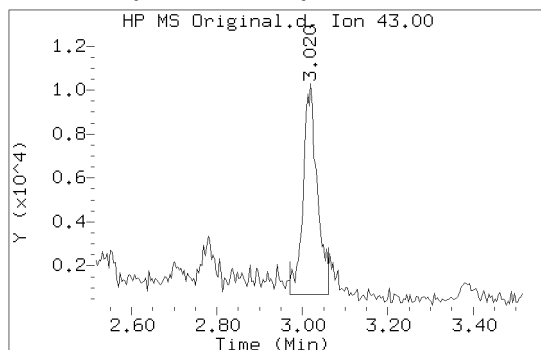
Reason Code:



Vinyl Acetate (108-05-4)

BEFORE

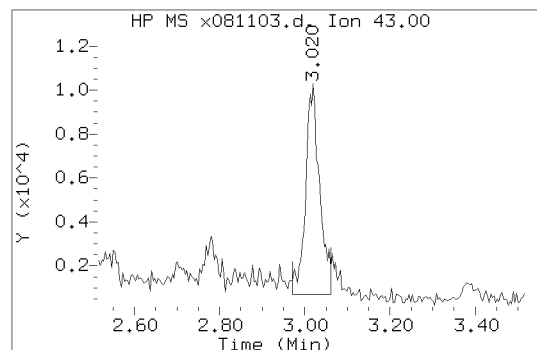
MASS
43
AREA
4310
HEIGHT
1616
12-Aug-2023
22:44



AFTER

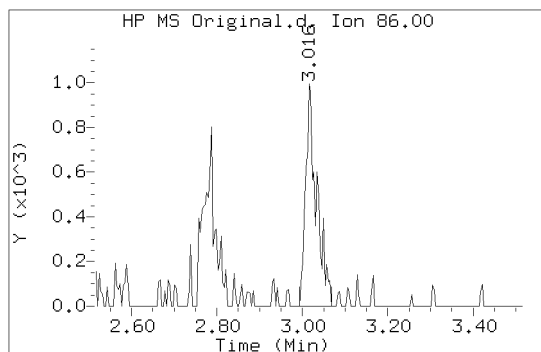
MASS
43
AREA
22253
HEIGHT
9580
23-Aug-2023
11:12

Reason Code:



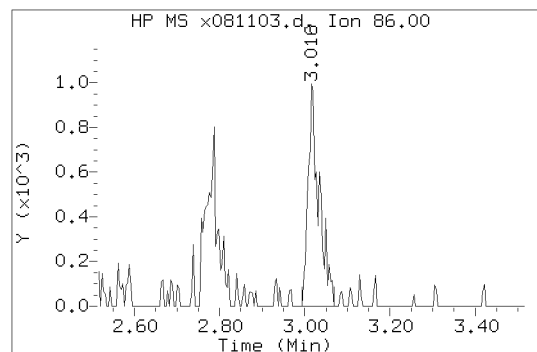
BEFORE

MASS
58
AREA
2378
HEIGHT
1391
12-Aug-2023
22:44



AFTER

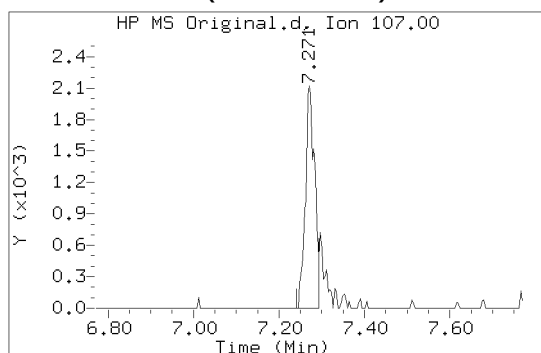
MASS
86
AREA
1808
HEIGHT
995
23-Aug-2023
11:12



1,2-Dibromoethane (106-93-4)

BEFORE

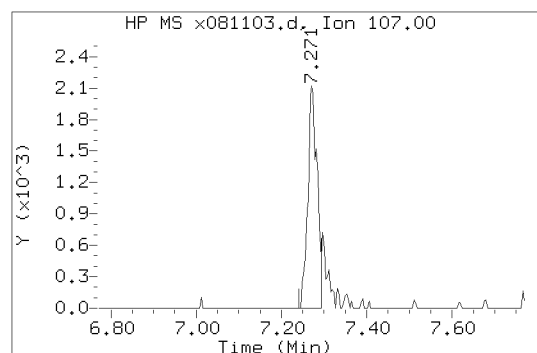
MASS
83
AREA
2765
HEIGHT
2497
12-Aug-2023
22:44



AFTER

MASS
107
AREA
3314
HEIGHT
2121
23-Aug-2023
11:12

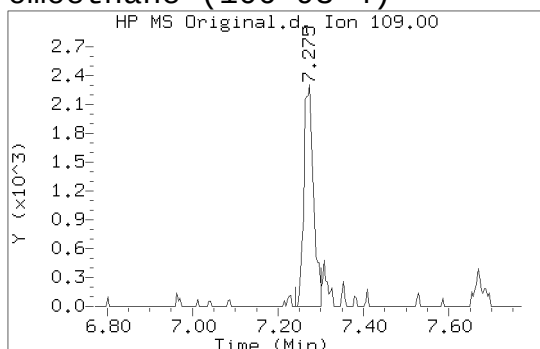
Reason Code:



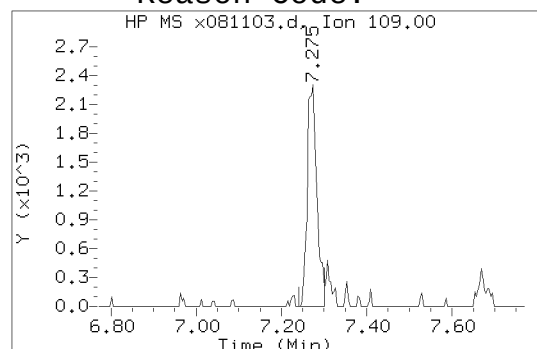
Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

1,2-Dibromoethane (106-93-4)**BEFORE**

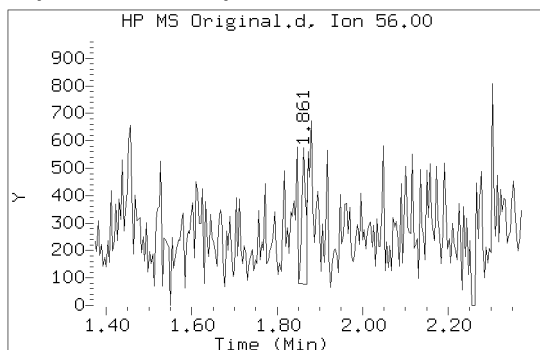
MASS
97
AREA
4005
HEIGHT
2458
12-Aug-2023
22:44

**AFTER**

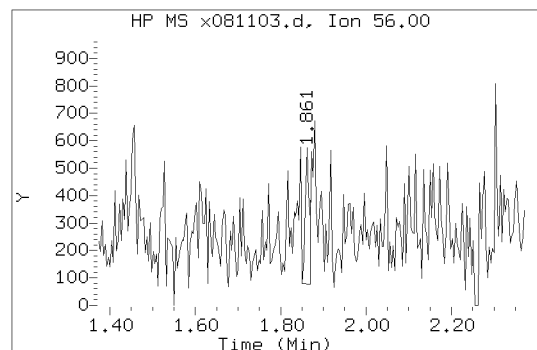
MASS
109
AREA
3693
HEIGHT
2305
23-Aug-2023
11:12

Reason Code:**Acrolein (107-02-8)****BEFORE**

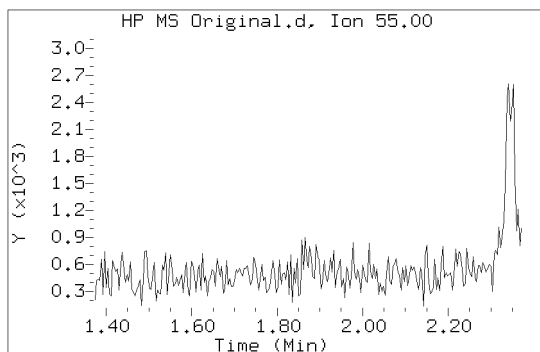
MASS
76
AREA
5853
HEIGHT
3539
12-Aug-2023
22:44

**AFTER**

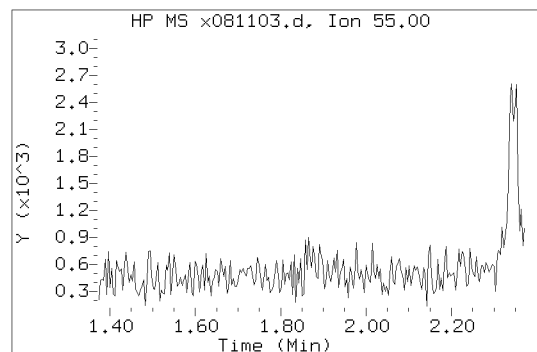
MASS
56
AREA
323
HEIGHT
496
23-Aug-2023
11:12

**BEFORE**

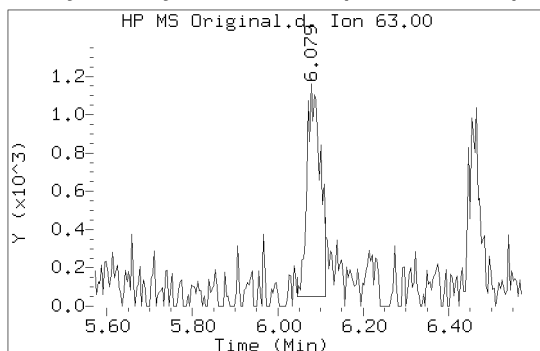
MASS
78
AREA
2157
HEIGHT
1296
12-Aug-2023
22:44

**AFTER**

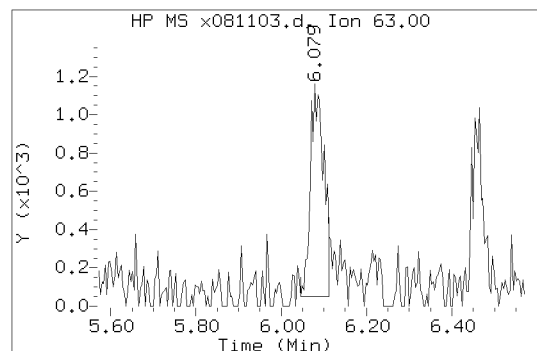
MASS
55
AREA
0
HEIGHT
0
23-Aug-2023
11:12

**2-Chloroethylvinyl ether (110-75-8)****BEFORE**

MASS
129
AREA
3861
HEIGHT
3271
12-Aug-2023
22:44

**AFTER**

MASS
63
AREA
2443
HEIGHT
1109
23-Aug-2023
11:12

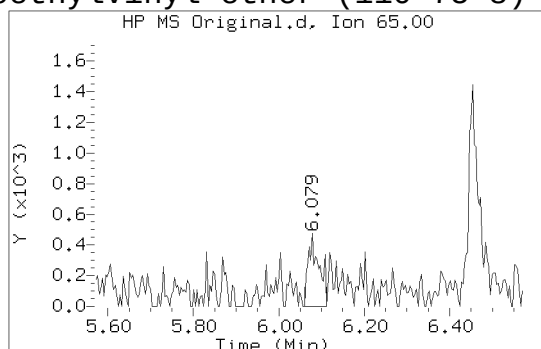
Reason Code:

Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

2-Chloroethylvinyl ether (110-75-8)

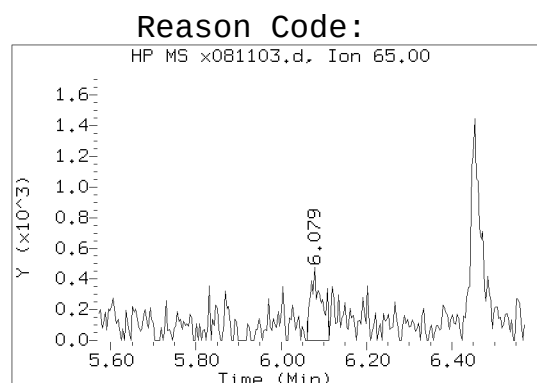
BEFORE

MASS
127
AREA
3398
HEIGHT
2147
12-Aug-2023
22:44



AFTER

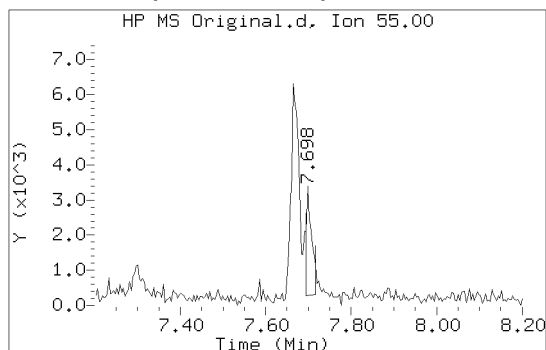
MASS
65
AREA
845
HEIGHT
477
23-Aug-2023
11:12



1-Chlorohexane (544-10-5)

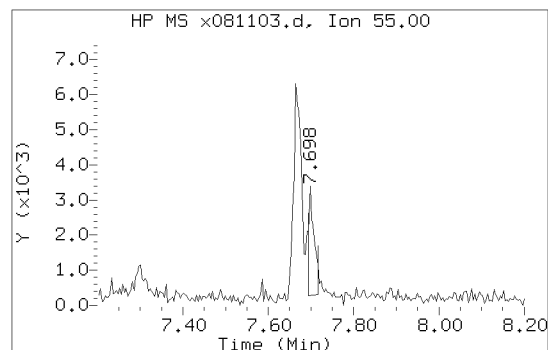
BEFORE

MASS
164
AREA
2916
HEIGHT
2512
12-Aug-2023
22:44



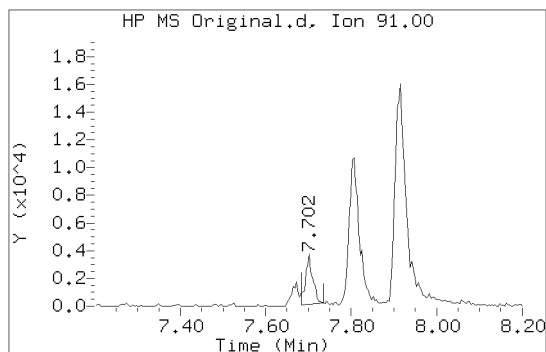
AFTER

MASS
55
AREA
2827
HEIGHT
3106
23-Aug-2023
11:12



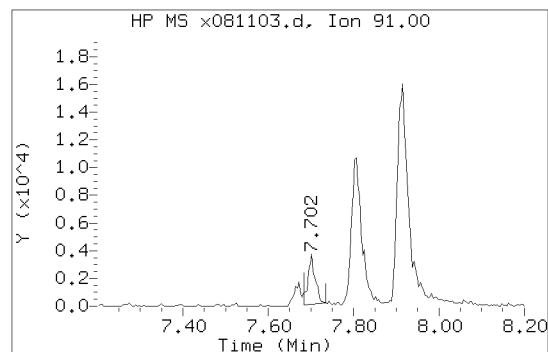
BEFORE

MASS
129
AREA
3586
HEIGHT
2175
12-Aug-2023
22:44



AFTER

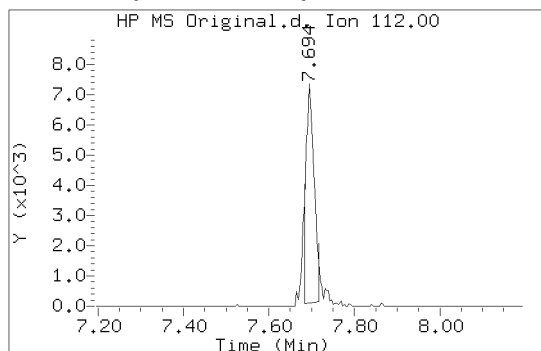
MASS
91
AREA
4425
HEIGHT
3645
23-Aug-2023
11:12



Chlorobenzene (108-90-7)

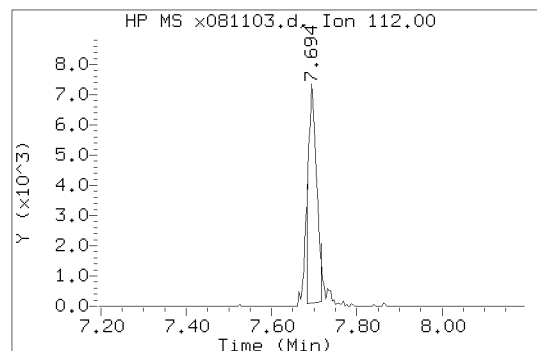
BEFORE

MASS
107
AREA
3314
HEIGHT
2121
12-Aug-2023
22:44



AFTER

MASS
112
AREA
10027
HEIGHT
7254
23-Aug-2023
11:12

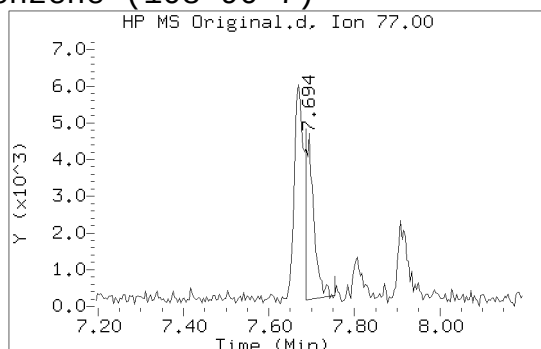


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 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Chlorobenzene (108-90-7)

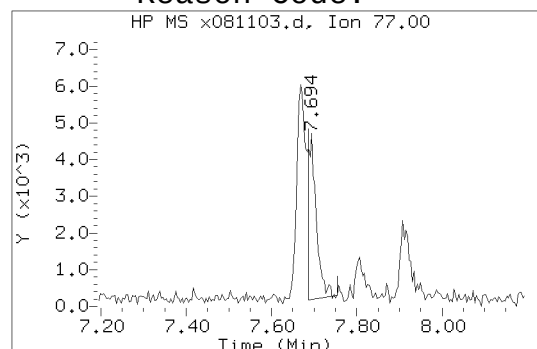
BEFORE

MASS
109
AREA
3693
HEIGHT
2305
12-Aug-2023
22:44



AFTER

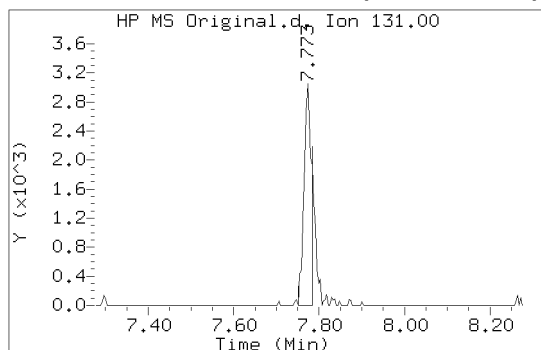
MASS
77
AREA
5875
HEIGHT
4525
23-Aug-2023
11:12



1,1,1,2-Tetrachloroethane (630-20-6)

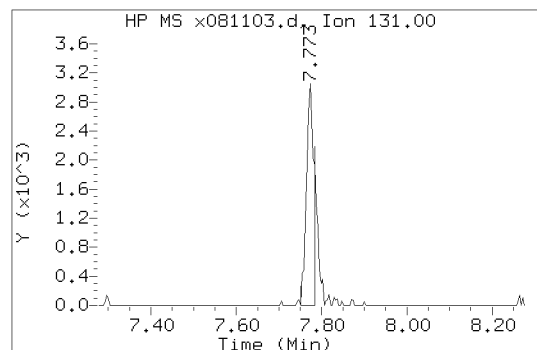
BEFORE

MASS
112
AREA
10027
HEIGHT
7254
12-Aug-2023
22:44



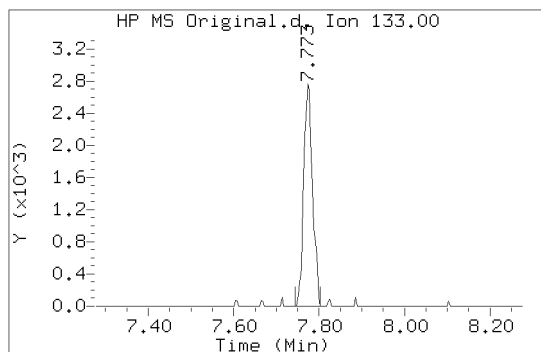
AFTER

MASS
131
AREA
3665
HEIGHT
3052
23-Aug-2023
11:12



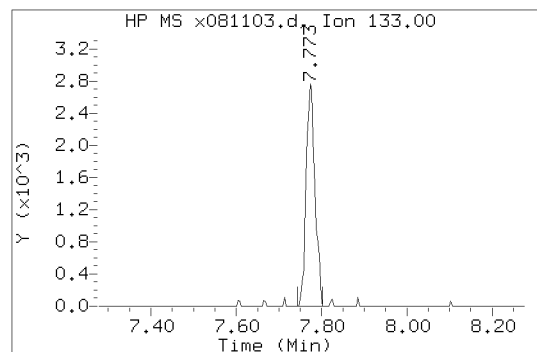
BEFORE

MASS
77
AREA
5875
HEIGHT
4525
12-Aug-2023
22:44



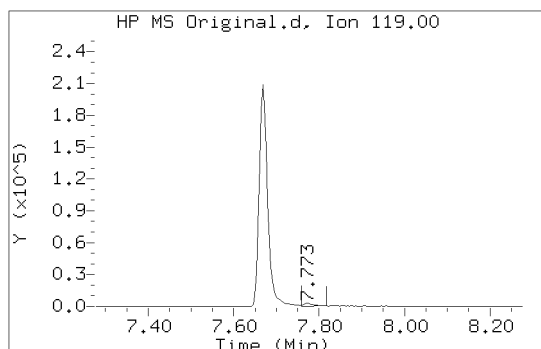
AFTER

MASS
133
AREA
4096
HEIGHT
2766
23-Aug-2023
11:12



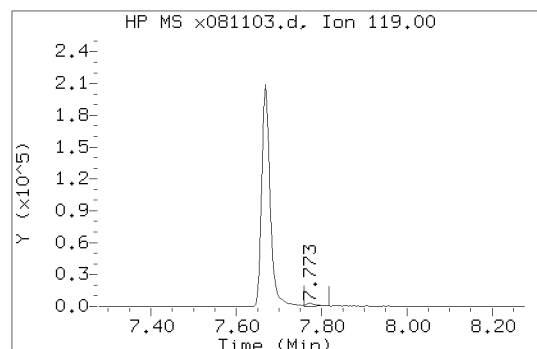
BEFORE

MASS
114
AREA
4154
HEIGHT
2655
12-Aug-2023
22:44



AFTER

MASS
119
AREA
4113
HEIGHT
2897
23-Aug-2023
11:12

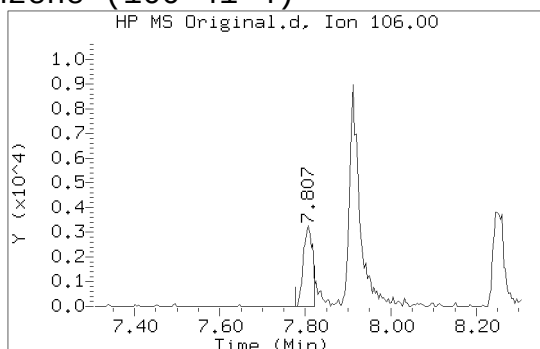


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 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Ethylbenzene (100-41-4)

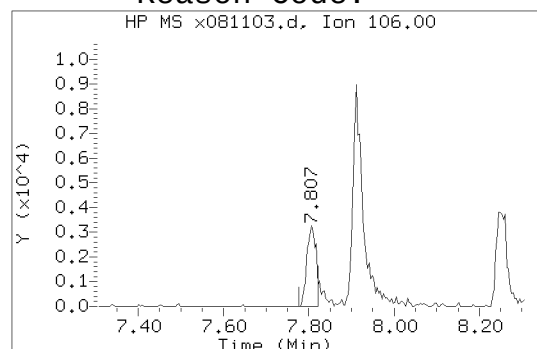
BEFORE

MASS
131
AREA
3665
HEIGHT
3052
12-Aug-2023
22:44



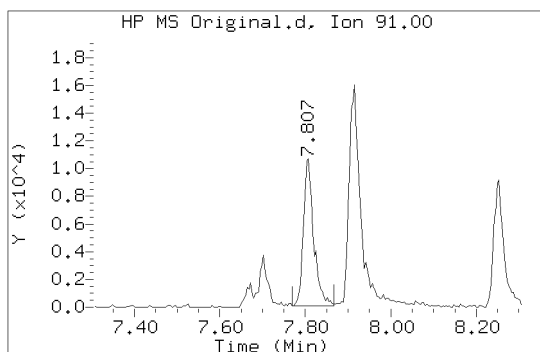
AFTER

MASS
106
AREA
4890
HEIGHT
3268
23-Aug-2023
11:12



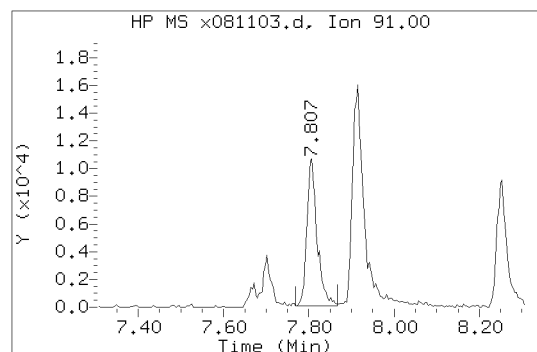
BEFORE

MASS
133
AREA
4096
HEIGHT
2766
12-Aug-2023
22:44



AFTER

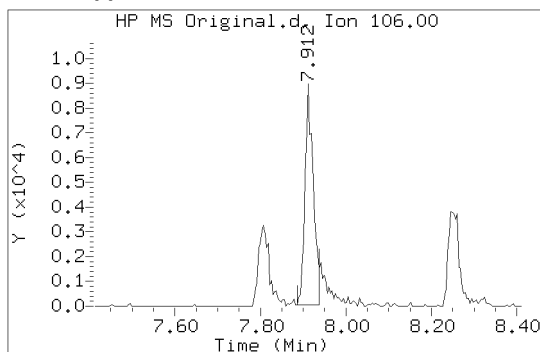
MASS
91
AREA
18072
HEIGHT
10624
23-Aug-2023
11:12



m,p-Xylenes ()

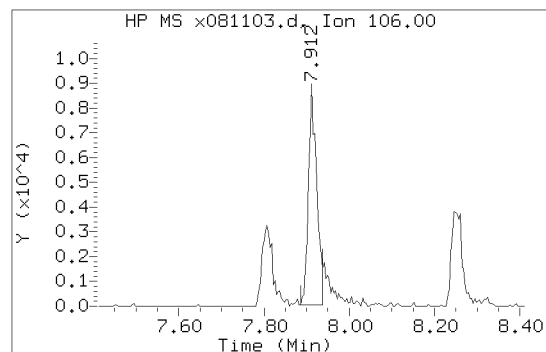
BEFORE

MASS
106
AREA
4890
HEIGHT
3268
12-Aug-2023
22:44



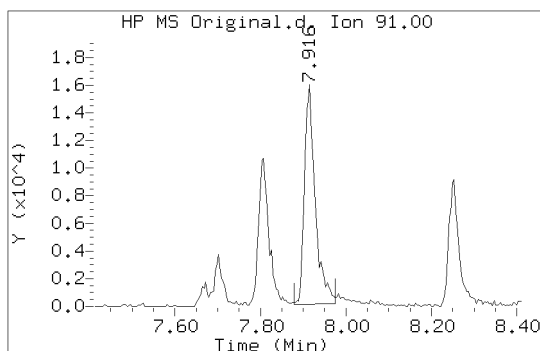
AFTER

MASS
106
AREA
12402
HEIGHT
8912
23-Aug-2023
11:12



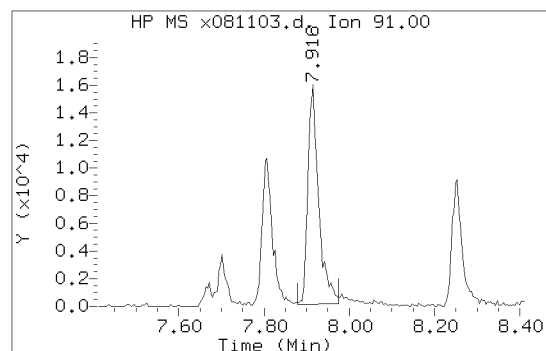
BEFORE

MASS
91
AREA
18072
HEIGHT
10624
12-Aug-2023
22:44



AFTER

MASS
91
AREA
28630
HEIGHT
15878
23-Aug-2023
11:12

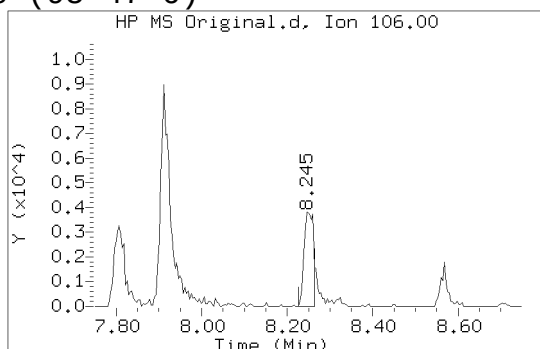


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 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

o-Xylene (95-47-6)

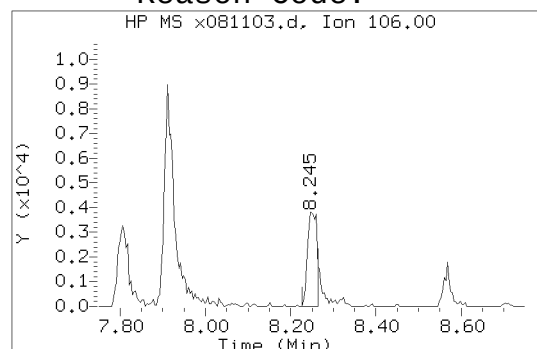
BEFORE

MASS
106
AREA
12402
HEIGHT
8912
12-Aug-2023
22:44



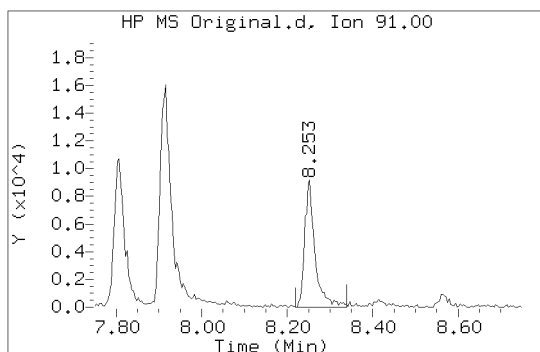
AFTER

MASS
106
AREA
5910
HEIGHT
3818
23-Aug-2023
11:12



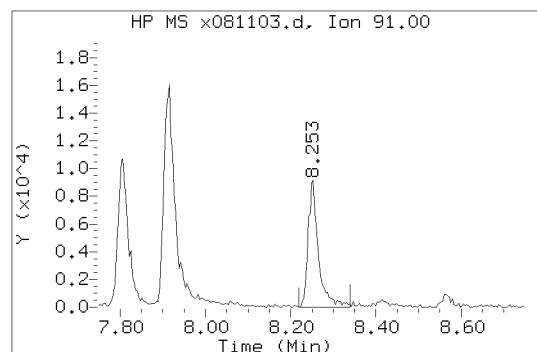
BEFORE

MASS
91
AREA
28630
HEIGHT
15878
12-Aug-2023
22:44



AFTER

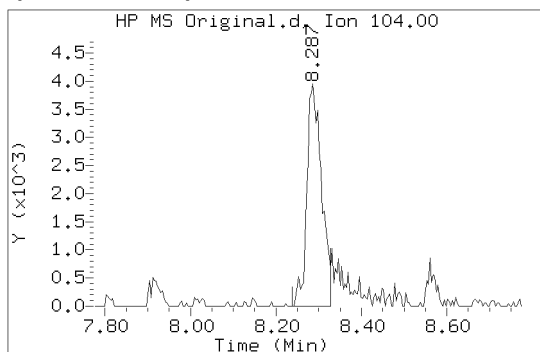
MASS
91
AREA
15761
HEIGHT
9162
23-Aug-2023
11:12



Styrene (100-42-5)

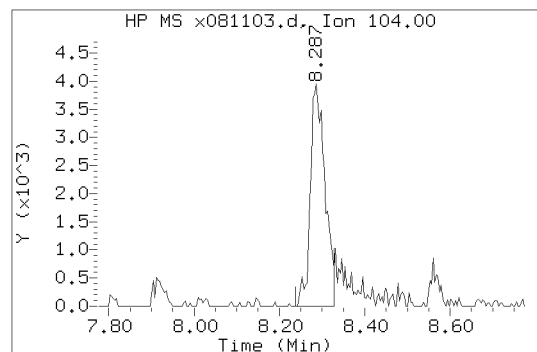
BEFORE

MASS
106
AREA
5910
HEIGHT
3818
12-Aug-2023
22:44



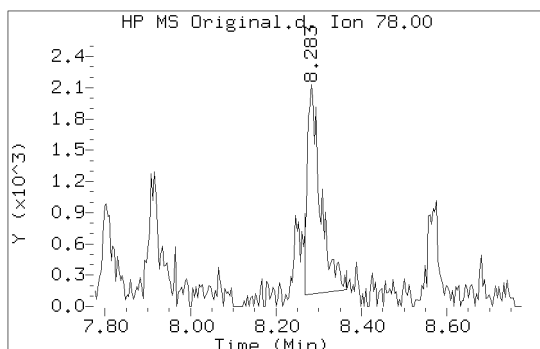
AFTER

MASS
104
AREA
9494
HEIGHT
3950
23-Aug-2023
11:12



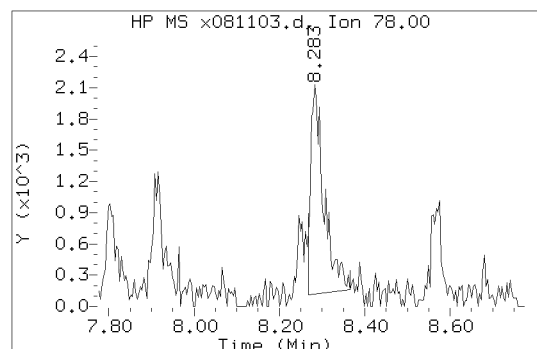
BEFORE

MASS
91
AREA
15761
HEIGHT
9162
12-Aug-2023
22:44



AFTER

MASS
78
AREA
4325
HEIGHT
2009
23-Aug-2023
11:12

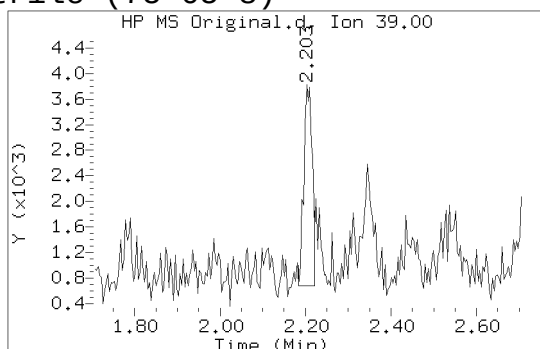


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Acetonitrile (75-05-8)

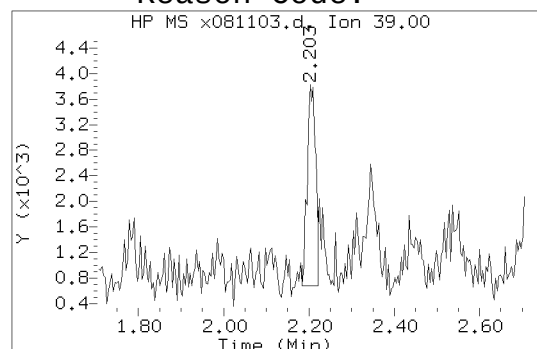
BEFORE

MASS
104
AREA
9494
HEIGHT
3950
12-Aug-2023
22:44



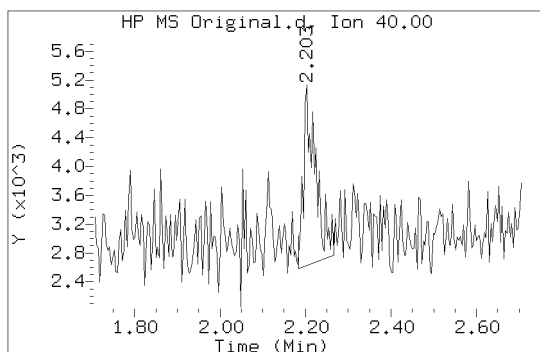
AFTER

MASS
39
AREA
4428
HEIGHT
3143
23-Aug-2023
11:12



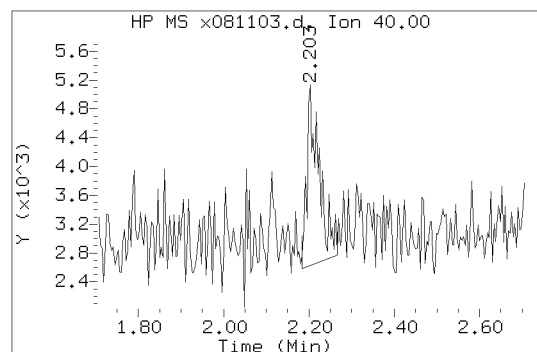
BEFORE

MASS
78
AREA
4325
HEIGHT
2009
12-Aug-2023
22:44



AFTER

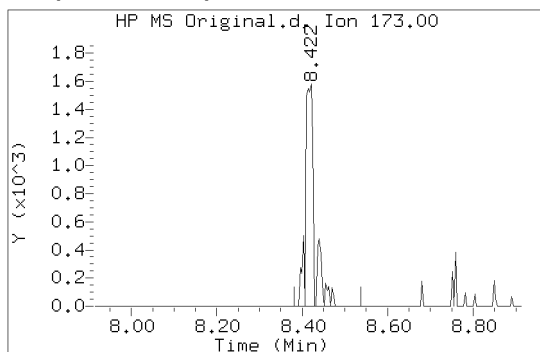
MASS
40
AREA
4938
HEIGHT
2505
23-Aug-2023
11:12



Bromoform (75-25-2)

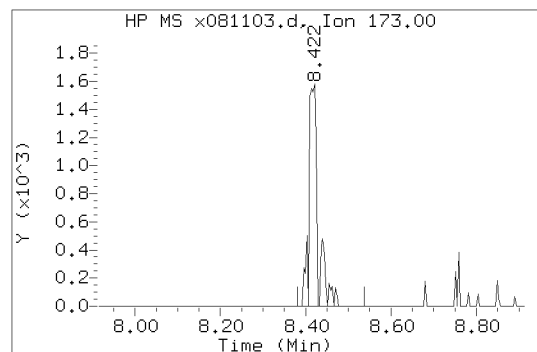
BEFORE

MASS
39
AREA
4428
HEIGHT
3143
12-Aug-2023
22:44



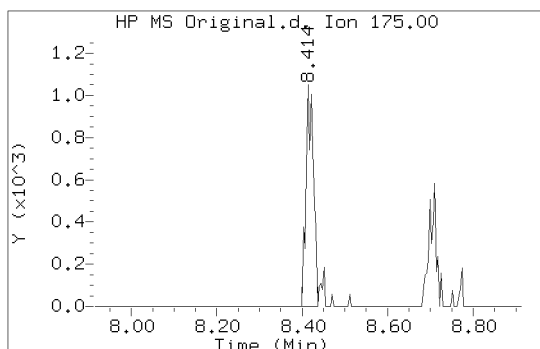
AFTER

MASS
173
AREA
2332
HEIGHT
1581
23-Aug-2023
11:12



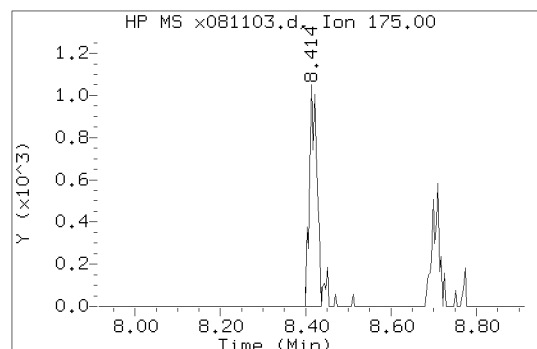
BEFORE

MASS
40
AREA
4938
HEIGHT
2505
12-Aug-2023
22:44



AFTER

MASS
175
AREA
1279
HEIGHT
1051
23-Aug-2023
11:12

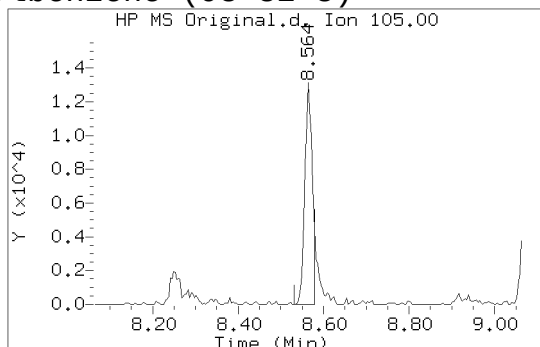


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

Isopropylbenzene (98-82-8)

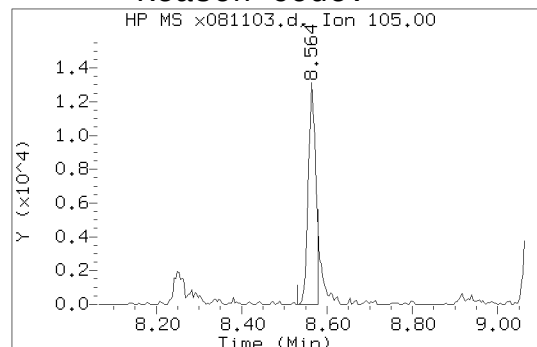
BEFORE

MASS
173
AREA
2332
HEIGHT
1581
12-Aug-2023
22:44



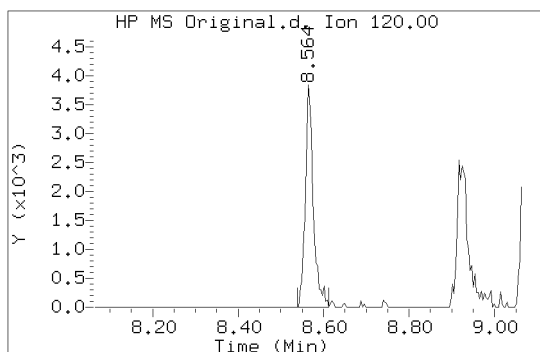
AFTER

MASS
105
AREA
16385
HEIGHT
13126
23-Aug-2023
11:12



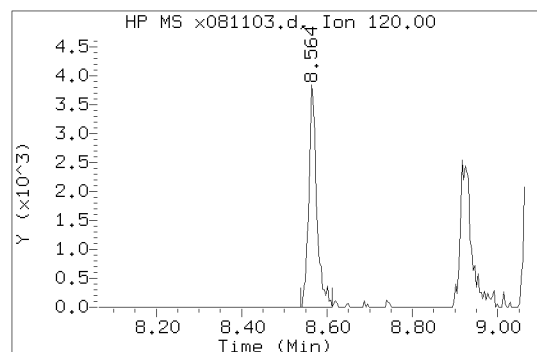
BEFORE

MASS
175
AREA
1279
HEIGHT
1051
12-Aug-2023
22:44



AFTER

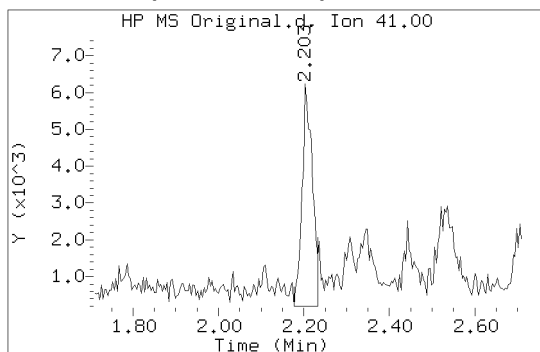
MASS
120
AREA
5147
HEIGHT
3841
23-Aug-2023
11:12



Allyl chloride (107-05-1)

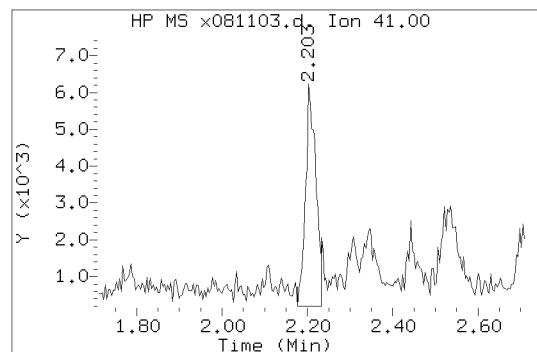
BEFORE

MASS
105
AREA
16385
HEIGHT
13126
12-Aug-2023
22:44



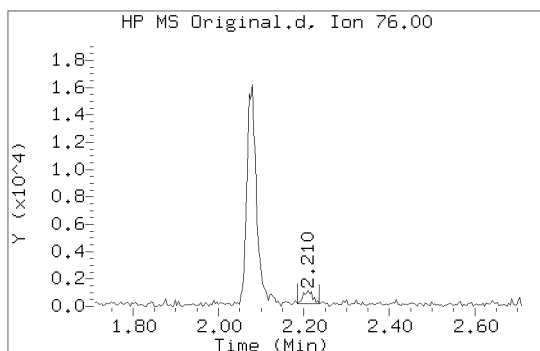
AFTER

MASS
41
AREA
10300
HEIGHT
6035
23-Aug-2023
11:12



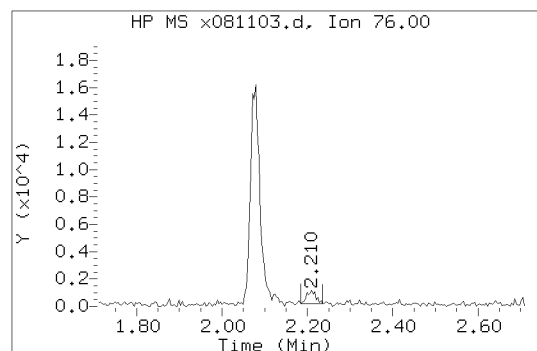
BEFORE

MASS
120
AREA
5147
HEIGHT
3841
12-Aug-2023
22:44



AFTER

MASS
76
AREA
1547
HEIGHT
1020
23-Aug-2023
11:12

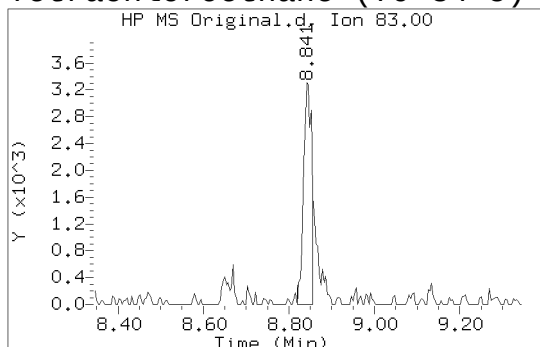


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

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

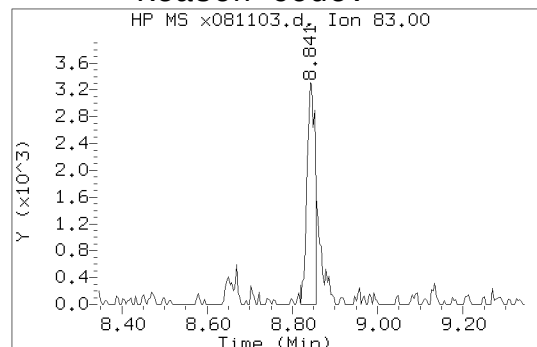
BEFORE

MASS
41
AREA
10300
HEIGHT
6035
12-Aug-2023
22:44



AFTER

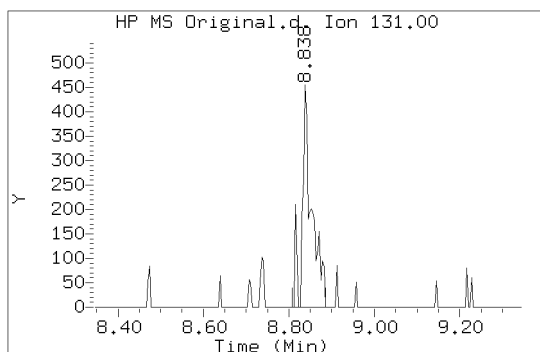
MASS
83
AREA
4493
HEIGHT
3308
23-Aug-2023
11:12



Reason Code:

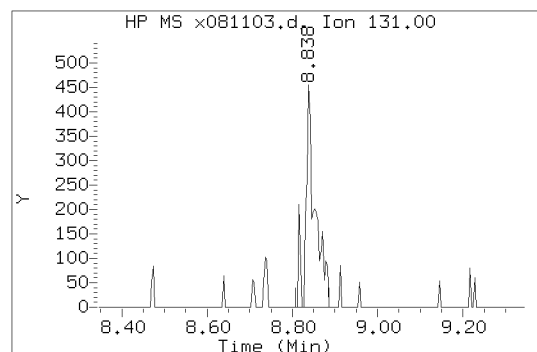
BEFORE

MASS
76
AREA
1547
HEIGHT
1020
12-Aug-2023
22:44



AFTER

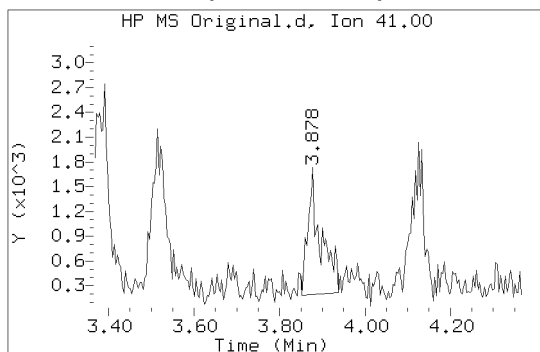
MASS
131
AREA
703
HEIGHT
455
23-Aug-2023
11:12



Methacrylonitrile (126-98-7)

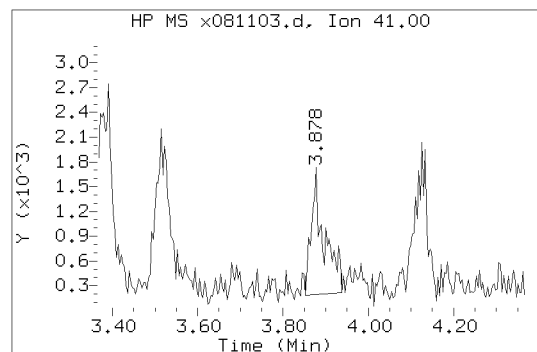
BEFORE

MASS
152
AREA
483591
HEIGHT
348864
12-Aug-2023
22:44



AFTER

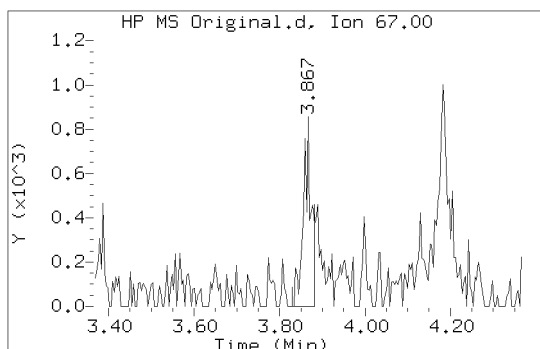
MASS
41
AREA
3257
HEIGHT
1536
23-Aug-2023
11:12



Reason Code:

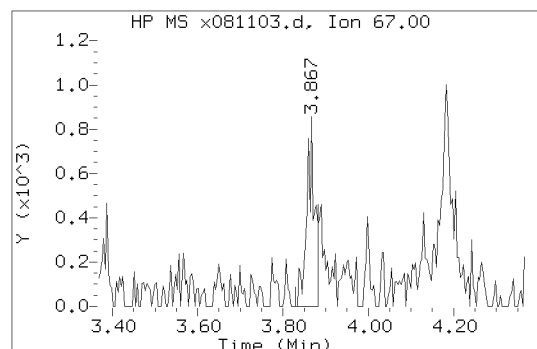
BEFORE

MASS
115
AREA
265296
HEIGHT
192140
12-Aug-2023
22:44



AFTER

MASS
67
AREA
1114
HEIGHT
856
23-Aug-2023
11:12

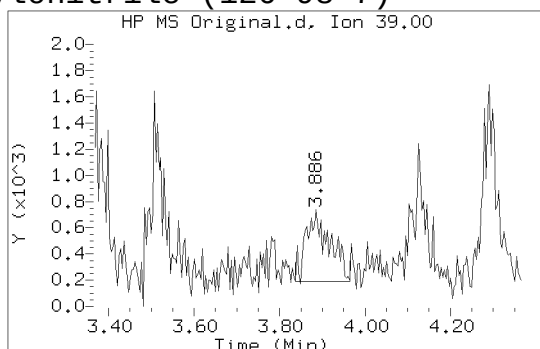


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Methacrylonitrile (126-98-7)

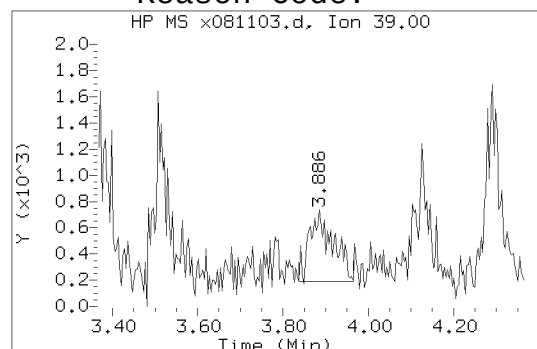
BEFORE

MASS
150
AREA
764733
HEIGHT
545610
12-Aug-2023
22:44



AFTER

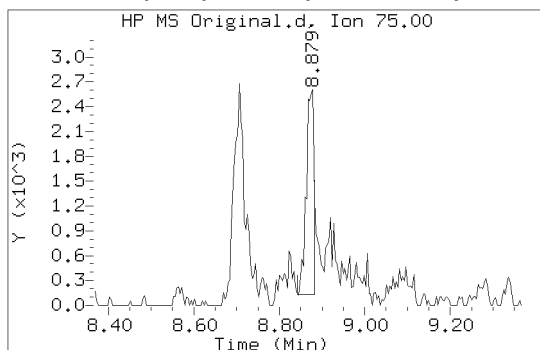
MASS
39
AREA
2083
HEIGHT
549
23-Aug-2023
11:12



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

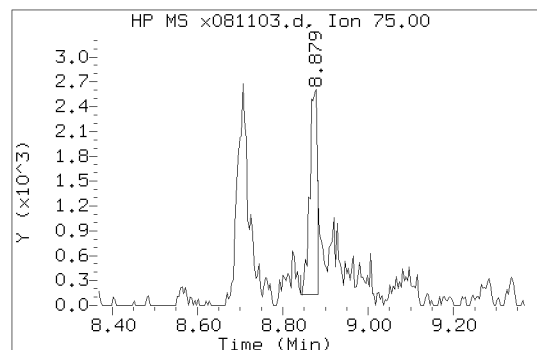
BEFORE

MASS
41
AREA
3257
HEIGHT
1536
12-Aug-2023
22:44



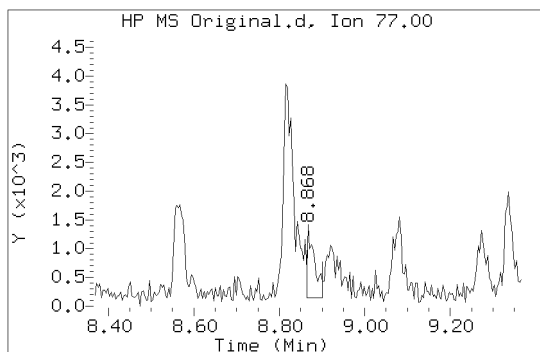
AFTER

MASS
75
AREA
3166
HEIGHT
2481
23-Aug-2023
11:12



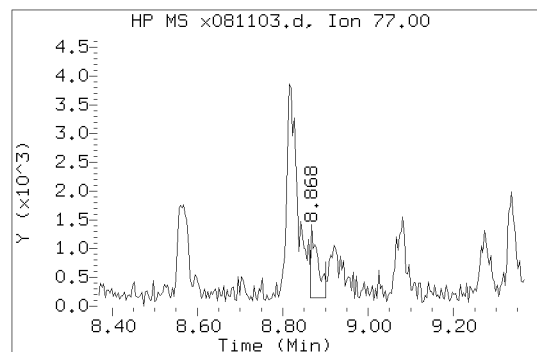
BEFORE

MASS
67
AREA
1114
HEIGHT
856
12-Aug-2023
22:44



AFTER

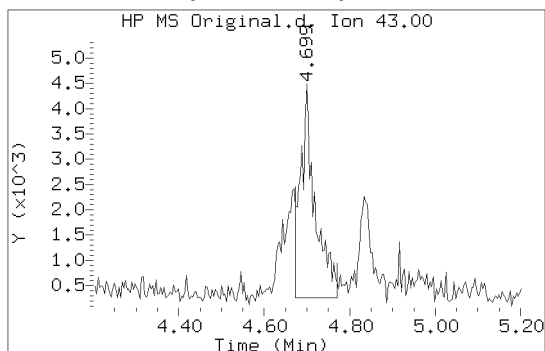
MASS
77
AREA
1546
HEIGHT
1276
23-Aug-2023
11:12



Isobutyl Alcohol (78-83-1)

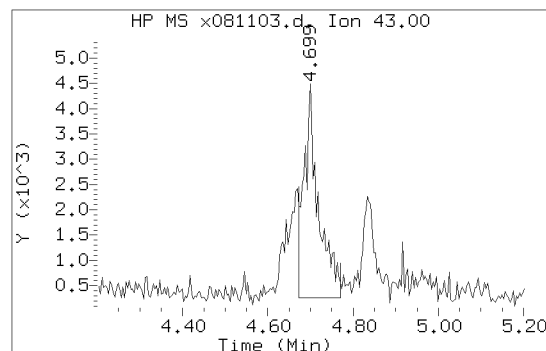
BEFORE

MASS
75
AREA
3166
HEIGHT
2481
12-Aug-2023
22:44



AFTER

MASS
43
AREA
10205
HEIGHT
4228
23-Aug-2023
11:12

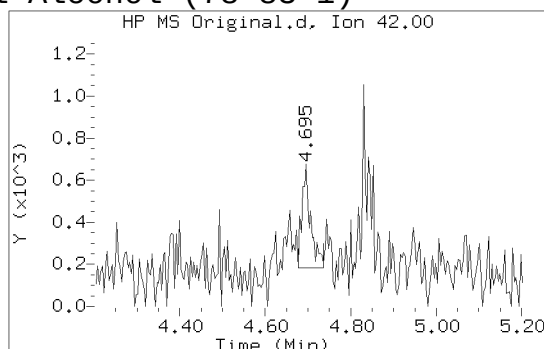


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Isobutyl Alcohol (78-83-1)

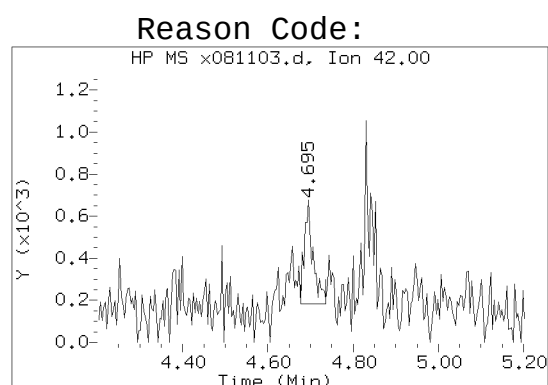
BEFORE

MASS
77
AREA
1546
HEIGHT
1276
12-Aug-2023
22:44



AFTER

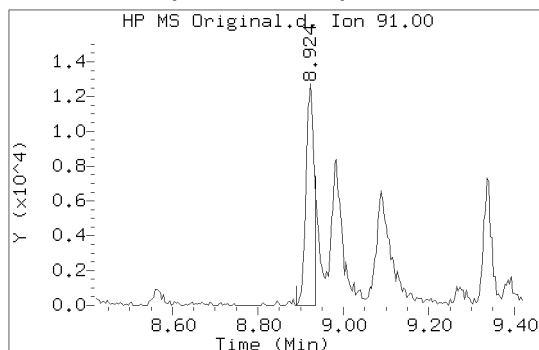
MASS
42
AREA
697
HEIGHT
494
23-Aug-2023
11:12



n-Propylbenzene (106-65-1)

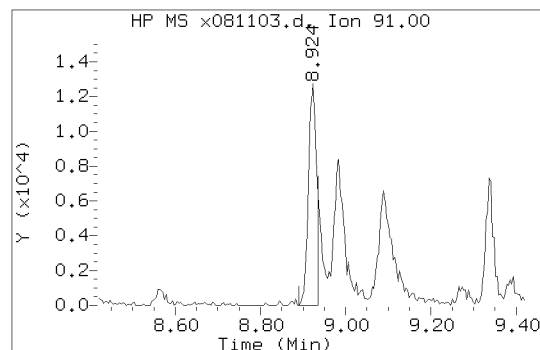
BEFORE

MASS
43
AREA
10205
HEIGHT
4228
12-Aug-2023
22:44



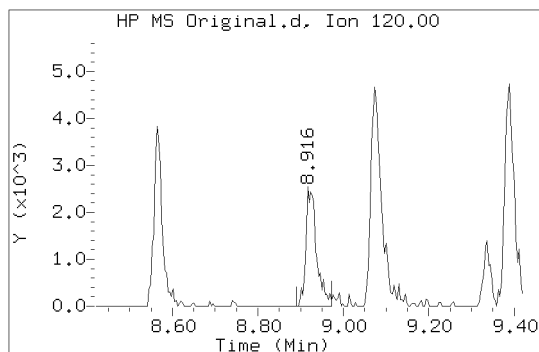
AFTER

MASS
91
AREA
17092
HEIGHT
12741
23-Aug-2023
11:12



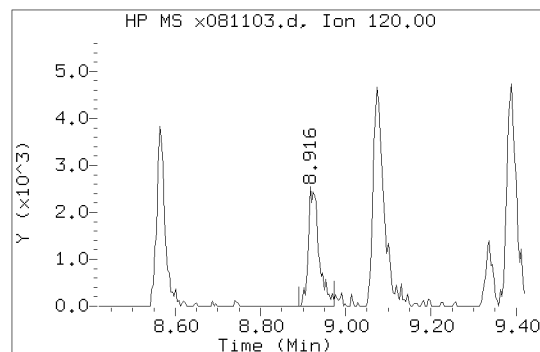
BEFORE

MASS
42
AREA
697
HEIGHT
494
12-Aug-2023
22:44



AFTER

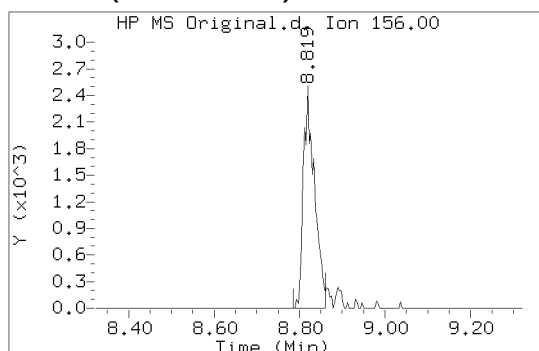
MASS
120
AREA
4506
HEIGHT
2542
23-Aug-2023
11:12



Bromobenzene (108-86-1)

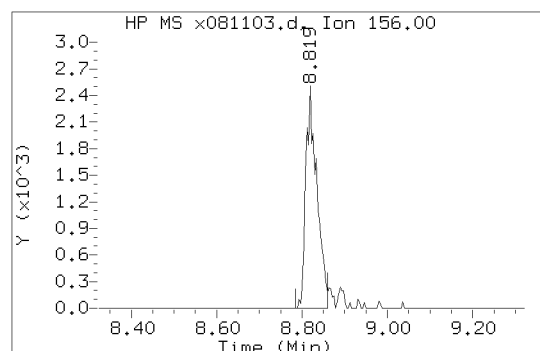
BEFORE

MASS
91
AREA
17092
HEIGHT
12741
12-Aug-2023
22:44



AFTER

MASS
156
AREA
4612
HEIGHT
2508
23-Aug-2023
11:12

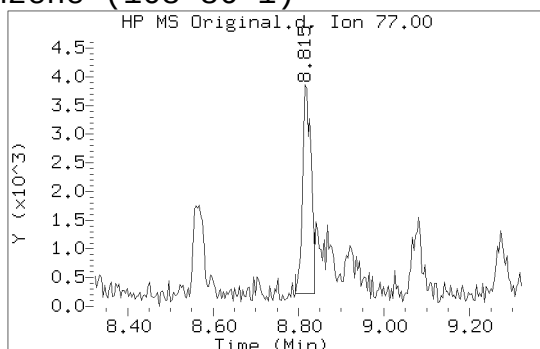


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Bromobenzene (108-86-1)

BEFORE

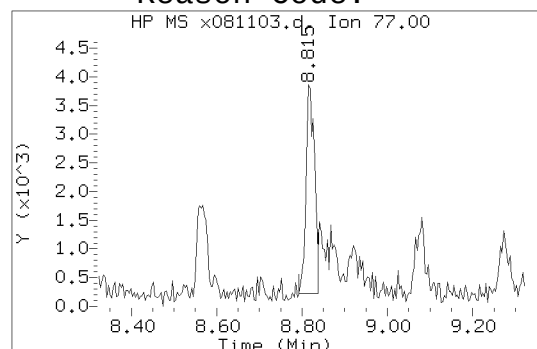
MASS
120
AREA
4506
HEIGHT
2542
12-Aug-2023
22:44



AFTER

MASS
77
AREA
5162
HEIGHT
3640
23-Aug-2023
11:12

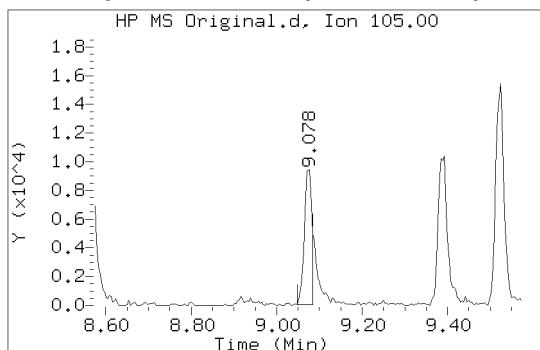
Reason Code:



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

BEFORE

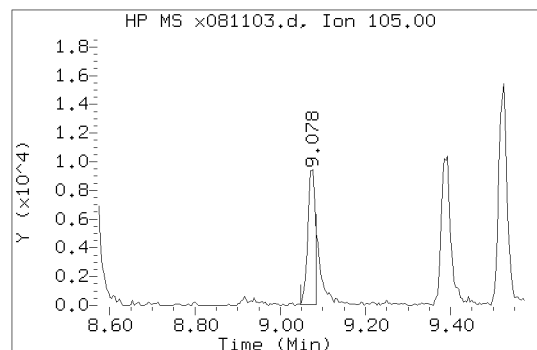
MASS
156
AREA
4612
HEIGHT
2508
12-Aug-2023
22:44



AFTER

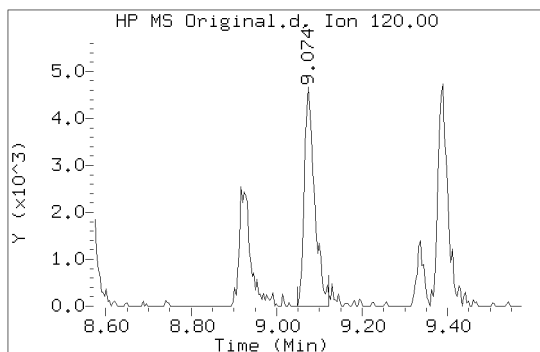
MASS
105
AREA
12006
HEIGHT
9424
23-Aug-2023
11:12

Reason Code:



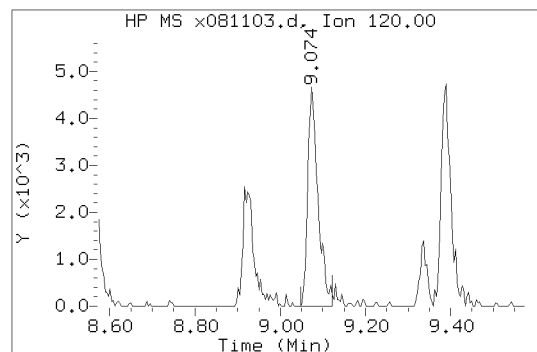
BEFORE

MASS
77
AREA
5162
HEIGHT
3640
12-Aug-2023
22:44



AFTER

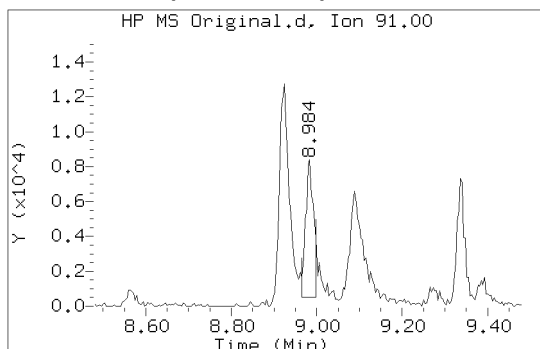
MASS
120
AREA
8039
HEIGHT
4663
23-Aug-2023
11:12



2-Chlorotoluene (95-49-8)

BEFORE

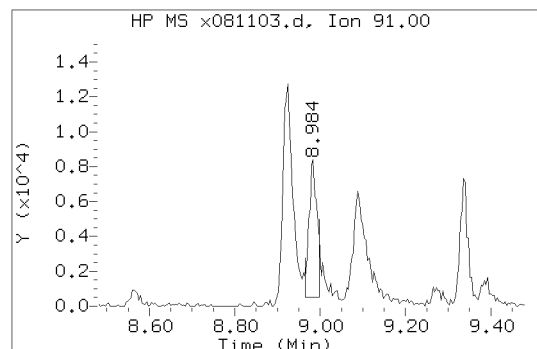
MASS
105
AREA
12006
HEIGHT
9424
12-Aug-2023
22:44



AFTER

MASS
91
AREA
10667
HEIGHT
7878
23-Aug-2023
11:12

Reason Code:

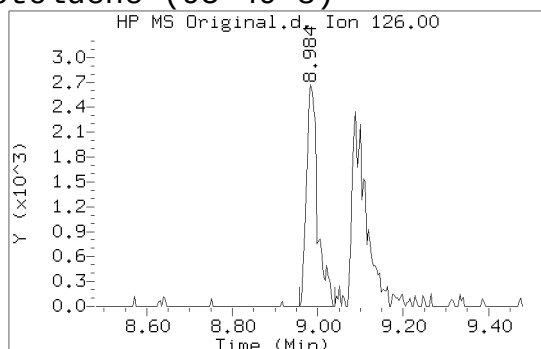


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

2-Chlorotoluene (95-49-8)

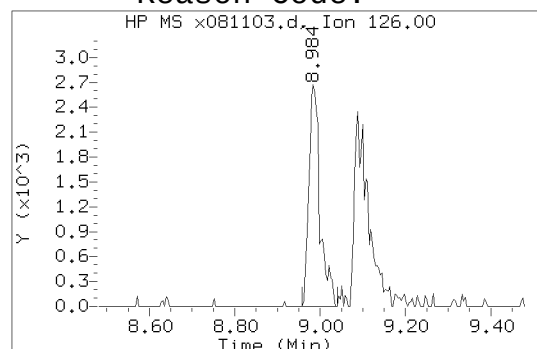
BEFORE

MASS
120
AREA
8039
HEIGHT
4663
12-Aug-2023
22:44



AFTER

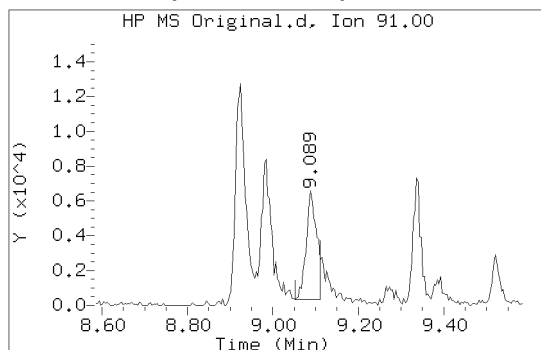
MASS
126
AREA
4942
HEIGHT
2672
23-Aug-2023
11:12



4-Chlorotoluene (106-43-4)

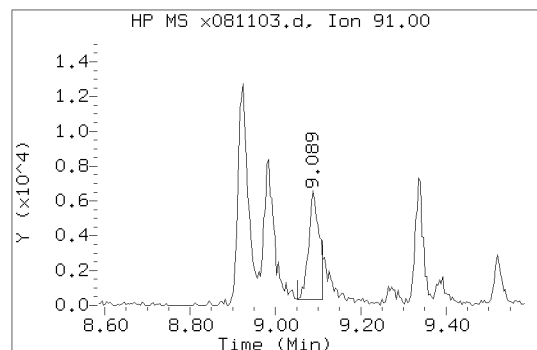
BEFORE

MASS
91
AREA
10667
HEIGHT
7878
12-Aug-2023
22:44



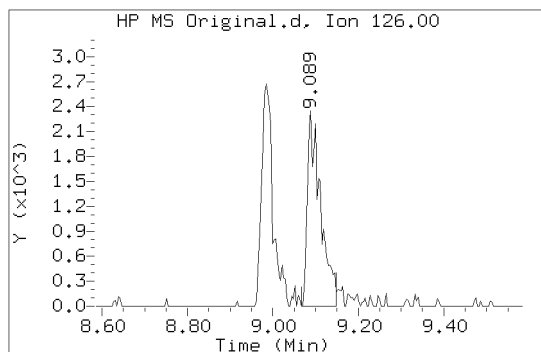
AFTER

MASS
91
AREA
10970
HEIGHT
6277
23-Aug-2023
11:12



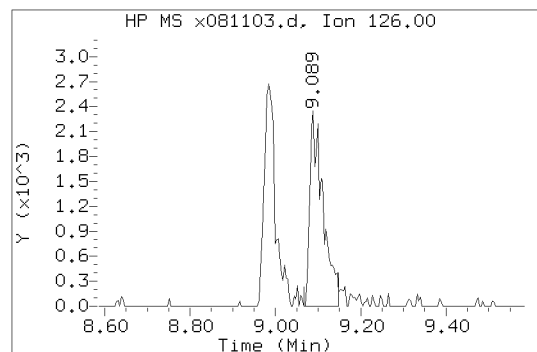
BEFORE

MASS
126
AREA
4942
HEIGHT
2672
12-Aug-2023
22:44



AFTER

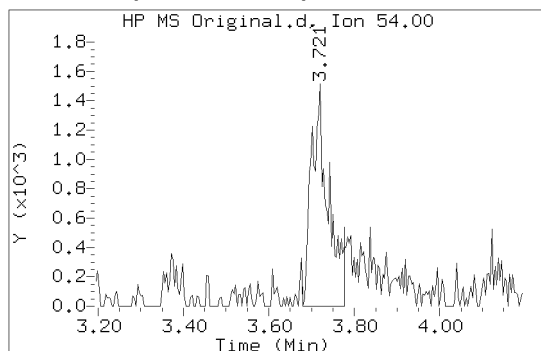
MASS
126
AREA
5099
HEIGHT
2349
23-Aug-2023
11:12



Propionitrile (107-12-0)

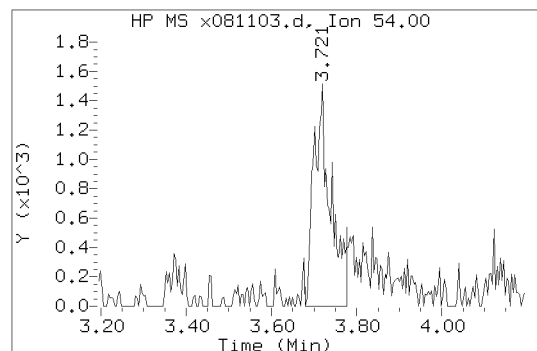
BEFORE

MASS
91
AREA
10970
HEIGHT
6277
12-Aug-2023
22:44



AFTER

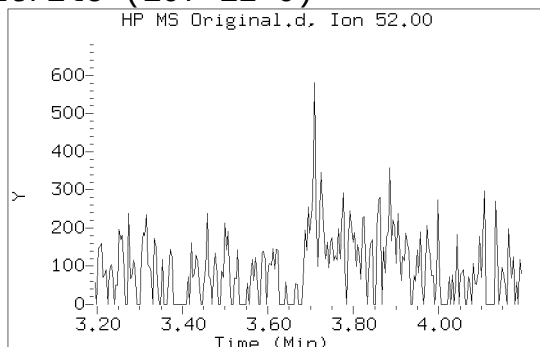
MASS
54
AREA
4117
HEIGHT
1515
23-Aug-2023
11:12



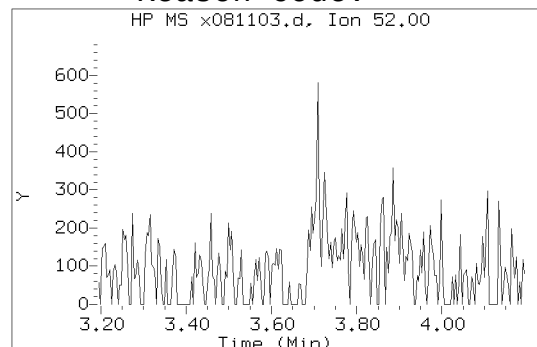
Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

Propionitrile (107-12-0)**BEFORE**

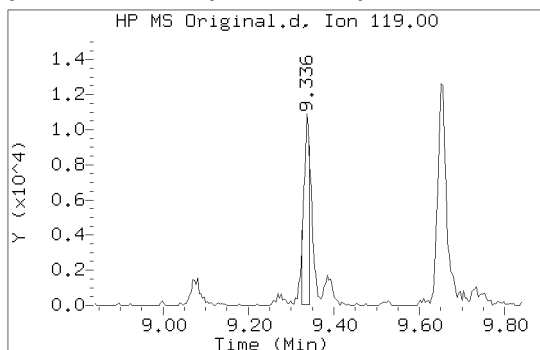
MASS
126
AREA
5099
HEIGHT
2349
12-Aug-2023
22:44

**AFTER**

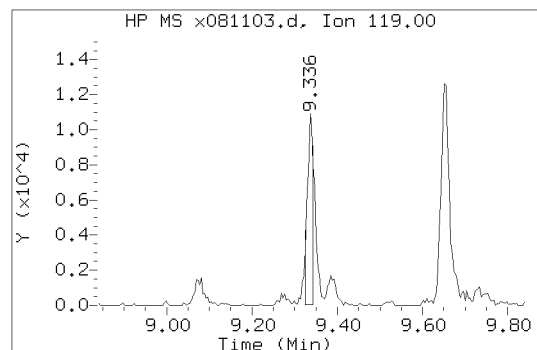
MASS
52
AREA
0
HEIGHT
0
23-Aug-2023
11:12

**tert-Butylbenzene (98-06-6)****BEFORE**

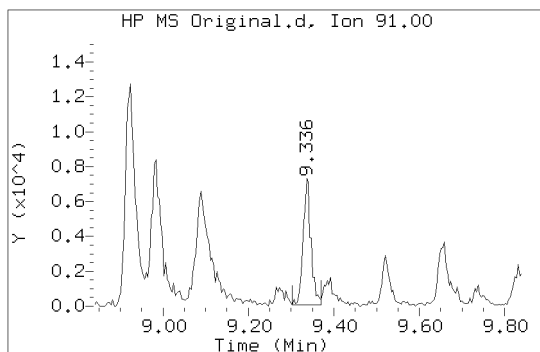
MASS
54
AREA
4117
HEIGHT
1515
12-Aug-2023
22:44

**AFTER**

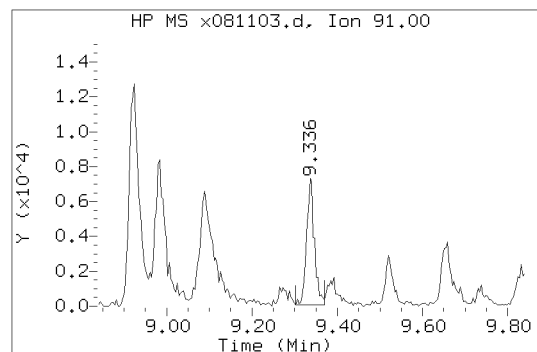
MASS
119
AREA
10385
HEIGHT
10865
23-Aug-2023
11:12

**BEFORE**

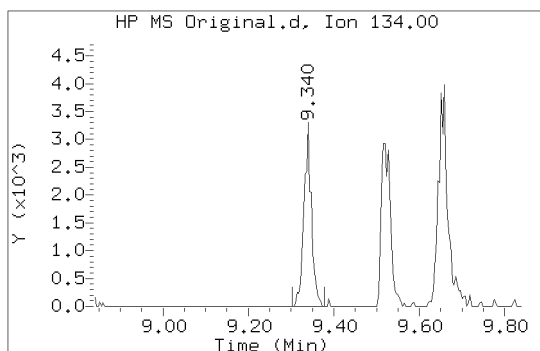
MASS
52
AREA
0
HEIGHT
0
12-Aug-2023
22:44

**AFTER**

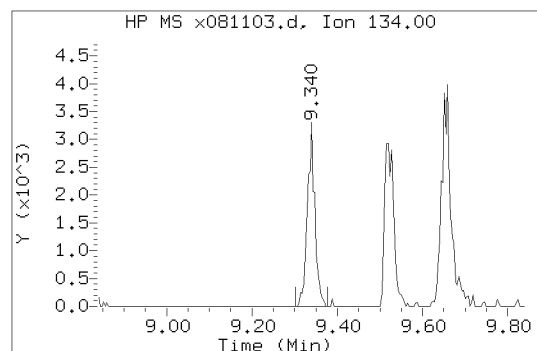
MASS
91
AREA
9489
HEIGHT
7277
23-Aug-2023
11:12

**BEFORE**

MASS
55
AREA
0
HEIGHT
0
12-Aug-2023
22:44

**AFTER**

MASS
134
AREA
4093
HEIGHT
3299
23-Aug-2023
11:12

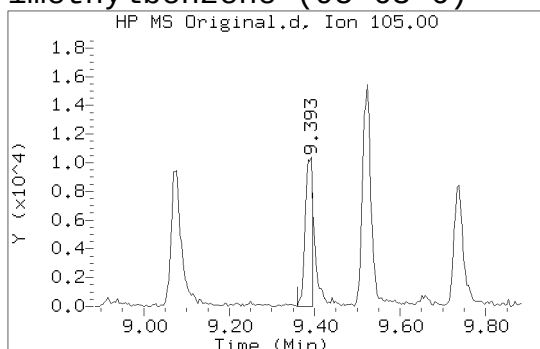


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

1,2,4-Trimethylbenzene (95-63-6)

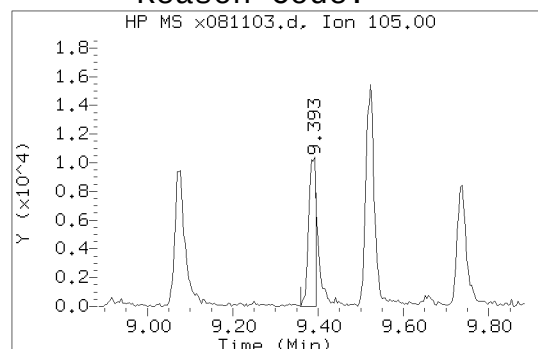
BEFORE

MASS
119
AREA
10385
HEIGHT
10865
12-Aug-2023
22:44



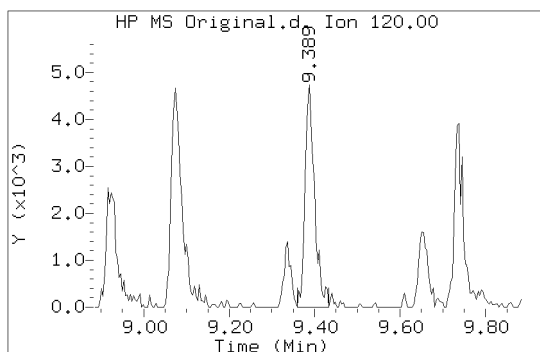
AFTER

MASS
105
AREA
12812
HEIGHT
10393
23-Aug-2023
11:12



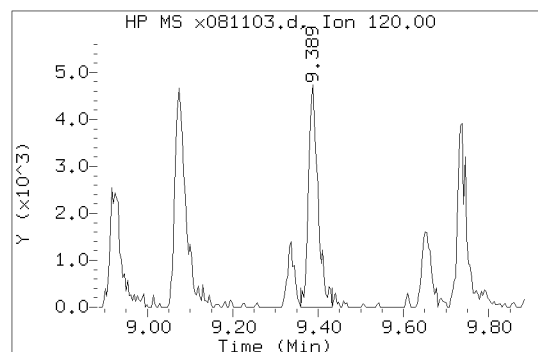
BEFORE

MASS
91
AREA
9489
HEIGHT
7277
12-Aug-2023
22:44



AFTER

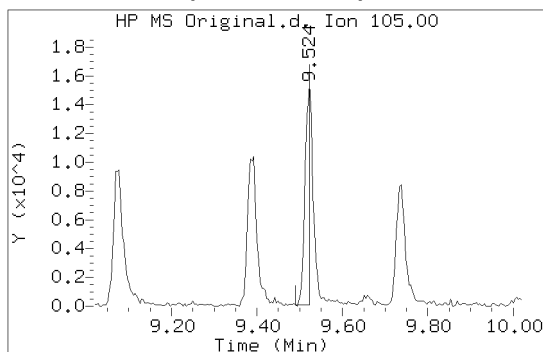
MASS
120
AREA
7493
HEIGHT
4736
23-Aug-2023
11:12



sec-Butylbenzene (135-98-8)

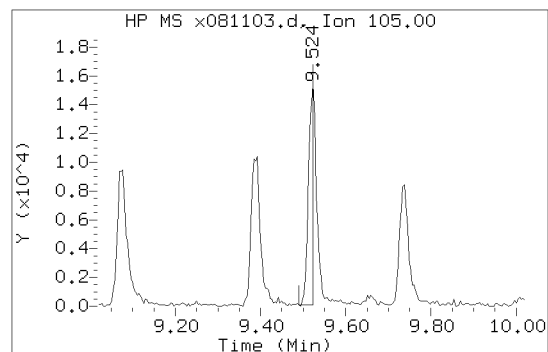
BEFORE

MASS
105
AREA
12812
HEIGHT
10393
12-Aug-2023
22:44



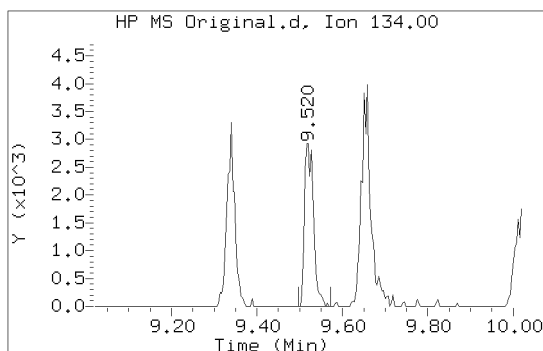
AFTER

MASS
105
AREA
13358
HEIGHT
15342
23-Aug-2023
11:12



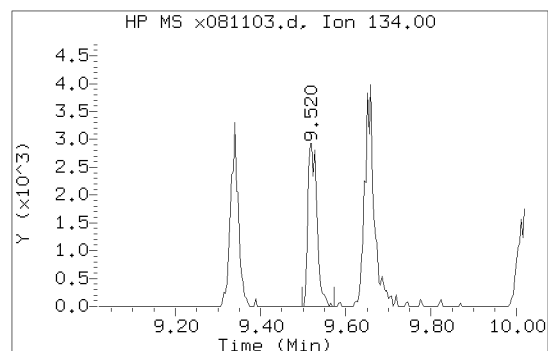
BEFORE

MASS
120
AREA
7493
HEIGHT
4736
12-Aug-2023
22:44



AFTER

MASS
134
AREA
4422
HEIGHT
2927
23-Aug-2023
11:12

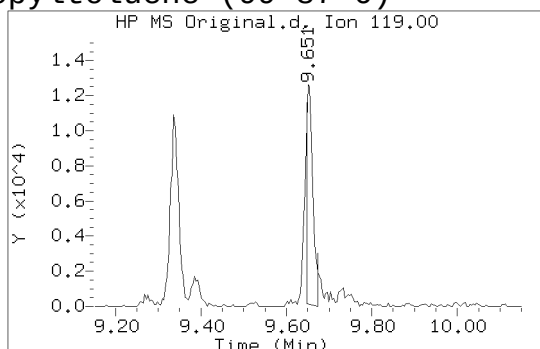


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

p-Isopropyltoluene (99-87-6)

BEFORE

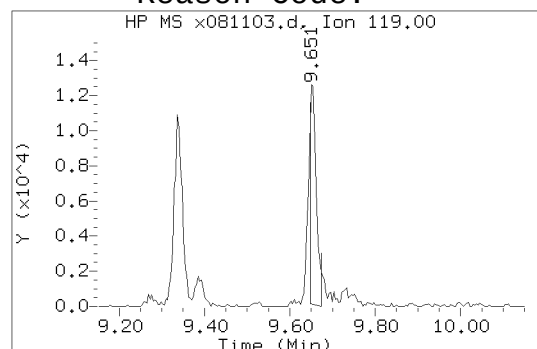
MASS
41
AREA
2840
HEIGHT
1642
12-Aug-2023
22:44



AFTER

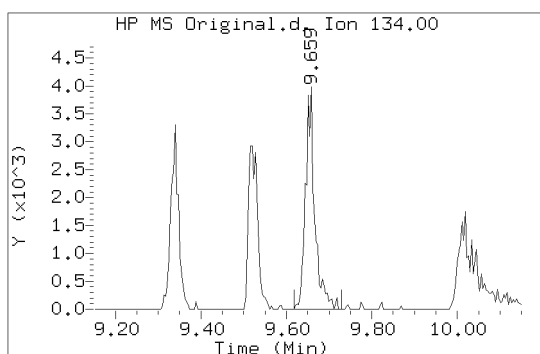
MASS
119
AREA
13394
HEIGHT
12490
23-Aug-2023
11:12

Reason Code:



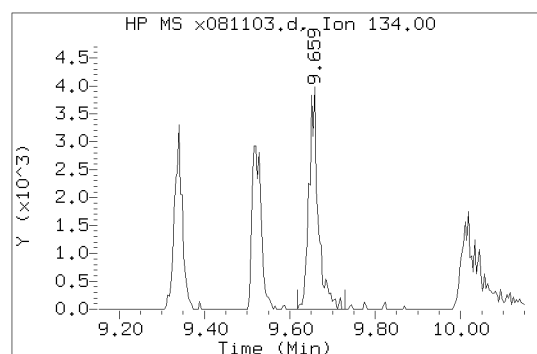
BEFORE

MASS
69
AREA
1589
HEIGHT
895
12-Aug-2023
22:44



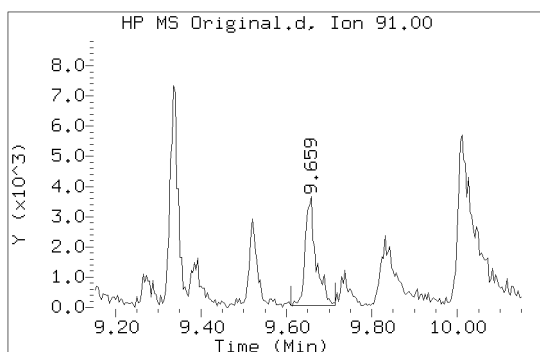
AFTER

MASS
134
AREA
6077
HEIGHT
3982
23-Aug-2023
11:12



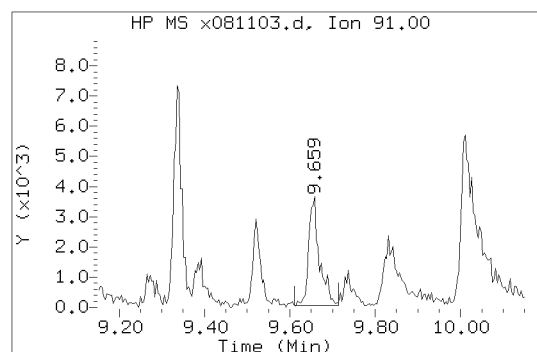
BEFORE

MASS
100
AREA
846
HEIGHT
598
12-Aug-2023
22:44



AFTER

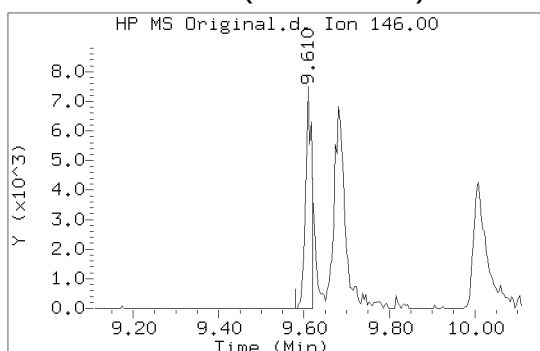
MASS
91
AREA
6454
HEIGHT
3607
23-Aug-2023
11:12



1,3-Dichlorobenzene (541-73-1)

BEFORE

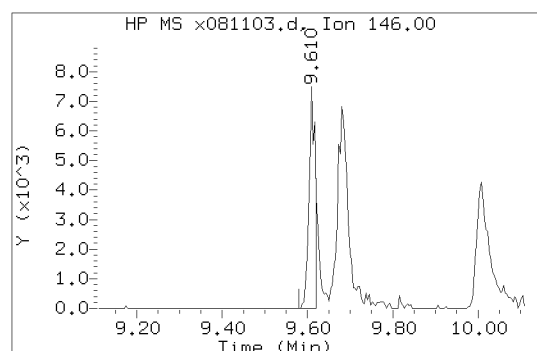
MASS
119
AREA
13394
HEIGHT
12490
12-Aug-2023
22:44



AFTER

MASS
146
AREA
7795
HEIGHT
7495
23-Aug-2023
11:12

Reason Code:

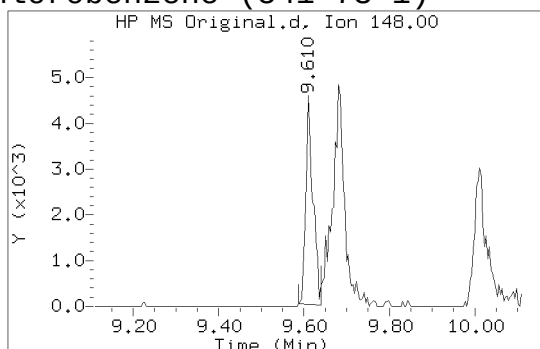


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

1,3-Dichlorobenzene (541-73-1)

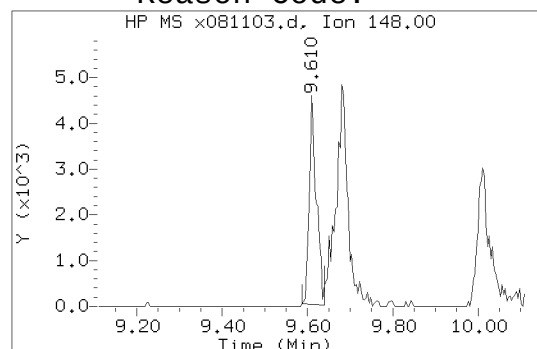
BEFORE

MASS
134
AREA
6077
HEIGHT
3982
12-Aug-2023
22:44



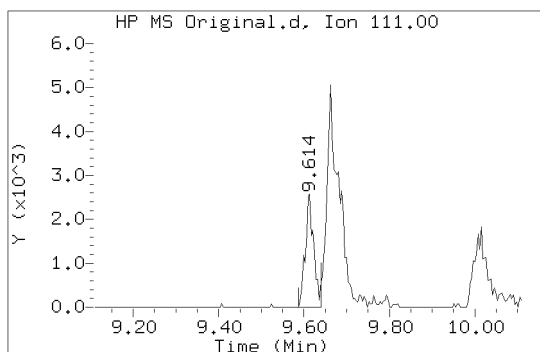
AFTER

MASS
148
AREA
5529
HEIGHT
4571
23-Aug-2023
11:12



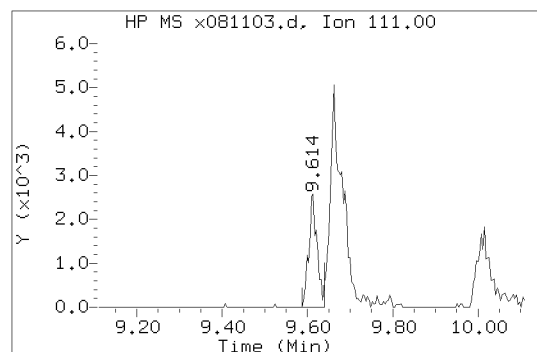
BEFORE

MASS
91
AREA
6454
HEIGHT
3607
12-Aug-2023
22:44



AFTER

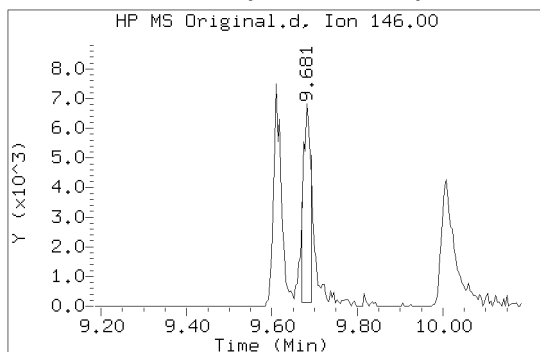
MASS
111
AREA
3654
HEIGHT
2574
23-Aug-2023
11:12



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

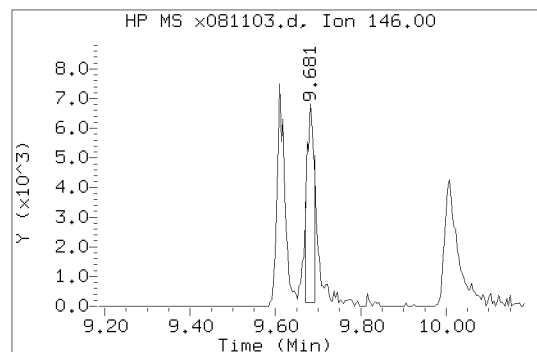
BEFORE

MASS
146
AREA
7795
HEIGHT
7495
12-Aug-2023
22:44



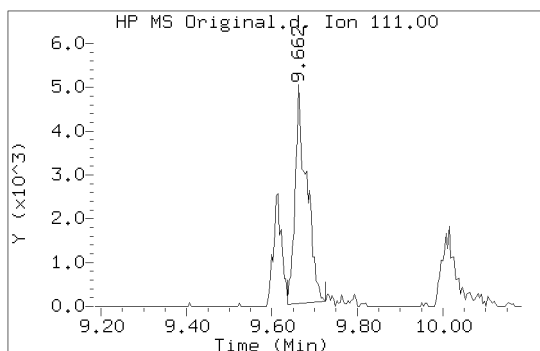
AFTER

MASS
146
AREA
8042
HEIGHT
6690
23-Aug-2023
11:12



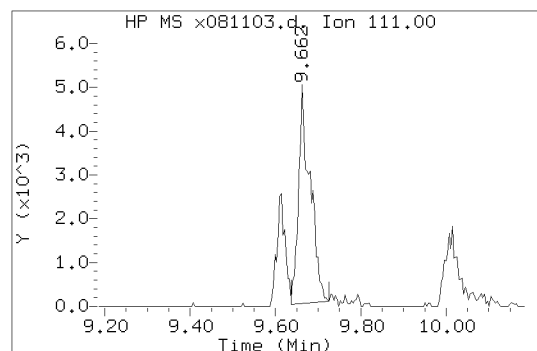
BEFORE

MASS
148
AREA
5529
HEIGHT
4571
12-Aug-2023
22:44



AFTER

MASS
111
AREA
9494
HEIGHT
4997
23-Aug-2023
11:12

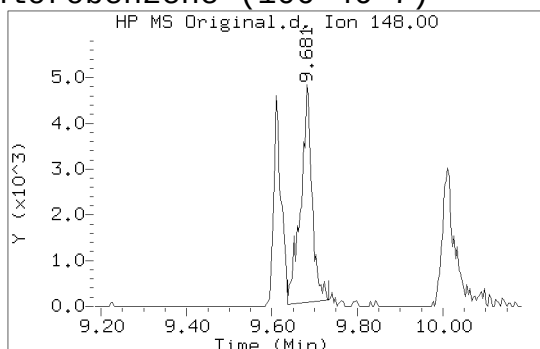


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 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

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

BEFORE

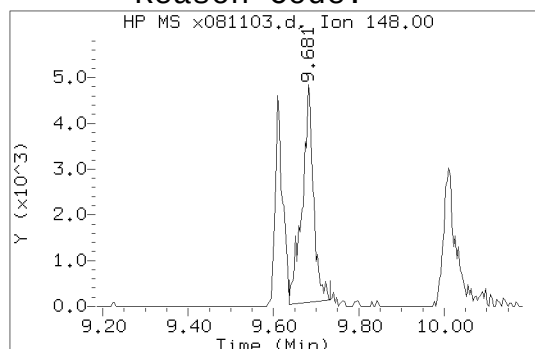
MASS
111
AREA
3654
HEIGHT
2574
12-Aug-2023
22:44



AFTER

MASS
148
AREA
8948
HEIGHT
4758
23-Aug-2023
11:12

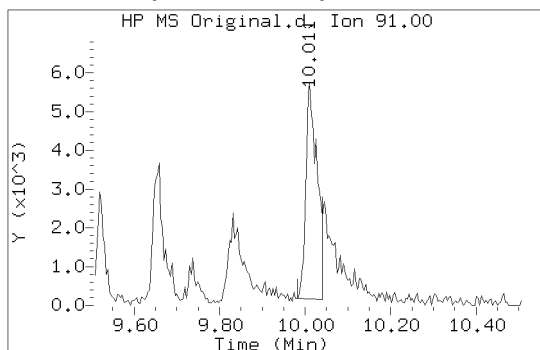
Reason Code:



n-Butylbenzene (104-51-8)

BEFORE

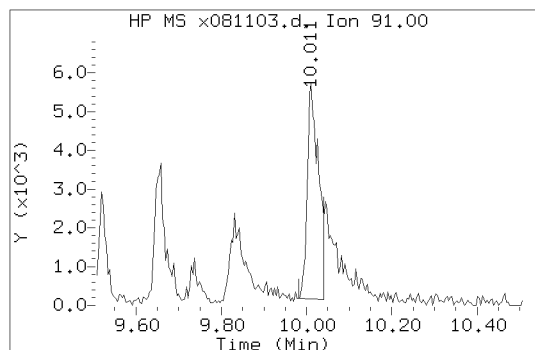
MASS
91
AREA
10518
HEIGHT
5560
12-Aug-2023
22:44



AFTER

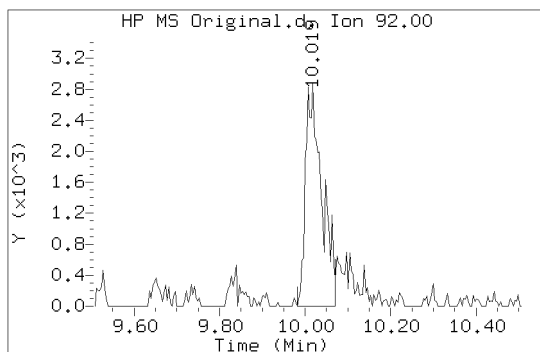
MASS
91
AREA
10518
HEIGHT
5560
23-Aug-2023
11:12

Reason Code:



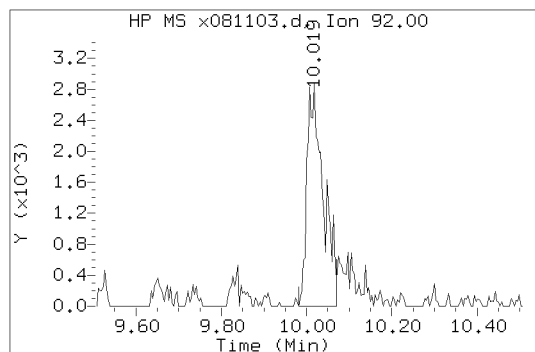
BEFORE

MASS
92
AREA
7722
HEIGHT
2870
12-Aug-2023
22:44



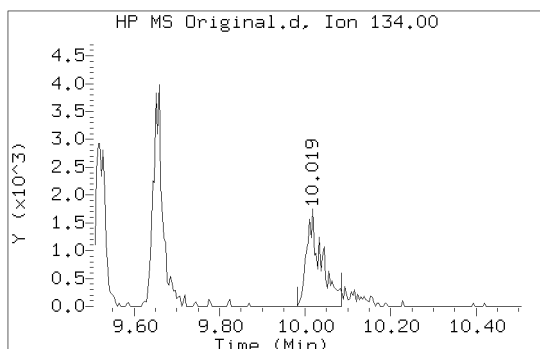
AFTER

MASS
92
AREA
7722
HEIGHT
2870
23-Aug-2023
11:12



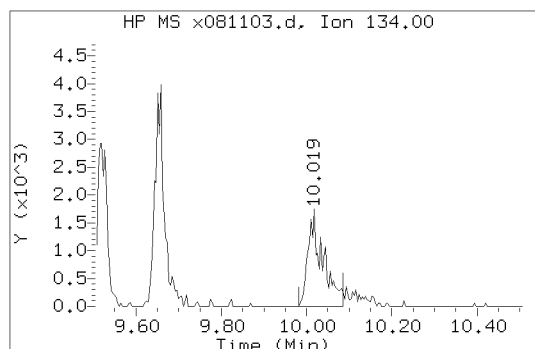
BEFORE

MASS
134
AREA
4266
HEIGHT
1745
12-Aug-2023
22:44



AFTER

MASS
134
AREA
4266
HEIGHT
1745
23-Aug-2023
11:12

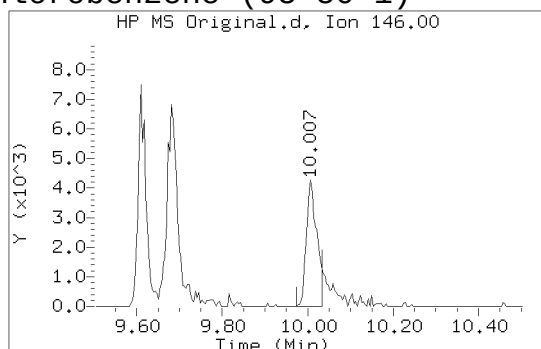


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Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

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

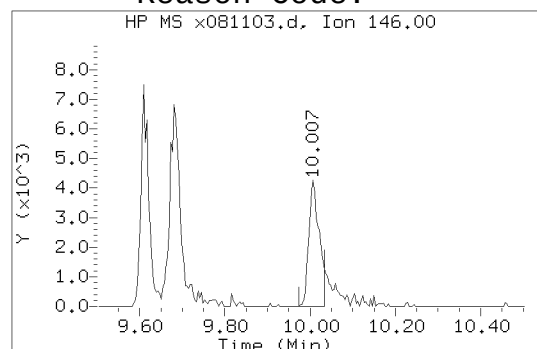
BEFORE

MASS
146
AREA
7410
HEIGHT
4267
12-Aug-2023
22:44



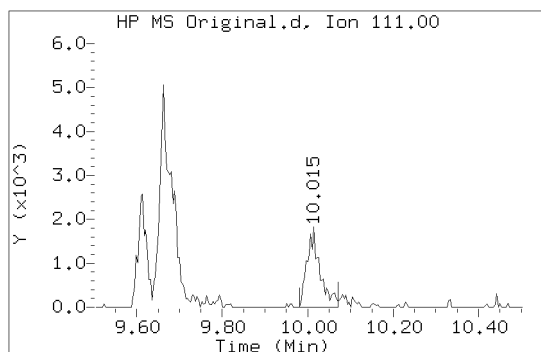
AFTER

MASS
146
AREA
7410
HEIGHT
4267
23-Aug-2023
11:12



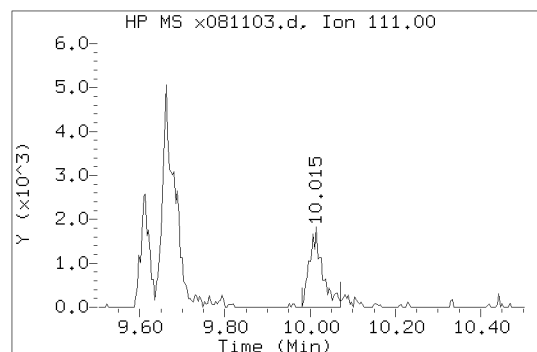
BEFORE

MASS
111
AREA
3878
HEIGHT
1827
12-Aug-2023
22:44



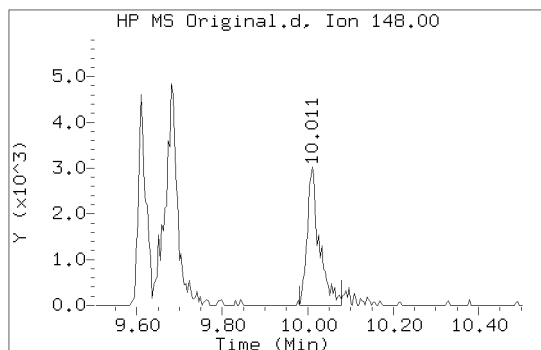
AFTER

MASS
111
AREA
3878
HEIGHT
1827
23-Aug-2023
11:12



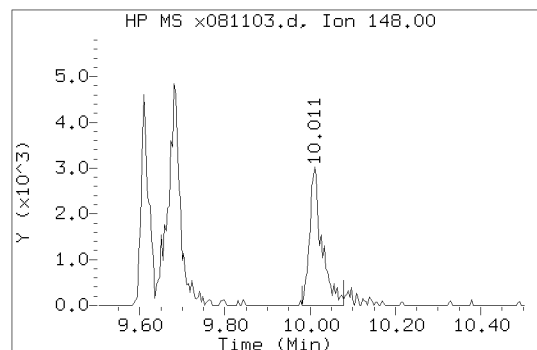
BEFORE

MASS
148
AREA
6094
HEIGHT
3030
12-Aug-2023
22:44



AFTER

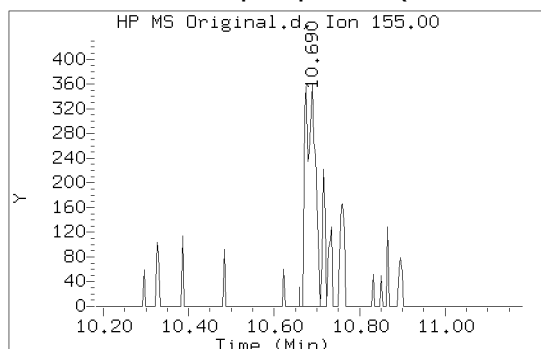
MASS
148
AREA
6094
HEIGHT
3030
23-Aug-2023
11:12



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

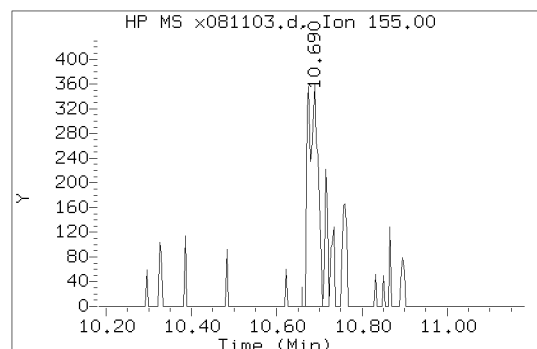
BEFORE

MASS
155
AREA
676
HEIGHT
359
12-Aug-2023
22:44



AFTER

MASS
155
AREA
676
HEIGHT
359
23-Aug-2023
11:12



Reason Code:

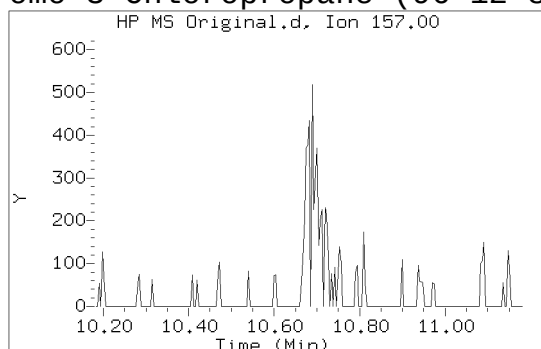


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Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

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

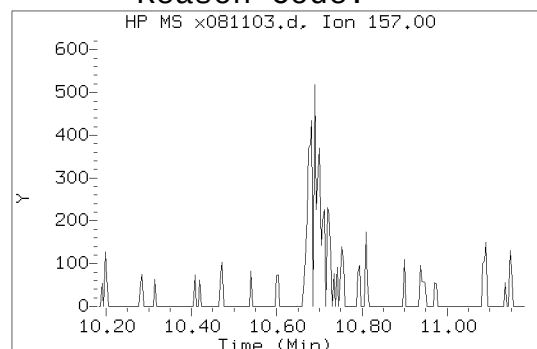
BEFORE

MASS
157
AREA
0
HEIGHT
0
12-Aug-2023
22:44



AFTER

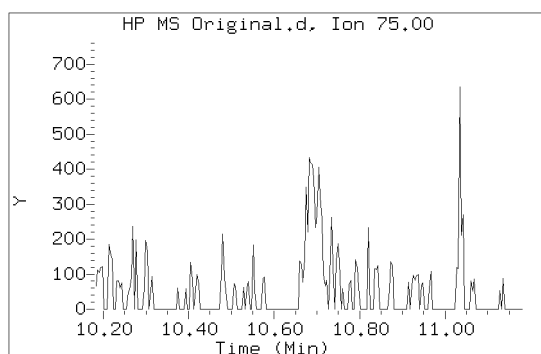
MASS
157
AREA
0
HEIGHT
0
23-Aug-2023
11:12



Reason Code:

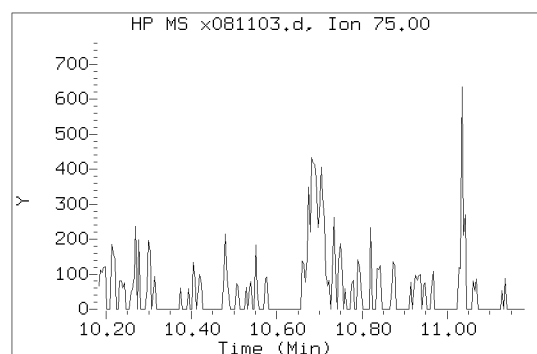
BEFORE

MASS
75
AREA
0
HEIGHT
0
12-Aug-2023
22:44



AFTER

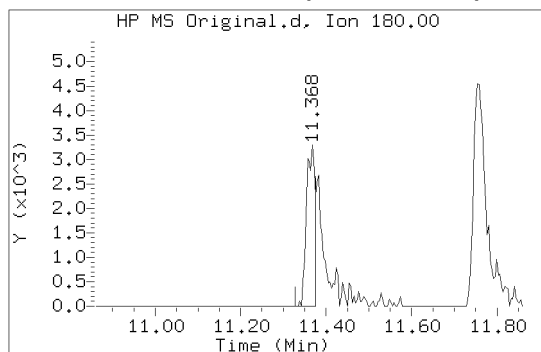
MASS
75
AREA
0
HEIGHT
0
23-Aug-2023
11:12



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

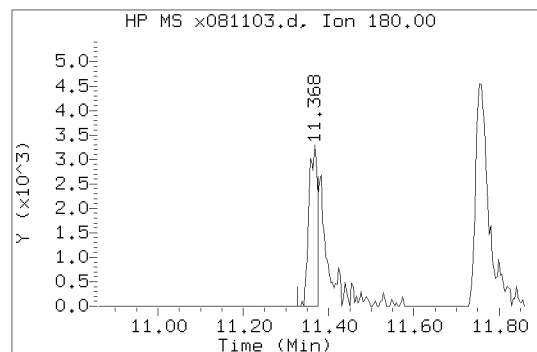
BEFORE

MASS
180
AREA
4663
HEIGHT
3304
12-Aug-2023
22:44



AFTER

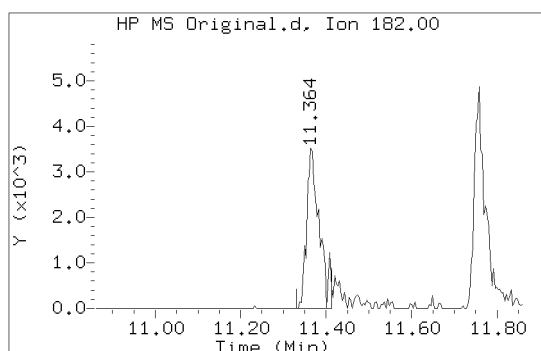
MASS
180
AREA
4663
HEIGHT
3304
23-Aug-2023
11:12



Reason Code:

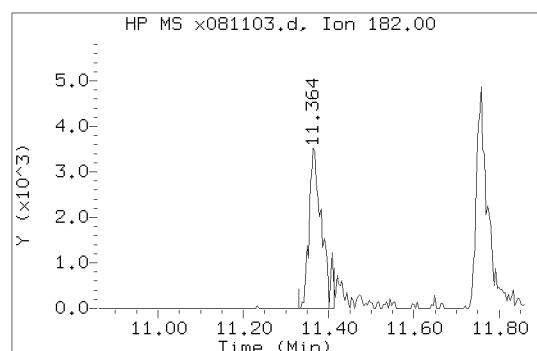
BEFORE

MASS
182
AREA
7442
HEIGHT
3523
12-Aug-2023
22:44



AFTER

MASS
182
AREA
7442
HEIGHT
3523
23-Aug-2023
11:12

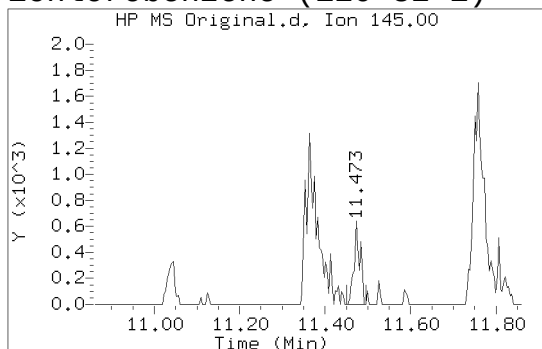


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Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

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

BEFORE

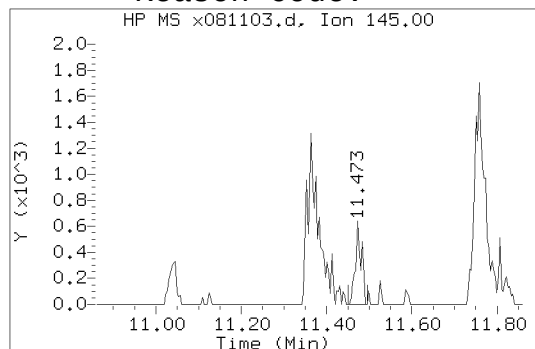
MASS
145
AREA
624
HEIGHT
639
12-Aug-2023
22:44



AFTER

MASS
145
AREA
624
HEIGHT
639
23-Aug-2023
11:12

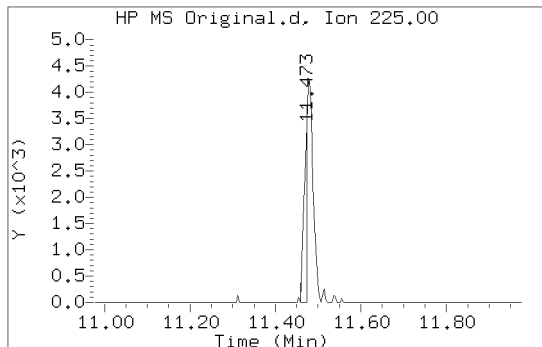
Reason Code:



Hexachlorobutadiene (87-68-3)

BEFORE

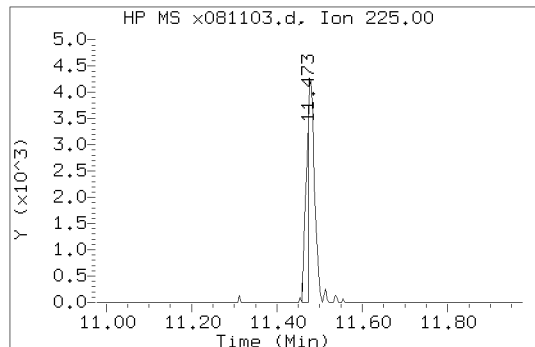
MASS
225
AREA
1914
HEIGHT
3388
12-Aug-2023
22:44



AFTER

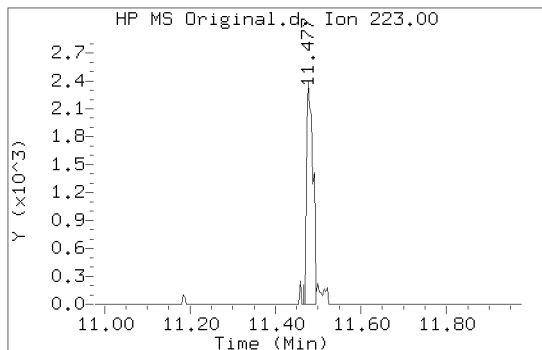
MASS
225
AREA
1914
HEIGHT
3388
23-Aug-2023
11:12

Reason Code:



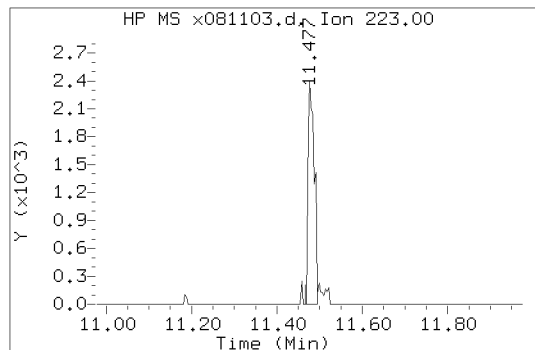
BEFORE

MASS
223
AREA
2534
HEIGHT
2389
12-Aug-2023
22:44



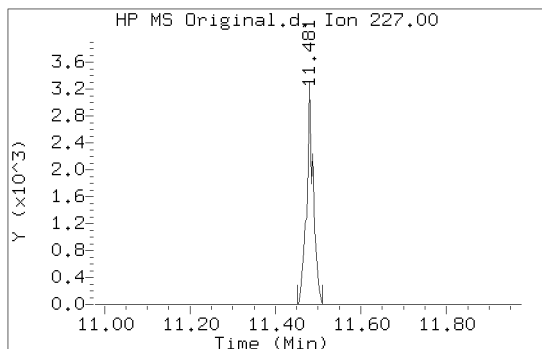
AFTER

MASS
223
AREA
2534
HEIGHT
2389
23-Aug-2023
11:12



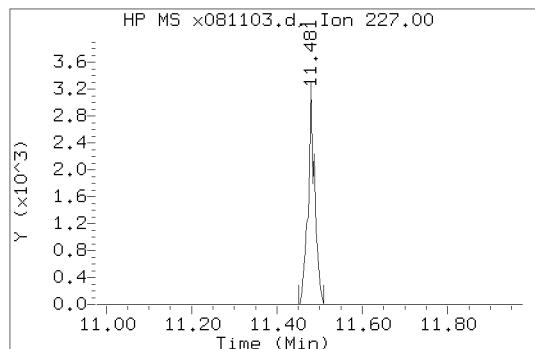
BEFORE

MASS
227
AREA
3607
HEIGHT
3296
12-Aug-2023
22:44



AFTER

MASS
227
AREA
3607
HEIGHT
3296
23-Aug-2023
11:12

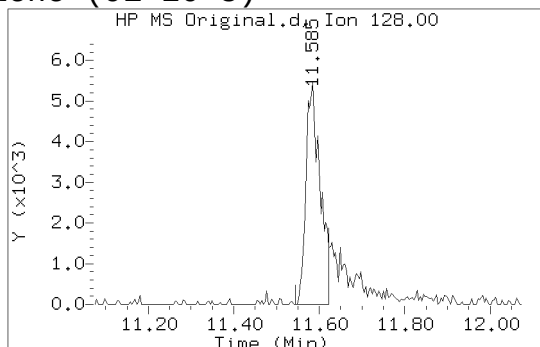


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Naphthalene (91-20-3)

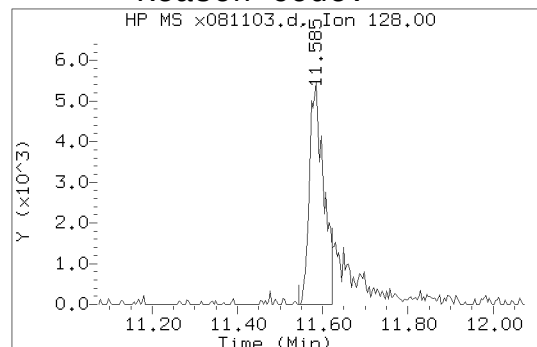
BEFORE

MASS
128
AREA
12804
HEIGHT
5450
12-Aug-2023
22:44



AFTER

MASS
128
AREA
12804
HEIGHT
5450
23-Aug-2023
11:12

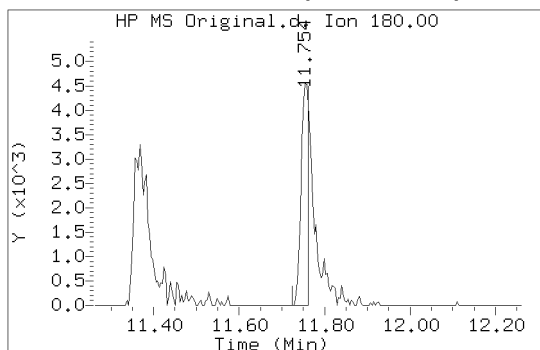


Reason Code:

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

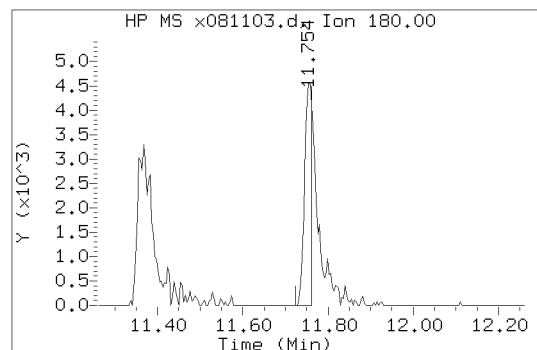
BEFORE

MASS
180
AREA
5452
HEIGHT
4544
12-Aug-2023
22:44



AFTER

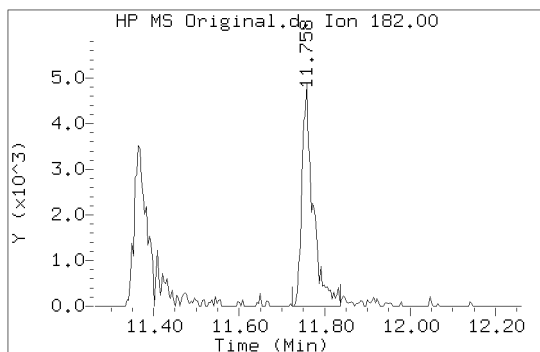
MASS
180
AREA
5452
HEIGHT
4544
23-Aug-2023
11:12



Reason Code:

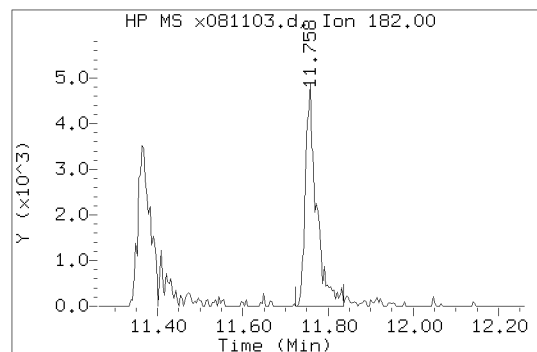
BEFORE

MASS
182
AREA
8964
HEIGHT
4871
12-Aug-2023
22:44



AFTER

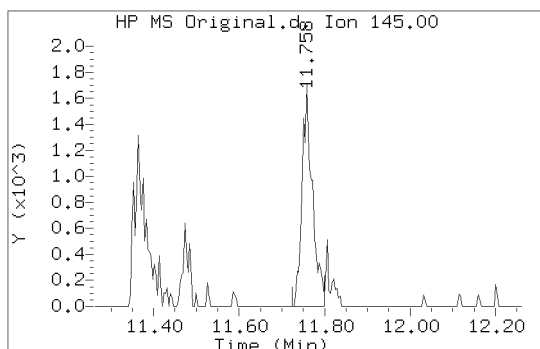
MASS
182
AREA
8964
HEIGHT
4871
23-Aug-2023
11:12



Reason Code:

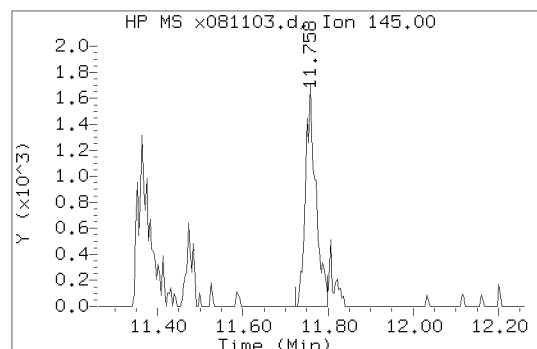
BEFORE

MASS
145
AREA
2897
HEIGHT
1705
12-Aug-2023
22:44



AFTER

MASS
145
AREA
2897
HEIGHT
1705
23-Aug-2023
11:12

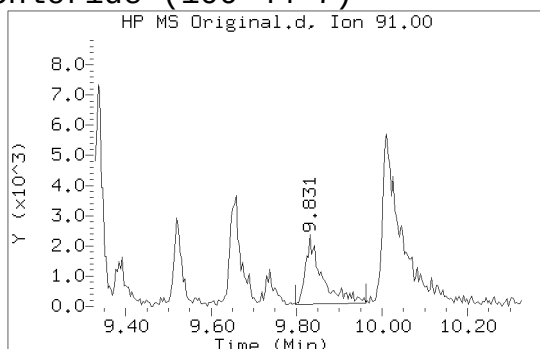


Reason Code:

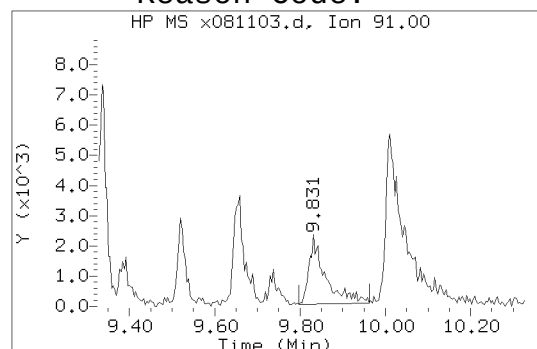
Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

Benzyl Chloride (100-44-7)**BEFORE**

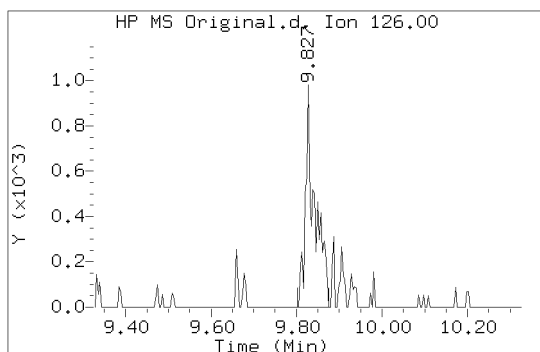
MASS
53
AREA
1260
HEIGHT
536
12-Aug-2023
22:44

**AFTER**

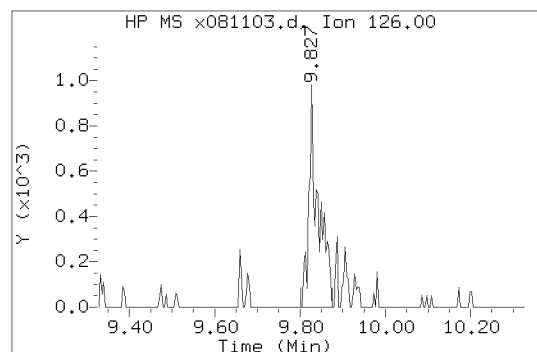
MASS
91
AREA
6104
HEIGHT
2311
23-Aug-2023
11:12

Reason Code:**BEFORE**

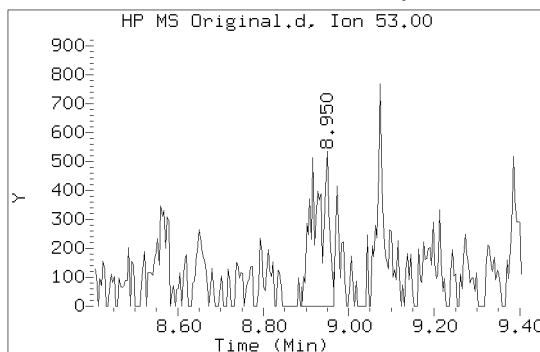
MASS
75
AREA
745
HEIGHT
396
12-Aug-2023
22:44

**AFTER**

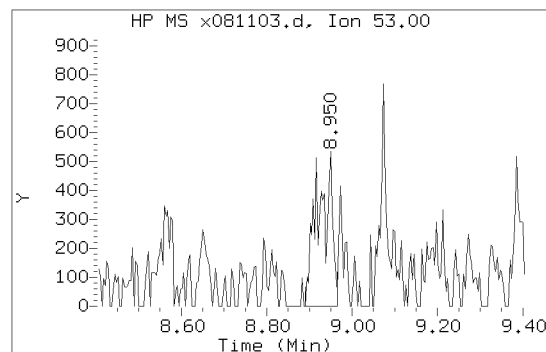
MASS
126
AREA
1512
HEIGHT
981
23-Aug-2023
11:12

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

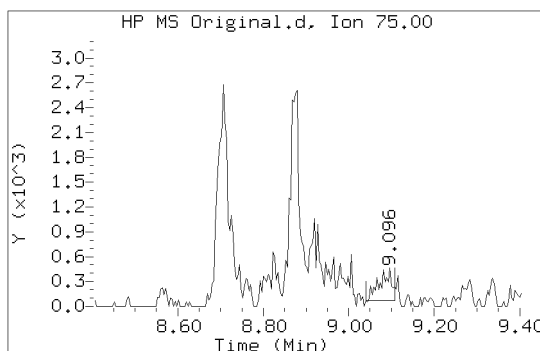
MASS
53
AREA
1459
HEIGHT
1634
12-Aug-2023
22:44

**AFTER**

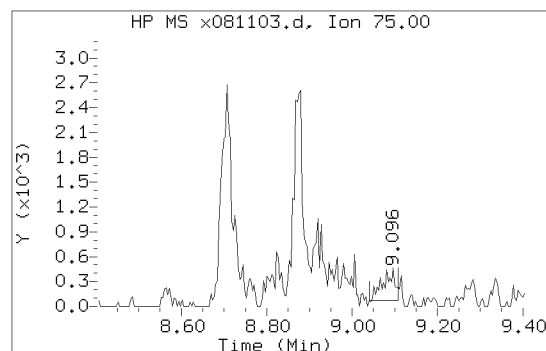
MASS
53
AREA
1260
HEIGHT
536
23-Aug-2023
11:12

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
12-Aug-2023
22:44

**AFTER**

MASS
75
AREA
745
HEIGHT
396
23-Aug-2023
11:12

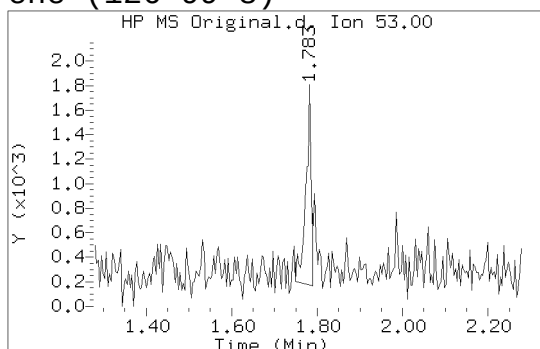


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

Chloroprene (126-99-8)

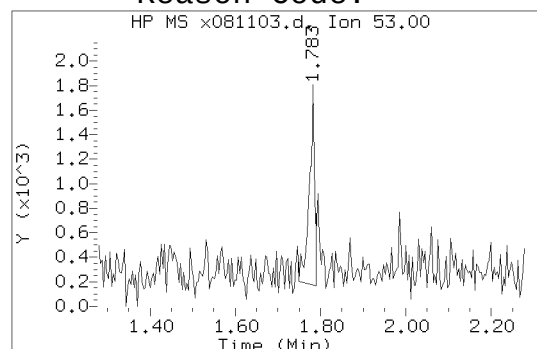
BEFORE

MASS
43
AREA
3740
HEIGHT
1290
12-Aug-2023
22:44



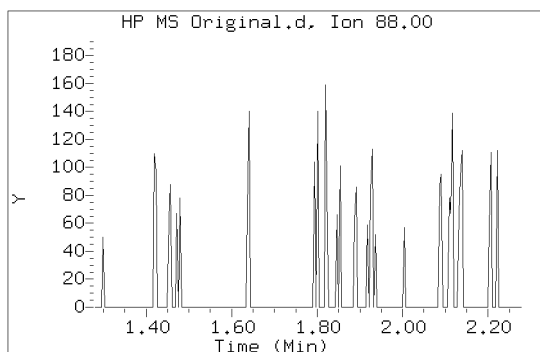
AFTER

MASS
53
AREA
1459
HEIGHT
1634
23-Aug-2023
11:12



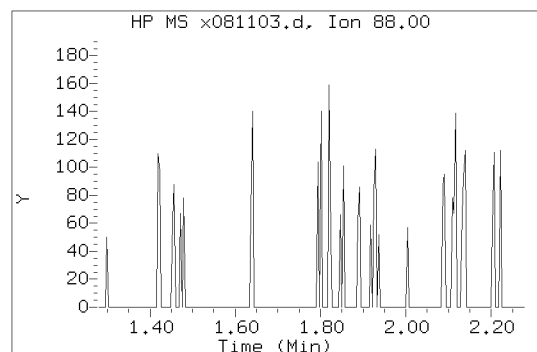
BEFORE

MASS
61
AREA
0
HEIGHT
0
12-Aug-2023
22:44



AFTER

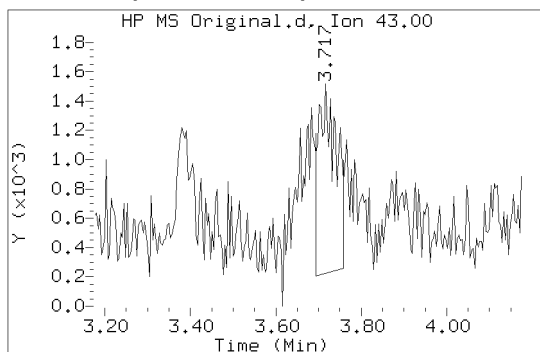
MASS
88
AREA
0
HEIGHT
0
23-Aug-2023
11:12



Ethyl Acetate (141-78-6)

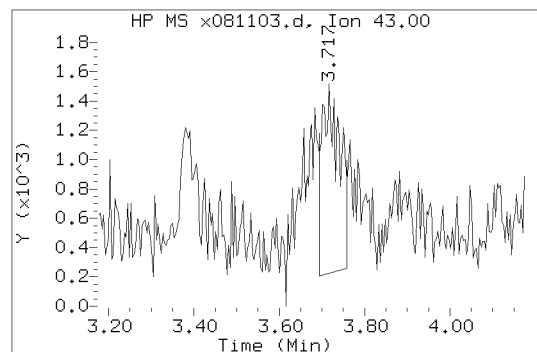
BEFORE

MASS
55
AREA
3259
HEIGHT
1070
12-Aug-2023
22:44



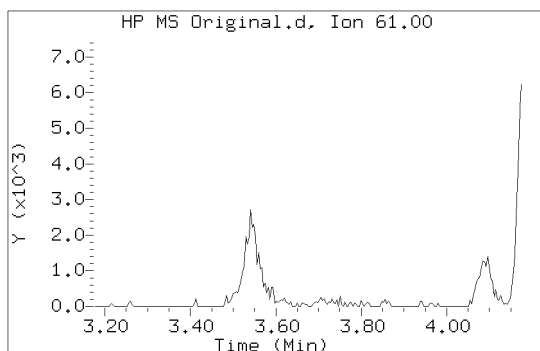
AFTER

MASS
43
AREA
3740
HEIGHT
1290
23-Aug-2023
11:12



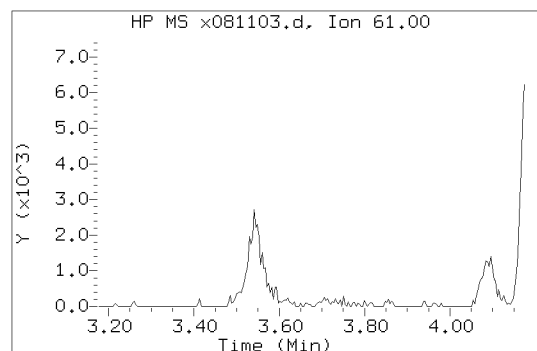
BEFORE

MASS
85
AREA
0
HEIGHT
0
12-Aug-2023
22:44



AFTER

MASS
61
AREA
0
HEIGHT
0
23-Aug-2023
11:12

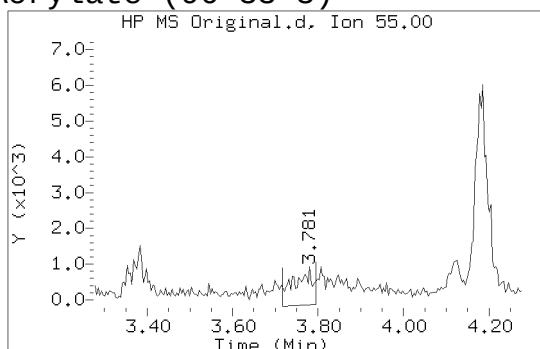


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Methyl Acrylate (96-33-3)

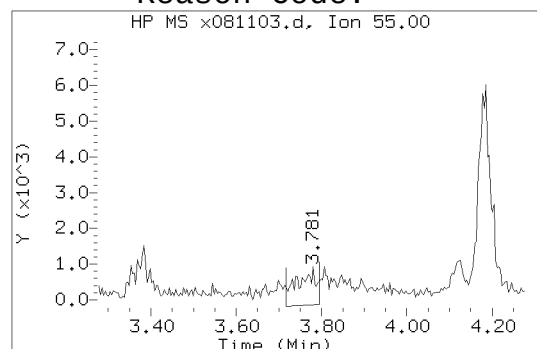
BEFORE

MASS
56
AREA
1373
HEIGHT
760
12-Aug-2023
22:44



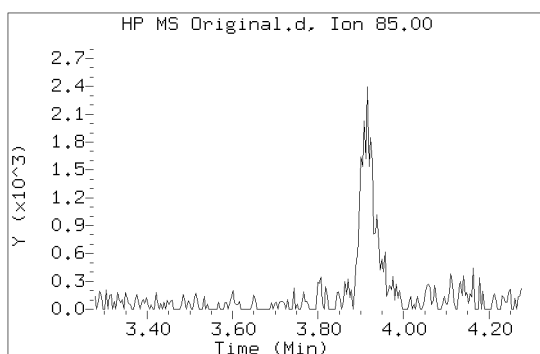
AFTER

MASS
55
AREA
3259
HEIGHT
1070
23-Aug-2023
11:12



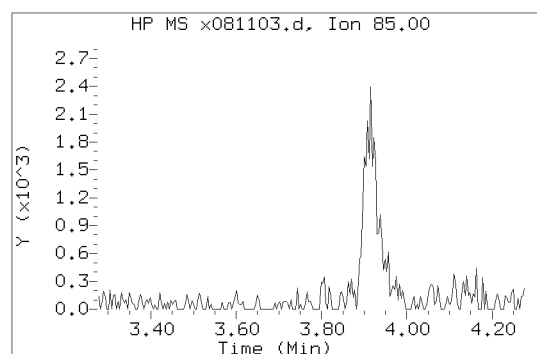
BEFORE

MASS
41
AREA
1816
HEIGHT
1155
12-Aug-2023
22:44



AFTER

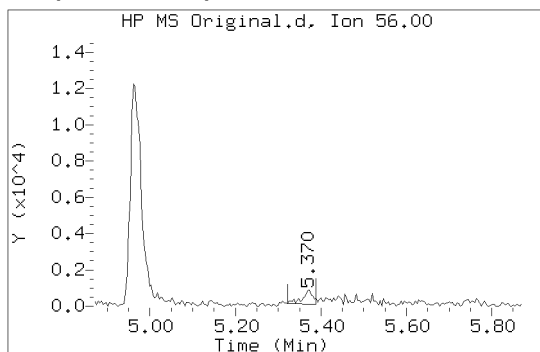
MASS
85
AREA
0
HEIGHT
0
23-Aug-2023
11:12



n-Butanol (71-36-3)

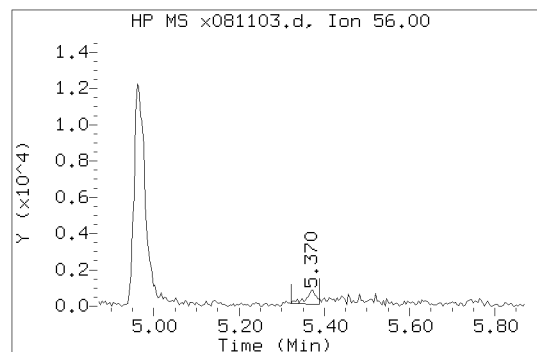
BEFORE

MASS
55
AREA
7657
HEIGHT
2409
12-Aug-2023
22:44



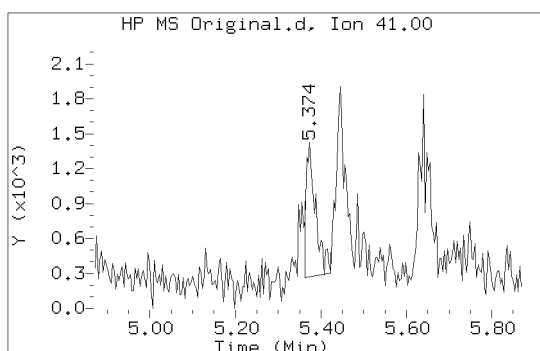
AFTER

MASS
56
AREA
1373
HEIGHT
760
23-Aug-2023
11:12



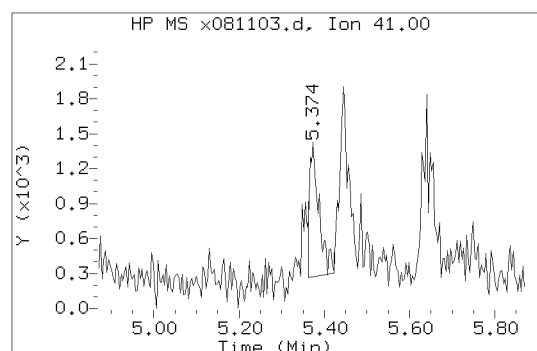
BEFORE

MASS
99
AREA
0
HEIGHT
0
12-Aug-2023
22:44



AFTER

MASS
41
AREA
1816
HEIGHT
1155
23-Aug-2023
11:12

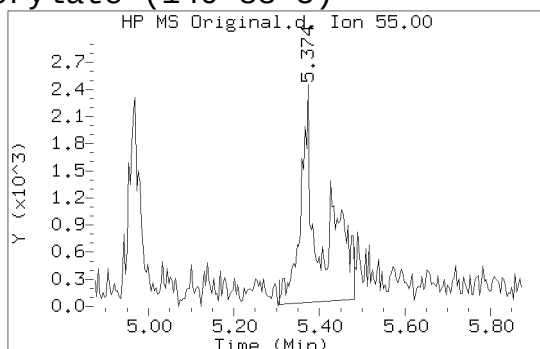


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Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

Ethyl Acrylate (140-88-5)

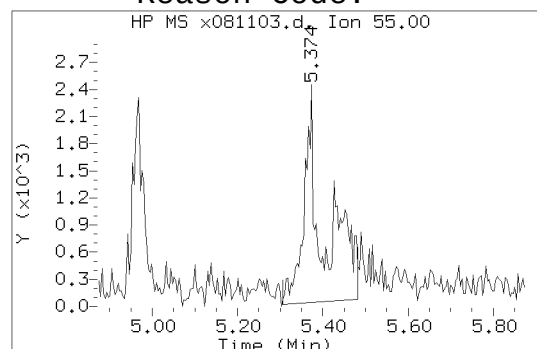
BEFORE

MASS
55
AREA
3494
HEIGHT
3275
12-Aug-2023
22:44



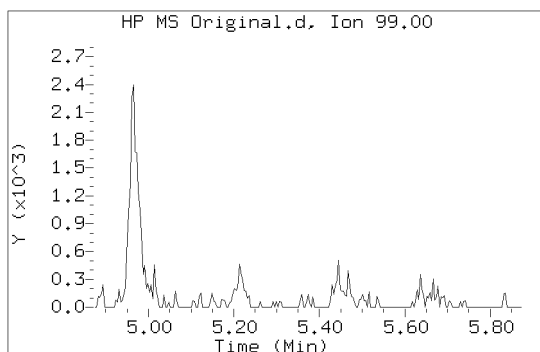
AFTER

MASS
55
AREA
7657
HEIGHT
2409
23-Aug-2023
11:12



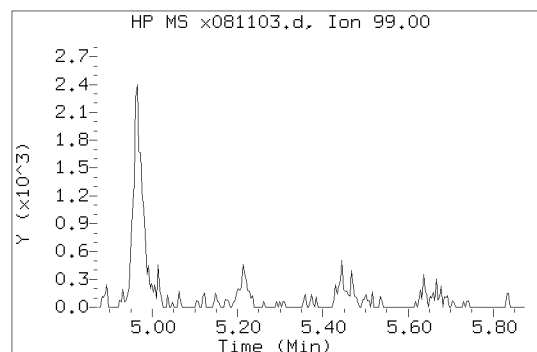
BEFORE

MASS
42
AREA
3200
HEIGHT
1599
12-Aug-2023
22:44



AFTER

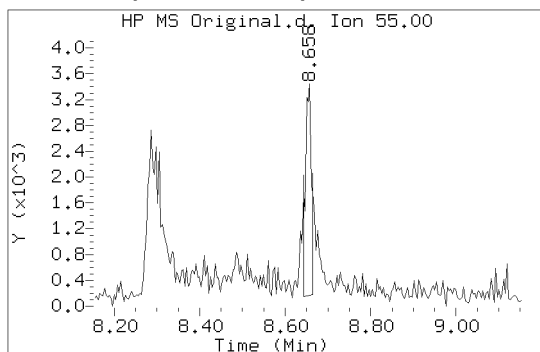
MASS
99
AREA
0
HEIGHT
0
23-Aug-2023
11:12



Cyclohexanone (108-94-1)

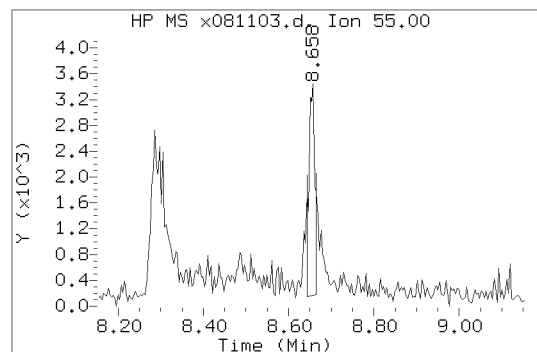
BEFORE

MASS
88
AREA
825
HEIGHT
518
12-Aug-2023
22:44



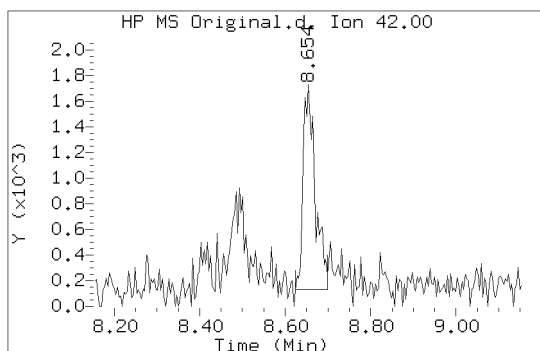
AFTER

MASS
55
AREA
3494
HEIGHT
3275
23-Aug-2023
11:12



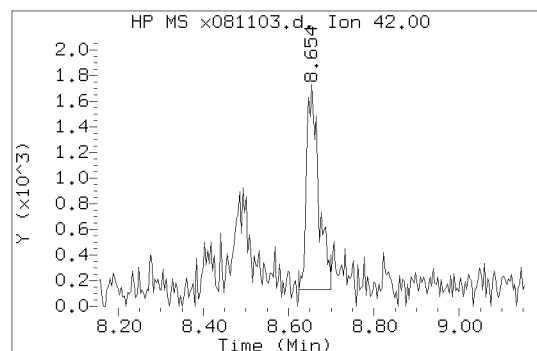
BEFORE

MASS
58
AREA
0
HEIGHT
0
12-Aug-2023
22:44



AFTER

MASS
42
AREA
3200
HEIGHT
1599
23-Aug-2023
11:12

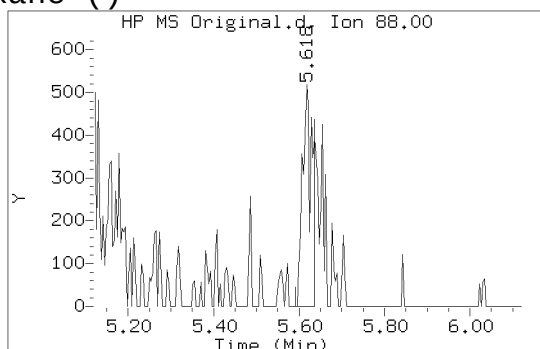


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

1,4-Dioxane ()

BEFORE

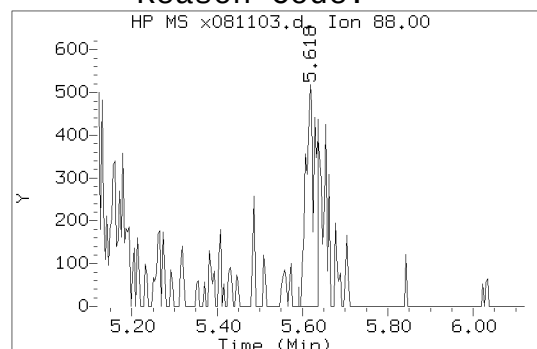
MASS
57
AREA
4056
HEIGHT
2392
12-Aug-2023
22:44



AFTER

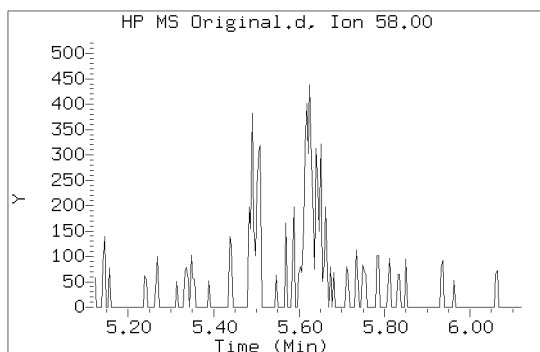
MASS
88
AREA
825
HEIGHT
518
23-Aug-2023
11:12

Reason Code:



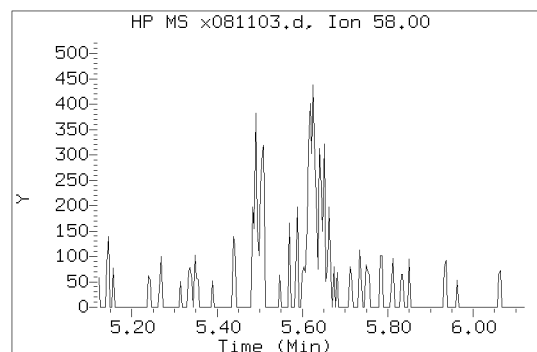
BEFORE

MASS
41
AREA
6537
HEIGHT
2450
12-Aug-2023
22:44



AFTER

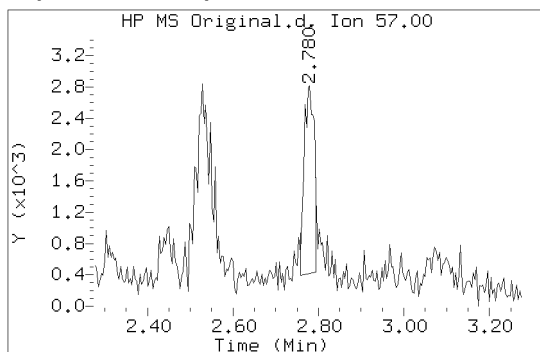
MASS
58
AREA
0
HEIGHT
0
23-Aug-2023
11:12



n-Hexane (110-54-3)

BEFORE

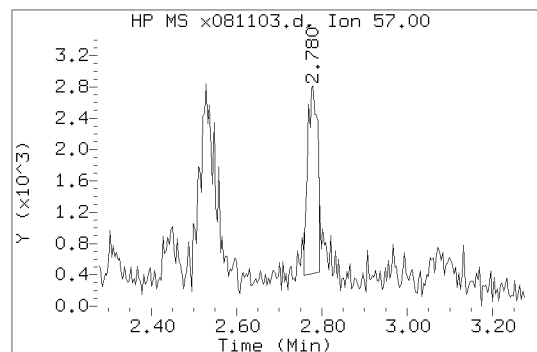
MASS
59
AREA
2930
HEIGHT
2922
12-Aug-2023
22:44



AFTER

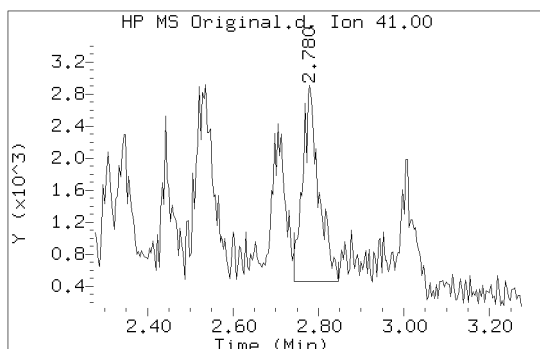
MASS
57
AREA
4056
HEIGHT
2392
23-Aug-2023
11:12

Reason Code:



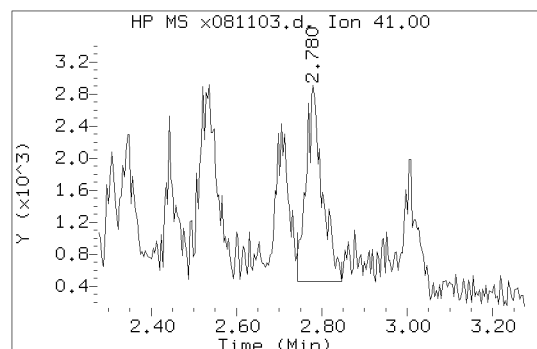
BEFORE

MASS
74
AREA
1653
HEIGHT
1402
12-Aug-2023
22:44



AFTER

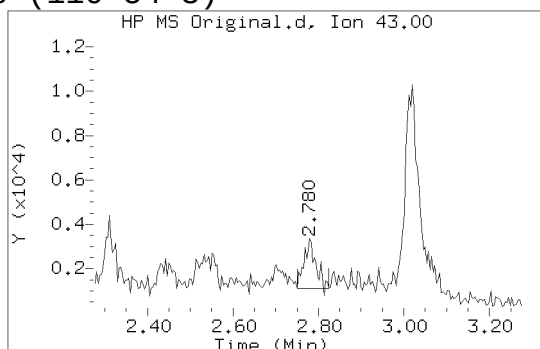
MASS
41
AREA
6537
HEIGHT
2450
23-Aug-2023
11:12



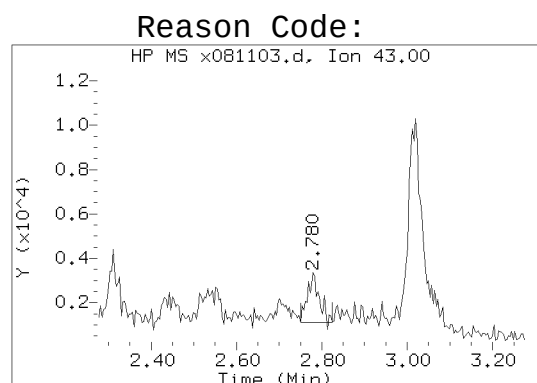
Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

n-Hexane (110-54-3)**BEFORE**

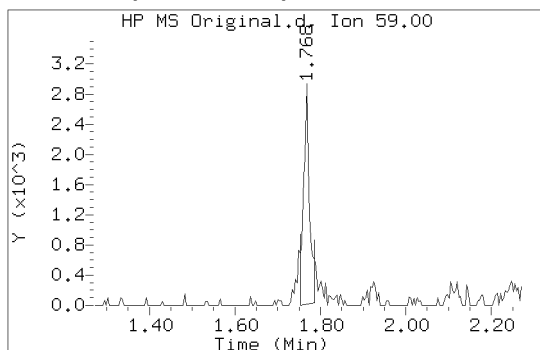
MASS
45
AREA
2242
HEIGHT
1486
12-Aug-2023
22:44

**AFTER**

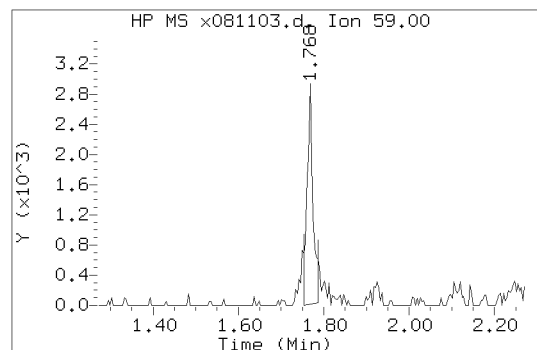
MASS
43
AREA
4290
HEIGHT
2253
23-Aug-2023
11:12

**Diethyl ether (60-29-7)****BEFORE**

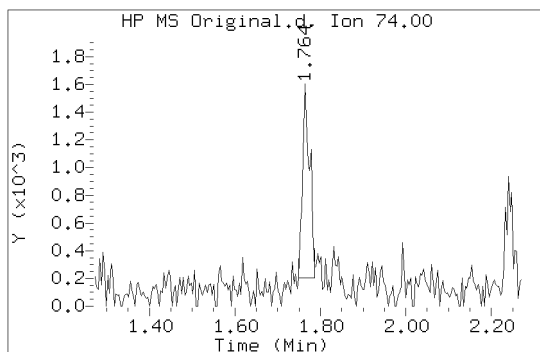
MASS
54
AREA
3838
HEIGHT
4080
12-Aug-2023
22:44

**AFTER**

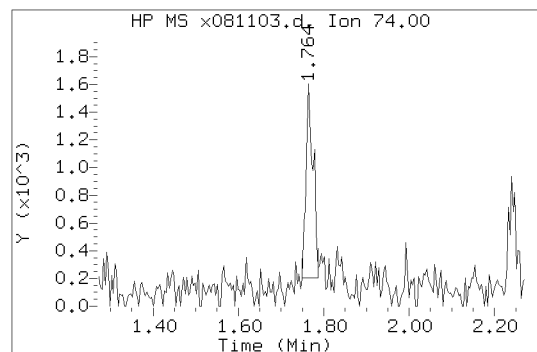
MASS
59
AREA
2930
HEIGHT
2922
23-Aug-2023
11:12

**BEFORE**

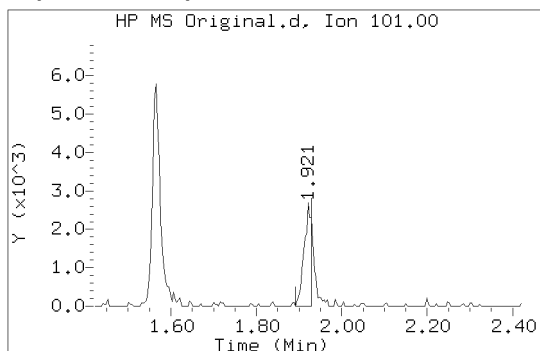
MASS
53
AREA
3036
HEIGHT
3077
12-Aug-2023
22:44

**AFTER**

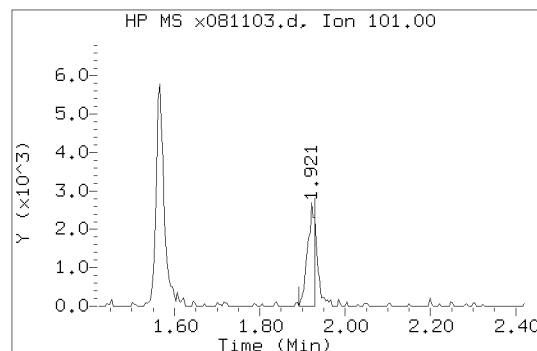
MASS
74
AREA
1653
HEIGHT
1402
23-Aug-2023
11:12

**Freon TF (76-13-1)****BEFORE**

MASS
56
AREA
4440
HEIGHT
2580
12-Aug-2023
22:44

**AFTER**

MASS
101
AREA
3204
HEIGHT
2695
23-Aug-2023
11:12

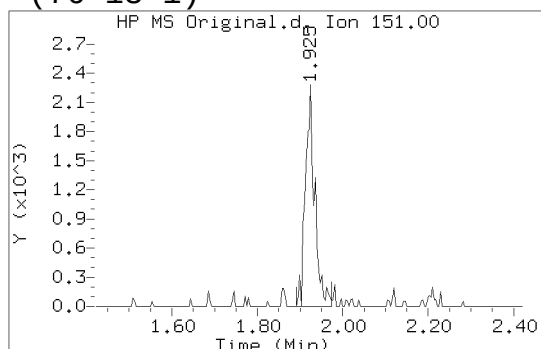


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Freon TF (76-13-1)

BEFORE

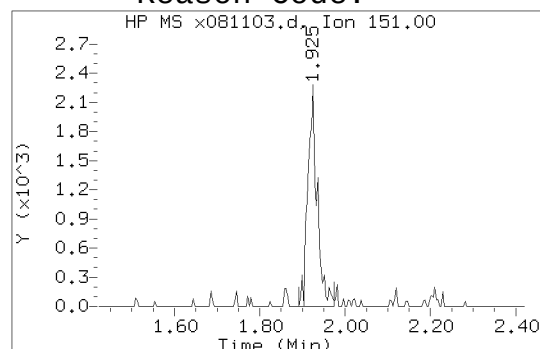
MASS
84
AREA
4567
HEIGHT
2590
12-Aug-2023
22:44



AFTER

MASS
151
AREA
3499
HEIGHT
2282
23-Aug-2023
11:12

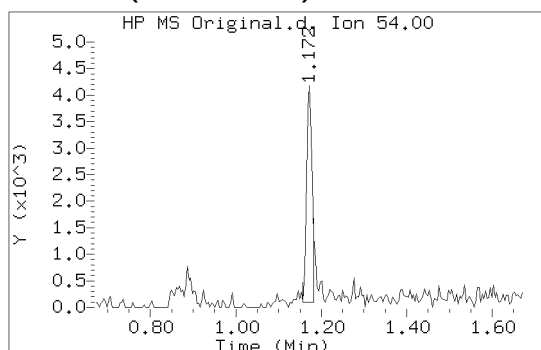
Reason Code:



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

BEFORE

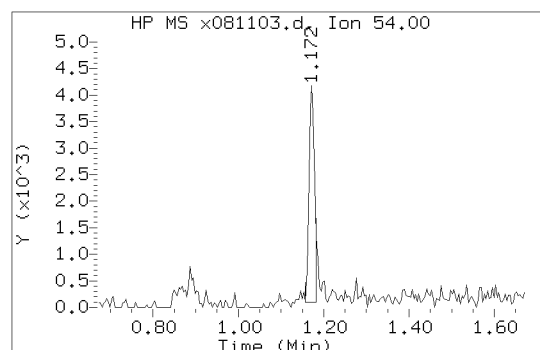
MASS
42
AREA
1419
HEIGHT
954
12-Aug-2023
22:44



AFTER

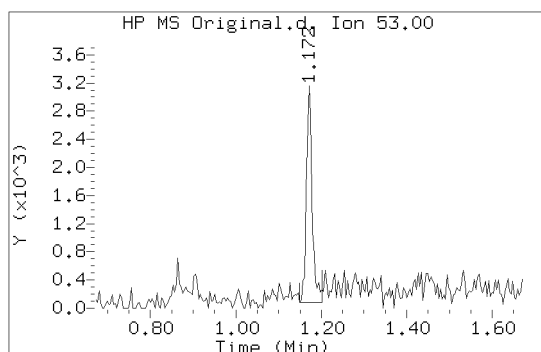
MASS
54
AREA
3838
HEIGHT
4080
23-Aug-2023
11:12

Reason Code:



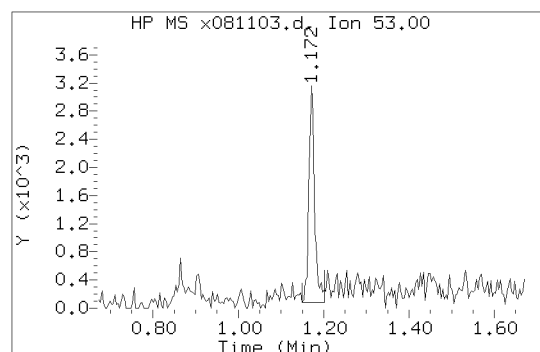
BEFORE

MASS
71
AREA
0
HEIGHT
0
12-Aug-2023
22:44



AFTER

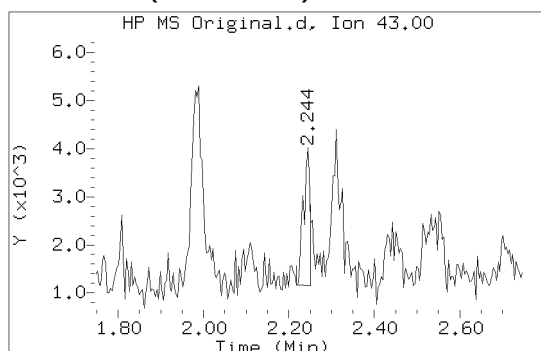
MASS
53
AREA
3036
HEIGHT
3077
23-Aug-2023
11:12



Methyl acetate (79-20-9)

BEFORE

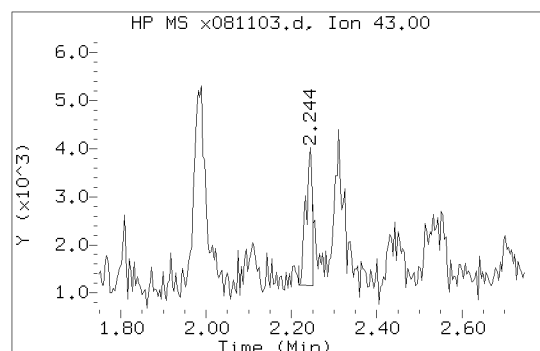
MASS
101
AREA
3204
HEIGHT
2695
12-Aug-2023
22:44



AFTER

MASS
43
AREA
3113
HEIGHT
2865
23-Aug-2023
11:12

Reason Code:

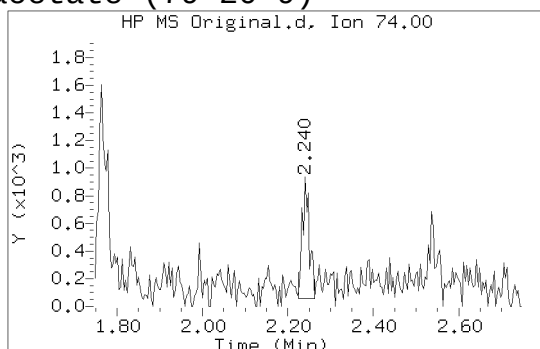


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Methyl acetate (79-20-9)

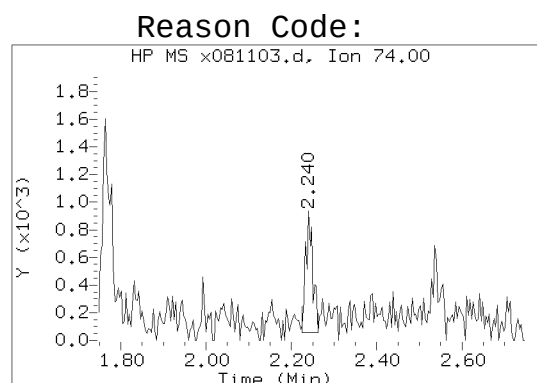
BEFORE

MASS
151
AREA
3499
HEIGHT
2282
12-Aug-2023
22:44



AFTER

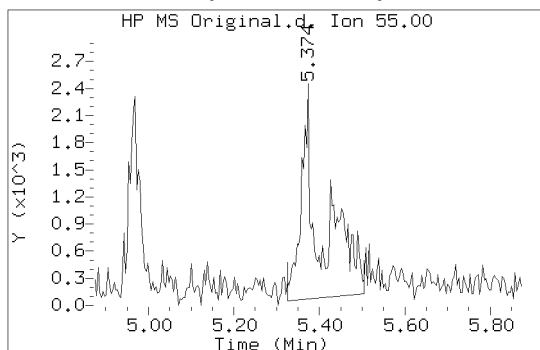
MASS
74
AREA
1029
HEIGHT
883
23-Aug-2023
11:12



Methylcyclohexane (108-87-2)

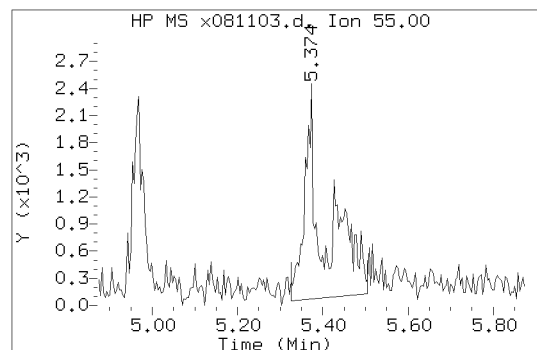
BEFORE

MASS
118
AREA
5954
HEIGHT
4268
12-Aug-2023
22:44



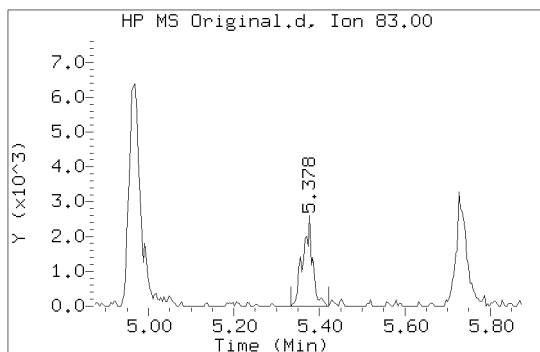
AFTER

MASS
55
AREA
7626
HEIGHT
2381
23-Aug-2023
11:12



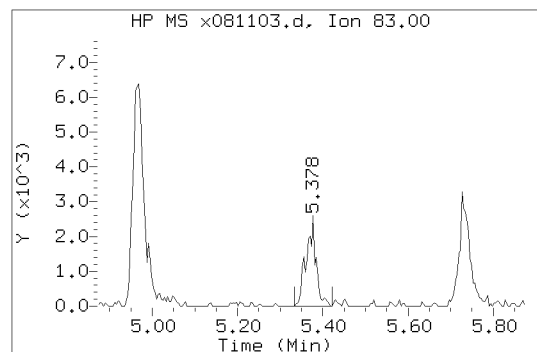
BEFORE

MASS
103
AREA
3860
HEIGHT
2367
12-Aug-2023
22:44



AFTER

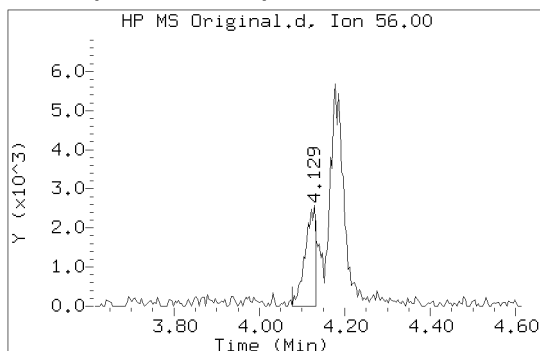
MASS
83
AREA
4200
HEIGHT
2600
23-Aug-2023
11:12



Cyclohexane (110-82-7)

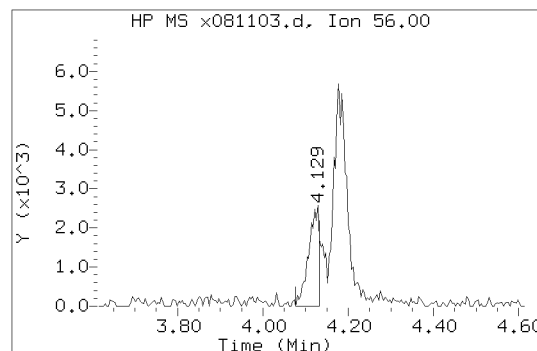
BEFORE

MASS
55
AREA
7626
HEIGHT
2381
12-Aug-2023
22:44



AFTER

MASS
56
AREA
4440
HEIGHT
2580
23-Aug-2023
11:12

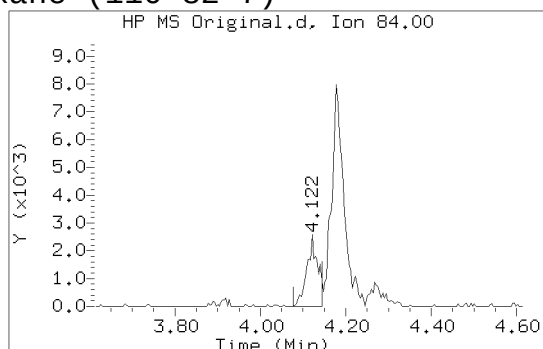


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Cyclohexane (110-82-7)

BEFORE

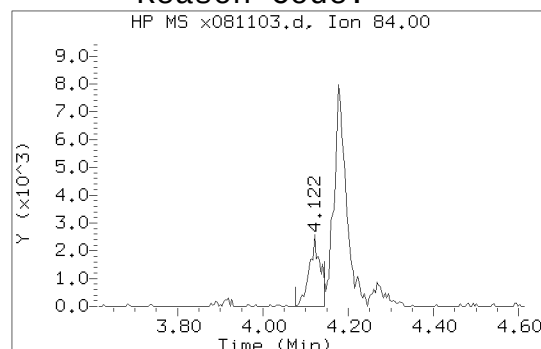
MASS
83
AREA
4200
HEIGHT
2600
12-Aug-2023
22:44



AFTER

MASS
84
AREA
4567
HEIGHT
2590
23-Aug-2023
11:12

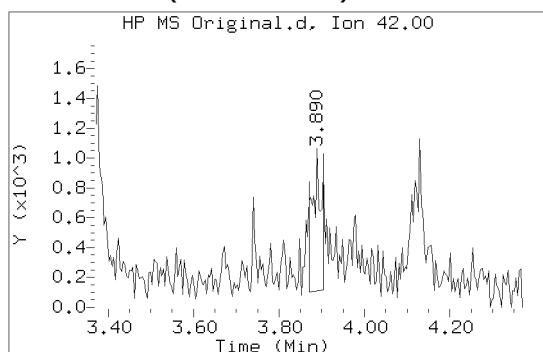
Reason Code:



Tetrahydrofuran (109-99-9)

BEFORE

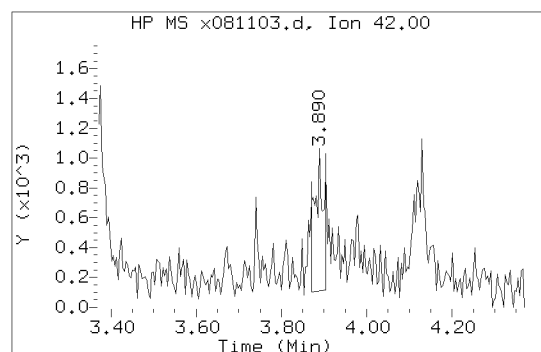
MASS
43
AREA
3113
HEIGHT
2865
12-Aug-2023
22:44



AFTER

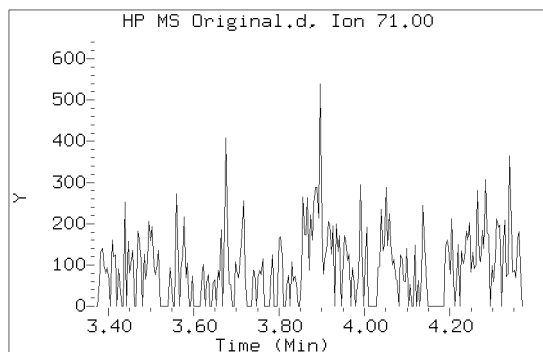
MASS
42
AREA
1419
HEIGHT
954
23-Aug-2023
11:12

Reason Code:



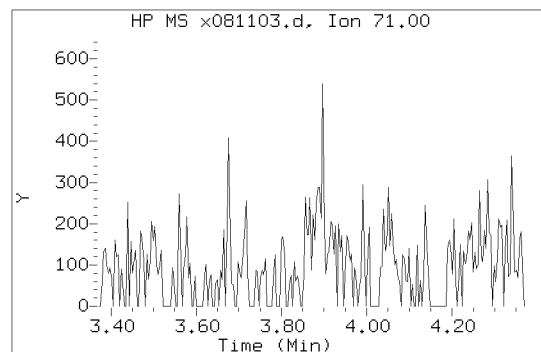
BEFORE

MASS
74
AREA
1029
HEIGHT
883
12-Aug-2023
22:44



AFTER

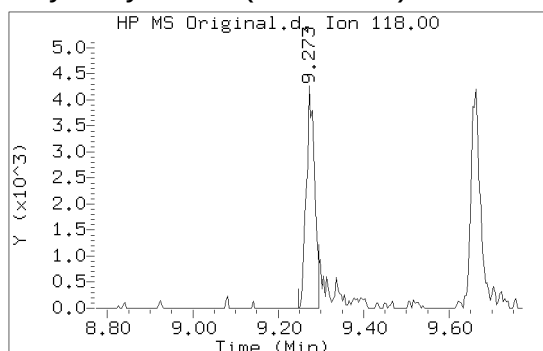
MASS
71
AREA
0
HEIGHT
0
23-Aug-2023
11:12



alpha-Methylstyrene (98-83-9)

BEFORE

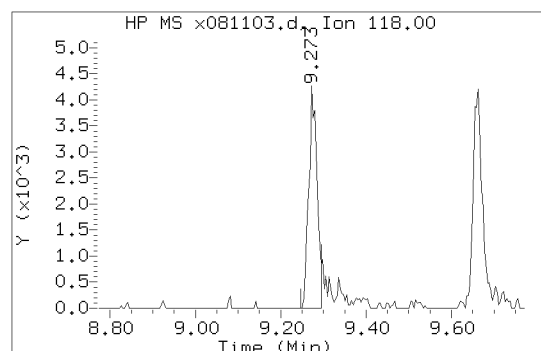
MASS
59
AREA
9824
HEIGHT
5748
12-Aug-2023
22:44



AFTER

MASS
118
AREA
5954
HEIGHT
4268
23-Aug-2023
11:12

Reason Code:

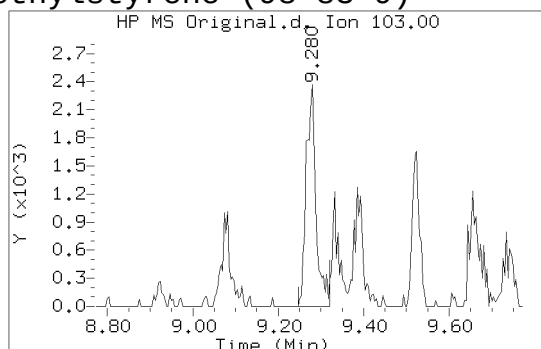


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

alpha-Methylstyrene (98-83-9)

BEFORE

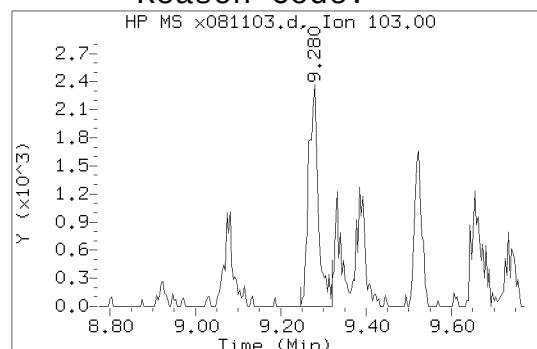
MASS
41
AREA
2907
HEIGHT
1883
12-Aug-2023
22:44



AFTER

MASS
103
AREA
3860
HEIGHT
2367
23-Aug-2023
11:12

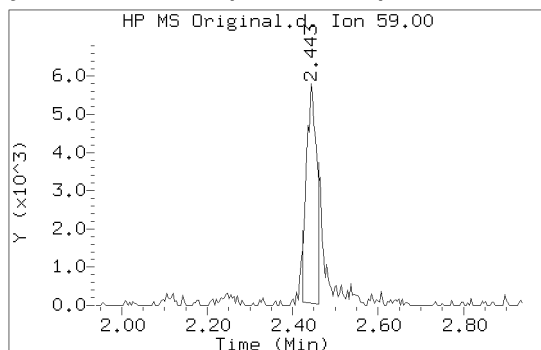
Reason Code:



Tert-butyl alcohol (75-65-0)

BEFORE

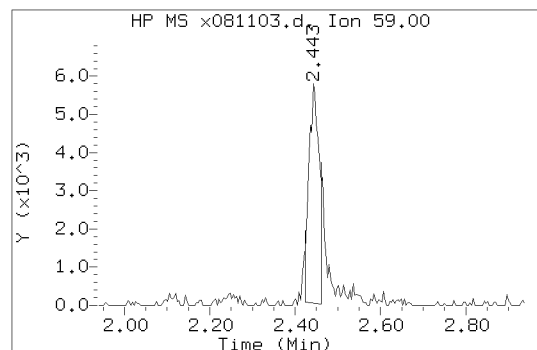
MASS
45
AREA
5543
HEIGHT
4320
12-Aug-2023
22:44



AFTER

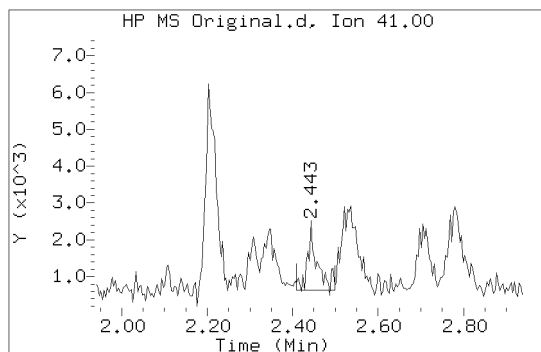
MASS
59
AREA
9824
HEIGHT
5748
23-Aug-2023
11:12

Reason Code:



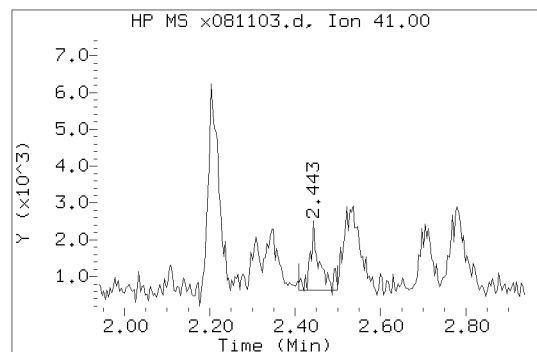
BEFORE

MASS
59
AREA
626
HEIGHT
320
12-Aug-2023
22:44



AFTER

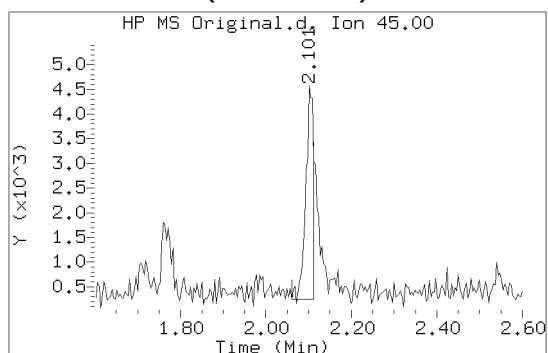
MASS
41
AREA
2907
HEIGHT
1883
23-Aug-2023
11:12



Isopropyl alcohol (67-63-0)

BEFORE

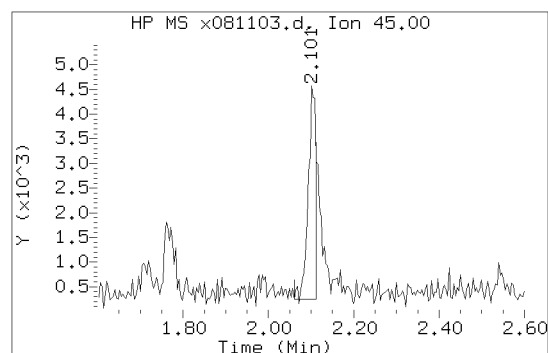
MASS
45
AREA
12268
HEIGHT
4726
12-Aug-2023
22:44



AFTER

MASS
45
AREA
5543
HEIGHT
4320
23-Aug-2023
11:12

Reason Code:

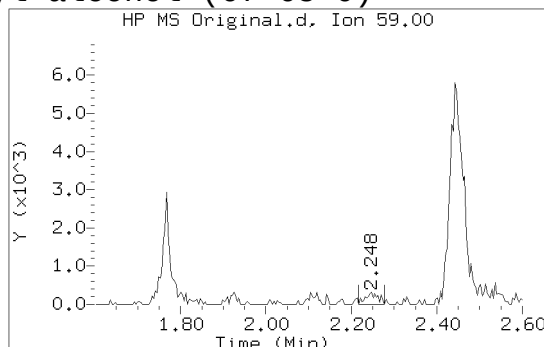


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Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

Isopropyl alcohol (67-63-0)

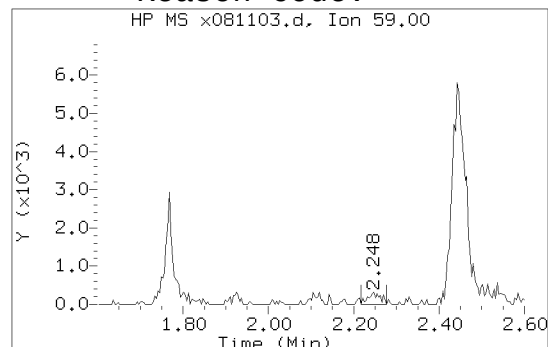
BEFORE

MASS
59
AREA
1145
HEIGHT
874
12-Aug-2023
22:44



AFTER

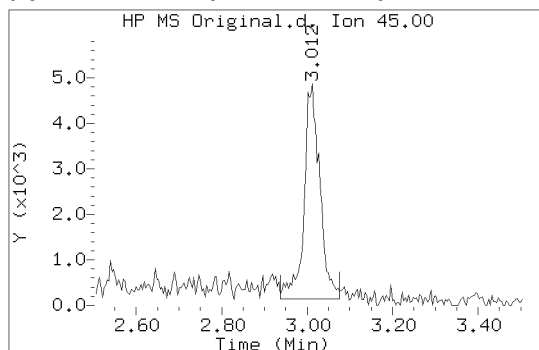
MASS
59
AREA
626
HEIGHT
320
23-Aug-2023
11:12



Diisopropyl ether (108-20-3)

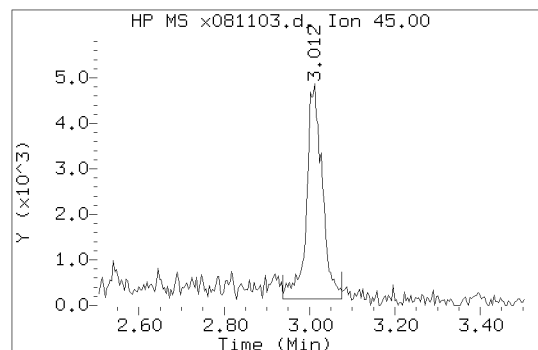
BEFORE

MASS
105
AREA
12507
HEIGHT
8313
12-Aug-2023
22:44



AFTER

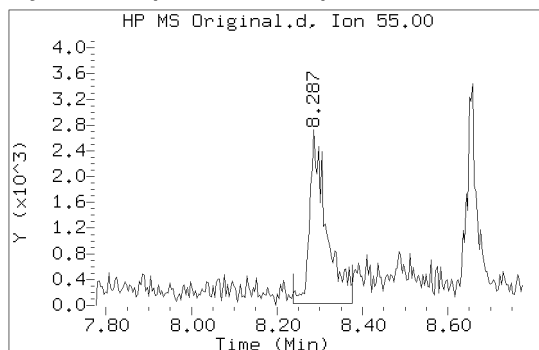
MASS
45
AREA
12268
HEIGHT
4726
23-Aug-2023
11:12



Butyl acrylate (141-32-2)

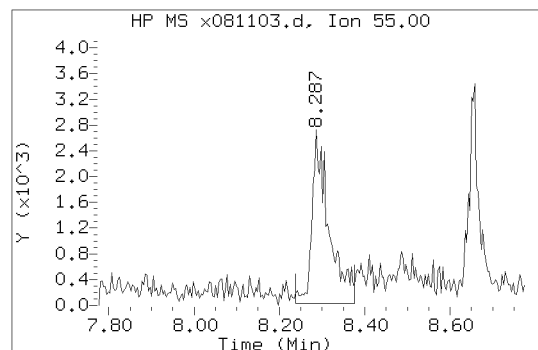
BEFORE

MASS
44
AREA
0
HEIGHT
0
12-Aug-2023
22:44



AFTER

MASS
55
AREA
7408
HEIGHT
2692
23-Aug-2023
11:12

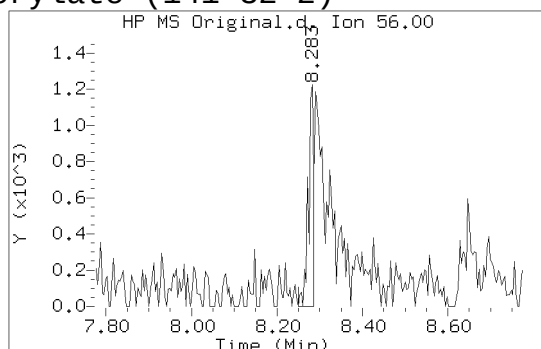


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Butyl acrylate (141-32-2)

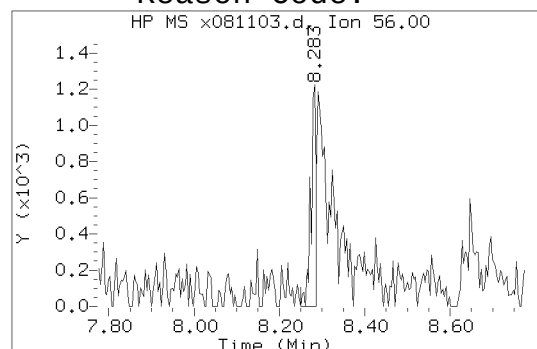
BEFORE

MASS
43
AREA
0
HEIGHT
0
12-Aug-2023
22:44



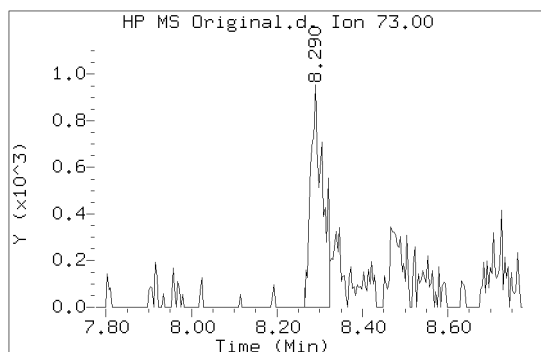
AFTER

MASS
56
AREA
1036
HEIGHT
1225
23-Aug-2023
11:12



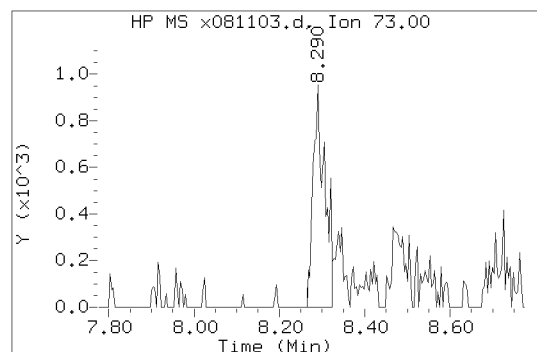
BEFORE

MASS
42
AREA
0
HEIGHT
0
12-Aug-2023
22:44



AFTER

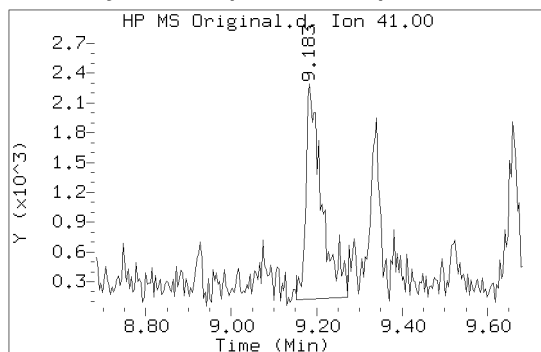
MASS
73
AREA
1810
HEIGHT
954
23-Aug-2023
11:12



Butyl methacrylate (97-88-1)

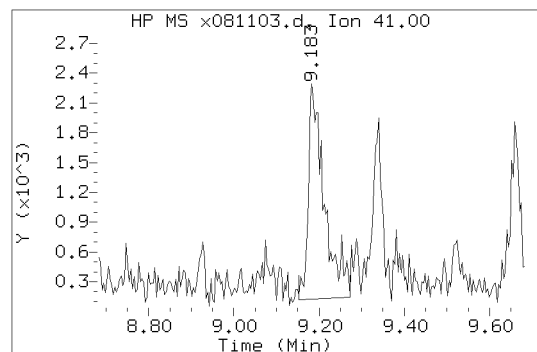
BEFORE

MASS
94
AREA
5435
HEIGHT
4927
12-Aug-2023
22:44



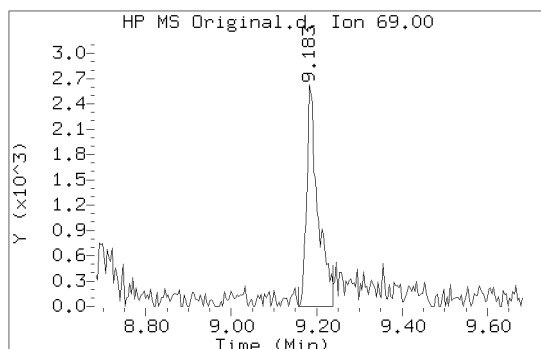
AFTER

MASS
41
AREA
5695
HEIGHT
2167
23-Aug-2023
11:12



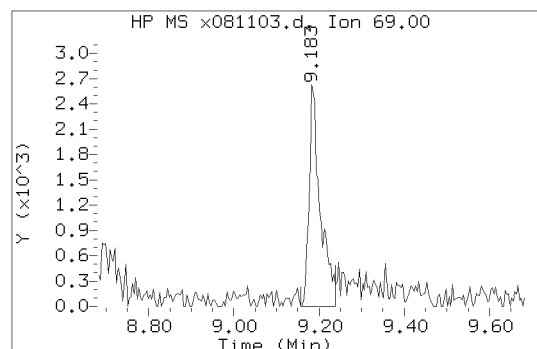
BEFORE

MASS
79
AREA
2634
HEIGHT
1651
12-Aug-2023
22:44



AFTER

MASS
69
AREA
4890
HEIGHT
2628
23-Aug-2023
11:12

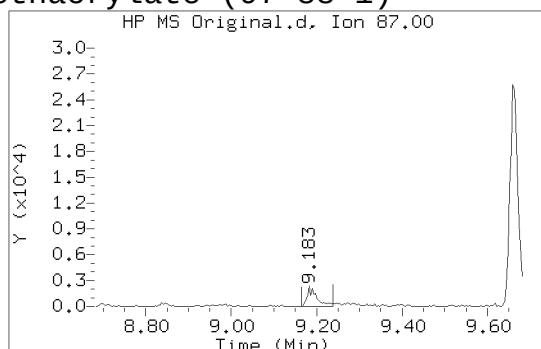


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 Inj Date : 11-AUG-2023 12:14
 InstruID : voa6.i
 LabSampID : VSTD000.5

Butyl methacrylate (97-88-1)

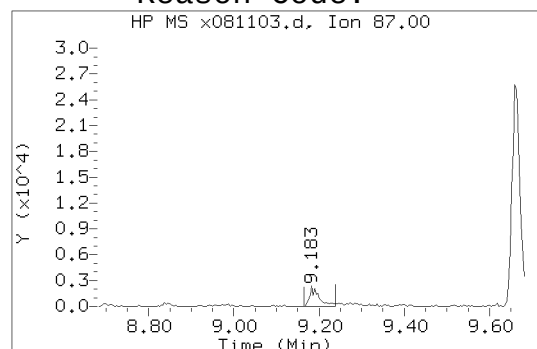
BEFORE

MASS
45
AREA
3216
HEIGHT
1576
12-Aug-2023
22:44



AFTER

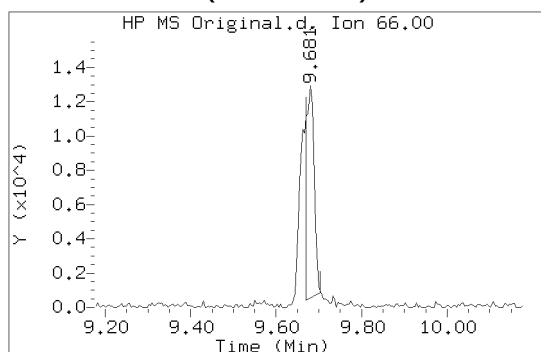
MASS
87
AREA
3614
HEIGHT
2362
23-Aug-2023
11:12



Dicyclopentadiene (77-73-6)

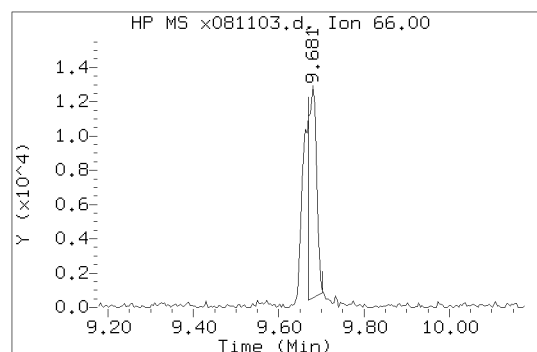
BEFORE

MASS
41
AREA
444
HEIGHT
549
12-Aug-2023
22:44



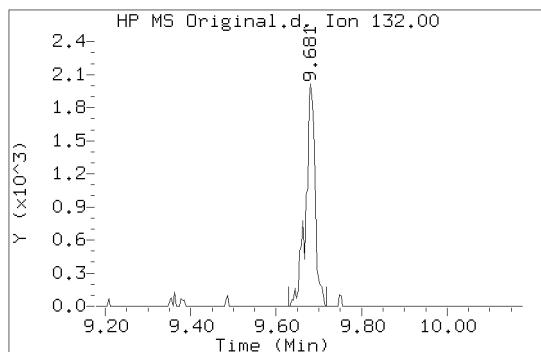
AFTER

MASS
66
AREA
16221
HEIGHT
12389
23-Aug-2023
11:12



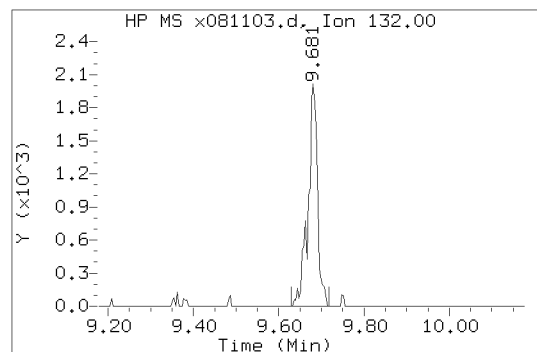
BEFORE

MASS
56
AREA
0
HEIGHT
0
12-Aug-2023
22:44



AFTER

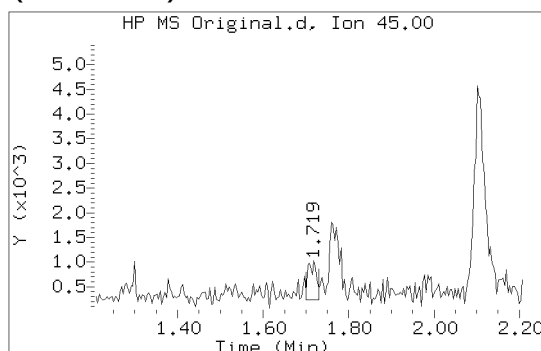
MASS
132
AREA
3184
HEIGHT
2016
23-Aug-2023
11:12



Ethanol (64-17-5)

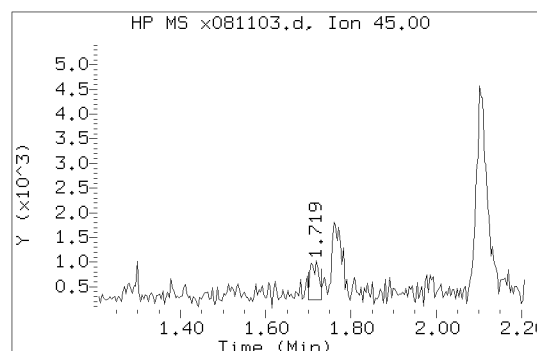
BEFORE

MASS
113
AREA
4322
HEIGHT
2075
12-Aug-2023
22:44



AFTER

MASS
45
AREA
1086
HEIGHT
790
23-Aug-2023
11:12

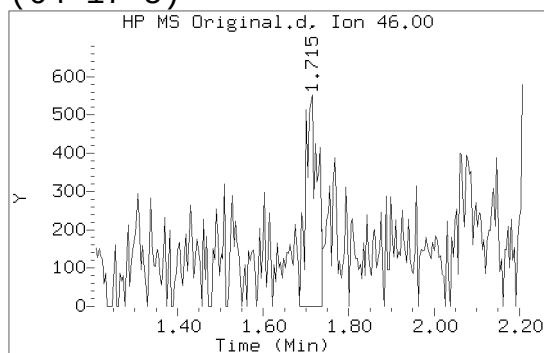


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081103.d
Inj Date : 11-AUG-2023 12:14
InstruID : voa6.i
LabSampID : VSTD000.5

Ethanol (64-17-5)

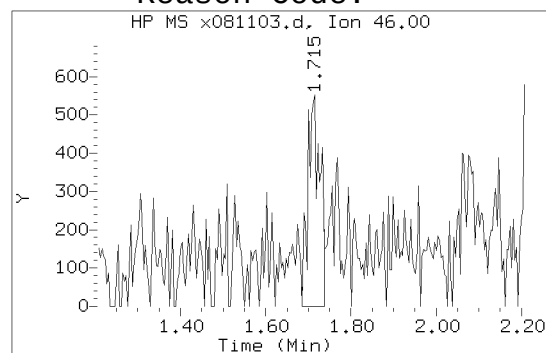
BEFORE

MASS
111
AREA
4651
HEIGHT
1971
12-Aug-2023
22:44



AFTER

MASS
46
AREA
1108
HEIGHT
552
23-Aug-2023
11:12



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081104.D Page 1
Report Date: 25-Aug-2023 14:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081104.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 11-AUG-2023 12:35
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;
Misc Info : V6;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\8260W.m
Meth Date : 25-Aug-2023 14:15 voa6.i Quant Type: ISTD
Cal Date : 11-AUG-2023 12:14 Cal File: X081103.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)	588670	50.0000		
135 1,4-Dioxane	88		5.621	5.621	(1.344)	1553	20.0000	20.75(M)	
140 1,3-Butadiene	54		1.171	1.171	(0.280)	5912	1.00000	0.97	
25 Methacrylonitrile	41		3.866	3.866	(0.925)	5673	1.00000	0.96(M)	
12 Isobutyl Alcohol	43		4.702	4.702	(1.125)	17428	20.0000	18.88(M)	
13 Acetonitrile	39		2.206	2.206	(0.528)	9985	10.0000	10.99	
14 Allyl Chloride	41		2.210	2.210	(0.528)	19393	1.00000	1.08	
4 Propionitrile	54		3.694	3.694	(0.883)	8585	10.0000	10.47(M)	
136 n-Hexane	57		2.776	2.776	(0.664)	6841	1.00000	0.37(M)	
72 trans-1,4-Dichloro-2-butene	53		8.905	8.905	(1.161)	2338	1.00000	1.05(MH)	
194 Acetaldehyde	44		1.212	1.212	(0.290)	4717	4.00000	(M)	
23 Chloroprene	53		1.778	1.778	(0.425)	2637	1.00000	1.05(M)	
145 alpha-Methylstyrene	118		9.272	9.272	(0.960)	9352	1.00000	0.92	
200 Dimethyl Disulfide	94		6.202	6.202	(0.809)	10240	1.00000	0.88(M)	
139 Diethyl ether	59		1.771	1.771	(0.424)	5859	1.00000	1.12(M)	
130 Ethyl Acetate	43		3.675	3.675	(0.879)	6893	1.00000	1.02(M)	
40 Methyl Methacrylate	41		5.636	5.636	(1.348)	5530	1.00000	1.02	
49 Ethyl Methacrylate	69		6.794	6.794	(1.368)	8710	1.00000	1.03(H)	
132 n-Butanol	56		5.370	5.370	(1.284)	2659	20.0000	83.82	
142 Tetrahydrofuran	42		3.870	3.870	(0.926)	2426	2.00000	2.11	



150 Allyl alcohol	57	2.776	2.776 (0.664)	4388	20.0000	
166 1,2,3-Trimethylbenzene	105	9.737	9.737 (1.008)	24047	1.00000	1.08



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081104.D Page 2
 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
131 Methyl Acrylate	55	3.776	3.776	(0.903)	6078	1.00000	1.04(M)
162 Butyl acrylate	55	8.275	8.275	(1.079)	14061	1.00000	0.97(M)
2 Dichlorodifluoromethane	85	0.980	0.980	(0.234)	4328	1.00000	1.45
3 Chloromethane	50	1.085	1.085	(0.260)	6181	1.00000	1.07
5 Vinyl Chloride	62	1.149	1.149	(0.275)	6615	1.00000	0.93
6 Bromomethane	94	1.347	1.347	(0.322)	4430	1.00000	1.16(M)
7 Chloroethane	64	1.411	1.411	(0.338)	5096	1.00000	1.10
8 Trichlorofluoromethane	101	1.569	1.569	(0.375)	9051	1.00000	0.90(M)
9 Acrolein	56	1.872	1.872	(0.448)	463	2.00000	(M)
10 Acetone	43	1.985	1.985	(0.475)	9915	2.00000	
11 1,1-Dichloroethene	96	1.917	1.917	(0.459)	5761	1.00000	1.01
15 Iodomethane	142	2.037	2.037	(0.487)	5195	2.00000	6.31
16 Acrylonitrile	53	2.543	2.543	(0.608)	5718	2.00000	2.08(M)
17 Methylene Chloride	84	2.303	2.303	(0.551)	8402	1.00000	1.17(M)
18 Methyl tert-butyl ether	73	2.539	2.539	(0.607)	22118	1.00000	1.09
19 Carbon Disulfide	76	2.078	2.078	(0.497)	33989	2.00000	2.01
20 trans-1,2-Dichloroethene	96	2.539	2.539	(0.607)	7259	1.00000	1.09
21 Vinyl Acetate	43	3.016	3.016	(0.721)	39484	2.00000	2.02
22 1,1-Dichloroethane	63	2.929	2.929	(0.701)	14531	1.00000	1.16(M)
24 2-Butanone	43	3.675	3.675	(0.879)	4169	2.00000	1.91(MH)
26 2,2-Dichloropropane	77	3.522	3.522	(0.842)	9399	1.00000	1.10
27 cis-1,2-Dichloroethene	96	3.544	3.544	(0.848)	6391	1.00000	1.00
28 Chloroform	83	3.915	3.915	(0.936)	11723	1.00000	1.07
29 Bromochloromethane	128	3.814	3.814	(0.912)	4447	1.00000	1.23
\$ 30 Dibromofluoromethane	113	4.114	4.114	(0.984)	5954	1.00000	0.28(M)
31 1,1,1-Trichloroethane	97	4.084	4.084	(0.977)	7915	1.00000	0.90
32 1,1-Dichloropropene	75	4.298	4.298	(0.866)	6485	1.00000	0.89(MH)
33 1,2-Dichloroethane	62	4.564	4.564	(0.919)	9628	1.00000	1.10
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	7329	1.00000	0.96(H)
\$ 35 1,2-Dichloroethane-d4	65	4.492	4.492	(1.074)	8038	1.00000	0.25
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	916625	50.0000	
37 Benzene	78	4.522	4.522	(0.911)	23319	1.00000	1.03
38 Trichloroethene	130	5.216	5.216	(1.051)	6331	1.00000	0.97
39 Bromodichloromethane	83	5.730	5.730	(1.154)	9159	1.00000	1.08(M)
41 2-Chloroethylvinyl ether	63	6.071	6.071	(1.223)	4418	2.00000	2.05
42 1,2-Dichloropropane	63	5.441	5.441	(1.096)	6642	1.00000	1.04(M)
44 Dibromomethane	93	5.557	5.557	(1.119)	5180	1.00000	1.19
45 4-Methyl-2-Pentanone	43	6.341	6.341	(0.827)	13000	2.00000	2.05(M)
46 cis-1,3-Dichloropropene	75	6.164	6.164	(1.242)	9439	1.00000	0.98
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	882965	50.0000	
\$ 48 Toluene-d8	98	6.397	6.397	(0.834)	20483	1.00000	0.98(M)
50 Toluene	91	6.453	6.453	(0.842)	25633	1.00000	1.04
51 trans-1,3-Dichloropropene	75	6.700	6.700	(1.350)	7645	1.00000	0.94
52 2-Hexanone	43	7.109	7.109	(0.927)	8658	2.00000	2.03(M)
53 1,1,2-Trichloroethane	83	6.843	6.843	(0.892)	4999	1.00000	1.01
54 1,3-Dichloropropane	76	6.989	6.989	(0.912)	11149	1.00000	1.11
55 Dibromochloromethane	129	7.180	7.180	(0.936)	7075	1.00000	0.99
56 Tetrachloroethene	164	6.933	6.933	(0.904)	4911	1.00000	0.96
57 1,2-Dibromoethane	107	7.270	7.270	(0.948)	5993	1.00000	1.00
58 1-Chlorohexane	55	7.701	7.701	(1.551)	5712	1.00000	1.07(MH)
59 Chlorobenzene	112	7.694	7.694	(1.003)	17172	1.00000	1.01
60 1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	6256	1.00000	0.95



61 Ethylbenzene	106	7.806	7.806 (1.018)	7990	1.00000	0.95
62 m,p-Xylenes	106	7.911	7.911 (1.032)	20041	2.00000	1.87



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081104.D Page 3
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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
63 o-Xylene	106	8.249	8.249	(1.076)	11068	1.00000	1.04
64 Styrene	104	8.275	8.275	(1.079)	15203	1.00000	0.86
66 Bromoform	173	8.414	8.414	(1.097)	4246	1.00000	0.88(T)
67 Isopropylbenzene	105	8.563	8.563	(1.117)	23483	1.00000	0.89
68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	8236	1.00000	1.06
\$ 69 4-Bromofluorobenzene	95	8.702	8.702	(1.135)	9648	1.00000	1.38
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	476655	50.0000	
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	5998	1.00000	1.05
73 n-Propylbenzene	91	8.920	8.920	(0.923)	25092	1.00000	0.89
74 Bromobenzene	156	8.822	8.822	(0.913)	7675	1.00000	1.00
75 1,3,5-Trimethylbenzene	105	9.073	9.073	(0.939)	19765	1.00000	0.95
76 2-Chlorotoluene	91	8.980	8.980	(0.929)	19685	1.00000	1.09
77 4-Chlorotoluene	91	9.085	9.085	(0.940)	21461	1.00000	1.03
78 tert-Butylbenzene	119	9.339	9.339	(0.967)	16538	1.00000	0.93
79 1,2,4-Trimethylbenzene	105	9.384	9.384	(0.971)	21634	1.00000	1.01
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	22253	1.00000	0.91
82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	18770	1.00000	0.85
83 1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	13626	1.00000	1.00
84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	14768	1.00000	1.01
86 Benzyl Chloride	91	9.827	9.827	(1.282)	9809	1.00000	0.77(M)
87 n-Butylbenzene	91	10.007	10.007	(1.036)	15267	1.00000	2.70
88 1,2-Dichlorobenzene	146	10.003	10.003	(1.035)	14337	1.00000	1.04
89 1,2-Dibromo-3-Chloropropane	155	10.681	10.681	(1.106)	1274	1.00000	0.97(M)
90 1,2,4-Trichlorobenzene	180	11.360	11.360	(1.176)	8955	1.00000	0.98
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	4132	1.00000	0.61(M)
92 Naphthalene	128	11.574	11.574	(1.198)	23210	1.00000	1.02(M)
93 1,2,3-Trichlorobenzene	180	11.761	11.761	(1.217)	9119	1.00000	1.03
M 94 1,2-Dichloroethylene (total)	96				13650	2.00000	
M 95 Xylenes (total)	106				31109	3.00000	
141 Cyclohexane	56	4.114	4.114	(0.984)	5861	1.00000	2.55(H)
138 Freon TF	101	1.921	1.921	(0.459)	4459	1.00000	1.92
147 Methylcyclohexane	55	5.373	5.373	(1.082)	13003	1.00000	0.94(M)
146 Methyl Acetate	43	2.247	2.247	(0.537)	5952	1.00000	1.12(M)
148 Tert-Butyl alcohol	59	2.438	2.438	(0.583)	18788	20.0000	13.85(a)

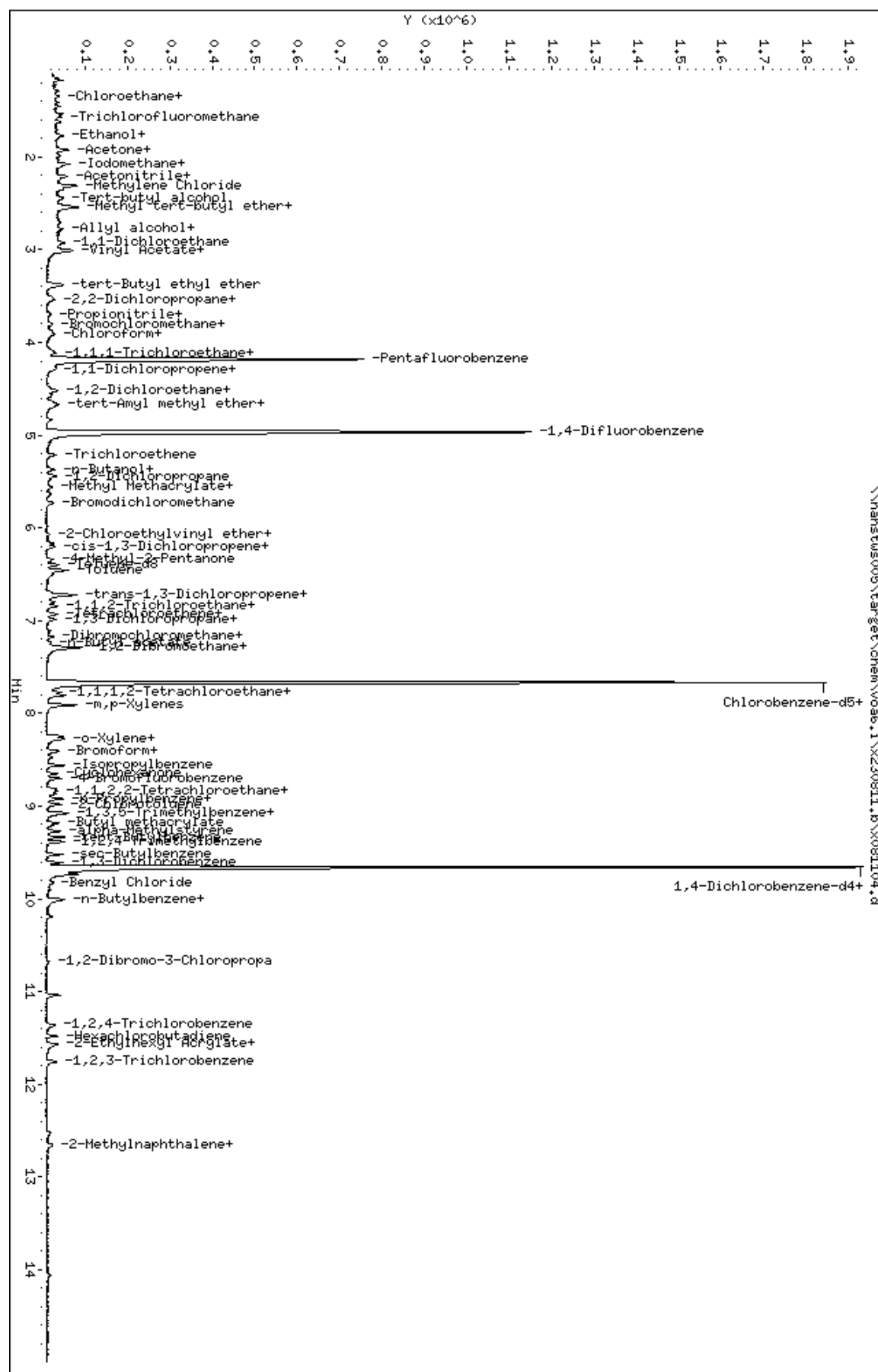
QC Flag Legend

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



Data File: \\nahts005\target\chem\voa6.i\X230811.b\X081104.d
 Date: 11-AUG-2023 12:35
 Client ID: WSTD001
 Sample Info: WSTD001;WSTD001;113;
 Purge Volume: 5.0
 Column phase: DB624

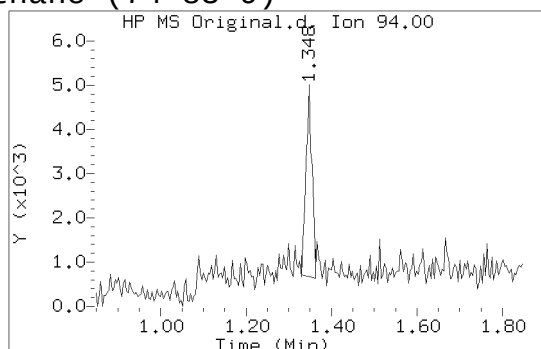
Instrument: voa6.i
 Operator: PC
 Column diameter: 0.18



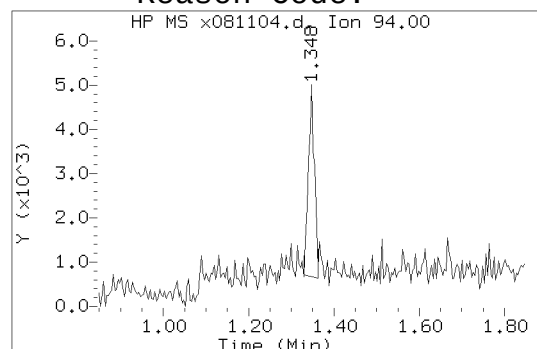
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Inj Date : 11-AUG-2023 12:35
InstruID : voa6.i
LabSampID : VSTD001

Bromomethane (74-83-9)**BEFORE**

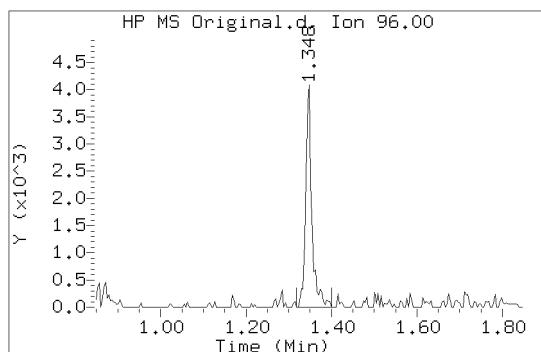
MASS
50
AREA
6181
HEIGHT
6578
12-Aug-2023
22:50

**AFTER**

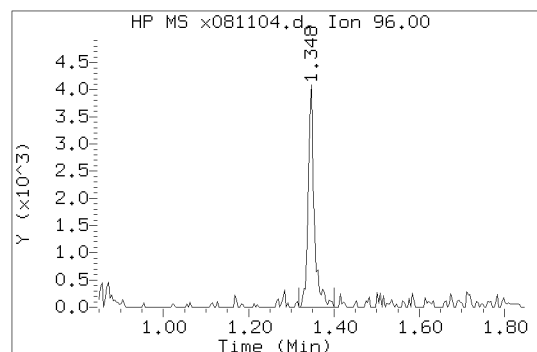
MASS
94
AREA
4430
HEIGHT
4336
23-Aug-2023
11:12

**BEFORE**

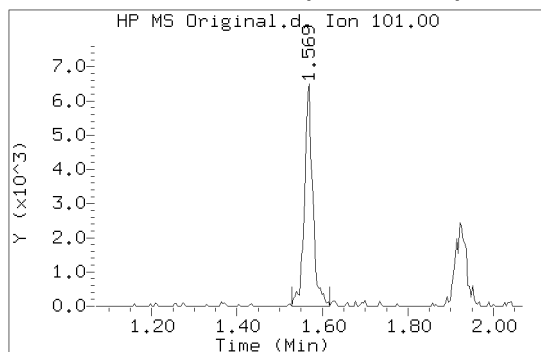
MASS
52
AREA
2437
HEIGHT
2554
12-Aug-2023
22:50

**AFTER**

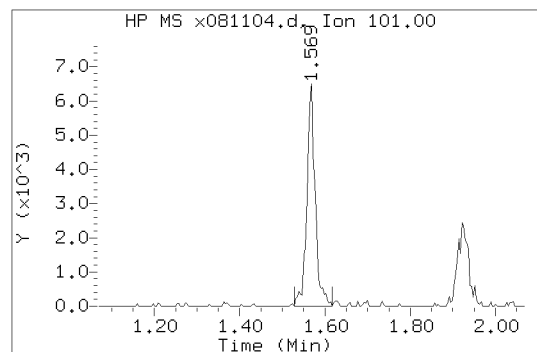
MASS
96
AREA
4241
HEIGHT
4086
23-Aug-2023
11:12

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

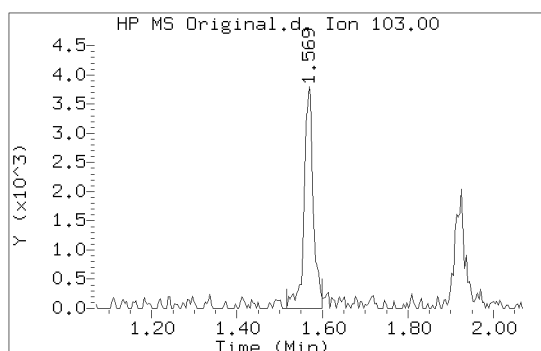
MASS
94
AREA
4430
HEIGHT
4336
12-Aug-2023
22:50

**AFTER**

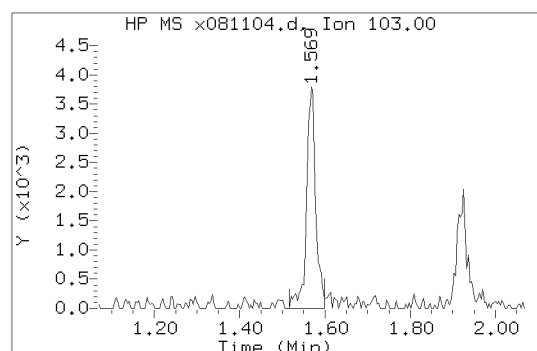
MASS
101
AREA
9051
HEIGHT
6498
23-Aug-2023
11:12

**BEFORE**

MASS
96
AREA
4241
HEIGHT
4086
12-Aug-2023
22:50

**AFTER**

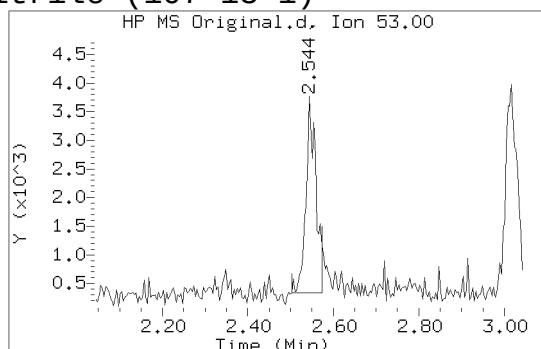
MASS
103
AREA
5842
HEIGHT
3798
23-Aug-2023
11:12



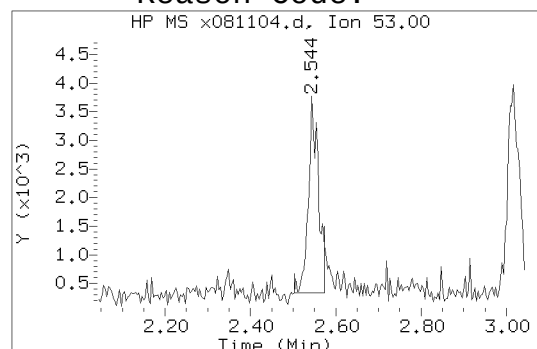
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Inj Date : 11-AUG-2023 12:35
InstruID : voa6.i
LabSampID : VSTD001

Acrylonitrile (107-13-1)**BEFORE**

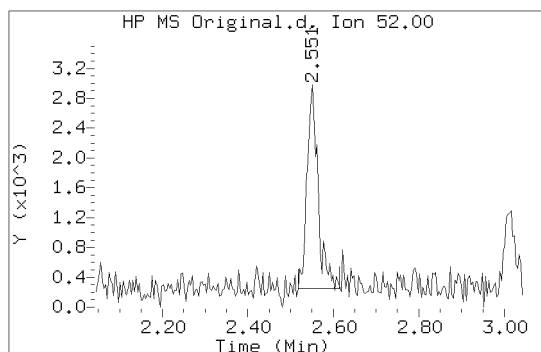
MASS
43
AREA
9915
HEIGHT
6046
12-Aug-2023
22:50

**AFTER**

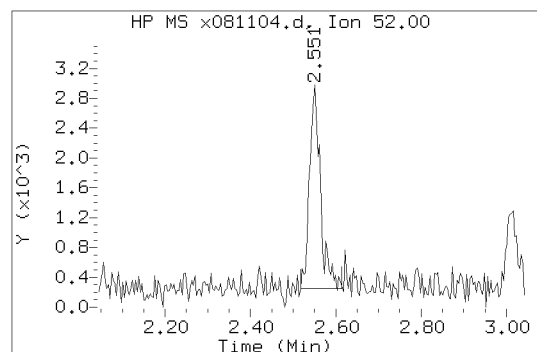
MASS
53
AREA
5718
HEIGHT
3442
23-Aug-2023
11:12

**BEFORE**

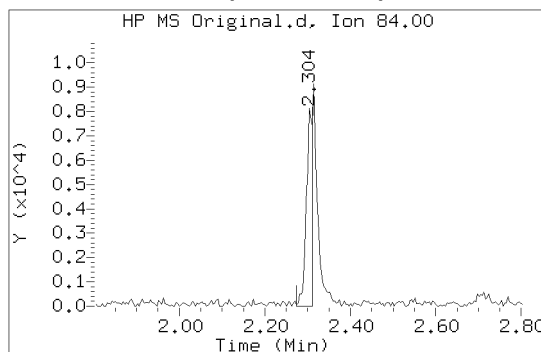
MASS
58
AREA
3093
HEIGHT
2028
12-Aug-2023
22:50

**AFTER**

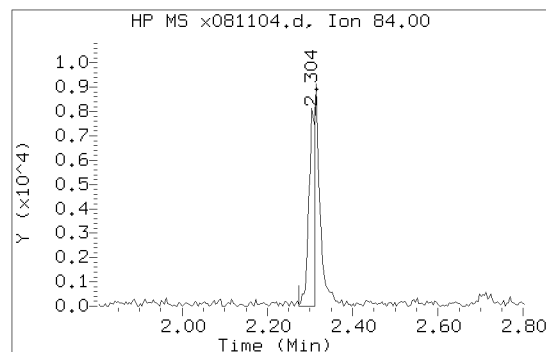
MASS
52
AREA
4940
HEIGHT
2727
23-Aug-2023
11:12

**Methylene Chloride (75-09-2)****BEFORE**

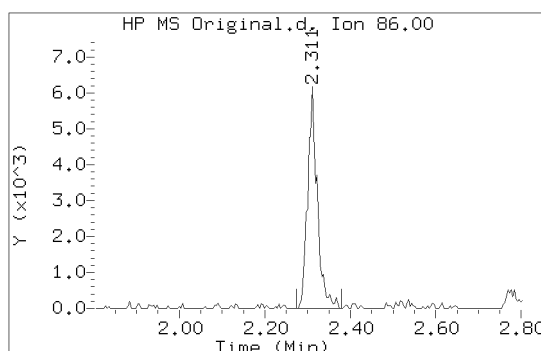
MASS
96
AREA
5761
HEIGHT
3471
12-Aug-2023
22:50

**AFTER**

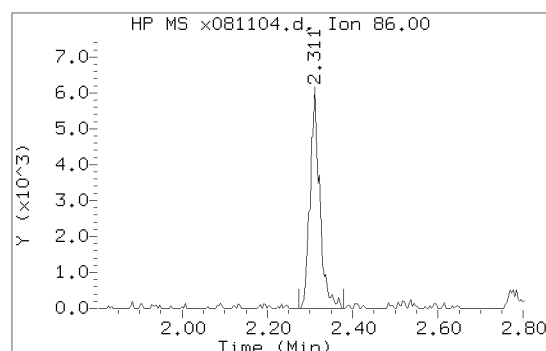
MASS
84
AREA
8402
HEIGHT
8122
23-Aug-2023
11:12

**BEFORE**

MASS
61
AREA
9335
HEIGHT
6208
12-Aug-2023
22:50

**AFTER**

MASS
86
AREA
9806
HEIGHT
6172
23-Aug-2023
11:12

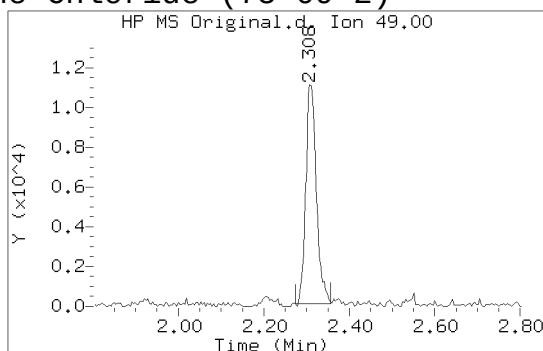


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Inj Date : 11-AUG-2023 12:35
InstruID : voa6.i
LabSampID : VSTD001

Methylene Chloride (75-09-2)

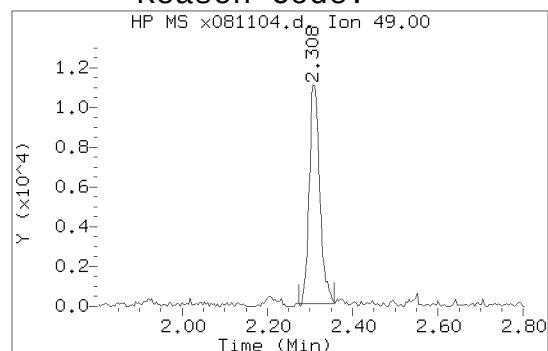
BEFORE

MASS
63
AREA
3225
HEIGHT
1896
12-Aug-2023
22:50



AFTER

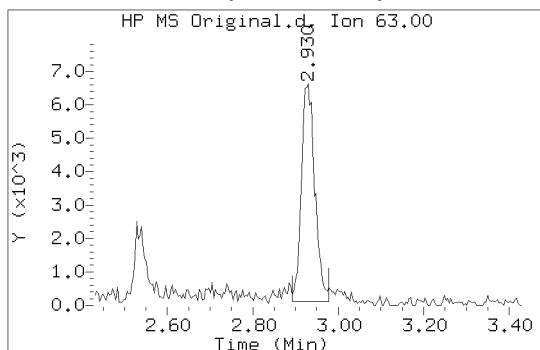
MASS
49
AREA
19320
HEIGHT
11010
23-Aug-2023
11:12



1,1-Dichloroethane (75-34-3)

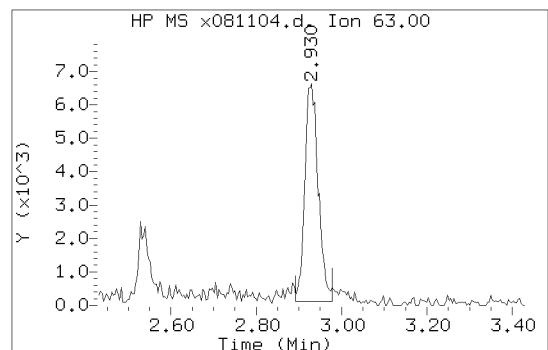
BEFORE

MASS
73
AREA
22118
HEIGHT
11046
12-Aug-2023
22:50



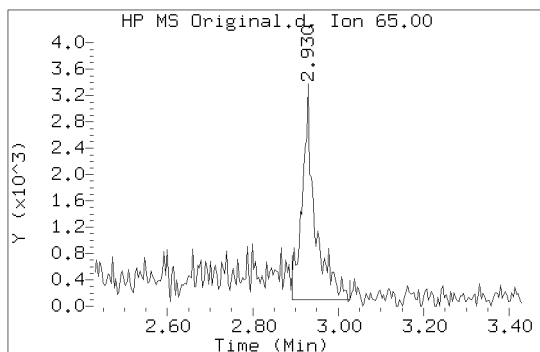
AFTER

MASS
63
AREA
14531
HEIGHT
6510
23-Aug-2023
11:12



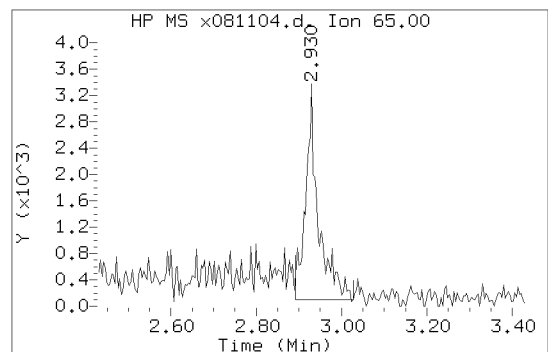
BEFORE

MASS
57
AREA
12398
HEIGHT
5186
12-Aug-2023
22:50



AFTER

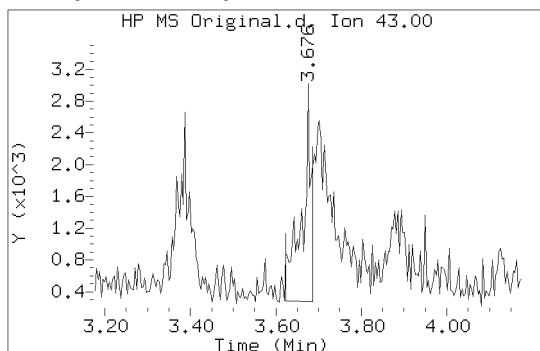
MASS
65
AREA
6876
HEIGHT
3277
23-Aug-2023
11:12



2-Butanone (78-93-3)

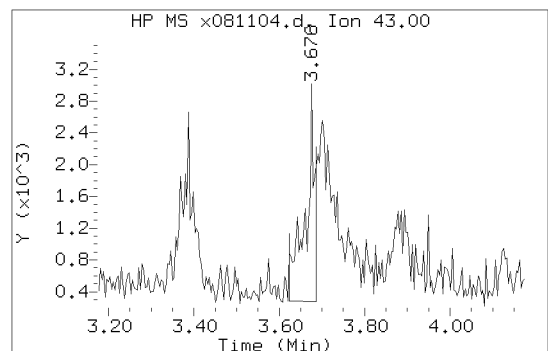
BEFORE

MASS
76
AREA
33989
HEIGHT
21317
12-Aug-2023
22:50



AFTER

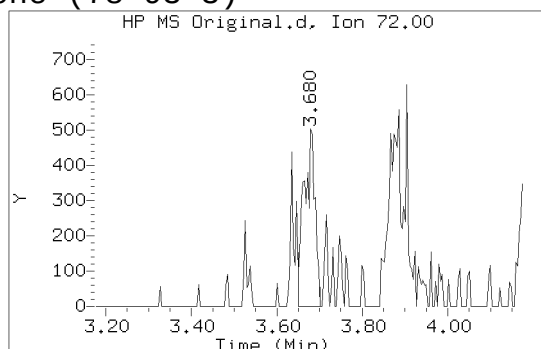
MASS
43
AREA
4169
HEIGHT
2738
23-Aug-2023
11:12



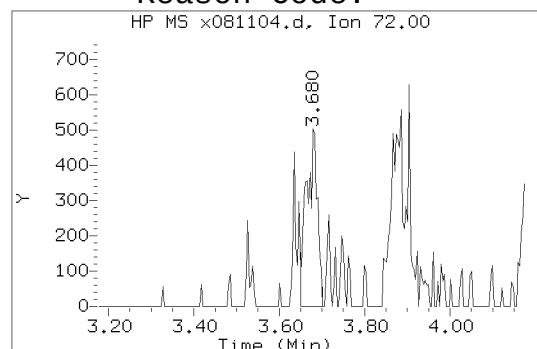
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Inj Date : 11-AUG-2023 12:35
InstruID : voa6.i
LabSampID : VSTD001

2-Butanone (78-93-3)**BEFORE**

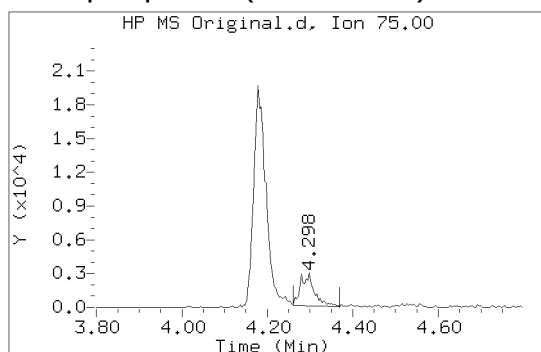
MASS
78
AREA
3581
HEIGHT
2013
12-Aug-2023
22:50

**AFTER**

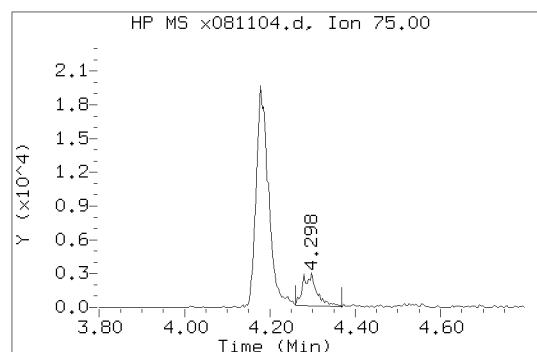
MASS
72
AREA
918
HEIGHT
503
23-Aug-2023
11:12

Reason Code:**1,1-Dichloropropene (563-58-6)****BEFORE**

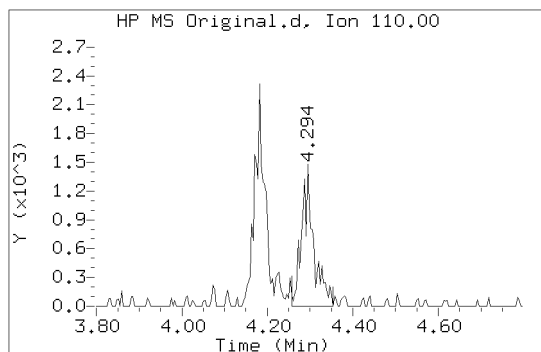
MASS
96
AREA
6391
HEIGHT
3436
12-Aug-2023
22:50

**AFTER**

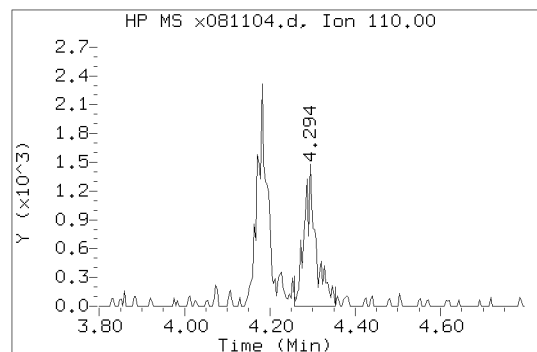
MASS
75
AREA
6485
HEIGHT
2955
23-Aug-2023
11:12

Reason Code:**BEFORE**

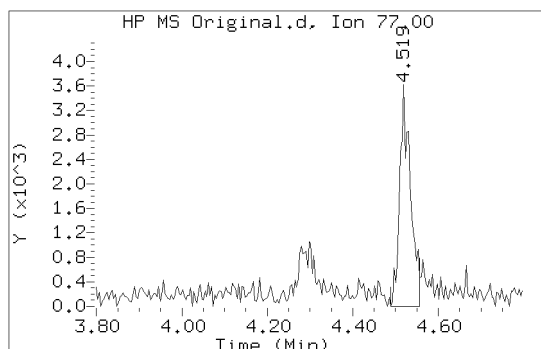
MASS
61
AREA
8504
HEIGHT
3653
12-Aug-2023
22:50

**AFTER**

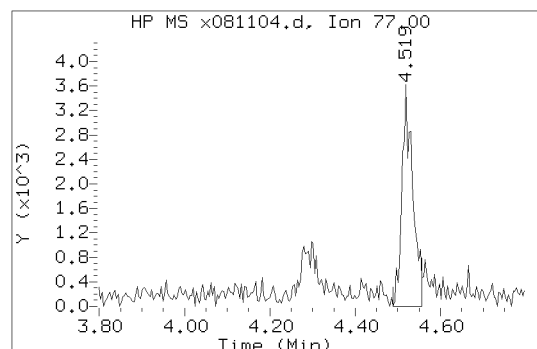
MASS
110
AREA
2897
HEIGHT
1478
23-Aug-2023
11:12

**BEFORE**

MASS
98
AREA
4326
HEIGHT
2024
12-Aug-2023
22:50

**AFTER**

MASS
77
AREA
6360
HEIGHT
3621
23-Aug-2023
11:12

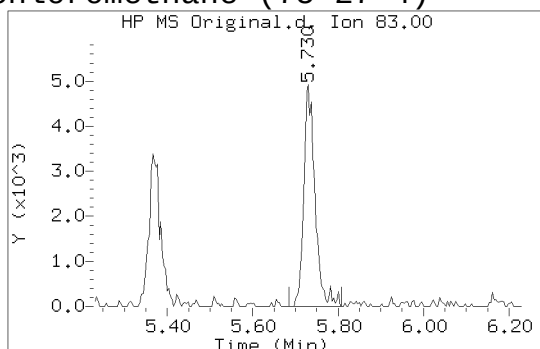


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
 Inj Date : 11-AUG-2023 12:35
 InstruID : voa6.i
 LabSampID : VSTD001

Bromodichloromethane (75-27-4)

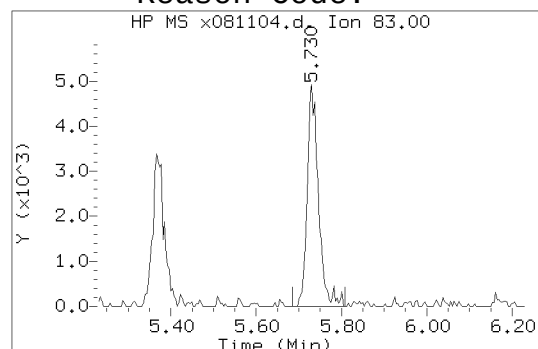
BEFORE

MASS
117
AREA
7329
HEIGHT
3248
12-Aug-2023
22:50



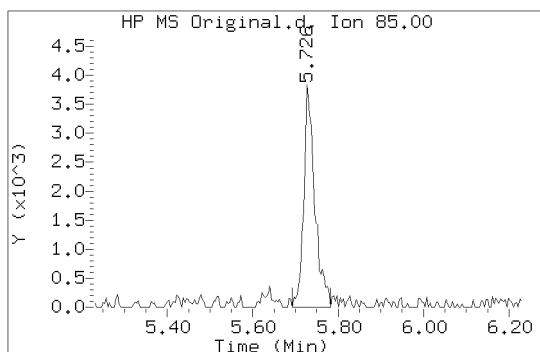
AFTER

MASS
83
AREA
9159
HEIGHT
4921
23-Aug-2023
11:12



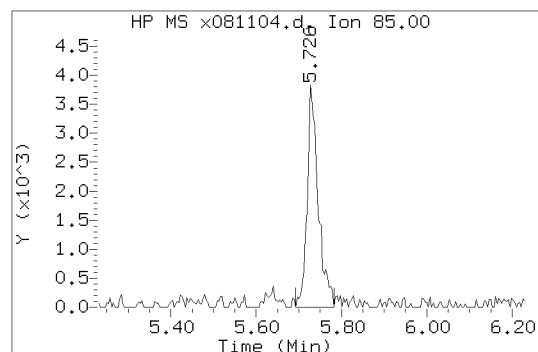
BEFORE

MASS
119
AREA
6429
HEIGHT
2759
12-Aug-2023
22:50



AFTER

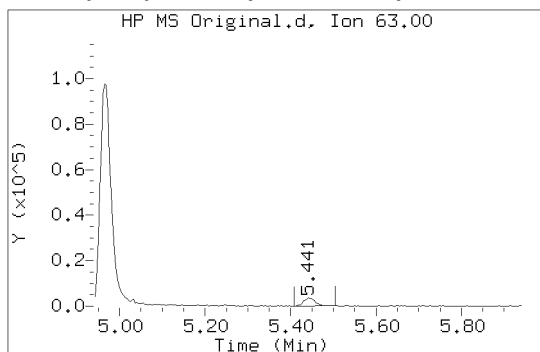
MASS
85
AREA
7009
HEIGHT
3834
23-Aug-2023
11:12



1,2-Dichloropropane (78-87-5)

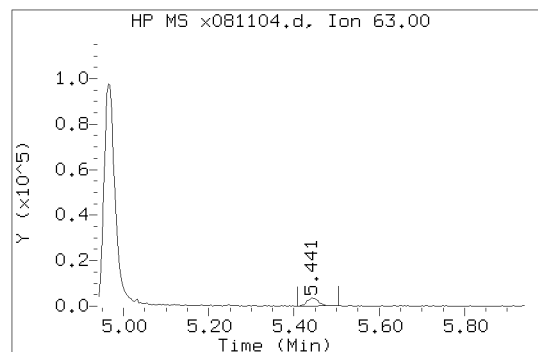
BEFORE

MASS
114
AREA
916625
HEIGHT
501315
12-Aug-2023
22:50



AFTER

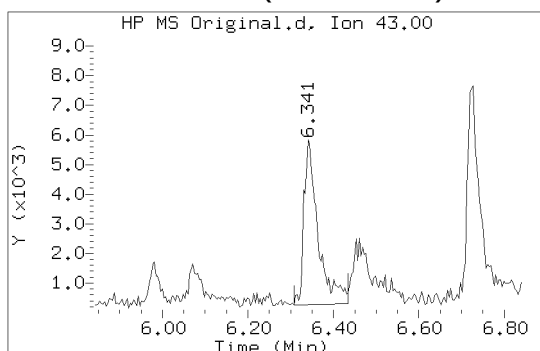
MASS
63
AREA
6642
HEIGHT
3674
23-Aug-2023
11:12



4-Methyl-2-Pentanone (108-10-1)

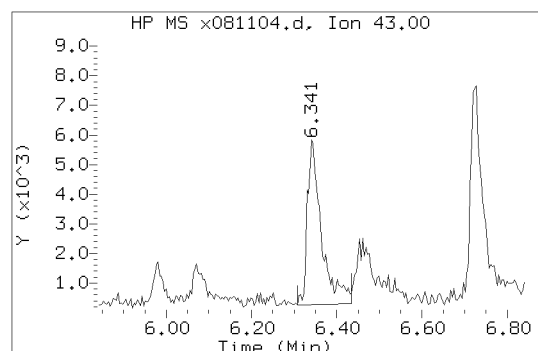
BEFORE

MASS
130
AREA
6331
HEIGHT
3663
12-Aug-2023
22:50



AFTER

MASS
43
AREA
13000
HEIGHT
5556
23-Aug-2023
11:12

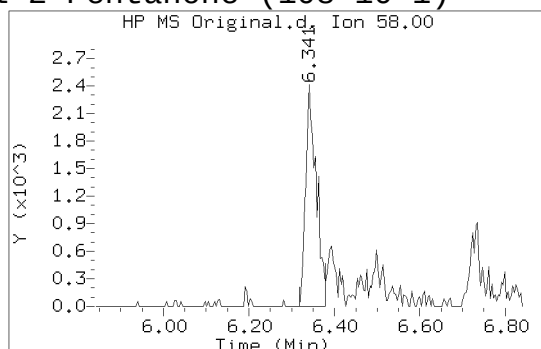


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
Inj Date : 11-AUG-2023 12:35
InstruID : voa6.i
LabSampID : VSTD001

4-Methyl-2-Pentanone (108-10-1)

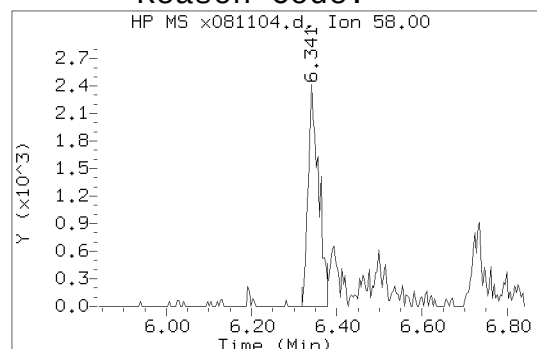
BEFORE

MASS
97
AREA
4440
HEIGHT
2196
12-Aug-2023
22:50



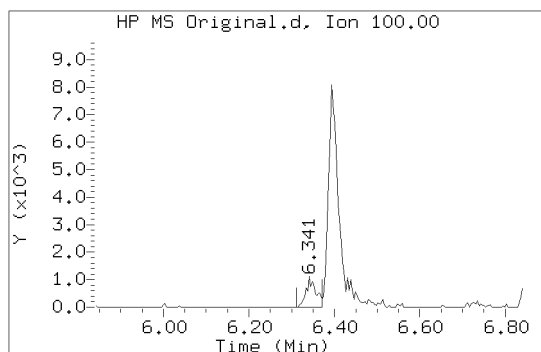
AFTER

MASS
58
AREA
4257
HEIGHT
2414
23-Aug-2023
11:12



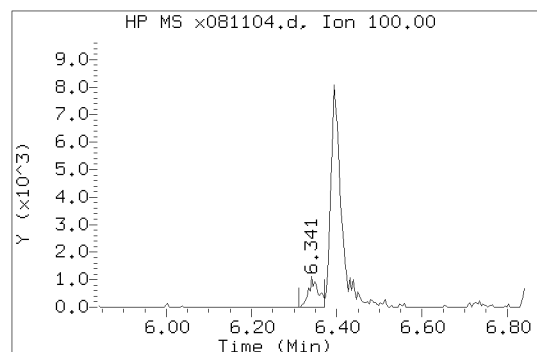
BEFORE

MASS
95
AREA
6378
HEIGHT
3813
12-Aug-2023
22:50



AFTER

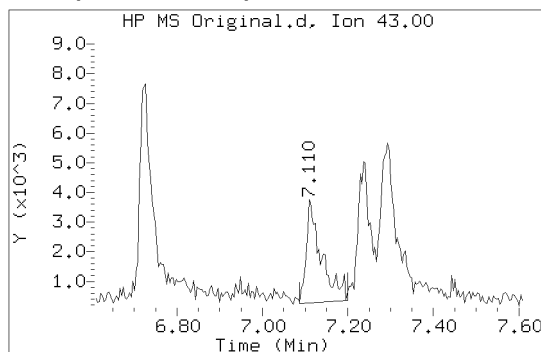
MASS
100
AREA
1780
HEIGHT
1123
23-Aug-2023
11:12



2-Hexanone (591-78-6)

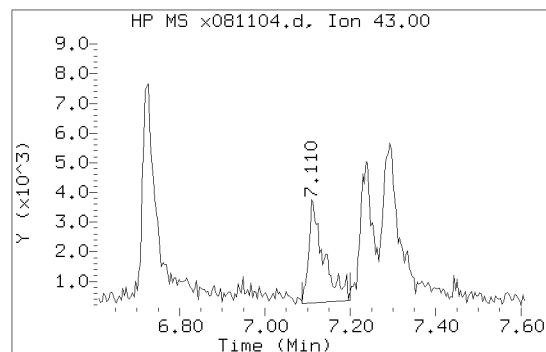
BEFORE

MASS
43
AREA
13000
HEIGHT
5556
12-Aug-2023
22:50



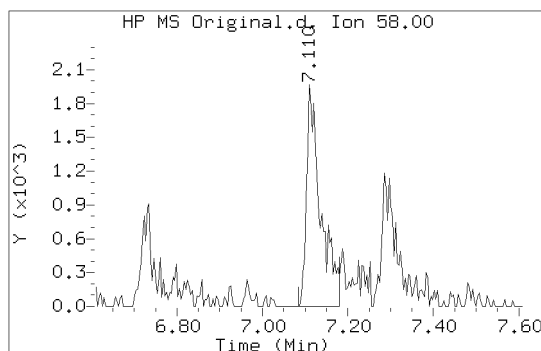
AFTER

MASS
43
AREA
8658
HEIGHT
3477
23-Aug-2023
11:12



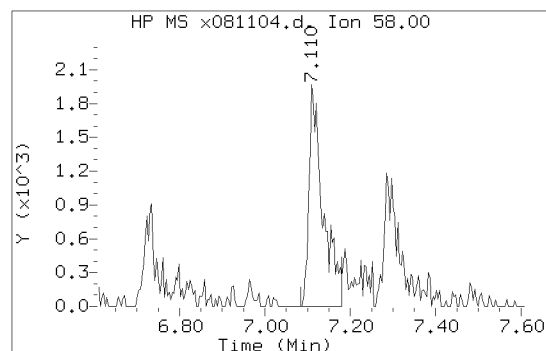
BEFORE

MASS
58
AREA
4257
HEIGHT
2414
12-Aug-2023
22:50



AFTER

MASS
58
AREA
4573
HEIGHT
1967
23-Aug-2023
11:12

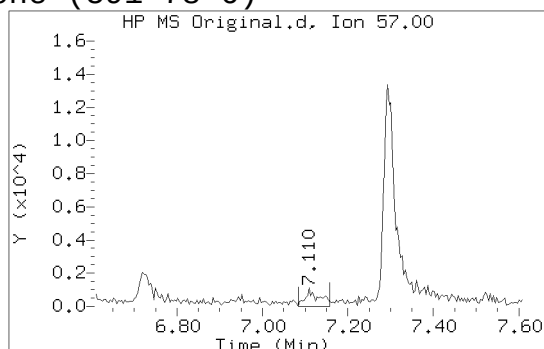


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
 Inj Date : 11-AUG-2023 12:35
 InstruID : voa6.i
 LabSampID : VSTD001

2-Hexanone (591-78-6)

BEFORE

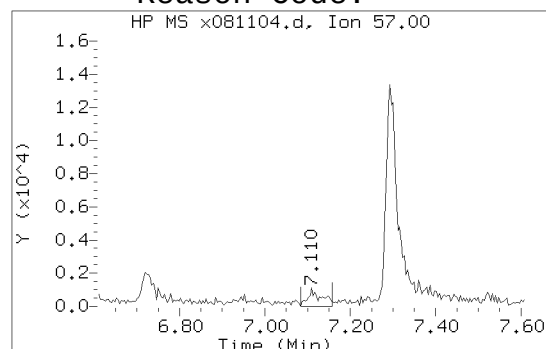
MASS
100
AREA
1780
HEIGHT
1123
12-Aug-2023
22:50



AFTER

MASS
57
AREA
2385
HEIGHT
1109
23-Aug-2023
11:12

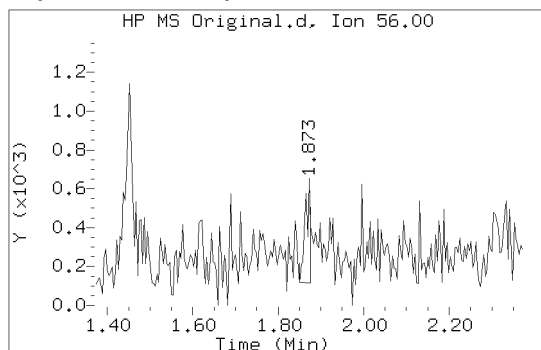
Reason Code:



Acrolein (107-02-8)

BEFORE

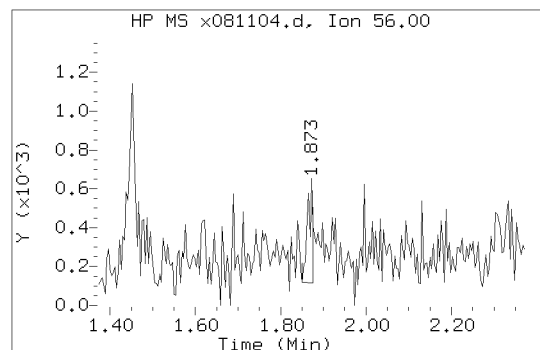
MASS
76
AREA
11149
HEIGHT
6254
12-Aug-2023
22:50



AFTER

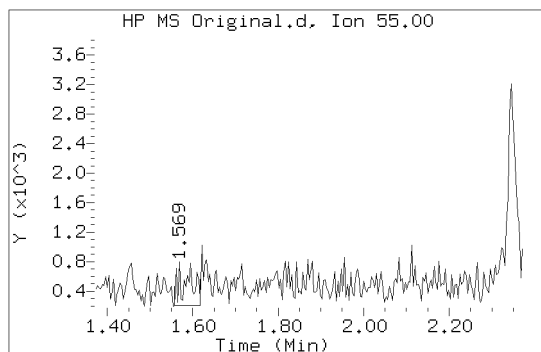
MASS
56
AREA
463
HEIGHT
538
23-Aug-2023
11:12

Reason Code:



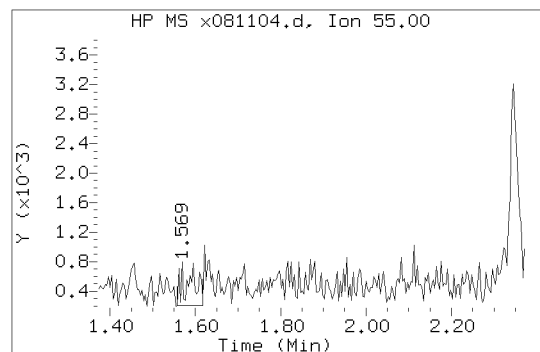
BEFORE

MASS
78
AREA
2915
HEIGHT
1944
12-Aug-2023
22:50



AFTER

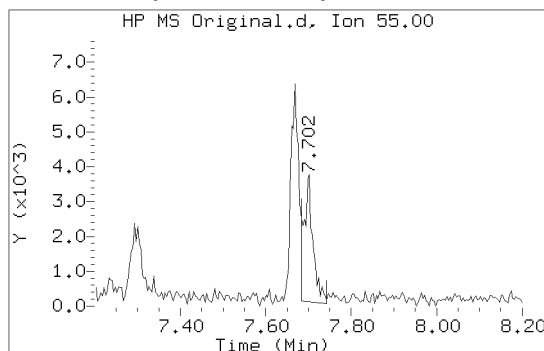
MASS
55
AREA
1030
HEIGHT
586
23-Aug-2023
11:12



1-Chlorohexane (544-10-5)

BEFORE

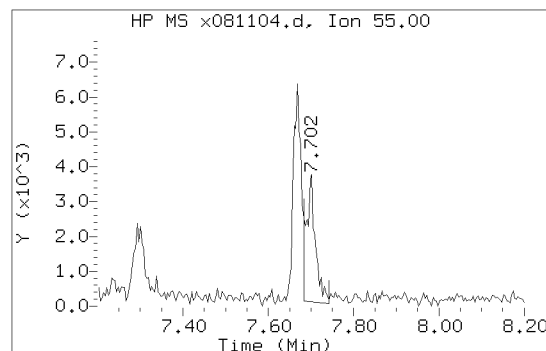
MASS
164
AREA
4911
HEIGHT
3482
12-Aug-2023
22:50



AFTER

MASS
55
AREA
5712
HEIGHT
3660
23-Aug-2023
11:12

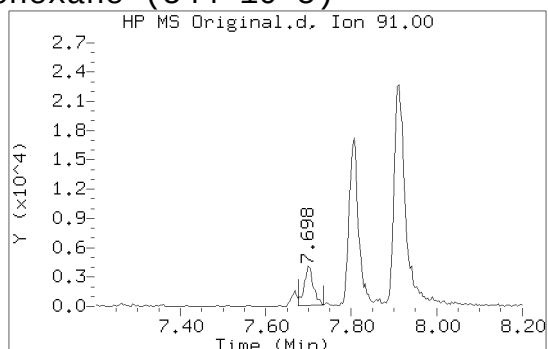
Reason Code:



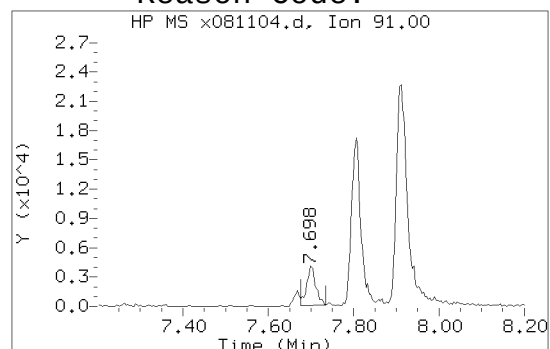
Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
Inj Date : 11-AUG-2023 12:35
InstruID : voa6.i
LabSampID : VSTD001

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

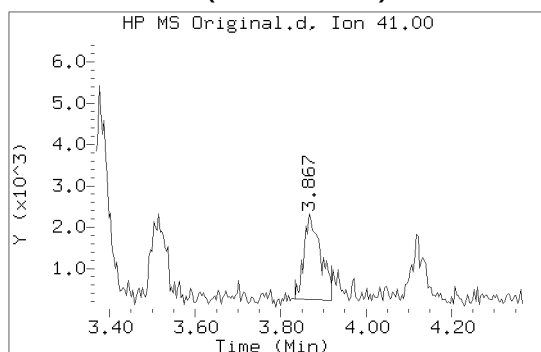
MASS
129
AREA
3751
HEIGHT
2547
12-Aug-2023
22:50

**AFTER**

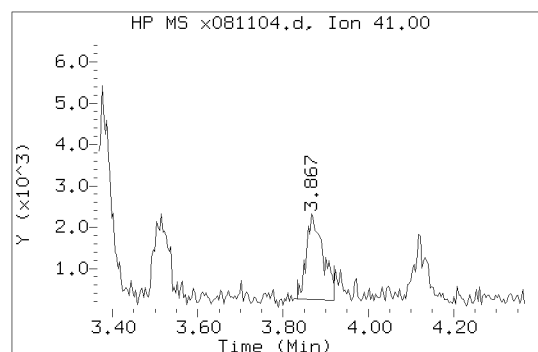
MASS
91
AREA
6313
HEIGHT
4090
23-Aug-2023
11:12

Reason Code:**Methacrylonitrile (126-98-7)****BEFORE**

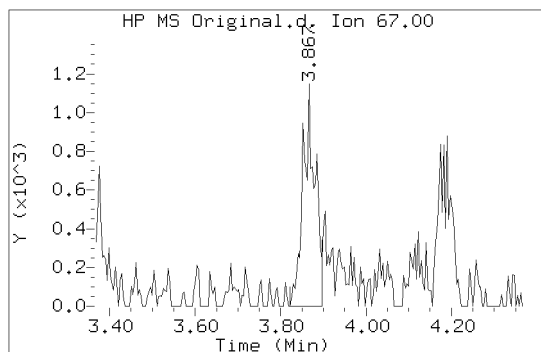
MASS
152
AREA
476655
HEIGHT
320692
12-Aug-2023
22:50

**AFTER**

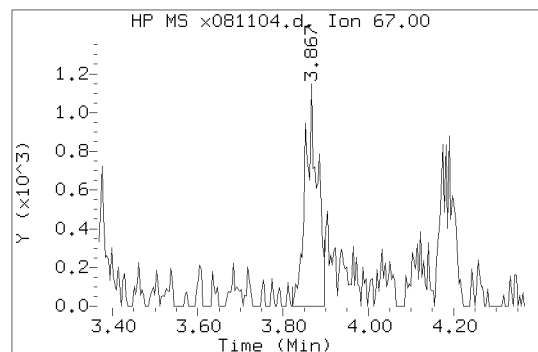
MASS
41
AREA
5673
HEIGHT
2076
23-Aug-2023
11:12

**BEFORE**

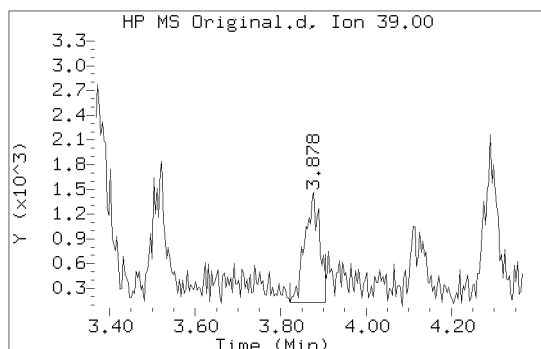
MASS
115
AREA
256989
HEIGHT
183296
12-Aug-2023
22:50

**AFTER**

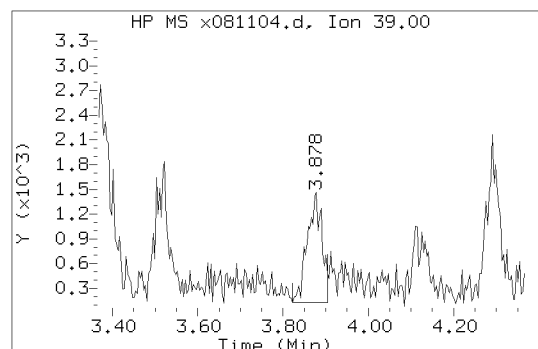
MASS
67
AREA
2280
HEIGHT
1148
23-Aug-2023
11:12

**BEFORE**

MASS
150
AREA
747243
HEIGHT
511169
12-Aug-2023
22:50

**AFTER**

MASS
39
AREA
3209
HEIGHT
1333
23-Aug-2023
11:12

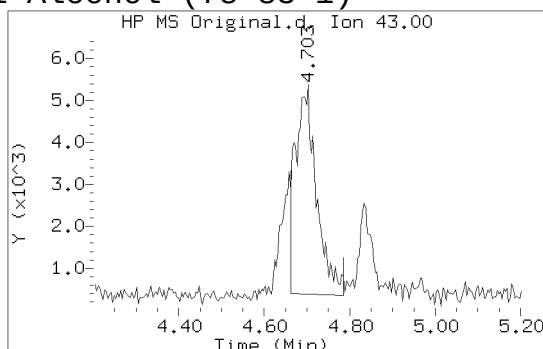


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
Inj Date : 11-AUG-2023 12:35
InstruID : voa6.i
LabSampID : VSTD001

Isobutyl Alcohol (78-83-1)

BEFORE

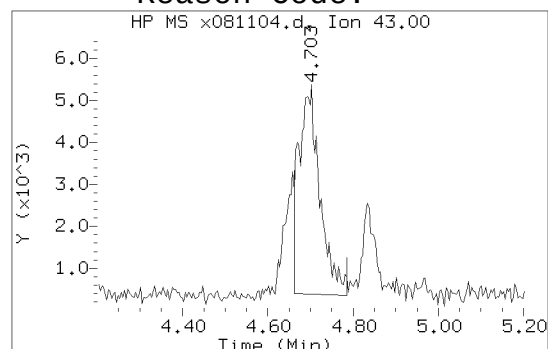
MASS
75
AREA
5998
HEIGHT
3929
12-Aug-2023
22:50



AFTER

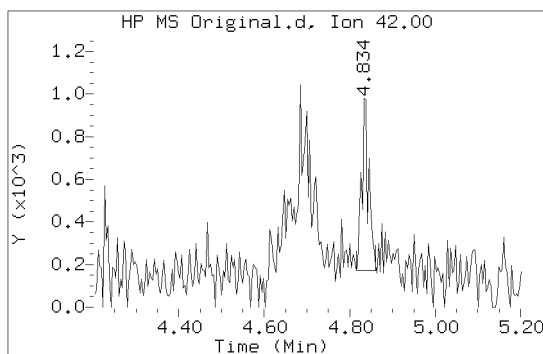
MASS
43
AREA
17428
HEIGHT
4985
23-Aug-2023
11:12

Reason Code:



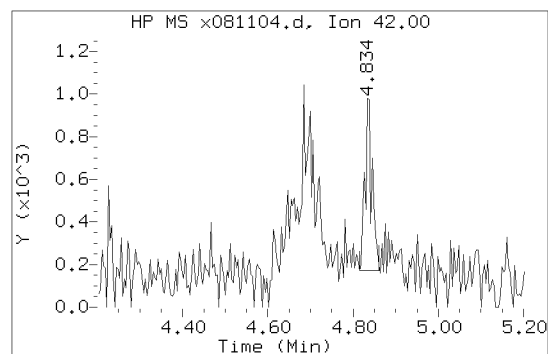
BEFORE

MASS
77
AREA
3025
HEIGHT
1956
12-Aug-2023
22:50



AFTER

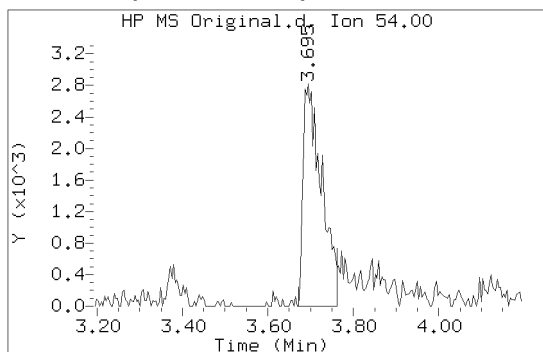
MASS
42
AREA
911
HEIGHT
807
23-Aug-2023
11:12



Propionitrile (107-12-0)

BEFORE

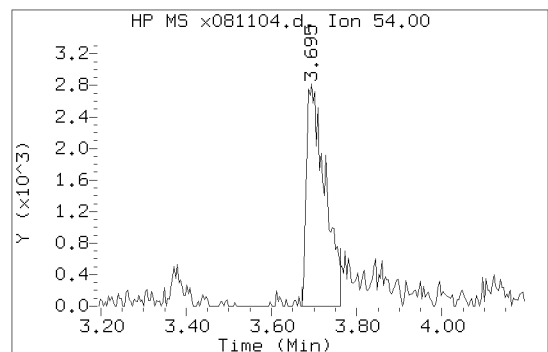
MASS
91
AREA
21461
HEIGHT
9564
12-Aug-2023
22:50



AFTER

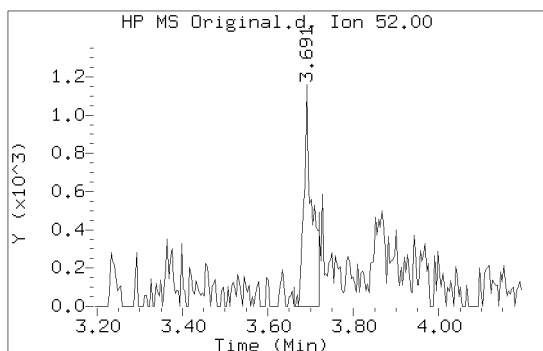
MASS
54
AREA
8585
HEIGHT
2819
23-Aug-2023
11:12

Reason Code:



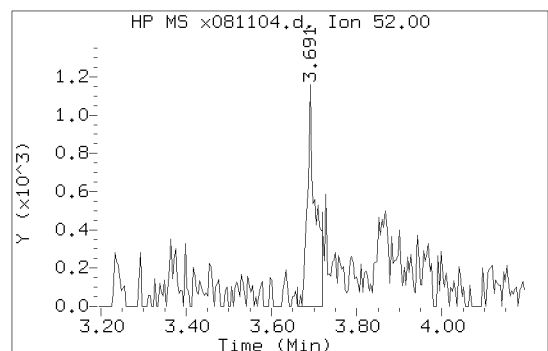
BEFORE

MASS
126
AREA
6861
HEIGHT
3502
12-Aug-2023
22:50



AFTER

MASS
52
AREA
1544
HEIGHT
1159
23-Aug-2023
11:12

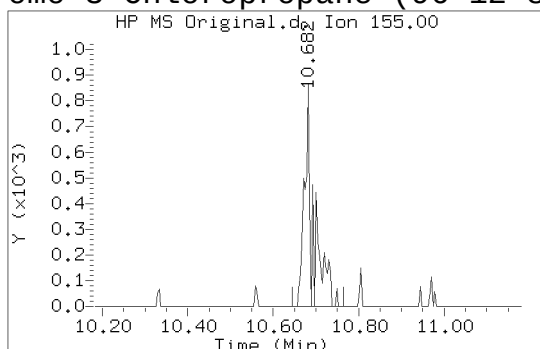


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
 Inj Date : 11-AUG-2023 12:35
 InstruID : voa6.i
 LabSampID : VSTD001

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

BEFORE

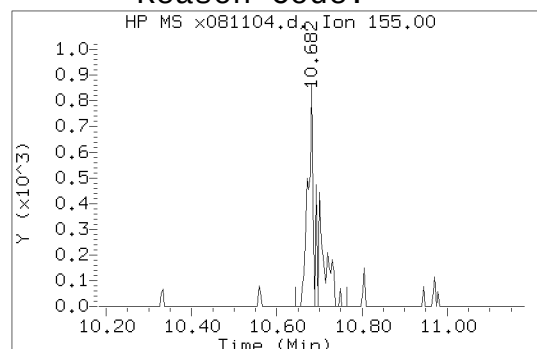
MASS
155
AREA
1274
HEIGHT
863
12-Aug-2023
22:50



AFTER

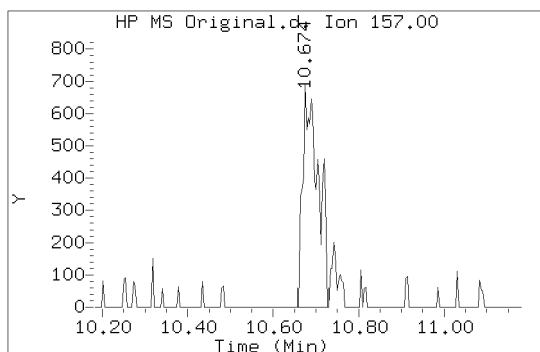
MASS
155
AREA
1274
HEIGHT
863
23-Aug-2023
11:12

Reason Code:



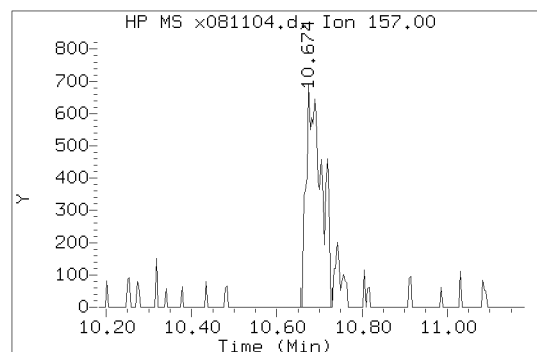
BEFORE

MASS
157
AREA
1735
HEIGHT
689
12-Aug-2023
22:50



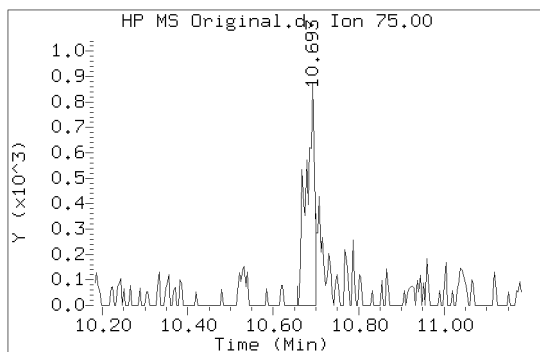
AFTER

MASS
157
AREA
1735
HEIGHT
689
23-Aug-2023
11:12



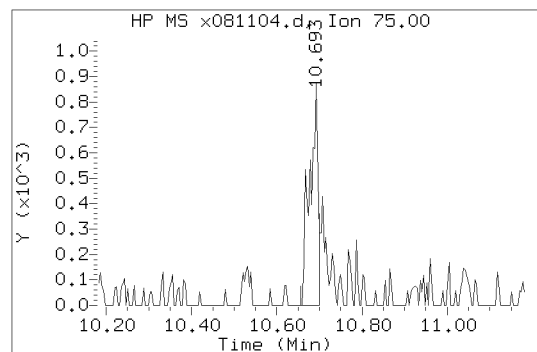
BEFORE

MASS
75
AREA
1196
HEIGHT
872
12-Aug-2023
22:50



AFTER

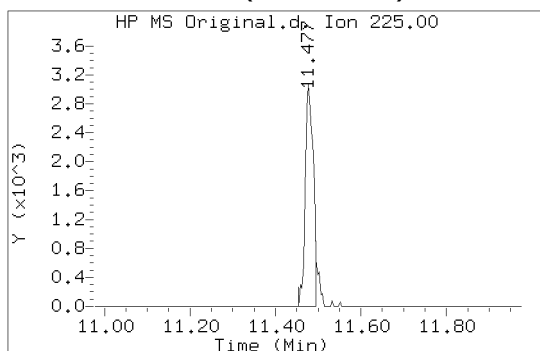
MASS
75
AREA
1196
HEIGHT
872
23-Aug-2023
11:12



Hexachlorobutadiene (87-68-3)

BEFORE

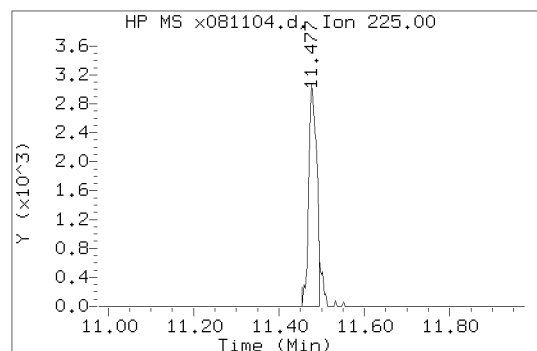
MASS
225
AREA
4132
HEIGHT
3064
12-Aug-2023
22:50



AFTER

MASS
225
AREA
4132
HEIGHT
3064
23-Aug-2023
11:12

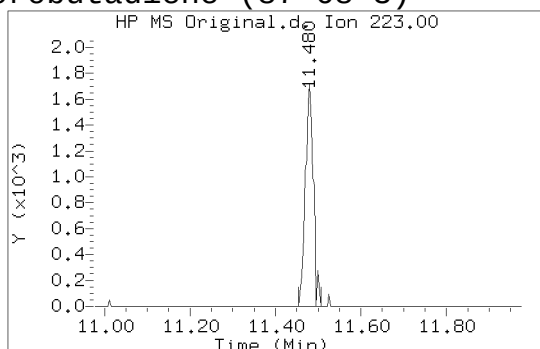
Reason Code:



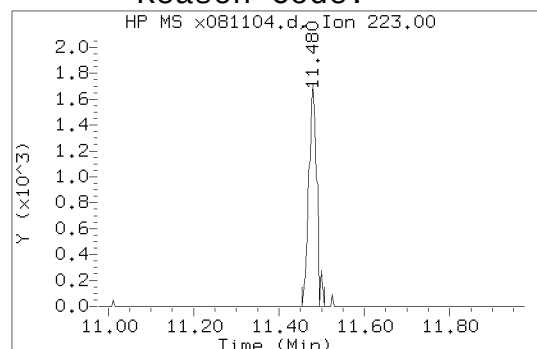
Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
Inj Date : 11-AUG-2023 12:35
InstruID : voa6.i
LabSampID : VSTD001

Hexachlorobutadiene (87-68-3)**BEFORE**

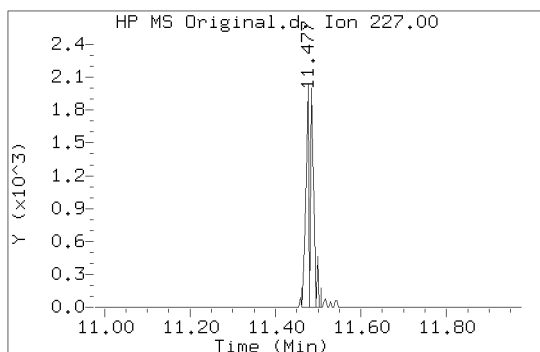
MASS
223
AREA
2286
HEIGHT
1712
12-Aug-2023
22:50

**AFTER**

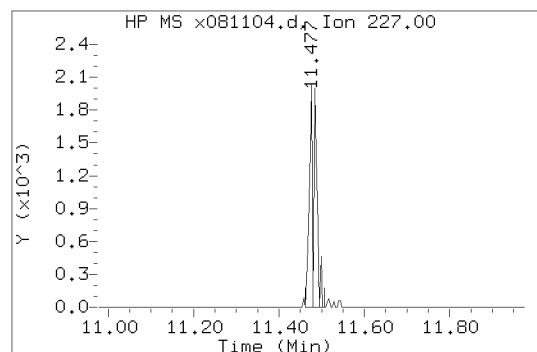
MASS
223
AREA
2286
HEIGHT
1712
23-Aug-2023
11:12

Reason Code:**BEFORE**

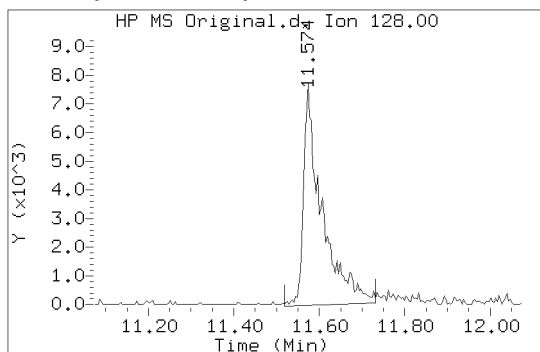
MASS
227
AREA
2066
HEIGHT
2030
12-Aug-2023
22:50

**AFTER**

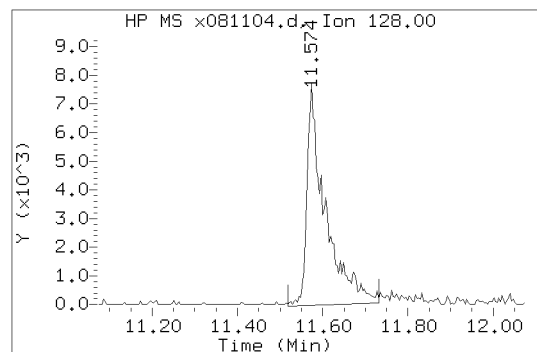
MASS
227
AREA
2066
HEIGHT
2030
23-Aug-2023
11:12

**Naphthalene (91-20-3)****BEFORE**

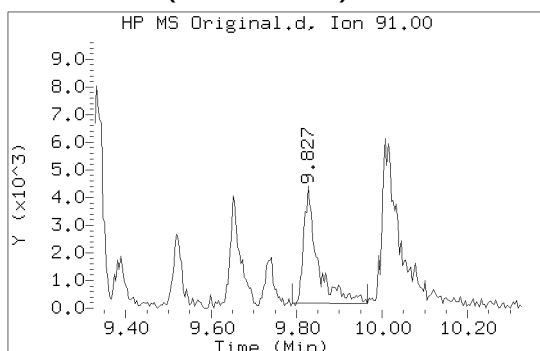
MASS
128
AREA
23210
HEIGHT
7730
12-Aug-2023
22:50

**AFTER**

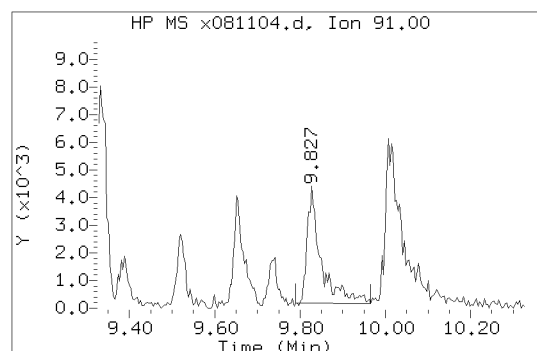
MASS
128
AREA
23210
HEIGHT
7730
23-Aug-2023
11:12

Reason Code:**Benzyl Chloride (100-44-7)****BEFORE**

MASS
53
AREA
2338
HEIGHT
850
12-Aug-2023
22:50

**AFTER**

MASS
91
AREA
9809
HEIGHT
4242
23-Aug-2023
11:12

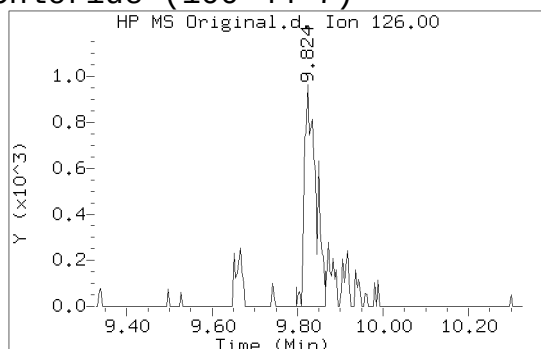
Reason Code:

Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
 Inj Date : 11-AUG-2023 12:35
 InstruID : voa6.i
 LabSampID : VSTD001

Benzyl Chloride (100-44-7)

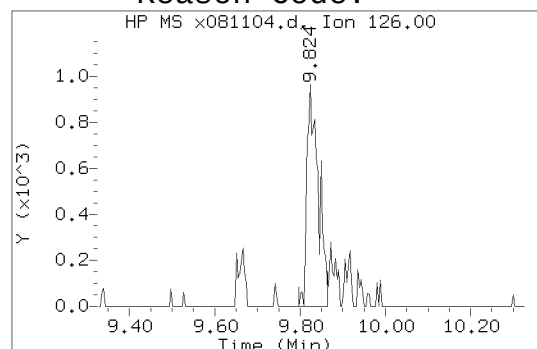
BEFORE

MASS
75
AREA
1352
HEIGHT
922
12-Aug-2023
22:50



AFTER

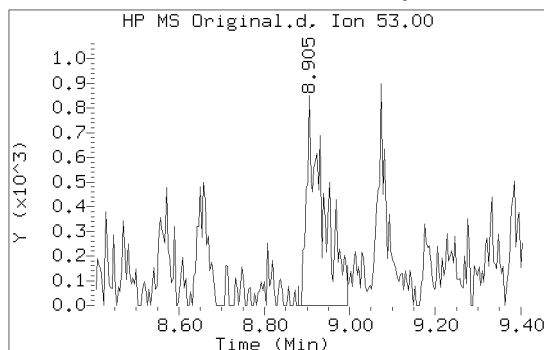
MASS
126
AREA
1816
HEIGHT
964
23-Aug-2023
11:12



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

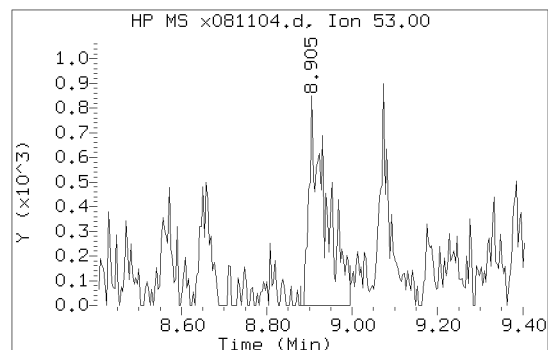
BEFORE

MASS
53
AREA
2637
HEIGHT
2155
12-Aug-2023
22:50



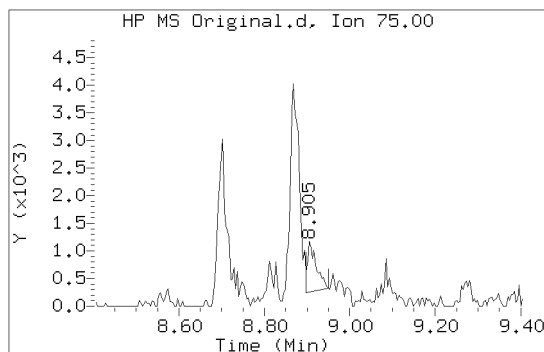
AFTER

MASS
53
AREA
2338
HEIGHT
850
23-Aug-2023
11:12



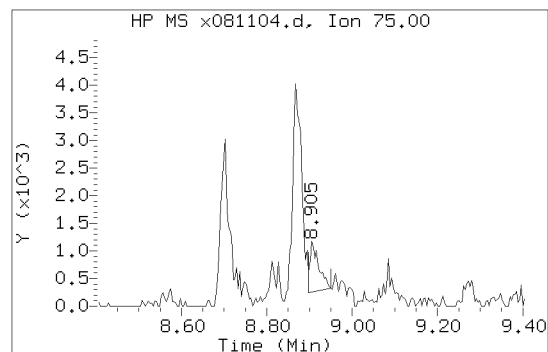
BEFORE

MASS
88
AREA
0
HEIGHT
0
12-Aug-2023
22:50



AFTER

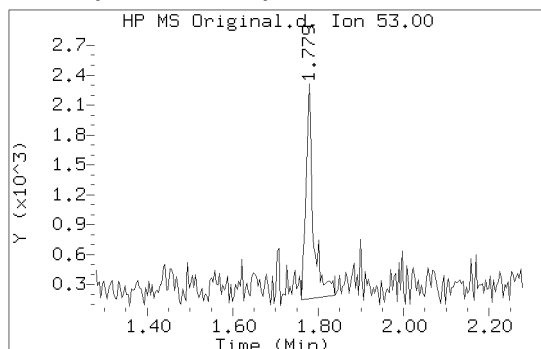
MASS
75
AREA
1352
HEIGHT
922
23-Aug-2023
11:12



Chloroprene (126-99-8)

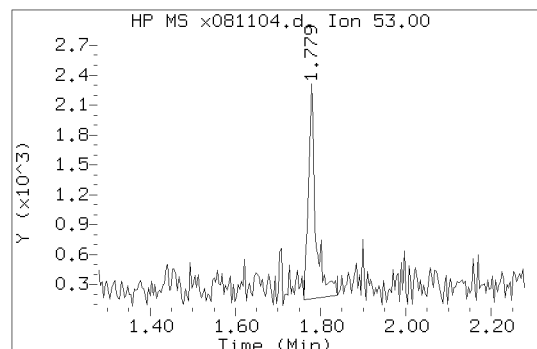
BEFORE

MASS
43
AREA
6893
HEIGHT
2620
12-Aug-2023
22:50



AFTER

MASS
53
AREA
2637
HEIGHT
2155
23-Aug-2023
11:12

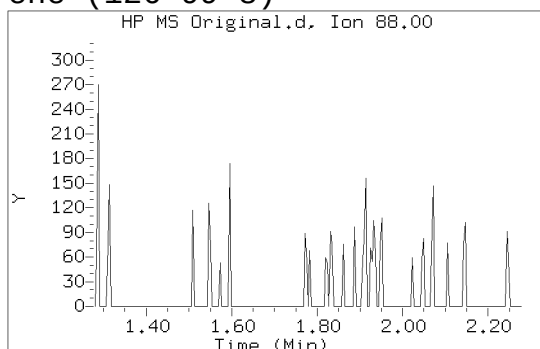


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
Inj Date : 11-AUG-2023 12:35
InstruID : voa6.i
LabSampID : VSTD001

Chloroprene (126-99-8)

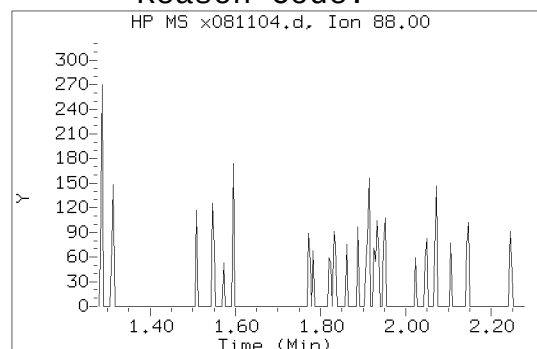
BEFORE

MASS
61
AREA
0
HEIGHT
0
12-Aug-2023
22:50



AFTER

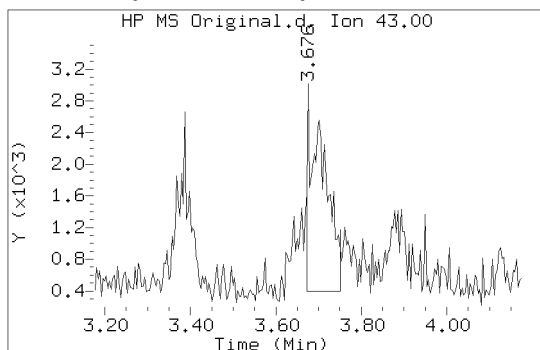
MASS
88
AREA
0
HEIGHT
0
23-Aug-2023
11:12



Ethyl Acetate (141-78-6)

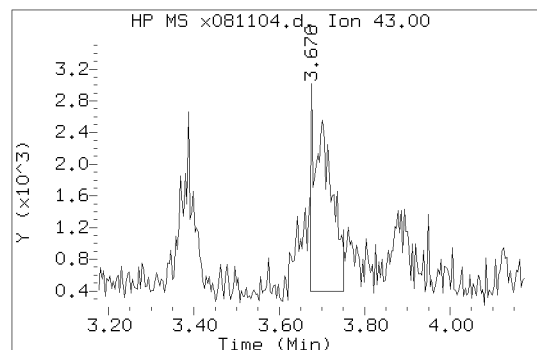
BEFORE

MASS
55
AREA
6078
HEIGHT
1428
12-Aug-2023
22:50



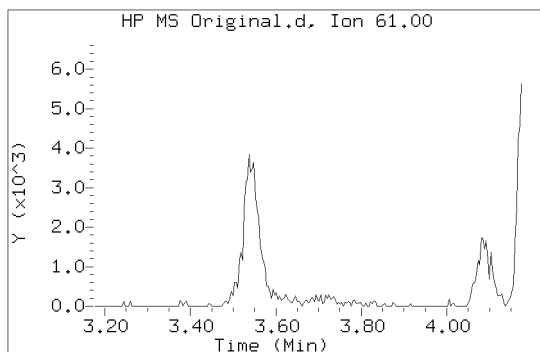
AFTER

MASS
43
AREA
6893
HEIGHT
2620
23-Aug-2023
11:12



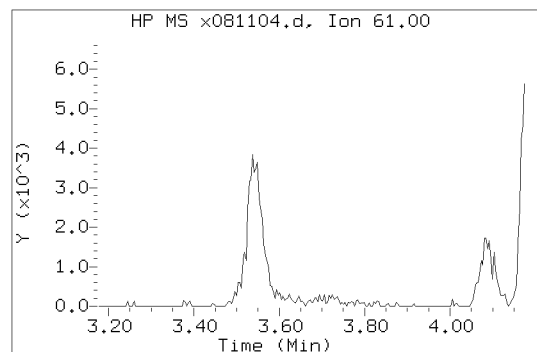
BEFORE

MASS
85
AREA
0
HEIGHT
0
12-Aug-2023
22:50



AFTER

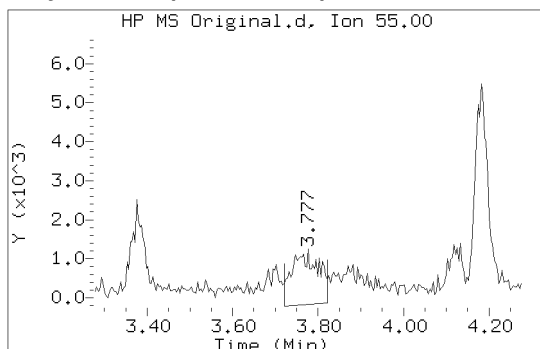
MASS
61
AREA
0
HEIGHT
0
23-Aug-2023
11:12



Methyl Acrylate (96-33-3)

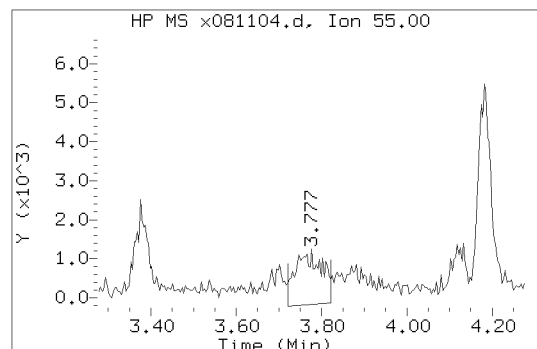
BEFORE

MASS
56
AREA
2659
HEIGHT
1447
12-Aug-2023
22:50



AFTER

MASS
55
AREA
6078
HEIGHT
1428
23-Aug-2023
11:12

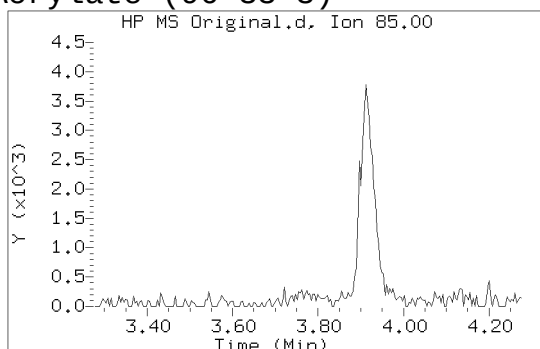


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
Inj Date : 11-AUG-2023 12:35
InstruID : voa6.i
LabSampID : VSTD001

Methyl Acrylate (96-33-3)

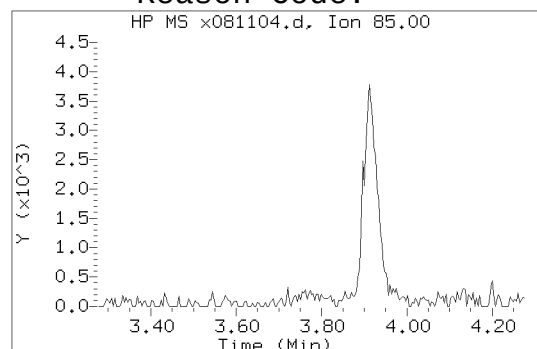
BEFORE

MASS
41
AREA
3757
HEIGHT
1633
12-Aug-2023
22:50



AFTER

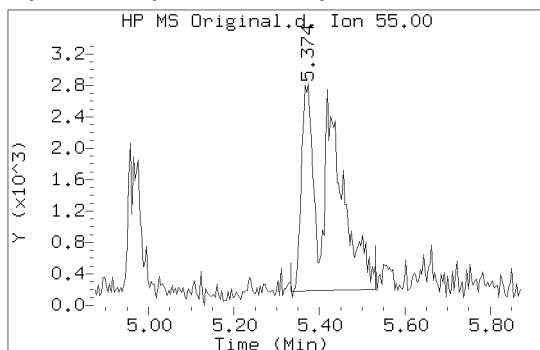
MASS
85
AREA
0
HEIGHT
0
23-Aug-2023
11:12



Ethyl Acrylate (140-88-5)

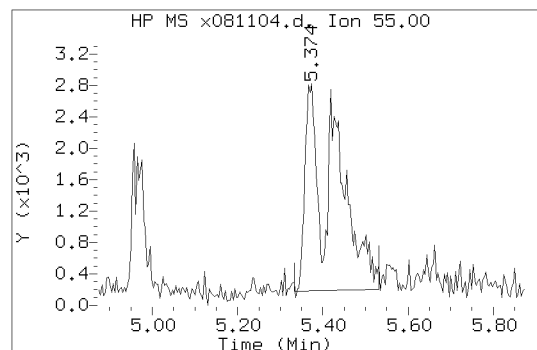
BEFORE

MASS
55
AREA
7180
HEIGHT
5609
12-Aug-2023
22:50



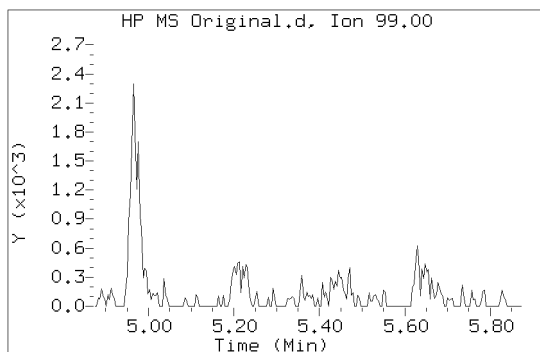
AFTER

MASS
55
AREA
12771
HEIGHT
2638
23-Aug-2023
11:12



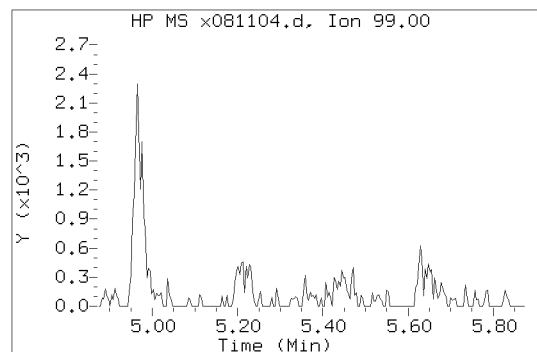
BEFORE

MASS
42
AREA
7056
HEIGHT
4197
12-Aug-2023
22:50



AFTER

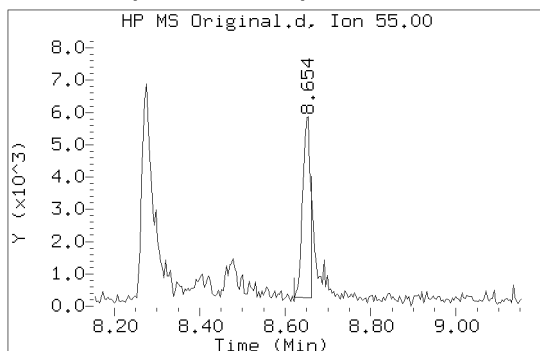
MASS
99
AREA
0
HEIGHT
0
23-Aug-2023
11:12



Cyclohexanone (108-94-1)

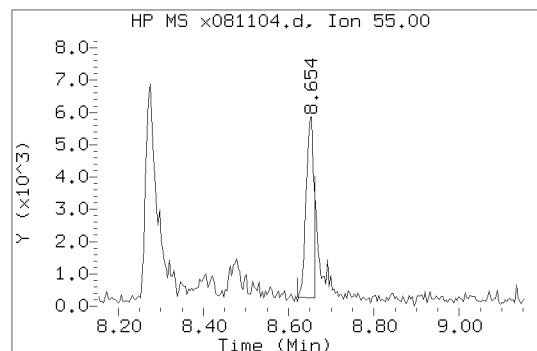
BEFORE

MASS
88
AREA
1553
HEIGHT
996
12-Aug-2023
22:50



AFTER

MASS
55
AREA
7180
HEIGHT
5609
23-Aug-2023
11:12

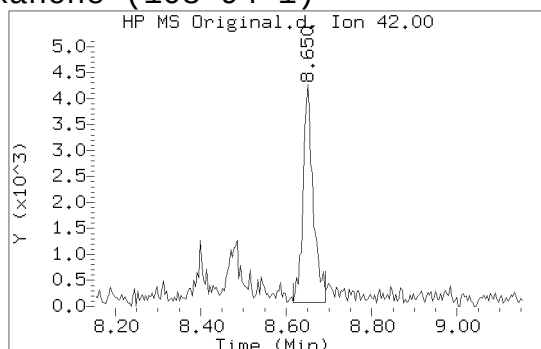


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 Inj Date : 11-AUG-2023 12:35
 InstruID : voa6.i
 LabSampID : VSTD001

Cyclohexanone (108-94-1)

BEFORE

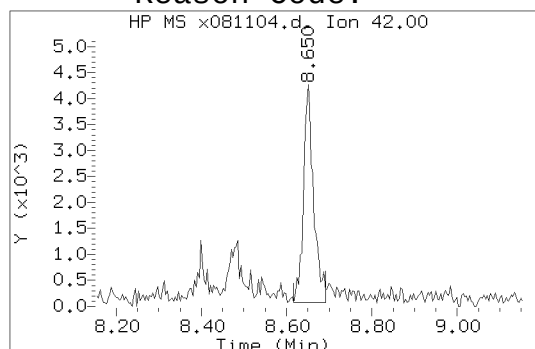
MASS
58
AREA
1534
HEIGHT
1243
12-Aug-2023
22:50



AFTER

MASS
42
AREA
7056
HEIGHT
4197
23-Aug-2023
11:12

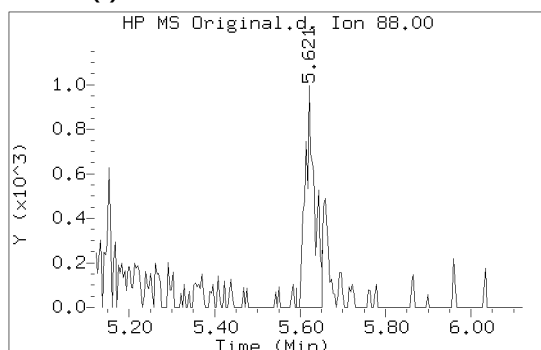
Reason Code:



1,4-Dioxane ()

BEFORE

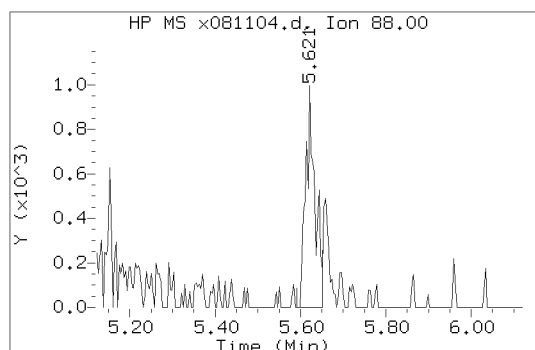
MASS
57
AREA
6841
HEIGHT
2866
12-Aug-2023
22:50



AFTER

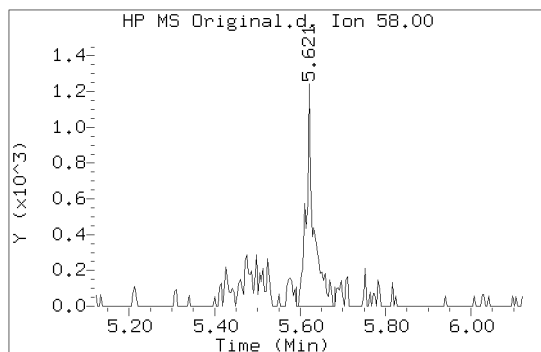
MASS
88
AREA
1553
HEIGHT
996
23-Aug-2023
11:12

Reason Code:



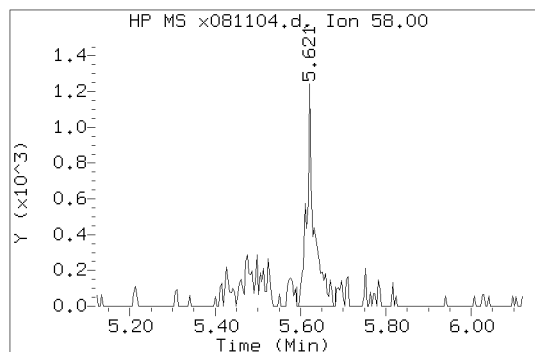
BEFORE

MASS
41
AREA
4034
HEIGHT
2416
12-Aug-2023
22:50



AFTER

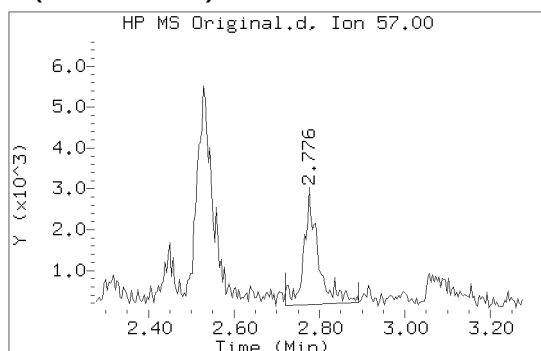
MASS
58
AREA
1534
HEIGHT
1243
23-Aug-2023
11:12



n-Hexane (110-54-3)

BEFORE

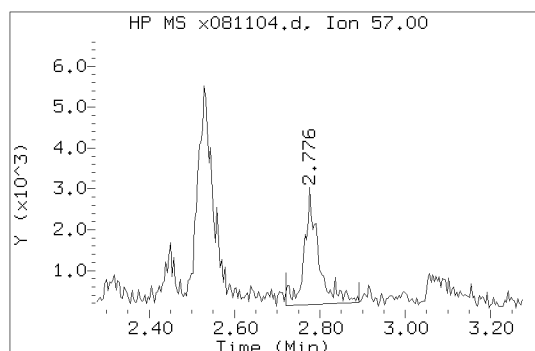
MASS
59
AREA
5859
HEIGHT
3734
12-Aug-2023
22:50



AFTER

MASS
57
AREA
6841
HEIGHT
2866
23-Aug-2023
11:12

Reason Code:

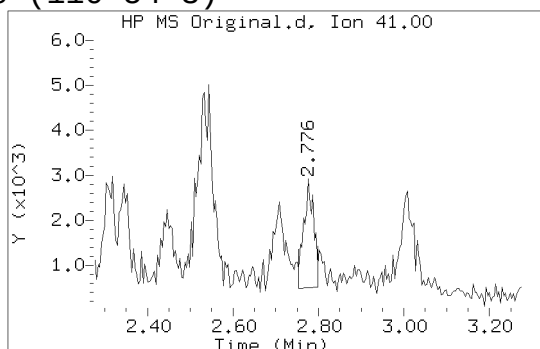


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 Inj Date : 11-AUG-2023 12:35
 InstruID : voa6.i
 LabSampID : VSTD001

n-Hexane (110-54-3)

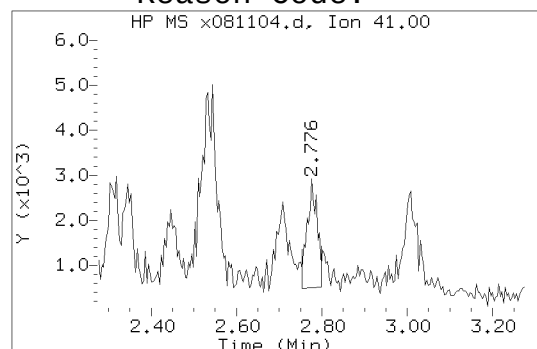
BEFORE

MASS
74
AREA
5241
HEIGHT
3056
12-Aug-2023
22:50



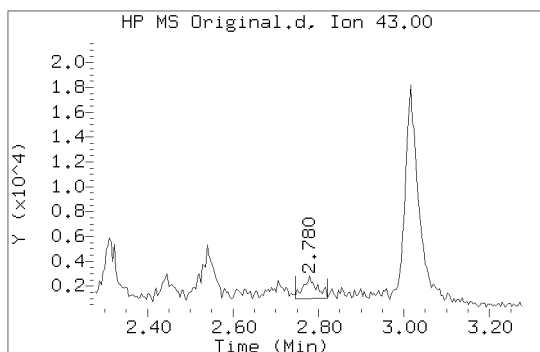
AFTER

MASS
41
AREA
4034
HEIGHT
2416
23-Aug-2023
11:12



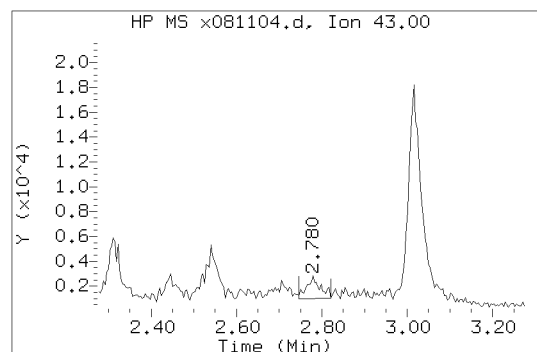
BEFORE

MASS
45
AREA
4217
HEIGHT
3242
12-Aug-2023
22:50



AFTER

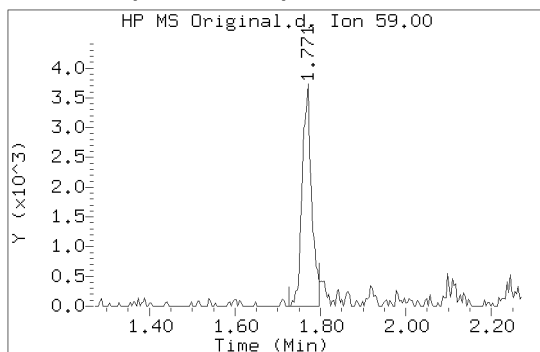
MASS
43
AREA
3979
HEIGHT
1820
23-Aug-2023
11:12



Diethyl ether (60-29-7)

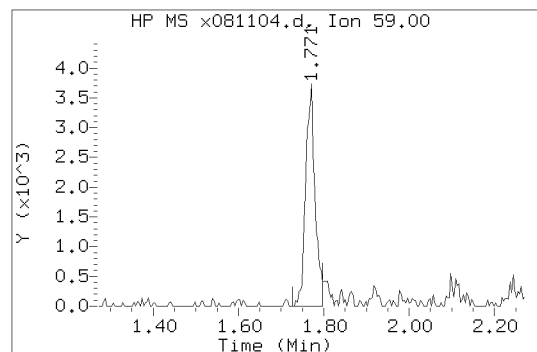
BEFORE

MASS
54
AREA
5912
HEIGHT
6761
12-Aug-2023
22:50



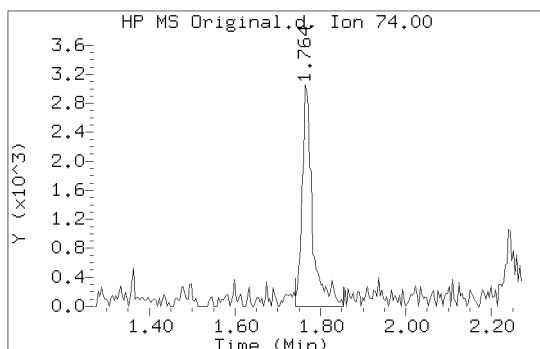
AFTER

MASS
59
AREA
5859
HEIGHT
3734
23-Aug-2023
11:12



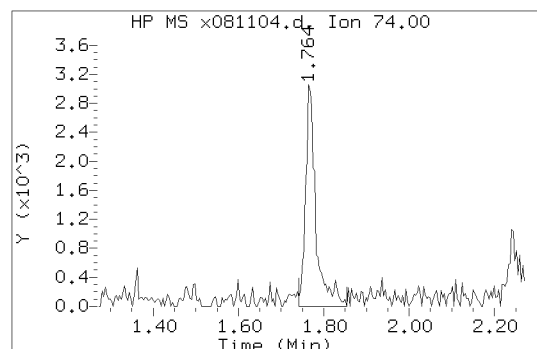
BEFORE

MASS
53
AREA
3952
HEIGHT
3847
12-Aug-2023
22:50



AFTER

MASS
74
AREA
5241
HEIGHT
3056
23-Aug-2023
11:12

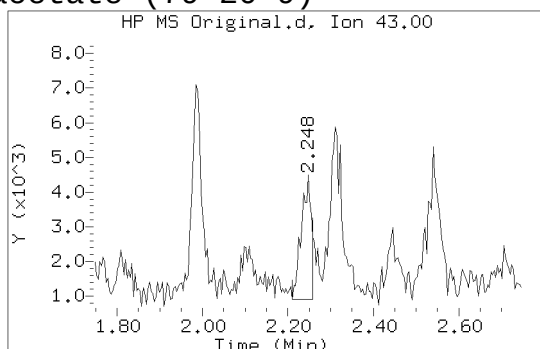


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 Inj Date : 11-AUG-2023 12:35
 InstruID : voa6.i
 LabSampID : VSTD001

Methyl acetate (79-20-9)

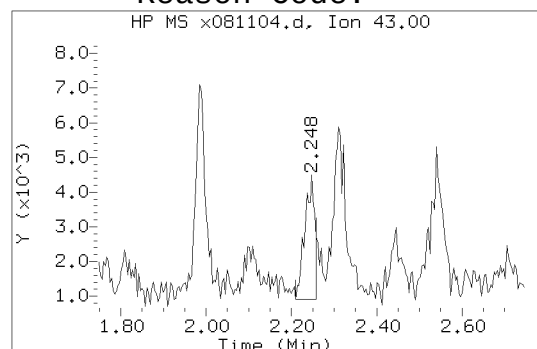
BEFORE

MASS
101
AREA
4459
HEIGHT
2440
12-Aug-2023
22:50



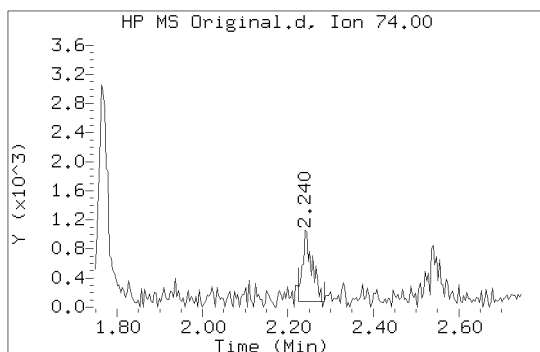
AFTER

MASS
43
AREA
5952
HEIGHT
3593
23-Aug-2023
11:12



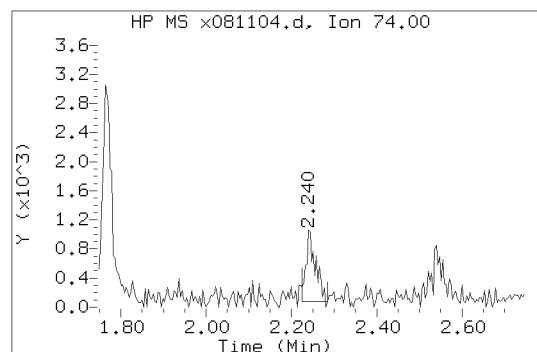
BEFORE

MASS
151
AREA
3753
HEIGHT
2002
12-Aug-2023
22:50



AFTER

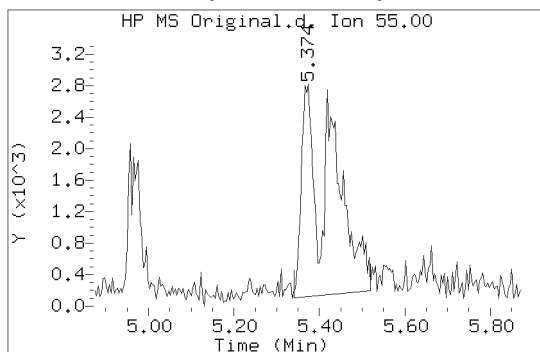
MASS
74
AREA
1517
HEIGHT
975
23-Aug-2023
11:12



Methylcyclohexane (108-87-2)

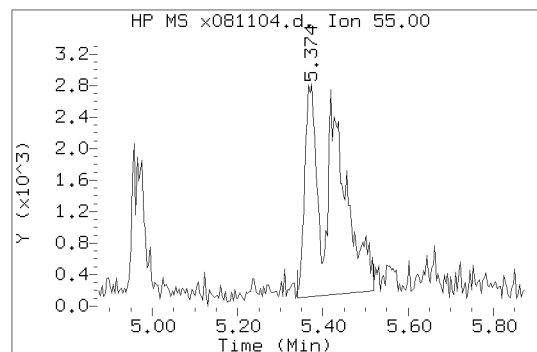
BEFORE

MASS
118
AREA
9352
HEIGHT
6614
12-Aug-2023
22:50



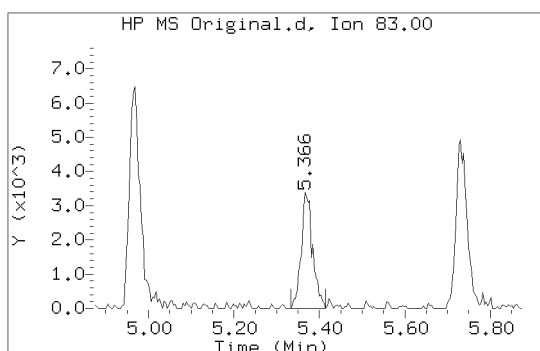
AFTER

MASS
55
AREA
13003
HEIGHT
2701
23-Aug-2023
11:12



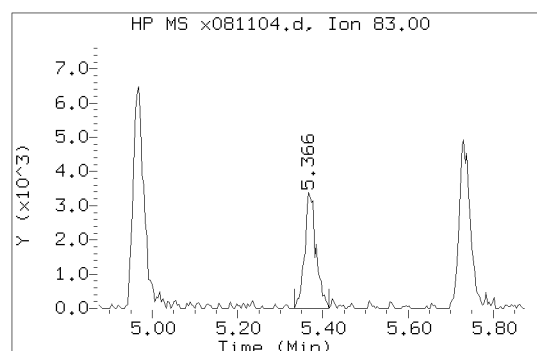
BEFORE

MASS
103
AREA
5656
HEIGHT
3410
12-Aug-2023
22:50



AFTER

MASS
83
AREA
6392
HEIGHT
3382
23-Aug-2023
11:12

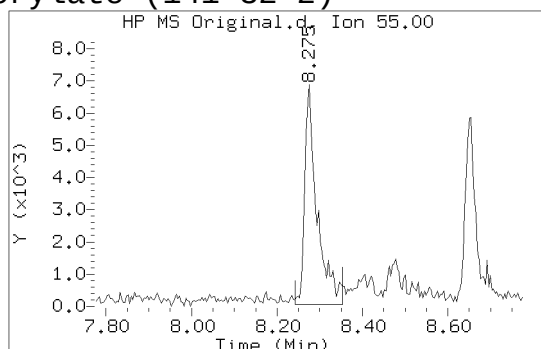


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
 Inj Date : 11-AUG-2023 12:35
 InstruID : voa6.i
 LabSampID : VSTD001

Butyl acrylate (141-32-2)

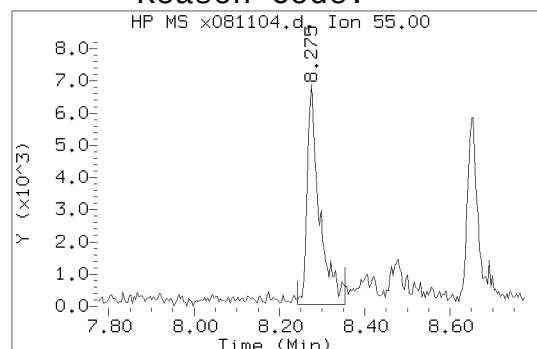
BEFORE

MASS
44
AREA
4717
HEIGHT
4655
12-Aug-2023
22:50



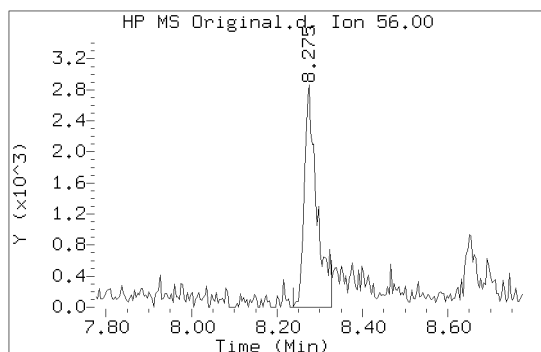
AFTER

MASS
55
AREA
14061
HEIGHT
6826
23-Aug-2023
11:12



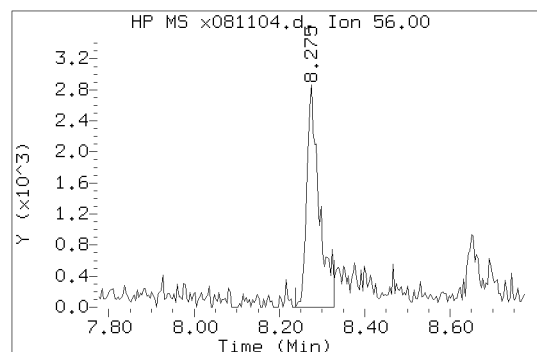
BEFORE

MASS
43
AREA
0
HEIGHT
0
12-Aug-2023
22:50



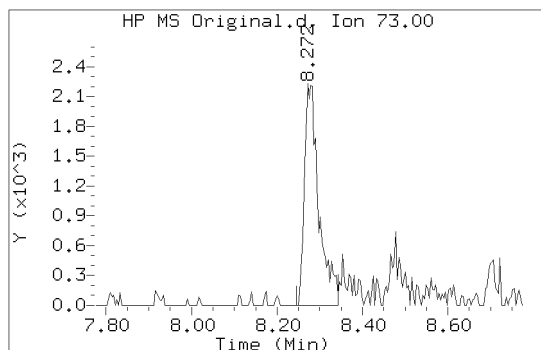
AFTER

MASS
56
AREA
5918
HEIGHT
2863
23-Aug-2023
11:12



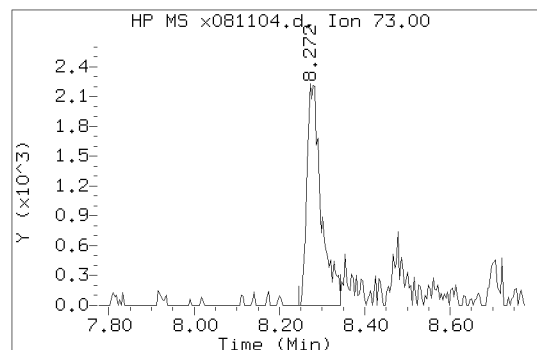
BEFORE

MASS
42
AREA
0
HEIGHT
0
12-Aug-2023
22:50



AFTER

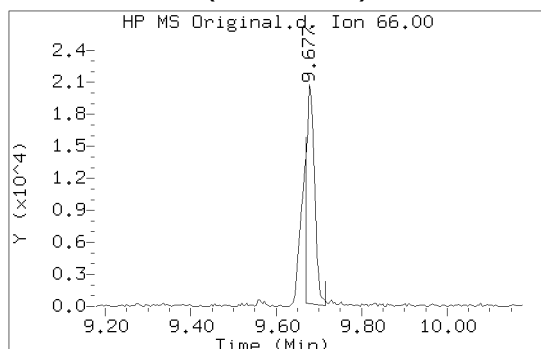
MASS
73
AREA
5292
HEIGHT
2231
23-Aug-2023
11:12



Dicyclopentadiene (77-73-6)

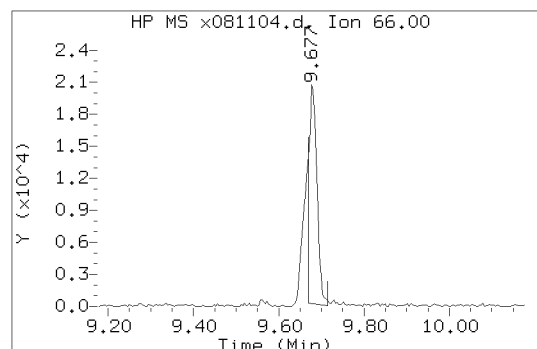
BEFORE

MASS
41
AREA
886
HEIGHT
818
12-Aug-2023
22:50



AFTER

MASS
66
AREA
27109
HEIGHT
20508
23-Aug-2023
11:12

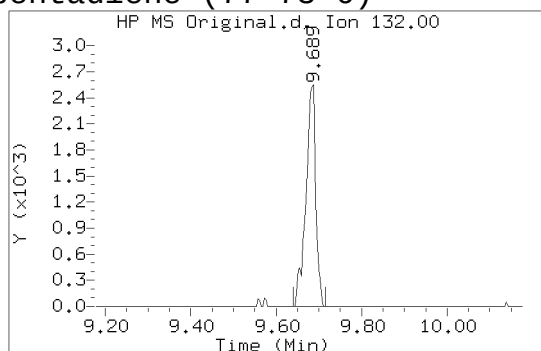


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081104.d
Inj Date : 11-AUG-2023 12:35
InstruID : voa6.i
LabSampID : VSTD001

Dicyclopentadiene (77-73-6)

BEFORE

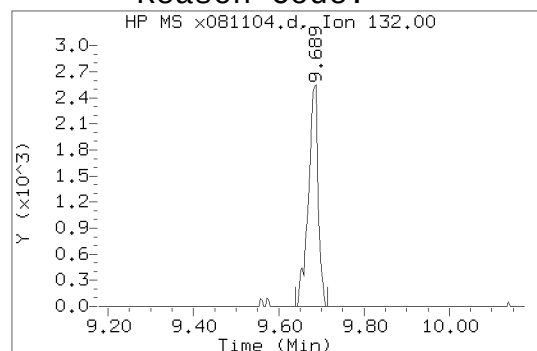
MASS
56
AREA
0
HEIGHT
0
12-Aug-2023
22:50



AFTER

MASS
132
AREA
4182
HEIGHT
2551
23-Aug-2023
11:12

Reason Code:



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081105.D Page 1
 Report Date: 25-Aug-2023 14:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081105.D
 Lab Smp Id: VSTD002 Client Smp ID: VSTD002
 Inj Date : 11-AUG-2023 12:55
 Operator : PC Inst ID: voa6.i
 Smp Info : VSTD002;VSTD002;1;4;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\8260W.m
 Meth Date : 25-Aug-2023 14:15 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 12:35 Cal File: X081104.D
 Als bottle: 5 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V6.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)		592297	50.0000	
135 1,4-Dioxane	88		5.617	5.617	(1.343)		3316	40.0000	44.04(M)
140 1,3-Butadiene	54		1.167	1.167	(0.279)		12815	2.00000	2.10
25 Methacrylonitrile	41		3.866	3.866	(0.925)		11361	2.00000	1.92(M)
12 Isobutyl Alcohol	43		4.695	4.695	(1.123)		36780	40.0000	39.61
13 Acetonitrile	39		2.206	2.206	(0.528)		20852	20.0000	22.82
14 Allyl Chloride	41		2.209	2.209	(0.528)		40111	2.00000	2.22
4 Propionitrile	54		3.686	3.686	(0.882)		15043	20.0000	18.23
136 n-Hexane	57		2.779	2.779	(0.665)		12200	2.00000	1.49
72 trans-1,4-Dichloro-2-butene	53		8.905	8.905	(1.161)		4155	2.00000	1.87(H)
194 Acetaldehyde	44		1.216	1.216	(0.291)		7566	8.00000	4.57(M)
23 Chloroprene	53		1.775	1.775	(0.424)		5152	2.00000	2.05(M)
145 alpha-Methylstyrene	118		9.268	9.268	(0.959)		18299	2.00000	1.77
200 Dimethyl Disulfide	94		6.202	6.202	(0.809)		20404	2.00000	1.75(M)
139 Diethyl ether	59		1.763	1.763	(0.422)		10605	2.00000	2.02
130 Ethyl Acetate	43		3.686	3.686	(0.882)		13837	2.00000	2.03(M)
40 Methyl Methacrylate	41		5.624	5.624	(1.345)		10263	2.00000	1.88
49 Ethyl Methacrylate	69		6.794	6.794	(1.368)		16413	2.00000	1.93(H)
132 n-Butanol	56		5.310	5.310	(1.270)		5108	40.0000	98.29(M)
142 Tetrahydrofuran	42		3.878	3.878	(0.927)		4312	4.00000	3.73



150 Allyl alcohol	57	2.779	2.779 (0.665)	12200	40.0000	31.71
166 1,2,3-Trimethylbenzene	105	9.733	9.733 (1.007)	45337	2.00000	2.01

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081105.D Page 2
 Report Date: 25-Aug-2023 14:15

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====		=====	=====	=====	=====	=====	=====	=====
131 Methyl Acrylate	55		3.735	3.735	(0.893)		11619	2.00000	1.98(M)
162 Butyl acrylate	55		8.267	8.267	(1.078)		27159	2.00000	1.89(M)
2 Dichlorodifluoromethane	85		0.980	0.980	(0.234)		11597	2.00000	2.77
3 Chloromethane	50		1.085	1.085	(0.260)		11158	2.00000	1.93(M)
5 Vinyl Chloride	62		1.149	1.149	(0.275)		14331	2.00000	2.01
6 Bromomethane	94		1.344	1.344	(0.321)		7835	2.00000	2.04
7 Chloroethane	64		1.411	1.411	(0.338)		9899	2.00000	2.12
8 Trichlorofluoromethane	101		1.565	1.565	(0.374)		20104	2.00000	1.98
9 Acrolein	56		1.868	1.868	(0.447)		887	4.00000	1.94(M)
10 Acetone	43		1.981	1.981	(0.474)		14349	4.00000	1.95
11 1,1-Dichloroethene	96		1.921	1.921	(0.459)		12243	2.00000	2.14
15 Iodomethane	142		2.033	2.033	(0.486)		9663	4.00000	6.95
16 Acrylonitrile	53		2.543	2.543	(0.608)		11577	4.00000	4.20
17 Methylene Chloride	84		2.307	2.307	(0.552)		15136	2.00000	2.11(M)
18 Methyl tert-butyl ether	73		2.543	2.543	(0.608)		42266	2.00000	2.07
19 Carbon Disulfide	76		2.075	2.075	(0.496)		70178	4.00000	4.13
20 trans-1,2-Dichloroethene	96		2.536	2.536	(0.606)		13433	2.00000	2.02
21 Vinyl Acetate	43		3.008	3.008	(0.719)		72401	4.00000	3.68
22 1,1-Dichloroethane	63		2.929	2.929	(0.701)		26795	2.00000	2.14
24 2-Butanone	43		3.671	3.671	(0.878)		8139	4.00000	3.71(MH)
26 2,2-Dichloropropane	77		3.510	3.510	(0.840)		17055	2.00000	2.01
27 cis-1,2-Dichloroethene	96		3.533	3.533	(0.845)		11950	2.00000	1.87
28 Chloroform	83		3.915	3.915	(0.936)		22778	2.00000	2.07
29 Bromochloromethane	128		3.803	3.803	(0.909)		7505	2.00000	2.06
\$ 30 Dibromofluoromethane	113		4.110	4.110	(0.983)		12062	2.00000	1.42
31 1,1,1-Trichloroethane	97		4.088	4.088	(0.978)		16785	2.00000	1.90
32 1,1-Dichloropropene	75		4.286	4.286	(0.863)		14157	2.00000	1.94(H)
33 1,2-Dichloroethane	62		4.571	4.571	(0.921)		16915	2.00000	1.92
34 Carbon Tetrachloride	117		4.267	4.267	(0.860)		14921	2.00000	1.94(H)
\$ 35 1,2-Dichloroethane-d4	65		4.485	4.485	(1.073)		13488	2.00000	1.16
* 36 1,4-Difluorobenzene	114		4.965	4.965	(1.000)		923485	50.0000	
37 Benzene	78		4.522	4.522	(0.911)		43496	2.00000	1.91
38 Trichloroethene	130		5.212	5.212	(1.050)		12729	2.00000	1.94
39 Bromodichloromethane	83		5.726	5.726	(1.153)		15520	2.00000	1.83
41 2-Chloroethylvinyl ether	63		6.067	6.067	(1.222)		9072	4.00000	4.18(M)
42 1,2-Dichloropropane	63		5.448	5.448	(1.097)		12216	2.00000	1.90(M)
44 Dibromomethane	93		5.553	5.553	(1.119)		8617	2.00000	1.96
45 4-Methyl-2-Pentanone	43		6.337	6.337	(0.826)		26871	4.00000	4.25
46 cis-1,3-Dichloropropene	75		6.161	6.161	(1.241)		17563	2.00000	1.81
* 47 Chlorobenzene-d5	117		7.667	7.667	(1.000)		881014	50.0000	
\$ 48 Toluene-d8	98		6.389	6.389	(0.833)		43332	2.00000	2.08
50 Toluene	91		6.453	6.453	(0.842)		45696	2.00000	1.86
51 trans-1,3-Dichloropropene	75		6.693	6.693	(1.348)		15088	2.00000	1.85
52 2-Hexanone	43		7.101	7.101	(0.926)		17279	4.00000	4.07(M)
53 1,1,2-Trichloroethane	83		6.843	6.843	(0.892)		9586	2.00000	1.95
54 1,3-Dichloropropane	76		6.981	6.981	(0.911)		19127	2.00000	1.91
55 Dibromochloromethane	129		7.180	7.180	(0.936)		13173	2.00000	1.86
56 Tetrachloroethene	164		6.929	6.929	(0.904)		8822	2.00000	1.72(M)
57 1,2-Dibromoethane	107		7.266	7.266	(0.948)		11663	2.00000	1.95
58 1-Chlorohexane	55		7.701	7.701	(1.551)		10090	2.00000	1.88(MH)
59 Chlorobenzene	112		7.694	7.694	(1.003)		32047	2.00000	1.89
60 1,1,1,2-Tetrachloroethane	131		7.776	7.776	(1.014)		12365	2.00000	1.89



61 Ethylbenzene	106	7.802	7.802 (1.018)	14909	2.00000	1.78
62 m,p-Xylenes	106	7.907	7.907 (1.031)	38266	4.00000	3.58



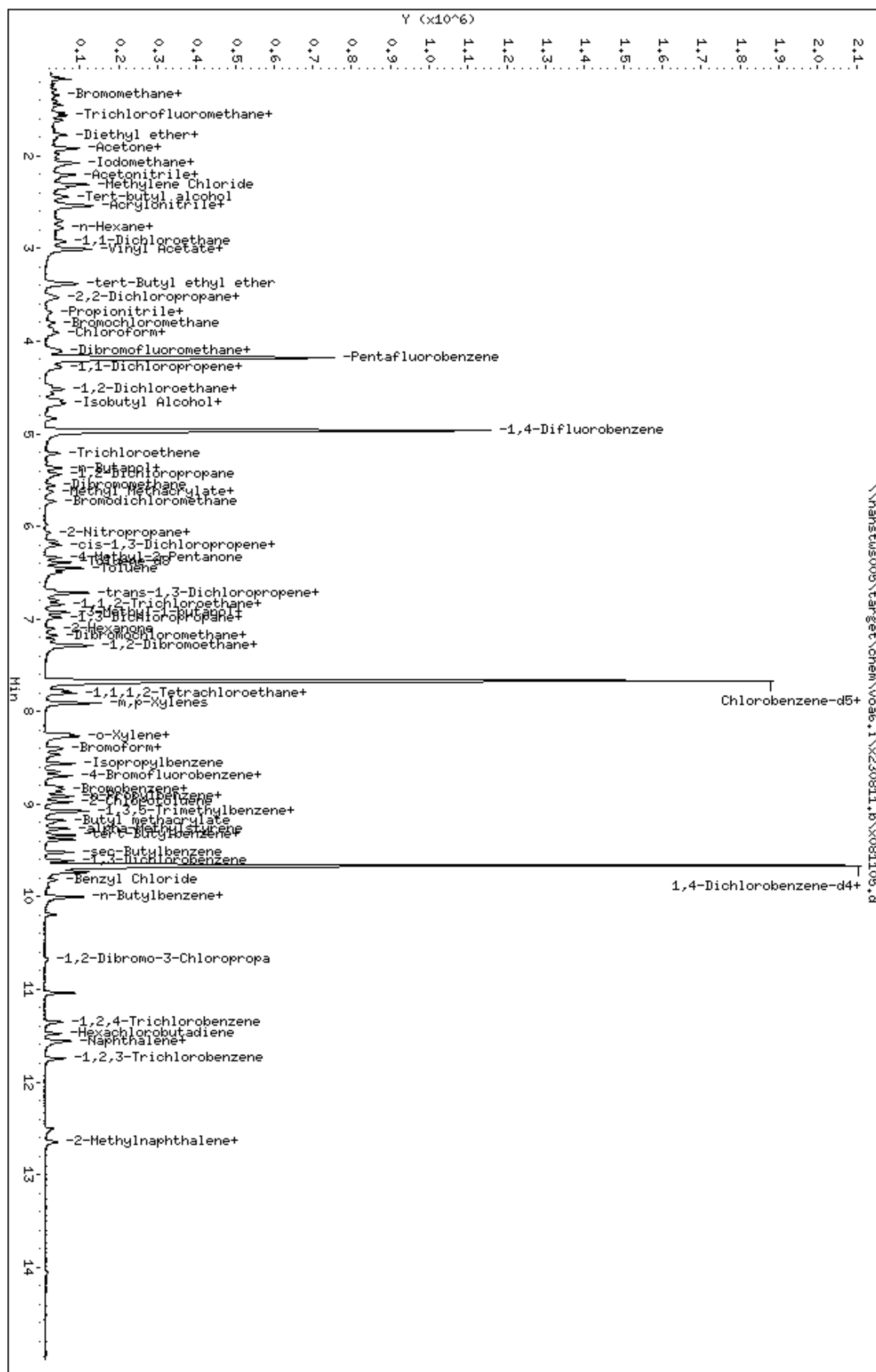
Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081105.D Page 3
 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
63 o-Xylene	106	8.241	8.241	(1.075)	19853	2.00000	1.88
64 Styrene	104	8.271	8.271	(1.079)	30274	2.00000	1.72
66 Bromoform	173	8.413	8.413	(1.097)	8610	2.00000	1.80
67 Isopropylbenzene	105	8.563	8.563	(1.117)	45338	2.00000	1.73
68 1,1,2,2-Tetrachloroethane	83	8.841	8.841	(0.915)	16903	2.00000	2.13(M)
\$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	21205	2.00000	2.70
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	485300	50.0000	
71 1,2,3-Trichloropropane	75	8.871	8.871	(0.918)	12105	2.00000	2.08(M)
73 n-Propylbenzene	91	8.916	8.916	(0.923)	49153	2.00000	1.71
74 Bromobenzene	156	8.811	8.811	(0.912)	14603	2.00000	1.88
75 1,3,5-Trimethylbenzene	105	9.069	9.069	(0.939)	35325	2.00000	1.68
76 2-Chlorotoluene	91	8.976	8.976	(0.929)	34759	2.00000	1.89
77 4-Chlorotoluene	91	9.081	9.081	(0.940)	40941	2.00000	1.93
78 tert-Butylbenzene	119	9.336	9.336	(0.966)	30447	2.00000	1.69
79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	36713	2.00000	1.69
81 sec-Butylbenzene	105	9.523	9.523	(0.986)	41789	2.00000	1.69
82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	37168	2.00000	1.66
83 1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	25707	2.00000	1.86
84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	28704	2.00000	1.94
86 Benzyl Chloride	91	9.819	9.819	(1.281)	20601	2.00000	1.63(M)
87 n-Butylbenzene	91	10.003	10.003	(1.035)	30922	2.00000	3.38
88 1,2-Dichlorobenzene	146	10.003	10.003	(1.035)	26477	2.00000	1.89
89 1,2-Dibromo-3-Chloropropane	155	10.674	10.674	(1.105)	2798	2.00000	2.09(M)
90 1,2,4-Trichlorobenzene	180	11.356	11.356	(1.175)	16853	2.00000	1.82
91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	6937	2.00000	1.55
92 Naphthalene	128	11.566	11.566	(1.197)	47126	2.00000	2.04
93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	16836	2.00000	1.87
M 94 1,2-Dichloroethylene (total)	96				25383	4.00000	
M 95 Xylenes (total)	106				58119	6.00000	
141 Cyclohexane	56	4.125	4.125	(0.987)	12705	2.00000	3.37(H)
138 Freon TF	101	1.917	1.917	(0.459)	10755	2.00000	3.02
147 Methylcyclohexane	55	5.370	5.370	(1.082)	25754	2.00000	1.85(M)
146 Methyl Acetate	43	2.239	2.239	(0.536)	10629	2.00000	1.99
148 Tert-Butyl alcohol	59	2.438	2.438	(0.583)	45475	40.0000	51.55
149 Isopropyl Alcohol	45	2.104	2.104	(0.503)	25882	40.0000	50.16

QC Flag Legend

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





Data File: \nahstius005\target\chem\voas6.i\X230811.b\X081105.d
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 Client ID: WSTD002
 Sample Info: WSTD002;WSTD002;1;4;
 Purge Volume: 5.0
 Column phase: DB624

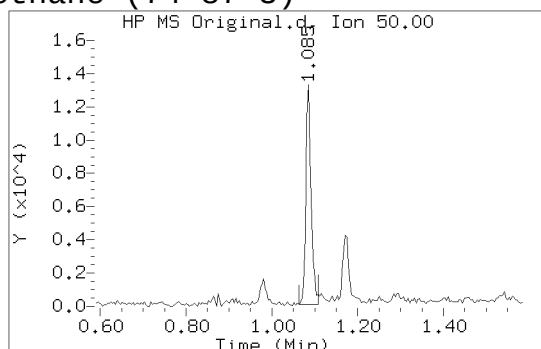
Instrument: voas6.i
 Operator: PC
 Column diameter: 0.18



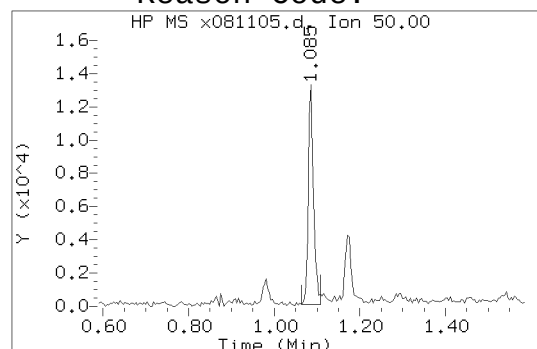
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Inj Date : 11-AUG-2023 12:55
InstruID : voa6.i
LabSampID : VSTD002

Chloromethane (74-87-3)**BEFORE**

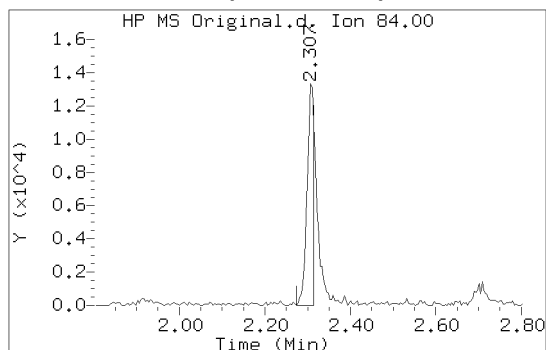
MASS
168
AREA
592297
HEIGHT
270378
12-Aug-2023
22:50

**AFTER**

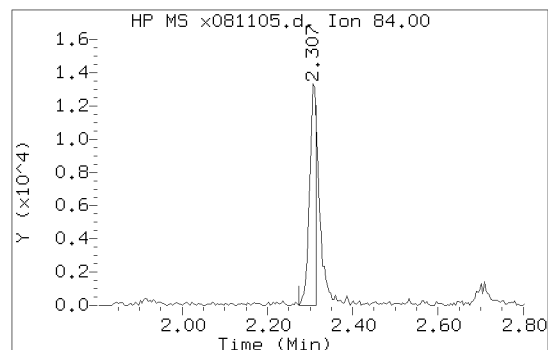
MASS
50
AREA
11158
HEIGHT
13202
23-Aug-2023
11:11

**Methylene Chloride (75-09-2)****BEFORE**

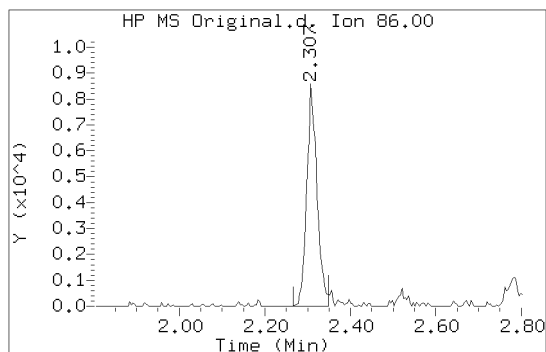
MASS
96
AREA
12243
HEIGHT
8231
12-Aug-2023
22:50

**AFTER**

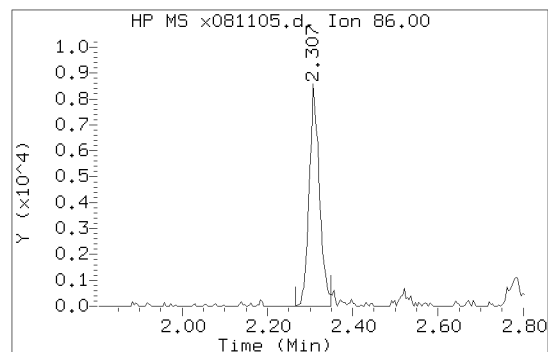
MASS
84
AREA
15136
HEIGHT
13341
23-Aug-2023
11:11

**BEFORE**

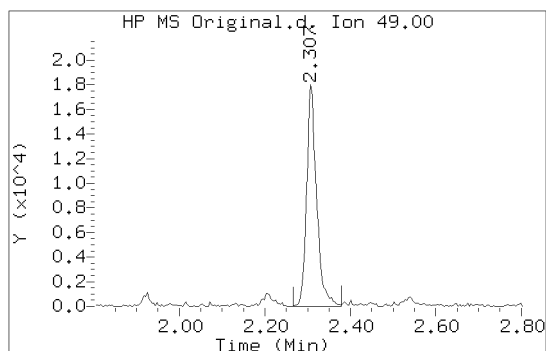
MASS
61
AREA
19779
HEIGHT
13599
12-Aug-2023
22:50

**AFTER**

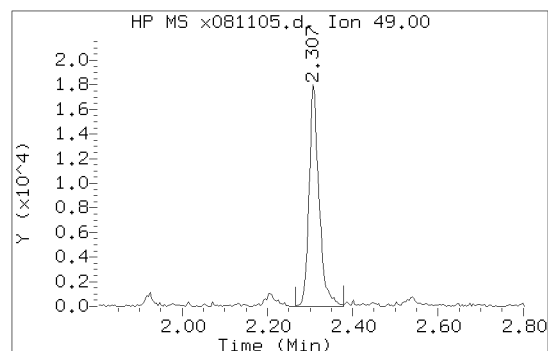
MASS
86
AREA
14526
HEIGHT
8579
23-Aug-2023
11:11

**BEFORE**

MASS
63
AREA
6265
HEIGHT
3915
12-Aug-2023
22:50

**AFTER**

MASS
49
AREA
29880
HEIGHT
18008
23-Aug-2023
11:11

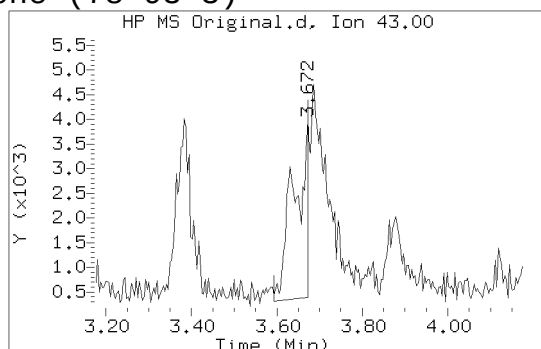


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 Inj Date : 11-AUG-2023 12:55
 InstruID : voa6.i
 LabSampID : VSTD002

2-Butanone (78-93-3)

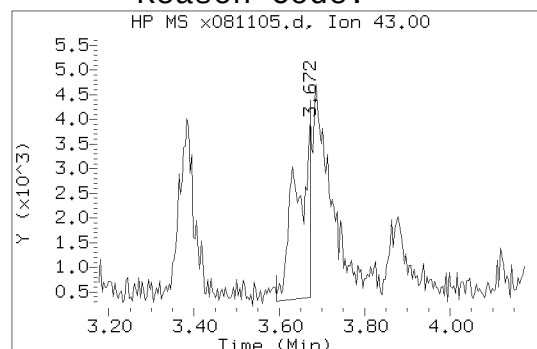
BEFORE

MASS
76
AREA
70178
HEIGHT
47592
12-Aug-2023
22:50



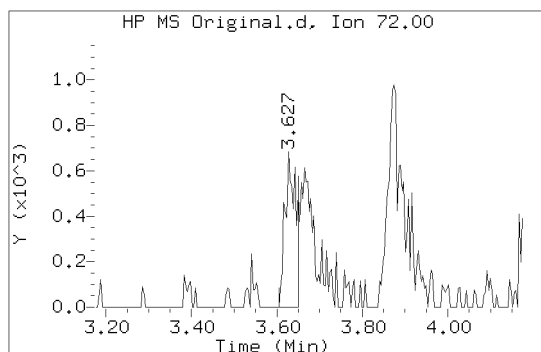
AFTER

MASS
43
AREA
8139
HEIGHT
3612
23-Aug-2023
11:11



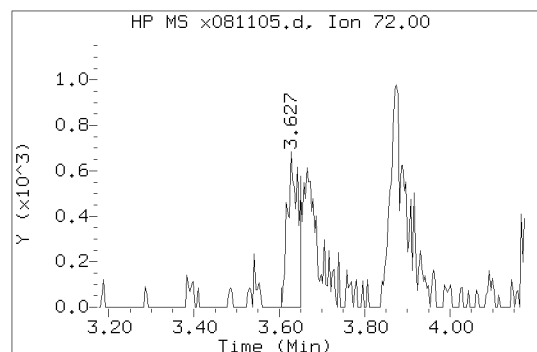
BEFORE

MASS
78
AREA
6866
HEIGHT
4857
12-Aug-2023
22:50



AFTER

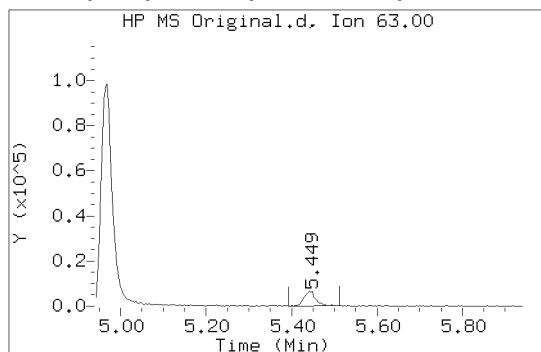
MASS
72
AREA
1165
HEIGHT
683
23-Aug-2023
11:11



1,2-Dichloropropane (78-87-5)

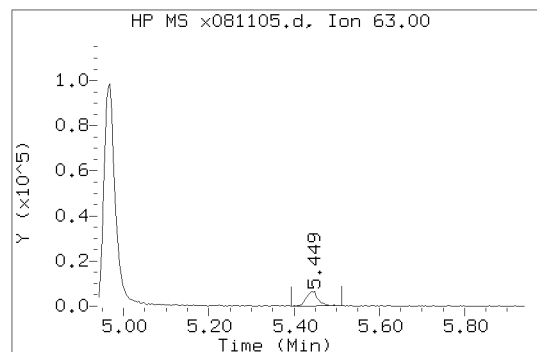
BEFORE

MASS
114
AREA
923485
HEIGHT
503019
12-Aug-2023
22:50



AFTER

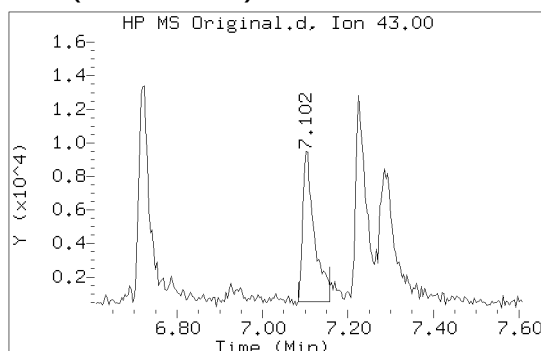
MASS
63
AREA
12216
HEIGHT
6332
23-Aug-2023
11:11



2-Hexanone (591-78-6)

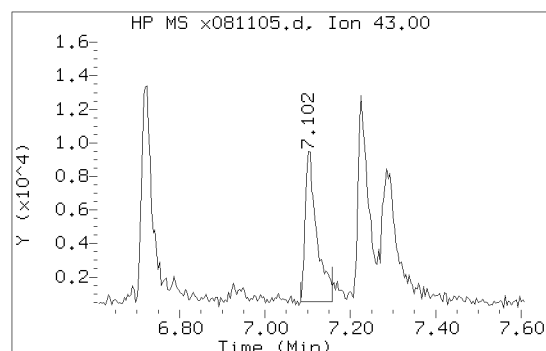
BEFORE

MASS
43
AREA
26871
HEIGHT
15031
12-Aug-2023
22:50



AFTER

MASS
43
AREA
17279
HEIGHT
8977
23-Aug-2023
11:11

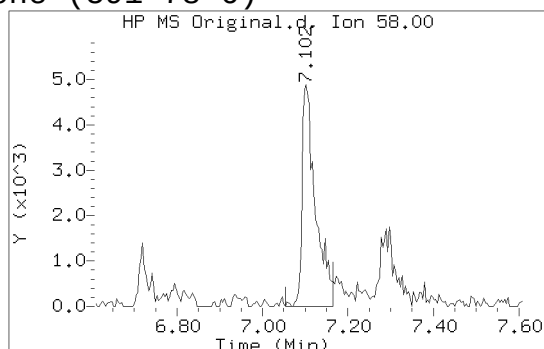


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 InstruID : voa6.i
 LabSampID : VSTD002

2-Hexanone (591-78-6)

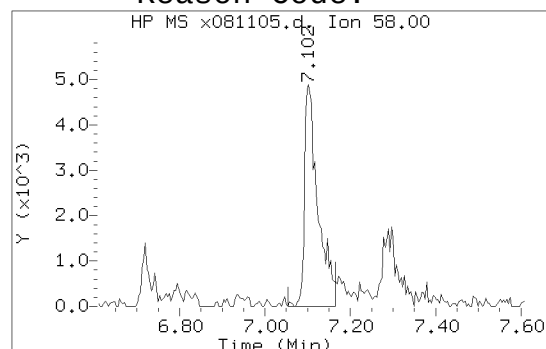
BEFORE

MASS
58
AREA
11005
HEIGHT
6041
12-Aug-2023
22:50



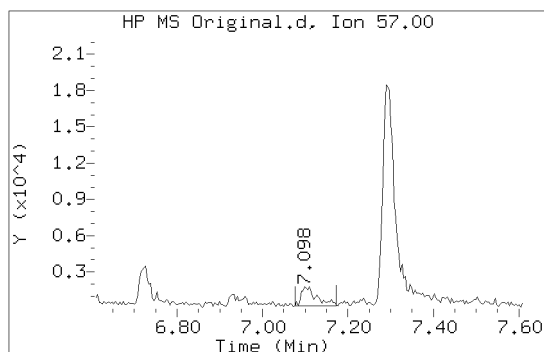
AFTER

MASS
58
AREA
10875
HEIGHT
4886
23-Aug-2023
11:11



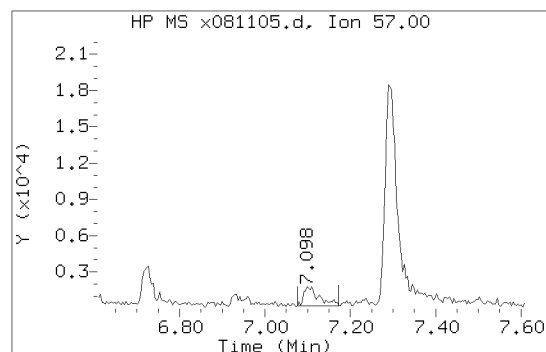
BEFORE

MASS
100
AREA
3790
HEIGHT
2191
12-Aug-2023
22:50



AFTER

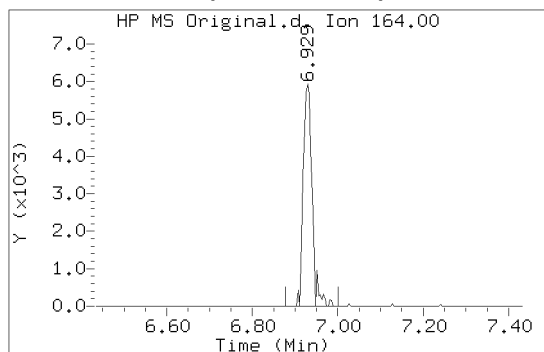
MASS
57
AREA
4001
HEIGHT
1589
23-Aug-2023
11:11



Tetrachloroethene (127-18-4)

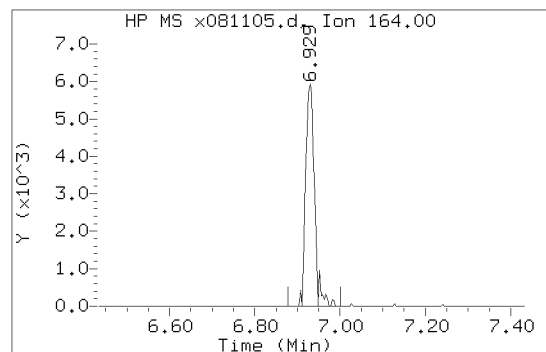
BEFORE

MASS
75
AREA
15088
HEIGHT
8125
12-Aug-2023
22:50



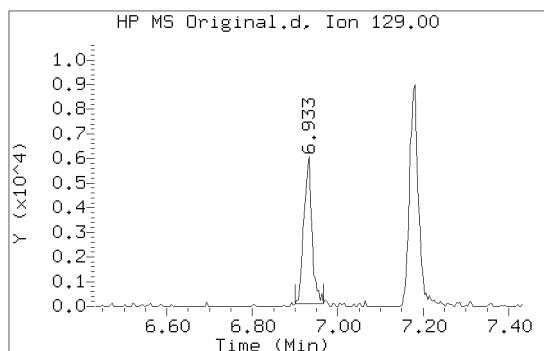
AFTER

MASS
164
AREA
8822
HEIGHT
5932
23-Aug-2023
11:11



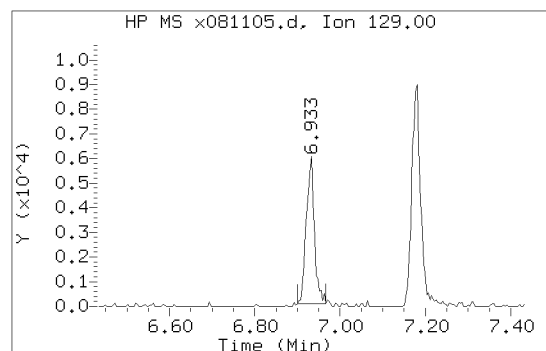
BEFORE

MASS
77
AREA
5797
HEIGHT
3041
12-Aug-2023
22:50



AFTER

MASS
129
AREA
8163
HEIGHT
6005
23-Aug-2023
11:11

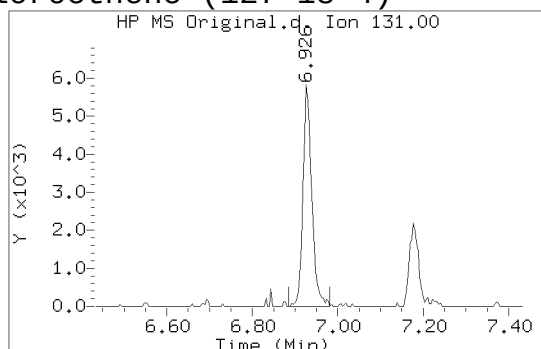


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 InstruID : voa6.i
 LabSampID : VSTD002

Tetrachloroethene (127-18-4)

BEFORE

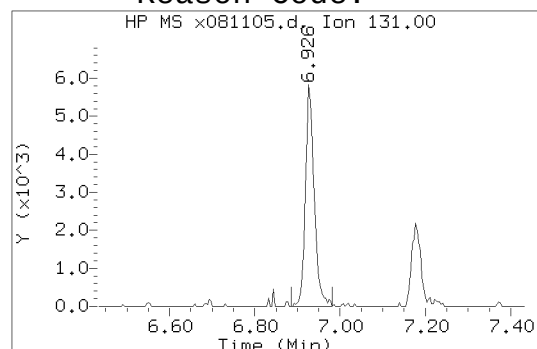
MASS
39
AREA
6117
HEIGHT
4449
12-Aug-2023
22:50



AFTER

MASS
131
AREA
8541
HEIGHT
5830
23-Aug-2023
11:11

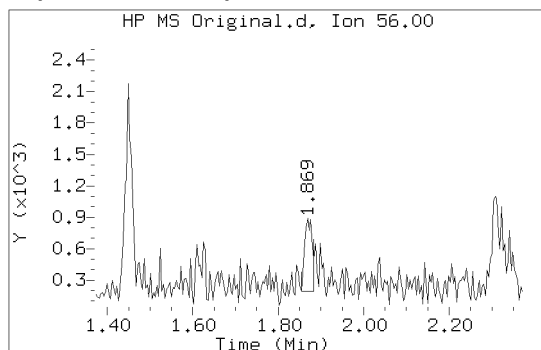
Reason Code:



Acrolein (107-02-8)

BEFORE

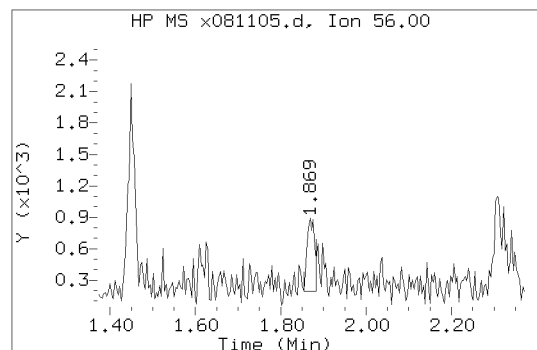
MASS
76
AREA
19127
HEIGHT
11607
12-Aug-2023
22:50



AFTER

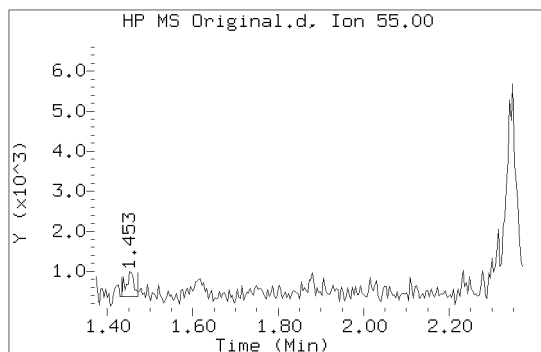
MASS
56
AREA
887
HEIGHT
696
23-Aug-2023
11:11

Reason Code:



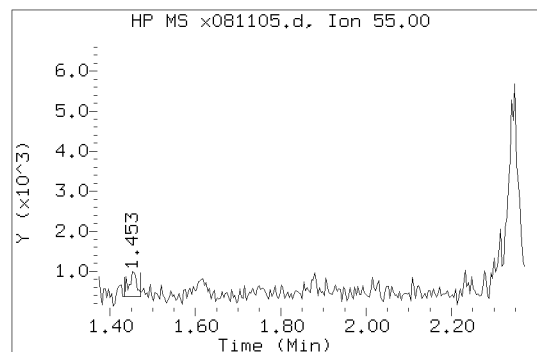
BEFORE

MASS
78
AREA
6539
HEIGHT
3990
12-Aug-2023
22:50



AFTER

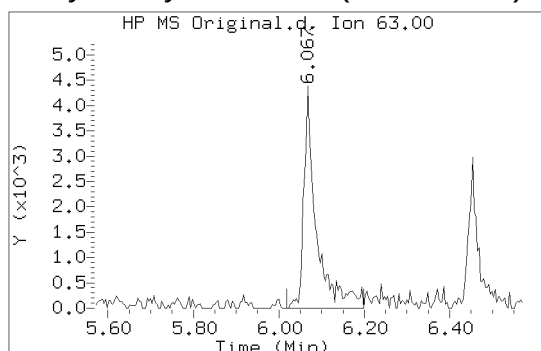
MASS
55
AREA
792
HEIGHT
631
23-Aug-2023
11:11



2-Chloroethylvinyl ether (110-75-8)

BEFORE

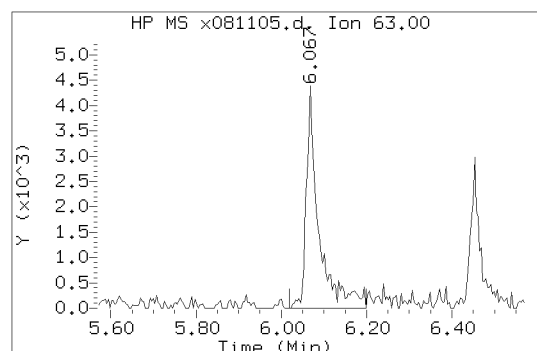
MASS
129
AREA
13173
HEIGHT
8997
12-Aug-2023
22:50



AFTER

MASS
63
AREA
9072
HEIGHT
4387
23-Aug-2023
11:11

Reason Code:

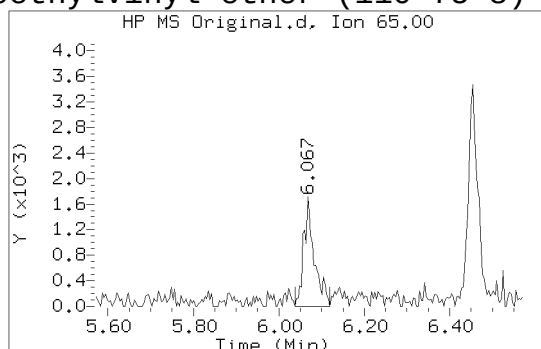


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 Inj Date : 11-AUG-2023 12:55
 InstruID : voa6.i
 LabSampID : VSTD002

2-Chloroethylvinyl ether (110-75-8)

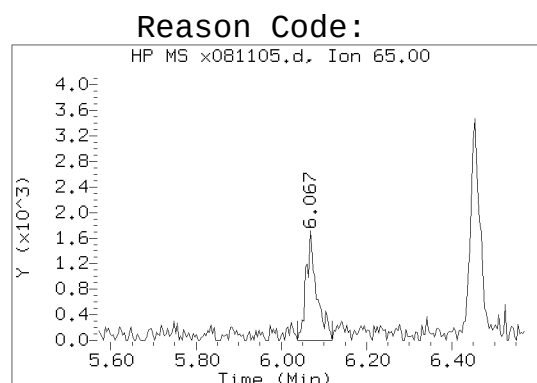
BEFORE

MASS
127
AREA
10054
HEIGHT
6939
12-Aug-2023
22:50



AFTER

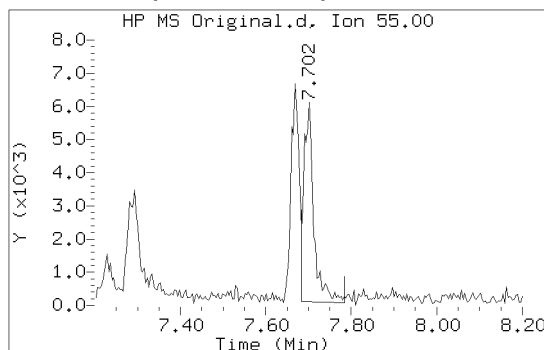
MASS
65
AREA
3015
HEIGHT
1713
23-Aug-2023
11:11



1-Chlorohexane (544-10-5)

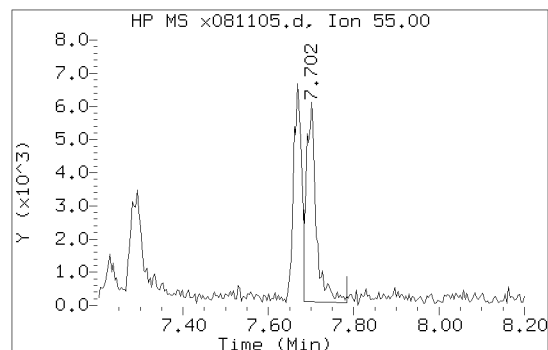
BEFORE

MASS
164
AREA
8822
HEIGHT
5932
12-Aug-2023
22:50



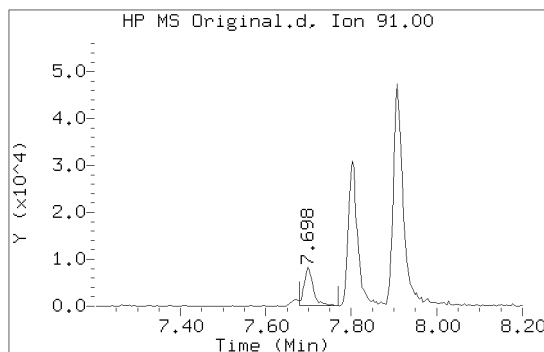
AFTER

MASS
55
AREA
10090
HEIGHT
6010
23-Aug-2023
11:11



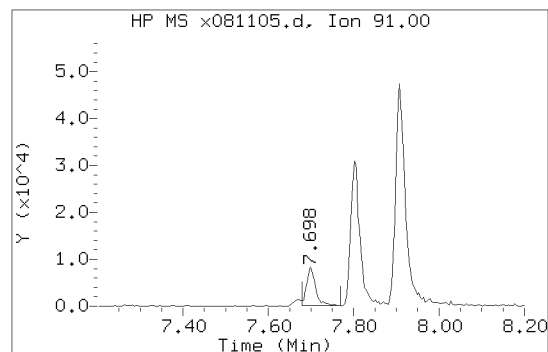
BEFORE

MASS
129
AREA
8163
HEIGHT
6005
12-Aug-2023
22:50



AFTER

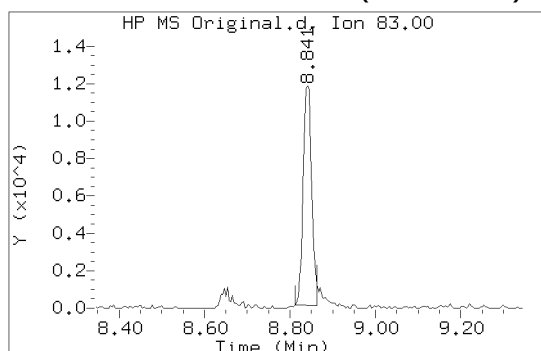
MASS
91
AREA
12460
HEIGHT
8258
23-Aug-2023
11:11



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

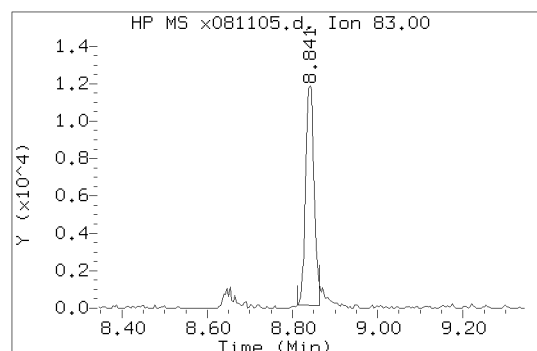
BEFORE

MASS
41
AREA
40111
HEIGHT
21479
12-Aug-2023
22:50



AFTER

MASS
83
AREA
16903
HEIGHT
11730
23-Aug-2023
11:11

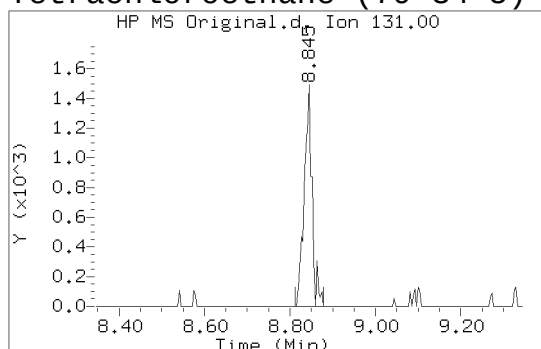


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 InstruID : voa6.i
 LabSampID : VSTD002

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

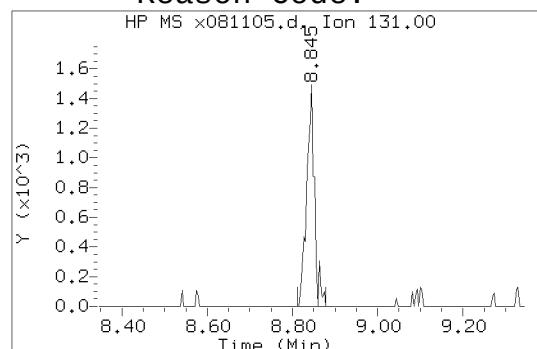
BEFORE

MASS
76
AREA
7130
HEIGHT
4327
12-Aug-2023
22:50



AFTER

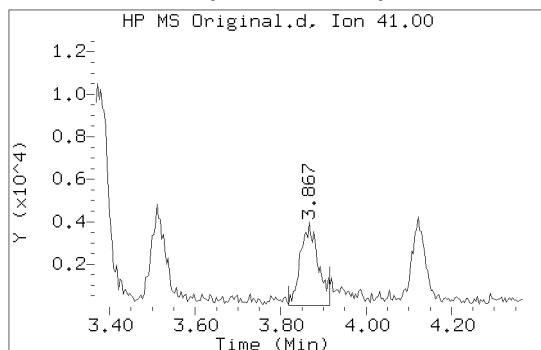
MASS
131
AREA
1947
HEIGHT
1493
23-Aug-2023
11:11



Methacrylonitrile (126-98-7)

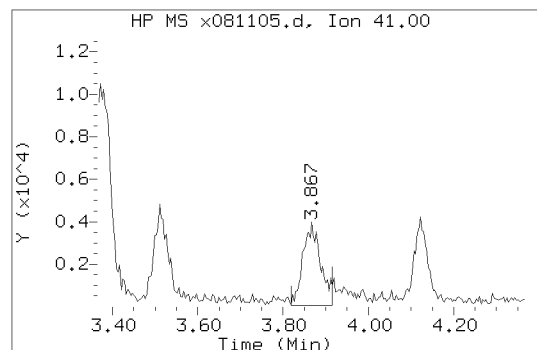
BEFORE

MASS
152
AREA
485300
HEIGHT
355847
12-Aug-2023
22:50



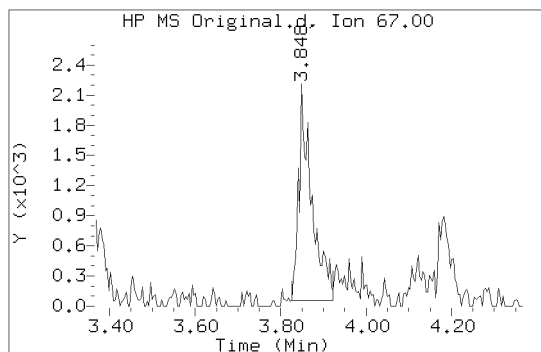
AFTER

MASS
41
AREA
11361
HEIGHT
3925
23-Aug-2023
11:11



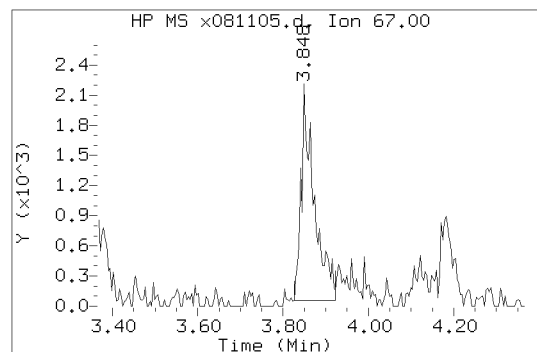
BEFORE

MASS
115
AREA
270794
HEIGHT
192256
12-Aug-2023
22:50



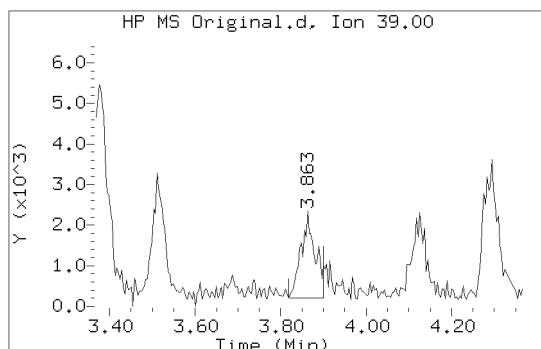
AFTER

MASS
67
AREA
4555
HEIGHT
2155
23-Aug-2023
11:11



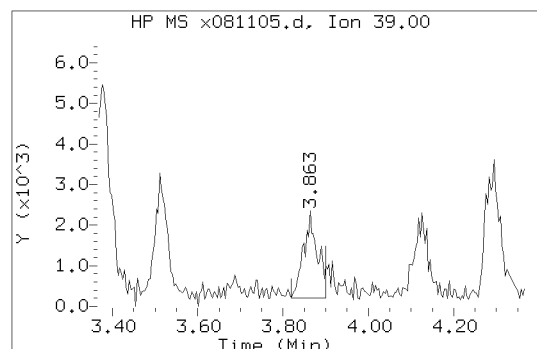
BEFORE

MASS
150
AREA
756792
HEIGHT
561071
12-Aug-2023
22:50



AFTER

MASS
39
AREA
5023
HEIGHT
2154
23-Aug-2023
11:11

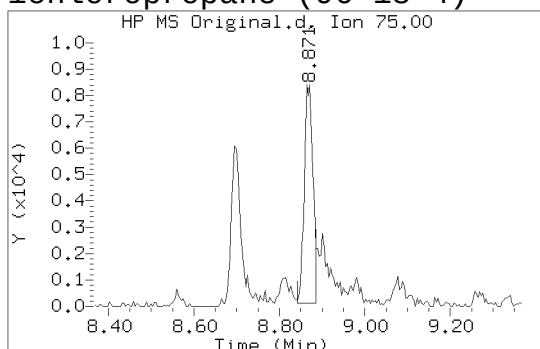


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081105.d
 Inj Date : 11-AUG-2023 12:55
 InstruID : voa6.i
 LabSampID : VSTD002

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

BEFORE

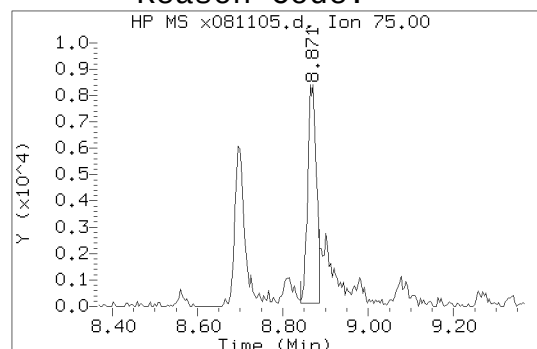
MASS
41
AREA
11361
HEIGHT
3925
12-Aug-2023
22:50



AFTER

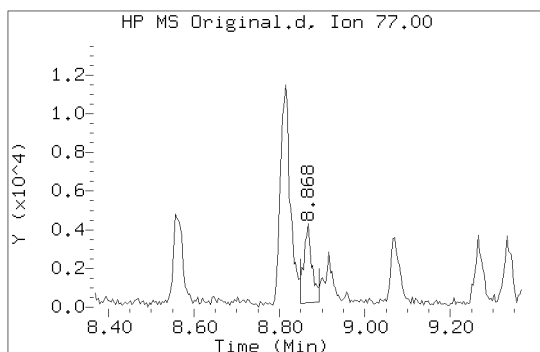
MASS
75
AREA
12105
HEIGHT
8293
23-Aug-2023
11:11

Reason Code:



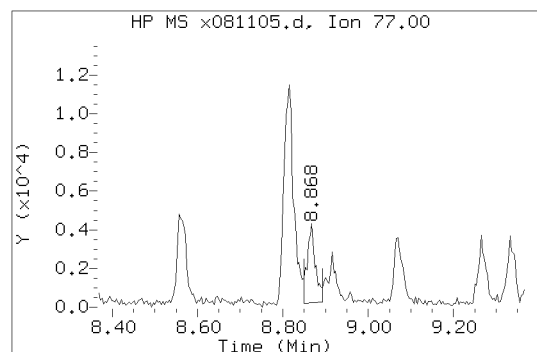
BEFORE

MASS
67
AREA
4555
HEIGHT
2155
12-Aug-2023
22:50



AFTER

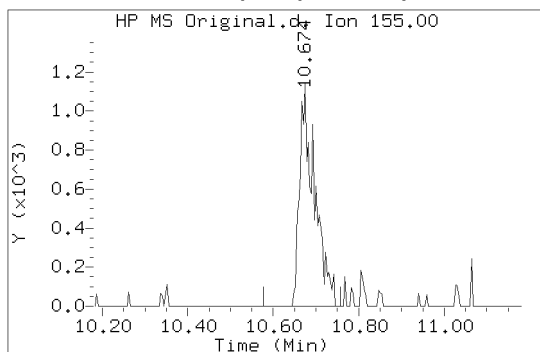
MASS
77
AREA
5802
HEIGHT
4087
23-Aug-2023
11:11



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

BEFORE

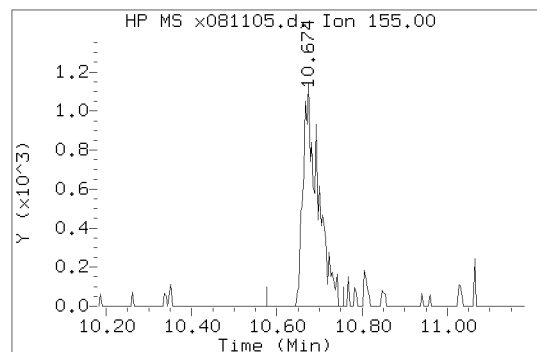
MASS
155
AREA
2798
HEIGHT
1139
12-Aug-2023
22:50



AFTER

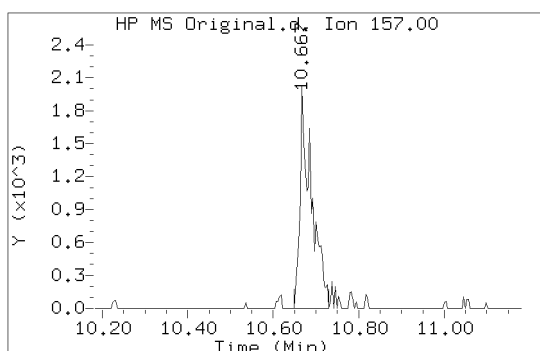
MASS
155
AREA
2798
HEIGHT
1139
23-Aug-2023
11:11

Reason Code:



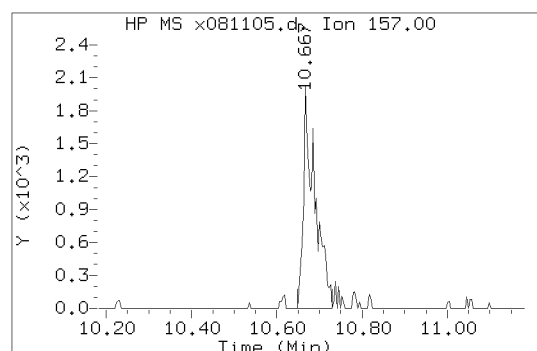
BEFORE

MASS
157
AREA
3784
HEIGHT
2019
12-Aug-2023
22:50



AFTER

MASS
157
AREA
3784
HEIGHT
2019
23-Aug-2023
11:11

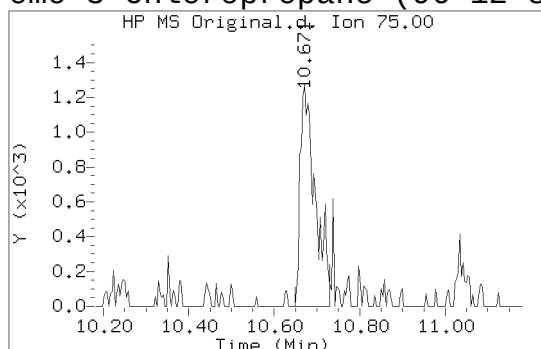


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081105.d
 Inj Date : 11-AUG-2023 12:55
 InstruID : voa6.i
 LabSampID : VSTD002

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

BEFORE

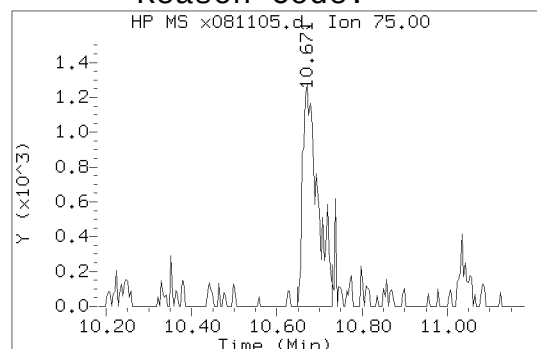
MASS
75
AREA
3145
HEIGHT
1273
12-Aug-2023
22:50



AFTER

MASS
75
AREA
3145
HEIGHT
1273
23-Aug-2023
11:11

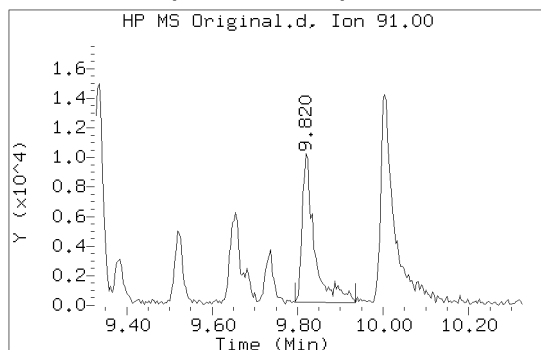
Reason Code:



Benzyl Chloride (100-44-7)

BEFORE

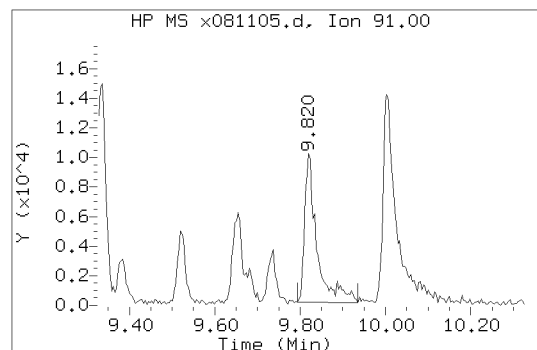
MASS
53
AREA
4155
HEIGHT
1625
12-Aug-2023
22:50



AFTER

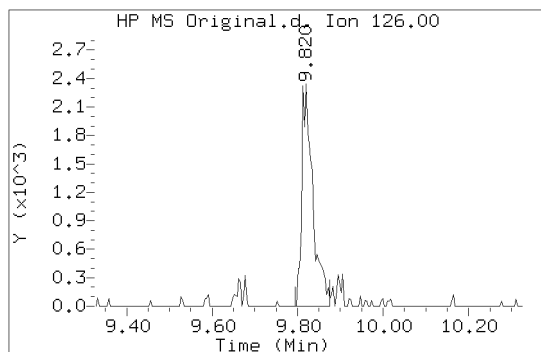
MASS
91
AREA
20601
HEIGHT
10087
23-Aug-2023
11:11

Reason Code:



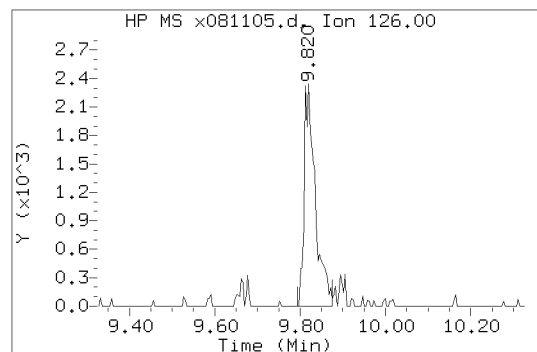
BEFORE

MASS
75
AREA
17234
HEIGHT
8251
12-Aug-2023
22:50



AFTER

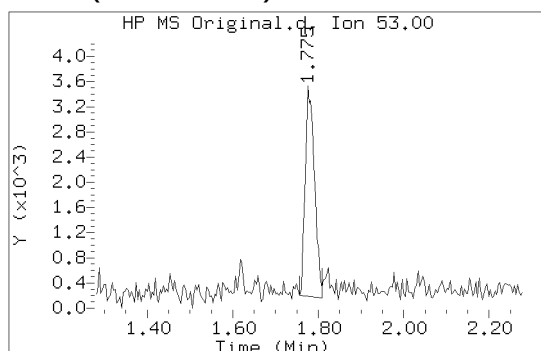
MASS
126
AREA
4278
HEIGHT
2343
23-Aug-2023
11:11



Chloroprene (126-99-8)

BEFORE

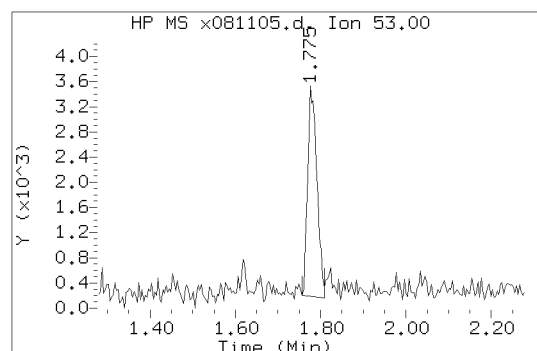
MASS
43
AREA
13837
HEIGHT
4173
12-Aug-2023
22:50



AFTER

MASS
53
AREA
5152
HEIGHT
3336
23-Aug-2023
11:11

Reason Code:

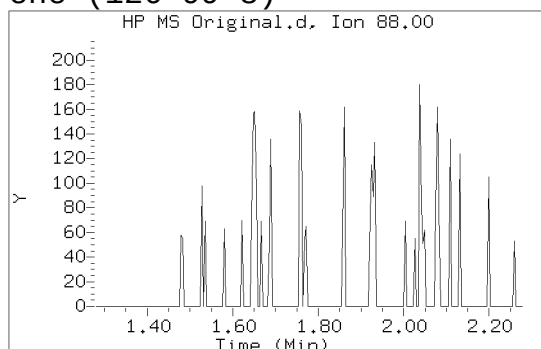


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081105.d
 Inj Date : 11-AUG-2023 12:55
 InstruID : voa6.i
 LabSampID : VSTD002

Chloroprene (126-99-8)

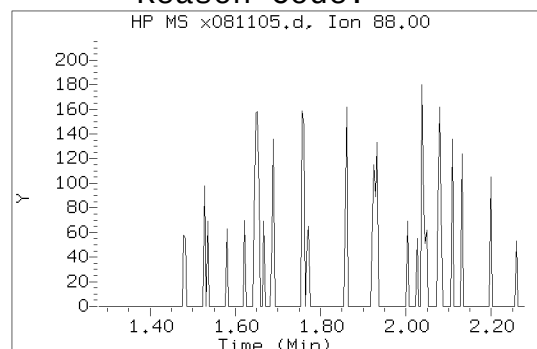
BEFORE

MASS
61
AREA
724
HEIGHT
430
12-Aug-2023
22:50



AFTER

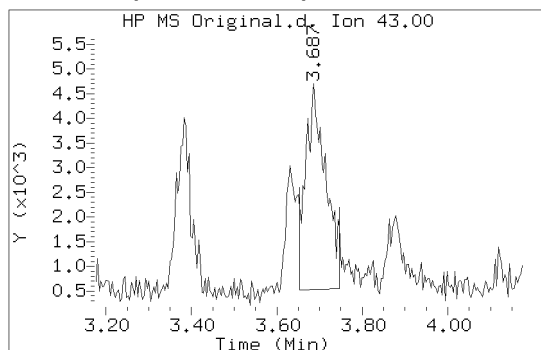
MASS
88
AREA
0
HEIGHT
0
23-Aug-2023
11:11



Ethyl Acetate (141-78-6)

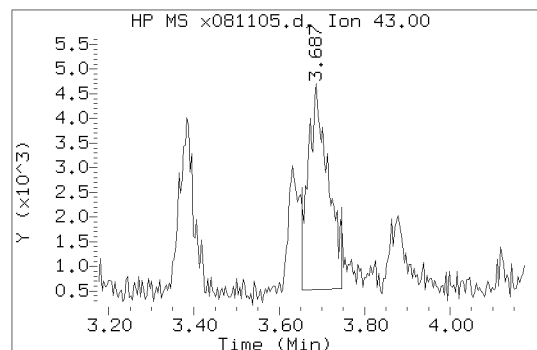
BEFORE

MASS
55
AREA
11619
HEIGHT
2443
12-Aug-2023
22:50



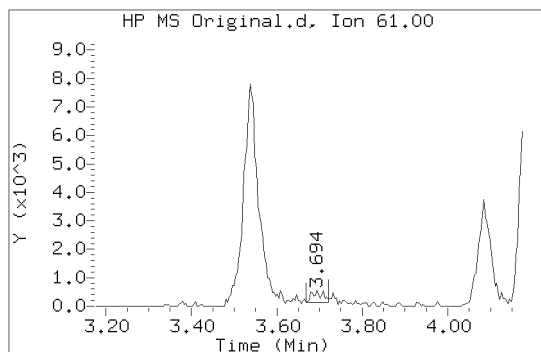
AFTER

MASS
43
AREA
13837
HEIGHT
4173
23-Aug-2023
11:11



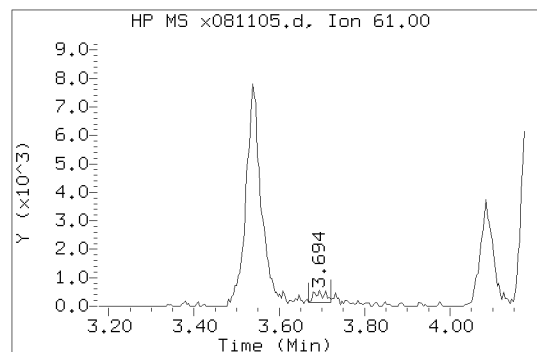
BEFORE

MASS
85
AREA
1393
HEIGHT
703
12-Aug-2023
22:50



AFTER

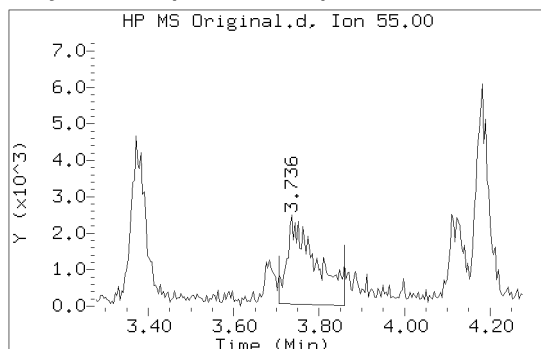
MASS
61
AREA
724
HEIGHT
430
23-Aug-2023
11:11



Methyl Acrylate (96-33-3)

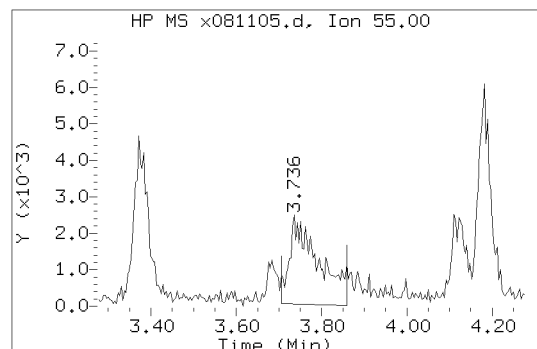
BEFORE

MASS
56
AREA
5108
HEIGHT
2438
12-Aug-2023
22:50



AFTER

MASS
55
AREA
11619
HEIGHT
2443
23-Aug-2023
11:11

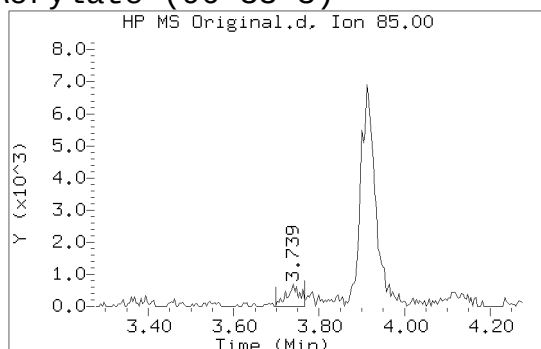


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081105.d
 Inj Date : 11-AUG-2023 12:55
 InstruID : voa6.i
 LabSampID : VSTD002

Methyl Acrylate (96-33-3)

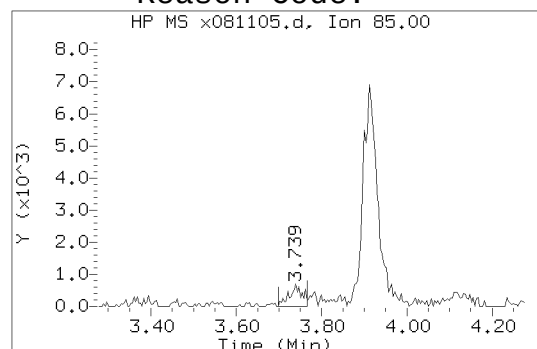
BEFORE

MASS
41
AREA
9405
HEIGHT
4564
12-Aug-2023
22:50



AFTER

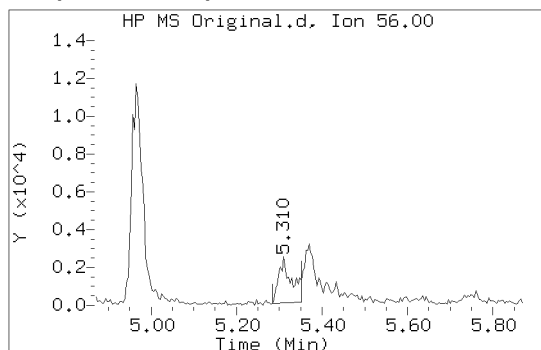
MASS
85
AREA
1393
HEIGHT
703
23-Aug-2023
11:11



n-Butanol (71-36-3)

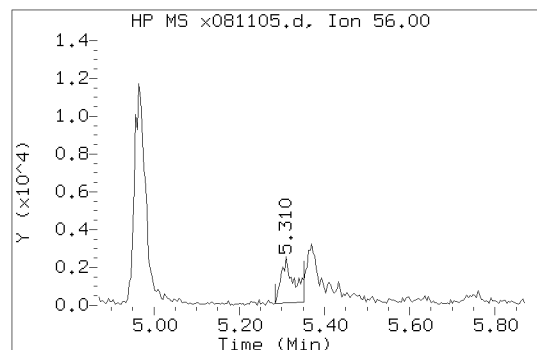
BEFORE

MASS
55
AREA
26539
HEIGHT
7374
12-Aug-2023
22:50



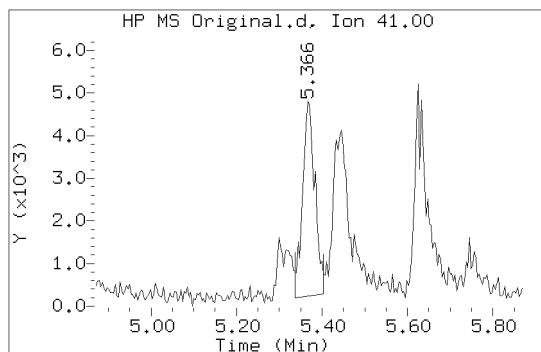
AFTER

MASS
56
AREA
5108
HEIGHT
2438
23-Aug-2023
11:11



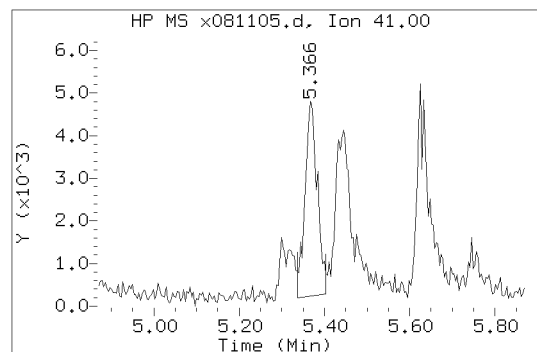
BEFORE

MASS
99
AREA
657
HEIGHT
611
12-Aug-2023
22:50



AFTER

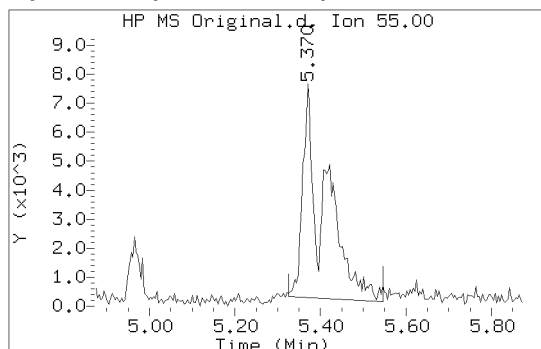
MASS
41
AREA
9405
HEIGHT
4564
23-Aug-2023
11:11



Ethyl Acrylate (140-88-5)

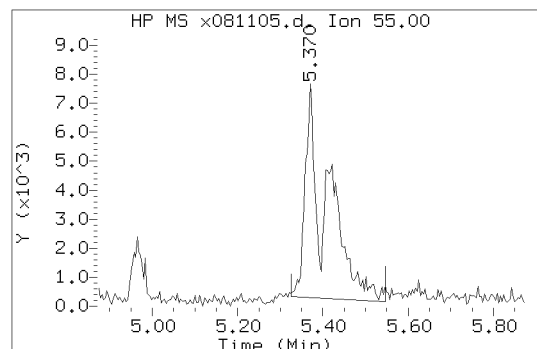
BEFORE

MASS
55
AREA
14092
HEIGHT
9296
12-Aug-2023
22:50



AFTER

MASS
55
AREA
26539
HEIGHT
7374
23-Aug-2023
11:11

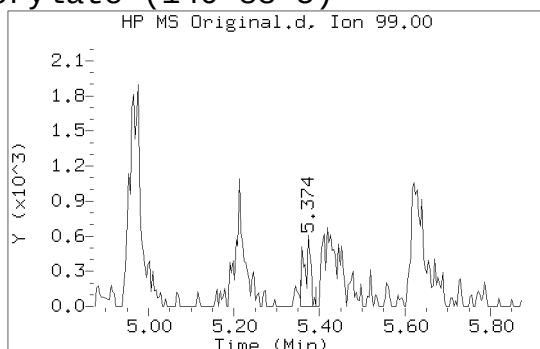


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081105.d
 Inj Date : 11-AUG-2023 12:55
 InstruID : voa6.i
 LabSampID : VSTD002

Ethyl Acrylate (140-88-5)

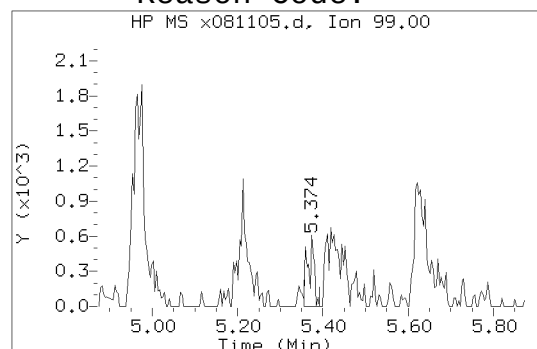
BEFORE

MASS
42
AREA
10856
HEIGHT
6272
12-Aug-2023
22:50



AFTER

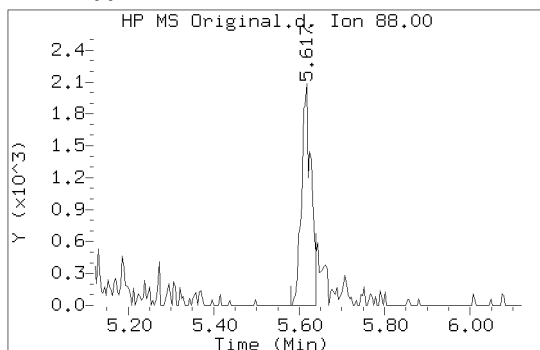
MASS
99
AREA
657
HEIGHT
611
23-Aug-2023
11:11



1,4-Dioxane ()

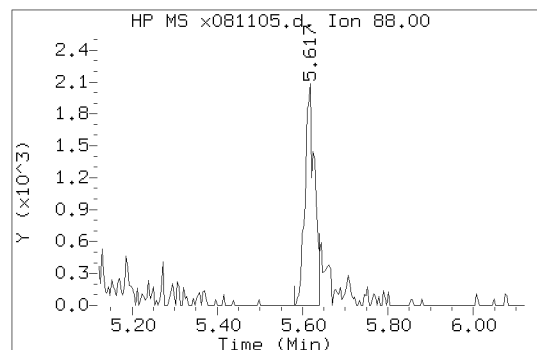
BEFORE

MASS
57
AREA
12200
HEIGHT
5884
12-Aug-2023
22:50



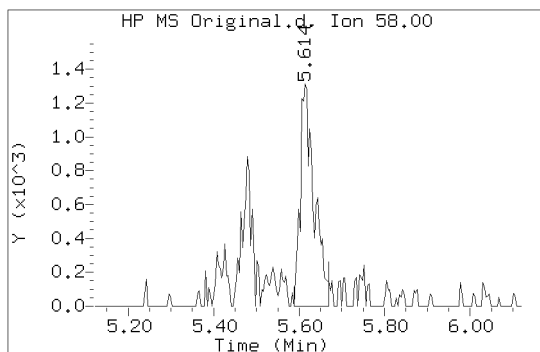
AFTER

MASS
88
AREA
3316
HEIGHT
2084
23-Aug-2023
11:11



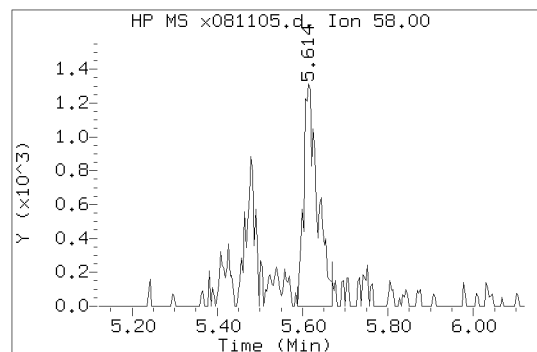
BEFORE

MASS
41
AREA
8206
HEIGHT
4479
12-Aug-2023
22:50



AFTER

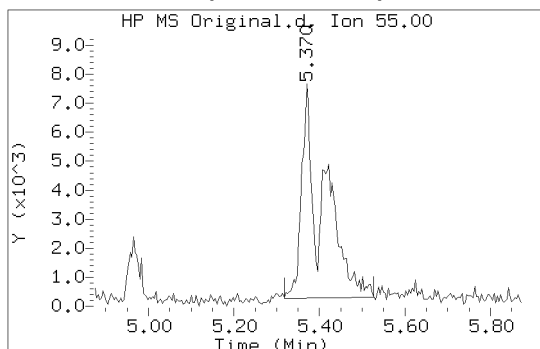
MASS
58
AREA
3025
HEIGHT
1313
23-Aug-2023
11:11



Methylcyclohexane (108-87-2)

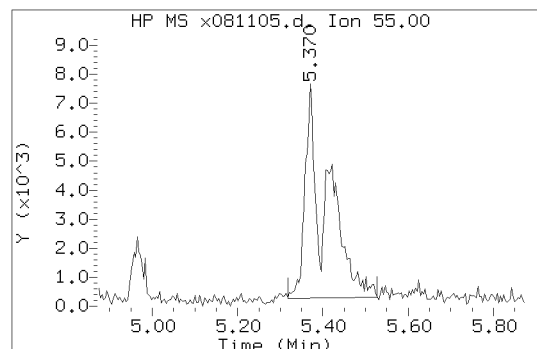
BEFORE

MASS
118
AREA
18299
HEIGHT
13043
12-Aug-2023
22:50



AFTER

MASS
55
AREA
25754
HEIGHT
7389
23-Aug-2023
11:11

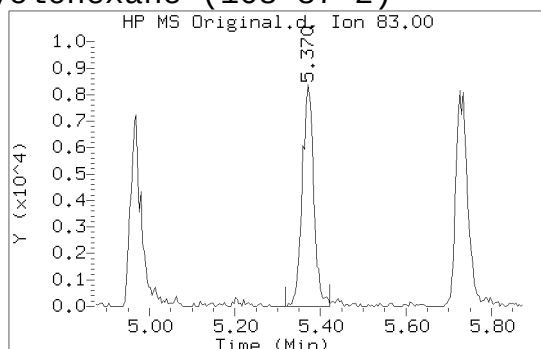


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081105.d
Inj Date : 11-AUG-2023 12:55
InstruID : voa6.i
LabSampID : VSTD002

Methylcyclohexane (108-87-2)

BEFORE

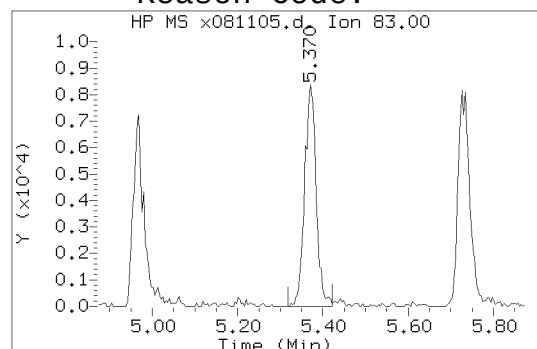
MASS
103
AREA
10176
HEIGHT
6202
12-Aug-2023
22:50



AFTER

MASS
83
AREA
16064
HEIGHT
8380
23-Aug-2023
11:11

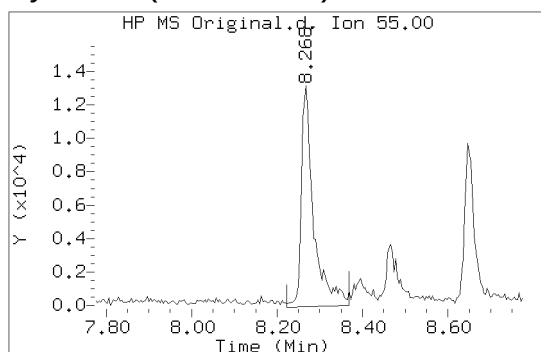
Reason Code:



Butyl acrylate (141-32-2)

BEFORE

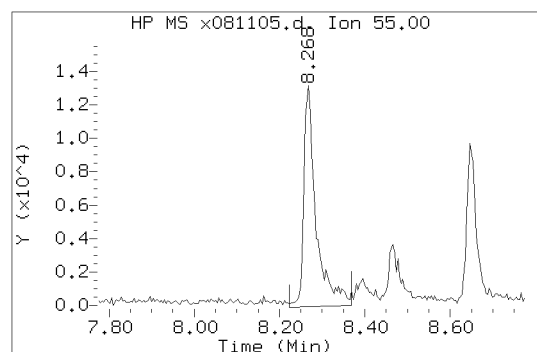
MASS
44
AREA
7566
HEIGHT
5442
12-Aug-2023
22:50



AFTER

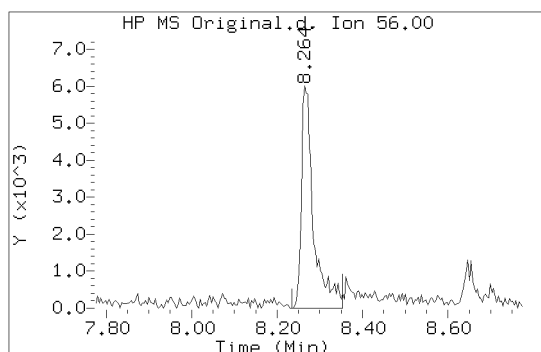
MASS
55
AREA
27159
HEIGHT
13237
23-Aug-2023
11:11

Reason Code:



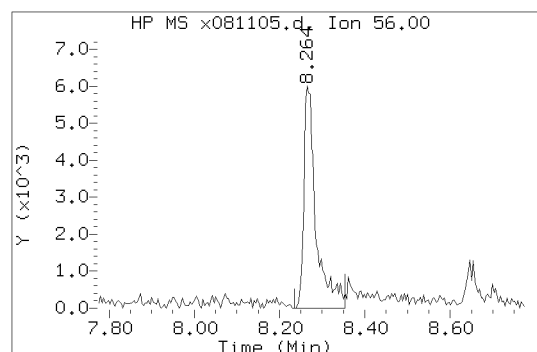
BEFORE

MASS
43
AREA
3136
HEIGHT
3062
12-Aug-2023
22:50



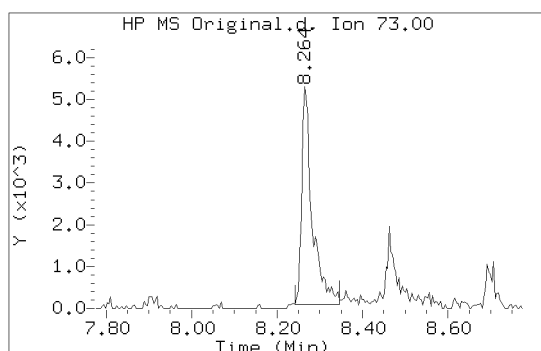
AFTER

MASS
56
AREA
12093
HEIGHT
6013
23-Aug-2023
11:11



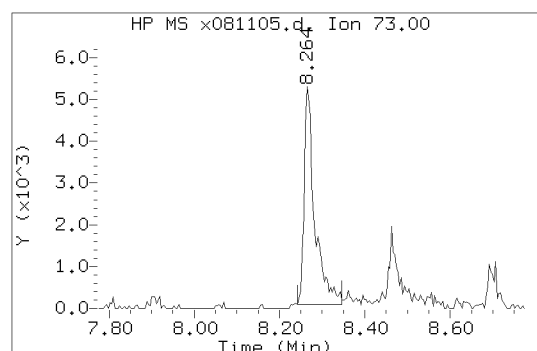
BEFORE

MASS
42
AREA
1919
HEIGHT
1438
12-Aug-2023
22:50



AFTER

MASS
73
AREA
9106
HEIGHT
5215
23-Aug-2023
11:11

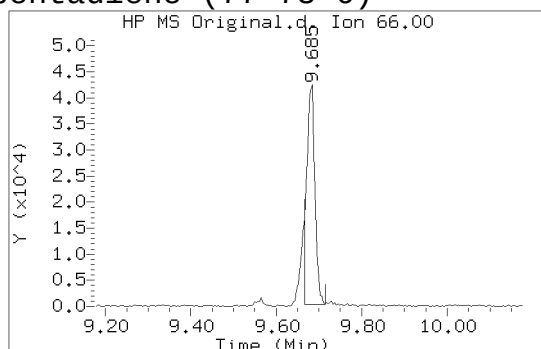


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081105.d
 Inj Date : 11-AUG-2023 12:55
 InstruID : voa6.i
 LabSampID : VSTD002

Dicyclopentadiene (77-73-6)

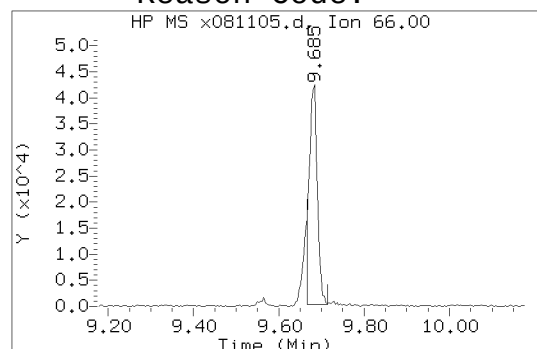
BEFORE

MASS
41
AREA
1584
HEIGHT
1603
12-Aug-2023
22:50



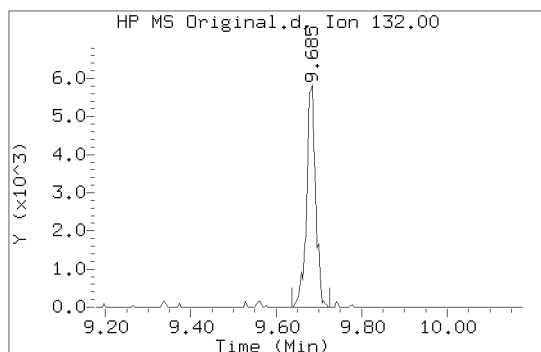
AFTER

MASS
66
AREA
58027
HEIGHT
42184
23-Aug-2023
11:11



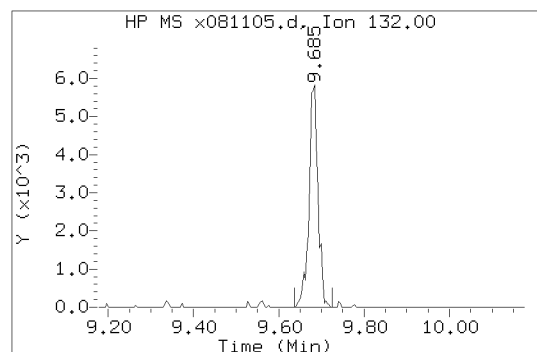
BEFORE

MASS
56
AREA
0
HEIGHT
0
12-Aug-2023
22:50



AFTER

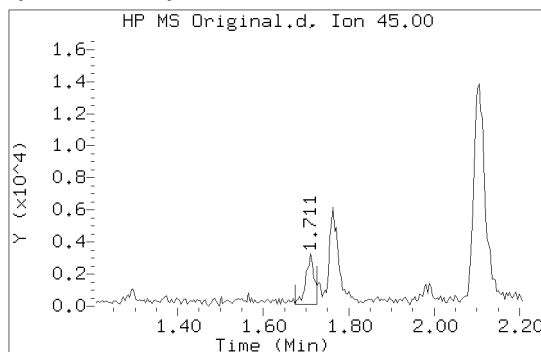
MASS
132
AREA
8811
HEIGHT
5829
23-Aug-2023
11:11



Ethanol (64-17-5)

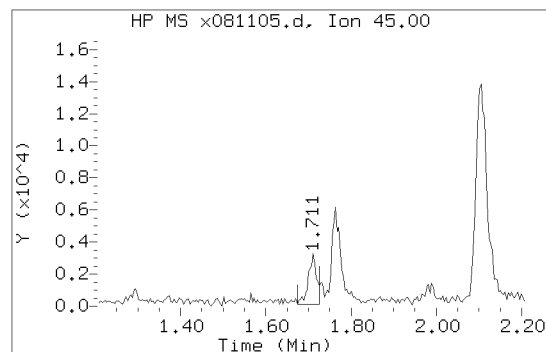
BEFORE

MASS
113
AREA
12062
HEIGHT
5711
12-Aug-2023
22:50



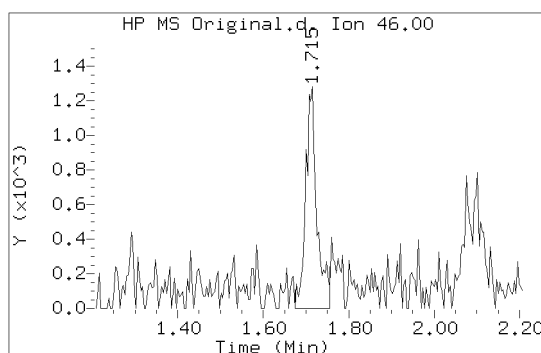
AFTER

MASS
45
AREA
4283
HEIGHT
3166
23-Aug-2023
11:11



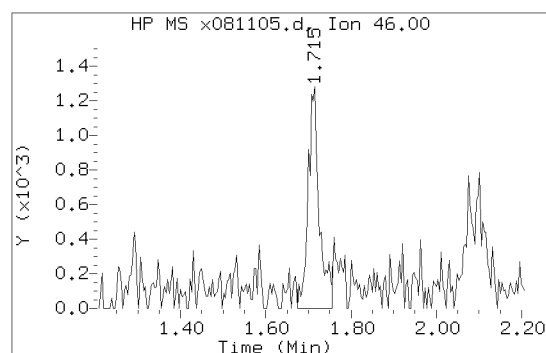
BEFORE

MASS
111
AREA
12012
HEIGHT
5086
12-Aug-2023
22:50



AFTER

MASS
46
AREA
2377
HEIGHT
1281
23-Aug-2023
11:11

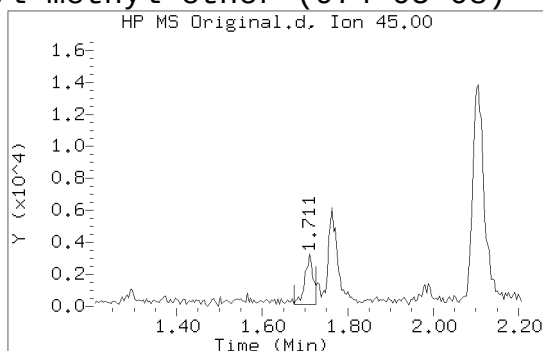


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Inj Date : 11-AUG-2023 12:55
InstruID : voa6.i
LabSampID : VSTD002

tert-Amyl methyl ether (974-05-08)

BEFORE

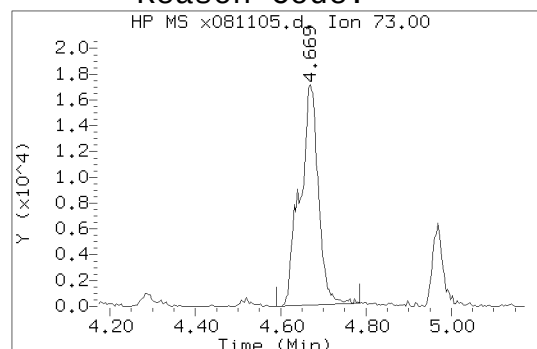
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12-Aug-2023
22:50



AFTER

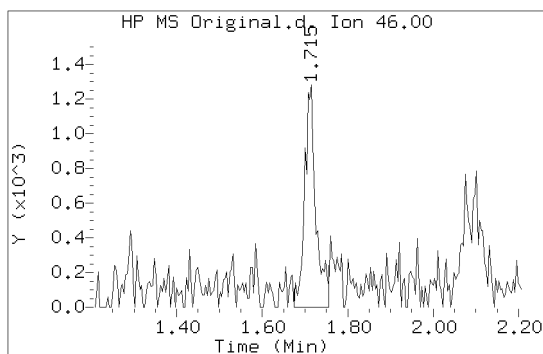
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23-Aug-2023
11:11

Reason Code:



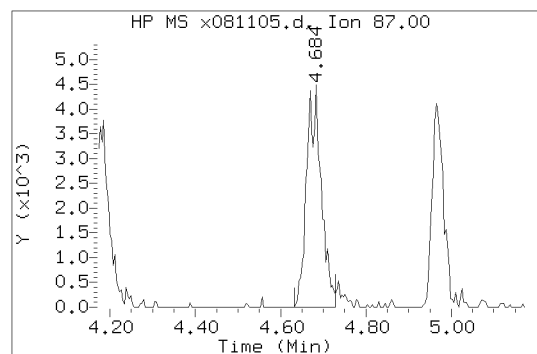
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AREA
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12446
12-Aug-2023
22:50



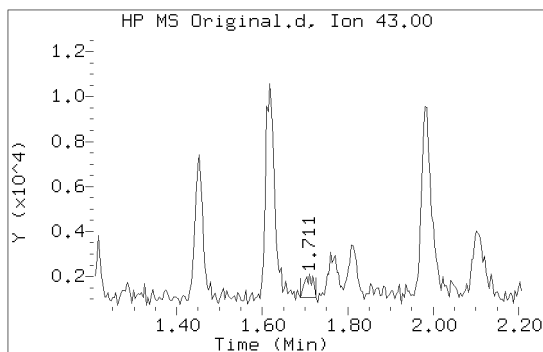
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HEIGHT
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23-Aug-2023
11:11



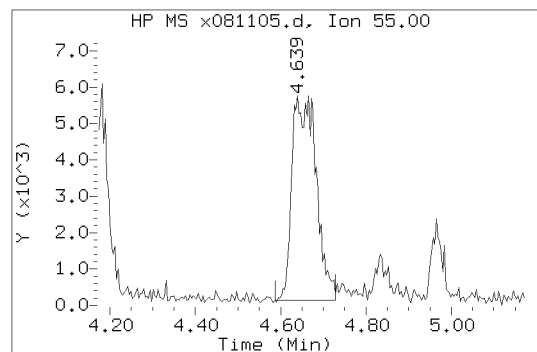
BEFORE

MASS
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AREA
17500
HEIGHT
11125
12-Aug-2023
22:50



AFTER

MASS
55
AREA
22322
HEIGHT
5625
23-Aug-2023
11:11



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081106.D Page 1
 Report Date: 25-Aug-2023 14:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081106.D
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 Inj Date : 11-AUG-2023 13:15
 Operator : PC Inst ID: voa6.i
 Smp Info : VSTD005;VSTD005;1;5;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\8260W.m
 Meth Date : 25-Aug-2023 14:15 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 12:55 Cal File: X081105.D
 Als bottle: 6 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V6.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)		594420	50.0000	
135 1,4-Dioxane	88		5.610	5.610	(1.342)		7471	100.000	98.88
140 1,3-Butadiene	54		1.171	1.171	(0.280)		29685	5.00000	4.84
25 Methacrylonitrile	41		3.859	3.859	(0.923)		30293	5.00000	5.10
12 Isobutyl Alcohol	43		4.691	4.691	(1.122)		90165	100.000	96.76
13 Acetonitrile	39		2.206	2.206	(0.528)		47382	50.0000	51.68
14 Allyl Chloride	41		2.210	2.210	(0.528)		96037	5.00000	5.30
4 Propionitrile	54		3.671	3.671	(0.878)		40524	50.0000	48.95
136 n-Hexane	57		2.779	2.779	(0.665)		32239	5.00000	5.64
72 trans-1,4-Dichloro-2-butene	53		8.893	8.893	(1.160)		10412	5.00000	4.65(H)
194 Acetaldehyde	44		1.216	1.216	(0.291)		13449	20.0000	14.76(M)
23 Chloroprene	53		1.778	1.778	(0.425)		12759	5.00000	5.07(M)
145 alpha-Methylstyrene	118		9.261	9.261	(0.958)		49376	5.00000	4.66
200 Dimethyl Disulfide	94		6.198	6.198	(0.808)		53250	5.00000	4.55
139 Diethyl ether	59		1.767	1.767	(0.423)		27668	5.00000	5.27
130 Ethyl Acetate	43		3.679	3.679	(0.880)		35083	5.00000	5.14(M)
40 Methyl Methacrylate	41		5.621	5.621	(1.344)		27027	5.00000	4.94
49 Ethyl Methacrylate	69		6.790	6.790	(1.368)		39966	5.00000	4.66(H)
132 n-Butanol	56		5.287	5.287	(1.264)		9555	100.000	124.54(M)
142 Tetrahydrofuran	42		3.863	3.863	(0.924)		12547	10.0000	10.82



150 Allyl alcohol	57	2.779	2.779 (0.665)	32239	100.000	114.55
166 1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	108618	5.00000	4.69

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081106.D Page 2

Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
131 Methyl Acrylate	55	3.724	3.724 (0.891)		30863	5.00000	5.25(M)
162 Butyl acrylate	55	8.260	8.260 (1.077)		66548	5.00000	4.60
2 Dichlorodifluoromethane	85	0.980	0.980 (0.234)		27672	5.00000	5.67
3 Chloromethane	50	1.085	1.085 (0.260)		27627	5.00000	4.77
5 Vinyl Chloride	62	1.149	1.149 (0.275)		35042	5.00000	4.91
6 Bromomethane	94	1.347	1.347 (0.322)		18184	5.00000	4.73(M)
7 Chloroethane	64	1.407	1.407 (0.337)		24167	5.00000	5.17(M)
8 Trichlorofluoromethane	101	1.568	1.568 (0.375)		51010	5.00000	5.02
9 Acrolein	56	1.872	1.872 (0.448)		2218	10.0000	8.95(H)
10 Acetone	43	1.981	1.981 (0.474)		31794	10.0000	9.87
11 1,1-Dichloroethene	96	1.921	1.921 (0.459)		29363	5.00000	5.11
15 Iodomethane	142	2.033	2.033 (0.486)		31977	10.0000	10.16(M)
16 Acrylonitrile	53	2.543	2.543 (0.608)		29949	10.0000	10.83
17 Methylene Chloride	84	2.311	2.311 (0.553)		42500	5.00000	5.90
18 Methyl tert-butyl ether	73	2.543	2.543 (0.608)		105371	5.00000	5.14
19 Carbon Disulfide	76	2.075	2.075 (0.496)		175609	10.0000	10.30
20 trans-1,2-Dichloroethene	96	2.536	2.536 (0.606)		34956	5.00000	5.24
21 Vinyl Acetate	43	3.008	3.008 (0.719)		191764	10.0000	9.71
22 1,1-Dichloroethane	63	2.926	2.926 (0.700)		63406	5.00000	5.04
24 2-Butanone	43	3.608	3.608 (0.863)		21612	10.0000	9.82(MH)
26 2,2-Dichloropropane	77	3.514	3.514 (0.840)		43583	5.00000	5.15
27 cis-1,2-Dichloroethene	96	3.537	3.537 (0.846)		32964	5.00000	5.14
28 Chloroform	83	3.908	3.908 (0.935)		57451	5.00000	5.21
29 Bromochloromethane	128	3.803	3.803 (0.909)		18252	5.00000	5.01
\$ 30 Dibromofluoromethane	113	4.106	4.106 (0.982)		29825	5.00000	4.72
31 1,1,1-Trichloroethane	97	4.084	4.084 (0.977)		45624	5.00000	5.16
32 1,1-Dichloropropene	75	4.283	4.283 (0.863)		34061	5.00000	4.62(H)
33 1,2-Dichloroethane	62	4.560	4.560 (0.918)		45033	5.00000	5.06
34 Carbon Tetrachloride	117	4.260	4.260 (0.858)		40297	5.00000	5.18(H)
\$ 35 1,2-Dichloroethane-d4	65	4.477	4.477 (1.071)		36656	5.00000	5.05
* 36 1,4-Difluorobenzene	114	4.965	4.965 (1.000)		935678	50.0000	
37 Benzene	78	4.519	4.519 (0.910)		116227	5.00000	5.04
38 Trichloroethene	130	5.208	5.208 (1.049)		33156	5.00000	5.00
39 Bromodichloromethane	83	5.729	5.729 (1.154)		42720	5.00000	4.97
41 2-Chloroethylvinyl ether	63	6.059	6.059 (1.220)		20647	10.0000	9.40(M)
42 1,2-Dichloropropane	63	5.441	5.441 (1.096)		31931	5.00000	4.91
44 Dibromomethane	93	5.557	5.557 (1.119)		22599	5.00000	5.08
45 4-Methyl-2-Pentanone	43	6.333	6.333 (0.826)		61249	10.0000	9.61
46 cis-1,3-Dichloropropene	75	6.161	6.161 (1.241)		45506	5.00000	4.63
* 47 Chlorobenzene-d5	117	7.668	7.668 (1.000)		887704	50.0000	
\$ 48 Toluene-d8	98	6.389	6.389 (0.833)		111261	5.00000	5.32
50 Toluene	91	6.449	6.449 (0.841)		123023	5.00000	4.97
51 trans-1,3-Dichloropropene	75	6.689	6.689 (1.347)		37517	5.00000	4.55
52 2-Hexanone	43	7.094	7.094 (0.925)		42251	10.0000	9.88
53 1,1,2-Trichloroethane	83	6.843	6.843 (0.892)		25267	5.00000	5.12
54 1,3-Dichloropropane	76	6.985	6.985 (0.911)		50474	5.00000	5.00
55 Dibromochloromethane	129	7.176	7.176 (0.936)		33839	5.00000	4.75
56 Tetrachloroethene	164	6.929	6.929 (0.904)		25538	5.00000	4.96
57 1,2-Dibromoethane	107	7.263	7.263 (0.947)		30653	5.00000	5.08
58 1-Chlorohexane	55	7.698	7.698 (1.550)		25603	5.00000	4.72(H)
59 Chlorobenzene	112	7.694	7.694 (1.003)		84566	5.00000	4.96
60 1,1,1,2-Tetrachloroethane	131	7.772	7.772 (1.014)		32012	5.00000	4.86



61 Ethylbenzene	106	7.802	7.802 (1.018)	42883	5.00000	5.09
62 m,p-Xylenes	106	7.904	7.904 (1.031)	106798	10.0000	9.91



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081106.D Page 3
 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
63 o-Xylene	106	8.241	8.241	(1.075)	50948	5.00000	4.80
64 Styrene	104	8.264	8.264	(1.078)	87288	5.00000	4.94
66 Bromoform	173	8.414	8.414	(1.097)	21130	5.00000	4.40
67 Isopropylbenzene	105	8.560	8.560	(1.116)	126049	5.00000	4.78
68 1,1,2,2-Tetrachloroethane	83	8.841	8.841	(0.915)	39255	5.00000	4.84
\$ 69 4-Bromofluorobenzene	95	8.691	8.691	(1.133)	49251	5.00000	5.86
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	498083	50.0000	
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	29259	5.00000	4.90
73 n-Propylbenzene	91	8.912	8.912	(0.922)	141584	5.00000	4.80
74 Bromobenzene	156	8.811	8.811	(0.912)	40340	5.00000	5.06
75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	102042	5.00000	4.73
76 2-Chlorotoluene	91	8.976	8.976	(0.929)	94293	5.00000	5.00
77 4-Chlorotoluene	91	9.073	9.073	(0.939)	105626	5.00000	4.86
78 tert-Butylbenzene	119	9.336	9.336	(0.966)	90504	5.00000	4.90
79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	106167	5.00000	4.78
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	122941	5.00000	4.86
82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	107020	5.00000	4.68
83 1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	69705	5.00000	4.91
84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	77053	5.00000	5.07
86 Benzyl Chloride	91	9.812	9.812	(1.280)	49451	5.00000	3.89
87 n-Butylbenzene	91	9.999	9.999	(1.035)	92255	5.00000	5.99
88 1,2-Dichlorobenzene	146	9.995	9.995	(1.035)	70556	5.00000	4.92
89 1,2-Dibromo-3-Chloropropane	155	10.663	10.663	(1.104)	6669	5.00000	4.86
90 1,2,4-Trichlorobenzene	180	11.341	11.341	(1.174)	44585	5.00000	4.70
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	18865	5.00000	5.42
92 Naphthalene	128	11.551	11.551	(1.196)	109297	5.00000	4.62
93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	43073	5.00000	4.66
M 94 1,2-Dichloroethylene (total)	96				67920	10.0000	
M 95 Xylenes (total)	106				157746	15.0000	
141 Cyclohexane	56	4.121	4.121	(0.986)	36420	5.00000	6.24(H)
138 Freon TF	101	1.921	1.921	(0.459)	27608	5.00000	5.95
147 Methylcyclohexane	55	5.400	5.400	(1.088)	65554	5.00000	4.66(M)
146 Methyl Acetate	43	2.240	2.240	(0.536)	26540	5.00000	4.96
148 Tert-Butyl alcohol	59	2.442	2.442	(0.584)	82288	100.000	103.36
149 Isopropyl Alcohol	45	2.101	2.101	(0.502)	46061	100.000	98.92

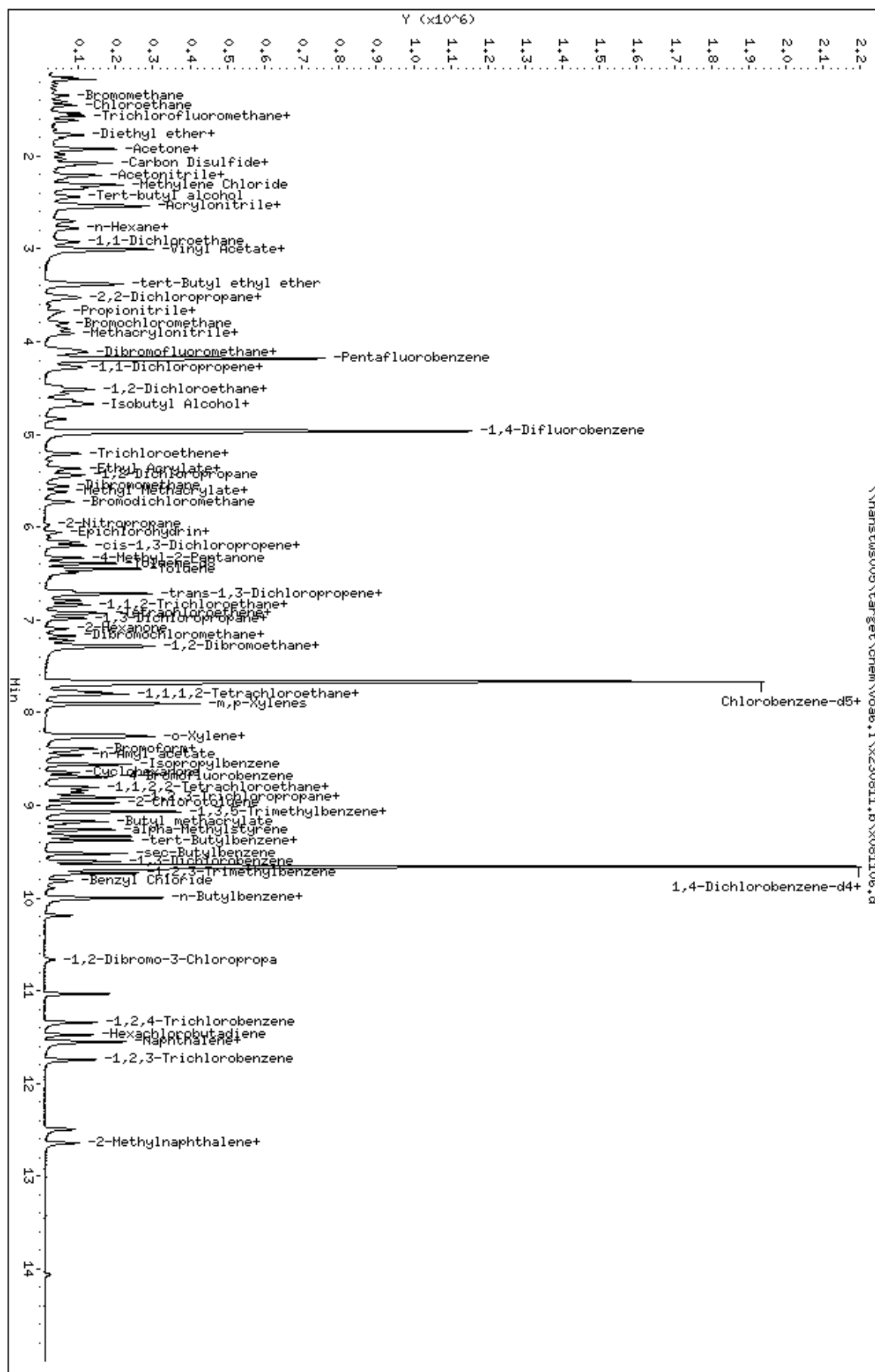
QC Flag Legend

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



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 Sample Info: WSTD005\WSTD005\115
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 Column phase: DB624

Instrument: voa6.i
 Operator: PC
 Column diameter: 0.18

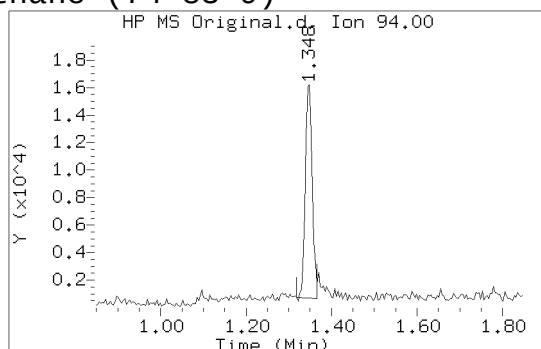


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 Inj Date : 11-AUG-2023 13:15
 InstruID : voa6.i
 LabSampID : VSTD005

Bromomethane (74-83-9)

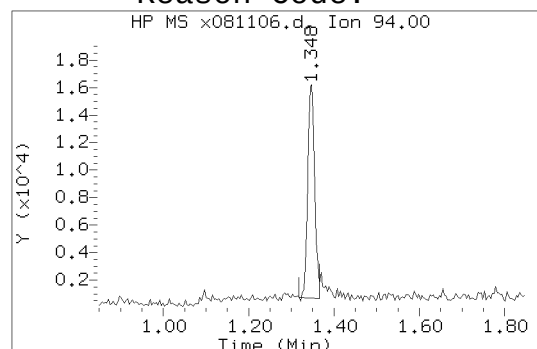
BEFORE

MASS
50
AREA
27627
HEIGHT
28997
12-Aug-2023
22:49



AFTER

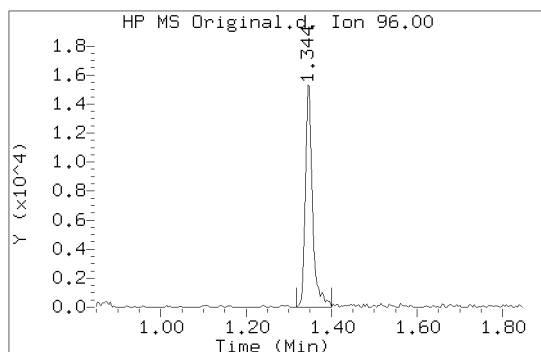
MASS
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AREA
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HEIGHT
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23-Aug-2023
11:11



Reason Code:

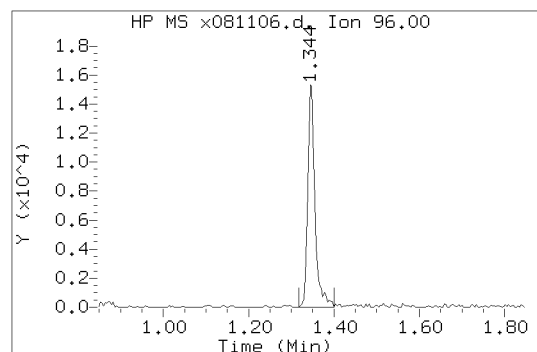
BEFORE

MASS
52
AREA
8704
HEIGHT
10079
12-Aug-2023
22:49



AFTER

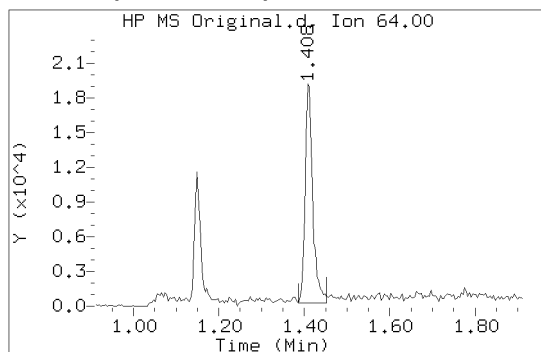
MASS
96
AREA
18600
HEIGHT
15316
23-Aug-2023
11:11



Chloroethane (75-00-3)

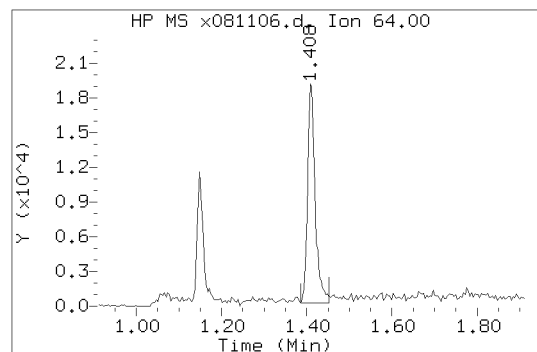
BEFORE

MASS
62
AREA
35042
HEIGHT
33294
12-Aug-2023
22:49



AFTER

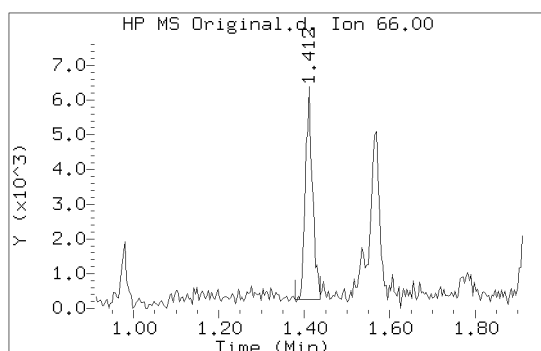
MASS
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AREA
24167
HEIGHT
18924
23-Aug-2023
11:11



Reason Code:

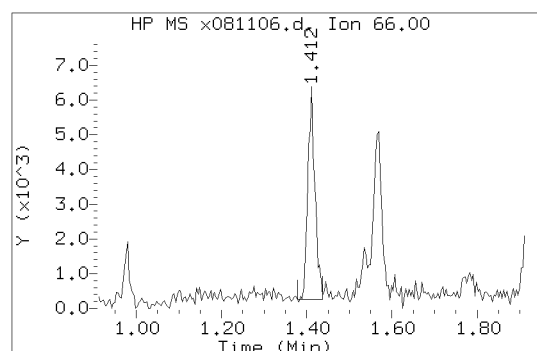
BEFORE

MASS
64
AREA
11001
HEIGHT
11242
12-Aug-2023
22:49



AFTER

MASS
66
AREA
7327
HEIGHT
6136
23-Aug-2023
11:11

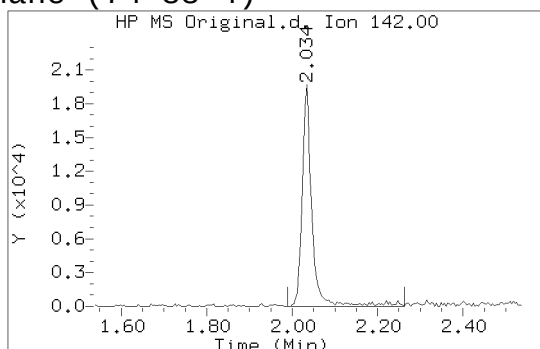


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 Inj Date : 11-AUG-2023 13:15
 InstruID : voa6.i
 LabSampID : VSTD005

Iodomethane (74-88-4)

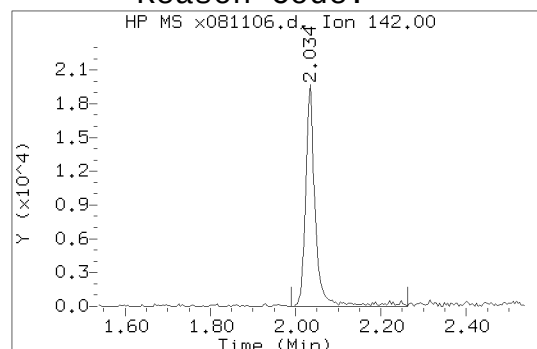
BEFORE

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56
AREA
2218
HEIGHT
1345
12-Aug-2023
22:49



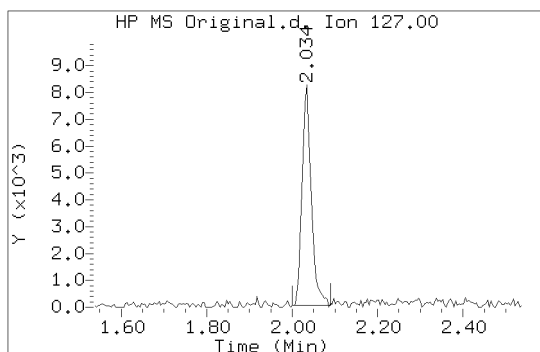
AFTER

MASS
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AREA
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HEIGHT
19688
23-Aug-2023
11:11



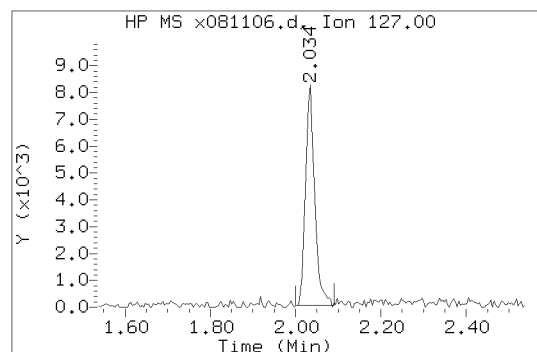
BEFORE

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AREA
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HEIGHT
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12-Aug-2023
22:49



AFTER

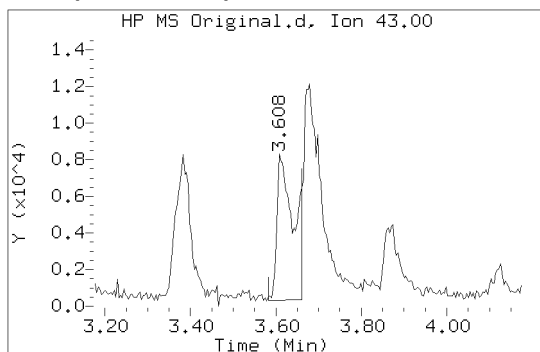
MASS
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HEIGHT
8205
23-Aug-2023
11:11



2-Butanone (78-93-3)

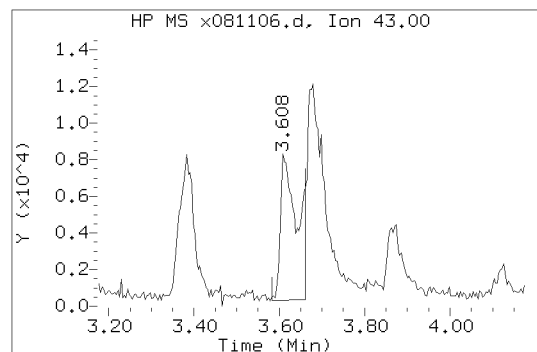
BEFORE

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AREA
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HEIGHT
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12-Aug-2023
22:49



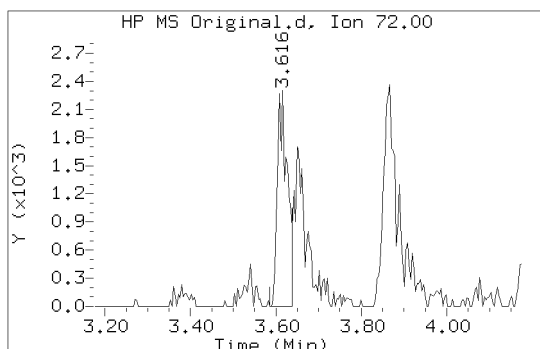
AFTER

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AREA
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HEIGHT
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23-Aug-2023
11:11



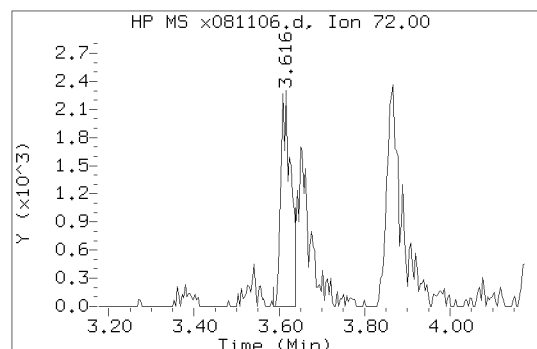
BEFORE

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AREA
16796
HEIGHT
10460
12-Aug-2023
22:49



AFTER

MASS
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AREA
3760
HEIGHT
2304
23-Aug-2023
11:11

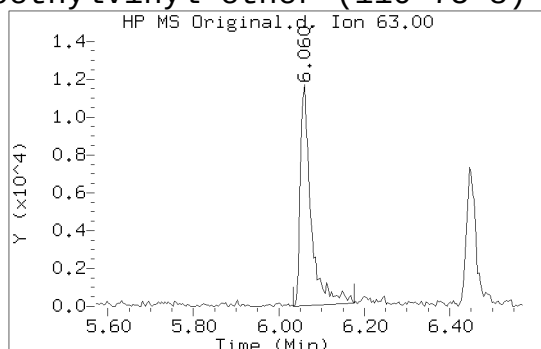


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Inj Date : 11-AUG-2023 13:15
InstruID : voa6.i
LabSampID : VSTD005

2-Chloroethylvinyl ether (110-75-8)

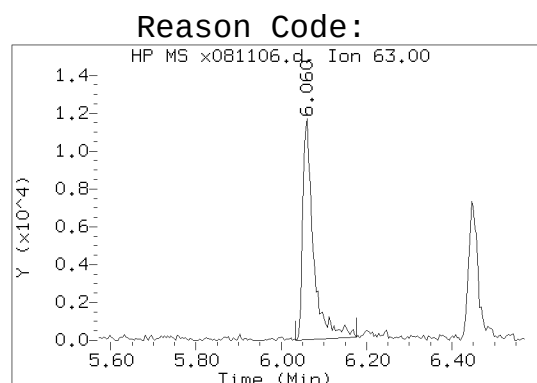
BEFORE

MASS
129
AREA
33839
HEIGHT
23736
12-Aug-2023
22:49



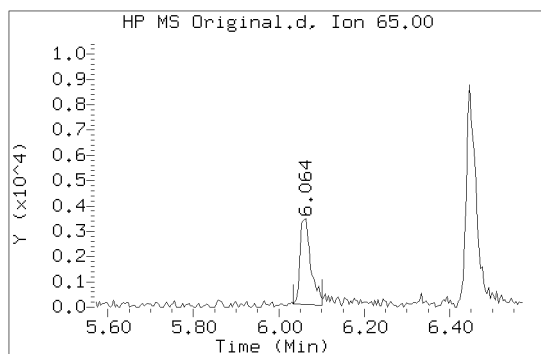
AFTER

MASS
63
AREA
20647
HEIGHT
11678
23-Aug-2023
11:11



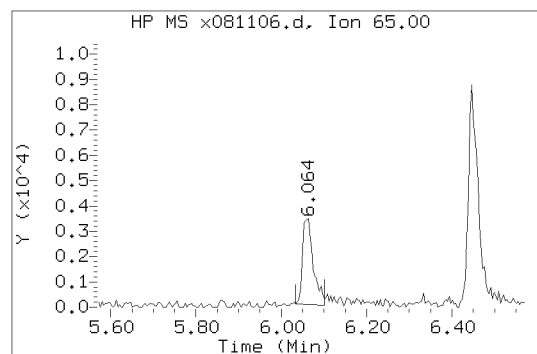
BEFORE

MASS
127
AREA
27133
HEIGHT
17984
12-Aug-2023
22:49



AFTER

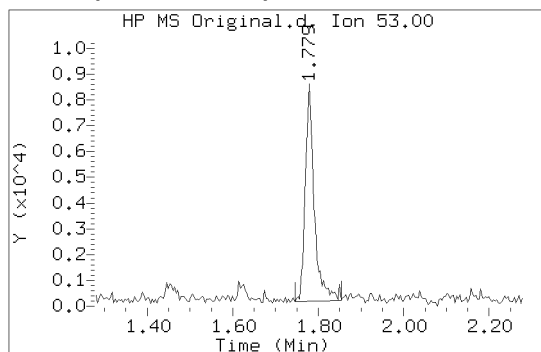
MASS
65
AREA
6086
HEIGHT
3409
23-Aug-2023
11:11



Chloroprene (126-99-8)

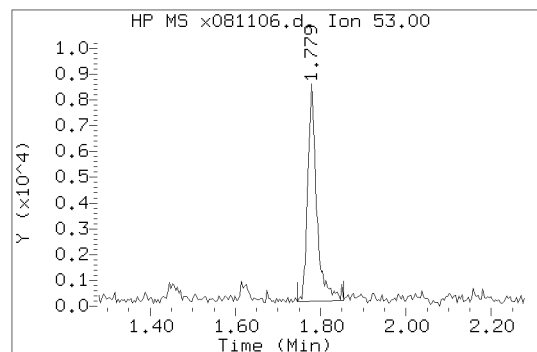
BEFORE

MASS
43
AREA
35083
HEIGHT
11733
12-Aug-2023
22:49



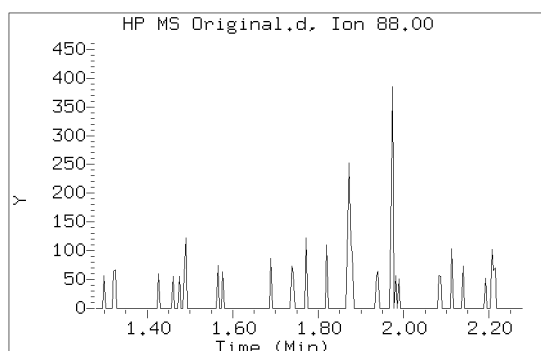
AFTER

MASS
53
AREA
12759
HEIGHT
8433
23-Aug-2023
11:11



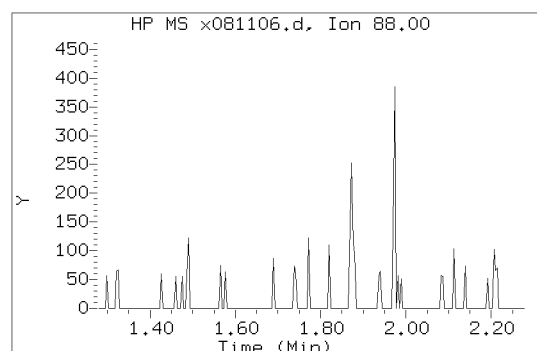
BEFORE

MASS
61
AREA
4008
HEIGHT
1690
12-Aug-2023
22:49



AFTER

MASS
88
AREA
0
HEIGHT
0
23-Aug-2023
11:11

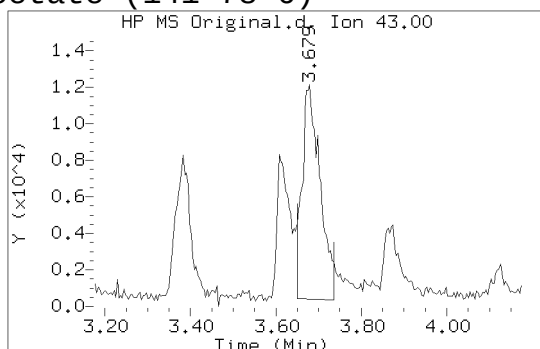


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Inj Date : 11-AUG-2023 13:15
InstruID : voa6.i
LabSampID : VSTD005

Ethyl Acetate (141-78-6)

BEFORE

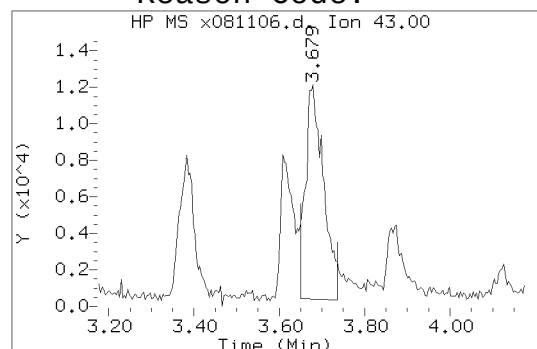
MASS
55
AREA
30863
HEIGHT
6309
12-Aug-2023
22:49



AFTER

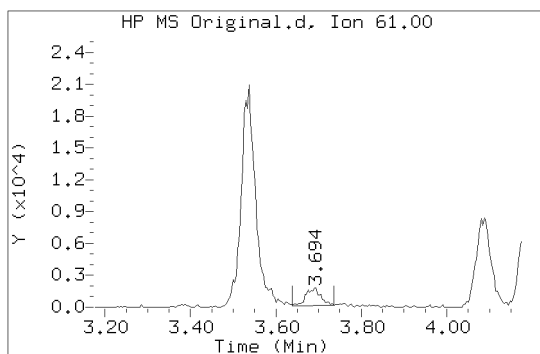
MASS
43
AREA
35083
HEIGHT
11733
23-Aug-2023
11:11

Reason Code:



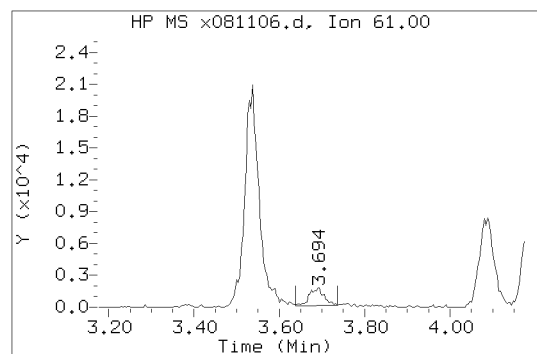
BEFORE

MASS
85
AREA
3554
HEIGHT
1491
12-Aug-2023
22:49



AFTER

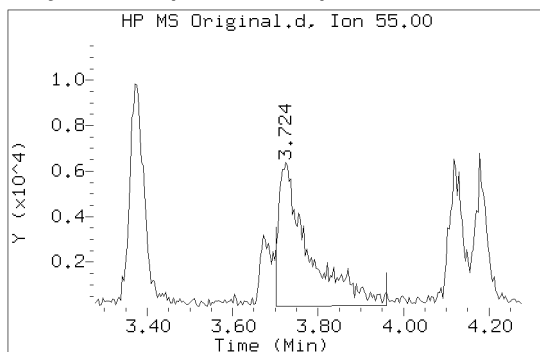
MASS
61
AREA
4008
HEIGHT
1690
23-Aug-2023
11:11



Methyl Acrylate (96-33-3)

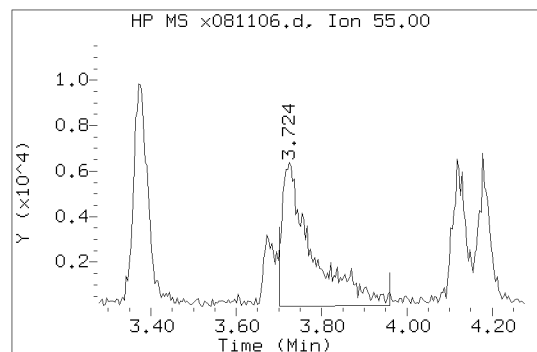
BEFORE

MASS
56
AREA
9555
HEIGHT
4115
12-Aug-2023
22:49



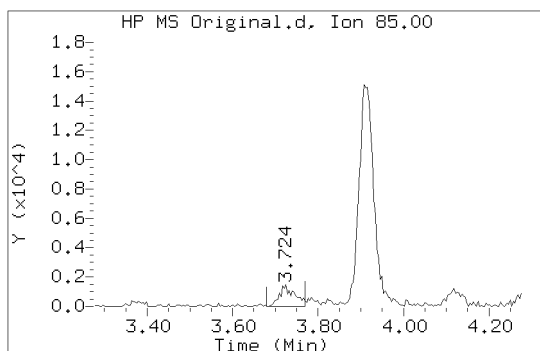
AFTER

MASS
55
AREA
30863
HEIGHT
6309
23-Aug-2023
11:11



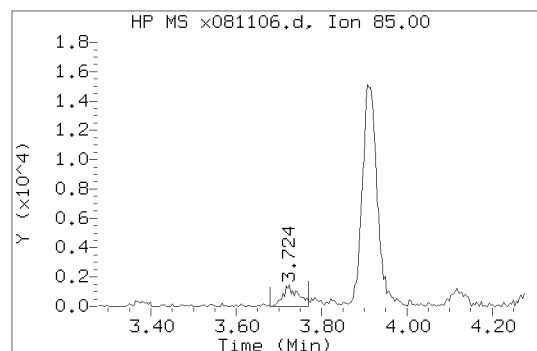
BEFORE

MASS
41
AREA
19670
HEIGHT
8754
12-Aug-2023
22:49



AFTER

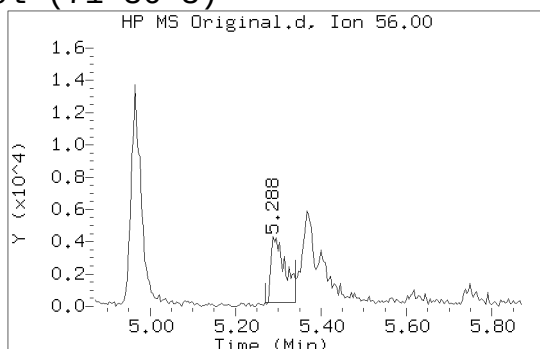
MASS
85
AREA
3554
HEIGHT
1491
23-Aug-2023
11:11



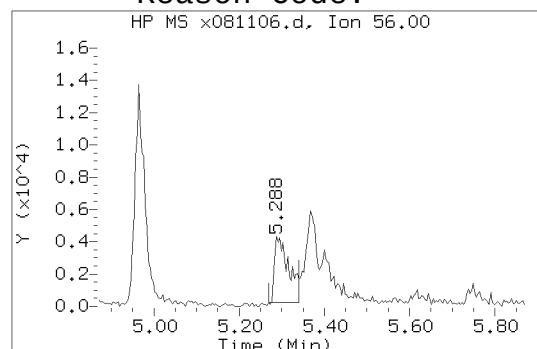
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Inj Date : 11-AUG-2023 13:15
InstruID : voa6.i
LabSampID : VSTD005

n-Butanol (71-36-3)**BEFORE**

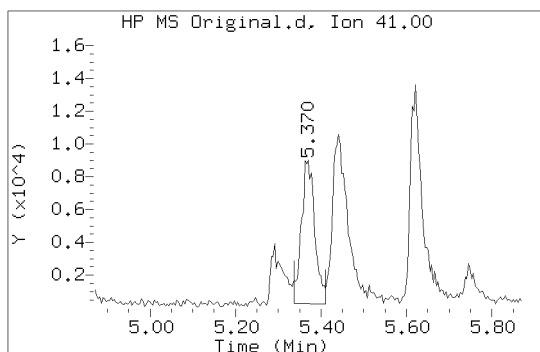
MASS
55
AREA
65654
HEIGHT
18419
12-Aug-2023
22:49

**AFTER**

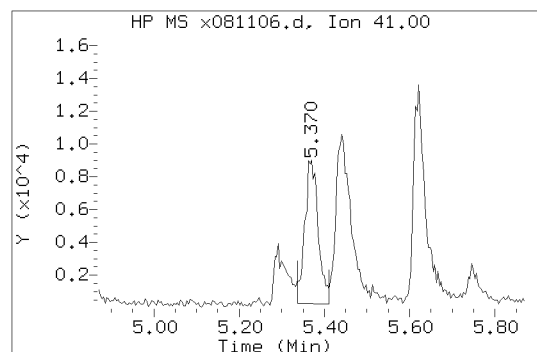
MASS
56
AREA
9555
HEIGHT
4115
23-Aug-2023
11:11

**Reason Code:****BEFORE**

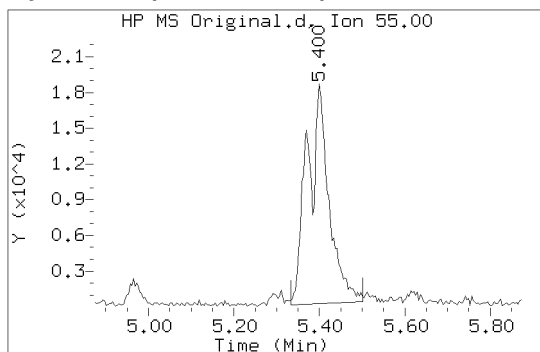
MASS
99
AREA
1505
HEIGHT
1011
12-Aug-2023
22:49

**AFTER**

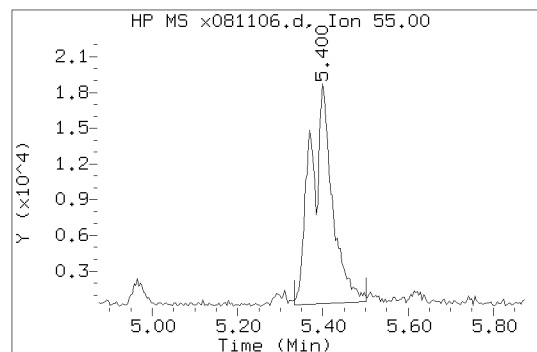
MASS
41
AREA
19670
HEIGHT
8754
23-Aug-2023
11:11

**Ethyl Acrylate (140-88-5)****BEFORE**

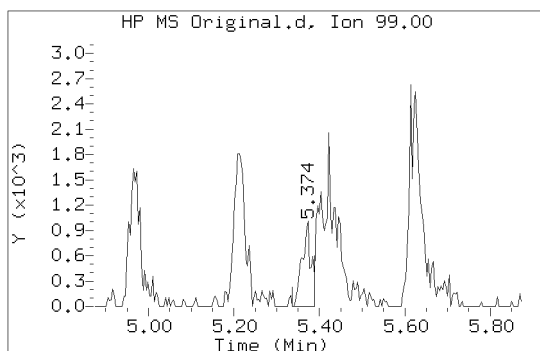
MASS
55
AREA
32884
HEIGHT
21499
12-Aug-2023
22:49

**AFTER**

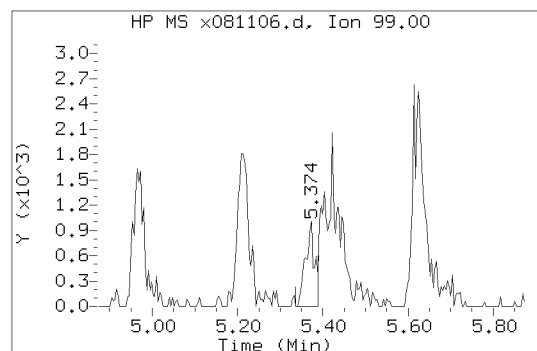
MASS
55
AREA
65654
HEIGHT
18419
23-Aug-2023
11:11

**Reason Code:****BEFORE**

MASS
42
AREA
23311
HEIGHT
15555
12-Aug-2023
22:49

**AFTER**

MASS
99
AREA
1505
HEIGHT
1011
23-Aug-2023
11:11

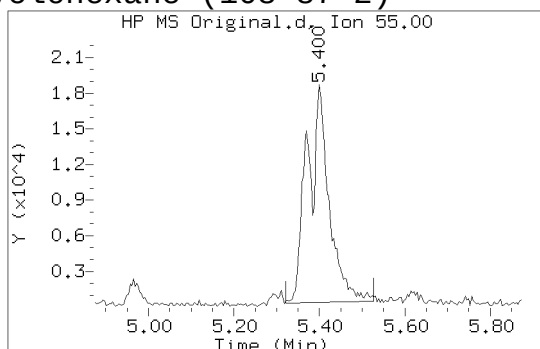


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 Inj Date : 11-AUG-2023 13:15
 InstruID : voa6.i
 LabSampID : VSTD005

Methylcyclohexane (108-87-2)

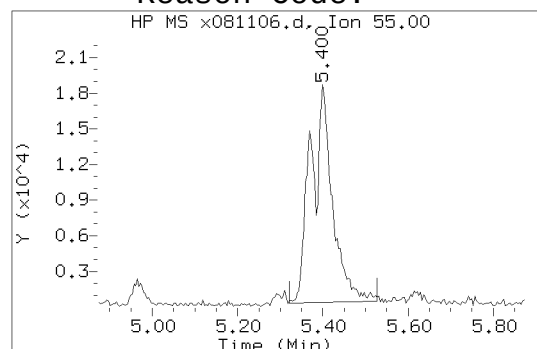
BEFORE

MASS
118
AREA
49376
HEIGHT
36744
12-Aug-2023
22:49



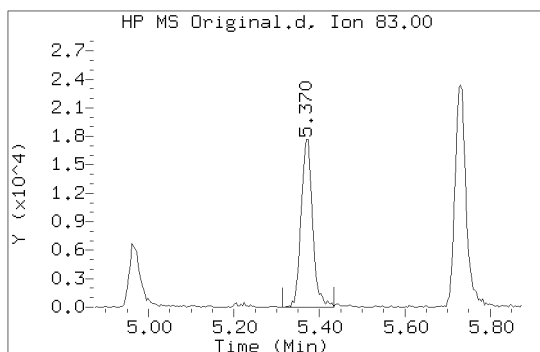
AFTER

MASS
55
AREA
65554
HEIGHT
18313
23-Aug-2023
11:11



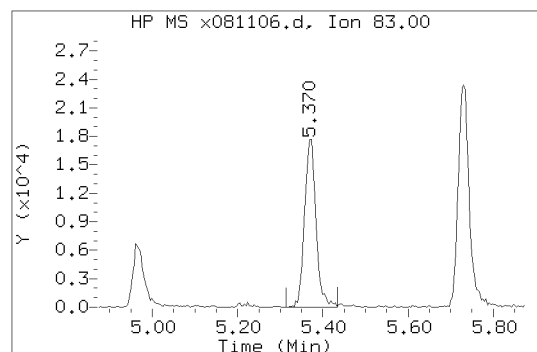
BEFORE

MASS
103
AREA
27493
HEIGHT
20136
12-Aug-2023
22:49



AFTER

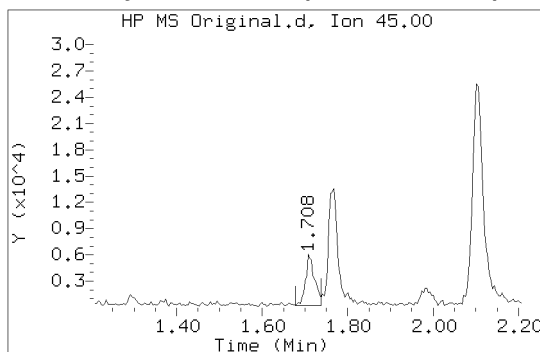
MASS
83
AREA
33817
HEIGHT
17680
23-Aug-2023
11:11



tert-Amyl methyl ether (974-05-08)

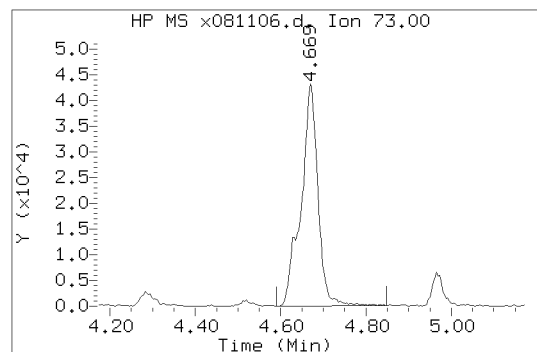
BEFORE

MASS
95
AREA
49251
HEIGHT
34704
12-Aug-2023
22:49



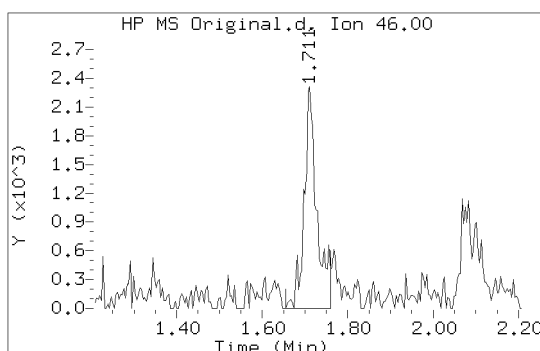
AFTER

MASS
73
AREA
121219
HEIGHT
43209
23-Aug-2023
11:11



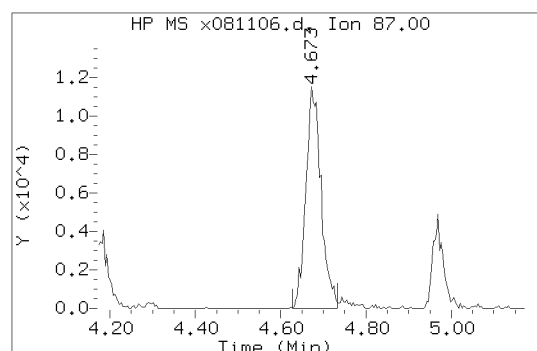
BEFORE

MASS
174
AREA
46321
HEIGHT
33704
12-Aug-2023
22:49



AFTER

MASS
87
AREA
28922
HEIGHT
11541
23-Aug-2023
11:11

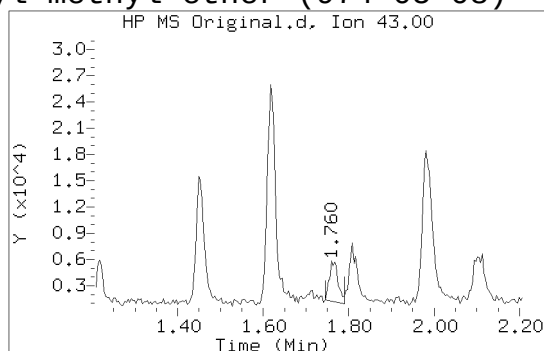


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Inj Date : 11-AUG-2023 13:15
InstruID : voa6.i
LabSampID : VSTD005

tert-Amyl methyl ether (974-05-08)

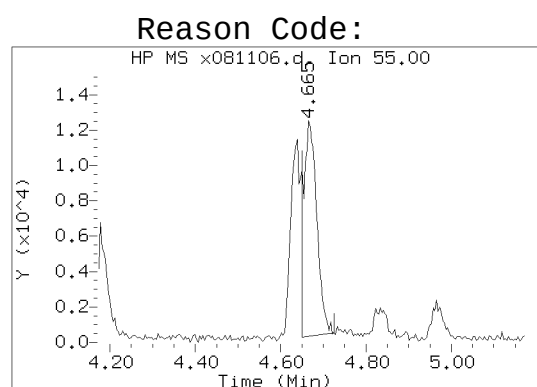
BEFORE

MASS
176
AREA
43153
HEIGHT
29864
12-Aug-2023
22:49



AFTER

MASS
55
AREA
26511
HEIGHT
12196
23-Aug-2023
11:11



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081107.D Page 1
 Report Date: 25-Aug-2023 14:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081107.D
 Lab Smp Id: VSTD020 Client Smp ID: VSTD020
 Inj Date : 11-AUG-2023 13:36
 Operator : PC Inst ID: voa6.i
 Smp Info : VSTD020;VSTD020;1;6;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\8260W.m
 Meth Date : 25-Aug-2023 14:15 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:15 Cal File: X081106.D
 Als bottle: 7 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V6.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)		594179	50.0000	
135 1,4-Dioxane	88		5.602	5.602	(1.340)		27941	400.000	369.95
140 1,3-Butadiene	54		1.171	1.171	(0.280)		109945	20.0000	17.96
25 Methacrylonitrile	41		3.836	3.836	(0.918)		114783	20.0000	19.36
12 Isobutyl Alcohol	43		4.684	4.684	(1.120)		366430	400.000	393.42
13 Acetonitrile	39		2.202	2.202	(0.527)		176623	200.000	192.74
14 Allyl Chloride	41		2.206	2.206	(0.528)		336437	20.0000	18.58
4 Propionitrile	54		3.660	3.660	(0.875)		160298	200.000	193.72
136 n-Hexane	57		2.776	2.776	(0.664)		118882	20.0000	22.69
72 trans-1,4-Dichloro-2-butene	53		8.886	8.886	(1.159)		41908	20.0000	18.52(H)
194 Acetaldehyde	44		1.216	1.216	(0.291)		59320	80.0000	94.63(M)
23 Chloroprene	53		1.778	1.778	(0.425)		45834	20.0000	18.23(M)
145 alpha-Methylstyrene	118		9.257	9.257	(0.958)		212279	20.0000	19.78
200 Dimethyl Disulfide	94		6.198	6.198	(0.808)		233902	20.0000	19.80
139 Diethyl ether	59		1.763	1.763	(0.422)		100918	20.0000	19.24
130 Ethyl Acetate	43		3.664	3.664	(0.876)		141943	20.0000	20.81
40 Methyl Methacrylate	41		5.610	5.610	(1.342)		104538	20.0000	19.12
49 Ethyl Methacrylate	69		6.787	6.787	(1.367)		167313	20.0000	19.13(H)
132 n-Butanol	56		5.268	5.268	(1.260)		50123	400.000	365.12(M)
142 Tetrahydrofuran	42		3.855	3.855	(0.922)		42663	40.0000	36.80



150 Allyl alcohol	57	2.776	2.776 (0.664)	118882	400.000	454.42
166 1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	427412	20.0000	18.25

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081107.D Page 2
 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
131 Methyl Acrylate	55	3.702	3.702	(0.885)	105819	20.0000	18.02(M)
162 Butyl acrylate	55	8.252	8.252	(1.076)	269198	20.0000	18.42
2 Dichlorodifluoromethane	85	0.976	0.976	(0.234)	99620	20.0000	18.71
3 Chloromethane	50	1.085	1.085	(0.260)	99333	20.0000	17.17
5 Vinyl Chloride	62	1.149	1.149	(0.275)	131824	20.0000	18.49
6 Bromomethane	94	1.347	1.347	(0.322)	66144	20.0000	17.24
7 Chloroethane	64	1.407	1.407	(0.337)	87886	20.0000	18.81
8 Trichlorofluoromethane	101	1.565	1.565	(0.374)	185034	20.0000	18.24
9 Acrolein	56	1.865	1.865	(0.446)	7342	40.0000	35.98(H)
10 Acetone	43	1.981	1.981	(0.474)	100132	40.0000	40.98
11 1,1-Dichloroethene	96	1.921	1.921	(0.459)	106371	20.0000	18.54
15 Iodomethane	142	2.030	2.030	(0.485)	171922	40.0000	30.15
16 Acrylonitrile	53	2.543	2.543	(0.608)	107147	40.0000	38.76
17 Methylene Chloride	84	2.307	2.307	(0.552)	143307	20.0000	19.91
18 Methyl tert-butyl ether	73	2.539	2.539	(0.607)	388395	20.0000	18.97
19 Carbon Disulfide	76	2.075	2.075	(0.496)	644484	40.0000	37.85
20 trans-1,2-Dichloroethene	96	2.532	2.532	(0.606)	128440	20.0000	19.26
21 Vinyl Acetate	43	3.004	3.004	(0.719)	779470	40.0000	39.52
22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	239723	20.0000	19.09
24 2-Butanone	43	3.593	3.593	(0.859)	78570	40.0000	35.72(H)
26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	162441	20.0000	19.26
27 cis-1,2-Dichloroethene	96	3.529	3.529	(0.844)	126395	20.0000	19.74
28 Chloroform	83	3.911	3.911	(0.935)	214801	20.0000	19.51
29 Bromochloromethane	128	3.799	3.799	(0.909)	69658	20.0000	19.13
\$ 30 Dibromofluoromethane	113	4.106	4.106	(0.982)	119843	20.0000	21.52
31 1,1,1-Trichloroethane	97	4.080	4.080	(0.976)	170734	20.0000	19.32
32 1,1-Dichloropropene	75	4.286	4.286	(0.863)	142215	20.0000	18.93(H)
33 1,2-Dichloroethane	62	4.556	4.556	(0.918)	174386	20.0000	19.21
34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	140370	20.0000	17.70(H)
\$ 35 1,2-Dichloroethane-d4	65	4.474	4.474	(1.070)	130066	20.0000	20.79
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	954542	50.0000	
37 Benzene	78	4.515	4.515	(0.909)	448606	20.0000	19.08
38 Trichloroethene	130	5.208	5.208	(1.049)	126937	20.0000	18.78
39 Bromodichloromethane	83	5.726	5.726	(1.153)	165416	20.0000	18.89
41 2-Chloroethylvinyl ether	63	6.048	6.048	(1.218)	81477	40.0000	36.37
42 1,2-Dichloropropane	63	5.437	5.437	(1.095)	124523	20.0000	18.78
44 Dibromomethane	93	5.553	5.553	(1.119)	84627	20.0000	18.67
45 4-Methyl-2-Pentanone	43	6.329	6.329	(0.825)	249622	40.0000	38.79
46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	189727	20.0000	18.93
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	897079	50.0000	
\$ 48 Toluene-d8	98	6.386	6.386	(0.833)	408559	20.0000	19.35
50 Toluene	91	6.446	6.446	(0.841)	473181	20.0000	18.92
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	155214	20.0000	18.45
52 2-Hexanone	43	7.090	7.090	(0.925)	171498	40.0000	39.70
53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	97724	20.0000	19.61
54 1,3-Dichloropropane	76	6.982	6.982	(0.911)	193640	20.0000	19.01
55 Dibromochloromethane	129	7.173	7.173	(0.935)	139248	20.0000	19.36
56 Tetrachloroethene	164	6.925	6.925	(0.903)	97904	20.0000	18.84
57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	120578	20.0000	19.80
58 1-Chlorohexane	55	7.694	7.694	(1.550)	93256	20.0000	16.88(M)
59 Chlorobenzene	112	7.694	7.694	(1.003)	326753	20.0000	18.97
60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	129317	20.0000	19.43



61 Ethylbenzene	106	7.795	7.795 (1.017)	165338	20.0000	19.43
62 m,p-Xylenes	106	7.900	7.900 (1.030)	420476	40.0000	38.64



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081107.D Page 3
 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
63 o-Xylene	106	8.241	8.241	(1.075)	205919	20.0000	19.20
64 Styrene	104	8.256	8.256	(1.077)	354808	20.0000	19.89
66 Bromoform	173	8.410	8.410	(1.097)	95387	20.0000	19.65
67 Isopropylbenzene	105	8.560	8.560	(1.116)	505663	20.0000	18.97
68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	159320	20.0000	19.39
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	175173	20.0000	19.95
* 70 1,4-Dichlorobenzene-d4	152	9.658	9.658	(1.000)	504555	50.0000	
71 1,2,3-Trichloropropane	75	8.860	8.860	(0.917)	118920	20.0000	19.68(M)
73 n-Propylbenzene	91	8.908	8.908	(0.922)	592736	20.0000	19.86
74 Bromobenzene	156	8.803	8.803	(0.912)	159999	20.0000	19.84
75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.939)	423856	20.0000	19.43
76 2-Chlorotoluene	91	8.972	8.972	(0.929)	376667	20.0000	19.71
77 4-Chlorotoluene	91	9.070	9.070	(0.939)	432420	20.0000	19.67
78 tert-Butylbenzene	119	9.332	9.332	(0.966)	364564	20.0000	19.51
79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	432105	20.0000	19.24
81 sec-Butylbenzene	105	9.519	9.519	(0.986)	485819	20.0000	18.96
82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	449583	20.0000	19.41
83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	278790	20.0000	19.41
84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	295894	20.0000	19.23
86 Benzyl Chloride	91	9.808	9.808	(1.279)	233132	20.0000	18.15
87 n-Butylbenzene	91	9.992	9.992	(1.035)	387389	20.0000	18.50
88 1,2-Dichlorobenzene	146	9.992	9.992	(1.035)	283339	20.0000	19.54
89 1,2-Dibromo-3-Chloropropane	155	10.659	10.659	(1.104)	25685	20.0000	18.49
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.174)	185838	20.0000	19.37
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	73649	20.0000	22.23
92 Naphthalene	128	11.544	11.544	(1.195)	460009	20.0000	19.20
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	171743	20.0000	18.36
M 94 1,2-Dichloroethylene (total)	96				254835	40.0000	
M 95 Xylenes (total)	106				626395	60.0000	
141 Cyclohexane	56	4.118	4.118	(0.985)	130025	20.0000	17.59(M)
138 Freon TF	101	1.921	1.921	(0.459)	98415	20.0000	18.33
147 Methylcyclohexane	55	5.388	5.388	(1.085)	259972	20.0000	18.12
146 Methyl Acetate	43	2.236	2.236	(0.535)	107794	20.0000	20.18
148 Tert-Butyl alcohol	59	2.435	2.435	(0.582)	300900	400.000	412.57
149 Isopropyl Alcohol	45	2.101	2.101	(0.502)	173548	400.000	408.56

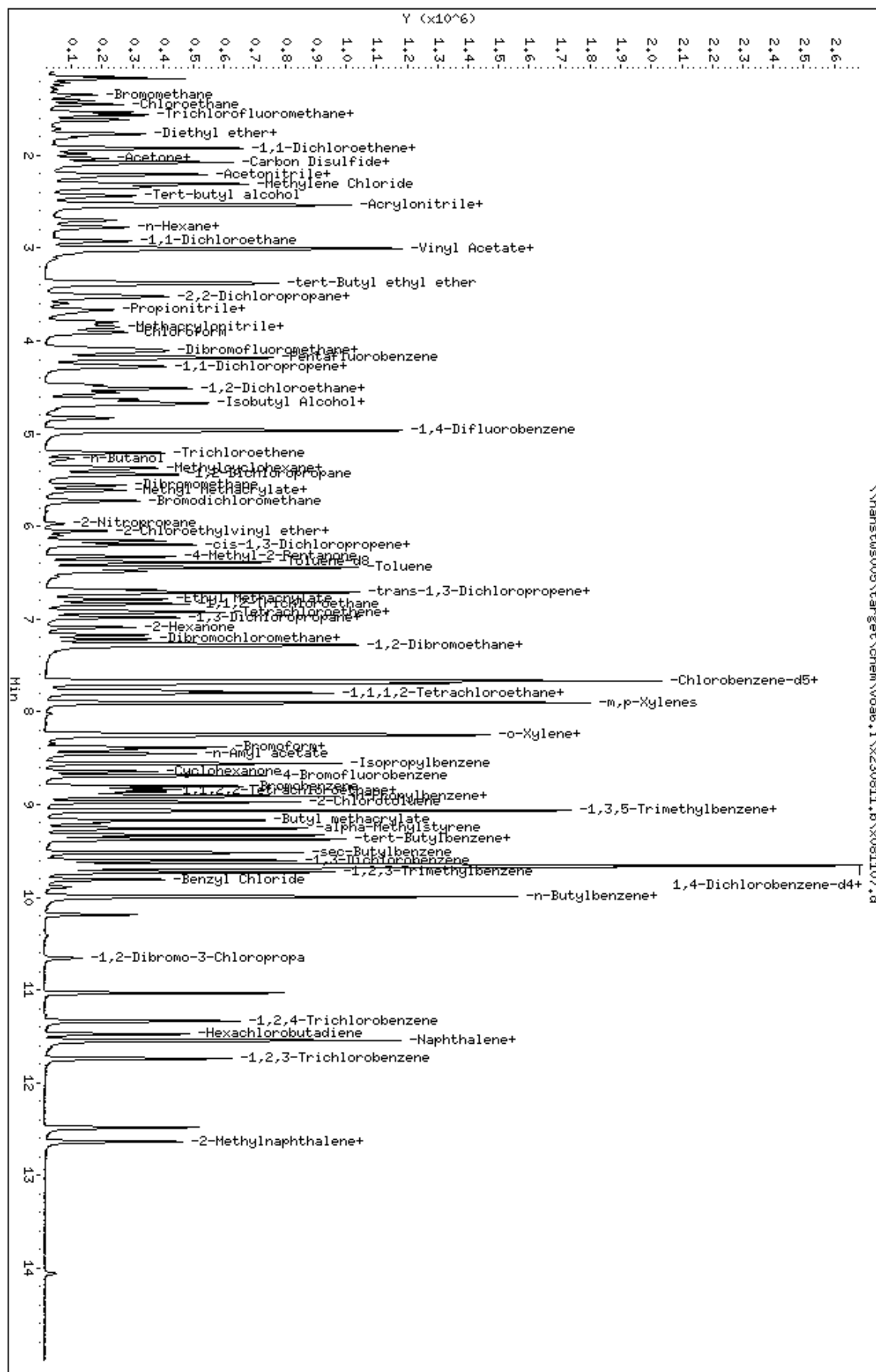
QC Flag Legend

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



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 Date : 11-AUG-2023 13:36
 Client ID: VSTD020
 Sample Info: VSTD020\VSTD020116f
 Purge Volume: 5.0
 Column phase: DB624

Instrument: voa6.i
 Operator: PC
 Column diameter: 0.18

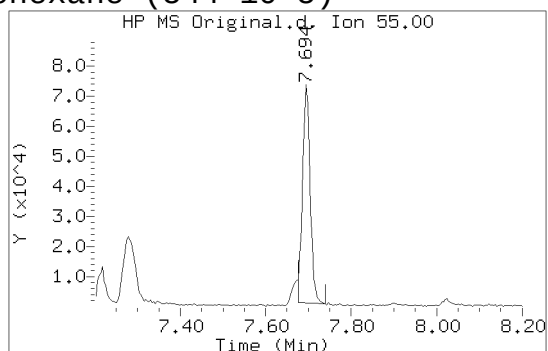


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 Inj Date : 11-AUG-2023 13:36
 InstruID : voa6.i
 LabSampID : VSTD020

1-Chlorohexane (544-10-5)

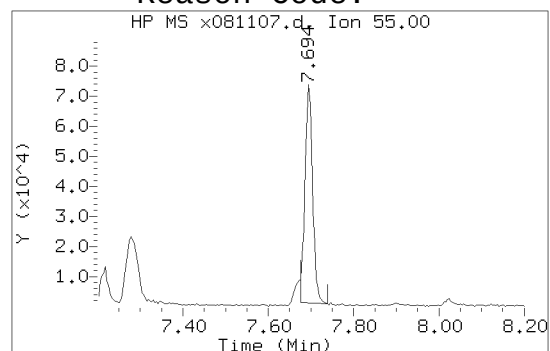
BEFORE

MASS
164
AREA
97904
HEIGHT
68232
12-Aug-2023
22:49



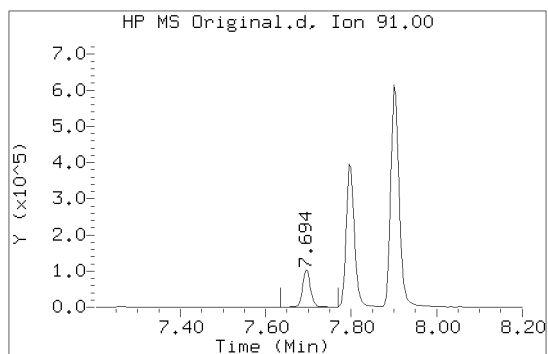
AFTER

MASS
55
AREA
93256
HEIGHT
72595
23-Aug-2023
11:11



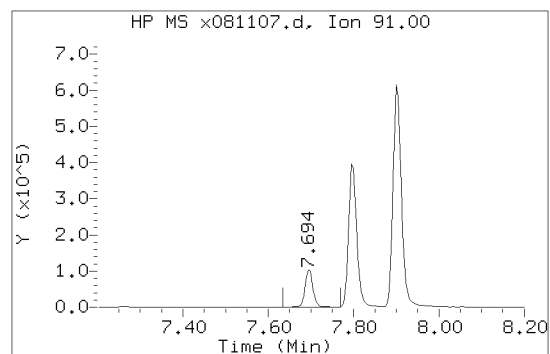
BEFORE

MASS
129
AREA
85190
HEIGHT
62837
12-Aug-2023
22:49



AFTER

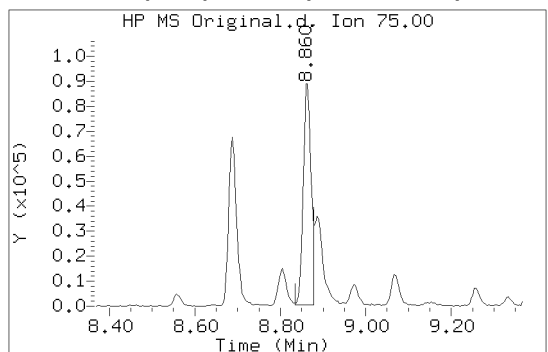
MASS
91
AREA
138949
HEIGHT
103400
23-Aug-2023
11:11



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

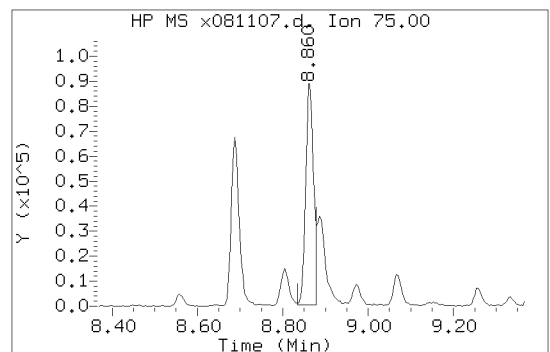
BEFORE

MASS
41
AREA
114783
HEIGHT
33198
12-Aug-2023
22:49



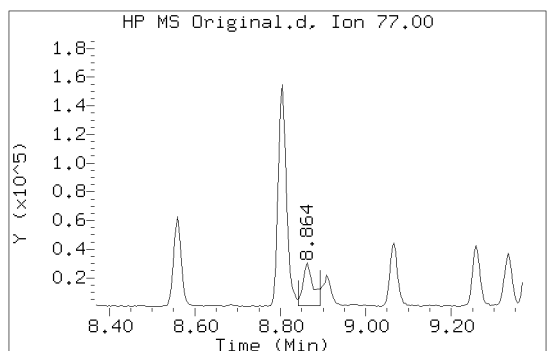
AFTER

MASS
75
AREA
118920
HEIGHT
88458
23-Aug-2023
11:11



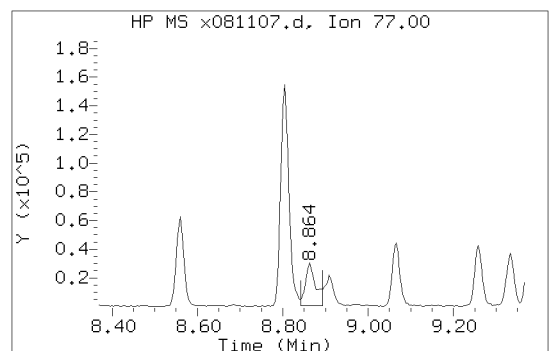
BEFORE

MASS
67
AREA
47726
HEIGHT
20831
12-Aug-2023
22:49



AFTER

MASS
77
AREA
52396
HEIGHT
30042
23-Aug-2023
11:11

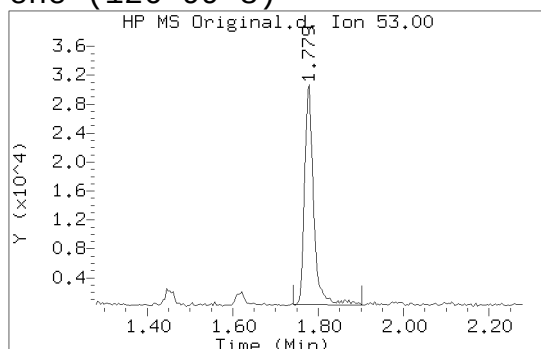


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081107.d
 Inj Date : 11-AUG-2023 13:36
 InstruID : voa6.i
 LabSampID : VSTD020

Chloroprene (126-99-8)

BEFORE

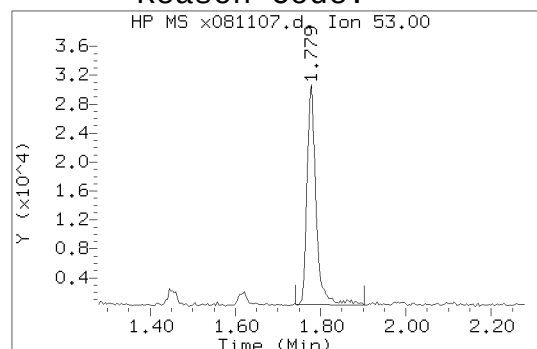
MASS
43
AREA
141943
HEIGHT
53227
12-Aug-2023
22:49



AFTER

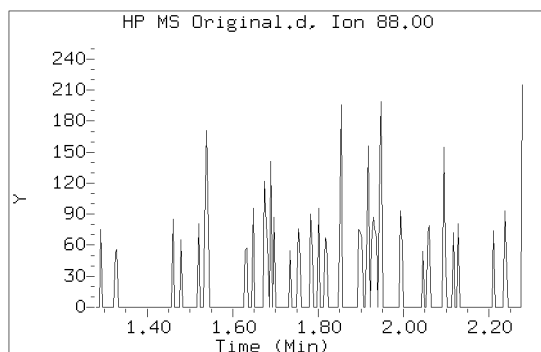
MASS
53
AREA
45834
HEIGHT
30377
23-Aug-2023
11:11

Reason Code:



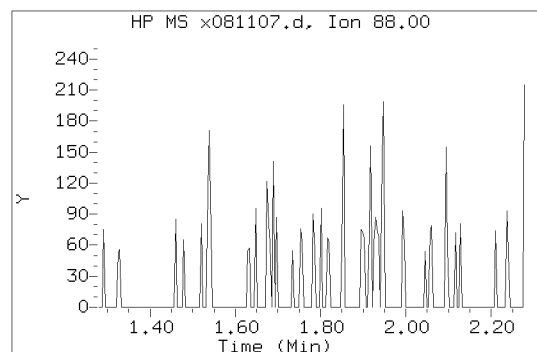
BEFORE

MASS
61
AREA
17157
HEIGHT
7994
12-Aug-2023
22:49



AFTER

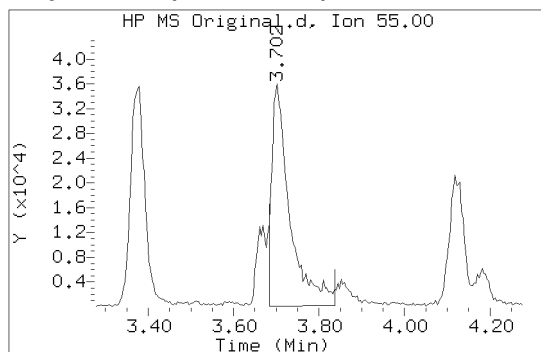
MASS
88
AREA
0
HEIGHT
0
23-Aug-2023
11:11



Methyl Acrylate (96-33-3)

BEFORE

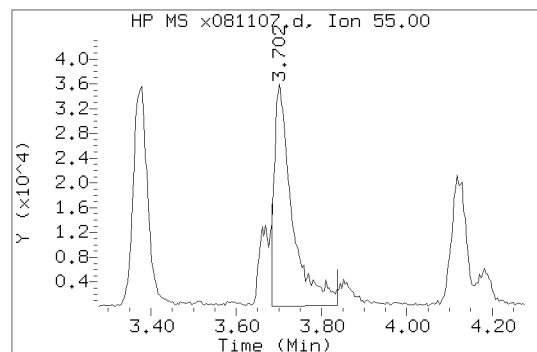
MASS
56
AREA
50123
HEIGHT
25599
12-Aug-2023
22:49



AFTER

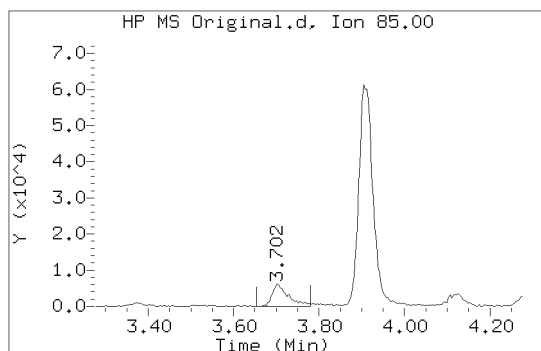
MASS
55
AREA
105819
HEIGHT
35852
23-Aug-2023
11:11

Reason Code:



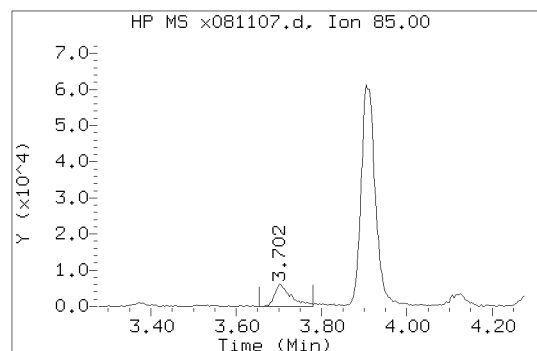
BEFORE

MASS
41
AREA
69255
HEIGHT
37047
12-Aug-2023
22:49



AFTER

MASS
85
AREA
16325
HEIGHT
6152
23-Aug-2023
11:11

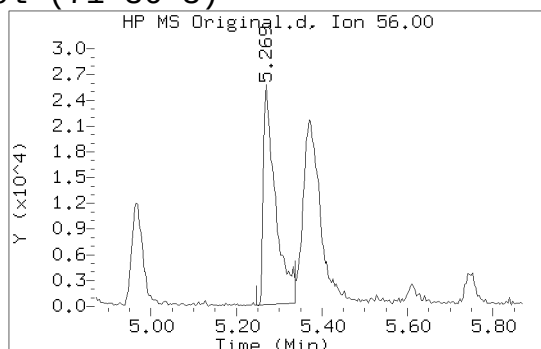


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 Inj Date : 11-AUG-2023 13:36
 InstruID : voa6.i
 LabSampID : VSTD020

n-Butanol (71-36-3)

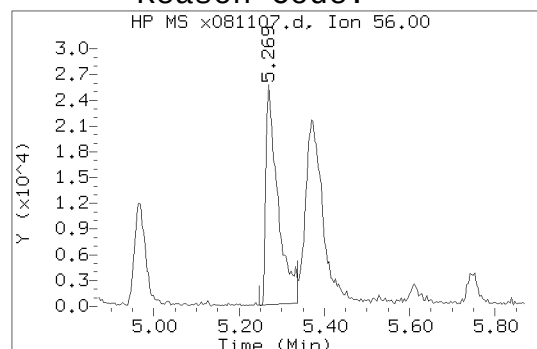
BEFORE

MASS
55
AREA
259972
HEIGHT
92898
12-Aug-2023
22:49



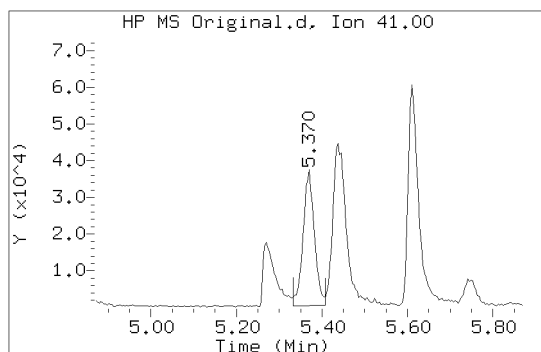
AFTER

MASS
56
AREA
50123
HEIGHT
25599
23-Aug-2023
11:11



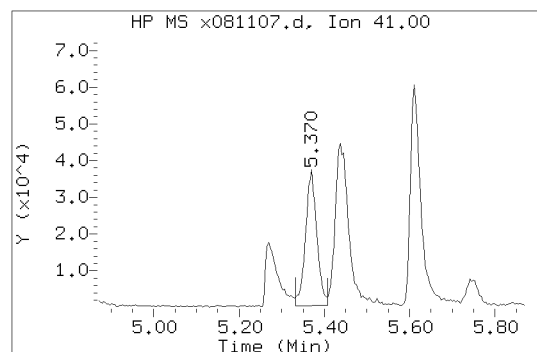
BEFORE

MASS
99
AREA
16577
HEIGHT
7200
12-Aug-2023
22:49



AFTER

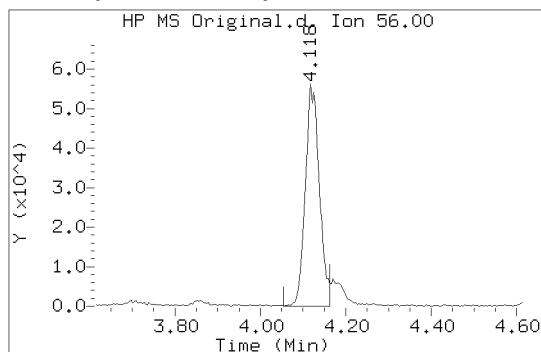
MASS
41
AREA
69255
HEIGHT
37047
23-Aug-2023
11:11



Cyclohexane (110-82-7)

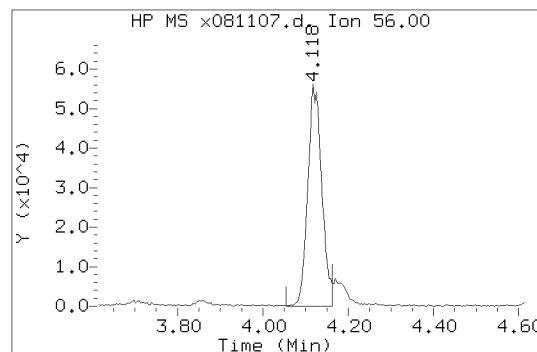
BEFORE

MASS
55
AREA
259972
HEIGHT
92898
12-Aug-2023
22:49



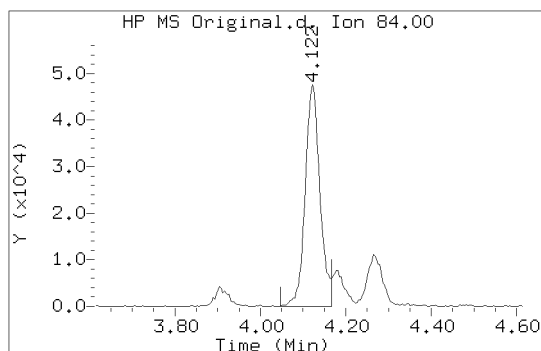
AFTER

MASS
56
AREA
130025
HEIGHT
56159
23-Aug-2023
11:11



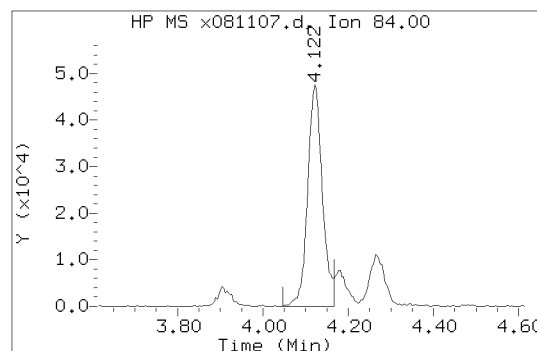
BEFORE

MASS
83
AREA
132128
HEIGHT
74193
12-Aug-2023
22:49



AFTER

MASS
84
AREA
116356
HEIGHT
47600
23-Aug-2023
11:11

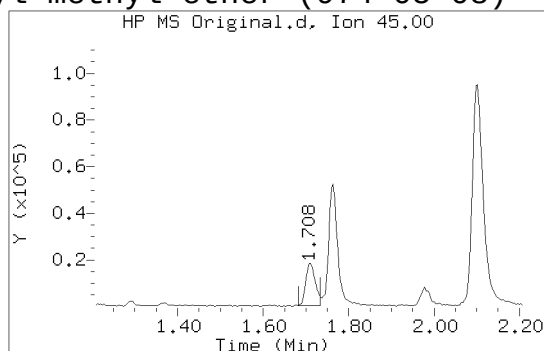


Data File : \\nahstws005\target\chem\voa6.i\x230811.b\x081107.d
Inj Date : 11-AUG-2023 13:36
InstruID : voa6.i
LabSampID : VSTD020

tert-Amyl methyl ether (974-05-08)

BEFORE

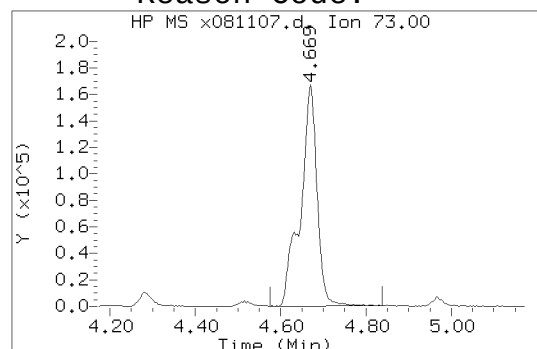
MASS
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AREA
175173
HEIGHT
132691
12-Aug-2023
22:49



AFTER

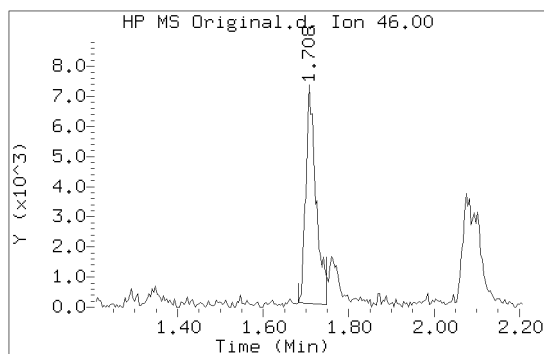
MASS
73
AREA
459457
HEIGHT
167039
23-Aug-2023
11:11

Reason Code:



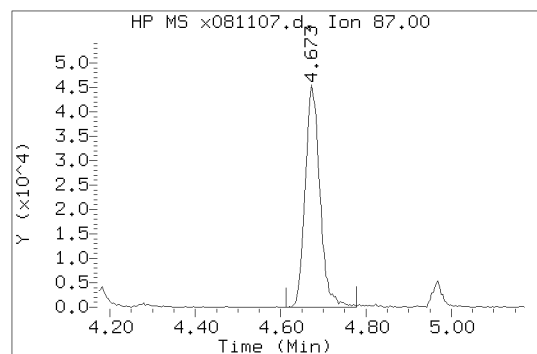
BEFORE

MASS
174
AREA
171256
HEIGHT
126912
12-Aug-2023
22:49



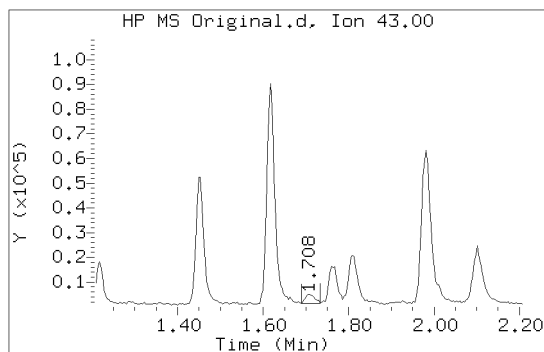
AFTER

MASS
87
AREA
110935
HEIGHT
45512
23-Aug-2023
11:11



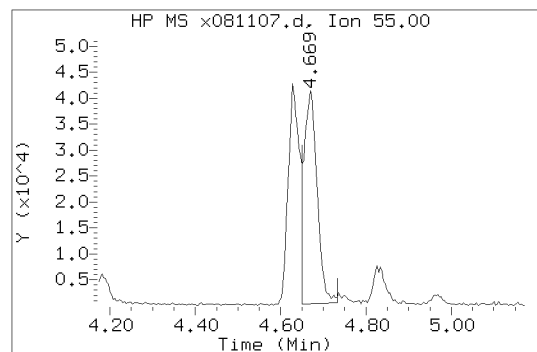
BEFORE

MASS
176
AREA
165288
HEIGHT
130048
12-Aug-2023
22:49



AFTER

MASS
55
AREA
89749
HEIGHT
41061
23-Aug-2023
11:11



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081108.D Page 1
 Report Date: 25-Aug-2023 14:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081108.D
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 Inj Date : 11-AUG-2023 13:56
 Operator : PC Inst ID: voa6.i
 Smp Info : VSTD050;VSTD050;1;7;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\8260W.m
 Meth Date : 25-Aug-2023 14:15 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:36 Cal File: X081107.D
 Als bottle: 8 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V6.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	
			RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)	625938	50.0000		
135 1,4-Dioxane	88		5.602	5.602	(1.340)	74087	1000.00	931.19	
140 1,3-Butadiene	54		1.171	1.171	(0.280)	288154	50.0000	44.68	
25 Methacrylonitrile	41		3.829	3.829	(0.916)	304721	50.0000	48.81	
12 Isobutyl Alcohol	43		4.680	4.680	(1.119)	957978	1000.00	976.37	
13 Acetonitrile	39		2.202	2.202	(0.527)	466698	500.000	483.46	
14 Allyl Chloride	41		2.202	2.202	(0.527)	902455	50.0000	47.32	
4 Propionitrile	54		3.660	3.660	(0.875)	442782	500.000	507.95	
136 n-Hexane	57		2.772	2.772	(0.663)	282893	50.0000	48.41	
72 trans-1,4-Dichloro-2-butene	53		8.886	8.886	(1.159)	110164	50.0000	45.77(H)	
194 Acetaldehyde	44		1.216	1.216	(0.291)	128302	200.000	203.38(M)	
23 Chloroprene	53		1.775	1.775	(0.424)	115869	50.0000	43.75(M)	
145 alpha-Methylstyrene	118		9.257	9.257	(0.958)	569808	50.0000	48.36	
200 Dimethyl Disulfide	94		6.194	6.194	(0.808)	667407	50.0000	53.10	
139 Diethyl ether	59		1.763	1.763	(0.422)	267847	50.0000	48.48	
130 Ethyl Acetate	43		3.664	3.664	(0.876)	338578	50.0000	47.12	
40 Methyl Methacrylate	41		5.606	5.606	(1.341)	286102	50.0000	49.67	
49 Ethyl Methacrylate	69		6.787	6.787	(1.367)	441120	50.0000	47.75(H)	
132 n-Butanol	56		5.265	5.265	(1.259)	143573	1000.00	876.06(M)	
142 Tetrahydrofuran	42		3.851	3.851	(0.921)	117209	100.000	95.99	



150 Allyl alcohol	57	2.772	2.772 (0.663)	282893	1000.00	967.48
166 1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	1226059	50.0000	47.68

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081108.D Page 2
Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
131 Methyl Acrylate	55	3.694	3.694	(0.883)	290322	50.0000	46.94(M)
162 Butyl acrylate	55	8.249	8.249	(1.076)	753228	50.0000	48.44
2 Dichlorodifluoromethane	85	0.980	0.980	(0.234)	255633	50.0000	44.62
3 Chloromethane	50	1.085	1.085	(0.260)	252266	50.0000	41.41
5 Vinyl Chloride	62	1.149	1.149	(0.275)	348444	50.0000	46.41
6 Bromomethane	94	1.344	1.344	(0.321)	175230	50.0000	43.35
7 Chloroethane	64	1.407	1.407	(0.337)	227926	50.0000	46.31
8 Trichlorofluoromethane	101	1.565	1.565	(0.374)	471489	50.0000	44.12
9 Acrolein	56	1.868	1.868	(0.447)	22472	100.000	109.78(M)
10 Acetone	43	1.977	1.977	(0.473)	247355	100.000	102.29
11 1,1-Dichloroethene	96	1.921	1.921	(0.459)	272717	50.0000	45.12
15 Iodomethane	142	2.033	2.033	(0.486)	646092	100.000	91.55
16 Acrylonitrile	53	2.539	2.539	(0.607)	277128	100.000	95.18
17 Methylene Chloride	84	2.307	2.307	(0.552)	351292	50.0000	46.34
18 Methyl tert-butyl ether	73	2.539	2.539	(0.607)	1034145	50.0000	47.96
19 Carbon Disulfide	76	2.075	2.075	(0.496)	1686583	100.000	94.02
20 trans-1,2-Dichloroethene	96	2.532	2.532	(0.606)	328345	50.0000	46.74
21 Vinyl Acetate	43	3.000	3.000	(0.718)	2062146	100.000	99.25
22 1,1-Dichloroethane	63	2.926	2.926	(0.700)	616011	50.0000	46.57
24 2-Butanone	43	3.585	3.585	(0.857)	238982	100.000	103.14(H)
26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	420039	50.0000	47.30
27 cis-1,2-Dichloroethene	96	3.529	3.529	(0.844)	328642	50.0000	48.72
28 Chloroform	83	3.908	3.908	(0.935)	553085	50.0000	47.70
29 Bromochloromethane	128	3.795	3.795	(0.908)	180912	50.0000	47.18
\$ 30 Dibromofluoromethane	113	4.099	4.099	(0.980)	277572	50.0000	48.32
31 1,1,1-Trichloroethane	97	4.080	4.080	(0.976)	441440	50.0000	47.42
32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	361675	50.0000	45.59(H)
33 1,2-Dichloroethane	62	4.556	4.556	(0.918)	449454	50.0000	46.89
34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	362480	50.0000	43.28(H)
\$ 35 1,2-Dichloroethane-d4	65	4.474	4.474	(1.070)	321172	50.0000	50.23
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	1008183	50.0000	
37 Benzene	78	4.511	4.511	(0.909)	1163806	50.0000	46.86
38 Trichloroethene	130	5.205	5.205	(1.048)	330245	50.0000	46.27
39 Bromodichloromethane	83	5.726	5.726	(1.153)	432633	50.0000	46.77
41 2-Chloroethylvinyl ether	63	6.048	6.048	(1.218)	212271	100.000	89.71
42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	325555	50.0000	46.49
44 Dibromomethane	93	5.550	5.550	(1.118)	216805	50.0000	45.30
45 4-Methyl-2-Pentanone	43	6.326	6.326	(0.825)	644425	100.000	94.11
46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	501073	50.0000	47.34
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	954561	50.0000	
\$ 48 Toluene-d8	98	6.385	6.385	(0.833)	939847	50.0000	41.83
50 Toluene	91	6.445	6.445	(0.841)	1246104	50.0000	46.84
51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.345)	415765	50.0000	46.80
52 2-Hexanone	43	7.086	7.086	(0.924)	438931	100.000	95.49
53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	251037	50.0000	47.34
54 1,3-Dichloropropane	76	6.982	6.982	(0.911)	508446	50.0000	46.91
55 Dibromochloromethane	129	7.173	7.173	(0.935)	378042	50.0000	49.40
56 Tetrachloroethene	164	6.925	6.925	(0.903)	253710	50.0000	45.89
57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	313080	50.0000	48.33
58 1-Chlorohexane	55	7.694	7.694	(1.550)	253055	50.0000	43.38
59 Chlorobenzene	112	7.690	7.690	(1.003)	864270	50.0000	47.15
60 1,1,1,2-Tetrachloroethane	131	7.769	7.769	(1.013)	339679	50.0000	47.98



61 Ethylbenzene	106	7.795	7.795 (1.017)	430082	50.0000	47.51
62 m,p-Xylenes	106	7.900	7.900 (1.030)	1109770	100.000	95.85



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081108.D Page 3

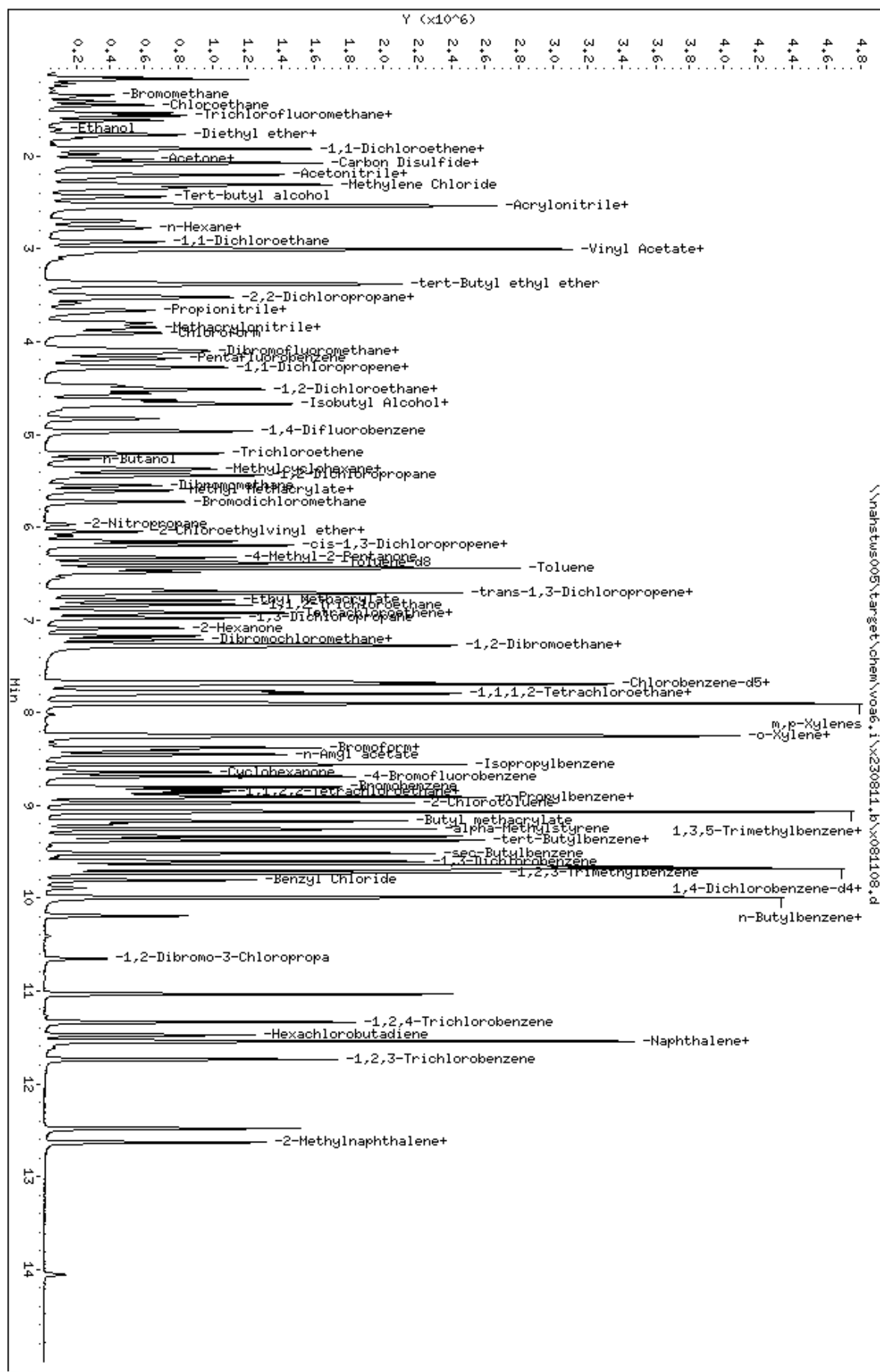
Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
63 o-Xylene	106	8.237	8.237	(1.074)	531737	50.0000	46.60
64 Styrene	104	8.256	8.256	(1.077)	951185	50.0000	50.13
66 Bromoform	173	8.406	8.406	(1.096)	256325	50.0000	49.64
67 Isopropylbenzene	105	8.560	8.560	(1.116)	1309182	50.0000	46.17
68 1,1,2,2-Tetrachloroethane	83	8.833	8.833	(0.915)	420510	50.0000	46.63
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	440611	50.0000	46.77
* 70 1,4-Dichlorobenzene-d4	152	9.658	9.658	(1.000)	553886	50.0000	
71 1,2,3-Trichloropropane	75	8.860	8.860	(0.917)	326171	50.0000	49.19(M)
73 n-Propylbenzene	91	8.908	8.908	(0.922)	1552046	50.0000	47.39
74 Bromobenzene	156	8.803	8.803	(0.912)	419375	50.0000	47.37
75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.939)	1120554	50.0000	46.80
76 2-Chlorotoluene	91	8.972	8.972	(0.929)	970543	50.0000	46.27
77 4-Chlorotoluene	91	9.066	9.066	(0.939)	1143652	50.0000	47.39
78 tert-Butylbenzene	119	9.332	9.332	(0.966)	941886	50.0000	45.91
79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1141051	50.0000	46.28
81 sec-Butylbenzene	105	9.516	9.516	(0.985)	1282761	50.0000	45.61
82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	1159726	50.0000	45.61
83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	746453	50.0000	47.34
84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	797053	50.0000	47.20
86 Benzyl Chloride	91	9.804	9.804	(1.279)	694747	50.0000	50.84
87 n-Butylbenzene	91	9.992	9.992	(1.035)	1021843	50.0000	41.63
88 1,2-Dichlorobenzene	146	9.988	9.988	(1.034)	749344	50.0000	47.08
89 1,2-Dibromo-3-Chloropropane	155	10.651	10.651	(1.103)	72896	50.0000	47.80
90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	482657	50.0000	45.82
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	188947	50.0000	48.72
92 Naphthalene	128	11.540	11.540	(1.195)	1211199	50.0000	46.07
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	466122	50.0000	45.41
M 94 1,2-Dichloroethylene (total)	96				656987	100.000	
M 95 Xylenes (total)	106				1641507	150.000	
141 Cyclohexane	56	4.121	4.121	(0.986)	340162	50.0000	40.96
138 Freon TF	101	1.921	1.921	(0.459)	245533	50.0000	41.86
147 Methylcyclohexane	55	5.381	5.381	(1.084)	704530	50.0000	46.51
146 Methyl Acetate	43	2.236	2.236	(0.535)	269607	50.0000	47.93
148 Tert-Butyl alcohol	59	2.438	2.438	(0.583)	745105	1000.00	987.31
149 Isopropyl Alcohol	45	2.097	2.097	(0.502)	441739	1000.00	1005.43

QC Flag Legend

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





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 Sample Info: WSTD050;WSTD050;117;
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 Column phase: DB624

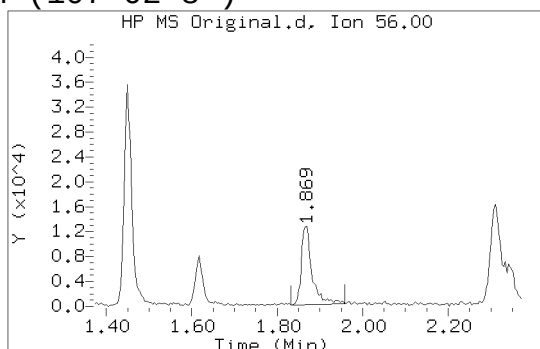
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 Instrument: voa6.i
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 InstruID : voa6.i
 LabSampID : VSTD050

Acrolein (107-02-8)

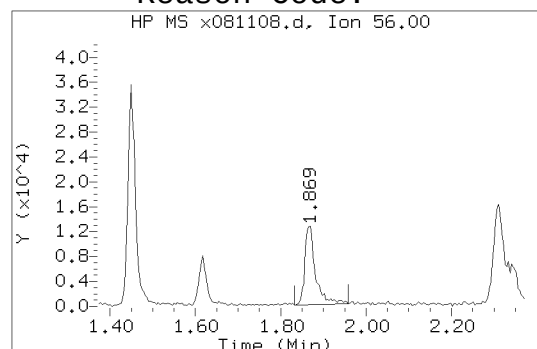
BEFORE

MASS
76
AREA
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HEIGHT
354170
12-Aug-2023
23:25



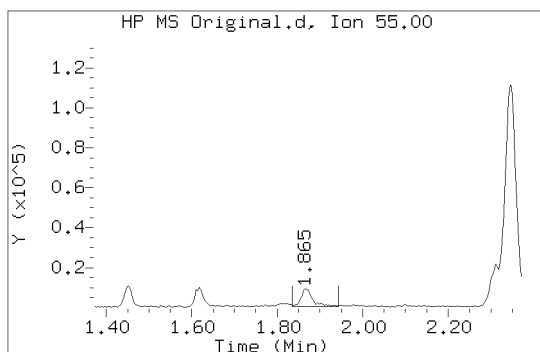
AFTER

MASS
56
AREA
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HEIGHT
12576
23-Aug-2023
11:11



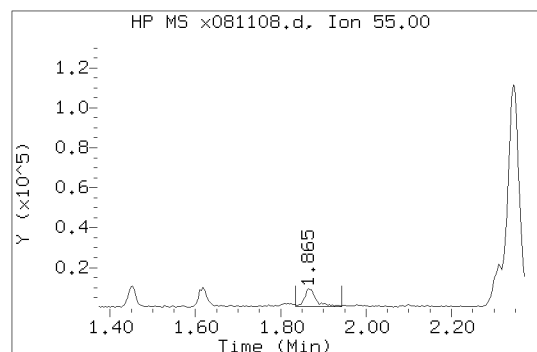
BEFORE

MASS
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AREA
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HEIGHT
114377
12-Aug-2023
23:25



AFTER

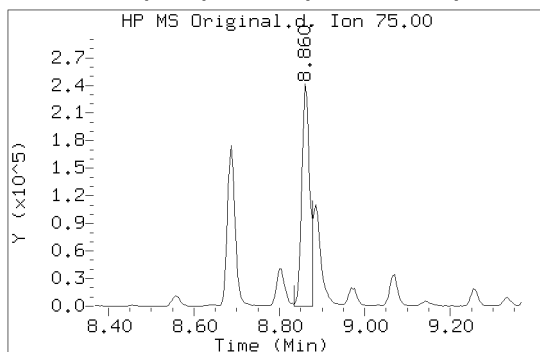
MASS
55
AREA
17978
HEIGHT
9077
23-Aug-2023
11:11



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

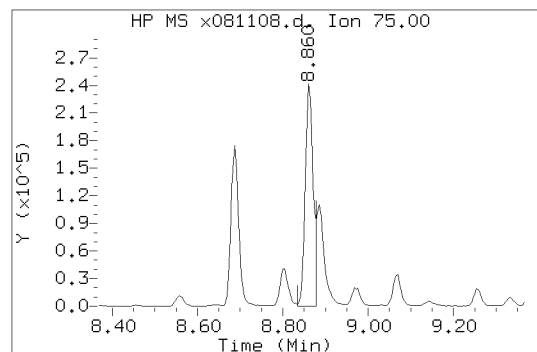
BEFORE

MASS
41
AREA
304721
HEIGHT
89439
12-Aug-2023
23:25



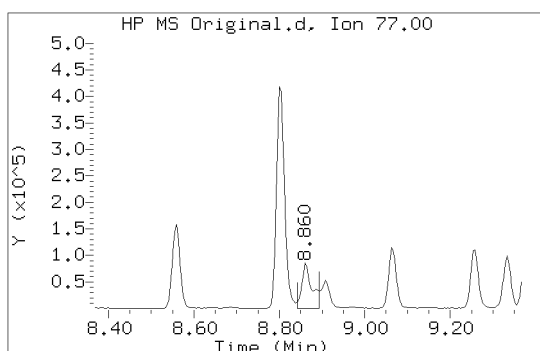
AFTER

MASS
75
AREA
326171
HEIGHT
241579
23-Aug-2023
11:11



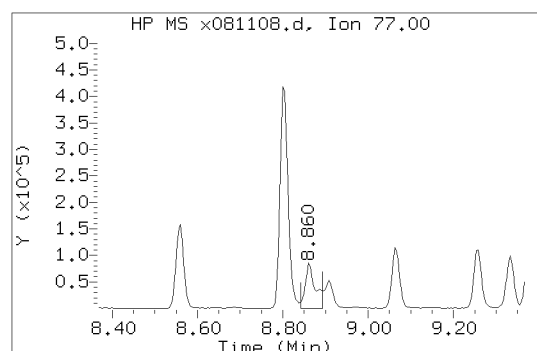
BEFORE

MASS
67
AREA
129552
HEIGHT
61640
12-Aug-2023
23:25



AFTER

MASS
77
AREA
143015
HEIGHT
85041
23-Aug-2023
11:11

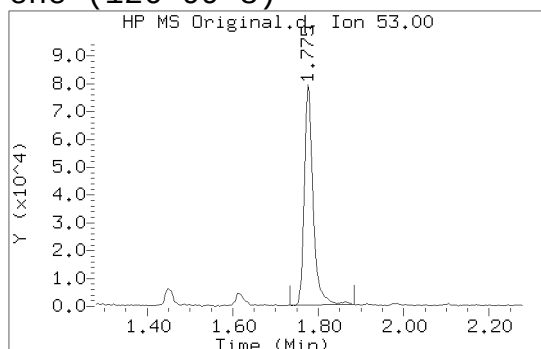


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 InstruID : voa6.i
 LabSampID : VSTD050

Chloroprene (126-99-8)

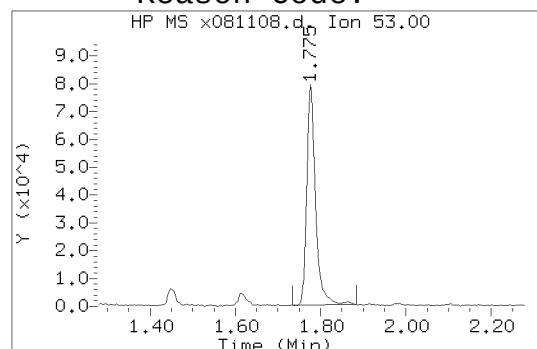
BEFORE

MASS
43
AREA
338578
HEIGHT
151363
12-Aug-2023
23:25



AFTER

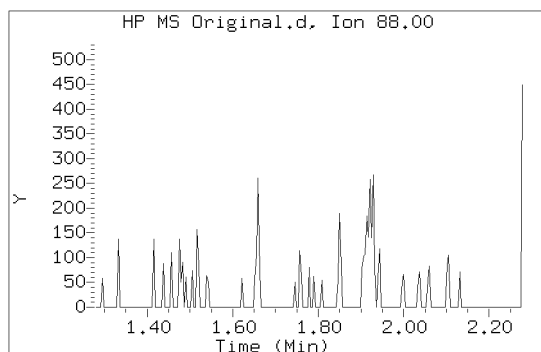
MASS
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AREA
115869
HEIGHT
79193
23-Aug-2023
11:11



Reason Code:

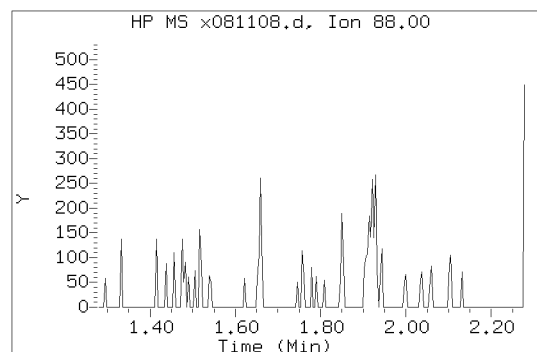
BEFORE

MASS
61
AREA
42300
HEIGHT
21359
12-Aug-2023
23:25



AFTER

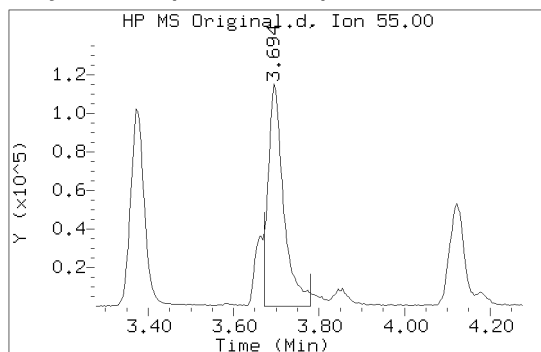
MASS
88
AREA
0
HEIGHT
0
23-Aug-2023
11:11



Methyl Acrylate (96-33-3)

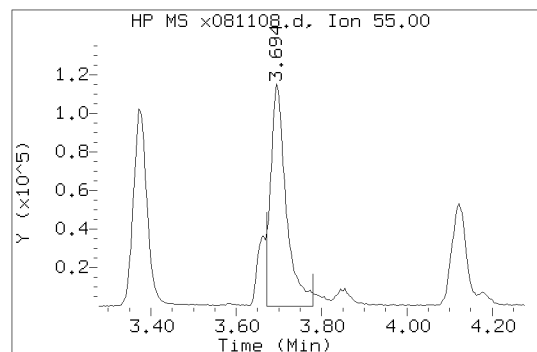
BEFORE

MASS
56
AREA
143573
HEIGHT
81435
12-Aug-2023
23:25



AFTER

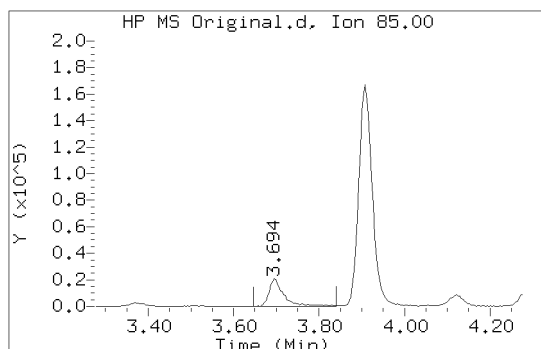
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AREA
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HEIGHT
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23-Aug-2023
11:11



Reason Code:

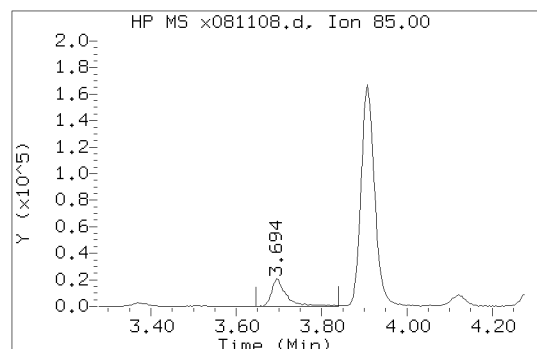
BEFORE

MASS
41
AREA
177813
HEIGHT
91272
12-Aug-2023
23:25



AFTER

MASS
85
AREA
50278
HEIGHT
20640
23-Aug-2023
11:11

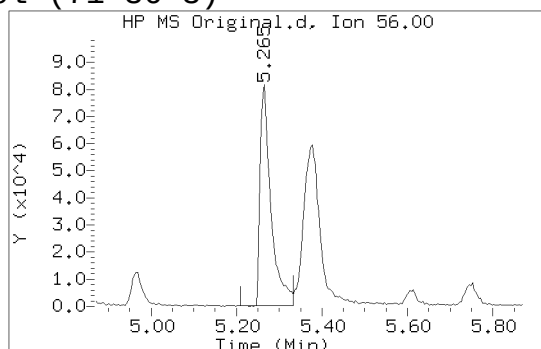


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 InstruID : voa6.i
 LabSampID : VSTD050

n-Butanol (71-36-3)

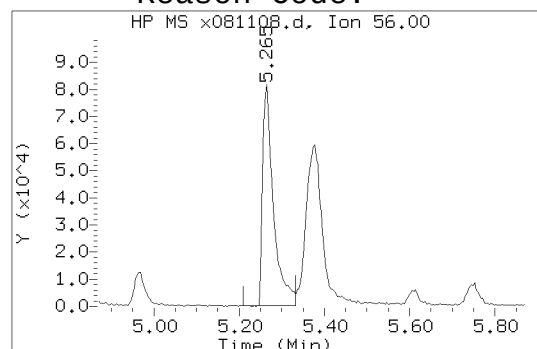
BEFORE

MASS
55
AREA
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HEIGHT
299282
12-Aug-2023
23:25



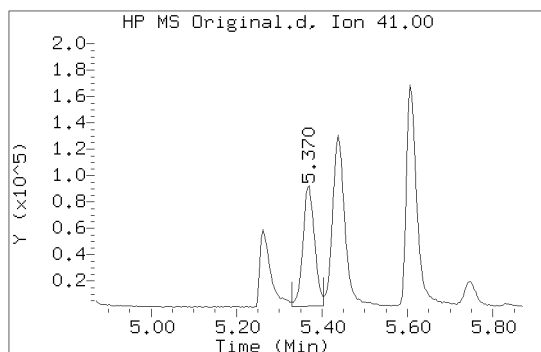
AFTER

MASS
56
AREA
143573
HEIGHT
81435
23-Aug-2023
11:11



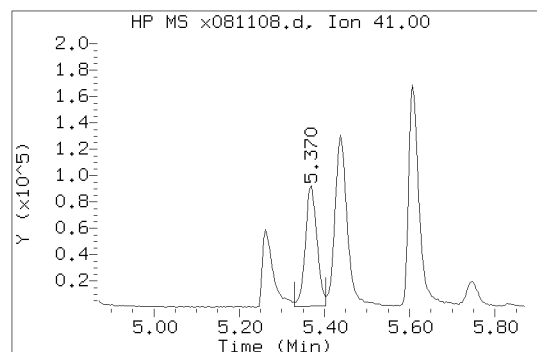
BEFORE

MASS
99
AREA
42346
HEIGHT
20248
12-Aug-2023
23:25



AFTER

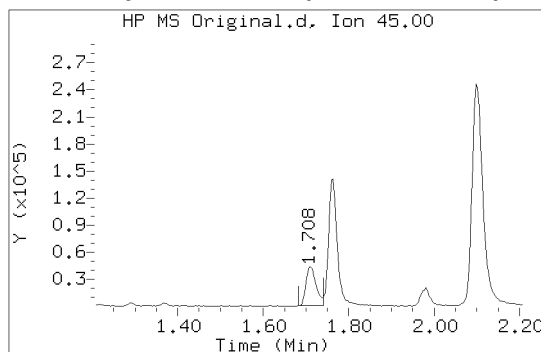
MASS
41
AREA
177813
HEIGHT
91272
23-Aug-2023
11:11



tert-Amyl methyl ether (974-05-08)

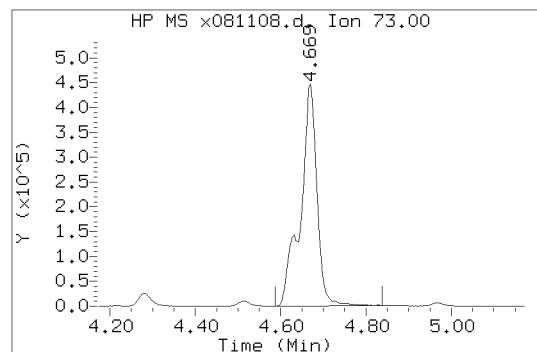
BEFORE

MASS
95
AREA
440611
HEIGHT
337437
12-Aug-2023
23:25



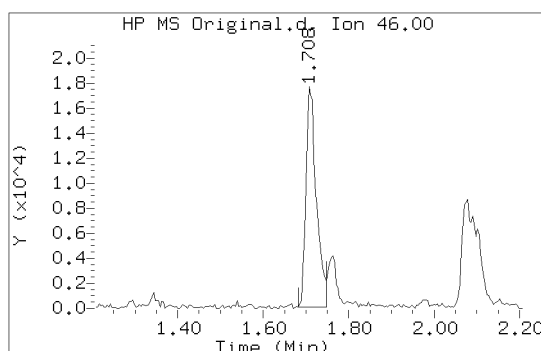
AFTER

MASS
73
AREA
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HEIGHT
446593
23-Aug-2023
11:11



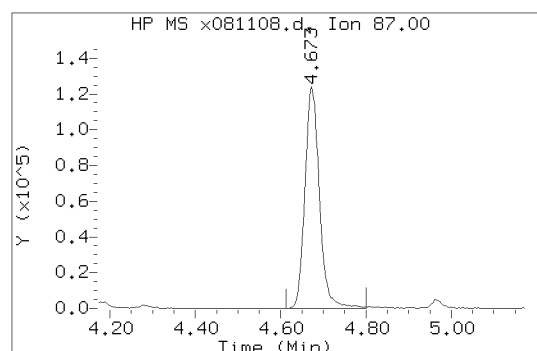
BEFORE

MASS
174
AREA
424225
HEIGHT
323583
12-Aug-2023
23:25



AFTER

MASS
87
AREA
299041
HEIGHT
124080
23-Aug-2023
11:11

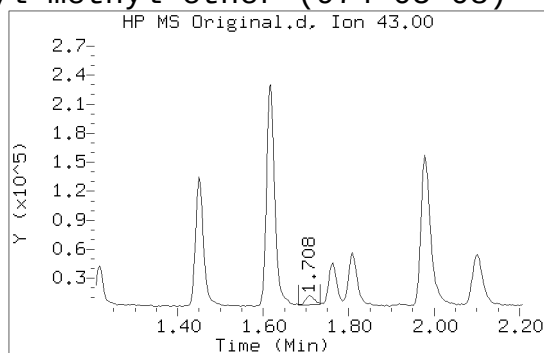


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InstruID : voa6.i
LabSampID : VSTD050

tert-Amyl methyl ether (974-05-08)

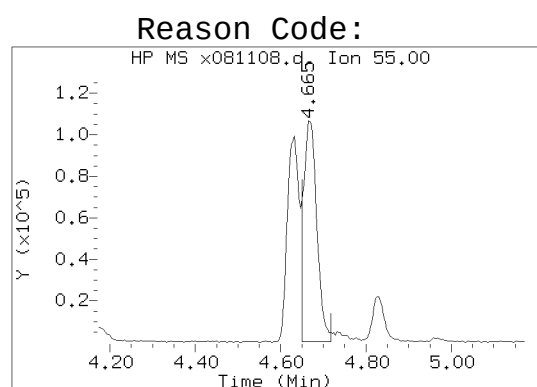
BEFORE

MASS
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416366
HEIGHT
325831
12-Aug-2023
23:25



AFTER

MASS
55
AREA
232428
HEIGHT
106361
23-Aug-2023
11:11



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081109.D Page 1
 Report Date: 25-Aug-2023 14:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081109.D
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 Inj Date : 11-AUG-2023 14:17
 Operator : PC Inst ID: voa6.i
 Smp Info : VSTD100;VSTD100;1;8;
 Misc Info : V6;WATER;0;1;
 Comment :
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 Meth Date : 25-Aug-2023 14:15 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:56 Cal File: X081108.D
 Als bottle: 9 Calibration Sample, Level: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V6.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)	640506	50.0000		
135 1,4-Dioxane	88		5.602	5.602	(1.340)	160962	2000.00	1977.09	
140 1,3-Butadiene	54		1.171	1.171	(0.280)	674061	100.000	102.14	
25 Methacrylonitrile	41		3.821	3.821	(0.914)	650336	100.000	101.80	
12 Isobutyl Alcohol	43		4.680	4.680	(1.119)	2032055	2000.00	2023.96	
13 Acetonitrile	39		2.202	2.202	(0.527)	956437	1000.00	968.26	
14 Allyl Chloride	41		2.202	2.202	(0.527)	1838118	100.000	94.20	
4 Propionitrile	54		3.660	3.660	(0.875)	922962	1000.00	1034.73	
136 n-Hexane	57		2.772	2.772	(0.663)	828407	100.000	100.12	
72 trans-1,4-Dichloro-2-butene	53		8.886	8.886	(1.159)	253731	100.000	100.45(H)	
194 Acetaldehyde	44		1.216	1.216	(0.291)	249925	400.000	394.98(M)	
23 Chloroprene	53		1.775	1.775	(0.424)	279143	100.000	103.02	
145 alpha-Methylstyrene	118		9.257	9.257	(0.958)	1341041	100.000	104.28	
200 Dimethyl Disulfide	94		6.194	6.194	(0.808)	1435957	100.000	108.87	
139 Diethyl ether	59		1.763	1.763	(0.422)	534429	100.000	94.53	
130 Ethyl Acetate	43		3.660	3.660	(0.875)	720887	100.000	98.05	
40 Methyl Methacrylate	41		5.606	5.606	(1.341)	608078	100.000	103.18	
49 Ethyl Methacrylate	69		6.786	6.786	(1.366)	947621	100.000	101.25(H)	
132 n-Butanol	56		5.261	5.261	(1.258)	333572	2000.00	1902.85(M)	
142 Tetrahydrofuran	42		3.848	3.848	(0.920)	238972	200.000	191.26	



150 Allyl alcohol	57	2.772	2.772 (0.663)	828407	2000.00	2002.64
166 1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	2730695	100.000	97.30

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081109.D Page 2

Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
131 Methyl Acrylate	55	3.690	3.690	(0.883)	609738	100.000	96.35(M)
162 Butyl acrylate	55	8.248	8.248	(1.076)	1671356	100.000	102.43
2 Dichlorodifluoromethane	85	0.980	0.980	(0.234)	619342	100.000	104.73
3 Chloromethane	50	1.085	1.085	(0.260)	615114	100.000	98.69
5 Vinyl Chloride	62	1.149	1.149	(0.275)	792366	100.000	103.13
6 Bromomethane	94	1.343	1.343	(0.321)	402009	100.000	97.21
7 Chloroethane	64	1.407	1.407	(0.337)	487182	100.000	96.75
8 Trichlorofluoromethane	101	1.565	1.565	(0.374)	1143221	100.000	104.55
9 Acrolein	56	1.865	1.865	(0.446)	42571	200.000	205.58(M)
10 Acetone	43	1.977	1.977	(0.473)	518775	200.000	214.49
11 1,1-Dichloroethene	96	1.921	1.921	(0.459)	621762	100.000	100.53
15 Iodomethane	142	2.033	2.033	(0.486)	1612228	200.000	206.83
16 Acrylonitrile	53	2.536	2.536	(0.606)	573307	200.000	192.42
17 Methylene Chloride	84	2.307	2.307	(0.552)	703194	100.000	90.66
18 Methyl tert-butyl ether	73	2.539	2.539	(0.607)	2072249	100.000	93.93
19 Carbon Disulfide	76	2.074	2.074	(0.496)	3782366	200.000	206.06
20 trans-1,2-Dichloroethene	96	2.532	2.532	(0.606)	694934	100.000	96.69
21 Vinyl Acetate	43	3.000	3.000	(0.718)	4323501	200.000	203.36
22 1,1-Dichloroethane	63	2.925	2.925	(0.700)	1279476	100.000	94.52
24 2-Butanone	43	3.581	3.581	(0.857)	533010	200.000	224.81(H)
26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	949589	100.000	104.52
27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.843)	700204	100.000	101.44
28 Chloroform	83	3.908	3.908	(0.935)	1177710	100.000	99.27
29 Bromochloromethane	128	3.795	3.795	(0.908)	383542	100.000	97.75
\$ 30 Dibromofluoromethane	113	4.099	4.099	(0.980)	623623	100.000	107.10
31 1,1,1-Trichloroethane	97	4.084	4.084	(0.977)	1017489	100.000	106.82
32 1,1-Dichloropropene	75	4.279	4.279	(0.861)	871919	100.000	108.47(H)
33 1,2-Dichloroethane	62	4.556	4.556	(0.917)	944663	100.000	97.27
34 Carbon Tetrachloride	117	4.264	4.264	(0.858)	885624	100.000	104.37(H)
\$ 35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.069)	683505	100.000	105.68
* 36 1,4-Difluorobenzene	114	4.968	4.968	(1.000)	1021527	50.0000	
37 Benzene	78	4.511	4.511	(0.908)	2519479	100.000	100.13
38 Trichloroethene	130	5.205	5.205	(1.048)	731094	100.000	101.10
39 Bromodichloromethane	83	5.726	5.726	(1.152)	922185	100.000	98.40
41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	484488	200.000	202.09
42 1,2-Dichloropropane	63	5.437	5.437	(1.094)	698386	100.000	98.43
44 Dibromomethane	93	5.553	5.553	(1.118)	455344	100.000	93.91
45 4-Methyl-2-Pentanone	43	6.325	6.325	(0.825)	1413537	200.000	196.71
46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.238)	1105204	100.000	103.06
* 47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	1001756	50.0000	
\$ 48 Toluene-d8	98	6.385	6.385	(0.833)	2278710	100.000	96.65
50 Toluene	91	6.445	6.445	(0.841)	2797148	100.000	100.20
51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.344)	937127	100.000	104.12
52 2-Hexanone	43	7.086	7.086	(0.924)	957766	200.000	198.56
53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	546052	100.000	98.13
54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	1090432	100.000	95.86
55 Dibromochloromethane	129	7.173	7.173	(0.935)	821062	100.000	102.24
56 Tetrachloroethene	164	6.925	6.925	(0.903)	624399	100.000	107.62
57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	664741	100.000	97.79
58 1-Chlorohexane	55	7.694	7.694	(1.548)	641164	100.000	108.48
59 Chlorobenzene	112	7.690	7.690	(1.003)	1909593	100.000	99.28
60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	762918	100.000	102.68



61 Ethylbenzene	106	7.799	7.799 (1.017)	979780	100.000	103.15
62 m,p-Xylenes	106	7.900	7.900 (1.030)	2516682	200.000	207.12



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081109.D Page 3
 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
63 o-Xylene	106	8.237	8.237	(1.074)	1210239	100.000	101.07
64 Styrene	104	8.256	8.256	(1.077)	2100825	100.000	105.50
66 Bromoform	173	8.406	8.406	(1.096)	593398	100.000	109.52
67 Isopropylbenzene	105	8.560	8.560	(1.116)	3137727	100.000	105.45
68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	923133	100.000	93.79
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	1004363	100.000	101.27
* 70 1,4-Dichlorobenzene-d4	152	9.658	9.658	(1.000)	604590	50.0000	
71 1,2,3-Trichloropropane	75	8.859	8.859	(0.917)	670063	100.000	92.58(M)
73 n-Propylbenzene	91	8.908	8.908	(0.922)	3787376	100.000	105.94
74 Bromobenzene	156	8.803	8.803	(0.912)	935104	100.000	96.76
75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.939)	2731821	100.000	104.53
76 2-Chlorotoluene	91	8.972	8.972	(0.929)	2211513	100.000	96.60
77 4-Chlorotoluene	91	9.066	9.066	(0.939)	2657540	100.000	100.89
78 tert-Butylbenzene	119	9.332	9.332	(0.966)	2375406	100.000	106.09
79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	2757148	100.000	102.45
81 sec-Butylbenzene	105	9.519	9.519	(0.986)	3405673	100.000	110.95
82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	3028640	100.000	109.13
83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	1735850	100.000	100.86
84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	1833747	100.000	99.48
86 Benzyl Chloride	91	9.804	9.804	(1.279)	1725503	100.000	120.33
87 n-Butylbenzene	91	9.988	9.988	(1.034)	2801951	100.000	101.53
88 1,2-Dichlorobenzene	146	9.988	9.988	(1.034)	1749811	100.000	100.72
89 1,2-Dibromo-3-Chloropropane	155	10.651	10.651	(1.103)	172155	100.000	103.43
90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	1231235	100.000	107.10
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	585400	100.000	100.10
92 Naphthalene	128	11.540	11.540	(1.195)	2873022	100.000	100.12
93 1,2,3-Trichlorobenzene	180	11.738	11.738	(1.215)	1130429	100.000	100.90
M 94 1,2-Dichloroethylene (total)	96				1395138	200.000	
M 95 Xylenes (total)	106				3726921	300.000	
141 Cyclohexane	56	4.121	4.121	(0.986)	918146	100.000	105.04
138 Freon TF	101	1.921	1.921	(0.459)	646829	100.000	105.98
147 Methylcyclohexane	55	5.381	5.381	(1.083)	1626175	100.000	105.96(A)
146 Methyl Acetate	43	2.236	2.236	(0.535)	552039	100.000	95.91
148 Tert-Butyl alcohol	59	2.438	2.438	(0.583)	1555693	2000.00	2028.00
149 Isopropyl Alcohol	45	2.101	2.101	(0.502)	902720	2000.00	2020.78

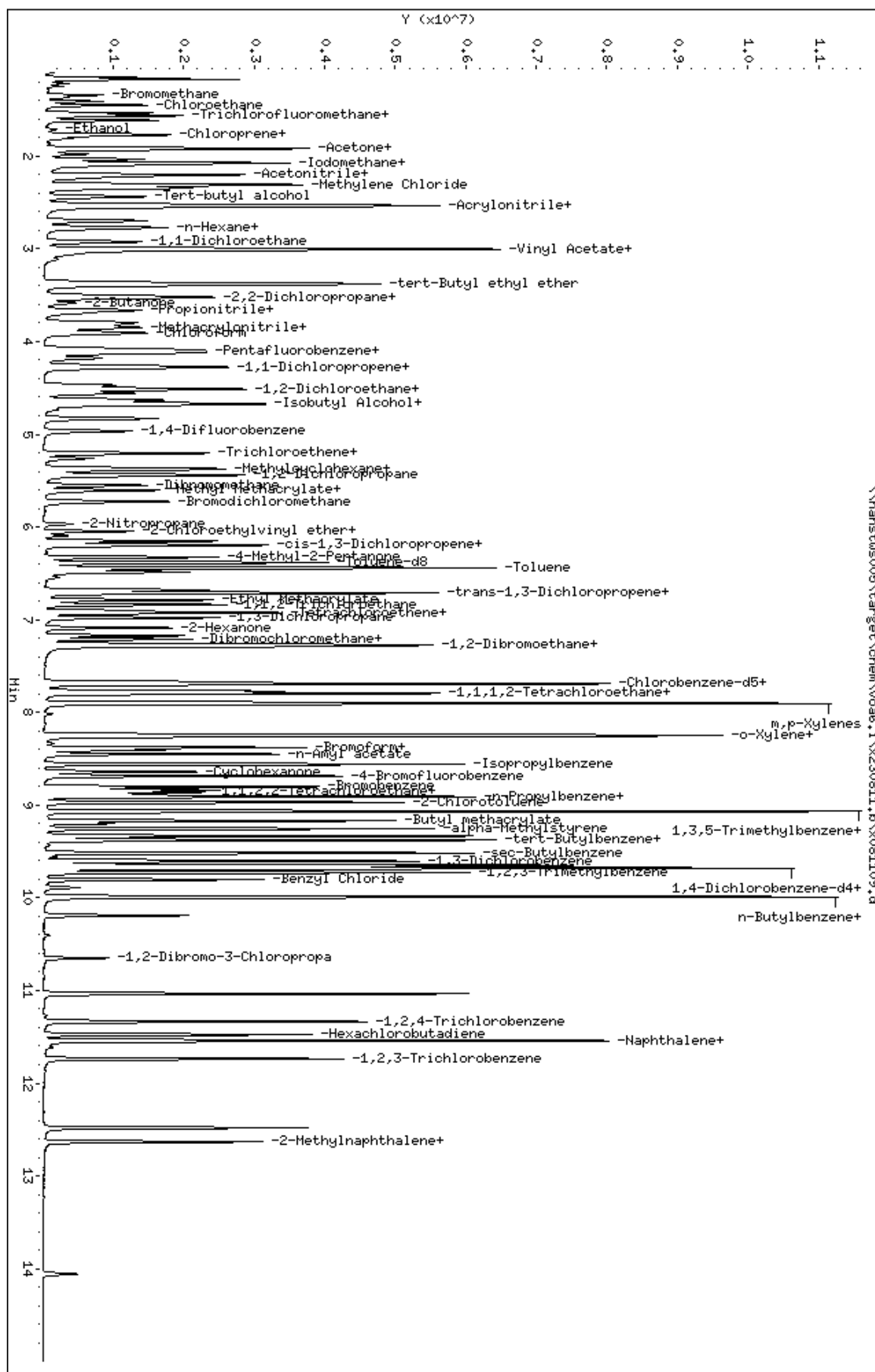
QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.



Data File: \\nashtus005\target\chem\voa6.i\X230811.b\X081109.d
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 Client ID: WSTD100
 Sample Info: WSTD100;WSTD100;118;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: voa6.i
 Operator: PC
 Column diameter: 0.18

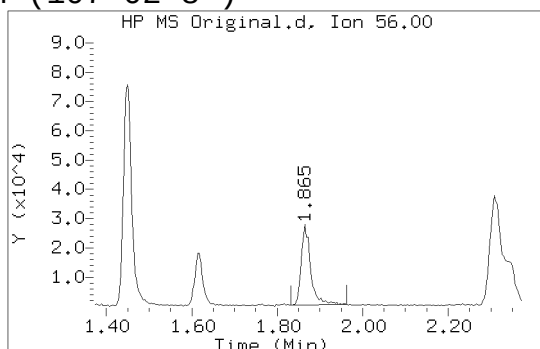


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 Inj Date : 11-AUG-2023 14:17
 InstruID : voa6.i
 LabSampID : VSTD100

Acrolein (107-02-8)

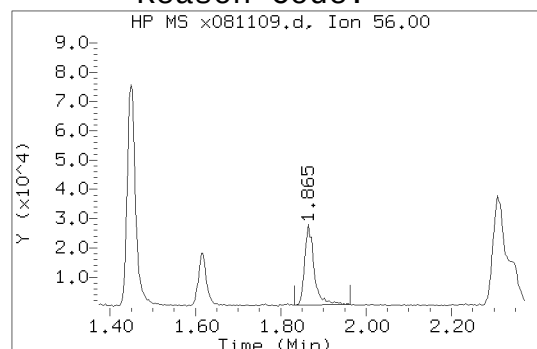
BEFORE

MASS
76
AREA
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HEIGHT
769900
12-Aug-2023
22:49



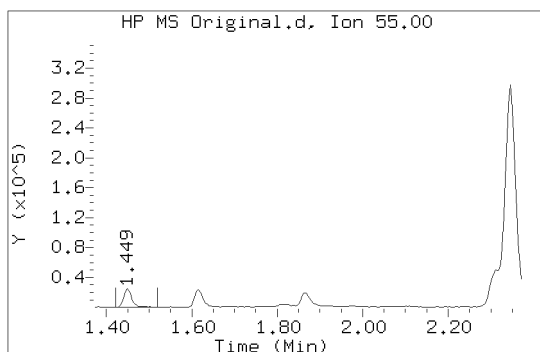
AFTER

MASS
56
AREA
42571
HEIGHT
27429
23-Aug-2023
11:11



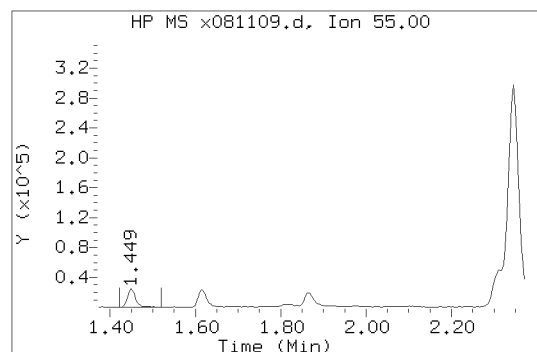
BEFORE

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AREA
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HEIGHT
255258
12-Aug-2023
22:49



AFTER

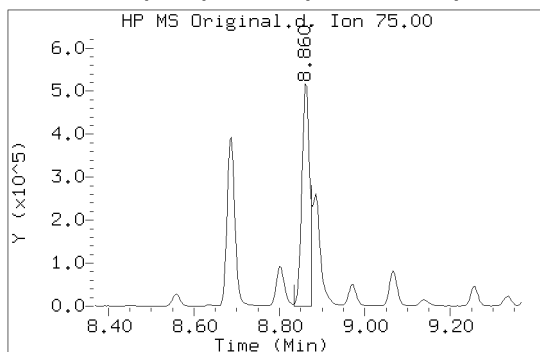
MASS
55
AREA
31438
HEIGHT
24366
23-Aug-2023
11:11



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

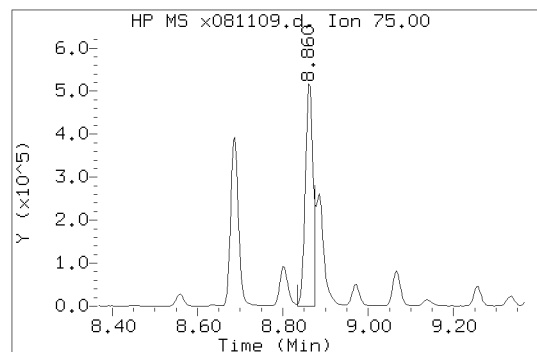
BEFORE

MASS
41
AREA
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HEIGHT
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12-Aug-2023
22:49



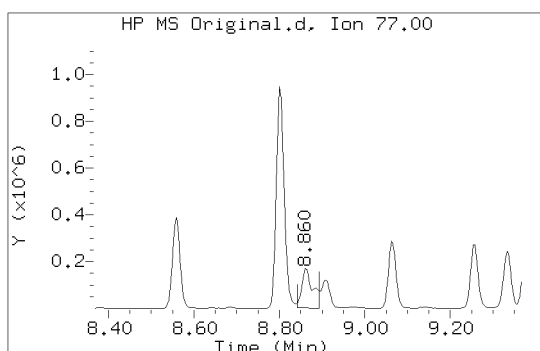
AFTER

MASS
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AREA
670063
HEIGHT
516688
23-Aug-2023
11:11



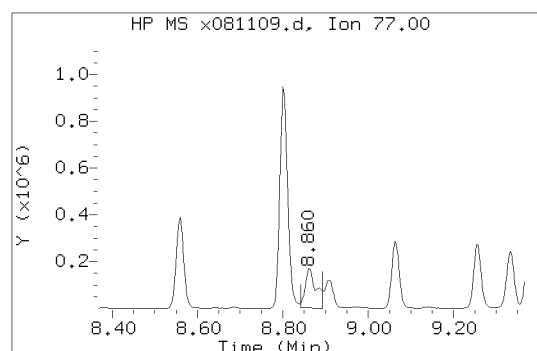
BEFORE

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67
AREA
270717
HEIGHT
126842
12-Aug-2023
22:49



AFTER

MASS
77
AREA
313887
HEIGHT
169611
23-Aug-2023
11:11

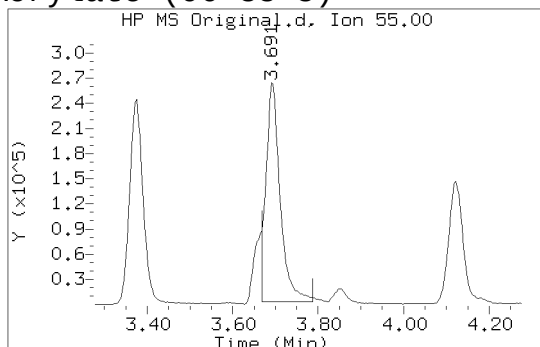


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 Inj Date : 11-AUG-2023 14:17
 InstruID : voa6.i
 LabSampID : VSTD100

Methyl Acrylate (96-33-3)

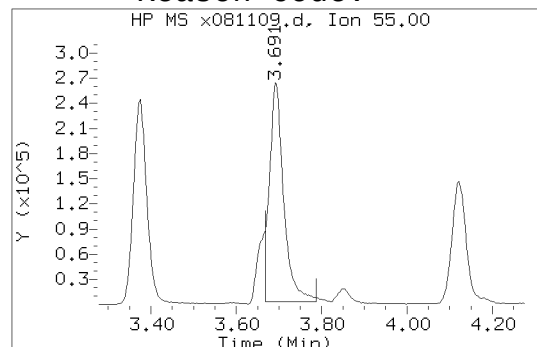
BEFORE

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AREA
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HEIGHT
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12-Aug-2023
22:49



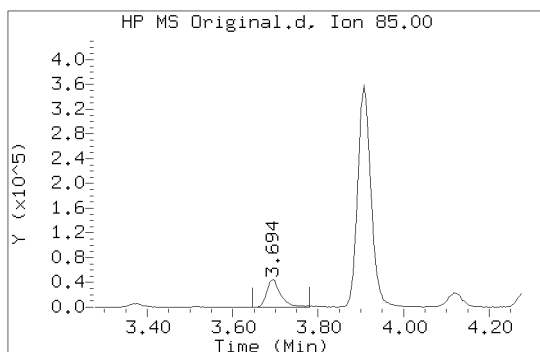
AFTER

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AREA
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HEIGHT
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23-Aug-2023
11:11



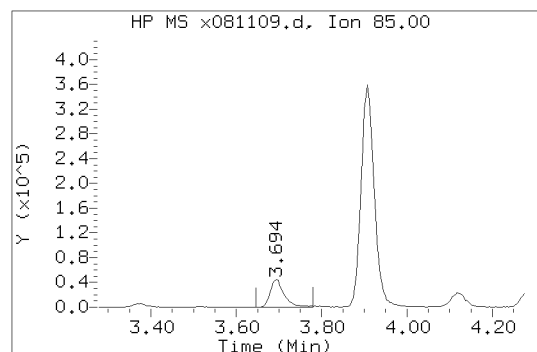
BEFORE

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AREA
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HEIGHT
230102
12-Aug-2023
22:49



AFTER

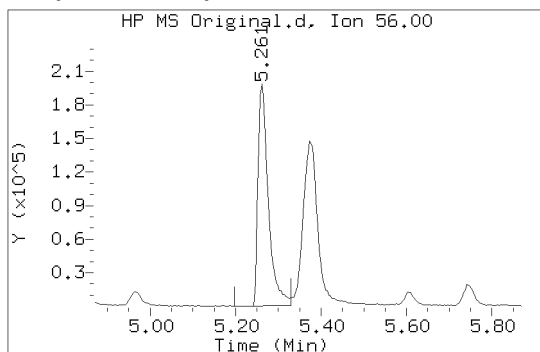
MASS
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AREA
101040
HEIGHT
44929
23-Aug-2023
11:11



n-Butanol (71-36-3)

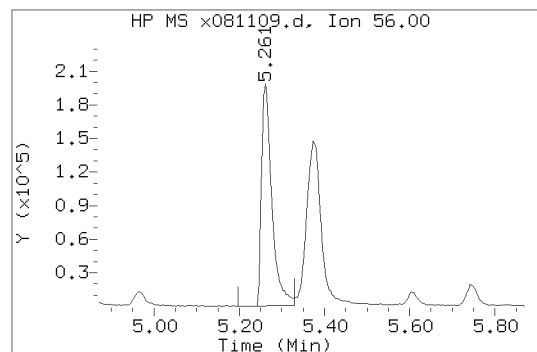
BEFORE

MASS
55
AREA
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HEIGHT
724181
12-Aug-2023
22:49



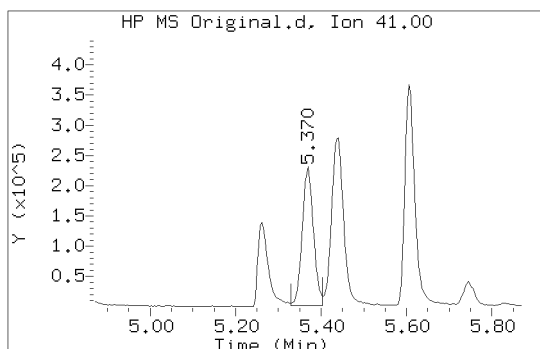
AFTER

MASS
56
AREA
333572
HEIGHT
198289
23-Aug-2023
11:11



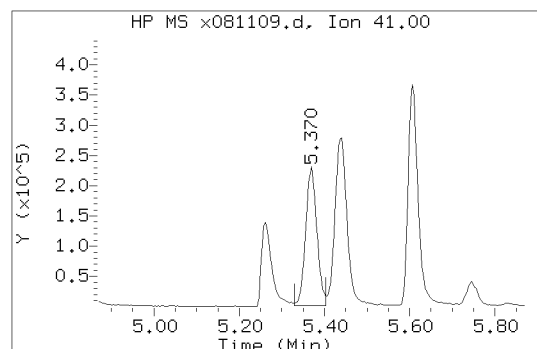
BEFORE

MASS
99
AREA
98057
HEIGHT
51600
12-Aug-2023
22:49



AFTER

MASS
41
AREA
431615
HEIGHT
230102
23-Aug-2023
11:11

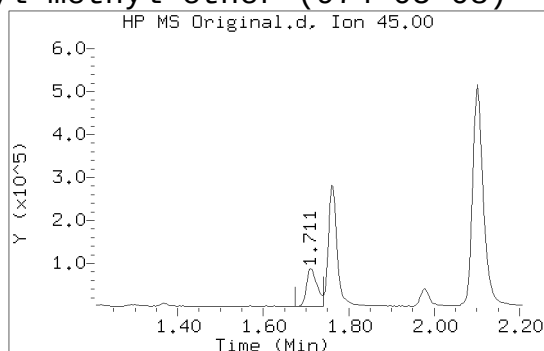


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 Inj Date : 11-AUG-2023 14:17
 InstruID : voa6.i
 LabSampID : VSTD100

tert-Amyl methyl ether (974-05-08)

BEFORE

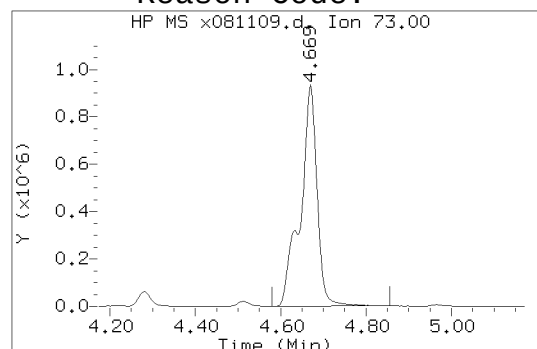
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AREA
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HEIGHT
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12-Aug-2023
22:49



AFTER

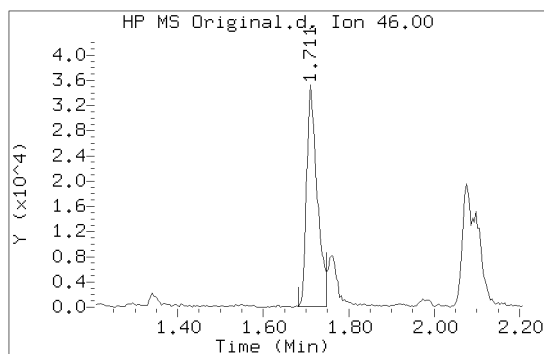
MASS
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AREA
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HEIGHT
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23-Aug-2023
11:11

Reason Code:



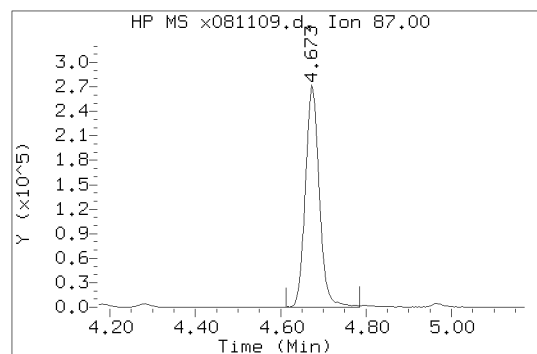
BEFORE

MASS
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AREA
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HEIGHT
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12-Aug-2023
22:49



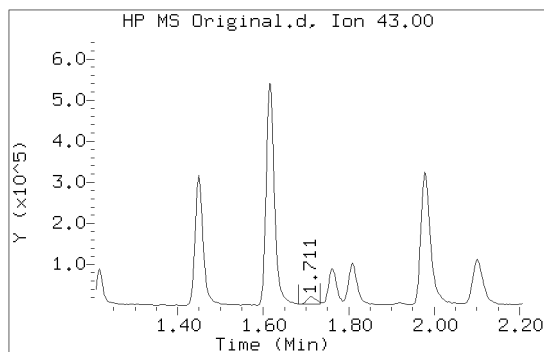
AFTER

MASS
87
AREA
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HEIGHT
272246
23-Aug-2023
11:11



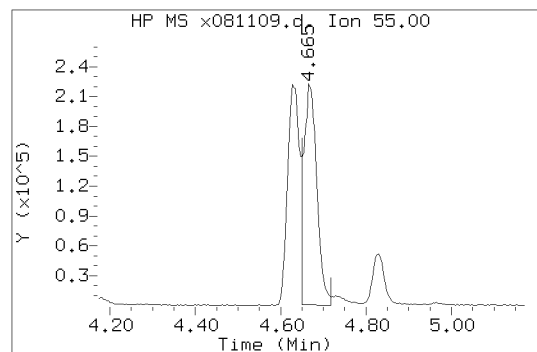
BEFORE

MASS
176
AREA
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HEIGHT
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12-Aug-2023
22:49



AFTER

MASS
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AREA
480713
HEIGHT
222343
23-Aug-2023
11:11



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081110.D Page 1
 Report Date: 25-Aug-2023 14:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081110.D
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 Inj Date : 11-AUG-2023 14:37
 Operator : PC Inst ID: voa6.i
 Smp Info : VSTD150;VSTD150;1;9;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\8260W.m
 Meth Date : 25-Aug-2023 14:15 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 14:17 Cal File: X081109.D
 Als bottle: 11 Calibration Sample, Level: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V6.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)	682557	50.0000		
135 1,4-Dioxane	88		5.602	5.602	(1.340)	255690	3000.00	2947.15	
140 1,3-Butadiene	54		1.171	1.171	(0.280)	1049812	150.000	149.29	
25 Methacrylonitrile	41		3.821	3.821	(0.914)	1028369	150.000	151.06	
12 Isobutyl Alcohol	43		4.680	4.680	(1.119)	3257307	3000.00	3044.45	
13 Acetonitrile	39		2.202	2.202	(0.527)	1486538	1500.00	1412.20	
14 Allyl Chloride	41		2.202	2.202	(0.527)	2841635	150.000	136.65	
4 Propionitrile	54		3.660	3.660	(0.875)	1468203	1500.00	1544.59	
136 n-Hexane	57		2.772	2.772	(0.663)	1302336	150.000	104.64	
72 trans-1,4-Dichloro-2-butene	53		8.886	8.886	(1.159)	414511	150.000	158.66(H)	
194 Acetaldehyde	44		1.216	1.216	(0.291)	348100	600.000	518.89(M)	
23 Chloroprene	53		1.775	1.775	(0.424)	431981	150.000	149.60	
145 alpha-Methylstyrene	118		9.257	9.257	(0.958)	2162289	150.000	159.04	
200 Dimethyl Disulfide	94		6.198	6.198	(0.808)	2323556	150.000	170.32	
139 Diethyl ether	59		1.760	1.760	(0.421)	835572	150.000	138.69	
130 Ethyl Acetate	43		3.660	3.660	(0.875)	1105978	150.000	141.16	
40 Methyl Methacrylate	41		5.606	5.606	(1.341)	959369	150.000	152.76	
49 Ethyl Methacrylate	69		6.787	6.787	(1.367)	1511594	150.000	156.14(H)	
132 n-Butanol	56		5.261	5.261	(1.258)	550912	3000.00	2911.71(M)	
142 Tetrahydrofuran	42		3.855	3.855	(0.922)	378357	300.000	284.16	



150 Allyl alcohol	57	2.772	2.772 (0.663)	1302336	3000.00	2098.45
166 1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	4504971	150.000	151.84

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081110.D Page 2
 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
131 Methyl Acrylate	55	3.690	3.690	(0.883)	959104	150.000	142.23(M)
162 Butyl acrylate	55	8.248	8.248	(1.076)	2811097	150.000	166.56
2 Dichlorodifluoromethane	85	0.980	0.980	(0.234)	959873	150.000	152.01
3 Chloromethane	50	1.085	1.085	(0.260)	1033366	150.000	155.58
5 Vinyl Chloride	62	1.149	1.149	(0.275)	1233792	150.000	150.70
6 Bromomethane	94	1.340	1.340	(0.320)	666095	150.000	151.14
7 Chloroethane	64	1.403	1.403	(0.336)	735302	150.000	137.03
8 Trichlorofluoromethane	101	1.565	1.565	(0.374)	1752801	150.000	150.43
9 Acrolein	56	1.865	1.865	(0.446)	67360	300.000	306.58(M)
10 Acetone	43	1.977	1.977	(0.473)	740284	300.000	288.78
11 1,1-Dichloroethene	96	1.917	1.917	(0.459)	951773	150.000	144.41
15 Iodomethane	142	2.033	2.033	(0.486)	2614120	300.000	300.47
16 Acrylonitrile	53	2.536	2.536	(0.606)	895015	300.000	281.89
17 Methylene Chloride	84	2.307	2.307	(0.552)	1057034	150.000	127.89
18 Methyl tert-butyl ether	73	2.539	2.539	(0.607)	3266231	150.000	138.93
19 Carbon Disulfide	76	2.074	2.074	(0.496)	5854691	300.000	299.32
20 trans-1,2-Dichloroethene	96	2.532	2.532	(0.606)	1070098	150.000	139.71
21 Vinyl Acetate	43	3.000	3.000	(0.718)	6781651	300.000	299.33
22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	1933143	150.000	134.02
24 2-Butanone	43	3.581	3.581	(0.857)	818491	300.000	323.95(H)
26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	1464683	150.000	151.29
27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.843)	1081309	150.000	147.01
28 Chloroform	83	3.908	3.908	(0.935)	1802396	150.000	142.57
29 Bromochloromethane	128	3.795	3.795	(0.908)	589388	150.000	140.95
\$ 30 Dibromofluoromethane	113	4.099	4.099	(0.980)	899883	150.000	145.32
31 1,1,1-Trichloroethane	97	4.080	4.080	(0.976)	1578919	150.000	155.56
32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	1351358	150.000	162.53(H)
33 1,2-Dichloroethane	62	4.556	4.556	(0.918)	1466021	150.000	145.95
34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	1397869	150.000	159.26(H)
\$ 35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.069)	1002392	150.000	145.86
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	1056642	50.0000	
37 Benzene	78	4.511	4.511	(0.909)	3908377	150.000	150.17
38 Trichloroethene	130	5.205	5.205	(1.048)	1148907	150.000	153.60
39 Bromodichloromethane	83	5.722	5.722	(1.153)	1422892	150.000	146.79
41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	760740	300.000	306.78
42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	1090098	150.000	148.54
44 Dibromomethane	93	5.549	5.549	(1.118)	707705	150.000	141.11
45 4-Methyl-2-Pentanone	43	6.325	6.325	(0.825)	2231658	300.000	300.25
46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	1732908	150.000	156.23
* 47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	1036166	50.0000	
\$ 48 Toluene-d8	98	6.385	6.385	(0.833)	3265638	150.000	133.91
50 Toluene	91	6.445	6.445	(0.841)	4375788	150.000	151.55
51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.345)	1478264	150.000	158.79
52 2-Hexanone	43	7.086	7.086	(0.924)	1506153	300.000	301.88
53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	848391	150.000	147.41
54 1,3-Dichloropropane	76	6.981	6.981	(0.911)	1713601	150.000	145.65
55 Dibromochloromethane	129	7.173	7.173	(0.935)	1287377	150.000	154.99
56 Tetrachloroethene	164	6.925	6.925	(0.903)	984117	150.000	163.99
57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	1046609	150.000	148.86
58 1-Chlorohexane	55	7.694	7.694	(1.550)	1018816	150.000	166.64
59 Chlorobenzene	112	7.690	7.690	(1.003)	3004501	150.000	151.02
60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	1197588	150.000	155.84



61 Ethylbenzene	106	7.799	7.799 (1.017)	1517668	150.000	154.47
62 m,p-Xylenes	106	7.900	7.900 (1.030)	3983320	300.000	316.94



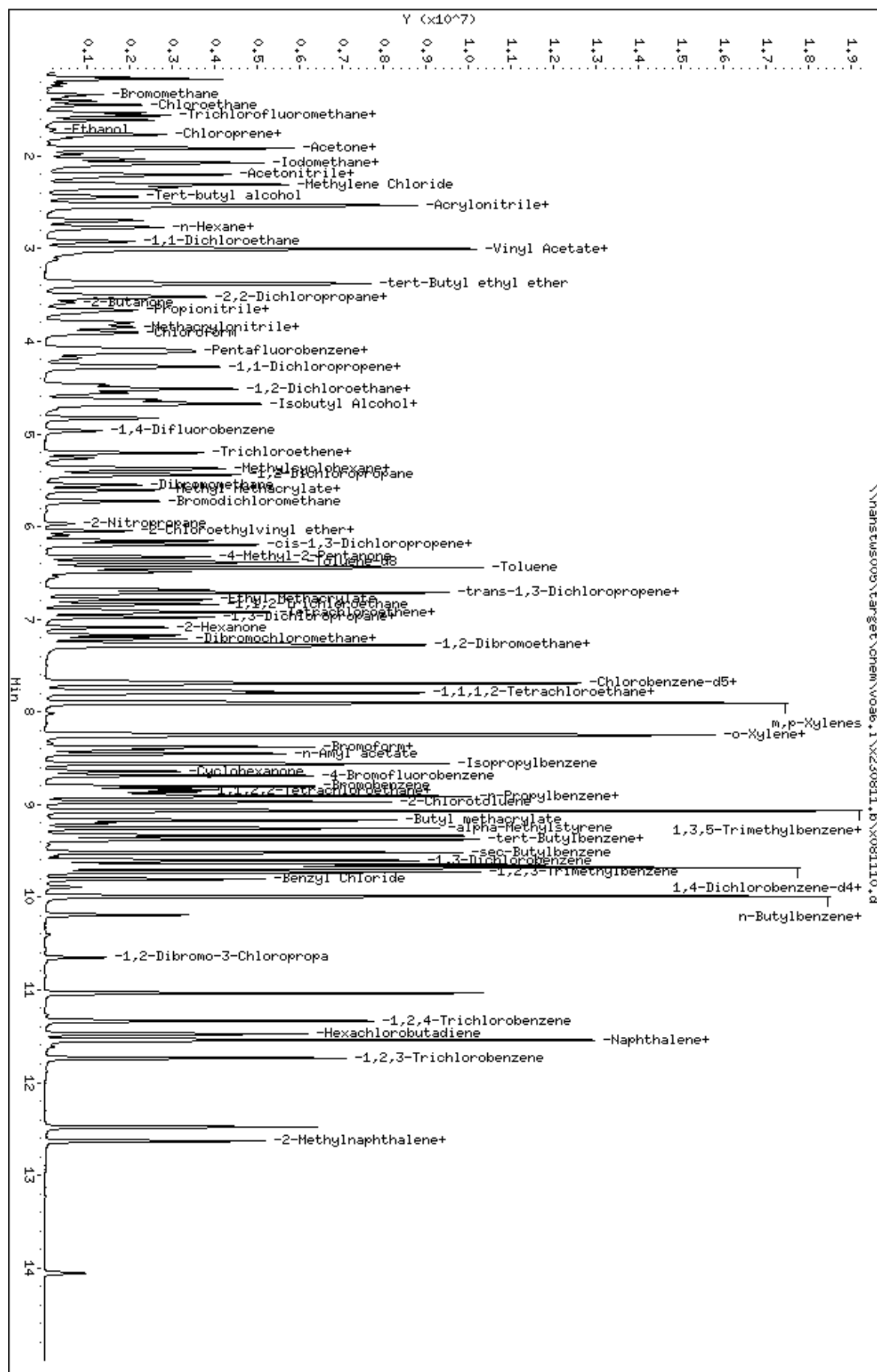
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 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
63 o-Xylene	106	8.237	8.237	(1.074)	1909743	150.000	154.19
64 Styrene	104	8.256	8.256	(1.077)	3359185	150.000	163.10
66 Bromoform	173	8.406	8.406	(1.096)	961597	150.000	171.58
67 Isopropylbenzene	105	8.560	8.560	(1.116)	4996090	150.000	162.33
68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	1494265	150.000	143.61
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	1512449	150.000	147.32
* 70 1,4-Dichlorobenzene-d4	152	9.658	9.658	(1.000)	639168	50.0000	
71 1,2,3-Trichloropropane	75	8.860	8.860	(0.917)	1156800	150.000	151.18(M)
73 n-Propylbenzene	91	8.908	8.908	(0.922)	6042746	150.000	159.89
74 Bromobenzene	156	8.803	8.803	(0.912)	1487827	150.000	145.63
75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.939)	4493957	150.000	162.66
76 2-Chlorotoluene	91	8.972	8.972	(0.929)	3514835	150.000	145.23
77 4-Chlorotoluene	91	9.066	9.066	(0.939)	4275271	150.000	153.53
78 tert-Butylbenzene	119	9.336	9.336	(0.967)	3846046	150.000	162.48
79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	4471143	150.000	157.15
81 sec-Butylbenzene	105	9.519	9.519	(0.986)	5518096	150.000	170.05
82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	4934529	150.000	168.19
83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	2786963	150.000	153.17
84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	2958090	150.000	151.80
86 Benzyl Chloride	91	9.804	9.804	(1.279)	2836865	150.000	191.27
87 n-Butylbenzene	91	9.992	9.992	(1.035)	4582820	150.000	155.98
88 1,2-Dichlorobenzene	146	9.988	9.988	(1.034)	2797744	150.000	152.33
89 1,2-Dibromo-3-Chloropropane	155	10.651	10.651	(1.103)	274172	150.000	155.81
90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	2015081	150.000	165.80
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	980720	150.000	102.28
92 Naphthalene	128	11.540	11.540	(1.195)	4621623	150.000	152.35
93 1,2,3-Trichlorobenzene	180	11.738	11.738	(1.215)	1834293	150.000	154.87
M 94 1,2-Dichloroethylene (total)	96				2151407	300.000	
M 95 Xylenes (total)	106				5893063	450.000	
141 Cyclohexane	56	4.121	4.121	(0.986)	1454384	150.000	155.24(A)
138 Freon TF	101	1.921	1.921	(0.459)	1017540	150.000	155.92
147 Methylcyclohexane	55	5.381	5.381	(1.084)	2620423	150.000	165.07(A)
146 Methyl Acetate	43	2.232	2.232	(0.534)	831062	150.000	135.49
148 Tert-Butyl alcohol	59	2.438	2.438	(0.583)	2402568	3000.00	2944.86
149 Isopropyl Alcohol	45	2.101	2.101	(0.502)	1400869	3000.00	2948.60

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.





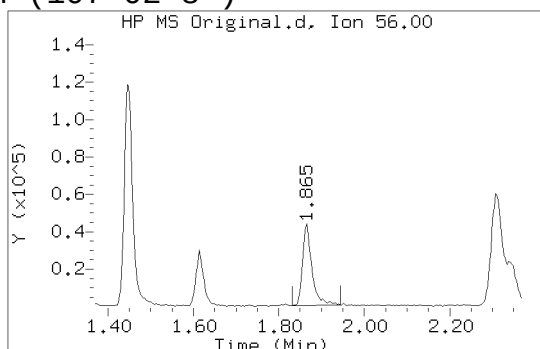
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 Sample Info: WSTD150\WSTD150\119;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: voa6.i
 Operator: PC
 Column diameter: 0.18

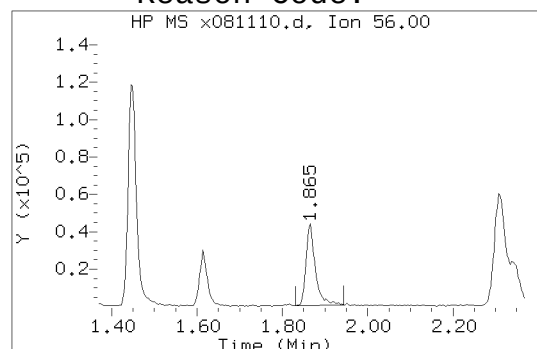
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InstruID : voa6.i
LabSampID : VSTD150

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

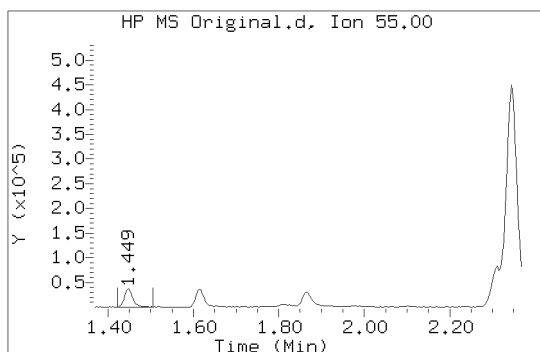
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AREA
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HEIGHT
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12-Aug-2023
22:49

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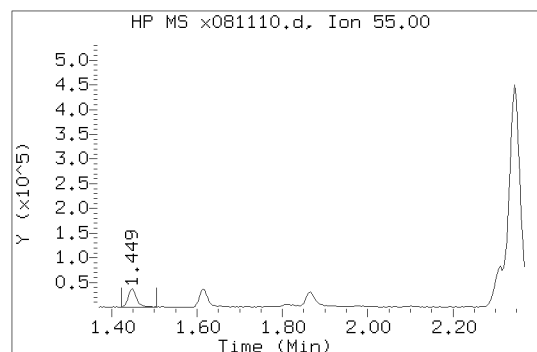
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HEIGHT
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12-Aug-2023
22:49

Reason Code:**BEFORE**

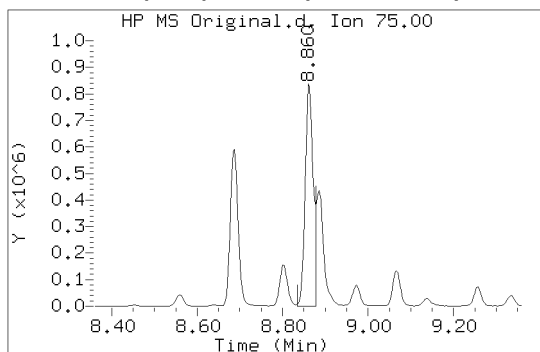
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AREA
50352
HEIGHT
37232
12-Aug-2023
22:49

**AFTER**

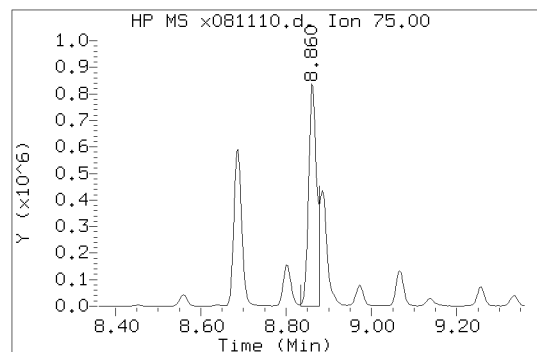
MASS
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HEIGHT
37232
12-Aug-2023
22:49

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

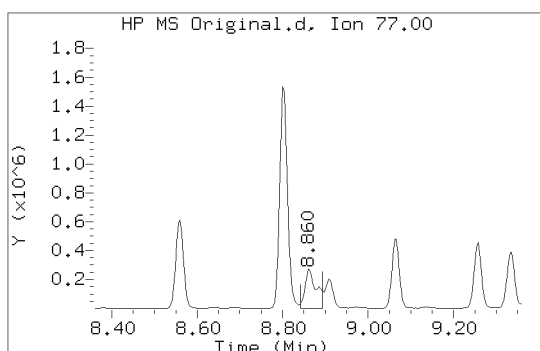
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AREA
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HEIGHT
836655
12-Aug-2023
22:49

**AFTER**

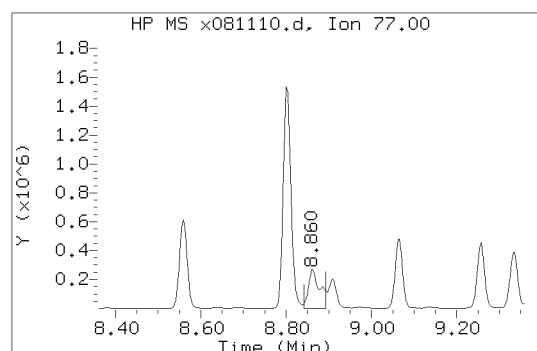
MASS
75
AREA
1156800
HEIGHT
836655
12-Aug-2023
22:49

Reason Code:**BEFORE**

MASS
77
AREA
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HEIGHT
270079
12-Aug-2023
22:49

**AFTER**

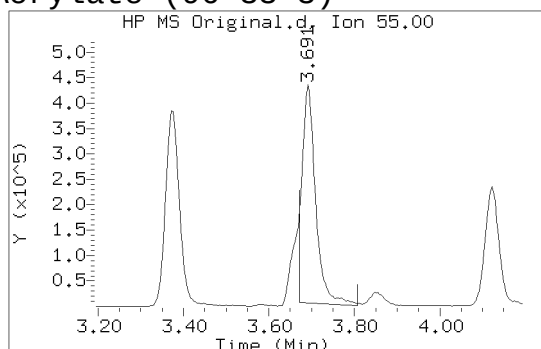
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HEIGHT
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12-Aug-2023
22:49



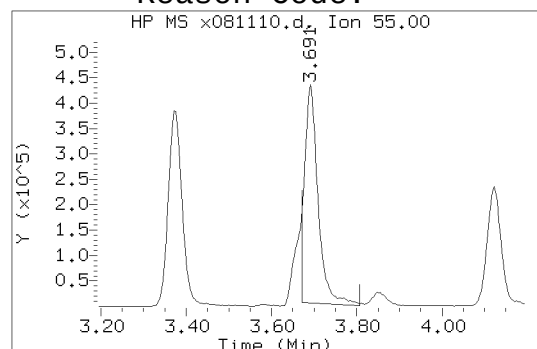
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Inj Date : 11-AUG-2023 14:37
InstruID : voa6.i
LabSampID : VSTD150

Methyl Acrylate (96-33-3)**BEFORE**

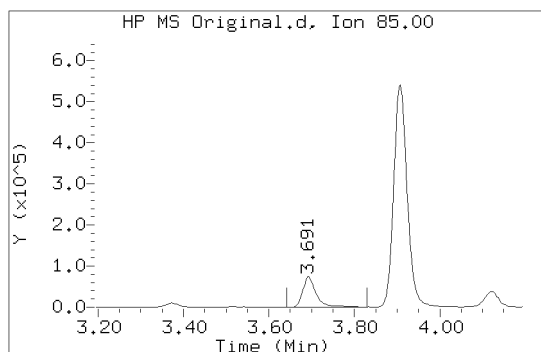
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AREA
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HEIGHT
429763
12-Aug-2023
22:49

**AFTER**

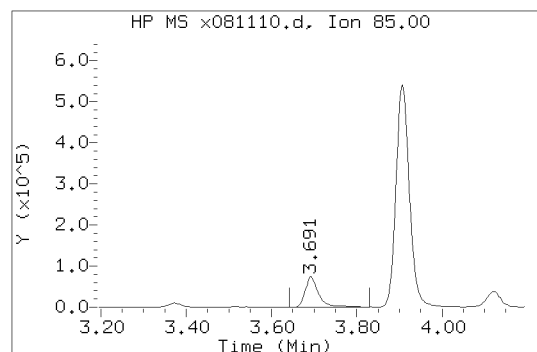
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AREA
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HEIGHT
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22:49

**BEFORE**

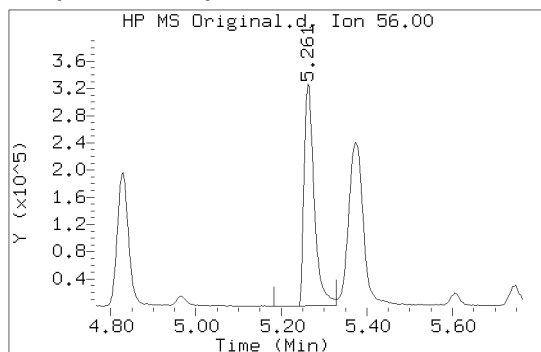
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12-Aug-2023
22:49

**AFTER**

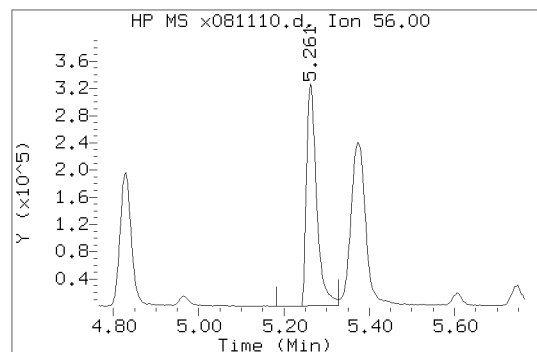
MASS
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AREA
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HEIGHT
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12-Aug-2023
22:49

**n-Butanol (71-36-3)****BEFORE**

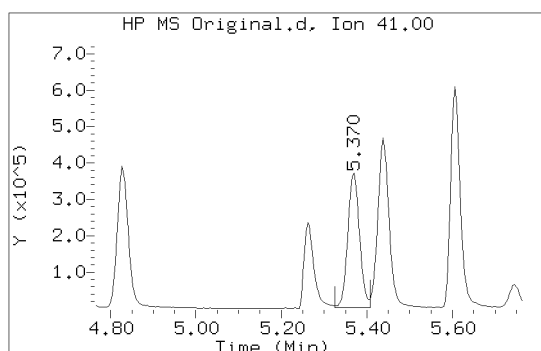
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HEIGHT
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12-Aug-2023
22:49

**AFTER**

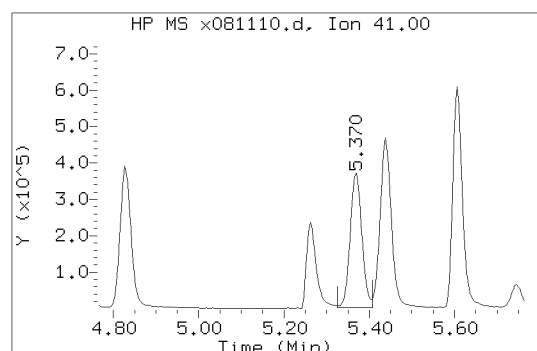
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56
AREA
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HEIGHT
325611
12-Aug-2023
22:49

**BEFORE**

MASS
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AREA
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HEIGHT
370427
12-Aug-2023
22:49

**AFTER**

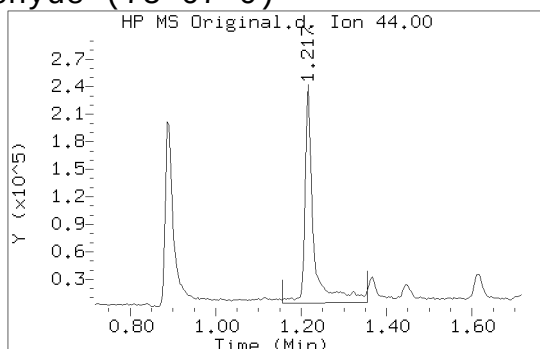
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HEIGHT
370427
12-Aug-2023
22:49



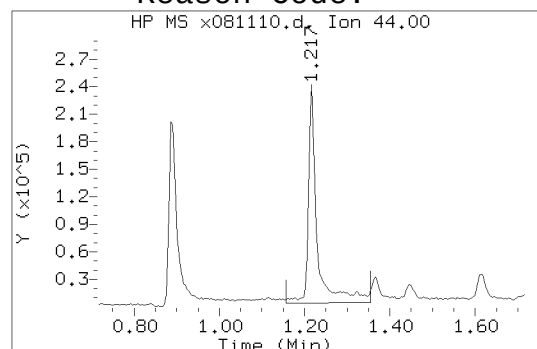
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Inj Date : 11-AUG-2023 14:37
InstruID : voa6.i
LabSampID : VSTD150

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

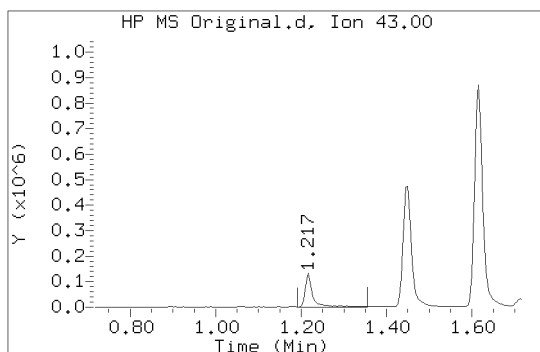
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HEIGHT
237848
12-Aug-2023
22:49

**AFTER**

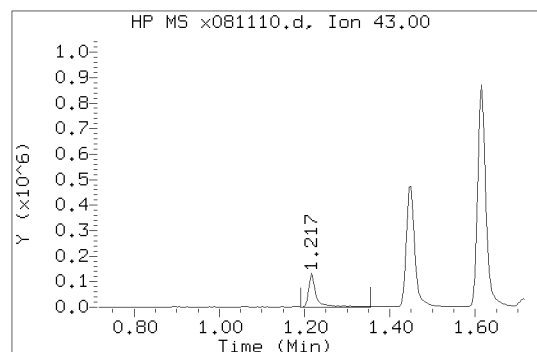
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AREA
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HEIGHT
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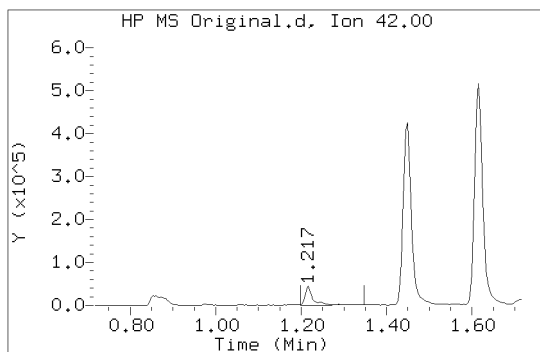
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HEIGHT
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12-Aug-2023
22:49

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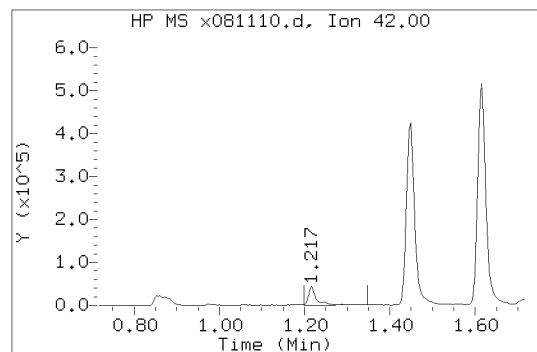
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HEIGHT
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12-Aug-2023
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**BEFORE**

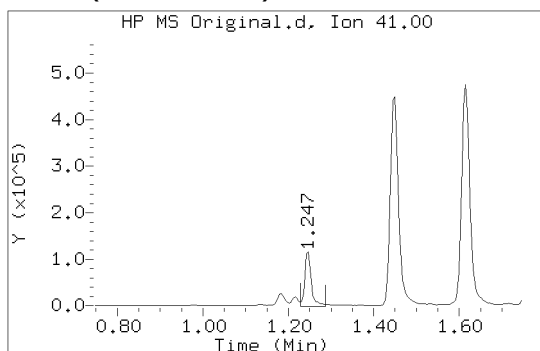
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HEIGHT
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12-Aug-2023
22:49

**AFTER**

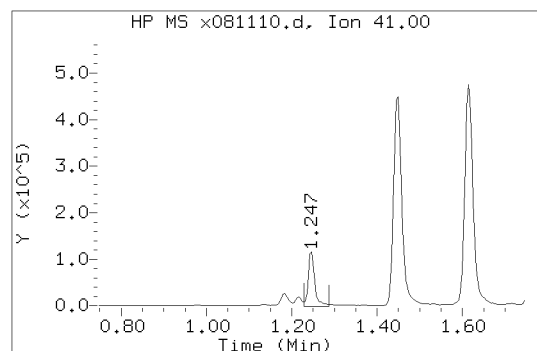
MASS
42
AREA
56809
HEIGHT
43800
12-Aug-2023
22:49

**Isobutylene (115-11-7)****BEFORE**

MASS
41
AREA
129122
HEIGHT
117364
12-Aug-2023
22:49

**AFTER**

MASS
41
AREA
129122
HEIGHT
117364
12-Aug-2023
22:49

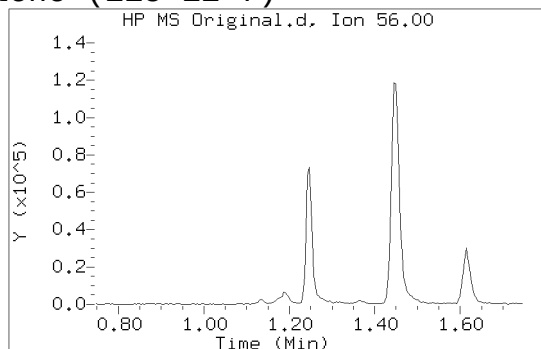


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InstruID : voa6.i
LabSampID : VSTD150

Isobutylene (115-11-7)

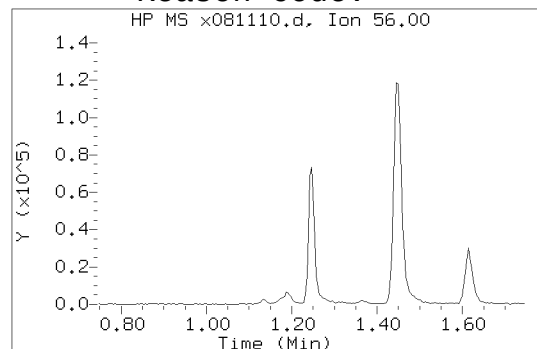
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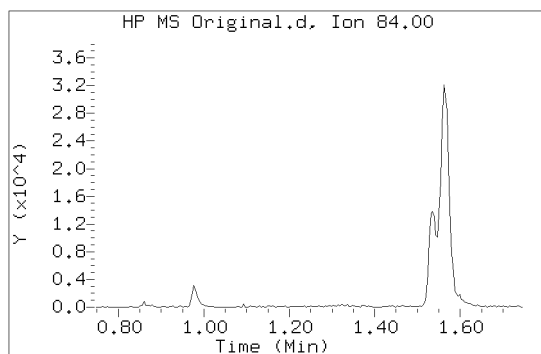
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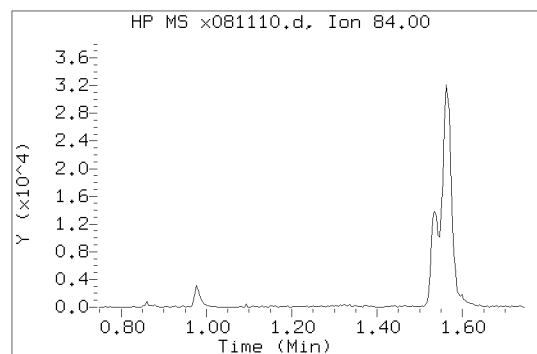
BEFORE

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HEIGHT
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12-Aug-2023
22:49



AFTER

MASS
84
AREA
0
HEIGHT
0
12-Aug-2023
22:49



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 Report Date: 25-Aug-2023 14:15

ALS Laboratory Group

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 Misc Info : V6;WATER;0;1;
 Comment :
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 Meth Date : 25-Aug-2023 14:15 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 14:37 Cal File: X081110.D
 Als bottle: 12 Calibration Sample, Level: 10
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V6.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)	697355	50.0000		
135 1,4-Dioxane	88		5.602	5.602	(1.340)	359997	4000.00	4061.37(A)	
140 1,3-Butadiene	54		1.167	1.167	(0.279)	1392141	200.000	193.77	
25 Methacrylonitrile	41		3.821	3.821	(0.914)	1395789	200.000	200.68(A)	
12 Isobutyl Alcohol	43		4.680	4.680	(1.119)	4536512	4000.00	4150.09(A)	
13 Acetonitrile	39		2.202	2.202	(0.527)	2017237	2000.00	1875.70	
14 Allyl Chloride	41		2.202	2.202	(0.527)	3835902	200.000	180.55	
4 Propionitrile	54		3.664	3.664	(0.876)	2016279	2000.00	2076.17(A)	
136 n-Hexane	57		2.772	2.772	(0.663)	1640105	200.000	90.44	
72 trans-1,4-Dichloro-2-butene	53		8.886	8.886	(1.159)	586400	200.000	215.61(AH)	
194 Acetaldehyde	44		1.216	1.216	(0.291)	422211	800.000	617.62(M)	
23 Chloroprene	53		1.771	1.771	(0.424)	558535	200.000	189.32	
145 alpha-Methylstyrene	118		9.257	9.257	(0.958)	2962283	200.000	208.36(A)	
200 Dimethyl Disulfide	94		6.198	6.198	(0.808)	3243147	200.000	228.36(A)	
139 Diethyl ether	59		1.760	1.760	(0.421)	1116371	200.000	181.37	
130 Ethyl Acetate	43		3.664	3.664	(0.876)	1528506	200.000	190.95	
40 Methyl Methacrylate	41		5.606	5.606	(1.341)	1323466	200.000	206.26(A)	
49 Ethyl Methacrylate	69		6.786	6.786	(1.367)	2101737	200.000	211.02(AH)	
132 n-Butanol	56		5.265	5.265	(1.259)	804319	4000.00	4131.68(AM)	
142 Tetrahydrofuran	42		3.851	3.851	(0.921)	514614	400.000	378.29	



150 Allyl alcohol	57	2.772	2.772 (0.663)	1640105	4000.00	1820.96
166 1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	6210977	200.000	200.20(A)



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081111.D Page 2
Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
131 Methyl Acrylate	55	3.690	3.690	(0.883)	1475964	200.000	214.23(AM)
162 Butyl acrylate	55	8.248	8.248	(1.076)	3963766	200.000	225.60(A)
2 Dichlorodifluoromethane	85	0.976	0.976	(0.234)	1273733	200.000	197.23
3 Chloromethane	50	1.085	1.085	(0.260)	1501670	200.000	221.29(A)
5 Vinyl Chloride	62	1.149	1.149	(0.275)	1625625	200.000	194.35
6 Bromomethane	94	1.336	1.336	(0.320)	956388	200.000	212.41(A)
7 Chloroethane	64	1.403	1.403	(0.336)	978448	200.000	178.47
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	2287228	200.000	192.13
9 Acrolein	56	1.861	1.861	(0.445)	87268	400.000	389.50(M)
10 Acetone	43	1.977	1.977	(0.473)	1042142	400.000	399.64
11 1,1-Dichloroethene	96	1.917	1.917	(0.459)	1251936	200.000	185.92
15 Iodomethane	142	2.029	2.029	(0.485)	3724033	400.000	398.58
16 Acrylonitrile	53	2.536	2.536	(0.606)	1202275	400.000	370.63
17 Methylene Chloride	84	2.307	2.307	(0.552)	1425676	200.000	168.83
18 Methyl tert-butyl ether	73	2.539	2.539	(0.607)	4430970	200.000	184.47
19 Carbon Disulfide	76	2.074	2.074	(0.496)	7789426	400.000	389.78
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	1432064	200.000	183.01
21 Vinyl Acetate	43	3.000	3.000	(0.718)	9226020	400.000	398.58
22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	2596693	200.000	176.20
24 2-Butanone	43	3.585	3.585	(0.857)	1142340	400.000	442.53(AH)
26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	1951668	200.000	197.32
27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.843)	1468934	200.000	195.47
28 Chloroform	83	3.904	3.904	(0.934)	2441223	200.000	189.00
29 Bromochloromethane	128	3.795	3.795	(0.908)	772992	200.000	180.94
\$ 30 Dibromofluoromethane	113	4.099	4.099	(0.980)	1262400	200.000	199.84
31 1,1,1-Trichloroethane	97	4.080	4.080	(0.976)	2104490	200.000	202.94(A)
32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	1801498	200.000	210.60(AH)
33 1,2-Dichloroethane	62	4.556	4.556	(0.918)	1992723	200.000	192.82
34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	1835945	200.000	203.31(AH)
\$ 35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.069)	1400428	200.000	199.86
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	1087107	50.0000	
37 Benzene	78	4.511	4.511	(0.909)	5273785	200.000	196.95
38 Trichloroethene	130	5.205	5.205	(1.048)	1543357	200.000	200.55(A)
39 Bromodichloromethane	83	5.726	5.726	(1.153)	1962606	200.000	196.80
41 2-Chloroethylvinyl ether	63	6.048	6.048	(1.218)	1056330	400.000	414.05(A)
42 1,2-Dichloropropane	63	5.437	5.437	(1.095)	1494470	200.000	197.93
44 Dibromomethane	93	5.549	5.549	(1.118)	976857	200.000	189.32
45 4-Methyl-2-Pentanone	43	6.325	6.325	(0.825)	3137692	400.000	405.52(A)
46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	2420159	200.000	212.08(A)
* 47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	1078660	50.0000	
\$ 48 Toluene-d8	98	6.385	6.385	(0.833)	4669605	200.000	183.94
50 Toluene	91	6.445	6.445	(0.841)	5994422	200.000	199.44
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	2078683	200.000	217.04(A)
52 2-Hexanone	43	7.086	7.086	(0.924)	2163687	400.000	416.59(A)
53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	1182722	200.000	197.40
54 1,3-Dichloropropane	76	6.981	6.981	(0.911)	2389306	200.000	195.08
55 Dibromochloromethane	129	7.173	7.173	(0.935)	1803342	200.000	208.55(A)
56 Tetrachloroethene	164	6.925	6.925	(0.903)	1301957	200.000	208.40(A)
57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	1466476	200.000	200.36(A)
58 1-Chlorohexane	55	7.694	7.694	(1.550)	1360685	200.000	216.33(A)
59 Chlorobenzene	112	7.690	7.690	(1.003)	4161283	200.000	200.93(A)
60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	1662627	200.000	207.83(A)



61 Ethylbenzene	106	7.799	7.799 (1.017)	2073572	200.000	202.74(A)
62 m,p-Xylenes	106	7.904	7.904 (1.031)	5408322	400.000	413.37(A)



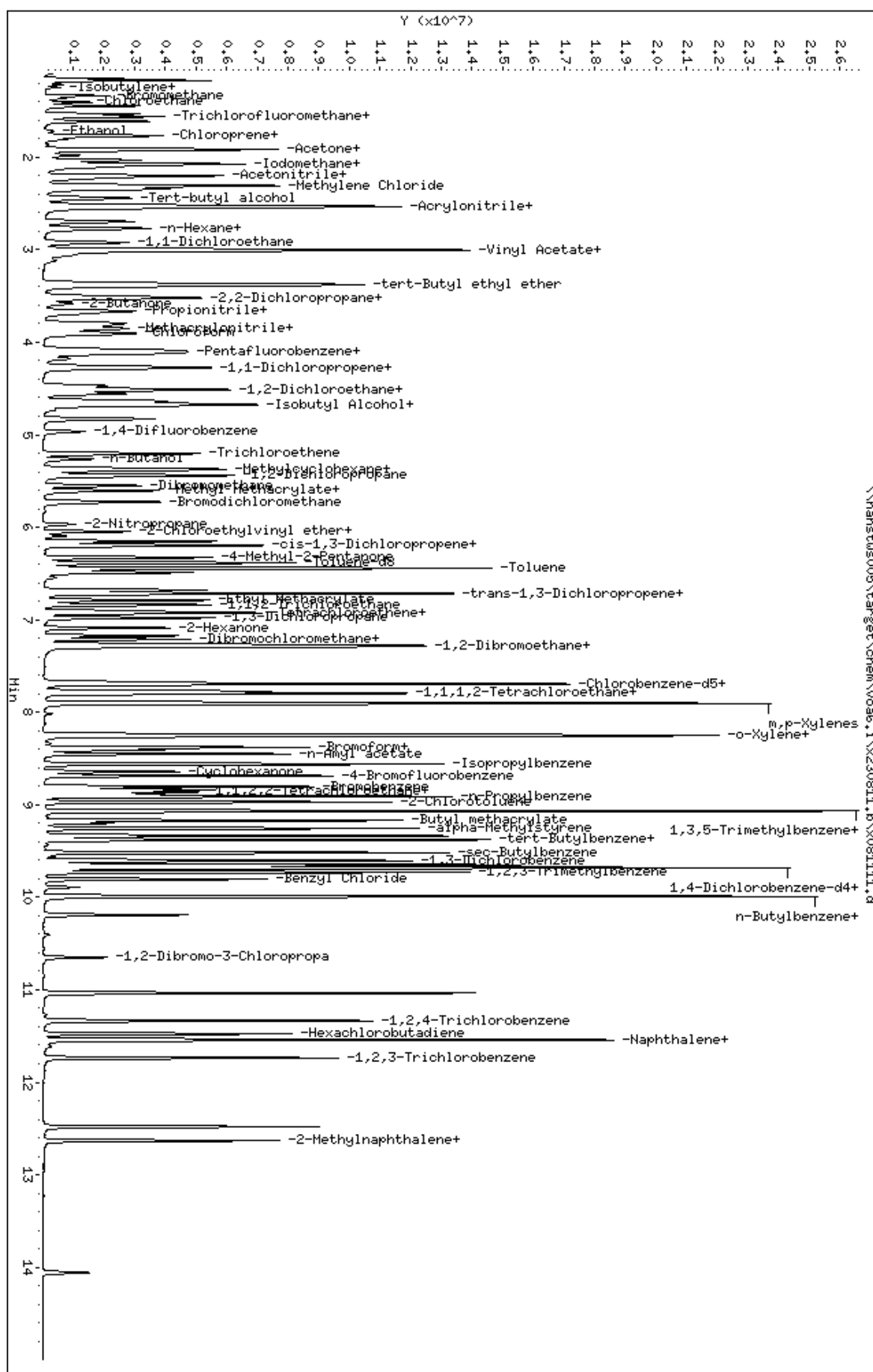
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 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
63 o-Xylene	106	8.241	8.241	(1.075)	2648551	200.000	205.42(A)
64 Styrene	104	8.256	8.256	(1.077)	4660554	200.000	217.37(A)
66 Bromoform	173	8.406	8.406	(1.096)	1355440	200.000	232.33(A)
67 Isopropylbenzene	105	8.560	8.560	(1.116)	6772619	200.000	211.38(A)
68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	2090395	200.000	192.13
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	2160189	200.000	202.02(A)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	668386	50.0000	
71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	1487796	200.000	185.94(M)
73 n-Propylbenzene	91	8.912	8.912	(0.922)	8136250	200.000	205.87(A)
74 Bromobenzene	156	8.803	8.803	(0.911)	2064664	200.000	193.26
75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	6150520	200.000	212.88(A)
76 2-Chlorotoluene	91	8.972	8.972	(0.929)	4820721	200.000	190.49
77 4-Chlorotoluene	91	9.066	9.066	(0.938)	5936857	200.000	203.88(A)
78 tert-Butylbenzene	119	9.336	9.336	(0.966)	5131888	200.000	207.33(A)
79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	6083993	200.000	204.49(A)
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	7245513	200.000	213.53(A)
82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	6561798	200.000	213.87(A)
83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	3814202	200.000	200.47(A)
84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	4054602	200.000	198.98
86 Benzyl Chloride	91	9.804	9.804	(1.279)	3968483	200.000	257.03(A)
87 n-Butylbenzene	91	9.992	9.992	(1.034)	6046266	200.000	196.26
88 1,2-Dichlorobenzene	146	9.988	9.988	(1.034)	3878524	200.000	201.94(A)
89 1,2-Dibromo-3-Chloropropane	155	10.651	10.651	(1.102)	382647	200.000	207.95(A)
90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	2749171	200.000	216.31(A)
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	1270952	200.000	81.27
92 Naphthalene	128	11.540	11.540	(1.194)	6417842	200.000	202.31(A)
93 1,2,3-Trichlorobenzene	180	11.738	11.738	(1.215)	2508449	200.000	202.54(A)
M 94 1,2-Dichloroethylene (total)	96				2900998	400.000	
M 95 Xylenes (total)	106				8056873	600.000	
141 Cyclohexane	56	4.121	4.121	(0.986)	1872161	200.000	195.12(A)
138 Freon TF	101	1.917	1.917	(0.459)	1294079	200.000	193.81
147 Methylcyclohexane	55	5.381	5.381	(1.084)	3637612	200.000	222.73(A)
146 Methyl Acetate	43	2.232	2.232	(0.534)	1140139	200.000	181.94
148 Tert-Butyl alcohol	59	2.442	2.442	(0.584)	3353385	4000.00	4027.81(A)
149 Isopropyl Alcohol	45	2.104	2.104	(0.503)	1951400	4000.00	4024.91(A)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.





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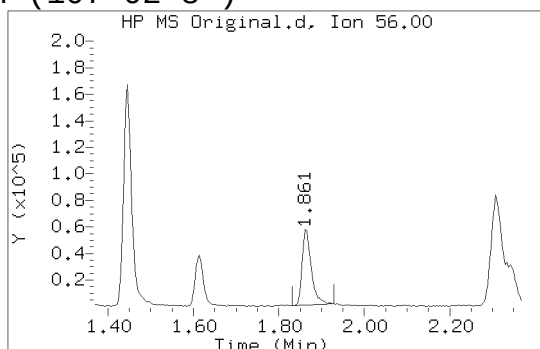
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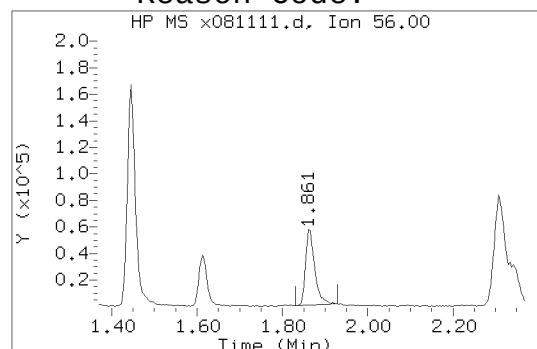
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LabSampID : VSTD200

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

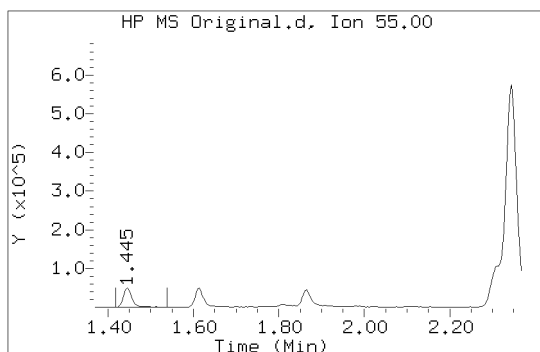
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HEIGHT
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12-Aug-2023
22:49

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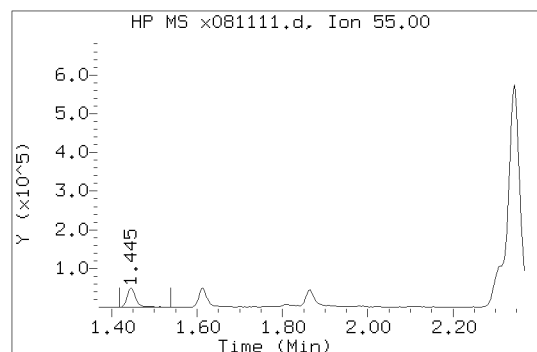
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HEIGHT
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22:49

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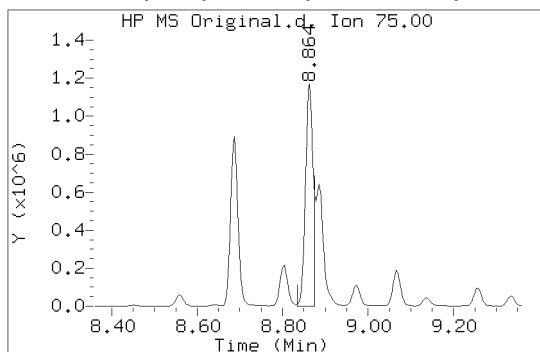
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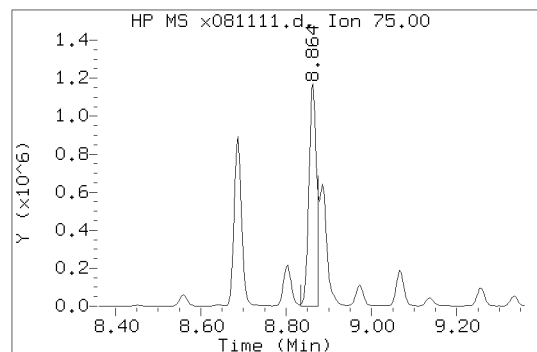
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AREA
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HEIGHT
50243
12-Aug-2023
22:49

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

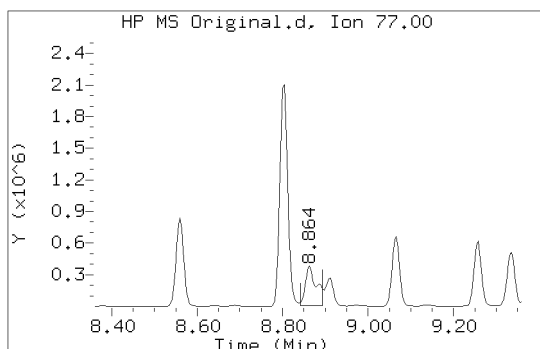
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HEIGHT
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22:49

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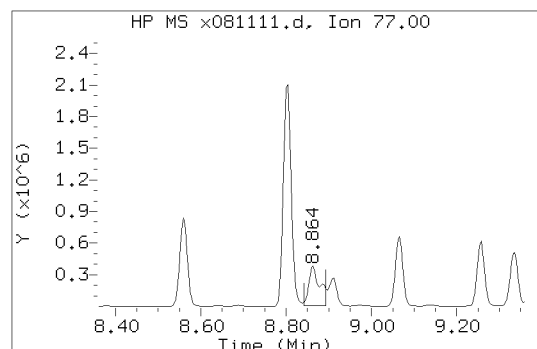
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12-Aug-2023
22:49

Reason Code:**BEFORE**

MASS
77
AREA
698762
HEIGHT
376601
12-Aug-2023
22:49

**AFTER**

MASS
77
AREA
698762
HEIGHT
376601
12-Aug-2023
22:49

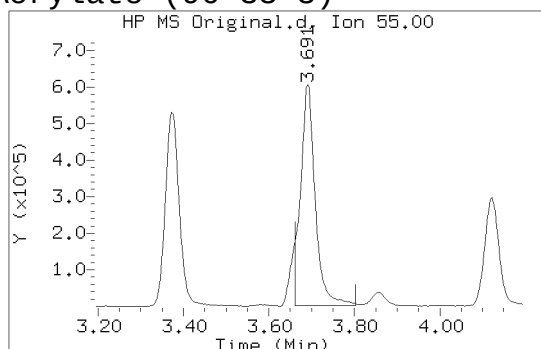


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InstruID : voa6.i
LabSampID : VSTD200

Methyl Acrylate (96-33-3)

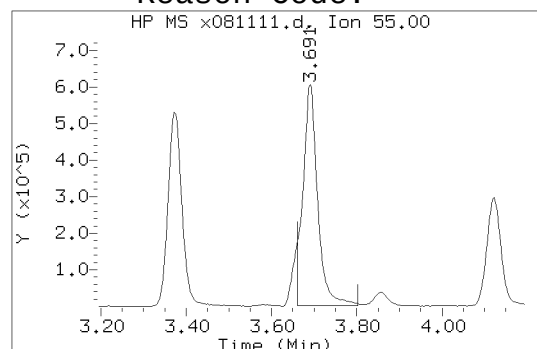
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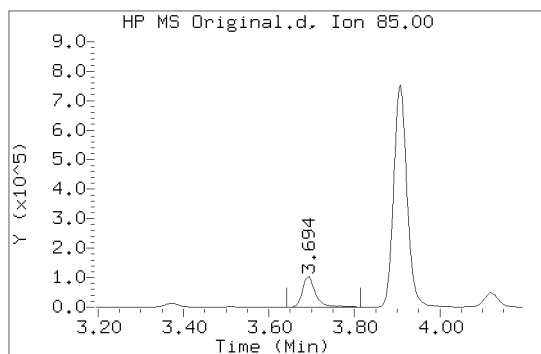
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HEIGHT
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12-Aug-2023
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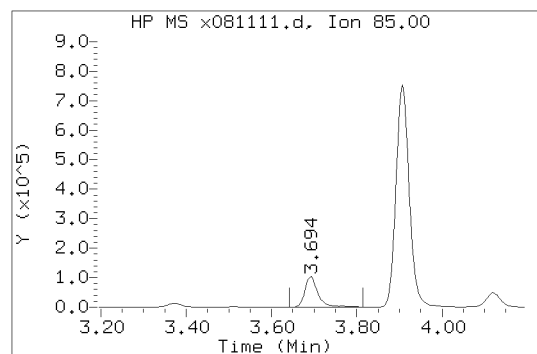
BEFORE

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HEIGHT
104893
12-Aug-2023
22:49



AFTER

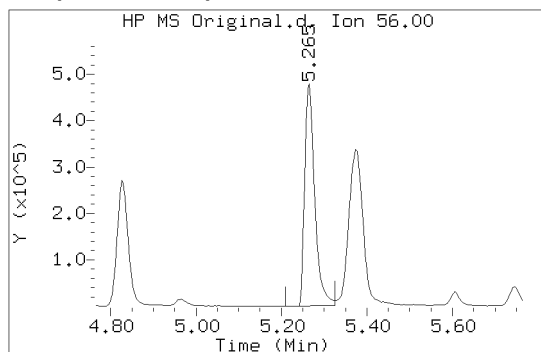
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HEIGHT
104893
12-Aug-2023
22:49



n-Butanol (71-36-3)

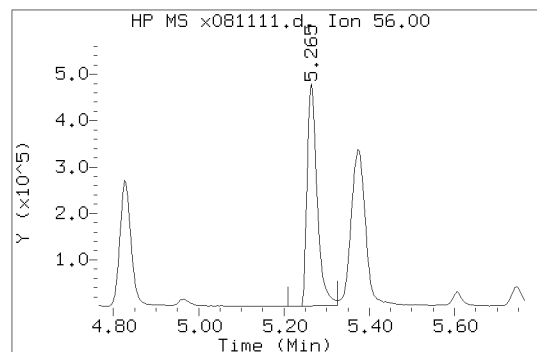
BEFORE

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AREA
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HEIGHT
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12-Aug-2023
22:49



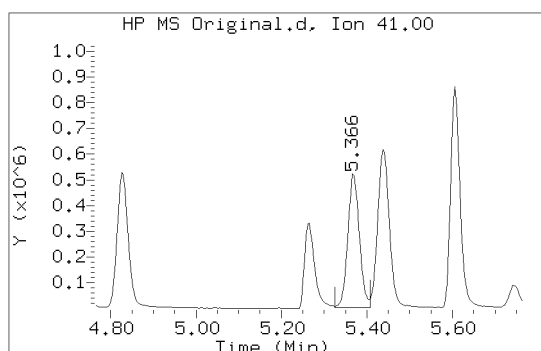
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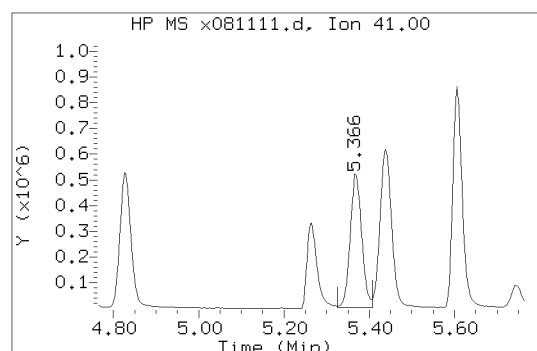
BEFORE

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AREA
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HEIGHT
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12-Aug-2023
22:49



AFTER

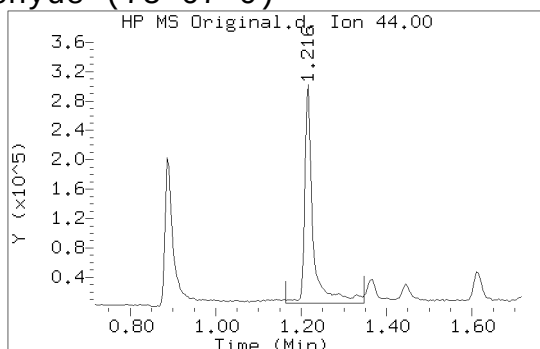
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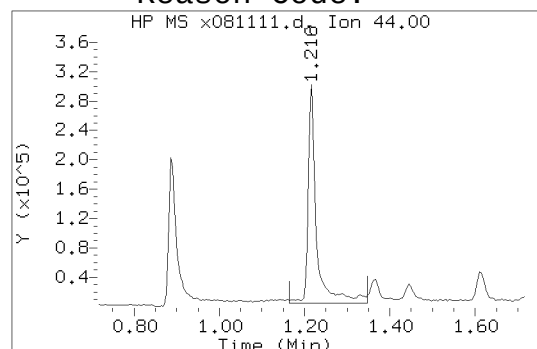
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InstruID : voa6.i
LabSampID : VSTD200

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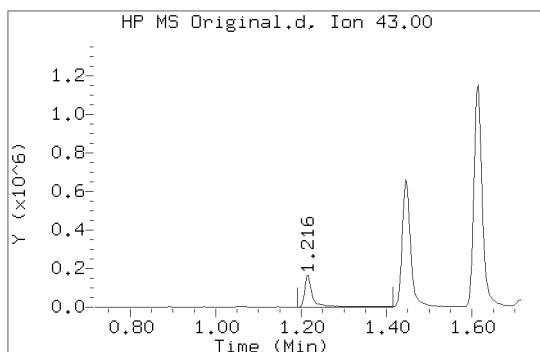
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12-Aug-2023
22:49

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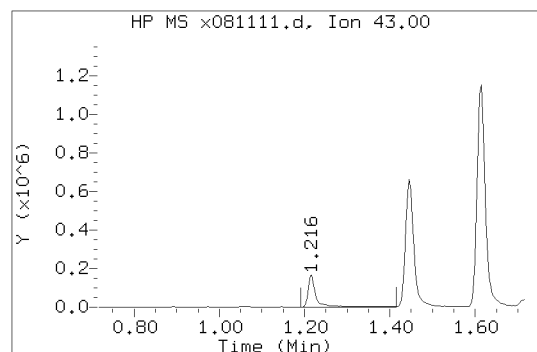
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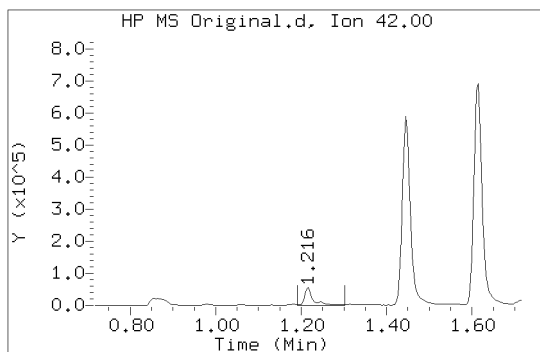
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12-Aug-2023
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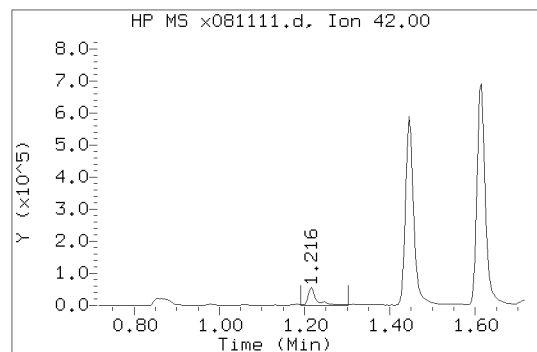
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HEIGHT
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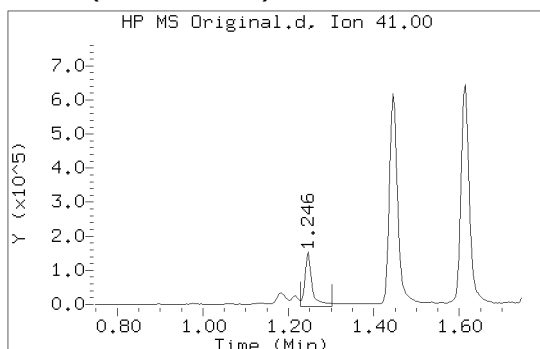
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22:49

**AFTER**

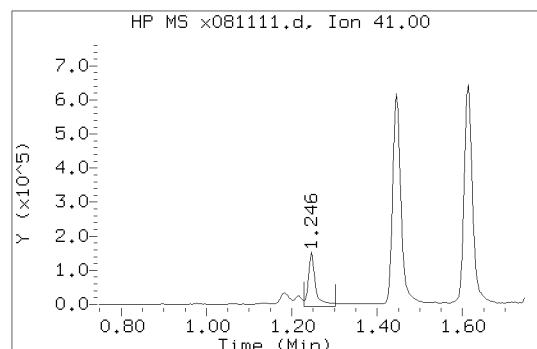
MASS
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AREA
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HEIGHT
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12-Aug-2023
22:49

**Isobutylene (115-11-7)****BEFORE**

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41
AREA
196721
HEIGHT
159916
12-Aug-2023
22:49

**AFTER**

MASS
41
AREA
196721
HEIGHT
159916
12-Aug-2023
22:49

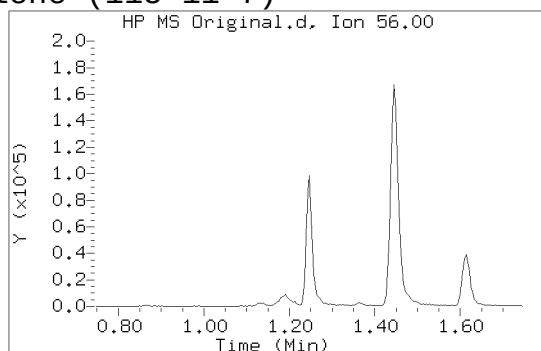


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InstruID : voa6.i
LabSampID : VSTD200

Isobutylene (115-11-7)

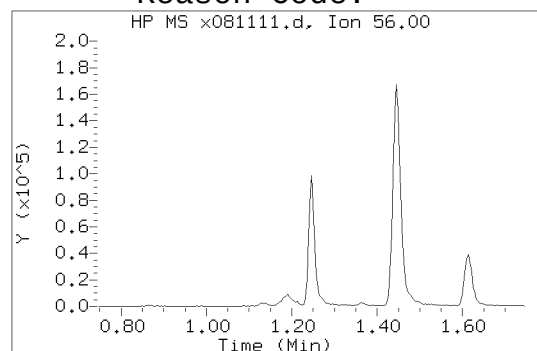
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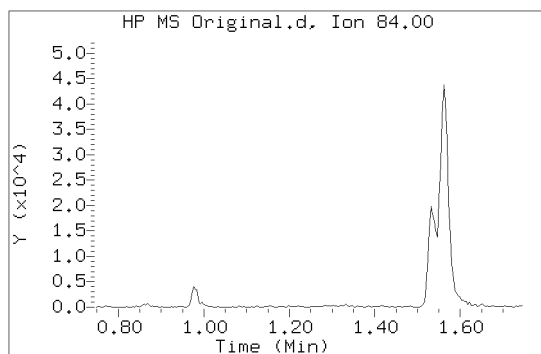
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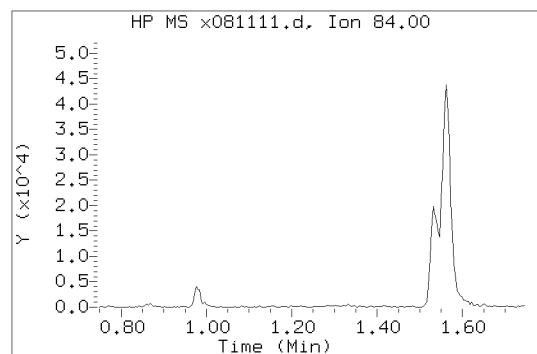
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AFTER

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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081113.D Page 1
 Report Date: 25-Aug-2023 14:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081113.D
 Lab Smp Id: CCV Client Smp ID: CCV
 Inj Date : 11-AUG-2023 15:38
 Operator : PC Inst ID: voa6.i
 Smp Info : CCV;CCV;2;;ICV
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa6.i\X230811.b\8260W.m
 Meth Date : 25-Aug-2023 14:15 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 14:57 Cal File: X081111.D
 Als bottle: 14 QC Sample: METHSPIKE
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V6.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.178	4.181	(1.000)		670199	50.0000	
135 1,4-Dioxane	88		5.602	5.602	(1.341)		82861	972.689	972.68
140 1,3-Butadiene	54		1.171	1.167	(0.280)		304586	44.1130	44.11
25 Methacrylonitrile	41		3.825	3.821	(0.916)		302256	45.2200	45.21
12 Isobutyl Alcohol	43		4.680	4.680	(1.120)		996165	948.239	948.23
13 Acetonitrile	39		2.202	2.202	(0.527)		422605	408.877	408.87
14 Allyl Chloride	41		2.202	2.202	(0.527)		853074	41.7819	41.78
4 Propionitrile	54		3.660	3.664	(0.876)		460651	493.555	493.55
136 n-Hexane	57		2.772	2.772	(0.664)		305876	48.8226	48.82
72 trans-1,4-Dichloro-2-butene	53		8.886	8.886	(1.159)		115652	46.2513	46.25
194 Acetaldehyde	44		1.216	1.216	(0.291)		117693	173.012	173.01
23 Chloroprene	53		1.775	1.771	(0.425)		125449	44.2468	44.24(M)
145 alpha-Methylstyrene	118		9.257	9.257	(0.958)		588589	47.9630	47.96
200 Dimethyl Disulfide	94		6.198	6.198	(0.808)		615675	47.1510	47.15
139 Diethyl ether	59		1.763	1.760	(0.422)		263563	44.5563	44.55
130 Ethyl Acetate	43		3.664	3.664	(0.877)		367968	47.8328	47.83
40 Methyl Methacrylate	41		5.606	5.606	(1.342)		274347	44.4909	44.49
49 Ethyl Methacrylate	69		6.787	6.786	(1.367)		431949	45.3832	45.38
132 n-Butanol	56		5.373	5.265	(1.286)		145482	832.733	832.73
142 Tetrahydrofuran	42		3.851	3.851	(0.922)		114638	87.6858	87.68



150 Allyl alcohol	57	2.772	2.772 (0.664)	305876	975.699	975.69
166 1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	1086956	40.5887	40.58

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081113.D Page 2
Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
131 Methyl Acrylate	55	3.694	3.690 (0.884)		349204	52.7407	52.74
162 Butyl acrylate	55	8.249	8.248 (1.076)		726261	44.9587	44.95
2 Dichlorodifluoromethane	85	0.976	0.976 (0.234)		278753	45.4301	45.43
3 Chloromethane	50	1.085	1.085 (0.260)		305198	46.7975	46.79
5 Vinyl Chloride	62	1.149	1.149 (0.275)		367708	45.7424	45.74
6 Bromomethane	94	1.344	1.336 (0.322)		212672	49.1484	49.14
7 Chloroethane	64	1.407	1.403 (0.337)		232390	44.1073	44.10
8 Trichlorofluoromethane	101	1.565	1.561 (0.375)		497926	43.5217	43.52
9 Acrolein	56	1.865	1.861 (0.446)		20861	94.8205	94.82
10 Acetone	43	1.977	1.977 (0.473)		288065	111.670	111.66
11 1,1-Dichloroethene	96	1.917	1.917 (0.459)		290262	44.8534	44.85
15 Iodomethane	142	2.033	2.029 (0.487)		637436	84.9734	84.97
16 Acrylonitrile	53	2.539	2.536 (0.608)		279919	89.7905	89.79
17 Methylene Chloride	84	2.307	2.307 (0.552)		359630	44.3140	44.31
18 Methyl tert-butyl ether	73	2.539	2.539 (0.608)		1009461	43.7308	43.73
19 Carbon Disulfide	76	2.075	2.074 (0.497)		1749941	91.1156	91.11
20 trans-1,2-Dichloroethene	96	2.532	2.528 (0.606)		333755	44.3805	44.38
21 Vinyl Acetate	43	3.000	3.000 (0.718)		2143043	96.3367	96.33
22 1,1-Dichloroethane	63	2.922	2.922 (0.699)		631943	44.6198	44.61
24 2-Butanone	43	3.585	3.585 (0.858)		263108	106.057	106.05(H)
26 2,2-Dichloropropane	77	3.510	3.510 (0.840)		453259	47.6714	47.67
27 cis-1,2-Dichloroethene	96	3.529	3.525 (0.845)		337589	46.7448	46.74
28 Chloroform	83	3.908	3.904 (0.935)		572759	46.1412	46.14
29 Bromochloromethane	128	3.799	3.795 (0.909)		191270	46.5882	46.58
\$ 30 Dibromofluoromethane	113	4.099	4.099 (0.981)		317829	51.7361	51.73
31 1,1,1-Trichloroethane	97	4.084	4.080 (0.978)		454034	45.5581	45.55
32 1,1-Dichloropropene	75	4.283	4.279 (0.863)		378396	46.2898	46.28
33 1,2-Dichloroethane	62	4.556	4.556 (0.918)		470160	47.6071	47.60
34 Carbon Tetrachloride	117	4.264	4.264 (0.859)		385124	44.6289	44.62
\$ 35 1,2-Dichloroethane-d4	65	4.470	4.470 (1.070)		349319	51.0514	51.05
* 36 1,4-Difluorobenzene	114	4.965	4.965 (1.000)		1038890	50.0000	
37 Benzene	78	4.511	4.511 (0.909)		1209828	47.2791	47.27
38 Trichloroethene	130	5.205	5.205 (1.048)		341170	46.3912	46.39
39 Bromodichloromethane	83	5.726	5.726 (1.153)		453741	47.6112	47.61
41 2-Chloroethylvinyl ether	63	6.048	6.048 (1.218)		237859	97.5610	97.56
42 1,2-Dichloropropane	63	5.433	5.437 (1.094)		338551	46.9214	46.92
44 Dibromomethane	93	5.550	5.549 (1.118)		230609	46.7682	46.76
45 4-Methyl-2-Pentanone	43	6.326	6.325 (0.825)		699243	98.2915	98.29
46 cis-1,3-Dichloropropene	75	6.153	6.153 (1.239)		529681	48.5712	48.57
* 47 Chlorobenzene-d5	117	7.668	7.667 (1.000)		991755	50.0000	
\$ 48 Toluene-d8	98	6.385	6.385 (0.833)		1139657	48.8285	48.82
50 Toluene	91	6.445	6.445 (0.841)		1287784	46.6006	46.60
51 trans-1,3-Dichloropropene	75	6.682	6.682 (1.346)		449888	49.1542	49.15
52 2-Hexanone	43	7.086	7.086 (0.924)		478972	100.302	100.30
53 1,1,2-Trichloroethane	83	6.835	6.839 (0.891)		269912	48.9988	48.99
54 1,3-Dichloropropane	76	6.978	6.981 (0.910)		538369	47.8092	47.80
55 Dibromochloromethane	129	7.173	7.173 (0.935)		398140	50.0801	50.08
56 Tetrachloroethene	164	6.925	6.925 (0.903)		266778	46.4464	46.44
57 1,2-Dibromoethane	107	7.259	7.259 (0.947)		329212	48.9227	48.92
58 1-Chlorohexane	55	7.694	7.694 (1.550)		263671	43.8660	43.86
59 Chlorobenzene	112	7.690	7.690 (1.003)		892241	46.8578	46.85
60 1,1,1,2-Tetrachloroethane	131	7.772	7.772 (1.014)		360717	49.0419	49.04



61 Ethylbenzene	106	7.795	7.799 (1.017)	439106	46.6953	46.69
62 m,p-Xylenes	106	7.900	7.904 (1.030)	1129037	93.8572	93.85



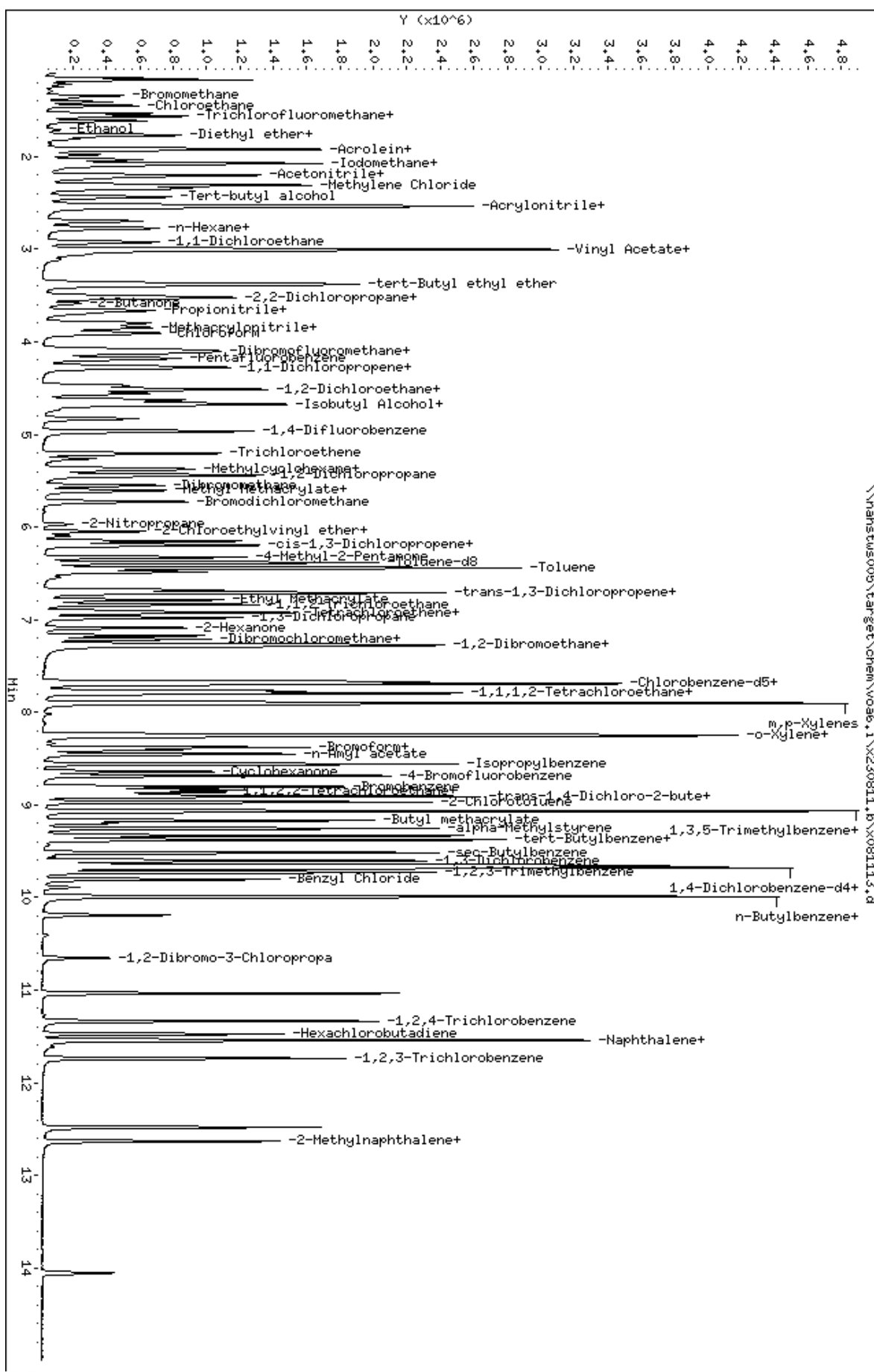
Data File: \\NAHSTWS005\Target\chem\voa6.i\X230811.b\X081113.D Page 3
 Report Date: 25-Aug-2023 14:15

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
63 o-Xylene	106	8.237	8.241	(1.074)	553055	46.6550	46.65	
64 Styrene	104	8.256	8.256	(1.077)	982231	49.8271	49.82	
66 Bromoform	173	8.406	8.406	(1.096)	280929	52.3726	52.37	
67 Isopropylbenzene	105	8.560	8.560	(1.116)	1332646	45.2392	45.23	
68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	451137	48.0360	48.03	
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	495886	50.6494	50.64	
* 70 1,4-Dichlorobenzene-d4	152	9.658	9.662	(1.000)	576953	50.0000		
71 1,2,3-Trichloropropane	75	8.863	8.863	(0.918)	349366	50.5840	50.58(M)	
73 n-Propylbenzene	91	8.908	8.912	(0.922)	1599561	46.8897	46.88	
74 Bromobenzene	156	8.803	8.803	(0.912)	440731	47.7939	47.79	
75 1,3,5-Trimethylbenzene	105	9.062	9.066	(0.938)	1135547	45.5338	45.53	
76 2-Chlorotoluene	91	8.972	8.972	(0.929)	994141	45.5092	45.50	
77 4-Chlorotoluene	91	9.066	9.066	(0.939)	1180248	46.9553	46.95	
78 tert-Butylbenzene	119	9.332	9.336	(0.966)	958710	44.8714	44.87	
79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1174441	45.7319	45.73	
81 sec-Butylbenzene	105	9.516	9.519	(0.985)	1336529	45.6309	45.63	
82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	1195711	45.1498	45.14	
83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	777074	47.3148	47.31	
84 1,4-Dichlorobenzene	146	9.681	9.680	(1.002)	817903	46.5010	46.50	
86 Benzyl Chloride	91	9.804	9.804	(1.279)	798143	56.2246	56.22	
87 n-Butylbenzene	91	9.992	9.992	(1.035)	1066931	41.7285	41.72	
88 1,2-Dichlorobenzene	146	9.992	9.988	(1.035)	774373	46.7102	46.71	
89 1,2-Dibromo-3-Chloropropane	155	10.655	10.651	(1.103)	78707	49.5541	49.55	
90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	519071	47.3153	47.31	
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	230823	55.7491	55.74	
92 Naphthalene	128	11.540	11.540	(1.195)	1286817	46.9944	46.99	
93 1,2,3-Trichlorobenzene	180	11.739	11.738	(1.215)	494650	46.2694	46.26	
M 94 1,2-Dichloroethylene (total)	96				671344	91.1253	91.12	
M 95 Xylenes (total)	106				1682092	140.512	140.51	
141 Cyclohexane	56	4.121	4.121	(0.987)	376528	42.2842	42.28	
138 Freon TF	101	1.921	1.917	(0.460)	272533	43.3566	43.35	
147 Methylcyclohexane	55	5.385	5.381	(1.085)	673650	43.1633	43.16	
146 Methyl Acetate	43	2.236	2.232	(0.535)	286746	47.6134	47.61	
148 Tert-Butyl alcohol	59	2.438	2.442	(0.584)	814992	1008.88	1008.88	
149 Isopropyl Alcohol	45	2.101	2.104	(0.503)	473296	1006.13	1006.12	

QC Flag Legend

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





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 Sample Info: CCV;CCV;2;ICV
 Purge Volume: 5.0
 Column phase: DB624

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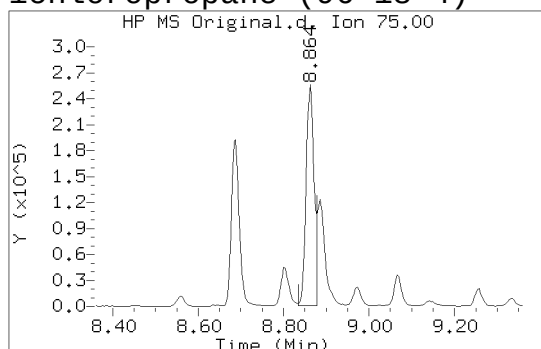
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 Instrument: voas6.i

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InstruID : voa6.i
LabSampID : CCV

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

BEFORE

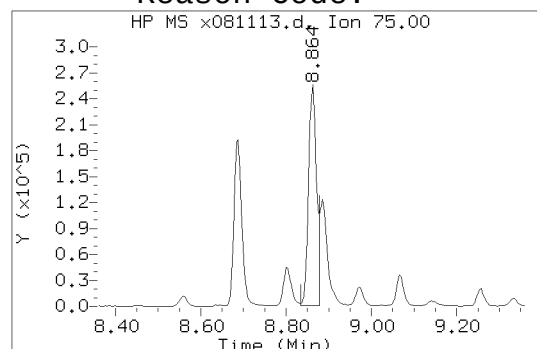
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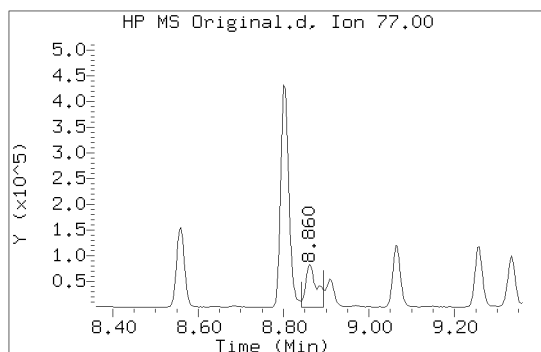
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12-Aug-2023
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Reason Code:



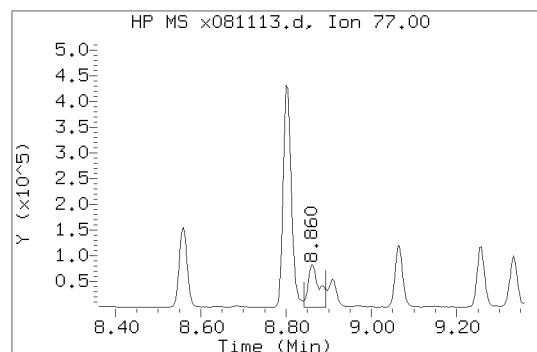
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AFTER

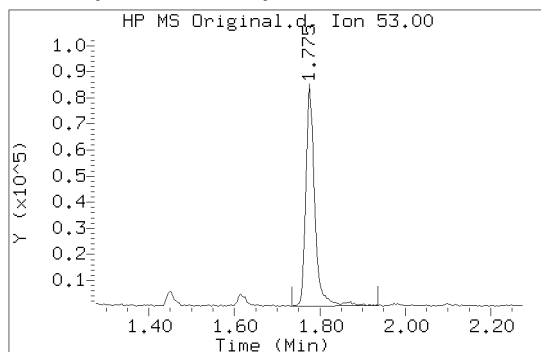
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HEIGHT
81760
12-Aug-2023
23:25



Chloroprene (126-99-8)

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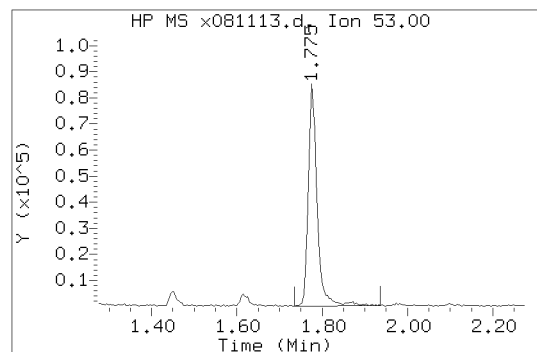
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AFTER

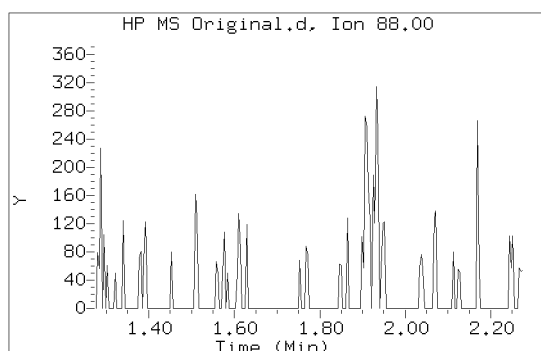
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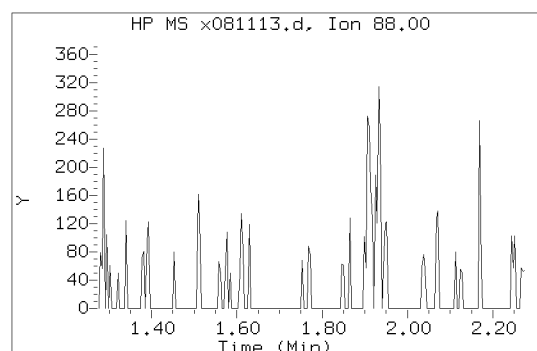
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12-Aug-2023
23:25



AFTER

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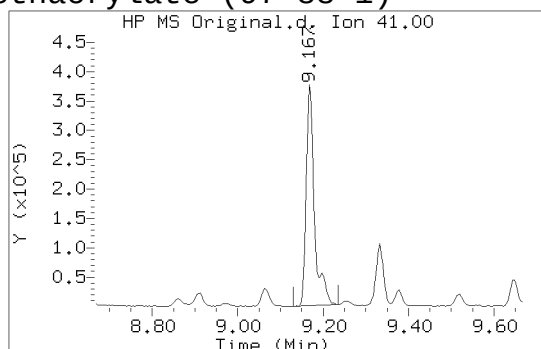


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 InstruID : voa6.i
 LabSampID : CCV

Butyl methacrylate (97-88-1)

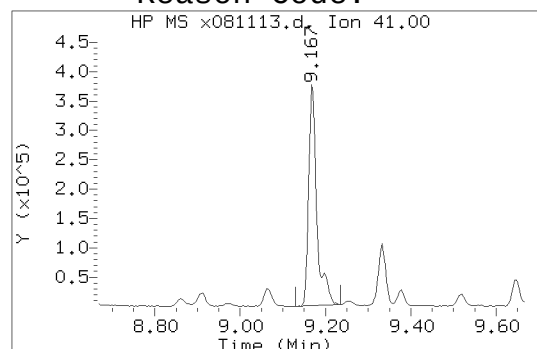
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AFTER

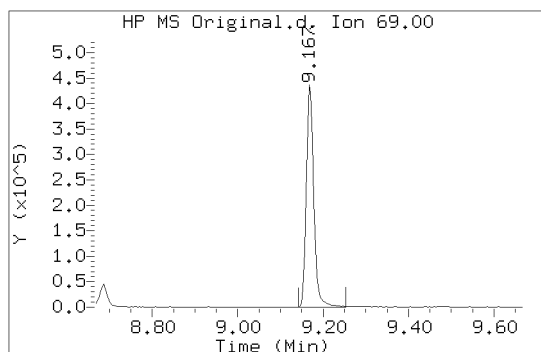
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Reason Code:

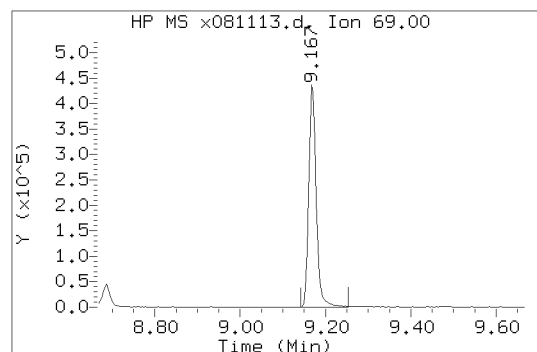
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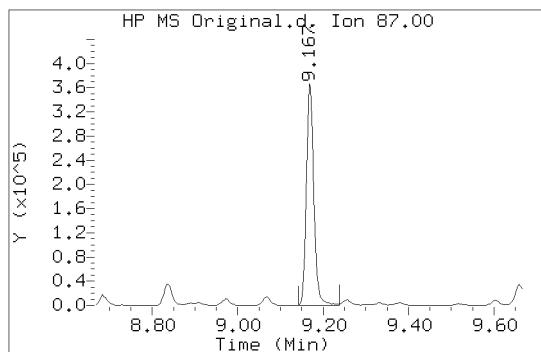
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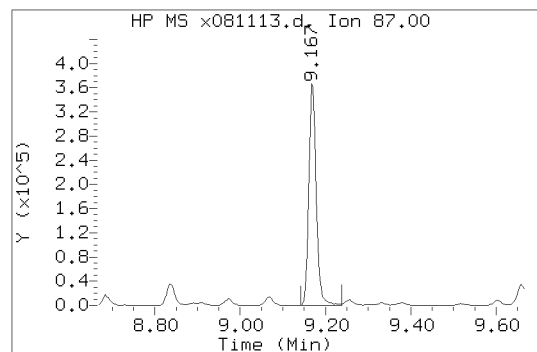
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AFTER

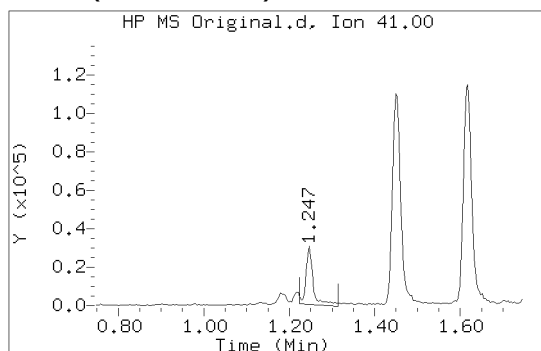
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12-Aug-2023
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Isobutylene (115-11-7)

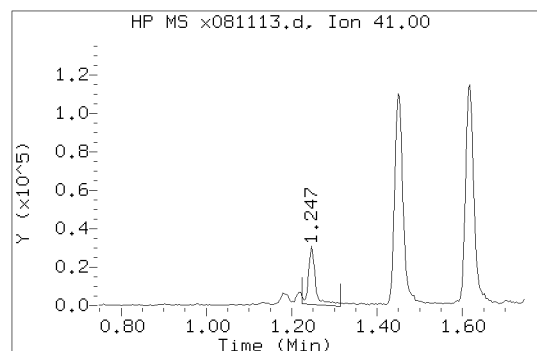
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23:25



AFTER

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12-Aug-2023
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Reason Code:

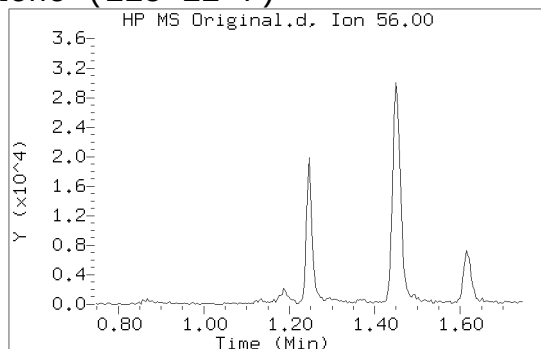


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Inj Date : 11-AUG-2023 15:38
InstruID : voa6.i
LabSampID : CCV

Isobutylene (115-11-7)

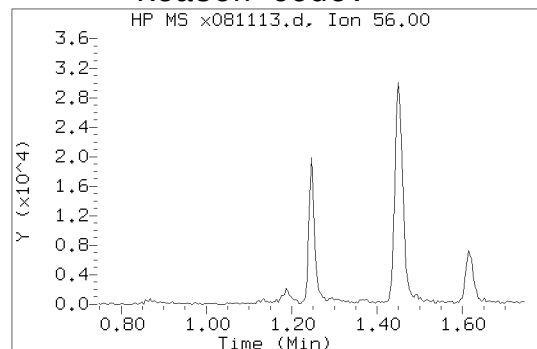
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12-Aug-2023
23:25



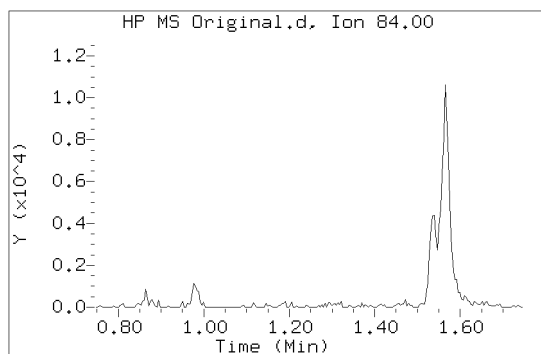
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HEIGHT
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12-Aug-2023
23:25



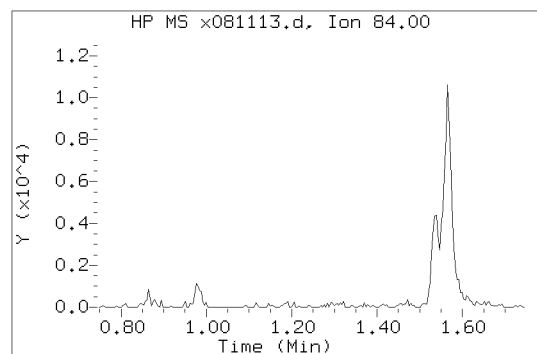
BEFORE

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HEIGHT
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12-Aug-2023
23:25



AFTER

MASS
84
AREA
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HEIGHT
0
12-Aug-2023
23:25





Raw Data VOA6 444793

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23081423

Client
Bhate Environmental Associates, Inc.

Project
GROUNDWATER TREATMENT PLANT
BI-WEEKLY SAMPLES

08/25/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082401.D Page 1
 Report Date: 24-Aug-2023 10:54

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082401.D
 Lab Smp Id: BFB Client Smp ID: BFB
 Inj Date : 24-AUG-2023 10:17
 Operator : PC Inst ID: voa6.i
 Smp Info : BFB;BFB;3;;BFB
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\bfb.m
 Meth Date : 06-Feb-2018 12:19 pcabasca Quant Type: ISTD
 Cal Date : Cal File:
 Als bottle: 1 QC Sample: BFB
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 4.14 Sample Matrix: WATER
 Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/l)	TARGET	RANGE	RATIO
====	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 bfb				CAS #: 460-00-4					
8.687	8.889	(0.000)	95	299200			0.00-	100.00	100.00
8.687	8.889	(0.000)	50	61336			15.00-	40.00	20.50
8.687	8.889	(0.000)	75	150080			30.00-	60.00	50.16
8.687	8.889	(0.000)	96	21872			5.00-	9.00	7.31
8.687	8.889	(0.000)	173	2250			0.00-	2.00	0.79
8.687	8.889	(0.000)	174	284032			50.00-	0.00	94.93
8.687	8.889	(0.000)	175	21800			5.00-	9.00	7.68
8.687	8.889	(0.000)	176	272576			95.00-	101.00	95.97
8.687	8.889	(0.000)	177	18912			5.00-	9.00	6.94



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.50
75	30.00 - 60.00% of mass 95	50.16
96	5.00 - 9.00% of mass 95	7.31
173	Less than 2.00% of mass 174	0.75 (0.79)
174	Greater than 50.00% of mass 95	94.93
175	5.00 - 9.00% of mass 174	7.29 (7.68)
176	95.00 - 101.00% of mass 174	91.10 (95.97)
177	5.00 - 9.00% of mass 176	6.32 (6.94)

Data File: X082401.D
 Spectrum: Scan 2160 (8.68)
 Location of Maximum: 95.00
 Number of points: 132

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	3581	70.00	3717	108.90	796	145.80	364
37.00	17448	71.00	614	109.80	294	146.80	331
38.00	14567	72.00	1805	110.80	435	147.70	797
39.00	6643	73.00	14881	111.80	172	148.90	291
39.90	2280	74.00	52048	112.80	410	149.90	446
41.00	1879	75.00	150080	114.90	199	151.90	207
42.00	2545	76.00	13648	115.90	1441	153.00	176
43.00	1796	77.00	2137	116.80	2134	153.60	170
44.00	3800	78.10	979	117.80	1258	154.70	1151
45.00	3605	78.90	11935	118.90	1738	155.80	68
45.90	236	79.90	3410	120.00	111	157.00	618
47.10	2811	80.90	12828	121.20	86	157.90	54
48.00	1711	81.90	2934	121.90	78	158.90	281
49.00	15505	83.00	794	123.00	150	160.70	295
50.00	61336	84.10	350	124.10	78	161.00	257
51.00	18800	85.00	569	124.90	114	168.00	99
51.90	1150	85.90	210	125.70	177	170.40	200
53.00	373	87.00	13234	126.60	300	171.00	120
53.90	303	88.00	10894	127.00	259	171.90	476
55.00	4128	91.00	1665	127.90	981	172.80	2250
56.00	5804	92.00	8813	129.00	650	173.90	284032
57.00	10651	93.00	12326	129.80	985	174.90	21800
58.00	725	94.00	35880	131.00	514	175.90	272576
58.90	64	95.00	299200	133.70	140	176.90	18912
60.00	3269	96.00	21872	134.90	561	177.90	884
61.00	16314	96.90	660	135.70	141	185.80	113
62.00	16318	97.90	1335	136.80	572	233.60	180
63.00	11509	98.90	136	138.70	89	235.70	164
64.10	1409	101.90	67	139.90	387	262.30	177
65.00	231	102.80	220	140.80	3915	277.80	60
65.80	153	103.90	2302	141.70	567		
67.00	1040	104.90	969	142.80	3002		
68.00	29832	106.00	1827	143.70	231		
69.00	31880	106.80	891	145.00	158		

Data File: \\nahstws005\target\chem\voa6.i\230824.b\082401.d

Page 1

Date : 24-AUG-2023 10:17

Client ID: BFB

Instrument: voa6.i

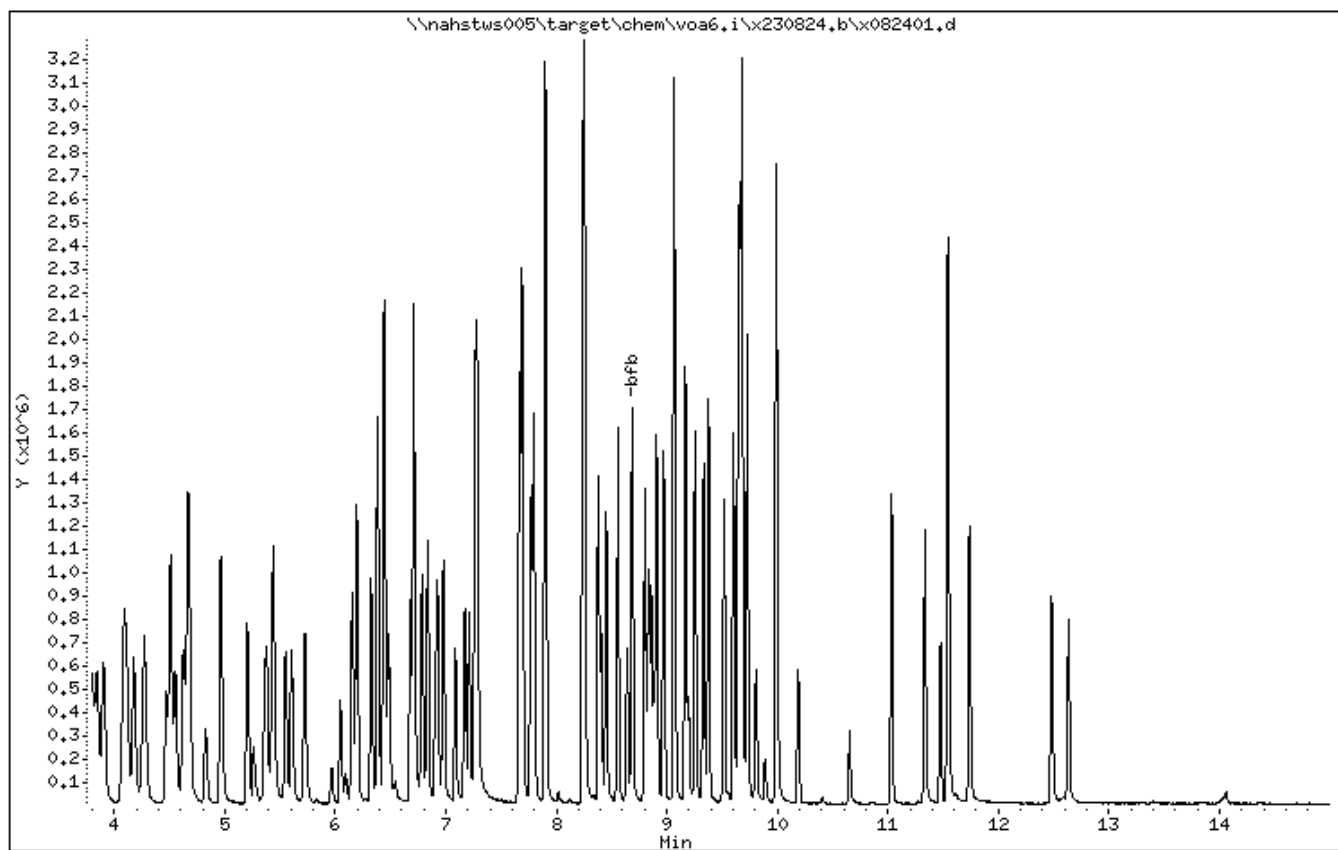
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File : \\nahstws005\target\chem\voa6.i\x230824.b\x082401.d
Inj Date : 24-AUG-2023 10:17
InstruID : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082403.D Page 1
 Report Date: 24-Aug-2023 21:34

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082403.D
 Lab Smp Id: CCV Client Smp ID: CCV
 Inj Date : 24-AUG-2023 10:57
 Operator : PC Inst ID: voa6.i
 Smp Info : CCV;CCV;2;;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\nahstws005\Target\chem\voa6.i\X230824.b\8260W.m
 Meth Date : 24-Aug-2023 21:33 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:56 Cal File: X081108.D
 Als bottle: 2 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14

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	ON-COL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)	671895	50.0000		
135 1,4-Dioxane	88		5.598	5.598	(1.339)	75146	1000.00	879.89	
140 1,3-Butadiene	54		1.171	1.171	(0.280)	328961	50.0000	47.52	
25 Methacrylonitrile	41		3.825	3.825	(0.915)	294956	50.0000	44.01	
13 Acetonitrile	39		2.202	2.202	(0.527)	401557	500.000	387.53	
2 Dichlorodifluoromethane	85		0.980	0.980	(0.234)	334833	50.0000	54.29	
3 Chloromethane	50		1.085	1.085	(0.260)	340377	50.0000	52.05	
5 Vinyl Chloride	62		1.149	1.149	(0.275)	404170	50.0000	50.15	
6 Bromomethane	94		1.347	1.347	(0.322)	216863	50.0000	49.99	
7 Chloroethane	64		1.407	1.407	(0.337)	249893	50.0000	47.30	
8 Trichlorofluoromethane	101		1.565	1.565	(0.374)	594189	50.0000	51.80	
9 Acrolein	56		1.861	1.861	(0.445)	24227	100.000	110.27	
10 Acetone	43		1.977	1.977	(0.473)	211135	100.000	80.40	
11 1,1-Dichloroethene	96		1.921	1.921	(0.459)	320853	50.0000	49.45	
15 Iodomethane	142		2.033	2.033	(0.486)	930108	100.000	119.79	
16 Acrylonitrile	53		2.536	2.536	(0.606)	251934	100.000	80.60	
17 Methylene Chloride	84		2.307	2.307	(0.552)	366737	50.0000	45.07	
18 Methyl tert-butyl ether	73		2.539	2.539	(0.607)	953761	50.0000	41.21	
19 Carbon Disulfide	76		2.075	2.075	(0.496)	1799323	100.000	93.45	
20 trans-1,2-Dichloroethene	96		2.532	2.532	(0.606)	354336	50.0000	46.99	
21 Vinyl Acetate	43		3.001	3.001	(0.718)	1920782	100.000	86.12	



22 1,1-Dichloroethane	63	2.926	2.926 (0.700)	626755	50.0000	44.14
24 2-Butanone	43	3.589	3.589 (0.858)	232941	100.000	93.65

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082403.D Page 2

Report Date: 24-Aug-2023 21:34

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	496593	50.0000	52.09
27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.843)	373497	50.0000	51.58
28 Chloroform	83	3.908	3.908	(0.935)	615835	50.0000	49.48
29 Bromochloromethane	128	3.795	3.795	(0.908)	203409	50.0000	49.41
\$ 30 Dibromofluoromethane	113	4.099	4.099	(0.980)	324058	50.0000	52.63
31 1,1,1-Trichloroethane	97	4.084	4.084	(0.977)	529763	50.0000	53.02
32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	445424	50.0000	54.25
33 1,2-Dichloroethane	62	4.556	4.556	(0.918)	483092	50.0000	48.71
34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	460384	50.0000	53.12
\$ 35 1,2-Dichloroethane-d4	65	4.474	4.474	(1.070)	339829	50.0000	49.50
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	1043285	50.0000	
37 Benzene	78	4.511	4.511	(0.909)	1298844	50.0000	50.54
38 Trichloroethene	130	5.205	5.205	(1.048)	391136	50.0000	52.96
39 Bromodichloromethane	83	5.726	5.726	(1.153)	474745	50.0000	49.60
41 2-Chloroethylvinyl ether	63	6.048	6.048	(1.218)	235156	100.000	96.04
42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	356877	50.0000	49.25
44 Dibromomethane	93	5.553	5.553	(1.119)	237877	50.0000	48.03
45 4-Methyl-2-Pentanone	43	6.326	6.326	(0.825)	629906	100.000	88.83
46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	544382	50.0000	49.70
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	988559	50.0000	
\$ 48 Toluene-d8	98	6.386	6.386	(0.833)	1120334	50.0000	48.15
50 Toluene	91	6.442	6.442	(0.840)	1410773	50.0000	51.21
51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.345)	447176	50.0000	48.65
52 2-Hexanone	43	7.083	7.083	(0.924)	421887	100.000	88.63
53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	279845	50.0000	50.96
54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	554869	50.0000	49.43
55 Dibromochloromethane	129	7.173	7.173	(0.935)	415491	50.0000	52.43
56 Tetrachloroethene	164	6.925	6.925	(0.903)	328512	50.0000	57.37
57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	336699	50.0000	50.19
58 1-Chlorohexane	55	7.694	7.694	(1.550)	326646	50.0000	54.11
59 Chlorobenzene	112	7.690	7.690	(1.003)	964970	50.0000	50.84
60 1,1,1,2-Tetrachloroethane	131	7.769	7.769	(1.013)	387480	50.0000	52.85
61 Ethylbenzene	106	7.795	7.795	(1.017)	493563	50.0000	52.65
62 m,p-Xylenes	106	7.900	7.900	(1.030)	1281675	100.000	106.89
63 o-Xylene	106	8.237	8.237	(1.074)	613153	50.0000	51.89
64 Styrene	104	8.256	8.256	(1.077)	1051499	50.0000	53.51
66 Bromoform	173	8.406	8.406	(1.096)	288305	50.0000	53.92
67 Isopropylbenzene	105	8.560	8.560	(1.116)	1590632	50.0000	54.17
68 1,1,2,2-Tetrachloroethane	83	8.833	8.833	(0.915)	443911	50.0000	47.78
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	492948	50.0000	50.51
* 70 1,4-Dichlorobenzene-d4	152	9.658	9.658	(1.000)	570646	50.0000	
71 1,2,3-Trichloropropane	75	8.860	8.860	(0.917)	340631	50.0000	49.86(M)
73 n-Propylbenzene	91	8.908	8.908	(0.922)	1899259	50.0000	56.29
74 Bromobenzene	156	8.803	8.803	(0.912)	475569	50.0000	52.14
75 1,3,5-Trimethylbenzene	105	9.062	9.062	(0.938)	1331917	50.0000	53.99
76 2-Chlorotoluene	91	8.972	8.972	(0.929)	1132475	50.0000	52.41
77 4-Chlorotoluene	91	9.066	9.066	(0.939)	1313685	50.0000	52.84
78 tert-Butylbenzene	119	9.332	9.332	(0.966)	1188556	50.0000	56.24
79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1346616	50.0000	53.01
81 sec-Butylbenzene	105	9.516	9.516	(0.985)	1673720	50.0000	57.77
82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	1466789	50.0000	55.99
83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	864048	50.0000	53.19



84 1,4-Dichlorobenzene	146	9.681	9.681 (1.002)	918247	50.0000	52.78
87 n-Butylbenzene	91	9.988	9.988 (1.034)	1338529	50.0000	52.38

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082403.D Page 3

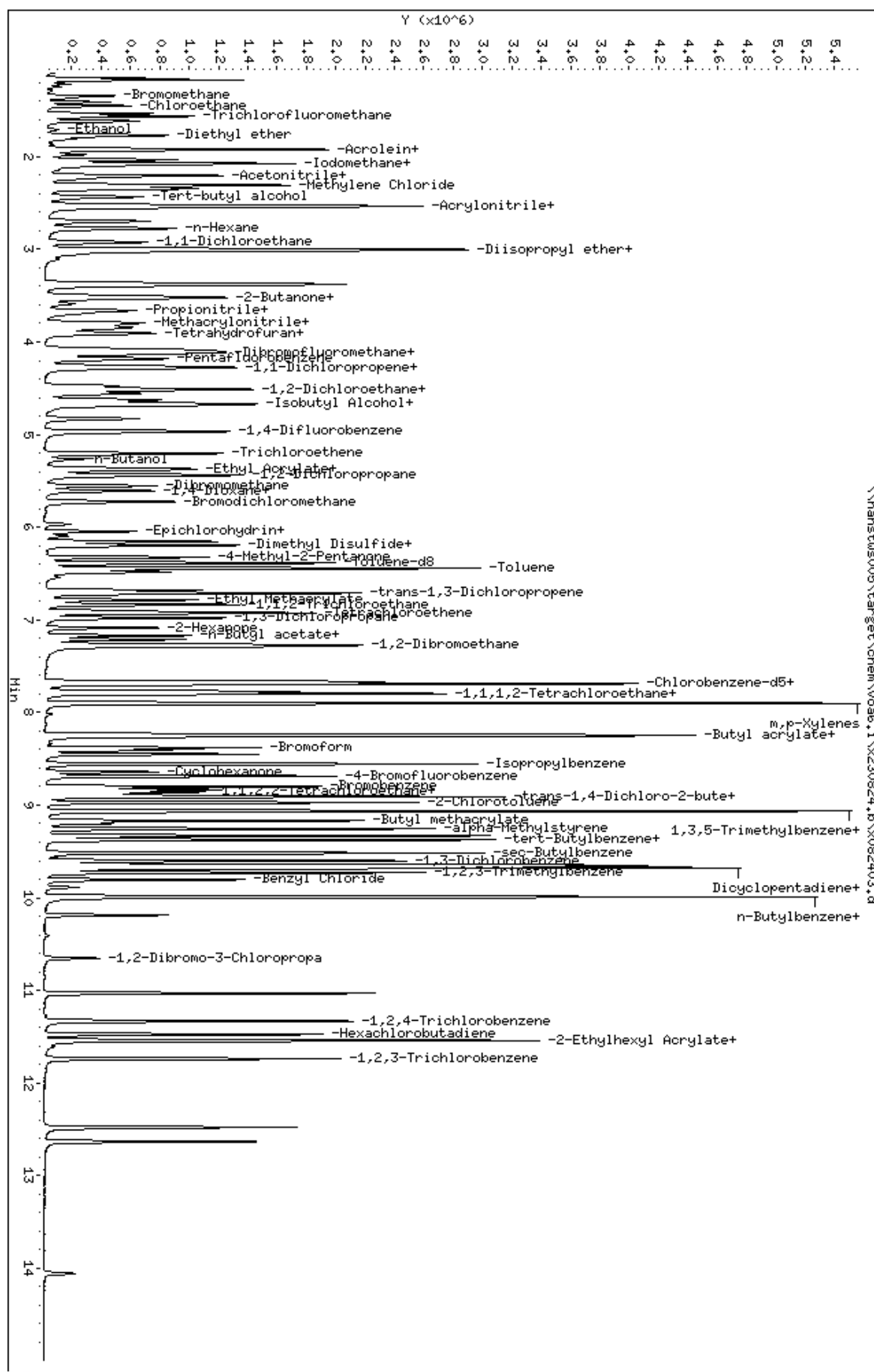
Report Date: 24-Aug-2023 21:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
88 1,2-Dichlorobenzene	146	9.988	9.988	(1.034)	849710	50.0000	51.82
89 1,2-Dibromo-3-Chloropropane	155	10.651	10.651	(1.103)	76180	50.0000	48.49
90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	603154	50.0000	55.58
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	305900	50.0000	70.21
92 Naphthalene	128	11.540	11.540	(1.195)	1330394	50.0000	49.12
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	556635	50.0000	52.64
M 94 1,2-Dichloroethylene (total)	96				727833	100.000	98.58
M 95 Xylenes (total)	106				1894828	150.000	158.78
141 Cyclohexane	56	4.121	4.121	(0.986)	502163	50.0000	55.64
138 Freon TF	101	1.921	1.921	(0.459)	337516	50.0000	53.29
147 Methylcyclohexane	55	5.385	5.385	(1.085)	691741	50.0000	44.13
146 Methyl Acetate	43	2.236	2.236	(0.535)	250720	50.0000	41.52
148 Tert-Butyl alcohol	59	2.434	2.434	(0.582)	708920	1000.00	873.64
149 Isopropyl Alcohol	45	2.097	2.097	(0.502)	403904	1000.00	854.52

QC Flag Legend

M - Compound response manually integrated.





Data File: \\nahtsw005\target\chem\voa6.i\X230824.b\X082403.d
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 Client ID: CCV
 Sample Info: CCV;CCV;2;1
 Purge Volume: 5.0
 Column phase: DB624

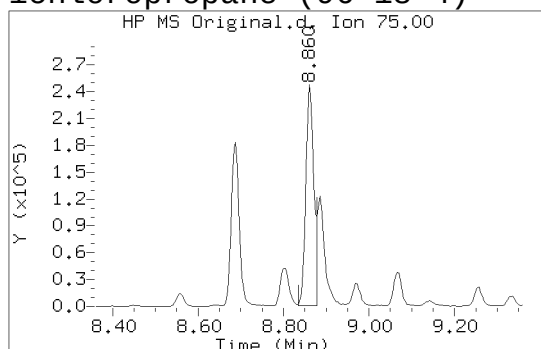
Instrument: voa6.i
 Operator: PC
 Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa6.i\x230824.b\x082403.d
Inj Date : 24-AUG-2023 10:57
InstruID : voa6.i
LabSampID : CCV

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

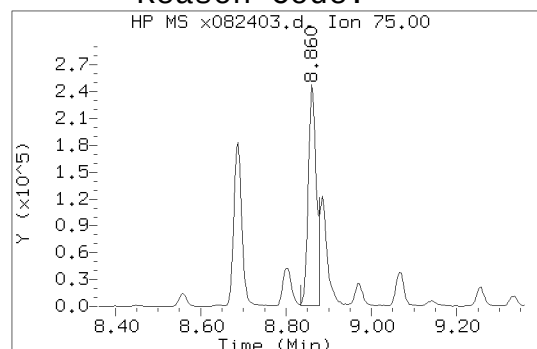
BEFORE

MASS
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AREA
340631
HEIGHT
247141
24-Aug-2023
21:52



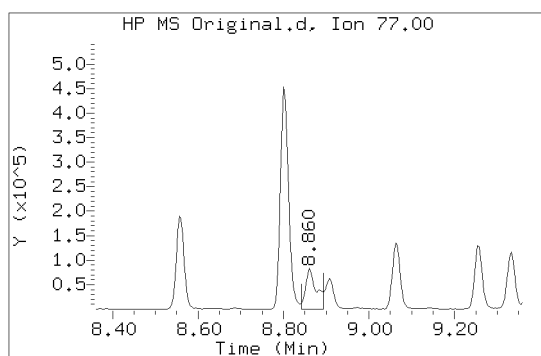
AFTER

MASS
75
AREA
340631
HEIGHT
247141
24-Aug-2023
21:52



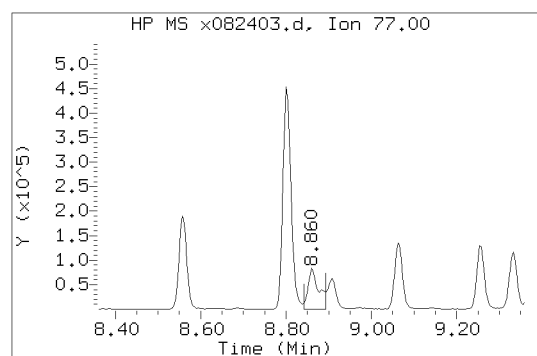
BEFORE

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AREA
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HEIGHT
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24-Aug-2023
21:52



AFTER

MASS
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AREA
152071
HEIGHT
83029
24-Aug-2023
21:52



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082404.D Page 1
 Report Date: 24-Aug-2023 21:35

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082404.D
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 Inj Date : 24-AUG-2023 11:18
 Operator : PC Inst ID: voa6.i
 Smp Info : CCB;CCB;;;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\nahstws005\Target\chem\voa6.i\X230824.b\8260W.m
 Meth Date : 24-Aug-2023 21:33 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:56 Cal File: X081108.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTWS005

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	4.177	4.181	(1.000)	692887	50.0000	
\$ 30 Dibromofluoromethane	113	4.099	4.099	(0.981)	318730	50.1588	50.15
\$ 35 1,2-Dichloroethane-d4	65	4.474	4.474	(1.071)	348278	49.1930	49.19
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	973390	50.0000	
* 47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	887344	50.0000	
\$ 48 Toluene-d8	98	6.385	6.386	(0.833)	1102817	52.8099	52.80
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	386691	44.1797	44.17
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.658	(1.000)	462427	50.0000	



Data File: \\nahtus005\target\chem\voa6.i\X230824.b\X082404.d

Date : 24-AUG-2023 11:18

Client ID: CCB

Sample Info: CCB\CCB\;

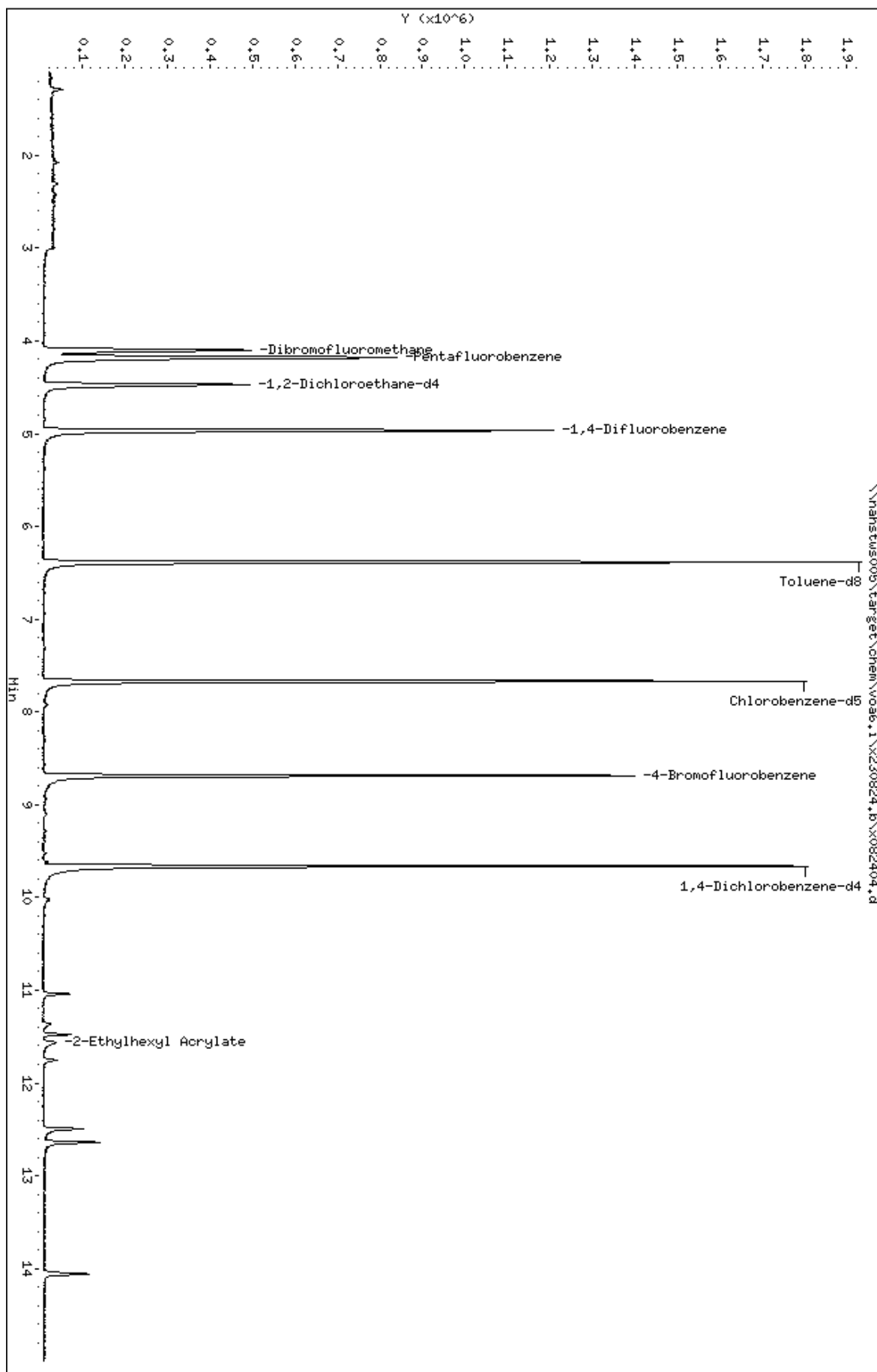
Purge Volume: 5.0

Column phase: DB624

Instrument: voa6.i

Operator: PC

Column diameter: 0.18



Data File : \\nahstws005\target\chem\voa6.i\x230824.b\x082404.d
Inj Date : 24-AUG-2023 11:18
InstruID : voa6.i
LabSampID : CCB

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082405.D Page 1
 Report Date: 24-Aug-2023 21:35

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082405.D
 Lab Smp Id: VLCSW-230824 Client Smp ID: VLCSW-230824
 Inj Date : 24-AUG-2023 11:38
 Operator : PC Inst ID: voa6.i
 Smp Info : VLCSW-230824;VLCSW-230824;3;;LCS
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\nahstws005\Target\chem\voa6.i\X230824.b\8260W.m
 Meth Date : 24-Aug-2023 21:33 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:56 Cal File: X081108.D
 Als bottle: 4 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTWS005

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		4.178	4.181	(1.000)		651033	50.0000	
135 1,4-Dioxane	88		5.598	5.598	(1.340)		29316	354.266	354.26(a)
140 1,3-Butadiene	54		1.171	1.171	(0.280)		111657	16.6473	16.64
25 Methacrylonitrile	41		3.844	3.825	(0.920)		110764	17.0590	17.05
13 Acetonitrile	39		2.206	2.202	(0.528)		176367	175.661	175.66
2 Dichlorodifluoromethane	85		0.980	0.980	(0.235)		112192	19.2144	19.21
3 Chloromethane	50		1.085	1.085	(0.260)		130122	20.5396	20.53
5 Vinyl Chloride	62		1.149	1.149	(0.275)		139841	17.9081	17.90
6 Bromomethane	94		1.347	1.347	(0.323)		87120	20.7261	20.72
7 Chloroethane	64		1.407	1.407	(0.337)		93652	18.2983	18.29
8 Trichlorofluoromethane	101		1.565	1.565	(0.375)		195548	17.5952	17.59
9 Acrolein	56		1.861	1.861	(0.446)		8921	40.2066	40.20
10 Acetone	43		1.981	1.977	(0.474)		88612	32.2207	32.22
11 1,1-Dichloroethene	96		1.921	1.921	(0.460)		112368	17.8751	17.87
15 Iodomethane	142		2.033	2.033	(0.487)		263071	39.7976	39.79
16 Acrylonitrile	53		2.539	2.536	(0.608)		105277	34.7642	34.76
17 Methylene Chloride	84		2.307	2.307	(0.552)		144031	18.2701	18.27
18 Methyl tert-butyl ether	73		2.539	2.539	(0.608)		382454	17.0560	17.05
19 Carbon Disulfide	76		2.075	2.075	(0.497)		641067	34.3616	34.36
20 trans-1,2-Dichloroethene	96		2.536	2.532	(0.607)		131153	17.9533	17.95



21 Vinyl Acetate	43	3.004	3.001 (0.719)	727053	33.6456	33.64
22 1,1-Dichloroethane	63	2.922	2.926 (0.699)	239947	17.4408	17.44

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082405.D Page 2

Report Date: 24-Aug-2023 21:35

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
24 2-Butanone	43	3.596	3.589 (0.861)		80773	33.5175	33.51
26 2,2-Dichloropropane	77	3.510	3.510 (0.840)		173065	18.7277	18.72
27 cis-1,2-Dichloroethene	96	3.529	3.525 (0.845)		137686	19.6262	19.62
28 Chloroform	83	3.908	3.908 (0.935)		229725	19.0514	19.05
29 Bromochloromethane	128	3.795	3.795 (0.908)		78669	19.7258	19.72
\$ 30 Dibromofluoromethane	113	4.099	4.099 (0.981)		309916	51.9364	51.93
31 1,1,1-Trichloroethane	97	4.080	4.084 (0.977)		178745	18.4634	18.46
32 1,1-Dichloropropene	75	4.282	4.279 (0.863)		150670	18.8014	18.80
33 1,2-Dichloroethane	62	4.556	4.556 (0.918)		183847	18.9892	18.98
34 Carbon Tetrachloride	117	4.264	4.264 (0.859)		153666	18.1642	18.16
\$ 35 1,2-Dichloroethane-d4	65	4.474	4.474 (1.071)		340570	51.2421	51.24
* 36 1,4-Difluorobenzene	114	4.965	4.965 (1.000)		1018464	50.0000	
37 Benzene	78	4.511	4.511 (0.909)		463945	18.4942	18.49
38 Trichloroethene	130	5.205	5.205 (1.048)		140502	19.4882	19.48
39 Bromodichloromethane	83	5.726	5.726 (1.153)		174571	18.6852	18.68
41 2-Chloroethylvinyl ether	63	6.048	6.048 (1.218)		86938	36.3739	36.37
42 1,2-Dichloropropane	63	5.437	5.433 (1.095)		128070	18.1058	18.10
44 Dibromomethane	93	5.553	5.553 (1.119)		89366	18.4872	18.48
45 4-Methyl-2-Pentanone	43	6.325	6.326 (0.825)		240058	34.8922	34.89
46 cis-1,3-Dichloropropene	75	6.153	6.153 (1.239)		195097	18.2490	18.24
* 47 Chlorobenzene-d5	117	7.667	7.668 (1.000)		959137	50.0000	
\$ 48 Toluene-d8	98	6.385	6.386 (0.833)		1082285	47.9473	47.94
50 Toluene	91	6.445	6.442 (0.841)		495787	18.5510	18.55
51 trans-1,3-Dichloropropene	75	6.682	6.678 (1.346)		160278	17.8630	17.86
52 2-Hexanone	43	7.086	7.083 (0.924)		157882	34.1868	34.18
53 1,1,2-Trichloroethane	83	6.839	6.835 (0.892)		104471	19.6102	19.61
54 1,3-Dichloropropane	76	6.981	6.978 (0.911)		205567	18.8760	18.87
55 Dibromochloromethane	129	7.173	7.173 (0.935)		150443	19.5670	19.56
56 Tetrachloroethene	164	6.925	6.925 (0.903)		103245	18.5864	18.58
57 1,2-Dibromoethane	107	7.259	7.259 (0.947)		126257	19.4005	19.40
58 1-Chlorohexane	55	7.694	7.694 (1.550)		96779	16.4237	16.42
59 Chlorobenzene	112	7.690	7.690 (1.003)		346915	18.8385	18.83
60 1,1,1,2-Tetrachloroethane	131	7.772	7.769 (1.014)		136237	19.1522	19.15
61 Ethylbenzene	106	7.795	7.795 (1.017)		167512	18.4193	18.41
62 m,p-Xylenes	106	7.900	7.900 (1.030)		428329	36.8180	36.81
63 o-Xylene	106	8.237	8.237 (1.074)		208386	18.1770	18.17
64 Styrene	104	8.256	8.256 (1.077)		369259	19.3690	19.36
66 Bromoform	173	8.410	8.406 (1.097)		101286	19.5245	19.52
67 Isopropylbenzene	105	8.560	8.560 (1.116)		501309	17.5966	17.59
68 1,1,2,2-Tetrachloroethane	83	8.833	8.833 (0.915)		167981	18.9185	18.91
\$ 69 4-Bromofluorobenzene	95	8.687	8.687 (1.133)		465415	49.1620	49.16
* 70 1,4-Dichlorobenzene-d4	152	9.658	9.658 (1.000)		545473	50.0000	
71 1,2,3-Trichloropropane	75	8.863	8.860 (0.918)		121612	18.6241	18.62(M)
73 n-Propylbenzene	91	8.908	8.908 (0.922)		584772	18.1314	18.13
74 Bromobenzene	156	8.803	8.803 (0.912)		173383	19.8871	19.88
75 1,3,5-Trimethylbenzene	105	9.066	9.062 (0.939)		407542	17.2850	17.28
76 2-Chlorotoluene	91	8.972	8.972 (0.929)		374139	18.1156	18.11
77 4-Chlorotoluene	91	9.069	9.066 (0.939)		436788	18.3802	18.38
78 tert-Butylbenzene	119	9.332	9.332 (0.966)		358307	17.7380	17.73
79 1,2,4-Trimethylbenzene	105	9.377	9.377 (0.971)		422951	17.4199	17.41
81 sec-Butylbenzene	105	9.519	9.516 (0.986)		485082	17.5171	17.51
82 p-Isopropyltoluene	119	9.647	9.647 (0.999)		436036	17.4148	17.41



83 1,3-Dichlorobenzene	146	9.602	9.602 (0.994)	286088	18.4247	18.42
84 1,4-Dichlorobenzene	146	9.681	9.681 (1.002)	306527	18.4330	18.43

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082405.D Page 3

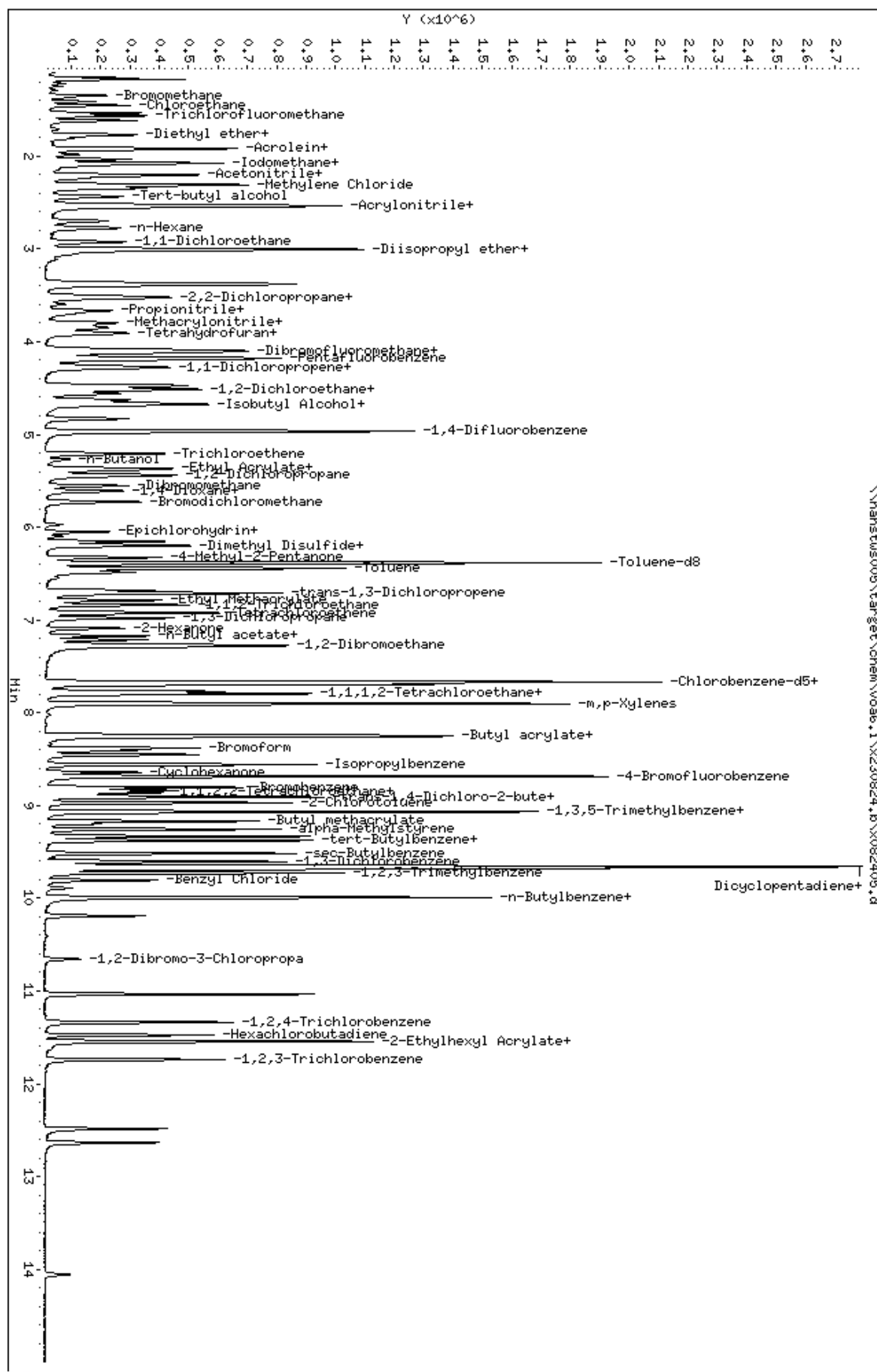
Report Date: 24-Aug-2023 21:35

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
87 n-Butylbenzene	91	9.992	9.988	(1.035)	380686	17.0056	17.00
88 1,2-Dichlorobenzene	146	9.992	9.988	(1.035)	285746	18.2309	18.23
89 1,2-Dibromo-3-Chloropropane	155	10.659	10.651	(1.104)	26576	17.6980	17.69
90 1,2,4-Trichlorobenzene	180	11.337	11.334	(1.174)	189560	18.2763	18.27
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	92807	25.7911	25.79
92 Naphthalene	128	11.544	11.540	(1.195)	436491	16.8605	16.86
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	181404	17.9478	17.94
M 94 1,2-Dichloroethylene (total)	96				268839	37.5794	37.57
M 95 Xylenes (total)	106				636715	54.9950	54.99
141 Cyclohexane	56	4.121	4.121	(0.987)	148205	18.2252	18.22
138 Freon TF	101	1.921	1.921	(0.460)	105443	17.9514	17.95
147 Methylcyclohexane	55	5.385	5.385	(1.085)	280970	18.3639	18.36
146 Methyl Acetate	43	2.236	2.236	(0.535)	98904	16.9062	16.90
148 Tert-Butyl alcohol	59	2.438	2.434	(0.584)	273564	340.131	340.13
149 Isopropyl Alcohol	45	2.097	2.097	(0.502)	156579	334.151	334.15

QC Flag Legend

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





Data File: \\nahtus005\target\chem\voa6.i\X230824.b\X082405.d
 Date : 24-AUG-2023 11:38
 Client ID: WLC5M-230824
 Sample Info: WLC5M-230824;WLC5M-230824;3;LCS
 Purge Volume: 5.0
 Column phase: DB624

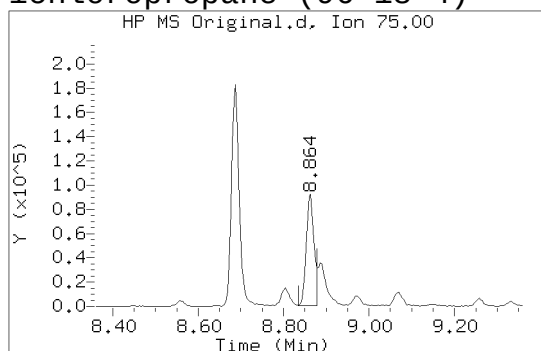
Instrument: voa6.i
 Operator: PC
 Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa6.i\x230824.b\x082405.d
Inj Date : 24-AUG-2023 11:38
InstruID : voa6.i
LabSampID : VLCSW-230824

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

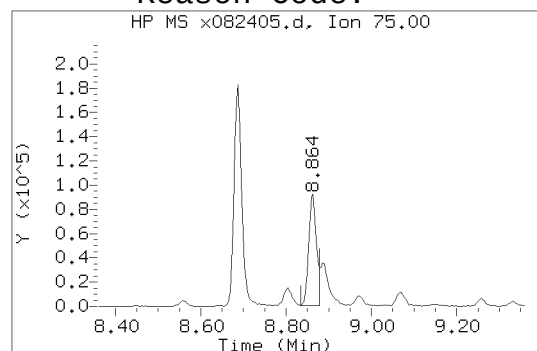
BEFORE

MASS
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AREA
121612
HEIGHT
92213
24-Aug-2023
21:52



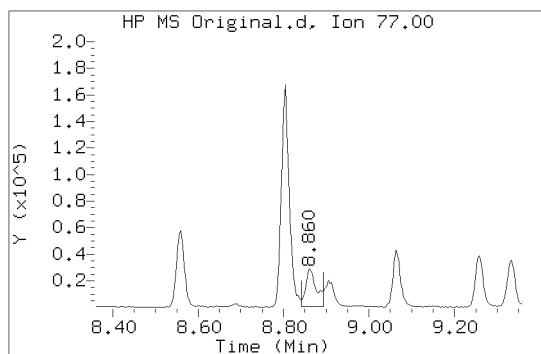
AFTER

MASS
75
AREA
121612
HEIGHT
92213
24-Aug-2023
21:52



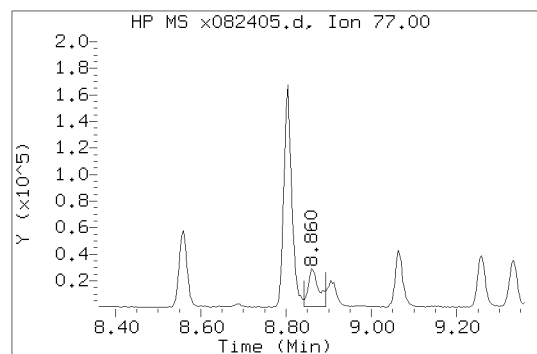
BEFORE

MASS
77
AREA
52812
HEIGHT
28894
24-Aug-2023
21:52



AFTER

MASS
77
AREA
52812
HEIGHT
28894
24-Aug-2023
21:52



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082407.D Page 1
 Report Date: 24-Aug-2023 21:36

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082407.D
 Lab Smp Id: VBLKW-230824 Client Smp ID: VBLKW-230824
 Inj Date : 24-AUG-2023 12:19
 Operator : PC Inst ID: voa6.i
 Smp Info : VBLKW-230824;VBLKW-230824;3;;BLANK
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\nahstws005\Target\chem\voa6.i\X230824.b\8260W.m
 Meth Date : 24-Aug-2023 21:33 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:56 Cal File: X081108.D
 Als bottle: 6 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTWS005

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	4.181	4.181	(1.000)	646679	50.0000	
\$ 30 Dibromofluoromethane	113	4.099	4.099	(0.980)	303607	51.2101	51.21
\$ 35 1,2-Dichloroethane-d4	65	4.474	4.474	(1.070)	330319	50.0082	50.00
* 36 1,4-Difluorobenzene	114	4.968	4.965	(1.000)	926287	50.0000	
* 47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	844824	50.0000	
\$ 48 Toluene-d8	98	6.385	6.386	(0.833)	1046902	52.6555	52.65
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	367895	44.1479	44.14
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.658	(1.000)	438253	50.0000	



Data File: \\nahtus005\target\chem\voa6.i\X230824.b\X082407.d

Date : 24-AUG-2023 12:19

Client ID: VBLKM-230824

Sample Info: VBLKM-230824\VBLKM-230824\3\BLANK

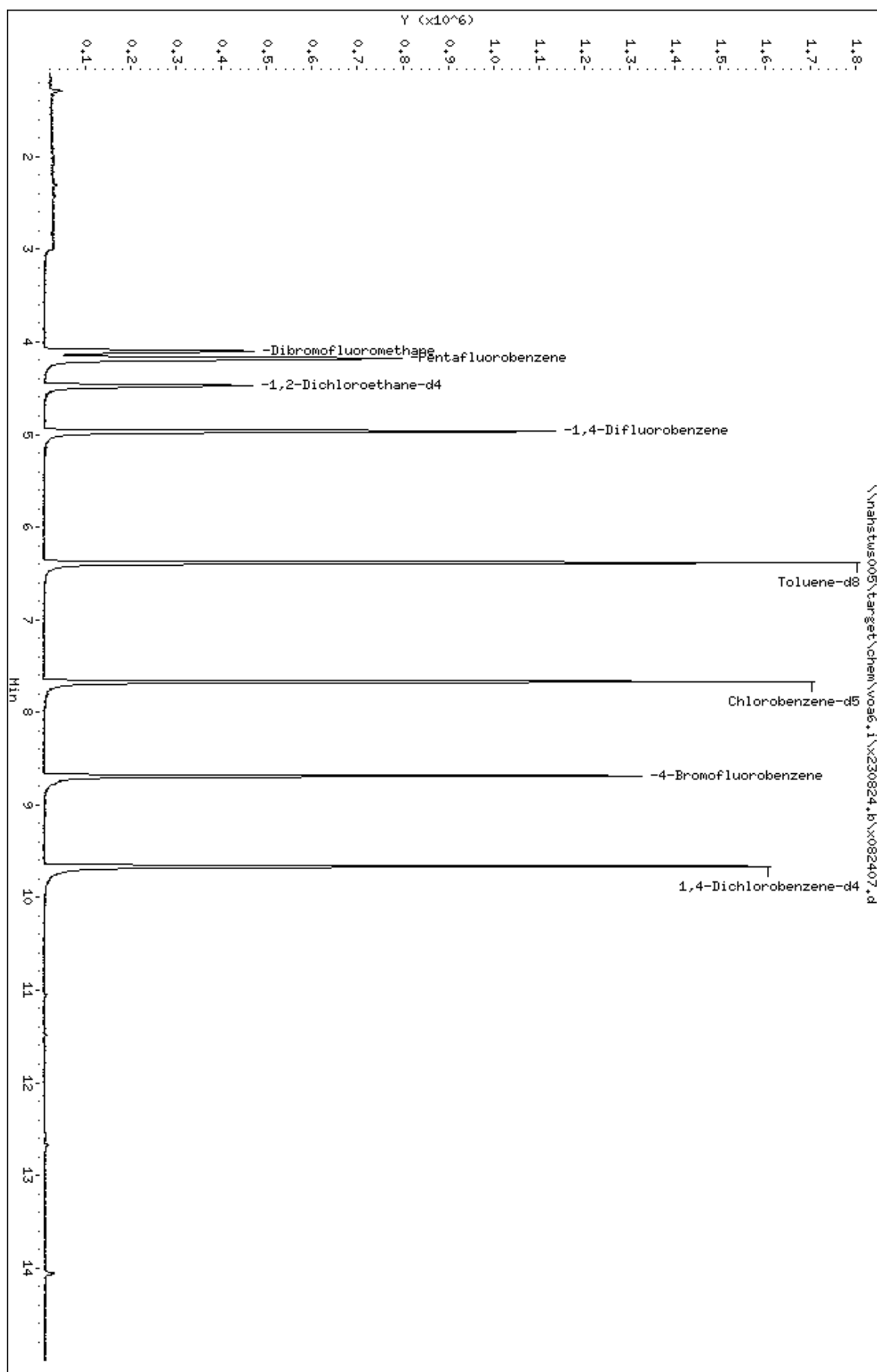
Purge Volume: 5.0

Column phase: DB624

Instrument: voa6.i

Operator: PC

Column diameter: 0.18



Data File : \\nahstws005\target\chem\voa6.i\x230824.b\x082407.d
Inj Date : 24-AUG-2023 12:19
InstruID : voa6.i
LabSampID : VBLKW-230824

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082416.D Page 1
 Report Date: 24-Aug-2023 21:40

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082416.D
 Lab Smp Id: HS23081324-03MS Client Smp ID: HS23081324-03MS
 Inj Date : 24-AUG-2023 15:24
 Operator : PC Inst ID: voa6.i
 Smp Info : HS23081324-03MS;HS23081324-03MS;3;;MS
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\nahstws005\Target\chem\voa6.i\X230824.b\8260W.m
 Meth Date : 24-Aug-2023 21:33 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:56 Cal File: X081108.D
 Als bottle: 16 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTWS005

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		4.181	4.181	(1.000)		673146	50.0000	
135 1,4-Dioxane	88		5.602	5.598	(1.340)		25515	298.204	298.20(a)
140 1,3-Butadiene	54		1.171	1.171	(0.280)		137458	19.8208	19.82
25 Methacrylonitrile	41		3.836	3.825	(0.918)		107357	15.9912	15.99
13 Acetonitrile	39		2.202	2.202	(0.527)		184934	178.143	178.14
2 Dichlorodifluoromethane	85		0.976	0.980	(0.234)		125041	20.6594	20.65
3 Chloromethane	50		1.085	1.085	(0.260)		136767	20.8794	20.87
5 Vinyl Chloride	62		1.149	1.149	(0.275)		166784	20.6569	20.65
6 Bromomethane	94		1.343	1.347	(0.321)		96923	22.3008	22.30
7 Chloroethane	64		1.407	1.407	(0.337)		103172	19.4962	19.49
8 Trichlorofluoromethane	101		1.565	1.565	(0.374)		253308	22.0437	22.04
9 Acrolein	56		1.868	1.861	(0.447)		9880	43.2612	43.26
10 Acetone	43		1.977	1.977	(0.473)		78122	26.7959	26.79
11 1,1-Dichloroethene	96		1.917	1.921	(0.459)		134313	20.6641	20.66
15 Iodomethane	142		2.029	2.033	(0.485)		285092	41.4261	41.42
16 Acrylonitrile	53		2.539	2.536	(0.607)		94604	30.2136	30.21
17 Methylene Chloride	84		2.307	2.307	(0.552)		148446	18.2116	18.21
18 Methyl tert-butyl ether	73		2.539	2.539	(0.607)		376581	16.2424	16.24
19 Carbon Disulfide	76		2.074	2.075	(0.496)		774892	40.1703	40.17
20 trans-1,2-Dichloroethene	96		2.532	2.532	(0.606)		144588	19.1422	19.14



21 Vinyl Acetate	43	3.004	3.001 (0.719)	706952	31.6407	31.64
22 1,1-Dichloroethane	63	2.925	2.926 (0.700)	257639	18.1116	18.11

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082416.D Page 2
 Report Date: 24-Aug-2023 21:40

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
24 2-Butanone	43	3.589	3.589	(0.858)	69881	28.0452	28.04
26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	195570	20.4693	20.46
27 cis-1,2-Dichloroethene	96	3.529	3.525	(0.844)	146162	20.1500	20.14
28 Chloroform	83	3.908	3.908	(0.935)	243667	19.5438	19.54
29 Bromochloromethane	128	3.795	3.795	(0.908)	76342	18.5135	18.51
\$ 30 Dibromofluoromethane	113	4.099	4.099	(0.980)	315983	51.2019	51.20
31 1,1,1-Trichloroethane	97	4.084	4.084	(0.977)	211358	21.1150	21.11
32 1,1-Dichloropropene	75	4.282	4.279	(0.863)	181791	23.4164	23.41
33 1,2-Dichloroethane	62	4.560	4.556	(0.918)	185285	19.7550	19.75
34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	190530	23.2481	23.24
\$ 35 1,2-Dichloroethane-d4	65	4.470	4.474	(1.069)	342674	49.8351	49.83
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	986643	50.0000	
37 Benzene	78	4.511	4.511	(0.909)	507758	20.8935	20.89
38 Trichloroethene	130	5.205	5.205	(1.048)	161240	23.0859	23.08
39 Bromodichloromethane	83	5.722	5.726	(1.153)	176342	19.4835	19.48
42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	136254	19.8841	19.88
44 Dibromomethane	93	5.553	5.553	(1.119)	87342	18.6512	18.65
45 4-Methyl-2-Pentanone	43	6.329	6.326	(0.825)	229703	35.4987	35.49
46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	199278	19.2413	19.24
* 47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	902083	50.0000	
\$ 48 Toluene-d8	98	6.385	6.386	(0.833)	1101833	51.9007	51.90
50 Toluene	91	6.445	6.442	(0.841)	554575	22.0631	22.06
51 trans-1,3-Dichloropropene	75	6.682	6.678	(1.346)	158351	18.2174	18.21
52 2-Hexanone	43	7.090	7.083	(0.925)	147765	34.0197	34.01
53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	104095	20.7755	20.77
54 1,3-Dichloropropane	76	6.981	6.978	(0.911)	211178	20.6176	20.61
55 Dibromochloromethane	129	7.173	7.173	(0.935)	148569	20.5454	20.54
56 Tetrachloroethene	164	6.925	6.925	(0.903)	133409	25.5355	25.53
57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	126081	20.5988	20.59
58 1-Chlorohexane	55	7.694	7.694	(1.550)	133892	23.4547	23.45
59 Chlorobenzene	112	7.690	7.690	(1.003)	372736	21.5208	21.52
60 1,1,1,2-Tetrachloroethane	131	7.769	7.769	(1.013)	143763	21.4885	21.48
61 Ethylbenzene	106	7.795	7.795	(1.017)	196221	22.9407	22.94
62 m,p-Xylenes	106	7.900	7.900	(1.030)	503546	46.0210	46.02
63 o-Xylene	106	8.237	8.237	(1.074)	237297	22.0080	22.00
64 Styrene	104	8.256	8.256	(1.077)	406002	22.6432	22.64
66 Bromoform	173	8.410	8.406	(1.097)	96568	19.7924	19.79
67 Isopropylbenzene	105	8.560	8.560	(1.116)	626205	23.3709	23.37
68 1,1,2,2-Tetrachloroethane	83	8.837	8.833	(0.915)	158508	18.8142	18.81
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	414655	46.5852	46.58
* 70 1,4-Dichlorobenzene-d4	152	9.658	9.658	(1.000)	517565	50.0000	
71 1,2,3-Trichloropropane	75	8.859	8.860	(0.917)	116342	18.7778	18.77(M)
73 n-Propylbenzene	91	8.908	8.908	(0.922)	738767	24.1412	24.14
74 Bromobenzene	156	8.803	8.803	(0.912)	182365	22.0453	22.04
75 1,3,5-Trimethylbenzene	105	9.066	9.062	(0.939)	501405	22.4127	22.41
76 2-Chlorotoluene	91	8.972	8.972	(0.929)	438925	22.3984	22.39
77 4-Chlorotoluene	91	9.069	9.066	(0.939)	497927	22.0827	22.08
78 tert-Butylbenzene	119	9.332	9.332	(0.966)	463752	24.1960	24.19
79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	498402	21.6343	21.63
81 sec-Butylbenzene	105	9.519	9.516	(0.986)	651319	24.7885	24.78
82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	563078	23.7014	23.70
83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	321668	21.8332	21.83



84 1,4-Dichlorobenzene	146	9.680	9.681 (1.002)	342942	21.7348	21.73
87 n-Butylbenzene	91	9.992	9.988 (1.035)	501424	22.8229	22.82

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082416.D Page 3

Report Date: 24-Aug-2023 21:40

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
88 1,2-Dichlorobenzene	146	9.992	9.988	(1.035)	311752	20.9627	20.96
89 1,2-Dibromo-3-Chloropropane	155	10.659	10.651	(1.104)	25341	17.7855	17.78
90 1,2,4-Trichlorobenzene	180	11.337	11.334	(1.174)	210960	21.4363	21.43
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	109799	31.7805	31.78
92 Naphthalene	128	11.544	11.540	(1.195)	447883	18.2335	18.23
93 1,2,3-Trichlorobenzene	180	11.738	11.739	(1.215)	191929	20.0130	20.01
M 94 1,2-Dichloroethylene (total)	96				290750	39.2921	39.29
M 95 Xylenes (total)	106				740843	68.0290	68.02
141 Cyclohexane	56	4.121	4.121	(0.986)	218044	25.1564	25.15
138 Freon TF	101	1.917	1.921	(0.459)	146944	23.8003	23.80
147 Methylcyclohexane	55	5.385	5.385	(1.085)	310597	20.9550	20.95
146 Methyl Acetate	43	2.236	2.236	(0.535)	92614	15.3110	15.31
148 Tert-Butyl alcohol	59	2.434	2.434	(0.582)	256672	307.445	307.44
149 Isopropyl Alcohol	45	2.097	2.097	(0.502)	145062	298.062	298.06

QC Flag Legend

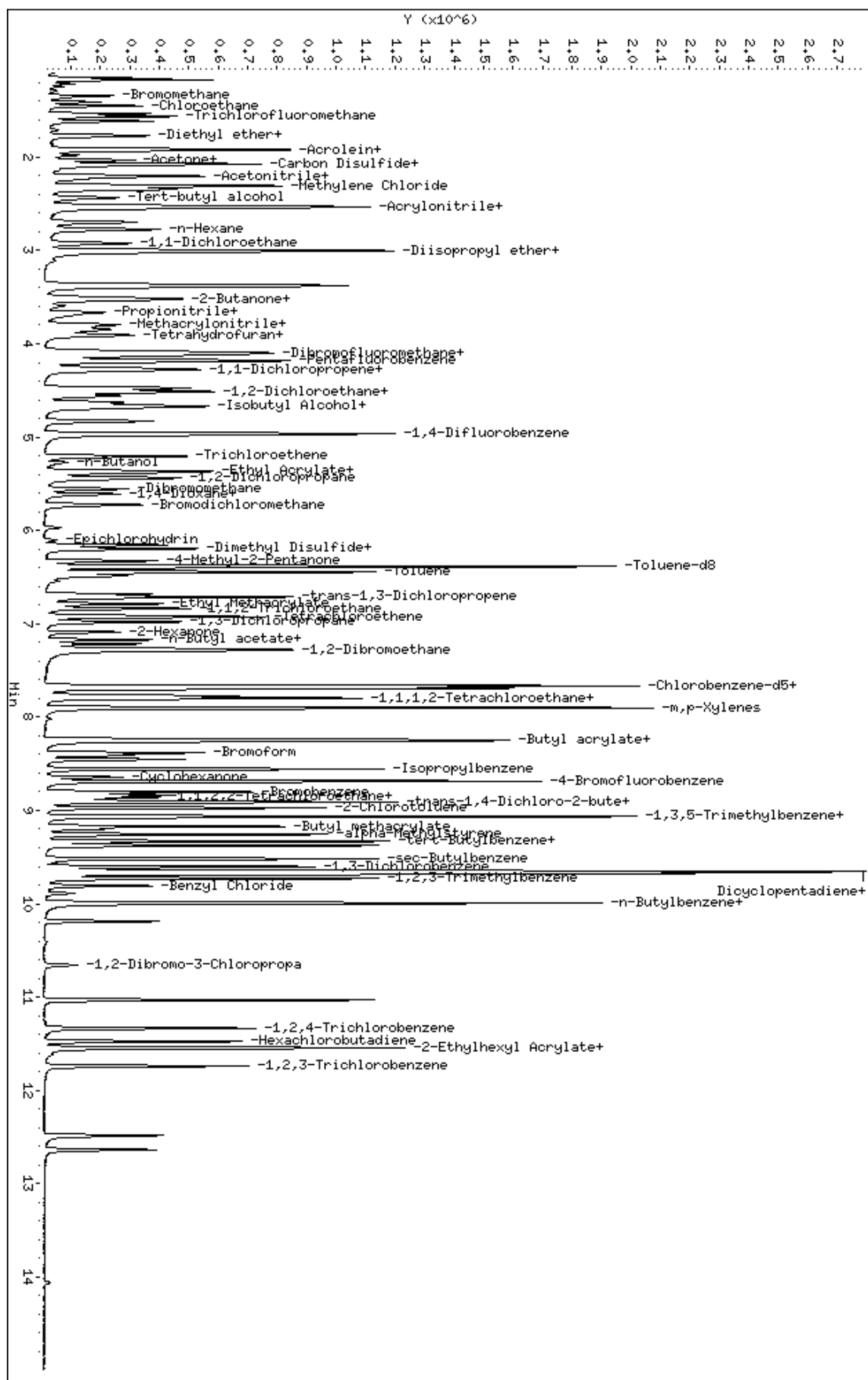
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

M - Compound response manually integrated.



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 Purge Volume: 5.0
 Column phase: DB624

Instrument: voa6.1
 Operator: PC
 Column diameter: 0.18

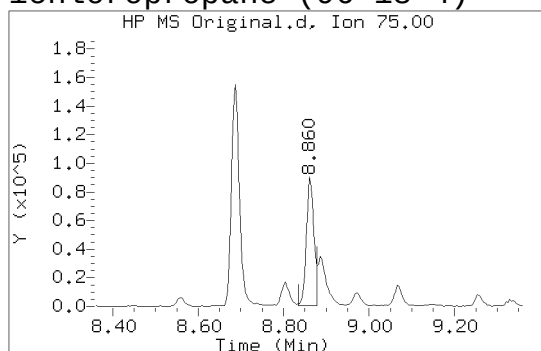


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LabSampID : HS23081324-03MS

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

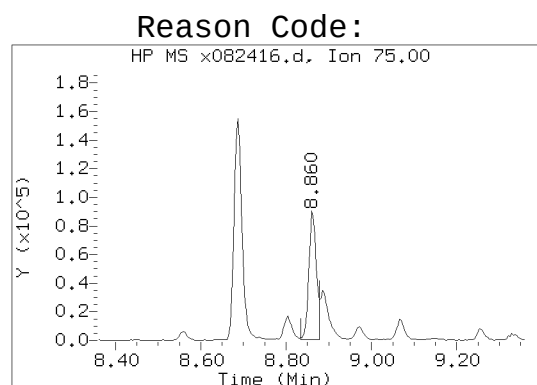
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24-Aug-2023
21:52



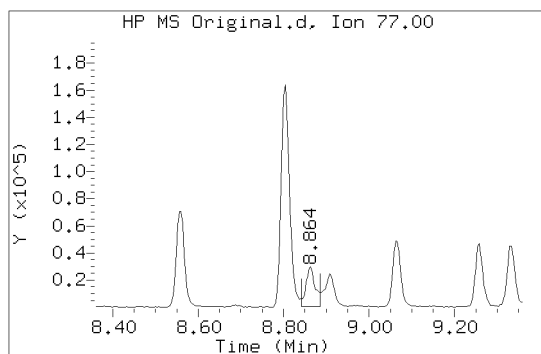
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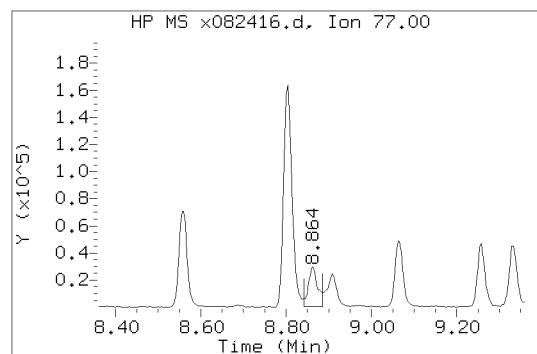
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AFTER

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24-Aug-2023
21:52



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082417.D Page 1
 Report Date: 24-Aug-2023 21:40

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082417.D
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 Inj Date : 24-AUG-2023 15:44
 Operator : PC Inst ID: voa6.i
 Smp Info : HS23081324-03MSD;HS23081324-03MSD;3;;MSD
 Misc Info : V6;WATER;0;1;
 Comment :
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 Meth Date : 24-Aug-2023 21:33 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:56 Cal File: X081108.D
 Als bottle: 16 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTWS005

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		4.177	4.181	(1.000)		666083	50.0000	
135 1,4-Dioxane	88		5.602	5.598	(1.341)		26692	315.268	315.26(a)
140 1,3-Butadiene	54		1.171	1.171	(0.280)		130974	19.0861	19.08
25 Methacrylonitrile	41		3.840	3.825	(0.919)		106040	15.9625	15.96
13 Acetonitrile	39		2.206	2.202	(0.528)		177345	172.644	172.64
2 Dichlorodifluoromethane	85		0.980	0.980	(0.235)		122159	20.4058	20.40
3 Chloromethane	50		1.085	1.085	(0.260)		133271	20.5614	20.56
5 Vinyl Chloride	62		1.149	1.149	(0.275)		157836	19.7559	19.75
6 Bromomethane	94		1.344	1.347	(0.322)		88946	20.6824	20.68
7 Chloroethane	64		1.407	1.407	(0.337)		98575	18.8250	18.82
8 Trichlorofluoromethane	101		1.565	1.565	(0.375)		237578	20.8941	20.89
9 Acrolein	56		1.868	1.861	(0.447)		9772	43.2408	43.24
10 Acetone	43		1.977	1.977	(0.473)		79876	27.8411	27.84
11 1,1-Dichloroethene	96		1.921	1.921	(0.460)		123459	19.1957	19.19
15 Iodomethane	142		2.033	2.033	(0.487)		301109	43.8137	43.81
16 Acrylonitrile	53		2.539	2.536	(0.608)		100020	32.2820	32.28
17 Methylene Chloride	84		2.307	2.307	(0.552)		145607	18.0527	18.05
18 Methyl tert-butyl ether	73		2.539	2.539	(0.608)		374712	16.3332	16.33
19 Carbon Disulfide	76		2.074	2.075	(0.497)		742464	38.8974	38.89
20 trans-1,2-Dichloroethene	96		2.536	2.532	(0.607)		139315	18.6396	18.63



21 Vinyl Acetate	43	3.004	3.001 (0.719)	702938	31.7946	31.79
22 1,1-Dichloroethane	63	2.925	2.926 (0.700)	248364	17.6447	17.64

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082417.D Page 2
 Report Date: 24-Aug-2023 21:40

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
24 2-Butanone	43	3.596	3.589	(0.861)	73735	29.9057	29.90
26 2,2-Dichloropropane	77	3.506	3.510	(0.839)	189151	20.0070	20.00
27 cis-1,2-Dichloroethene	96	3.529	3.525	(0.845)	143514	19.9947	19.99
28 Chloroform	83	3.908	3.908	(0.935)	239153	19.3851	19.38
29 Bromochloromethane	128	3.795	3.795	(0.908)	76385	18.7203	18.72
\$ 30 Dibromofluoromethane	113	4.102	4.099	(0.982)	312584	51.1880	51.18
31 1,1,1-Trichloroethane	97	4.084	4.084	(0.978)	203464	20.5419	20.54
32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	173264	22.5465	22.54
33 1,2-Dichloroethane	62	4.560	4.556	(0.918)	183308	19.7442	19.74
34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	183562	22.6271	22.62
\$ 35 1,2-Dichloroethane-d4	65	4.470	4.474	(1.070)	336153	49.3955	49.39
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	976648	50.0000	
37 Benzene	78	4.511	4.511	(0.909)	503039	20.9112	20.91
38 Trichloroethene	130	5.205	5.205	(1.048)	153400	22.1882	22.18
39 Bromodichloromethane	83	5.726	5.726	(1.153)	175466	19.5851	19.58
42 1,2-Dichloropropane	63	5.437	5.433	(1.095)	134324	19.8030	19.80
44 Dibromomethane	93	5.553	5.553	(1.119)	90594	19.5436	19.54
45 4-Methyl-2-Pentanone	43	6.325	6.326	(0.825)	231231	36.1900	36.18
46 cis-1,3-Dichloropropene	75	6.157	6.153	(1.240)	195340	19.0541	19.05
* 47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	890738	50.0000	
\$ 48 Toluene-d8	98	6.385	6.386	(0.833)	1094401	52.2072	52.20
50 Toluene	91	6.445	6.442	(0.841)	534746	21.5452	21.54
51 trans-1,3-Dichloropropene	75	6.682	6.678	(1.346)	157235	18.2742	18.27
52 2-Hexanone	43	7.086	7.083	(0.924)	153404	35.7678	35.76
53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	102445	20.7066	20.70
54 1,3-Dichloropropane	76	6.981	6.978	(0.911)	207081	20.4751	20.47
55 Dibromochloromethane	129	7.173	7.173	(0.935)	151356	21.1974	21.19
56 Tetrachloroethene	164	6.925	6.925	(0.903)	126129	24.4496	24.44
57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	124387	20.5809	20.58
58 1-Chlorohexane	55	7.694	7.694	(1.550)	130626	23.1167	23.11
59 Chlorobenzene	112	7.694	7.690	(1.003)	366937	21.4558	21.45
60 1,1,1,2-Tetrachloroethane	131	7.772	7.769	(1.014)	139834	21.1674	21.16
61 Ethylbenzene	106	7.799	7.795	(1.017)	185500	21.9635	21.96
62 m,p-Xylenes	106	7.904	7.900	(1.031)	482184	44.6300	44.62
63 o-Xylene	106	8.237	8.237	(1.074)	229181	21.5260	21.52
64 Styrene	104	8.256	8.256	(1.077)	390650	22.0645	22.06
66 Bromoform	173	8.410	8.406	(1.097)	96644	20.0603	20.06
67 Isopropylbenzene	105	8.560	8.560	(1.116)	605296	22.8782	22.87
68 1,1,2,2-Tetrachloroethane	83	8.837	8.833	(0.915)	158610	19.5432	19.54
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	400314	45.5531	45.55
* 70 1,4-Dichlorobenzene-d4	152	9.658	9.658	(1.000)	498578	50.0000	
71 1,2,3-Trichloropropane	75	8.860	8.860	(0.917)	122878	20.5880	20.58(M)
73 n-Propylbenzene	91	8.908	8.908	(0.922)	713325	24.1975	24.19
74 Bromobenzene	156	8.803	8.803	(0.912)	177675	22.2963	22.29
75 1,3,5-Trimethylbenzene	105	9.066	9.062	(0.939)	494710	22.9555	22.95
76 2-Chlorotoluene	91	8.972	8.972	(0.929)	419870	22.2420	22.24
77 4-Chlorotoluene	91	9.069	9.066	(0.939)	484810	22.3198	22.31
78 tert-Butylbenzene	119	9.332	9.332	(0.966)	449763	24.3598	24.35
79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	493251	22.2261	22.22
81 sec-Butylbenzene	105	9.519	9.516	(0.986)	630145	24.8960	24.89
82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	553717	24.1949	24.19
83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	316504	22.3008	22.30



84 1,4-Dichlorobenzene	146	9.680	9.681 (1.002)	339500	22.3361	22.33
87 n-Butylbenzene	91	9.992	9.988 (1.035)	485547	22.9313	22.93

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082417.D Page 3

Report Date: 24-Aug-2023 21:40

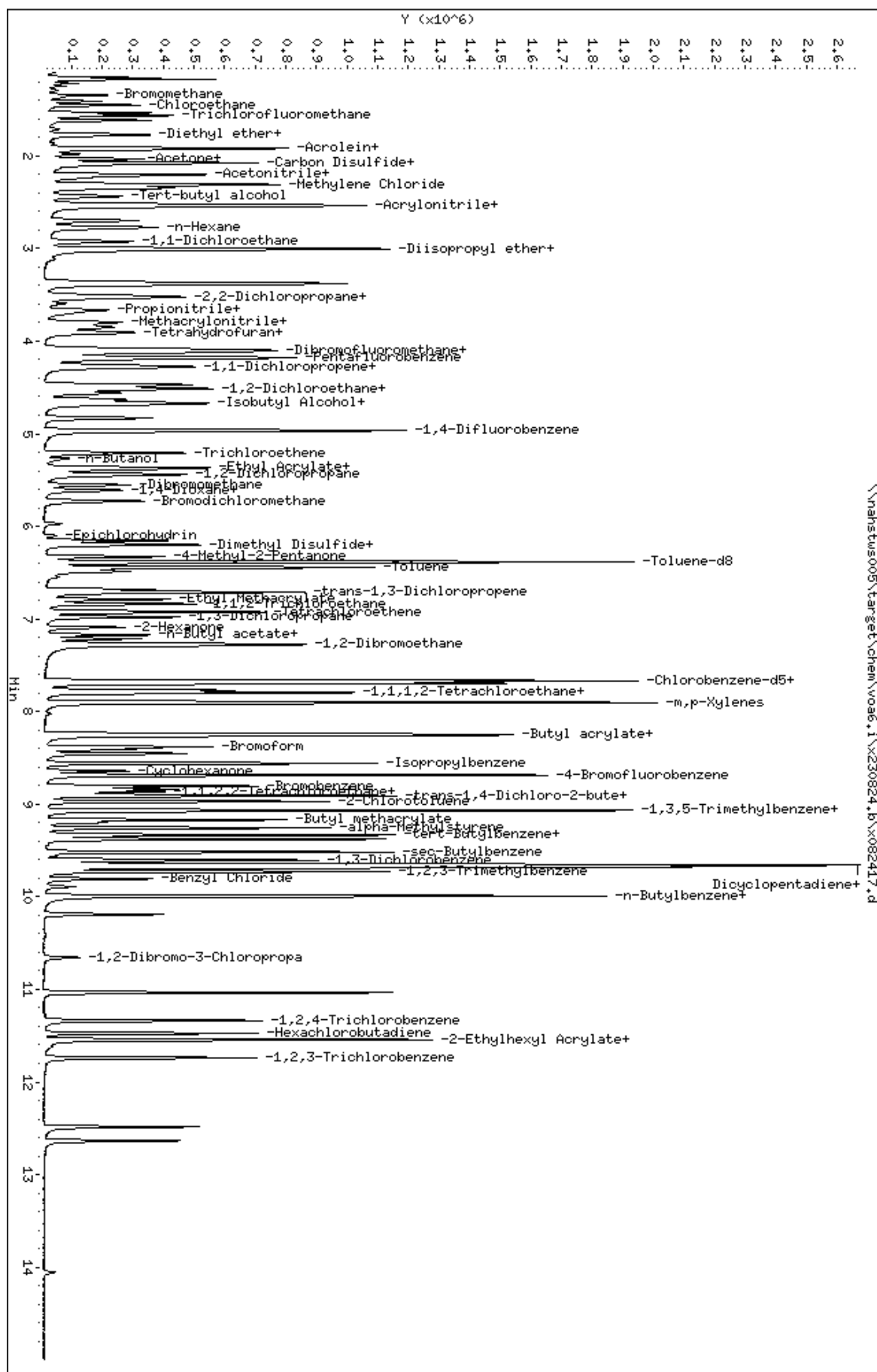
Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
88 1,2-Dichlorobenzene	146	9.992	9.988	(1.035)	312329	21.8012	21.80
89 1,2-Dibromo-3-Chloropropane	155	10.655	10.651	(1.103)	25139	18.3156	18.31
90 1,2,4-Trichlorobenzene	180	11.337	11.334	(1.174)	209851	22.1357	22.13
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	109170	32.7308	32.73
92 Naphthalene	128	11.540	11.540	(1.195)	455670	19.2569	19.25
93 1,2,3-Trichlorobenzene	180	11.738	11.739	(1.215)	197360	21.3630	21.36
M 94 1,2-Dichloroethylene (total)	96				282829	38.6343	38.63
M 95 Xylenes (total)	106				711365	66.1559	66.15
141 Cyclohexane	56	4.121	4.121	(0.987)	205066	24.0009	24.00
138 Freon TF	101	1.921	1.921	(0.460)	138507	22.7254	22.72
147 Methylcyclohexane	55	5.385	5.385	(1.085)	307116	20.9322	20.93
146 Methyl Acetate	43	2.236	2.236	(0.535)	94991	15.8705	15.87
148 Tert-Butyl alcohol	59	2.438	2.434	(0.584)	255357	309.184	309.18
149 Isopropyl Alcohol	45	2.097	2.097	(0.502)	148719	309.282	309.28

QC Flag Legend

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

M - Compound response manually integrated.





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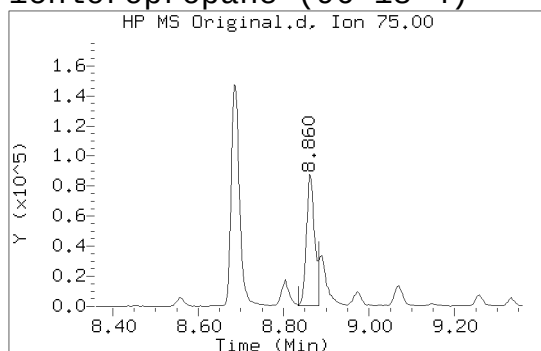
Instrument: voa6.i
 Operator: PC
 Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa6.i\x230824.b\x082417.d
Inj Date : 24-AUG-2023 15:44
InstruID : voa6.i
LabSampID : HS23081324-03MSD

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

BEFORE

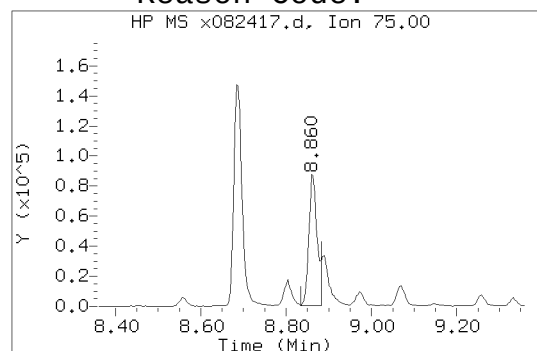
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AREA
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HEIGHT
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24-Aug-2023
21:52



AFTER

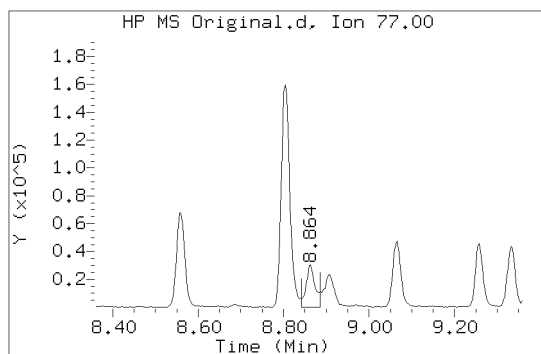
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HEIGHT
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24-Aug-2023
21:52

Reason Code:



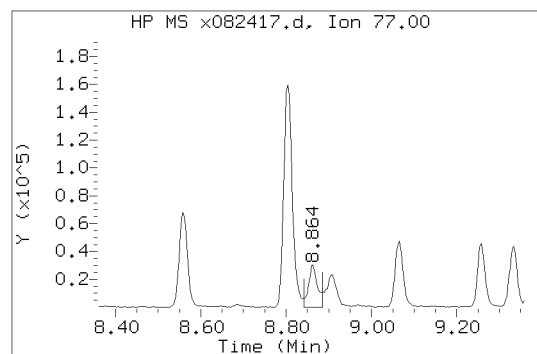
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MASS
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AREA
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HEIGHT
30385
24-Aug-2023
21:52



AFTER

MASS
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AREA
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HEIGHT
30385
24-Aug-2023
21:52



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082419.D Page 1
 Report Date: 24-Aug-2023 21:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082419.D
 Lab Smp Id: HS23081423-02 Client Smp ID: HS23081423-02
 Inj Date : 24-AUG-2023 16:25
 Operator : PC Inst ID: voa6.i
 Smp Info : HS23081423-02;HS23081423-02;;;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\nahstws005\Target\chem\voa6.i\X230824.b\8260W.m
 Meth Date : 24-Aug-2023 21:33 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:56 Cal File: X081108.D
 Als bottle: 18
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

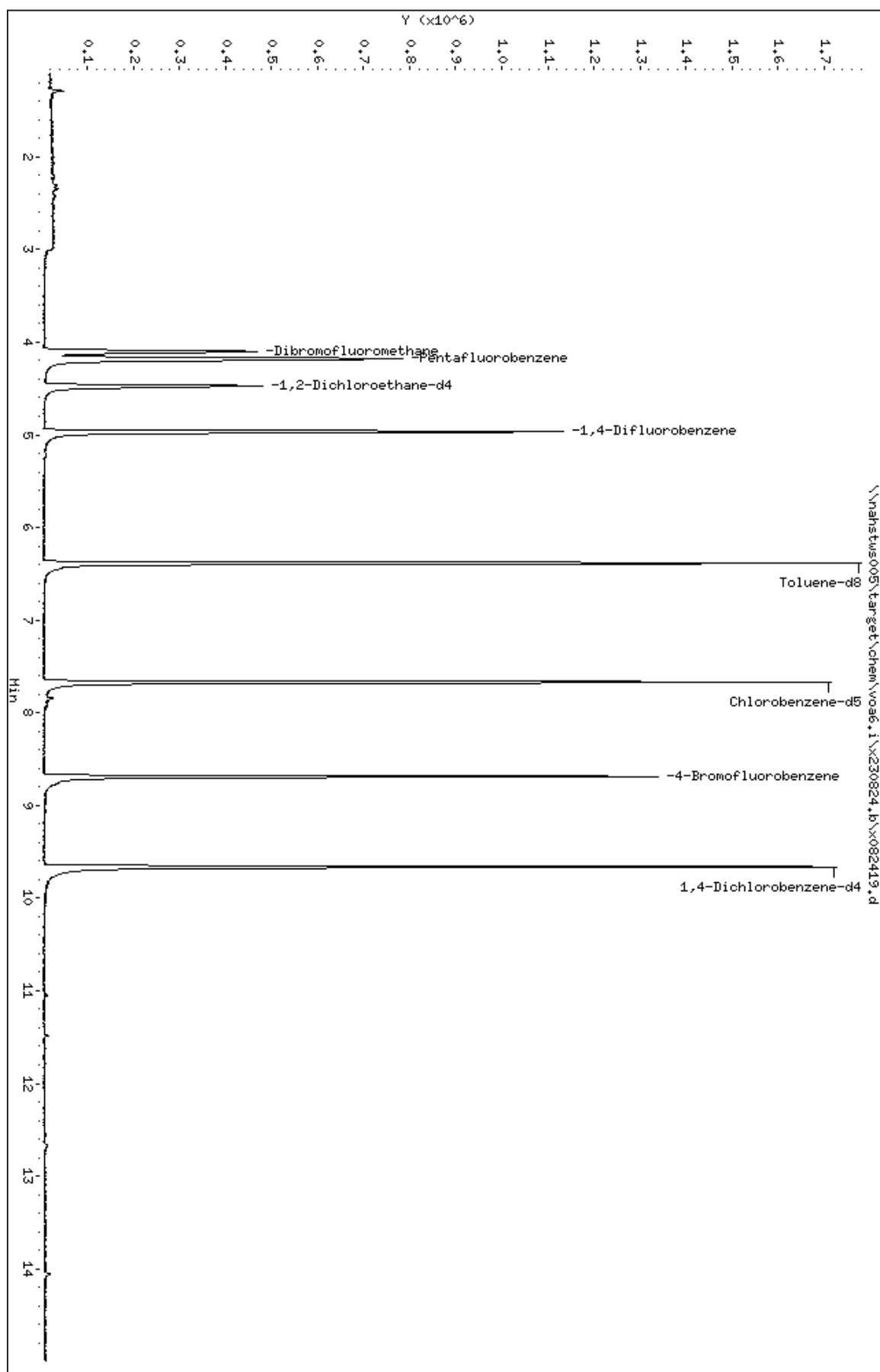
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.181	4.181	(1.000)	639118	50.0000	
\$ 30 Dibromofluoromethane	113	4.099	4.099	(0.980)	306173	52.2710	52.27
\$ 35 1,2-Dichloroethane-d4	65	4.474	4.474	(1.070)	330380	50.6225	50.62
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	931265	50.0000	
* 47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	843551	50.0000	
\$ 48 Toluene-d8	98	6.385	6.386	(0.833)	1044116	52.5946	52.59
\$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	369140	44.3628	44.36
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.658	(1.000)	450418	50.0000	



Data File: \\nahstus005\target\chem\voa6.i\X230824.b\X082419.d
Date : 24-AUG-2023 16:25
Client ID: HS23081423-02
Sample Info: HS23081423-02;HS23081423-02;?
Purge Volume: 5.0
Column Phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File : \\nahstws005\target\chem\voa6.i\x230824.b\x082419.d
Inj Date : 24-AUG-2023 16:25
InstruID : voa6.i
LabSampID : HS23081423-02

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082421.D Page 1
 Report Date: 24-Aug-2023 21:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082421.D
 Lab Smp Id: HS23081423-01 Client Smp ID: HS23081423-01
 Inj Date : 24-AUG-2023 17:06
 Operator : PC Inst ID: voa6.i
 Smp Info : HS23081423-01;HS23081423-01;;;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\nahstws005\Target\chem\voa6.i\X230824.b\8260W.m
 Meth Date : 24-Aug-2023 21:33 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:56 Cal File: X081108.D
 Als bottle: 20
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTWS005

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		4.181	4.181	(1.000)	638069	50.0000		
27 cis-1,2-Dichloroethene	96		3.540	3.525	(0.847)	20606	2.99692	2.99(a)	
\$ 30 Dibromofluoromethane	113		4.099	4.099	(0.980)	309293	52.9003	52.90	
\$ 35 1,2-Dichloroethane-d4	65		4.474	4.474	(1.070)	338422	51.9689	51.96	
* 36 1,4-Difluorobenzene	114		4.965	4.965	(1.000)	933944	50.0000		
* 47 Chlorobenzene-d5	117		7.668	7.668	(1.000)	866214	50.0000		
\$ 48 Toluene-d8	98		6.386	6.386	(0.833)	1066658	52.3243	52.32	
\$ 69 4-Bromofluorobenzene	95		8.687	8.687	(1.133)	379607	44.4267	44.42	
* 70 1,4-Dichlorobenzene-d4	152		9.662	9.658	(1.000)	464396	50.0000		
M 94 1,2-Dichloroethylene (total)	96					20606	2.99692	2.99(a)	

QC Flag Legend

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



Data File: \\nahstus005\target\chem\voa6.i\X230824.b\X082421.d

Date: 24-AUG-2023 17:06

Client ID: HS23081423-01

Sample Info: HS23081423-01;HS23081423-01;;

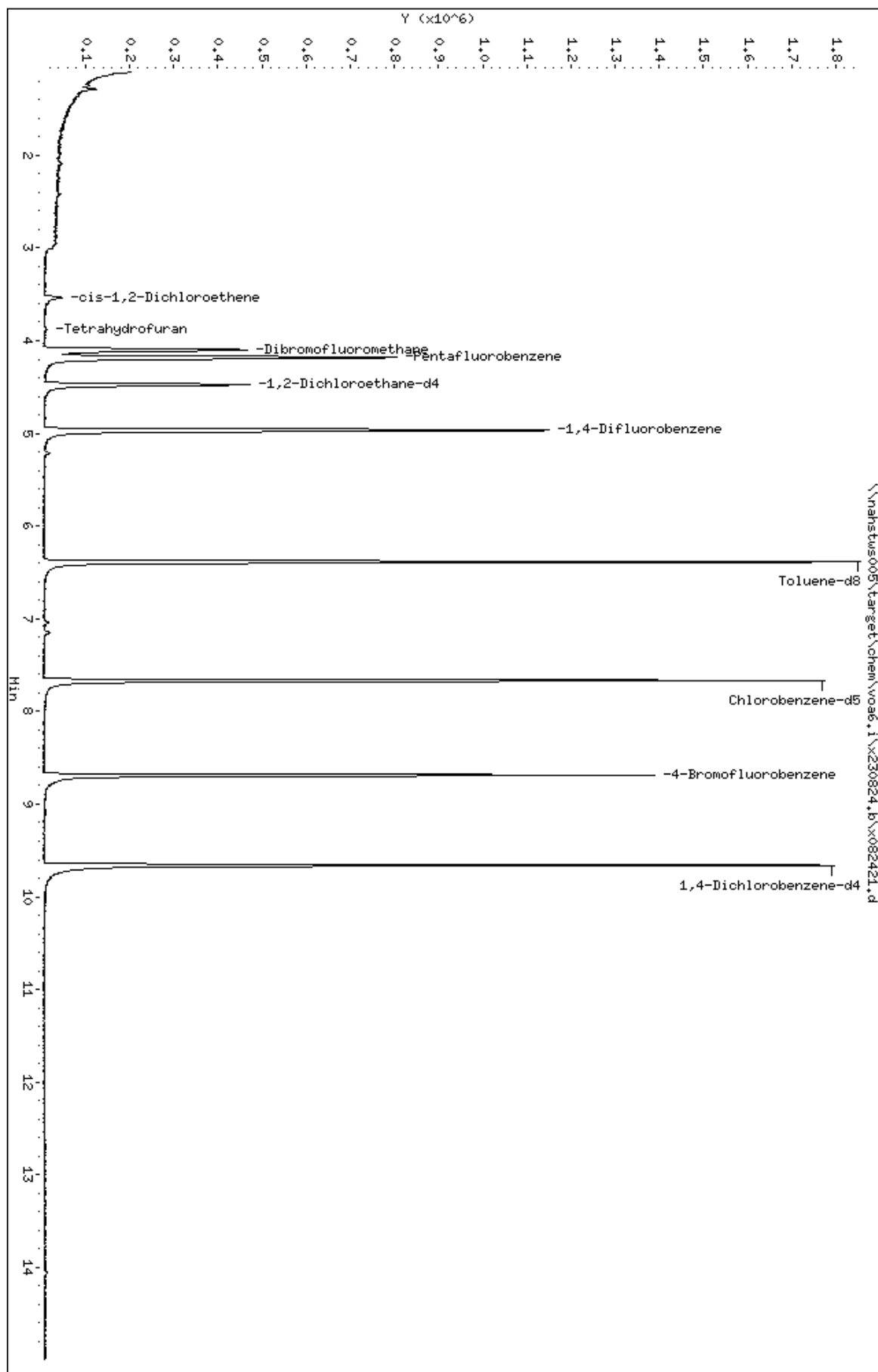
Purge Volume: 5.0

Column phase: DB624

Instrument: voa6.i

Operator: PC

Column diameter: 0.18



Data File: \\nahstus005\target\chem\voa6.i\230824.b\082421.d

Page 2

Date : 24-AUG-2023 17:06

Client ID: HS23081423-01

Instrument: voa6.i

Sample Info: HS23081423-01;HS23081423-01;;

Purge Volume: 5.0

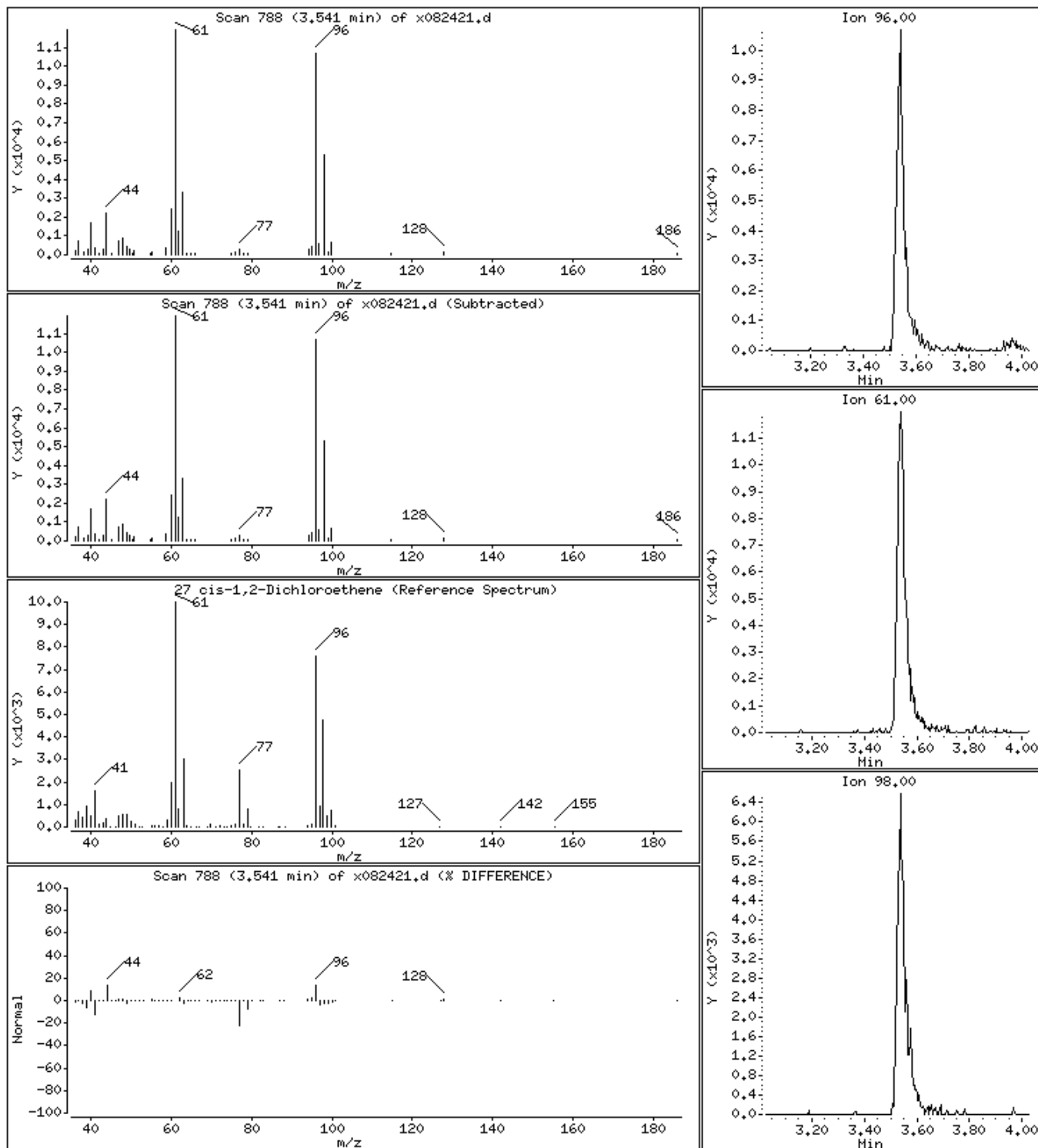
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 2.99 ug/l



Data File : \\nahstws005\target\chem\voa6.i\x230824.b\x082421.d
Inj Date : 24-AUG-2023 17:06
InstruID : voa6.i
LabSampID : HS23081423-01

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082423.D Page 1
 Report Date: 25-Aug-2023 14:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082423.D
 Lab Smp Id: CCV-END Client Smp ID: CCV-END
 Inj Date : 24-AUG-2023 17:47
 Operator : PC Inst ID: voa6.i
 Smp Info : CCV-;CCV-END;2;;
 Misc Info : V6;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa6.i\X230824.b\8260W.m
 Meth Date : 25-Aug-2023 14:16 voa6.i Quant Type: ISTD
 Cal Date : 11-AUG-2023 13:56 Cal File: X081108.D
 Als bottle: 22 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.181	4.181	(1.000)	654852	50.0000		
135 1,4-Dioxane	88		5.598	5.598	(1.339)	73079	1000.00	877.96	
140 1,3-Butadiene	54		1.171	1.171	(0.280)	259507	50.0000	38.46	
25 Methacrylonitrile	41		3.825	3.825	(0.915)	268586	50.0000	41.12	
13 Acetonitrile	39		2.202	2.202	(0.527)	427530	500.000	423.33	
2 Dichlorodifluoromethane	85		0.980	0.980	(0.234)	250744	50.0000	41.87	
3 Chloromethane	50		1.085	1.085	(0.260)	254988	50.0000	40.01	
5 Vinyl Chloride	62		1.149	1.149	(0.275)	316381	50.0000	40.27	
6 Bromomethane	94		1.344	1.344	(0.321)	159317	50.0000	37.68	
7 Chloroethane	64		1.407	1.407	(0.337)	216697	50.0000	42.09	
8 Trichlorofluoromethane	101		1.565	1.565	(0.374)	449535	50.0000	40.21	
9 Acrolein	56		1.865	1.865	(0.446)	26710	100.000	125.10	
10 Acetone	43		1.977	1.977	(0.473)	203993	100.000	79.66	
11 1,1-Dichloroethene	96		1.921	1.921	(0.459)	253584	50.0000	40.10	
15 Iodomethane	142		2.033	2.033	(0.486)	717735	100.000	96.71	
16 Acrylonitrile	53		2.536	2.536	(0.606)	246515	100.000	80.92	
17 Methylene Chloride	84		2.307	2.307	(0.552)	333755	50.0000	42.08	
18 Methyl tert-butyl ether	73		2.539	2.539	(0.607)	912537	50.0000	40.45	
19 Carbon Disulfide	76		2.075	2.075	(0.496)	1459114	100.000	77.75	
20 trans-1,2-Dichloroethene	96		2.532	2.532	(0.606)	298004	50.0000	40.55	



21 Vinyl Acetate	43	3.000	3.000 (0.718)	1761502	100.000	81.04
22 1,1-Dichloroethane	63	2.922	2.922 (0.699)	547383	50.0000	39.55

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082423.D Page 2
 Report Date: 25-Aug-2023 14:16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
24 2-Butanone	43	3.585	3.585	(0.857)	219255	100.000	90.45
26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	356185	50.0000	38.33
27 cis-1,2-Dichloroethene	96	3.529	3.529	(0.844)	315112	50.0000	44.65
28 Chloroform	83	3.908	3.908	(0.935)	536620	50.0000	44.24
29 Bromochloromethane	128	3.795	3.795	(0.908)	179907	50.0000	44.84
\$ 30 Dibromofluoromethane	113	4.099	4.099	(0.980)	314567	50.0000	52.41
31 1,1,1-Trichloroethane	97	4.084	4.084	(0.977)	411965	50.0000	42.30
32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	335872	50.0000	41.51
33 1,2-Dichloroethane	62	4.556	4.556	(0.918)	436638	50.0000	44.67
34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	346872	50.0000	40.61
\$ 35 1,2-Dichloroethane-d4	65	4.474	4.474	(1.070)	331667	50.0000	49.57
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	1028103	50.0000	
37 Benzene	78	4.511	4.511	(0.909)	1108497	50.0000	43.77
38 Trichloroethene	130	5.205	5.205	(1.048)	316114	50.0000	43.43
39 Bromodichloromethane	83	5.726	5.726	(1.153)	415589	50.0000	44.06
41 2-Chloroethylvinyl ether	63	6.048	6.048	(1.218)	208018	100.000	86.21
42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	311260	50.0000	43.59
44 Dibromomethane	93	5.550	5.550	(1.118)	218167	50.0000	44.70
45 4-Methyl-2-Pentanone	43	6.325	6.325	(0.825)	597016	100.000	85.35
46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	462999	50.0000	42.90
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	975080	50.0000	
\$ 48 Toluene-d8	98	6.385	6.385	(0.833)	1096876	50.0000	47.79
50 Toluene	91	6.445	6.445	(0.841)	1168237	50.0000	42.99
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	381637	50.0000	42.13
52 2-Hexanone	43	7.086	7.086	(0.924)	401473	100.000	85.51
53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	252253	50.0000	46.57
54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	498158	50.0000	44.99
55 Dibromochloromethane	129	7.173	7.173	(0.935)	370042	50.0000	47.34
56 Tetrachloroethene	164	6.925	6.925	(0.903)	240215	50.0000	42.53
57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	306914	50.0000	46.38
58 1-Chlorohexane	55	7.694	7.694	(1.550)	214843	50.0000	36.11
59 Chlorobenzene	112	7.690	7.690	(1.003)	808757	50.0000	43.19
60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	327505	50.0000	45.28
61 Ethylbenzene	106	7.795	7.795	(1.017)	380786	50.0000	41.18
62 m,p-Xylenes	106	7.900	7.900	(1.030)	1000965	100.000	84.63
63 o-Xylene	106	8.237	8.237	(1.074)	492756	50.0000	42.27
64 Styrene	104	8.256	8.256	(1.077)	876422	50.0000	45.21
66 Bromoform	173	8.406	8.406	(1.096)	256531	50.0000	48.64
67 Isopropylbenzene	105	8.556	8.556	(1.116)	1160904	50.0000	40.08
68 1,1,2,2-Tetrachloroethane	83	8.833	8.833	(0.915)	409567	50.0000	44.65
\$ 69 4-Bromofluorobenzene	95	8.683	8.683	(1.132)	473838	50.0000	49.23
* 70 1,4-Dichlorobenzene-d4	152	9.658	9.658	(1.000)	563482	50.0000	
71 1,2,3-Trichloropropane	75	8.860	8.860	(0.917)	308635	50.0000	45.75(M)
73 n-Propylbenzene	91	8.908	8.908	(0.922)	1371616	50.0000	41.16
74 Bromobenzene	156	8.803	8.803	(0.912)	409919	50.0000	45.51
75 1,3,5-Trimethylbenzene	105	9.062	9.062	(0.938)	995925	50.0000	40.88
76 2-Chlorotoluene	91	8.972	8.972	(0.929)	878299	50.0000	41.16
77 4-Chlorotoluene	91	9.066	9.066	(0.939)	1040713	50.0000	42.39
78 tert-Butylbenzene	119	9.332	9.332	(0.966)	846287	50.0000	40.55
79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1038082	50.0000	41.38
81 sec-Butylbenzene	105	9.516	9.516	(0.985)	1143775	50.0000	39.98
82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	1038068	50.0000	40.13



83	1,3-Dichlorobenzene	146	9.602	9.602 (0.994)	700682	50.0000	43.68
84	1,4-Dichlorobenzene	146	9.677	9.677 (1.002)	742786	50.0000	43.23

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230824.b\X082423.D Page 3

Report Date: 25-Aug-2023 14:16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
87 n-Butylbenzene	91	9.992	9.992	(1.035)	899019	50.0000	36.27
88 1,2-Dichlorobenzene	146	9.988	9.988	(1.034)	717795	50.0000	44.33
89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	69674	50.0000	44.91
90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	470754	50.0000	43.93
91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	184398	50.0000	47.00
92 Naphthalene	128	11.540	11.540	(1.195)	1156103	50.0000	43.23
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	444312	50.0000	42.55
M 94 1,2-Dichloroethylene (total)	96				613116	100.000	(a)
141 Cyclohexane	56	4.121	4.121	(0.986)	316619	50.0000	36.64
138 Freon TF	101	1.921	1.921	(0.459)	224209	50.0000	36.68
147 Methylcyclohexane	55	5.385	5.385	(1.085)	692356	50.0000	44.82
146 Methyl Acetate	43	2.236	2.236	(0.535)	240248	50.0000	40.82
148 Tert-Butyl alcohol	59	2.434	2.434	(0.582)	668933	1000.00	845.40
149 Isopropyl Alcohol	45	2.097	2.097	(0.502)	376877	1000.00	817.54

QC Flag Legend

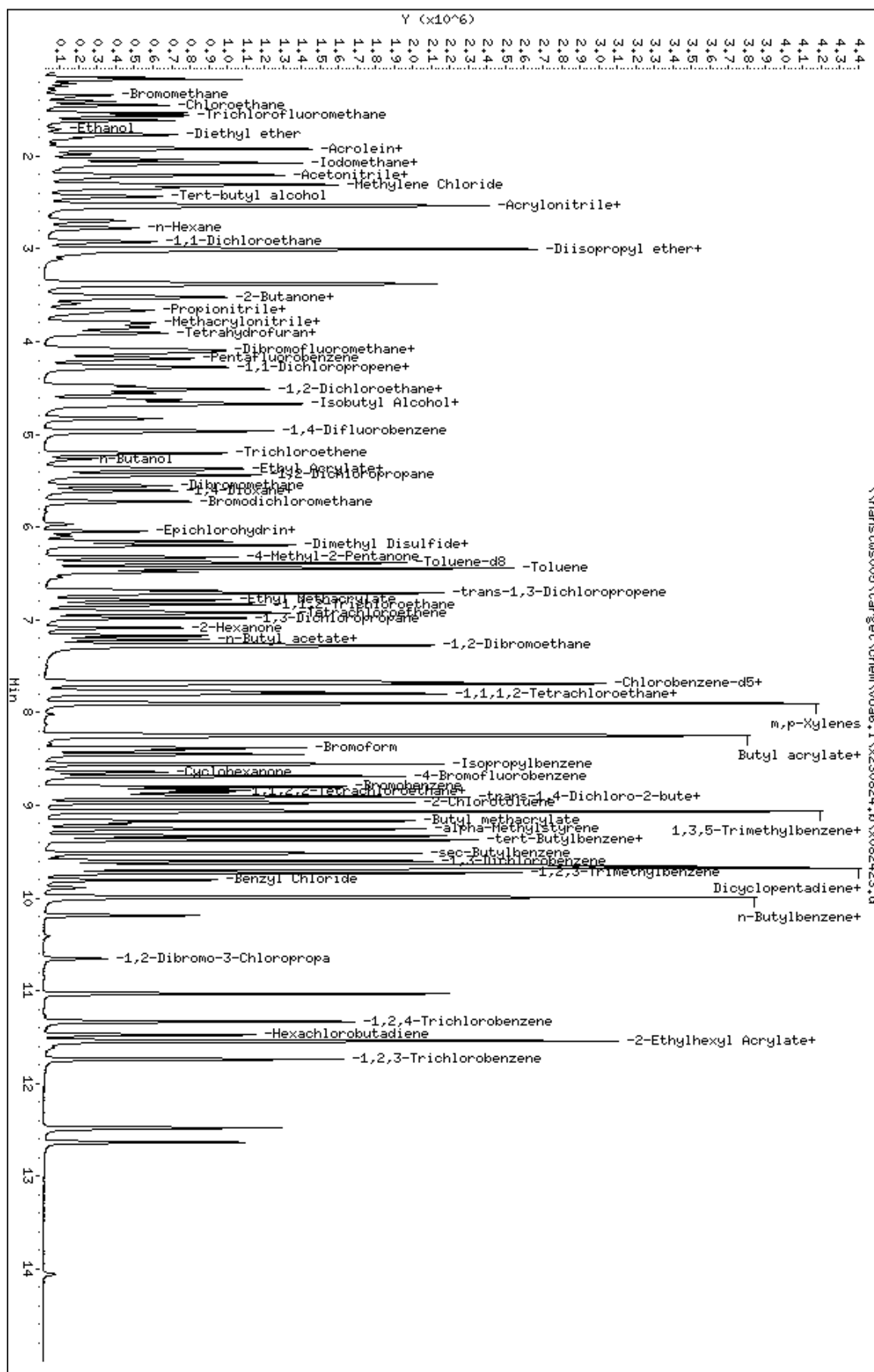
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

M - Compound response manually integrated.



Data File: \\nahstus005\target\chem\voa6.i\X230824.b\X082423.d
 Date : 24-AUG-2023 17:47
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 Sample Info: CCV-PCV-END;2;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: voa6.i
 Operator: PC
 Column diameter: 0.18

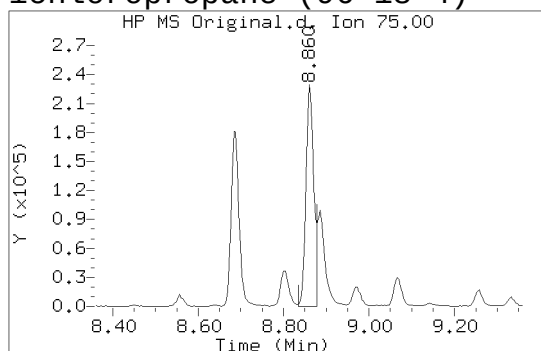


Data File : \\nahstws005\target\chem\voa6.i\x230824.b\x082423.d
Inj Date : 24-AUG-2023 17:47
InstruID : voa6.i
LabSampID : CCV-

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

BEFORE

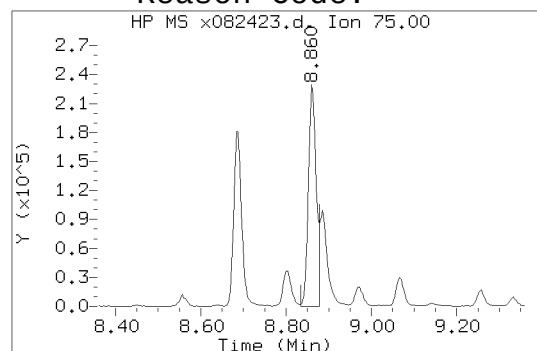
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24-Aug-2023
21:52



AFTER

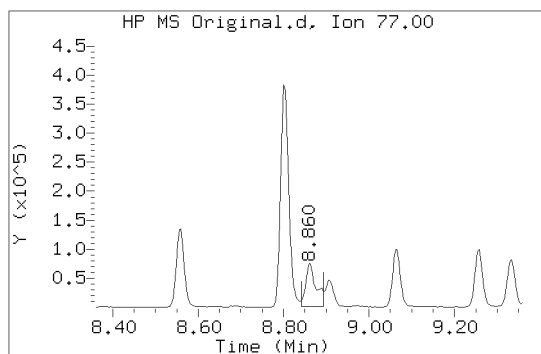
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24-Aug-2023
21:52

Reason Code:



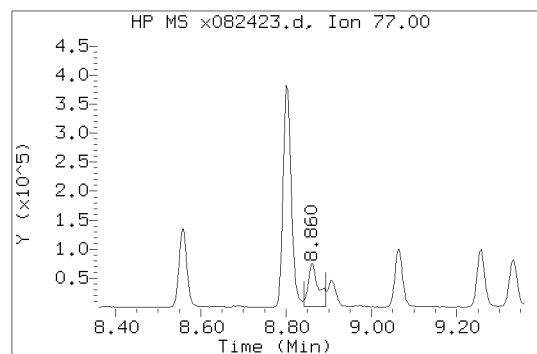
BEFORE

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24-Aug-2023
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AFTER

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24-Aug-2023
21:52



HS23081423 Wetchem 9056_W

ALS WO# HS23081423

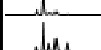
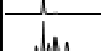
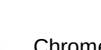
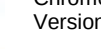


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CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	STD1	9056-W-SH	Calibration	GA1	1.00	1	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD2		Calibration	GA2	1.00	2	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD3		Calibration	GA3	1.00	3	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD4		Calibration	GA4	1.00	4	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD5		Calibration	GA5	1.00	5	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD6		Calibration	GA6	1.00	6	Anions Program ISO37mM 150mm short 0.4 Constant current
	ICV		Unknown	GA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	ICB		Unknown	R5	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	R6	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
	HS23081750-01		Unknown	RA1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081750-01MS		Unknown	RA2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081750-01MSD		Unknown	RA3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081750-02		Unknown	RA4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081752-01DF2		Unknown	RA5	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081752-01DF50		Unknown	RA6	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081752-02		Unknown	RA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081752-02DF20		Unknown	RA8	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	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081752-03		Unknown	RB1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081752-03DF10		Unknown	RB2	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081752-04DF5		Unknown	RB3	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081752-04DF100		Unknown	RB4	100.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081752-05		Unknown	RB5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081752-05DF10		Unknown	RB6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081752-06		Unknown	RB7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

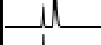
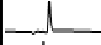
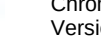


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CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	 HS23081752-06DF20		Unknown	RB8	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081241-05DF500		Unknown	RC1	500.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081241-06		Unknown	RC2	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081241-07DF500		Unknown	RC3	500.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081241-08DF500		Unknown	RC4	500.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081241-09DF500		Unknown	RC5	500.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081241-10DF500		Unknown	RC6	500.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081241-11DF500		Unknown	RC7	500.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081241-12DF500		Unknown	RC8	500.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081241-13DF500		Unknown	RD1	500.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081423-01DF5	9056-W-SH	Unknown	RD2	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081423-01DF50		Unknown	RD3	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1	9056-W-SH-1	Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 MBLK		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
	 HS23081104-06		Unknown	RD4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081104-06MS		Unknown	RD5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081104-06MSD		Unknown	RD6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081104-01		Unknown	RD7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081104-01DF5		Unknown	RD8	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081104-02		Unknown	RE1	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081104-04		Unknown	RE3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081104-04DF10		Unknown	RE4	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081104-05		Unknown	RE5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081104-05DF10		Unknown	RE6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current

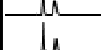
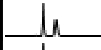
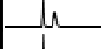
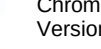


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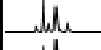
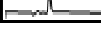
CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	 HS23081104-07		Unknown	RE7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081104-08		Unknown	RE8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081159-01		Unknown	GA1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081159-02		Unknown	GA2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081159-03DF10		Unknown	GA3	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081515-01		Unknown	GA4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081536-01		Unknown	GA5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081536-01DF10		Unknown	GA6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081801-01		Unknown	GA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081801-01DF10	9056-W-SH-1	Unknown	GA8	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 MBLK	300-W-SH	Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 LCS		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081783-01	300-W-SH-1	Unknown	GB1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081783-01MS	300-W-SH-1	Unknown	GB2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081783-01MSD	300-W-SH-1	Unknown	GB3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081783-01DF10		Unknown	GB4	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081783-02		Unknown	GB5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081783-02DF10		Unknown	GB6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081783-03		Unknown	GB7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081783-03DF10		Unknown	GB8	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-01		Unknown	GC1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-01DF10		Unknown	GC2	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-02		Unknown	GC3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-02DF10		Unknown	GC4	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-03		Unknown	GC5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-03DF10		Unknown	GC6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current



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CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-04		Unknown	GC7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-04DF10		Unknown	GC8	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-05		Unknown	GD1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-05DF10		Unknown	GD2	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-06		Unknown	GD3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-06DF10		Unknown	GD4	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-07		Unknown	GD5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-07DF10		Unknown	GD6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-08		Unknown	GD7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-08DF10		Unknown	GD8	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-09		Unknown	GE1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-09DF10		Unknown	GE2	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-10		Unknown	GE3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081778-10DF10		Unknown	GE4	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081740-01		Unknown	GE5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081740-01MS		Unknown	GE6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081740-01MSD		Unknown	GE7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081740-01DF10		Unknown	GE8	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081791-01DF2		Unknown	BA1	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081791-02DF2		Unknown	BA2	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081812-05	300-W-SH	Unknown	RA1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081812-03	300-W-SH-1	Unknown	RA2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081740-02		Unknown	BA3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081740-02MS		Unknown	BA4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

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CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	 HS23081740-02MSD		Unknown	BA5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081740-02DF10		Unknown	BA6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081791-03DF2		Unknown	BA7	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081746-01DF20		Unknown	BA8	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081746-01DF400	300-W-SH	Unknown	BB1	400.00		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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 MBLK	300-W-SH-1	Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 LCS	300-W-SH-1	Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081840-01DF50	300-W-SH-1	Unknown	BB2	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081840-02DF50	300-W-SH-1	Unknown	BB3	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081840-03DF50	300-W-SH-1	Unknown	BB4	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081840-05DF50	300-W-SH-1	Unknown	BB5	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081840-06DF50	300-W-SH-1	Unknown	BB6	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081840-07DF50	300-W-SH-1	Unknown	BB7	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081840-08DF50	300-W-SH-1	Unknown	BB8	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081840-09DF50	300-W-SH-1	Unknown	BC1	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

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Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		STD1	5.0	Finished	8/8/2023 9:18:53 AM -05:00
Anions Processing Method ISO		STD2	5.0	Finished	8/8/2023 9:24:41 AM -05:00
Anions Processing Method ISO		STD3	5.0	Finished	8/8/2023 9:30:41 AM -05:00
Anions Processing Method ISO		STD4	5.0	Finished	8/8/2023 9:36:40 AM -05:00
Anions Processing Method ISO		STD5	5.0	Finished	8/8/2023 9:42:29 AM -05:00
Anions Processing Method ISO		STD6	5.0	Finished	8/8/2023 9:48:17 AM -05:00
Anions Processing Method ISO		ICV	5.0	Finished	8/8/2023 9:59:54 AM -05:00
Anions Processing Method ISO		ICB	5.0	Finished	8/8/2023 10:05:42 AM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/29/2023 8:55:43 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/29/2023 9:07:18 AM -05:00
Anions Processing Method ISO		MBLK	5.0	Finished	8/29/2023 9:18:52 AM -05:00
Anions Processing Method ISO		LCS	5.0	Finished	8/29/2023 9:24:39 AM -05:00
Anions Processing Method ISO		HS23081750-01	5.0	Finished	8/29/2023 9:30:27 AM -05:00
Anions Processing Method ISO		HS23081750-01MS	5.0	Finished	8/29/2023 9:36:14 AM -05:00
Anions Processing Method ISO		HS23081750-01MSD	5.0	Finished	8/29/2023 9:42:01 AM -05:00
Anions Processing Method ISO		HS23081750-02	5.0	Finished	8/29/2023 9:47:48 AM -05:00
Anions Processing Method ISO		HS23081752-01DF2	5.0	Finished	8/29/2023 9:53:35 AM -05:00
Anions Processing Method ISO		HS23081752-01DF50	5.0	Finished	8/29/2023 9:59:23 AM -05:00
Anions Processing Method ISO		HS23081752-02	5.0	Finished	8/29/2023 10:05:10 AM -05:00
Anions Processing Method ISO		HS23081752-02DF20	5.0	Finished	8/29/2023 10:10:57 AM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	8/29/2023 10:22:31 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/29/2023 10:28:19 AM -05:00
Anions Processing Method ISO		HS23081752-03	5.0	Finished	8/29/2023 10:39:53 AM -05:00
Anions Processing Method ISO		HS23081752-03DF10	5.0	Finished	8/29/2023 10:45:40 AM -05:00
Anions Processing Method ISO		HS23081752-04DF5	5.0	Finished	8/29/2023 10:51:28 AM -05:00
Anions Processing Method ISO		HS23081752-04DF100	5.0	Finished	8/29/2023 10:57:15 AM -05:00
Anions Processing Method ISO		HS23081752-05	5.0	Finished	8/29/2023 11:03:02 AM -05:00
Anions Processing Method ISO		HS23081752-05DF10	5.0	Finished	8/29/2023 11:08:49 AM -05:00
Anions Processing Method ISO		HS23081752-06	5.0	Finished	8/29/2023 11:14:37 AM -05:00

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Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		HS23081752-06DF20	5.0	Finished	8/29/2023 11:20:24 AM -05:00
Anions Processing Method ISO		HS23081241-05DF500	5.0	Finished	8/29/2023 11:26:11 AM -05:00
Anions Processing Method ISO		HS23081241-06	5.0	Finished	8/29/2023 11:31:58 AM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/29/2023 11:43:33 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/29/2023 11:55:07 AM -05:00
Anions Processing Method ISO		HS23081241-07DF500	5.0	Finished	8/29/2023 12:06:42 PM -05:00
Anions Processing Method ISO		HS23081241-08DF500	5.0	Finished	8/29/2023 12:12:29 PM -05:00
Anions Processing Method ISO		HS23081241-09DF500	5.0	Finished	8/29/2023 12:18:16 PM -05:00
Anions Processing Method ISO		HS23081241-10DF500	5.0	Finished	8/29/2023 12:24:03 PM -05:00
Anions Processing Method ISO		HS23081241-11DF500	5.0	Finished	8/29/2023 12:29:51 PM -05:00
Anions Processing Method ISO		HS23081241-12DF500	5.0	Finished	8/29/2023 12:35:38 PM -05:00
Anions Processing Method ISO		HS23081241-13DF500	5.0	Finished	8/29/2023 12:41:25 PM -05:00
Anions Processing Method ISO		HS23081423-01DF5	5.0	Finished	8/29/2023 12:47:12 PM -05:00
Anions Processing Method ISO		HS23081423-01DF50	5.0	Finished	8/29/2023 12:53:00 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	8/29/2023 1:04:34 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/29/2023 1:10:21 PM -05:00
Anions Processing Method ISO		MBLK	5.0	Finished	8/29/2023 1:21:56 PM -05:00
Anions Processing Method ISO		LCS	5.0	Finished	8/29/2023 1:27:43 PM -05:00
Anions Processing Method ISO		HS23081104-06	5.0	Finished	8/29/2023 1:33:30 PM -05:00
Anions Processing Method ISO		HS23081104-06MS	5.0	Finished	8/29/2023 1:39:18 PM -05:00
Anions Processing Method ISO		HS23081104-06MSD	5.0	Finished	8/29/2023 1:45:05 PM -05:00
Anions Processing Method ISO		HS23081104-01	5.0	Finished	8/29/2023 1:50:52 PM -05:00
Anions Processing Method ISO		HS23081104-01DF5	5.0	Finished	8/29/2023 1:56:39 PM -05:00
Anions Processing Method ISO		HS23081104-02	5.0	Finished	8/29/2023 2:02:27 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/29/2023 2:19:48 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/29/2023 2:25:35 PM -05:00
Anions Processing Method ISO		HS23081104-04	5.0	Finished	8/29/2023 2:37:10 PM -05:00
Anions Processing Method ISO		HS23081104-04DF10	5.0	Finished	8/29/2023 2:42:57 PM -05:00
Anions Processing Method ISO		HS23081104-05	5.0	Finished	8/29/2023 2:48:44 PM -05:00
Anions Processing Method ISO		HS23081104-05DF10	5.0	Finished	8/29/2023 2:54:32 PM -05:00



Sequence: 082923
Last Update Operator: alsht.nouser

Processing Method	CD	Name	me	Status	Inject Time
Anions Processing Method ISO		HS23081104-07	5.0	Finished	8/29/2023 3:00:19 PM -05:00
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Anions Processing Method ISO		HS23081159-01	5.0	Finished	8/29/2023 3:12:05 PM -05:00
Anions Processing Method ISO		HS23081159-02	5.0	Finished	8/29/2023 3:17:52 PM -05:00
Anions Processing Method ISO		HS23081159-03DF10	5.0	Finished	8/29/2023 3:23:39 PM -05:00
Anions Processing Method ISO		HS23081515-01	5.0	Finished	8/29/2023 3:29:26 PM -05:00
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Anions Processing Method ISO		CCB	5.0	Finished	8/29/2023 3:46:48 PM -05:00
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Anions Processing Method ISO		LCS	5.0	Finished	8/29/2023 4:38:53 PM -05:00
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Anions Processing Method ISO		HS23081783-01MSD	5.0	Finished	8/29/2023 4:56:14 PM -05:00
Anions Processing Method ISO		HS23081783-01DF10	5.0	Finished	8/29/2023 5:02:13 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/29/2023 5:13:47 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/29/2023 5:19:34 PM -05:00
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Anions Processing Method ISO		HS23081783-03DF10	5.0	Finished	8/29/2023 5:48:30 PM -05:00
Anions Processing Method ISO		HS23081778-01	5.0	Finished	8/29/2023 5:54:17 PM -05:00
Anions Processing Method ISO		HS23081778-01DF10	5.0	Finished	8/29/2023 6:00:04 PM -05:00
Anions Processing Method ISO		HS23081778-02	5.0	Finished	8/29/2023 6:05:51 PM -05:00
Anions Processing Method ISO		HS23081778-02DF10	5.0	Finished	8/29/2023 6:11:38 PM -05:00
Anions Processing Method ISO		HS23081778-03	5.0	Finished	8/29/2023 6:17:26 PM -05:00
Anions Processing Method ISO		HS23081778-03DF10	5.0	Finished	8/29/2023 6:23:13 PM -05:00



Sequence: 082923
Last Update Operator: alsht.nouser

Processing Method	CD	Name	Volume	Status	Inject Time
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Anions Processing Method ISO		CCB	5.0	Finished	8/29/2023 6:40:34 PM -05:00
Anions Processing Method ISO		HS23081778-04	5.0	Finished	8/29/2023 6:52:08 PM -05:00
Anions Processing Method ISO		HS23081778-04DF10	5.0	Finished	8/29/2023 6:57:55 PM -05:00
Anions Processing Method ISO		HS23081778-05	5.0	Finished	8/29/2023 7:03:42 PM -05:00
Anions Processing Method ISO		HS23081778-05DF10	5.0	Finished	8/29/2023 7:09:29 PM -05:00
Anions Processing Method ISO		HS23081778-06	5.0	Finished	8/29/2023 7:15:16 PM -05:00
Anions Processing Method ISO		HS23081778-06DF10	5.0	Finished	8/29/2023 7:21:03 PM -05:00
Anions Processing Method ISO		HS23081778-07	5.0	Finished	8/29/2023 7:26:50 PM -05:00
Anions Processing Method ISO		HS23081778-07DF10	5.0	Finished	8/29/2023 7:32:37 PM -05:00
Anions Processing Method ISO		HS23081778-08	5.0	Finished	8/29/2023 7:38:25 PM -05:00
Anions Processing Method ISO		HS23081778-08DF10	5.0	Finished	8/29/2023 7:44:12 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/29/2023 7:49:59 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/29/2023 8:01:33 PM -05:00
Anions Processing Method ISO		HS23081778-09	5.0	Finished	8/29/2023 8:13:07 PM -05:00
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Anions Processing Method ISO		HS23081778-10DF10	5.0	Finished	8/29/2023 8:30:28 PM -05:00
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Anions Processing Method ISO		HS23081740-01MS	5.0	Finished	8/29/2023 8:42:02 PM -05:00
Anions Processing Method ISO		HS23081740-01MSD	5.0	Finished	8/29/2023 8:47:49 PM -05:00
Anions Processing Method ISO		HS23081740-01DF10	5.0	Finished	8/29/2023 8:53:36 PM -05:00
Anions Processing Method ISO		HS23081791-01DF2	5.0	Finished	8/29/2023 8:59:34 PM -05:00
Anions Processing Method ISO		HS23081791-02DF2	5.0	Finished	8/29/2023 9:05:21 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	8/29/2023 9:22:42 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/29/2023 9:28:29 PM -05:00
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Anions Processing Method ISO		HS23081812-03	5.0	Finished	8/29/2023 9:51:37 PM -05:00
Anions Processing Method ISO		HS23081740-02	5.0	Finished	8/29/2023 9:57:24 PM -05:00
Anions Processing Method ISO		HS23081740-02MS	5.0	Finished	8/29/2023 10:03:11 PM -05:00



Sequence: 082923
Last Update Operator: alshs.nouser

Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		HS23081740-02MSD	5.0	Finished	8/29/2023 10:08:58 PM -05:00
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Anions Processing Method ISO		HS23081791-03DF2	5.0	Finished	8/29/2023 10:20:32 PM -05:00
Anions Processing Method ISO		HS23081746-01DF20	5.0	Finished	8/29/2023 10:26:19 PM -05:00
Anions Processing Method ISO		HS23081746-01DF400	5.0	Finished	8/29/2023 10:32:06 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	8/29/2023 10:43:40 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/29/2023 10:55:14 PM -05:00
Anions Processing Method ISO		MBLK	5.0	Finished	8/29/2023 11:01:01 PM -05:00
Anions Processing Method ISO		LCS	5.0	Finished	8/29/2023 11:06:48 PM -05:00
Anions Processing Method ISO		HS23081840-01DF50	5.0	Finished	8/29/2023 11:12:35 PM -05:00
Anions Processing Method ISO		HS23081840-02DF50	5.0	Finished	8/29/2023 11:18:22 PM -05:00
Anions Processing Method ISO		HS23081840-03DF50	5.0	Finished	8/29/2023 11:24:09 PM -05:00
Anions Processing Method ISO		HS23081840-05DF50	5.0	Finished	8/29/2023 11:29:56 PM -05:00
Anions Processing Method ISO		HS23081840-06DF50	5.0	Finished	8/29/2023 11:35:43 PM -05:00
Anions Processing Method ISO		HS23081840-07DF50	5.0	Finished	8/29/2023 11:41:30 PM -05:00
Anions Processing Method ISO		HS23081840-08DF50	5.0	Finished	8/29/2023 11:47:17 PM -05:00
Anions Processing Method ISO		HS23081840-09DF50	5.0	Finished	8/29/2023 11:53:04 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	8/30/2023 12:21:58 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	8/30/2023 12:45:17 AM -05:00



Sequence: 080823
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	Quad, WithOffset, 1/A	Area	6	20.1152	0.99884	-0.0155	0.2303	0.0000
2	Chloride	Lin, WithOffset, 1/A	Area	6	4.2696	0.99992	-0.0316	0.1715	0.0000
3	Nitrite,N	Quad, WithOffset, 1/A	Area	6	5.5774	0.99985	-0.0051	0.3800	-0.0045
4	Sulfate	Lin, WithOffset, 1/A	Area	6	21.8403	0.99800	-0.0271	0.1106	0.0000
5	Bromide	Quad, WithOffset, 1/A	Area	6	27.4700	0.99813	-0.0002	0.0331	0.0011
6	Nitrate	Lin, WithOffset, 1/A	Area	6	5.1550	0.99988	-0.0104	0.3739	0.0000
7	Chlorate	Quad, WithOffset, 1/A	Area	6	6.2932	0.99985	-0.0019	0.0405	-0.0004
n.a.	Phosphate	Lin, WithOffset, 1/A	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum					27.4700	0.99992			
Minimum					4.2696	0.99800			

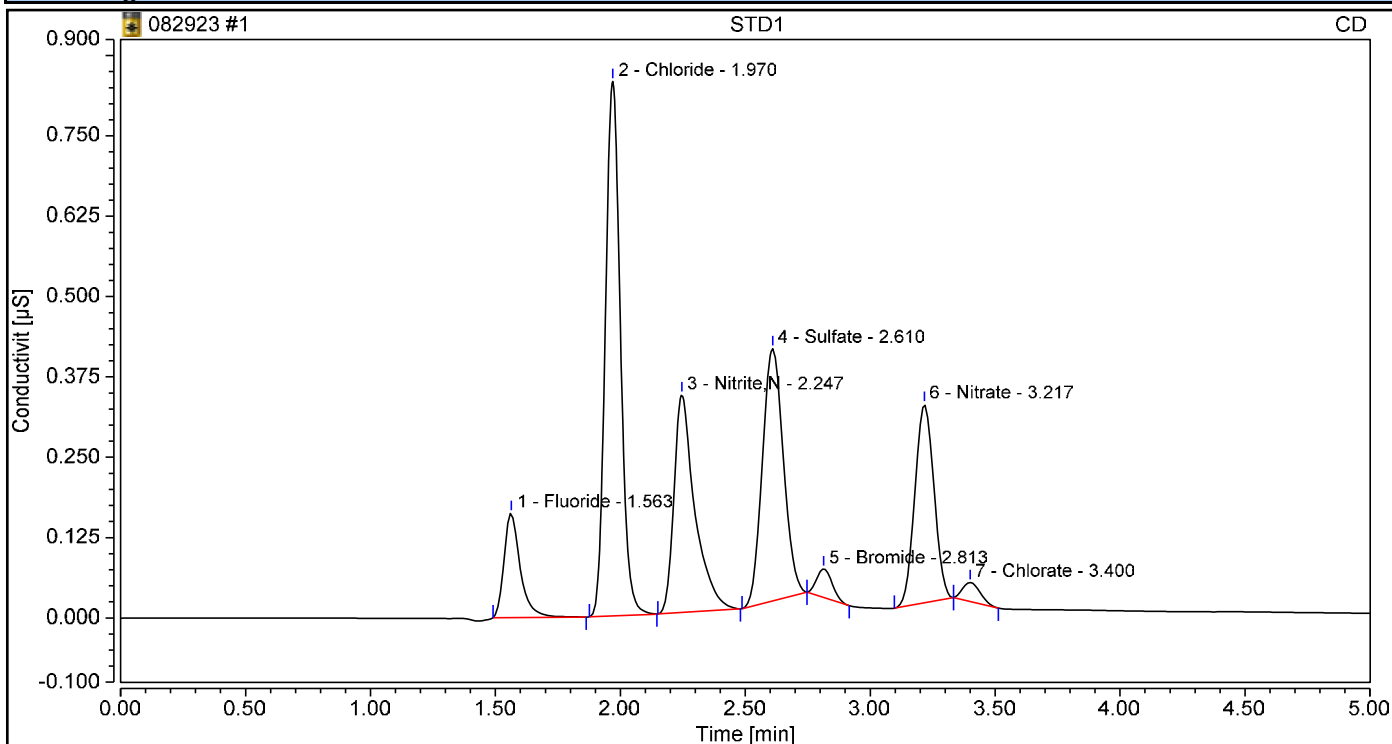


Chromatogram and Results

Injection Details

Injection Name:	STD1	Run Time (min):	5.00
Vial Number:	GA1	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	1	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:18	Sample Weight:	1.0000

Chromatogram



Integration Results

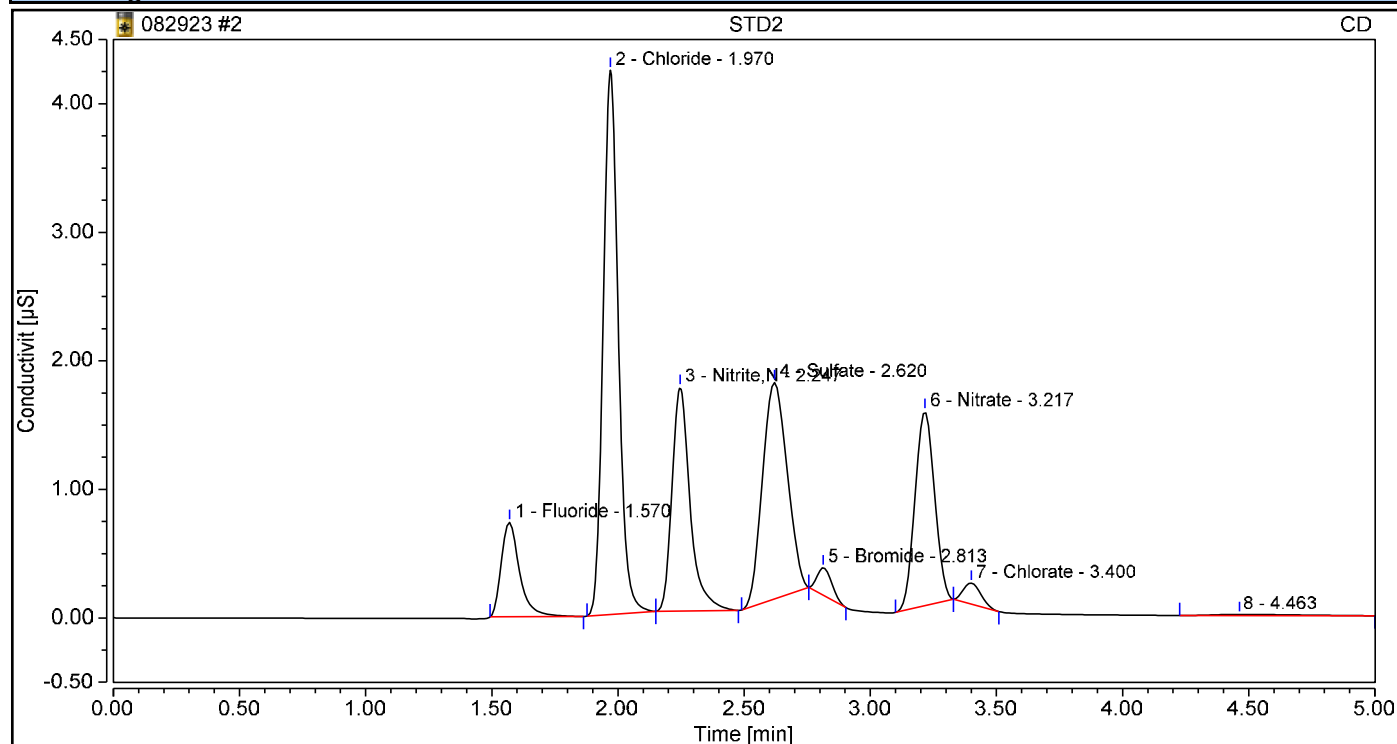
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.563	0.012	0.162	7.05	7.70	0.1207
2	Chloride	1.970	0.058	0.831	33.23	39.44	0.5225
3	Nitrite,N	2.247	0.033	0.339	18.77	16.06	0.0996
4	Sulfate	2.610	0.038	0.393	21.99	18.62	0.5916
5	Bromide	2.813	0.003	0.045	1.87	2.12	0.1046
6	Nitrate	3.217	0.027	0.309	15.71	14.65	0.1010
7	Chlorate	3.400	0.002	0.030	1.38	1.40	0.1068
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.174	2.108	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	STD2	Run Time (min):	5.00
Vial Number:	GA2	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	2	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:24	Sample Weight:	1.0000

Chromatogram



Integration Results

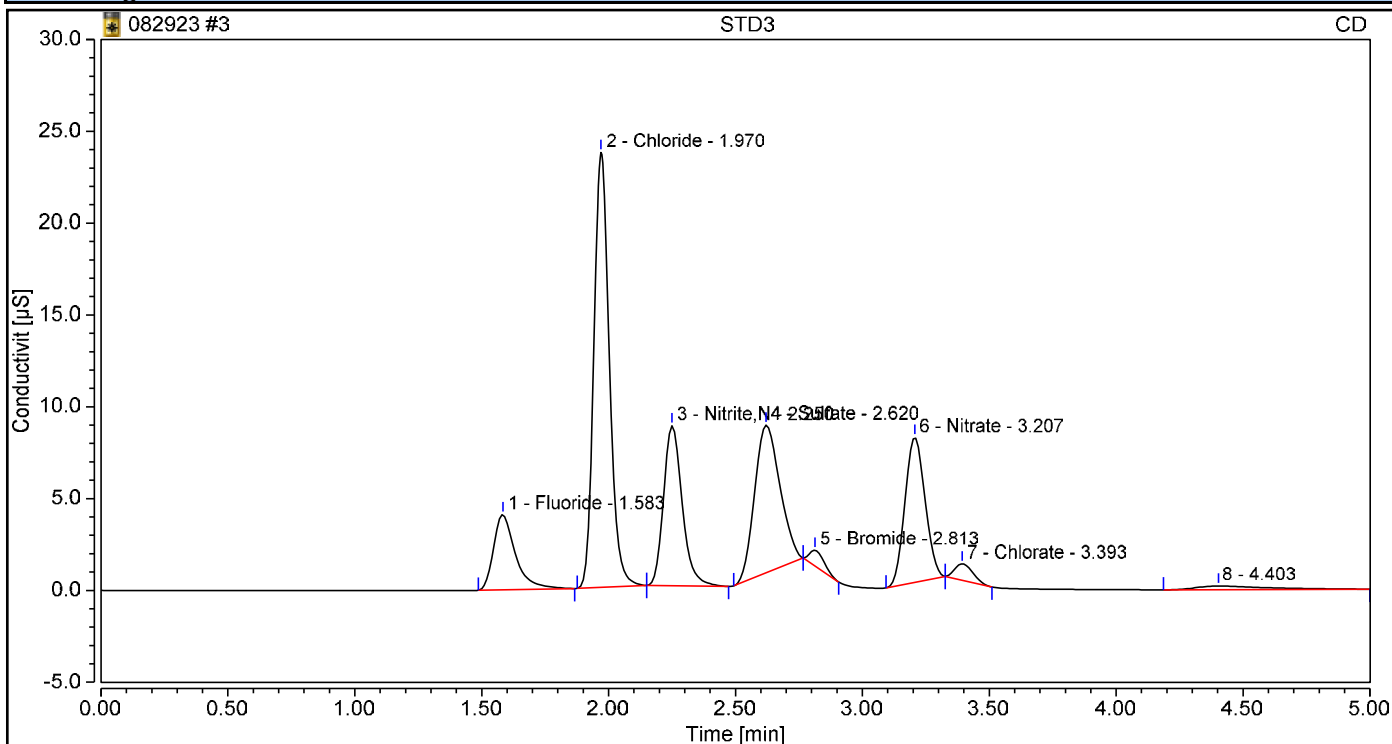
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.570	0.062	0.734	7.21	7.13	0.3362
2	Chloride	1.970	0.294	4.235	34.21	41.15	1.8982
3	Nitrite, N	2.247	0.144	1.741	16.77	16.92	0.3943
4	Sulfate	2.620	0.191	1.683	22.27	16.36	1.9750
5	Bromide	2.813	0.015	0.214	1.70	2.08	0.4420
6	Nitrate	3.217	0.137	1.512	15.90	14.69	0.3931
7	Chlorate	3.400	0.013	0.164	1.55	1.59	0.3772
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.463	0.003	0.009	0.40	0.09	n.a.
Total:			0.859	10.291	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	STD3	Run Time (min):	5.00
Vial Number:	GA3	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	3	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:30	Sample Weight:	1.0000

Chromatogram



Integration Results

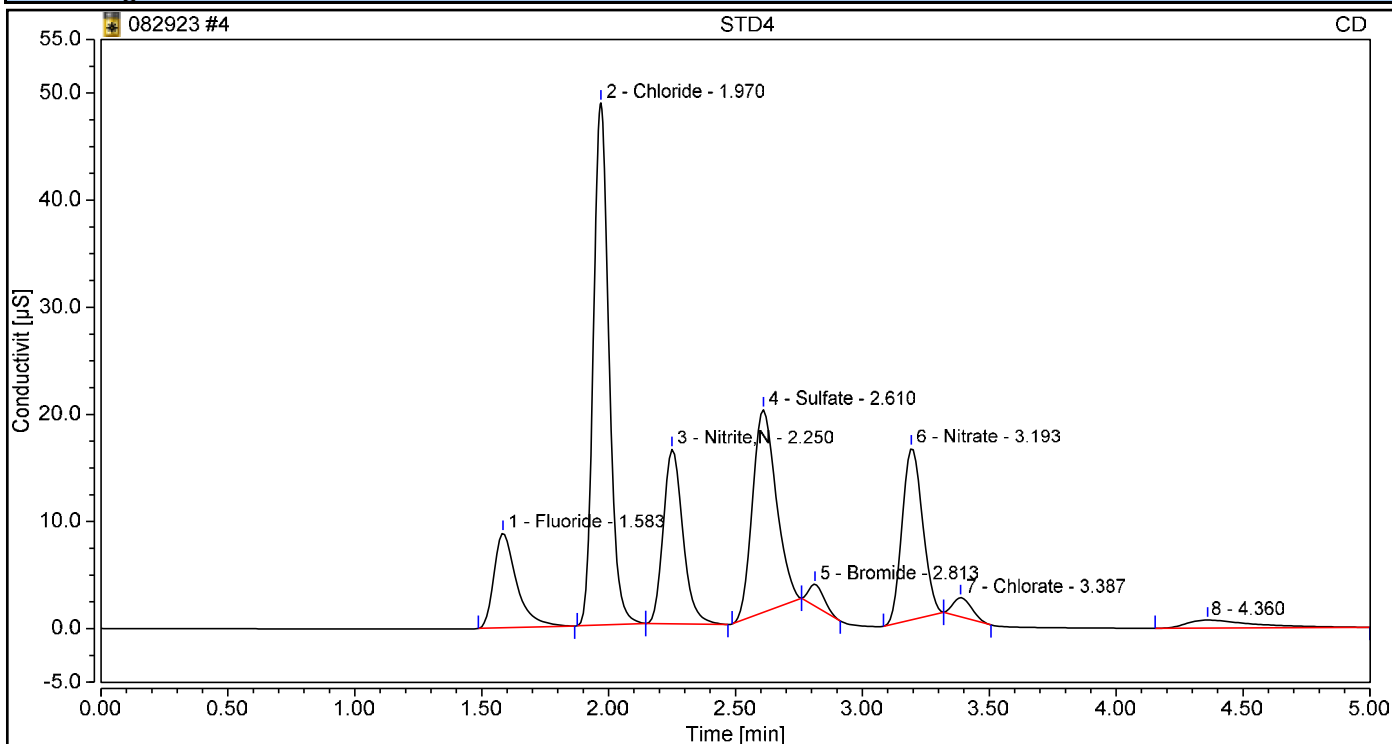
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.583	0.407	4.090	8.71	7.52	1.8358
2	Chloride	1.970	1.666	23.684	35.62	43.54	9.8990
3	Nitrite, N	2.250	0.747	8.727	15.98	16.04	2.0284
4	Sulfate	2.620	0.930	8.048	19.89	14.80	8.6573
5	Bromide	2.813	0.058	0.859	1.25	1.58	1.6790
6	Nitrate	3.207	0.728	7.896	15.57	14.52	1.9747
7	Chlorate	3.393	0.075	0.893	1.61	1.64	1.9501
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.403	0.064	0.196	1.36	0.36	n.a.
Total:			4.676	54.394	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	STD4	Run Time (min):	5.00
Vial Number:	GA4	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	4	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:36	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.583	0.916	8.843	9.23	7.80	4.0419
2	Chloride	1.970	3.451	48.740	34.77	42.99	20.3099
3	Nitrite, N	2.250	1.467	16.280	14.78	14.36	4.0682
4	Sulfate	2.610	2.054	18.903	20.70	16.67	18.8236
5	Bromide	2.813	0.144	2.051	1.45	1.81	3.8846
6	Nitrate	3.193	1.507	16.041	15.19	14.15	4.0589
7	Chlorate	3.387	0.154	1.783	1.55	1.57	4.0320
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.360	0.230	0.747	2.32	0.66	n.a.
Total:			9.924	113.388	100.00	100.00	

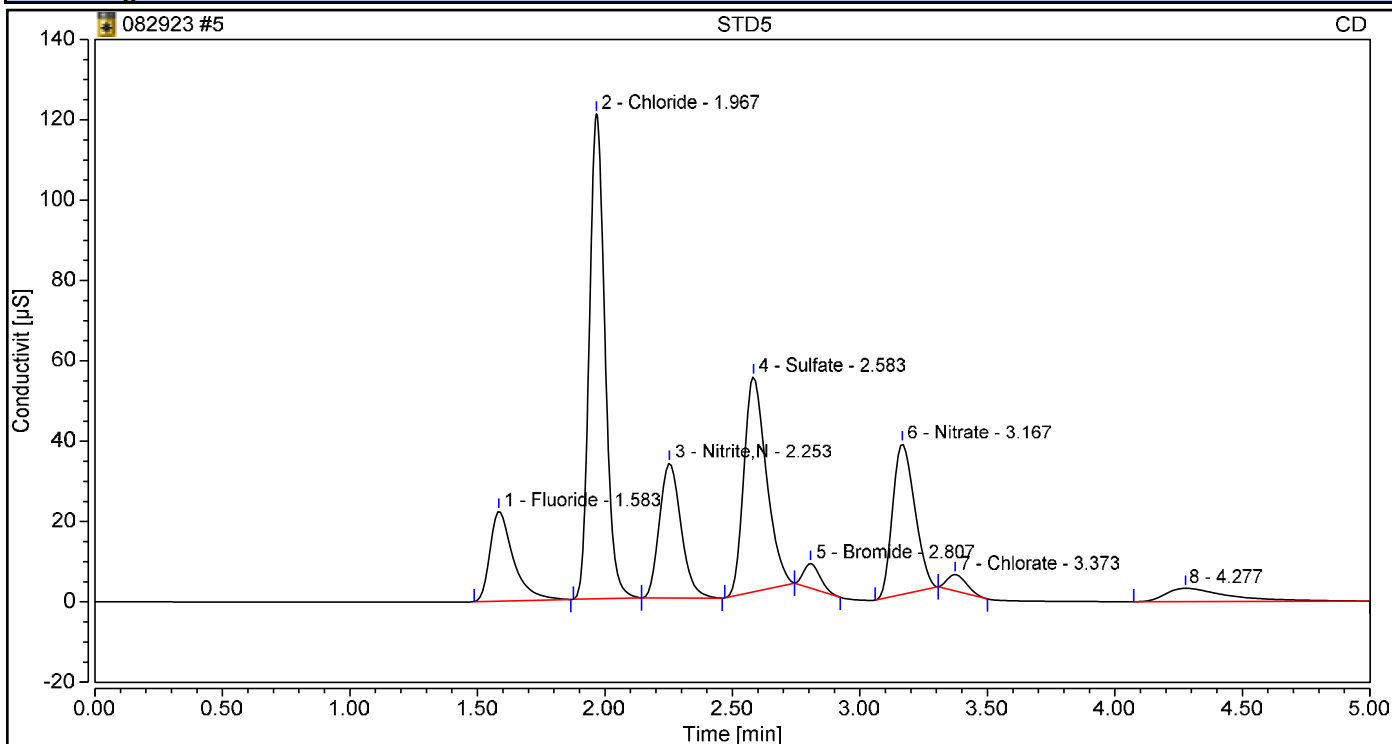


Chromatogram and Results

Injection Details

Injection Name:	STD5	Run Time (min):	5.00
Vial Number:	GA5	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	5	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:42	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.583	2.361	22.368	9.35	7.96	10.3121
2	Chloride	1.967	8.574	120.681	33.96	42.93	50.1891
3	Nitrite, N	2.253	3.298	33.531	13.06	11.93	9.8235
4	Sulfate	2.583	5.477	53.523	21.70	19.04	49.7821
5	Bromide	2.807	0.462	6.145	1.83	2.19	10.4730
6	Nitrate	3.167	3.777	37.501	14.96	13.34	10.1285
7	Chlorate	3.373	0.362	4.070	1.43	1.45	10.0896
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.277	0.935	3.315	3.70	1.18	n.a.
Total:			25.246	281.135	100.00	100.00	

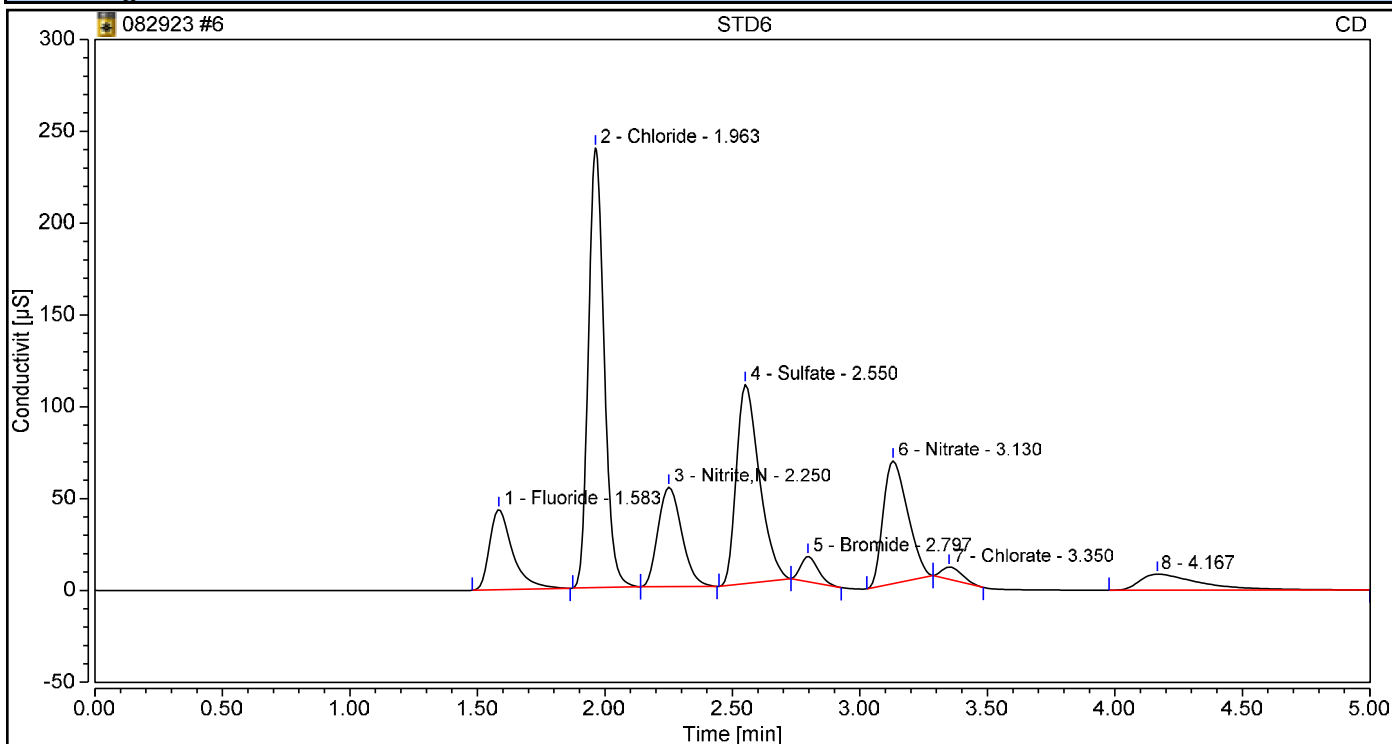


Chromatogram and Results

Injection Details

Injection Name:	STD6	Run Time (min):	5.00
Vial Number:	GA6	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	6	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:48	Sample Weight:	1.0000

Chromatogram



Integration Results

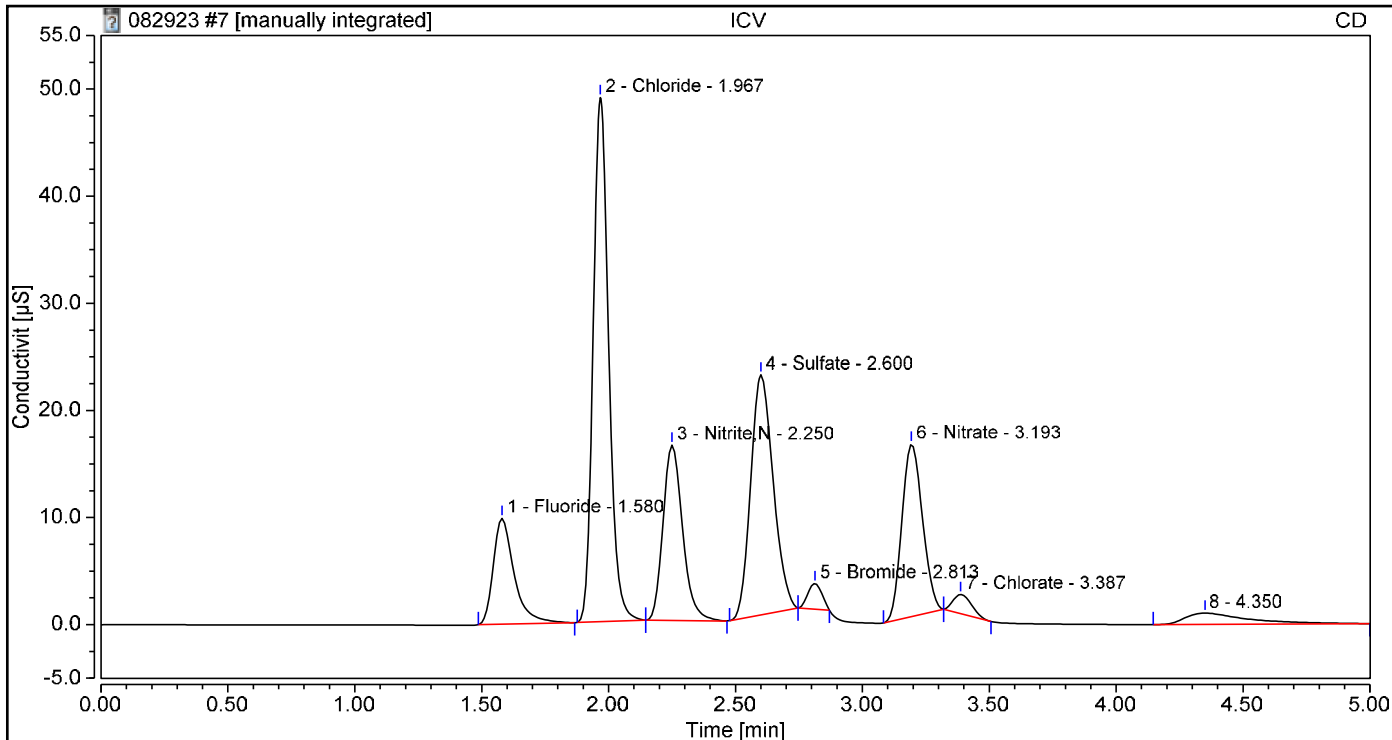
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.583	4.562	43.755	9.07	8.08	19.8533
2	Chloride	1.963	17.060	239.468	33.91	44.21	99.6814
3	Nitrite, N	2.250	5.833	54.192	11.60	10.00	20.0997
4	Sulfate	2.550	11.325	108.374	22.51	20.01	102.6704
5	Bromide	2.797	1.075	13.716	2.14	2.53	19.8561
6	Nitrate	3.130	7.410	66.773	14.73	12.33	19.8438
7	Chlorate	3.350	0.631	6.708	1.25	1.24	19.9371
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.167	2.410	8.683	4.79	1.60	n.a.
Total:			50.304	541.669	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	ICV	Run Time (min):	5.00
Vial Number:	GA7	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 09:59	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.580	0.937	9.873	9.13	8.30	4.1371
2	Chloride	1.967	3.446	48.919	33.56	41.14	20.2850
3	Nitrite, N	2.250	1.465	16.360	14.26	13.76	4.0623
4	Sulfate	2.600	2.294	22.412	22.34	18.85	20.9964
5	Bromide	2.813	0.155	2.393	1.51	2.01	4.1359
6	Nitrate	3.193	1.514	16.091	14.74	13.53	4.0765
7	Chlorate	3.387	0.154	1.793	1.50	1.51	4.0299
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.350	0.305	1.059	2.97	0.89	n.a.
Total:			10.271	118.900	100.00	100.00	

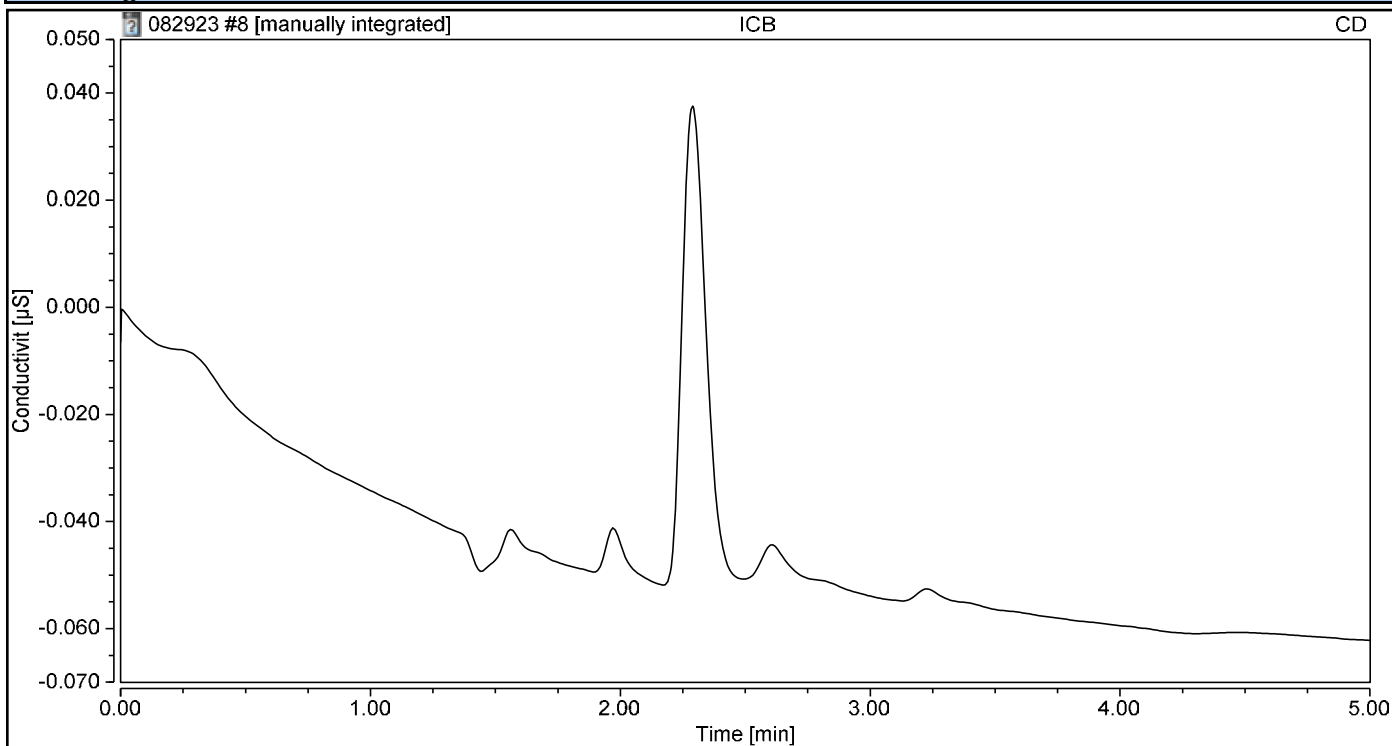


Chromatogram and Results

Injection Details

Injection Name:	ICB	Run Time (min):	5.00
Vial Number:	R5	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Aug/23 10:05	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.000	0.000	0.00	0.00	

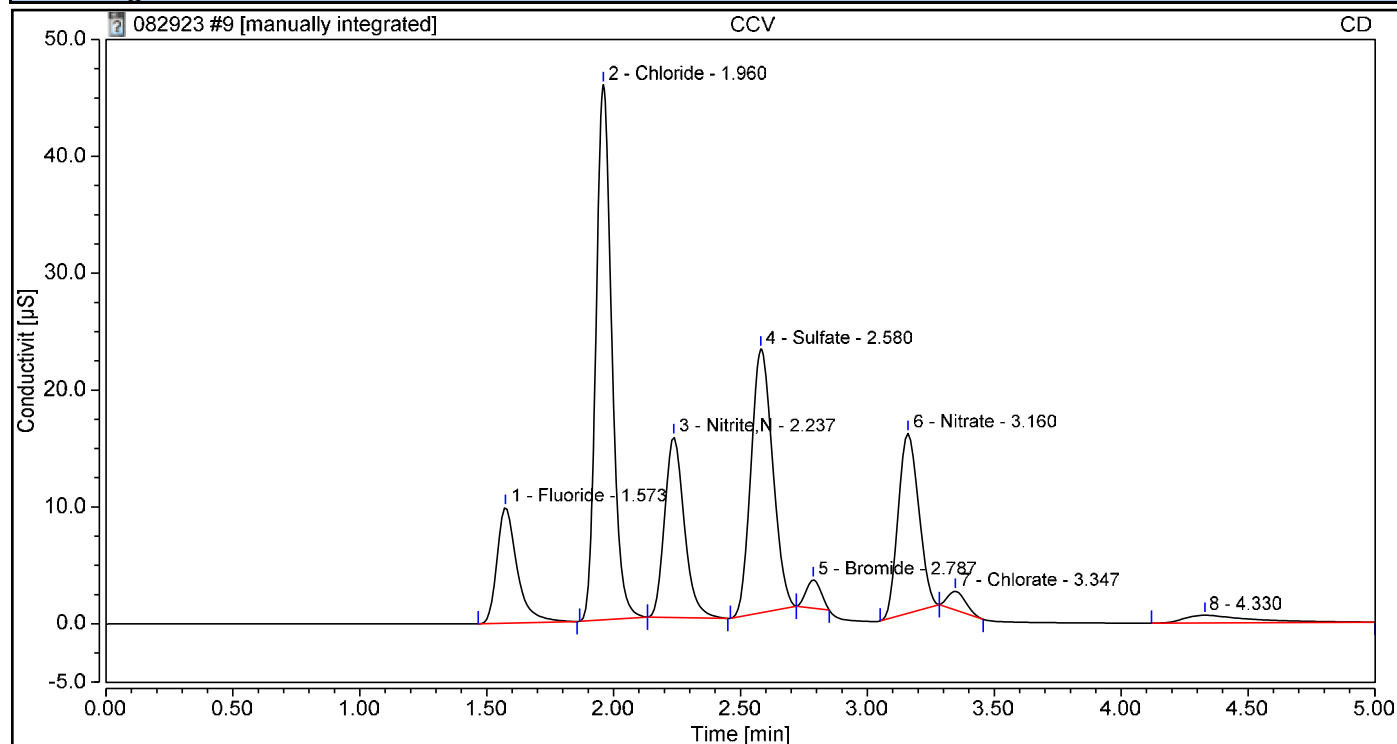


Chromatogram and Results

Injection Details

Injection Name:	CCV	Run Time (min):	5.00
Vial Number:	R1	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 08:55	Sample Weight:	1.0000

Chromatogram



Integration Results

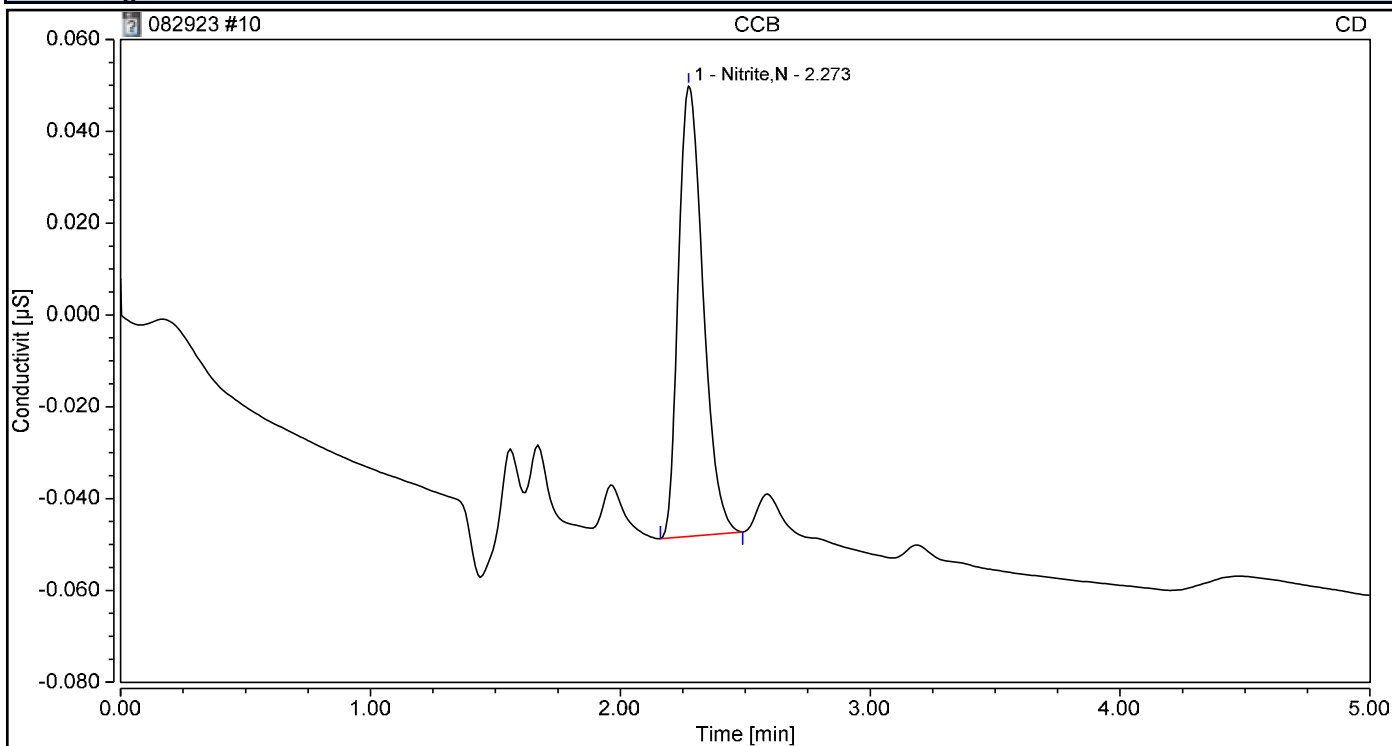
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.573	0.907	9.924	9.29	8.72	4.0036
2	Chloride	1.960	3.289	45.789	33.71	40.23	19.3687
3	Nitrite, N	2.237	1.399	15.477	14.34	13.60	3.8704
4	Sulfate	2.580	2.224	22.557	22.79	19.82	20.3577
5	Bromide	2.787	0.164	2.431	1.69	2.14	4.3679
6	Nitrate	3.160	1.443	15.392	14.79	13.52	3.8876
7	Chlorate	3.347	0.132	1.595	1.35	1.40	3.4273
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.330	0.200	0.656	2.05	0.58	n.a.
Total:			9.758	113.822	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCB	Run Time (min):	5.00
Vial Number:	R6	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 09:07	Sample Weight:	1.0000

Chromatogram



Integration Results

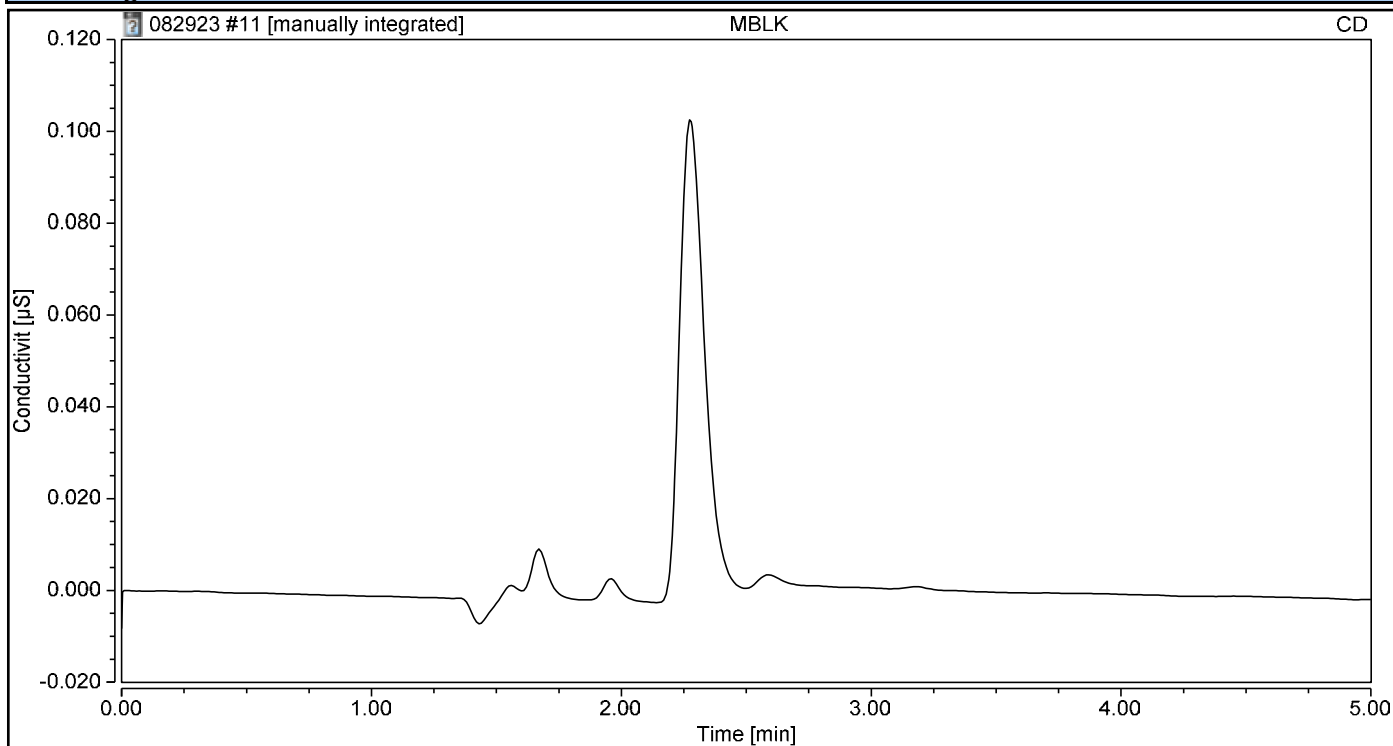
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Nitrite, N	2.273	0.011	0.098	100.00	100.00	0.0430
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.011	0.098	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	MBLK	Run Time (min):	5.00
Vial Number:	R5	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 09:18	Sample Weight:	1.0000

Chromatogram



Integration Results

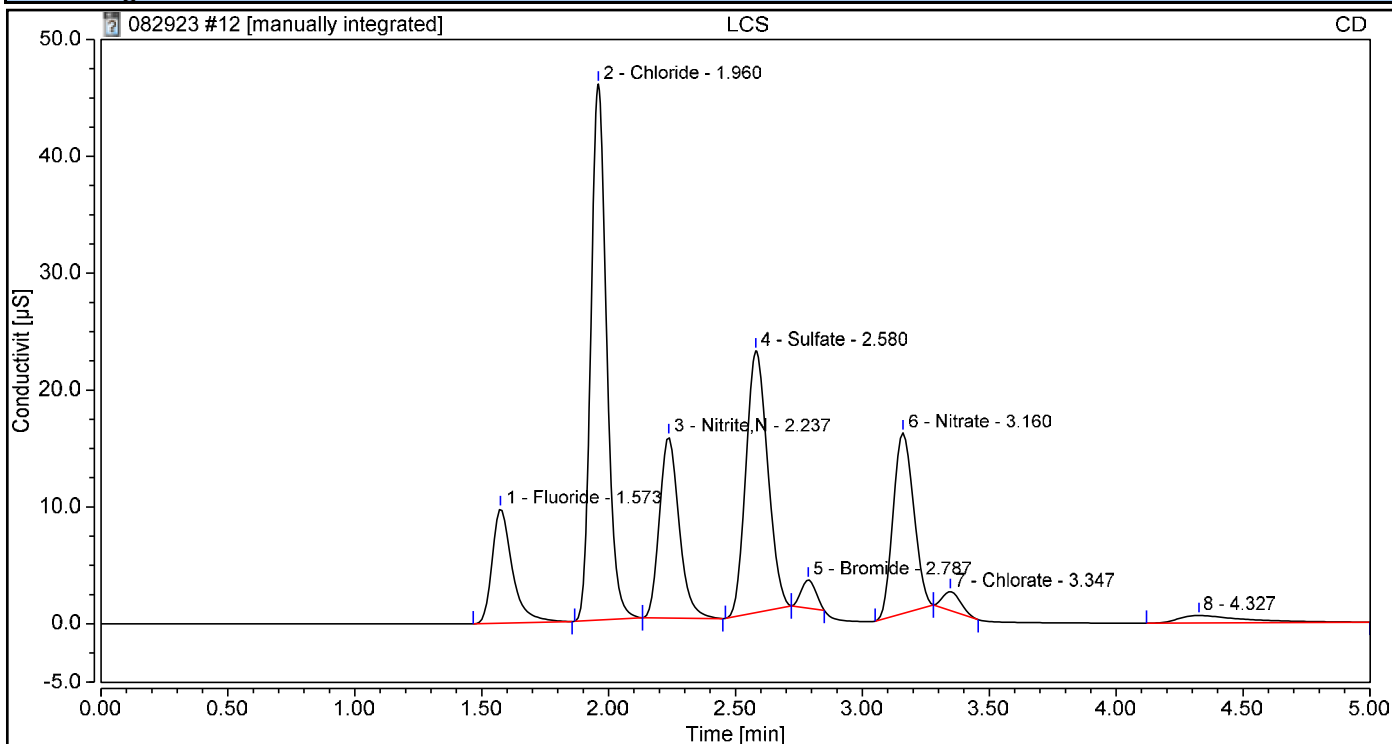
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.000	0.000	0.00	0.00	

Chromatogram and Results

Injection Details

Injection Name:	LCS	Run Time (min):	5.00
Vial Number:	R2	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 09:24	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.573	0.896	9.792	9.20	8.61	3.9590
2	Chloride	1.960	3.290	45.861	33.78	40.34	19.3752
3	Nitrite, N	2.237	1.401	15.510	14.38	13.64	3.8757
4	Sulfate	2.580	2.216	22.399	22.75	19.70	20.2896
5	Bromide	2.787	0.164	2.422	1.68	2.13	4.3481
6	Nitrate	3.160	1.446	15.442	14.84	13.58	3.8941
7	Chlorate	3.347	0.133	1.609	1.37	1.42	3.4694
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.327	0.194	0.640	2.00	0.56	n.a.
Total:			9.741	113.676	100.00	100.00	

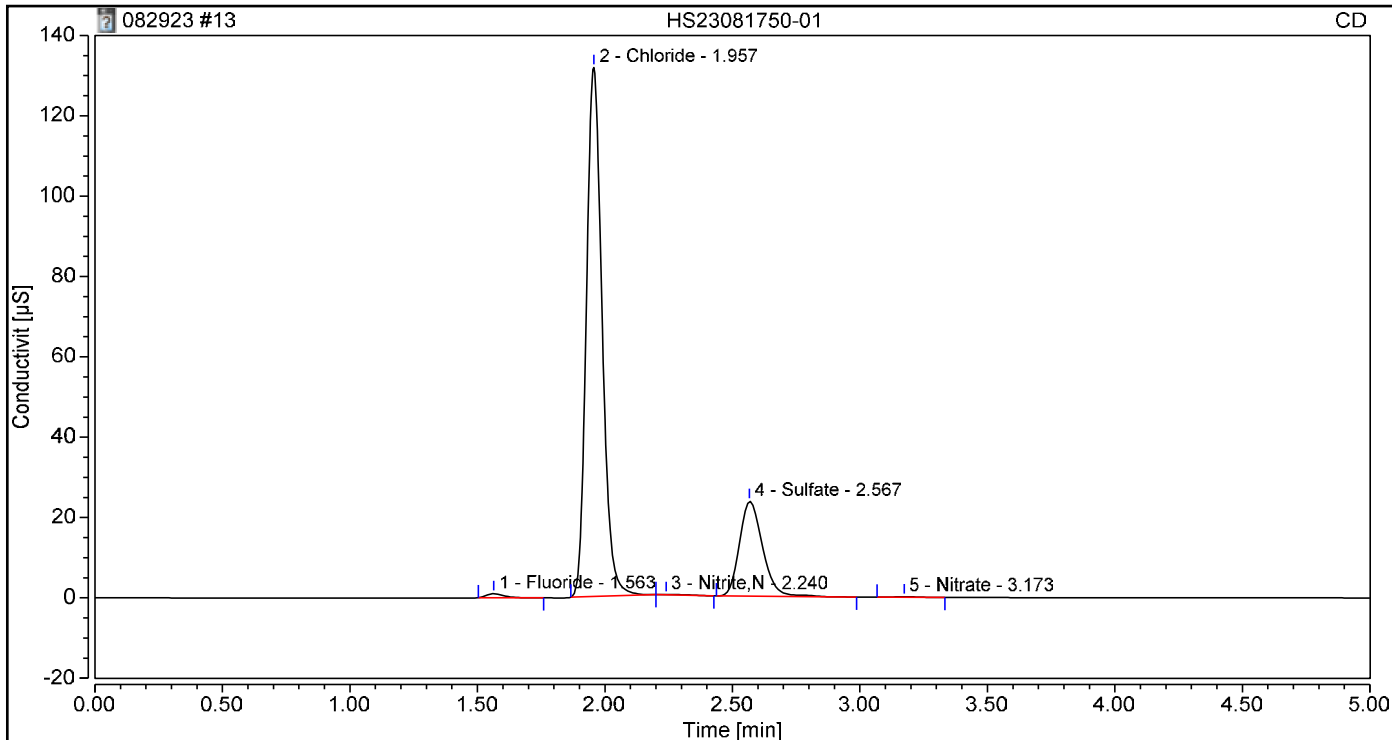


Chromatogram and Results

Injection Details

Injection Name:	HS23081750-01	Run Time (min):	5.00
Vial Number:	RA1	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 09:30	Sample Weight:	1.0000

Chromatogram



Integration Results

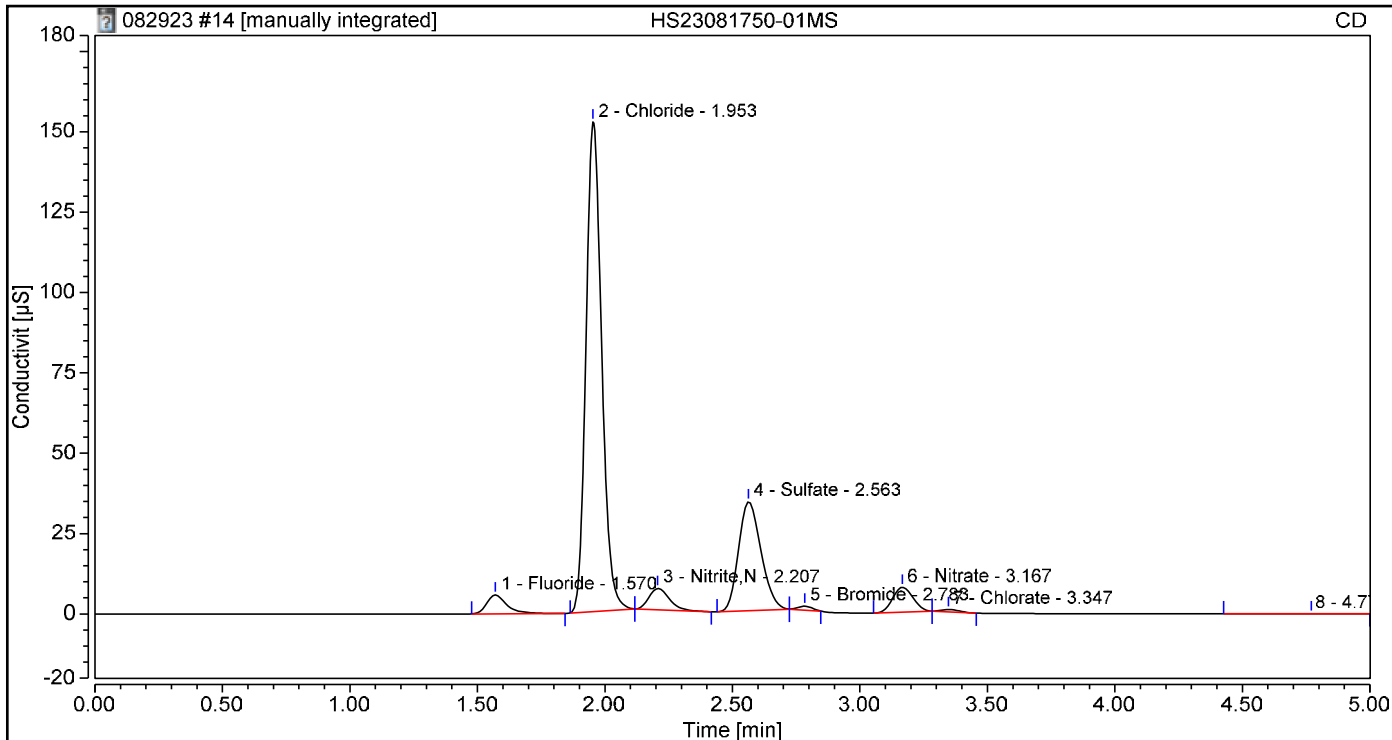
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.563	0.078	0.997	0.66	0.64	0.4077
2	Chloride	1.957	9.368	131.719	78.36	84.15	54.8221
3	Nitrite, N	2.240	0.015	0.088	0.13	0.06	0.0535
4	Sulfate	2.567	2.479	23.576	20.74	15.06	22.6705
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	Nitrate	3.173	0.014	0.149	0.12	0.09	0.0647
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			11.955	156.530	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	HS23081750-01MS	Run Time (min):	5.00
Vial Number:	RA2	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 09:36	Sample Weight:	1.0000

Chromatogram



Integration Results

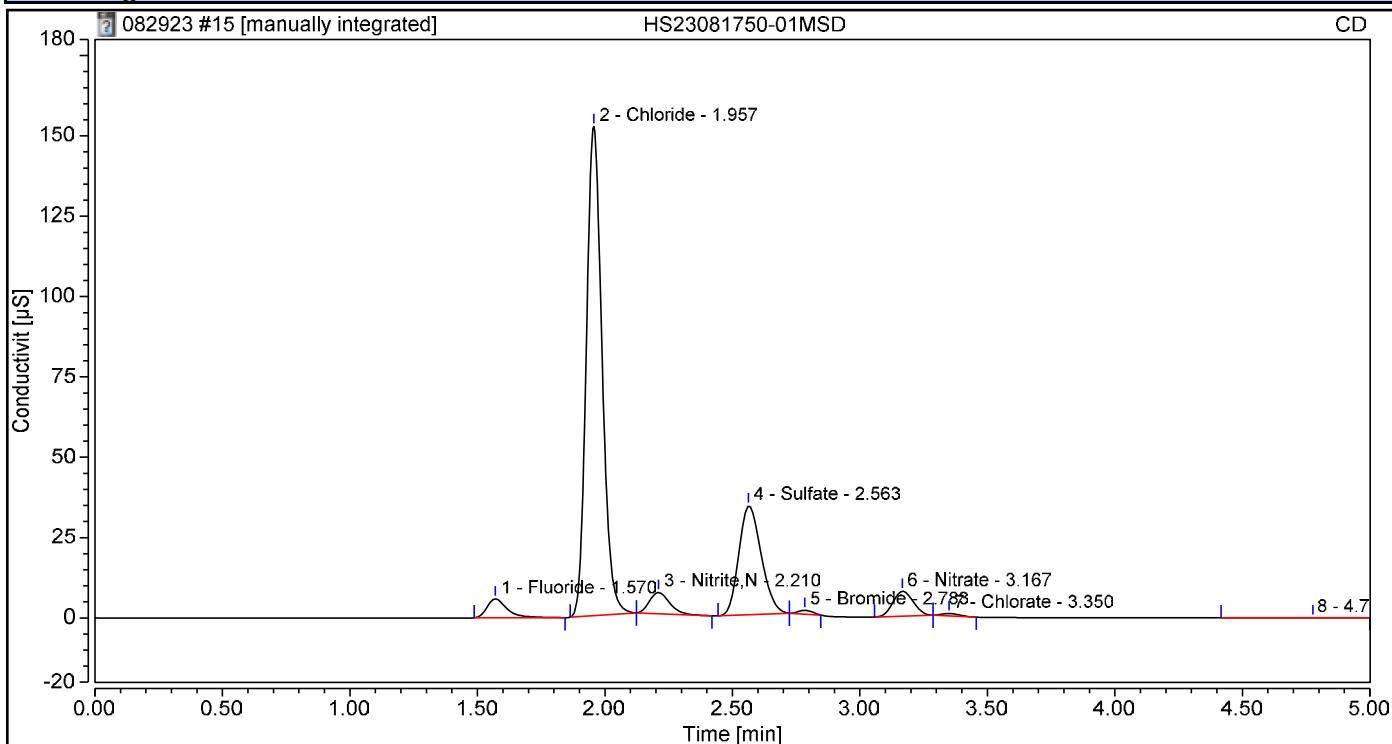
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.570	0.542	5.895	3.32	2.83	2.4195
2	Chloride	1.953	10.840	152.357	66.46	73.05	63.4063
3	Nitrite, N	2.207	0.618	6.648	3.79	3.19	1.6735
4	Sulfate	2.563	3.451	33.917	21.16	16.26	31.4541
5	Bromide	2.783	0.079	1.219	0.49	0.58	2.2480
6	Nitrate	3.167	0.713	7.753	4.37	3.72	1.9333
7	Chlorate	3.347	0.062	0.760	0.38	0.36	1.6014
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.770	0.006	0.016	0.03	0.01	n.a.
Total:			16.310	208.564	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	HS23081750-01MSD	Run Time (min):	5.00
Vial Number:	RA3	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 09:42	Sample Weight:	1.0000

Chromatogram



Integration Results

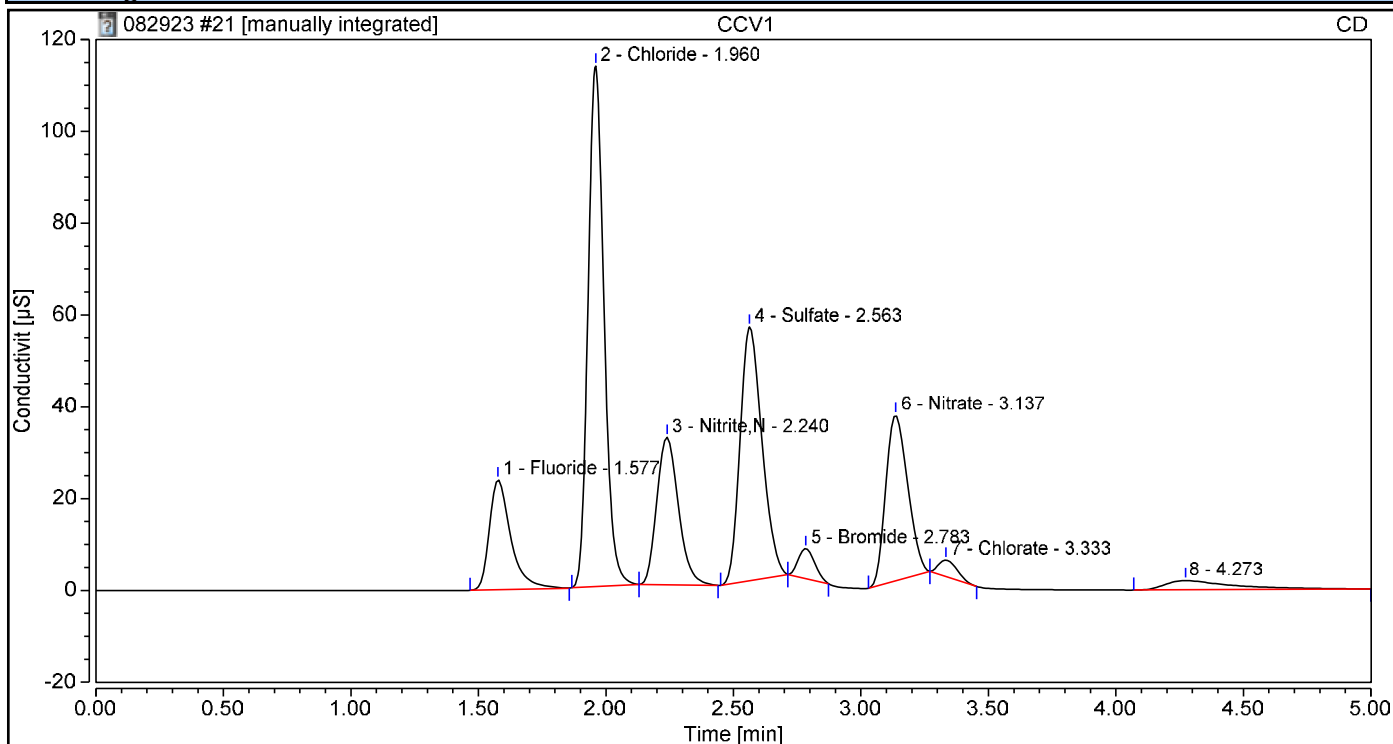
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.570	0.534	5.906	3.28	2.83	2.3852
2	Chloride	1.957	10.825	152.211	66.49	73.00	63.3222
3	Nitrite, N	2.210	0.615	6.645	3.78	3.19	1.6647
4	Sulfate	2.563	3.446	33.975	21.16	16.29	31.4124
5	Bromide	2.783	0.079	1.215	0.49	0.58	2.2409
6	Nitrate	3.167	0.714	7.767	4.38	3.73	1.9362
7	Chlorate	3.350	0.061	0.766	0.38	0.37	1.5924
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.777	0.007	0.019	0.04	0.01	n.a.
Total:			16.282	208.505	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCV1	Run Time (min):	5.00
Vial Number:	R3	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 10:22	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.577	2.323	23.941	9.62	8.77	10.1499
2	Chloride	1.960	8.185	113.393	33.89	41.55	47.9249
3	Nitrite, N	2.240	3.152	32.119	13.05	11.77	9.3295
4	Sulfate	2.563	5.479	55.248	22.68	20.25	49.7984
5	Bromide	2.783	0.491	6.530	2.03	2.39	10.9834
6	Nitrate	3.137	3.584	36.053	14.84	13.21	9.6134
7	Chlorate	3.333	0.311	3.588	1.29	1.31	8.5040
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.273	0.630	2.016	2.61	0.74	n.a.
Total:			24.156	272.888	100.00	100.00	

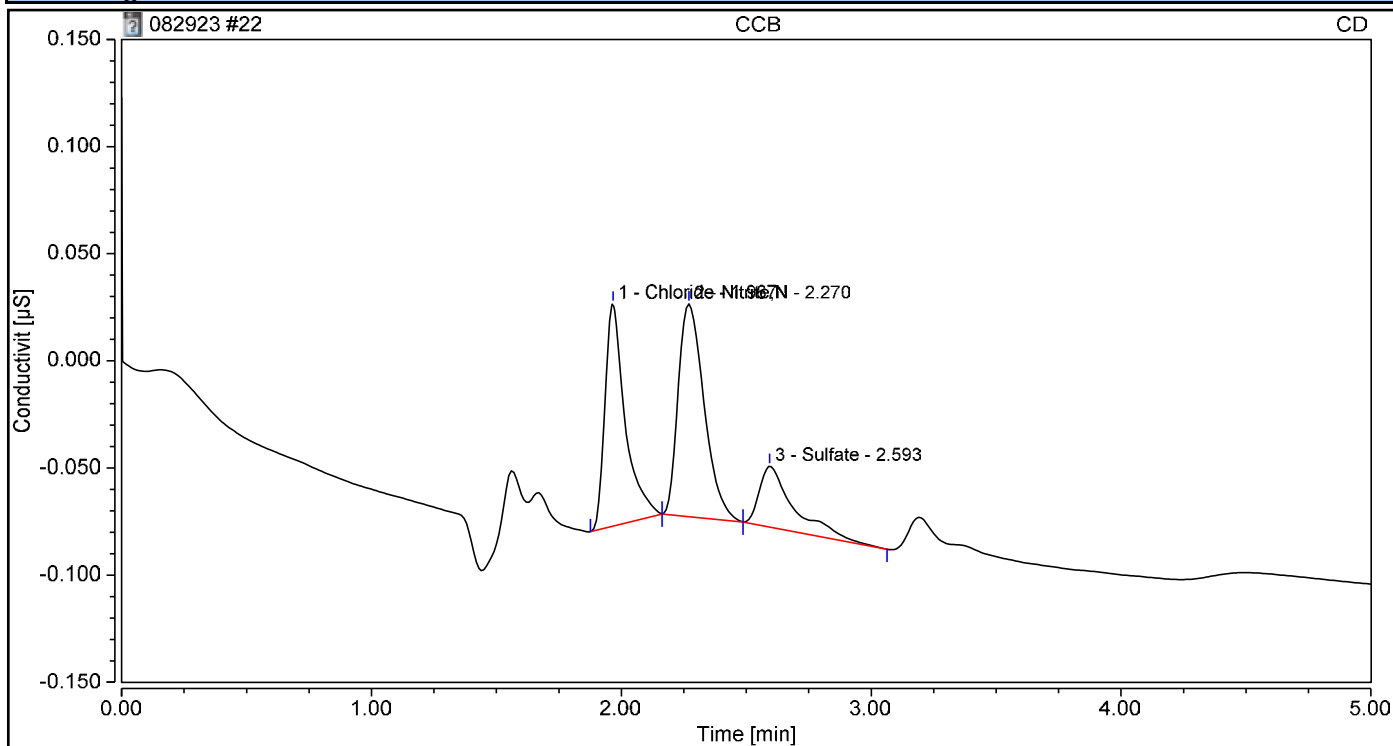


Chromatogram and Results

Injection Details

Injection Name:	CCB	Run Time (min):	5.00
Vial Number:	R7	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 10:28	Sample Weight:	1.0000

Chromatogram



Integration Results

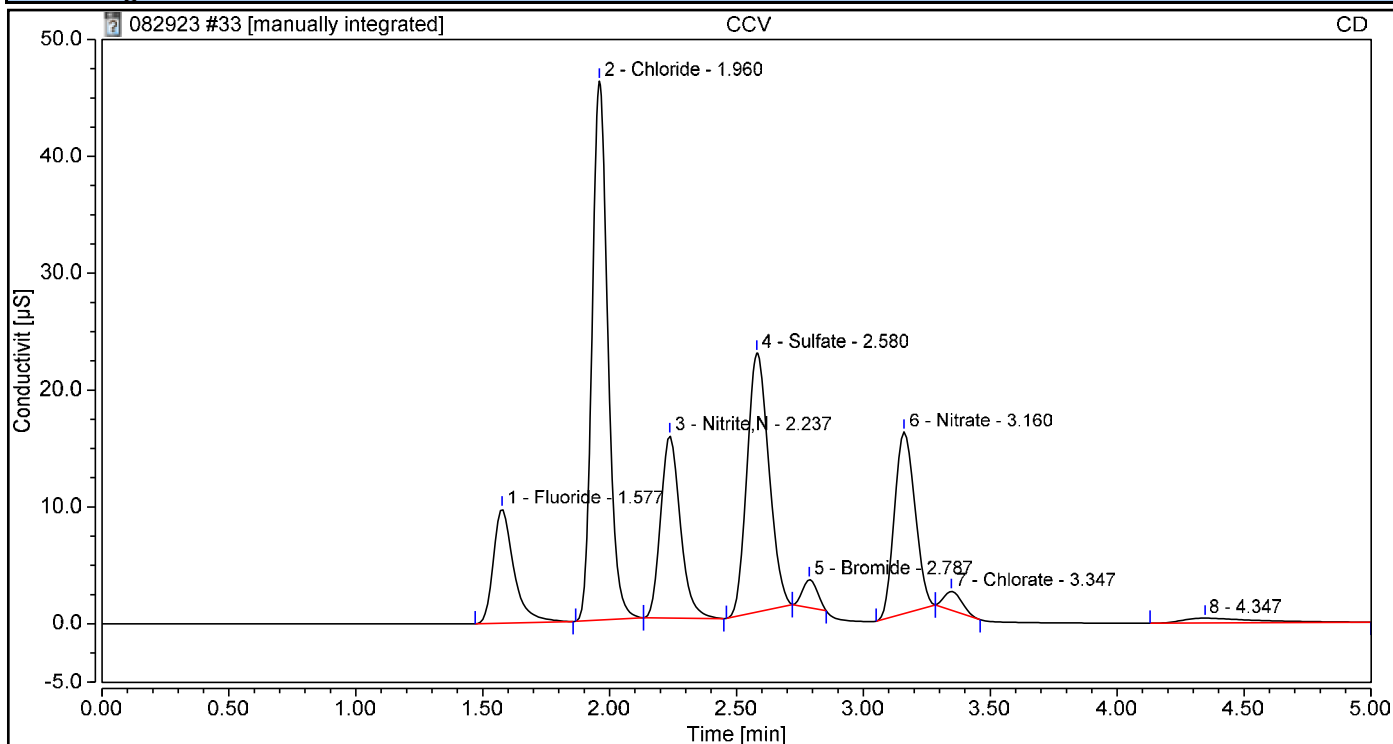
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	1.967	0.010	0.104	36.97	44.83	0.2410
2	Nitrite, N	2.270	0.012	0.099	45.60	42.91	0.0449
3	Sulfate	2.593	0.005	0.028	17.43	12.26	0.2861
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.026	0.231	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCV	Run Time (min):	5.00
Vial Number:	R1	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 11:43	Sample Weight:	1.0000

Chromatogram



Integration Results

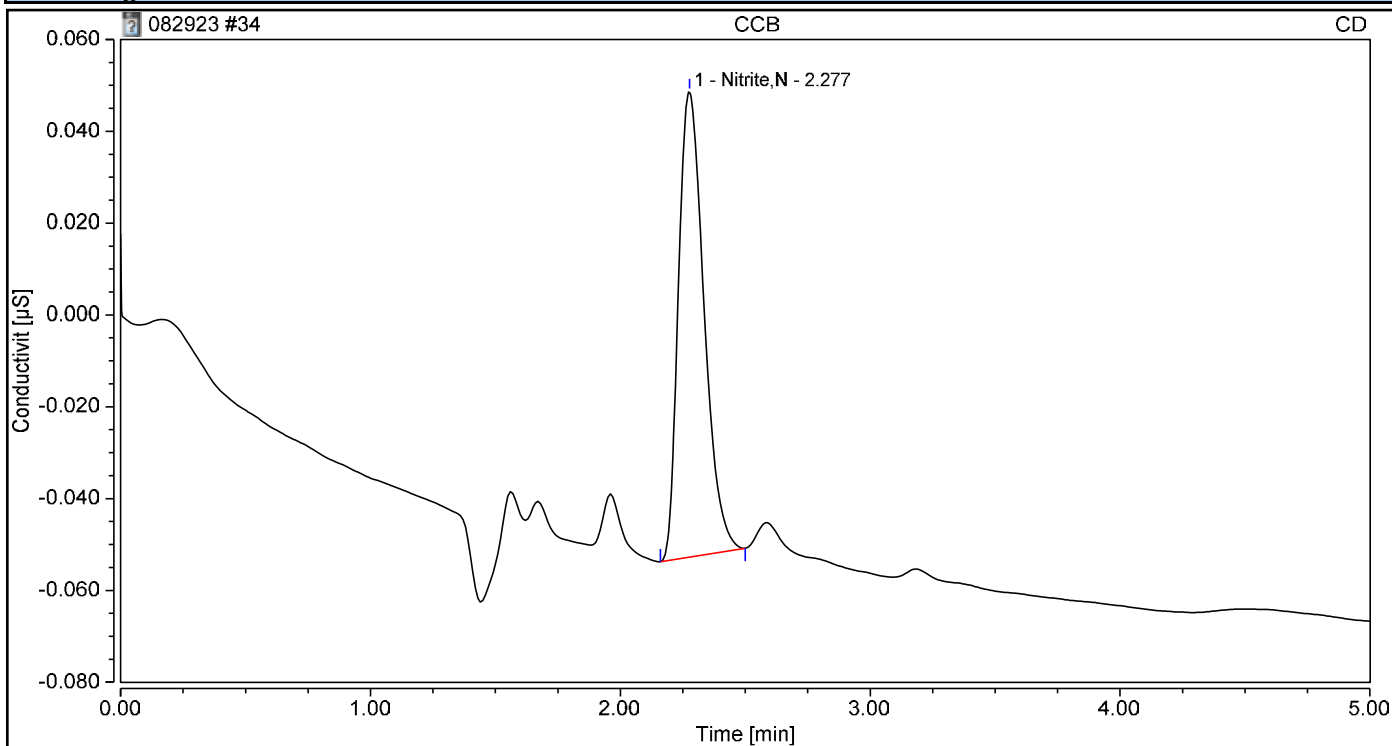
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.577	0.908	9.770	9.34	8.60	4.0104
2	Chloride	1.960	3.308	46.116	34.03	40.59	19.4787
3	Nitrite, N	2.237	1.408	15.602	14.49	13.73	3.8979
4	Sulfate	2.580	2.203	22.172	22.66	19.52	20.1677
5	Bromide	2.787	0.164	2.403	1.69	2.11	4.3528
6	Nitrate	3.160	1.455	15.534	14.97	13.67	3.9194
7	Chlorate	3.347	0.133	1.602	1.37	1.41	3.4666
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.347	0.140	0.414	1.44	0.36	n.a.
Total:			9.720	113.612	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCB	Run Time (min):	5.00
Vial Number:	R6	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 11:55	Sample Weight:	1.0000

Chromatogram



Integration Results

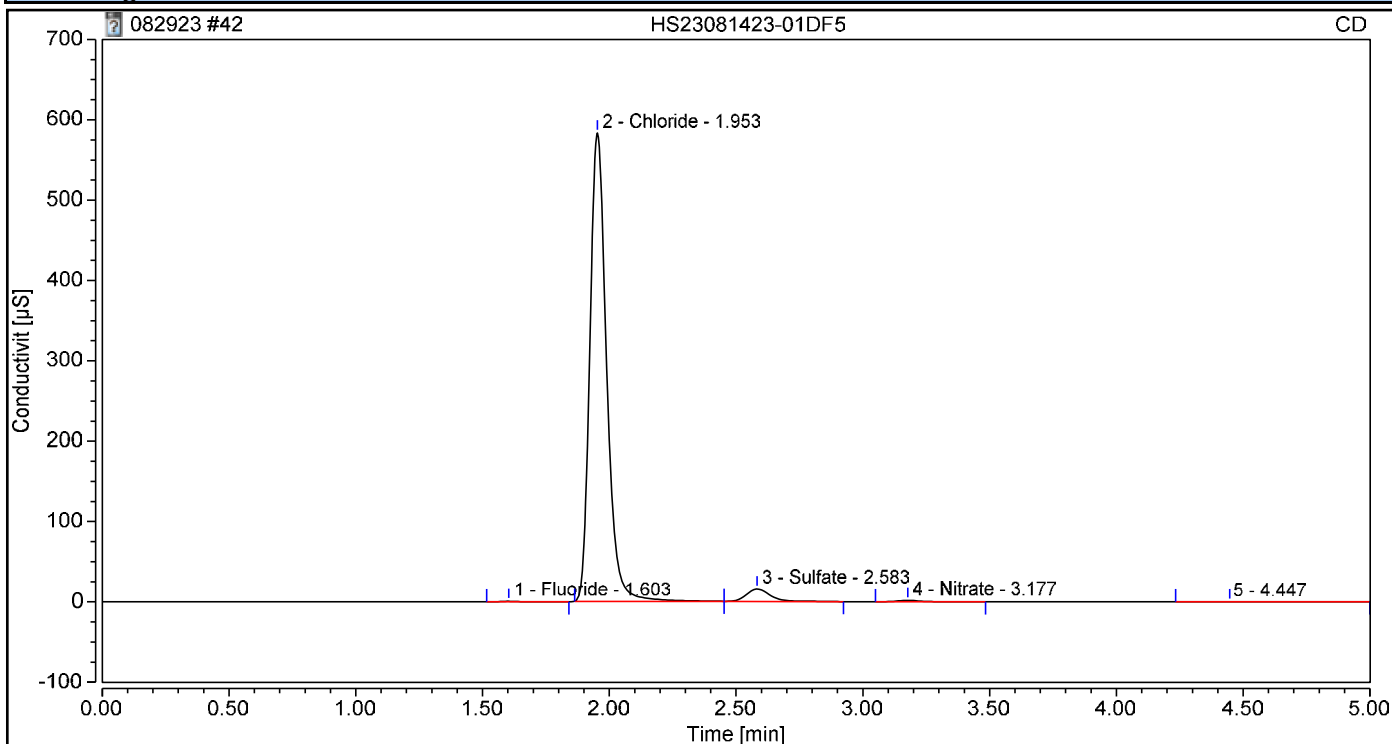
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Nitrite, N	2.277	0.012	0.101	100.00	100.00	0.0450
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.012	0.101	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	HS23081423-01DF5	Run Time (min):	5.00
Vial Number:	RD2	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	5.0000
Injection Date/Time:	29/Aug/23 12:47	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.603	0.064	0.753	0.14	0.13	1.7227
2	Chloride	1.953	44.540	582.926	95.91	97.03	1299.7949
n.a.	Nitrite, N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Sulfate	2.583	1.673	15.478	3.60	2.58	76.9031
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Nitrate	3.177	0.156	1.603	0.34	0.27	2.2269
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5		4.447	0.006	0.016	0.01	0.00	n.a.
Total:			46.440	600.776	100.00	100.00	

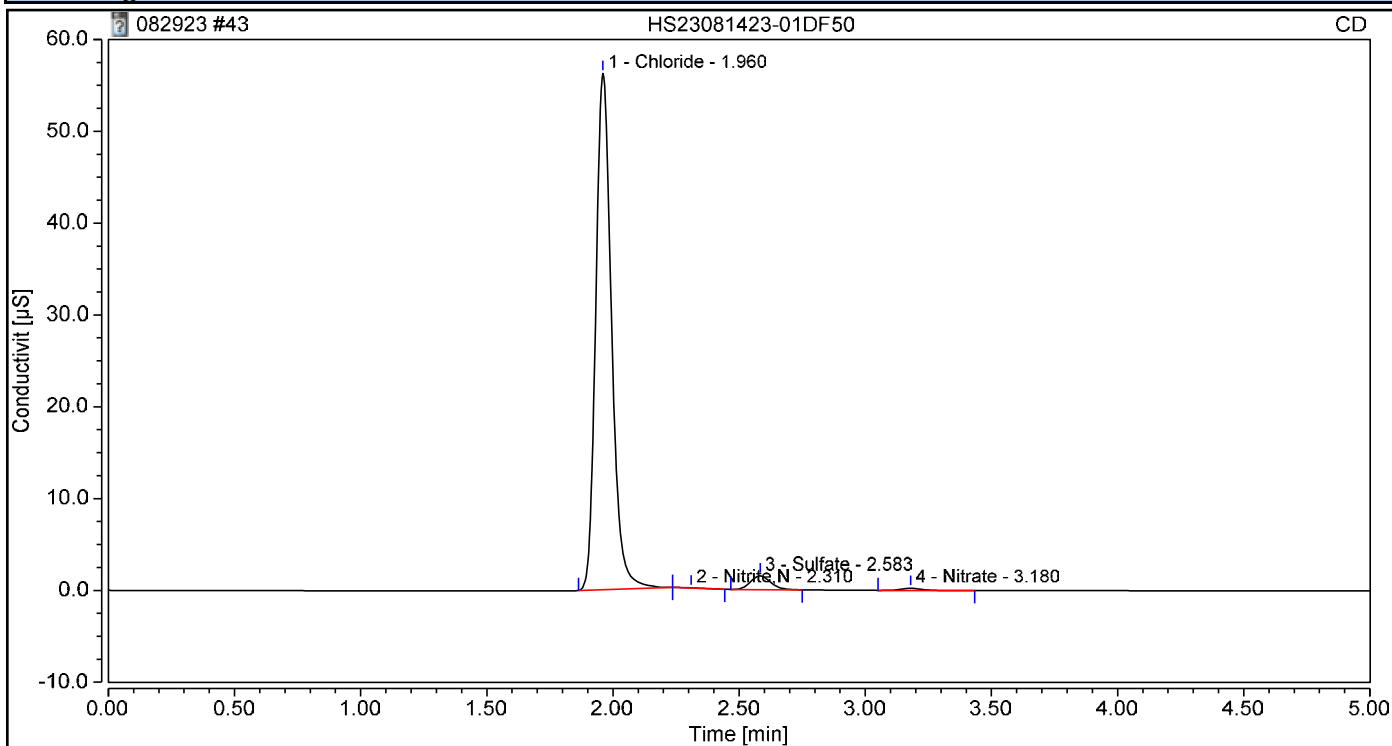


Chromatogram and Results

Injection Details

Injection Name:	HS23081423-01DF50	Run Time (min):	5.00
Vial Number:	RD3	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	50.0000
Injection Date/Time:	29/Aug/23 12:53	Sample Weight:	1.0000

Chromatogram



Integration Results

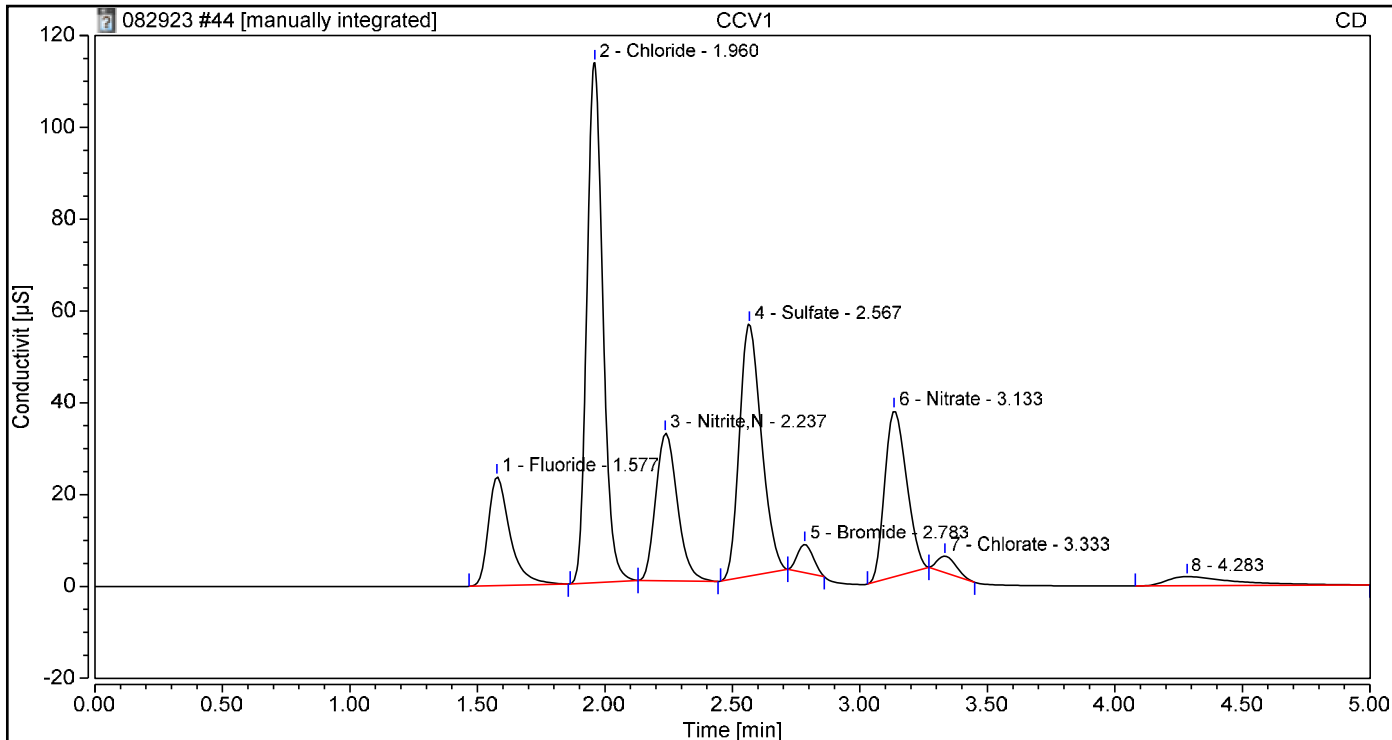
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	1.960	4.075	56.240	96.15	96.98	1197.4693
2	Nitrite, N	2.310	0.003	0.028	0.07	0.05	1.0668
3	Sulfate	2.583	0.137	1.483	3.24	2.56	74.3155
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Nitrate	3.180	0.023	0.243	0.54	0.42	4.4547
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			4.238	57.994	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCV1	Run Time (min):	5.00
Vial Number:	R3	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 13:04	Sample Weight:	1.0000

Chromatogram



Integration Results

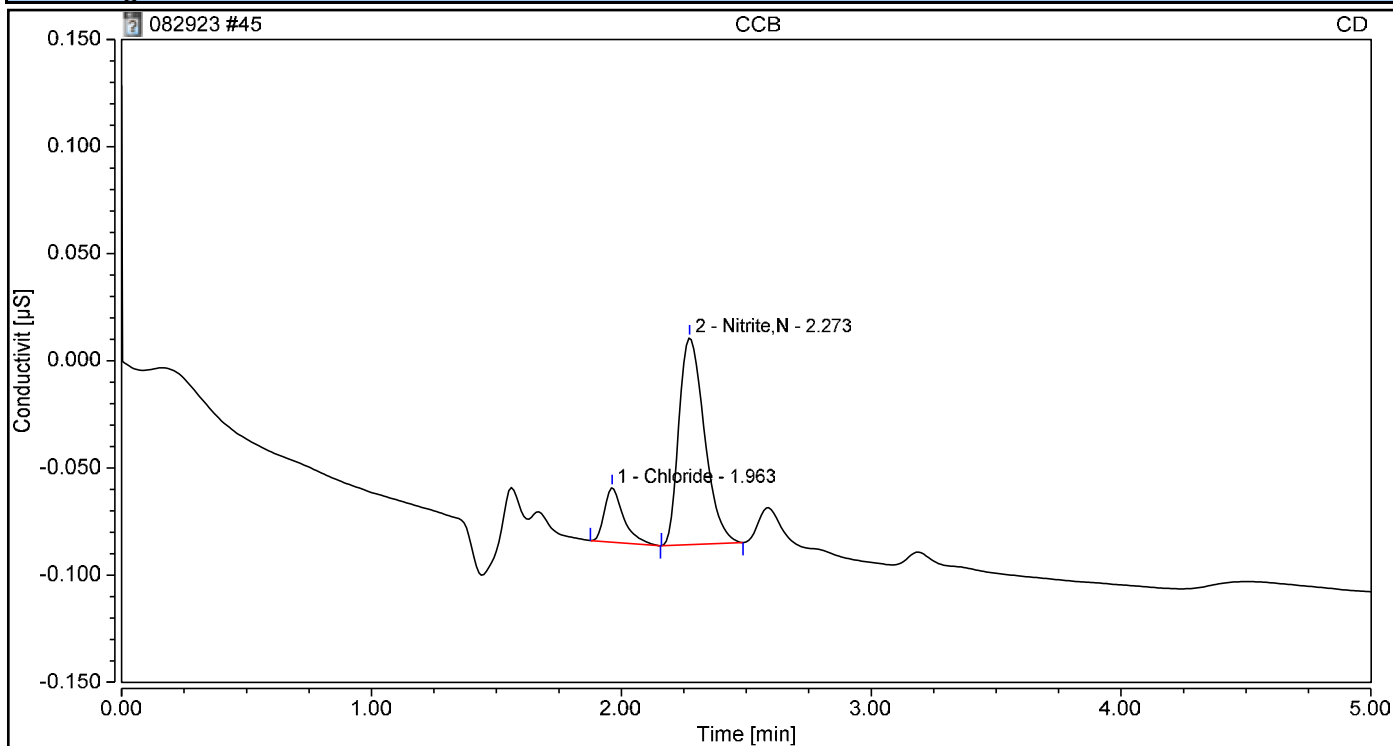
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.577	2.326	23.731	9.63	8.72	10.1629
2	Chloride	1.960	8.210	113.275	33.98	41.63	48.0654
3	Nitrite, N	2.237	3.166	32.171	13.10	11.82	9.3767
4	Sulfate	2.567	5.474	54.868	22.66	20.17	49.7564
5	Bromide	2.783	0.447	6.204	1.85	2.28	10.1896
6	Nitrate	3.133	3.598	36.223	14.89	13.31	9.6506
7	Chlorate	3.333	0.309	3.586	1.28	1.32	8.4458
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.283	0.632	2.025	2.62	0.74	n.a.
Total:			24.163	272.084	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCB	Run Time (min):	5.00
Vial Number:	R7	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	29/Aug/23 13:10	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	1.963	0.002	0.026	16.43	20.88	0.1977
2	Nitrite,N	2.273	0.011	0.097	83.57	79.12	0.0436
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.014	0.122	100.00	100.00	

HS23090353 GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES Cover Page

ALS WO# HS23090353



ALS Environmental
ALS Group USA, Corp
10450 Stancliff Road, Suite 210
Houston, TX 77099
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right solutions.
right partner.

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

WorkOrder: HS23090353

**GROUNDWATER TREATMENT PLANT WEEKLY
SAMPLES**

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

13-Sep-2023



HS23090353 GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES Final

ALS WO# HS23090353





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

September 11, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23090353**

Laboratory Results for: **GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES**

Dear Marcia Olive,

ALS Environmental received 3 sample(s) on Sep 07, 2023 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: JUMOKE.LAWAL

James Guin



ALS Houston, US

Date: 11-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
Work Order: HS23090353

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23090353-01	LH18/24-SP650_090623	Water		06-Sep-2023 13:00	07-Sep-2023 10:00	☐
HS23090353-02	LH18/24-SP650_090623_BIX	Water		06-Sep-2023 13:00	07-Sep-2023 10:00	☐
HS23090353-03	LH18/24-SP650_090623_AIX	Water		06-Sep-2023 13:00	07-Sep-2023 10:00	☐



ALS Houston, US

Date: 11-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
Work Order: HS23090353

CASE NARRATIVE

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached
-

WetChemistry by Method E415.1**Batch ID: R445898**

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

WetChemistry by Method E350.3**Batch ID: R445782**

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

WetChemistry by Method E365.3**Batch ID: R445698**

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



ALS Houston, US

Date: 11-Sep-23

Client: Bhate Environmental Associates, Inc.
 Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
 Sample ID: LH18/24-SP650_090623
 Collection Date: 06-Sep-2023 13:00

ANALYTICAL REPORT

WorkOrder:HS23090353
 Lab ID:HS23090353-01
 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
AMMONIA AS N BY E350.3(ISE)		Method:E350.3						Analyst: AB
Nitrogen, Ammonia (As N)	13	a	0.10	0.20	0.20	mg/L	1	08-Sep-2023 09:18
ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978		Method:E365.3						Analyst: AB
Phosphorus, Total Orthophosphate (As P)	0.387	a	0.0100	0.0250	0.0250	mg/L	1	07-Sep-2023 13:03
TOTAL ORGANIC CARBON BY E415.1		Method:E415.1						Analyst: DW
Organic Carbon, Total	2.92	a	0.500	1.00	1.00	mg/L	1	09-Sep-2023 12:13

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



ALS Houston, US

Date: 11-Sep-23

Client:	Bhate Environmental Associates, Inc.	ANALYTICAL REPORT
Project:	GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES	WorkOrder:HS23090353
Sample ID:	LH18/24-SP650_090623_BIX	Lab ID:HS23090353-02
Collection Date:	06-Sep-2023 13:00	Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		Method:NA						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	08-Sep-2023 15:01

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



ALS Houston, US

Date: 11-Sep-23

Client:	Bhate Environmental Associates, Inc.	ANALYTICAL REPORT
Project:	GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES	WorkOrder:HS23090353
Sample ID:	LH18/24-SP650_090623_AIX	Lab ID:HS23090353-03
Collection Date:	06-Sep-2023 13:00	Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		Method:NA						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	08-Sep-2023 15:01

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



ALS Houston, US

Date: 11-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
WorkOrder: HS23090353

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R445698 (0)		Test Name : ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978			Matrix: Water	
HS23090353-01	LH18/24-SP650_090623	06 Sep 2023 13:00			07 Sep 2023 13:03	1
Batch ID: R445782 (0)		Test Name : AMMONIA AS N BY E350.3(ISE)			Matrix: Water	
HS23090353-01	LH18/24-SP650_090623	06 Sep 2023 13:00			08 Sep 2023 09:18	1
Batch ID: R445849 (0)		Test Name : SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)			Matrix: Water	
HS23090353-02	LH18/24-SP650_090623_BIX	06 Sep 2023 13:00			08 Sep 2023 15:01	1
HS23090353-03	LH18/24-SP650_090623_AIX	06 Sep 2023 13:00			08 Sep 2023 15:01	1
Batch ID: R445898 (0)		Test Name : TOTAL ORGANIC CARBON BY E415.1			Matrix: Water	
HS23090353-01	LH18/24-SP650_090623	06 Sep 2023 13:00			09 Sep 2023 12:13	1



ALS Houston, US

Date: 11-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
WorkOrder: HS23090353

QC BATCH REPORT

Batch ID: R445698 (0)		Instrument: UV-2450		Method: ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978						
MBLK	Sample ID: MBLK-R445698	Units: mg/L		Analysis Date: 07-Sep-2023 13:03						
Client ID:	Run ID: UV-2450_445698	SeqNo: 7529513		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.0250	0.0250								U
LCS	Sample ID: LCS-R445698	Units: mg/L		Analysis Date: 07-Sep-2023 13:03						
Client ID:	Run ID: UV-2450_445698	SeqNo: 7529512		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.233	0.0250	0.25	0	93.2	85 - 115				
MS	Sample ID: HS23090342-01MS	Units: mg/L		Analysis Date: 07-Sep-2023 13:03						
Client ID:	Run ID: UV-2450_445698	SeqNo: 7529515		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.457	0.0250	0.25	0.223	93.6	80 - 120				
MSD	Sample ID: HS23090342-01MSD	Units: mg/L		Analysis Date: 07-Sep-2023 13:03						
Client ID:	Run ID: UV-2450_445698	SeqNo: 7529514		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.45	0.0250	0.25	0.223	90.8	80 - 120	0.457	1.54	20	
The following samples were analyzed in this batch: HS23090353-01										



ALS Houston, US

Date: 11-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
WorkOrder: HS23090353

QC BATCH REPORT

Batch ID: R445782 (0)		Instrument: WetChem_HS		Method: AMMONIA AS N BY E350.3(ISE)						
MBLK	Sample ID: MBLK-R445782	Units: mg/L		Analysis Date: 08-Sep-2023 09:18						
Client ID:	Run ID: WetChem_HS_445782		SeqNo: 7531357		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.20	0.20								U
LCS	Sample ID: LCS-R445782	Units: mg/L		Analysis Date: 08-Sep-2023 09:18						
Client ID:	Run ID: WetChem_HS_445782		SeqNo: 7531356		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	9.296	0.20	10	0	93.0	80 - 120				
MS	Sample ID: HS23081746-01MS	Units: mg/L		Analysis Date: 08-Sep-2023 09:18						
Client ID:	Run ID: WetChem_HS_445782		SeqNo: 7531359		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	10.03	0.20	10	1.102	89.2	80 - 120				
MSD	Sample ID: HS23081746-01MSD	Units: mg/L		Analysis Date: 08-Sep-2023 09:18						
Client ID:	Run ID: WetChem_HS_445782		SeqNo: 7531358		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	10.15	0.20	10	1.102	90.5	80 - 120	10.03	1.25	20	
The following samples were analyzed in this batch: HS23090353-01										



ALS Houston, US

Date: 11-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
WorkOrder: HS23090353

QC BATCH REPORT

Batch ID: R445898 (0)		Instrument: TOC_04		Method: TOTAL ORGANIC CARBON BY E415.1						
MBLK	Sample ID: MBLK-09092023	Units: mg/L		Analysis Date: 09-Sep-2023 11:32						
Client ID:	Run ID: TOC_04_445898	SeqNo: 7534266		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U
LCS	Sample ID: LCS-09092023	Units: mg/L		Analysis Date: 09-Sep-2023 11:46						
Client ID:	Run ID: TOC_04_445898	SeqNo: 7534267		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.48	1.00	10	0	105	85 - 115				
LCSD	Sample ID: LCSD-09092023	Units: mg/L		Analysis Date: 09-Sep-2023 12:00						
Client ID:	Run ID: TOC_04_445898	SeqNo: 7534268		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.16	1.00	10	0	102	85 - 115	10.48	3.1	20	
MS	Sample ID: HS23090258-01MS	Units: mg/L		Analysis Date: 09-Sep-2023 12:54						
Client ID:	Run ID: TOC_04_445898	SeqNo: 7534272		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	20.97	1.00	10	10.76	102	80 - 120				
The following samples were analyzed in this batch: HS23090353-01										



ALS Houston, US

Date: 11-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES
WorkOrder: HS23090353

**QUALIFIERS,
ACRONYMS, UNITS**

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

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



CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2023-2024	30-Apr-2024
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024



ALS Houston, US

Date: 11-Sep-23

Sample Receipt Checklist

Work Order ID: HS23090353

Date/Time Received: 07-Sep-2023 10:00

Client Name: Bhate Environmental

Received by: Corey Grandits

Completed By: <u>/S/ Corey Grandits</u>	07-Sep-2023 11:57	Reviewed by: <u>/S/ Nieka Carson</u>	07-Sep-2023 13:03
eSignature	Date/Time	eSignature	Date/Time

Matrices: WCarrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Samplers name present on COC?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	

Temperature(s)/Thermometer(s):

3.0UC/2.9C IR31

Cooler(s)/Kit(s):

48047

Date/Time sample(s) sent to storage:

9/7/23

Water - VOA vials have zero headspace?

Yes ☒ No ☐ No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☒ No ☐ N/A ☐

pH adjusted?

Yes ☐ No ☒ N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



HS23090353

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stanceliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: James Guin

Bhate Environmental Associates, Inc.
GROUNDWATER TREATMENT PLANT WEEKLY S

Project: BHATE LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS						Project No. JVPCIBH.0001																							
Job: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES																													
Prepared By: Scott Beesinger																		P.O. Number											
Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	AMMONIA-N	TOTAL ORGANIC CARBON	ORTHO-PHOSPHATE	PERCHLORATE																				Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_090623	Water	09/06/23 / 13:00		3	X	X																					H2SO4		
LH18/24-SP650_090623	Water	09/06/23 / 13:00		1			X																				NONE		
LH18/24-SP650_090623_BIX	Water	09/06/23 / 13:00		1				X																			NONE		
LH18/24-SP650_090623_AIX	Water	09/06/23 / 13:00		1				X																			NONE		
				</																									



 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5687	CUSTODY SEAL		Seal Broken By: <i>SMY</i>
	Date: <i>9/6/23</i>	Time: <i>1330</i>	<i>09107123</i>
	Name: <i>Scott Beesinger</i>		
	Company: <i>BHATS</i>		

48047 SEP 07 2023



ORIGIN ID: SGRA (903) 930-6193
 SCOTT BEESINGER
 APTIM ENVIRONMENTAL & INFRASTRUCTURE
 1203-B EAST GRAND AVE
 PHB 202
 MARSHALL, TX 75670
 UNITED STATES US

SHIP DATE: 20DEC21
 ACTWGT: 1.00 LB MAN
 CAD: 0221247/CAFE3507
 DIMS: 19x16x13 IN

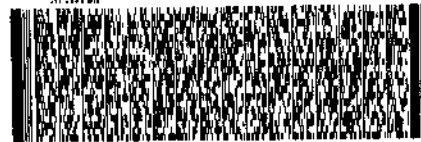
TO SHIPPING DEPT
 ALS LABORATORY GROUP
 10450 STANCLIFF RD
 SUITE 210
 HOUSTON TX 77099

48047

(281) 530-5666

REF: LHAAP-50-80 82485-RG

RMA: 81181111



FedEx
Express



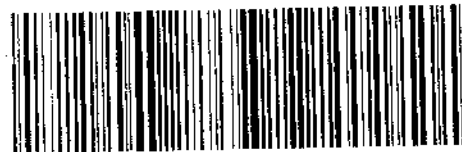
FedEx

TRK# 5300 5226 2843
 0221

THU - 07 SEP AA
 PRIORITY OVERNIGHT

AB SGRA

77099
 TX-US
 IAH



01/23 00Sep2023 000A 58103/CTED/0008





September 08, 2023

Service Request No:E2300803

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS23090353

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory September 07, 2023
For your reference, these analyses have been assigned our service request number **E2300803**.

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 2190. You may also contact me via email at hussam.kelany@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Hussam Kelany
Project Manager

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 -
Project: US HS23090353
Sample Matrix: Water

Service Request No.: E2300803
Date Received: 09/07/23

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 II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 09/07/23

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:**

EQ2300431: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

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

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



Client: ALS Environmental - US
Project: HS23090353

Service Request: E2300803

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E2300803-001	LH18/24-SP650_090623_BIX	9/6/2023	1300
E2300803-002	LH18/24-SP650_90623_AIX	9/6/2023	1300



Service Request Summary

Folder #: E2300803
Client Name: ALS Environmental - US
Project Name: HS23090353
Project Number:

Report To: James Guin
 ALS Environmental - US
 10450 Stancliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/07/23
Internal Due Date: 9/8/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090353
EDD: BASIC_WQC_CASNo
 _LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

				HOUSTON
Lab Samp No.	Client Samp No	Matrix	Collected	CIO4 DOD/6850
E2300803-001	LH18/24-SP650_090623_BIX	Water	09/06/23 1300	IV
E2300803-002	LH18/24-SP650_90623_AIX	Water	09/06/23 1300	IV



Service Request Summary

Folder #: E2300803
Client Name: ALS Environmental - US
Project Name: HS23090353
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/07/23
Internal Due Date: 9/8/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090353
EDD: BASIC_WQC_CASNo
_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush



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
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L23-358	5/31/2025
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
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	343-2023	6/30/2024
Michigan Department of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Conservation	TN04016-2023	4/30/2024
Texas Commission on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932023-14	7/31/2024
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





E2300803
ALS Environmental - US
HS23090354

5



10450 Standcliff Rd, Ste 210
Houston, TX 77099
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F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense

COC ID: 23043

SUBCONTRACT TO:

ALS Environmental
10450 Standcliff Road Suite 210
Houston, TX 77084

Phone: +1 281 530 5656

**CUSTOMER
INFORMATION:**

Company: ALS Houston
Contact: James Guin
Address: 10450 Standcliff Rd, Ste 210
Phone: +1 281 530 5656
Email: James.Guin@alsglobal.com
**Alternate
Contact:** Jumoke M. Lawal
Email: jumoke.lawal@alsglobal.com

**INVOICE
INFORMATION:**

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Standcliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS23090353
TSR: Holly Tignac

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
1. HS23090353-02	LH18/24-SP650_090623_BIX	Water	06 Sep 2023 13:00
	6850-Perch. DOD Level II & Level IV	in separate pdf	08 Sep 2023
2. HS23090353-03	LH18/24-SP650_090623_AIX	Water	06 Sep 2023 13:00
	6850-Perch. DOD Level II & Level IV	in separate pdf	08 Sep 2023

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

QC Level: DOD IV (DoD Data Package)

Relinquished By:

Date/Time:

Received By:

Date/Time:

Cooler ID(s):

Temperature(s):

PG

14

9.22.23 RCL





Cooler Receipt Form

Project Chemist JSClient/Project ALSThermometer ID 1231Date/Time Received: 9.7.23Initials: cyDate/Time Logged in: 9.7.23Initials cy1. Method of delivery: ☐ US Mail ☐ Fed Ex ☐ UPS ☐ DHL ☒ ^{ALS}Courier ☐ Client2. Samples received in: ☒ Cooler ☐ Box ☐ Envelope ☐ Other3. 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 ☐ Other5. Foreign or Regulated Soil? ☐ Yes ☐ No Location of Sampling: _____

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
-		9.7.23	1200	cy	33	☒
						☐
						☐
						☐

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:

E2300803

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ALS Environmental - US
HS23090354

HS-HRMSCoolerReceipt R1.0

ALS Environmental - Houston HRMS





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Houston, TX 77099
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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

Prep Run#: 425982
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 9/6/23 09:57

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300792-001	29WW38_083023	.01	6850/CIO4 DOD			Ground Water	10mL	
2	E2300792-002	29WW19_083023	.01	6850/CIO4 DOD			Ground Water	10mL	
3	E2300792-003	29WW39_083023	.01	6850/CIO4 DOD			Ground Water	10mL	
4	E2300792-004	29WW39_083023_a	.01	6850/CIO4 DOD			Ground Water	10mL	
5	E2300793-001	29WW05_082923	.01	6850/CIO4 DOD			Ground Water	10mL	
6	E2300793-002	29WW07_082923	.01	6850/CIO4 DOD			Ground Water	10mL	
7	E2300793-003	29WW23_082923	.01	6850/CIO4 DOD			Ground Water	10mL	
8	E2300793-004	29WW23_082923_a	.01	6850/CIO4 DOD			Ground Water	10mL	
9	E2300796-001	29WW36_083123	.01	6850/CIO4 DOD			Ground Water	10mL	
10	E2300796-002	29WW18_083123	.01	6850/CIO4 DOD			Ground Water	10mL	
11	E2300796-003	29WW31_083123	.01	6850/CIO4 DOD			Ground Water	10mL	
12	E2300796-004	29WW29_083123	.01	6850/CIO4 DOD			Ground Water	10mL	
13	E2300803-001	LH18/24-SP650_090623_BIX	.01	6850/CIO4 DOD			Water	10mL	
14	E2300803-002	LH18/24-SP650_90623_AIX	.01	6850/CIO4 DOD			Water	10mL	
15	EQ2300431-01	MB		6850/CIO4			Liquid	10mL	
16	EQ2300431-02	LCS		6850/CIO4			Liquid	10mL	
17	EQ2300431-03	DLCS		6850/CIO4			Liquid	10mL	
18	R2307771-008	2308221433X 200-H-433	.01	6850/CIO4			Water	10mL	
19	R2307994-007	2308281420X 400-D-195	.01	6850/CIO4			Water	10mL	
20	R2307994-013	2308291013X WB-5-345	.01	6850/CIO4			Water	10mL	
21	R2307994-018	2308301033X WB-5-250	.01	6850/CIO4			Water	10mL	

Spiking Solutions

Name:	Perchlorate Intermediate Stock1	Inventory ID	230342	Logbook Ref:	Perchlorate (1st Source)	Expires On:	03/07/2024
-------	---------------------------------	--------------	--------	--------------	--------------------------	-------------	------------

EQ2300431-02 1.00µL EQ2300431-02 1.00µL EQ2300431-03 1.00µL EQ2300431-03 1.00µL

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	230372	Logbook Ref:	Perchlorate Internal Standard	Expires On:	04/30/2024
-------	--------------------------------------	--------------	--------	--------------	-------------------------------	-------------	------------

E2300792-001	100.00µL	E2300792-002	100.00µL	E2300792-003	100.00µL	E2300792-004	100.00µL	E2300793-001	100.00µL	E2300793-002	100.00µL
E2300793-003	100.00µL	E2300793-004	100.00µL	E2300796-001	100.00µL	E2300796-002	100.00µL	E2300796-003	100.00µL	E2300796-004	100.00µL
E2300803-001	100.00µL	E2300803-002	100.00µL	EQ2300431-01	100.00µL	EQ2300431-01	100.00µL	EQ2300431-02	100.00µL	EQ2300431-02	100.00µL
EQ2300431-03	100.00µL	EQ2300431-03	100.00µL	R2307771-008	100.00µL	R2307994-007	100.00µL	R2307994-013	100.00µL	R2307994-018	100.00µL



Preparation Information Benchsheet

Prep Run#: 425982
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 9/6/23 09:57

Preparation Steps

Step: Preparation
Started: 9/6/23 09:57
Finished: 9/6/23 13:44
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____	Date: _____	<u>Extracts Examined</u> Yes No
Received By: _____	Date: _____	



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: HS23090353
Sample Matrix: Water
Sample Name: LH18/24-SP650_090623_BIX
Lab Code: E2300803-001

Service Request: E2300803
Date Collected: 9/ 6/23 1300
Date Received: 9/ 7/23
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	107		1.00	0.500	0.250	10	9/ 6/23	9/7/23 14:25	425982	816381	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090353
Sample Matrix: Water
Sample Name: LH18/24-SP650_90623_AIX
Lab Code: E2300803-002

Service Request: E2300803
Date Collected: 9/ 6/23 1300
Date Received: 9/ 7/23
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	4.70		0.100	0.0500	0.0250	1	9/ 6/23	9/7/23 13:33	425982	816381	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090353
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: EQ2300431-01

Service Request: E2300803
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	9/ 6/23	9/7/23 11:37	425982	816381	





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: HS23090353
Sample Matrix: Water

Service Request: E2300803**Date Analyzed:** 9/ 7/23

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:** 425982

Analyte Name	Lab Control Sample EQ2300431-02			Duplicate Lab Control Sample EQ2300431-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perchlorate	0.0934	0.100	93	0.0932	0.100	93	84 - 119	<1	15

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

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



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090353
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: EQ2300431-02

Service Request: E2300803
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	0.0934	J	0.100	0.0500	0.0250	1	9/ 6/23	9/7/23 12:03	425982	816381	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090353
Sample Matrix: Water
Sample Name: Duplicate Lab Control Sample
Lab Code: EQ2300431-03

Service Request: E2300803
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	0.0932	J	0.100	0.0500	0.0250	1	9/ 6/23	9/7/23 11:48	425982	816381	



HS23090353 Wetchem NIT-AMM_W- E350.3 - ISE

ALS WO# HS23090353





ALS Laboratory Group

NET-ANM-W-E350.3 ISE
NET-ANM-W-ISE

Logbook :

Ion Selective Electrode Logbook

Analyst: <u>AB</u>					Date: <u>09/01/28</u>				
Method: SM4500NH3-D/EPA 350.3 or SM4500 NH3 B-F									
Probe Calibration Date: <u>09/08/23</u>			Cal Std ID: <u>322146403-10</u>			Probe ID: <u>NH3-8</u>			
Std Level		mV		Conc., mg/L		Sodium Thiosulfate ID: <u>---</u>			
STD 1 (mg/L):		<u>0.198</u>		<u>125.4</u>		Std Level		mV	
STD 2 (mg/L):		<u>1.008</u>		<u>97.0</u>		STD 4 (mg/L):		<u>10.003</u>	
STD 3 (mg/L):		<u>5.001</u>		<u>56.9</u>		STD 5 (mg/L):		<u>50.006</u>	
LSC / MS Spike ID: <u>3100607804</u>						ICAL Date & Slope: <u>99.3% - 58.6</u>			
ICV Cal STD ID: <u>322146403</u>									
DPD Reagent ID: <u>3100607813</u>									
WO # / SX #	Bottle #	Initial g or ml	Final Vol. ml	Dilution Factor	Initial Conc. mg/L	Final Conc. mg/L	Chlorine Check (+/-)	Comments	
ICV	/	50ml	50ml		9.309				
ICB	/				0.005				
mBCLK	/				0.005				
CCS	/				9.296				
HS23081965-01	/				13.273				
383-01	/				13.369				
1746-01	/				1.102				
1746-01ms	/				10.026				
1746-01msB	/				10.152				
1821-01	/				1.011				
1915-01	/				1.021				
994-01	/				1.346				
ccv	/				9.202				
ccB	/				0.008				
087-04	/			10x	9.474				
049-01	/				0.961				
130-01	/				1.290				
174-01	/				1.375				
272-01	/				1.248				
ccv 2	/				9.326				
ccB 2	/				0.008				
1292-10	/	50ml			3.750				
ccv 3	/	50ml	50ml		9.697				
ccB 3	/				0.007				

Batch ID: 445782, 445987

Reported By: AB

Reviewed By:

HS23090353 Wetchem P-ORTHO

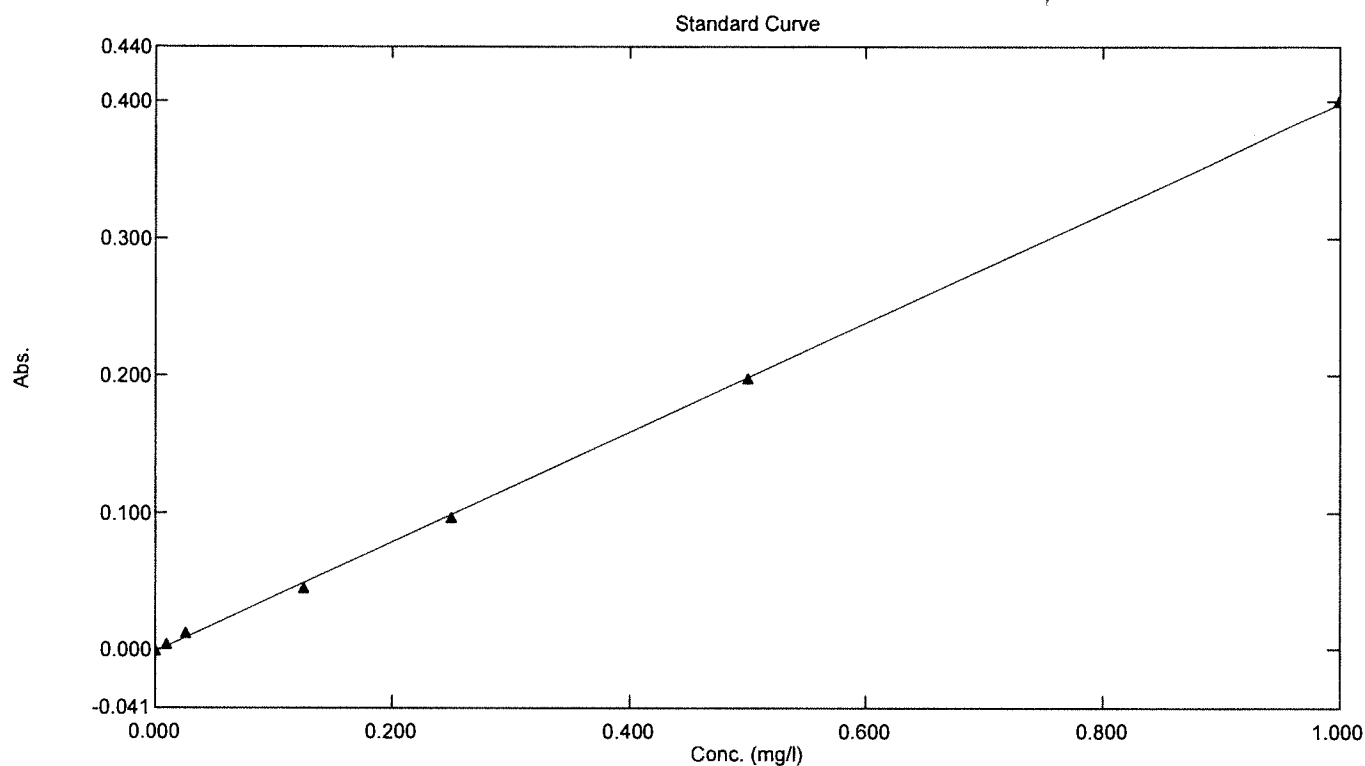
ALS WO# HS23090353



Standard Table Report

09/07/2023 05:42:25 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\P_ORTHO (365.3
METHOD)\2023\09072023_P_ORTHO_W.pho



Correlation Coefficient $r^2 = 0.99971$

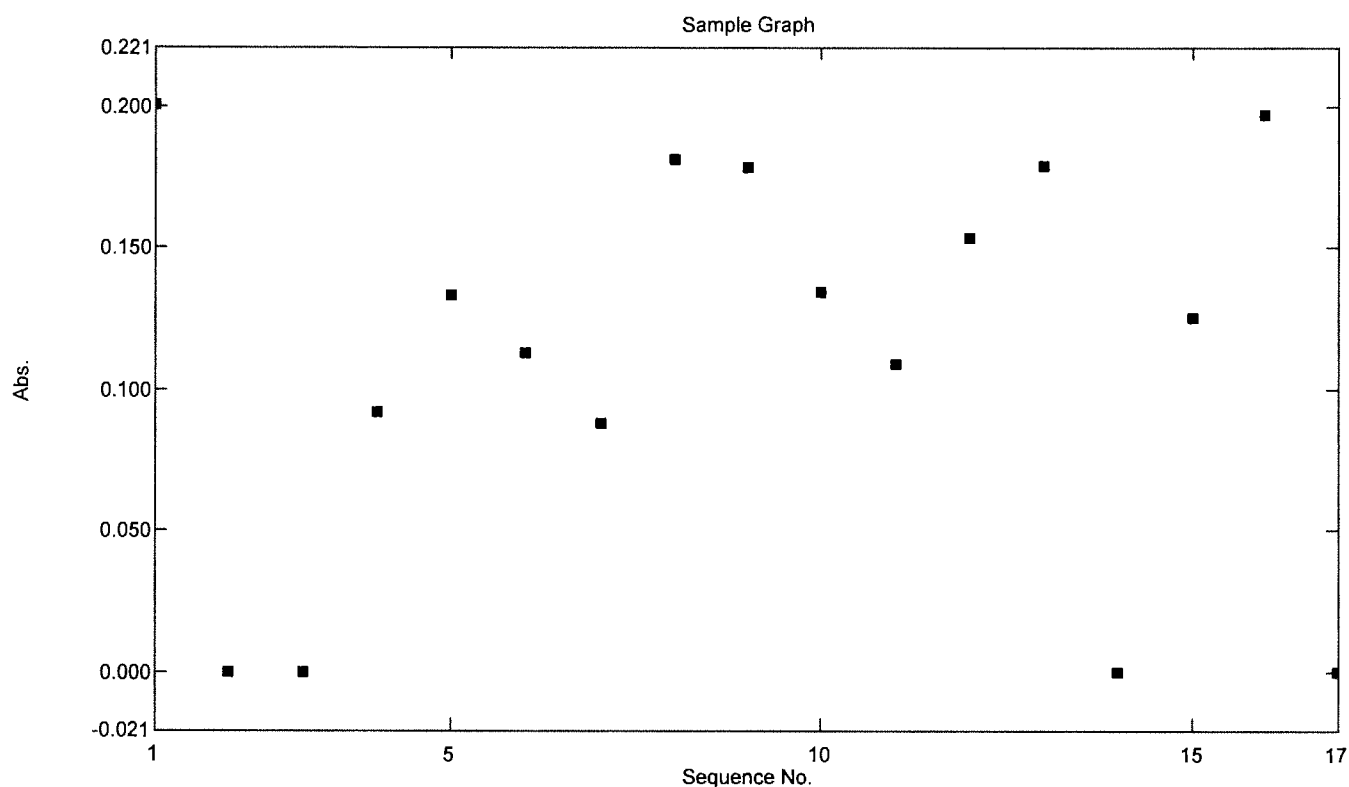
Standard Table

	Sample ID	Type	Ex	Conc	WL650.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.005	1.000	
3	STD3	Standard		0.025	0.012	1.000	
4	STD4	Standard		0.125	0.045	1.000	
5	STD5	Standard		0.250	0.096	1.000	
6	STD6	Standard		0.500	0.197	1.000	
7	STD7	Standard		1.000	0.400	1.000	
8							

Sample Table Report

09/07/2023 05:42:28 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\P_ORTHO (365.3
METHOD)\2023\09072023_P_ORTHO_W.pho



Sample Table

	Sample ID	Date	Time	Conc	WL650.	Comments
1	CCV	09/07/2023	12:39:14 PM	0.506	0.201	322145107 WC-24
2	CCB	09/07/2023	12:39:23 PM	0.003	-0.000	
3	MBLK	09/07/2023	12:39:28 PM	0.003	-0.000	
4	LCS	09/07/2023	12:39:59 PM	0.233	0.092	322145209 WC-23
5	HS23090337.01	09/07/2023	12:41:21 PM	0.337	0.133	DF=10X
6	HS23090341.01	09/07/2023	12:41:46 PM	0.285	0.113	11N 3100606911
7	HS23090342.01	09/07/2023	12:42:05 PM	0.223	0.088	A.MOLYBDATE 322146301
8	HS23090342.01MS	09/07/2023	12:43:44 PM	0.457	0.181	A.ACID 322145906
9	HS23090342.01MSD	09/07/2023	12:44:01 PM	0.450	0.178	
10	HS23090339.01	09/07/2023	12:44:24 PM	0.340	0.135	
11	HS23090343.01	09/07/2023	12:44:47 PM	0.276	0.109	
12	HS23090353.01	09/07/2023	12:46:24 PM	0.387	0.154	DF=10X
13	CCV2	09/07/2023	12:46:34 PM	0.451	0.179	
14	CCB2	09/07/2023	12:46:45 PM	0.002	-0.001	
15	HS23090344.01	09/07/2023	12:47:06 PM	0.317	0.125	DF=10X
16	CCV3	09/07/2023	12:47:34 PM	0.496	0.197	
17	CCB3	09/07/2023	12:47:44 PM	0.002	-0.000	
18						

HS23090353 Wetchem TOC_W

ALS WO# HS23090353



C:\TOC-L\Data\2023_06_21_002.tlx

	Type	Analysis	Sample Nam	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time
1	Standard	NPOC	CALIBRATI		06.21.2023.	1.000			Completed	6/21/2023 6:
2	Unknown	NPOC	ICV		06.21.2023.	1.000	NPOC:7.77		Completed	6/21/2023 6:
3	Unknown	NPOC	ICB		06.21.2023.	1.000	NPOC:0.01		Completed	6/21/2023 7:



	Vial
1	60, 61, 62, 6
2	67
3	68

TOC-Control L Report

2023_06_21_002.tlx

Instr.Information

Instrument Options
Catalyst

TOC/ASI/IC Unit/
Regular Sensitivity

Cal. Curve

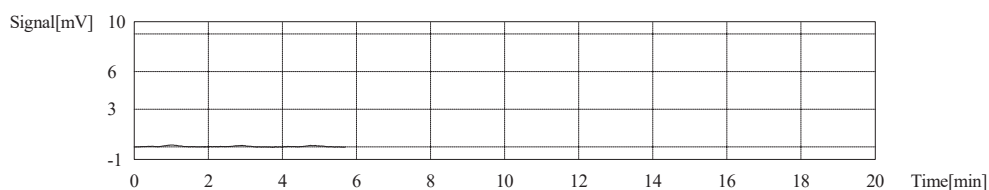
Sample Name: CALIBRATION
Sample ID:
Cal. Curve: 06.21.2023.2023_06_21_17_09_26.cal
Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.3327	50uL	1.000	*****		6/21/2023 5:17:20 PM
2	0.000	50uL	1.000	*****		6/21/2023 5:19:28 PM
3	0.4000	50uL	1.000	*****		6/21/2023 5:21:36 PM

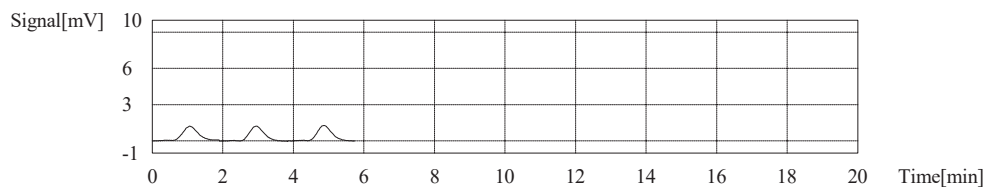
Acid Add. 0.000%
Spurge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 0.2442



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.239	50uL	1.000	*****		6/21/2023 5:29:24 PM
2	3.486	50uL	1.000	*****		6/21/2023 5:31:35 PM
3	3.544	50uL	1.000	*****		6/21/2023 5:33:43 PM

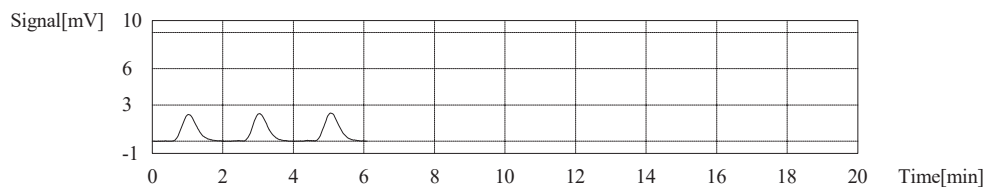
Acid Add. 0.000%
Spurge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 3.423



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.496	50uL	1.000	*****		6/21/2023 5:41:39 PM
2	6.578	50uL	1.000	*****		6/21/2023 5:43:54 PM
3	6.676	50uL	1.000	*****		6/21/2023 5:46:11 PM

Acid Add. 0.000%
Spurge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 6.583



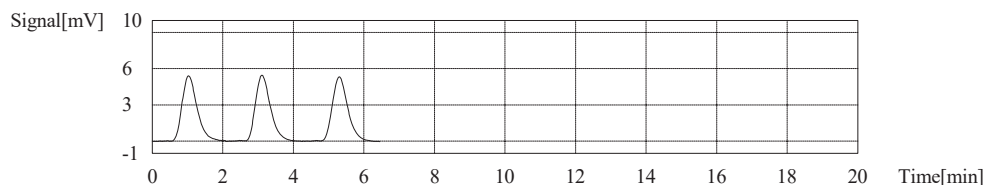
TOC-Control L Report

2023_06_21_002.tlx

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.80	50uL	1.000	*****		6/21/2023 5:54:11 PM
2	15.85	50uL	1.000	*****		6/21/2023 5:56:36 PM
3	16.15	50uL	1.000	*****		6/21/2023 5:59:02 PM

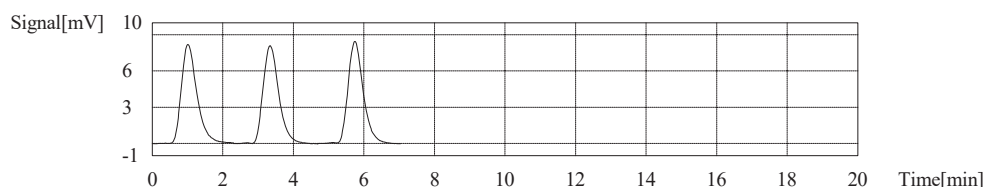
Acid Add. 0.000%
 Sparge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 15.93



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	24.91	50uL	1.000	*****		6/21/2023 6:07:14 PM
2	24.77	50uL	1.000	*****		6/21/2023 6:09:54 PM
3	25.05	50uL	1.000	*****		6/21/2023 6:12:28 PM

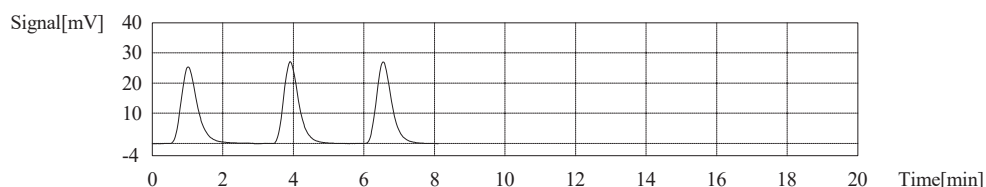
Acid Add. 0.000%
 Sparge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 24.91



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	80.93	50uL	1.000	*****		6/21/2023 6:21:15 PM
2	81.18	50uL	1.000	*****		6/21/2023 6:24:07 PM
3	81.22	50uL	1.000	*****		6/21/2023 6:26:57 PM

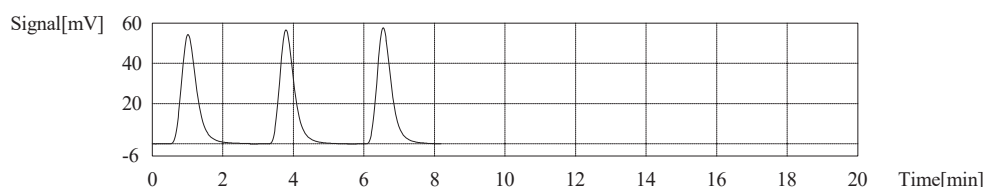
Acid Add. 0.000%
 Sparge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 81.11



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	163.2	50uL	1.000	*****		6/21/2023 6:35:37 PM
2	164.6	50uL	1.000	*****		6/21/2023 6:38:38 PM
3	165.0	50uL	1.000	*****		6/21/2023 6:41:31 PM

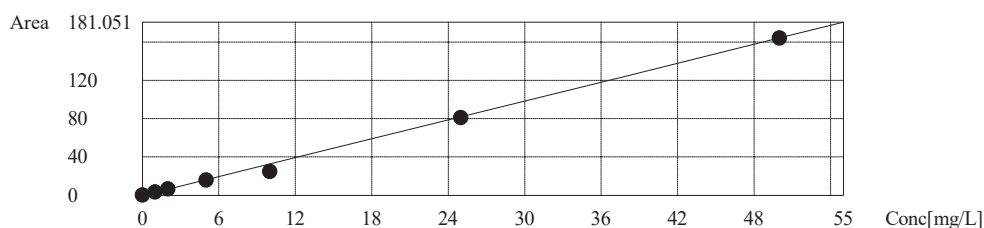
Acid Add. 0.000%
 Sparge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 164.3



TOC-Control L Report

2023_06_21_002.tlx

Slope: 3.292
 Intercept: 0.000
 r^2 : 0.9976
 r : 0.9988
 RSE(%): N/A
 Zero Shift: Yes



Sample

Sample Name: ICB
 Sample ID:
 Origin: 06.21.2023.cal
 Status: Completed
 Chk. Result

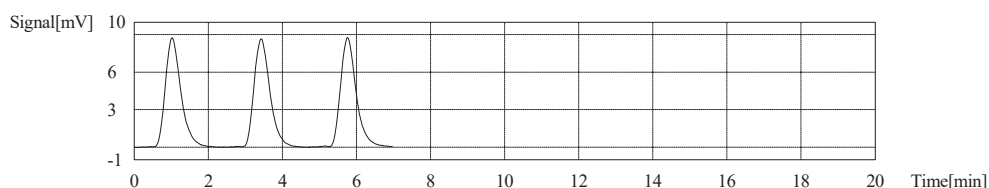
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.778mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.58	7.771mg/L	50uL	1.000		06.21.2023.2023_06_21_17_09_26.cal	6/21/2023 6:49:49 PM
2	25.53	7.756mg/L	50uL	1.000		06.21.2023.2023_06_21_17_09_26.cal	6/21/2023 6:52:22 PM
3	25.70	7.807mg/L	50uL	1.000		06.21.2023.2023_06_21_17_09_26.cal	6/21/2023 6:54:51 PM

Mean Area: 25.60
 Mean Conc.: 7.778mg/L



Sample

Sample Name: ICB
 Sample ID:
 Origin: 06.21.2023.cal
 Status: Completed
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01449mg/L

1. Det

Anal.: NPOC

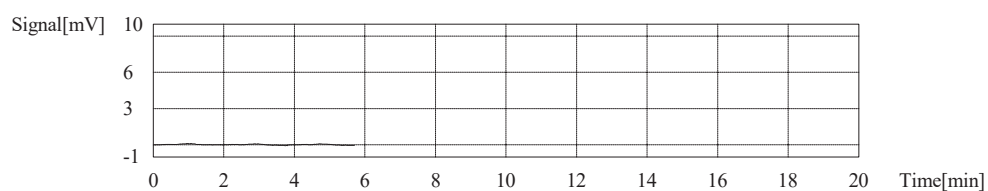
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	50uL	1.000		06.21.2023.2023_06_21_17_09_26.cal	6/21/2023 7:02:39 PM
2	0.000	0.000mg/L	50uL	1.000		06.21.2023.2023_06_21_17_09_26.cal	6/21/2023 7:04:47 PM
3	0.1431	0.04347mg/L	50uL	1.000		06.21.2023.2023_06_21_17_09_26.cal	6/21/2023 7:06:55 PM



TOC-Control L Report

2023_06_21_002.tlx

Mean Area 0.04770
Mean Conc. 0.01449mg/L



	Sample Name	Sample ID	Origin	Result	Status	Date / Time	Vial
1	CCV	322146206	06.21.2023.	NPOC:24.77m	Completed	9/9/2023 11:08:17	1
2	CCB		06.21.2023.	NPOC:0.0801	Completed	9/9/2023 11:20:30	2
3	MBLK-09092023		06.21.2023.	NPOC:0.0961	Completed	9/9/2023 11:32:31	3
4	LCS-09092023	3100607901	06.21.2023.	NPOC:10.48m	Completed	9/9/2023 11:46:38	4
5	LCSD-09092023		06.21.2023.	NPOC:10.16m	Completed	9/9/2023 12:00:45	5
6	HS23090353-01	TOC_W	06.21.2023.	NPOC:2.917m	Completed	9/9/2023 12:13:34	6
7	HS23081969-01		06.21.2023.	NPOC:18.04m	Completed	9/9/2023 12:27:25	7
8	HS23090258-01		06.21.2023.	NPOC:10.76m	Completed	9/9/2023 12:41:03	8
9	HS23090258-01MS		06.21.2023.	NPOC:20.97m	Completed	9/9/2023 12:54:58	9
10	HS23090258-02		06.21.2023.	NPOC:14.64m	Completed	9/9/2023 1:09:00	10
11	HS23090253-01		06.21.2023.	NPOC:3.096m	Completed	9/9/2023 1:23:45	11
12	HS23090355-01		06.21.2023.	NPOC:20.23m	Completed	9/9/2023 1:40:17	12
13	CCV	322146206	06.21.2023.	NPOC:24.40m	Completed	9/9/2023 1:55:46	1
14	CCB		06.21.2023.	NPOC:0.2126	Completed	9/9/2023 2:08:05	2
15	HS23090379-03	TOC_W 5310B	06.21.2023.	NPOC:0.9056	Completed	9/9/2023 2:20:19	13
16	HS23090361-01		06.21.2023.	NPOC:0.3059	Completed	9/9/2023 2:32:18	14
17	HS23090361-04		06.21.2023.	NPOC:0.2092	Completed	9/9/2023 2:44:31	15
18	HS23081801-03		06.21.2023.	NPOC:3.139m	Completed	9/9/2023 2:57:29	16
19	CCV	322146206	06.21.2023.	NPOC:24.32m	Completed	9/9/2023 3:12:42	1
20	CCB		06.21.2023.	NPOC:0.2180	Completed	9/9/2023 3:24:40	2
21	MBLK-09092023		06.21.2023.	NPOC:0.1390	Completed	9/9/2023 3:36:42	3
22	LCS-09092023	3100607901	06.21.2023.	NPOC:10.20m	Completed	9/9/2023 3:50:39	4
23	LCSD-09092023		06.21.2023.	NPOC:10.22m	Completed	9/9/2023 4:04:31	5
24	HS23090242-01	TOC_W 5310B	06.21.2023.	NPOC:22.48m	Completed	9/9/2023 4:18:41	17
25	HS23090248-01		06.21.2023.	NPOC:13.33m	Completed	9/9/2023 4:32:31	18
26	HS23090250-01		06.21.2023.	NPOC:13.55m	Completed	9/9/2023 4:46:24	19
27	HS23081899-01		06.21.2023.	NPOC:1025m	Completed	9/9/2023 5:02:19	20
28	HS23081899-01MS		06.21.2023.	NPOC:1021m	Completed	9/9/2023 5:18:16	21
29	HS23081899-02		06.21.2023.	NPOC:504.1m	Completed	9/9/2023 5:33:27	22
30	HS23081899-03		06.21.2023.	NPOC:610.9m	Completed	9/9/2023 5:48:54	23
31	CCV	322146206	06.21.2023.	NPOC:30.80m	Completed	9/9/2023 6:03:14	1
32	CCB		06.21.2023.	NPOC:1.243m	Completed	9/9/2023 6:15:37	2
33	HS23090392-01		06.21.2023.	NPOC:8.624m	Completed	9/9/2023 6:29:21	24
34	HS23090415-01DF2		06.21.2023.	NPOC:6.136m	Completed	9/9/2023 6:42:48	25
35	HS23090415-02DF2		06.21.2023.	NPOC:34.46m	Completed	9/9/2023 6:57:43	26
36	HS23090415-03DF2		06.21.2023.	NPOC:548.8m	Completed	9/9/2023 7:14:14	27
37	CCV	322146206	06.21.2023.	NPOC:25.62m	Completed	9/9/2023 7:29:08	28
38	CCB		06.21.2023.	NPOC:0.3725	Completed	9/9/2023 7:41:10	29

TOC-Control L Report

2023_09_09_001.tlx

Instr.Information

Instrument Options
Catalyst

TOC/ASI/IC Unit/
Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 322146206
Origin: 06.21.2023.cal
Status: Completed
Chk. Result

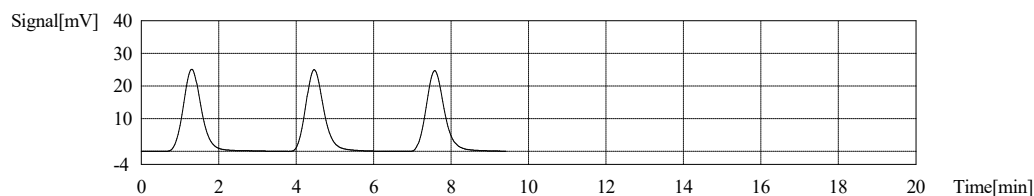
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.77mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.00	24.72mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:01:35 AM
2	81.36	24.83mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:04:56 AM
3	81.10	24.75mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:08:17 AM

Mean Area 81.15
Mean Conc. 24.77mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 06.21.2023.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08013mg/L

1. Det

Anal.: NPOC

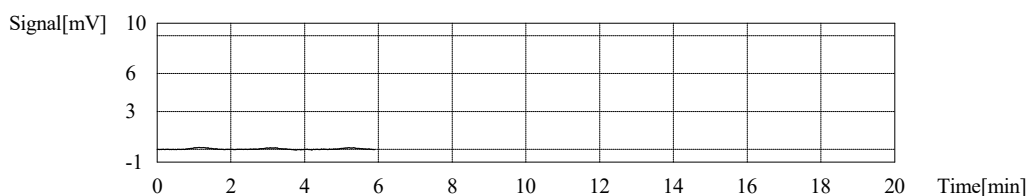
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5554	0.1695mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:16:02 AM
2	0.2322	0.07087mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:18:22 AM
3	0.000	0.000mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:20:30 AM



TOC-Control L Report

2023_09_09_001.tlx

Mean Area 0.2625
Mean Conc. 0.08013mg/L



Sample

Sample Name: MBLK-09092023
Sample ID:
Origin: 06.21.2023.cal
Status: Completed
Chk. Result

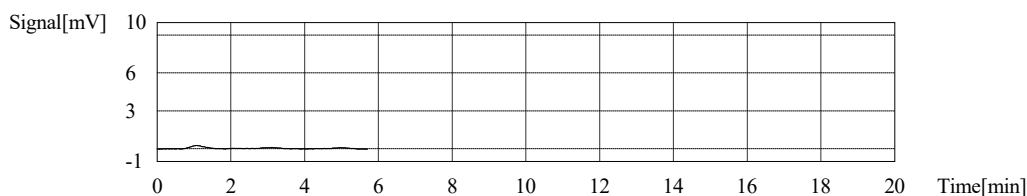
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09614mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7177	0.2191mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:28:15 AM
2	0.2272	0.06935mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:30:23 AM
3	0.000	0.000mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:32:31 AM

Mean Area 0.3150
Mean Conc. 0.09614mg/L



Sample

Sample Name: LCS-09092023
Sample ID: 3100607901
Origin: 06.21.2023.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.48mg/L

1. Det

Anal.: NPOC

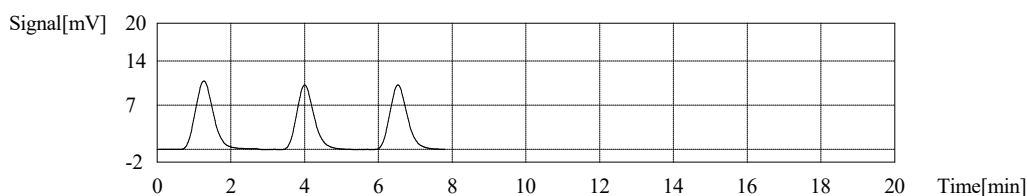
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.31	11.08mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:41:06 AM
2	33.21	10.14mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:43:52 AM
3	33.49	10.22mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:46:38 AM



TOC-Control L Report

2023_09_09_001.tlx

Mean Area 34.34
Mean Conc. 10.48mg/L



Sample

Sample Name: LCSD-09092023
Sample ID:
Origin: 06.21.2023.cal
Status: Completed
Chk. Result

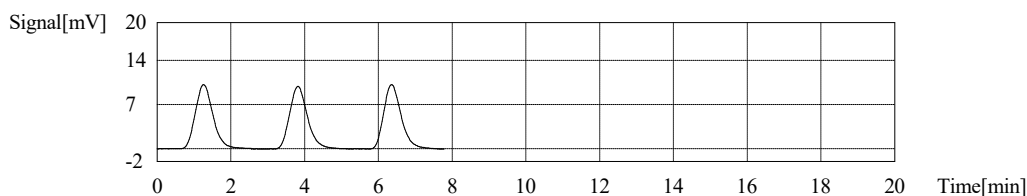
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.16mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.28	10.16mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:55:02 AM
2	33.03	10.08mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 11:57:52 AM
3	33.56	10.24mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 12:00:45 PM

Mean Area 33.29
Mean Conc. 10.16mg/L



Sample

Sample Name: HS23090353-01
Sample ID: TOC_W
Origin: 06.21.2023.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.917mg/L

1. Det

Anal.: NPOC

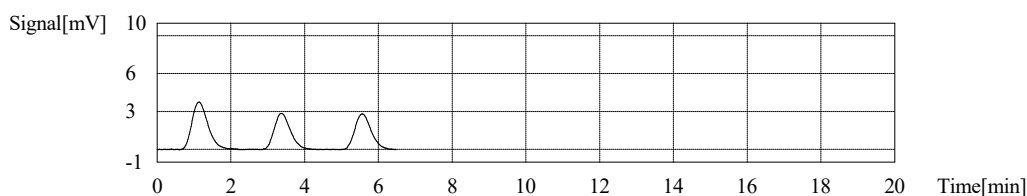
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.24	3.431mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 12:08:48 PM
2	8.754	2.672mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 12:11:13 PM
3	8.675	2.648mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 12:13:34 PM



TOC-Control L Report

2023_09_09_001.tlx

Mean Area 9.556
Mean Conc. 2.917mg/L



Sample

Sample Name: HS23090258-01
Sample ID:
Origin: 06.21.2023.cal
Status Completed
Chk. Result

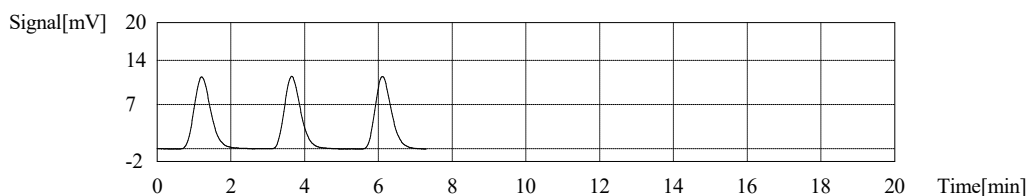
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.76mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.62	10.87mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 12:35:44 PM
2	35.06	10.70mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 12:38:26 PM
3	35.07	10.70mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 12:41:03 PM

Mean Area 35.25
Mean Conc. 10.76mg/L



Sample

Sample Name: HS23090258-01MS
Sample ID:
Origin: 06.21.2023.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.97mg/L

1. Det

Anal.: NPOC

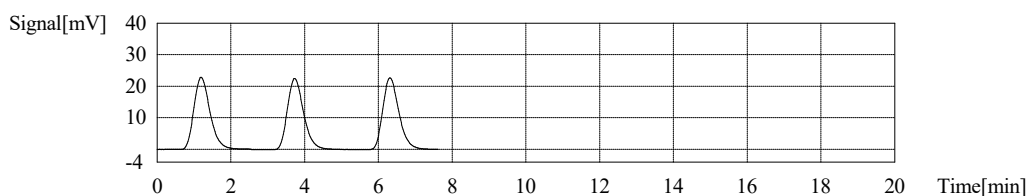
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	69.05	21.08mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 12:49:26 PM
2	68.52	20.91mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 12:52:14 PM
3	68.50	20.91mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 12:54:58 PM



TOC-Control L Report

2023_09_09_001.tlx

Mean Area 68.69
Mean Conc. 20.97mg/L



Sample

Sample Name: CCV
Sample ID: 322146206
Origin: 06.21.2023.cal
Status: Completed
Chk. Result

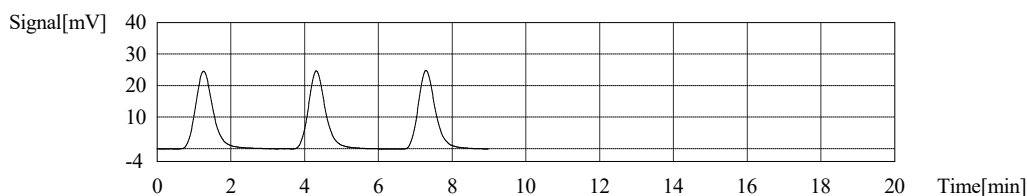
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.76	24.65mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 1:49:22 PM
2	78.91	24.09mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 1:52:38 PM
3	80.10	24.45mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 1:55:46 PM

Mean Area 79.92
Mean Conc. 24.40mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 06.21.2023.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2126mg/L

1. Det

Anal.: NPOC

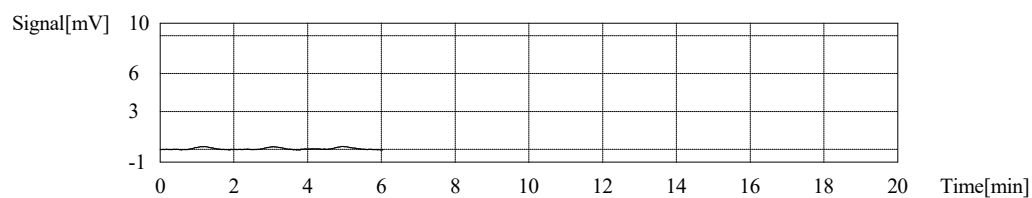
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7559	0.2307mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 2:03:30 PM
2	0.6635	0.2025mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 2:05:38 PM
3	0.6700	0.2045mg/L	50uL	1.000		06.21.2023.2023_06_22_09_52_59.cal	9/9/2023 2:08:05 PM



TOC-Control L Report

2023_09_09_001.tlx

Mean Area 0.6965
Mean Conc. 0.2126mg/L



HS23090353 E2300803 Level IV Final Report

ALS WO# HS23090353





September 08, 2023

Service Request No:E2300803

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS23090353

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory September 07, 2023
For your reference, these analyses have been assigned our service request number **E2300803**.

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 2190. You may also contact me via email at hussam.kelany@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Hussam Kelany
Project Manager

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 -
Project: US HS23090353
Sample Matrix: Water

Service Request No.: E2300803
Date Received: 09/07/23

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 II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 09/07/23

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:**

EQ2300431: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

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

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



Client: ALS Environmental - US
Project: HS23090353

Service Request:E2300803

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E2300803-001	LH18/24-SP650_090623_BIX	9/6/2023	1300
E2300803-002	LH18/24-SP650_90623_AIX	9/6/2023	1300



Service Request Summary

Folder #: E2300803
Client Name: ALS Environmental - US
Project Name: HS23090353
Project Number:
Report To: James Guin
 ALS Environmental - US
 10450 Stancliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/07/23
Internal Due Date: 9/8/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090353
EDD: BASIC_WQC_CASNo
 _LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

Rush

				HOUSTON
				CIO4 DOD/6850
Lab Samp No.	Client Samp No	Matrix	Collected	
E2300803-001	LH18/24-SP650_090623_BIX	Water	09/06/23 1300	IV
E2300803-002	LH18/24-SP650_90623_AIX	Water	09/06/23 1300	IV



Service Request Summary

Folder #: E2300803
Client Name: ALS Environmental - US
Project Name: HS23090353
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/07/23
Internal Due Date: 9/8/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090353
EDD: BASIC_WQC_CASNo
_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush



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
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L23-358	5/31/2025
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
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	343-2023	6/30/2024
Michigan Department of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Conservation	TN04016-2023	4/30/2024
Texas Commission on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932023-14	7/31/2024
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





E2300803
ALS Environmental - US
HS23090354

5



10450 Standliff Rd, Ste 210
Houston, TX 77099
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F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense

COC ID: 23043

SUBCONTRACT TO:

ALS Environmental
10450 Standliff Road Suite 210
Houston, TX 77084

Phone: +1 281 530 5656

**CUSTOMER
INFORMATION:**

Company: ALS Houston
Contact: James Guin
Address: 10450 Standliff Rd, Ste 210
Phone: +1 281 530 5656
Email: James.Guin@alsglobal.com
**Alternate
Contact:** Jumoke M. Lawal
Email: jumoke.lawal@alsglobal.com

**INVOICE
INFORMATION:**

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Standliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS23090353
TSR: Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	HS23090353-02	LH18/24-SP650_090623_BIX	Water	06 Sep 2023 13:00
	6850-Perch. DOD Level II & Level IV in separate pdf			08 Sep 2023
2.	HS23090353-03	LH18/24-SP650_090623_AIX	Water	06 Sep 2023 13:00
	6850-Perch. DOD Level II & Level IV in separate pdf			08 Sep 2023

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

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____

Date/Time: _____

Received By: _____

Date/Time: _____

Cooler ID(s): _____

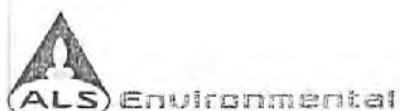
Temperature(s): _____

PG

14

9/23/23





Cooler Receipt Form

Project Chemist 29Client/Project ALS Thermometer ID IR31Date/Time Received: 9.7.23 Initials: cy Date/Time Logged in: 9.7.23 Initials: cy1. Method of delivery: ☐ US Mail ☐ Fed Ex ☐ UPS ☐ DHL ☒ ^{ALS}Courier ☐ Client2. Samples received in: ☒ Cooler ☐ Box ☐ Envelope ☐ Other3. 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 ☐ Other5. Foreign or Regulated Soil? ☐ Yes ☐ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
-		9.7.23	1200	cy	33	☒
						☐
						☐
						☐

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:

E2300803

5

ALS Environmental - US
HS23090354

HS-HRMSCoolerReceipt R1.0

ALS Environmental - Houston HRMS





10450 Stancliff Rd., Suite 210
Houston, TX 77099
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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

Prep Run#: 425982
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 9/6/23 09:57

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300792-001	29WW38_083023	.01	6850/CIO4 DOD			Ground Water	10mL	
2	E2300792-002	29WW19_083023	.01	6850/CIO4 DOD			Ground Water	10mL	
3	E2300792-003	29WW39_083023	.01	6850/CIO4 DOD			Ground Water	10mL	
4	E2300792-004	29WW39_083023_a	.01	6850/CIO4 DOD			Ground Water	10mL	
5	E2300793-001	29WW05_082923	.01	6850/CIO4 DOD			Ground Water	10mL	
6	E2300793-002	29WW07_082923	.01	6850/CIO4 DOD			Ground Water	10mL	
7	E2300793-003	29WW23_082923	.01	6850/CIO4 DOD			Ground Water	10mL	
8	E2300793-004	29WW23_082923_a	.01	6850/CIO4 DOD			Ground Water	10mL	
9	E2300796-001	29WW36_083123	.01	6850/CIO4 DOD			Ground Water	10mL	
10	E2300796-002	29WW18_083123	.01	6850/CIO4 DOD			Ground Water	10mL	
11	E2300796-003	29WW31_083123	.01	6850/CIO4 DOD			Ground Water	10mL	
12	E2300796-004	29WW29_083123	.01	6850/CIO4 DOD			Ground Water	10mL	
13	E2300803-001	LH18/24-SP650_090623_BIX	.01	6850/CIO4 DOD			Water	10mL	
14	E2300803-002	LH18/24-SP650_90623_AIX	.01	6850/CIO4 DOD			Water	10mL	
15	EQ2300431-01	MB		6850/CIO4			Liquid	10mL	
16	EQ2300431-02	LCS		6850/CIO4			Liquid	10mL	
17	EQ2300431-03	DLCS		6850/CIO4			Liquid	10mL	
18	R2307771-008	2308221433X 200-H-433	.01	6850/CIO4			Water	10mL	
19	R2307994-007	2308281420X 400-D-195	.01	6850/CIO4			Water	10mL	
20	R2307994-013	2308291013X WB-5-345	.01	6850/CIO4			Water	10mL	
21	R2307994-018	2308301033X WB-5-250	.01	6850/CIO4			Water	10mL	

Spiking Solutions

Name:	Perchlorate Intermediate Stock1	Inventory ID	230342	Logbook Ref:	Perchlorate (1st Source)	Expires On:	03/07/2024
-------	---------------------------------	--------------	--------	--------------	--------------------------	-------------	------------

EQ2300431-02 1.00µL EQ2300431-02 1.00µL EQ2300431-03 1.00µL EQ2300431-03 1.00µL

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	230372	Logbook Ref:	Perchlorate Internal Standard	Expires On:	04/30/2024
-------	--------------------------------------	--------------	--------	--------------	-------------------------------	-------------	------------

E2300792-001	100.00µL	E2300792-002	100.00µL	E2300792-003	100.00µL	E2300792-004	100.00µL	E2300793-001	100.00µL	E2300793-002	100.00µL
E2300793-003	100.00µL	E2300793-004	100.00µL	E2300796-001	100.00µL	E2300796-002	100.00µL	E2300796-003	100.00µL	E2300796-004	100.00µL
E2300803-001	100.00µL	E2300803-002	100.00µL	EQ2300431-01	100.00µL	EQ2300431-01	100.00µL	EQ2300431-02	100.00µL	EQ2300431-02	100.00µL
EQ2300431-03	100.00µL	EQ2300431-03	100.00µL	R2307771-008	100.00µL	R2307994-007	100.00µL	R2307994-013	100.00µL	R2307994-018	100.00µL



Preparation Information Benchsheet

Prep Run#: 425982
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 9/6/23 09:57

Preparation Steps

Step: Preparation
Started: 9/6/23 09:57
Finished: 9/6/23 13:44
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____	Date: _____	<u>Extracts Examined</u> Yes No
Received By: _____	Date: _____	



Analytical Results

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090353
Sample Matrix: Water
Sample Name: LH18/24-SP650_090623_BIX
Lab Code: E2300803-001

Service Request: E2300803
Date Collected: 9/ 6/23 1300
Date Received: 9/ 7/23
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	107		1.00	0.500	0.250	10	9/ 6/23	9/7/23 14:25	425982	816381	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090353
Sample Matrix: Water
Sample Name: LH18/24-SP650_90623_AIX
Lab Code: E2300803-002

Service Request: E2300803
Date Collected: 9/ 6/23 1300
Date Received: 9/ 7/23
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	4.70		0.100	0.0500	0.0250	1	9/ 6/23	9/7/23 13:33	425982	816381	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090353
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: EQ2300431-01

Service Request: E2300803
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	9/ 6/23	9/7/23 11:37	425982	816381	





Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23090353
Sample Matrix: Water

Service Request: E2300803
Date Analyzed: 9/ 7/23

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: 425982

Analyte Name	Lab Control Sample EQ2300431-02			Duplicate Lab Control Sample EQ2300431-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perchlorate	0.0934	0.100	93	0.0932	0.100	93	84 - 119	<1	15

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

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



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090353
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: EQ2300431-02

Service Request: E2300803
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	0.0934	J	0.100	0.0500	0.0250	1	9/ 6/23	9/7/23 12:03	425982	816381	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090353
Sample Matrix: Water
Sample Name: Duplicate Lab Control Sample
Lab Code: EQ2300431-03

Service Request: E2300803
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	0.0932	J	0.100	0.0500	0.0250	1	9/ 6/23	9/7/23 11:48	425982	816381	





Initial Calibration

ALS Environmental - Houston HRMS
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www.alsglobal.com





20230802

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: KN

ICAL Date: 8/2/2023

Cal. Std. xp: 03/07/2024

ICAL ID: EC2300012

Mobile Phases : **A:**20mM ammonium acetate in water 230388 **B:**Acetonitrile 229152

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB	2230802-001	Perchlorate6850c.lcm	1x		8/2/2023 13:05
2	IB	2230802-002	Perchlorate6850c.lcm	1x		8/2/2023 13:11
3	Perchlorate ICAL 1	2230802-003	Perchlorate6850c.lcm	1x	230373	8/2/2023 13:17
4	Perchlorate ICAL 2	2230802-004	Perchlorate6850c.lcm	1x	230375	8/2/2023 13:23
5	Perchlorate ICAL 3	2230802-005	Perchlorate6850c.lcm	1x	230376	8/2/2023 13:28
6	Perchlorate ICAL 4	2230802-006	Perchlorate6850c.lcm	1x	230377	8/2/2023 13:34
7	Perchlorate ICAL 5	2230802-007	Perchlorate6850c.lcm	1x	230378	8/2/2023 13:39
8	Perchlorate ICAL 6	2230802-008	Perchlorate6850c.lcm	1x	230379	8/2/2023 13:45
9	Perchlorate ICAL 7	2230802-009	Perchlorate6850c.lcm	1x	230380	8/2/2023 13:50
10	Perchlorate ICAL 8	2230802-010	Perchlorate6850c.lcm	1x	230381	8/2/2023 13:56
11	Perchlorate ICAL 9	2230802-011	Perchlorate6850c.lcm	1x	230382	8/2/2023 14:02
12	Perchlorate ICAL 10	2230802-012	Perchlorate6850c.lcm	1x	230383	8/2/2023 14:07
13	PerchlorateICV	2230802-013	Perchlorate6850c.lcm	1x	230385	8/2/2023 14:19



Initial Calibration - Detailed Report

Calibration ID: EC2300012

Instrument ID: E-LCMS-01

Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300012-01	Perchlorate ICAL 1	2230802-003	08/02/2023 13:17
02	EC2300012-02	Perchlorate ICAL 2	2230802-004	08/02/2023 13:23
03	EC2300012-03	Perchlorate ICAL 3	2230802-005	08/02/2023 13:28
04	EC2300012-04	Perchlorate ICAL 4	2230802-006	08/02/2023 13:34
05	EC2300012-05	Perchlorate ICAL 5	2230802-007	08/02/2023 13:39
06	EC2300012-06	Perchlorate ICAL 6	2230802-008	08/02/2023 13:45
07	EC2300012-07	Perchlorate ICAL 7	2230802-009	08/02/2023 13:50
08	EC2300012-08	Perchlorate ICAL 8	2230802-010	08/02/2023 13:56
09	EC2300012-09	Perchlorate ICAL 9	2230802-011	08/02/2023 14:02
10	EC2300012-10	Perchlorate ICAL 10	2230802-012	08/02/2023 14:07

Analyte**Curve Fit****Weighting****Perchlorate****Average RF**

RSD = 2.086

Average RF = 0.1475

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1428	02	0.5000	0.1421	03	0.7000	0.1457	04	1.0000	0.149
05	2.0000	0.1515	06	5.0000	0.1475	07	10.0000	0.1503	08	20.0000	0.1477
09	30.0000	0.1485	10	50.0000	0.1496						

Analyte**Perchlorate**

RSE = 2.09

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0968	-3.2	02	0.5000	0.482	-3.6	03	0.7000	0.692	-1.2
04	1.0000	1.01	1.0	05	2.0000	2.05	2.7	06	5.0000	5.00	-0.0
07	10.0000	10.2	1.9	08	20.0000	20.0	0.2	09	30.0000	30.2	0.7
10	50.0000	50.7	1.4								



Initial Calibration Verification Summary Report

Calibration ID:	EC2300012	Instrument ID:	E-LCMS-01
Datafile ID:	2230802-013	Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300012-11	T	Average RF	10	10.670	ng/mL	6.7	<= 15



Insight Report

Printed at 8/3/2023 9:30:46 AM

Method File: I:\LCMS01\DATA\20230802\20230802ICAL.lcm

Project File: I:\LCMS01\DATA\20230802\no use\20230802ICAL.dam\p

Perchlorate ICAL 1

Sample ID: Perchlorate ICAL 1

Date Acquired: 8/2/2023 1:17:39 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-003.lcd

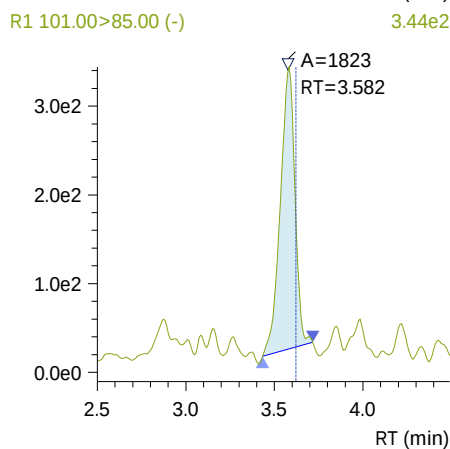
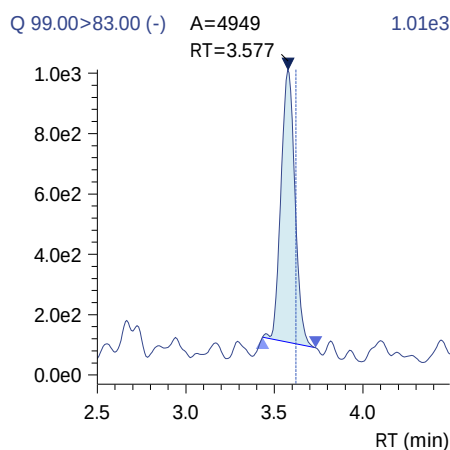
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.577	4949	346538	0.0968	ng/mL	101.00 >85.00	36.83	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.572	346538	346538	1.0000	ng/mL	----	----	

Perchlorate

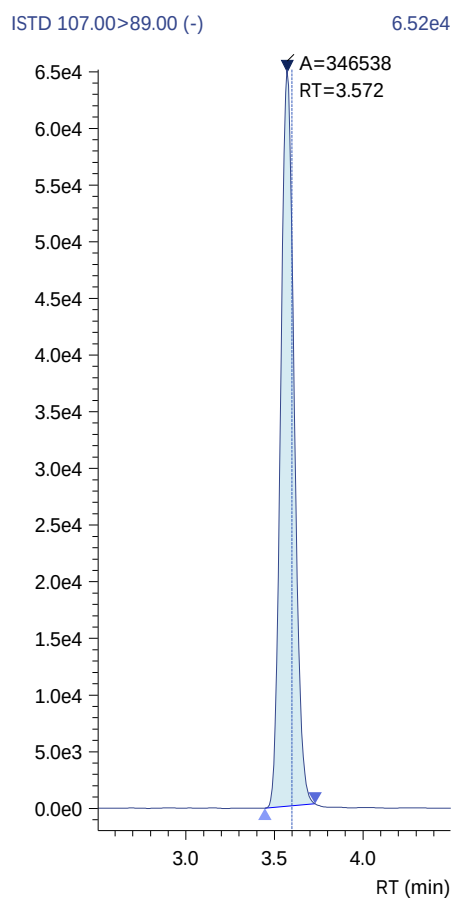
Conc 0.0968

R#1 36.83 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 2

Sample ID: Perchlorate ICAL 2

Date Acquired: 8/2/2023 1:23:13 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-004.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 1

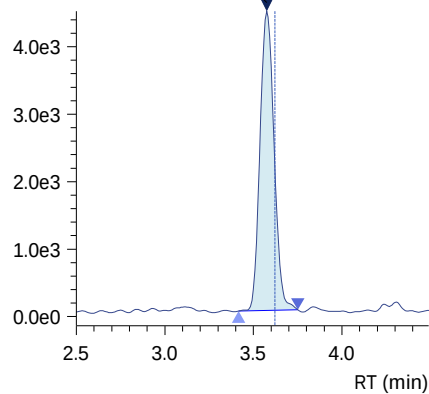
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.576	24530	345149	0.4820	ng/mL	101.00 >85.00	31.03	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.571	345149	345149	1.0000	ng/mL	----	----	

Perchlorate

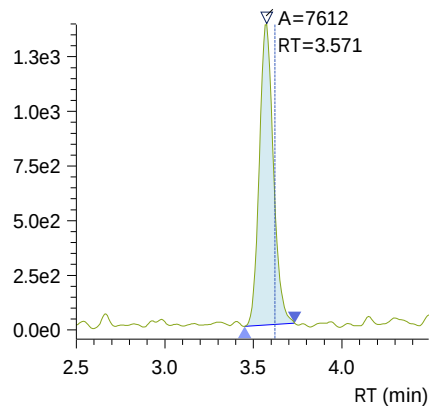
Conc 0.4820

R#1 31.03 (30.41)

Q 99.00>83.00 (-) A=24530 RT=3.576 4.53e3 ISTD 107.00>89.00 (-) 6.45e4



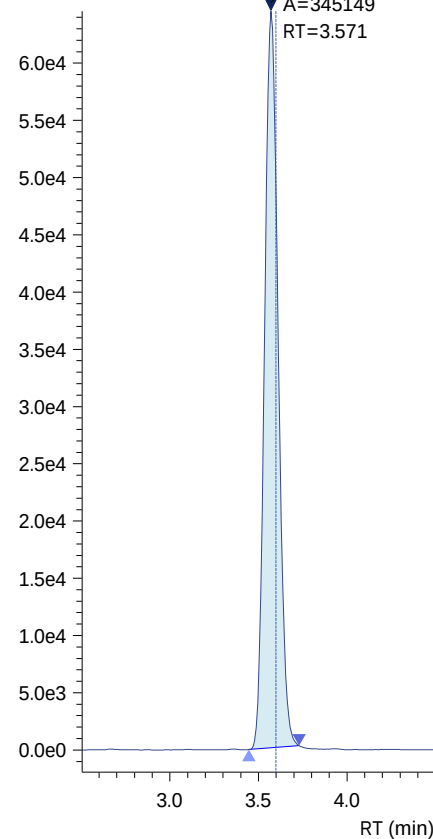
R1 101.00>85.00 (-) 1.40e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=345149 RT=3.571



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 3

Sample ID: Perchlorate ICAL 3

Date Acquired: 8/2/2023 1:28:44 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-005.lcd

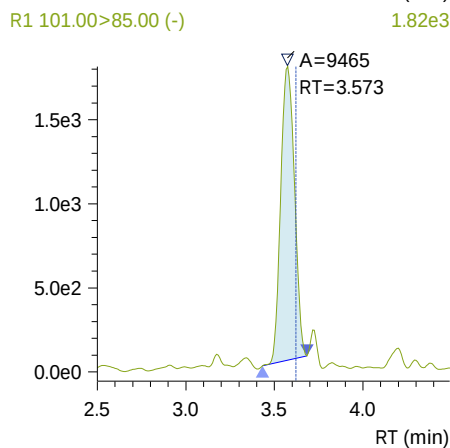
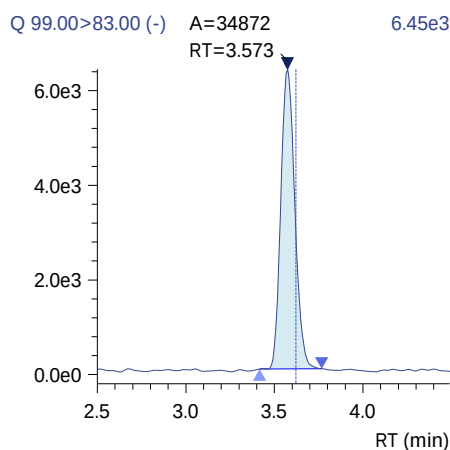
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	34872	341974	0.6915	ng/mL	101.00 >85.00	27.14	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	341974	341974	1.0000	ng/mL	----	----	

Perchlorate

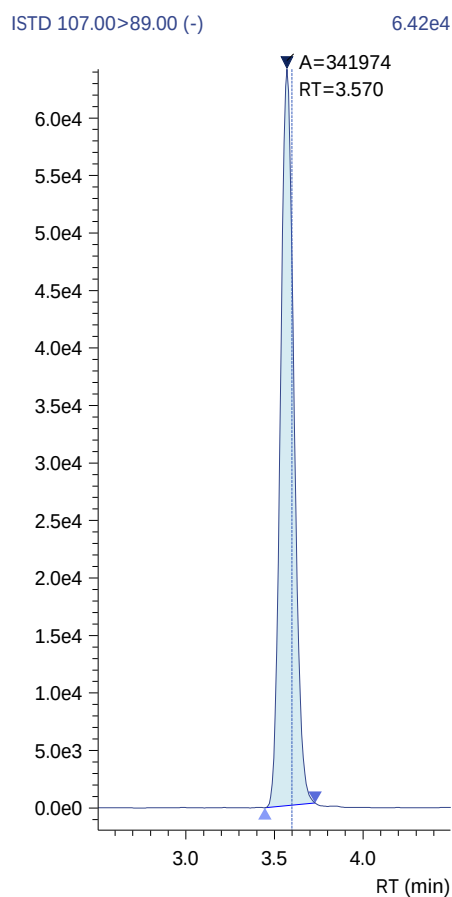
Conc 0.6915

R#1 27.14 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 4

Sample ID: Perchlorate ICAL 4

Date Acquired: 8/2/2023 1:34:20 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-006.lcd

Vial: 4 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	50483	338838	1.0104	ng/mL	101.00 >85.00	28.12	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	338838	338838	1.0000	ng/mL	----	----	

Perchlorate

Conc 1.0104

R#1 28.12 (30.41)

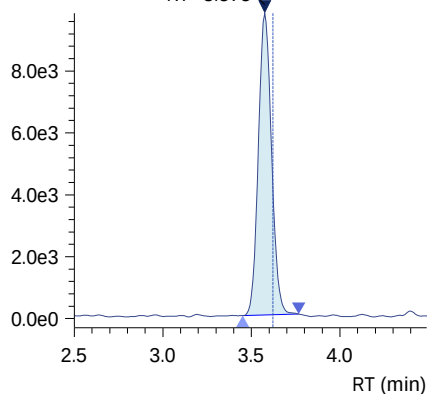
Q 99.00>83.00 (-)

A=50483
RT=3.575

9.87e3

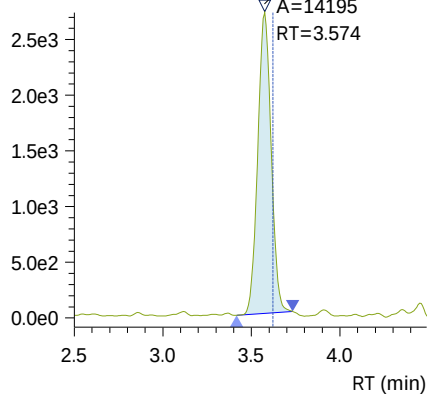
ISTD 107.00>89.00 (-)

6.49e4



R1 101.00>85.00 (-)

2.74e3

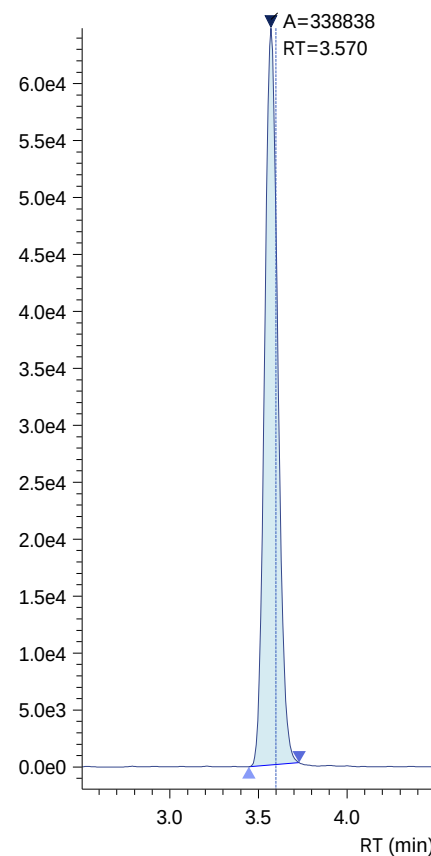
A=14195
RT=3.574

Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)

6.49e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 5

Sample ID: Perchlorate ICAL 5

Date Acquired: 8/2/2023 1:39:51 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-007.lcd

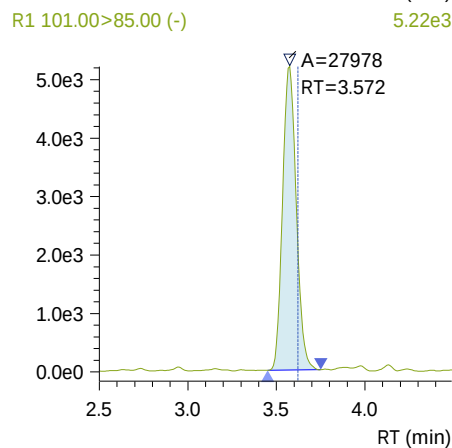
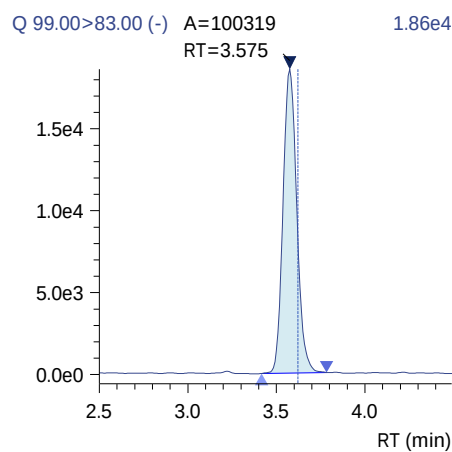
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	100319	331124	2.0545	ng/mL	101.00 >85.00	27.89	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	331124	331124	1.0000	ng/mL	----	----	

Perchlorate

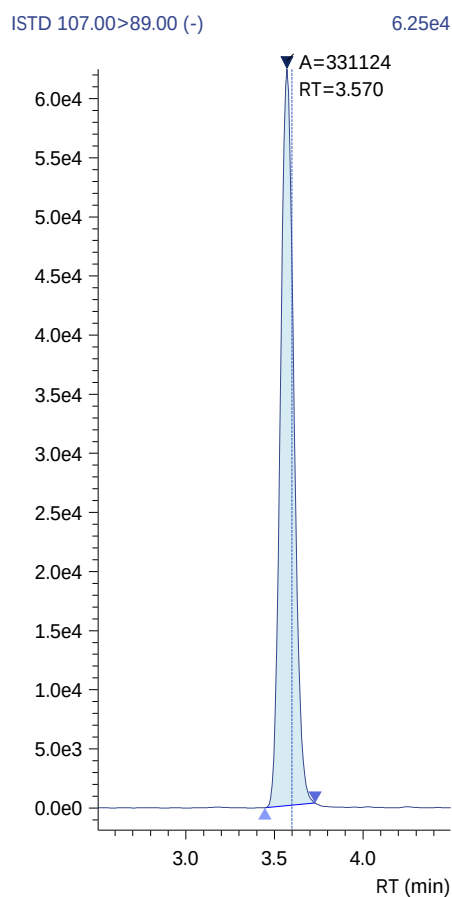
Conc 2.0545

R#1 27.89 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 6

Sample ID: Perchlorate ICAL 6

Date Acquired: 8/2/2023 1:45:24 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-008.lcd

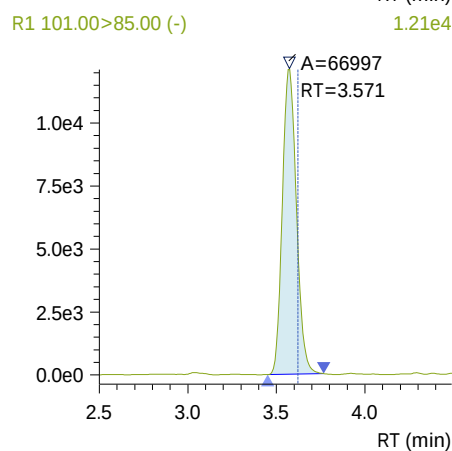
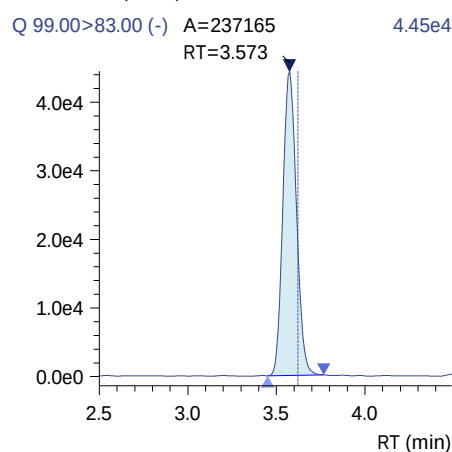
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	237165	321666	5.0000	ng/mL	101.00 >85.00	28.25	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	321666	321666	1.0000	ng/mL	----	----	

Perchlorate

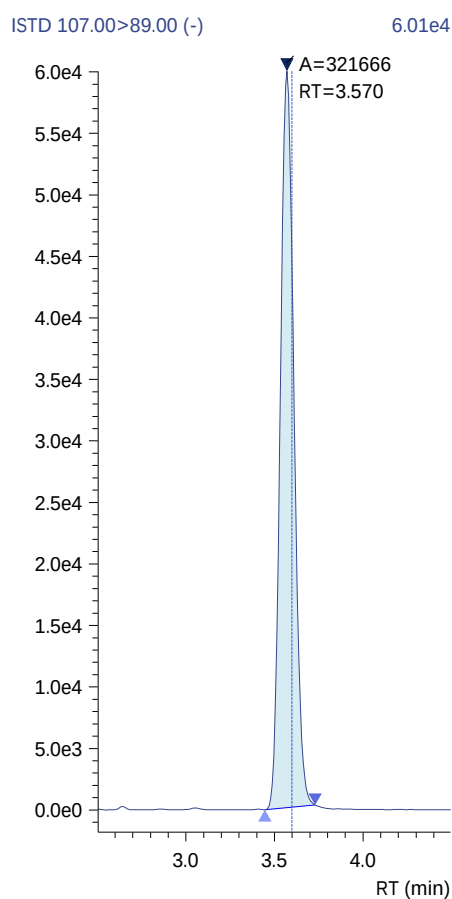
Conc 5.0000

R#1 28.25 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 7

Sample ID: Perchlorate ICAL 7

Date Acquired: 8/2/2023 1:50:57 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-009.lcd

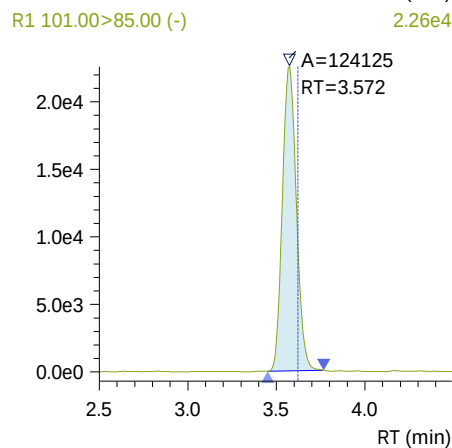
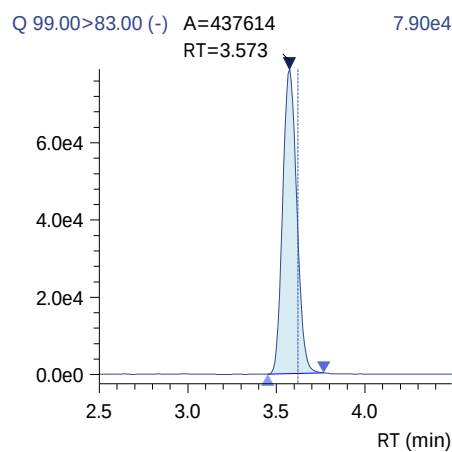
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	437614	291215	10.1905	ng/mL	101.00 >85.00	28.36	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291215	291215	1.0000	ng/mL	----	----	

Perchlorate

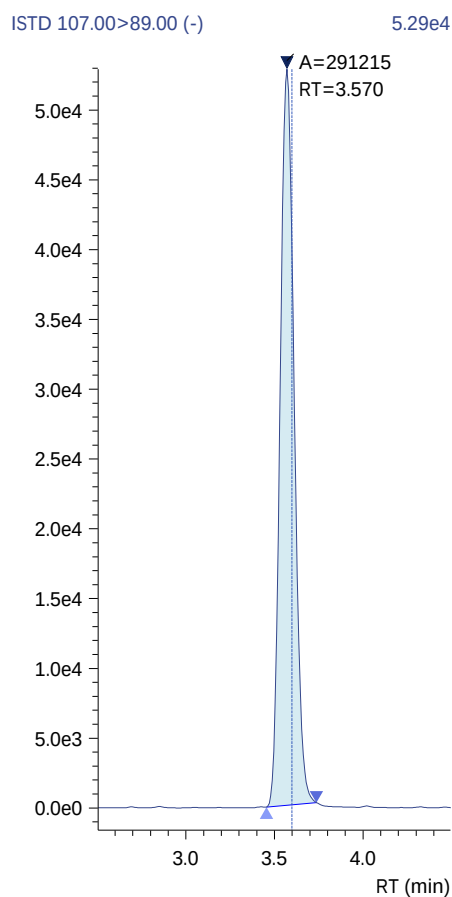
Conc 10.1905

R#1 28.36 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 8

Sample ID: Perchlorate ICAL 8

Date Acquired: 8/2/2023 1:56:33 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-010.lcd

Vial: 8 | Inj. Volume: 10.0000uL | Tray: 1

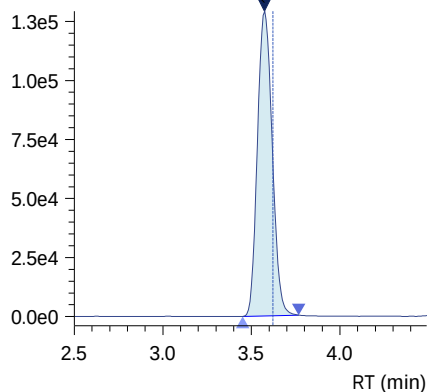
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	749856	253829	20.0336	ng/mL	101.00 >85.00	28.56	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.569	253829	253829	1.0000	ng/mL	----	----	

Perchlorate

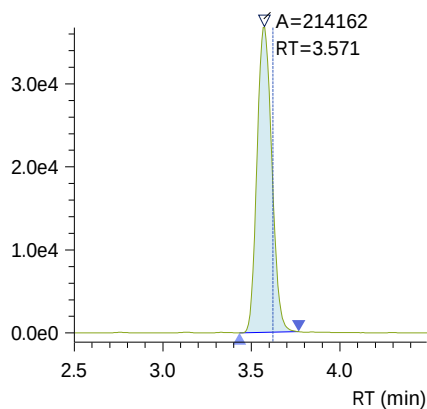
Conc 20.0336

R#1 28.56 (30.41)

Q 99.00>83.00 (-) A=749856 RT=3.574 1.29e5 ISTD 107.00>89.00 (-) 4.37e4



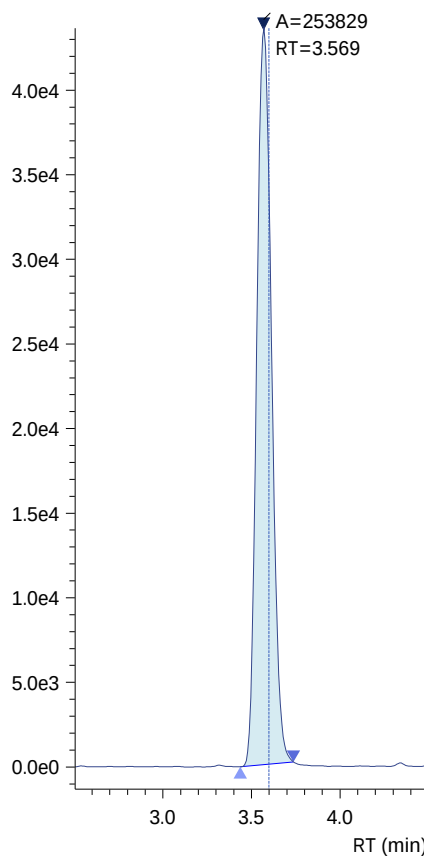
R1 101.00>85.00 (-) 3.68e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.37e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 9

Sample ID: Perchlorate ICAL 9

Date Acquired: 8/2/2023 2:02:07 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-011.lcd

Vial: 9 | Inj. Volume: 10.0000uL | Tray: 1

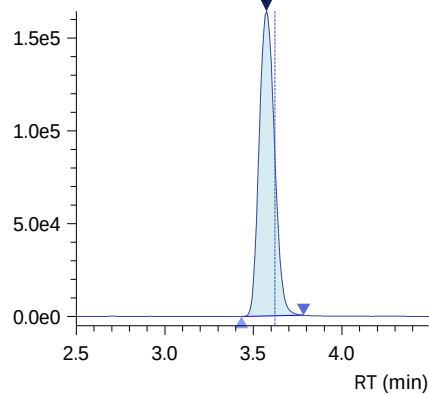
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	990671	222379	30.2105	ng/mL	101.00 >85.00	27.95	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.568	222379	222379	1.0000	ng/mL	----	----	

Perchlorate

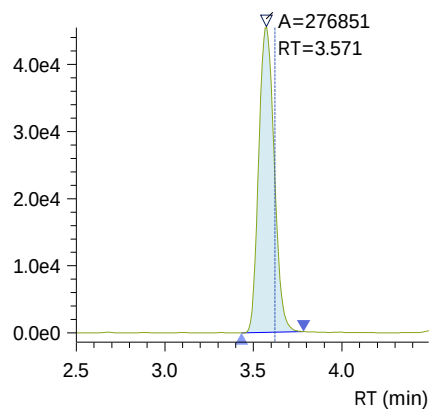
Conc 30.2105

R#1 27.95 (30.41)

Q 99.00>83.00 (-) A=990671 RT=3.574 1.64e5 ISTD 107.00>89.00 (-) 3.69e4



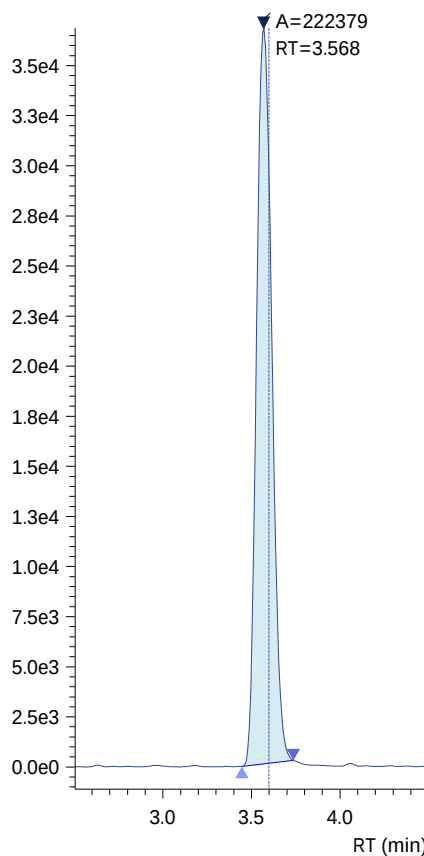
R1 101.00>85.00 (-) 4.55e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.69e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 10

Sample ID: Perchlorate ICAL 10

Date Acquired: 8/2/2023 2:07:39 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-012.lcd

Vial: 10 | Inj. Volume: 10.0000uL | Tray: 1

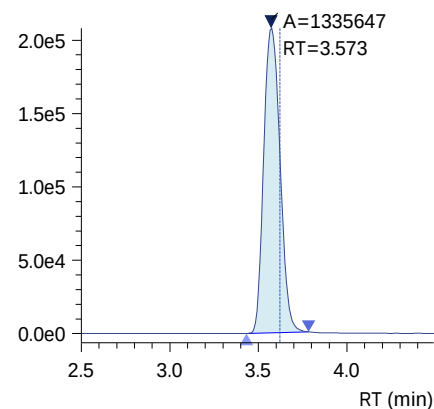
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	1335647	178573	50.72 20	ng/mL	101.00 >85.00	28.04	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.567	178573	178573	1.0000	ng/mL	----	----	

Perchlorate

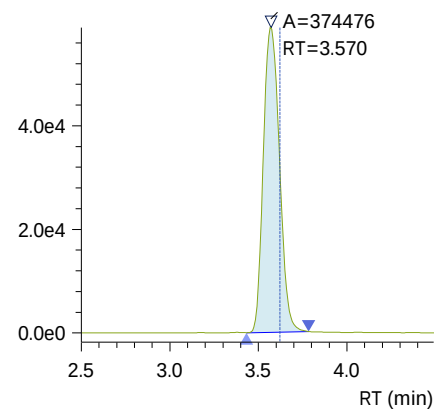
Conc 50.7220

R#1 28.04 (30.41)

Q 99.00>83.00 (-)



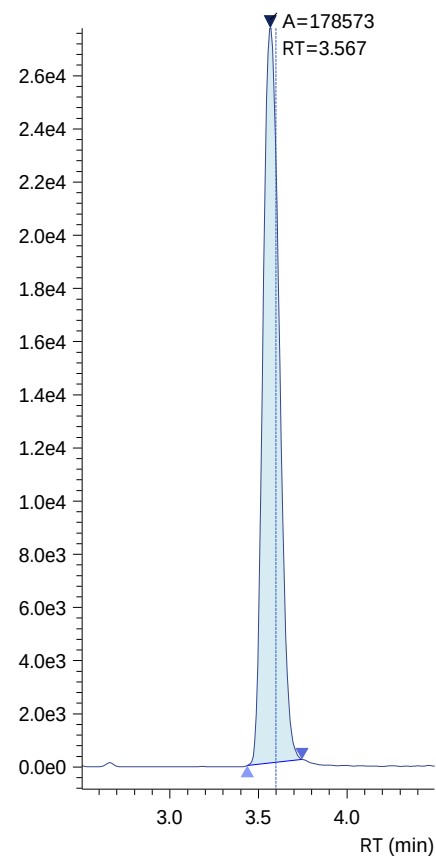
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)



Insight Report

Printed at 8/3/2023 9:30:46 AM

PerchlorateICV

Sample ID: PerchlorateICV

Date Acquired: 8/2/2023 2:19:46 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-013.lcd

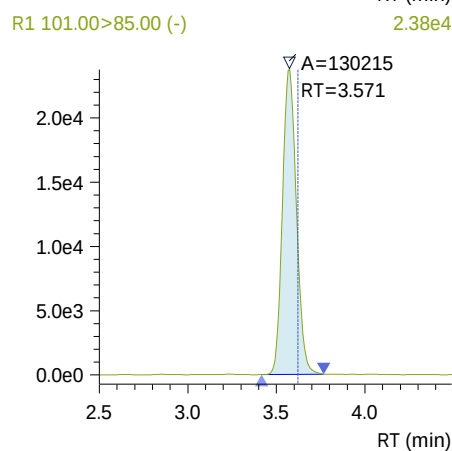
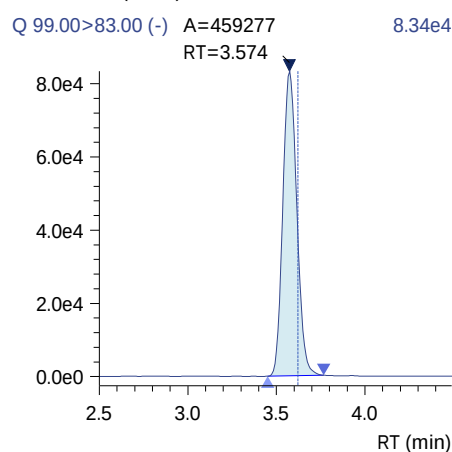
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	459277	291890	10.6703	ng/mL	101.00 >85.00	28.35	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291890	291890	1.0000	ng/mL	----	----	

Perchlorate

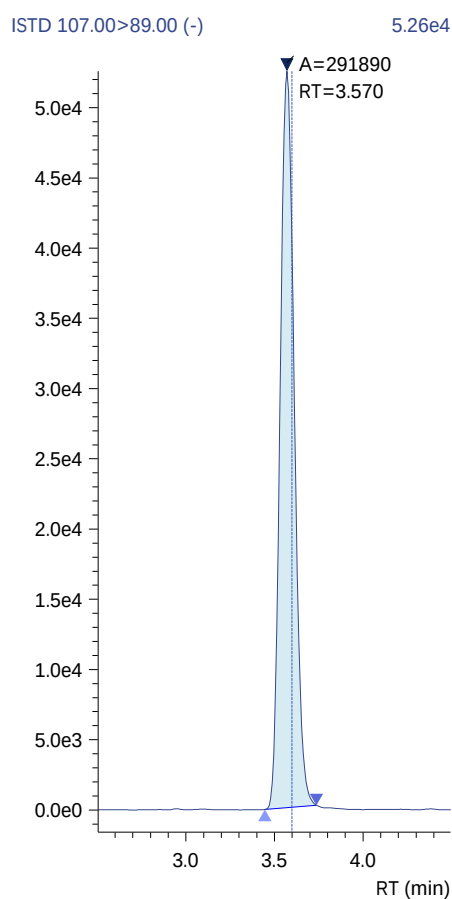
Conc 10.6703

R#1 28.35 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000





Chromatograms and Selected Ion Monitoring

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





20230907-816381

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: KN

ICAL Date: 8/2/2023

Cal. Std. xp: 02/02/2024

ICAL ID: EC2300012

Mobile Phases : A:20mM ammonium acetate in water 231240 B:Acetonitrile 229152

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB	2230907-001	Perchlorate6850c.lcm	1x		9/7/2023 10:44
2	LODV	2230907-002	Perchlorate6850c.lcm	1x	230386	9/7/2023 11:16
3	ICS	2230907-003	Perchlorate6850c.lcm	1x	32103051	9/7/2023 11:24
4	CCV	2230907-004	Perchlorate6850c.lcm	1x	230380	9/7/2023 11:31
5	EQ2300431-01	2230907-005	Perchlorate6850c.lcm	1x		9/7/2023 11:37
6	EQ2300431-02	2230907-006	Perchlorate6850c.lcm	1x		9/7/2023 12:03
7	EQ2300431-03	2230907-007	Perchlorate6850c.lcm	1x		9/7/2023 11:48
8	E2300792-001	2230907-008	Perchlorate6850c.lcm	1x		9/7/2023 12:10
9	E2300792-002	2230907-009	Perchlorate6850c.lcm	1x	DNU-IR	9/7/2023 12:15
10	E2300792-003	2230907-010	Perchlorate6850c.lcm	1x		9/7/2023 12:21
11	E2300792-004	2230907-011	Perchlorate6850c.lcm	1x	DNU-IR	9/7/2023 12:26
12	E2300793-001	2230907-012	Perchlorate6850c.lcm	1x		9/7/2023 12:32
13	E2300793-002	2230907-013	Perchlorate6850c.lcm	1x		9/7/2023 12:38
14	E2300793-003	2230907-014	Perchlorate6850c.lcm	1x		9/7/2023 12:43
15	CCV	2230907-015	Perchlorate6850c.lcm	1x	230380	9/7/2023 12:49
16	E2300793-004	2230907-016	Perchlorate6850c.lcm	1x		9/7/2023 12:54
17	E2300796-001	2230907-017	Perchlorate6850c.lcm	1x		9/7/2023 13:00
18	E2300796-002	2230907-018	Perchlorate6850c.lcm	1x	DNU-IR	9/7/2023 13:05
19	E2300796-003	2230907-019	Perchlorate6850c.lcm	1x		9/7/2023 13:11
20	E2300796-004	2230907-020	Perchlorate6850c.lcm	1x		9/7/2023 13:16
21	R2300771-008	2230907-021	Perchlorate6850c.lcm	1x	DNU-CONFIRM PEAK	9/7/2023 13:22
22	E2300803-001	2230907-022	Perchlorate6850c.lcm	1x	DNU-NEED DILUTE	9/7/2023 13:27
23	E2300803-002	2230907-023	Perchlorate6850c.lcm	1x		9/7/2023 13:33
24	R2307994-007	2230907-024	Perchlorate6850c.lcm	1x		9/7/2023 13:39
25	R2307994-013	2230907-025	Perchlorate6850c.lcm	1x		9/7/2023 13:44
26	CCV	2230907-026	Perchlorate6850c.lcm	1x	230380	9/7/2023 13:50
27	R2307994-018	2230907-027	Perchlorate6850c.lcm	1x		9/7/2023 13:55
28	E2300792-002	2230907-028	Perchlorate6850c.lcm	1x		9/7/2023 14:01
29	E2300792-004	2230907-029	Perchlorate6850c.lcm	1x		9/7/2023 14:06
30	E2300796-002	2230907-030	Perchlorate6850c.lcm	1x		9/7/2023 14:12
31	R2300771-008	2230907-031	Perchlorate6850c.lcm	1x		9/7/2023 14:17
32	E2300803-001	2230907-032	Perchlorate6850c.lcm	10x		9/7/2023 14:25
33	CCV	2230907-033	Perchlorate6850c.lcm	1x	230380	9/7/2023 14:43

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23090353

Service Request: E2300803
Date Analyzed: 9/7/23 11:31

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230907\2230907-004
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300436-01
Analysis Lot: 816381
Signal ID: 1

Sodium Perchlorate-18O4			
		<u>Area</u>	<u>RT</u>
ICAL Average ==>		297,129	3.57
Upper Limit ==>		445,694	5.57
Lower Limit ==>		148,565	1.57
Associated Analyses			
Continuing Calibration Verification	EQ2300436-01	313,757	3.57
Method Blank	EQ2300431-01	357,653	3.57
Duplicate Lab Control Sample	EQ2300431-03	383,527	3.57
Lab Control Sample	EQ2300431-02	392,223	3.57

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



Printed 9/8/23 10:41

Form 2B
43 of 65

\\alprews001\starlims\$\LIMSReps\InternalStandardSummary.rpt

SuperSet Reference: 23-0000673992 rev 00

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23090353

Service Request: E2300803
Date Analyzed: 9/7/23 12:49

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230907\2230907-015
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300436-02
Analysis Lot: 816381
Signal ID: 1

Sodium Perchlorate-18O4			
		<u>Area</u>	<u>RT</u>
ICAL Average ==>		297,129	3.57
Upper Limit ==>		445,694	5.57
Lower Limit ==>		148,565	1.57
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300436-02	321,145	3.57
LH18/24-SP650_90623_AIX	E2300803-002	335,957	3.57

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



Printed 9/8/23 10:41

Form 2B
44 of 65

\\alprews001\starlims\$\LIMSReps\InternalStandardSummary.rpt

SuperSet Reference: 23-0000673992 rev 00

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23090353

Service Request: E2300803
Date Analyzed: 9/7/23 13:50

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230907\2230907-026
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300436-03
Analysis Lot: 816381
Signal ID: 1

Sodium Perchlorate-18O4

	<u>Area</u>	<u>RT</u>
ICAL Average ==>	297,129	3.57
Upper Limit ==>	445,694	5.57
Lower Limit ==>	148,565	1.57

Associated Analyses

Continuing Calibration Verification	EQ2300436-03	305,574	3.57
LH18/24-SP650_090623_BIX	E2300803-001	303,014	3.57

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: HS23090353

Service Request: E2300803
Date Analyzed: 9/7/23 14:43

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230907\2230907-033
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300436-04
Analysis Lot: 816381
Signal ID: 1

Sodium Perchlorate-18O4			
		<u>Area</u>	<u>RT</u>
ICAL Average ==>		297,129	3.57
Upper Limit ==>		445,694	5.57
Lower Limit ==>		148,565	1.57
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300436-04	297,766	3.57

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



Client: ALS Environmental - US
Project: HS23090353

Service Request: E2300803
Date Analyzed: 9/ 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\20230907\2230907-004

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 816381
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.77	0.1475	0.1440	-2.3	NA	± 15 %	Average RF



Client: ALS Environmental - US
Project: HS23090353

Service Request: E2300803
Date Analyzed: 9/ 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\20230907\2230907-015

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 816381
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.87	0.1475	0.1456	-1.3	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23090353

Service Request: E2300803
Date Analyzed: 9/ 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\20230907\2230907-026

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 816381
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.71	0.1475	0.1431	-2.9	NA	± 15 %	Average RF



Client: ALS Environmental - US
Project: HS23090353

Service Request: E2300803
Date Analyzed: 9/ 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\20230907\2230907-033

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 816381
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.79	0.1475	0.1444	-2.1	NA	± 15 %	Average RF



Insight Report

Printed at 9/7/2023 3:00:38 PM

Method File: I:\LCMS01\DATA\20230907\20230907.lcm

Project File: I:\LCMS01\DATA\20230907\20230907.damip

IB

Sample ID: IB

Date Acquired: 9/7/2023 10:44:55 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\20230907-001.lcd

Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

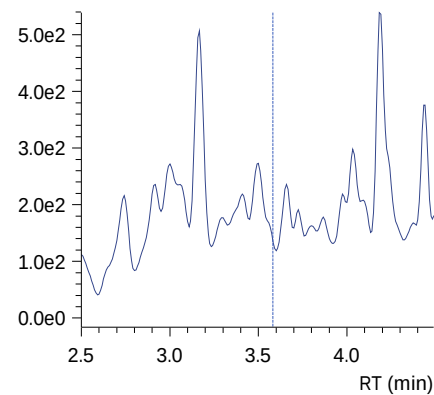
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	429276	----	ng/mL	101.00 >85.00	0.00	19.82-36.81
Sodium Perchlorate-18O4_IS	Auto	3.574	429276	429276	1.0000	ng/mL	----	----	

Perchlorate

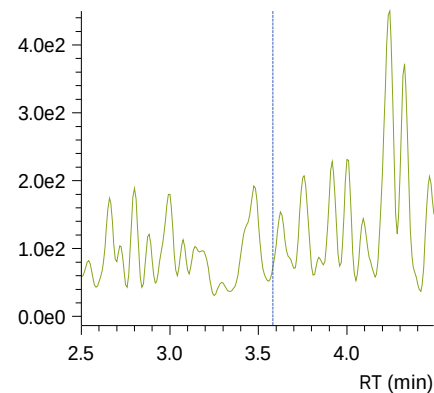
Conc ----

R#1 0.00 (28.31)

Q 99.00>83.00 (-)



R1 101.00>85.00 (-)

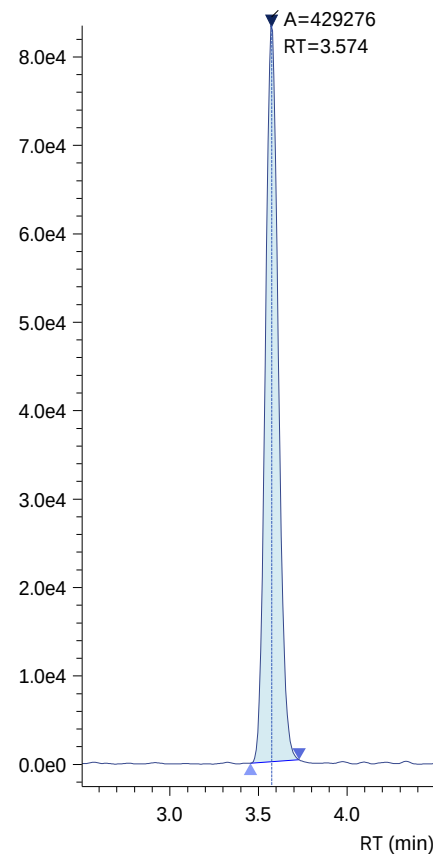


Sodium Perchlorate-18O4_IS

Conc 1.0000

5.39e2 ISTD 107.00>89.00 (-)

8.35e4



Insight Report

Printed at 9/7/2023 3:00:38 PM

LODV

Sample ID: LODV

Date Acquired: 9/7/2023 11:16:36 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\2230907-002.lcd

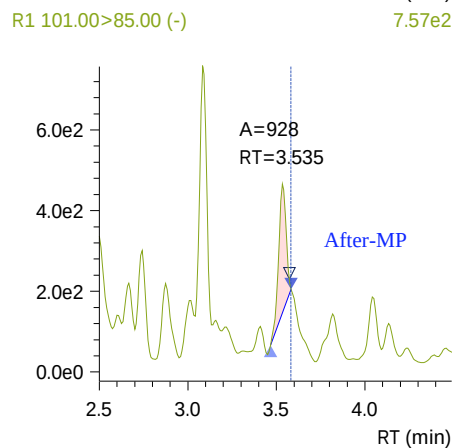
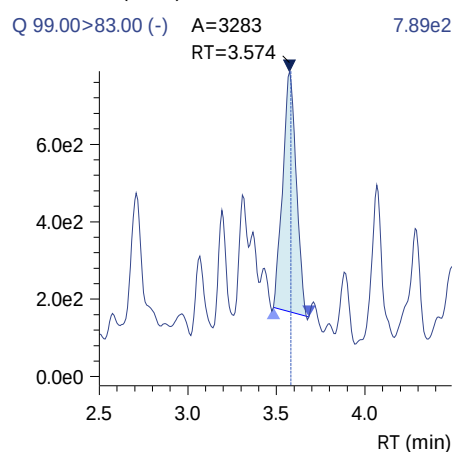
Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.574	3283	385291	0.0578	ng/mL	101.00 >85.00	28.28	19.82-36.81
Sodium Perchlorate-18O4_IS	Auto	3.573	385291	385291	1.0000	ng/mL	----	----	

Perchlorate

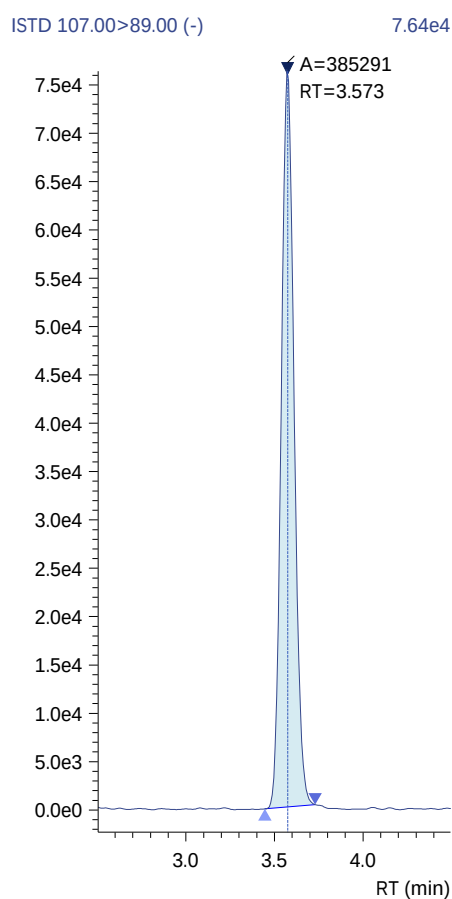
Conc 0.0578

R#1 28.28 (28.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 9/7/2023 3:02:19 PM

Method File: I:\LCMS01\DATA\20230907\20230907.lcm

Project File: I:\LCMS01\DATA\20230907\20230907.damip

LODV

Sample ID: LODV

Date Acquired: 9/7/2023 11:16:36 AM

Acquired by: System Administrator

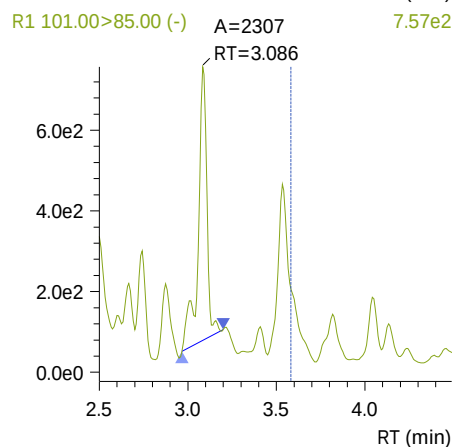
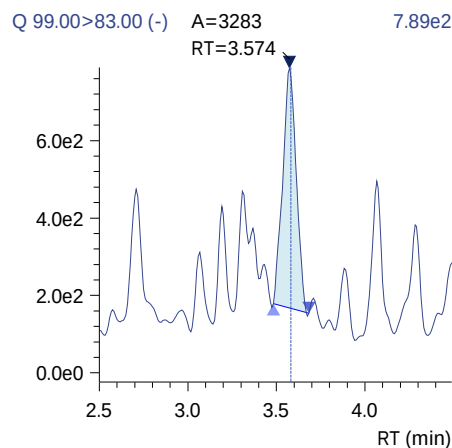
Data File: I:\LCMS01\DATA\20230907\2230907-002.lcd

Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Perchlorate

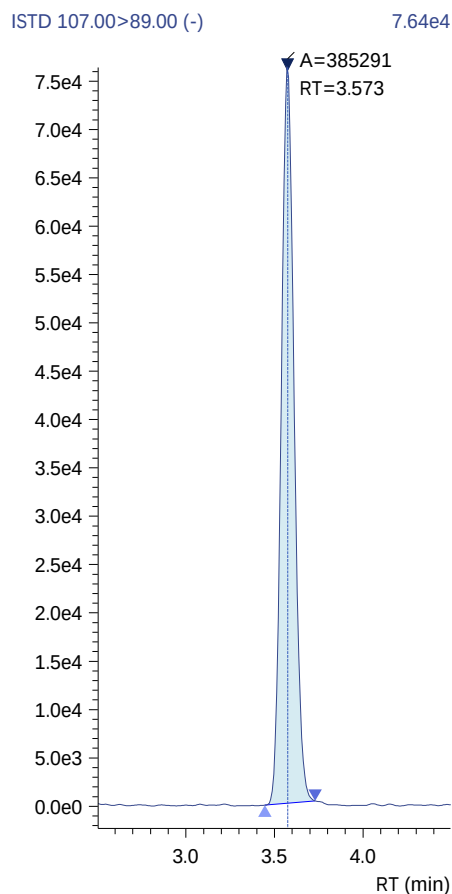
Conc 0.0578

R#1 0.00 (28.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 9/7/2023 3:00:38 PM

ICS

Sample ID: ICS

Date Acquired: 9/7/2023 11:24:19 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\2230907-003.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

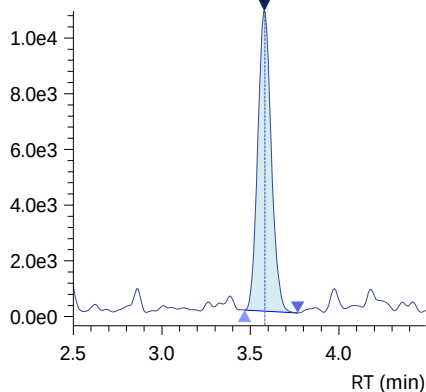
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.579	57404	362019	1.0753	ng/mL	101.00 >85.00	31.57	19.82-36.81
Sodium Perchlorate-18O4_IS	M	3.573	362019	362019	1.0000	ng/mL	----	----	

Perchlorate

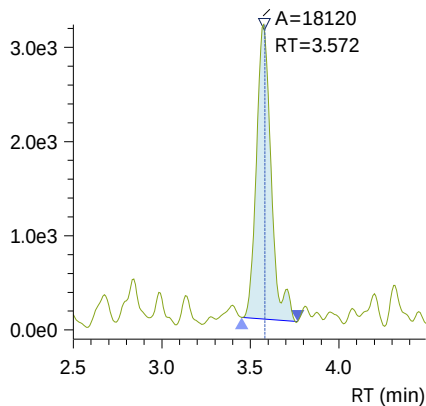
Conc 1.0753

R#1 31.57 (28.31)

Q 99.00>83.00 (-) A=57404 RT=3.579 1.10e4 ISTD 107.00>89.00 (-) 7.06e4



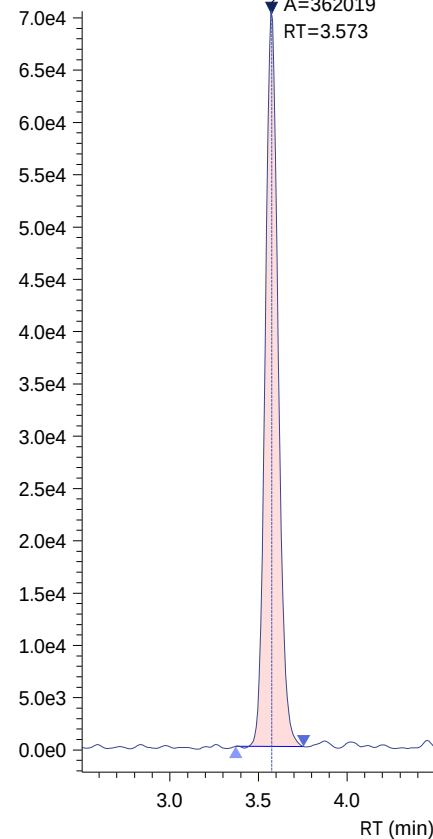
R1 101.00>85.00 (-) 3.24e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=362019 RT=3.573 7.06e4



Insight Report

Printed at 9/7/2023 3:00:38 PM

CCV

Sample ID: CCV

Date Acquired: 9/7/2023 11:31:11 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\2230907-004.lcd

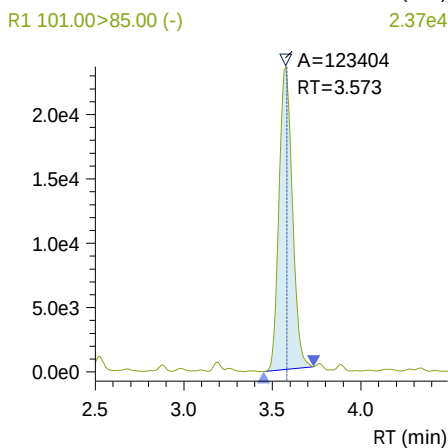
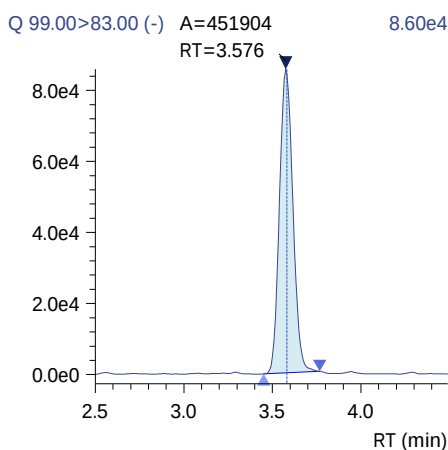
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.576	451904	313757	9.7673	ng/mL	101.00 >85.00	27.31	19.82-36.81
Sodium Perchlorate-18O4_IS	Auto	3.573	313757	313757	1.0000	ng/mL	----	----	

Perchlorate

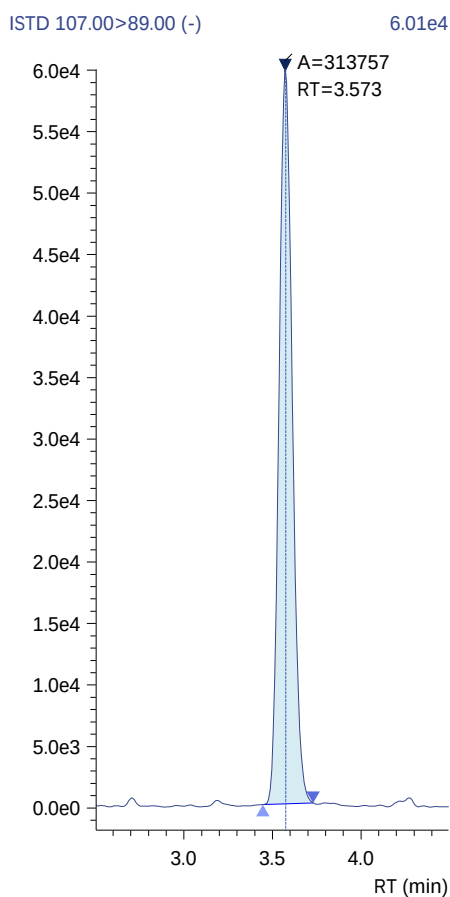
Conc 9.7673

R#1 27.31 (28.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 9/7/2023 3:00:38 PM

EQ2300431-01

Sample ID: EQ2300431-01

Date Acquired: 9/7/2023 11:37:28 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\2230907-005.lcd

Vial: 1 | Inj. Volume: 10.0000uL | Tray: 3

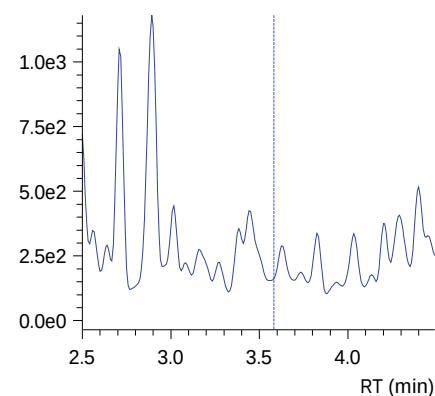
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W /B)	----	----	357653	----	ng/mL	101.00 >85.00	0.00	19.82-36.81
Sodium Perchlorate-18O4_IS	Auto	3.573	357653	357653	1.0000	ng/mL	----	----	

Perchlorate

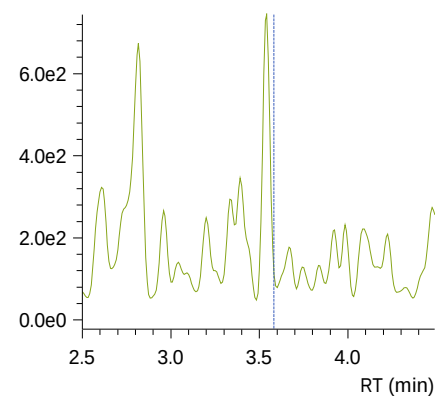
Conc ----

R#1 0.00 (28.31)

Q 99.00>83.00 (-)



R1 101.00>85.00 (-)

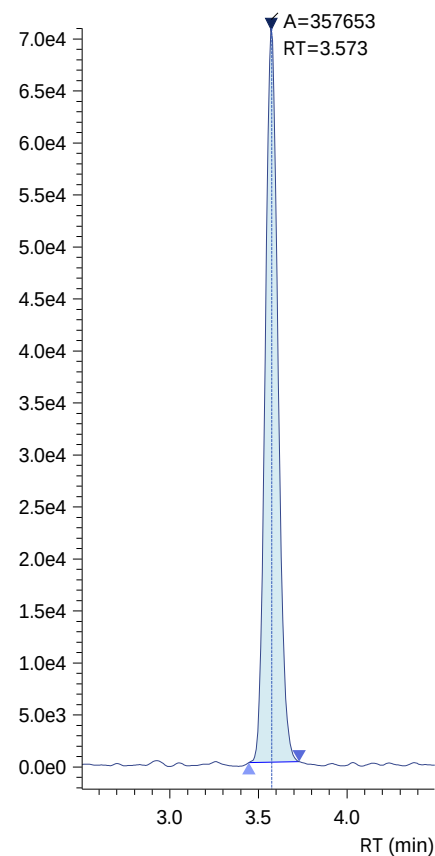


Sodium Perchlorate-18O4_IS

Conc 1.0000

1.18e3 ISTD 107.00>89.00 (-)

7.10e4



Insight Report

Printed at 9/7/2023 3:00:38 PM

EQ2300431-02

Sample ID: EQ2300431-02

Date Acquired: 9/7/2023 12:03:01 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\2230907-006.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 3

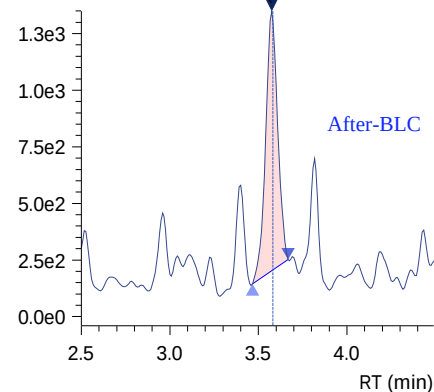
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.575	5399	392223	0.0934	ng/mL	101.00 >85.00	30.20	19.82-36.81
Sodium Perchlorate-18O4_IS	Auto	3.574	392223	392223	1.0000	ng/mL	----	----	

Perchlorate

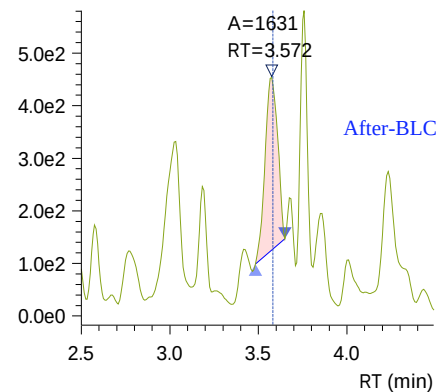
Conc 0.0934

R#1 30.20 (28.31)

Q 99.00>83.00 (-) A=5399 RT=3.575 1.35e3 ISTD 107.00>89.00 (-) 7.70e4



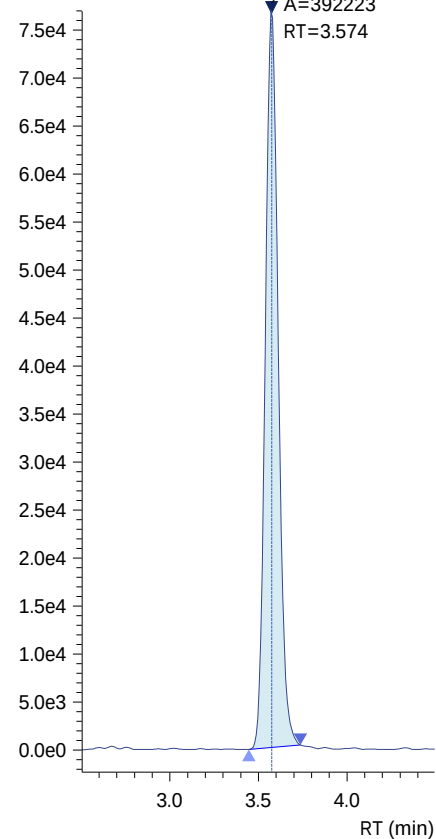
R1 101.00>85.00 (-) 5.81e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=392223 RT=3.574 7.70e4



Insight Report

Printed at 9/7/2023 3:02:19 PM

EQ2300431-02

Sample ID: EQ2300431-02

Date Acquired: 9/7/2023 12:03:01 PM

Acquired by: System Administrator

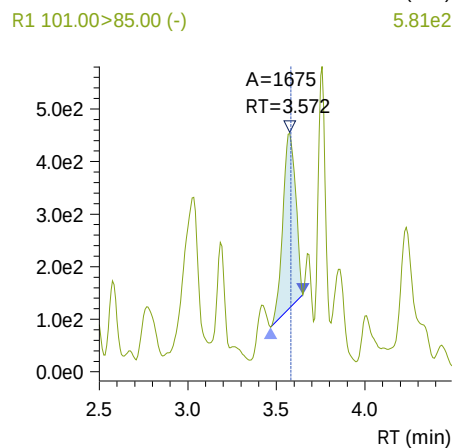
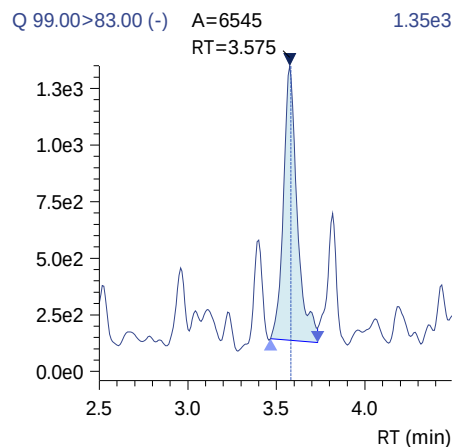
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Vial: 2 | Inj. Volume: 10.0000uL | Tray: 3

Perchlorate

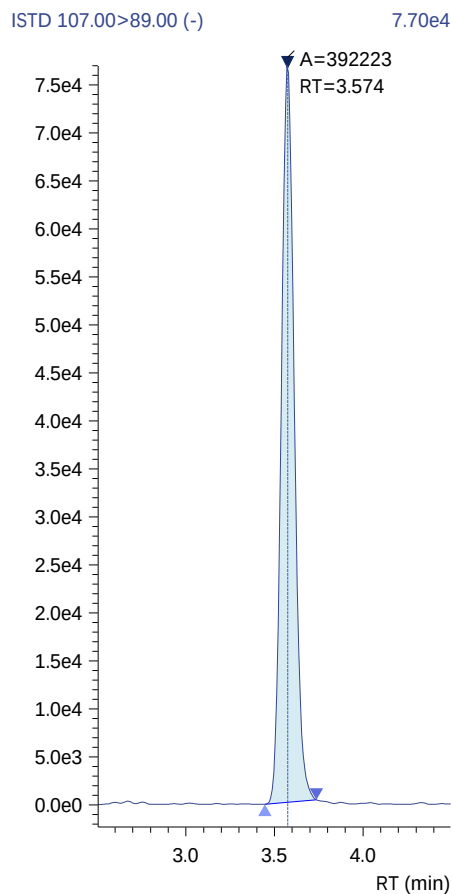
Conc 0.1132

R#1 25.59 (28.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 9/7/2023 3:00:38 PM

EQ2300431-03

Sample ID: EQ2300431-03

Date Acquired: 9/7/2023 11:48:30 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\2230907-007.lcd

Vial: 3 | Inj. Volume: 10.0000uL | Tray: 3

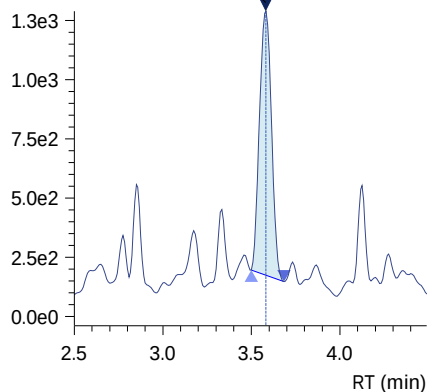
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.580	5270	383527	0.0932	ng/mL	101.00 >85.00	32.96	19.82-36.81
Sodium Perchlorate-18O4_IS	Auto	3.571	383527	383527	1.0000	ng/mL	----	----	

Perchlorate

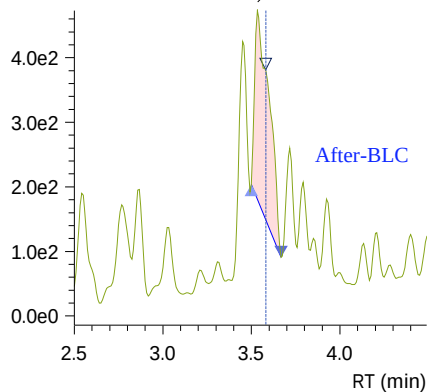
Conc 0.0932

R#1 32.96 (28.31)

Q 99.00>83.00 (-) A=5270 RT=3.580 1.29e3 ISTD 107.00>89.00 (-) 7.54e4



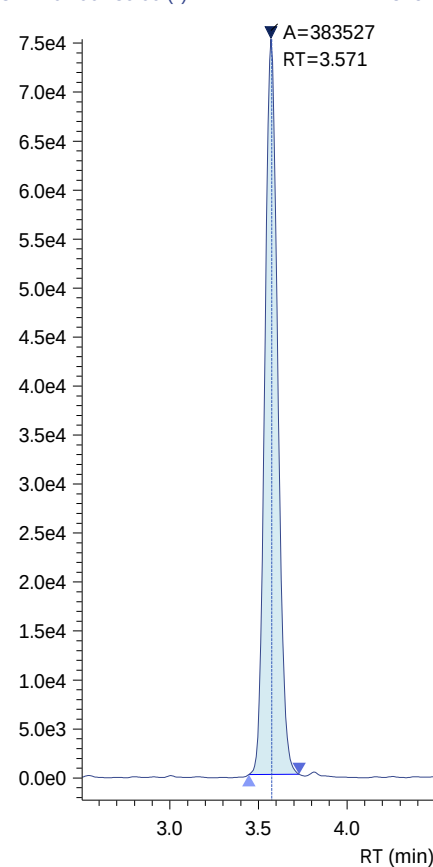
R1 101.00>85.00 (-) A=1737 RT=3.536 4.73e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=383527 RT=3.571



Insight Report

Printed at 9/7/2023 3:02:19 PM

EQ2300431-03

Sample ID: EQ2300431-03

Date Acquired: 9/7/2023 11:48:30 AM

Acquired by: System Administrator

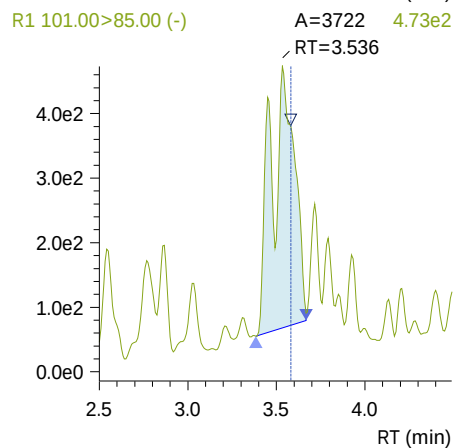
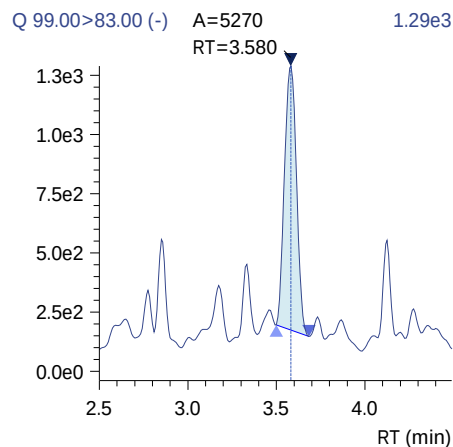
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Vial: 3 | Inj. Volume: 10.0000uL | Tray: 3

Perchlorate

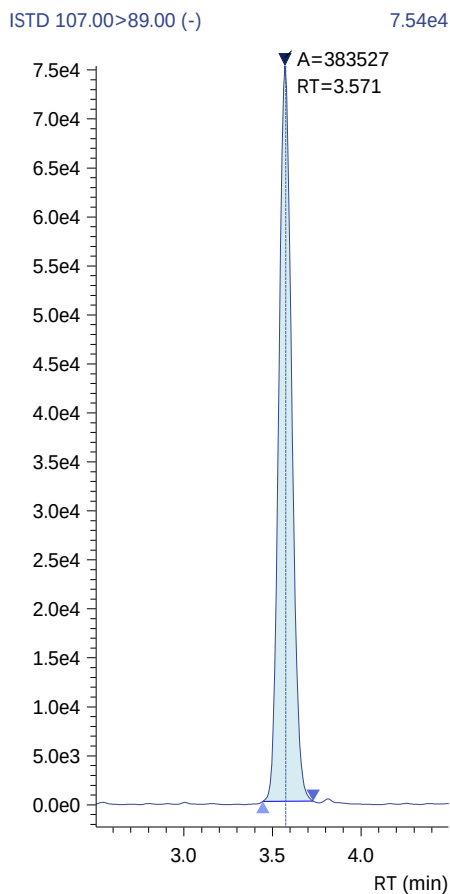
Conc 0.0932

R#1 70.62 (28.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 9/7/2023 3:00:38 PM

CCV

Sample ID: CCV

Date Acquired: 9/7/2023 12:49:09 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\2230907-015.lcd

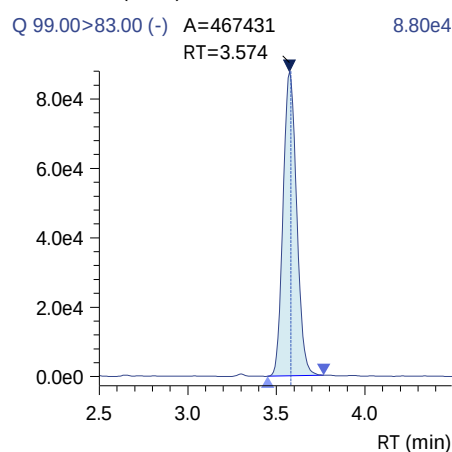
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	467431	321145	9.8705	ng/mL	101.00 >85.00	26.96	19.82-36.81
Sodium Perchlorate-18O4_IS	Auto	3.570	321145	321145	1.0000	ng/mL	----	----	

Perchlorate

Conc 9.8705

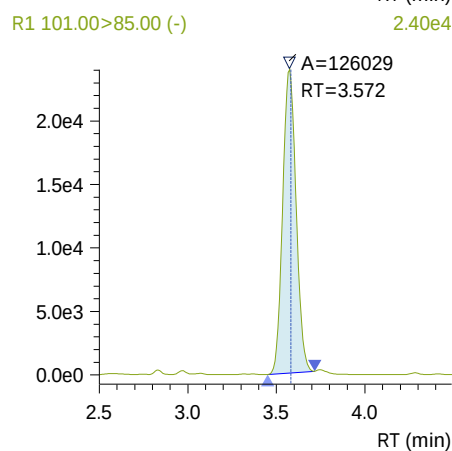
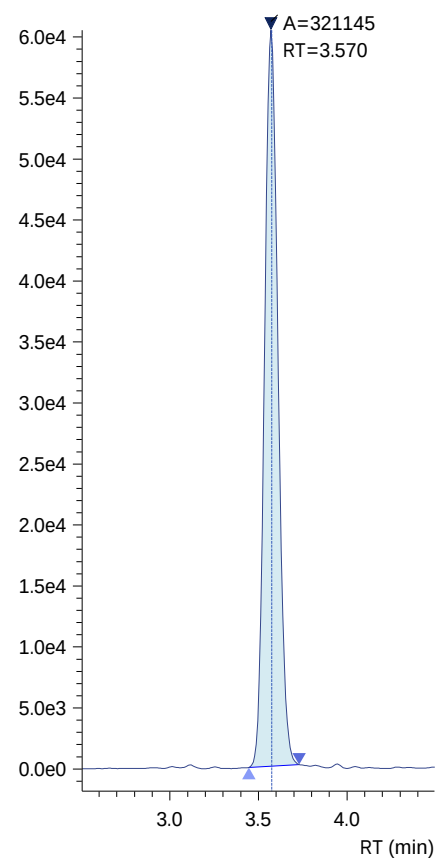
R#1 26.96 (28.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.06e4



Insight Report

Printed at 9/7/2023 3:00:38 PM

E2300803-002

Sample ID: E2300803-002

Date Acquired: 9/7/2023 1:33:28 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\2230907-023.lcd

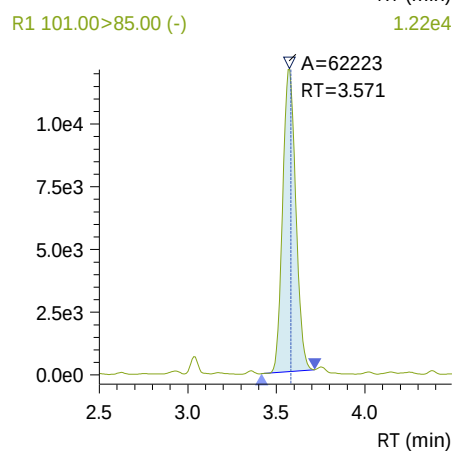
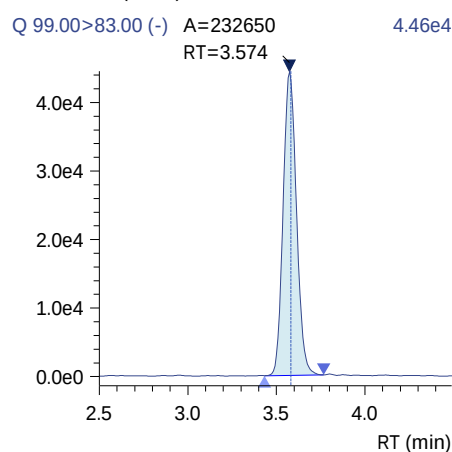
Vial: 18 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	232650	335957	4.6961	ng/mL	101.00 >85.00	26.75	19.82-36.81
Sodium Perchlorate-18O4_IS	Auto	3.570	335957	335957	1.0000	ng/mL	----	----	

Perchlorate

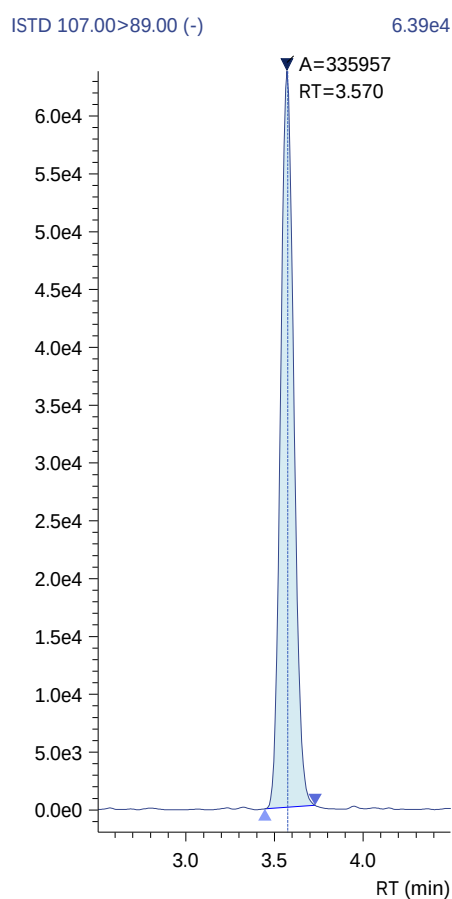
Conc 4.6961

R#1 26.75 (28.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 9/7/2023 3:00:38 PM

CCV

Sample ID: CCV

Date Acquired: 9/7/2023 1:50:11 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\2230907-026.lcd

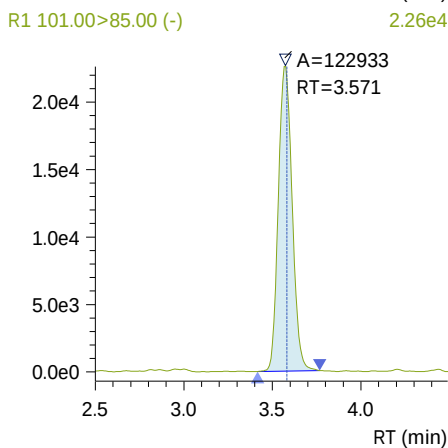
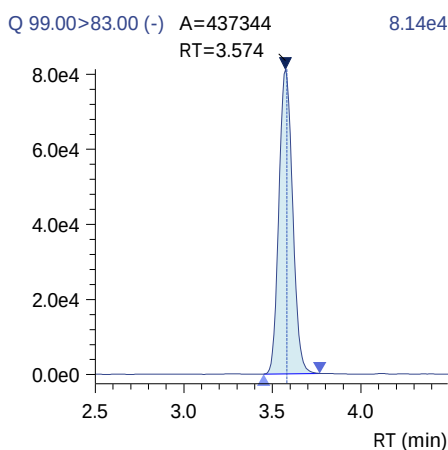
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	437344	305574	9.7057	ng/mL	101.00 >85.00	28.11	19.82-36.81
Sodium Perchlorate-18O4_IS	Auto	3.570	305574	305574	1.0000	ng/mL	----	----	

Perchlorate

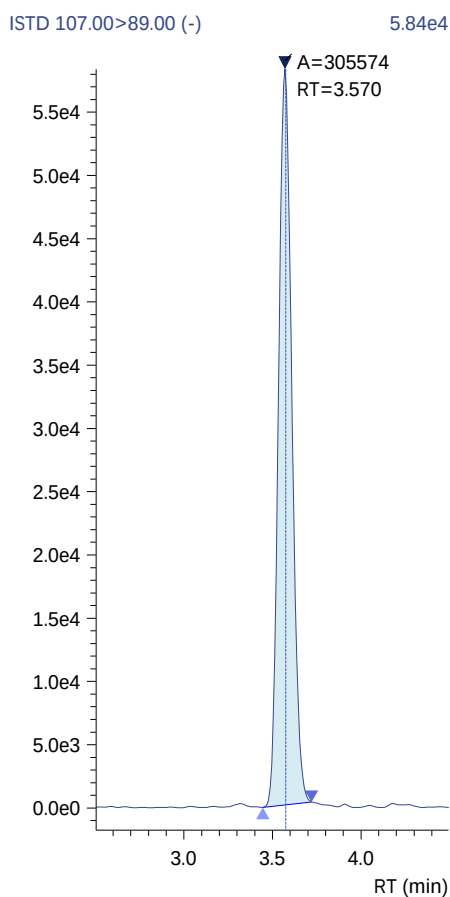
Conc 9.7057

R#1 28.11 (28.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 9/7/2023 3:00:38 PM

E2300803-001X10

Sample ID: E2300803-001

Date Acquired: 9/7/2023 2:25:29 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\2230907-032.lcd

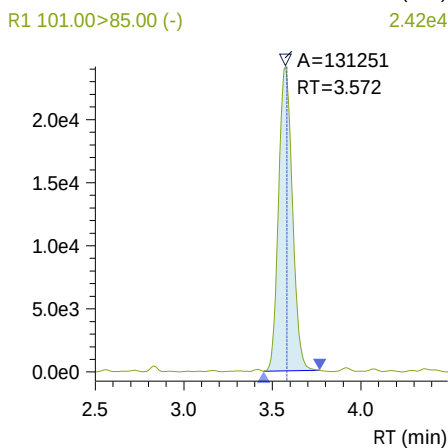
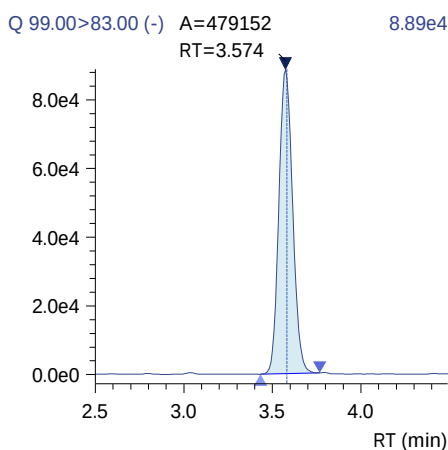
Vial: 17 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	479152	303014	10.7234	ng/mL	101.00 >85.00	27.39	19.82-36.81
Sodium Perchlorate-18O4_IS	Auto	3.570	303014	303014	1.0000	ng/mL	----	----	

Perchlorate

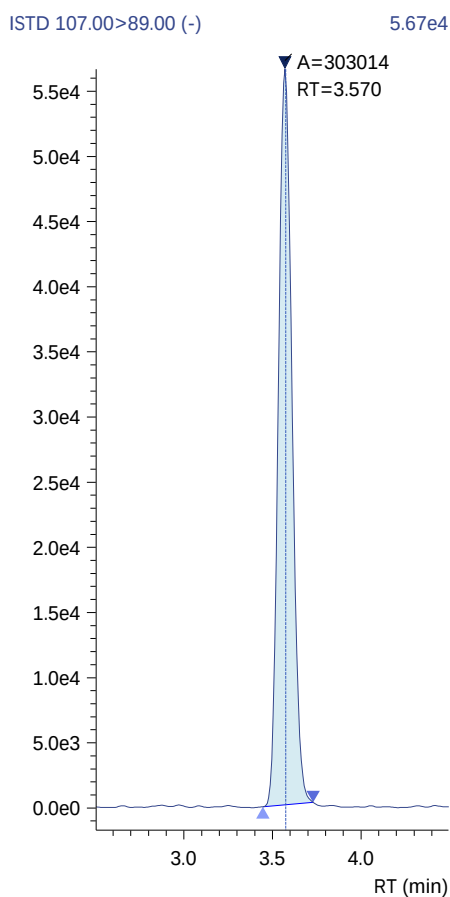
Conc 10.7234

R#1 27.39 (28.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 9/7/2023 3:00:38 PM

CCV

Sample ID: CCV

Date Acquired: 9/7/2023 2:43:16 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230907\2230907-033.lcd

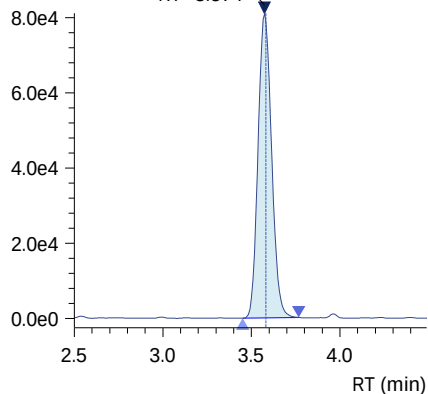
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	430074	297766	9.7946	ng/mL	101.00 >85.00	27.87	19.82-36.81
Sodium Perchlorate-18O4_IS	Auto	3.570	297766	297766	1.0000	ng/mL	----	----	

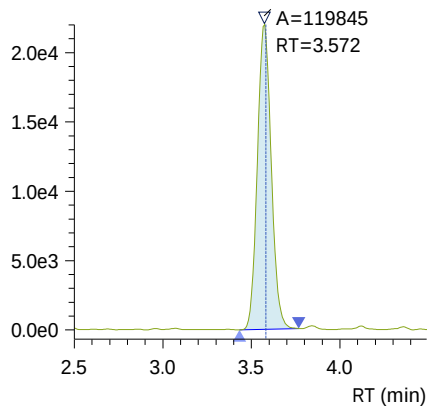
Perchlorate

Conc 9.7946

R#1 27.87 (28.31)

Q 99.00>83.00 (-) A=430074
RT=3.574

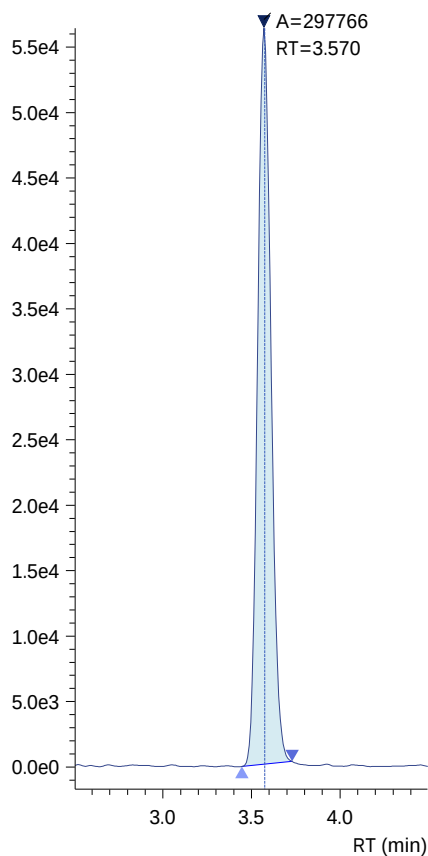
R1 101.00>85.00 (-)



Sodium Perchlorate-18O4_IS

Conc 1.0000

8.12e4 ISTD 107.00>89.00 (-) 5.64e4



HS23090424 Longhorn GW Treatment Plant Cover Page

ALS WO# HS23090424



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CCB	
HS23090424-01DF5	
HS23090424-01DF50	
CCV1	
CCB	





right solutions.
right partner.

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alsglobal.com

WorkOrder: HS23090424

Longhorn GW Treatment Plant

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

13-Sep-2023



HS23090424 Longhorn GW Treatment Plant Final

ALS WO# HS23090424





10450 Stancliff Rd. Suite 210
Houston, TX 77099
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September 18, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23090424**

Laboratory Results for: **Longhorn GW Treatment Plant**

Dear Marcia Olive,

ALS Environmental received 2 sample(s) on Sep 07, 2023 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: DAYNA.FISHER

James Guin

ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
Work Order: HS23090424

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23090424-01	LH18/24-SP650_090623	Water		06-Sep-2023 13:00	07-Sep-2023 10:00	☐
HS23090424-02	Trip Blank	Water	CG-041923 -632	06-Sep-2023 00:00	07-Sep-2023 10:00	☐



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
Work Order: HS23090424

CASE NARRATIVE

GCMS Volatiles by Method SW8260**Batch ID: R446515****Sample ID: HS23090510-99MS**

- MS and MSD are for an unrelated sample

WetChemistry by Method SW9056**Batch ID: R446082**

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

ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
 Project: Longhorn GW Treatment Plant
 Sample ID: LH18/24-SP650_090623
 Collection Date: 06-Sep-2023 13:00

ANALYTICAL REPORT

WorkOrder: HS23090424
 Lab ID: HS23090424-01
 Matrix: Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		Method: SW8260						Analyst: PC
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:56
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	14-Sep-2023 23:56
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	14-Sep-2023 23:56
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:56
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	14-Sep-2023 23:56
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	14-Sep-2023 23:56
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	14-Sep-2023 23:56
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56

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



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
 Project: Longhorn GW Treatment Plant
 Sample ID: LH18/24-SP650_090623
 Collection Date: 06-Sep-2023 13:00

ANALYTICAL REPORT

WorkOrder:HS23090424
 Lab ID:HS23090424-01
 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		Method:SW8260						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
cis-1,2-Dichloroethene	2.5		0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	14-Sep-2023 23:56
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	14-Sep-2023 23:56
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:56
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:56
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:56
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>99.8</i>			0	<i>81-118</i>	%REC	<i>1</i>	<i>14-Sep-2023 23:56</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>85.8</i>			0	<i>85-114</i>	%REC	<i>1</i>	<i>14-Sep-2023 23:56</i>
<i>Surr: Dibromofluoromethane</i>	<i>97.8</i>			0	<i>80-119</i>	%REC	<i>1</i>	<i>14-Sep-2023 23:56</i>
<i>Surr: Toluene-d8</i>	<i>110</i>			0	<i>89-112</i>	%REC	<i>1</i>	<i>14-Sep-2023 23:56</i>
ANIONS BY SW9056A		Method:SW9056						Analyst: TH
Chloride	973		10.0	25.0	25.0	mg/L	50	12-Sep-2023 11:40
Sulfate	70.2		1.00	2.50	2.50	mg/L	5	12-Sep-2023 11:34

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



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
 Project: Longhorn GW Treatment Plant
 Sample ID: Trip Blank
 Collection Date: 06-Sep-2023 00:00

ANALYTICAL REPORT

WorkOrder: HS23090424
 Lab ID: HS23090424-02
 Matrix: Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD		Method: SW8260						Analyst: PC
8260C								
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 22:49
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	14-Sep-2023 22:49
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	14-Sep-2023 22:49
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 22:49
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	14-Sep-2023 22:49
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	14-Sep-2023 22:49
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	14-Sep-2023 22:49
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49

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



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
 Project: Longhorn GW Treatment Plant
 Sample ID: Trip Blank
 Collection Date: 06-Sep-2023 00:00

ANALYTICAL REPORT

WorkOrder: HS23090424
 Lab ID: HS23090424-02
 Matrix: Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		Method: SW8260						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	14-Sep-2023 22:49
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	14-Sep-2023 22:49
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 22:49
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Trichlorofluoromethane	1.0		0.30	0.50	1.0	ug/L	1	14-Sep-2023 22:49
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 22:49
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>102</i>			0	<i>81-118</i>	%REC	1	<i>14-Sep-2023 22:49</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>87.0</i>			0	<i>85-114</i>	%REC	1	<i>14-Sep-2023 22:49</i>
<i>Surr: Dibromofluoromethane</i>	<i>100.0</i>			0	<i>80-119</i>	%REC	1	<i>14-Sep-2023 22:49</i>
<i>Surr: Toluene-d8</i>	<i>109</i>			0	<i>89-112</i>	%REC	1	<i>14-Sep-2023 22:49</i>

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



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.**Project:** Longhorn GW Treatment Plant**WorkOrder:** HS23090424**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R446082 (0)		Test Name : ANIONS BY SW9056A			Matrix: Water	
HS23090424-01	LH18/24-SP650_090623	06 Sep 2023 13:00			12 Sep 2023 11:40	50
HS23090424-01	LH18/24-SP650_090623	06 Sep 2023 13:00			12 Sep 2023 11:34	5
Batch ID: R446515 (0)		Test Name : VOLATILES ORGANICS BY METHOD 8260C			Matrix: Water	
HS23090424-01	LH18/24-SP650_090623	06 Sep 2023 13:00			14 Sep 2023 23:56	1
HS23090424-02	Trip Blank	06 Sep 2023 00:00			14 Sep 2023 22:49	1



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
WorkOrder: HS23090424

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
MBLK	Sample ID: VBLKW-230914	Units: ug/L		Analysis Date: 14-Sep-2023 22:04					
Client ID:	Run ID: VOA9_446515	SeqNo: 7546918		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1,2-Tetrachloroethane	0.50	1.0							U
1,1,1-Trichloroethane	0.50	1.0							U
1,1,2,2-Tetrachloroethane	0.50	1.0							U
1,1,2-Trichloroethane	0.50	1.0							U
1,1-Dichloroethane	0.50	1.0							U
1,1-Dichloroethene	0.50	1.0							U
1,1-Dichloropropene	0.50	1.0							U
1,2,3-Trichlorobenzene	0.50	1.0							U
1,2,3-Trichloropropane	0.50	1.0							U
1,2,4-Trichlorobenzene	0.50	1.0							U
1,2,4-Trimethylbenzene	0.50	1.0							U
1,2-Dibromo-3-chloropropane	0.50	1.0							U
1,2-Dibromoethane	0.50	1.0							U
1,2-Dichlorobenzene	0.50	1.0							U
1,2-Dichloroethane	0.50	1.0							U
1,2-Dichloropropane	0.50	1.0							U
1,3,5-Trimethylbenzene	0.50	1.0							U
1,3-Dichlorobenzene	0.50	1.0							U
1,3-Dichloropropane	0.50	1.0							U
1,4-Dichlorobenzene	0.50	1.0							U
2,2-Dichloropropane	0.50	1.0							U
2-Butanone	0.50	2.0							U
2-Chlorotoluene	0.50	1.0							U
2-Hexanone	2.0	2.0							U
4-Chlorotoluene	0.50	1.0							U
4-Isopropyltoluene	0.50	1.0							U
4-Methyl-2-pentanone	2.0	2.0							U
Acetone	2.0	2.0							U
Benzene	0.50	1.0							U
Bromobenzene	0.50	1.0							U
Bromochloromethane	0.50	1.0							U
Bromodichloromethane	0.50	1.0							U
Bromoform	0.50	1.0							U
Bromomethane	0.50	1.0							U



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
WorkOrder: HS23090424

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
MBLK	Sample ID: VBLKW-230914	Units: ug/L		Analysis Date: 14-Sep-2023 22:04					
Client ID:	Run ID: VOA9_446515	SeqNo: 7546918		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Carbon disulfide	2.0	2.0							U
Carbon tetrachloride	0.50	1.0							U
Chlorobenzene	0.50	1.0							U
Chloroethane	0.50	1.0							U
Chloroform	0.50	1.0							U
Chloromethane	0.50	1.0							U
cis-1,2-Dichloroethene	0.50	1.0							U
cis-1,3-Dichloropropene	0.50	1.0							U
Dibromochloromethane	0.50	1.0							U
Dibromomethane	0.50	1.0							U
Dichlorodifluoromethane	0.50	1.0							U
Ethylbenzene	0.50	1.0							U
Hexachlorobutadiene	0.50	1.0							U
Isopropylbenzene	0.50	1.0							U
m,p-Xylene	1.0	2.0							U
Methylene chloride	2.0	2.0							U
Naphthalene	0.50	1.0							U
n-Butylbenzene	0.50	1.0							U
n-Propylbenzene	0.50	1.0							U
o-Xylene	0.50	1.0							U
sec-Butylbenzene	0.50	1.0							U
Styrene	0.50	1.0							U
tert-Butylbenzene	0.50	1.0							U
Tetrachloroethene	0.50	1.0							U
Toluene	0.50	1.0							U
trans-1,2-Dichloroethene	0.50	1.0							U
trans-1,3-Dichloropropene	0.50	1.0							U
Trichloroethene	0.50	1.0							U
Trichlorofluoromethane	0.50	1.0							U
Vinyl chloride	0.50	1.0							U
Surr: 1,2-Dichloroethane-d4	49.04	1.0	50	0	98.1	81 - 118			
Surr: 4-Bromofluorobenzene	44.48	1.0	50	0	89.0	85 - 114			
Surr: Dibromofluoromethane	48.65	1.0	50	0	97.3	80 - 119			
Surr: Toluene-d8	54.76	1.0	50	0	110	89 - 112			



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
WorkOrder: HS23090424

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
LCS		Sample ID: VLCSW-230914		Units: ug/L		Analysis Date: 14-Sep-2023 21:20			
Client ID:		Run ID: VOA9_446515		SeqNo: 7546917		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1,2-Tetrachloroethane	18.54	1.0	20	0	92.7	78 - 124			
1,1,1-Trichloroethane	17.91	1.0	20	0	89.6	74 - 131			
1,1,2,2-Tetrachloroethane	18.86	1.0	20	0	94.3	71 - 121			
1,1,2-Trichloroethane	18.48	1.0	20	0	92.4	80 - 119			
1,1-Dichloroethane	18.33	1.0	20	0	91.7	77 - 125			
1,1-Dichloroethene	16.98	1.0	20	0	84.9	71 - 131			
1,1-Dichloropropene	17.07	1.0	20	0	85.4	78 - 125			
1,2,3-Trichlorobenzene	20.71	1.0	20	0	104	69 - 129			
1,2,3-Trichloropropane	19.45	1.0	20	0	97.2	73 - 122			
1,2,4-Trichlorobenzene	19.32	1.0	20	0	96.6	69 - 130			
1,2,4-Trimethylbenzene	20.14	1.0	20	0	101	76 - 124			
1,2-Dibromo-3-chloropropane	18.21	1.0	20	0	91.1	62 - 128			
1,2-Dibromoethane	19.84	1.0	20	0	99.2	77 - 121			
1,2-Dichlorobenzene	18.84	1.0	20	0	94.2	80 - 119			
1,2-Dichloroethane	18.77	1.0	20	0	93.8	73 - 128			
1,2-Dichloropropane	19.95	1.0	20	0	99.8	78 - 122			
1,3,5-Trimethylbenzene	18.93	1.0	20	0	94.6	75 - 124			
1,3-Dichlorobenzene	18.94	1.0	20	0	94.7	80 - 119			
1,3-Dichloropropane	19.47	1.0	20	0	97.4	80 - 119			
1,4-Dichlorobenzene	18	1.0	20	0	90.0	79 - 118			
2,2-Dichloropropane	17.09	1.0	20	0	85.5	60 - 139			
2-Butanone	37.52	2.0	40	0	93.8	56 - 143			
2-Chlorotoluene	19.67	1.0	20	0	98.4	79 - 122			
2-Hexanone	40.9	2.0	40	0	102	57 - 139			
4-Chlorotoluene	18.96	1.0	20	0	94.8	78 - 122			
4-Isopropyltoluene	19.15	1.0	20	0	95.7	77 - 127			
4-Methyl-2-pentanone	37.87	2.0	40	0	94.7	67 - 130			
Acetone	40.58	2.0	40	0	101	39 - 160			
Benzene	18.83	1.0	20	0	94.2	79 - 120			
Bromobenzene	19.87	1.0	20	0	99.4	80 - 120			
Bromochloromethane	18.65	1.0	20	0	93.3	78 - 123			
Bromodichloromethane	17.96	1.0	20	0	89.8	79 - 125			
Bromoform	18.74	1.0	20	0	93.7	66 - 130			
Bromomethane	20.72	1.0	20	0	104	53 - 141			



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
WorkOrder: HS23090424

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
LCS		Sample ID: VLCSW-230914		Units: ug/L		Analysis Date: 14-Sep-2023 21:20			
Client ID:		Run ID: VOA9_446515		SeqNo: 7546917		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Carbon disulfide	36.36	2.0	40	0	90.9	64 - 133			
Carbon tetrachloride	15.95	1.0	20	0	79.8	72 - 136			
Chlorobenzene	18.63	1.0	20	0	93.2	82 - 118			
Chloroethane	17.26	1.0	20	0	86.3	60 - 138			
Chloroform	18.47	1.0	20	0	92.4	79 - 124			
Chloromethane	17	1.0	20	0	85.0	50 - 139			
cis-1,2-Dichloroethene	18.61	1.0	20	0	93.1	78 - 123			
cis-1,3-Dichloropropene	17.67	1.0	20	0	88.4	75 - 124			
Dibromochloromethane	18.59	1.0	20	0	93.0	74 - 126			
Dibromomethane	18.34	1.0	20	0	91.7	79 - 123			
Dichlorodifluoromethane	15.93	1.0	20	0	79.6	32 - 152			
Ethylbenzene	19	1.0	20	0	95.0	79 - 121			
Hexachlorobutadiene	16.29	1.0	20	0	81.5	66 - 134			
Isopropylbenzene	18.98	1.0	20	0	94.9	72 - 131			
m,p-Xylene	37.57	2.0	40	0	93.9	80 - 121			
Methylene chloride	19.75	2.0	20	0	98.7	74 - 124			
Naphthalene	19.04	1.0	20	0	95.2	61 - 128			
n-Butylbenzene	17.89	1.0	20	0	89.4	75 - 128			
n-Propylbenzene	18.48	1.0	20	0	92.4	76 - 126			
o-Xylene	17.72	1.0	20	0	88.6	78 - 122			
sec-Butylbenzene	18.06	1.0	20	0	90.3	77 - 126			
Styrene	18.79	1.0	20	0	94.0	78 - 123			
tert-Butylbenzene	17.98	1.0	20	0	89.9	78 - 124			
Tetrachloroethene	18.87	1.0	20	0	94.4	74 - 129			
Toluene	19.82	1.0	20	0	99.1	80 - 121			
trans-1,2-Dichloroethene	18.62	1.0	20	0	93.1	75 - 124			
trans-1,3-Dichloropropene	17.39	1.0	20	0	87.0	73 - 127			
Trichloroethene	17.64	1.0	20	0	88.2	79 - 123			
Trichlorofluoromethane	16.47	1.0	20	0	82.4	65 - 141			
Vinyl chloride	17.38	1.0	20	0	86.9	58 - 137			
Surr: 1,2-Dichloroethane-d4	50.41	1.0	50	0	101	81 - 118			
Surr: 4-Bromofluorobenzene	51.05	1.0	50	0	102	85 - 114			
Surr: Dibromofluoromethane	51.85	1.0	50	0	104	80 - 119			
Surr: Toluene-d8	52.38	1.0	50	0	105	89 - 112			



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
WorkOrder: HS23090424

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
MS		Sample ID: HS23090510-99MS		Units: ug/L		Analysis Date: 15-Sep-2023 00:19			
Client ID:		Run ID: VOA9_446515		SeqNo: 7546924		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1,2-Tetrachloroethane	20.3	1.0	20	0	101	78 - 124			
1,1,1-Trichloroethane	19.76	1.0	20	0	98.8	74 - 131			
1,1,2,2-Tetrachloroethane	18.89	1.0	20	0	94.4	71 - 121			
1,1,2-Trichloroethane	20.93	1.0	20	0	105	80 - 119			
1,1-Dichloroethane	62.11	1.0	20	45.19	84.6	77 - 125			
1,1-Dichloroethene	425.5	1.0	20	451.9	-132	71 - 131			SEO
1,1-Dichloropropene	19	1.0	20	0	95.0	78 - 125			
1,2,3-Trichlorobenzene	18.67	1.0	20	0	93.4	69 - 129			
1,2,3-Trichloropropane	18.44	1.0	20	0	92.2	73 - 122			
1,2,4-Trichlorobenzene	16.52	1.0	20	0	82.6	69 - 130			
1,2,4-Trimethylbenzene	17.91	1.0	20	0	89.5	76 - 124			
1,2-Dibromo-3-chloropropane	18.03	1.0	20	0	90.2	62 - 128			
1,2-Dibromoethane	21.04	1.0	20	0	105	77 - 121			
1,2-Dichlorobenzene	18.69	1.0	20	0	93.4	80 - 119			
1,2-Dichloroethane	21.46	1.0	20	0.7927	103	73 - 128			
1,2-Dichloropropane	22	1.0	20	0	110	78 - 122			
1,3,5-Trimethylbenzene	17.22	1.0	20	0	86.1	75 - 124			
1,3-Dichlorobenzene	17.71	1.0	20	0	88.6	80 - 119			
1,3-Dichloropropane	20.56	1.0	20	0	103	80 - 119			
1,4-Dichlorobenzene	17.24	1.0	20	0	86.2	79 - 118			
2,2-Dichloropropane	9.703	1.0	20	0	48.5	60 - 139			S
2-Butanone	35.16	2.0	40	0	87.9	56 - 143			
2-Chlorotoluene	18.22	1.0	20	0	91.1	79 - 122			
2-Hexanone	40.63	2.0	40	0	102	57 - 139			
4-Chlorotoluene	17.78	1.0	20	0	88.9	78 - 122			
4-Isopropyltoluene	15.95	1.0	20	0	79.7	77 - 127			
4-Methyl-2-pentanone	38.61	2.0	40	0	96.5	67 - 130			
Acetone	33.92	2.0	40	0	84.8	39 - 160			
Benzene	20.8	1.0	20	0	104	79 - 120			
Bromobenzene	19.39	1.0	20	0	97.0	80 - 120			
Bromochloromethane	18.49	1.0	20	0	92.4	78 - 123			
Bromodichloromethane	19.99	1.0	20	0	100.0	79 - 125			
Bromoform	19.21	1.0	20	0	96.1	66 - 130			
Bromomethane	20.08	1.0	20	0	100	53 - 141			



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
WorkOrder: HS23090424

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
MS		Sample ID: HS23090510-99MS		Units: ug/L		Analysis Date: 15-Sep-2023 00:19			
Client ID:		Run ID: VOA9_446515		SeqNo: 7546924		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Carbon disulfide	35.5	2.0	40	0	88.7	64 - 133			
Carbon tetrachloride	14.66	1.0	20	0	73.3	72 - 136			
Chlorobenzene	19.61	1.0	20	0	98.0	82 - 118			
Chloroethane	18.69	1.0	20	0	93.4	60 - 138			
Chloroform	19.25	1.0	20	0	96.2	79 - 124			
Chloromethane	17.77	1.0	20	0	88.8	50 - 139			
cis-1,2-Dichloroethene	19.03	1.0	20	0	95.2	78 - 123			
cis-1,3-Dichloropropene	16.37	1.0	20	0	81.8	75 - 124			
Dibromochloromethane	20.06	1.0	20	0	100	74 - 126			
Dibromomethane	20.43	1.0	20	0	102	79 - 123			
Dichlorodifluoromethane	13.69	1.0	20	0	68.4	32 - 152			
Ethylbenzene	18.73	1.0	20	0	93.7	79 - 121			
Hexachlorobutadiene	12.3	1.0	20	0	61.5	66 - 134			S
Isopropylbenzene	17.55	1.0	20	0	87.8	72 - 131			
m,p-Xylene	38.04	2.0	40	0	95.1	80 - 121			
Methylene chloride	19.29	2.0	20	0	96.5	74 - 124			
Naphthalene	16.76	1.0	20	0	83.8	61 - 128			
n-Butylbenzene	13.94	1.0	20	0	69.7	75 - 128			S
n-Propylbenzene	16.09	1.0	20	0	80.4	76 - 126			
o-Xylene	18.27	1.0	20	0	91.3	78 - 122			
sec-Butylbenzene	14.89	1.0	20	0	74.5	77 - 126			S
Styrene	18.69	1.0	20	0	93.5	78 - 123			
tert-Butylbenzene	15.71	1.0	20	0	78.5	78 - 124			
Tetrachloroethene	17.7	1.0	20	0	88.5	74 - 129			
Toluene	21.23	1.0	20	0	106	80 - 121			
trans-1,2-Dichloroethene	18.37	1.0	20	0	91.9	75 - 124			
trans-1,3-Dichloropropene	15.83	1.0	20	0	79.1	73 - 127			
Trichloroethene	18.5	1.0	20	0	92.5	79 - 123			
Trichlorofluoromethane	17.96	1.0	20	0	89.8	65 - 141			
Vinyl chloride	19.44	1.0	20	1.463	89.9	58 - 137			
Surr: 1,2-Dichloroethane-d4	48.65	1.0	50	0	97.3	81 - 118			
Surr: 4-Bromofluorobenzene	49.12	1.0	50	0	98.2	85 - 114			
Surr: Dibromofluoromethane	48.57	1.0	50	0	97.1	80 - 119			
Surr: Toluene-d8	55.77	1.0	50	0	112	89 - 112			



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
WorkOrder: HS23090424

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C						
MSD		Sample ID: HS23090510-99MSD		Units: ug/L		Analysis Date: 15-Sep-2023 00:41				
Client ID:		Run ID: VOA9_446515		SeqNo: 7546925		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	20.09	1.0	20	0	100	78 - 124	20.3	0.995	20	
1,1,1-Trichloroethane	19	1.0	20	0	95.0	74 - 131	19.76	3.9	20	
1,1,2,2-Tetrachloroethane	19.18	1.0	20	0	95.9	71 - 121	18.89	1.55	20	
1,1,2-Trichloroethane	21.15	1.0	20	0	106	80 - 119	20.93	1.05	20	
1,1-Dichloroethane	60.65	1.0	20	45.19	77.3	77 - 125	62.11	2.37	20	
1,1-Dichloroethene	411.8	1.0	20	451.9	-200	71 - 131	425.5	3.27	20	SEO
1,1-Dichloropropene	18.2	1.0	20	0	91.0	78 - 125	19	4.28	20	
1,2,3-Trichlorobenzene	18.76	1.0	20	0	93.8	69 - 129	18.67	0.447	20	
1,2,3-Trichloropropane	18.64	1.0	20	0	93.2	73 - 122	18.44	1.09	20	
1,2,4-Trichlorobenzene	17.25	1.0	20	0	86.2	69 - 130	16.52	4.34	20	
1,2,4-Trimethylbenzene	17.79	1.0	20	0	88.9	76 - 124	17.91	0.685	20	
1,2-Dibromo-3-chloropropane	17.86	1.0	20	0	89.3	62 - 128	18.03	0.961	20	
1,2-Dibromoethane	21.17	1.0	20	0	106	77 - 121	21.04	0.642	20	
1,2-Dichlorobenzene	18.39	1.0	20	0	92.0	80 - 119	18.69	1.59	20	
1,2-Dichloroethane	20.76	1.0	20	0.7927	99.8	73 - 128	21.46	3.32	20	
1,2-Dichloropropane	20.92	1.0	20	0	105	78 - 122	22	5.06	20	
1,3,5-Trimethylbenzene	16.71	1.0	20	0	83.5	75 - 124	17.22	2.99	20	
1,3-Dichlorobenzene	17.74	1.0	20	0	88.7	80 - 119	17.71	0.149	20	
1,3-Dichloropropane	20.81	1.0	20	0	104	80 - 119	20.56	1.2	20	
1,4-Dichlorobenzene	17.27	1.0	20	0	86.4	79 - 118	17.24	0.198	20	
2,2-Dichloropropane	8.979	1.0	20	0	44.9	60 - 139	9.703	7.76	20	S
2-Butanone	34.73	2.0	40	0	86.8	56 - 143	35.16	1.25	20	
2-Chlorotoluene	18.11	1.0	20	0	90.5	79 - 122	18.22	0.609	20	
2-Hexanone	41.86	2.0	40	0	105	57 - 139	40.63	2.98	20	
4-Chlorotoluene	17.65	1.0	20	0	88.3	78 - 122	17.78	0.729	20	
4-Isopropyltoluene	15.85	1.0	20	0	79.2	77 - 127	15.95	0.621	20	
4-Methyl-2-pentanone	40.14	2.0	40	0	100	67 - 130	38.61	3.88	20	
Acetone	33.75	2.0	40	0	84.4	39 - 160	33.92	0.508	20	
Benzene	19.82	1.0	20	0	99.1	79 - 120	20.8	4.83	20	
Bromobenzene	19.22	1.0	20	0	96.1	80 - 120	19.39	0.901	20	
Bromochloromethane	18.28	1.0	20	0	91.4	78 - 123	18.49	1.13	20	
Bromodichloromethane	19.08	1.0	20	0	95.4	79 - 125	19.99	4.66	20	
Bromoform	18.87	1.0	20	0	94.3	66 - 130	19.21	1.81	20	
Bromomethane	20.1	1.0	20	0	100	53 - 141	20.08	0.0686	20	



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
WorkOrder: HS23090424

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C						
MSD	Sample ID: HS23090510-99MSD	Units: ug/L		Analysis Date: 15-Sep-2023 00:41						
Client ID:	Run ID: VOA9_446515	SeqNo: 7546925		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	33.29	2.0	40	0	83.2	64 - 133	35.5	6.43	20	
Carbon tetrachloride	12.39	1.0	20	0	61.9	72 - 136	14.66	16.8	20	S
Chlorobenzene	19.6	1.0	20	0	98.0	82 - 118	19.61	0.0673	20	
Chloroethane	18.75	1.0	20	0	93.8	60 - 138	18.69	0.358	20	
Chloroform	18.34	1.0	20	0	91.7	79 - 124	19.25	4.83	20	
Chloromethane	17.25	1.0	20	0	86.2	50 - 139	17.77	2.98	20	
cis-1,2-Dichloroethene	18.1	1.0	20	0	90.5	78 - 123	19.03	5.04	20	
cis-1,3-Dichloropropene	16.25	1.0	20	0	81.2	75 - 124	16.37	0.749	20	
Dibromochloromethane	19.73	1.0	20	0	98.6	74 - 126	20.06	1.69	20	
Dibromomethane	19.57	1.0	20	0	97.8	79 - 123	20.43	4.34	20	
Dichlorodifluoromethane	13.45	1.0	20	0	67.2	32 - 152	13.69	1.76	20	
Ethylbenzene	19.23	1.0	20	0	96.1	79 - 121	18.73	2.6	20	
Hexachlorobutadiene	12.1	1.0	20	0	60.5	66 - 134	12.3	1.7	20	S
Isopropylbenzene	17.87	1.0	20	0	89.4	72 - 131	17.55	1.81	20	
m,p-Xylene	37.05	2.0	40	0	92.6	80 - 121	38.04	2.64	20	
Methylene chloride	19.06	2.0	20	0	95.3	74 - 124	19.29	1.25	20	
Naphthalene	17.99	1.0	20	0	89.9	61 - 128	16.76	7.04	20	
n-Butylbenzene	13.87	1.0	20	0	69.3	75 - 128	13.94	0.532	20	S
n-Propylbenzene	15.95	1.0	20	0	79.8	76 - 126	16.09	0.848	20	
o-Xylene	18.17	1.0	20	0	90.8	78 - 122	18.27	0.566	20	
sec-Butylbenzene	14.77	1.0	20	0	73.9	77 - 126	14.89	0.829	20	S
Styrene	18.36	1.0	20	0	91.8	78 - 123	18.69	1.82	20	
tert-Butylbenzene	15.56	1.0	20	0	77.8	78 - 124	15.71	0.955	20	S
Tetrachloroethene	17.76	1.0	20	0	88.8	74 - 129	17.7	0.359	20	
Toluene	21.01	1.0	20	0	105	80 - 121	21.23	1.06	20	
trans-1,2-Dichloroethene	18.45	1.0	20	0	92.3	75 - 124	18.37	0.451	20	
trans-1,3-Dichloropropene	15.72	1.0	20	0	78.6	73 - 127	15.83	0.667	20	
Trichloroethene	18.11	1.0	20	0	90.6	79 - 123	18.5	2.1	20	
Trichlorofluoromethane	17.42	1.0	20	0	87.1	65 - 141	17.96	3.02	20	
Vinyl chloride	18.85	1.0	20	1.463	87.0	58 - 137	19.44	3.06	20	
Surr: 1,2-Dichloroethane-d4	48.52	1.0	50	0	97.0	81 - 118	48.65	0.259	20	
Surr: 4-Bromofluorobenzene	49.75	1.0	50	0	99.5	85 - 114	49.12	1.27	20	
Surr: Dibromofluoromethane	48.24	1.0	50	0	96.5	80 - 119	48.57	0.687	20	
Surr: Toluene-d8	56.21	1.0	50	0	112	89 - 112	55.77	0.777	20	S



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.**Project:** Longhorn GW Treatment Plant**WorkOrder:** HS23090424**QC BATCH REPORT****Batch ID:** R446515 (0)**Instrument:** VOA9**Method:** VOLATILES ORGANICS BY METHOD
8260C

The following samples were analyzed in this batch: HS23090424-01 HS23090424-02



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
WorkOrder: HS23090424

QC BATCH REPORT

Batch ID: R446082 (0)		Instrument: ICS-Integrion		Method: ANIONS BY SW9056A					
MBLK	Sample ID: MBLK	Units: mg/L		Analysis Date: 12-Sep-2023 08:52					
Client ID:	Run ID: ICS-Integrion_446082		SeqNo: 7538162		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	0.500	0.500							U
Sulfate	0.500	0.500							U

LCS	Sample ID: LCS	Units: mg/L		Analysis Date: 12-Sep-2023 08:58					
Client ID:	Run ID: ICS-Integrion_446082		SeqNo: 7538163		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	20.5	0.500	20	0	103	80 - 120			
Sulfate	19.85	0.500	20	0	99.3	80 - 120			

MS	Sample ID: HS23081962-05MS	Units: mg/L		Analysis Date: 12-Sep-2023 10:14					
Client ID:	Run ID: ICS-Integrion_446082		SeqNo: 7538174		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	15.72	0.500	10	5.493	102	80 - 120			
Sulfate	80.38	0.500	10	70.15	102	80 - 120			O

MSD	Sample ID: HS23081962-05MSD	Units: mg/L		Analysis Date: 12-Sep-2023 10:19					
Client ID:	Run ID: ICS-Integrion_446082		SeqNo: 7538175		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	15.7	0.500	10	5.493	102	80 - 120	15.72	0.146	20
Sulfate	79.46	0.500	10	70.15	93.1	80 - 120	80.38	1.16	20 O

The following samples were analyzed in this batch: HS23090424-01



ALS Houston, US

Date: 18-Sep-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant
WorkOrder: HS23090424

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

Unit Reported	Description
mg/L	Milligrams per Liter



CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2023-2024	30-Apr-2024
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US

Date: 18-Sep-23

Sample Receipt Checklist

Work Order ID: HS23090424

Date/Time Received: 07-Sep-2023 10:00

Client Name: Bhate Environmental

Received by: Corey Grandits

Completed By: <u>/S/ Belinda Gomez</u>	08-Sep-2023 11:25	Reviewed by: <u>/S/ Nieka Carson</u>	08-Sep-2023 16:19
eSignature	Date/Time	eSignature	Date/Time

Matrices: WCarrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Samplers name present on COC?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	

Temperature(s)/Thermometer(s):

3.0uc/2.9c |ir31

Cooler(s)/Kit(s):

48047

Date/Time sample(s) sent to storage:

9/8/23 1127

Water - VOA vials have zero headspace?

Yes ☒ No ☐ No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☐ No ☐ N/A ☒

pH adjusted?

Yes ☐ No ☐ N/A ☒

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210, Houston, Tx. 77099 ATTN: James GuinPage 1 of 1

Project: BHATE LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS			Project No. JVPCIBH.0001			Analyses																			
Job: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES						HS23090424 Bhate Environmental Associates, Inc. Longhorn GW Treatment Plant 																			
Prepared By: Scott Beesinger			P.O Number																						
Field Sample I.D.			Sample Matrix			Date / Time			MS / MSD	No. OF CONTAINERS	VOC	CHLORIDE, SULFATE							Remarks (Preservatives, etc.)	Lab I.D.#					
LH18/24-SP650_090623			Water			09/06/23 / 13:00															3	3	1	HCL	
LH18/24-SP650_090623			Water			09/06/23 / 13:00															1		1	NONE	
Trip Blank			Water			09/06/23															2	2		HCL	
Additional Remarks: Standard TAT on all parameters																									
Relinquished By: <i>Scott Beesinger</i>		Date 09/06/23	Time 13:30	Received By: <i>James Guin</i>		Date 9-7-23	Time 10:00	Relinquished By:		Date	Time	Received By:		Date	Time										
9 For Lab Use Only																									
Received At Lab By:			Date	Time	Airbill No.		Opened By:		Date	Time	Temp of Container	Seal No.	Condition												
Remarks 48047 121 Temp 3.0 CIP-001																									

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



 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5666 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>my</i>
	Date: <i>9/6/23</i>	Time: <i>1330</i>	Date: <i>09/10/23</i>
	Name: <i>Scott Beezinger</i>		
	Company: <i>DATA</i>		

48047 SEP 0: 2023



ORIGIN ID: SGRA (903) 930-6183
 SCOTT BEEZINGER
 APTIM ENVIRONMENTAL & INFRASTRUCTURE
 1203-B EAST GRAND AVE
 PMB 202
 MARSHALL, TX 75670
 UNITED STATES US

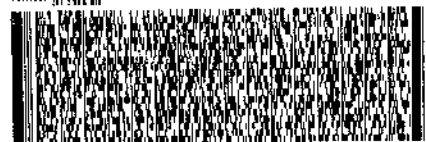
SHIP DATE: 20DEC21
 ACTWT: 1.00 LB. MAN
 CAD: 0221247/CAFF3507
 DIMS: 18x16x13 IN

TO SHIPPING DEPT
 ALS LABORATORY GROUP
 10450 STANCLIFF RD
 SUITE 210
 HOUSTON TX 77099

48047

(281) 530-5666
 REF: LHAAP-50-BO 82485-RG

RMA: 011111



FedEx Express



FedEx

TRK#
 0221 5300 5226 2843

THU - 07 SEP AA
 PRIORITY OVERNIGHT

AB SGRA

77099
 TX-US
 IAH



4 979 07507023 000A NONGOVERNMENT



HS23090424-MSVOA-SW8260

ALS WO# HS23090424





right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant

09/18/2023

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.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

Volatiles by EPA Volatiles Organics by Method 8260C

HS23090424-01				Collected		Received		Matrix		Basis	
LH18/24-SP650_090623				09/06/23 13:00		09/07/23 10:00		Water		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Bromoform	uq/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

Volatiles by EPA Volatiles Organics by Method 8260C

HS23090424-01				Collected		Received		Matrix		Basis	
LH18/24-SP650_090623				09/06/23 13:00		09/07/23 10:00		Water		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
cis-1,2-Dichloroethene	ug/L	2.5		0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:56	VOA9_446515	U091423.D	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

Volatiles by EPA Volatiles Organics by Method 8260C

HS23090424-02				Collected		Received		Matrix		Basis	
Trip Blank				09/06/23 00:00		09/07/23 10:00		Water		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

Volatiles by EPA Volatiles Organics by Method 8260C

HS23090424-02				Collected		Received		Matrix		Basis	
Trip Blank				09/06/23 00:00		09/07/23 10:00		Water		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Trichlorofluoromethane	ug/L	1.0		0.30	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:49	VOA9_446515	U091420.D	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

Volatiles by EPA Volatiles Organics by Method 8260C

VBLKW-230914				Collected		Received		Matrix		Basis	
VBLKW-230914				NA		NA		Aqueous		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

Volatiles by EPA Volatiles Organics by Method 8260C

VBLKW-230914				Collected		Received		Matrix		Basis	
VBLKW-230914				NA		NA		Aqueous		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	





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Form 2

System Monitoring Compound Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant

09/18/2023

ALS Environmental—Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

HS23090424-01	Analyzed	Conc Units	Dilution
LH18/24-SP650_090623	09/14/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	50	50	99.8		81-118
4-Bromofluorobenzene	43	50	85.8		85-114
Dibromofluoromethane	49	50	97.8		80-119
Toluene-d8	55	50	110		89-112

HS23090424-02	Analyzed	Conc Units	Dilution
Trip Blank	09/14/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51	50	102		81-118
4-Bromofluorobenzene	43	50	87.0		85-114
Dibromofluoromethane	50	50	100.0		80-119
Toluene-d8	54	50	109		89-112

HS23090510-99MS	Analyzed	Conc Units	Dilution
HS23090510-99MS	09/15/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	48.65	50	97.3		81-118
4-Bromofluorobenzene	49.12	50	98.2		85-114
Dibromofluoromethane	48.57	50	97.1		80-119
Toluene-d8	55.77	50	112		89-112





Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

HS23090510-99MSD	Analyzed	Conc Units	Dilution
HS23090510-99MSD	09/15/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	48.52	50	97.0		81-118
4-Bromofluorobenzene	49.75	50	99.5		85-114
Dibromofluoromethane	48.24	50	96.5		80-119
Toluene-d8	56.21	50	112		89-112

VBLKW-230914	Analyzed	Conc Units	Dilution
VBLKW-230914	09/14/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	49.04	50	98.1		81-118
4-Bromofluorobenzene	44.48	50	89.0		85-114
Dibromofluoromethane	48.65	50	97.3		80-119
Toluene-d8	54.76	50	110		89-112

VLCSW-230914	Analyzed	Conc Units	Dilution
VLCSW-230914	09/14/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	50.41	50	101		81-118
4-Bromofluorobenzene	51.05	50	102		85-114
Dibromofluoromethane	51.85	50	104		80-119
Toluene-d8	52.38	50	105		89-112





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Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant

09/18/2023

ALS Environmental—Houston Laboratory

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Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

BatchQC (HS23090510-99)				HS23090510-99MS				HS23090510-99MSD						
Sample Matrix Aqueous		Run Date		09/15/23		09/15/23		09/15/23						
Result Units ug/L		Run Time		00:19		00:41		00:41						
		Data File		U091424.D		U091425.D								
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1,1,2-Tetrachloroethane	78-124	1	0	20.3	20	101		20.09	20	100		20	0.995	
1,1,1-Trichloroethane	74-131	1	0	19.76	20	99		19	20	95		20	3.9	
1,1,2,2-Tetrachloroethane	71-121	1	0	18.89	20	94		19.18	20	96		20	1.55	
1,1,2-Trichloroethane	80-119	1	0	20.93	20	105		21.15	20	106		20	1.05	
1,1-Dichloroethane	77-125	1	45.19	62.11	20	85		60.65	20	77		20	2.37	
1,1-Dichloroethene	71-131	1	451.9	425.5	20	-132		411.8	20	-200		20	3.27	
1,1-Dichloropropene	78-125	1	0	19	20	95		18.2	20	91		20	4.28	
1,2,3-Trichlorobenzene	69-129	1	0	18.67	20	93		18.76	20	94		20	0.447	
1,2,3-Trichloropropane	73-122	1	0	18.44	20	92		18.64	20	93		20	1.09	
1,2,4-Trichlorobenzene	69-130	1	0	16.52	20	83		17.25	20	86		20	4.34	
1,2,4-Trimethylbenzene	76-124	1	0	17.91	20	90		17.79	20	89		20	0.685	
1,2-Dibromo-3-chloropropane	62-128	1	0	18.03	20	90		17.86	20	89		20	0.961	
1,2-Dibromoethane	77-121	1	0	21.04	20	105		21.17	20	106		20	0.642	
1,2-Dichlorobenzene	80-119	1	0	18.69	20	93		18.39	20	92		20	1.59	
1,2-Dichloroethane	73-128	1	0.7927	21.46	20	103		20.76	20	100		20	3.32	
1,2-Dichloropropane	78-122	1	0	22	20	110		20.92	20	105		20	5.06	
1,3,5-Trimethylbenzene	75-124	1	0	17.22	20	86		16.71	20	84		20	2.99	
1,3-Dichlorobenzene	80-119	1	0	17.71	20	89		17.74	20	89		20	0.149	
1,3-Dichloropropane	80-119	1	0	20.56	20	103		20.81	20	104		20	1.2	
1,4-Dichlorobenzene	79-118	1	0	17.24	20	86		17.27	20	86		20	0.198	
2,2-Dichloropropane	60-139	1	0	9.703	20	48		8.979	20	45		20	7.76	
2-Butanone	56-143	1	0	35.16	40	88		34.73	40	87		20	1.25	
2-Chlorotoluene	79-122	1	0	18.22	20	91		18.11	20	90		20	0.609	
2-Hexanone	57-139	1	0	40.63	40	102		41.86	40	105		20	2.98	
4-Chlorotoluene	78-122	1	0	17.78	20	89		17.65	20	88		20	0.729	
4-Isopropyltoluene	77-127	1	0	15.95	20	80		15.85	20	79		20	0.621	
4-Methyl-2-pentanone	67-130	1	0	38.61	40	96		40.14	40	100		20	3.88	
Acetone	39-160	1	0	33.92	40	85		33.75	40	84		20	0.508	
Benzene	79-120	1	0	20.8	20	104		19.82	20	99		20	4.83	
Bromobenzene	80-120	1	0	19.39	20	97		19.22	20	96		20	0.901	
Bromochloromethane	78-123	1	0	18.49	20	92		18.28	20	91		20	1.13	
Bromodichloromethane	79-125	1	0	19.99	20	100		19.08	20	95		20	4.66	
Bromoform	66-130	1	0	19.21	20	96		18.87	20	94		20	1.81	
Bromomethane	53-141	1	0	20.08	20	100		20.1	20	100		20	0.0686	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)





Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

BatchQC (HS23090510-99)				HS23090510-99MS				HS23090510-99MSD						
Sample Matrix Aqueous		Run Date		09/15/23		09/15/23		09/15/23						
Result Units ug/L		Run Time		00:19		00:41		00:41						
		Data File		U091424.D		U091425.D								
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Carbon disulfide	64-133	1	0	35.5	40	89		33.29	40	83		20	6.43	
Carbon tetrachloride	72-136	1	0	14.66	20	73		12.39	20	62		20	16.8	
Chlorobenzene	82-118	1	0	19.61	20	98		19.6	20	98		20	0.0673	
Chloroethane	60-138	1	0	18.69	20	93		18.75	20	94		20	0.358	
Chloroform	79-124	1	0	19.25	20	96		18.34	20	92		20	4.83	
Chloromethane	50-139	1	0	17.77	20	89		17.25	20	86		20	2.98	
cis-1,2-Dichloroethene	78-123	1	0	19.03	20	95		18.1	20	90		20	5.04	
cis-1,3-Dichloropropene	75-124	1	0	16.37	20	82		16.25	20	81		20	0.749	
Dibromochloromethane	74-126	1	0	20.06	20	100		19.73	20	99		20	1.69	
Dibromomethane	79-123	1	0	20.43	20	102		19.57	20	98		20	4.34	
Dichlorodifluoromethane	32-152	1	0	13.69	20	68		13.45	20	67		20	1.76	
Ethylbenzene	79-121	1	0	18.73	20	94		19.23	20	96		20	2.6	
Hexachlorobutadiene	66-134	1	0	12.3	20	62		12.1	20	60		20	1.7	
Isopropylbenzene	72-131	1	0	17.55	20	88		17.87	20	89		20	1.81	
m,p-Xylene	80-121	1	0	38.04	40	95		37.05	40	93		20	2.64	
Methylene chloride	74-124	1	0	19.29	20	96		19.06	20	95		20	1.25	
Naphthalene	61-128	1	0	16.76	20	84		17.99	20	90		20	7.04	
n-Butylbenzene	75-128	1	0	13.94	20	70		13.87	20	69		20	0.532	
n-Propylbenzene	76-126	1	0	16.09	20	80		15.95	20	80		20	0.848	
o-Xylene	78-122	1	0	18.27	20	91		18.17	20	91		20	0.566	
sec-Butylbenzene	77-126	1	0	14.89	20	74		14.77	20	74		20	0.829	
Styrene	78-123	1	0	18.69	20	94		18.36	20	92		20	1.82	
tert-Butylbenzene	78-124	1	0	15.71	20	78		15.56	20	78		20	0.955	
Tetrachloroethene	74-129	1	0	17.7	20	88		17.76	20	89		20	0.359	
Toluene	80-121	1	0	21.23	20	106		21.01	20	105		20	1.06	
trans-1,2-Dichloroethene	75-124	1	0	18.37	20	92		18.45	20	92		20	0.451	
trans-1,3-Dichloropropene	73-127	1	0	15.83	20	79		15.72	20	79		20	0.667	
Trichloroethene	79-123	1	0	18.5	20	92		18.11	20	91		20	2.1	
Trichlorofluoromethane	65-141	1	0	17.96	20	90		17.42	20	87		20	3.02	
Vinyl chloride	58-137	1	1.463	19.44	20	90		18.85	20	87		20	3.06	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)





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Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant

09/18/2023

ALS Environmental—Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

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Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

SAMPLENUM

Volatiles by EPA Volatiles Organics by Method 8260C

VLCSW-230914

VOA9_446515	VLCSW-230914
Spike Matrix Aqueous	Run Date 09/14/23
Result Units ug/L	Run Time 21:20
	Data File U091416.D

Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q
1,1,1,2-Tetrachloroethane	78-124	20	18.54	92.7	
1,1,1-Trichloroethane	74-131	20	17.91	89.6	
1,1,2,2-Tetrachloroethane	71-121	20	18.86	94.3	
1,1,2-Trichloroethane	80-119	20	18.48	92.4	
1,1-Dichloroethane	77-125	20	18.33	91.7	
1,1-Dichloroethene	71-131	20	16.98	84.9	
1,1-Dichloropropene	78-125	20	17.07	85.4	
1,2,3-Trichlorobenzene	69-129	20	20.71	104	
1,2,3-Trichloropropane	73-122	20	19.45	97.2	
1,2,4-Trichlorobenzene	69-130	20	19.32	96.6	
1,2,4-Trimethylbenzene	76-124	20	20.14	101	
1,2-Dibromo-3-chloropropane	62-128	20	18.21	91.1	
1,2-Dibromoethane	77-121	20	19.84	99.2	
1,2-Dichlorobenzene	80-119	20	18.84	94.2	
1,2-Dichloroethane	73-128	20	18.77	93.8	
1,2-Dichloropropane	78-122	20	19.95	99.8	
1,3,5-Trimethylbenzene	75-124	20	18.93	94.6	
1,3-Dichlorobenzene	80-119	20	18.94	94.7	
1,3-Dichloropropane	80-119	20	19.47	97.4	
1,4-Dichlorobenzene	79-118	20	18	90.0	
2,2-Dichloropropane	60-139	20	17.09	85.5	
2-Butanone	56-143	40	37.52	93.8	
2-Chlorotoluene	79-122	20	19.67	98.4	
2-Hexanone	57-139	40	40.9	102	
4-Chlorotoluene	78-122	20	18.96	94.8	
4-Isopropyltoluene	77-127	20	19.15	95.7	
4-Methyl-2-pentanone	67-130	40	37.87	94.7	
Acetone	39-160	40	40.58	101	
Benzene	79-120	20	18.83	94.2	
Bromobenzene	80-120	20	19.87	99.4	
Bromochloromethane	78-123	20	18.65	93.3	
Bromodichloromethane	79-125	20	17.96	89.8	
Bromoform	66-130	20	18.74	93.7	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)





Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

SAMPLENUM

Volatiles by EPA Volatiles Organics by Method 8260C

VLCSW-230914

VOA9_446515		VLCSW-230914			
Spike Matrix	Aqueous	Run Date	09/14/23		
Result Units	ug/L	Run Time	21:20		
		Data File	U091416.D		
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q
Bromomethane	53-141	20	20.72	104	
Carbon disulfide	64-133	40	36.36	90.9	
Carbon tetrachloride	72-136	20	15.95	79.8	
Chlorobenzene	82-118	20	18.63	93.2	
Chloroethane	60-138	20	17.26	86.3	
Chloroform	79-124	20	18.47	92.4	
Chloromethane	50-139	20	17	85.0	
cis-1,2-Dichloroethene	78-123	20	18.61	93.1	
cis-1,3-Dichloropropene	75-124	20	17.67	88.4	
Dibromochloromethane	74-126	20	18.59	93.0	
Dibromomethane	79-123	20	18.34	91.7	
Dichlorodifluoromethane	32-152	20	15.93	79.6	
Ethylbenzene	79-121	20	19	95.0	
Hexachlorobutadiene	66-134	20	16.29	81.5	
Isopropylbenzene	72-131	20	18.98	94.9	
m,p-Xylene	80-121	40	37.57	93.9	
Methylene chloride	74-124	20	19.75	98.7	
Naphthalene	61-128	20	19.04	95.2	
n-Butylbenzene	75-128	20	17.89	89.4	
n-Propylbenzene	76-126	20	18.48	92.4	
o-Xylene	78-122	20	17.72	88.6	
sec-Butylbenzene	77-126	20	18.06	90.3	
Styrene	78-123	20	18.79	94.0	
tert-Butylbenzene	78-124	20	17.98	89.9	
Tetrachloroethene	74-129	20	18.87	94.4	
Toluene	80-121	20	19.82	99.1	
trans-1,2-Dichloroethene	75-124	20	18.62	93.1	
trans-1,3-Dichloropropene	73-127	20	17.39	87.0	
Trichloroethene	79-123	20	17.64	88.2	
Trichlorofluoromethane	65-141	20	16.47	82.4	
Vinyl chloride	58-137	20	17.38	86.9	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)





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Form 4

Method Blank Summary

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant

09/18/2023

ALS Environmental—Houston Laboratory

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Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

Volatiles by EPA Volatiles Organics by Method 8260C

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	BatchID
METHOD BLANK	MBLK	VBLKW-230914	U091418.D	09/14/23 22:04	0
VLCSW-230914	LCS	VLCSW-230914	U091416.D	09/14/23 21:20	0
Trip Blank	SAMP	HS23090424-02	U091420.D	09/14/23 22:49	0
LH18/24-SP650_090623	SAMP	HS23090424-01	U091423.D	09/14/23 23:56	0
HS23090510-99MS	MS	HS23090510-99MS	U091424.D	09/15/23 00:19	0
HS23090510-99MSD	MSD	HS23090510-99MSD	U091425.D	09/15/23 00:41	0





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Form 5

Instrument Performance Check

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant

09/18/2023

ALS Environmental—Houston Laboratory

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Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446513

Tune File U091401.D 09/14/23 9/14/2023			This check applies to the following analyses				
m / e	Ion Abundance Criterion	%RA	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
50	15.0 - 40.0% of mass 95	18.6 (18.6)	1	VSTD000.25	ICAL1	9/14/2023	U091402 VSTD000.25
75	30.0 - 60.0% of mass 95	47.5 (47.5)	2	VSTD000.5	ICAL2	9/14/2023	U091403 VSTD000.5
95	Base peak, 100% RA	100 (100)	3	VSTD001	ICAL3	9/14/2023	U091404 VSTD001
96	5.0 - 9.0% of mass 95	6 (6.04)	4	VSTD002	ICAL4	9/14/2023	U091405 VSTD002
173	Less than 2.0% of mass 174	0 (0) 1	5	VSTD005	ICAL5	9/14/2023	U091406 VSTD005
174	50.0 - 120.0% of mass 95	92.2 (92.2)	6	VSTD020	ICAL6	9/14/2023	U091407 VSTD020
175	4.0 - 9.0% of mass 174	7.7 (8.32) 1	7	VSTD050	ICAL7	9/14/2023	U091408 VSTD050
176	93.0 - 101.0% of mass 174	87.6 (95.1) 1	8	VSTD100	ICAL8	9/14/2023	U091409 VSTD100
177	5.0 - 9.0% of mass 176	5.7 (6.54) 2	9	VSTD150	ICAL9	9/14/2023	U091410 VSTD150
%RA - Percent Relative Abundance			10	VSTD200	ICAL	9/14/2023	U091411 VSTD200
			11	CCV	ICV	9/14/2023	U091413 CCV





Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

Tune File U091401.D 09/14/23 9/14/2023			This check applies to the following analyses					
m / e	Ion Abundance Criterion	%RA		Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
50	15.0 - 40.0% of mass 95	18.6 (18.6)	1	VLCSW-	LCS	9/14/2023	U091416	VLCSW-230914
75	30.0 - 60.0% of mass 95	47.5 (47.5)	2	VBLKW-	MBLK	9/14/2023	U091418	VBLKW-230914
95	Base peak, 100% RA	100 (100)	3	HS23090424-	SAMP	9/14/2023	U091420	Trip Blank
96	5.0 - 9.0% of mass 95	6 (6.04)	4	HS23090424-	SAMP	9/14/2023	U091423	LH18/24-SP650_090623
173	Less than 2.0% of mass 174	0 (0) 1	5	HS23090510-	MS	9/15/2023	U091424	ZZZZZMS
174	50.0 - 120.0% of mass 95	92.2 (92.2)	6	HS23090510-	MSD	9/15/2023	U091425	ZZZZZMSD
175	4.0 - 9.0% of mass 174	7.7 (8.32) 1	7	CCV-END	CCV_EN	9/15/2023	U091426	CCV-END
176	93.0 - 101.0% of mass 174	87.6 (95.1) 1						
177	5.0 - 9.0% of mass 176	5.7 (6.54) 2						
%RA - Percent Relative Abundance								





right solutions.
right partner.

Form 6

Initial Calibration Data

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS23090424

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant

09/18/2023

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 Longhorn GW Treatment Plant

Workorder
HS23090424

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9_446513

Calibration Files

Level 1..target\chem\voa9.i\230914.b\091414.d Level 5..target\chem\voa9.i\230914.b\091406.d
 Level 2..target\chem\voa9.i\230914.b\091403.d Level 6..target\chem\voa9.i\230914.b\091407.d
 Level 3..target\chem\voa9.i\230914.b\091404.d Level 7..target\chem\voa9.i\230914.b\091408.d Level 9..target\chem\voa9.i\230914.b\091410.d
 Level 4..target\chem\voa9.i\230914.b\091405.d Level 8..target\chem\voa9.i\230914.b\091409.d Level 10target\chem\voa9.i\230914.b\091411.d

ICAL Start Date 24-AUG-2023 1226
 ICAL End Date 14-SEP-2023 2035

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Dichlorodifluoromethane	NE 365999	3707 823221	6349 1304711	13431 1749434	33181	143501	LINR	0.02676	0.56338		0.99846	
Chloromethane	NE 679763	8313 1410566	14060 2165321	29214 2776648	65950	265733	LINR	-0.01955	0.90532		0.99949	
Propionitrile	NE 0.09762	0.11348 0.10097	0.13080 0.10334	0.09983 0.11732	0.11356	0.09793	AVRG		0.10832		10.39324	
Vinyl Chloride	NE 0.58953	0.63500 0.66440	0.51826 0.68382	0.61359 0.74487	0.61105	0.65184	AVRG		0.63471		10.01584	
Bromomethane	NE 210271	2668 434819	5410 772902	10105 NE	22775	88771	LINR	0.00895	0.31241		0.99649	
Chloroethane	NE 0.40858	0.51407 0.45456	0.43546 0.47522	0.48696 0.51612	0.46633	0.44382	AVRG		0.46679		7.64729	
Trichlorofluoromethane	NE 0.71384	0.84307 0.83940	0.70050 0.85239	0.85787 0.94657	0.78508	0.79016	AVRG		0.81432		9.39063	
Acrolein	NE 0.03598	0.05030 0.03862	0.04568 0.03801	0.04274 0.04373	0.04558	0.04548	AVRG		0.04290		10.65123	
Acetone	NE 343448	7172 787149	11344 1181608	19383 NE	44971	147123	LINR	-0.04324	0.24825		0.99709	
1,1-Dichloroethene	NE 0.42993	0.48044 0.49560	0.49561 0.50712	0.53277 0.56323	0.47214	0.47730	AVRG		0.49490		7.66489	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant

Workorder

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VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 2 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Isobutyl Alcohol	NE 1000328	6981 2260477	14479 3741011	29170 NE	69816	337097	LINR	0.74634	0.07773		0.99832	
Acetonitrile	NE 0.06976	0.06905 0.07789	0.07382 0.08058	0.07474 0.09190	0.07703	0.07180	AVRG		0.07629		9.13624	
Allyl Chloride	NE 1.58330	1.99685 1.71222	1.73391 1.75396	1.71895 2.00686	1.79500	1.65455	AVRG		1.77284		8.07147	
Iodomethane	NE 379247	3691 938697	6809 1796657	12296 2669085	28118	126031	QUAD	0.06674	3.55616	-0.37217	0.99869	
Acrylonitrile	NE 0.26035	0.31688 0.28035	0.31053 0.28563	0.25151 0.33071	0.31054	0.27845	AVRG		0.29166		9.23533	
Methylene Chloride	NE 422454	5165 885454	11952 1469875	21334 2059188	46477	168006	LINR	0.03386	0.64995		0.99512	
Methyl tert-butyl ether	NE 1.27552	1.62967 1.42506	1.35198 1.49581	1.14063 1.74702	1.30996	1.27057	AVRG		1.40514		13.61238	
Carbon Disulfide	NE 1.23844	1.26383 1.41052	1.07437 1.45112	1.46170 1.58693	1.23120	1.31348	AVRG		1.33684		11.59541	
trans-1,2-Dichloroethene	NE 0.47975	0.55428 0.53277	0.39266 0.54631	0.51711 0.60246	0.53193	0.51528	AVRG		0.51917		11.15481	
Vinyl Acetate	NE 1.73873	1.90853 1.92746	1.50781 2.05417	1.65026 2.34587	1.68954	1.70870	AVRG		1.83679		13.75302	
1,1-Dichloroethane	NE 0.93943	1.07383 1.02643	0.91917 1.04335	1.14236 1.17528	1.03943	1.01161	AVRG		1.04121		8.00852	
Chloroprene	NE 0.18634	0.20040 0.22946	0.15392 0.24364	0.19604 NE	0.19444	0.19631	AVRG		0.20007		13.54802	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant

Workorder

HS23090424

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 3 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
2-Butanone	NE 0.26601	0.32564 0.30047	0.30306 0.29640	0.29810 0.34410	0.30774	0.28603	AVRG		0.30306		7.33642	
Methacrylonitrile	NE 0.34930	0.43147 0.38177	0.33617 0.41204	0.40568 0.45363	0.40218	0.36522	AVRG		0.39305		9.77190	
2,2-Dichloropropane	NE 0.56716	0.67818 0.66538	0.50690 0.68003	0.59851 0.77977	0.60975	0.58850	AVRG		0.63046		12.63104	
cis-1,2-Dichloroethene	NE 0.55005	0.60106 0.59671	0.53281 0.60765	0.58764 0.67055	0.60368	0.59228	AVRG		0.59360		6.50141	
Chloroform	NE 0.92536	1.01438 0.99160	0.93201 0.99258	1.09787 1.09686	1.05814	0.99018	AVRG		1.01100		6.24335	
Bromochloromethane	NE 0.28350	0.31930 0.29806	0.30348 0.29564	0.35122 0.32321	0.32568	0.29962	AVRG		0.31108		6.62379	
1,1,1-Trichloroethane	NE 0.61436	0.71682 0.72978	0.58230 0.71056	0.74141 0.76778	0.64471	0.67128	AVRG		0.68656		9.07185	
1,1-Dichloropropene	NE 0.35684	0.40403 0.41723	0.37255 0.41033	0.41616 0.42559	0.37965	0.38991	AVRG		0.39692		5.89717	
1,2-Dichloroethane	NE 0.46304	0.54072 0.47428	0.47800 0.45091	0.47176 0.46099	0.50381	0.50629	AVRG		0.48331		5.87332	
Carbon Tetrachloride	NE 0.32605	0.35901 0.40768	0.29944 0.39073	0.34386 0.40129	0.30615	0.36174	AVRG		0.35511		11.21576	
Benzene	NE 1.19376	1.43643 1.28481	1.14071 1.23498	1.25495 1.25284	1.24368	1.26046	AVRG		1.25585		6.36851	
Trichloroethene	NE 0.32324	0.38916 0.36229	0.41141 0.35273	0.40076 0.35433	0.34830	0.34523	AVRG		0.36527		7.92367	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant

Workorder
HS23090424

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 4 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Bromodichloromethane	NE 0.39485	0.45127 0.43233	0.32945 0.42235	0.38930 0.43526	0.41061	0.40043	AVRG		0.40732		8.75214	
Methyl Methacrylate	NE 0.41200	0.43648 0.44683	0.35111 0.44968	0.37495 0.50094	0.35765	0.35529	AVRG		0.40944		12.90456	
2-Chloroethylvinyl ether	NE 3835	53.00000 8728	75.00000 13383	139 NE	336	1495	LINR	0.01042	0.00182		0.99811	
1,2-Dichloropropane	NE 0.33009	0.33257 0.34397	0.25940 0.34038	0.35639 0.35012	0.33355	0.33824	AVRG		0.33163		8.56288	
2-Nitropropane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Dibromomethane	NE 0.22042	0.26403 0.22390	0.21630 0.21470	0.23416 0.22452	0.23528	0.22176	AVRG		0.22834		6.61787	
4-Methyl-2-Pentanone	NE 766488	6101 1680595	7941 2729579	19237 3882854	55368	259947	LINR	0.05070	0.38061		0.99946	
cis-1,3-Dichloropropene	NE 501695	4418 1167680	6792 1934103	14220 2674030	34543	160625	LINR	0.06306	0.53920		0.99740	
Ethyl Methacrylate	NE 0.41268	0.45680 0.45442	0.36246 0.46735	0.38395 0.54587	0.45021	0.39076	AVRG		0.43606		12.75212	
Toluene	NE 1.34569	1.45082 1.46239	1.07184 1.40533	1.23344 1.40314	1.27701	1.43363	AVRG		1.34259		9.54890	
trans-1,3-Dichloropropene	NE 422161	3003 972012	5013 1618558	11642 NE	26471	130809	LINR	0.04789	0.43342		0.99763	
2-Hexanone	NE 0.22932	0.20700 0.25813	0.18903 0.25314	0.21693 0.27813	0.19422	0.21418	AVRG		0.22667		13.46620	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant

Workorder

HS23090424

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 5 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
1,1,2-Trichloroethane	NE 0.27764	0.34447 0.28684	0.28956 0.27121	0.30896 0.27991	0.29400	0.28227	AVRG		0.29276		7.59199	
1,3-Dichloropropane	NE 0.55932	0.64394 0.59668	0.53726 0.57449	0.60703 0.58087	0.62003	0.58015	AVRG		0.58886		5.46268	
Dibromochloromethane	NE 0.35255	0.39670 0.39025	0.27799 0.37643	0.31490 0.38617	0.30544	0.33577	AVRG		0.34847		12.17510	
Tetrachloroethene	NE 0.28439	0.33768 0.33024	0.29417 0.30568	0.32019 0.30642	0.29970	0.33694	AVRG		0.31283		6.16711	
1,2-Dibromoethane	NE 0.34711	0.36002 0.35966	0.32308 0.35711	0.32188 0.37780	0.36311	0.35686	AVRG		0.35185		5.24926	
1-Chlorohexane	NE 0.23239	0.33730 0.30896	0.28436 0.32654	0.27718 0.38591	0.27728	0.28869	AVRG		0.30207		14.57094	
Chlorobenzene	NE 0.91636	1.06386 0.99276	0.87812 0.97638	1.03958 1.01684	1.05205	1.00122	AVRG		0.99302		6.23425	
1,1,1,2-Tetrachloroethane	NE 0.31804	0.36834 0.35234	0.29571 0.34755	0.31049 0.36224	0.31400	0.33496	AVRG		0.33374		7.61789	
Ethylbenzene	NE 0.40959	0.45057 0.49896	0.36253 0.49299	0.41356 0.51149	0.41423	0.44783	AVRG		0.44464		11.15028	
m,p-Xylenes	NE 0.50182	0.51611 0.63305	0.47807 0.65096	0.53806 0.67800	0.48452	0.55163	AVRG		0.55914		13.53220	
o-Xylene	NE 0.51076	0.60409 0.62094	0.55400 0.64078	0.54655 0.68422	0.54264	0.52588	AVRG		0.58109		10.12904	
Styrene	NE 0.78758	0.87651 0.97578	0.72659 1.06148	0.83274 1.11914	0.85665	0.79379	AVRG		0.89225		14.83920	

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Project Longhorn GW Treatment Plant

Workorder
HS23090424

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VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 6 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
cis-1,4-Dichloro-2-butene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Bromoform	NE 248786	2213 553169	3346 971749	7208 1484437	18129	86866	LINR	0.07130	0.28327		0.99565	
Isopropylbenzene	NE 1270310	12158 3338525	19078 5778129	40776 8637564	106778	536621	QUAD	0.02951	0.72440	-0.02036	0.99802	
1,1,2,2-Tetrachloroethane	NE 0.96877	1.07691 0.96428	0.94252 0.94068	0.96138 0.97891	0.96650	0.94232	AVRG		0.97136		4.30583	
1,2,3-Trichloropropane	NE 0.83400	0.92643 0.86499	0.68740 0.84951	0.72811 0.93383	0.84761	0.77833	AVRG		0.82780		10.04826	
trans-1,4-Dichloro-2-butene	NE 75428	725 182461	1290 338574	2699 554286	7259	27892	QUAD	0.01682	13.66836	-10.35493	0.99923	
n-Propylbenzene	NE 1319916	9893 3742926	15066 6534980	40048 9390355	104281	564347	LINR	0.06036	3.29374		0.99702	
Bromobenzene	NE 0.78617	0.82872 0.80782	0.79775 0.78196	0.75922 0.82436	0.76125	0.80466	AVRG		0.79466		3.12387	
1,3,5-Trimethylbenzene	NE 1.69678	1.83479 2.13613	1.54429 2.16986	1.69752 2.32869	1.67877	1.83936	AVRG		1.88069		14.25145	
2-Chlorotoluene	NE 1.78931	1.84667 2.03107	1.55647 1.97597	1.82372 2.07534	1.69055	1.91960	AVRG		1.85652		8.92955	
4-Chlorotoluene	NE 2.05404	2.45550 2.42415	1.76830 2.39950	1.85665 2.48853	1.94977	2.21007	AVRG		2.17850		12.80654	
tert-Butylbenzene	NE 1.61445	1.73209 2.09185	1.34748 2.09599	1.69439 2.16064	1.66027	1.89111	AVRG		1.80981		14.93883	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant

Workorder

HS23090424

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 7 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
1,2,4-Trimethylbenzene	NE 1.74069	1.99835 2.14733	1.50833 2.19276	1.66966 2.34455	1.80604	1.99088	AVRG		1.93318		14.08589	
Pentachloroethane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
sec-Butylbenzene	NE 1078548	9443 3233827	14747 5794903	37386 8545916	102146	487620	QUAD	0.03553	0.40159	-0.00601	0.99728	
p-Isopropyltoluene	NE 858100	7845 2596903	10971 4754112	30473 7125106	91770	379700	QUAD	0.03551	0.50599	-0.01109	0.99726	
1,3-Dichlorobenzene	NE 1.29564	1.64936 1.43331	1.14193 1.41516	1.40808 1.45953	1.34972	1.46142	AVRG		1.40157		9.79907	
1,4-Dichlorobenzene	NE 1.36452	1.73898 1.57084	1.64932 1.50126	1.67312 1.55645	1.59518	1.52280	AVRG		1.57472		6.93007	
bis(2-Chloro-isopropyl)ether	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Benzyl Chloride	NE 238400	2308 669969	4481 1319002	10494 NE	25511	90176	QUAD	0.01651	4.22254	-1.38763	0.99660	
n-Butylbenzene	NE 771155	6875 2423452	10524 4319547	25685 6555037	70297	345471	QUAD	0.04120	0.54839	-0.01292	0.99669	
1,2-Dichlorobenzene	NE 1.30363	1.59492 1.51325	1.25783 1.44593	1.47321 1.50014	1.36852	1.44379	AVRG		1.43347		7.42571	
1,2-Dibromo-3-Chloropropane	NE 0.11727	0.12528 0.12818	0.13519 0.12273	0.11938 0.14047	0.09968	0.09952	AVRG		0.12086		11.64772	
1,2,4-Trichlorobenzene	NE 0.79133	0.79544 0.91831	0.65973 0.87584	0.80193 0.94575	0.77915	0.77709	AVRG		0.81606		10.55973	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant

Workorder
HS23090424

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 8 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Hexachlorobutadiene	NE 0.29572	0.39938 0.39116	0.32726 0.35455	0.39421 0.38416	0.36938	0.37954	AVRG		0.36615		9.47976	
Naphthalene	NE 1096628	8877 2667441	13176 4538786	27784 6850147	71056	371874	LINR	0.05461	2.36301		0.99749	
1,2,3-Trichlorobenzene	NE 0.79082	0.80281 0.88470	0.63654 0.84765	0.63671 0.92009	0.65132	0.80227	AVRG		0.77477		13.96996	
Ethyl Acetate	NE 0.69285	0.73810 0.74414	0.74245 0.75653	0.69433 0.88171	0.73387	0.70967	AVRG		0.74374		7.59451	
Methyl Acrylate	NE 0.72768	0.85841 0.76506	0.74004 0.79249	0.66578 0.91860	0.81516	0.72118	AVRG		0.77827		9.93062	
n-Butanol	NE 192290	1719 457128	2369 763912	6853 1029553	13604	59879	LINR	1.44831	0.01664		0.99636	
Ethyl Acrylate	NE 1.08362	1.18005 1.29388	0.94913 1.24318	1.03653 1.42111	1.14681	1.11060	AVRG		1.16277		12.21999	
Cyclohexanone	NE 317398	2558 842236	3824 1362676	10101 2213446	25352	118478	QUAD	0.27792	33.05577	-2.30848	0.99696	
1,4-Dioxane	0.00807 0.00672	0.00846 0.00704	0.00769 0.00662	0.00679 0.00705	0.00752	0.00671	AVRG		0.00727		8.78626	
n-Hexane	NE 339399	3717 992187	6922 1644568	14741 NE	34377	167899	QUAD	0.01308	1.82503	-0.18854	0.99366	
n-Pentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Freon TF	NE 261309	3073 684389	4663 1134738	11603 1638859	25879	120741	QUAD	0.00284	2.55565	-0.32192	0.99833	

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Project Longhorn GW Treatment Plant

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Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 9 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Methyl Acetate	NE 0.53114	0.71573 0.56195	0.61926 0.57857	0.64790 0.65884	0.61217	0.53063	AVRG		0.60624		10.23128	
Methylcyclohexane	NE 0.70028	0.77480 0.83462	0.54081 0.79913	0.63067 0.88514	0.71513	0.71598	AVRG		0.73295		14.36482	
Isopropyl alcohol	NE 0.03964	0.05144 0.04238	0.03837 0.04441	0.04825 0.05087	0.04157	0.03863	AVRG		0.04395		11.62350	
Amyl alcohol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Allyl alcohol	NE 339399	3417 992187	8402 1644568	15482 2449493	34377	167899	QUAD	0.29393	35.97672	-3.46793	0.99684	
4-Methyl-2-pentanol	NE 1331093	11606 3282152	16850 5678265	33476 8869066	97556	463540	QUAD	0.42184	16.46473	-0.75433	0.99939	
Tert-butyl alcohol	NE 0.05485	0.07444 0.05883	0.05025 0.06182	0.06155 0.07175	0.06215	0.05575	AVRG		0.06126		12.68809	
Diethyl ether	NE 0.44841	0.51001 0.48146	0.50059 0.49697	0.51274 0.57102	0.48968	0.44880	AVRG		0.49552		7.43867	
1,3-Butadiene	NE 0.54864	0.57853 0.60796	0.52627 0.62906	0.57573 0.69704	0.57632	0.57676	AVRG		0.59070		8.41589	
Cyclohexane	NE 417496	4570 1133205	7153 1767337	16765 2438404	42320	197210	QUAD	0.01046	1.51027	-0.08083	0.99721	
Tetrahydrofuran	NE 0.11413	0.14518 0.12434	0.12875 0.12454	0.12727 NE	0.12313	0.11639	AVRG		0.12546		7.50836	
1-Chlorobutane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	

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Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 10 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Nitrobenzene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
alpha-Methylstyrene	NE 352370	3195 970876	5828 1832249	12611 2850527	31357	140696	QUAD	0.02640	1.36617	-0.09368	0.99875	
Tetraethyl lead	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
2,3-Dichlorobutane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
2-Pentanone	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Diisopropyl ether	NE 1.90181	2.45961 2.14417	1.76200 2.27331	2.18177 2.64480	2.13132	1.97215	AVRG		2.16344		12.65258	
n-Heptane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Dichlorofluoromethane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Propylene oxide	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
2-Methylnaphthalene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
3-Methyl-1-butanol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Butyl acrylate	NE 562929	5050 1404394	9090 2571857	17459 4194332	43284	183149	QUAD	0.03352	1.77384	-0.17247	0.99886	

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ICAL Summary Page 11 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Butyl methacrylate	NE 397835	3041 868381	4447 1540788	11040 NE	28545	128376	LINR	0.02474	0.75850		0.99944	
Dicyclopentadiene	NE 1106882	9699 3293174	16090 5605401	38550 8504352	93143	439065	QUAD	0.03707	0.40356	-0.00595	0.99703	
4-Vinyl-1-cyclohexene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
1,2,3-Trimethylbenzene	NE 1.76481	2.18615 2.15125	1.58793 2.06712	1.53675 2.23855	1.83555	1.93767	AVRG		1.92286		13.46175	
Ethanol	NE 0.00887	0.01253 0.00934	0.01156 0.00936	0.01068 0.01039	0.01216	0.00981	AVRG		0.01052		12.48629	
1-Propanol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
1,3,5-Trichlorobenzene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
tert-Butyl formate	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
3,3-Dimethyl-1-butanol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
tert-Amyl methyl ether	NE 755560	5959 1694814	8748 2759489	20046 NE	51688	241640	LINR	0.03634	1.15267		0.99861	
tert-Butyl ethyl ether	NE 945112	9169 2285735	15060 3927060	32331 NE	73009	318352	LINR	0.05551	1.62056		0.99506	
tert-Amyl alcohol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*

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ICAL Start Date 24-AUG-2023 1226

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ICAL Summary Page 12 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Dimethyl ether	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Ethylene oxide	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Hexachloroethane	NE 89758	922 205287	1951 332300	3866 497508	11282	42815	LINR	-0.01440	0.17019		0.99796	
1-Methylnaphthalene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
2-Furfural	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Epichlorohydrin	NE 0.00375	0.00412 0.00358	0.00371 0.00365	0.00370 0.00487	0.00383	0.00404	AVRG		0.00392		10.15581	
2-Methylpropane(1)	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
(2)	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Cyclopentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Isoprene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Isopentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
n-Amyl acetate	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*

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Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

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ICAL Summary Page 13 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Isopropyl acetate	NE 0.87221	0.96616 0.98368	0.73129 0.99770	0.85589 1.09873	0.84865	0.80880	AVRG		0.90701		12.45603	
n-Butyl acetate	NE 574264	4460 1317192	7154 2291727	16908 NE	47093	186665	LINR	0.05035	0.63216		0.99642	
Propanal	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
n-Buteraldehyde	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Isobuteraldehyde	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
2-Ethyl-1-hexanol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Acetaldehyde	NE 311342	NE 541574	NE 885769	9425 1211017	48054	122532	LINR	-0.16114	0.09498		0.99574	
Methyl Amyl Ketone	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
2-Methylpentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
3-Methylpentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Methylcyclopentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
1-Hexene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	

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ICAL Start Date 24-AUG-2023 1226

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ICAL Summary Page 14 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Dimethyl Disulfide	NE 337308	NE 1019789	900 1911544	3526 2897727	12037	88155	QUAD	0.11368	2.29247	-0.26107	0.99489	*
1-Butene(1)	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
(2)	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Isobutylene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
2-Ethylhexyl Acrylate	NE 201286	1841 600525	3245 1150692	7443 2059168	20556	79669	QUAD	0.03210	2.30600	-0.32334	0.99803	
94 1,2-Dichloroethylene (total)	NE 0.51490	0.57767 0.56474	0.46274 0.57698	0.55237 0.63651	0.56780	0.55378	AVRG		0.55639		8.52781	
95 Xylenes (total)	NE 0.48676	0.50065 0.59521	0.46742 0.62382	0.51887 0.71283	0.49289	0.52687	AVRG		0.54726		14.72625	
30 Dibromofluoromethane	NE 328369	3104 685902	5321 1058564	11893 1427589	30159	129138	LINR	0.00417	0.45811		0.99875	
35 1,2-Dichloroethane-d4	NE 379658	4043 775916	8172 1180336	13220 1605933	35545	147451	LINR	-0.00299	0.51376		0.99837	
48 Toluene-d8	NE 1.12164	1.28011 1.16465	1.05099 1.07459	0.98642 1.04543	1.04873	1.14834	AVRG		1.10232		7.91712	
69 4-Bromofluorobenzene	NE 520817	4793 1113602	7585 NE	14167 NE	43329	208648	QUAD	-0.00276	2.18031	-0.21402	0.99937	

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Form 6I

Initial Calibration Verification (ICV)

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant

09/18/2023

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 Longhorn GW Treatment Plant

Workorder

HS23090424

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id CCV
Data Type MS DATA
File ID U091413.D

Fraction VOA
Client Smp ID CCV
SampleType METHSPIKE
Inj Date 14-SEP-2023 2013

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachloroethane	50.00	47.99	96.00	80-120	
1,1,1-Trichloroethane	50.00	47.25	94.50	80-120	
1,1,2,2-Tetrachloroethane	50.00	47.50	95.00	80-120	
Freon TF	50.00	49.35	98.71	80-120	
Methyl Acetate	50.00	47.59	95.19	80-120	
Cyclohexane	50.00	47.41	94.82	80-120	
Methylcyclohexane	50.00	49.99	99.98	80-120	
Carbon Disulfide	100.00	97.82	97.83	80-120	
2-Hexanone	100.00	105.97	105.98	80-120	
1,1,2-Trichloroethane	50.00	46.75	93.50	80-120	
1,1-Dichloroethane	50.00	47.21	94.42	80-120	
1,1-Dichloroethene	50.00	45.28	90.57	80-120	
1,1-Dichloropropene	50.00	46.39	92.78	80-120	
1,2,3-Trichlorobenzene	50.00	57.66	115.34	80-120	
1,2,3-Trichloropropane	50.00	49.22	98.45	80-120	
1,2,4-Trichlorobenzene	50.00	55.15	110.30	80-120	
1,2,4-Trimethylbenzene	50.00	53.34	106.69	80-120	
1,2-Dibromo-3-Chloropropane	50.00	51.66	103.32	80-120	
1,2-Dibromoethane	50.00	48.44	96.89	80-120	
Acrolein	100.00	85.70	85.70	80-120	
Acrylonitrile	100.00	97.11	97.12	80-120	
1,2-Dichlorobenzene	50.00	48.42	96.86	80-120	
1,2-Dichloroethane	50.00	45.84	91.68	80-120	
1,2-Dichloropropane	50.00	50.02	100.04	80-120	
1,3,5-Trimethylbenzene	50.00	52.87	105.76	80-120	
1,3-Dichlorobenzene	50.00	48.36	96.73	80-120	
1,3-Dichloropropane	50.00	48.21	96.43	80-120	
1,4-Dichlorobenzene	50.00	46.21	92.43	80-120	
1-Chlorohexane	50.00	41.48	82.96	80-120	
2,2-Dichloropropane	50.00	47.90	95.81	80-120	
2-Butanone	100.00	97.60	97.61	80-120	
2-Chloroethylvinyl ether	100.00	89.77	89.77	80-120	
2-Chlorotoluene	50.00	51.43	102.88	80-120	
4-Chlorotoluene	50.00	51.38	102.76	80-120	





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Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix	LIQUID	Fraction	VOA
Lab Smp Id	CCV	Client Smp ID	CCV
Data Type	MS DATA	SampleType	METHSPIKE
File ID	U091413.D	Inj Date	14-SEP-2023 2013

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
p-Isopropyltoluene	50.00	50.39	100.79	80-120	
4-Methyl-2-Pentanone	100.00	97.61	97.62	80-120	
Acetone	100.00	96.59	96.60	80-120	
Acetonitrile	500.00	487.04	97.41	80-120	
Allyl Chloride	50.00	47.43	94.87	80-120	
Benzene	50.00	47.38	94.76	80-120	
Bromobenzene	50.00	50.39	100.80	80-120	
Bromochloromethane	50.00	46.77	93.55	80-120	
Bromodichloromethane	50.00	47.33	94.66	80-120	
Bromoform	50.00	42.70	85.40	80-120	
Bromomethane	50.00	53.93	107.87	80-120	
Carbon Tetrachloride	50.00	45.49	90.99	80-120	
Chlorobenzene	50.00	46.03	92.07	80-120	
Chloroethane	50.00	45.82	91.65	80-120	
Chloroform	50.00	47.38	94.77	80-120	
Chloromethane	50.00	43.46	86.93	80-120	
Chloroprene	50.00	50.87	101.75	80-120	
cis-1,2-Dichloroethene	50.00	49.09	98.19	80-120	
cis-1,3-Dichloropropene	50.00	44.97	89.95	80-120	
Dibromochloromethane	50.00	50.42	100.85	80-120	
Dibromomethane	50.00	45.82	91.65	80-120	
Dichlorodifluoromethane	50.00	44.80	89.61	80-120	
Ethylbenzene	50.00	50.54	101.08	80-120	
Ethyl Methacrylate	50.00	50.05	100.11	80-120	
Iodomethane	100.00	107.26	107.27	80-120	
Isobutyl Alcohol	1000.00	972.55	97.26	70-130	
Propionitrile	500.00	486.02	97.20	70-130	
Hexachlorobutadiene	50.00	48.09	96.18	80-120	
Isopropylbenzene	50.00	47.73	95.48	80-120	
m,p-Xylenes	100.00	100.08	100.08	80-120	
Methyl tert-butyl ether	50.00	53.06	106.13	80-120	
Methylene Chloride	50.00	46.45	92.91	80-120	
Methacrylonitrile	50.00	53.89	107.80	80-120	
Methyl Methacrylate	50.00	53.99	107.99	80-120	





Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant

Workorder

HS23090424

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id CCV
Data Type MS DATA
File ID U091413.D

Fraction VOA
Client Smp ID CCV
SampleType METHSPIKE
Inj Date 14-SEP-2023 2013

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
n-Butylbenzene	50.00	48.76	97.53	80-120	
n-Propylbenzene	50.00	47.24	94.49	80-120	
Naphthalene	50.00	51.24	102.49	80-120	
o-Xylene	50.00	47.71	95.42	80-120	
sec-Butylbenzene	50.00	48.74	97.50	80-120	
Styrene	50.00	49.97	99.95	80-120	
tert-Butylbenzene	50.00	50.96	101.93	80-120	
Tetrachloroethene	50.00	48.62	97.25	80-120	
Toluene	50.00	50.12	100.24	80-120	
trans-1,2-Dichloroethene	50.00	48.37	96.76	80-120	
trans-1,3-Dichloropropene	50.00	45.35	90.70	80-120	
trans-1,4-Dichloro-2-butene	50.00	43.65	87.30	80-120	
Trichloroethene	50.00	44.64	89.29	80-120	
Trichlorofluoromethane	50.00	46.40	92.81	80-120	
Vinyl Acetate	100.00	101.26	101.27	80-120	
Vinyl Chloride	50.00	47.16	94.34	80-120	
1,2-Dichloroethylene (total)	100.00	97.52	97.52	80-120	
Xylenes (total)	150.00	142.61	95.08	80-120	
1,4-Dioxane	1000.00	914.45	91.45	80-120	
Dibromofluoromethane	50.00	52.67	105.35	71-125	
1,2-Dichloroethane-d4	50.00	52.52	105.04	70-125	
Toluene-d8	50.00	54.23	108.48	75-125	
4-Bromofluorobenzene	50.00	52.95	105.92	72-125	





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Form 7

Continuing Calibration Verification (CCV)

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
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Project
Longhorn GW Treatment Plant

09/18/2023

ALS Environmental—Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant

Workorder

HS23090424

RunID

VOA9_446515

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID U091426.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 15-SEP-2023 0103
ICAL Date(s) 24-AUG-2023, 14-SEP-2023
ICAL Times 12:26, 20:35
Quant Type ISTD

Compound	RRF / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dichlorodifluoromethane	50.0	47.79052	0.52341	0.100	4.41896	50.0	Linear	
Chloromethane	50.0	49.35979	0.91142	0.100	1.28042	50.0	Linear	
Vinyl Chloride	0.63471	0.62900	0.62900	0.100	0.89913	50.0	Averaged	
Bromomethane	50.0	48.25215	0.29869	0.100	3.49569	50.0	Linear	
Chloroethane	0.46679	0.43840	0.43840	0.100	6.08280	50.0	Averaged	
Trichlorofluoromethane	0.81432	0.78340	0.78340	0.100	3.79715	50.0	Averaged	
Acrolein	0.04290	0.03453	0.03453	0.010	19.50195	50.0	Averaged	
Acetone	100	88.40131	0.22482	0.100	11.59869	50.0	Linear	
1,1-Dichloroethene	0.49490	0.48346	0.48346	0.100	2.31308	50.0	Averaged	
Iodomethane	100	105	0.30482	0.100	-4.81930	50.0	Quadratic	
Acrylonitrile	0.29166	0.26171	0.26171	0.050	10.26941	50.0	Averaged	
Methylene Chloride	50.0	47.09513	0.59018	0.100	5.80974	50.0	Linear	
Methyl tert-butyl ether	1.40514	1.31873	1.31873	0.100	6.14948	50.0	Averaged	
Carbon Disulfide	1.33684	1.33917	1.33917	0.100	-0.17420	50.0	Averaged	
trans-1,2-Dichloroethene	0.51917	0.50670	0.50670	0.100	2.40306	50.0	Averaged	
Vinyl Acetate	1.83679	1.75396	1.75396	0.010	4.50926	50.0	Averaged	
1,1-Dichloroethane	1.04121	1.01532	1.01532	0.200	2.48684	50.0	Averaged	
2-Butanone	0.30306	0.27949	0.27949	0.100	7.77839	50.0	Averaged	
2,2-Dichloropropane	0.63046	0.55812	0.55812	0.100	11.47480	50.0	Averaged	
cis-1,2-Dichloroethene	0.59360	0.58545	0.58545	0.100	1.37392	50.0	Averaged	
Chloroform	1.01100	0.96760	0.96760	0.200	4.29217	50.0	Averaged	
Bromochloromethane	0.31108	0.29976	0.29976	0.100	3.63897	50.0	Averaged	
30 Dibromofluoromethane	50.0	55.07109	0.50266	0.100	-10.14217	50.0	Linear	
1,1,1-Trichloroethane	0.68656	0.70153	0.70153	0.100	-2.18129	50.0	Averaged	
1,1-Dichloropropene	0.39692	0.37153	0.37153	0.100	6.39618	50.0	Averaged	
1,2-Dichloroethane	0.48331	0.45489	0.45489	0.100	5.88036	50.0	Averaged	
Carbon Tetrachloride	0.35511	0.32170	0.32170	0.100	9.40823	50.0	Averaged	
35 1,2-Dichloroethane-d4	50.0	52.18393	0.53774	0.100	-4.36787	50.0	Linear	
Benzene	1.25585	1.21776	1.21776	0.500	3.03297	50.0	Averaged	
Trichloroethene	0.36527	0.33191	0.33191	0.200	9.13317	50.0	Averaged	
Bromodichloromethane	0.40732	0.39750	0.39750	0.200	2.41079	50.0	Averaged	
2-Chloroethylvinyl ether	100	++++	0.05821	0.001	++++	50.0	Linear	*
1,2-Dichloropropane	0.33163	0.33741	0.33741	0.100	-1.74093	50.0	Averaged	
Dibromomethane	0.22834	0.21826	0.21826	0.100	4.41710	50.0	Averaged	





Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant

Workorder

HS23090424

RunID

VOA9_446515

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID U091426.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 15-SEP-2023 0103
ICAL Date(s) 24-AUG-2023, 14-SEP-2023
ICAL Times 12:26, 20:35
Quant Type ISTD

Compound	RRF / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Methyl-2-Pentanone	100	93.10501	0.34471	0.100	6.89499	50.0	Linear	
cis-1,3-Dichloropropene	50.0	43.49973	0.43510	0.200	13.00055	50.0	Linear	
48 Toluene-d8	1.10232	1.19876	1.19876	0.100	-8.74884	50.0	Averaged	
Toluene	1.34259	1.39850	1.39850	0.400	-4.16465	50.0	Averaged	
trans-1,3-Dichloropropene	50.0	43.64527	0.35758	0.100	12.70946	50.0	Linear	
2-Hexanone	0.22667	0.22774	0.22774	0.100	-0.47204	50.0	Averaged	
1,1,2-Trichloroethane	0.29276	0.27393	0.27393	0.100	6.43310	50.0	Averaged	
1,3-Dichloropropane	0.58886	0.57466	0.57466	0.100	2.41174	50.0	Averaged	
Dibromochloromethane	0.34847	0.35424	0.35424	0.100	-1.65772	50.0	Averaged	
Tetrachloroethene	0.31283	0.31477	0.31477	0.200	-0.62134	50.0	Averaged	
1,2-Dibromoethane	0.35185	0.34848	0.34848	0.100	0.95832	50.0	Averaged	
1-Chlorohexane	0.30207	0.25700	0.25700	0.100	14.91866	50.0	Averaged	
Chlorobenzene	0.99302	0.95547	0.95547	0.500	3.78109	50.0	Averaged	
1,1,1,2-Tetrachloroethane	0.33374	0.33198	0.33198	0.100	0.52752	50.0	Averaged	
Ethylbenzene	0.44464	0.45638	0.45638	0.100	-2.64024	50.0	Averaged	
m,p-Xylenes	0.55914	0.57410	0.57410	0.100	-2.67680	50.0	Averaged	
o-Xylene	0.58109	0.57739	0.57739	0.300	0.63788	50.0	Averaged	
Styrene	0.89225	0.89856	0.89856	0.300	-0.70732	50.0	Averaged	
Bromoform	50.0	43.74076	0.22761	0.100	12.51848	50.0	Linear	
Isopropylbenzene	50.0	48.25281	1.34210	0.100	3.49438	50.0	Quadratic	
1,1,2,2-Tetrachloroethane	0.97136	0.95031	0.95031	0.300	2.16715	50.0	Averaged	
69 4-Bromofluorobenzene	50.0	52.40308	0.50721	0.100	-4.80616	50.0	Quadratic	
1,2,3-Trichloropropane	0.82780	0.82362	0.82362	0.100	0.50500	50.0	Averaged	
n-Propylbenzene	50.0	46.52069	2.86575	0.100	6.95862	50.0	Linear	
Bromobenzene	0.79466	0.82788	0.82788	0.100	-4.18048	50.0	Averaged	
1,3,5-Trimethylbenzene	1.88069	1.99160	1.99160	0.100	-5.89739	50.0	Averaged	
2-Chlorotoluene	1.85652	1.92355	1.92355	0.100	-3.61034	50.0	Averaged	
4-Chlorotoluene	2.17850	2.25241	2.25241	0.100	-3.39248	50.0	Averaged	
tert-Butylbenzene	1.80981	1.85194	1.85194	0.100	-2.32793	50.0	Averaged	
1,2,4-Trimethylbenzene	1.93318	2.03517	2.03517	0.100	-5.27592	50.0	Averaged	
sec-Butylbenzene	50.0	48.16989	2.39634	0.100	3.66022	50.0	Quadratic	
p-Isopropyltoluene	50.0	49.44767	1.96936	0.100	1.10466	50.0	Quadratic	
1,3-Dichlorobenzene	1.40157	1.37230	1.37230	0.600	2.08866	50.0	Averaged	
1,4-Dichlorobenzene	1.57472	1.45265	1.45265	0.400	7.75172	50.0	Averaged	





Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant

Workorder

HS23090424

RunID

VOA9_446515

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID U091426.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 15-SEP-2023 0103
ICAL Date(s) 24-AUG-2023, 14-SEP-2023
ICAL Times 12:26, 20:35
Quant Type ISTD

Compound	RRF / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
n-Butylbenzene	50.0	46.60822	1.69212	0.500	6.78357	50.0	Quadratic	
1,2-Dichlorobenzene	1.43347	1.39923	1.39923	0.400	2.38838	50.0	Averaged	
1,2-Dibromo-3-Chloropropane	0.12086	0.12300	0.12300	0.050	-1.77006	50.0	Averaged	
1,2,4-Trichlorobenzene	0.81606	0.88594	0.88594	0.200	-8.56269	50.0	Averaged	
Hexachlorobutadiene	0.36615	0.34802	0.34802	0.100	4.95060	50.0	Averaged	
Naphthalene	50.0	50.92947	2.27788	0.200	-1.85893	50.0	Linear	
1,2,3-Trichlorobenzene	0.77477	0.86404	0.86404	0.100	-11.52228	50.0	Averaged	
94 1,2-Dichloroethylene (total	0.55639	0.54607	0.54607	0.200	1.85407	50.0	Averaged	
95 Xylenes (total)	0.54726	0.55236	0.55236	0.100	-0.93207	50.0	Averaged	
1,4-Dioxane	0.00727	0.00655	0.00655	0.001	9.82411	50.0	Averaged	
Cyclohexane	50.0	48.77821	0.66252	0.100	2.44359	50.0	Quadratic	
Freon TF	50.0	49.61267	0.40813	0.100	0.77466	50.0	Quadratic	
1,3-Butadiene	0.59070	0.57564	0.57564	0.100	2.55001	50.0	Averaged	
Methylcyclohexane	0.73295	0.62494	0.62494	0.100	14.73655	50.0	Averaged	
Methyl Acetate	0.60624	0.53405	0.53405	0.100	11.90816	50.0	Averaged	
Tert-butyl alcohol	0.06126	0.05705	0.05705	0.005	6.88292	50.0	Averaged	
Isopropyl alcohol	0.04395	0.04043	0.04043	0.005	8.00616	50.0	Averaged	
trans-1,4-Dichloro-2-butene	50.0	39.06404	0.05852	0.050	21.87191	50.0	Quadratic	
Isobutyl Alcohol	1000	938	0.07000	0.005	6.21161	50.0	Linear	
Acetonitrile	0.07629	0.06503	0.06503	0.005	14.75068	50.0	Averaged	
Allyl Chloride	1.77284	1.51741	1.51741	0.100	14.40805	50.0	Averaged	
Methacrylonitrile	0.39305	0.37657	0.37657	0.100	4.19397	50.0	Averaged	
Methyl Methacrylate	0.40944	0.40098	0.40098	0.100	2.06630	50.0	Averaged	
Propionitrile	0.10832	0.09804	0.09804	0.010	9.48638	50.0	Averaged	
n-Hexane	50.0	45.04764	0.51377	0.100	9.90472	50.0	Quadratic	
Acetaldehyde	200	199	0.09822	0.001	0.61614	50.0	Linear	
Methyl Acrylate	0.77827	0.72481	0.72481	0.100	6.86848	50.0	Averaged	
Dimethyl Disulfide	50.0	37.35091	0.28555	0.020	25.29817	50.0	Quadratic	
Chloroprene	0.20007	0.20702	0.20702	0.100	-3.47485	50.0	Averaged	
Ethyl Methacrylate	0.43606	0.40865	0.40865	0.100	6.28389	50.0	Averaged	
1,2,3-Trimethylbenzene	1.92286	1.79358	1.79358	0.100	6.72330	50.0	Averaged	
Ethanol	0.01052	0.00869	0.00869	0.001	17.36643	50.0	Averaged	
Dicyclopentadiene	50.0	38.08506	1.84583	0.100	23.82988	50.0	Quadratic	
alpha-Methylstyrene	50.0	50.86824	0.76555	0.100	-1.73649	50.0	Quadratic	





Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant

Workorder

HS23090424

RunID

VOA9_446515

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID U091426.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 15-SEP-2023 0103
ICAL Date(s) 24-AUG-2023, 14-SEP-2023
ICAL Times 12:26, 20:35
Quant Type ISTD

Compound	RRF / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Tetrahydrofuran	0.12546	0.11778	0.11778	0.001	6.12222	50.0	Averaged	
Diisopropyl ether	2.16344	1.88645	1.88645	0.100	12.80333	50.0	Averaged	
4-Methyl-2-pentanol	1000	943	0.05917	0.005	5.74538	50.0	Quadratic	
Allyl alcohol	1000	893	0.02569	0.004	10.68919	50.0	Quadratic	
Benzyl Chloride	50.0	36.55891	0.17989	0.010	26.88219	50.0	Quadratic	
Butyl acrylate	50.0	45.73424	0.52339	0.100	8.53153	50.0	Quadratic	
Diethyl ether	0.49552	0.42891	0.42891	0.100	13.44161	50.0	Averaged	
2-Ethylhexyl Acrylate	50.0	45.35479	0.40212	0.100	9.29041	50.0	Quadratic	
Cyclohexanone	1000	790	0.02429	0.005	21.04945	50.0	Quadratic	
Ethyl Acetate	0.74374	0.71941	0.71941	0.100	3.27155	50.0	Averaged	
n-Butyl acetate	50.0	44.23459	0.52744	0.100	11.53082	50.0	Linear	
Epichlorohydrin	0.00392	0.00195	0.00195	0.001	50.29357	50.0	Averaged	*
n-Butanol	1000	904	0.01383	0.005	9.62296	50.0	Linear	
Ethyl Acrylate	1.16277	0.99602	0.99602	0.100	14.34098	50.0	Averaged	
Butyl methacrylate	50.0	49.59332	0.73357	0.100	0.81337	50.0	Linear	
tert-Amyl methyl ether	50.0	56.83824	1.26843	0.005	-13.67649	50.0	Linear	
tert-Butyl ethyl ether	50.0	44.56406	1.35441	0.100	10.87188	50.0	Linear	
Isopropyl acetate	0.90701	0.87892	0.87892	0.100	3.09685	50.0	Averaged	
Hexachloroethane	50.0	42.02110	0.14549	0.001	15.95781	50.0	Linear	





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Form 8

Internal Standard Area and RT Summary

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant

09/18/2023

ALS Environmental—Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Form 8 - Internal Standard Area and RT Summary

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9_446515		Pentafluorobenzene				1,4-Difluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
Sample ID	File ID	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
HS23090424-01	U091423.D	792909		4.81		1121615		5.55		1001998		8.19		469110		10.17	
HS23090424-02	U091420.D	765937		4.82		1117867		5.55		1014486		8.19		486359		10.17	
VBLKW-230914	U091418.D	827641		4.82		1178792		5.55		1083091		8.19		516579		10.17	
VLCSW-230914	U091416.D	766533		4.81		1206515		5.55		1134902		8.19		589088		10.17	
MS-ZZZZZMS	U091424.D	794771		4.81		1134838		5.55		1080158		8.19		586650		10.17	
ZZZZZMSD	U091425.D	823551		4.81		1189438		5.55		1096410		8.19		595907		10.17	

AREA UPPER LIMIT = +100% of STD IS Area

AREA LOWER LIMIT = - 50% of STD IS Area

RT - Retention IS - Internal StandardTime

RT UPPER LIMIT = + 0.50 of STD IS RT

RT LOWER LIMIT = - 0.50 of STD IS RT

CCV - Continuing Calibration Verification

- Area or RT Limit Flag

* - Value Outside Area or RT limits

H - Hour STD - Standard





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Analysis Run Log

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
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Project
Longhorn GW Treatment Plant

09/18/2023

ALS Environmental—Houston Laboratory

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Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446513

Run ID	VOA9_446513	Start Date	09/14/23	EndDate	09/14/23		
Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF	
14:11	BFB	TUNE	BFB	U091401.D	09/14/23	1	
15:47	VSTD000.25	ICAL1	VSTD000.25	U091402.D	09/14/23	1	
16:09	VSTD000.5	ICAL2	VSTD000.5	U091403.D	09/14/23	1	
16:53	VSTD001	ICAL3	VSTD001	U091404.D	09/14/23	1	
17:15	VSTD002	ICAL4	VSTD002	U091405.D	09/14/23	1	
17:37	VSTD005	ICAL5	VSTD005	U091406.D	09/14/23	1	
18:00	VSTD020	ICAL6	VSTD020	U091407.D	09/14/23	1	
18:22	VSTD050	ICAL7	VSTD050	U091408.D	09/14/23	1	
18:44	VSTD100	ICAL8	VSTD100	U091409.D	09/14/23	1	
19:06	VSTD150	ICAL9	VSTD150	U091410.D	09/14/23	1	
19:28	VSTD200	ICAL	VSTD200	U091411.D	09/14/23	1	
20:13	CCV	ICV	CCV	U091413.D	09/14/23	1	





Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant

HS23090424

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

Run ID	VOA9_446515	Start Date	09/14/23	EndDate	09/15/23		
Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF	
14:11	BFB	TUNE	BFB	U091401.D	09/14/23	1	
21:20	VLCSW-230914	LCS	VLCSW-230914	U091416.D	09/14/23	1	
22:04	VBKWK-230914	MBLK	VBKWK-230914	U091418.D	09/14/23	1	
22:27	HS23090510-99	SAMP	ZZZZZZZZZZ	U091419.D	09/14/23	1	
22:49	HS23090424-02	SAMP	Trip Blank	U091420.D	09/14/23	1	
23:12	HS23090714-03	SAMP	ZZZZZZZZZZ	U091421.D	09/14/23	1	
23:34	HS23090714-01	SAMP	ZZZZZZZZZZ	U091422.D	09/14/23	1	
23:56	HS23090424-01	SAMP	LH18/24-	U091423.D	09/14/23	1	
00:19	HS23090510-99MS	MS	ZZZZZZMS	U091424.D	09/15/23	1	
00:41	HS23090510-99MSD	MSD	ZZZZZZMSD	U091425.D	09/15/23	1	
01:03	CCV-END	CCV_END	CCV-END	U091426.D	09/15/23	1	





right solutions.
right partner.

Raw Data VOA9 446513

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant

09/18/2023

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\U230914.b\U091401.D Page 1
 Report Date: 15-Sep-2023 21:29

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D
 Lab Smp Id: BFB Client Smp ID: BFB
 Inj Date : 14-SEP-2023 14:11
 Operator : PC Inst ID: VOA9.i
 Smp Info : BFB;BFB;3;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.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: 64 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	196352				0.00-	100.00	100.00
9.193	9.180 (0.000)	50	36584				15.00-	40.00	18.63
9.193	9.180 (0.000)	75	93208				30.00-	60.00	47.47
9.193	9.180 (0.000)	96	11853				5.00-	9.00	6.04
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	180992				50.00-	0.00	92.18
9.193	9.180 (0.000)	175	15049				5.00-	9.00	8.31
9.193	9.180 (0.000)	176	172096				95.00-	101.00	95.08
9.193	9.180 (0.000)	177	11259				5.00-	9.00	6.54



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	47.47
96	5.00 - 9.00% of mass 95	6.04
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	92.18
175	5.00 - 9.00% of mass 174	7.66 (8.31)
176	95.00 - 101.00% of mass 174	87.65 (95.08)
177	5.00 - 9.00% of mass 176	5.73 (6.54)

Data File: U091401.D
 Spectrum: Scan 2297 (9.20)
 Location of Maximum: 95.05
 Number of points: 218

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	338	86.90	9041	138.30	188	206.60	61
35.90	1879	88.00	7559	138.80	139	207.20	53
37.00	9127	89.20	244	139.70	502	208.20	66
38.10	8259	91.00	1042	140.90	1886	208.80	64
39.10	4027	92.00	5247	142.00	526	211.10	108
40.00	818	93.00	9446	142.90	3162	211.80	69
41.00	420	94.00	24176	143.80	300	212.90	70
41.90	376	95.00	196352	144.90	1178	215.70	145
43.20	497	96.00	11853	146.00	452	218.30	168
44.10	2434	96.90	386	147.00	251	225.00	55
45.00	2046	97.40	447	147.90	677	228.20	62
46.30	459	98.10	179	148.80	237	228.60	83
47.00	2906	99.00	188	149.80	243	230.50	65
48.00	1615	100.00	249	152.00	287	234.40	63
49.00	8000	100.90	208	153.00	217	238.10	112
50.00	36584	101.70	167	153.60	167	239.90	60
51.00	10681	102.60	118	154.00	178	240.80	70
52.00	662	103.00	105	154.90	460	243.00	62
53.00	488	103.80	1048	155.90	234	243.70	63
53.70	317	104.60	258	157.00	527	245.60	74
54.10	347	105.90	942	158.10	181	250.70	66
55.00	770	106.60	274	158.80	355	256.90	65
56.00	3221	108.10	310	160.20	138	257.90	72
57.00	5330	109.90	258	161.00	280	258.70	64
58.00	518	111.00	542	161.90	227	267.60	53
59.00	237	112.10	258	162.50	84	268.70	74
60.00	2012	112.60	204	164.50	162	269.30	62
61.00	9606	113.40	85	165.20	165	275.30	85
62.00	9229	114.00	158	166.20	131	276.30	56
63.00	7568	114.80	324	167.10	74	279.30	53
64.00	1491	115.90	892	168.50	162	280.90	113
65.00	1328	116.90	1588	169.30	253	282.30	61
66.10	341	117.90	1185	169.90	185	286.30	55
66.90	716	119.00	1168	170.30	223	291.30	116
67.20	785	120.10	122	171.10	662	292.50	56
68.00	18336	121.00	110	171.90	2940	296.30	51
69.00	17200	121.60	67	173.90	180992	307.50	70
70.00	1353	122.60	259	175.00	15049	308.60	88
72.00	1009	123.20	367	175.90	172096	312.00	59
73.00	8530	123.80	303	177.00	11259	317.00	58
74.00	32336	124.90	97	178.00	251	317.80	52
75.00	93208	125.50	236	179.20	162	318.10	53
76.00	7896	126.60	148	180.90	99	318.90	152
77.00	1458	127.90	660	182.20	85	321.80	115
77.70	1123	129.00	310	187.00	100	323.10	69

78.90	6903	129.90	862	188.70	63	330.30	81
80.00	2305	130.90	523	191.60	140	332.30	53
80.90	7871	131.80	200	193.40	104	333.70	79
82.00	2213	133.00	58	195.10	120	343.40	81
82.80	270	133.90	237	195.60	75	344.50	66
83.30	198	134.80	467	197.30	70	345.60	69
84.00	274	135.90	209	198.30	228	347.10	77
84.50	197	136.70	404	201.10	77	347.50	73
85.40	209	137.10	362	203.20	68		
86.10	524	137.80	93	205.80	57		

Data File: \\NAHSTWS005\Target\chem\voa9,i\U230914,b\U091401.D

Page 1

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9,i

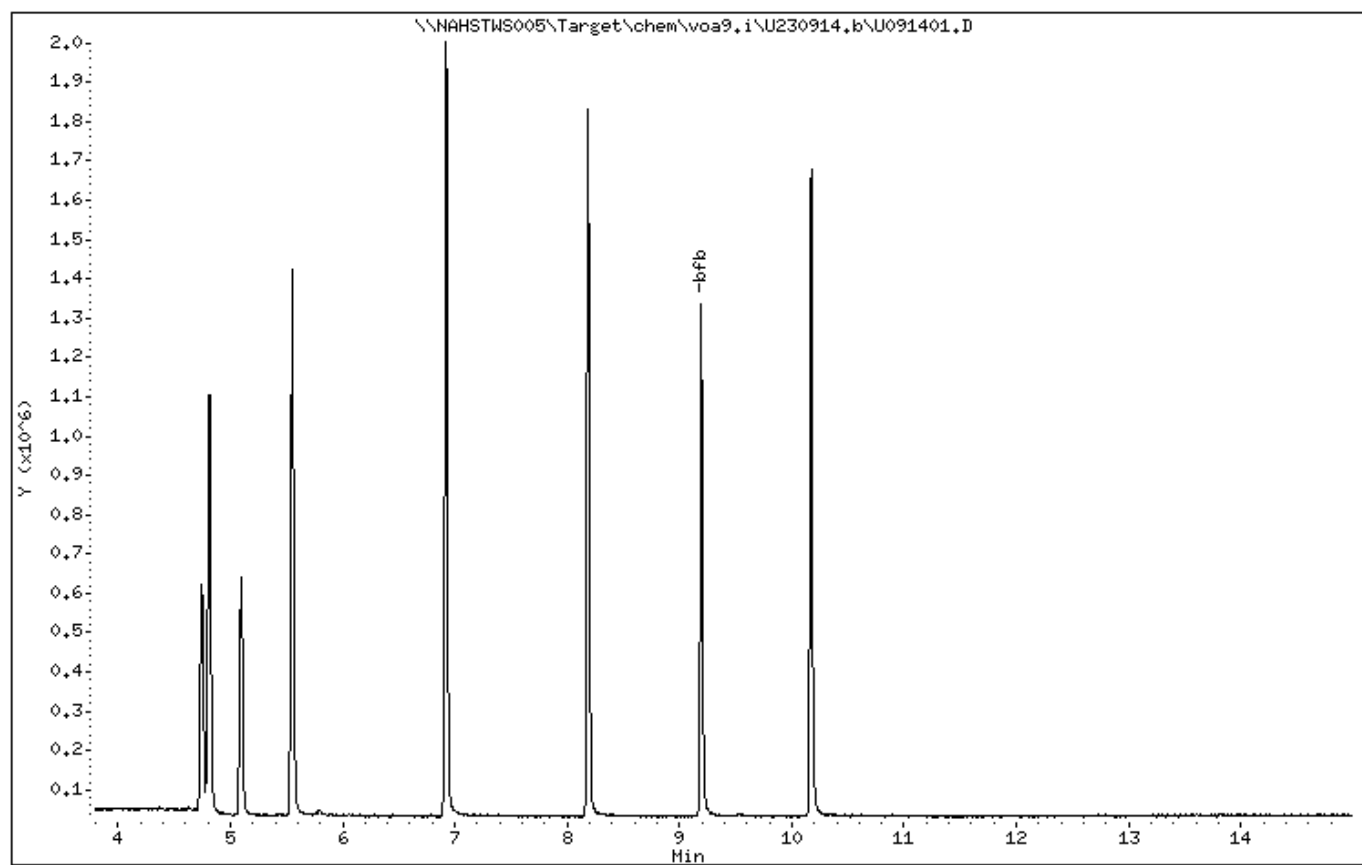
Sample Info: BFB;BFB;3;;;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0,25



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 2

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;;;

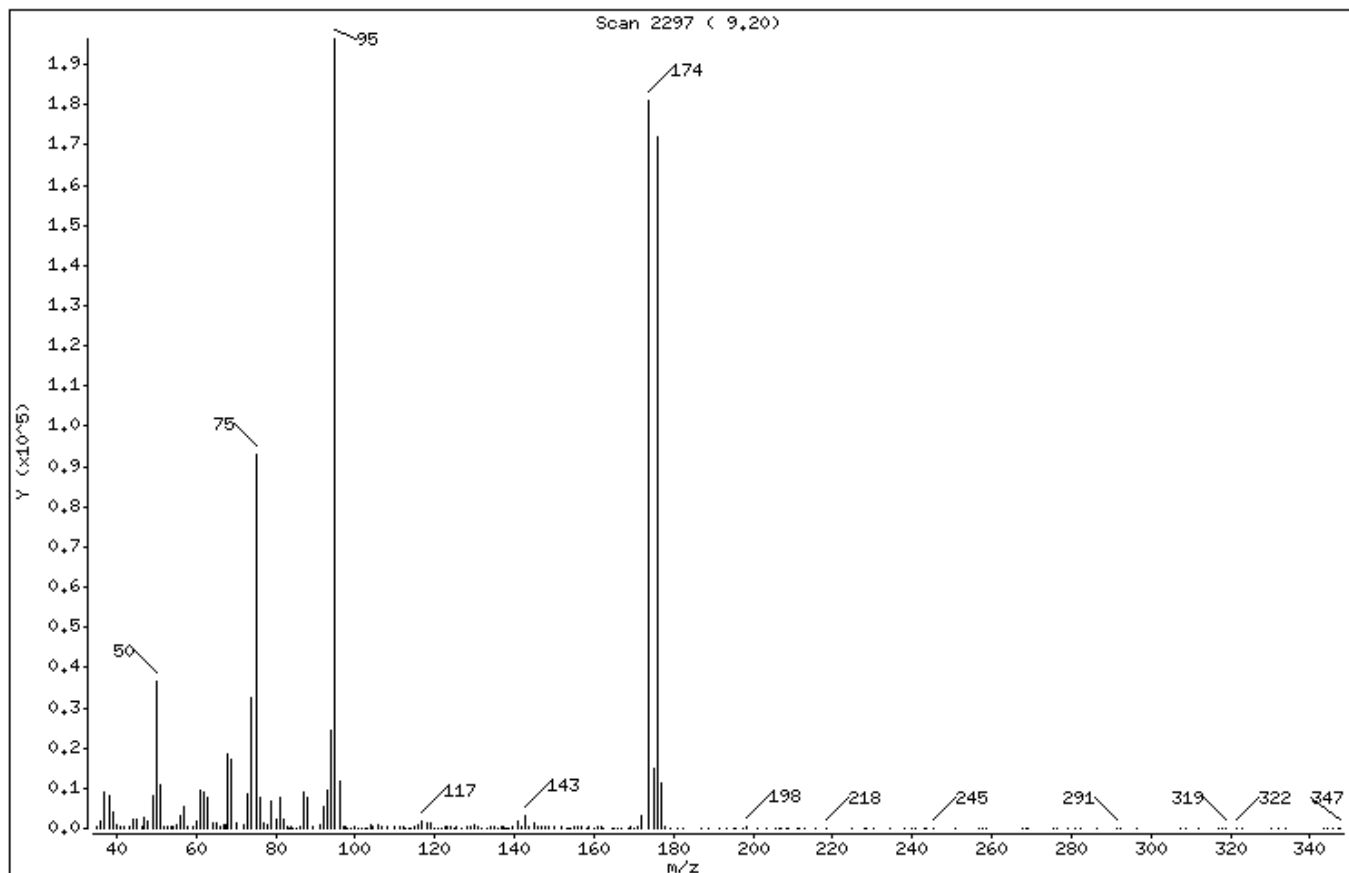
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0,25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.63
75	30.00 - 60.00% of mass 95	47.47
96	5.00 - 9.00% of mass 95	6.04
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	92.18
175	5.00 - 9.00% of mass 174	7.66 (8.31)
176	95.00 - 101.00% of mass 174	87.65 (95.08)
177	5.00 - 9.00% of mass 176	5.73 (6.54)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 3

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: U091401.D
 Spectrum: Scan 2297 (9.20)
 Location of Maximum: 95.05
 Number of points: 218

m/z	Y	m/z	Y	m/z	Y	m/z	Y
+-----+-----+-----+-----+-----+-----+-----+-----+							
35.10	338	86.90	9041	138.30	188	206.60	61
35.90	1879	88.00	7559	138.80	139	207.20	53
37.00	9127	89.20	244	139.70	502	208.20	66
38.10	8259	91.00	1042	140.90	1886	208.80	64
39.10	4027	92.00	5247	142.00	526	211.10	108
+-----+-----+-----+-----+-----+-----+-----+-----+							
40.00	818	93.00	9446	142.90	3162	211.80	69
41.00	420	94.00	24176	143.80	300	212.90	70
41.90	376	95.00	196352	144.90	1178	215.70	145
43.20	497	96.00	11853	146.00	452	218.30	168
44.10	2434	96.90	386	147.00	251	225.00	55
+-----+-----+-----+-----+-----+-----+-----+-----+							
45.00	2046	97.40	447	147.90	677	228.20	62
46.30	459	98.10	179	148.80	237	228.60	83
47.00	2906	99.00	188	149.80	243	230.50	65
48.00	1615	100.00	249	152.00	287	234.40	63
49.00	8000	100.90	208	153.00	217	238.10	112
+-----+-----+-----+-----+-----+-----+-----+-----+							
50.00	36584	101.70	167	153.60	167	239.90	60
51.00	10681	102.60	118	154.00	178	240.80	70
52.00	662	103.00	105	154.90	460	243.00	62
53.00	488	103.80	1048	155.90	234	243.70	63
53.70	317	104.60	258	157.00	527	245.60	74
+-----+-----+-----+-----+-----+-----+-----+-----+							
54.10	347	105.90	942	158.10	181	250.70	66
55.00	770	106.60	274	158.80	355	256.90	65
56.00	3221	108.10	310	160.20	138	257.90	72
57.00	5330	109.90	258	161.00	280	258.70	64
58.00	518	111.00	542	161.90	227	267.60	53
+-----+-----+-----+-----+-----+-----+-----+-----+							
59.00	237	112.10	258	162.50	84	268.70	74
60.00	2012	112.60	204	164.50	162	269.30	62
61.00	9606	113.40	85	165.20	165	275.30	85
62.00	9229	114.00	158	166.20	131	276.30	56
63.00	7568	114.80	324	167.10	74	279.30	53
+-----+-----+-----+-----+-----+-----+-----+-----+							
64.00	1491	115.90	892	168.50	162	280.90	113
65.00	1328	116.90	1588	169.30	253	282.30	61
66.10	341	117.90	1185	169.90	185	286.30	55
66.90	716	119.00	1168	170.30	223	291.30	116
67.20	785	120.10	122	171.10	662	292.50	56

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 4

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;3;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: U091401.D

Spectrum: Scan 2297 (9.20)

Location of Maximum: 95.05

Number of points: 218

m/z	Y	m/z	Y	m/z	Y	m/z	Y

68.00	18336	121.00	110	171.90	2940	296.30	51
69.00	17200	121.60	67	173.90	180992	307.50	70
70.00	1353	122.60	259	175.00	15049	308.60	88
72.00	1009	123.20	367	175.90	172096	312.00	59
73.00	8530	123.80	303	177.00	11259	317.00	58

74.00	32336	124.90	97	178.00	251	317.80	52
75.00	93208	125.50	236	179.20	162	318.10	53
76.00	7896	126.60	148	180.90	99	318.90	152
77.00	1458	127.90	660	182.20	85	321.80	115
77.70	1123	129.00	310	187.00	100	323.10	69

78.90	6903	129.90	862	188.70	63	330.30	81
80.00	2305	130.90	523	191.60	140	332.30	53
80.90	7871	131.80	200	193.40	104	333.70	79
82.00	2213	133.00	58	195.10	120	343.40	81
82.80	270	133.90	237	195.60	75	344.50	66

83.30	198	134.80	467	197.30	70	345.60	69
84.00	274	135.90	209	198.30	228	347.10	77
84.50	197	136.70	404	201.10	77	347.50	73
85.40	209	137.10	362	203.20	68		
86.10	524	137.80	93	205.80	57		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091402.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091402.D
 Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
 Inj Date : 14-SEP-2023 15:47
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD000.25;VSTD000.25;1;1;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 20:35 Cal File: U091414.D
 Als bottle: 2 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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		4.808	4.808	(1.000)		748271	50.0000	
2 Dichlorodifluoromethane	85		1.153	1.153	(0.240)		1252	0.25000	1.48
3 Chloromethane	50		1.288	1.288	(0.268)		5836	0.25000	
5 Vinyl Chloride	62		1.366	1.366	(0.284)		1642	0.25000	0.17
6 Bromomethane	94		1.610	1.610	(0.335)		2097	0.25000	0.89
7 Chloroethane	64		1.696	1.696	(0.353)		2268	0.25000	0.32
8 Trichlorofluoromethane	101		1.891	1.891	(0.393)		2050	0.25000	0.16
9 Acrolein	56		2.255	2.255	(0.469)		684	0.50000	1.06
10 Acetone	43		2.401	2.401	(0.499)		11222	0.50000	0.85
11 1,1-Dichloroethene	96		2.315	2.315	(0.482)		1221	0.25000	0.16
15 Iodomethane	142		2.457	2.457	(0.511)		3284	0.50000	4.11
16 Acrylonitrile	53		3.057	3.057	(0.636)		1975	0.50000	0.45
17 Methylene Chloride	84		2.787	2.787	(0.580)		9572	0.25000	2.67
18 Methyl tert-butyl ether	73		3.076	3.076	(0.640)		5540	0.25000	0.26
19 Carbon Disulfide	76		2.514	2.514	(0.523)		8172	0.50000	0.40
20 trans-1,2-Dichloroethene	96		3.053	3.053	(0.635)		1955	0.25000	0.25
21 Vinyl Acetate	43		3.608	3.608	(0.751)		10128	0.50000	0.36
22 1,1-Dichloroethane	63		3.503	3.503	(0.729)		4248	0.25000	0.27
24 2-Butanone	43		4.264	4.264	(0.887)		1605	0.50000	0.35
26 2,2-Dichloropropane	77		4.170	4.170	(0.867)		1960	0.25000	0.20



27 cis-1,2-Dichloroethene	96	4.182	4.182 (0.870)	2075	0.25000	0.23
28 Chloroform	83	4.564	4.564 (0.949)	4138	0.25000	0.27

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091402.D Page 2
 Report Date: 18-Sep-2023 12:31

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128		4.478	4.478	(0.931)		1452	0.25000	0.31
\$ 30 Dibromofluoromethane	113		4.744	4.744	(0.987)		2743	0.25000	0.60
31 1,1,1-Trichloroethane	97		4.736	4.736	(0.985)		2559	0.25000	0.24
32 1,1-Dichloropropene	75		4.909	4.909	(0.885)		2443	0.25000	0.26
33 1,2-Dichloroethane	62		5.171	5.171	(0.932)		2347	0.25000	0.20
34 Carbon Tetrachloride	117		4.901	4.901	(0.883)		1512	0.25000	0.18
\$ 35 1,2-Dichloroethane-d4	65		5.093	5.093	(1.059)		2797	0.25000	0.21
* 36 1,4-Difluorobenzene	114		5.550	5.550	(1.000)		1177001	50.00000	
37 Benzene	78		5.134	5.134	(0.925)		5679	0.25000	0.19
38 Trichloroethene	130		5.782	5.782	(1.042)		3364	0.25000	0.39
41 2-Chloroethylvinyl ether	63		6.735	6.735	(1.213)		885	0.50000	21.23
42 1,2-Dichloropropane	63		6.015	6.015	(1.084)		3155	0.25000	0.40
44 Dibromomethane	93		6.116	6.116	(1.102)		1176	0.25000	0.21
45 4-Methyl-2-Pentanone	43		6.862	6.862	(0.838)		3325	0.50000	2.94
46 cis-1,3-Dichloropropene	75		6.693	6.693	(1.206)		1689	0.25000	3.28
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)		1066883	50.00000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)		8336	0.25000	0.35
50 Toluene	91		6.982	6.982	(0.853)		4621	0.25000	0.16
51 trans-1,3-Dichloropropene	75		7.199	7.199	(1.297)		1636	0.25000	2.55
52 2-Hexanone	43		7.600	7.600	(0.929)		1577	0.50000	0.32
53 1,1,2-Trichloroethane	83		7.353	7.353	(0.898)		1758	0.25000	0.28
54 1,3-Dichloropropane	76		7.499	7.499	(0.916)		3756	0.25000	0.29
55 Dibromochloromethane	129		7.690	7.690	(0.940)		1267	0.25000	0.17
56 Tetrachloroethene	164		7.454	7.454	(0.911)		1717	0.25000	0.25
57 1,2-Dibromoethane	107		7.788	7.788	(0.951)		2046	0.25000	0.27
58 1-Chlorohexane	55		8.182	8.182	(1.474)		11449	0.25000	1.61
59 Chlorobenzene	112		8.208	8.208	(1.003)		4876	0.25000	0.23
60 1,1,1,2-Tetrachloroethane	131		8.286	8.286	(1.012)		1675	0.25000	0.23
61 Ethylbenzene	106		8.309	8.309	(1.015)		1685	0.25000	0.17
62 m,p-Xylenes	106		8.410	8.410	(1.027)		3241	0.50000	0.27
63 o-Xylene	106		8.744	8.744	(1.068)		1589	0.25000	0.12
64 Styrene	104		8.763	8.763	(1.071)		2629	0.25000	0.13
67 Isopropylbenzene	105		9.062	9.062	(1.107)		3737	0.25000	1.60
68 1,1,2,2-Tetrachloroethane	83		9.329	9.329	(0.917)		2546	0.25000	0.26
\$ 69 4-Bromofluorobenzene	95		9.197	9.197	(1.124)		4117	0.25000	0.28
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		492391	50.00000	
71 1,2,3-Trichloropropane	75		9.366	9.366	(0.921)		2245	0.25000	0.27
73 n-Propylbenzene	91		9.415	9.415	(0.926)		3500	0.25000	3.12
74 Bromobenzene	156		9.317	9.317	(0.916)		1599	0.25000	0.20
75 1,3,5-Trimethylbenzene	105		9.565	9.565	(0.940)		3420	0.25000	0.18
76 2-Chlorotoluene	91		9.486	9.486	(0.933)		3449	0.25000	0.18
77 4-Chlorotoluene	91		9.580	9.580	(0.942)		2806	0.25000	0.13
78 tert-Butylbenzene	119		9.835	9.835	(0.967)		2327	0.25000	0.13
79 1,2,4-Trimethylbenzene	105		9.883	9.883	(0.972)		2697	0.25000	0.14
81 sec-Butylbenzene	105		10.026	10.026	(0.986)		2617	0.25000	1.88
82 p-Isopropyltoluene	119		10.150	10.150	(0.998)		2450	0.25000	1.90
83 1,3-Dichlorobenzene	146		10.116	10.116	(0.994)		2184	0.25000	0.15
84 1,4-Dichlorobenzene	146		10.191	10.191	(1.002)		4567	0.25000	0.29
87 n-Butylbenzene	91		10.491	10.491	(1.031)		2414	0.25000	2.19
88 1,2-Dichlorobenzene	146		10.509	10.509	(1.033)		3430	0.25000	0.24
92 Naphthalene	128		12.080	12.080	(1.188)		2827	0.25000	2.85
M 94 1,2-Dichloroethylene (total)	96						4030	0.50000	



M 95 Xylenes (total)	106			4830	0.75000	
135 1,4-Dioxane	88	6.187	6.187 (1.287)	604	5.00000	5.55(M)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091402.D Page 3
 Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG						AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE		CAL-AMT	ON-COL
	MASS						(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====		=====	=====
141 Cyclohexane	56	4.804	4.804 (0.999)		21349		0.25000	2.67
140 1,3-Butadiene	54	1.389	1.389 (0.289)		1355		0.25000	0.15
147 Methylcyclohexane	55	5.947	5.947 (1.072)		3460		0.25000	0.20

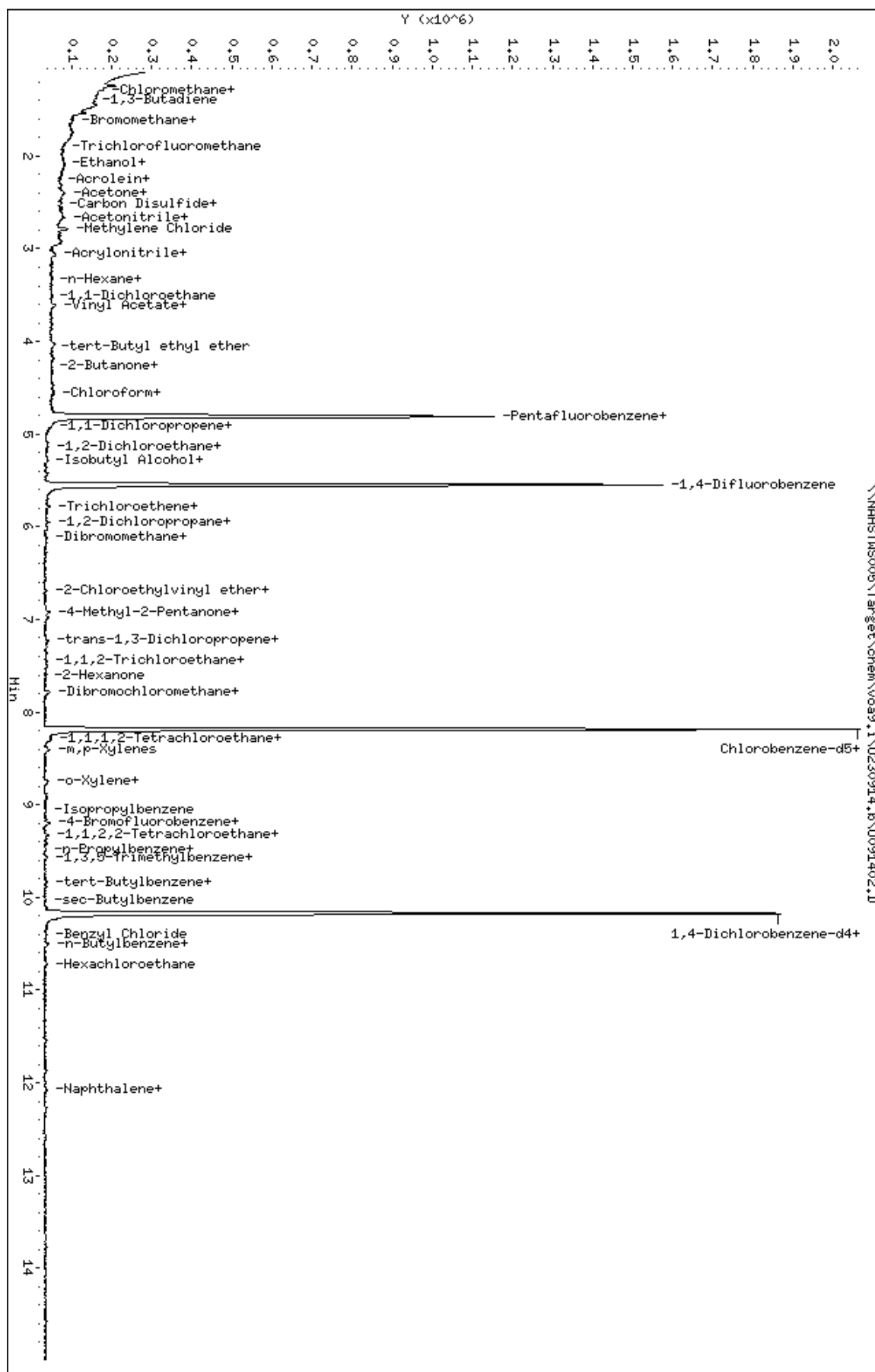
QC Flag Legend

M - Compound response manually integrated.



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 Purge Volume: 5.0
 Column phase: DB624

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

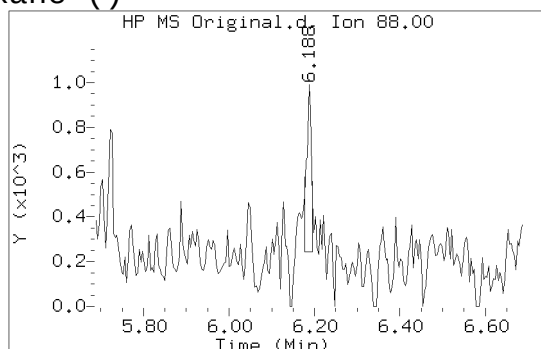


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091402.D
Inj Date : 14-SEP-2023 15:47
InstruID : VOA9.i
LabSampID : VSTD000.25

1,4-Dioxane ()

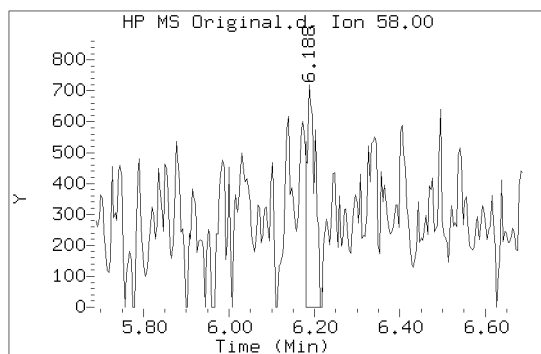
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18-Sep-2023
12:30
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pham



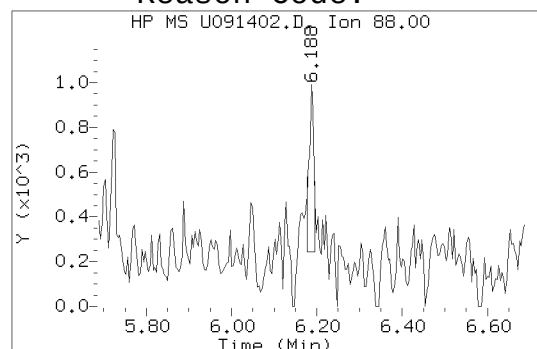
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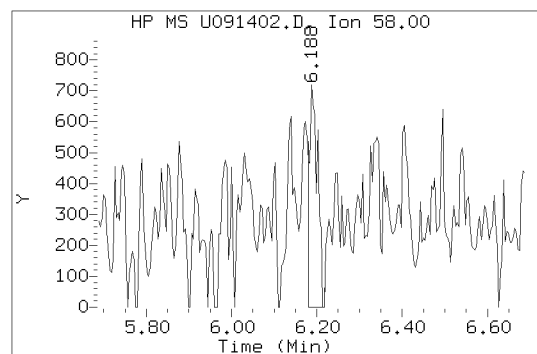
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AFTER

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18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D Page 1
Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
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Inj Date : 14-SEP-2023 16:09
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Smp Info : VSTD000.5;VSTD000.5;1;2;
Misc Info : V9;WATER;0;1;
Comment :
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Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
Cal Date : 14-SEP-2023 20:35 Cal File: U091414.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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		4.811	4.811	(1.000)		639208	50.0000	
2 Dichlorodifluoromethane	85		1.156	1.156	(0.240)		3707	0.50000	1.85(M)
3 Chloromethane	50		1.291	1.291	(0.268)		8313	0.50000	(M)
5 Vinyl Chloride	62		1.370	1.370	(0.285)		4059	0.50000	0.50(M)
6 Bromomethane	94		1.618	1.618	(0.336)		2668	0.50000	1.11(M)
7 Chloroethane	64		1.692	1.692	(0.352)		3286	0.50000	0.55
8 Trichlorofluoromethane	101		1.887	1.887	(0.392)		5389	0.50000	0.51
9 Acrolein	56		2.259	2.259	(0.469)		643	1.00000	1.17(M)
10 Acetone	43		2.408	2.408	(0.501)		7172	1.00000	0.09(M)
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)		3071	0.50000	0.48(M)
15 Iodomethane	142		2.461	2.461	(0.512)		3691	1.00000	4.36(M)
16 Acrylonitrile	53		3.068	3.068	(0.638)		4051	1.00000	1.08(M)
17 Methylene Chloride	84		2.787	2.787	(0.579)		5165	0.50000	2.31(M)
18 Methyl tert-butyl ether	73		3.072	3.072	(0.639)		10417	0.50000	0.57
19 Carbon Disulfide	76		2.513	2.513	(0.522)		16157	1.00000	0.94
20 trans-1,2-Dichloroethene	96		3.050	3.050	(0.634)		3543	0.50000	0.53(M)
21 Vinyl Acetate	43		3.604	3.604	(0.749)		24399	1.00000	1.03
22 1,1-Dichloroethane	63		3.511	3.511	(0.730)		6864	0.50000	0.51(T)
24 2-Butanone	43		4.272	4.272	(0.888)		4163	1.00000	1.07(M)
26 2,2-Dichloropropane	77		4.170	4.170	(0.867)		4335	0.50000	0.53(M)



27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	3842	0.50000	0.50(M)
28 Chloroform	83	4.571	4.571 (0.950)	6484	0.50000	0.50(M)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D Page 2

Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.467	4.467	(0.928)	2041	0.50000	0.51(M)
\$ 30 Dibromofluoromethane	113	4.744	4.744	(0.986)	3104	0.50000	0.73
31 1,1,1-Trichloroethane	97	4.733	4.733	(0.984)	4582	0.50000	0.52(M)
32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	4020	0.50000	0.50(M)
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	5380	0.50000	0.55
34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	3572	0.50000	0.50
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	4043	0.50000	0.46
* 36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	994968	50.0000	
37 Benzene	78	5.138	5.138	(0.926)	14292	0.50000	0.57
38 Trichloroethene	130	5.782	5.782	(1.042)	3872	0.50000	0.53(M)
39 Bromodichloromethane	83	6.277	6.277	(1.131)	4490	0.50000	0.55(M)
41 2-Chloroethylvinyl ether	63	6.562	6.562	(1.182)	53	1.00000	1.98(M)
42 1,2-Dichloropropane	63	6.011	6.011	(1.083)	3309	0.50000	0.50(M)
44 Dibromomethane	93	6.120	6.120	(1.103)	2627	0.50000	0.57(M)
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	6101	1.00000	3.41
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.206)	4418	0.50000	3.56(M)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	913278	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	11691	0.50000	0.58(M)
50 Toluene	91	6.982	6.982	(0.853)	13250	0.50000	0.54(M)
51 trans-1,3-Dichloropropene	75	7.203	7.203	(1.298)	3003	0.50000	2.74(M)
52 2-Hexanone	43	7.600	7.600	(0.929)	3781	1.00000	0.91
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	3146	0.50000	0.58
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	5881	0.50000	0.54(M)
55 Dibromochloromethane	129	7.687	7.687	(0.939)	3623	0.50000	0.56
56 Tetrachloroethene	164	7.458	7.458	(0.911)	3084	0.50000	0.53(M)
57 1,2-Dibromoethane	107	7.792	7.792	(0.952)	3288	0.50000	0.51
58 1-Chlorohexane	55	8.193	8.193	(1.476)	3356	0.50000	0.55(M)
59 Chlorobenzene	112	8.211	8.211	(1.003)	9716	0.50000	0.53
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	3364	0.50000	0.55
61 Ethylbenzene	106	8.309	8.309	(1.015)	4115	0.50000	0.50(M)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	9427	1.00000	0.92(M)
63 o-Xylene	106	8.748	8.748	(1.069)	5517	0.50000	0.51(M)
64 Styrene	104	8.766	8.766	(1.071)	8005	0.50000	0.49(M)
66 Bromoform	173	8.916	8.916	(1.089)	2213	0.50000	3.99(T)
67 Isopropylbenzene	105	9.062	9.062	(1.107)	12158	0.50000	1.95(M)
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	4530	0.50000	0.55(M)
\$ 69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	4793	0.50000	0.43(M)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	420648	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	3897	0.50000	0.55
73 n-Propylbenzene	91	9.411	9.411	(0.925)	9893	0.50000	3.37(M)
74 Bromobenzene	156	9.321	9.321	(0.916)	3486	0.50000	0.52(M)
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	7718	0.50000	0.48(M)
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	7768	0.50000	0.49(M)
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	10329	0.50000	0.56(M)
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	7286	0.50000	0.47(M)
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	8406	0.50000	0.51(M)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	9443	0.50000	2.22(M)
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	7845	0.50000	2.24(M)
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	6938	0.50000	0.58
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	7315	0.50000	0.55(M)
87 n-Butylbenzene	91	10.494	10.494	(1.032)	6875	0.50000	2.50(M)
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	6709	0.50000	0.55



89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	527	0.50000	0.51(M)
90	1,2,4-Trichlorobenzene	180	11.863	11.863 (1.166)	3346	0.50000	0.48(M)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D Page 3

Report Date: 18-Sep-2023 12:31

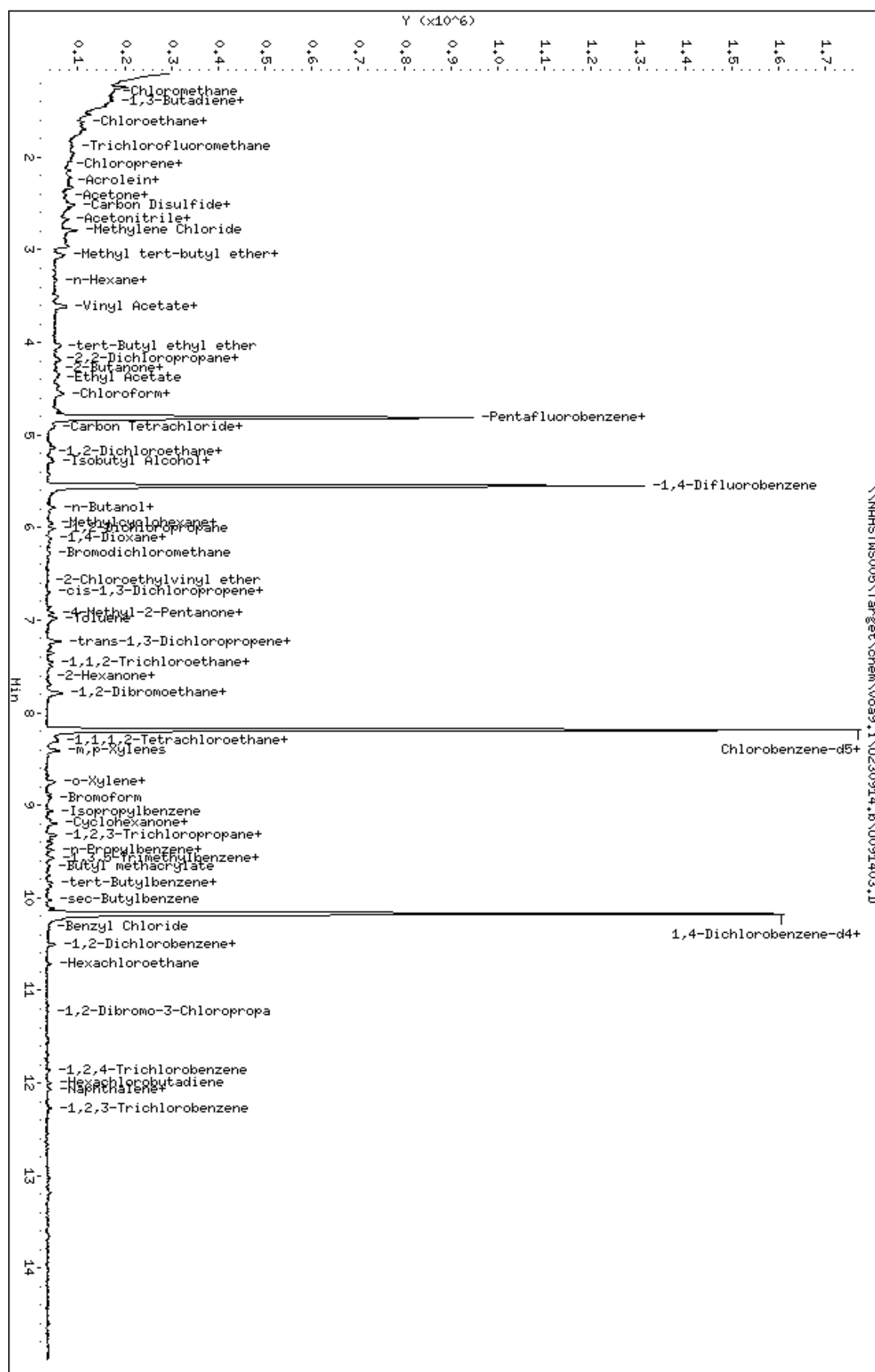
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	12.001	12.001	(1.180)	1680	0.50000	0.54
92 Naphthalene	128	12.069	12.069	(1.186)	8877	0.50000	3.17(M)
93 1,2,3-Trichlorobenzene	180	12.275	12.275	(1.207)	3377	0.50000	0.51
M 94 1,2-Dichloroethylene (total)	96				7385	1.00000	
M 95 Xylenes (total)	106				14944	1.50000	
135 1,4-Dioxane	88	6.176	6.176	(1.284)	1082	10.0000	11.64(M)
141 Cyclohexane	56	4.785	4.785	(0.995)	4570	0.50000	1.06(M)
138 Freon TF	101	2.334	2.334	(0.485)	3073	0.50000	0.75(M)
140 1,3-Butadiene	54	1.396	1.396	(0.290)	3698	0.50000	0.48
147 Methylcyclohexane	55	5.951	5.951	(1.072)	7709	0.50000	0.52(M)
146 Methyl Acetate	43	2.716	2.716	(0.565)	4575	0.50000	0.59(M)

QC Flag Legend

T - Target compound detected outside RT window.

M - Compound response manually integrated.





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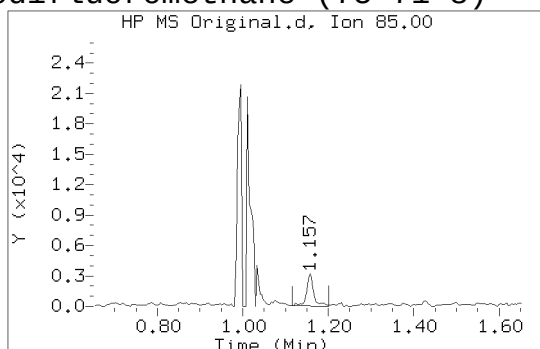
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Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Dichlorodifluoromethane (75-71-8)

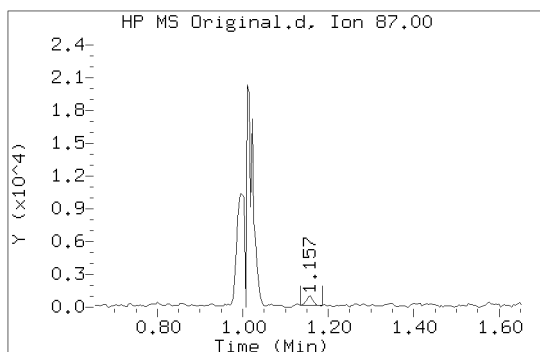
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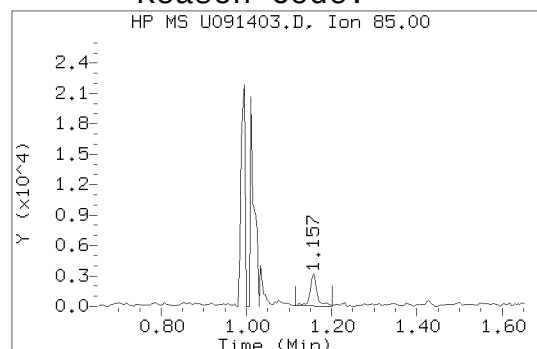
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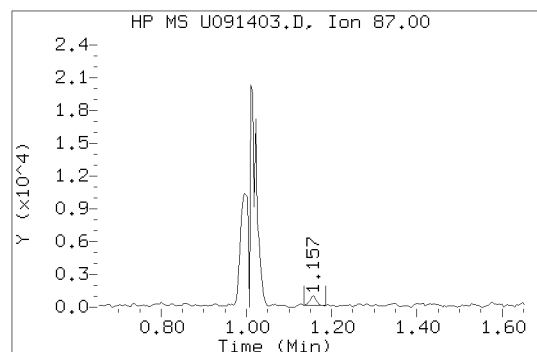
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AFTER

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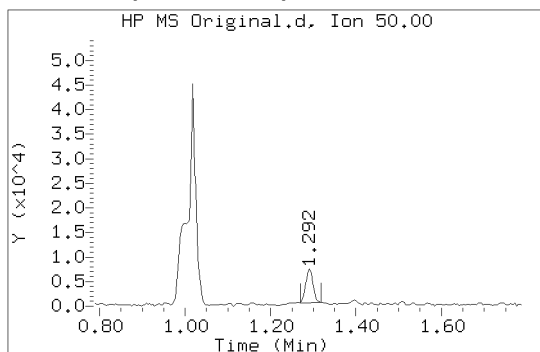


Reason Code:

Chloromethane (74-87-3)

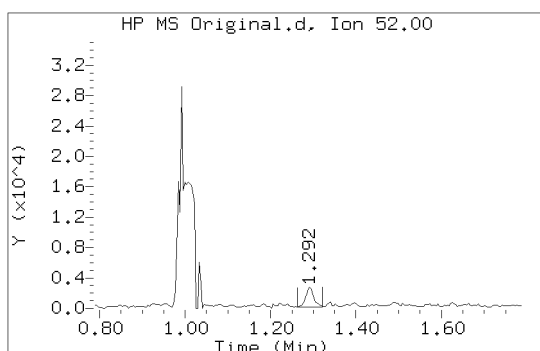
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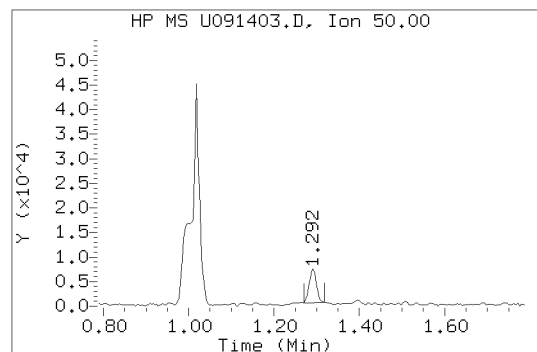
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linh
pham



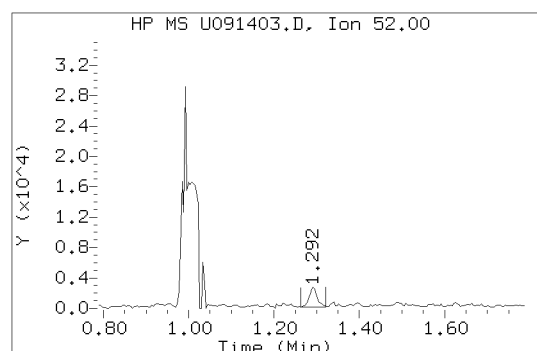
AFTER

MASS
50
AREA
8313
HEIGHT
6896
18-Sep-2023
12:30
linh
pham



AFTER

MASS
52
AREA
3458
HEIGHT
2579
18-Sep-2023
12:30
linh
pham



Reason Code:

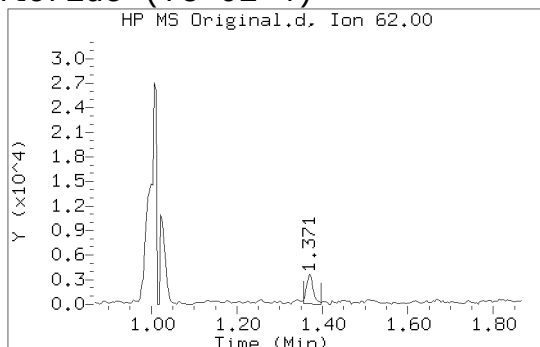


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Vinyl Chloride (75-01-4)

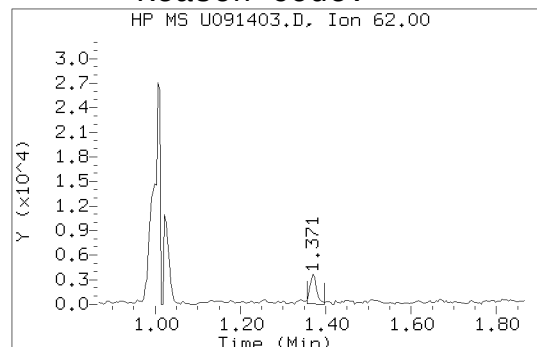
BEFORE

MASS
62
AREA
4059
HEIGHT
3663
18-Sep-2023
12:30
linh



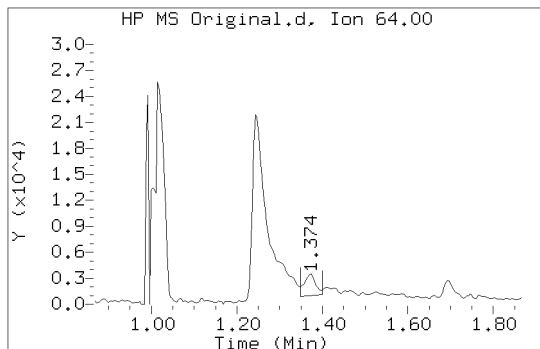
AFTER

MASS
62
AREA
4059
HEIGHT
3663
18-Sep-2023
12:30
linh



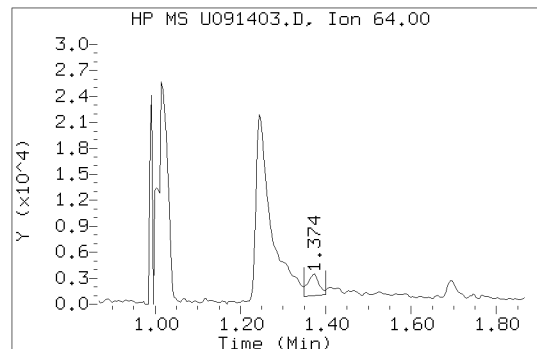
BEFORE

MASS
64
AREA
4882
HEIGHT
2472
18-Sep-2023
12:30
linh
pham



AFTER

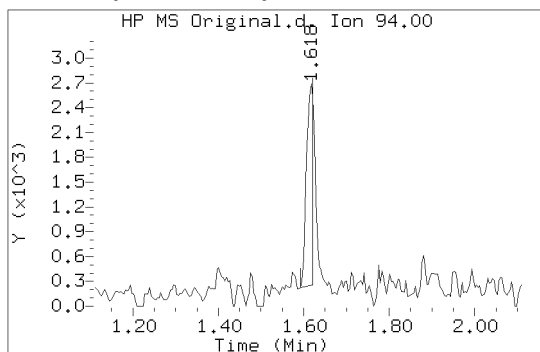
MASS
64
AREA
4882
HEIGHT
2472
18-Sep-2023
12:30
linh
pham



Bromomethane (74-83-9)

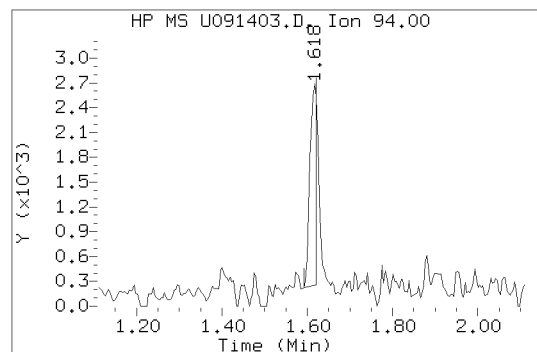
BEFORE

MASS
94
AREA
2668
HEIGHT
2436
18-Sep-2023
12:30
linh
pham



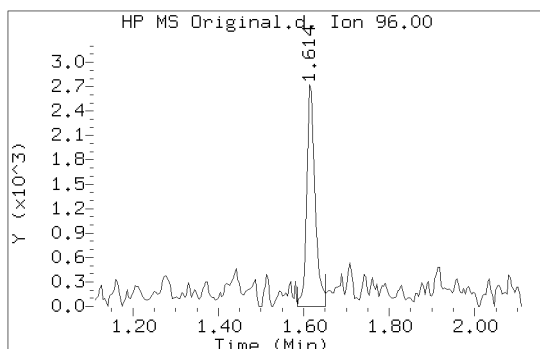
AFTER

MASS
94
AREA
2668
HEIGHT
2436
18-Sep-2023
12:30
linh
pham



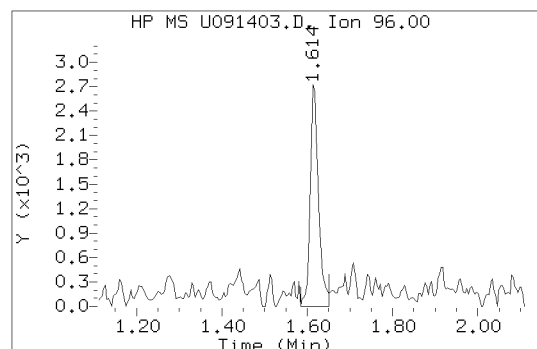
BEFORE

MASS
96
AREA
3711
HEIGHT
2724
18-Sep-2023
12:30
linh
pham



AFTER

MASS
96
AREA
3711
HEIGHT
2724
18-Sep-2023
12:30
linh
pham

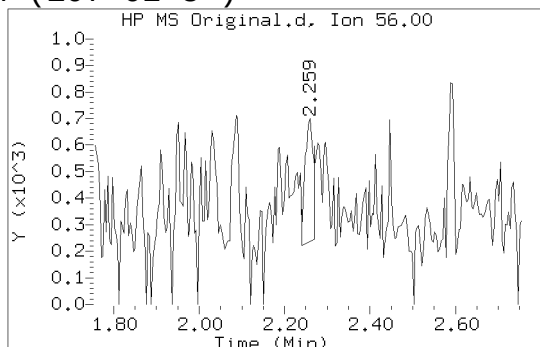


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Acrolein (107-02-8)

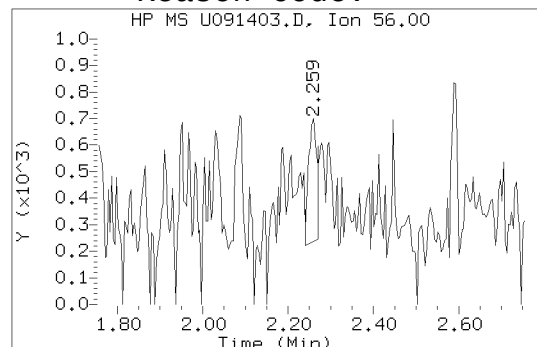
BEFORE

MASS
56
AREA
643
HEIGHT
463
18-Sep-2023
12:30
linh



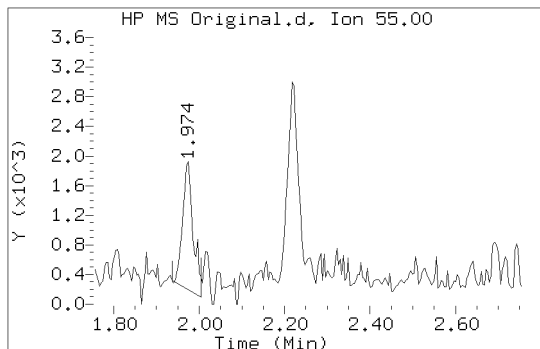
AFTER

MASS
56
AREA
643
HEIGHT
463
18-Sep-2023
12:30
linh



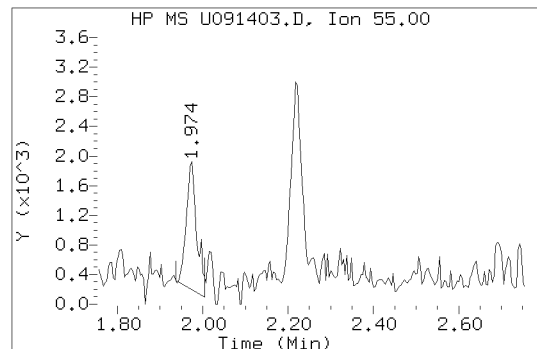
BEFORE

MASS
55
AREA
2936
HEIGHT
1730
18-Sep-2023
12:30
linh
pham



AFTER

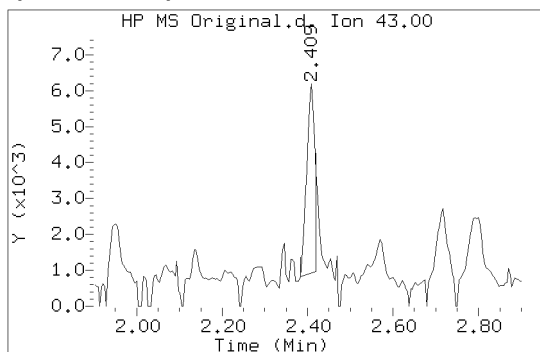
MASS
55
AREA
2936
HEIGHT
1730
18-Sep-2023
12:30
linh
pham



Acetone (67-64-1)

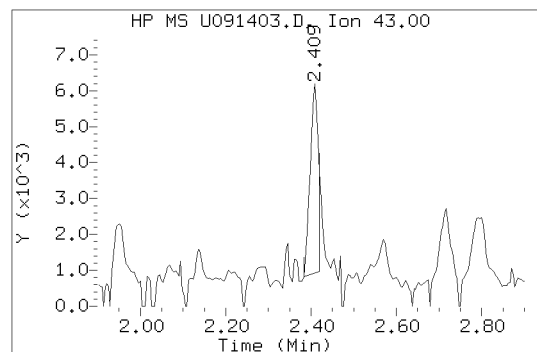
BEFORE

MASS
43
AREA
7172
HEIGHT
5265
18-Sep-2023
12:30
linh
pham



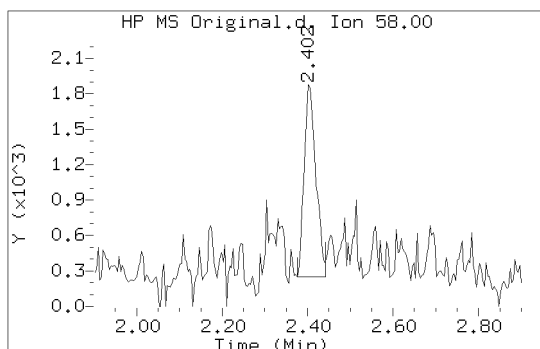
AFTER

MASS
43
AREA
7172
HEIGHT
5265
18-Sep-2023
12:30
linh
pham



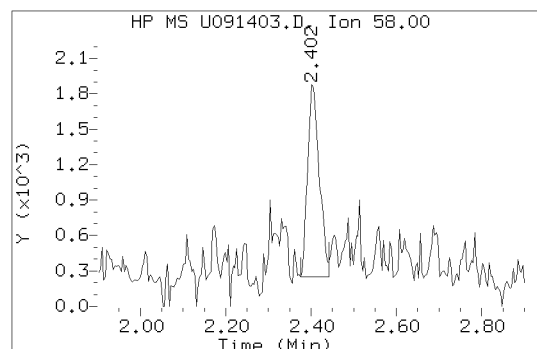
BEFORE

MASS
58
AREA
3174
HEIGHT
1628
18-Sep-2023
12:30
linh
pham



AFTER

MASS
58
AREA
3174
HEIGHT
1628
18-Sep-2023
12:30
linh
pham

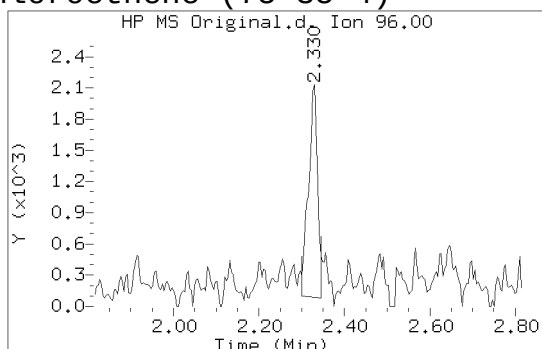


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1,1-Dichloroethene (75-35-4)

BEFORE

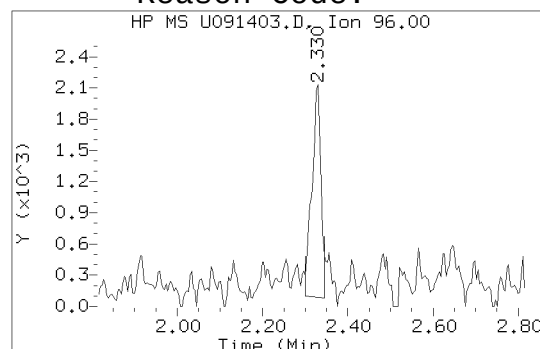
MASS
96
AREA
3071
HEIGHT
2046
18-Sep-2023
12:30
linh



AFTER

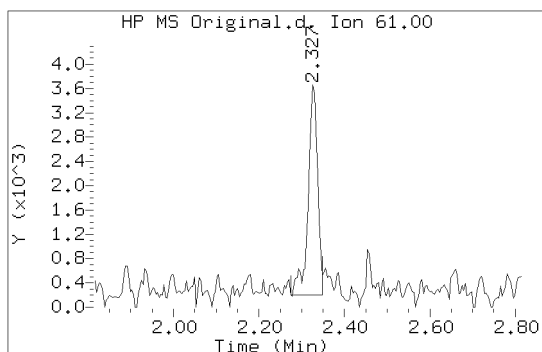
MASS
96
AREA
3071
HEIGHT
2046
18-Sep-2023
12:30
linh

Reason Code:



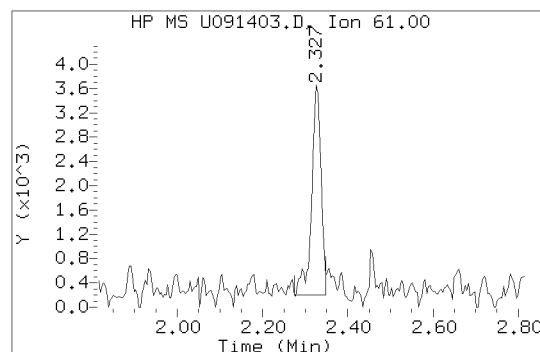
BEFORE

MASS
61
AREA
5392
HEIGHT
3461
18-Sep-2023
12:30
linh
pham



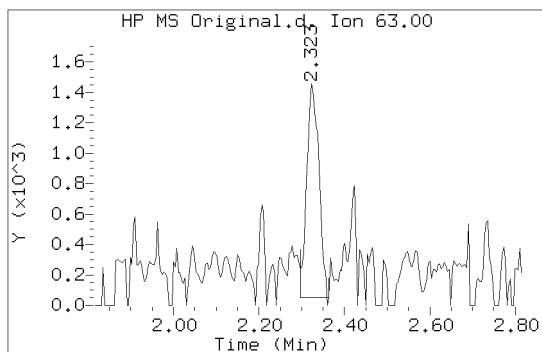
AFTER

MASS
61
AREA
5392
HEIGHT
3461
18-Sep-2023
12:30
linh
pham



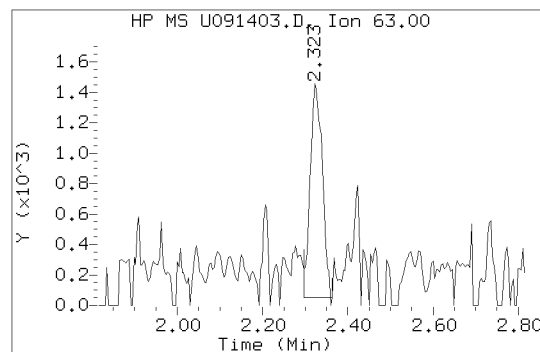
BEFORE

MASS
63
AREA
2803
HEIGHT
1406
18-Sep-2023
12:30
linh
pham



AFTER

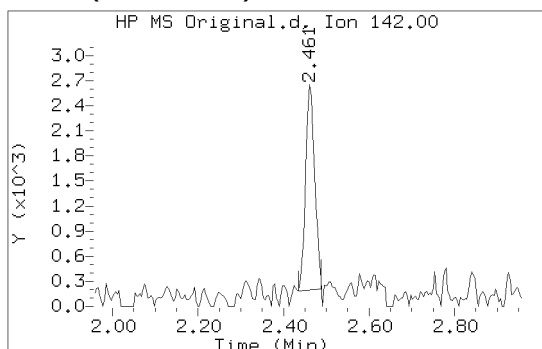
MASS
63
AREA
2803
HEIGHT
1406
18-Sep-2023
12:30
linh
pham



Iodomethane (74-88-4)

BEFORE

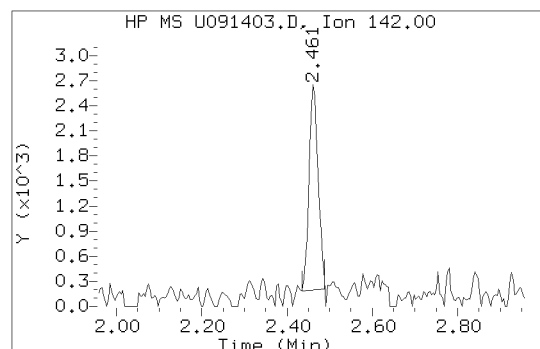
MASS
142
AREA
3691
HEIGHT
2458
18-Sep-2023
12:30
linh
pham



AFTER

MASS
142
AREA
3691
HEIGHT
2458
18-Sep-2023
12:30
linh
pham

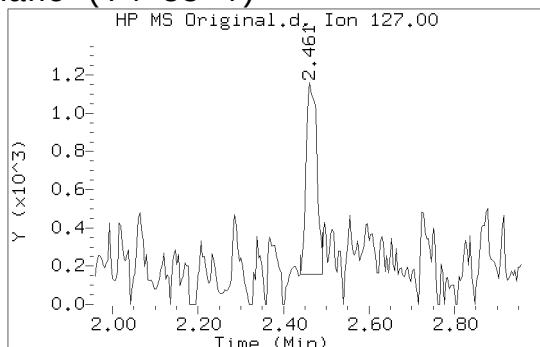
Reason Code:



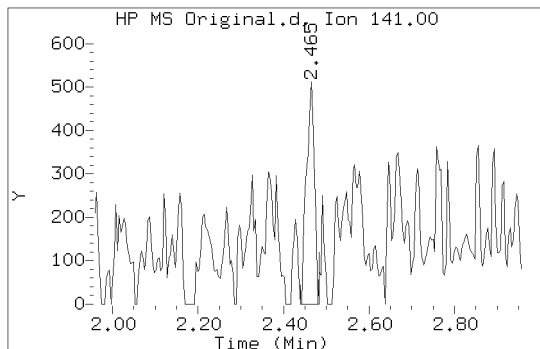
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Iodomethane (74-88-4)**BEFORE**

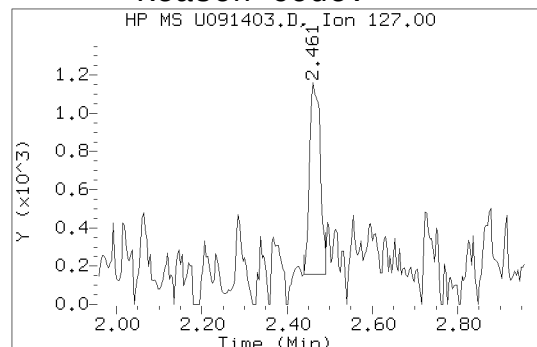
MASS
127
AREA
1758
HEIGHT
1002
18-Sep-2023
12:30
linh

**BEFORE**

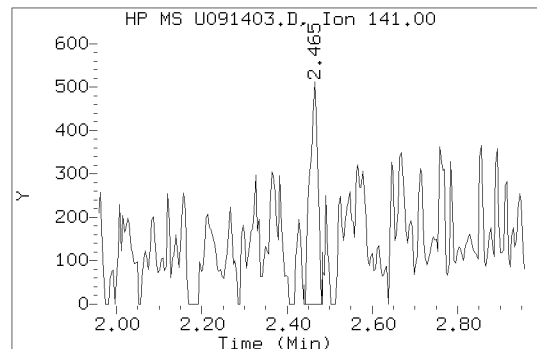
MASS
141
AREA
687
HEIGHT
512
18-Sep-2023
12:30
linh
pham

**AFTER**

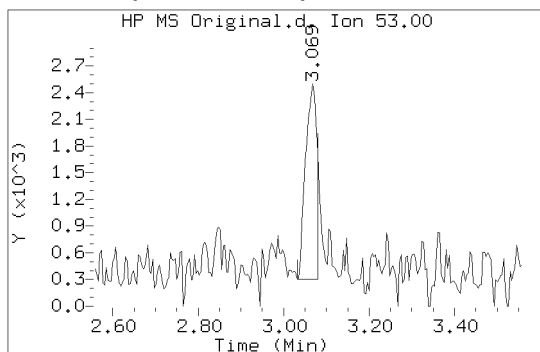
MASS
127
AREA
1758
HEIGHT
1002
18-Sep-2023
12:30
linh

**AFTER**

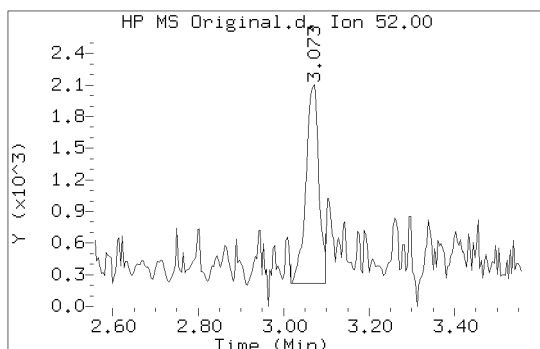
MASS
141
AREA
687
HEIGHT
512
18-Sep-2023
12:30
linh
pham

**Acrylonitrile (107-13-1)****BEFORE**

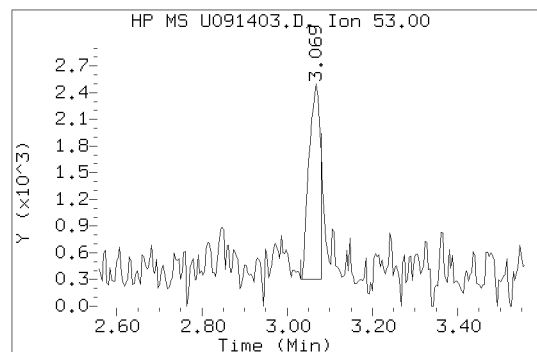
MASS
53
AREA
4051
HEIGHT
2195
18-Sep-2023
12:30
linh
pham

**BEFORE**

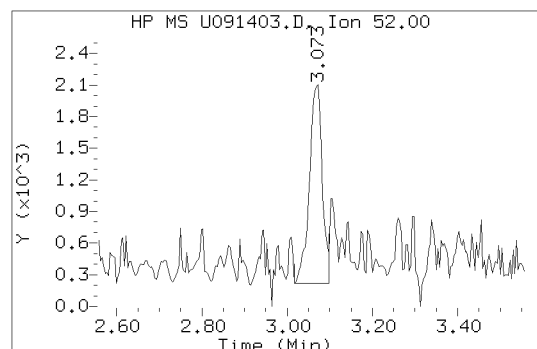
MASS
52
AREA
4049
HEIGHT
1884
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
53
AREA
4051
HEIGHT
2195
18-Sep-2023
12:30
linh
pham

**AFTER**

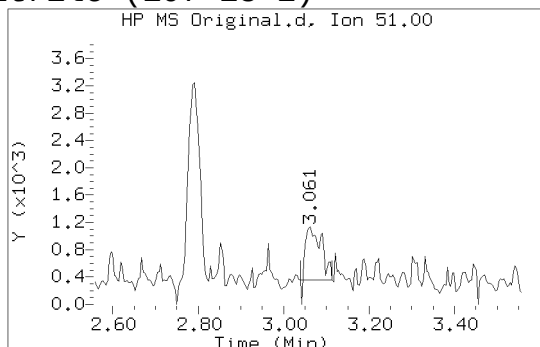
MASS
52
AREA
4049
HEIGHT
1884
18-Sep-2023
12:30
linh
pham



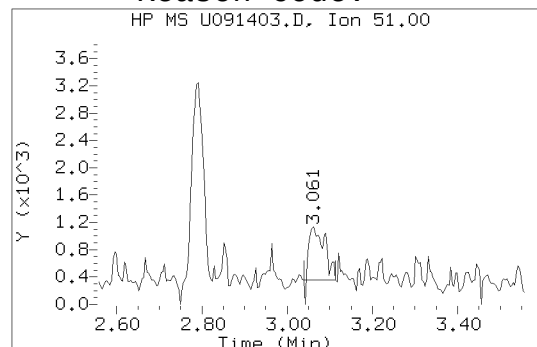
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Acrylonitrile (107-13-1)**BEFORE**

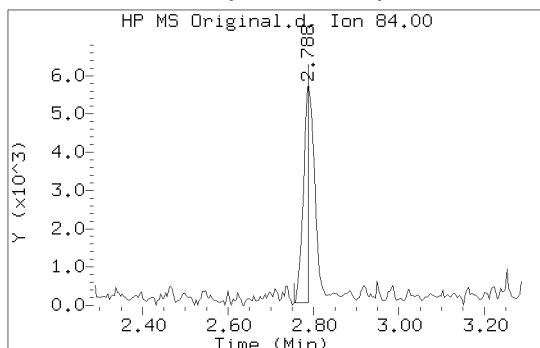
MASS
51
AREA
1987
HEIGHT
782
18-Sep-2023
12:30
linh
pham

**AFTER**

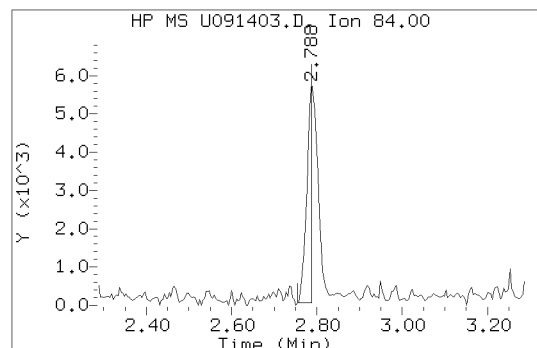
MASS
51
AREA
1987
HEIGHT
782
18-Sep-2023
12:30
linh
pham

Reason Code:**Methylene Chloride (75-09-2)****BEFORE**

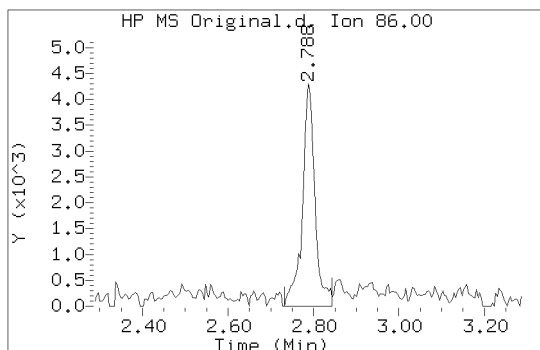
MASS
84
AREA
5165
HEIGHT
5730
18-Sep-2023
12:30
linh
pham

**AFTER**

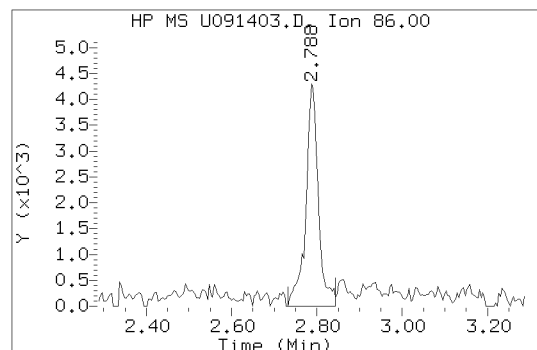
MASS
84
AREA
5165
HEIGHT
5730
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

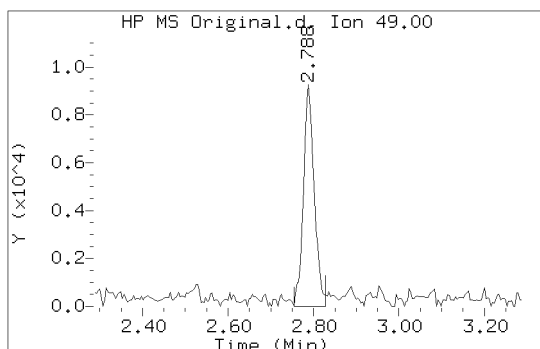
MASS
86
AREA
8962
HEIGHT
4299
18-Sep-2023
12:30
linh
pham

**AFTER**

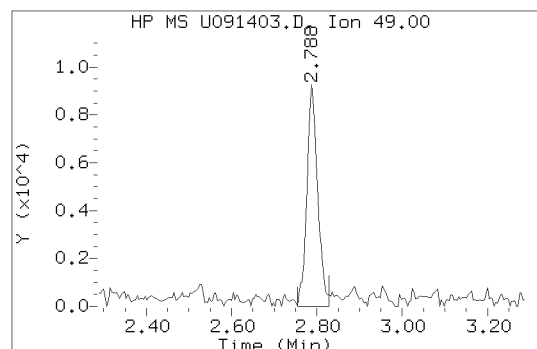
MASS
86
AREA
8962
HEIGHT
4299
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
49
AREA
16630
HEIGHT
9267
18-Sep-2023
12:30
linh
pham

**AFTER**

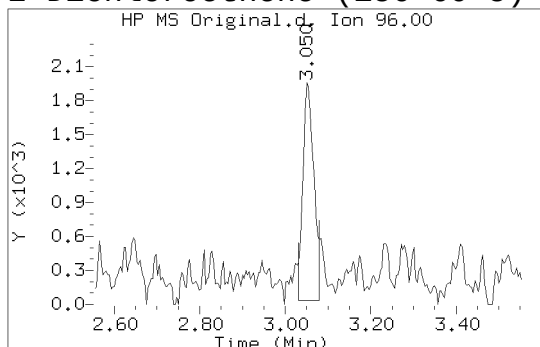
MASS
49
AREA
16630
HEIGHT
9267
18-Sep-2023
12:30
linh
pham



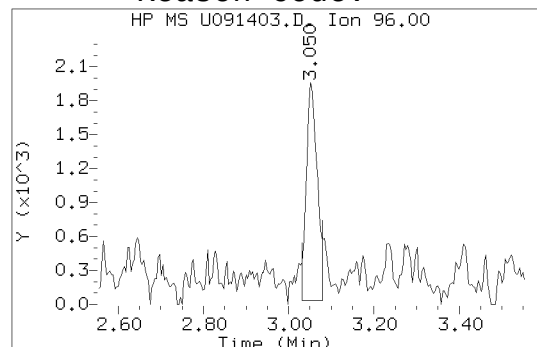
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

trans-1,2-Dichloroethene (156-60-5)**BEFORE**

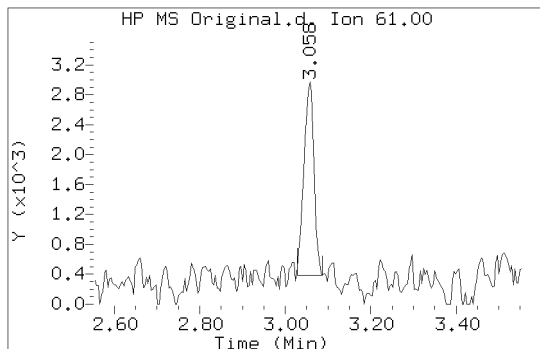
MASS
96
AREA
3543
HEIGHT
1925
18-Sep-2023
12:30
linh

**AFTER**

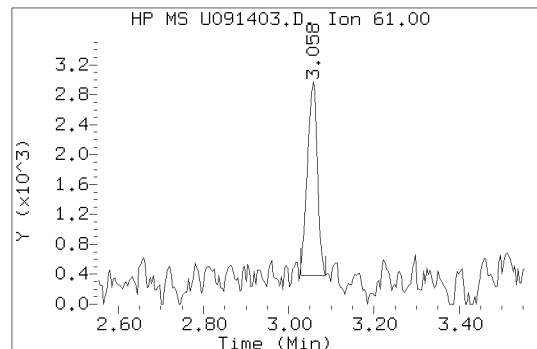
MASS
96
AREA
3543
HEIGHT
1925
18-Sep-2023
12:30
linh

Reason Code:**BEFORE**

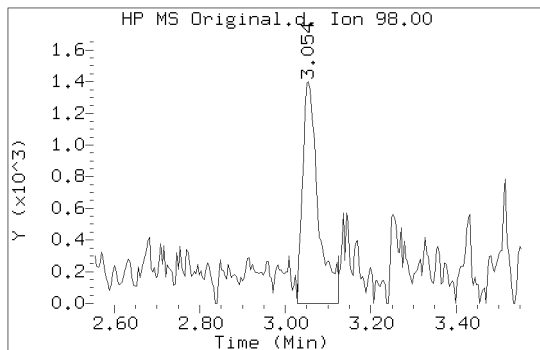
MASS
61
AREA
4316
HEIGHT
2583
18-Sep-2023
12:30
linh
pham

**AFTER**

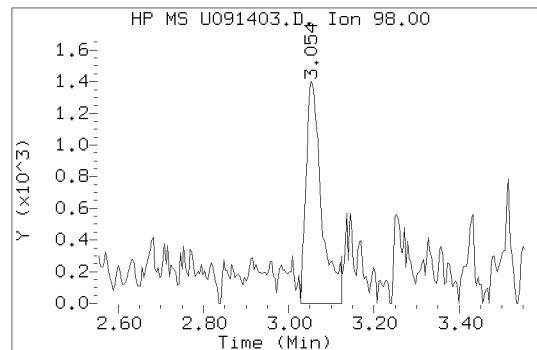
MASS
61
AREA
4316
HEIGHT
2583
18-Sep-2023
12:30
linh
pham

**BEFORE**

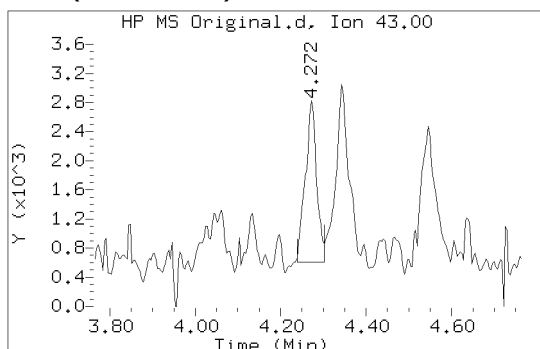
MASS
98
AREA
3586
HEIGHT
1400
18-Sep-2023
12:30
linh
pham

**AFTER**

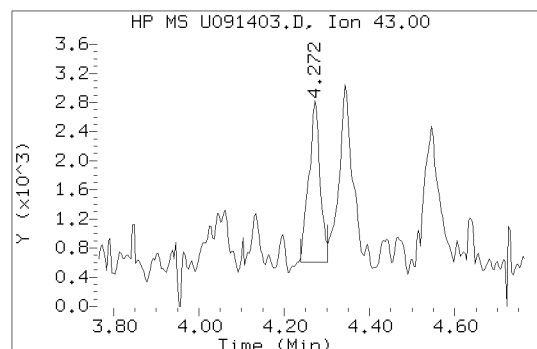
MASS
98
AREA
3586
HEIGHT
1400
18-Sep-2023
12:30
linh
pham

**2-Butanone (78-93-3)****BEFORE**

MASS
43
AREA
4163
HEIGHT
2215
18-Sep-2023
12:30
linh
pham

**AFTER**

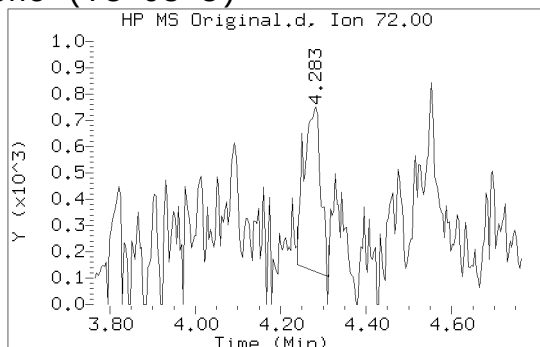
MASS
43
AREA
4163
HEIGHT
2215
18-Sep-2023
12:30
linh
pham

Reason Code:

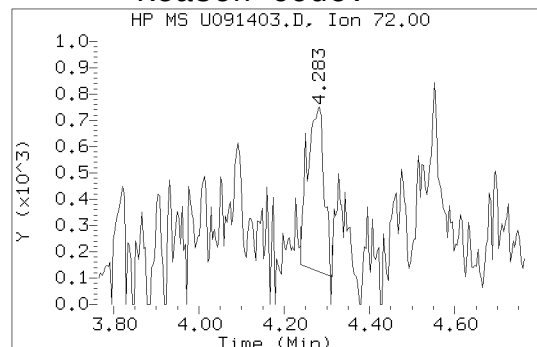
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

2-Butanone (78-93-3)**BEFORE**

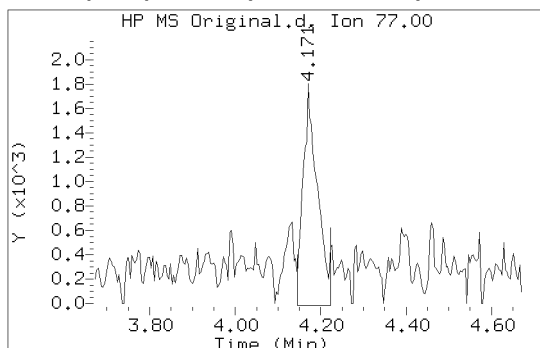
MASS
72
AREA
1704
HEIGHT
626
18-Sep-2023
12:30
linh
pham

**AFTER**

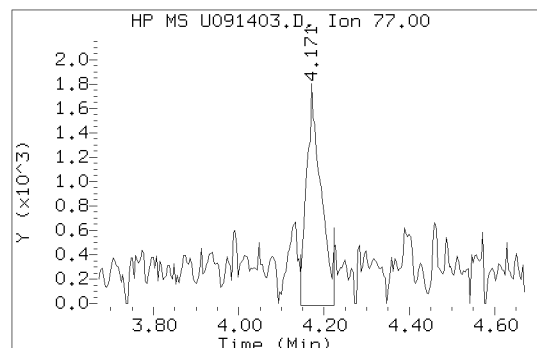
MASS
72
AREA
1704
HEIGHT
626
18-Sep-2023
12:30
linh
pham

Reason Code:**2,2-Dichloropropane (594-20-7)****BEFORE**

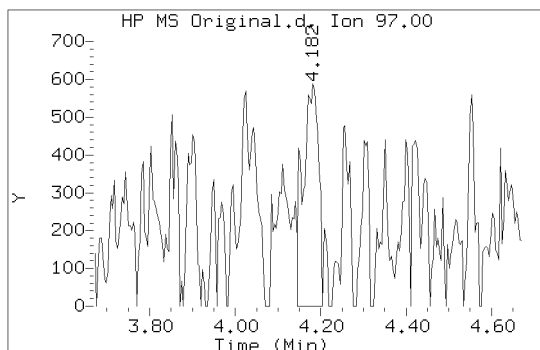
MASS
77
AREA
4335
HEIGHT
1818
18-Sep-2023
12:30
linh
pham

**AFTER**

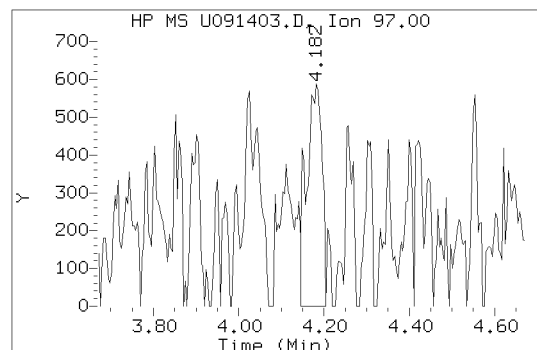
MASS
77
AREA
4335
HEIGHT
1818
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

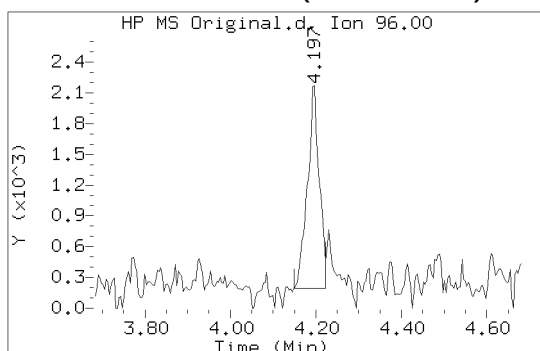
MASS
97
AREA
1521
HEIGHT
588
18-Sep-2023
12:30
linh
pham

**AFTER**

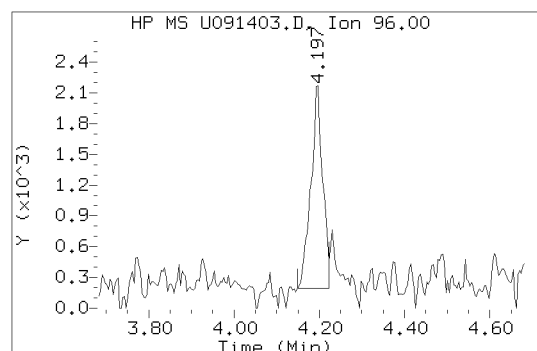
MASS
97
AREA
1521
HEIGHT
588
18-Sep-2023
12:30
linh
pham

**cis-1,2-Dichloroethene (156-59-2)****BEFORE**

MASS
96
AREA
3842
HEIGHT
1975
18-Sep-2023
12:30
linh
pham

**AFTER**

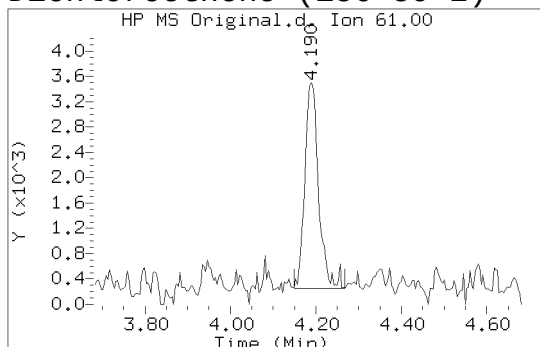
MASS
96
AREA
3842
HEIGHT
1975
18-Sep-2023
12:30
linh
pham

Reason Code:

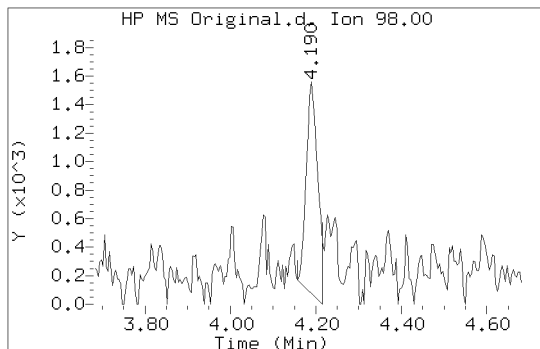
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

cis-1,2-Dichloroethene (156-59-2)**BEFORE**

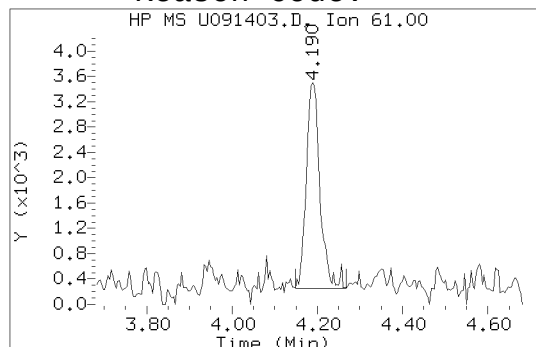
MASS
61
AREA
7338
HEIGHT
3252
18-Sep-2023
12:30
linh

**BEFORE**

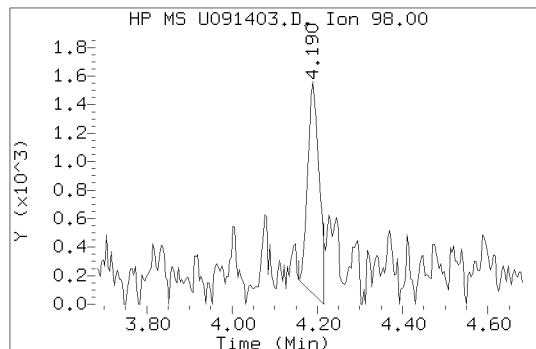
MASS
98
AREA
2809
HEIGHT
1484
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
61
AREA
7338
HEIGHT
3252
18-Sep-2023
12:30
linh

**AFTER**

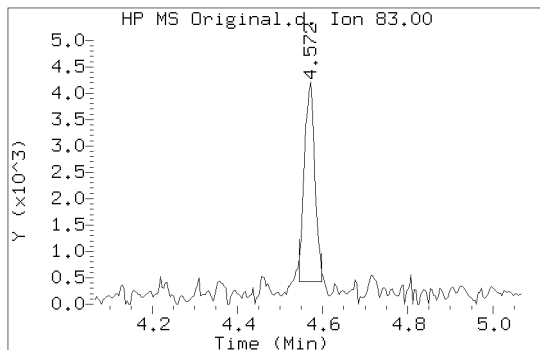
MASS
98
AREA
2809
HEIGHT
1484
18-Sep-2023
12:30
linh
pham



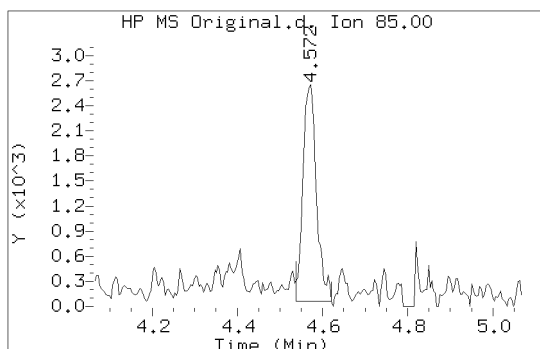
Reason Code:

Chloroform (67-66-3)**BEFORE**

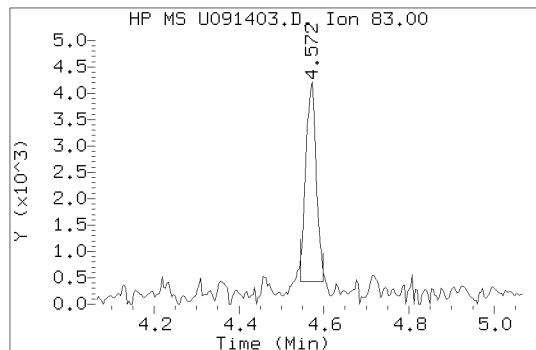
MASS
83
AREA
6484
HEIGHT
3793
18-Sep-2023
12:30
linh
pham

**BEFORE**

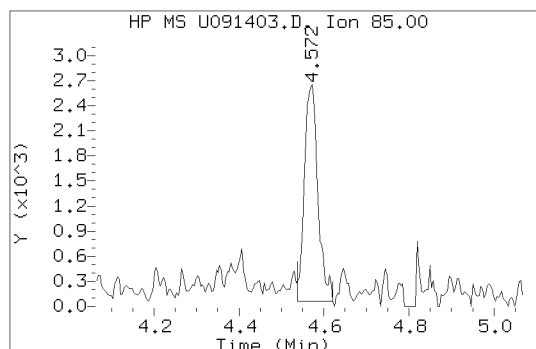
MASS
85
AREA
5687
HEIGHT
2588
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
83
AREA
6484
HEIGHT
3793
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
85
AREA
5687
HEIGHT
2588
18-Sep-2023
12:30
linh
pham

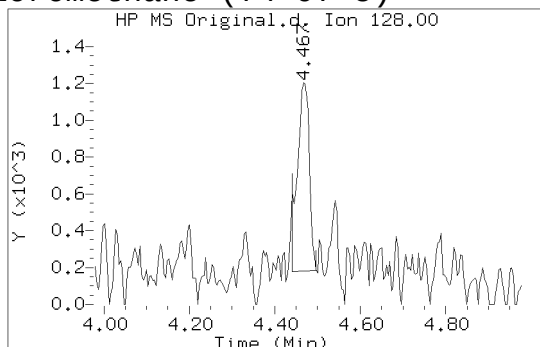


Reason Code:

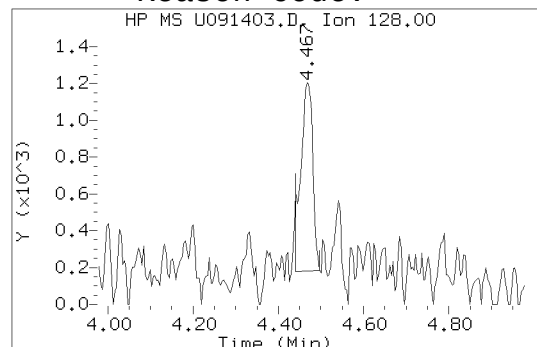
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Bromochloromethane (74-97-5)**BEFORE**

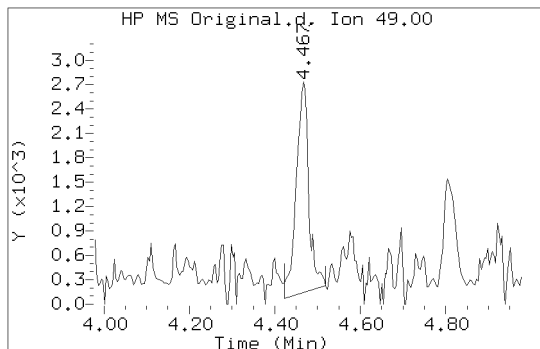
MASS
128
AREA
2041
HEIGHT
1023
18-Sep-2023
12:30
linh

**AFTER**

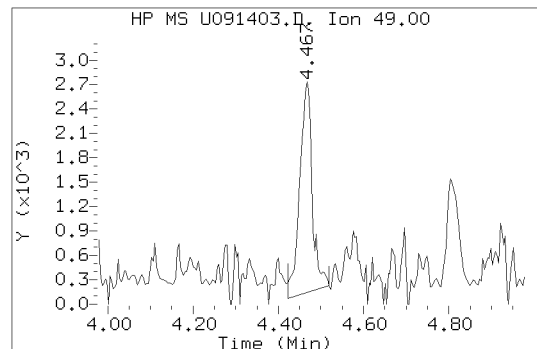
MASS
128
AREA
2041
HEIGHT
1023
18-Sep-2023
12:30
linh

**BEFORE**

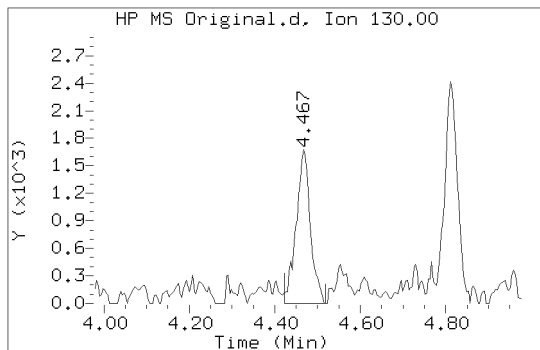
MASS
49
AREA
5348
HEIGHT
2591
18-Sep-2023
12:30
linh
pham

**AFTER**

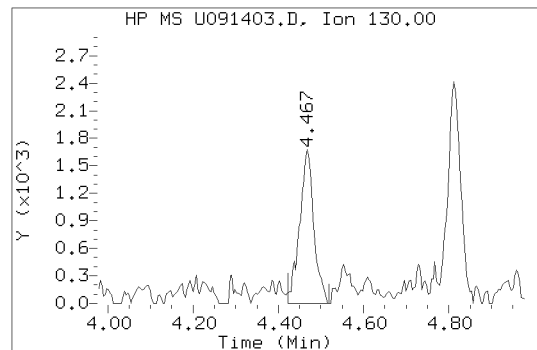
MASS
49
AREA
5348
HEIGHT
2591
18-Sep-2023
12:30
linh
pham

**BEFORE**

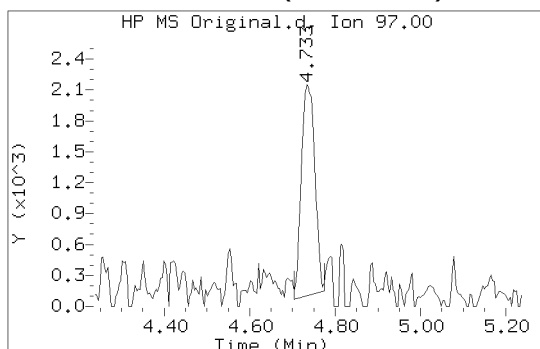
MASS
130
AREA
3935
HEIGHT
1676
18-Sep-2023
12:30
linh
pham

**AFTER**

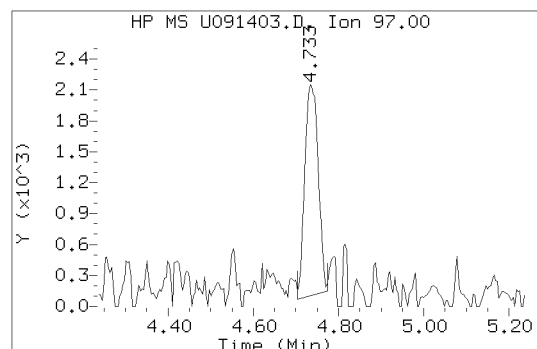
MASS
130
AREA
3935
HEIGHT
1676
18-Sep-2023
12:30
linh
pham

**1,1,1-Trichloroethane (71-55-6)****BEFORE**

MASS
97
AREA
4582
HEIGHT
2046
18-Sep-2023
12:30
linh
pham

**AFTER**

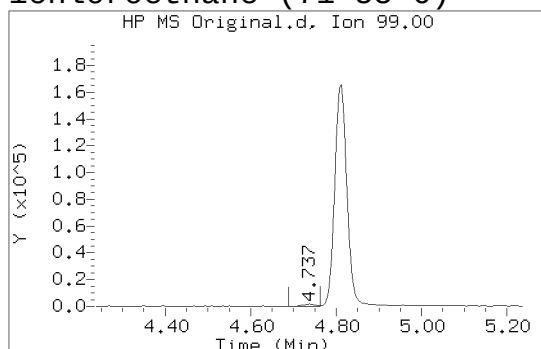
MASS
97
AREA
4582
HEIGHT
2046
18-Sep-2023
12:30
linh
pham



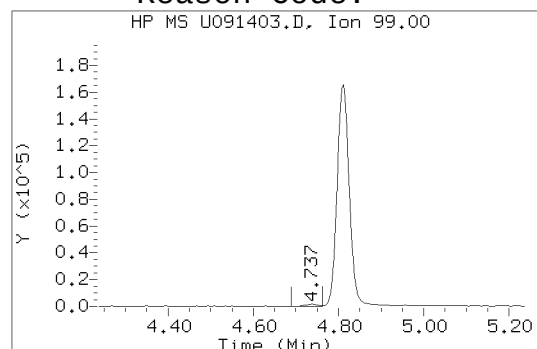
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1,1,1-Trichloroethane (71-55-6)**BEFORE**

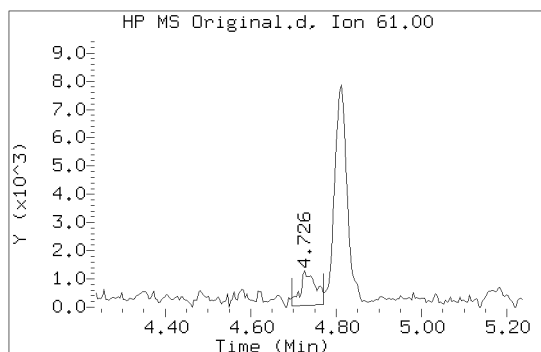
MASS
99
AREA
3449
HEIGHT
1683
18-Sep-2023
12:30
linh

**AFTER**

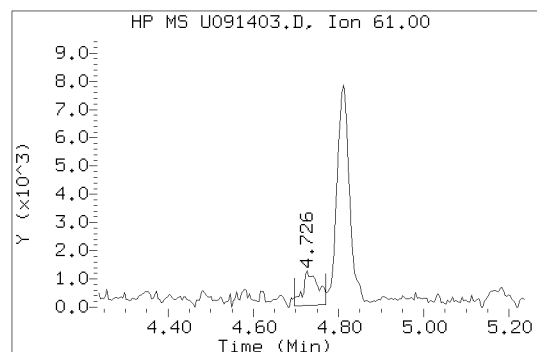
MASS
99
AREA
3449
HEIGHT
1683
18-Sep-2023
12:30
linh

Reason Code:**BEFORE**

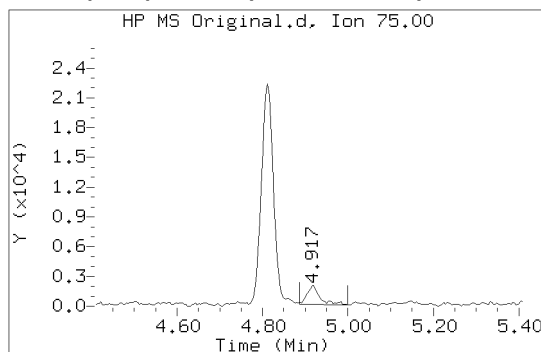
MASS
61
AREA
3147
HEIGHT
1220
18-Sep-2023
12:30
linh
pham

**AFTER**

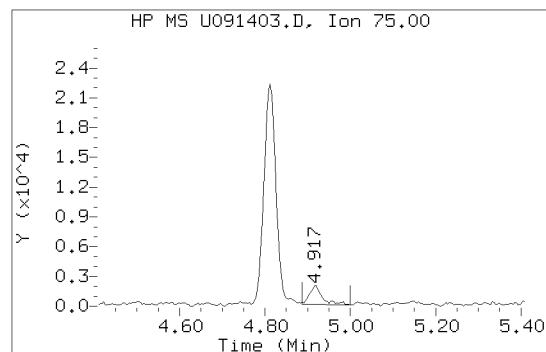
MASS
61
AREA
3147
HEIGHT
1220
18-Sep-2023
12:30
linh
pham

**1,1-Dichloropropene (563-58-6)****BEFORE**

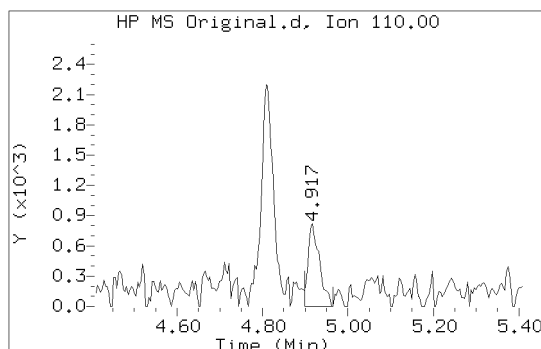
MASS
75
AREA
4020
HEIGHT
1887
18-Sep-2023
12:30
linh
pham

**AFTER**

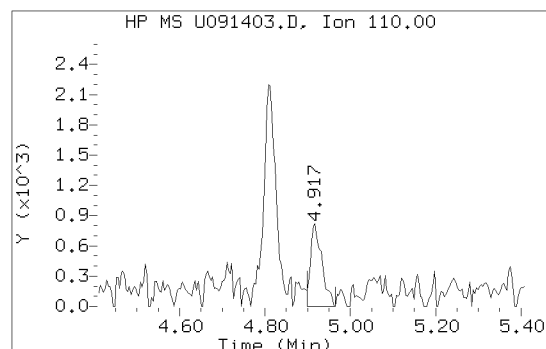
MASS
75
AREA
4020
HEIGHT
1887
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

MASS
110
AREA
1559
HEIGHT
820
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
110
AREA
1559
HEIGHT
820
18-Sep-2023
12:30
linh
pham

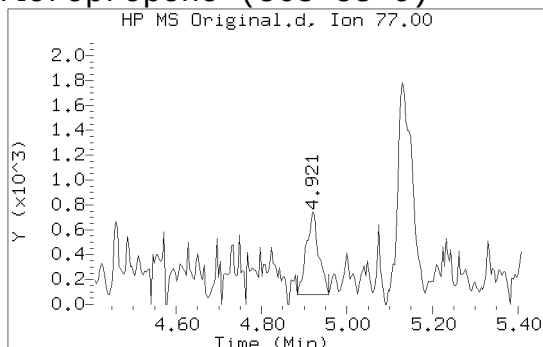


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1,1-Dichloropropene (563-58-6)

BEFORE

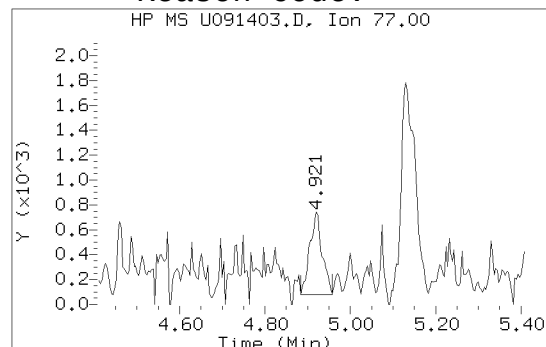
MASS
77
AREA
1366
HEIGHT
664
18-Sep-2023
12:30
linh
pham



AFTER

MASS
77
AREA
1366
HEIGHT
664
18-Sep-2023
12:30
linh
pham

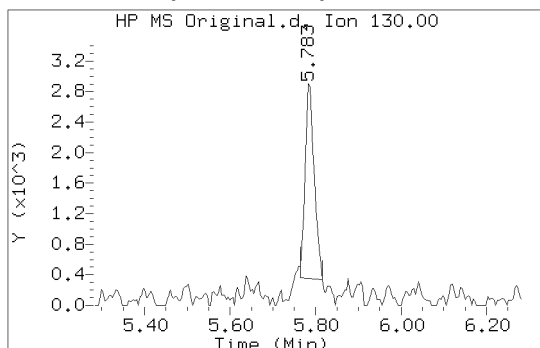
Reason Code:



Trichloroethene (79-01-6)

BEFORE

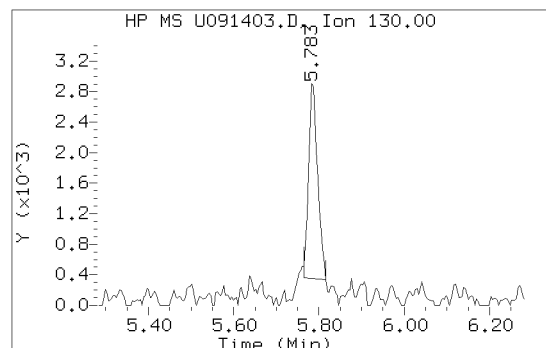
MASS
130
AREA
3872
HEIGHT
2551
18-Sep-2023
12:30
linh
pham



AFTER

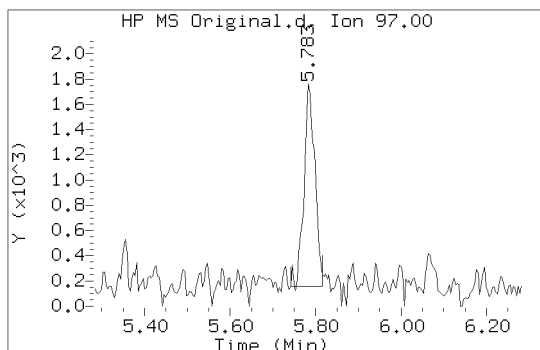
MASS
130
AREA
3872
HEIGHT
2551
18-Sep-2023
12:30
linh
pham

Reason Code:



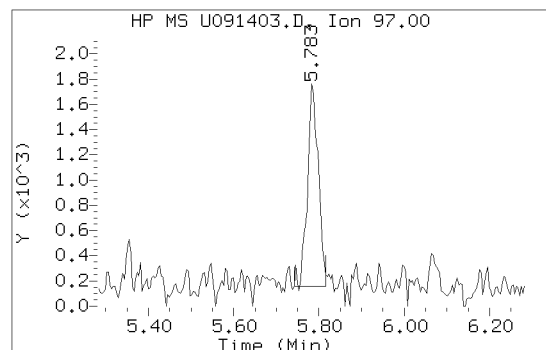
BEFORE

MASS
97
AREA
2892
HEIGHT
1606
18-Sep-2023
12:30
linh
pham



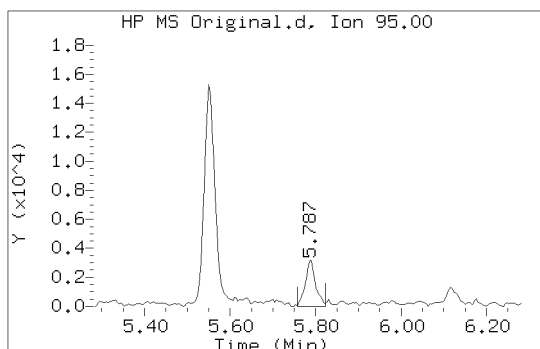
AFTER

MASS
97
AREA
2892
HEIGHT
1606
18-Sep-2023
12:30
linh
pham



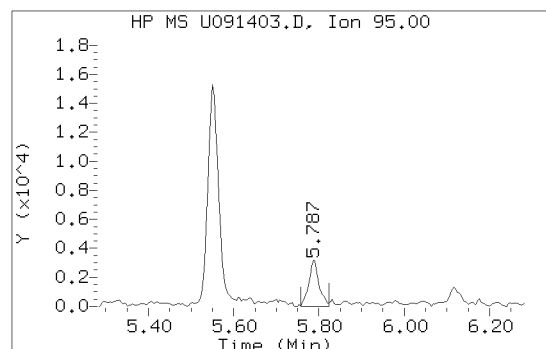
BEFORE

MASS
95
AREA
5465
HEIGHT
3194
18-Sep-2023
12:30
linh
pham



AFTER

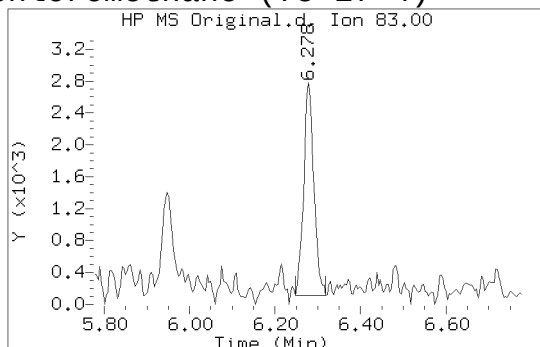
MASS
95
AREA
5465
HEIGHT
3194
18-Sep-2023
12:30
linh
pham



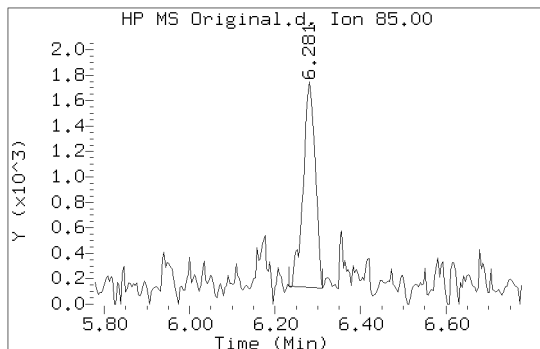
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Bromodichloromethane (75-27-4)**BEFORE**

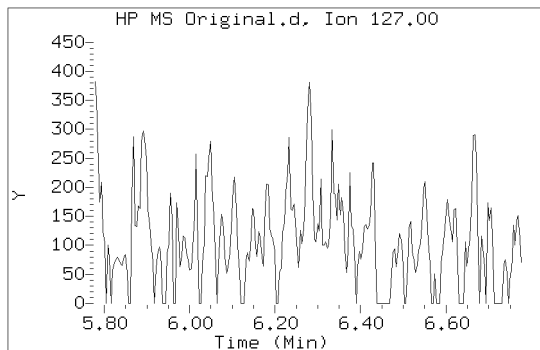
MASS
83
AREA
4490
HEIGHT
2669
18-Sep-2023
12:30
linh

**BEFORE**

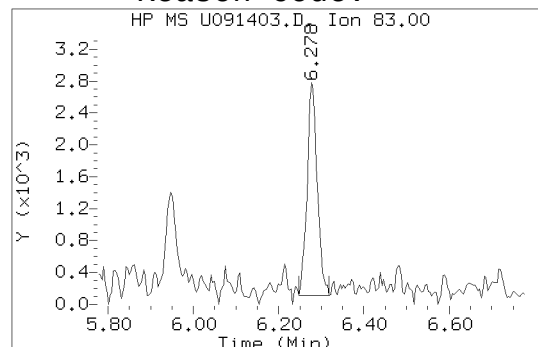
MASS
85
AREA
3201
HEIGHT
1615
18-Sep-2023
12:30
linh
pham

**BEFORE**

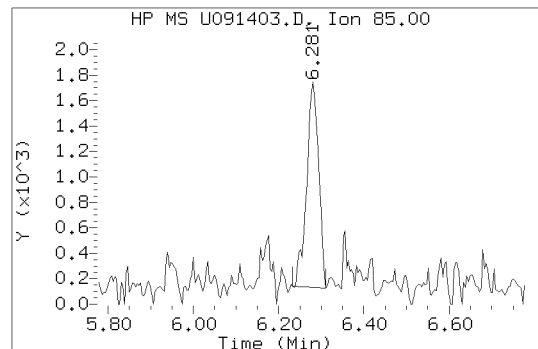
MASS
127
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham

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

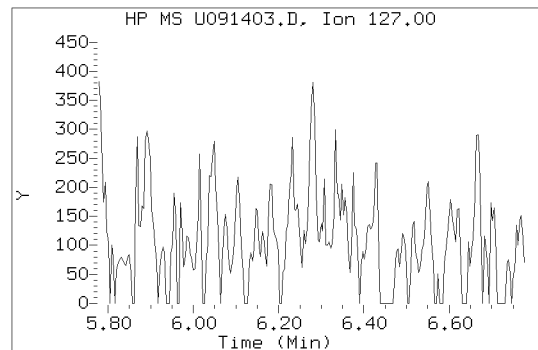
MASS
83
AREA
4490
HEIGHT
2669
18-Sep-2023
12:30
linh

**AFTER**

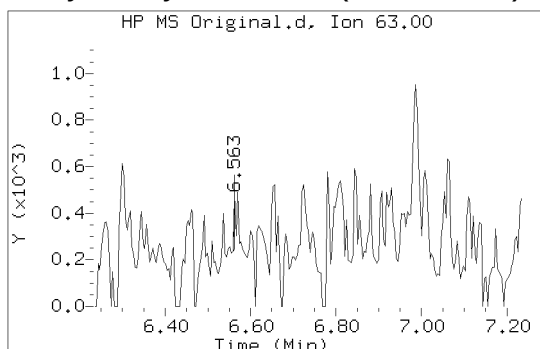
MASS
85
AREA
3201
HEIGHT
1615
18-Sep-2023
12:30
linh
pham

**AFTER**

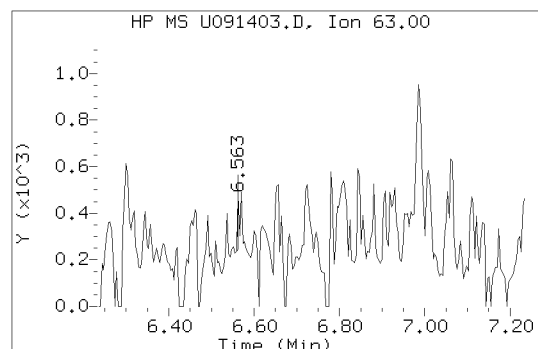
MASS
127
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham

**2-Chloroethylvinyl ether (110-75-8)****BEFORE**

MASS
63
AREA
53
HEIGHT
239
18-Sep-2023
12:30
linh
pham

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

MASS
63
AREA
53
HEIGHT
239
18-Sep-2023
12:30
linh
pham

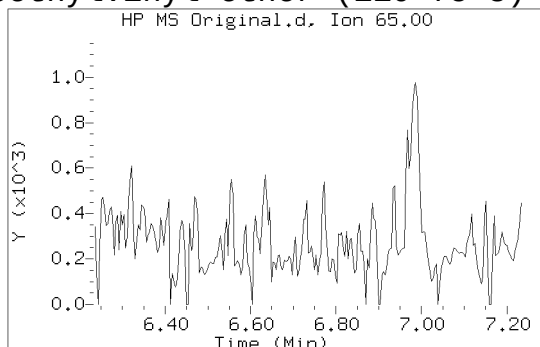


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

2-Chloroethylvinyl ether (110-75-8)

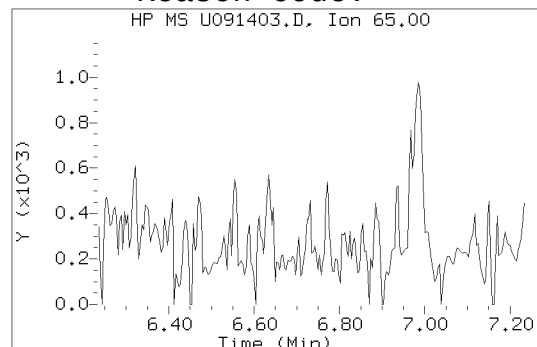
BEFORE

MASS
65
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh



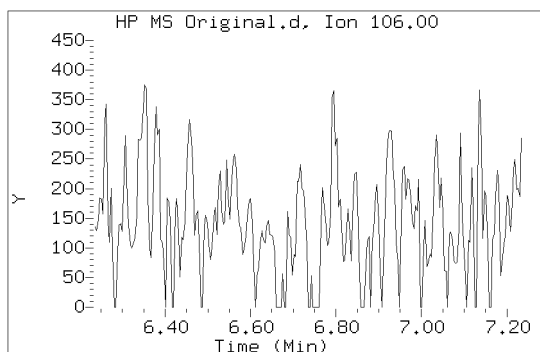
AFTER

MASS
65
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh



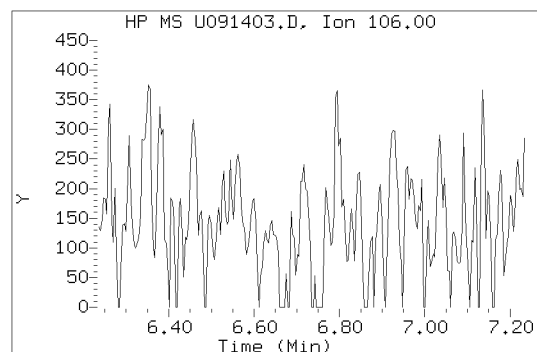
BEFORE

MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham



AFTER

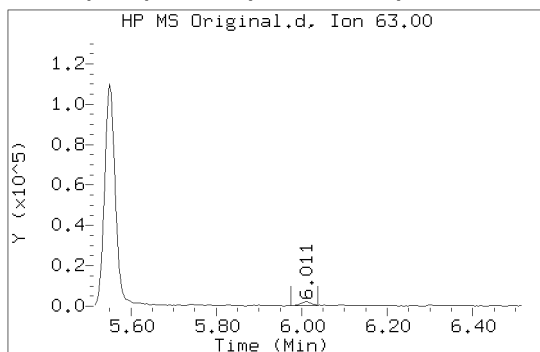
MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham



1,2-Dichloropropane (78-87-5)

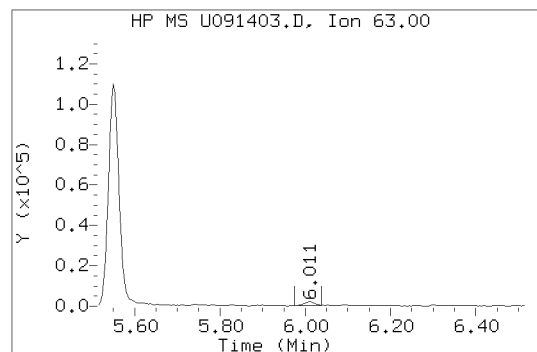
BEFORE

MASS
63
AREA
3309
HEIGHT
1990
18-Sep-2023
12:30
linh
pham



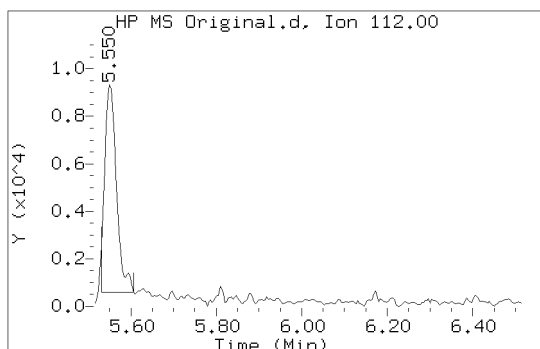
AFTER

MASS
63
AREA
3309
HEIGHT
1990
18-Sep-2023
12:30
linh
pham



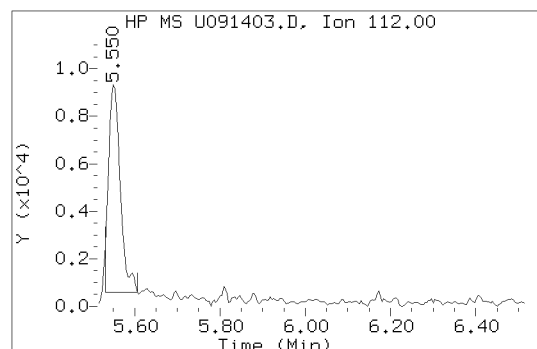
BEFORE

MASS
112
AREA
16878
HEIGHT
8745
18-Sep-2023
12:30
linh
pham



AFTER

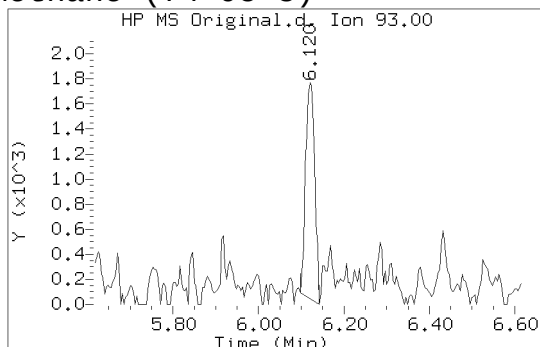
MASS
112
AREA
16878
HEIGHT
8745
18-Sep-2023
12:30
linh
pham



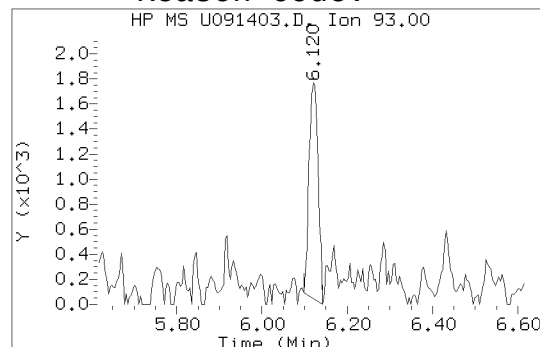
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Dibromomethane (74-95-3)**BEFORE**

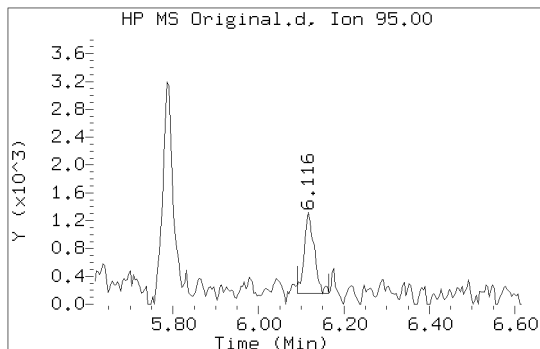
MASS
93
AREA
2627
HEIGHT
1725
18-Sep-2023
12:30
linh

**AFTER**

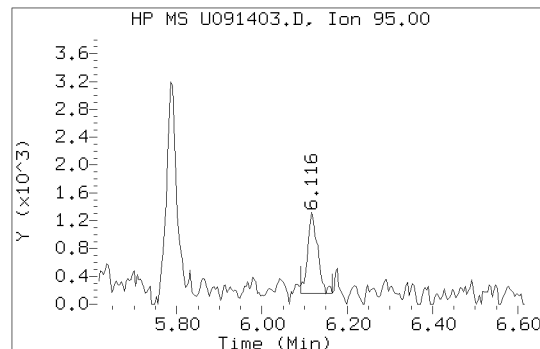
MASS
93
AREA
2627
HEIGHT
1725
18-Sep-2023
12:30
linh

**BEFORE**

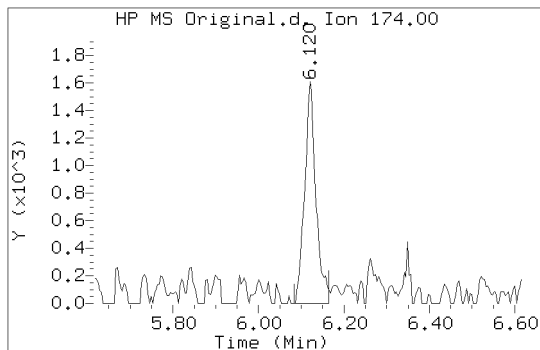
MASS
95
AREA
1958
HEIGHT
1167
18-Sep-2023
12:30
linh
pham

**AFTER**

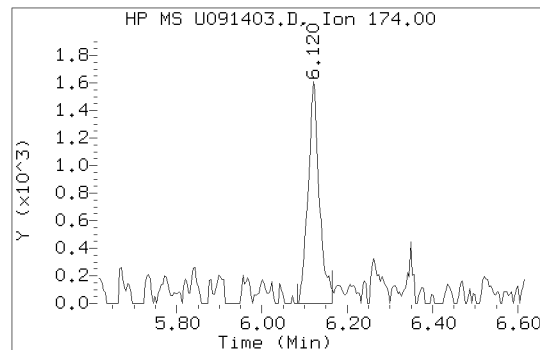
MASS
95
AREA
1958
HEIGHT
1167
18-Sep-2023
12:30
linh
pham

**BEFORE**

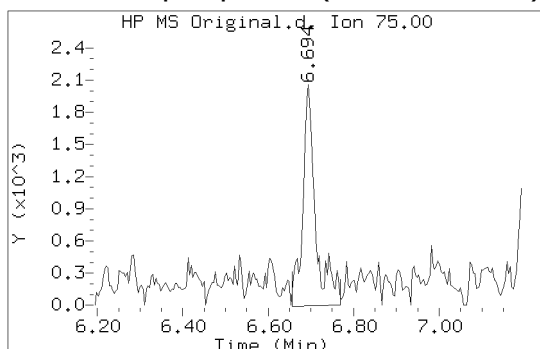
MASS
174
AREA
3013
HEIGHT
1609
18-Sep-2023
12:30
linh
pham

**AFTER**

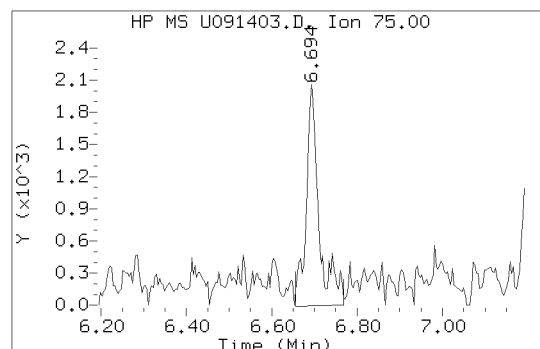
MASS
174
AREA
3013
HEIGHT
1609
18-Sep-2023
12:30
linh
pham

**cis-1,3-Dichloropropene (10061-01-5)****BEFORE**

MASS
75
AREA
4418
HEIGHT
2062
18-Sep-2023
12:30
linh
pham

**AFTER**

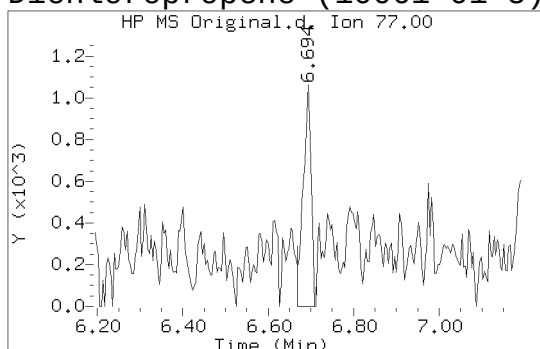
MASS
75
AREA
4418
HEIGHT
2062
18-Sep-2023
12:30
linh
pham



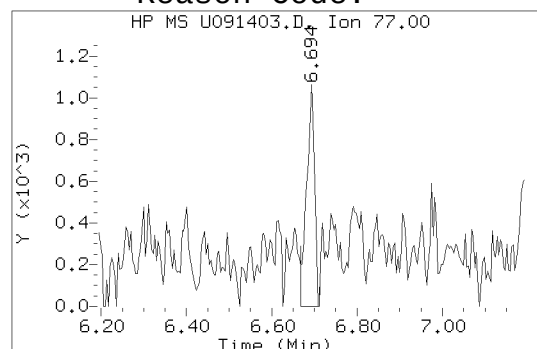
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

cis-1,3-Dichloropropene (10061-01-5)**BEFORE**

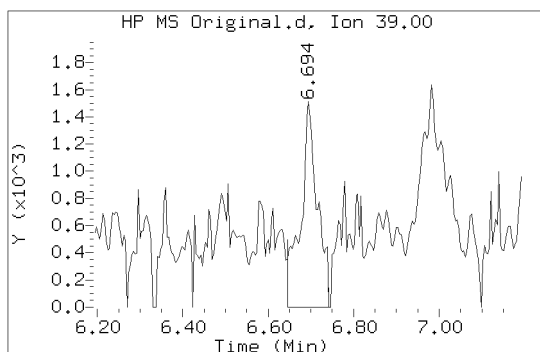
MASS
77
AREA
1433
HEIGHT
1063
18-Sep-2023
12:30
linh

**AFTER**

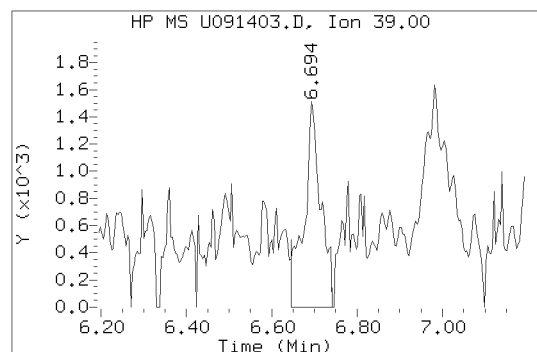
MASS
77
AREA
1433
HEIGHT
1063
18-Sep-2023
12:30
linh

Reason Code:**BEFORE**

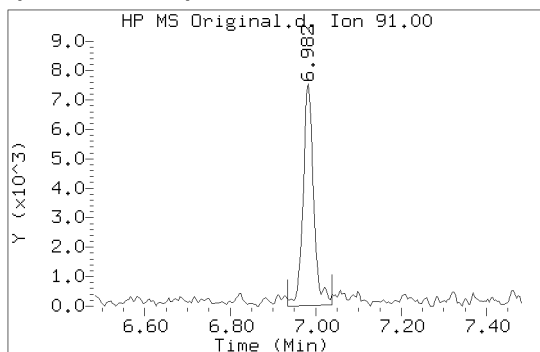
MASS
39
AREA
4202
HEIGHT
1514
18-Sep-2023
12:30
linh
pham

**AFTER**

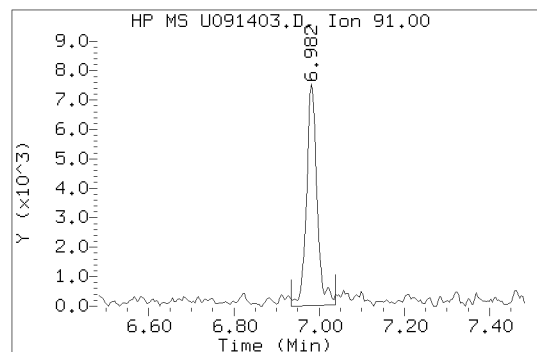
MASS
39
AREA
4202
HEIGHT
1514
18-Sep-2023
12:30
linh
pham

**Toluene (108-88-3)****BEFORE**

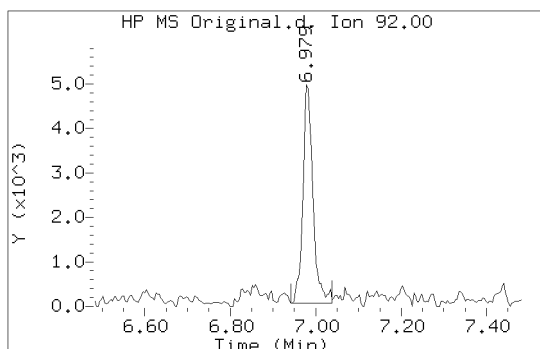
MASS
91
AREA
13250
HEIGHT
7524
18-Sep-2023
12:30
linh
pham

**AFTER**

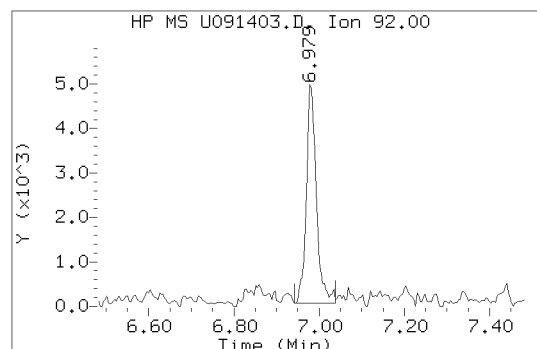
MASS
91
AREA
13250
HEIGHT
7524
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

MASS
92
AREA
8238
HEIGHT
4915
18-Sep-2023
12:30
linh
pham

**AFTER**

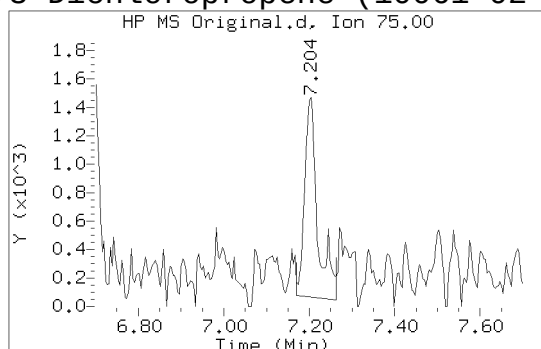
MASS
92
AREA
8238
HEIGHT
4915
18-Sep-2023
12:30
linh
pham



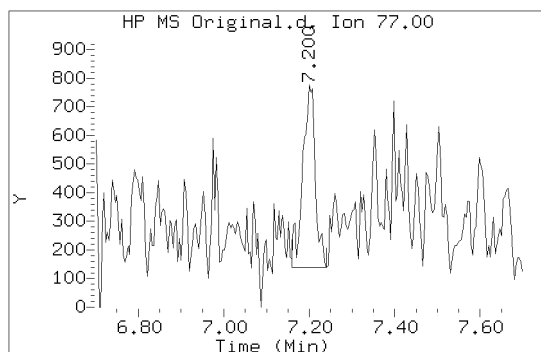
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

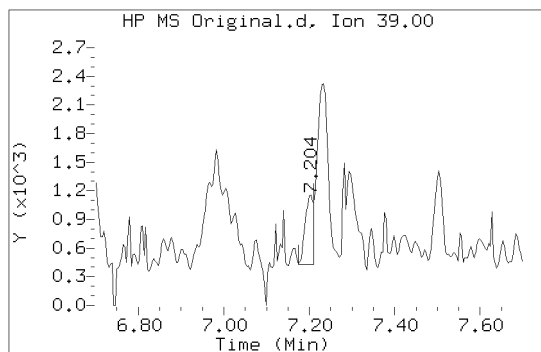
MASS
75
AREA
3003
HEIGHT
1406
18-Sep-2023
12:30
linh

**BEFORE**

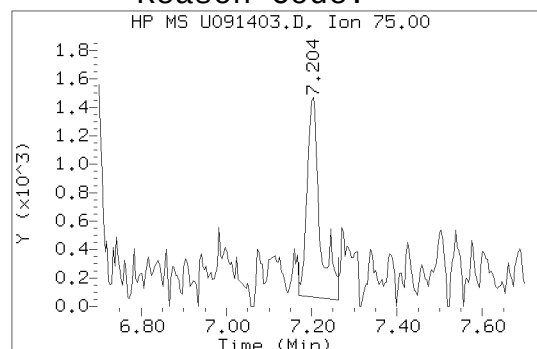
MASS
77
AREA
1328
HEIGHT
638
18-Sep-2023
12:30
linh
pham

**BEFORE**

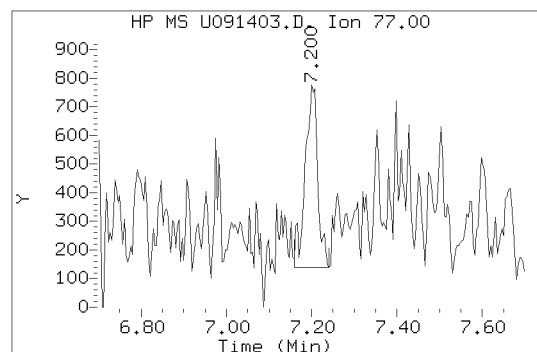
MASS
39
AREA
1030
HEIGHT
723
18-Sep-2023
12:30
linh
pham

**AFTER**

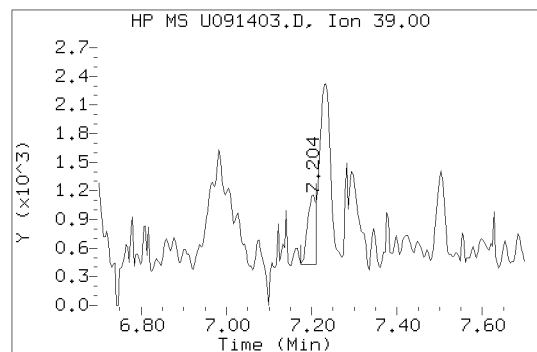
MASS
75
AREA
3003
HEIGHT
1406
18-Sep-2023
12:30
linh

**AFTER**

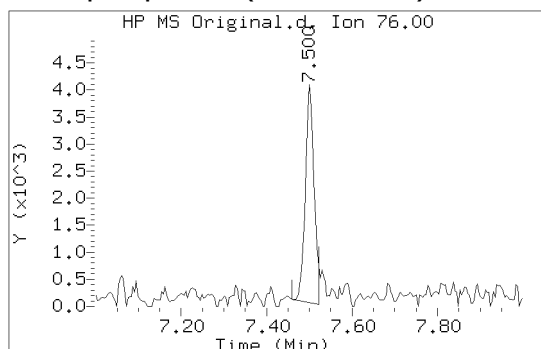
MASS
77
AREA
1328
HEIGHT
638
18-Sep-2023
12:30
linh
pham

**AFTER**

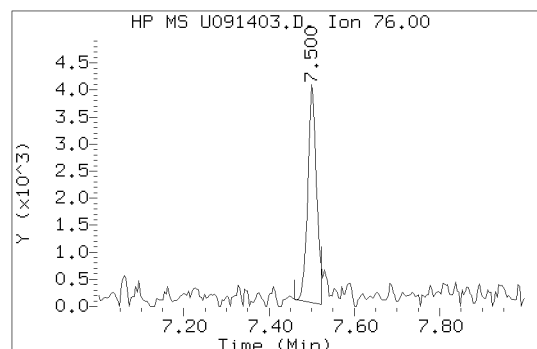
MASS
39
AREA
1030
HEIGHT
723
18-Sep-2023
12:30
linh
pham

**1,3-Dichloropropane (142-28-9)****BEFORE**

MASS
76
AREA
5881
HEIGHT
4027
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
76
AREA
5881
HEIGHT
4027
18-Sep-2023
12:30
linh
pham

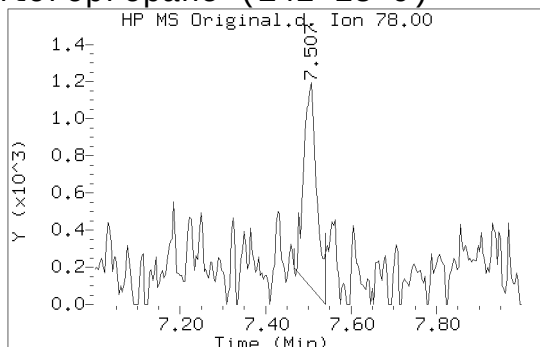


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1,3-Dichloropropane (142-28-9)

BEFORE

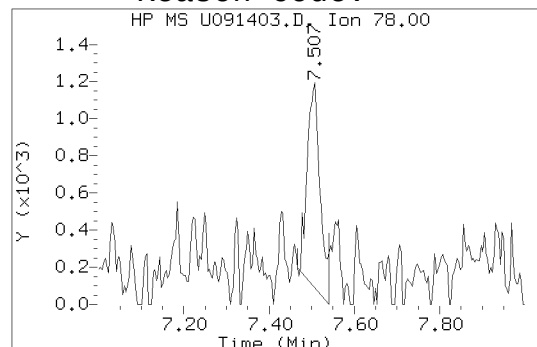
MASS
78
AREA
2367
HEIGHT
1105
18-Sep-2023
12:30
linh
pham



AFTER

MASS
78
AREA
2367
HEIGHT
1105
18-Sep-2023
12:30
linh
pham

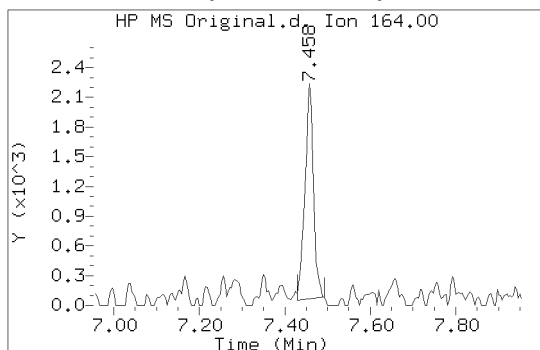
Reason Code:



Tetrachloroethene (127-18-4)

BEFORE

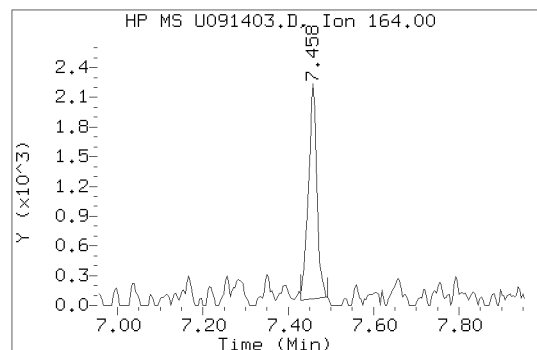
MASS
164
AREA
3084
HEIGHT
2170
18-Sep-2023
12:30
linh
pham



AFTER

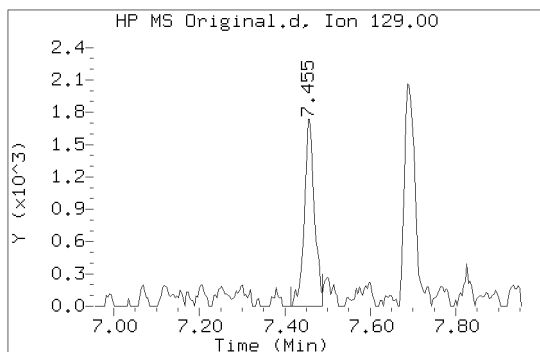
MASS
164
AREA
3084
HEIGHT
2170
18-Sep-2023
12:30
linh
pham

Reason Code:



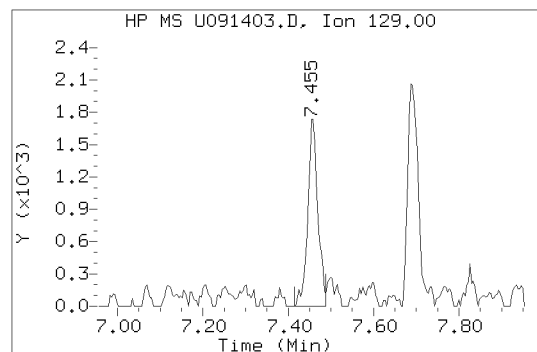
BEFORE

MASS
129
AREA
2929
HEIGHT
1733
18-Sep-2023
12:30
linh
pham



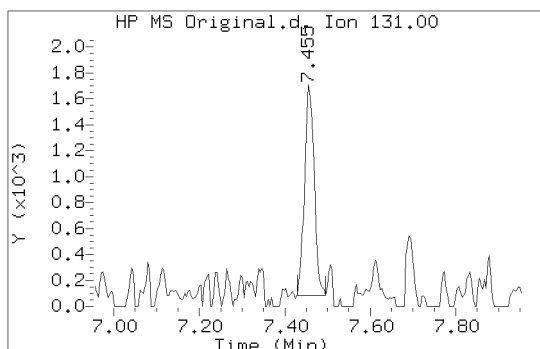
AFTER

MASS
129
AREA
2929
HEIGHT
1733
18-Sep-2023
12:30
linh
pham



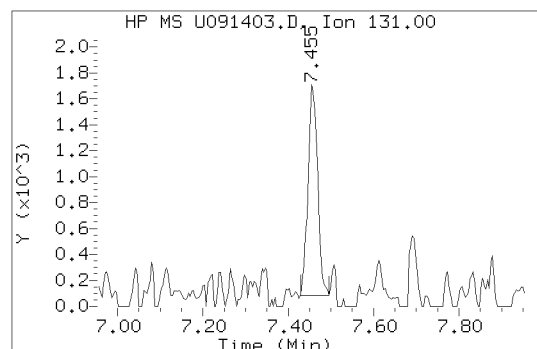
BEFORE

MASS
131
AREA
2616
HEIGHT
1625
18-Sep-2023
12:30
linh
pham



AFTER

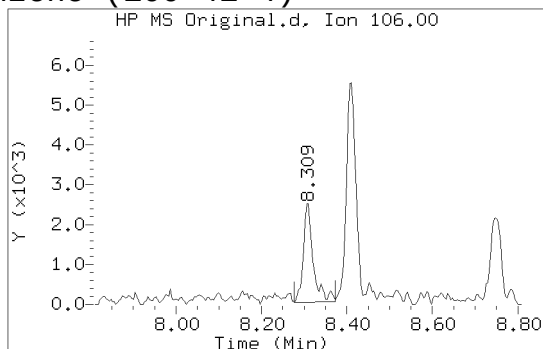
MASS
131
AREA
2616
HEIGHT
1625
18-Sep-2023
12:30
linh
pham



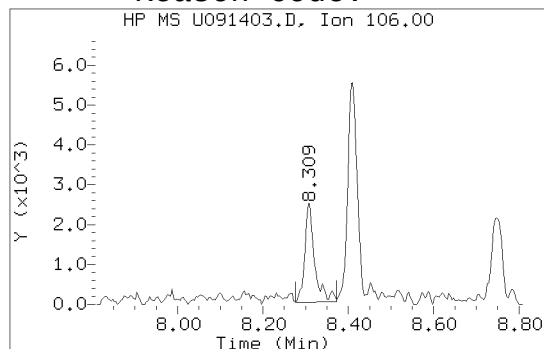
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Ethylbenzene (100-41-4)**BEFORE**

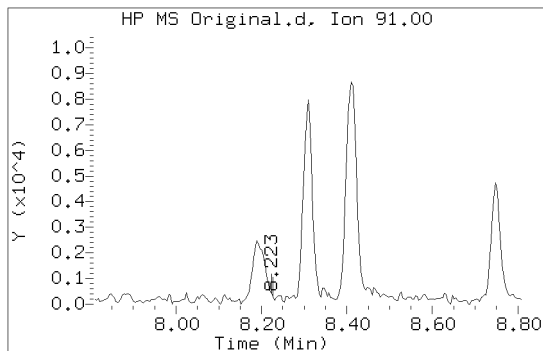
MASS
106
AREA
4115
HEIGHT
2465
18-Sep-2023
12:30
linh

**AFTER**

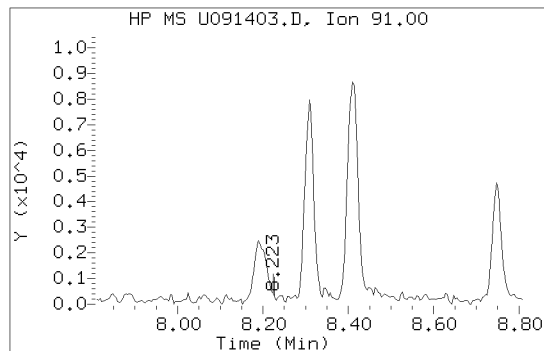
MASS
106
AREA
4115
HEIGHT
2465
18-Sep-2023
12:30
linh

**BEFORE**

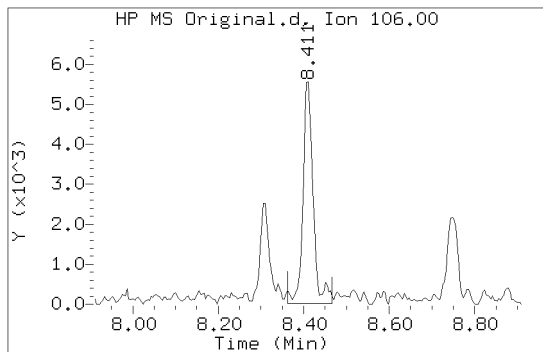
MASS
91
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham

**AFTER**

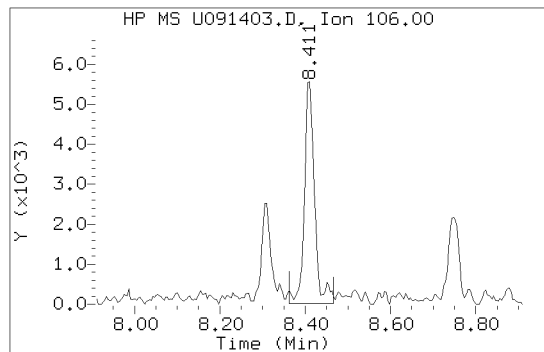
MASS
91
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham

**m,p-Xylenes ()****BEFORE**

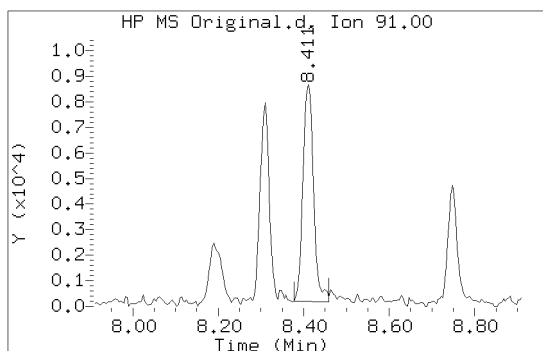
MASS
106
AREA
9427
HEIGHT
5551
18-Sep-2023
12:30
linh
pham

**AFTER**

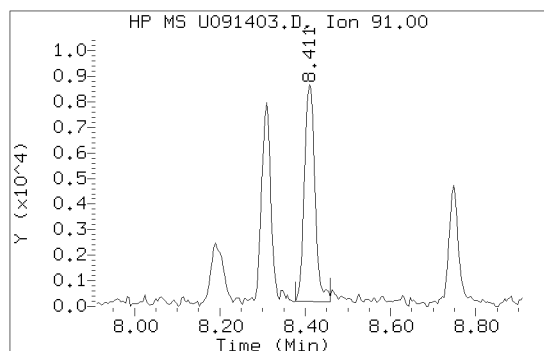
MASS
106
AREA
9427
HEIGHT
5551
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
91
AREA
15016
HEIGHT
8490
18-Sep-2023
12:30
linh
pham

**AFTER**

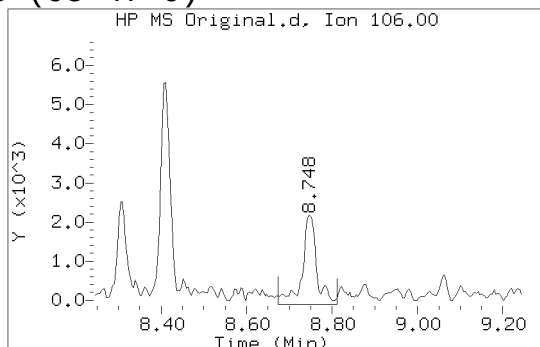
MASS
91
AREA
15016
HEIGHT
8490
18-Sep-2023
12:30
linh
pham



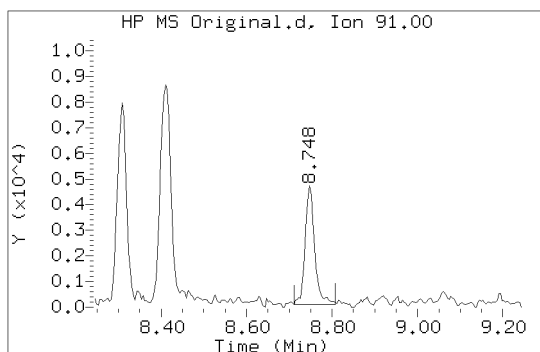
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

o-Xylene (95-47-6)**BEFORE**

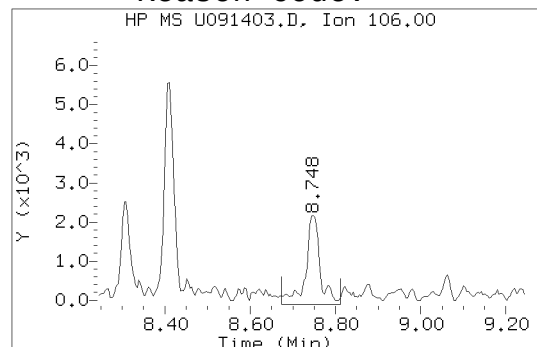
MASS
106
AREA
5517
HEIGHT
2284
18-Sep-2023
12:30
linh

**BEFORE**

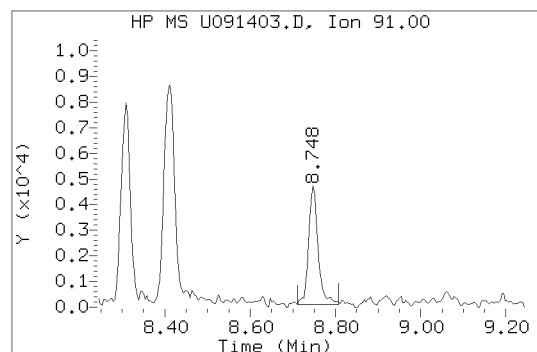
MASS
91
AREA
7272
HEIGHT
4637
18-Sep-2023
12:30
linh
pham

**AFTER**

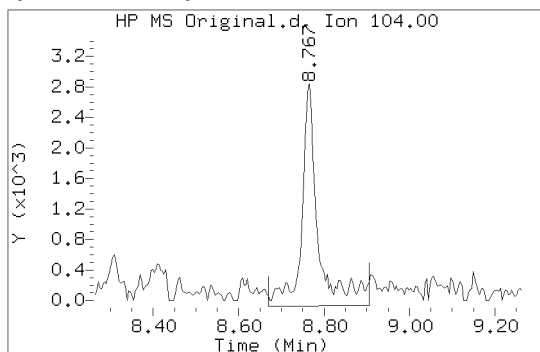
MASS
106
AREA
5517
HEIGHT
2284
18-Sep-2023
12:30
linh

**AFTER**

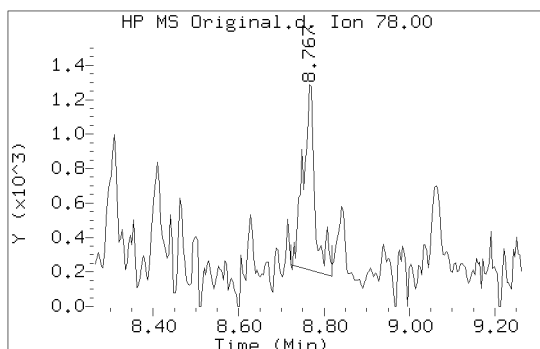
MASS
91
AREA
7272
HEIGHT
4637
18-Sep-2023
12:30
linh
pham

**Styrene (100-42-5)****BEFORE**

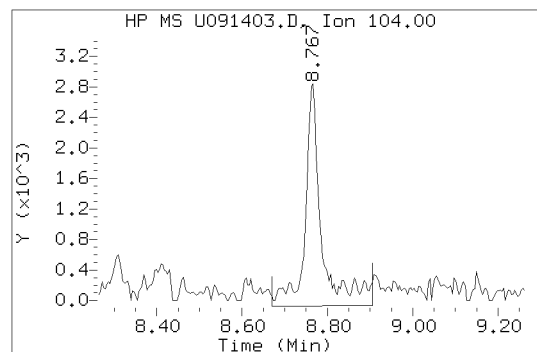
MASS
104
AREA
8005
HEIGHT
2909
18-Sep-2023
12:30
linh
pham

**BEFORE**

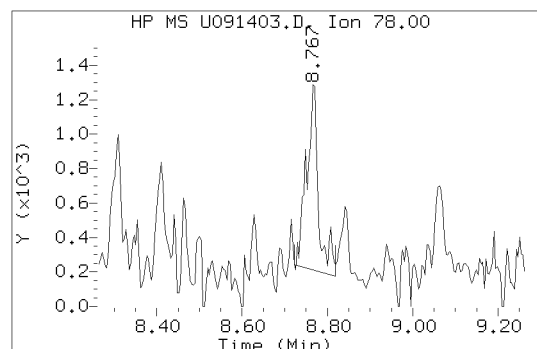
MASS
78
AREA
2114
HEIGHT
1076
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
104
AREA
8005
HEIGHT
2909
18-Sep-2023
12:30
linh
pham

**AFTER**

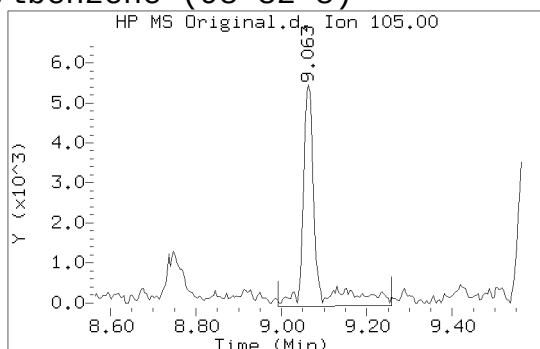
MASS
78
AREA
2114
HEIGHT
1076
18-Sep-2023
12:30
linh
pham



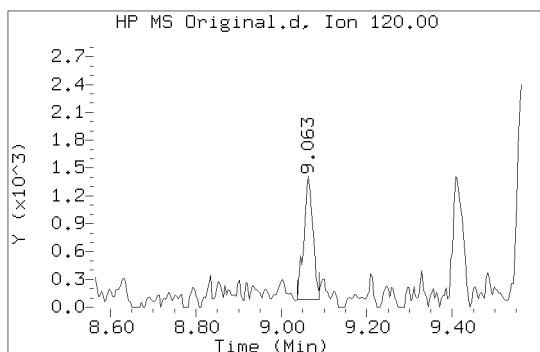
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Isopropylbenzene (98-82-8)**BEFORE**

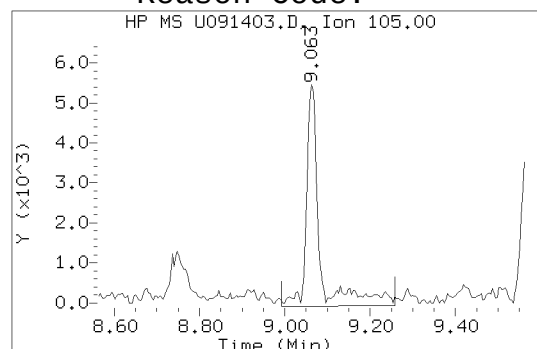
MASS
105
AREA
12158
HEIGHT
5539
18-Sep-2023
12:30
linh

**BEFORE**

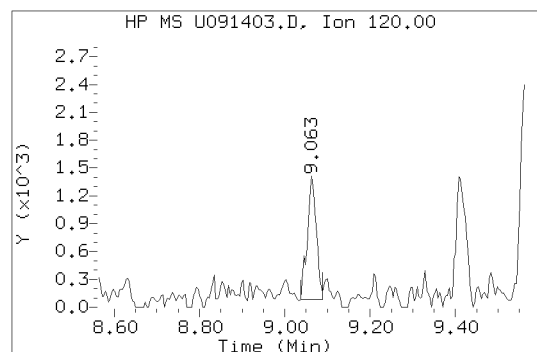
MASS
120
AREA
2003
HEIGHT
1331
18-Sep-2023
12:30
linh
pham

**AFTER**

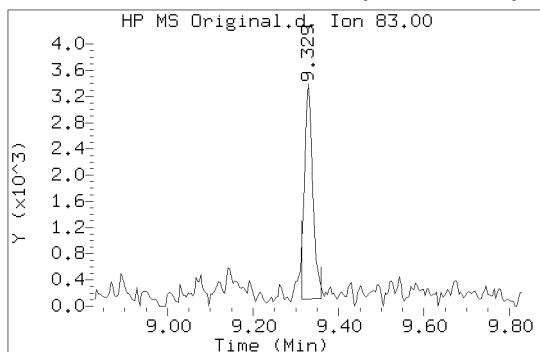
MASS
105
AREA
12158
HEIGHT
5539
18-Sep-2023
12:30
linh

**AFTER**

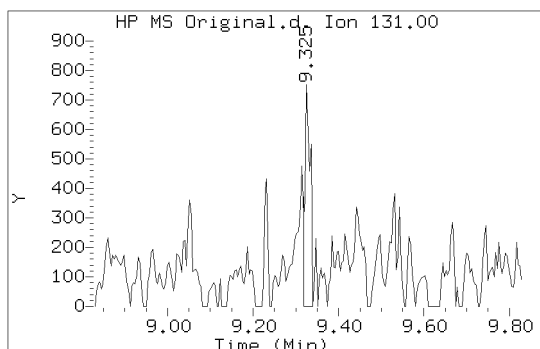
MASS
120
AREA
2003
HEIGHT
1331
18-Sep-2023
12:30
linh
pham

**Reason Code:****1,1,2,2-Tetrachloroethane (79-34-5)****BEFORE**

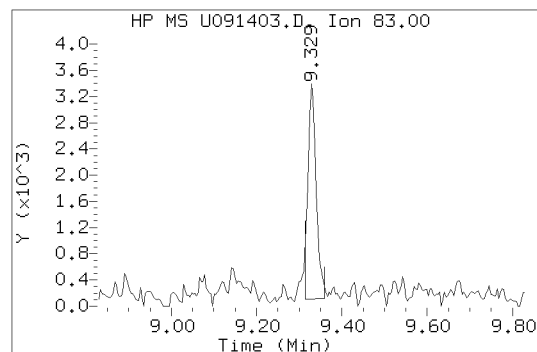
MASS
83
AREA
4530
HEIGHT
3283
18-Sep-2023
12:30
linh
pham

**BEFORE**

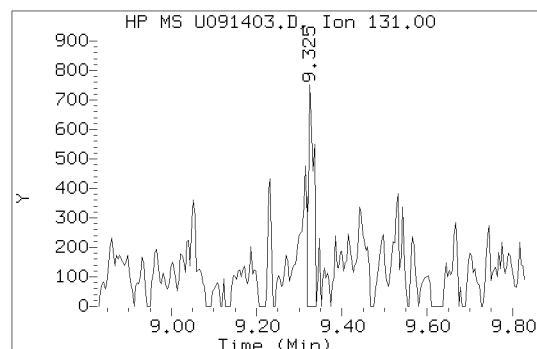
MASS
131
AREA
677
HEIGHT
752
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
83
AREA
4530
HEIGHT
3283
18-Sep-2023
12:30
linh
pham

**AFTER**

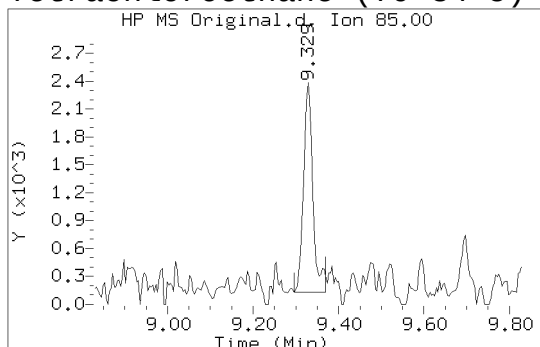
MASS
131
AREA
677
HEIGHT
752
18-Sep-2023
12:30
linh
pham

**Reason Code:**

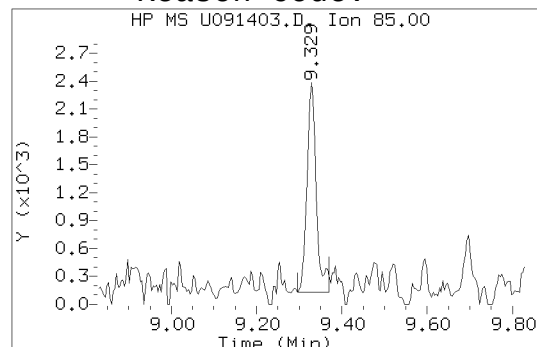
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

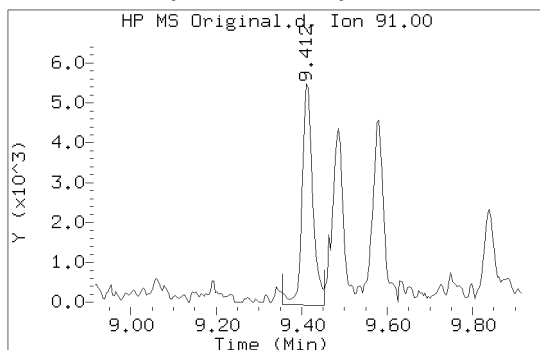
MASS
85
AREA
3496
HEIGHT
2256
18-Sep-2023
12:30
linh
pham

**AFTER**

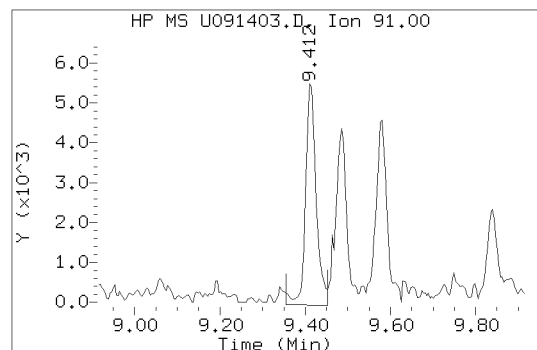
MASS
85
AREA
3496
HEIGHT
2256
18-Sep-2023
12:30
linh
pham

Reason Code:**n-Propylbenzene (106-65-1)****BEFORE**

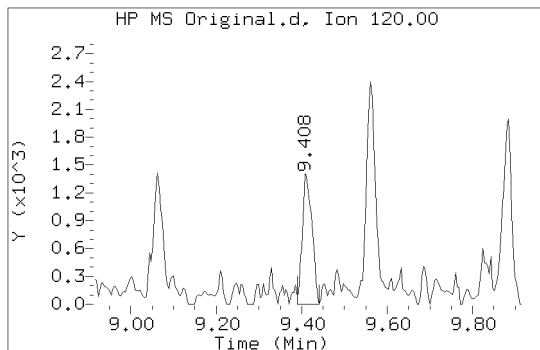
MASS
91
AREA
9893
HEIGHT
5551
18-Sep-2023
12:30
linh
pham

**AFTER**

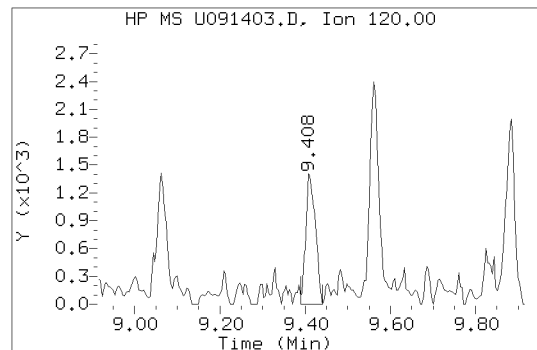
MASS
91
AREA
9893
HEIGHT
5551
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

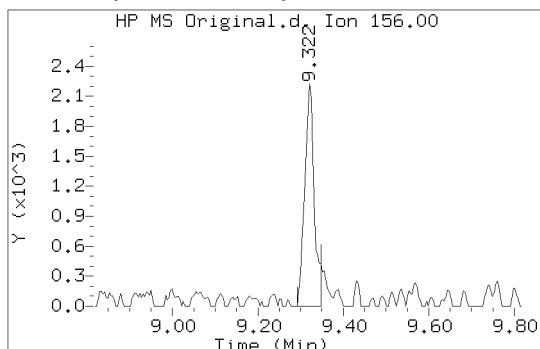
MASS
120
AREA
2270
HEIGHT
1403
18-Sep-2023
12:30
linh
pham

**AFTER**

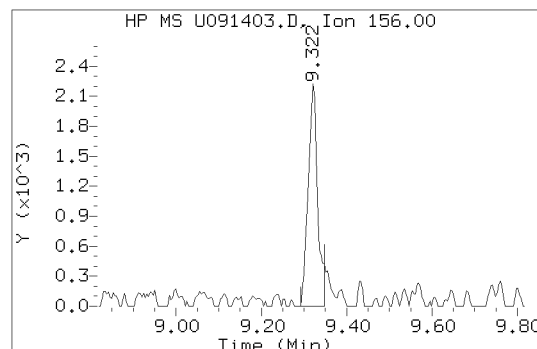
MASS
120
AREA
2270
HEIGHT
1403
18-Sep-2023
12:30
linh
pham

**Bromobenzene (108-86-1)****BEFORE**

MASS
156
AREA
3486
HEIGHT
2224
18-Sep-2023
12:30
linh
pham

**AFTER**

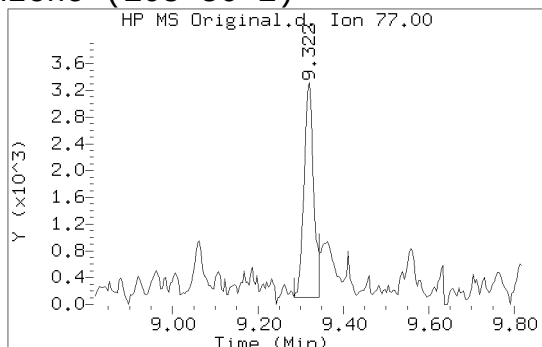
MASS
156
AREA
3486
HEIGHT
2224
18-Sep-2023
12:30
linh
pham

Reason Code:

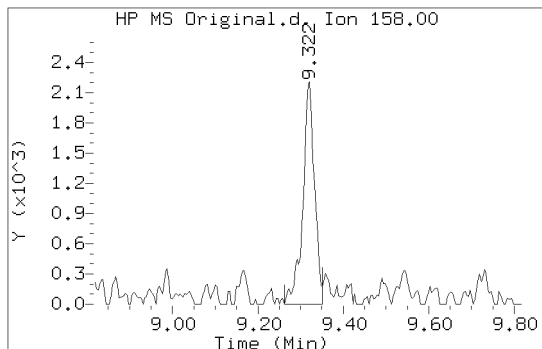
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Bromobenzene (108-86-1)**BEFORE**

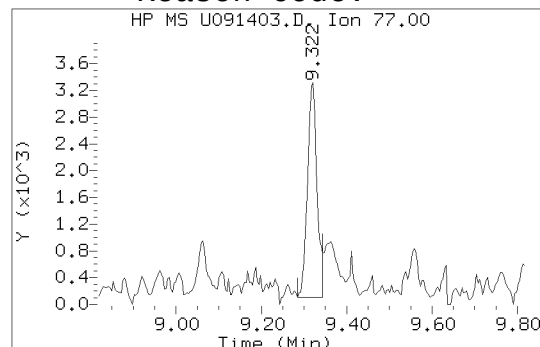
MASS
77
AREA
5111
HEIGHT
3204
18-Sep-2023
12:30
linh

**BEFORE**

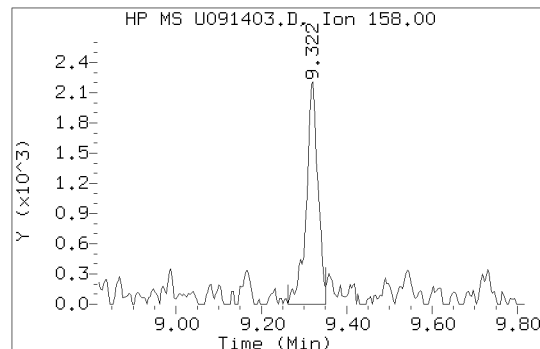
MASS
158
AREA
4263
HEIGHT
2208
18-Sep-2023
12:30
linh
pham

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

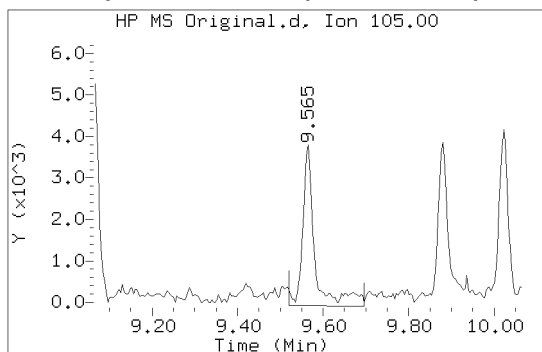
MASS
77
AREA
5111
HEIGHT
3204
18-Sep-2023
12:30
linh

**AFTER**

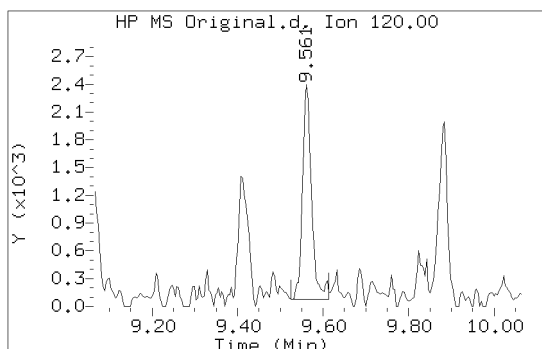
MASS
158
AREA
4263
HEIGHT
2208
18-Sep-2023
12:30
linh
pham

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

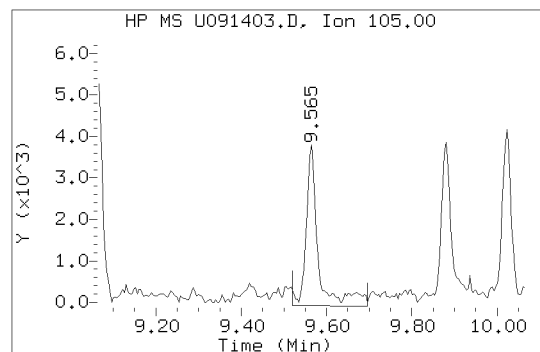
MASS
105
AREA
7718
HEIGHT
3866
18-Sep-2023
12:30
linh
pham

**BEFORE**

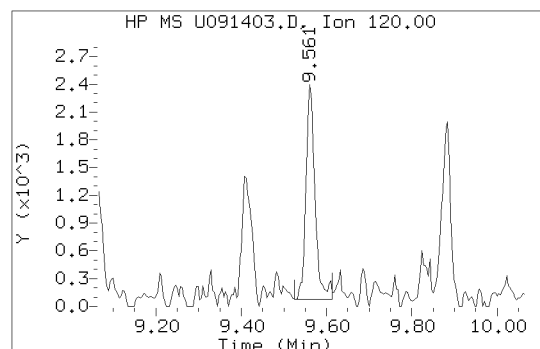
MASS
120
AREA
3516
HEIGHT
2319
18-Sep-2023
12:30
linh
pham

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

MASS
105
AREA
7718
HEIGHT
3866
18-Sep-2023
12:30
linh
pham

**AFTER**

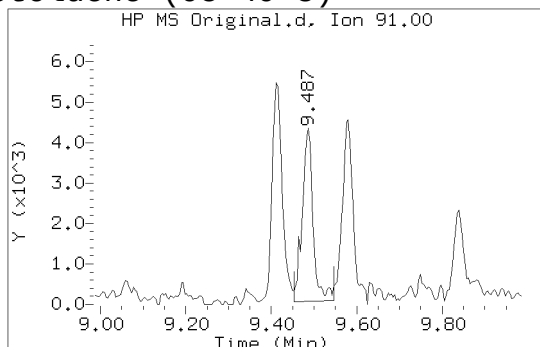
MASS
120
AREA
3516
HEIGHT
2319
18-Sep-2023
12:30
linh
pham



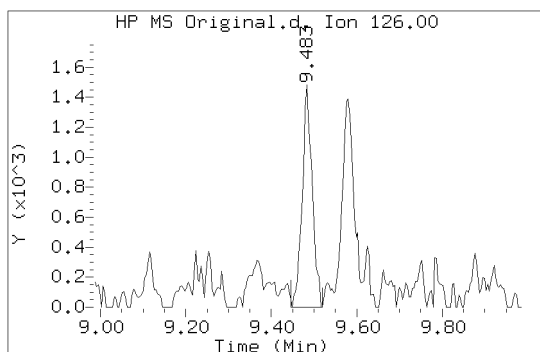
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

2-Chlorotoluene (95-49-8)**BEFORE**

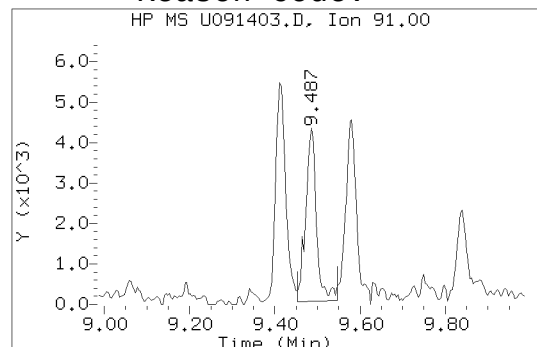
MASS
91
AREA
7768
HEIGHT
4287
18-Sep-2023
12:30
linh

**BEFORE**

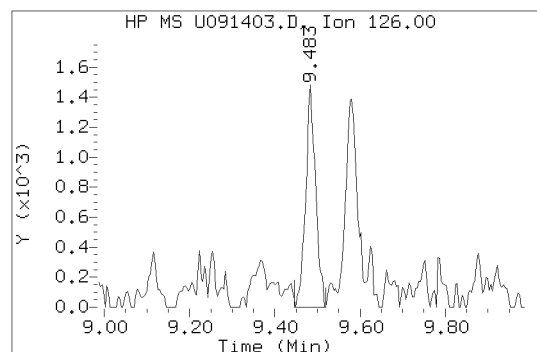
MASS
126
AREA
2440
HEIGHT
1482
18-Sep-2023
12:30
linh
pham

**AFTER**

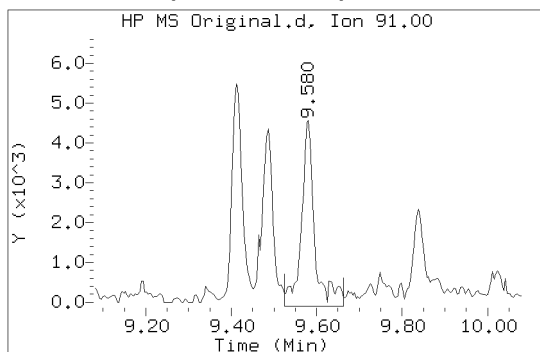
MASS
91
AREA
7768
HEIGHT
4287
18-Sep-2023
12:30
linh

**AFTER**

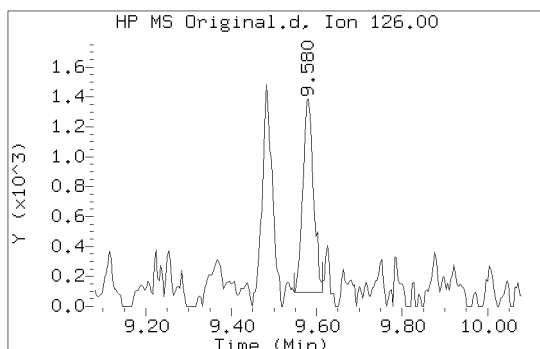
MASS
126
AREA
2440
HEIGHT
1482
18-Sep-2023
12:30
linh
pham

**4-Chlorotoluene (106-43-4)****BEFORE**

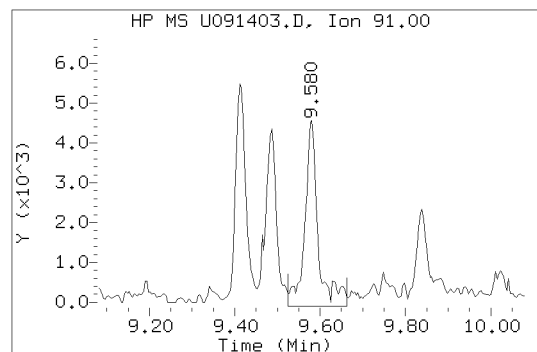
MASS
91
AREA
10329
HEIGHT
4669
18-Sep-2023
12:30
linh
pham

**BEFORE**

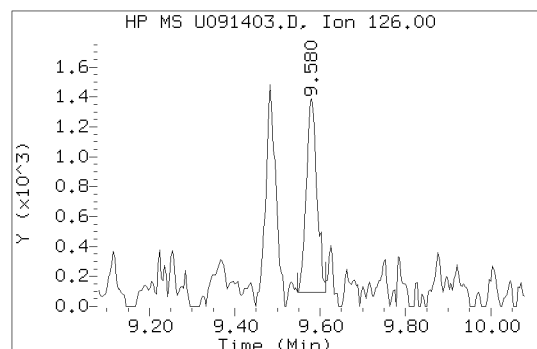
MASS
126
AREA
2282
HEIGHT
1295
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
91
AREA
10329
HEIGHT
4669
18-Sep-2023
12:30
linh
pham

**AFTER**

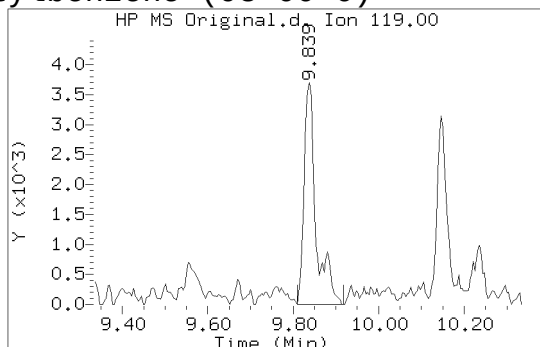
MASS
126
AREA
2282
HEIGHT
1295
18-Sep-2023
12:30
linh
pham



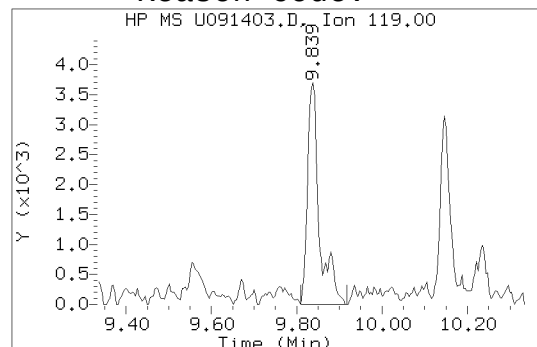
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

tert-Butylbenzene (98-06-6)**BEFORE**

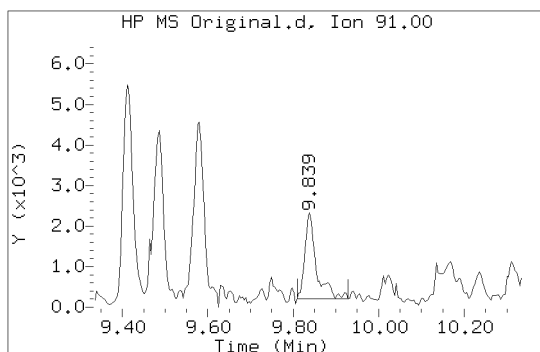
MASS
119
AREA
7286
HEIGHT
3699
18-Sep-2023
12:30
linh
pham

**AFTER**

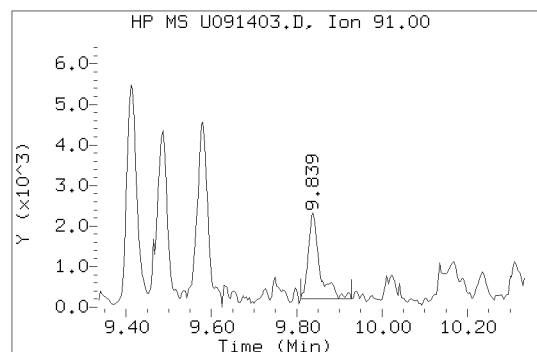
MASS
119
AREA
7286
HEIGHT
3699
18-Sep-2023
12:30
linh
pham

**BEFORE**

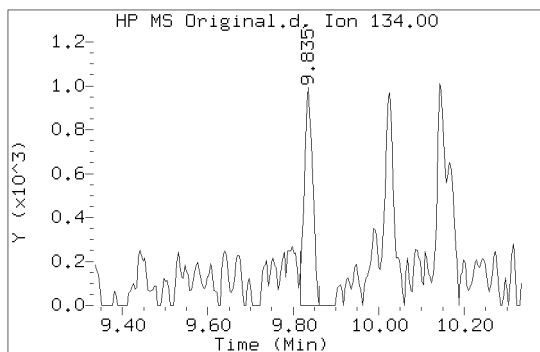
MASS
91
AREA
4023
HEIGHT
2123
18-Sep-2023
12:30
linh
pham

**AFTER**

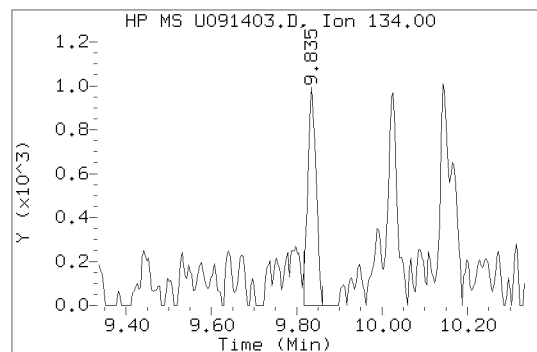
MASS
91
AREA
4023
HEIGHT
2123
18-Sep-2023
12:30
linh
pham

**BEFORE**

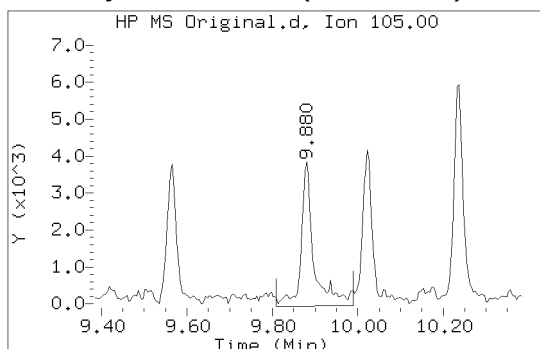
MASS
134
AREA
1409
HEIGHT
994
18-Sep-2023
12:30
linh
pham

**AFTER**

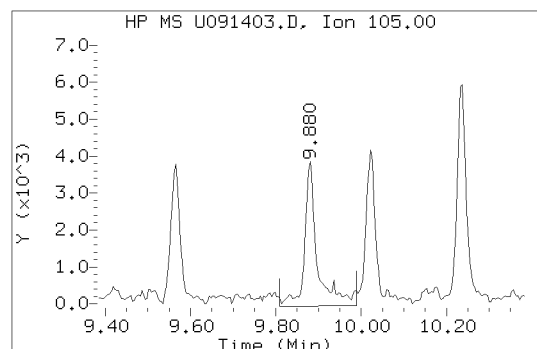
MASS
134
AREA
1409
HEIGHT
994
18-Sep-2023
12:30
linh
pham

**1,2,4-Trimethylbenzene (95-63-6)****BEFORE**

MASS
105
AREA
8406
HEIGHT
3915
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
105
AREA
8406
HEIGHT
3915
18-Sep-2023
12:30
linh
pham

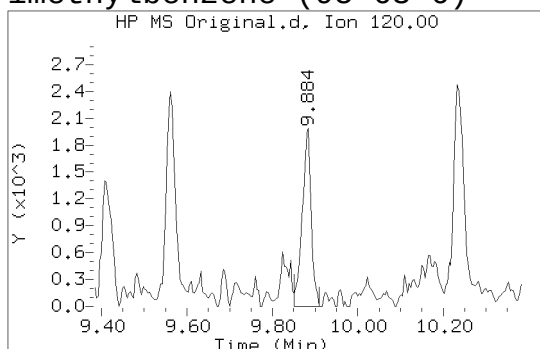


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1,2,4-Trimethylbenzene (95-63-6)

BEFORE

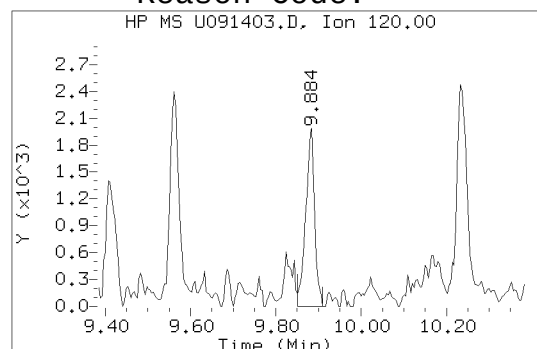
MASS
120
AREA
2962
HEIGHT
1993
18-Sep-2023
12:30
linh
pham



AFTER

MASS
120
AREA
2962
HEIGHT
1993
18-Sep-2023
12:30
linh
pham

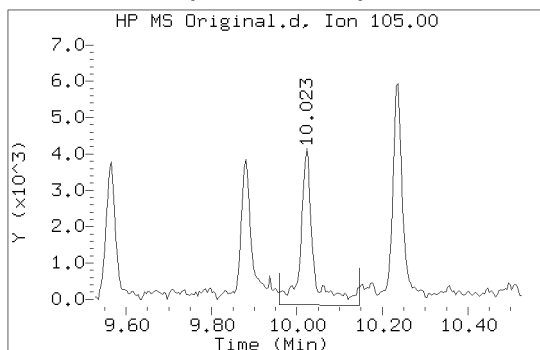
Reason Code:



sec-Butylbenzene (135-98-8)

BEFORE

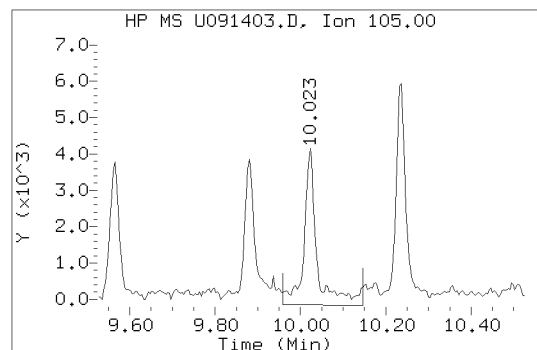
MASS
105
AREA
9443
HEIGHT
4309
18-Sep-2023
12:30
linh
pham



AFTER

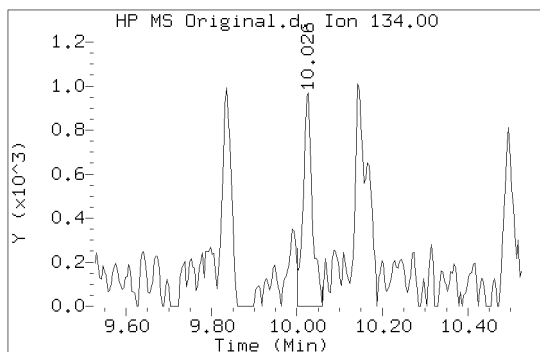
MASS
105
AREA
9443
HEIGHT
4309
18-Sep-2023
12:30
linh
pham

Reason Code:



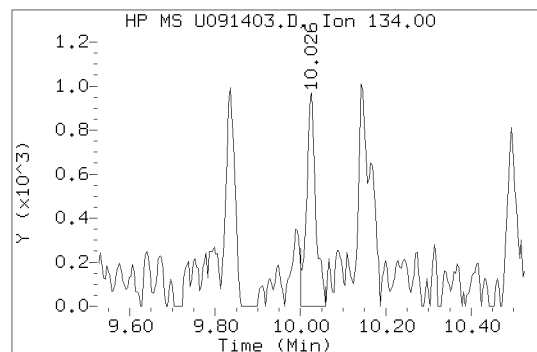
BEFORE

MASS
134
AREA
1500
HEIGHT
970
18-Sep-2023
12:30
linh
pham



AFTER

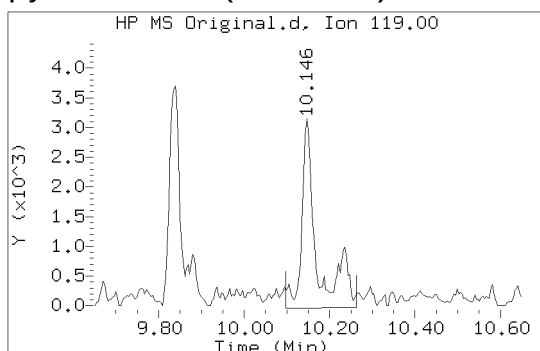
MASS
134
AREA
1500
HEIGHT
970
18-Sep-2023
12:30
linh
pham



p-Isopropyltoluene (99-87-6)

BEFORE

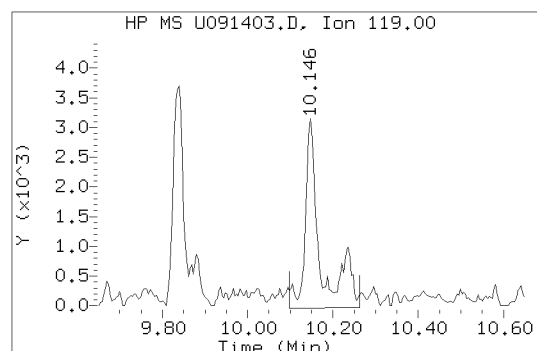
MASS
119
AREA
7845
HEIGHT
3180
18-Sep-2023
12:30
linh
pham



AFTER

MASS
119
AREA
7845
HEIGHT
3180
18-Sep-2023
12:30
linh
pham

Reason Code:

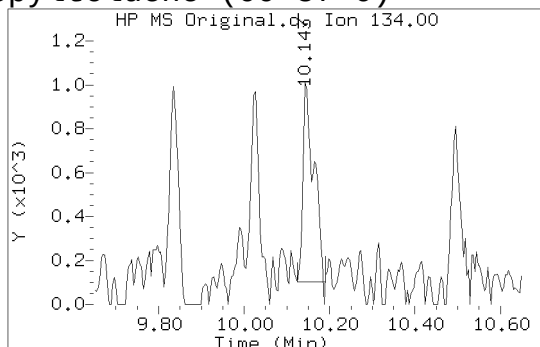


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

p-Isopropyltoluene (99-87-6)

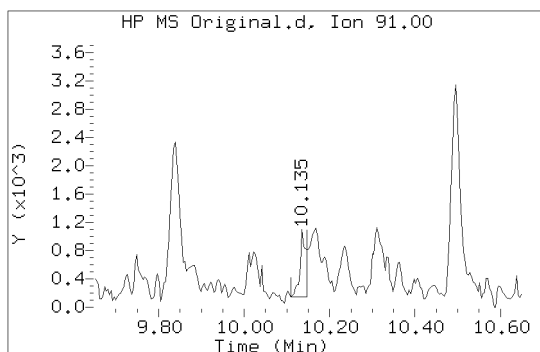
BEFORE

MASS
134
AREA
1607
HEIGHT
908
18-Sep-2023
12:30
linh



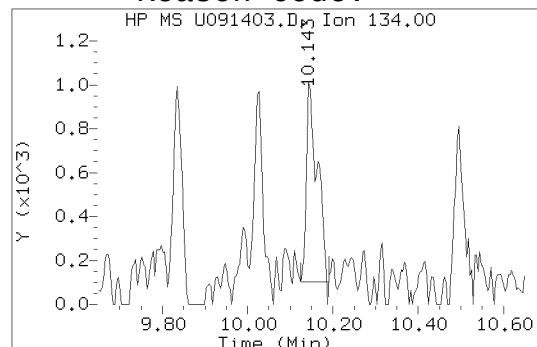
BEFORE

MASS
91
AREA
898
HEIGHT
951
18-Sep-2023
12:30
linh
pham



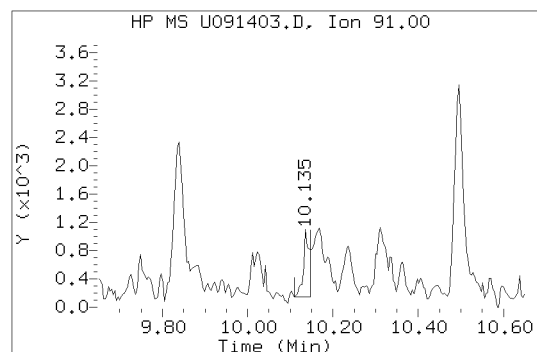
AFTER

MASS
134
AREA
1607
HEIGHT
908
18-Sep-2023
12:30
linh



AFTER

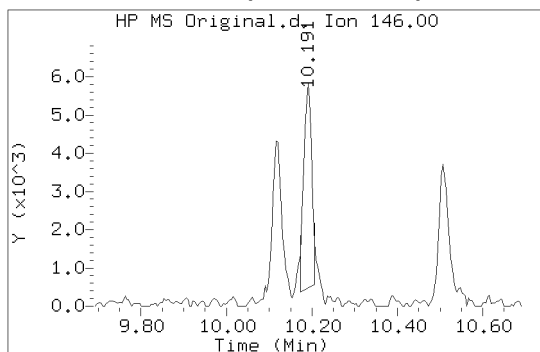
MASS
91
AREA
898
HEIGHT
951
18-Sep-2023
12:30
linh
pham



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

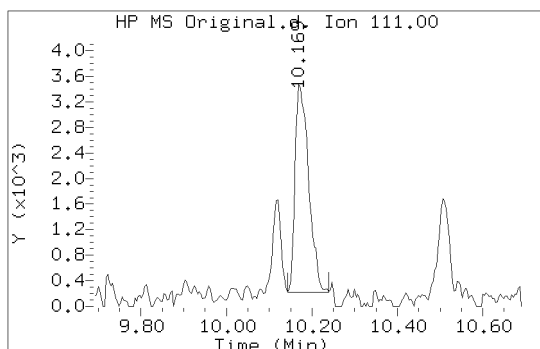
BEFORE

MASS
146
AREA
7315
HEIGHT
5331
18-Sep-2023
12:30
linh
pham



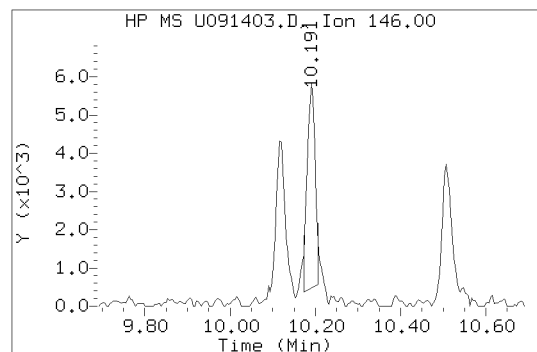
BEFORE

MASS
111
AREA
7250
HEIGHT
3248
18-Sep-2023
12:30
linh
pham



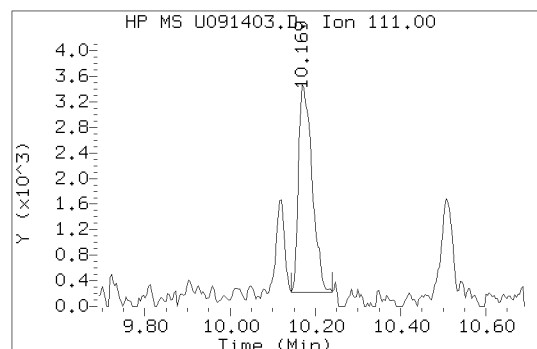
AFTER

MASS
146
AREA
7315
HEIGHT
5331
18-Sep-2023
12:30
linh
pham



AFTER

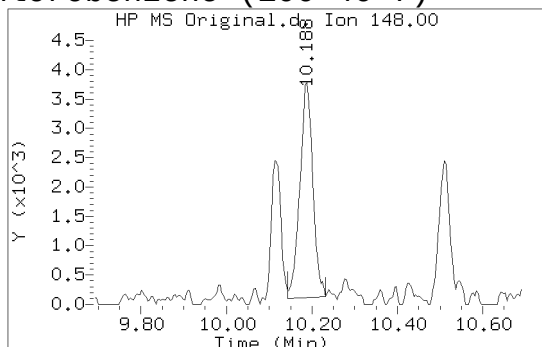
MASS
111
AREA
7250
HEIGHT
3248
18-Sep-2023
12:30
linh
pham



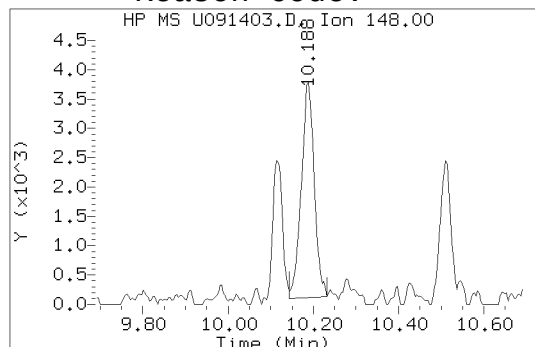
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

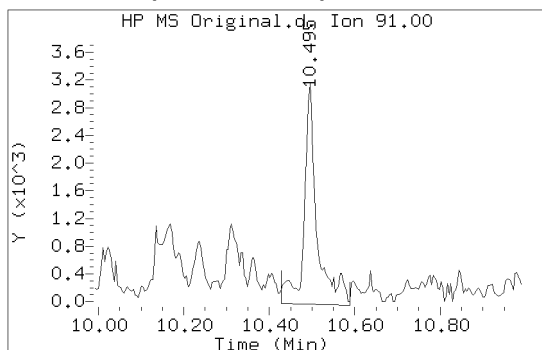
MASS
148
AREA
7869
HEIGHT
3662
18-Sep-2023
12:30
linh
pham

**AFTER**

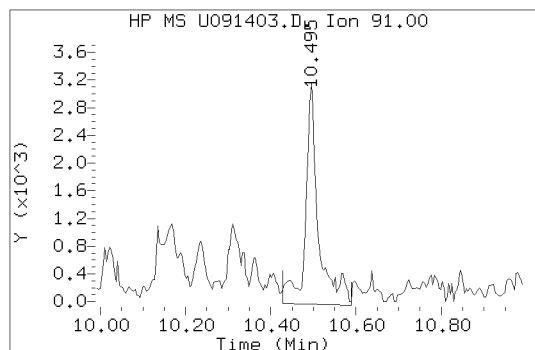
MASS
148
AREA
7869
HEIGHT
3662
18-Sep-2023
12:30
linh
pham

Reason Code:**n-Butylbenzene (104-51-8)****BEFORE**

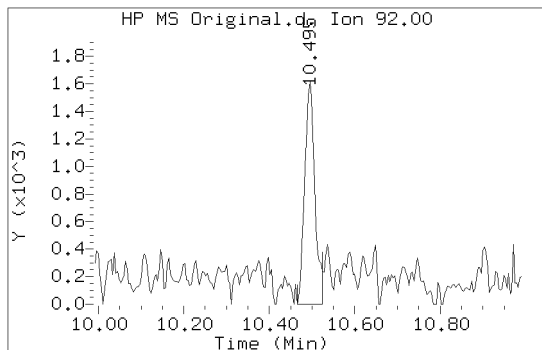
MASS
91
AREA
6875
HEIGHT
3187
18-Sep-2023
12:30
linh
pham

**AFTER**

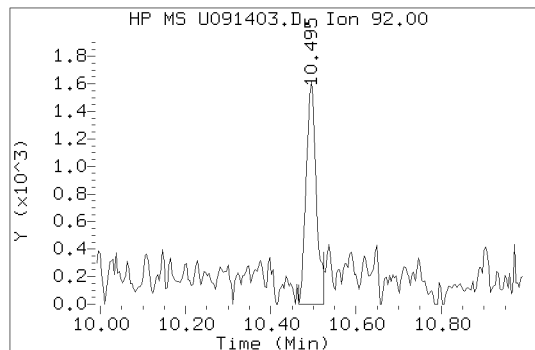
MASS
91
AREA
6875
HEIGHT
3187
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

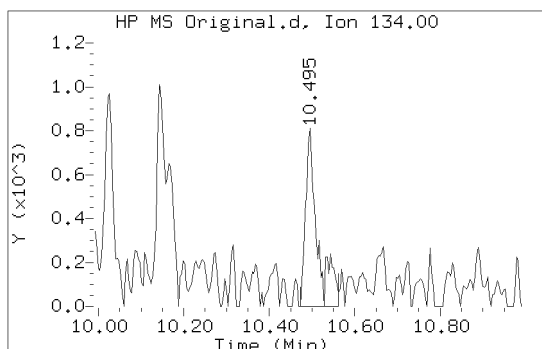
MASS
92
AREA
2737
HEIGHT
1614
18-Sep-2023
12:30
linh
pham

**AFTER**

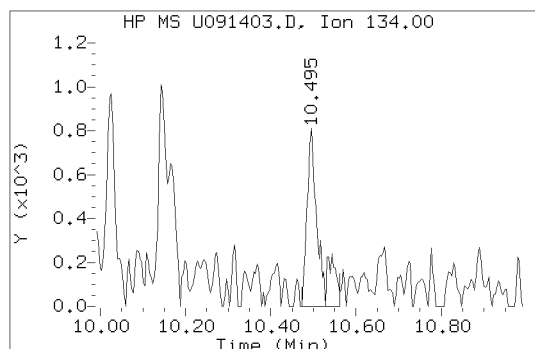
MASS
92
AREA
2737
HEIGHT
1614
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
134
AREA
1609
HEIGHT
813
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
134
AREA
1609
HEIGHT
813
18-Sep-2023
12:30
linh
pham

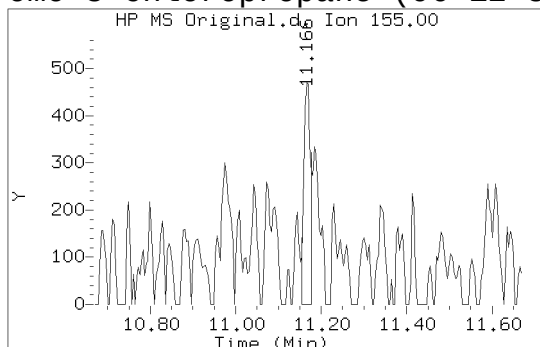


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

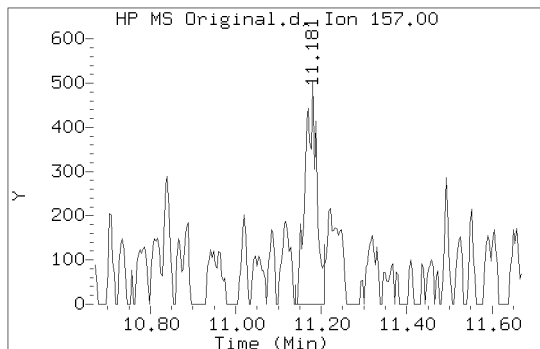
BEFORE

MASS
155
AREA
527
HEIGHT
470
18-Sep-2023
12:30
linh



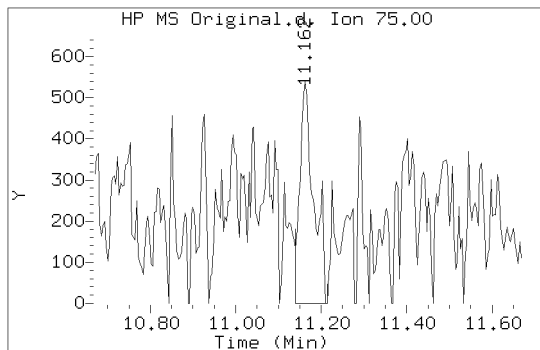
BEFORE

MASS
157
AREA
947
HEIGHT
503
18-Sep-2023
12:30
linh
pham



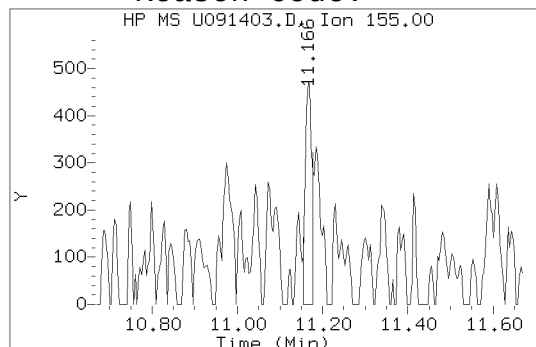
BEFORE

MASS
75
AREA
1237
HEIGHT
539
18-Sep-2023
12:30
linh
pham



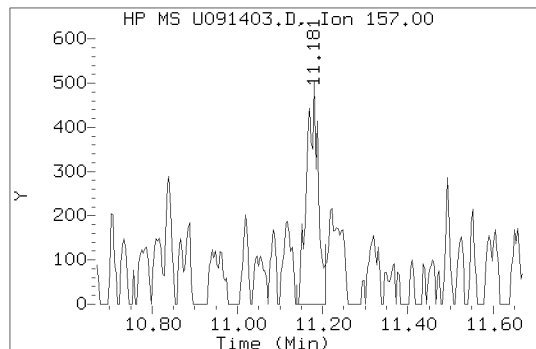
AFTER

MASS
155
AREA
527
HEIGHT
470
18-Sep-2023
12:30
linh



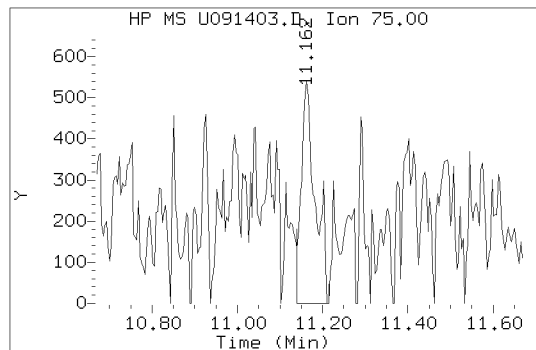
AFTER

MASS
157
AREA
947
HEIGHT
503
18-Sep-2023
12:30
linh
pham



AFTER

MASS
75
AREA
1237
HEIGHT
539
18-Sep-2023
12:30
linh
pham

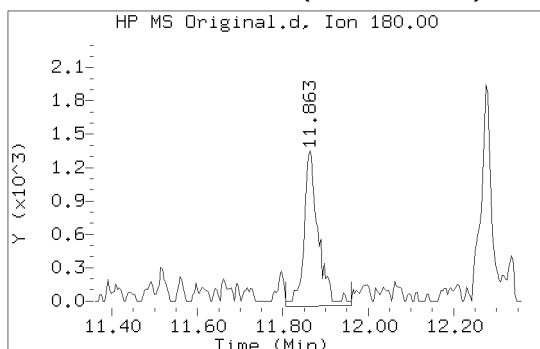


Reason Code:

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

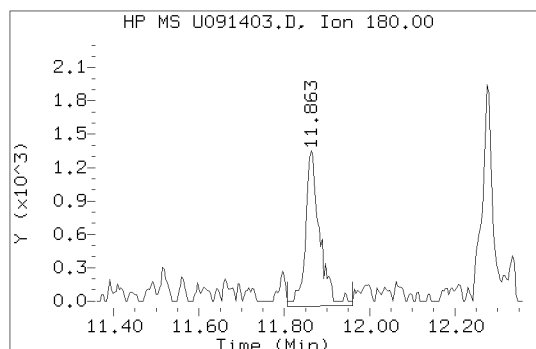
BEFORE

MASS
180
AREA
3346
HEIGHT
1400
18-Sep-2023
12:30
linh
pham



AFTER

MASS
180
AREA
3346
HEIGHT
1400
18-Sep-2023
12:30
linh
pham



Reason Code:

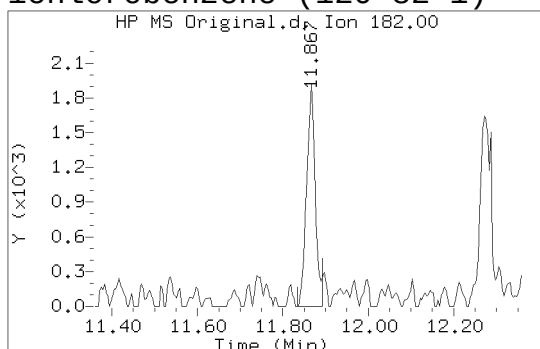


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

BEFORE

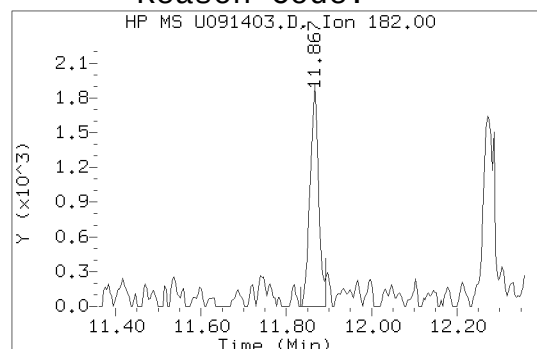
MASS
182
AREA
2793
HEIGHT
1914
18-Sep-2023
12:30
linh



AFTER

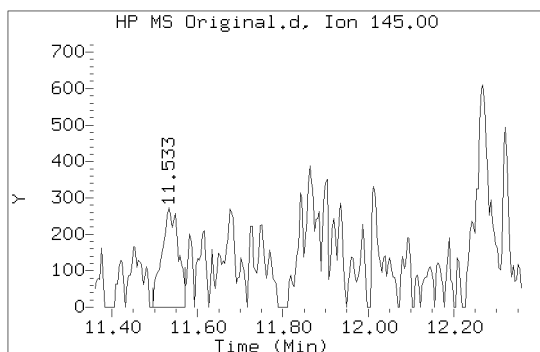
MASS
182
AREA
2793
HEIGHT
1914
18-Sep-2023
12:30
linh

Reason Code:



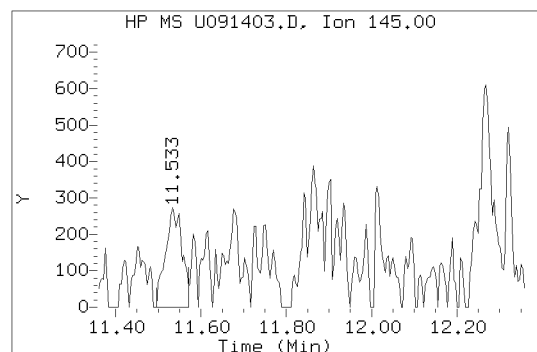
BEFORE

MASS
145
AREA
733
HEIGHT
273
18-Sep-2023
12:30
linh
pham



AFTER

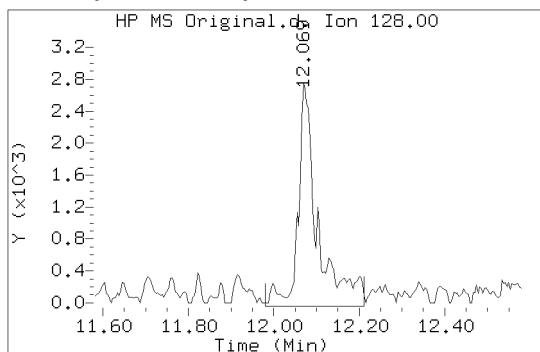
MASS
145
AREA
733
HEIGHT
273
18-Sep-2023
12:30
linh
pham



Naphthalene (91-20-3)

BEFORE

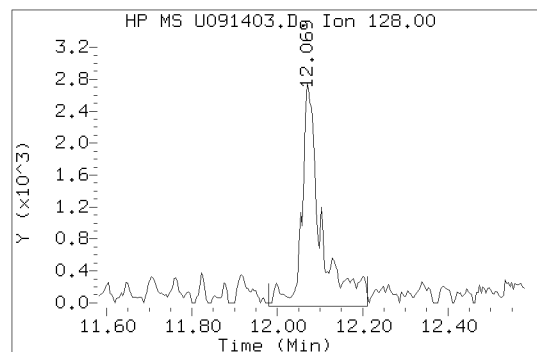
MASS
128
AREA
8877
HEIGHT
2783
18-Sep-2023
12:30
linh
pham



AFTER

MASS
128
AREA
8877
HEIGHT
2783
18-Sep-2023
12:30
linh
pham

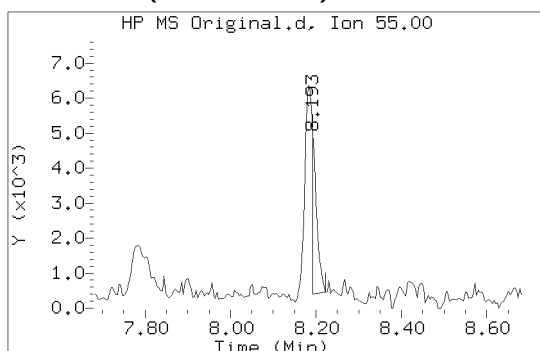
Reason Code:



1-Chlorohexane (544-10-5)

BEFORE

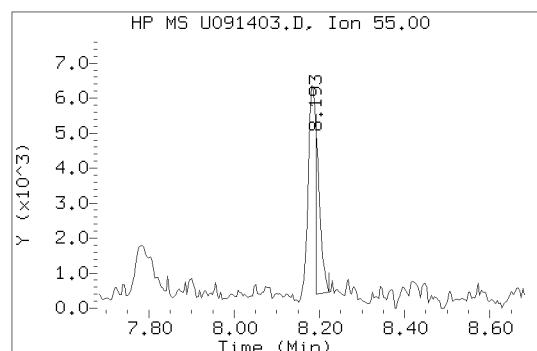
MASS
55
AREA
3356
HEIGHT
4579
18-Sep-2023
12:30
linh
pham



AFTER

MASS
55
AREA
3356
HEIGHT
4579
18-Sep-2023
12:30
linh
pham

Reason Code:

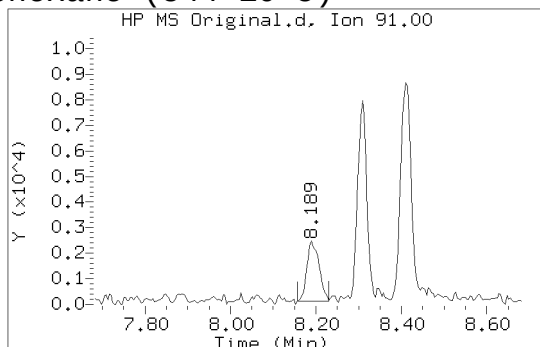


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1-Chlorohexane (544-10-5)

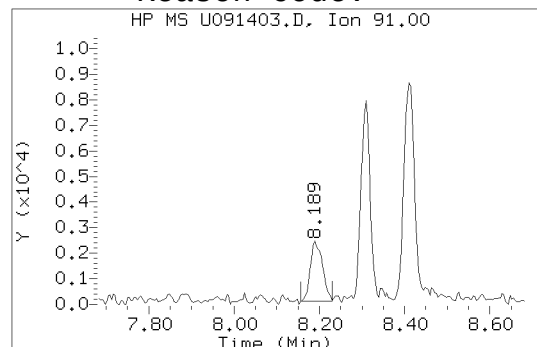
BEFORE

MASS
91
AREA
4622
HEIGHT
2357
18-Sep-2023
12:30
linh
pham



AFTER

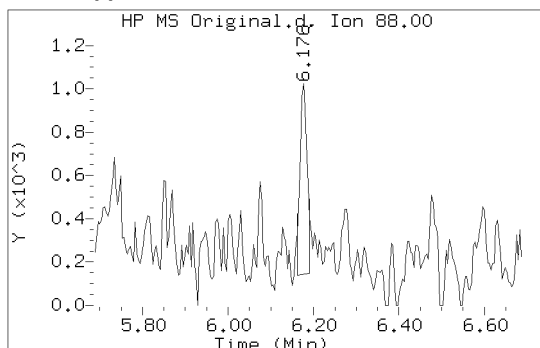
MASS
91
AREA
4622
HEIGHT
2357
18-Sep-2023
12:30
linh
pham



1,4-Dioxane ()

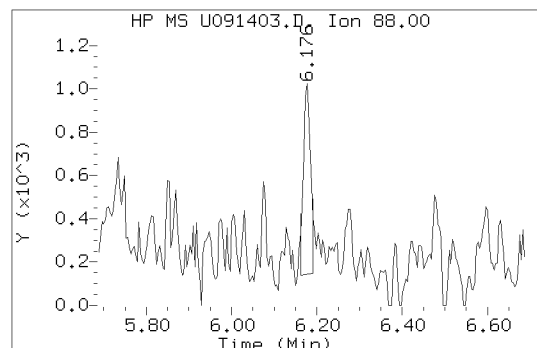
BEFORE

MASS
88
AREA
1082
HEIGHT
881
18-Sep-2023
12:30
linh
pham



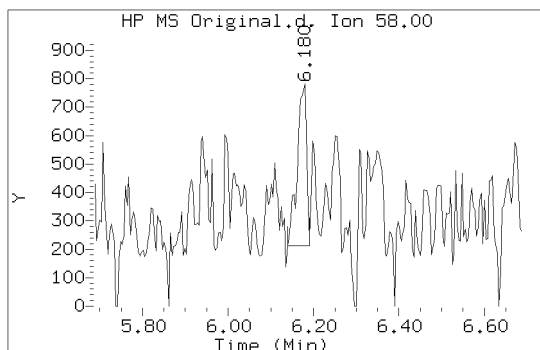
AFTER

MASS
88
AREA
1082
HEIGHT
881
18-Sep-2023
12:30
linh
pham



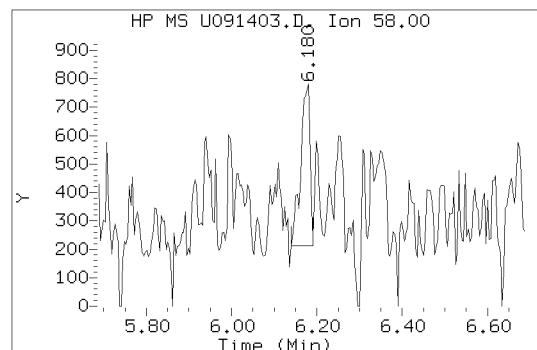
BEFORE

MASS
58
AREA
890
HEIGHT
569
18-Sep-2023
12:30
linh
pham



AFTER

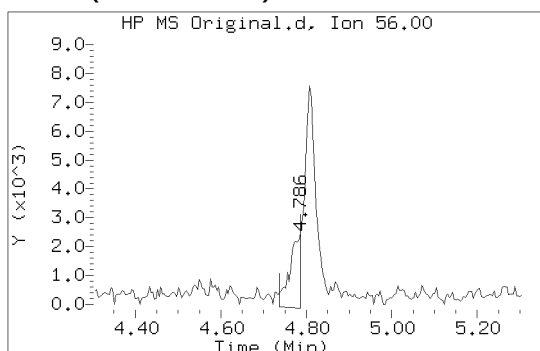
MASS
58
AREA
890
HEIGHT
569
18-Sep-2023
12:30
linh
pham



Cyclohexane (110-82-7)

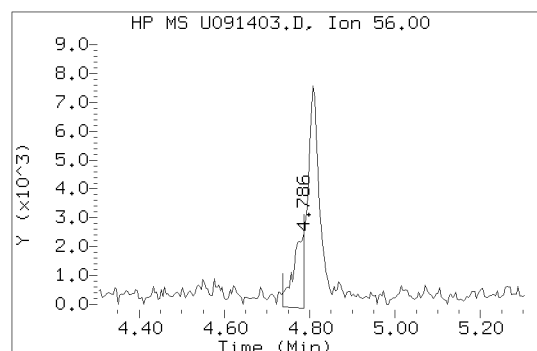
BEFORE

MASS
56
AREA
4570
HEIGHT
2576
18-Sep-2023
12:30
linh
pham



AFTER

MASS
56
AREA
4570
HEIGHT
2576
18-Sep-2023
12:30
linh
pham

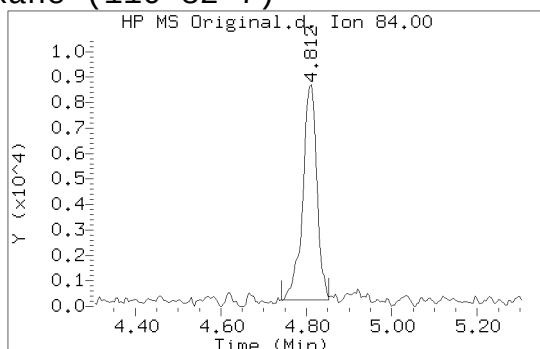


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Cyclohexane (110-82-7)

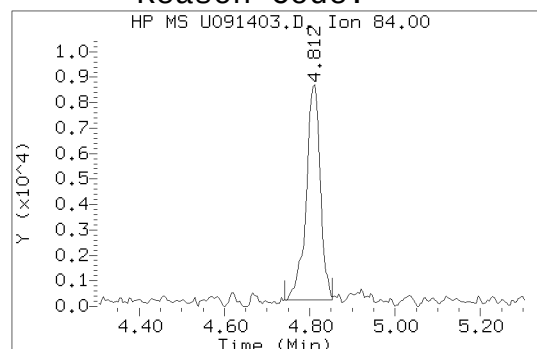
BEFORE

MASS
84
AREA
19761
HEIGHT
8461
18-Sep-2023
12:30
linh



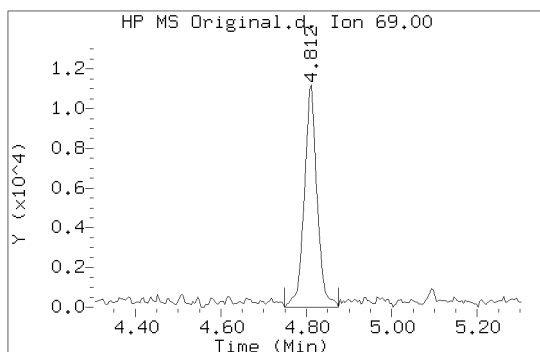
AFTER

MASS
84
AREA
19761
HEIGHT
8461
18-Sep-2023
12:30
linh



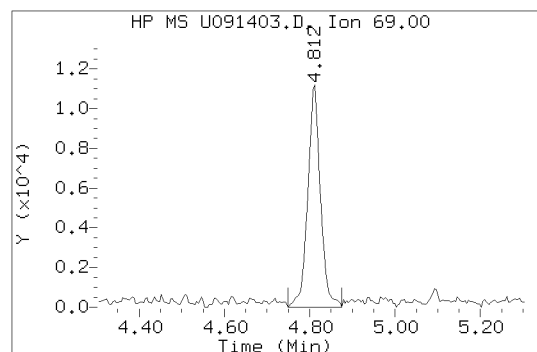
BEFORE

MASS
69
AREA
23379
HEIGHT
11194
18-Sep-2023
12:30
linh
pham



AFTER

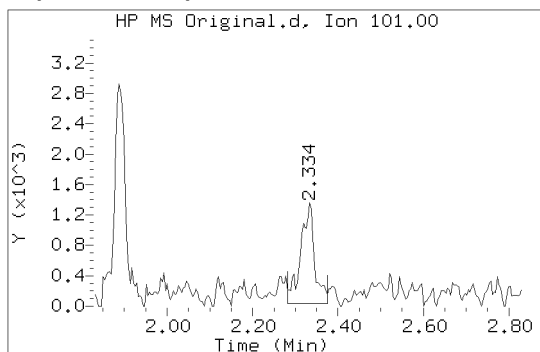
MASS
69
AREA
23379
HEIGHT
11194
18-Sep-2023
12:30
linh
pham



Freon TF (76-13-1)

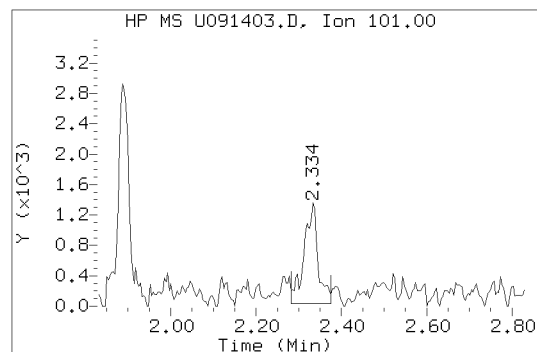
BEFORE

MASS
101
AREA
3073
HEIGHT
1330
18-Sep-2023
12:30
linh
pham



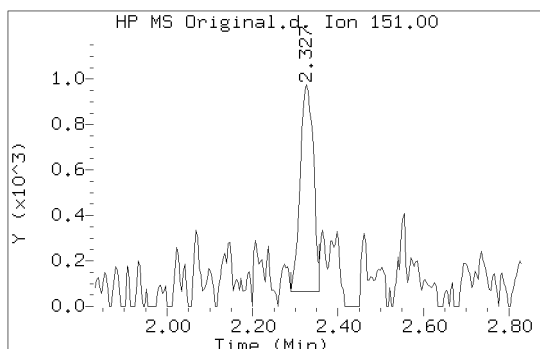
AFTER

MASS
101
AREA
3073
HEIGHT
1330
18-Sep-2023
12:30
linh
pham



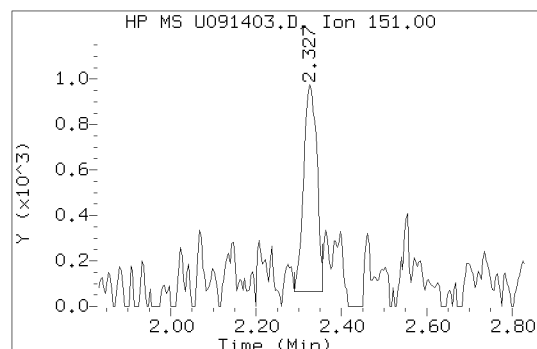
BEFORE

MASS
151
AREA
2005
HEIGHT
911
18-Sep-2023
12:30
linh
pham



AFTER

MASS
151
AREA
2005
HEIGHT
911
18-Sep-2023
12:30
linh
pham

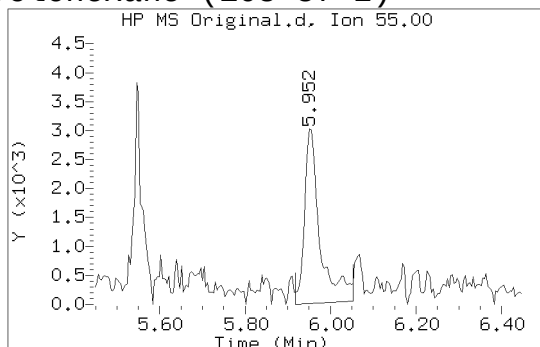


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Methylcyclohexane (108-87-2)

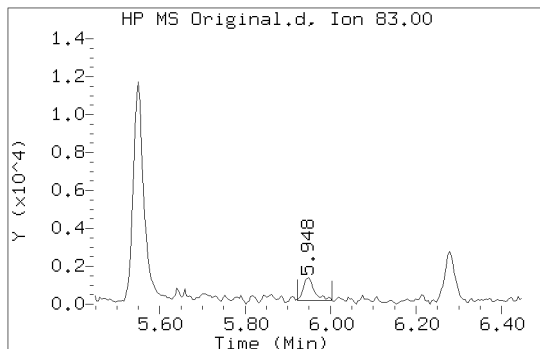
BEFORE

MASS
55
AREA
7709
HEIGHT
3017
18-Sep-2023
12:30
linh



BEFORE

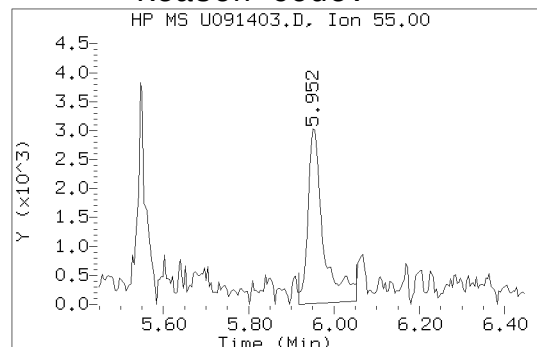
MASS
83
AREA
2258
HEIGHT
1213
18-Sep-2023
12:30
linh
pham



Reason Code:

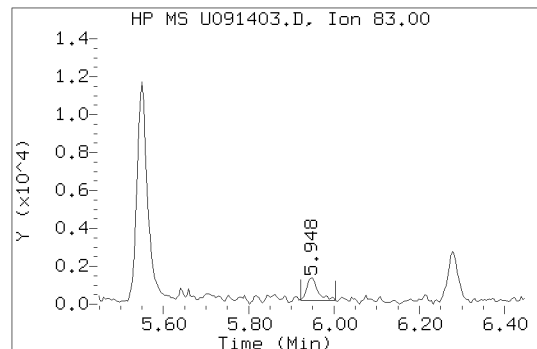
AFTER

MASS
55
AREA
7709
HEIGHT
3017
18-Sep-2023
12:30
linh



AFTER

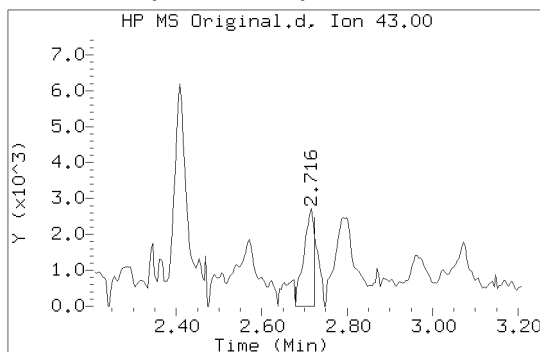
MASS
83
AREA
2258
HEIGHT
1213
18-Sep-2023
12:30
linh
pham



Methyl Acetate (79-20-9)

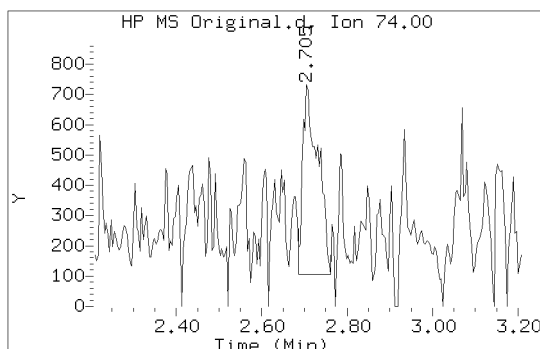
BEFORE

MASS
43
AREA
4575
HEIGHT
2716
18-Sep-2023
12:30
linh
pham



BEFORE

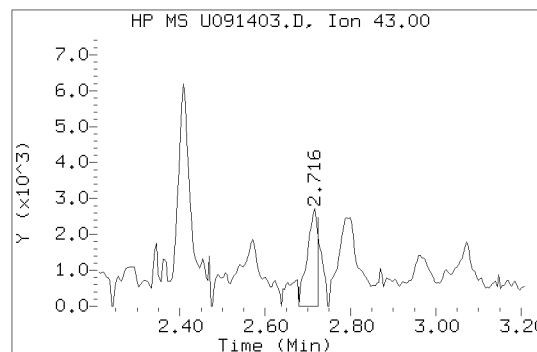
MASS
74
AREA
1565
HEIGHT
626
18-Sep-2023
12:30
linh
pham



Reason Code:

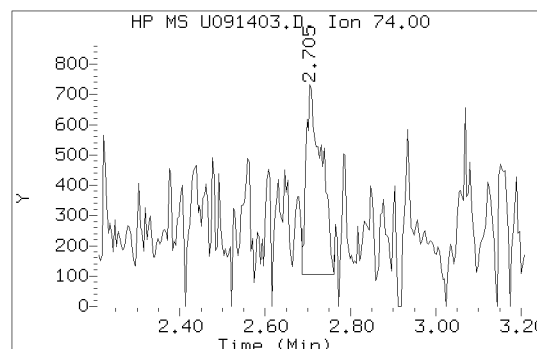
AFTER

MASS
43
AREA
4575
HEIGHT
2716
18-Sep-2023
12:30
linh
pham



AFTER

MASS
74
AREA
1565
HEIGHT
626
18-Sep-2023
12:30
linh
pham

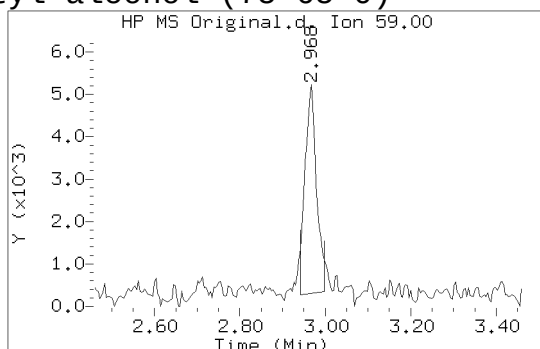


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Tert-Butyl alcohol (75-65-0)

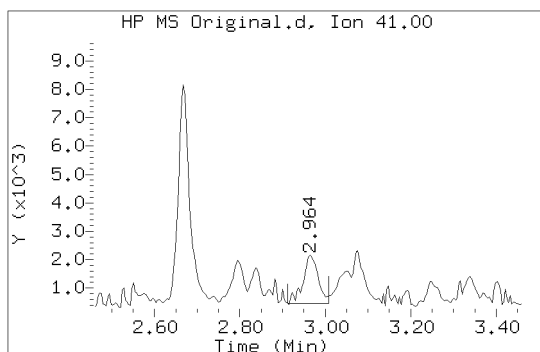
BEFORE

MASS
59
AREA
9516
HEIGHT
4923
18-Sep-2023
12:30
linh



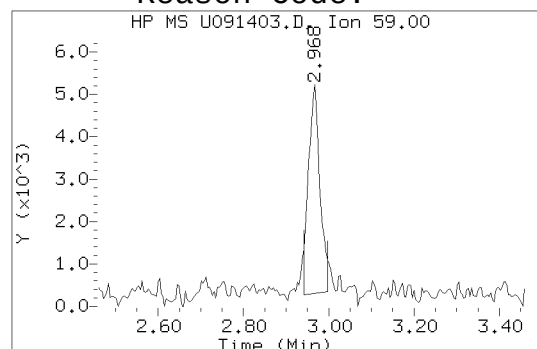
BEFORE

MASS
41
AREA
4255
HEIGHT
1693
18-Sep-2023
12:30
linh
pham



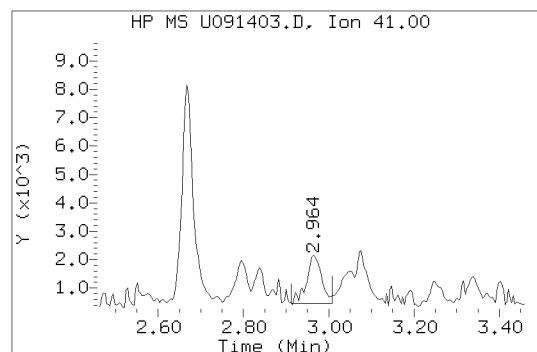
AFTER

MASS
59
AREA
9516
HEIGHT
4923
18-Sep-2023
12:30
linh



AFTER

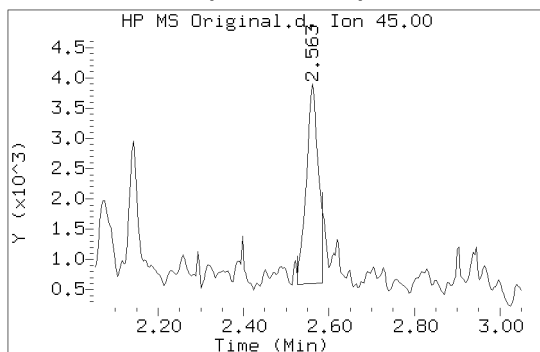
MASS
41
AREA
4255
HEIGHT
1693
18-Sep-2023
12:30
linh
pham



Isopropyl Alcohol (67-63-0)

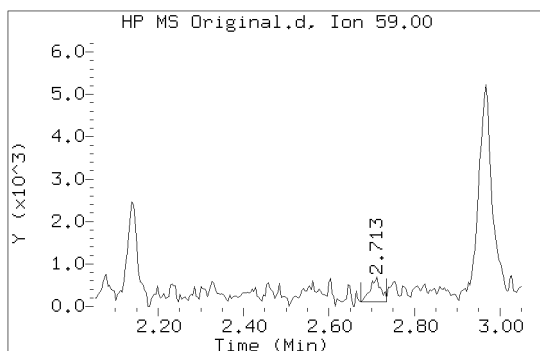
BEFORE

MASS
45
AREA
6576
HEIGHT
3298
18-Sep-2023
12:30
linh
pham



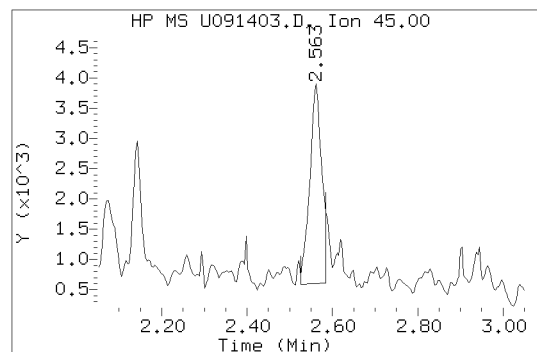
BEFORE

MASS
59
AREA
968
HEIGHT
584
18-Sep-2023
12:30
linh
pham



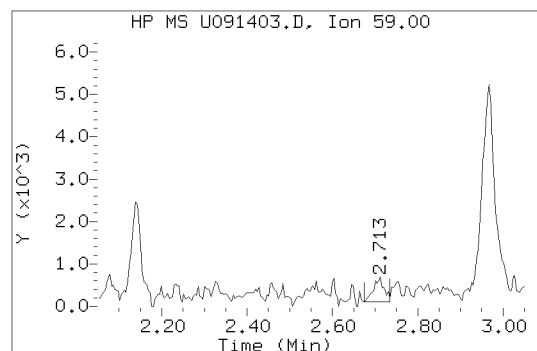
AFTER

MASS
45
AREA
6576
HEIGHT
3298
18-Sep-2023
12:30
linh
pham



AFTER

MASS
59
AREA
968
HEIGHT
584
18-Sep-2023
12:30
linh
pham

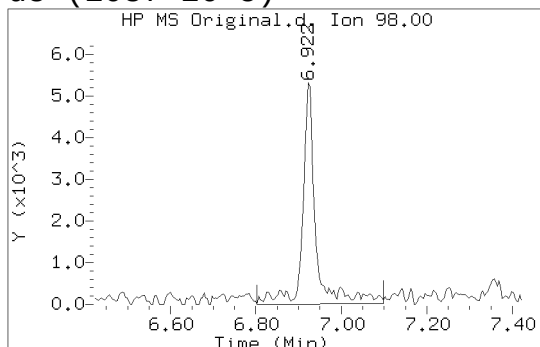


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Toluene-d8 (2037-26-5)

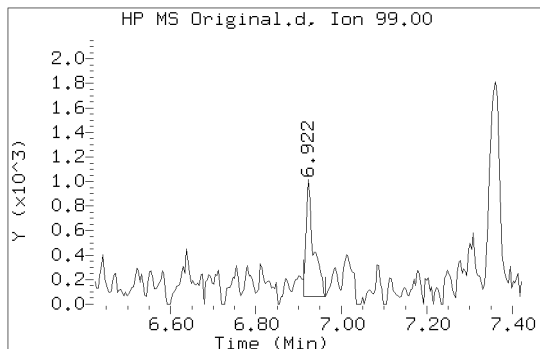
BEFORE

MASS
98
AREA
11691
HEIGHT
5323
18-Sep-2023
12:30
linh



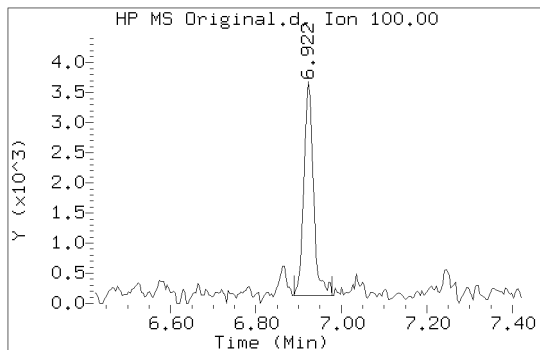
BEFORE

MASS
99
AREA
1192
HEIGHT
953
18-Sep-2023
12:30
linh
pham



BEFORE

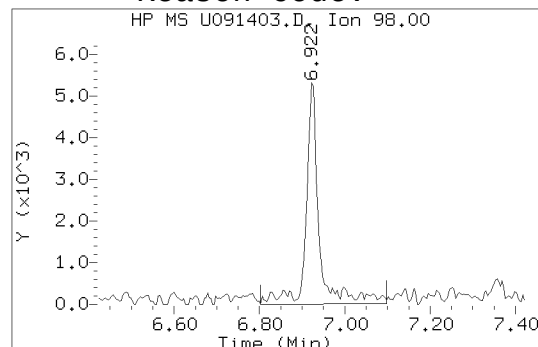
MASS
100
AREA
5706
HEIGHT
3557
18-Sep-2023
12:30
linh
pham



Reason Code:

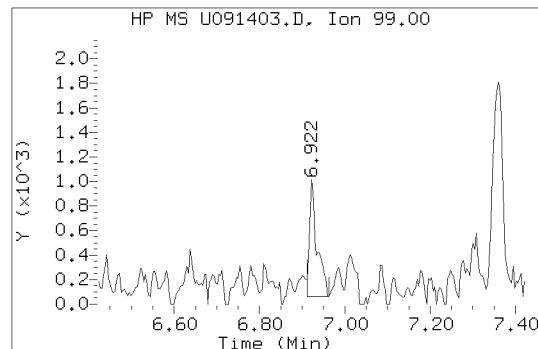
AFTER

MASS
98
AREA
11691
HEIGHT
5323
18-Sep-2023
12:30
linh



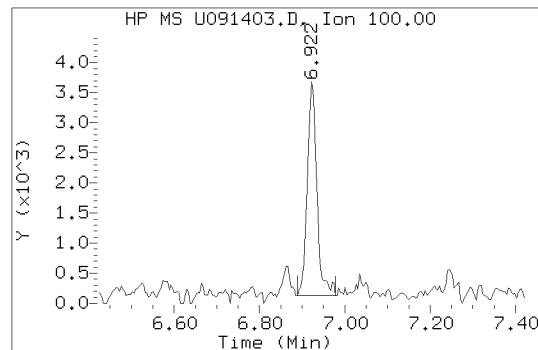
AFTER

MASS
99
AREA
1192
HEIGHT
953
18-Sep-2023
12:30
linh
pham



AFTER

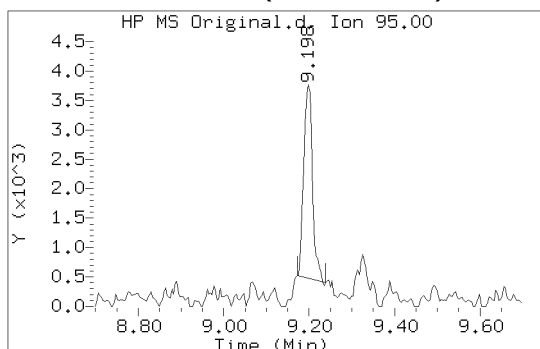
MASS
100
AREA
5706
HEIGHT
3557
18-Sep-2023
12:30
linh
pham



4-Bromofluorobenzene (460-00-4)

BEFORE

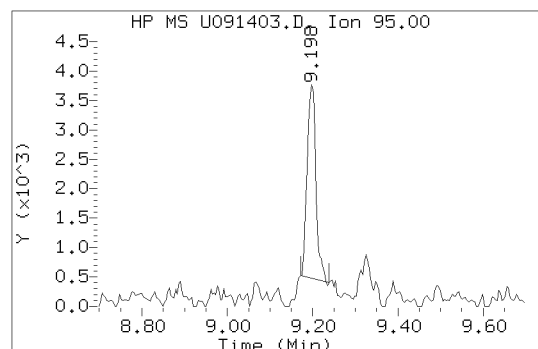
MASS
95
AREA
4793
HEIGHT
3293
18-Sep-2023
12:30
linh
pham



Reason Code:

AFTER

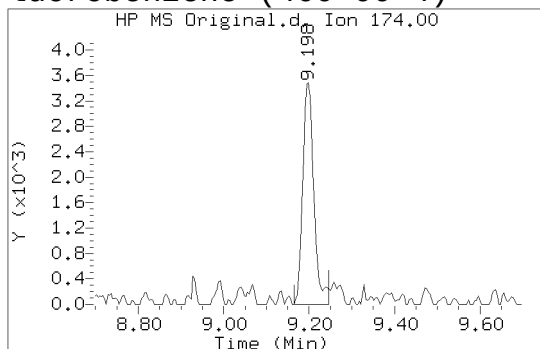
MASS
95
AREA
4793
HEIGHT
3293
18-Sep-2023
12:30
linh
pham



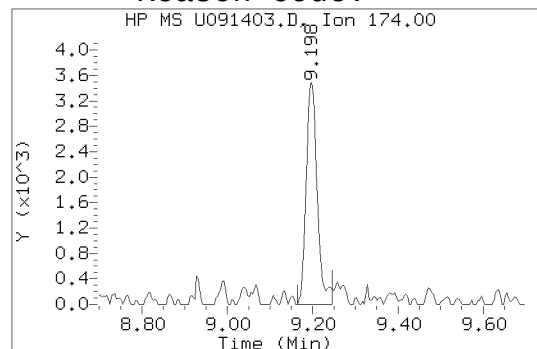
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

4-Bromofluorobenzene (460-00-4)**BEFORE**

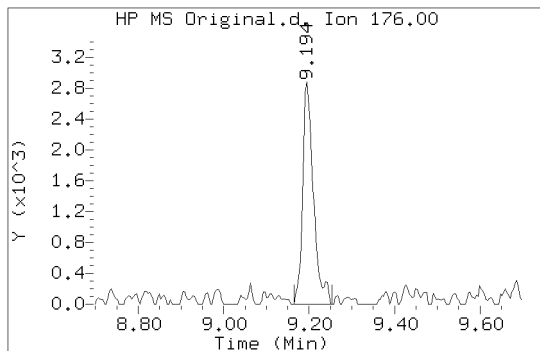
MASS
174
AREA
6424
HEIGHT
3486
18-Sep-2023
12:30
linh

**AFTER**

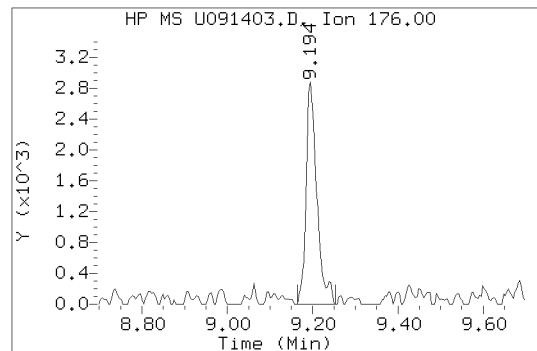
MASS
174
AREA
6424
HEIGHT
3486
18-Sep-2023
12:30
linh

**BEFORE**

MASS
176
AREA
5114
HEIGHT
2882
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
176
AREA
5114
HEIGHT
2882
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D
 Lab Smp Id: VSTD001 Client Smp ID: VSTD001
 Inj Date : 14-SEP-2023 16:53
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD001;VSTD001;1;3;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 16:09 Cal File: U091403.D
 Als bottle: 5 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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)		642537	50.0000	
2 Dichlorodifluoromethane	85		1.164	1.164	(0.242)		6349	1.00000	2.21
3 Chloromethane	50		1.295	1.295	(0.269)		14060	1.00000	0.23
5 Vinyl Chloride	62		1.377	1.377	(0.286)		6660	1.00000	0.81
6 Bromomethane	94		1.625	1.625	(0.338)		5410	1.00000	1.79
7 Chloroethane	64		1.700	1.700	(0.353)		5596	1.00000	0.93
8 Trichlorofluoromethane	101		1.895	1.895	(0.394)		9002	1.00000	0.86(M)
9 Acrolein	56		2.266	2.266	(0.471)		1174	2.00000	2.12(M)
10 Acetone	43		2.412	2.412	(0.501)		11344	2.00000	1.39(M)
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)		6369	1.00000	1.00(M)
15 Iodomethane	142		2.472	2.472	(0.513)		6809	2.00000	5.21(M)
16 Acrylonitrile	53		3.072	3.072	(0.638)		7981	2.00000	2.12
17 Methylene Chloride	84		2.794	2.794	(0.580)		11952	1.00000	3.12(M)
18 Methyl tert-butyl ether	73		3.079	3.079	(0.640)		17374	1.00000	0.96
19 Carbon Disulfide	76		2.521	2.521	(0.524)		27613	2.00000	1.60
20 trans-1,2-Dichloroethene	96		3.061	3.061	(0.636)		5046	1.00000	0.75
21 Vinyl Acetate	43		3.615	3.615	(0.751)		38753	2.00000	1.64
22 1,1-Dichloroethane	63		3.510	3.510	(0.729)		11812	1.00000	0.88
24 2-Butanone	43		4.271	4.271	(0.887)		7789	2.00000	1.99
26 2,2-Dichloropropane	77		4.181	4.181	(0.868)		6514	1.00000	0.80(M)



27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	6847	1.00000	0.89
28 Chloroform	83	4.571	4.571 (0.949)	11977	1.00000	0.92

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D Page 2
Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.470	4.470	(0.928)	3900	1.00000	0.97(M)
\$ 30 Dibromofluoromethane	113	4.751	4.751	(0.987)	5321	1.00000	1.11
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	7483	1.00000	0.84
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	7313	1.00000	0.93(M)
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	9383	1.00000	0.98
34 Carbon Tetrachloride	117	4.912	4.912	(0.885)	5878	1.00000	0.84
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.060)	8172	1.00000	1.08
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	981491	50.0000	
37 Benzene	78	5.137	5.137	(0.925)	22392	1.00000	0.90
38 Trichloroethene	130	5.786	5.786	(1.042)	8076	1.00000	1.12
39 Bromodichloromethane	83	6.273	6.273	(1.130)	6467	1.00000	0.80
41 2-Chloroethylvinyl ether	63	6.543	6.543	(1.178)	75	2.00000	2.62(M)
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	5092	1.00000	0.78(M)
44 Dibromomethane	93	6.123	6.123	(1.103)	4246	1.00000	0.94(M)
45 4-Methyl-2-Pentanone	43	6.862	6.862	(0.838)	7941	2.00000	3.67
46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.206)	6792	1.00000	3.79(M)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	911378	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	19157	1.00000	0.95(M)
50 Toluene	91	6.982	6.982	(0.853)	19537	1.00000	0.79(M)
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	5013	1.00000	2.98(M)
52 2-Hexanone	43	7.604	7.604	(0.929)	6891	2.00000	1.66
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	5278	1.00000	0.98
54 1,3-Dichloropropane	76	7.503	7.503	(0.917)	9793	1.00000	0.91
55 Dibromochloromethane	129	7.694	7.694	(0.940)	5067	1.00000	0.79
56 Tetrachloroethene	164	7.458	7.458	(0.911)	5362	1.00000	0.94
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	5889	1.00000	0.91
58 1-Chlorohexane	55	8.193	8.193	(1.475)	5582	1.00000	0.94(M)
59 Chlorobenzene	112	8.208	8.208	(1.003)	16006	1.00000	0.88
60 1,1,1,2-Tetrachloroethane	131	8.279	8.279	(1.011)	5390	1.00000	0.88
61 Ethylbenzene	106	8.309	8.309	(1.015)	6608	1.00000	0.81(M)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	17428	2.00000	1.71(M)
63 o-Xylene	106	8.747	8.747	(1.069)	10098	1.00000	0.95(M)
64 Styrene	104	8.766	8.766	(1.071)	13244	1.00000	0.81(M)
66 Bromoform	173	8.920	8.920	(1.090)	3346	1.00000	4.21(T)
67 Isopropylbenzene	105	9.062	9.062	(1.107)	19078	1.00000	2.23(M)
68 1,1,2,2-Tetrachloroethane	83	9.328	9.328	(0.917)	7969	1.00000	0.97
\$ 69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	7585	1.00000	0.76
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	422751	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	5812	1.00000	0.83
73 n-Propylbenzene	91	9.411	9.411	(0.925)	15066	1.00000	3.55(M)
74 Bromobenzene	156	9.317	9.317	(0.916)	6745	1.00000	1.00
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	13057	1.00000	0.82(M)
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	13160	1.00000	0.83(M)
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	14951	1.00000	0.81(M)
78 tert-Butylbenzene	119	9.835	9.835	(0.967)	11393	1.00000	0.74(M)
79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	12753	1.00000	0.78(M)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	14747	1.00000	2.47(M)
82 p-Isopropyltoluene	119	10.142	10.142	(0.997)	10971	1.00000	2.43(M)
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	9655	1.00000	0.81
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	13945	1.00000	1.04
87 n-Butylbenzene	91	10.491	10.491	(1.031)	10524	1.00000	2.74(M)
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	10635	1.00000	0.87



89	1,2-Dibromo-3-Chloropropane	155	11.173	11.173 (1.098)	1143	1.00000	1.11
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	5578	1.00000	0.80(M)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D Page 3

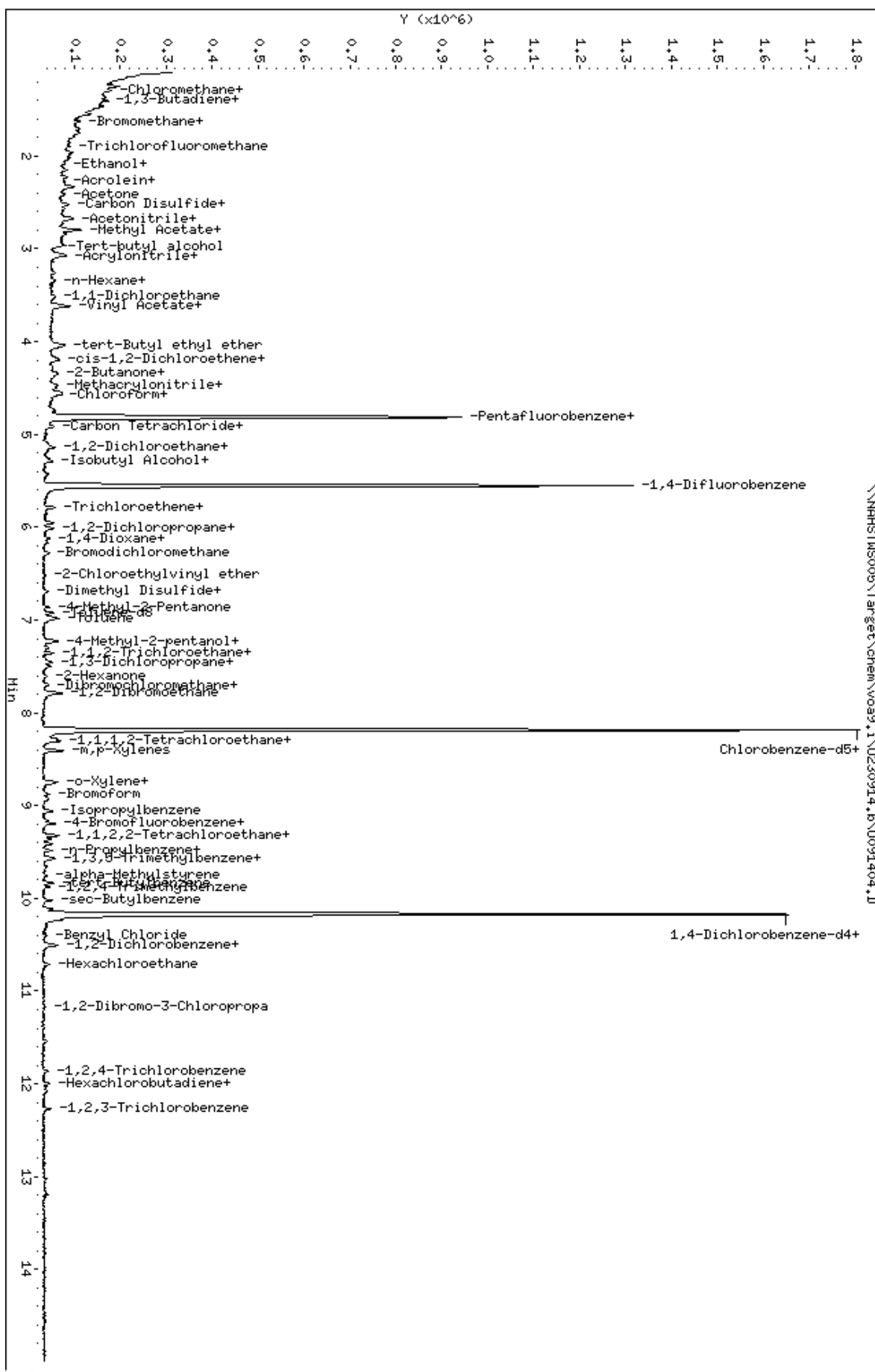
Report Date: 18-Sep-2023 12:31

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)	2767	1.00000	0.89
92 Naphthalene	128	12.072	12.072	(1.187)	13176	1.00000	3.39(M)
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	5382	1.00000	0.82
M 94 1,2-Dichloroethylene (total)	96				11893	2.00000	
M 95 Xylenes (total)	106				27526	3.00000	
135 1,4-Dioxane	88	6.176	6.176	(1.283)	1976	20.0000	21.15(M)
141 Cyclohexane	56	4.796	4.796	(0.996)	7153	1.00000	1.36(M)
138 Freon TF	101	2.337	2.337	(0.485)	4663	1.00000	1.06(M)
140 1,3-Butadiene	54	1.400	1.400	(0.291)	6763	1.00000	0.89(M)
147 Methylcyclohexane	55	5.951	5.951	(1.072)	10616	1.00000	0.73(M)
146 Methyl Acetate	43	2.720	2.720	(0.565)	7958	1.00000	1.02
148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	12915	20.0000	16.40(a)

QC Flag Legend

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





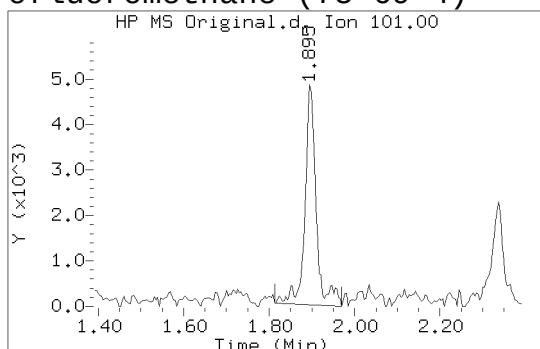
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 Client ID: VSTD001
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 Purge Volume: 5.0
 Column phase: DB624

Instrument: V0A9.i
 Operator: PC
 Column diameter: 0.18

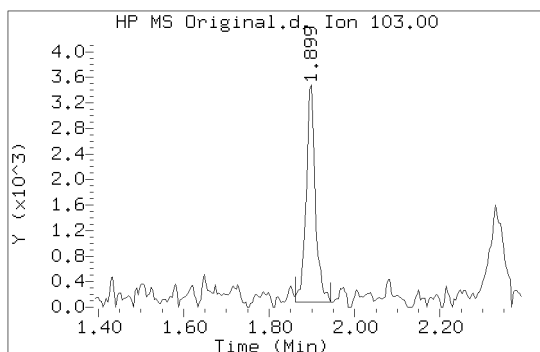
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InstruID : VOA9.i
LabSampID : VSTD001

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

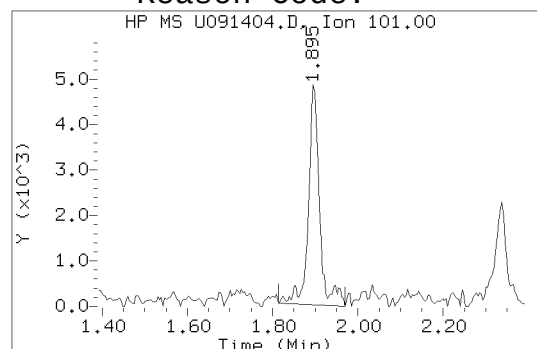
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18-Sep-2023
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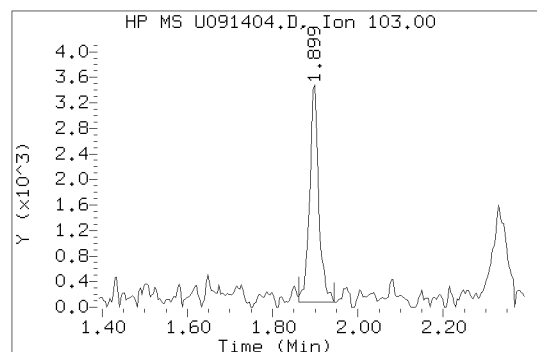
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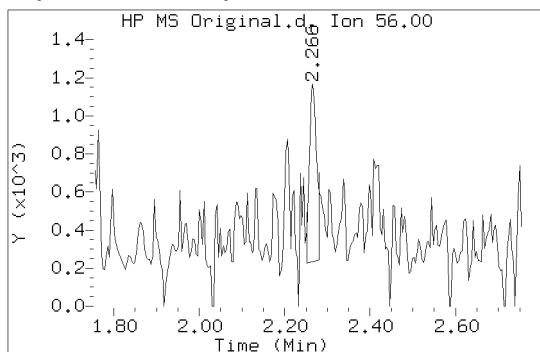
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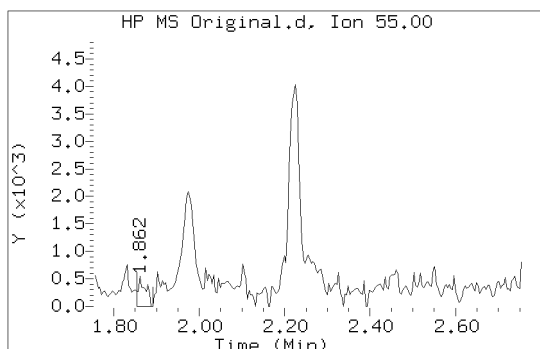
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pham

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

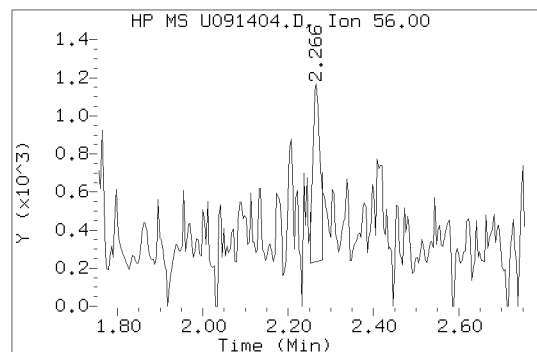
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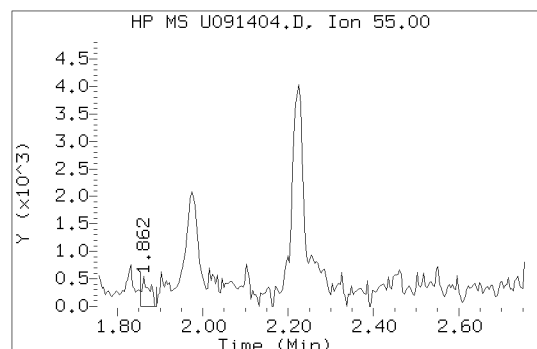
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**AFTER**

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HEIGHT
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Reason Code:**AFTER**

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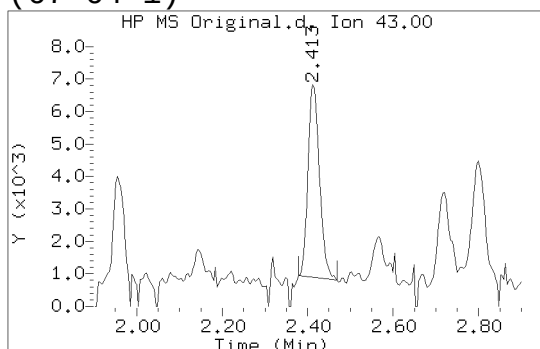


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InstruID : VOA9.i
LabSampID : VSTD001

Acetone (67-64-1)

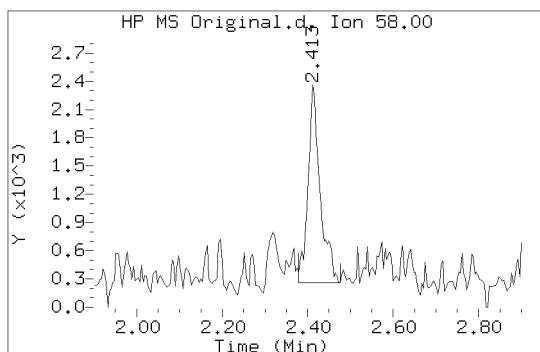
BEFORE

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BEFORE

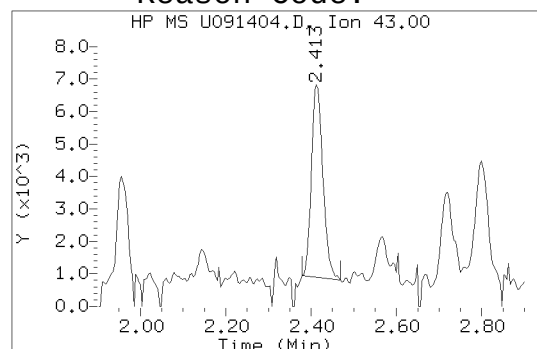
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AFTER

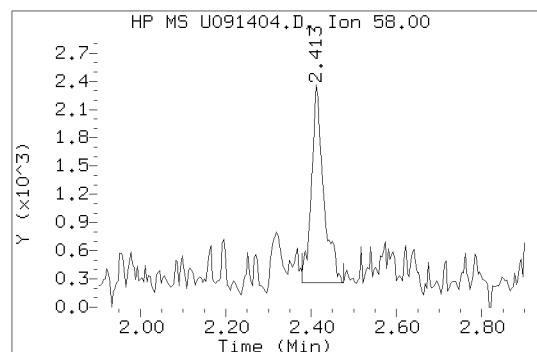
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AFTER

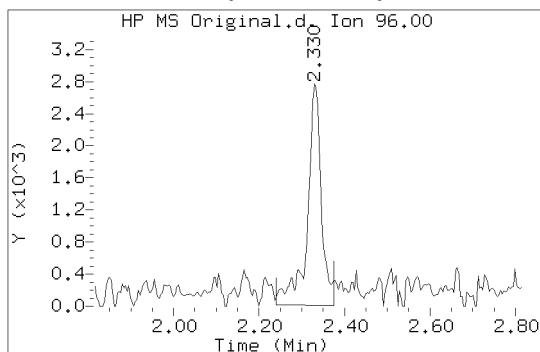
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1,1-Dichloroethene (75-35-4)

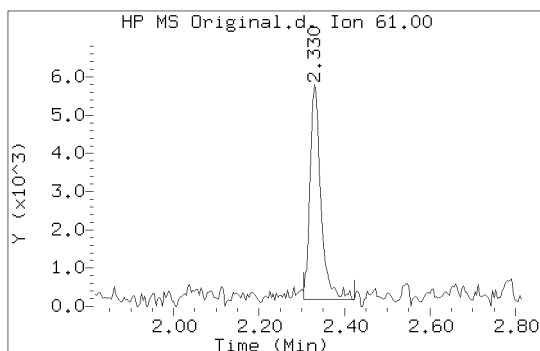
BEFORE

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BEFORE

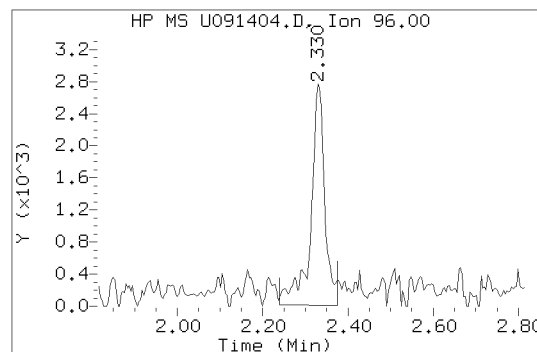
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AFTER

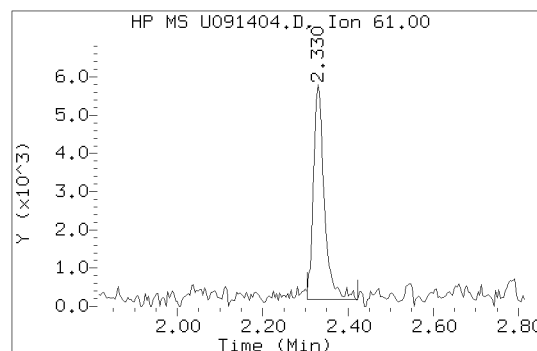
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Reason Code:



AFTER

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HEIGHT
5615
18-Sep-2023
12:30
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pham

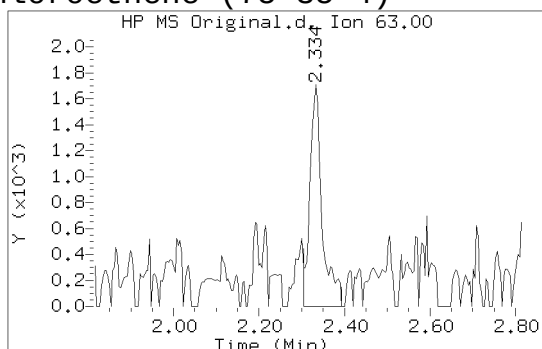


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Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

1,1-Dichloroethene (75-35-4)

BEFORE

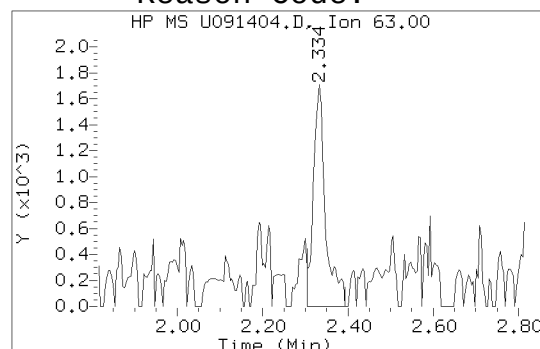
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18-Sep-2023
12:30
linh
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AFTER

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HEIGHT
1708
18-Sep-2023
12:30
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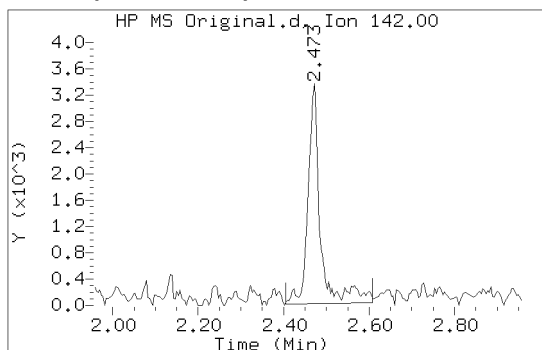
Reason Code:



Iodomethane (74-88-4)

BEFORE

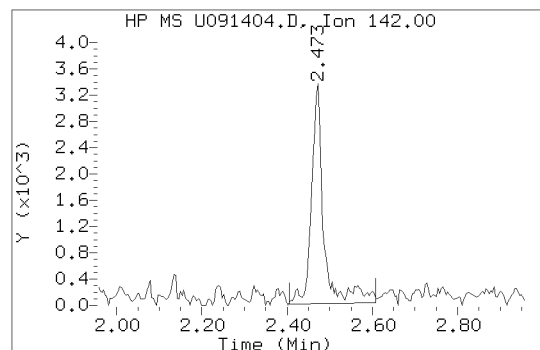
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HEIGHT
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linh
pham



AFTER

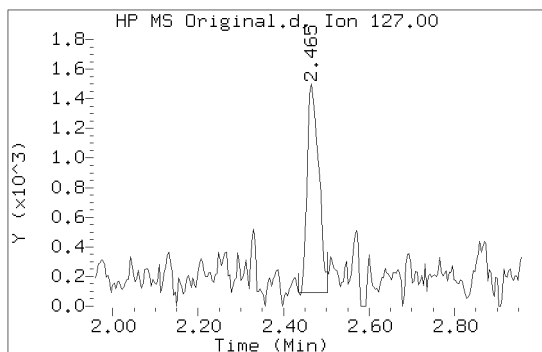
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Reason Code:



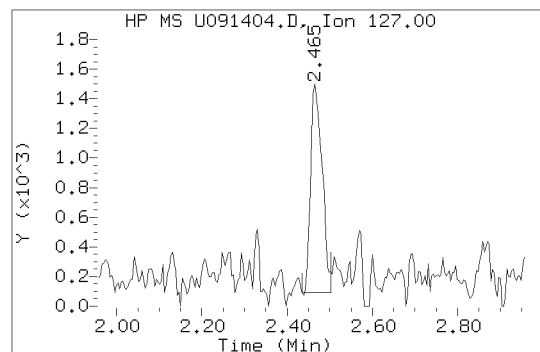
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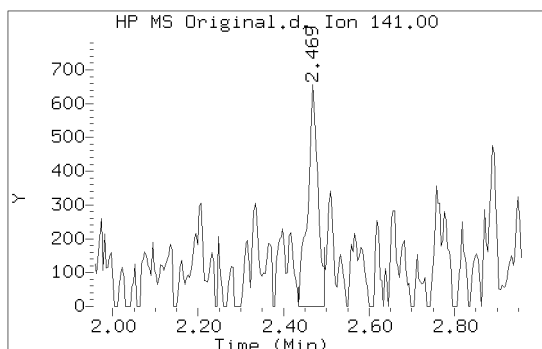
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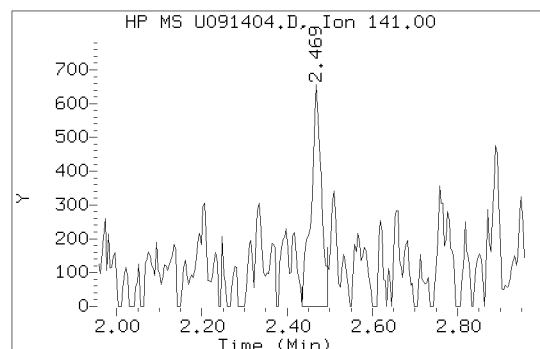
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AFTER

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pham

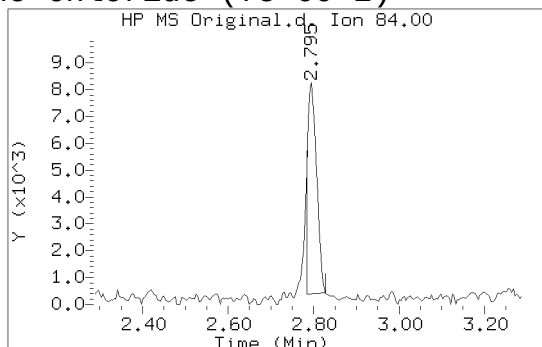


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InstruID : VOA9.i
LabSampID : VSTD001

Methylene Chloride (75-09-2)

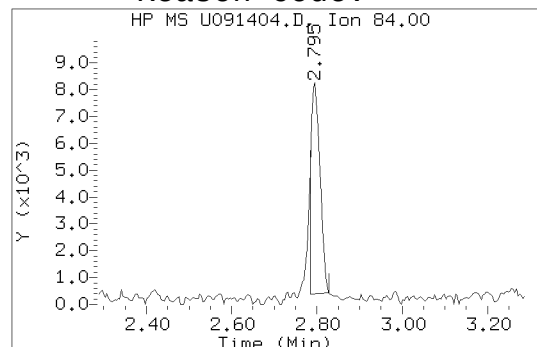
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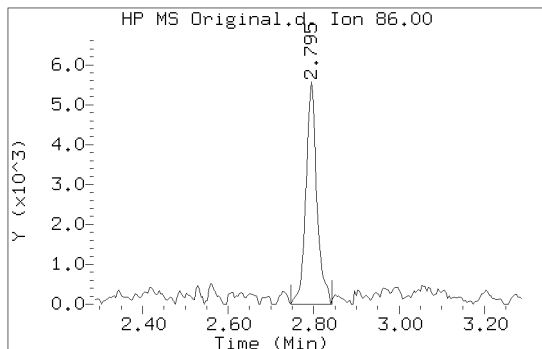
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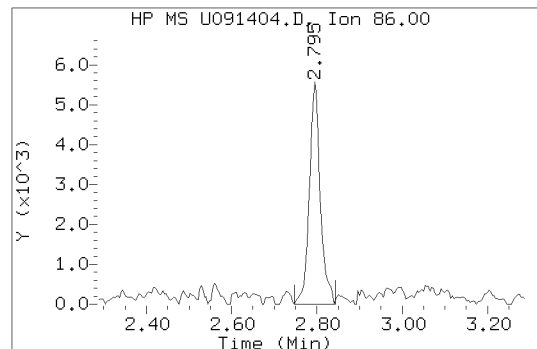
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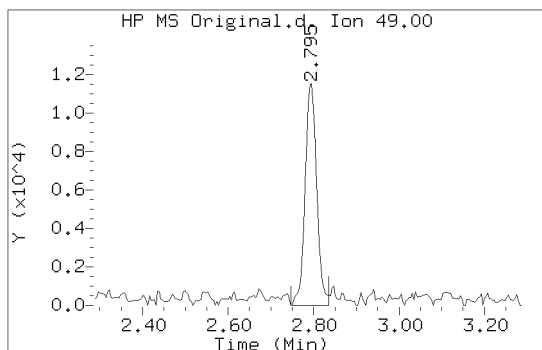
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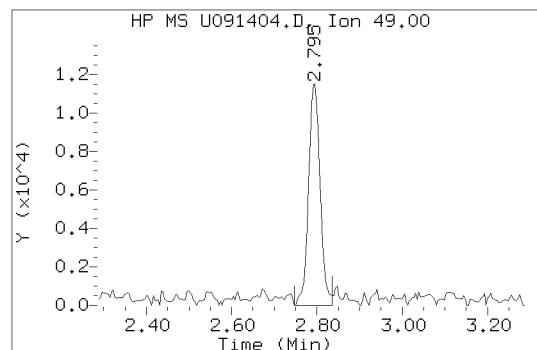
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AFTER

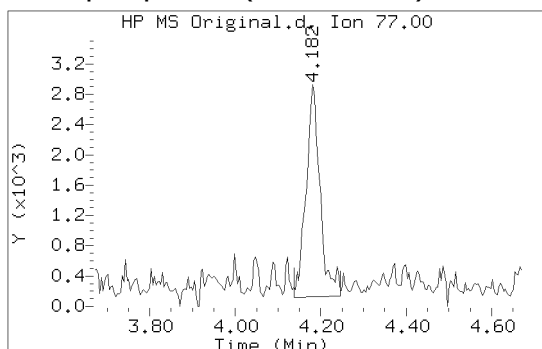
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AREA
22277
HEIGHT
11532
18-Sep-2023
12:30
linh
pham



2,2-Dichloropropane (594-20-7)

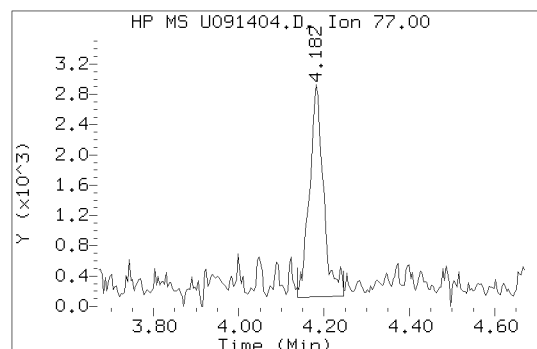
BEFORE

MASS
77
AREA
6514
HEIGHT
2800
18-Sep-2023
12:30
linh
pham



AFTER

MASS
77
AREA
6514
HEIGHT
2800
18-Sep-2023
12:30
linh
pham

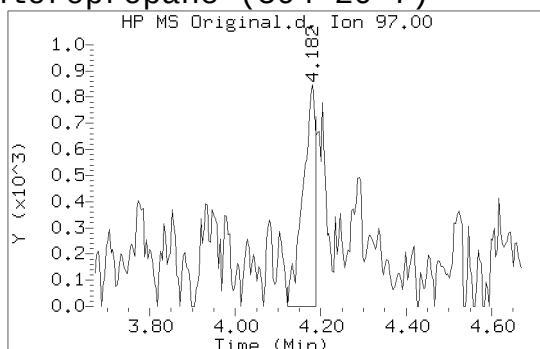


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

2,2-Dichloropropane (594-20-7)

BEFORE

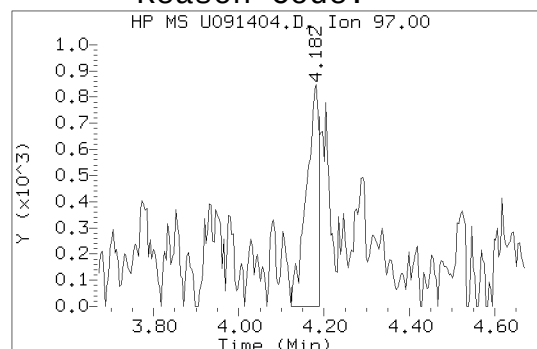
MASS
97
AREA
1771
HEIGHT
847
18-Sep-2023
12:30
linh
pham



AFTER

MASS
97
AREA
1771
HEIGHT
847
18-Sep-2023
12:30
linh
pham

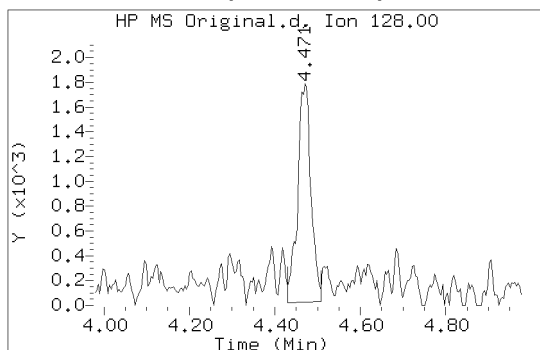
Reason Code:



Bromochloromethane (74-97-5)

BEFORE

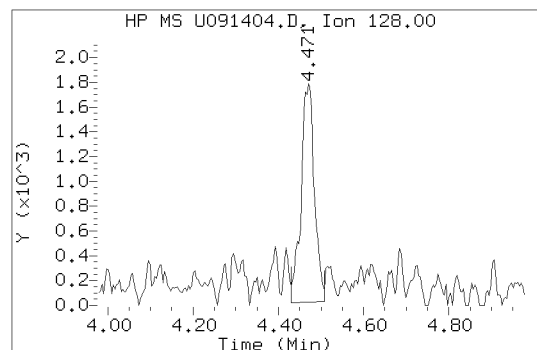
MASS
128
AREA
3900
HEIGHT
1760
18-Sep-2023
12:30
linh
pham



AFTER

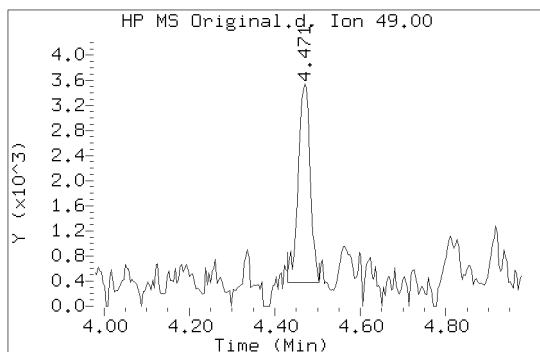
MASS
128
AREA
3900
HEIGHT
1760
18-Sep-2023
12:30
linh
pham

Reason Code:



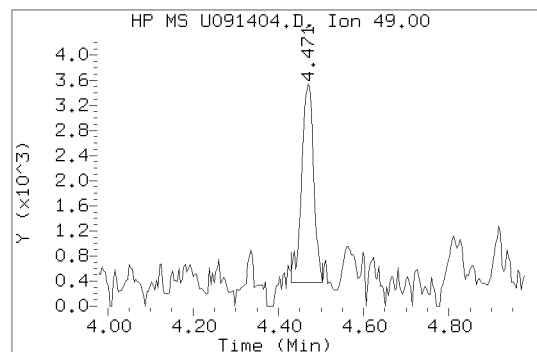
BEFORE

MASS
49
AREA
6333
HEIGHT
3163
18-Sep-2023
12:30
linh
pham



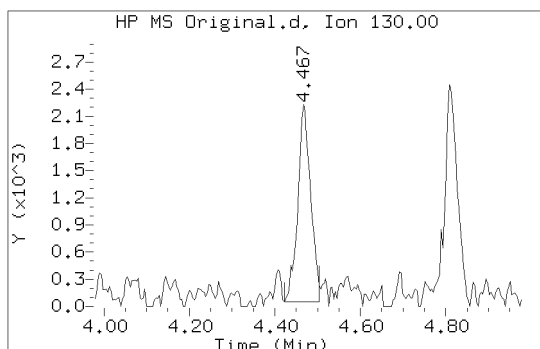
AFTER

MASS
49
AREA
6333
HEIGHT
3163
18-Sep-2023
12:30
linh
pham



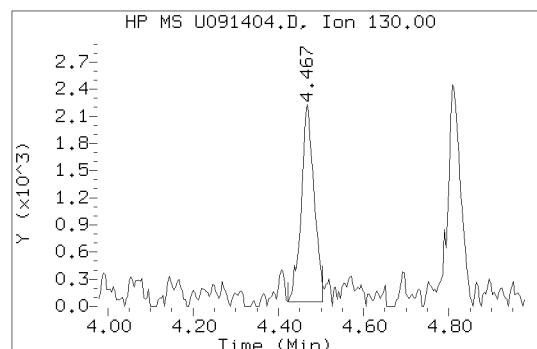
BEFORE

MASS
130
AREA
4634
HEIGHT
2183
18-Sep-2023
12:30
linh
pham



AFTER

MASS
130
AREA
4634
HEIGHT
2183
18-Sep-2023
12:30
linh
pham

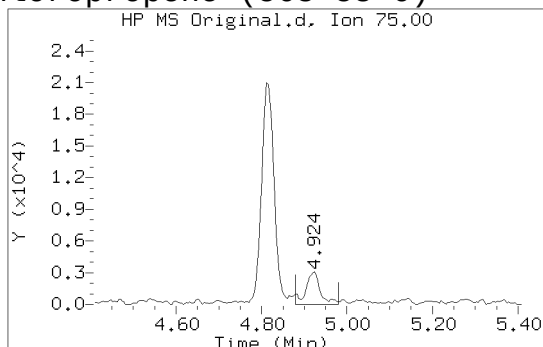


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

1,1-Dichloropropene (563-58-6)

BEFORE

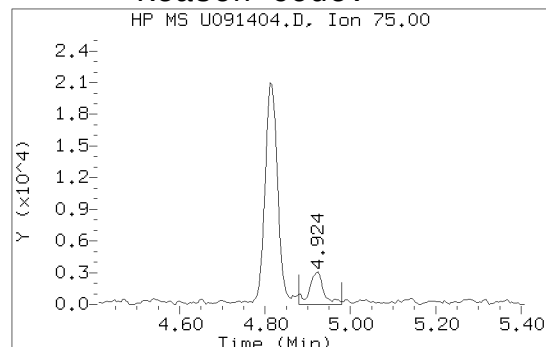
MASS
75
AREA
7313
HEIGHT
3072
18-Sep-2023
12:30
linh



AFTER

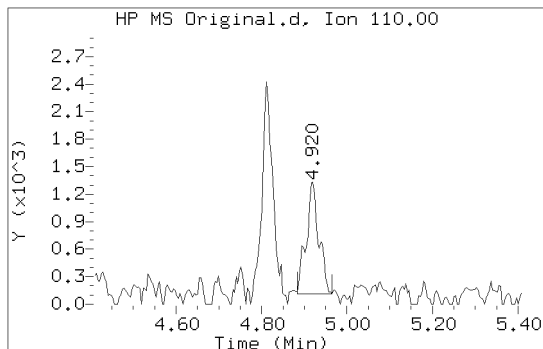
MASS
75
AREA
7313
HEIGHT
3072
18-Sep-2023
12:30
linh

Reason Code:



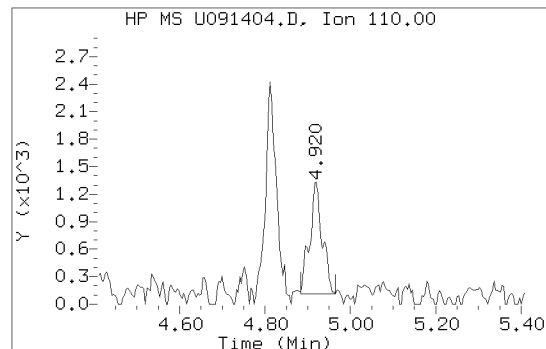
BEFORE

MASS
110
AREA
2544
HEIGHT
1225
18-Sep-2023
12:30
linh
pham



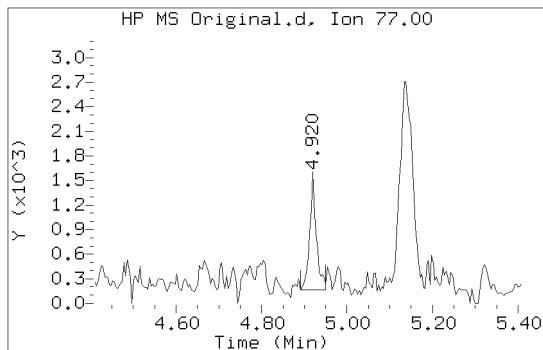
AFTER

MASS
110
AREA
2544
HEIGHT
1225
18-Sep-2023
12:30
linh
pham



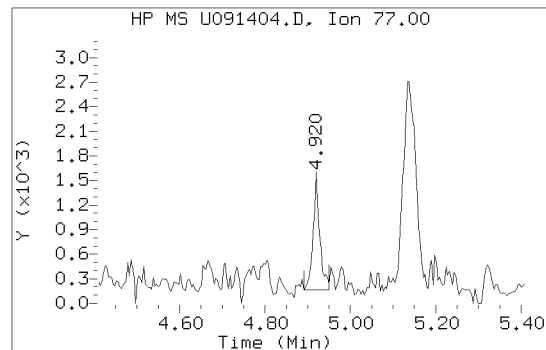
BEFORE

MASS
77
AREA
1545
HEIGHT
1442
18-Sep-2023
12:30
linh
pham



AFTER

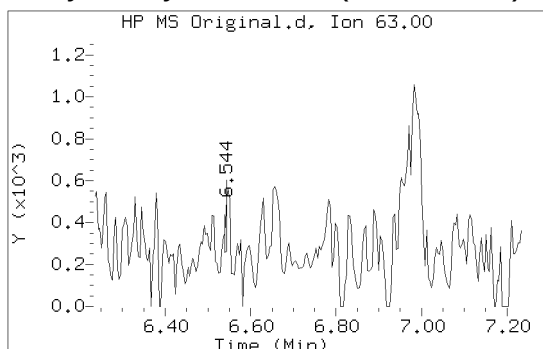
MASS
77
AREA
1545
HEIGHT
1442
18-Sep-2023
12:30
linh
pham



2-Chloroethylvinyl ether (110-75-8)

BEFORE

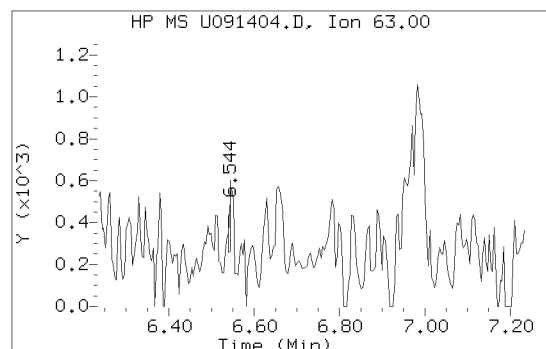
MASS
63
AREA
75
HEIGHT
246
18-Sep-2023
12:30
linh
pham



AFTER

MASS
63
AREA
75
HEIGHT
246
18-Sep-2023
12:30
linh
pham

Reason Code:

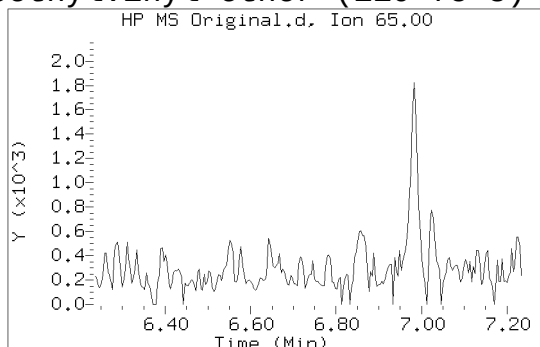


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

2-Chloroethylvinyl ether (110-75-8)

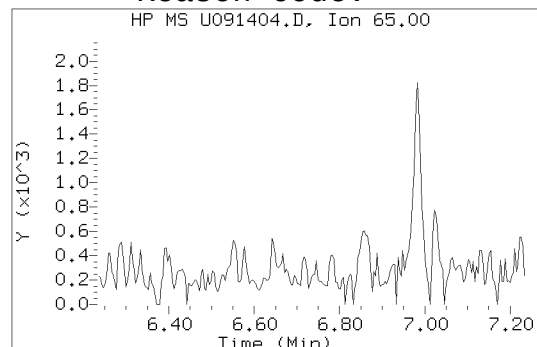
BEFORE

MASS
65
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh



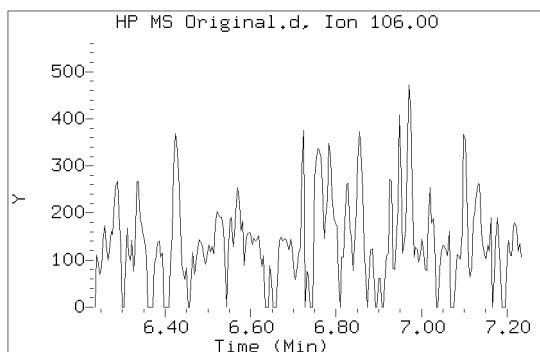
AFTER

MASS
65
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh



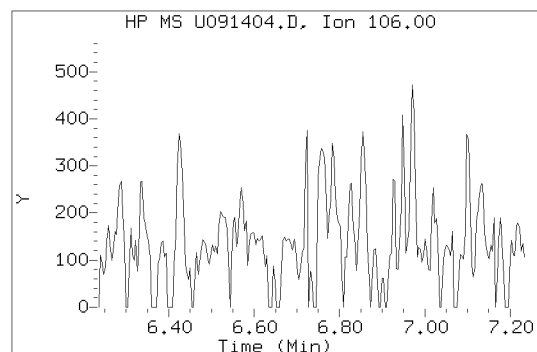
BEFORE

MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham



AFTER

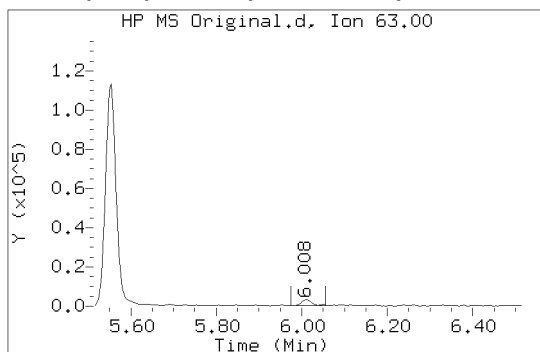
MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham



1,2-Dichloropropane (78-87-5)

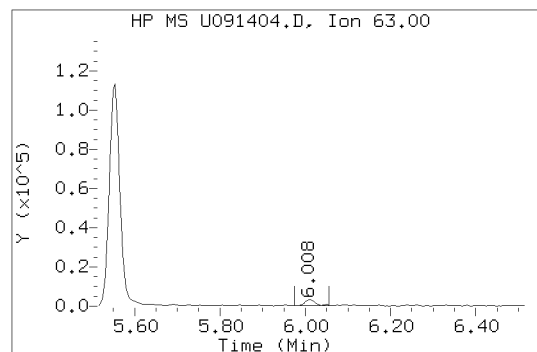
BEFORE

MASS
63
AREA
5092
HEIGHT
3016
18-Sep-2023
12:30
linh
pham



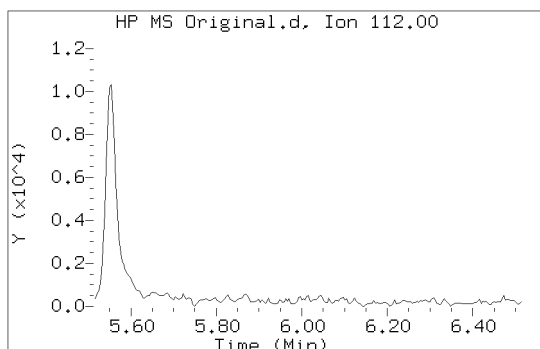
AFTER

MASS
63
AREA
5092
HEIGHT
3016
18-Sep-2023
12:30
linh
pham



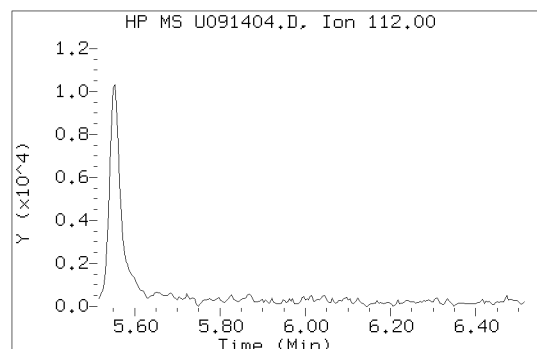
BEFORE

MASS
112
AREA
21302
HEIGHT
10267
18-Sep-2023
12:30
linh
pham



AFTER

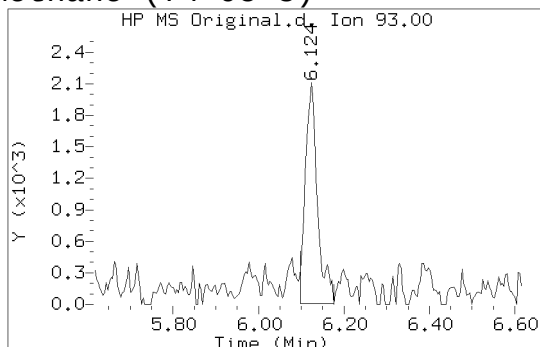
MASS
112
AREA
21302
HEIGHT
10267
18-Sep-2023
12:30
linh
pham



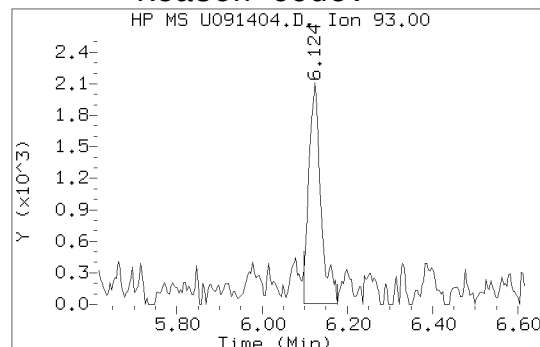
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Dibromomethane (74-95-3)**BEFORE**

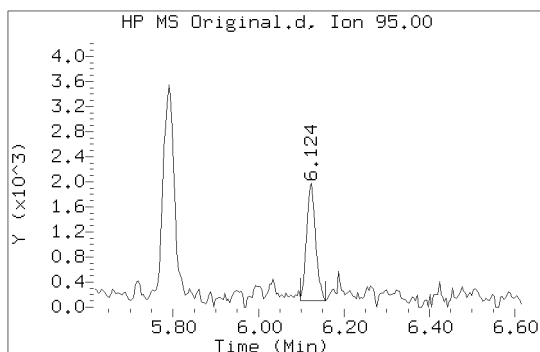
MASS
93
AREA
4246
HEIGHT
2105
18-Sep-2023
12:30
linh

**AFTER**

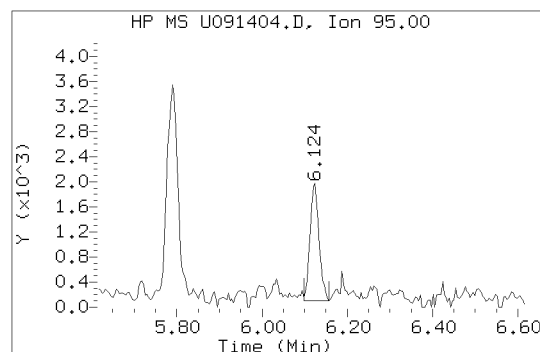
MASS
93
AREA
4246
HEIGHT
2105
18-Sep-2023
12:30
linh

**BEFORE**

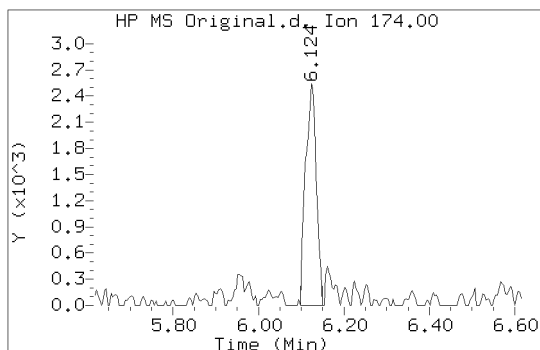
MASS
95
AREA
2839
HEIGHT
1877
18-Sep-2023
12:30
linh
pham

**AFTER**

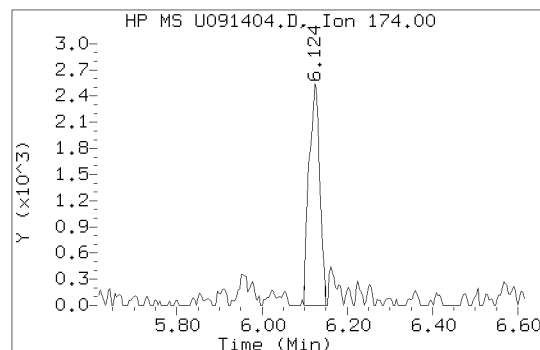
MASS
95
AREA
2839
HEIGHT
1877
18-Sep-2023
12:30
linh
pham

**BEFORE**

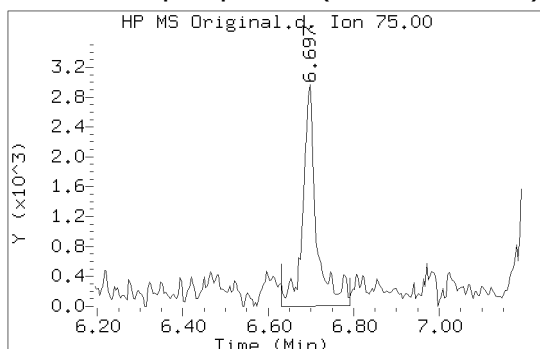
MASS
174
AREA
4553
HEIGHT
2542
18-Sep-2023
12:30
linh
pham

**AFTER**

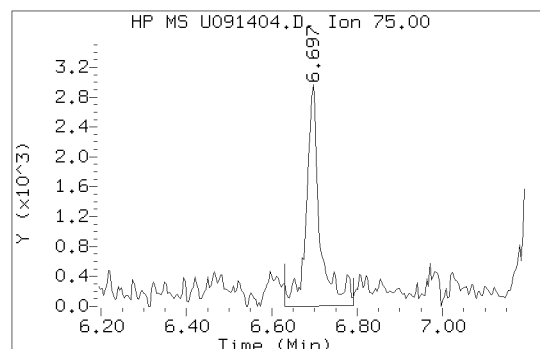
MASS
174
AREA
4553
HEIGHT
2542
18-Sep-2023
12:30
linh
pham

**cis-1,3-Dichloropropene (10061-01-5)****BEFORE**

MASS
75
AREA
6792
HEIGHT
2962
18-Sep-2023
12:30
linh
pham

**AFTER**

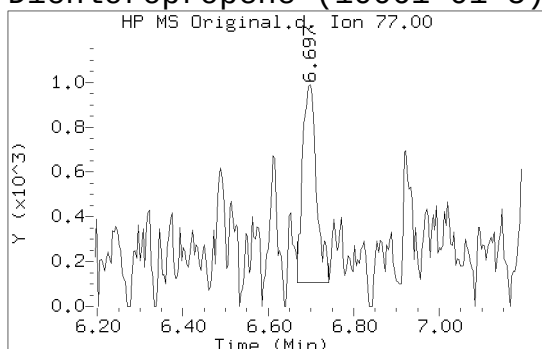
MASS
75
AREA
6792
HEIGHT
2962
18-Sep-2023
12:30
linh
pham



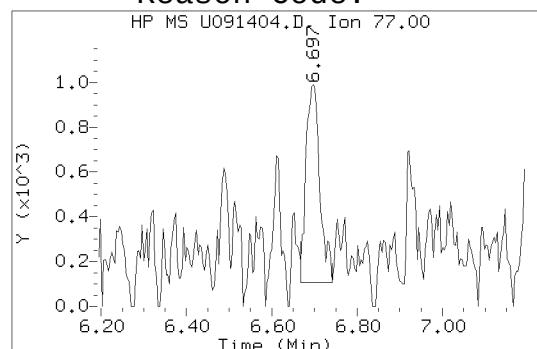
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

cis-1,3-Dichloropropene (10061-01-5)**BEFORE**

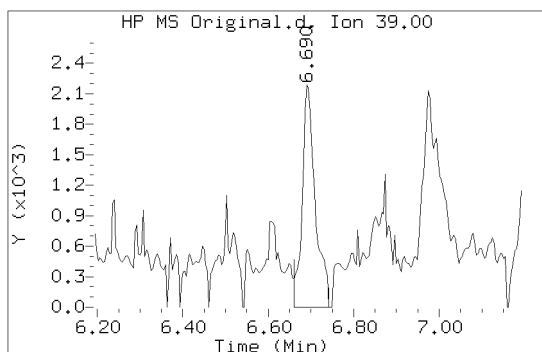
MASS
77
AREA
2047
HEIGHT
885
18-Sep-2023
12:30
linh

**AFTER**

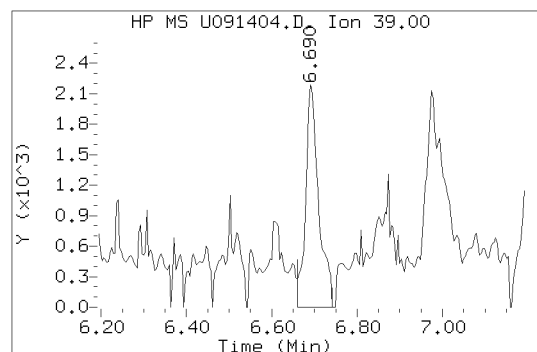
MASS
77
AREA
2047
HEIGHT
885
18-Sep-2023
12:30
linh

**BEFORE**

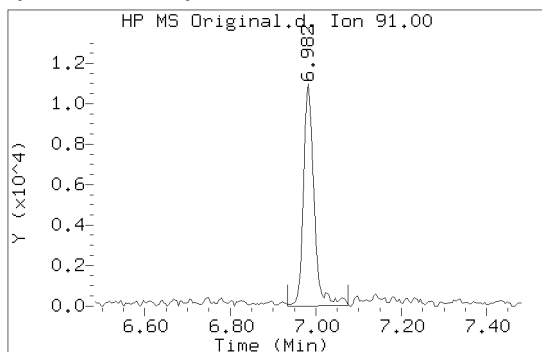
MASS
39
AREA
4707
HEIGHT
2187
18-Sep-2023
12:30
linh
pham

**AFTER**

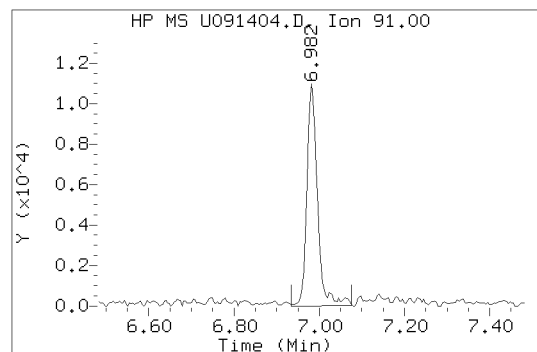
MASS
39
AREA
4707
HEIGHT
2187
18-Sep-2023
12:30
linh
pham

**Toluene (108-88-3)****BEFORE**

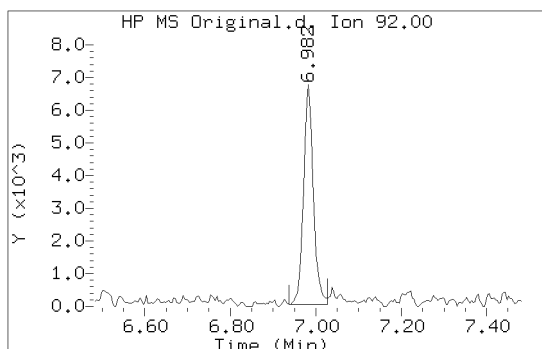
MASS
91
AREA
19537
HEIGHT
10979
18-Sep-2023
12:30
linh
pham

**AFTER**

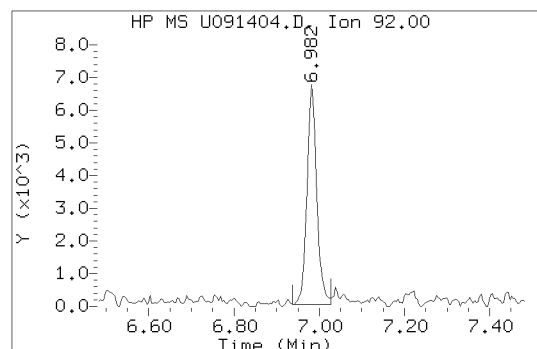
MASS
91
AREA
19537
HEIGHT
10979
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
92
AREA
10970
HEIGHT
6718
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
92
AREA
10970
HEIGHT
6718
18-Sep-2023
12:30
linh
pham

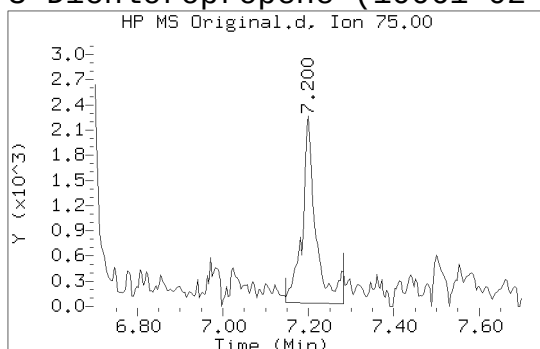


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

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

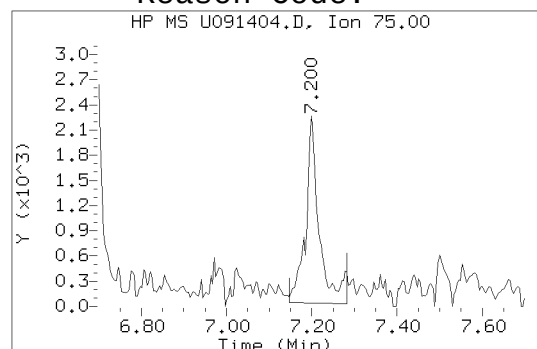
BEFORE

MASS
75
AREA
5013
HEIGHT
2230
18-Sep-2023
12:30
linh



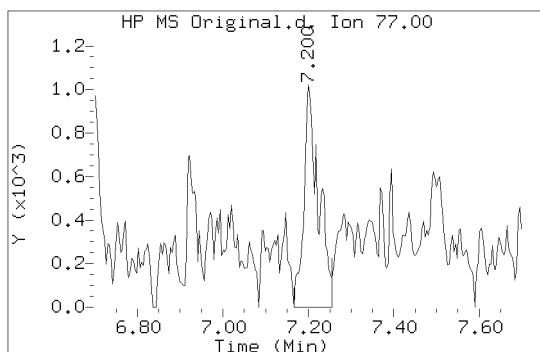
AFTER

MASS
75
AREA
5013
HEIGHT
2230
18-Sep-2023
12:30
linh



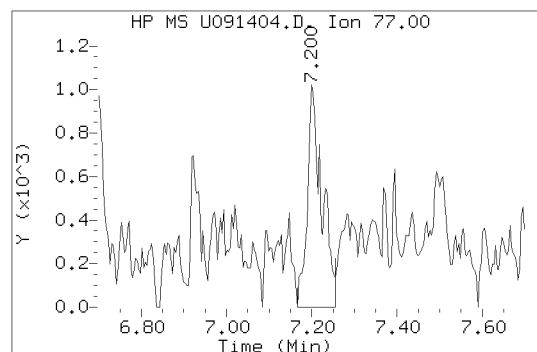
BEFORE

MASS
77
AREA
2458
HEIGHT
1021
18-Sep-2023
12:30
linh
pham



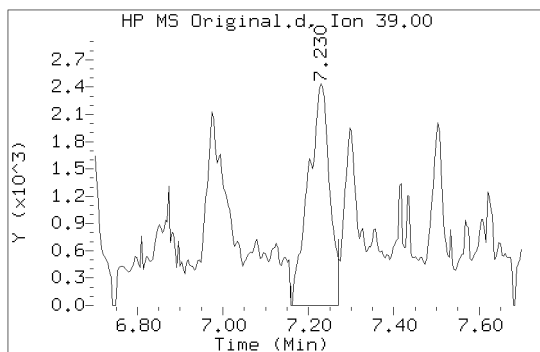
AFTER

MASS
77
AREA
2458
HEIGHT
1021
18-Sep-2023
12:30
linh
pham



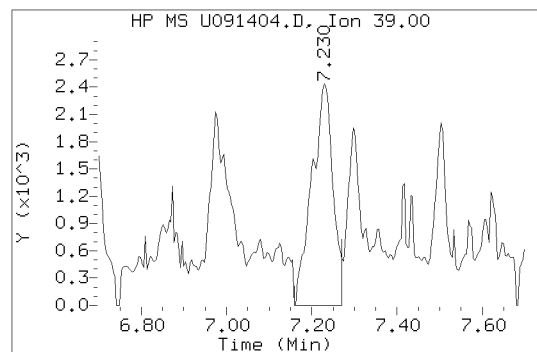
BEFORE

MASS
39
AREA
8449
HEIGHT
2437
18-Sep-2023
12:30
linh
pham



AFTER

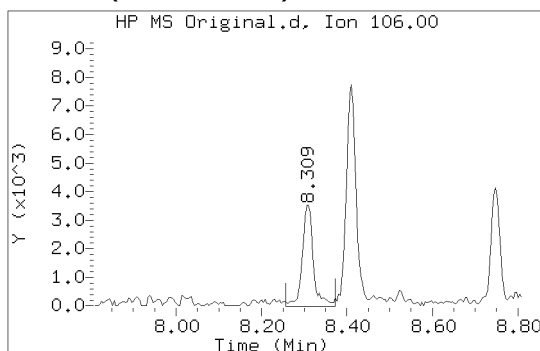
MASS
39
AREA
8449
HEIGHT
2437
18-Sep-2023
12:30
linh
pham



Ethylbenzene (100-41-4)

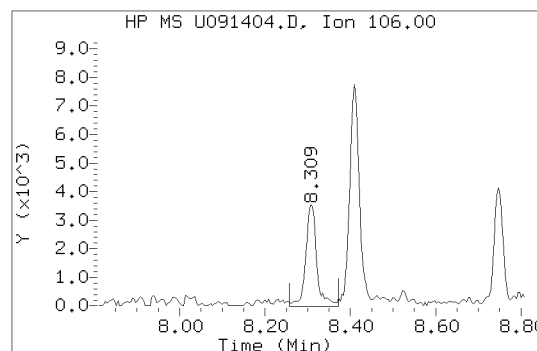
BEFORE

MASS
106
AREA
6608
HEIGHT
3550
18-Sep-2023
12:30
linh
pham



AFTER

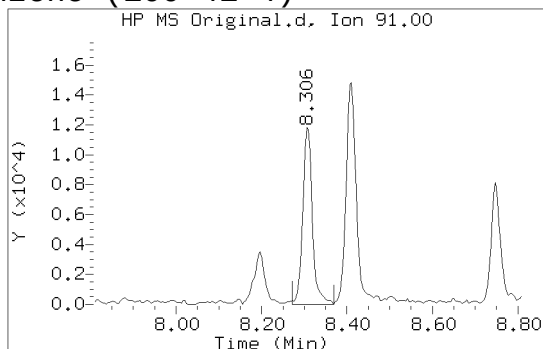
MASS
106
AREA
6608
HEIGHT
3550
18-Sep-2023
12:30
linh
pham



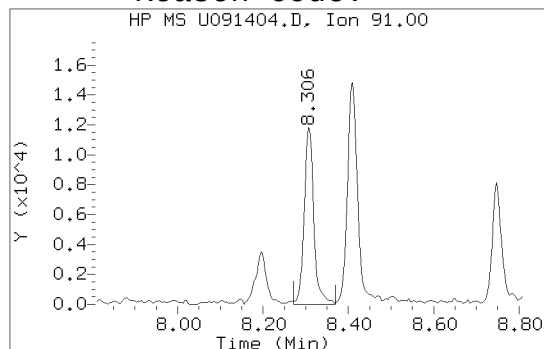
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Ethylbenzene (100-41-4)**BEFORE**

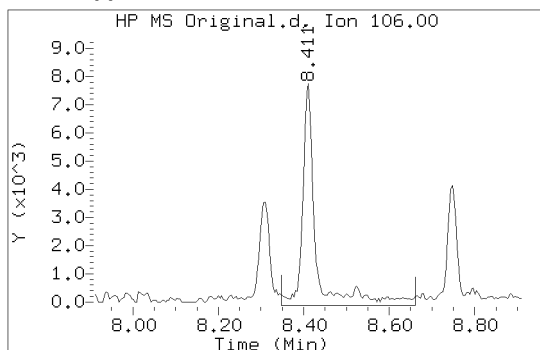
MASS
91
AREA
18837
HEIGHT
11841
18-Sep-2023
12:30
linh
pham

**AFTER**

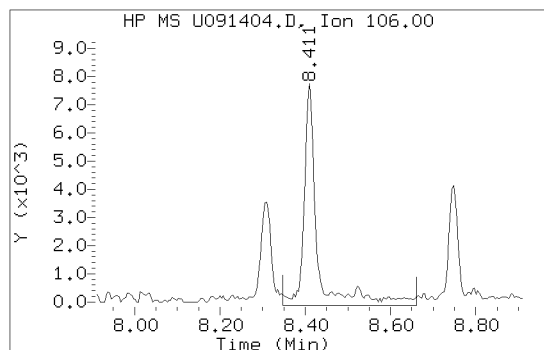
MASS
91
AREA
18837
HEIGHT
11841
18-Sep-2023
12:30
linh
pham

**m,p-Xylenes ()****BEFORE**

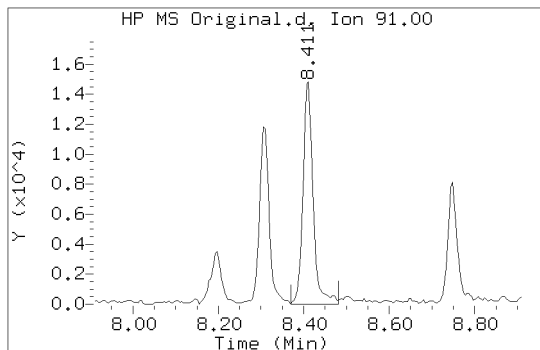
MASS
106
AREA
17428
HEIGHT
7866
18-Sep-2023
12:30
linh
pham

**AFTER**

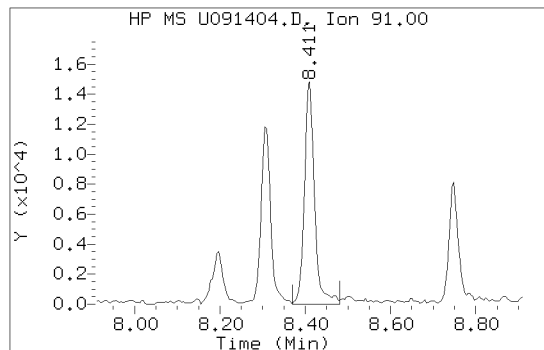
MASS
106
AREA
17428
HEIGHT
7866
18-Sep-2023
12:30
linh
pham

**BEFORE**

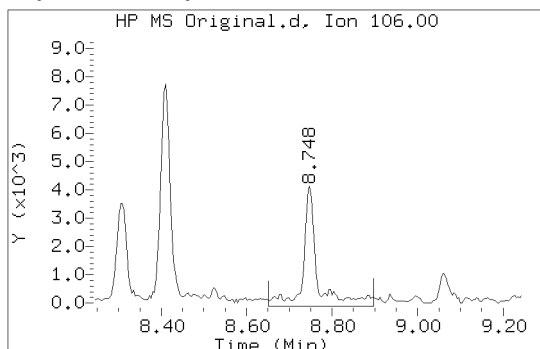
MASS
91
AREA
25036
HEIGHT
14820
18-Sep-2023
12:30
linh
pham

**AFTER**

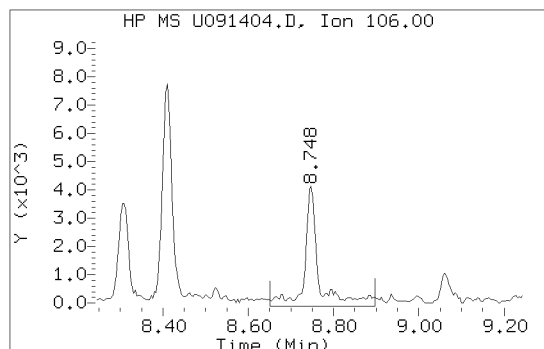
MASS
91
AREA
25036
HEIGHT
14820
18-Sep-2023
12:30
linh
pham

**o-Xylene (95-47-6)****BEFORE**

MASS
106
AREA
10098
HEIGHT
4252
18-Sep-2023
12:30
linh
pham

**AFTER**

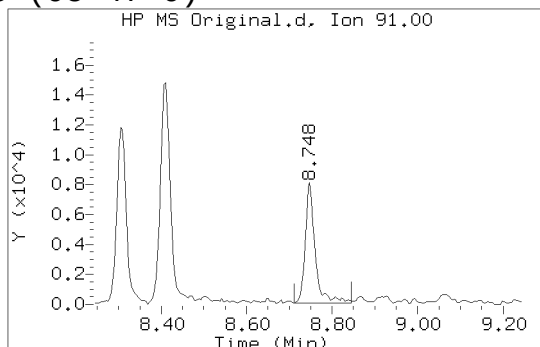
MASS
106
AREA
10098
HEIGHT
4252
18-Sep-2023
12:30
linh
pham



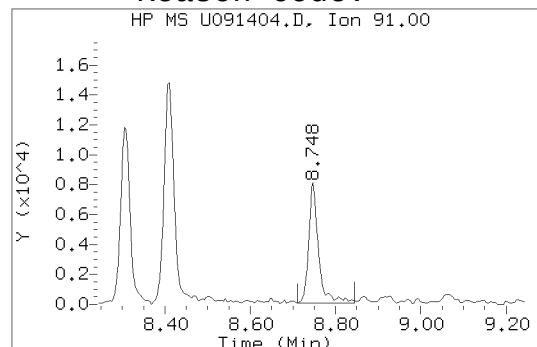
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

o-Xylene (95-47-6)**BEFORE**

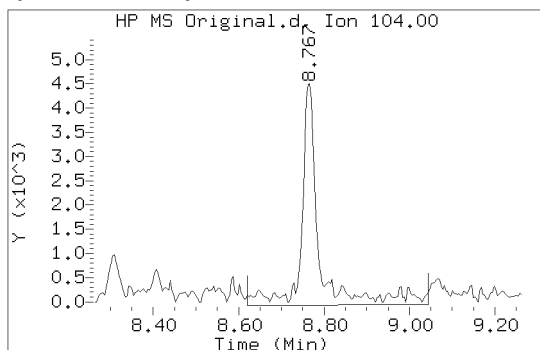
MASS
91
AREA
13234
HEIGHT
8071
18-Sep-2023
12:30
linh
pham

**AFTER**

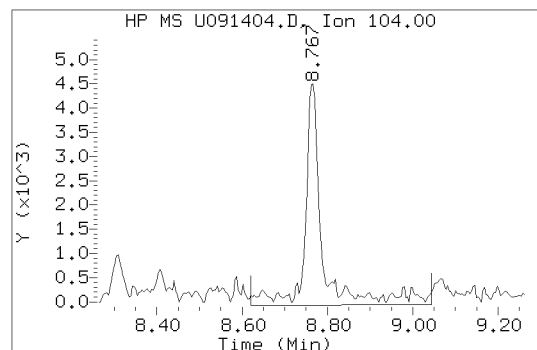
MASS
91
AREA
13234
HEIGHT
8071
18-Sep-2023
12:30
linh
pham

Reason Code:**Styrene (100-42-5)****BEFORE**

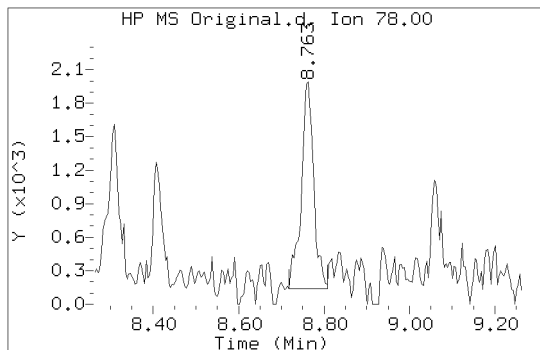
MASS
104
AREA
13244
HEIGHT
4573
18-Sep-2023
12:30
linh
pham

**AFTER**

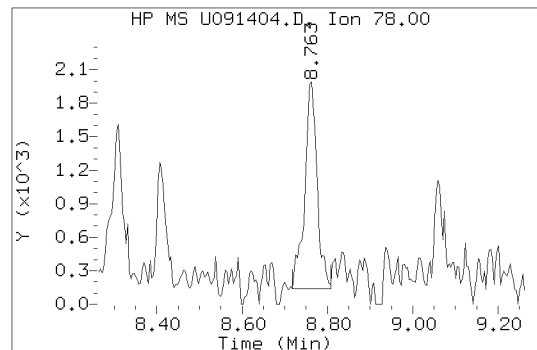
MASS
104
AREA
13244
HEIGHT
4573
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

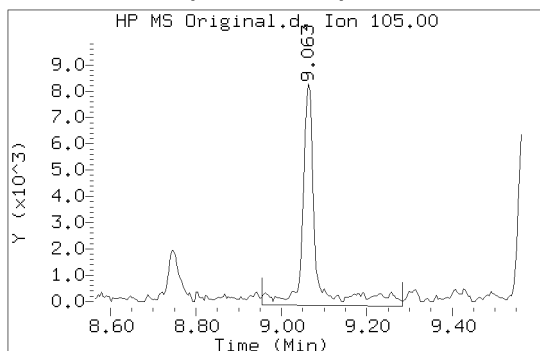
MASS
78
AREA
3820
HEIGHT
1855
18-Sep-2023
12:30
linh
pham

**AFTER**

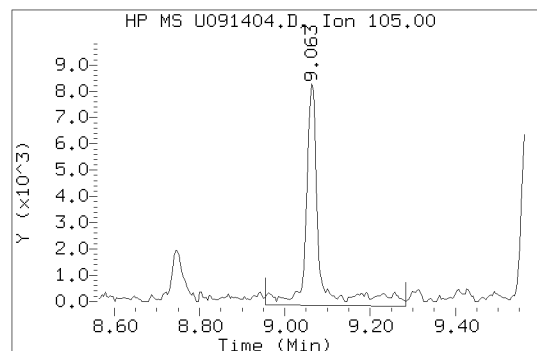
MASS
78
AREA
3820
HEIGHT
1855
18-Sep-2023
12:30
linh
pham

**Isopropylbenzene (98-82-8)****BEFORE**

MASS
105
AREA
19078
HEIGHT
8430
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
105
AREA
19078
HEIGHT
8430
18-Sep-2023
12:30
linh
pham

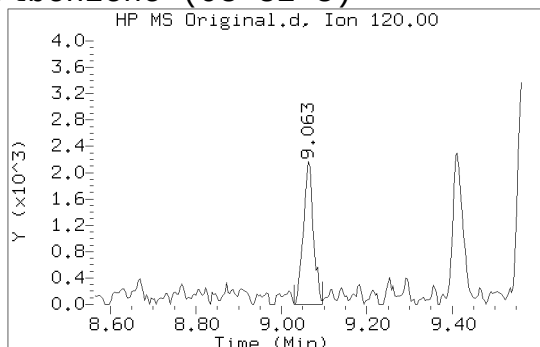
Reason Code:

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Isopropylbenzene (98-82-8)

BEFORE

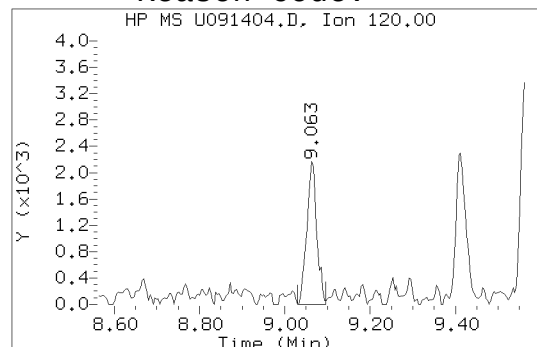
MASS
120
AREA
3600
HEIGHT
2175
18-Sep-2023
12:30
linh
pham



AFTER

MASS
120
AREA
3600
HEIGHT
2175
18-Sep-2023
12:30
linh
pham

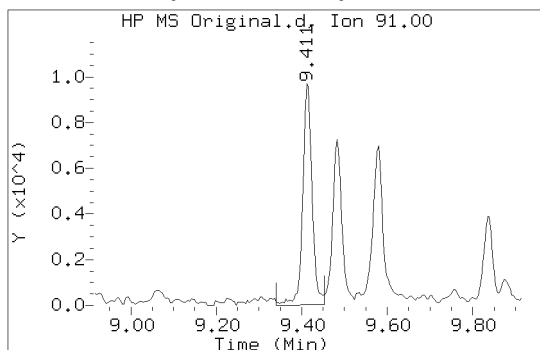
Reason Code:



n-Propylbenzene (106-65-1)

BEFORE

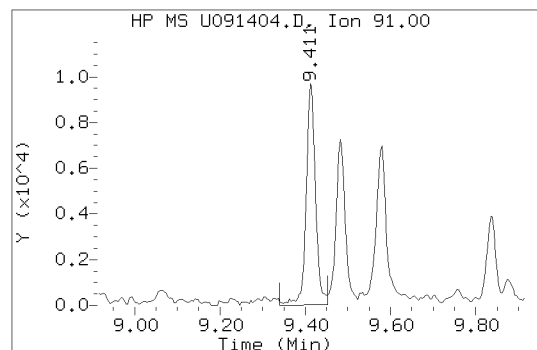
MASS
91
AREA
15066
HEIGHT
9677
18-Sep-2023
12:30
linh
pham



AFTER

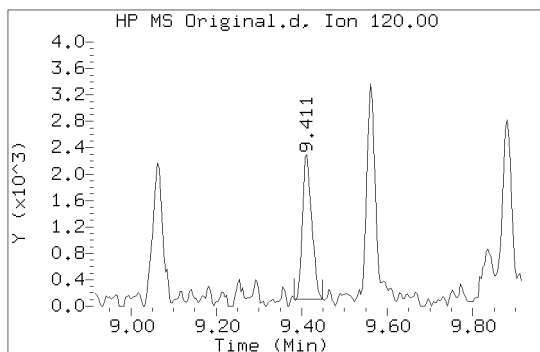
MASS
91
AREA
15066
HEIGHT
9677
18-Sep-2023
12:30
linh
pham

Reason Code:



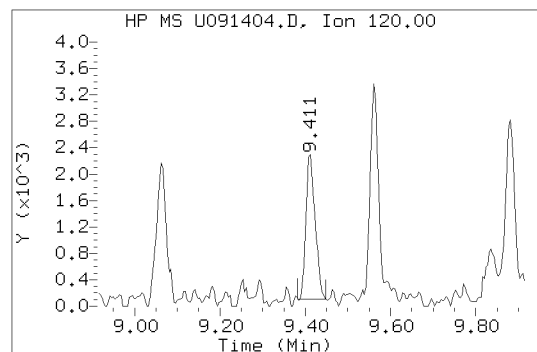
BEFORE

MASS
120
AREA
3359
HEIGHT
2192
18-Sep-2023
12:30
linh
pham



AFTER

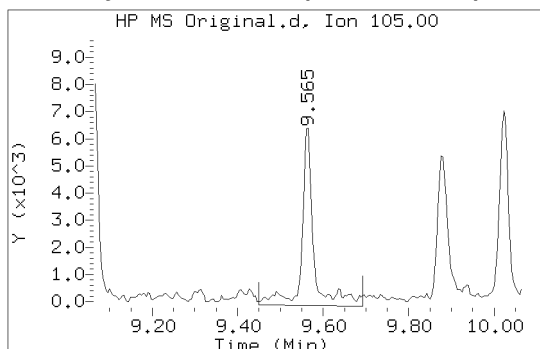
MASS
120
AREA
3359
HEIGHT
2192
18-Sep-2023
12:30
linh
pham



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

BEFORE

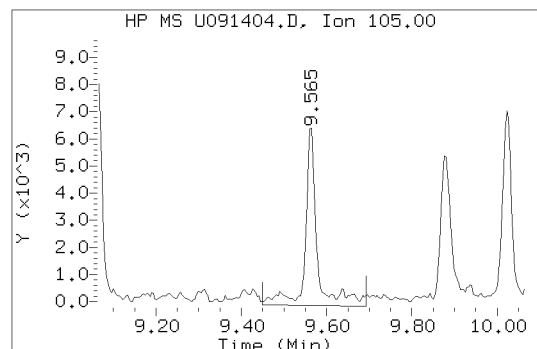
MASS
105
AREA
13057
HEIGHT
6515
18-Sep-2023
12:30
linh
pham



AFTER

MASS
105
AREA
13057
HEIGHT
6515
18-Sep-2023
12:30
linh
pham

Reason Code:

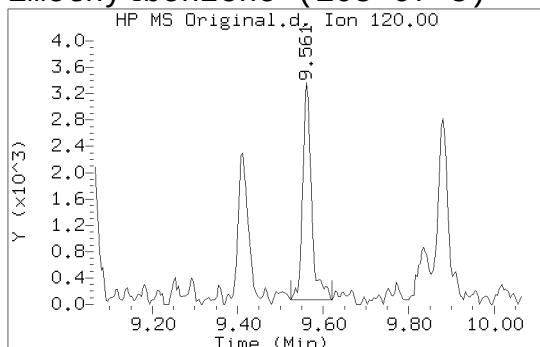


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

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

BEFORE

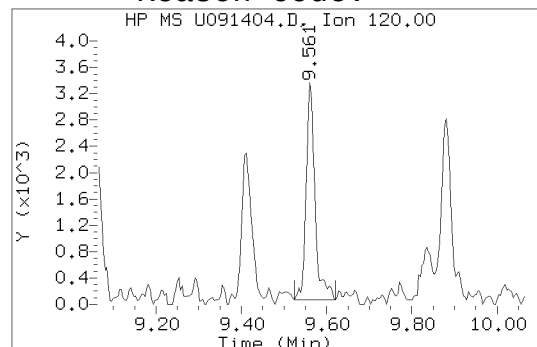
MASS
120
AREA
4890
HEIGHT
3298
18-Sep-2023
12:30
linh
pham



AFTER

MASS
120
AREA
4890
HEIGHT
3298
18-Sep-2023
12:30
linh
pham

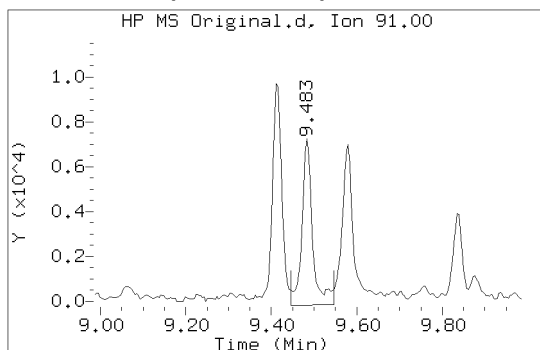
Reason Code:



2-Chlorotoluene (95-49-8)

BEFORE

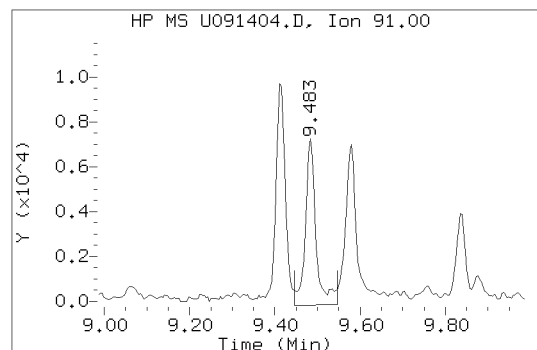
MASS
91
AREA
13160
HEIGHT
7432
18-Sep-2023
12:30
linh
pham



AFTER

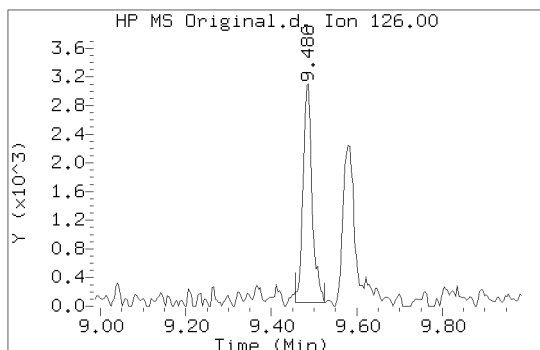
MASS
91
AREA
13160
HEIGHT
7432
18-Sep-2023
12:30
linh
pham

Reason Code:



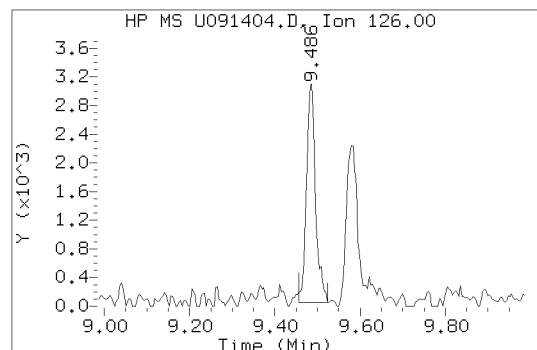
BEFORE

MASS
126
AREA
4570
HEIGHT
3049
18-Sep-2023
12:30
linh
pham



AFTER

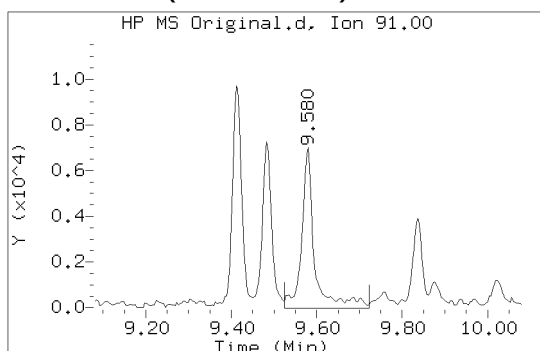
MASS
126
AREA
4570
HEIGHT
3049
18-Sep-2023
12:30
linh
pham



4-Chlorotoluene (106-43-4)

BEFORE

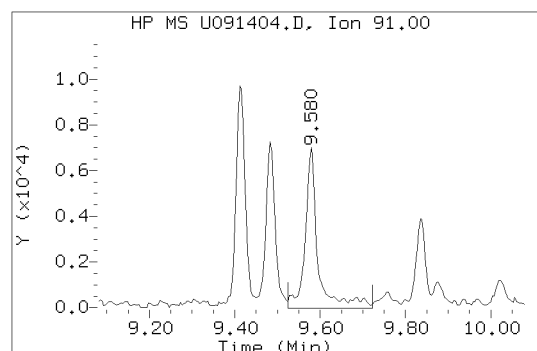
MASS
91
AREA
14951
HEIGHT
7013
18-Sep-2023
12:30
linh
pham



AFTER

MASS
91
AREA
14951
HEIGHT
7013
18-Sep-2023
12:30
linh
pham

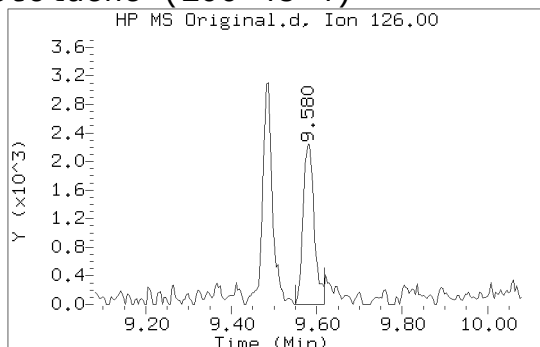
Reason Code:



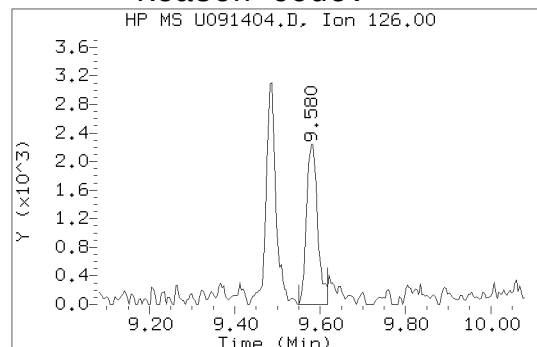
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

4-Chlorotoluene (106-43-4)**BEFORE**

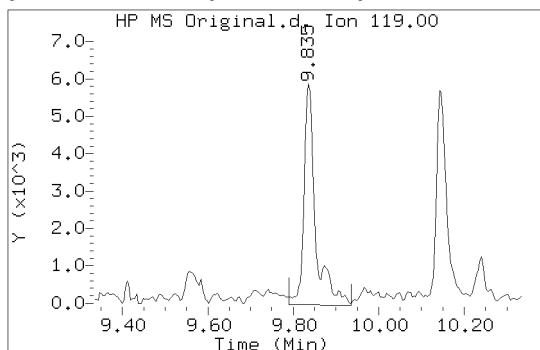
MASS
126
AREA
4174
HEIGHT
2241
18-Sep-2023
12:30
linh
pham

**AFTER**

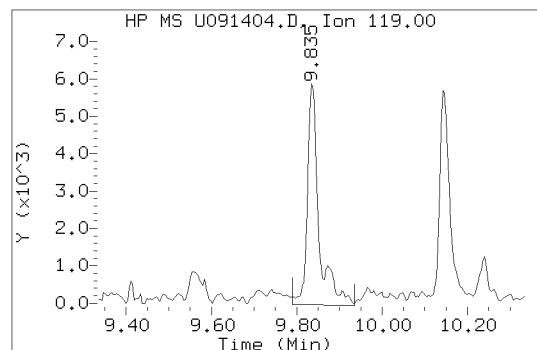
MASS
126
AREA
4174
HEIGHT
2241
18-Sep-2023
12:30
linh
pham

Reason Code:**tert-Butylbenzene (98-06-6)****BEFORE**

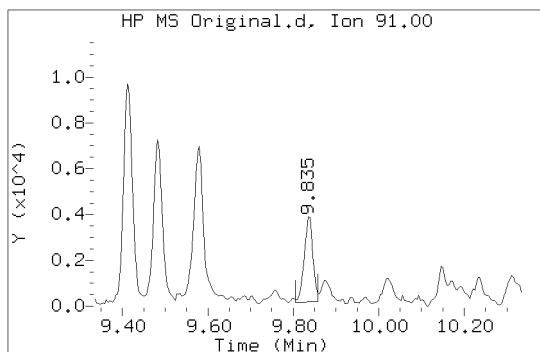
MASS
119
AREA
11393
HEIGHT
5910
18-Sep-2023
12:30
linh
pham

**AFTER**

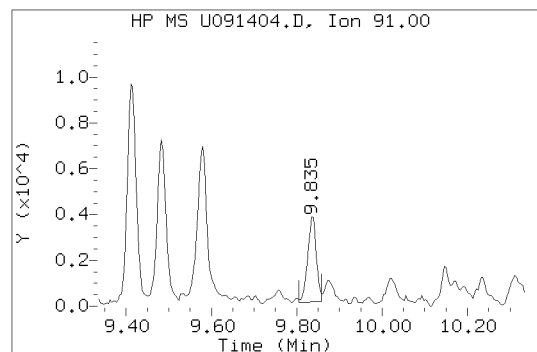
MASS
119
AREA
11393
HEIGHT
5910
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

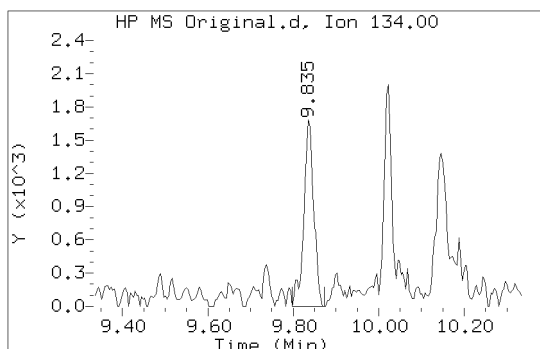
MASS
91
AREA
5384
HEIGHT
3707
18-Sep-2023
12:30
linh
pham

**AFTER**

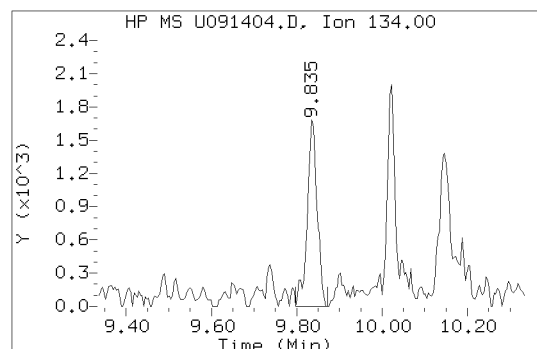
MASS
91
AREA
5384
HEIGHT
3707
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
134
AREA
2769
HEIGHT
1683
18-Sep-2023
12:30
linh
pham

**AFTER**

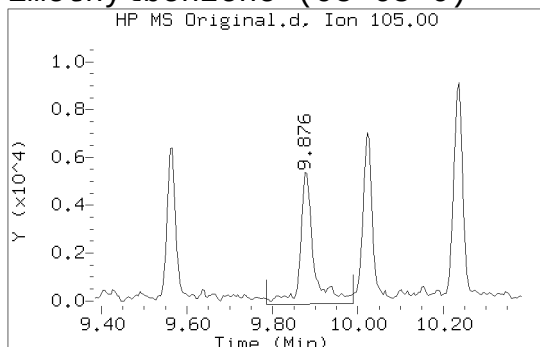
MASS
134
AREA
2769
HEIGHT
1683
18-Sep-2023
12:30
linh
pham



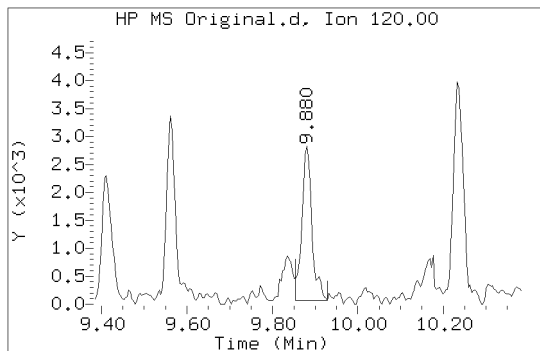
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

1,2,4-Trimethylbenzene (95-63-6)**BEFORE**

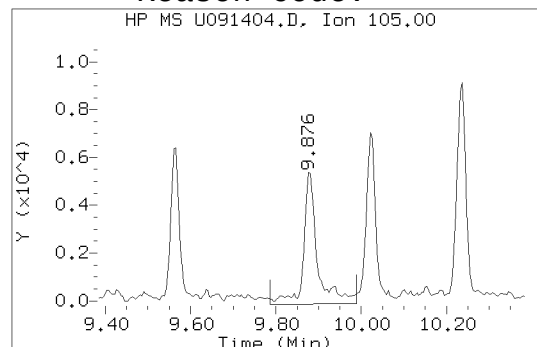
MASS
105
AREA
12753
HEIGHT
5515
18-Sep-2023
12:30
linh

**BEFORE**

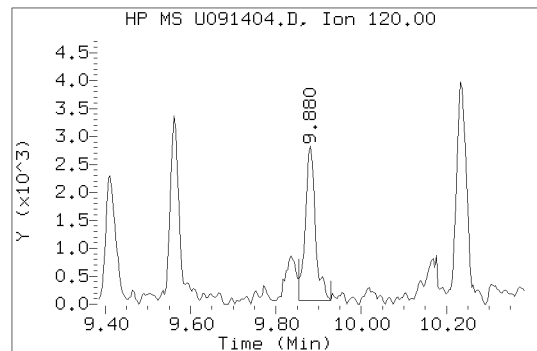
MASS
120
AREA
4598
HEIGHT
2753
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
105
AREA
12753
HEIGHT
5515
18-Sep-2023
12:30
linh

**AFTER**

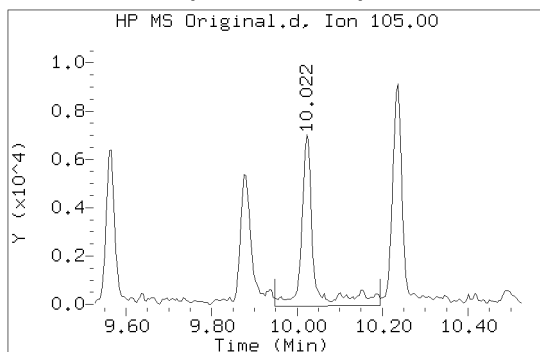
MASS
120
AREA
4598
HEIGHT
2753
18-Sep-2023
12:30
linh
pham



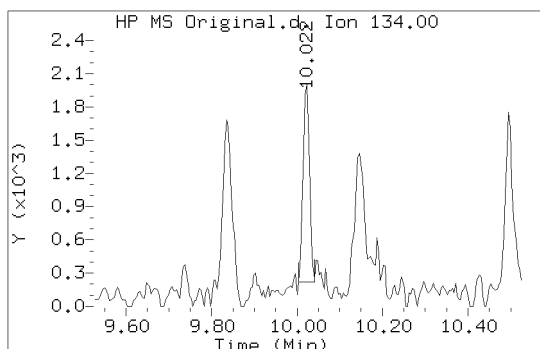
Reason Code:

sec-Butylbenzene (135-98-8)**BEFORE**

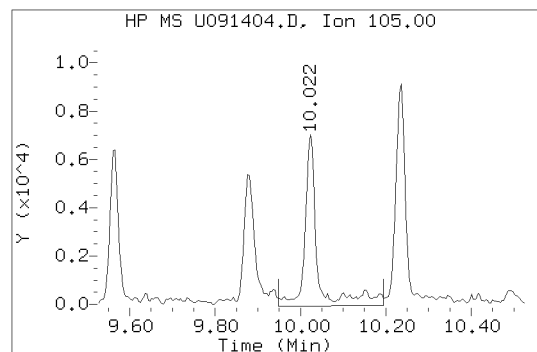
MASS
105
AREA
14747
HEIGHT
7102
18-Sep-2023
12:30
linh
pham

**BEFORE**

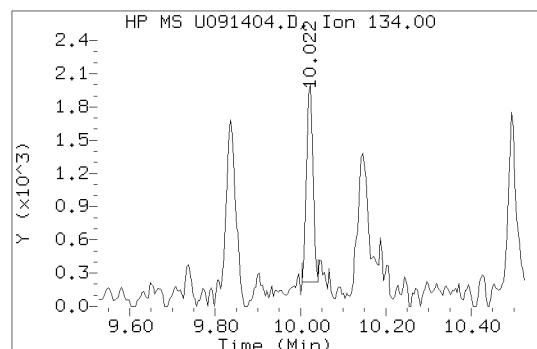
MASS
134
AREA
1895
HEIGHT
1783
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
105
AREA
14747
HEIGHT
7102
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
134
AREA
1895
HEIGHT
1783
18-Sep-2023
12:30
linh
pham



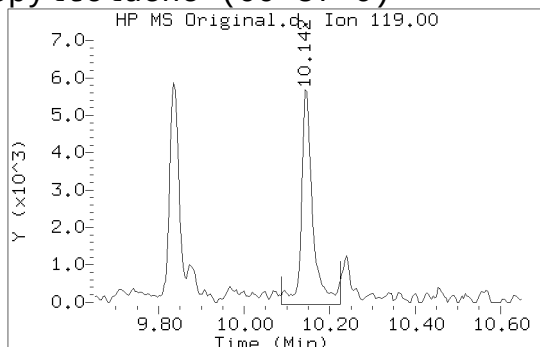
Reason Code:

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

p-Isopropyltoluene (99-87-6)

BEFORE

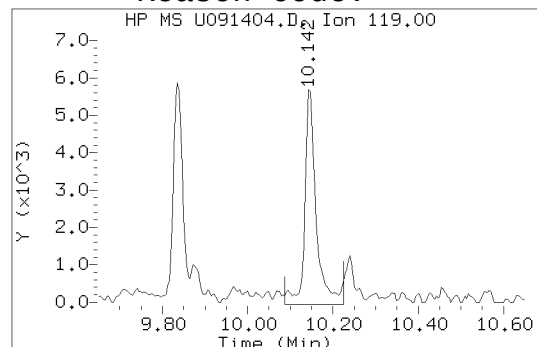
MASS
119
AREA
10971
HEIGHT
5738
18-Sep-2023
12:30
linh
pham



AFTER

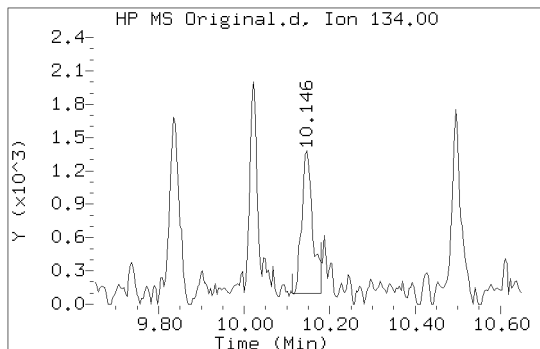
MASS
119
AREA
10971
HEIGHT
5738
18-Sep-2023
12:30
linh
pham

Reason Code:



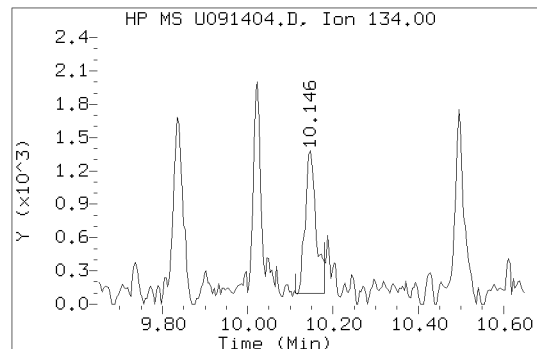
BEFORE

MASS
134
AREA
2324
HEIGHT
1281
18-Sep-2023
12:30
linh
pham



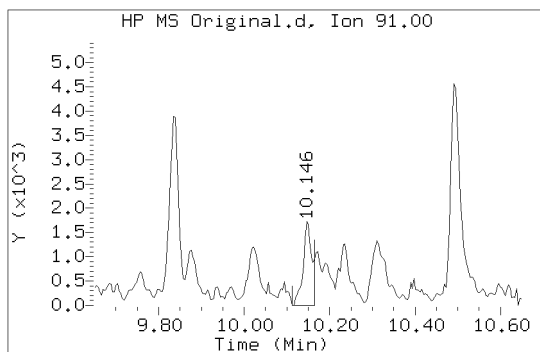
AFTER

MASS
134
AREA
2324
HEIGHT
1281
18-Sep-2023
12:30
linh
pham



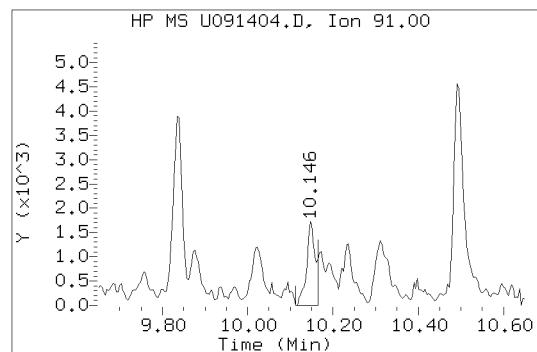
BEFORE

MASS
91
AREA
2549
HEIGHT
1733
18-Sep-2023
12:30
linh
pham



AFTER

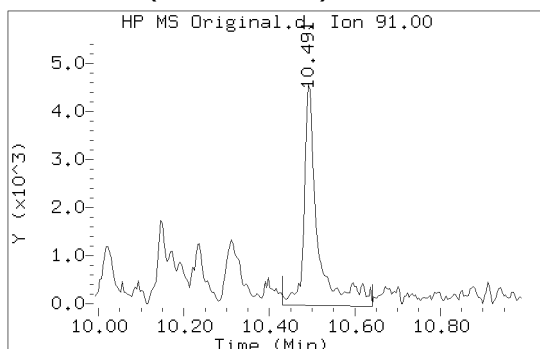
MASS
91
AREA
2549
HEIGHT
1733
18-Sep-2023
12:30
linh
pham



n-Butylbenzene (104-51-8)

BEFORE

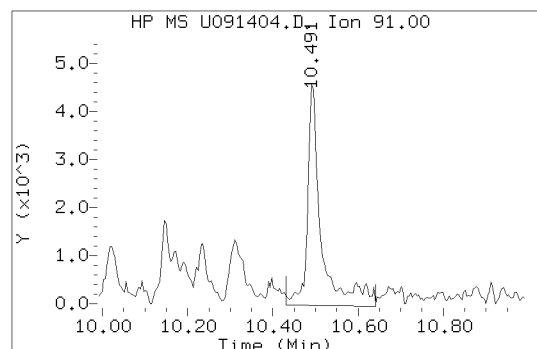
MASS
91
AREA
10524
HEIGHT
4594
18-Sep-2023
12:30
linh
pham



AFTER

MASS
91
AREA
10524
HEIGHT
4594
18-Sep-2023
12:30
linh
pham

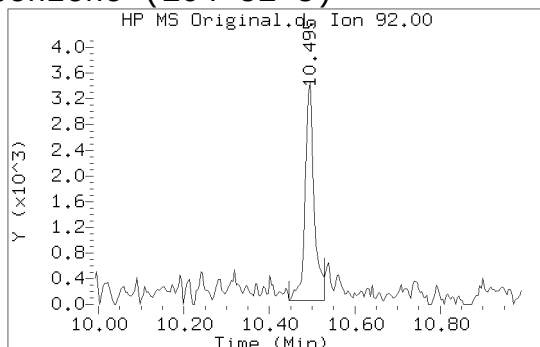
Reason Code:



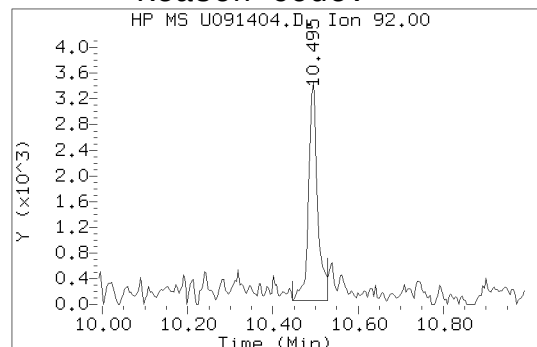
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

n-Butylbenzene (104-51-8)**BEFORE**

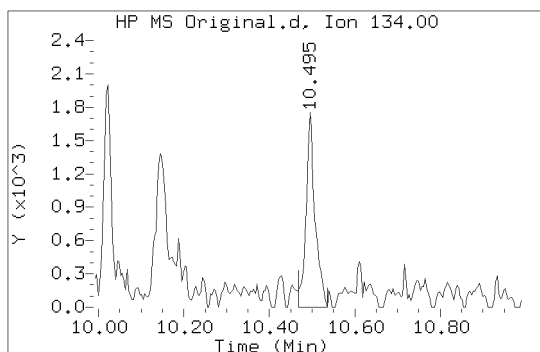
MASS
92
AREA
5135
HEIGHT
3395
18-Sep-2023
12:30
linh

**AFTER**

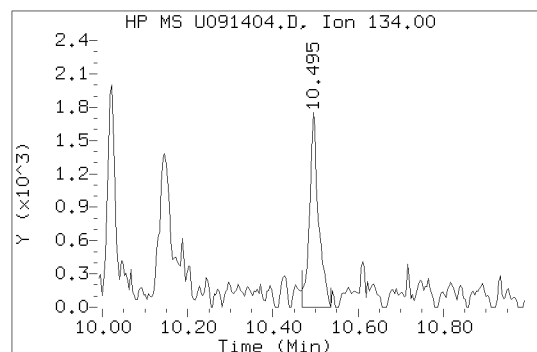
MASS
92
AREA
5135
HEIGHT
3395
18-Sep-2023
12:30
linh

**BEFORE**

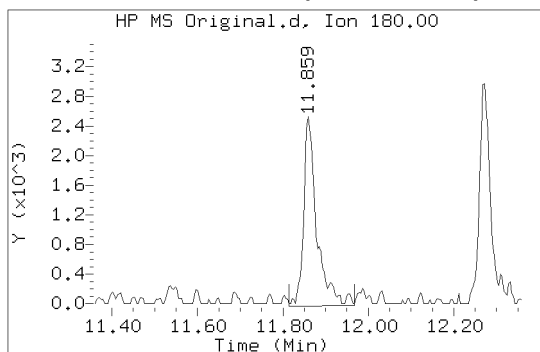
MASS
134
AREA
2625
HEIGHT
1752
18-Sep-2023
12:30
linh
pham

**AFTER**

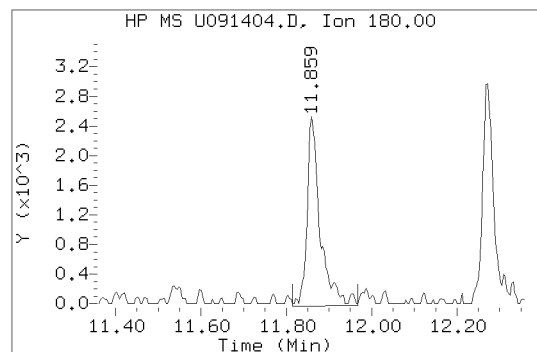
MASS
134
AREA
2625
HEIGHT
1752
18-Sep-2023
12:30
linh
pham

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

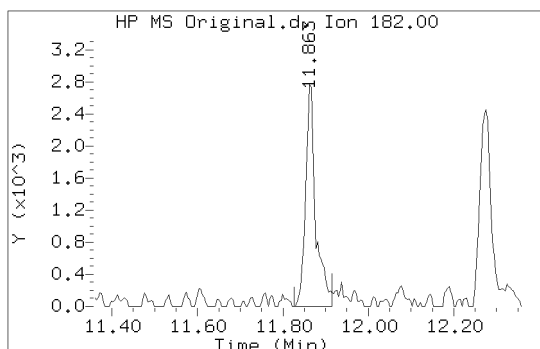
MASS
180
AREA
5578
HEIGHT
2558
18-Sep-2023
12:30
linh
pham

**AFTER**

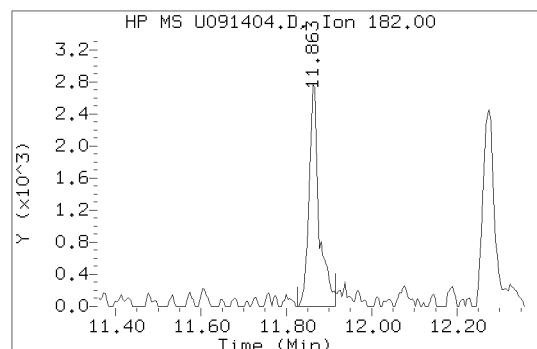
MASS
180
AREA
5578
HEIGHT
2558
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
182
AREA
4594
HEIGHT
2764
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
182
AREA
4594
HEIGHT
2764
18-Sep-2023
12:30
linh
pham

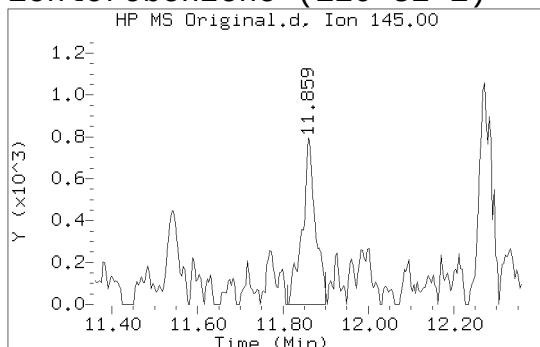


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

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

BEFORE

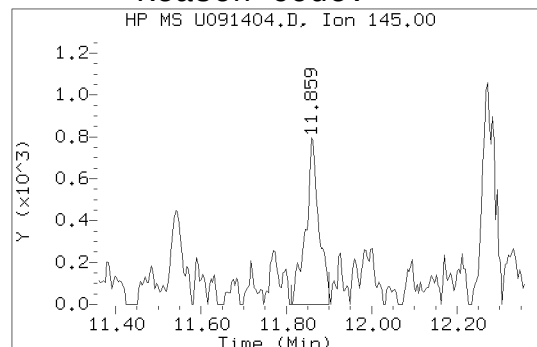
MASS
145
AREA
1727
HEIGHT
795
18-Sep-2023
12:30
linh
pham



AFTER

MASS
145
AREA
1727
HEIGHT
795
18-Sep-2023
12:30
linh
pham

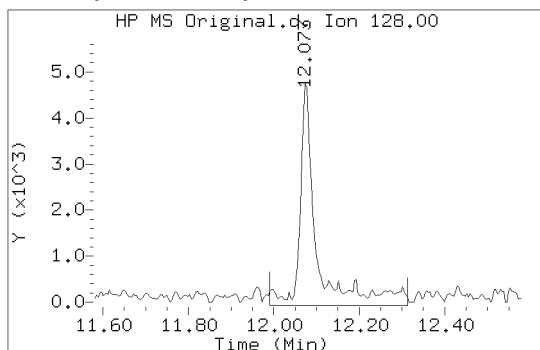
Reason Code:



Naphthalene (91-20-3)

BEFORE

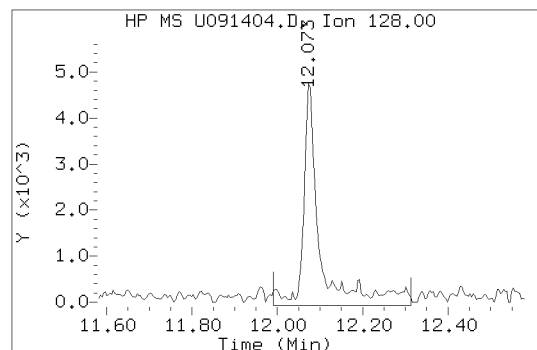
MASS
128
AREA
13176
HEIGHT
4813
18-Sep-2023
12:30
linh
pham



AFTER

MASS
128
AREA
13176
HEIGHT
4813
18-Sep-2023
12:30
linh
pham

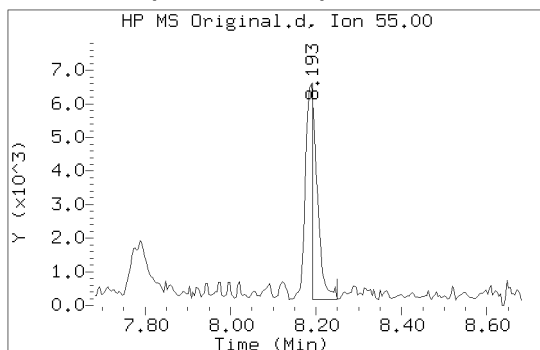
Reason Code:



1-Chlorohexane (544-10-5)

BEFORE

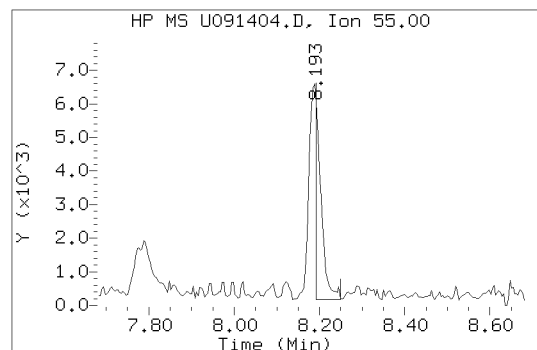
MASS
55
AREA
5582
HEIGHT
5875
18-Sep-2023
12:30
linh
pham



AFTER

MASS
55
AREA
5582
HEIGHT
5875
18-Sep-2023
12:30
linh
pham

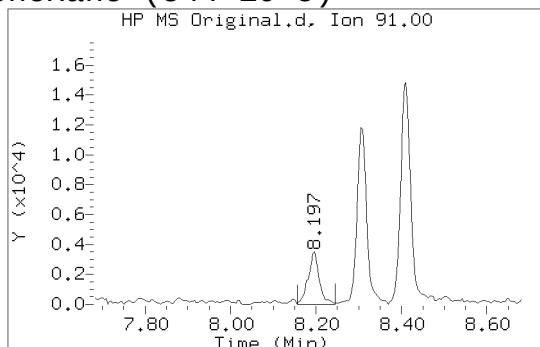
Reason Code:



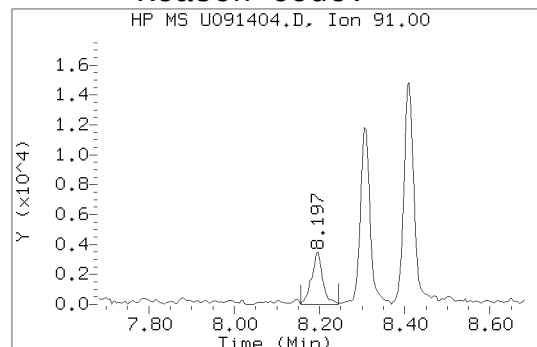
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

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

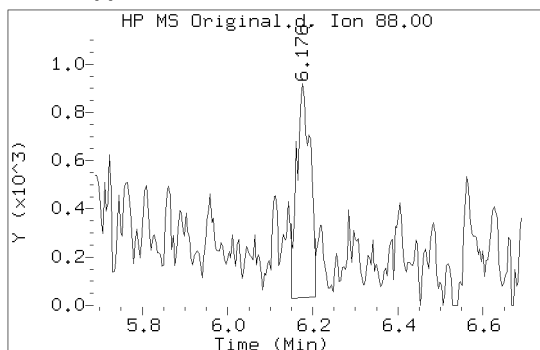
MASS
91
AREA
6348
HEIGHT
3532
18-Sep-2023
12:30
linh
pham

**AFTER**

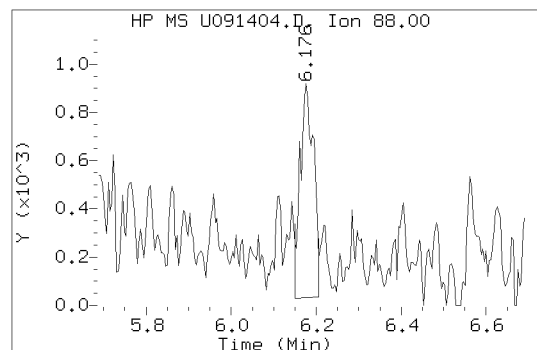
MASS
91
AREA
6348
HEIGHT
3532
18-Sep-2023
12:30
linh
pham

Reason Code:**1,4-Dioxane ()****BEFORE**

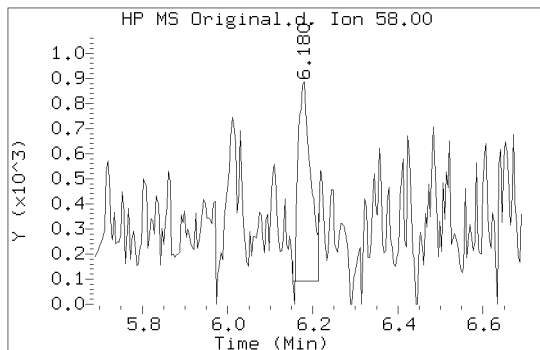
MASS
88
AREA
1976
HEIGHT
888
18-Sep-2023
12:30
linh
pham

**AFTER**

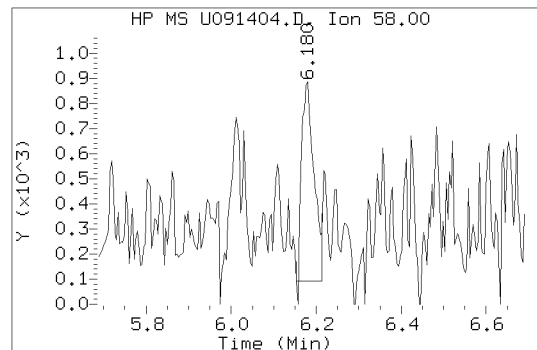
MASS
88
AREA
1976
HEIGHT
888
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

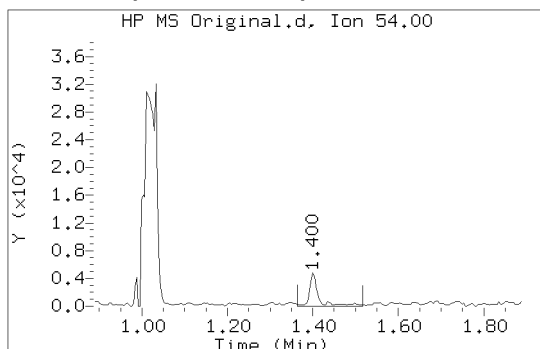
MASS
58
AREA
1583
HEIGHT
793
18-Sep-2023
12:30
linh
pham

**AFTER**

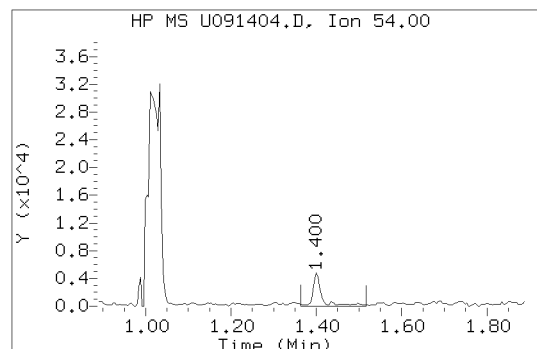
MASS
58
AREA
1583
HEIGHT
793
18-Sep-2023
12:30
linh
pham

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

MASS
54
AREA
6763
HEIGHT
4736
18-Sep-2023
12:30
linh
pham

**AFTER**

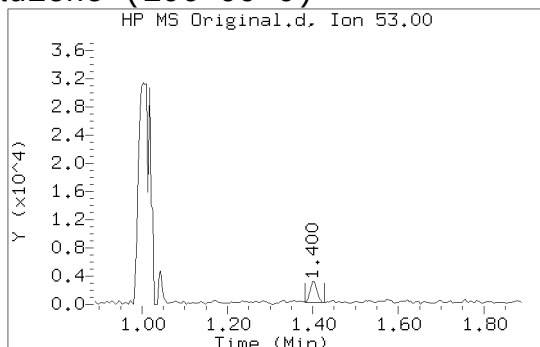
MASS
54
AREA
6763
HEIGHT
4736
18-Sep-2023
12:30
linh
pham

Reason Code:

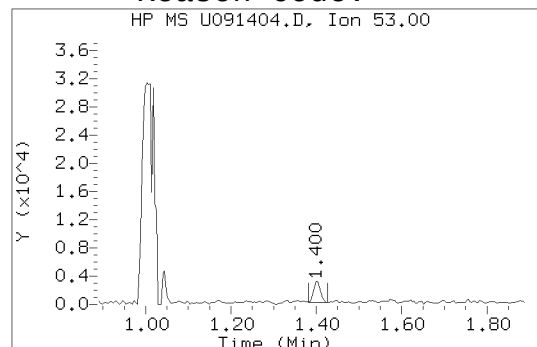
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

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

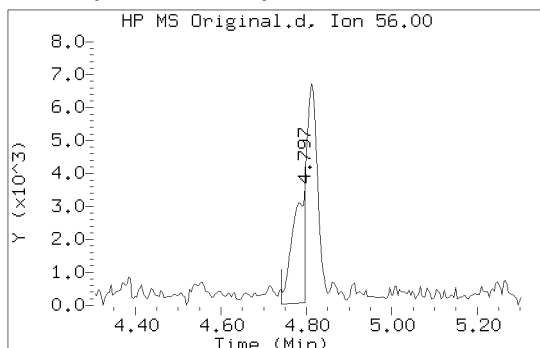
MASS
53
AREA
3441
HEIGHT
3057
18-Sep-2023
12:30
linh
pham

**AFTER**

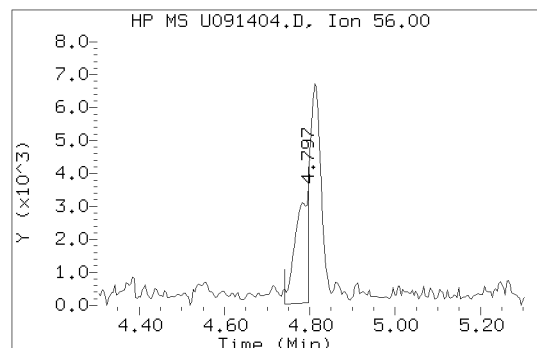
MASS
53
AREA
3441
HEIGHT
3057
18-Sep-2023
12:30
linh
pham

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

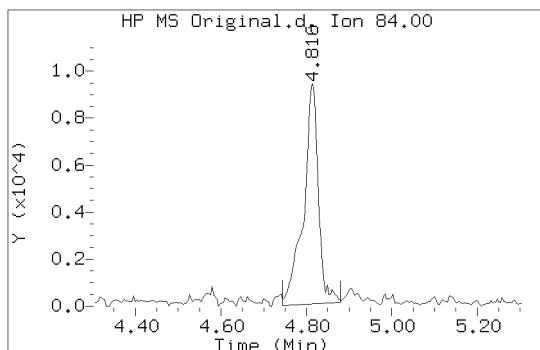
MASS
56
AREA
7153
HEIGHT
3541
18-Sep-2023
12:30
linh
pham

**AFTER**

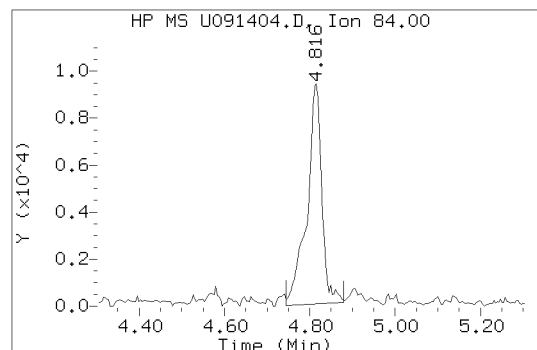
MASS
56
AREA
7153
HEIGHT
3541
18-Sep-2023
12:30
linh
pham

**BEFORE**

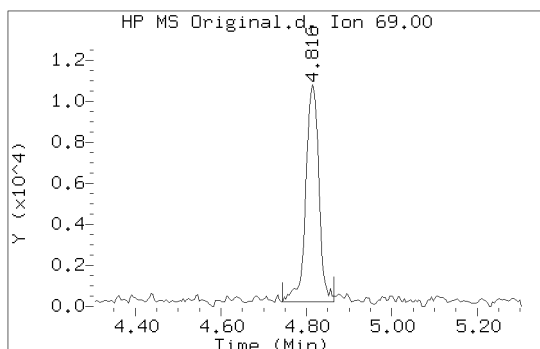
MASS
84
AREA
22774
HEIGHT
9358
18-Sep-2023
12:30
linh
pham

**AFTER**

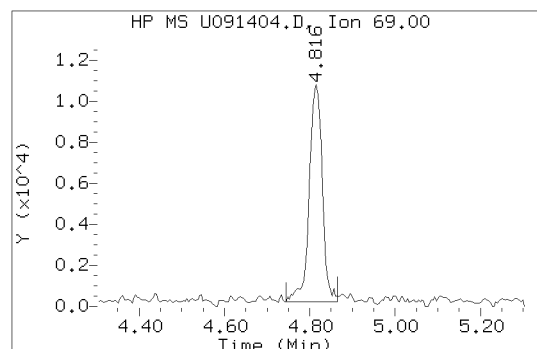
MASS
84
AREA
22774
HEIGHT
9358
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
69
AREA
22855
HEIGHT
10596
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
69
AREA
22855
HEIGHT
10596
18-Sep-2023
12:30
linh
pham

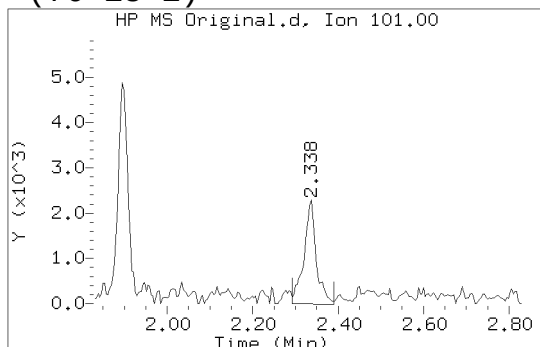


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Freon TF (76-13-1)

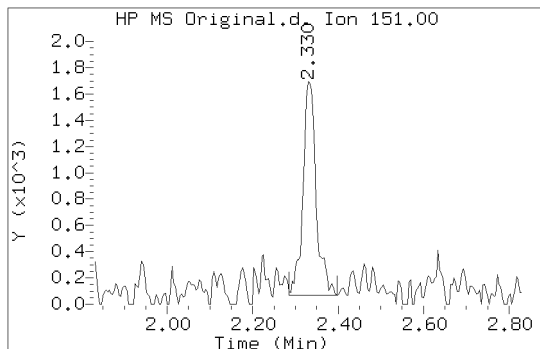
BEFORE

MASS
101
AREA
4663
HEIGHT
2302
18-Sep-2023
12:30
linh



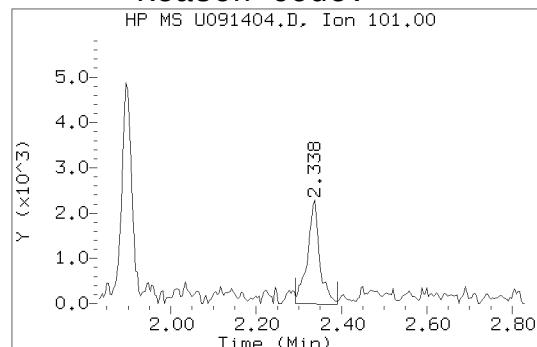
BEFORE

MASS
151
AREA
3526
HEIGHT
1622
18-Sep-2023
12:30
linh
pham



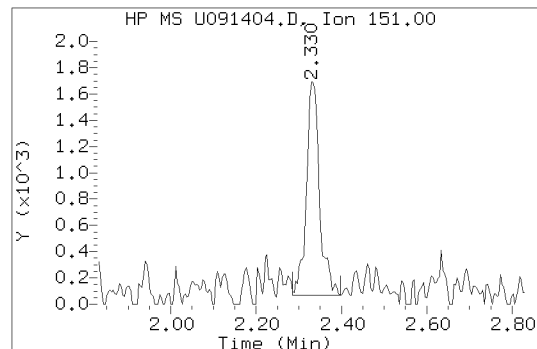
AFTER

MASS
101
AREA
4663
HEIGHT
2302
18-Sep-2023
12:30
linh



AFTER

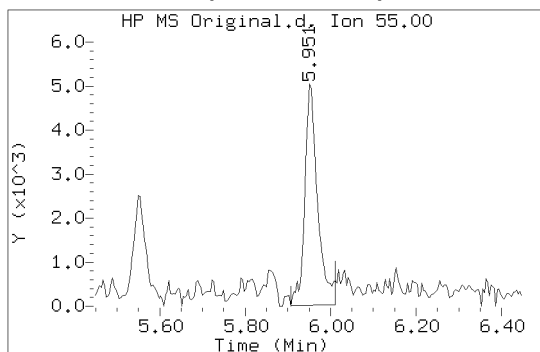
MASS
151
AREA
3526
HEIGHT
1622
18-Sep-2023
12:30
linh
pham



Methylcyclohexane (108-87-2)

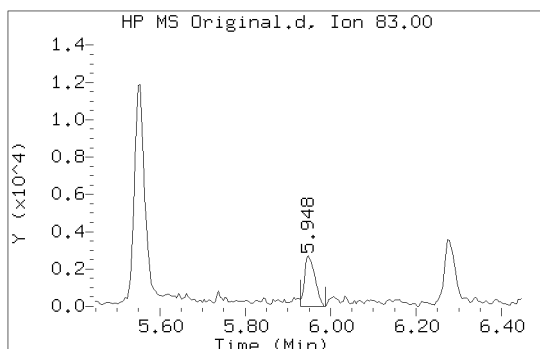
BEFORE

MASS
55
AREA
10616
HEIGHT
5027
18-Sep-2023
12:30
linh
pham



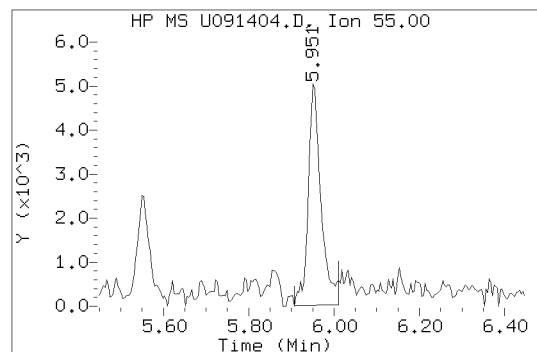
BEFORE

MASS
83
AREA
4682
HEIGHT
2721
18-Sep-2023
12:30
linh
pham



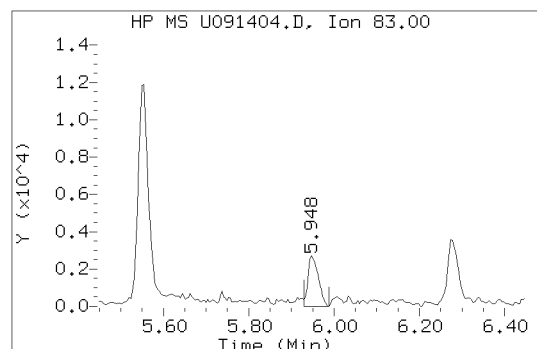
AFTER

MASS
55
AREA
10616
HEIGHT
5027
18-Sep-2023
12:30
linh
pham



AFTER

MASS
83
AREA
4682
HEIGHT
2721
18-Sep-2023
12:30
linh
pham

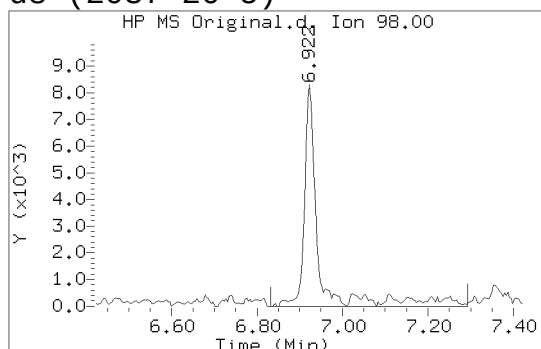


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Toluene-d8 (2037-26-5)

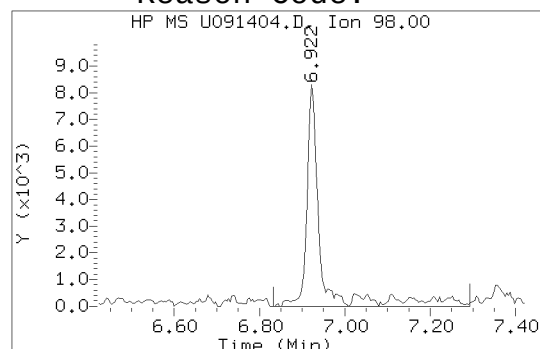
BEFORE

MASS
98
AREA
19157
HEIGHT
8311
18-Sep-2023
12:30
linh



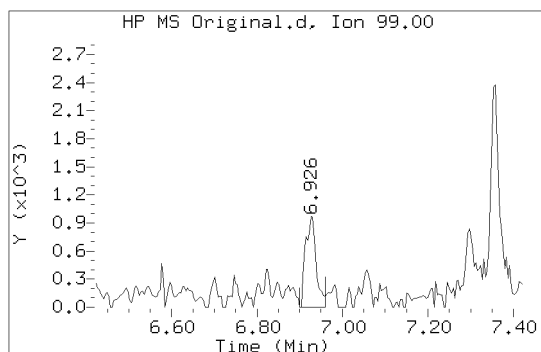
AFTER

MASS
98
AREA
19157
HEIGHT
8311
18-Sep-2023
12:30
linh



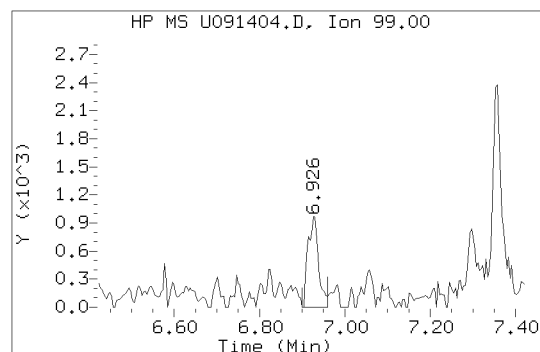
BEFORE

MASS
99
AREA
1718
HEIGHT
965
18-Sep-2023
12:30
linh
pham



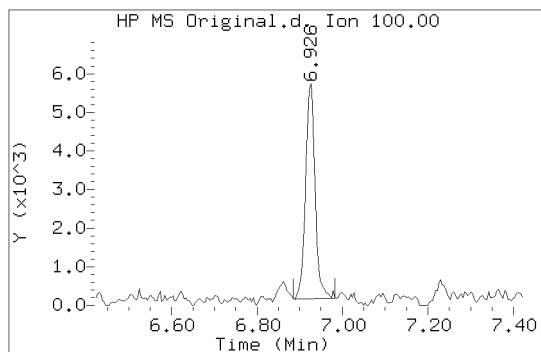
AFTER

MASS
99
AREA
1718
HEIGHT
965
18-Sep-2023
12:30
linh
pham



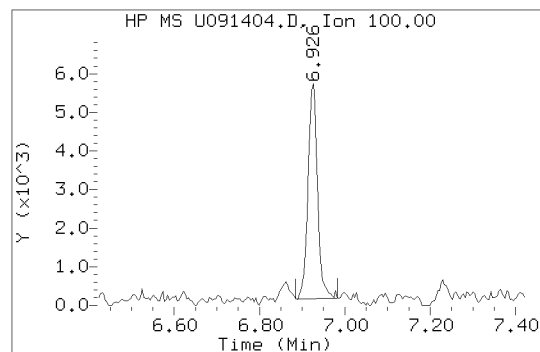
BEFORE

MASS
100
AREA
8885
HEIGHT
5569
18-Sep-2023
12:30
linh
pham



AFTER

MASS
100
AREA
8885
HEIGHT
5569
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D
 Lab Smp Id: VSTD002 Client Smp ID: VSTD002
 Inj Date : 14-SEP-2023 17:15
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD002;VSTD002;1;4;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 16:53 Cal File: U091404.D
 Als bottle: 6 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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)		606881	50.0000	
2 Dichlorodifluoromethane	85		1.168	1.168	(0.243)		13431	2.00000	3.30(M)
3 Chloromethane	50		1.299	1.299	(0.270)		29214	2.00000	1.68
5 Vinyl Chloride	62		1.382	1.382	(0.287)		14895	2.00000	1.93
6 Bromomethane	94		1.625	1.625	(0.338)		10105	2.00000	3.11(M)
7 Chloroethane	64		1.704	1.704	(0.354)		11821	2.00000	2.08
8 Trichlorofluoromethane	101		1.899	1.899	(0.394)		20825	2.00000	2.10(M)
9 Acrolein	56		2.274	2.274	(0.472)		2075	4.00000	3.98(M)
10 Acetone	43		2.416	2.416	(0.502)		19383	4.00000	4.27
11 1,1-Dichloroethene	96		2.337	2.337	(0.485)		12933	2.00000	2.15(M)
15 Iodomethane	142		2.472	2.472	(0.513)		12296	4.00000	6.93
16 Acrylonitrile	53		3.068	3.068	(0.637)		12211	4.00000	3.44
17 Methylene Chloride	84		2.799	2.799	(0.581)		21334	2.00000	4.39(M)
18 Methyl tert-butyl ether	73		3.087	3.087	(0.641)		27689	2.00000	1.62
19 Carbon Disulfide	76		2.525	2.525	(0.524)		70966	4.00000	4.37
20 trans-1,2-Dichloroethene	96		3.061	3.061	(0.636)		12553	2.00000	1.99
21 Vinyl Acetate	43		3.616	3.616	(0.751)		80121	4.00000	3.59
22 1,1-Dichloroethane	63		3.518	3.518	(0.731)		27731	2.00000	2.19
24 2-Butanone	43		4.276	4.276	(0.888)		14473	4.00000	3.93(M)
26 2,2-Dichloropropane	77		4.182	4.182	(0.868)		14529	2.00000	1.89



27 cis-1,2-Dichloroethene	96	4.201	4.201 (0.872)	14265	2.00000	1.97
28 Chloroform	83	4.575	4.575 (0.950)	26651	2.00000	2.17

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D Page 2
 Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.470	4.470	(0.928)	8526	2.00000	2.25(M)
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	11893	2.00000	2.34
31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	17998	2.00000	2.15(M)
32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	15645	2.00000	2.09
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	17735	2.00000	1.95
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	12927	2.00000	1.93
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.060)	13220	2.00000	1.97
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	939835	50.0000	
37 Benzene	78	5.141	5.141	(0.926)	47178	2.00000	1.99
38 Trichloroethene	130	5.794	5.794	(1.043)	15066	2.00000	2.19(M)
39 Bromodichloromethane	83	6.281	6.281	(1.131)	14635	2.00000	1.91
41 2-Chloroethylvinyl ether	63	6.543	6.543	(1.178)	139	4.00000	4.59(M)
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	13398	2.00000	2.14(M)
44 Dibromomethane	93	6.120	6.120	(1.102)	8803	2.00000	2.05
45 4-Methyl-2-Pentanone	43	6.862	6.862	(0.838)	19237	4.00000	5.33
46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.206)	14220	2.00000	4.55(M)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	901567	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	35573	2.00000	1.78(M)
50 Toluene	91	6.982	6.982	(0.853)	44481	2.00000	1.83
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	11642	2.00000	3.82(M)
52 2-Hexanone	43	7.601	7.601	(0.929)	15646	4.00000	3.82
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	11142	2.00000	2.11
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	21891	2.00000	2.06
55 Dibromochloromethane	129	7.691	7.691	(0.940)	11356	2.00000	1.80
56 Tetrachloroethene	164	7.458	7.458	(0.911)	11547	2.00000	2.04
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	11608	2.00000	1.82
58 1-Chlorohexane	55	8.193	8.193	(1.475)	10420	2.00000	1.83(M)
59 Chlorobenzene	112	8.212	8.212	(1.003)	37490	2.00000	2.09
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	11197	2.00000	1.86
61 Ethylbenzene	106	8.305	8.305	(1.015)	14914	2.00000	1.86(M)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	38808	4.00000	3.84(M)
63 o-Xylene	106	8.748	8.748	(1.069)	19710	2.00000	1.88(M)
64 Styrene	104	8.763	8.763	(1.071)	30031	2.00000	1.86(M)
66 Bromoform	173	8.920	8.920	(1.090)	7208	2.00000	4.97
67 Isopropylbenzene	105	9.063	9.063	(1.107)	40776	2.00000	3.11(M)
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	17491	2.00000	1.97
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	14167	2.00000	1.57
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	454839	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	13247	2.00000	1.75
73 n-Propylbenzene	91	9.411	9.411	(0.925)	40048	2.00000	4.35(M)
74 Bromobenzene	156	9.321	9.321	(0.916)	13813	2.00000	1.91
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	30884	2.00000	1.80(M)
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	33180	2.00000	1.96(M)
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	33779	2.00000	1.70(M)
78 tert-Butylbenzene	119	9.835	9.835	(0.967)	30827	2.00000	1.87(M)
79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	30377	2.00000	1.72(M)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	37386	2.00000	3.42(M)
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	30473	2.00000	3.46(M)
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	25618	2.00000	2.00
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	30440	2.00000	2.12
87 n-Butylbenzene	91	10.495	10.495	(1.032)	25685	2.00000	3.60(M)
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	26803	2.00000	2.05



89	1,2-Dibromo-3-Chloropropane	155	11.173	11.173 (1.098)	2172	2.00000	1.97
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	14590	2.00000	1.96(M)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D Page 3
 Report Date: 18-Sep-2023 12:31

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)	7172	2.00000	2.15
92 Naphthalene	128	12.069	12.069	(1.186)	27784	2.00000	4.02(M)
93 1,2,3-Trichlorobenzene	180	12.275	12.275	(1.207)	11584	2.00000	1.64
M 94 1,2-Dichloroethylene (total)	96				26818	4.00000	
M 95 Xylenes (total)	106				58518	6.00000	
135 1,4-Dioxane	88	6.176	6.176	(1.283)	3297	40.0000	37.37(M)
141 Cyclohexane	56	4.782	4.782	(0.993)	16765	2.00000	2.60(H)
138 Freon TF	101	2.337	2.337	(0.485)	11603	2.00000	2.57(M)
140 1,3-Butadiene	54	1.404	1.404	(0.292)	13976	2.00000	1.94
147 Methylcyclohexane	55	5.951	5.951	(1.072)	23709	2.00000	1.72(M)
146 Methyl Acetate	43	2.720	2.720	(0.565)	15728	2.00000	2.13
148 Tert-Butyl alcohol	59	2.975	2.975	(0.618)	29883	40.0000	40.18(a)
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	23428	40.0000	43.91(T)

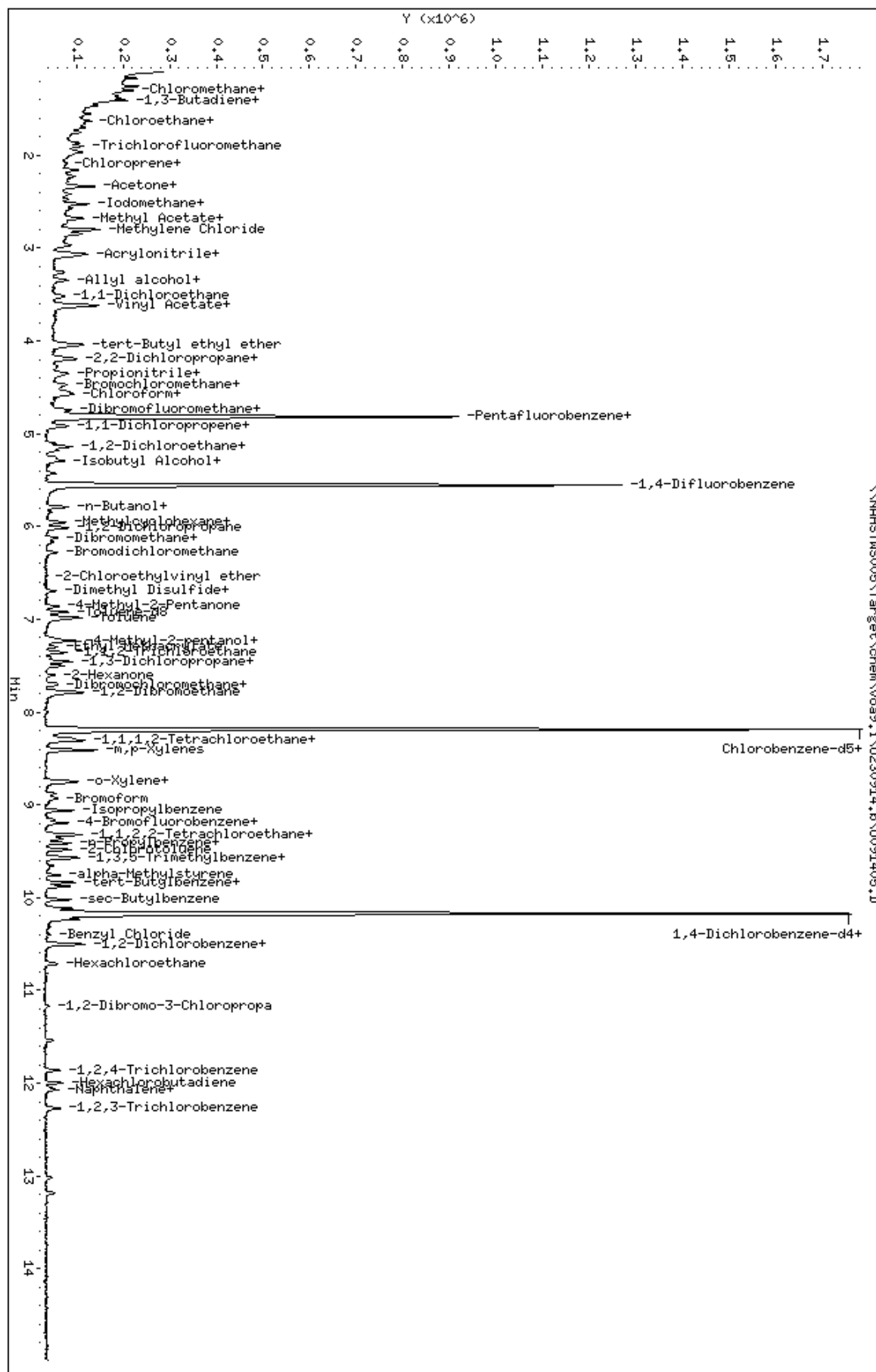
QC Flag Legend

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\U230914.b\U091405.D
 Date : 14-SEP-2023 17:15
 Client ID: VSTD002
 Sample Info: VSTD002;VSTD002;1;4;
 Purge Volume: 5.0
 Column phase: DB624

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

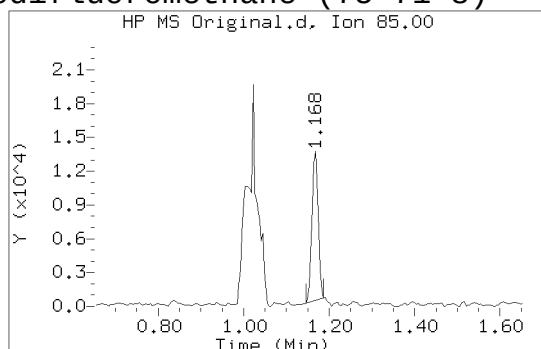


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Dichlorodifluoromethane (75-71-8)

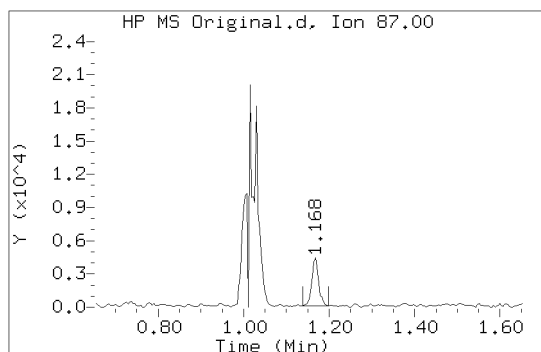
BEFORE

MASS
85
AREA
13431
HEIGHT
13229
18-Sep-2023
12:30
linh



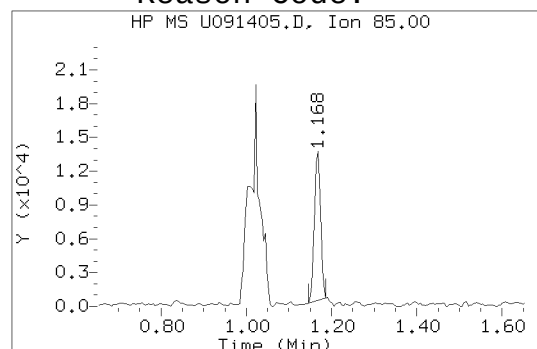
BEFORE

MASS
87
AREA
4877
HEIGHT
4400
18-Sep-2023
12:30
linh
pham



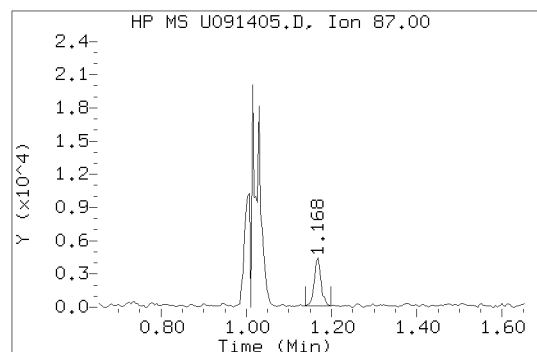
AFTER

MASS
85
AREA
13431
HEIGHT
13229
18-Sep-2023
12:30
linh



AFTER

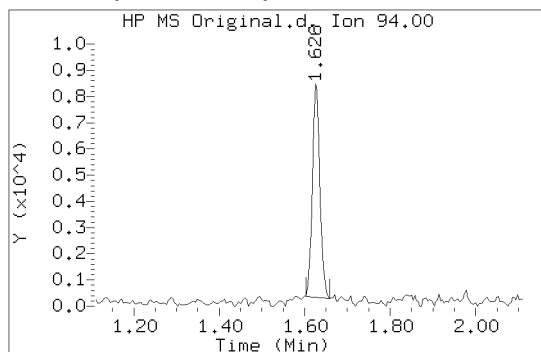
MASS
87
AREA
4877
HEIGHT
4400
18-Sep-2023
12:30
linh
pham



Bromomethane (74-83-9)

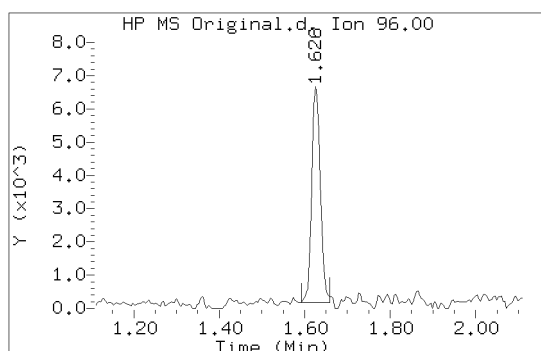
BEFORE

MASS
94
AREA
10105
HEIGHT
8143
18-Sep-2023
12:30
linh
pham



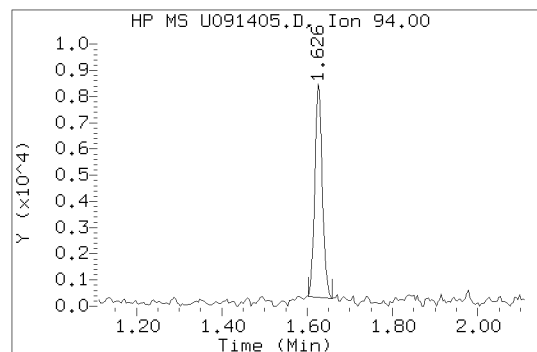
BEFORE

MASS
96
AREA
9375
HEIGHT
6502
18-Sep-2023
12:30
linh
pham



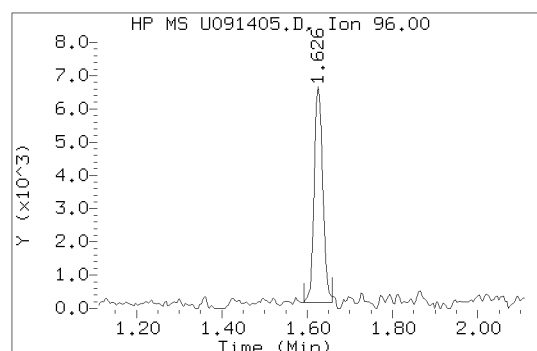
AFTER

MASS
94
AREA
10105
HEIGHT
8143
18-Sep-2023
12:30
linh
pham



AFTER

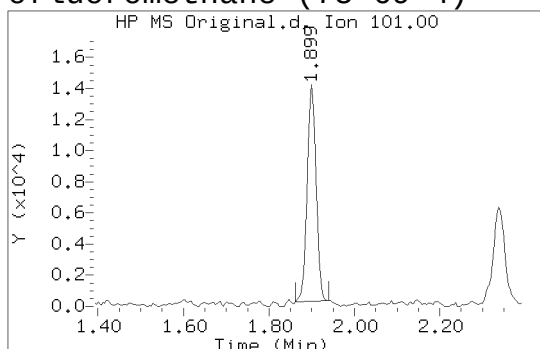
MASS
96
AREA
9375
HEIGHT
6502
18-Sep-2023
12:30
linh
pham



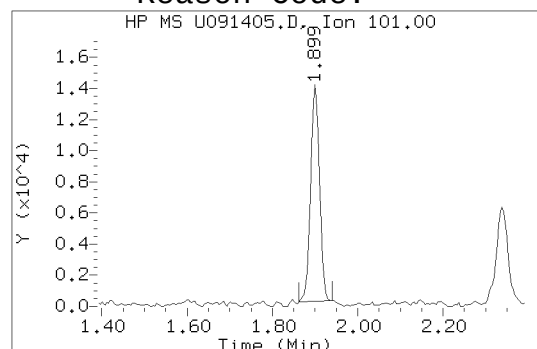
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Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

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

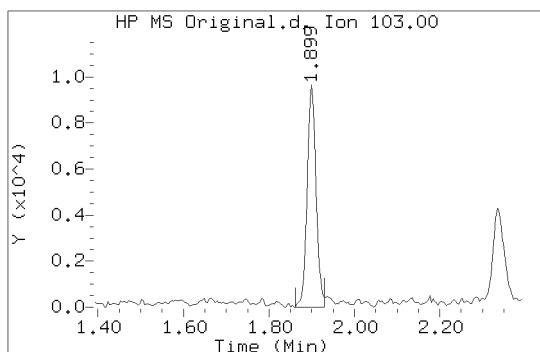
MASS
101
AREA
20825
HEIGHT
13925
18-Sep-2023
12:30
linh

**AFTER**

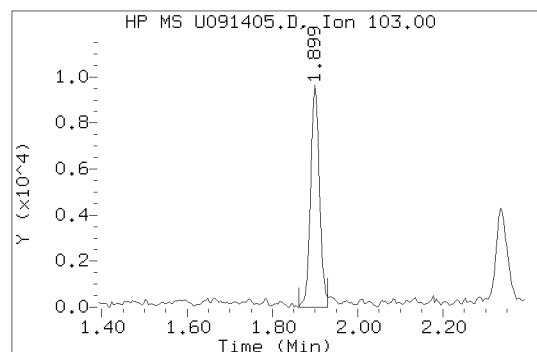
MASS
101
AREA
20825
HEIGHT
13925
18-Sep-2023
12:30
linh

**BEFORE**

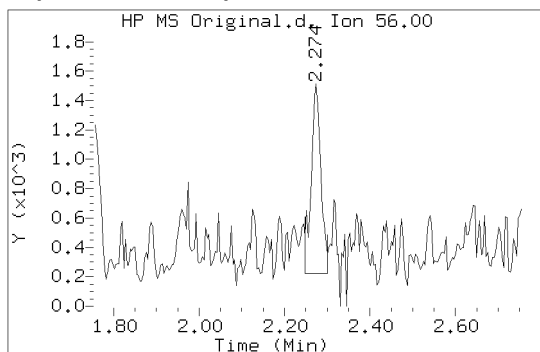
MASS
103
AREA
14400
HEIGHT
9653
18-Sep-2023
12:30
linh
pham

**AFTER**

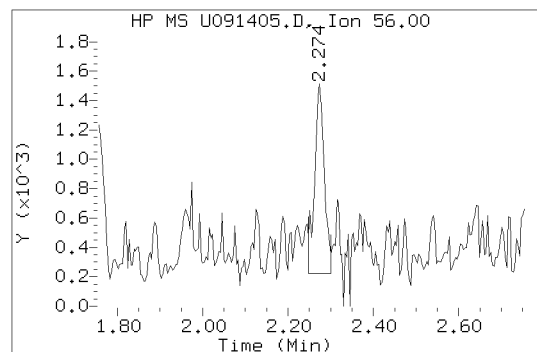
MASS
103
AREA
14400
HEIGHT
9653
18-Sep-2023
12:30
linh
pham

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

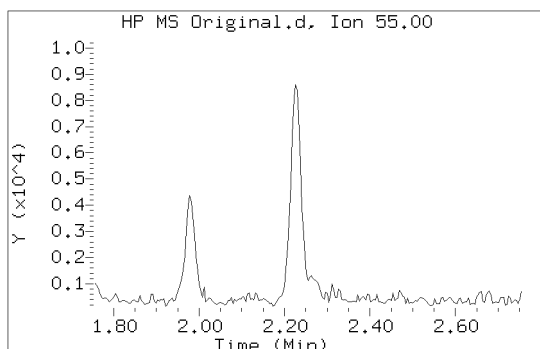
MASS
56
AREA
2075
HEIGHT
1289
18-Sep-2023
12:30
linh
pham

**AFTER**

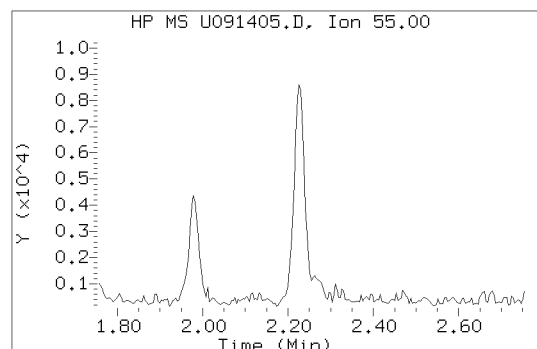
MASS
56
AREA
2075
HEIGHT
1289
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
55
AREA
1182
HEIGHT
715
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
55
AREA
1182
HEIGHT
715
18-Sep-2023
12:30
linh
pham

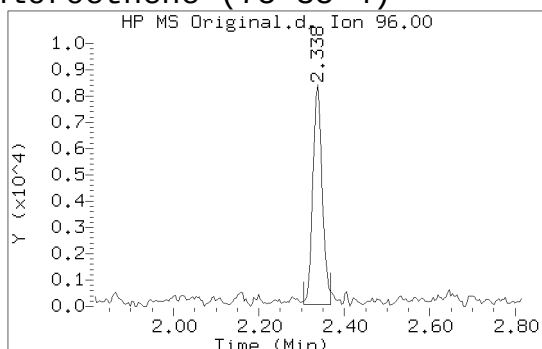


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Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

1,1-Dichloroethene (75-35-4)

BEFORE

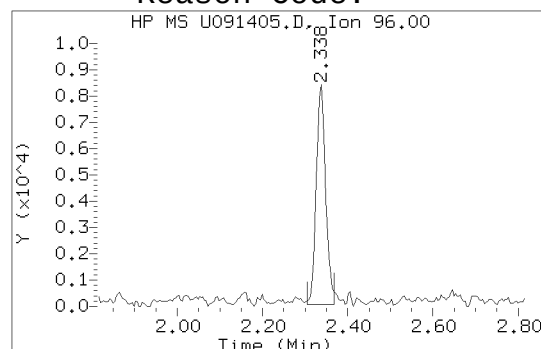
MASS
96
AREA
12933
HEIGHT
8352
18-Sep-2023
12:30
linh



AFTER

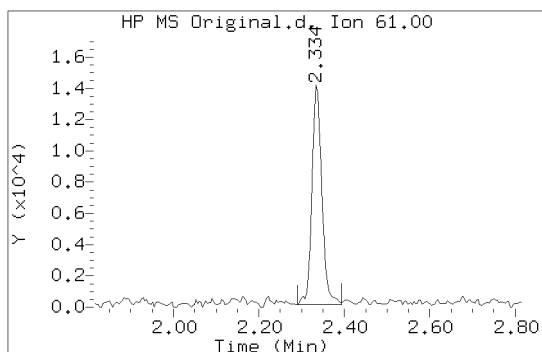
MASS
96
AREA
12933
HEIGHT
8352
18-Sep-2023
12:30
linh

Reason Code:



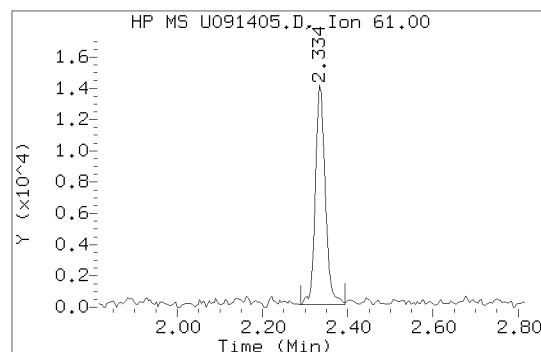
BEFORE

MASS
61
AREA
22923
HEIGHT
14042
18-Sep-2023
12:30
linh
pham



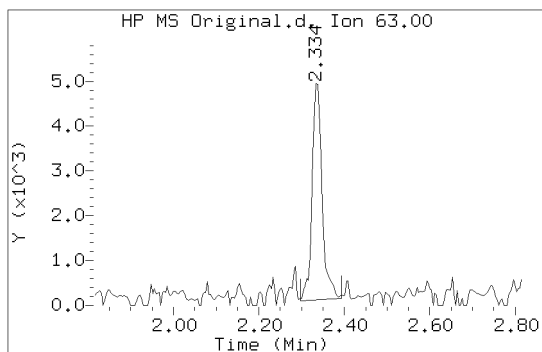
AFTER

MASS
61
AREA
22923
HEIGHT
14042
18-Sep-2023
12:30
linh
pham



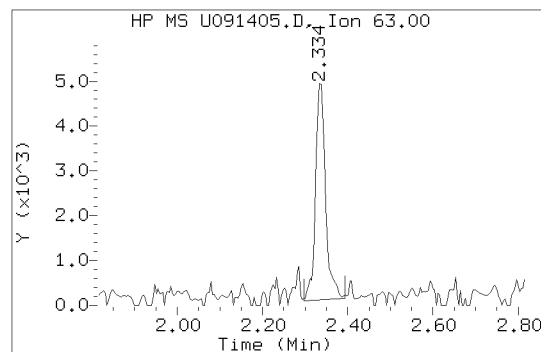
BEFORE

MASS
63
AREA
8018
HEIGHT
4827
18-Sep-2023
12:30
linh
pham



AFTER

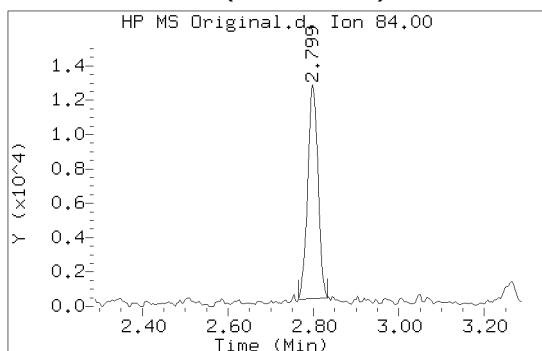
MASS
63
AREA
8018
HEIGHT
4827
18-Sep-2023
12:30
linh
pham



Methylene Chloride (75-09-2)

BEFORE

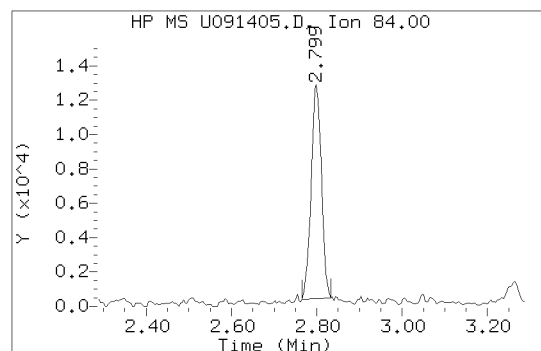
MASS
84
AREA
21334
HEIGHT
12461
18-Sep-2023
12:30
linh
pham



AFTER

MASS
84
AREA
21334
HEIGHT
12461
18-Sep-2023
12:30
linh
pham

Reason Code:

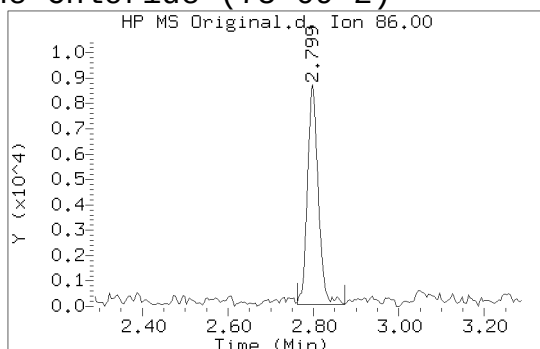


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Methylene Chloride (75-09-2)

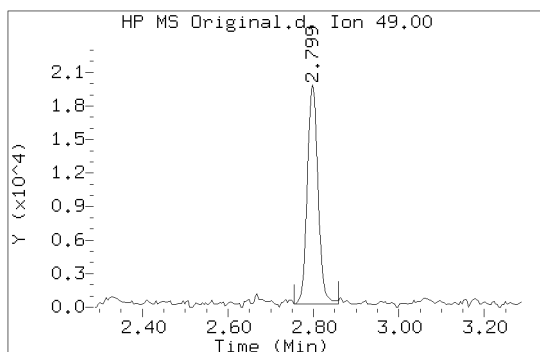
BEFORE

MASS
86
AREA
15642
HEIGHT
8668
18-Sep-2023
12:30
linh



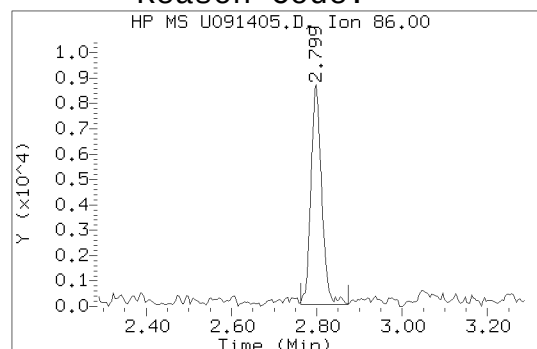
BEFORE

MASS
49
AREA
35009
HEIGHT
19575
18-Sep-2023
12:30
linh
pham



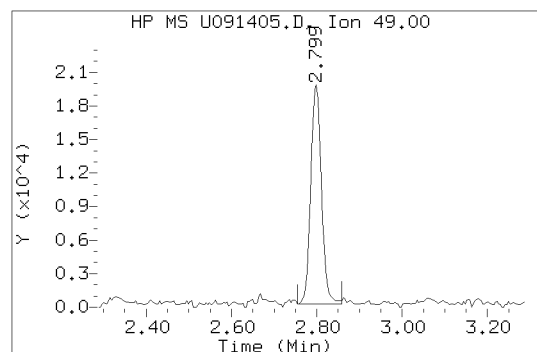
AFTER

MASS
86
AREA
15642
HEIGHT
8668
18-Sep-2023
12:30
linh



AFTER

MASS
49
AREA
35009
HEIGHT
19575
18-Sep-2023
12:30
linh
pham

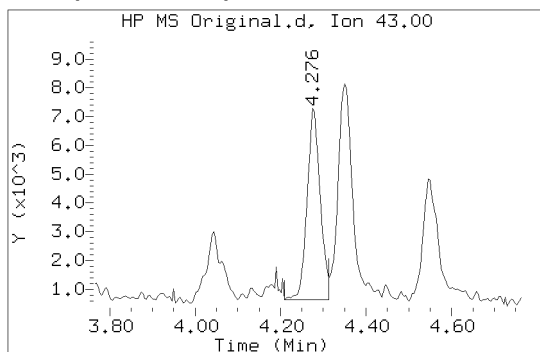


Reason Code:

2-Butanone (78-93-3)

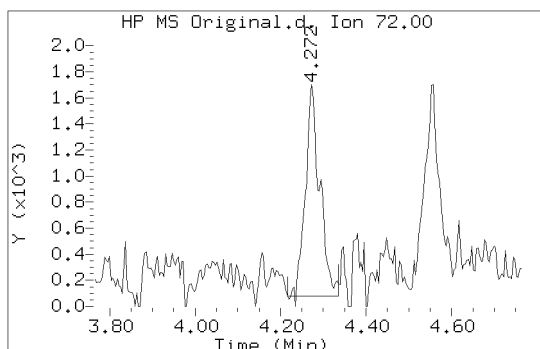
BEFORE

MASS
43
AREA
14473
HEIGHT
6657
18-Sep-2023
12:30
linh
pham



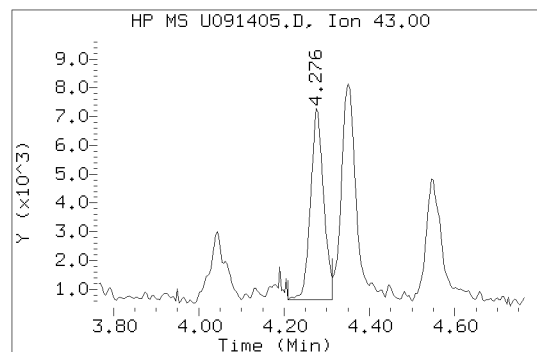
BEFORE

MASS
72
AREA
3852
HEIGHT
1624
18-Sep-2023
12:30
linh
pham



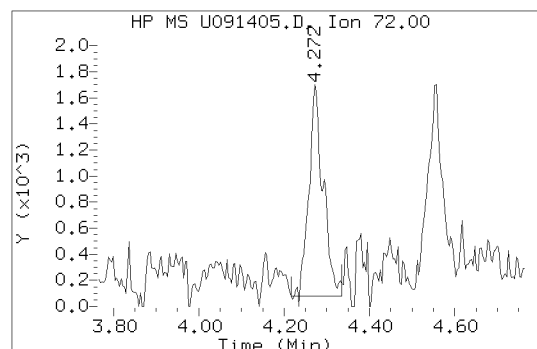
AFTER

MASS
43
AREA
14473
HEIGHT
6657
18-Sep-2023
12:30
linh
pham



AFTER

MASS
72
AREA
3852
HEIGHT
1624
18-Sep-2023
12:30
linh
pham



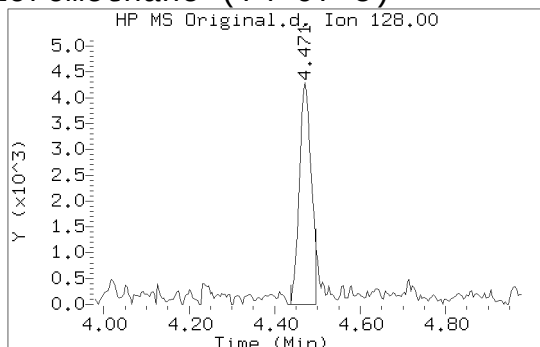
Reason Code:



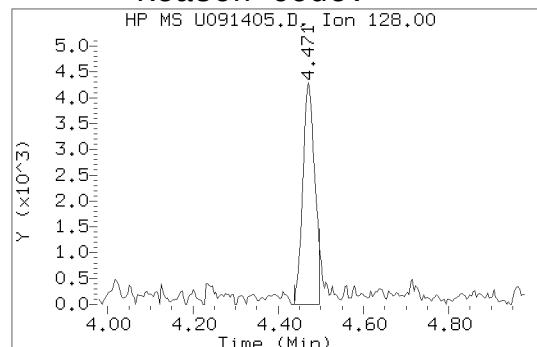
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Bromochloromethane (74-97-5)**BEFORE**

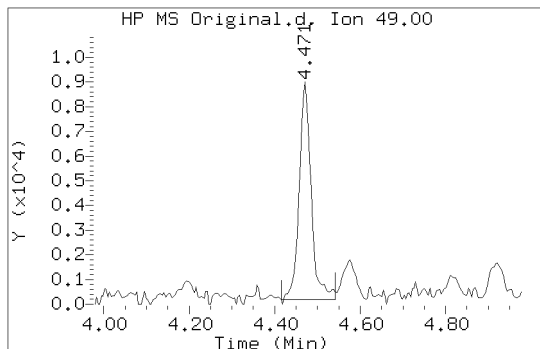
MASS
128
AREA
8526
HEIGHT
4291
18-Sep-2023
12:30
linh

**AFTER**

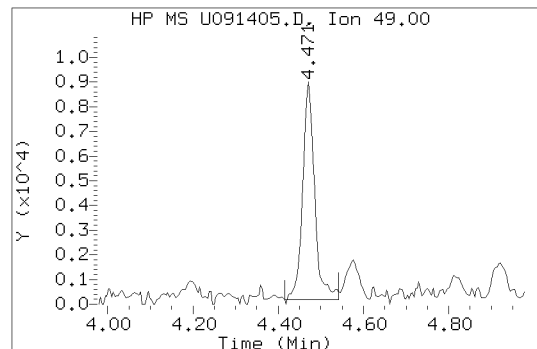
MASS
128
AREA
8526
HEIGHT
4291
18-Sep-2023
12:30
linh

**BEFORE**

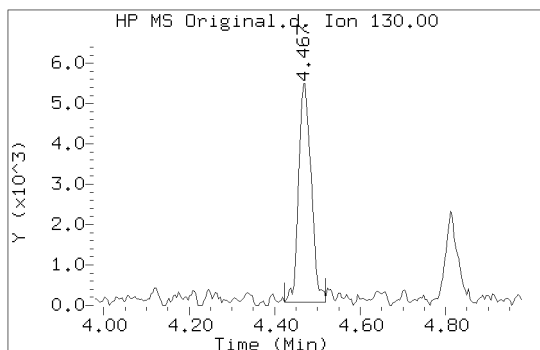
MASS
49
AREA
17595
HEIGHT
8817
18-Sep-2023
12:30
linh
pham

**AFTER**

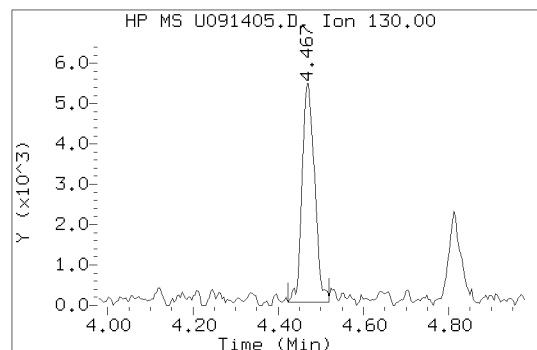
MASS
49
AREA
17595
HEIGHT
8817
18-Sep-2023
12:30
linh
pham

**BEFORE**

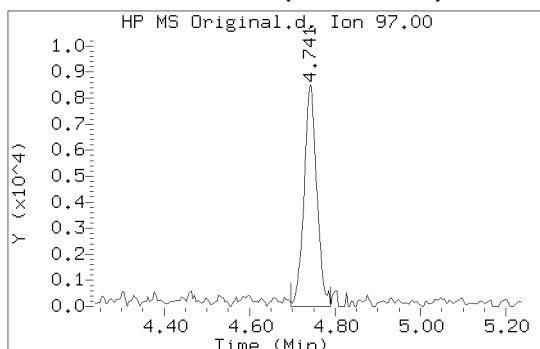
MASS
130
AREA
11331
HEIGHT
5416
18-Sep-2023
12:30
linh
pham

**AFTER**

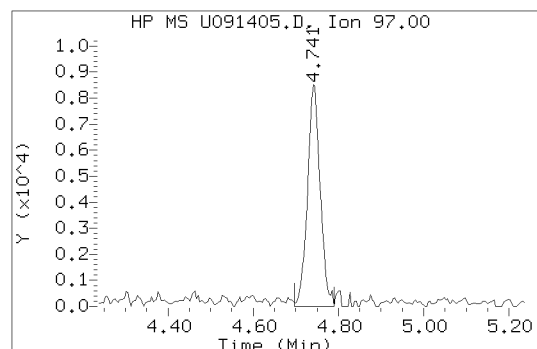
MASS
130
AREA
11331
HEIGHT
5416
18-Sep-2023
12:30
linh
pham

**1,1,1-Trichloroethane (71-55-6)****BEFORE**

MASS
97
AREA
17998
HEIGHT
8513
18-Sep-2023
12:30
linh
pham

**AFTER**

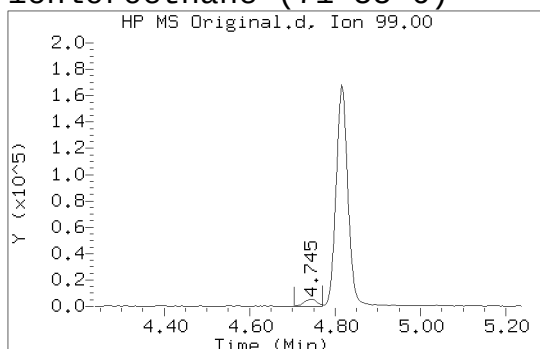
MASS
97
AREA
17998
HEIGHT
8513
18-Sep-2023
12:30
linh
pham



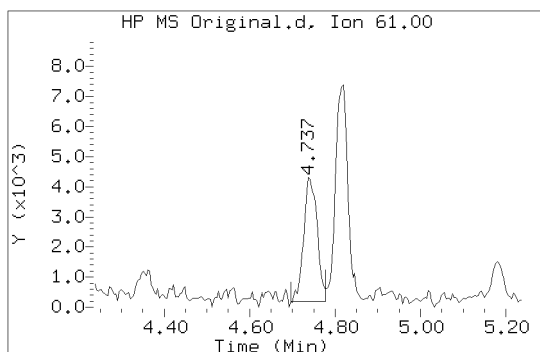
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

1,1,1-Trichloroethane (71-55-6)**BEFORE**

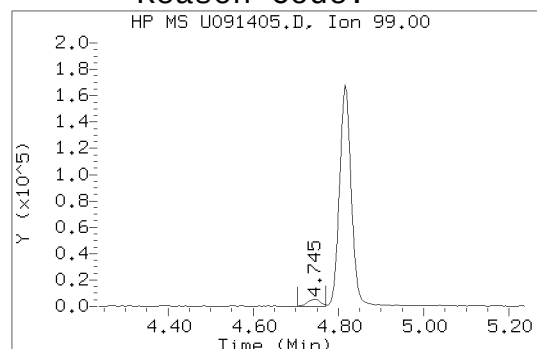
MASS
99
AREA
11140
HEIGHT
5410
18-Sep-2023
12:30
linh

**BEFORE**

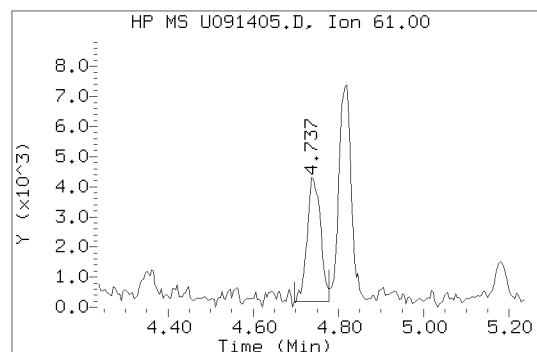
MASS
61
AREA
9216
HEIGHT
4125
18-Sep-2023
12:30
linh
pham

**AFTER**

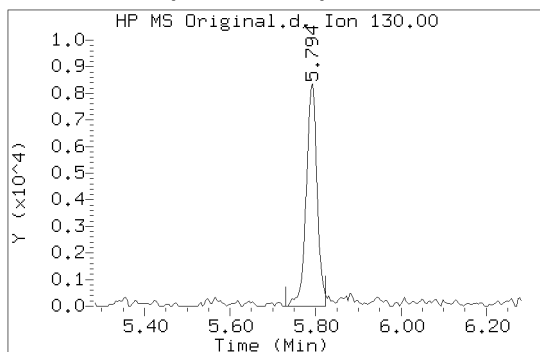
MASS
99
AREA
11140
HEIGHT
5410
18-Sep-2023
12:30
linh

**AFTER**

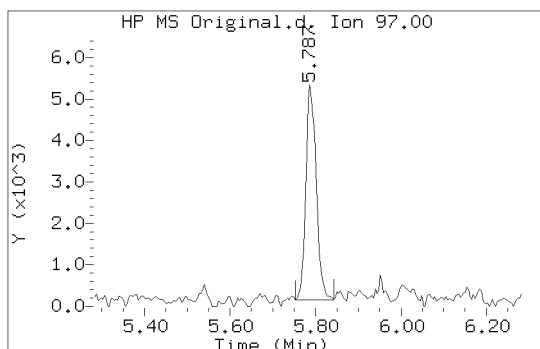
MASS
61
AREA
9216
HEIGHT
4125
18-Sep-2023
12:30
linh
pham

**Reason Code:****Trichloroethene (79-01-6)****BEFORE**

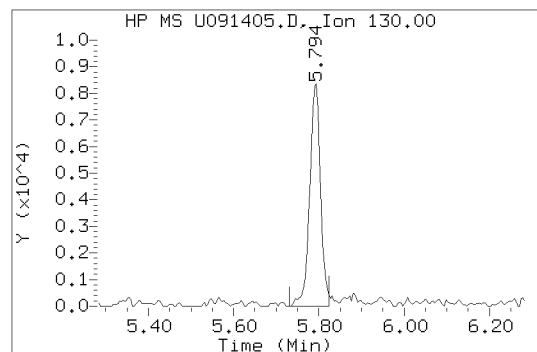
MASS
130
AREA
15066
HEIGHT
8354
18-Sep-2023
12:30
linh
pham

**BEFORE**

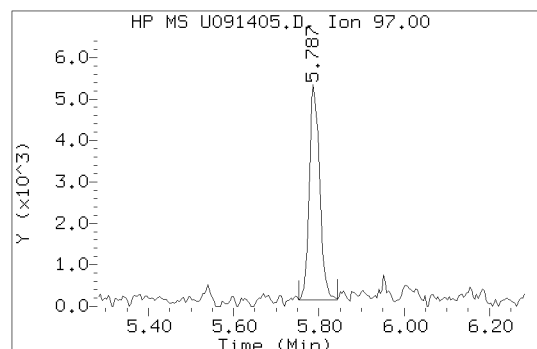
MASS
97
AREA
8937
HEIGHT
5190
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
130
AREA
15066
HEIGHT
8354
18-Sep-2023
12:30
linh
pham

**AFTER**

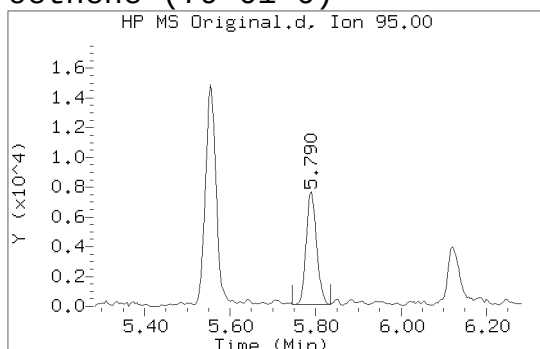
MASS
97
AREA
8937
HEIGHT
5190
18-Sep-2023
12:30
linh
pham

**Reason Code:**

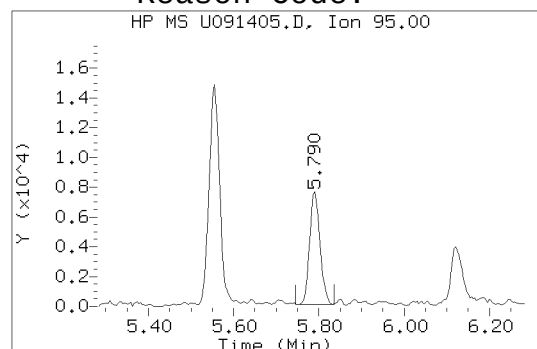
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Trichloroethene (79-01-6)**BEFORE**

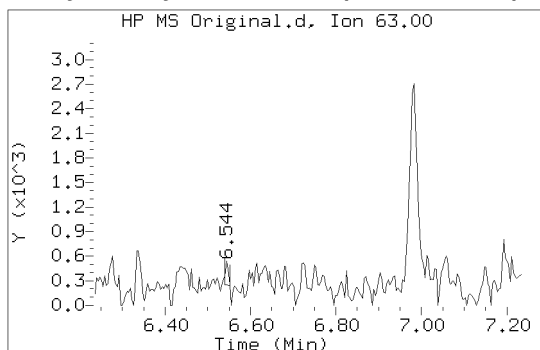
MASS
95
AREA
13039
HEIGHT
7554
18-Sep-2023
12:30
linh
pham

**AFTER**

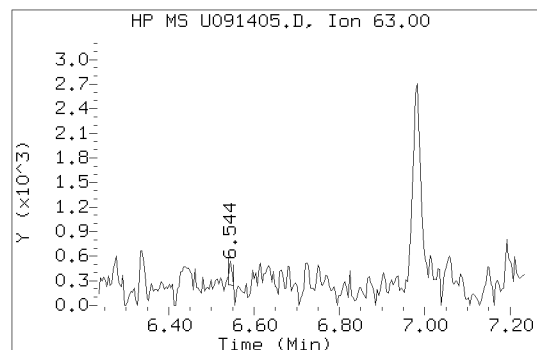
MASS
95
AREA
13039
HEIGHT
7554
18-Sep-2023
12:30
linh
pham

Reason Code:**2-Chloroethylvinyl ether (110-75-8)****BEFORE**

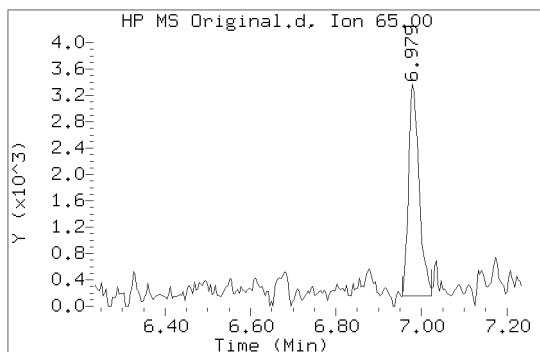
MASS
63
AREA
139
HEIGHT
291
18-Sep-2023
12:30
linh
pham

**AFTER**

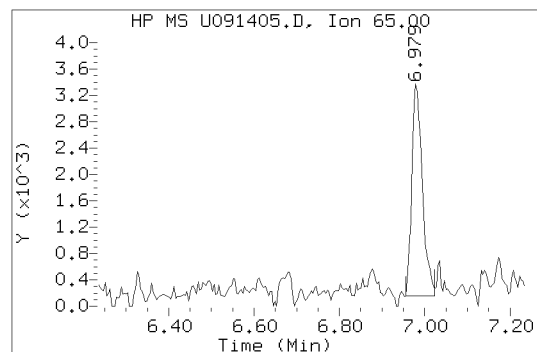
MASS
63
AREA
139
HEIGHT
291
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

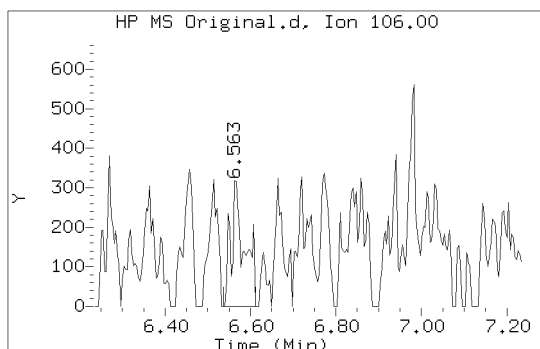
MASS
65
AREA
5530
HEIGHT
3214
18-Sep-2023
12:30
linh
pham

**AFTER**

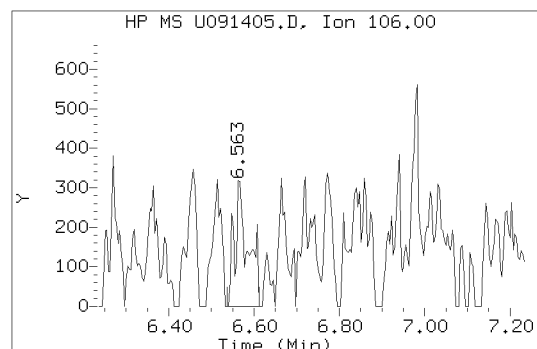
MASS
65
AREA
5530
HEIGHT
3214
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
106
AREA
680
HEIGHT
318
18-Sep-2023
12:30
linh
pham

**AFTER**

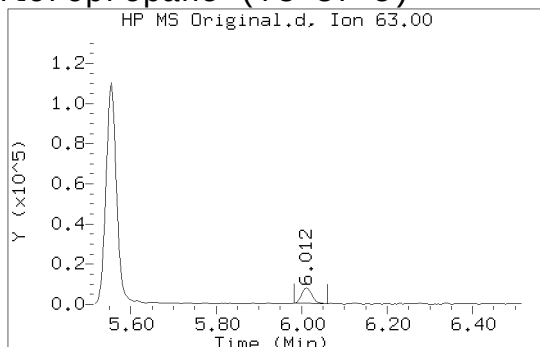
MASS
106
AREA
680
HEIGHT
318
18-Sep-2023
12:30
linh
pham



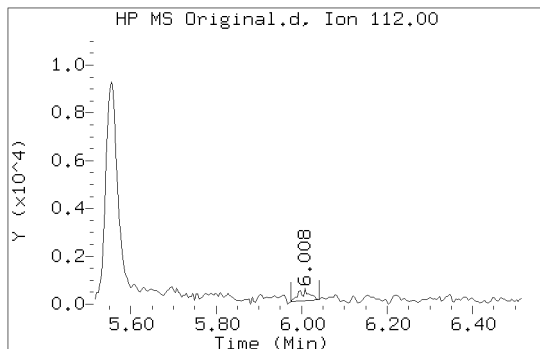
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

1,2-Dichloropropane (78-87-5)**BEFORE**

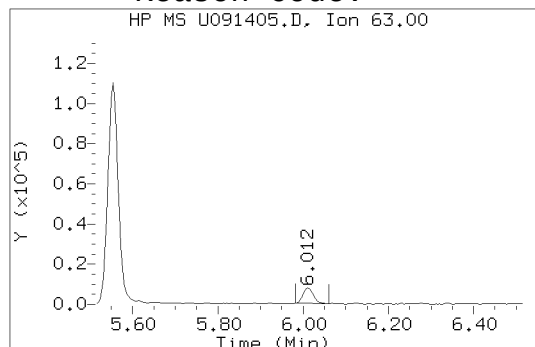
MASS
63
AREA
13398
HEIGHT
7758
18-Sep-2023
12:30
linh

**BEFORE**

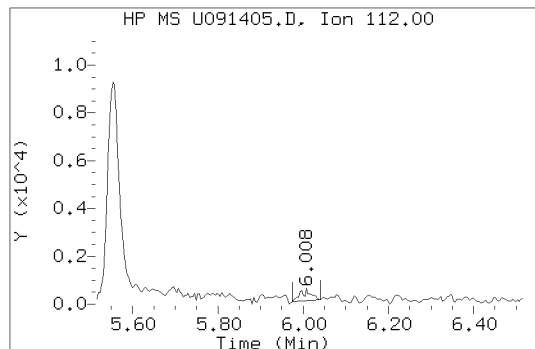
MASS
112
AREA
841
HEIGHT
513
18-Sep-2023
12:30
linh
pham

**AFTER**

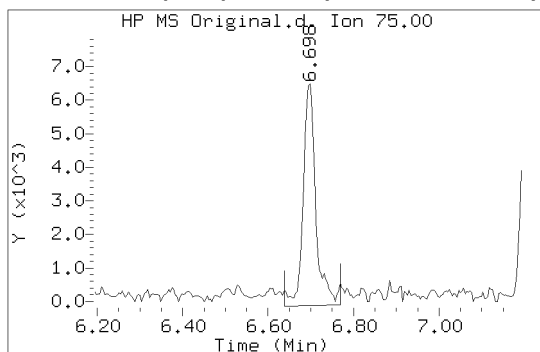
MASS
63
AREA
13398
HEIGHT
7758
18-Sep-2023
12:30
linh

**AFTER**

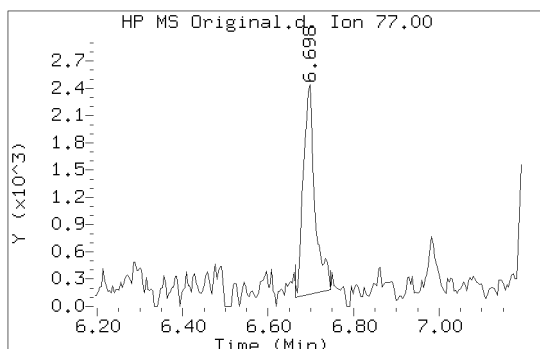
MASS
112
AREA
841
HEIGHT
513
18-Sep-2023
12:30
linh
pham

**cis-1,3-Dichloropropene (10061-01-5)****BEFORE**

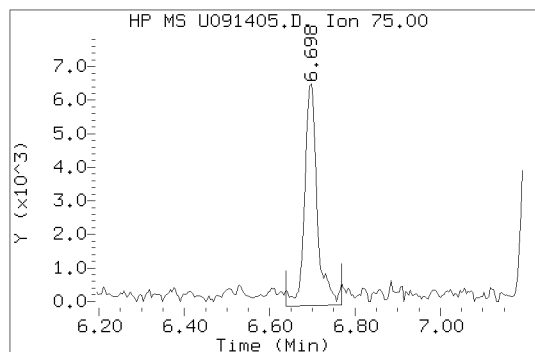
MASS
75
AREA
14220
HEIGHT
6609
18-Sep-2023
12:30
linh
pham

**BEFORE**

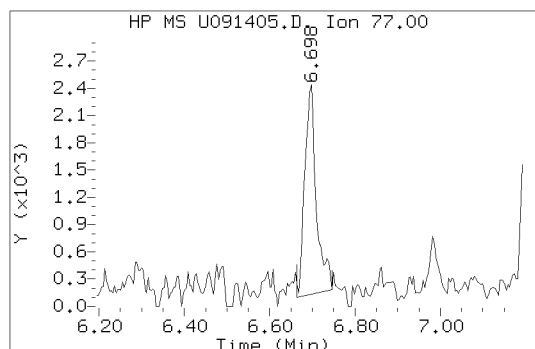
MASS
77
AREA
4432
HEIGHT
2307
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
75
AREA
14220
HEIGHT
6609
18-Sep-2023
12:30
linh
pham

**AFTER**

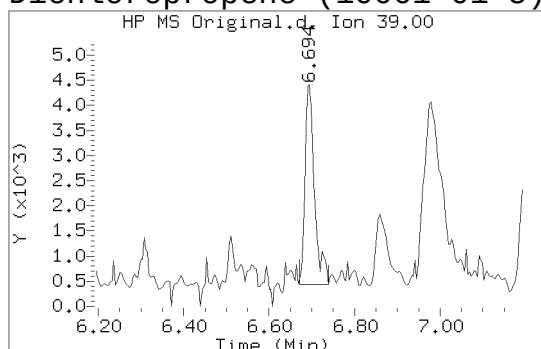
MASS
77
AREA
4432
HEIGHT
2307
18-Sep-2023
12:30
linh
pham



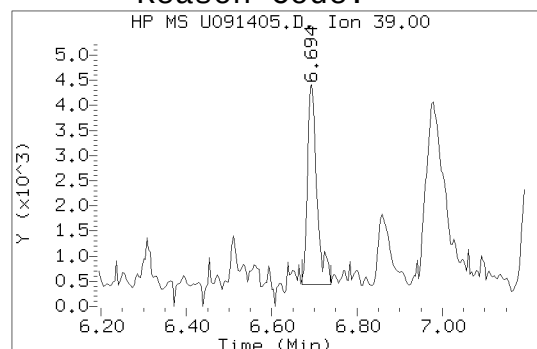
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

cis-1,3-Dichloropropene (10061-01-5)**BEFORE**

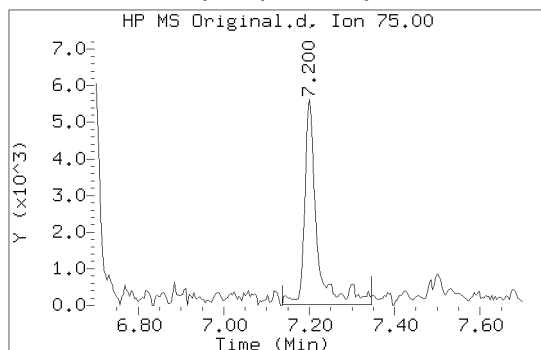
MASS
39
AREA
6245
HEIGHT
3975
18-Sep-2023
12:30
linh
pham

**AFTER**

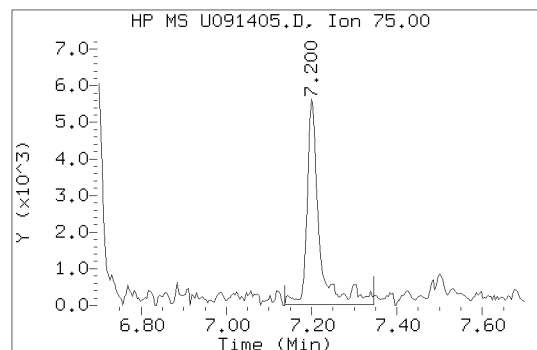
MASS
39
AREA
6245
HEIGHT
3975
18-Sep-2023
12:30
linh
pham

Reason Code:**trans-1,3-Dichloropropene (10061-02-6)****BEFORE**

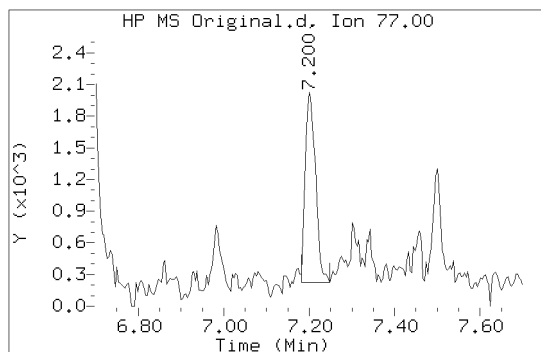
MASS
75
AREA
11642
HEIGHT
5619
18-Sep-2023
12:30
linh
pham

**AFTER**

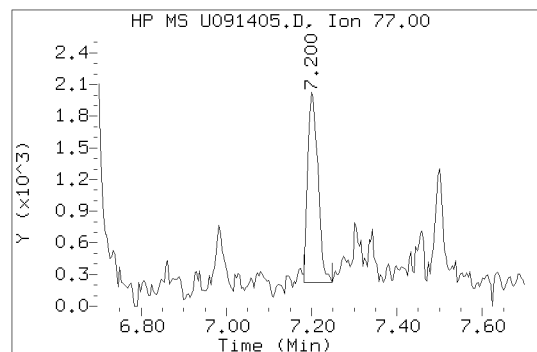
MASS
75
AREA
11642
HEIGHT
5619
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

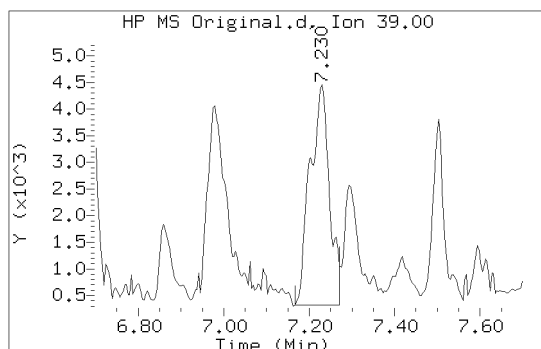
MASS
77
AREA
3067
HEIGHT
1799
18-Sep-2023
12:30
linh
pham

**AFTER**

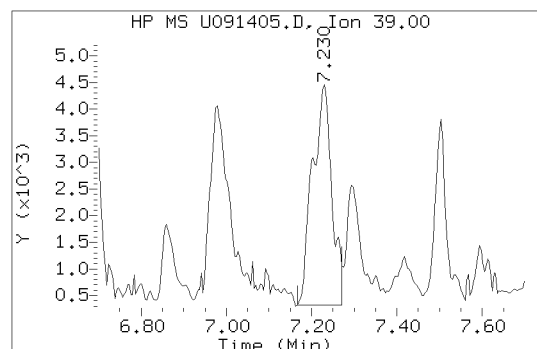
MASS
77
AREA
3067
HEIGHT
1799
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
39
AREA
13138
HEIGHT
4140
18-Sep-2023
12:30
linh
pham

**AFTER**

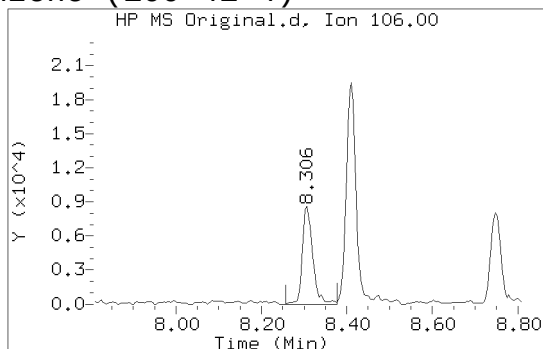
MASS
39
AREA
13138
HEIGHT
4140
18-Sep-2023
12:30
linh
pham



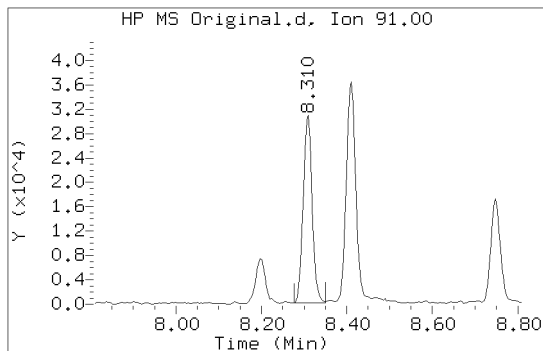
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Ethylbenzene (100-41-4)**BEFORE**

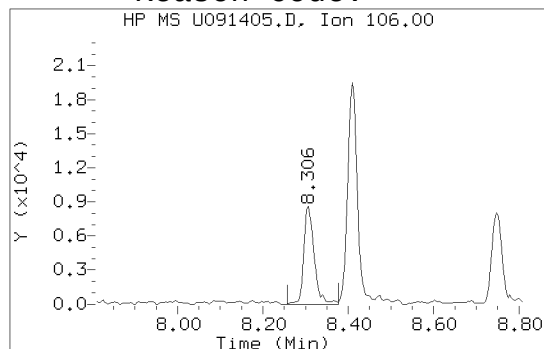
MASS
106
AREA
14914
HEIGHT
8633
18-Sep-2023
12:30
linh

**BEFORE**

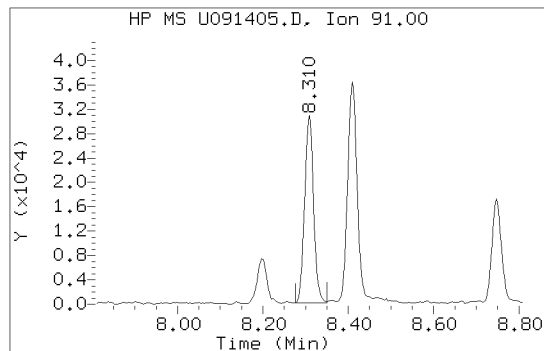
MASS
91
AREA
45649
HEIGHT
30852
18-Sep-2023
12:30
linh
pham

**AFTER**

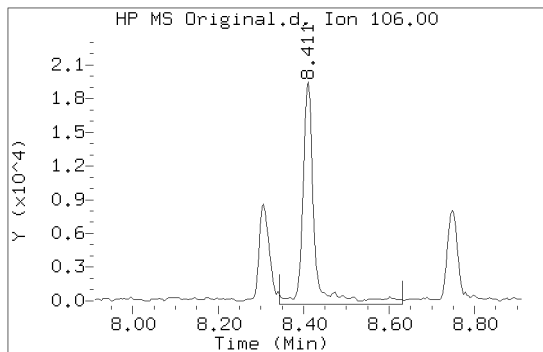
MASS
106
AREA
14914
HEIGHT
8633
18-Sep-2023
12:30
linh

**AFTER**

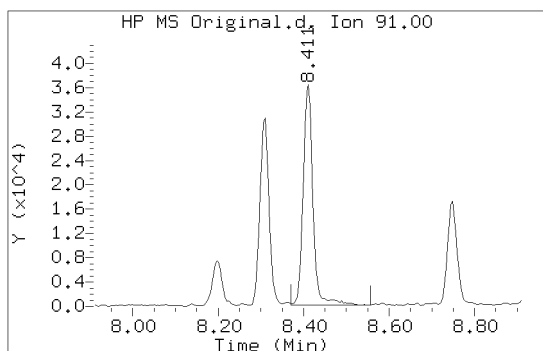
MASS
91
AREA
45649
HEIGHT
30852
18-Sep-2023
12:30
linh
pham

**m,p-Xylenes ()****BEFORE**

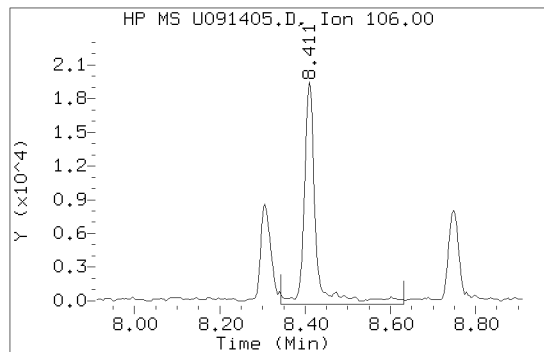
MASS
106
AREA
38808
HEIGHT
19783
18-Sep-2023
12:30
linh
pham

**BEFORE**

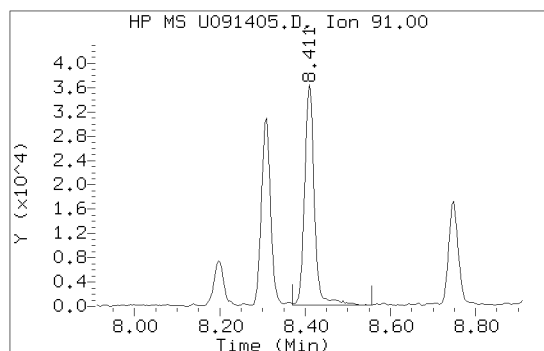
MASS
91
AREA
58496
HEIGHT
36279
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
106
AREA
38808
HEIGHT
19783
18-Sep-2023
12:30
linh
pham

**AFTER**

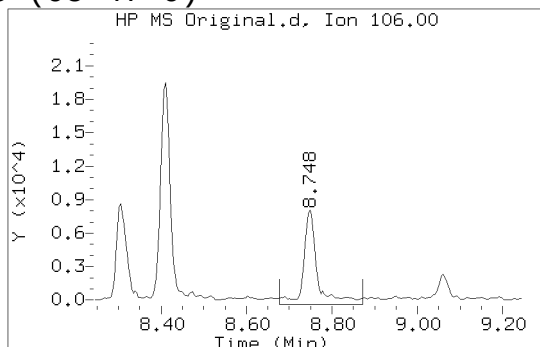
MASS
91
AREA
58496
HEIGHT
36279
18-Sep-2023
12:30
linh
pham

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

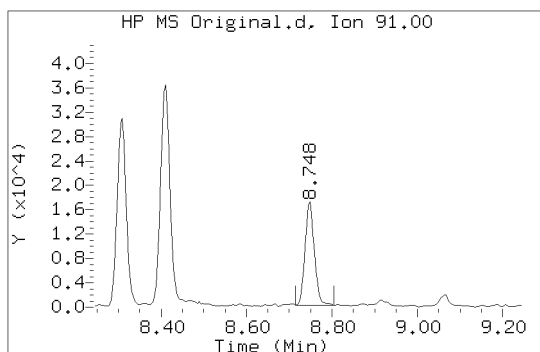
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

o-Xylene (95-47-6)**BEFORE**

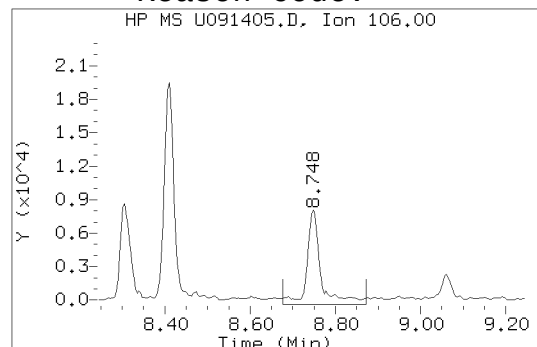
MASS
106
AREA
19710
HEIGHT
8443
18-Sep-2023
12:30
linh

**BEFORE**

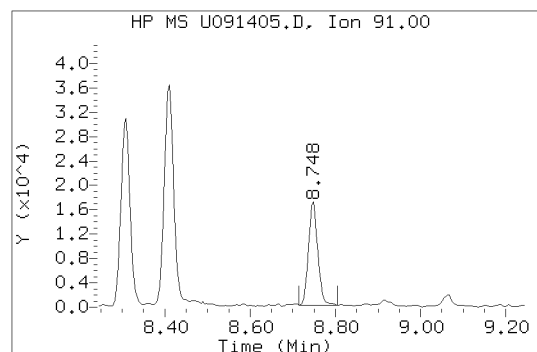
MASS
91
AREA
26164
HEIGHT
17001
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
106
AREA
19710
HEIGHT
8443
18-Sep-2023
12:30
linh

**AFTER**

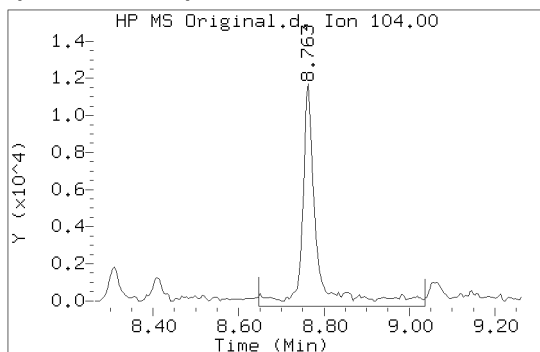
MASS
91
AREA
26164
HEIGHT
17001
18-Sep-2023
12:30
linh
pham



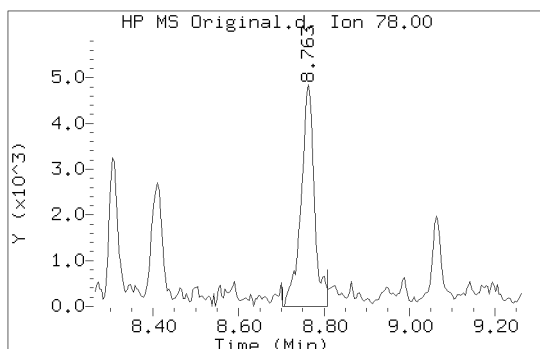
Reason Code:

Styrene (100-42-5)**BEFORE**

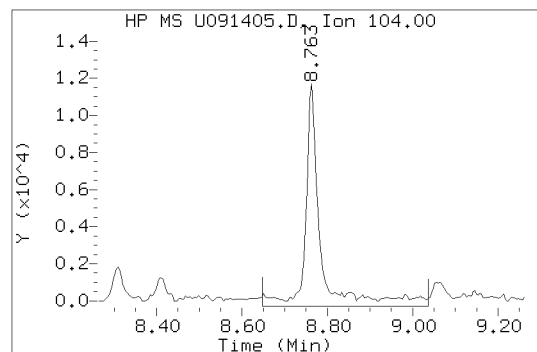
MASS
104
AREA
30031
HEIGHT
11988
18-Sep-2023
12:30
linh
pham

**BEFORE**

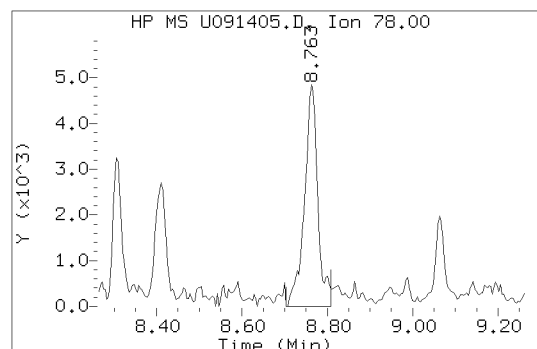
MASS
78
AREA
10635
HEIGHT
4848
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
104
AREA
30031
HEIGHT
11988
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
78
AREA
10635
HEIGHT
4848
18-Sep-2023
12:30
linh
pham



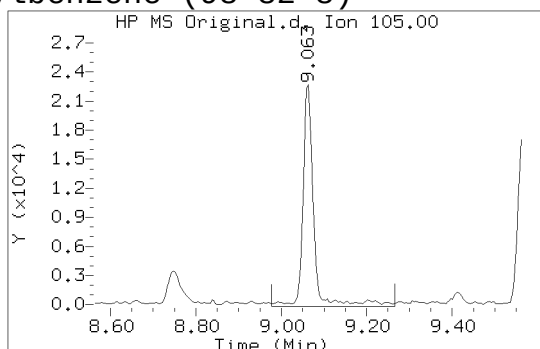
Reason Code:

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Isopropylbenzene (98-82-8)

BEFORE

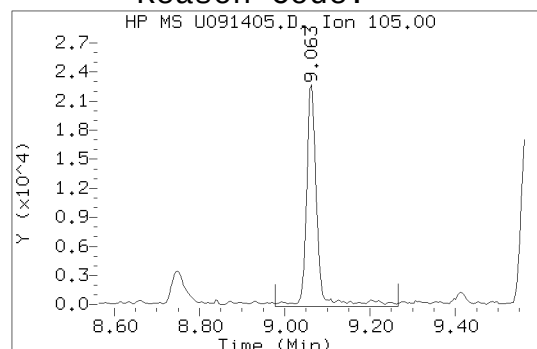
MASS
105
AREA
40776
HEIGHT
22862
18-Sep-2023
12:30
linh



AFTER

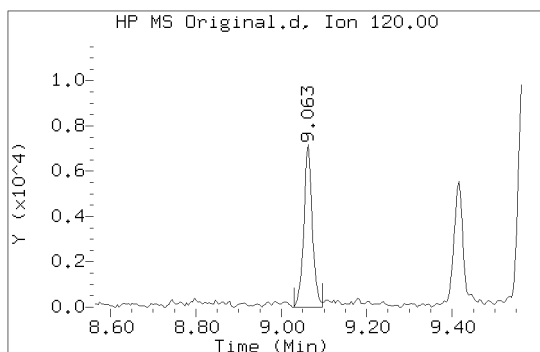
MASS
105
AREA
40776
HEIGHT
22862
18-Sep-2023
12:30
linh

Reason Code:



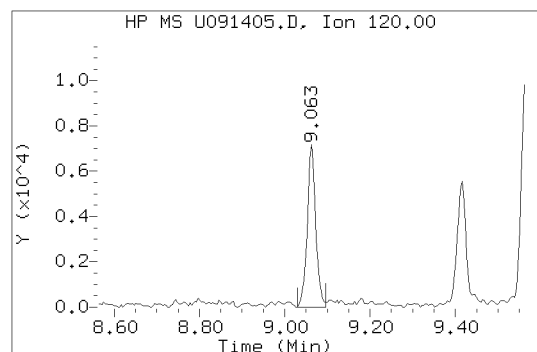
BEFORE

MASS
120
AREA
10093
HEIGHT
7186
18-Sep-2023
12:30
linh
pham



AFTER

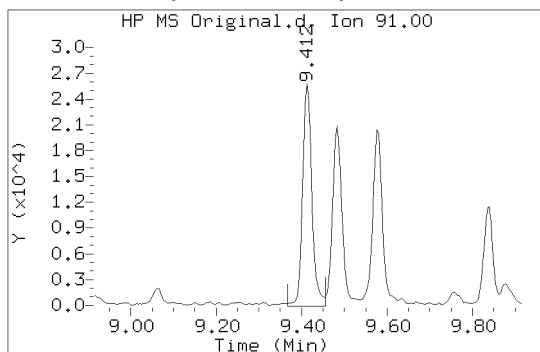
MASS
120
AREA
10093
HEIGHT
7186
18-Sep-2023
12:30
linh
pham



n-Propylbenzene (106-65-1)

BEFORE

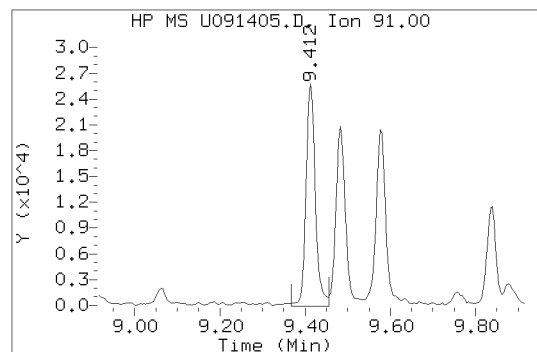
MASS
91
AREA
40048
HEIGHT
25844
18-Sep-2023
12:30
linh
pham



AFTER

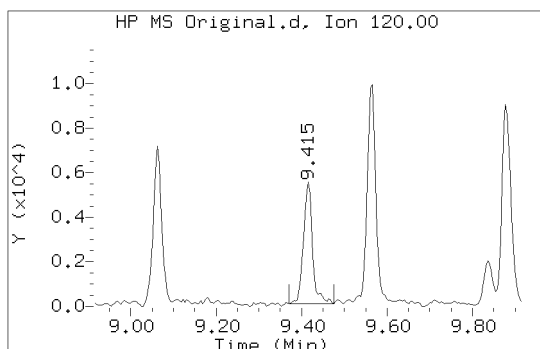
MASS
91
AREA
40048
HEIGHT
25844
18-Sep-2023
12:30
linh
pham

Reason Code:



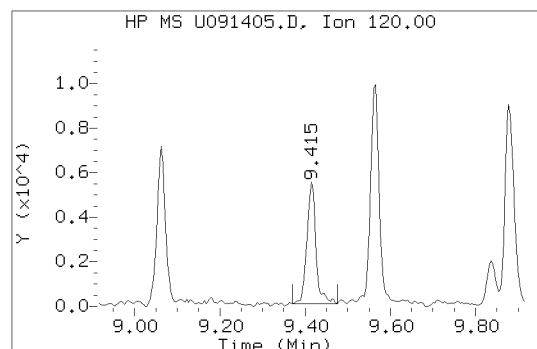
BEFORE

MASS
120
AREA
8282
HEIGHT
5468
18-Sep-2023
12:30
linh
pham



AFTER

MASS
120
AREA
8282
HEIGHT
5468
18-Sep-2023
12:30
linh
pham

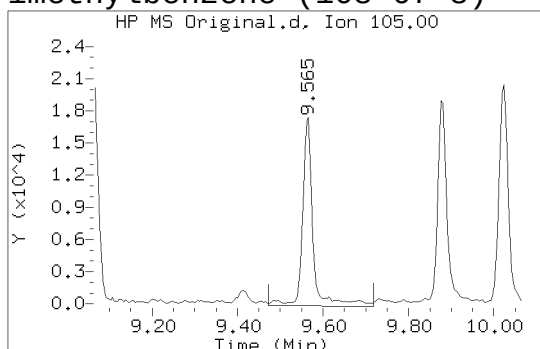


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

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

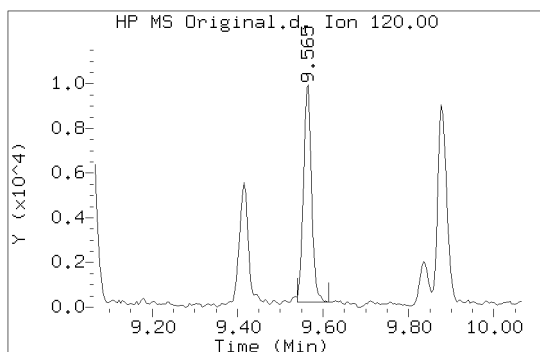
BEFORE

MASS
105
AREA
30884
HEIGHT
17593
18-Sep-2023
12:30
linh



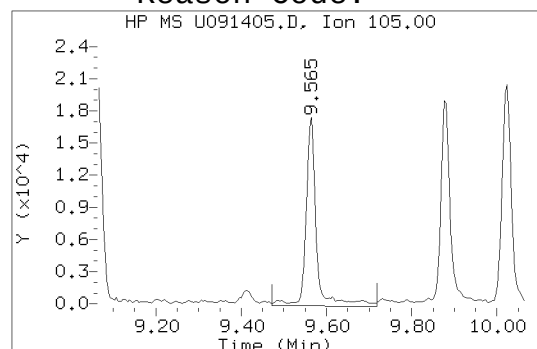
BEFORE

MASS
120
AREA
13262
HEIGHT
9724
18-Sep-2023
12:30
linh
pham



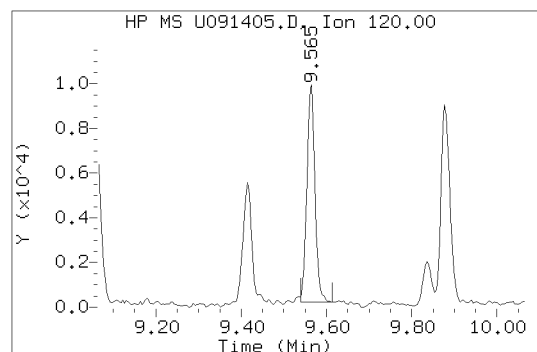
AFTER

MASS
105
AREA
30884
HEIGHT
17593
18-Sep-2023
12:30
linh



AFTER

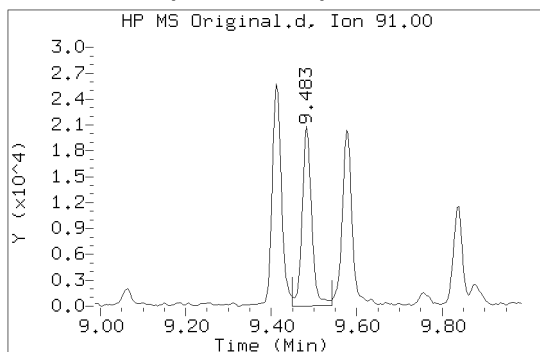
MASS
120
AREA
13262
HEIGHT
9724
18-Sep-2023
12:30
linh
pham



2-Chlorotoluene (95-49-8)

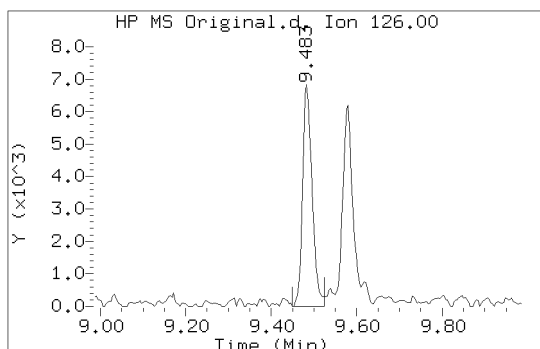
BEFORE

MASS
91
AREA
33180
HEIGHT
20846
18-Sep-2023
12:30
linh
pham



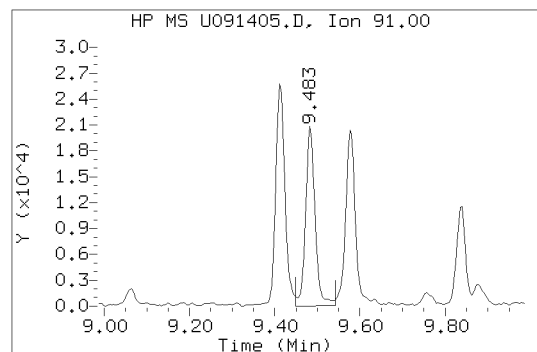
BEFORE

MASS
126
AREA
10850
HEIGHT
6830
18-Sep-2023
12:30
linh
pham



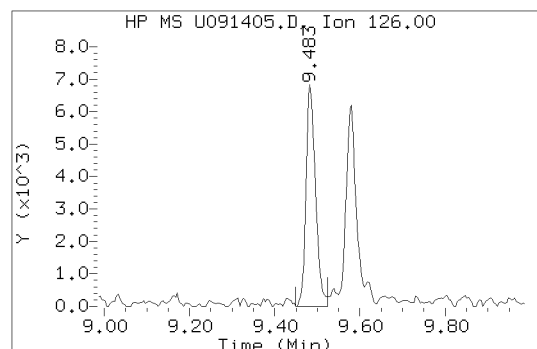
AFTER

MASS
91
AREA
33180
HEIGHT
20846
18-Sep-2023
12:30
linh
pham



AFTER

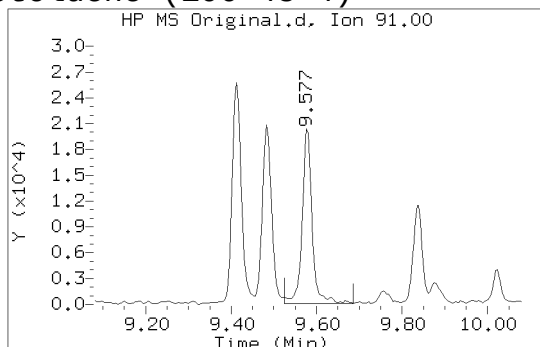
MASS
126
AREA
10850
HEIGHT
6830
18-Sep-2023
12:30
linh
pham



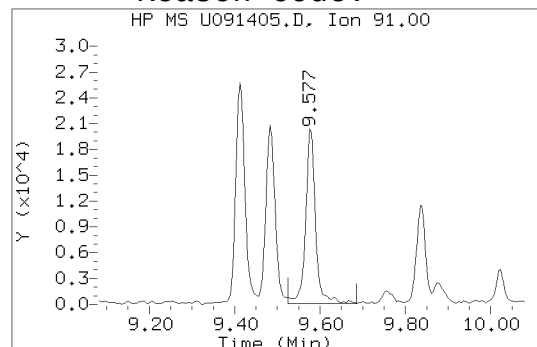
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

4-Chlorotoluene (106-43-4)**BEFORE**

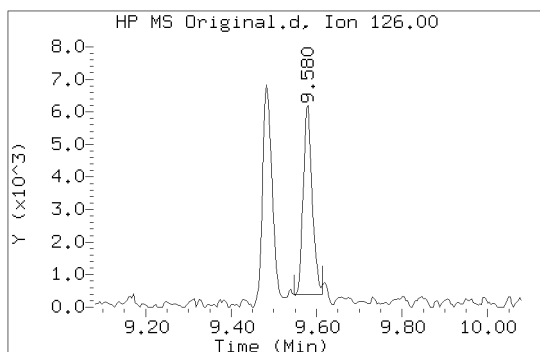
MASS
91
AREA
33779
HEIGHT
20346
18-Sep-2023
12:30
linh

**AFTER**

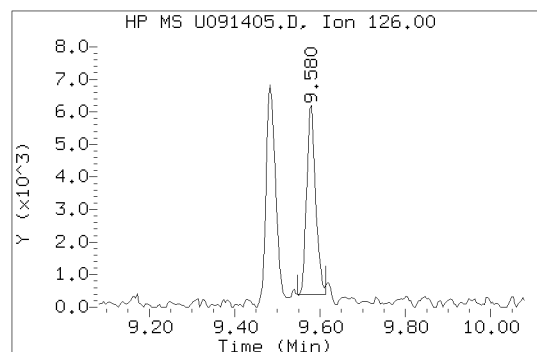
MASS
91
AREA
33779
HEIGHT
20346
18-Sep-2023
12:30
linh

**BEFORE**

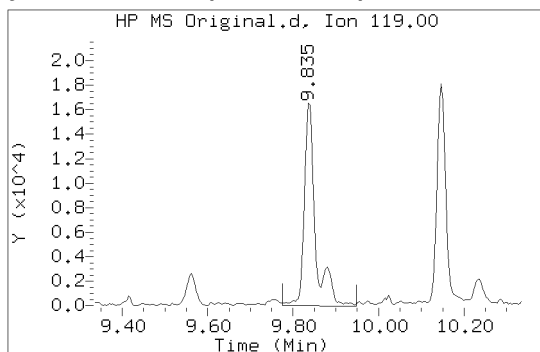
MASS
126
AREA
8669
HEIGHT
5811
18-Sep-2023
12:30
linh
pham

**AFTER**

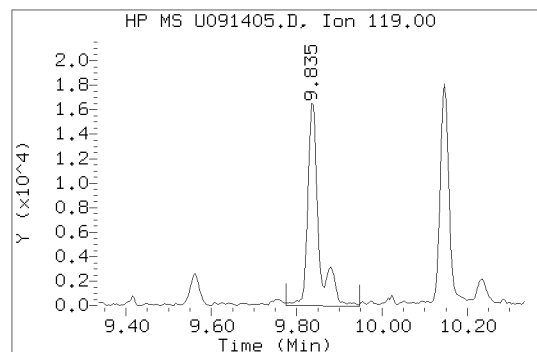
MASS
126
AREA
8669
HEIGHT
5811
18-Sep-2023
12:30
linh
pham

**tert-Butylbenzene (98-06-6)****BEFORE**

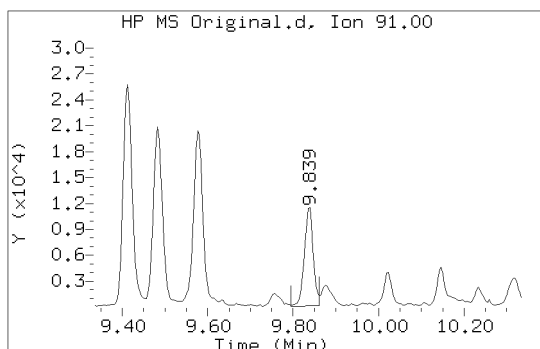
MASS
119
AREA
30827
HEIGHT
16520
18-Sep-2023
12:30
linh
pham

**AFTER**

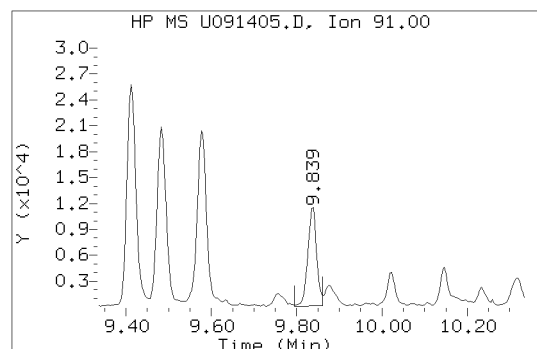
MASS
119
AREA
30827
HEIGHT
16520
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
91
AREA
16917
HEIGHT
11357
18-Sep-2023
12:30
linh
pham

**AFTER**

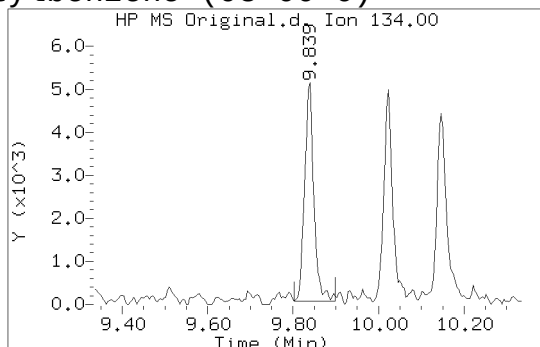
MASS
91
AREA
16917
HEIGHT
11357
18-Sep-2023
12:30
linh
pham



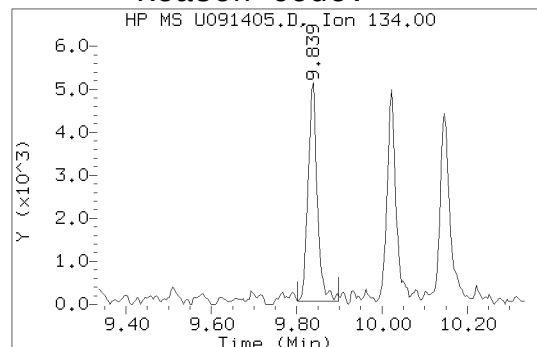
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

tert-Butylbenzene (98-06-6)**BEFORE**

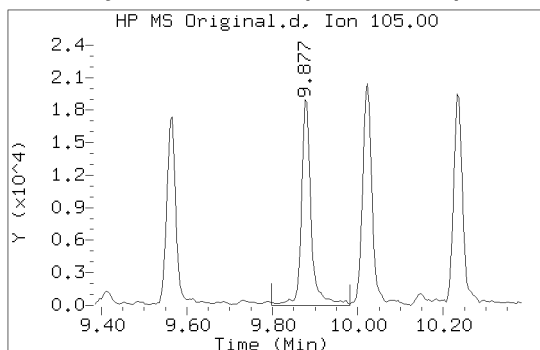
MASS
134
AREA
7780
HEIGHT
5075
18-Sep-2023
12:30
linh
pham

**AFTER**

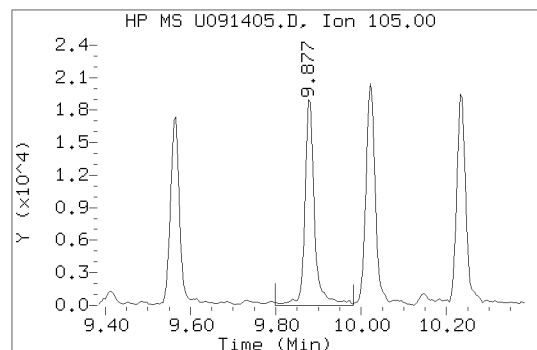
MASS
134
AREA
7780
HEIGHT
5075
18-Sep-2023
12:30
linh
pham

Reason Code:**1,2,4-Trimethylbenzene (95-63-6)****BEFORE**

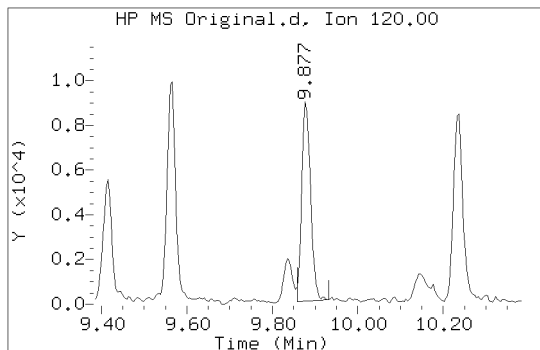
MASS
105
AREA
30377
HEIGHT
18980
18-Sep-2023
12:30
linh
pham

**AFTER**

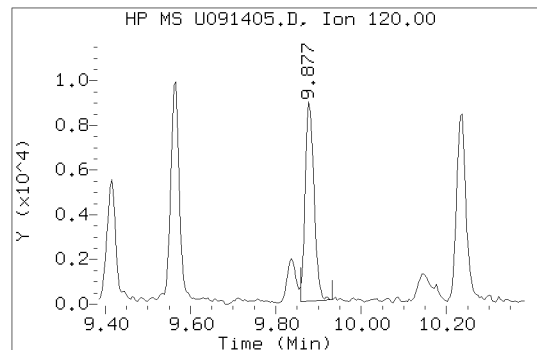
MASS
105
AREA
30377
HEIGHT
18980
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

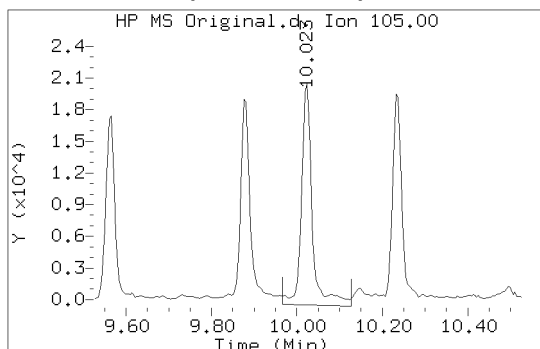
MASS
120
AREA
13034
HEIGHT
8920
18-Sep-2023
12:30
linh
pham

**AFTER**

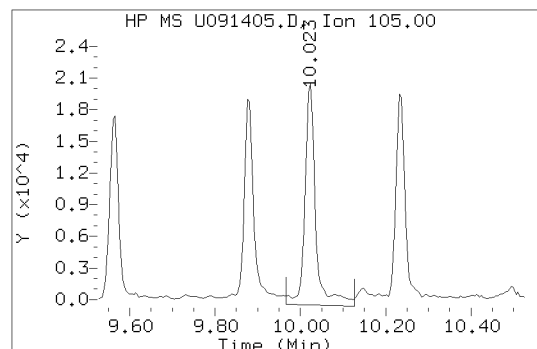
MASS
120
AREA
13034
HEIGHT
8920
18-Sep-2023
12:30
linh
pham

**sec-Butylbenzene (135-98-8)****BEFORE**

MASS
105
AREA
37386
HEIGHT
20926
18-Sep-2023
12:30
linh
pham

**AFTER**

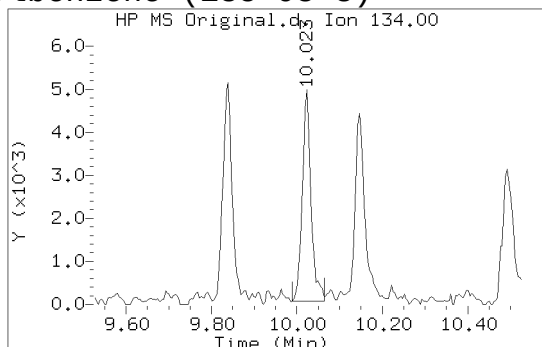
MASS
105
AREA
37386
HEIGHT
20926
18-Sep-2023
12:30
linh
pham

Reason Code:

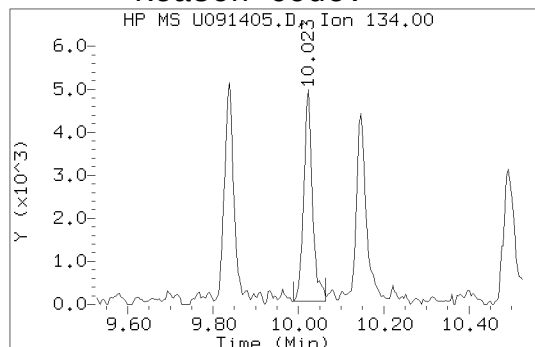
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

sec-Butylbenzene (135-98-8)**BEFORE**

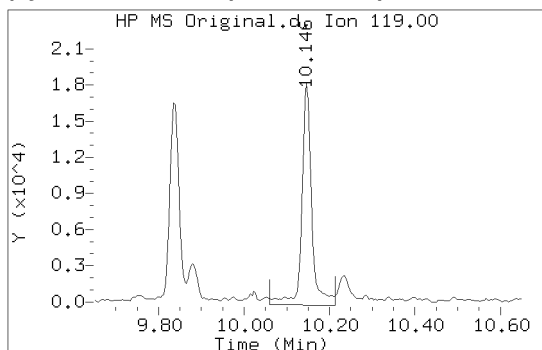
MASS
134
AREA
7013
HEIGHT
4913
18-Sep-2023
12:30
linh
pham

**AFTER**

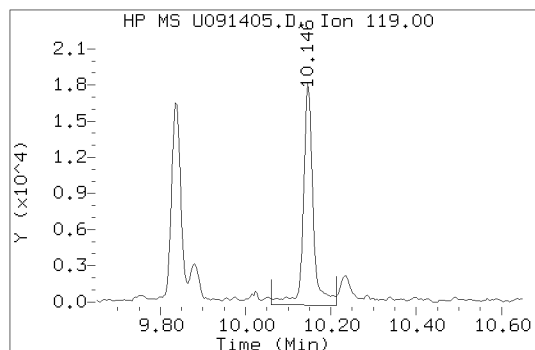
MASS
134
AREA
7013
HEIGHT
4913
18-Sep-2023
12:30
linh
pham

Reason Code:**p-Isopropyltoluene (99-87-6)****BEFORE**

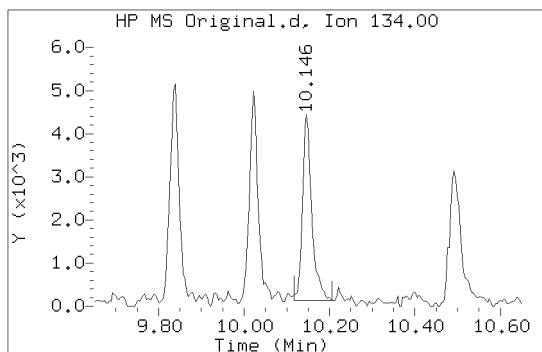
MASS
119
AREA
30473
HEIGHT
18370
18-Sep-2023
12:30
linh
pham

**AFTER**

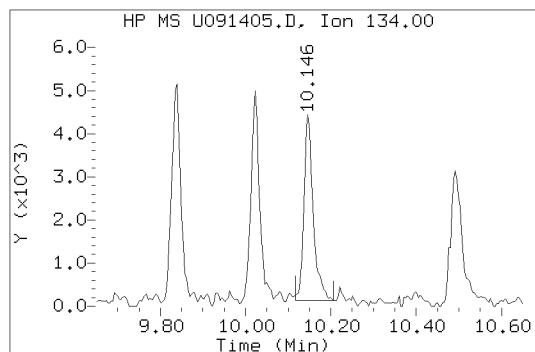
MASS
119
AREA
30473
HEIGHT
18370
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

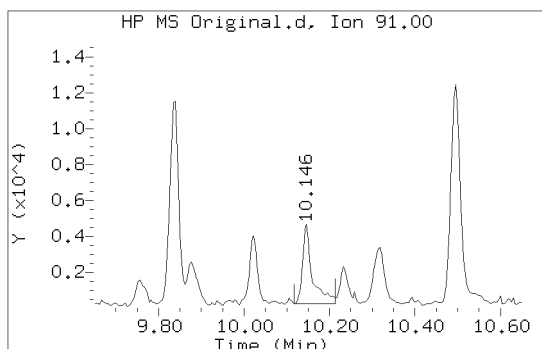
MASS
134
AREA
6684
HEIGHT
4315
18-Sep-2023
12:30
linh
pham

**AFTER**

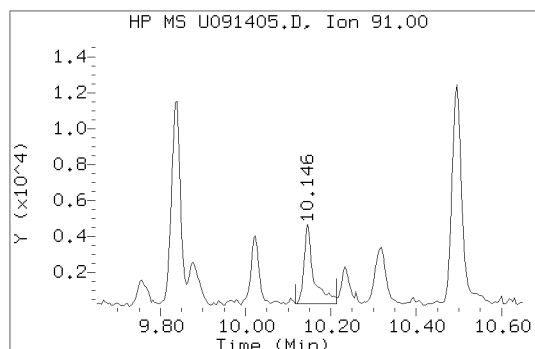
MASS
134
AREA
6684
HEIGHT
4315
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
91
AREA
7318
HEIGHT
4419
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
91
AREA
7318
HEIGHT
4419
18-Sep-2023
12:30
linh
pham

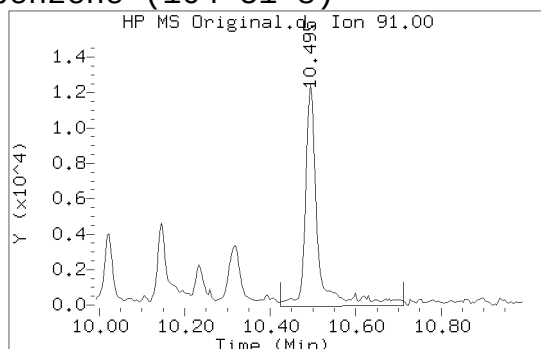


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D
 Inj Date : 14-SEP-2023 17:15
 InstruID : VOA9.i
 LabSampID : VSTD002

n-Butylbenzene (104-51-8)

BEFORE

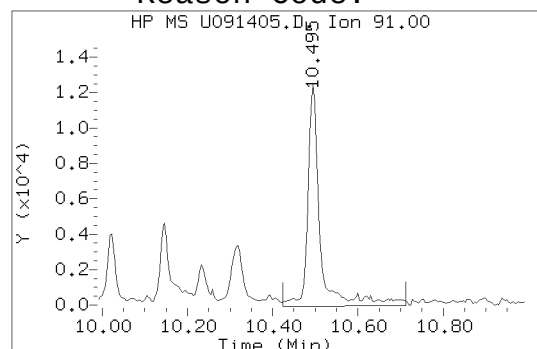
MASS
91
AREA
25685
HEIGHT
12495
18-Sep-2023
12:30
linh



AFTER

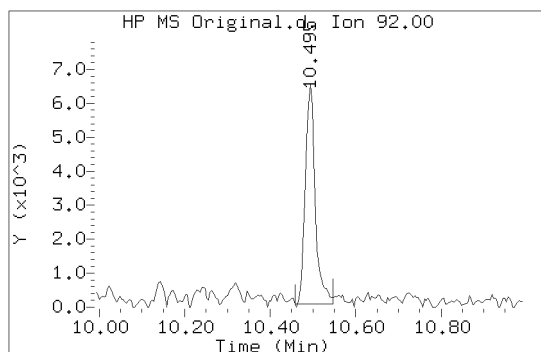
MASS
91
AREA
25685
HEIGHT
12495
18-Sep-2023
12:30
linh

Reason Code:



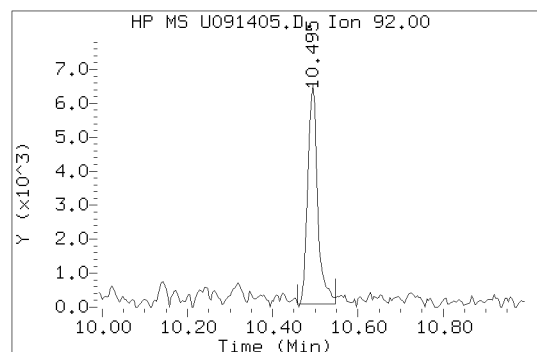
BEFORE

MASS
92
AREA
10649
HEIGHT
6452
18-Sep-2023
12:30
linh
pham



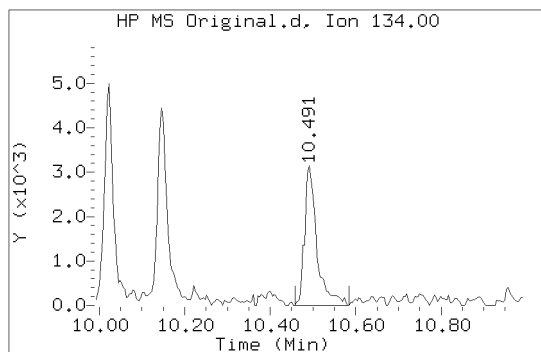
AFTER

MASS
92
AREA
10649
HEIGHT
6452
18-Sep-2023
12:30
linh
pham



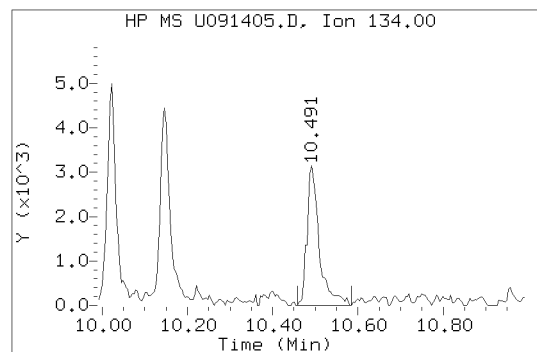
BEFORE

MASS
134
AREA
6384
HEIGHT
3141
18-Sep-2023
12:30
linh
pham



AFTER

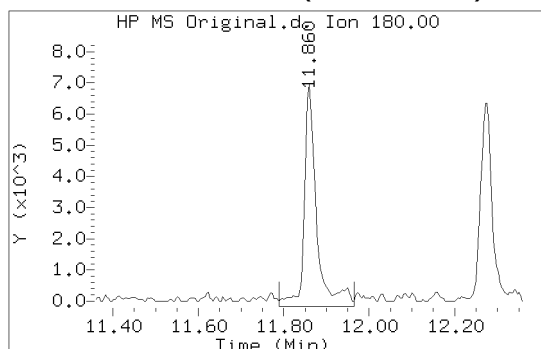
MASS
134
AREA
6384
HEIGHT
3141
18-Sep-2023
12:30
linh
pham



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

BEFORE

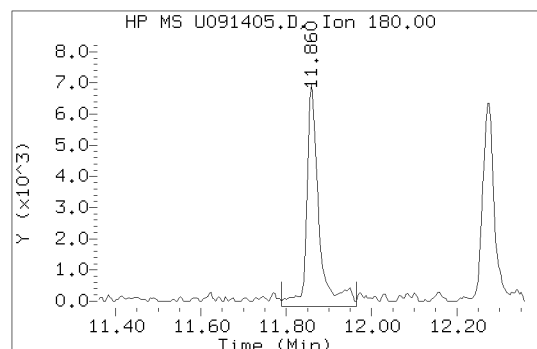
MASS
180
AREA
14590
HEIGHT
7111
18-Sep-2023
12:30
linh
pham



AFTER

MASS
180
AREA
14590
HEIGHT
7111
18-Sep-2023
12:30
linh
pham

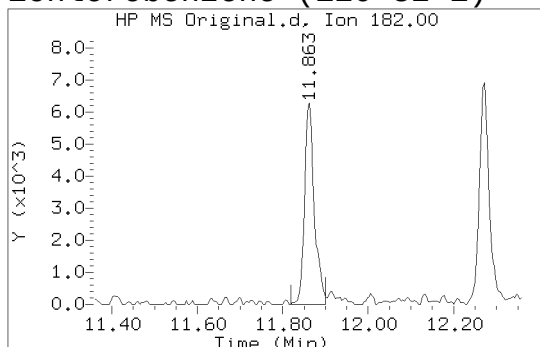
Reason Code:



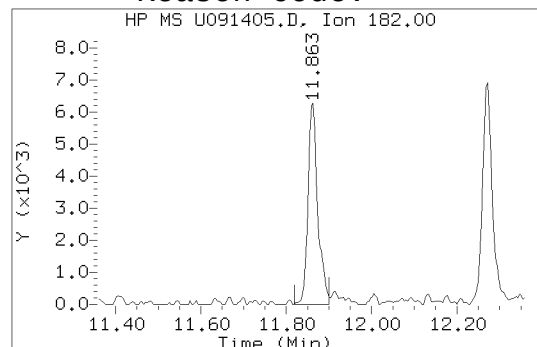
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

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

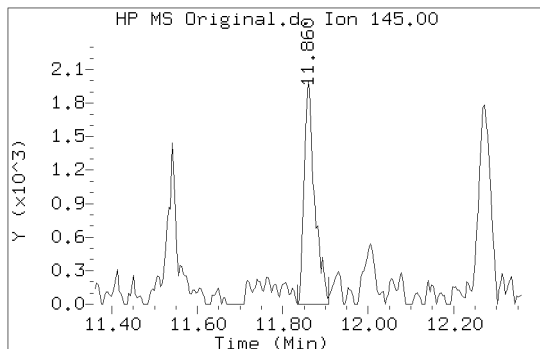
MASS
182
AREA
10193
HEIGHT
6281
18-Sep-2023
12:30
linh

**AFTER**

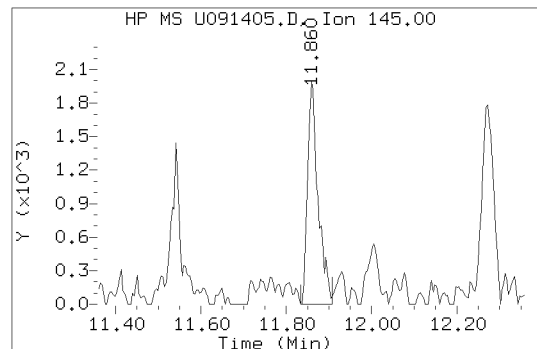
MASS
182
AREA
10193
HEIGHT
6281
18-Sep-2023
12:30
linh

**BEFORE**

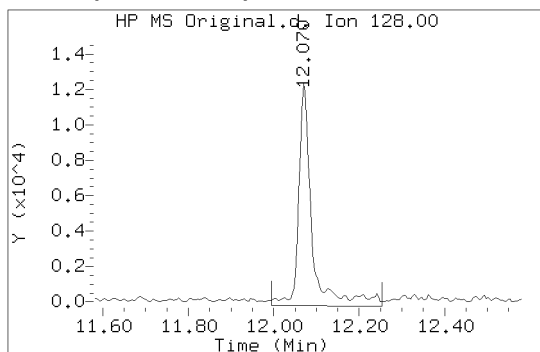
MASS
145
AREA
3481
HEIGHT
1990
18-Sep-2023
12:30
linh
pham

**AFTER**

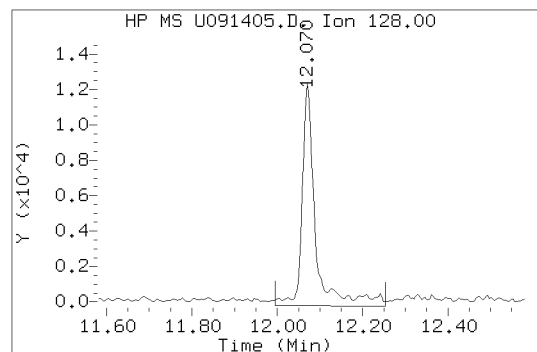
MASS
145
AREA
3481
HEIGHT
1990
18-Sep-2023
12:30
linh
pham

**Naphthalene (91-20-3)****BEFORE**

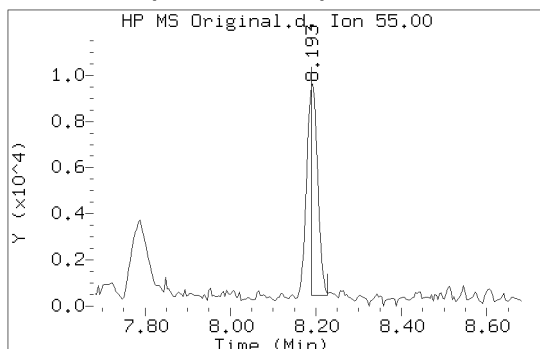
MASS
128
AREA
27784
HEIGHT
12537
18-Sep-2023
12:30
linh
pham

**AFTER**

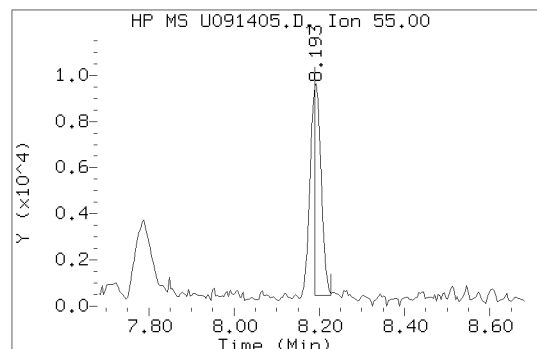
MASS
128
AREA
27784
HEIGHT
12537
18-Sep-2023
12:30
linh
pham

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

MASS
55
AREA
10420
HEIGHT
9163
18-Sep-2023
12:30
linh
pham

**AFTER**

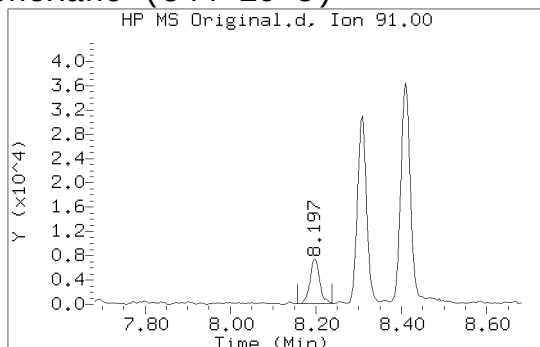
MASS
55
AREA
10420
HEIGHT
9163
18-Sep-2023
12:30
linh
pham



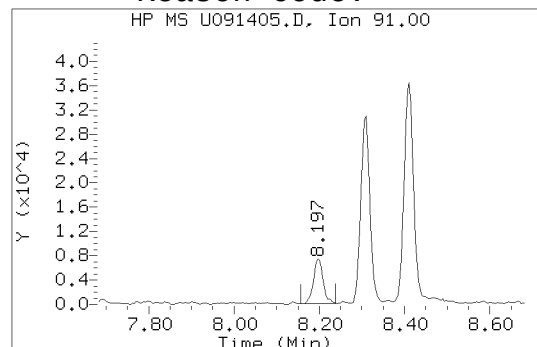
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

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

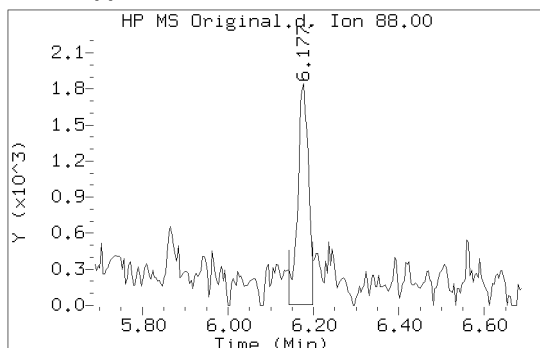
MASS
91
AREA
11923
HEIGHT
7414
18-Sep-2023
12:30
linh
pham

**AFTER**

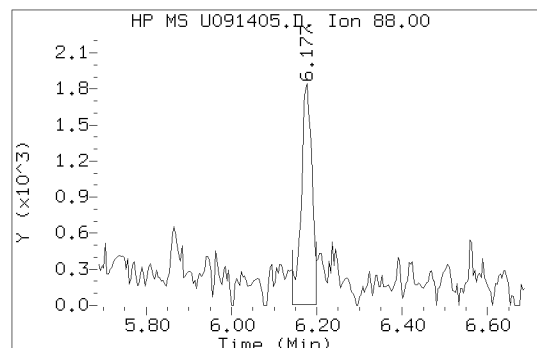
MASS
91
AREA
11923
HEIGHT
7414
18-Sep-2023
12:30
linh
pham

Reason Code:**1,4-Dioxane ()****BEFORE**

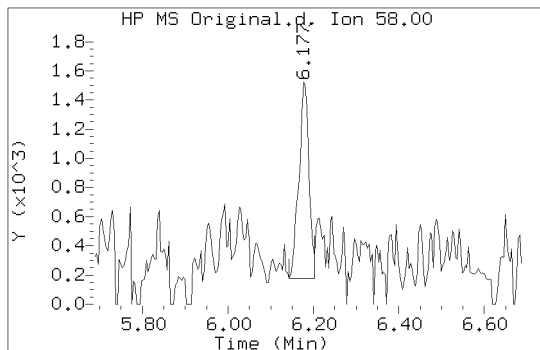
MASS
88
AREA
3297
HEIGHT
1839
18-Sep-2023
12:30
linh
pham

**AFTER**

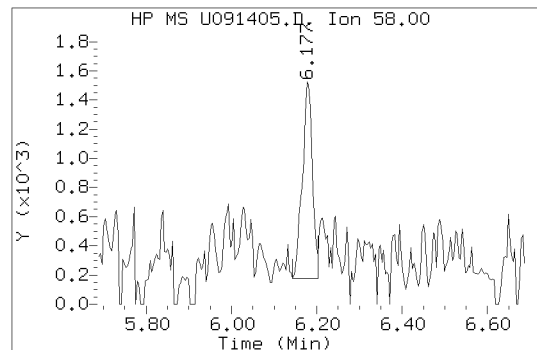
MASS
88
AREA
3297
HEIGHT
1839
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

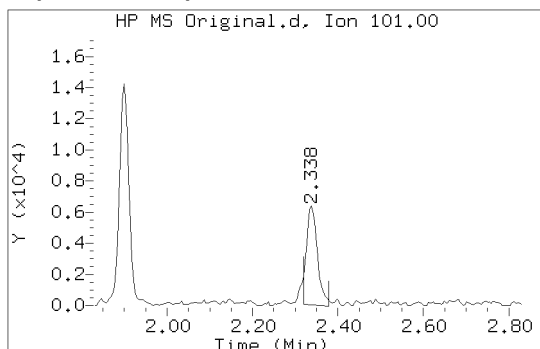
MASS
58
AREA
2246
HEIGHT
1346
18-Sep-2023
12:30
linh
pham

**AFTER**

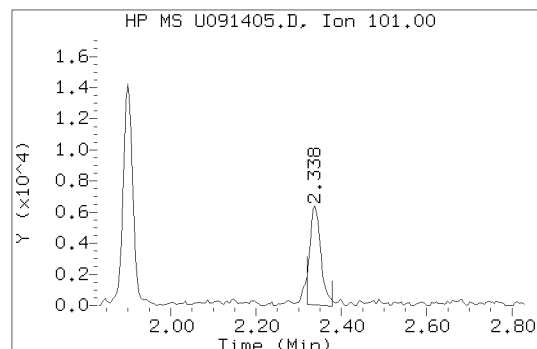
MASS
58
AREA
2246
HEIGHT
1346
18-Sep-2023
12:30
linh
pham

**Freon TF (76-13-1)****BEFORE**

MASS
101
AREA
11603
HEIGHT
6340
18-Sep-2023
12:30
linh
pham

**AFTER**

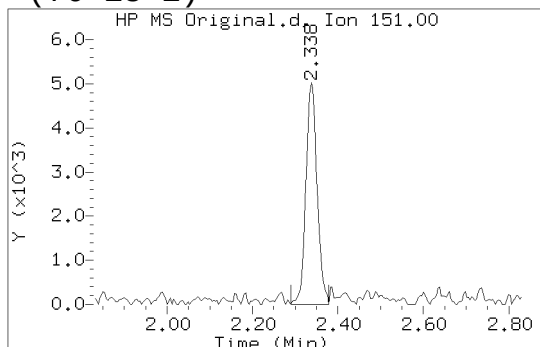
MASS
101
AREA
11603
HEIGHT
6340
18-Sep-2023
12:30
linh
pham

Reason Code:

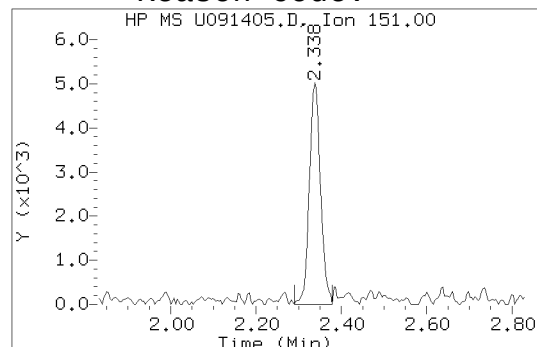
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Freon TF (76-13-1)**BEFORE**

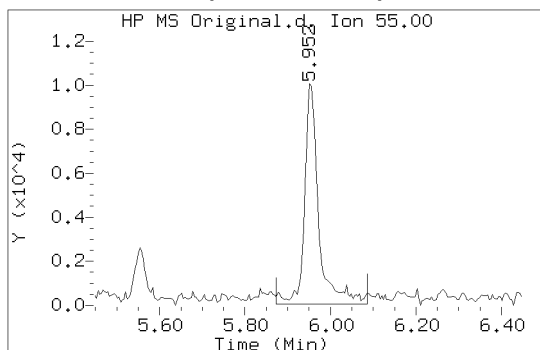
MASS
151
AREA
9320
HEIGHT
5025
18-Sep-2023
12:30
linh
pham

**AFTER**

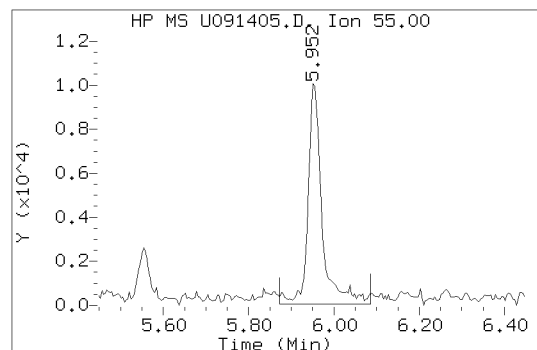
MASS
151
AREA
9320
HEIGHT
5025
18-Sep-2023
12:30
linh
pham

Reason Code:**Methylcyclohexane (108-87-2)****BEFORE**

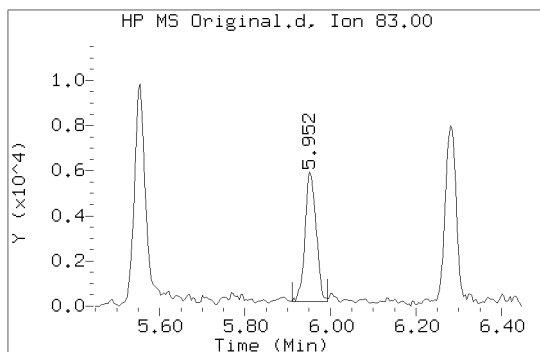
MASS
55
AREA
23709
HEIGHT
10015
18-Sep-2023
12:30
linh
pham

**AFTER**

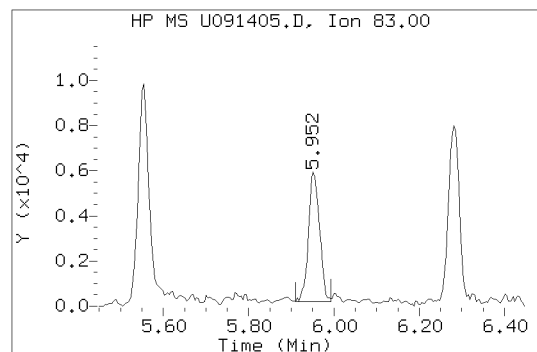
MASS
55
AREA
23709
HEIGHT
10015
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

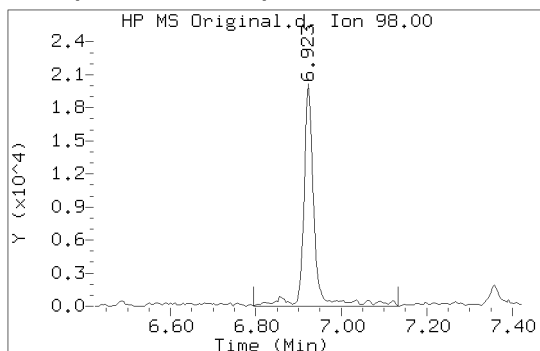
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83
AREA
10672
HEIGHT
5759
18-Sep-2023
12:30
linh
pham

**AFTER**

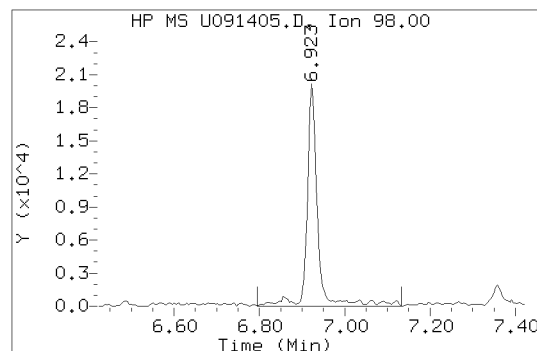
MASS
83
AREA
10672
HEIGHT
5759
18-Sep-2023
12:30
linh
pham

**Toluene-d8 (2037-26-5)****BEFORE**

MASS
98
AREA
35573
HEIGHT
20167
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
98
AREA
35573
HEIGHT
20167
18-Sep-2023
12:30
linh
pham

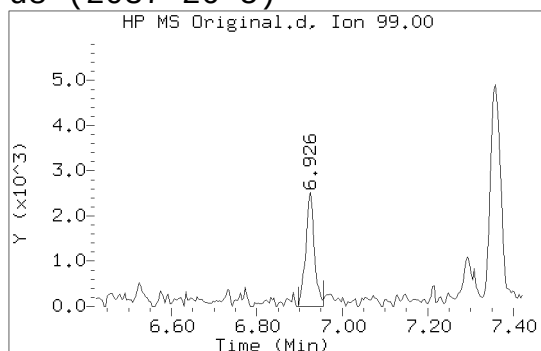
Reason Code:

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Toluene-d8 (2037-26-5)

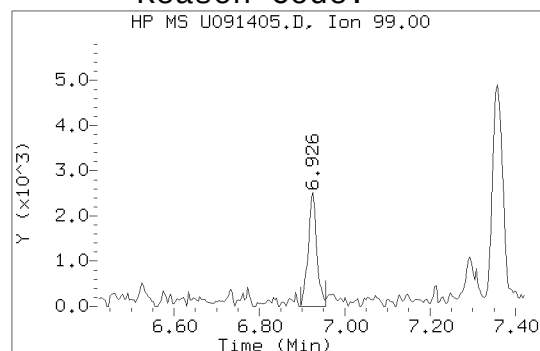
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AREA
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2529
18-Sep-2023
12:30
linh
pham



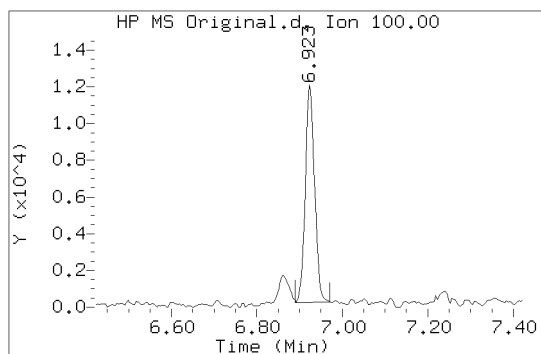
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HEIGHT
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18-Sep-2023
12:30
linh
pham



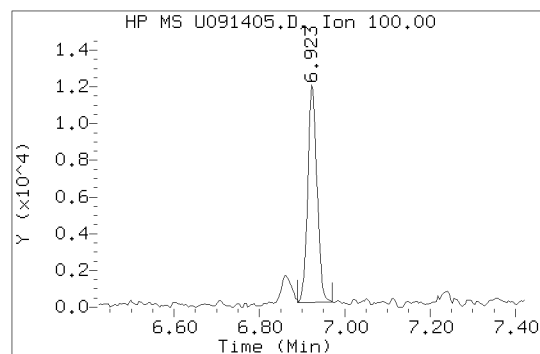
BEFORE

MASS
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AREA
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HEIGHT
11842
18-Sep-2023
12:30
linh
pham



AFTER

MASS
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AREA
18195
HEIGHT
11842
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091406.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091406.D
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 Inj Date : 14-SEP-2023 17:37
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD005;VSTD005;1;5;
 Misc Info : V9;WATER;0;1;
 Comment :
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 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 17:15 Cal File: U091405.D
 Als bottle: 7 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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)		615876	50.0000	
2 Dichlorodifluoromethane	85		1.164	1.164	(0.242)		33181	5.00000	6.11
3 Chloromethane	50		1.295	1.295	(0.269)		65950	5.00000	4.93
5 Vinyl Chloride	62		1.374	1.374	(0.285)		37633	5.00000	4.81
6 Bromomethane	94		1.621	1.621	(0.337)		22775	5.00000	6.36
7 Chloroethane	64		1.700	1.700	(0.353)		28720	5.00000	4.99
8 Trichlorofluoromethane	101		1.895	1.895	(0.394)		48351	5.00000	4.82
9 Acrolein	56		2.266	2.266	(0.471)		5614	10.0000	10.62(M)
10 Acetone	43		2.408	2.408	(0.500)		44971	10.0000	12.54
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)		29078	5.00000	4.77
15 Iodomethane	142		2.468	2.468	(0.513)		28118	10.0000	11.41
16 Acrylonitrile	53		3.064	3.064	(0.636)		38251	10.0000	10.64
17 Methylene Chloride	84		2.791	2.791	(0.580)		46477	5.00000	7.49
18 Methyl tert-butyl ether	73		3.079	3.079	(0.640)		80677	5.00000	4.66
19 Carbon Disulfide	76		2.521	2.521	(0.524)		151653	10.0000	9.20
20 trans-1,2-Dichloroethene	96		3.057	3.057	(0.635)		32760	5.00000	5.12
21 Vinyl Acetate	43		3.608	3.608	(0.749)		208109	10.0000	9.19
22 1,1-Dichloroethane	63		3.514	3.514	(0.730)		64016	5.00000	4.99
24 2-Butanone	43		4.272	4.272	(0.887)		37906	10.0000	10.15
26 2,2-Dichloropropane	77		4.178	4.178	(0.868)		37553	5.00000	4.83



27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	37179	5.00000	5.08
28 Chloroform	83	4.571	4.571 (0.949)	65168	5.00000	5.23

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091406.D Page 2
Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.466	4.466	(0.928)	20058	5.00000	5.23(M)
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	30159	5.00000	5.55
31 1,1,1-Trichloroethane	97	4.736	4.736	(0.984)	39706	5.00000	4.69
32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	36825	5.00000	4.78(M)
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	48868	5.00000	5.21
34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	29696	5.00000	4.31
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	35545	5.00000	5.46
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	969968	50.0000	
37 Benzene	78	5.137	5.137	(0.925)	120633	5.00000	4.95
38 Trichloroethene	130	5.790	5.790	(1.043)	33784	5.00000	4.76
39 Bromodichloromethane	83	6.277	6.277	(1.130)	39828	5.00000	5.04
41 2-Chloroethylvinyl ether	63	6.562	6.562	(1.182)	336	10.0000	10.06(M)
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	32353	5.00000	5.02(M)
44 Dibromomethane	93	6.120	6.120	(1.102)	22821	5.00000	5.15
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	55368	10.0000	10.20
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	34543	5.00000	6.45(M)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	948776	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	99501	5.00000	4.75(M)
50 Toluene	91	6.982	6.982	(0.853)	121160	5.00000	4.75
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	26471	5.00000	5.54(M)
52 2-Hexanone	43	7.597	7.597	(0.928)	36854	10.0000	8.56
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	27894	5.00000	5.02
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	58827	5.00000	5.26
55 Dibromochloromethane	129	7.694	7.694	(0.940)	28979	5.00000	4.38
56 Tetrachloroethene	164	7.458	7.458	(0.911)	28435	5.00000	4.79
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	34451	5.00000	5.16
58 1-Chlorohexane	55	8.193	8.193	(1.475)	26895	5.00000	4.58(M)
59 Chlorobenzene	112	8.208	8.208	(1.003)	99816	5.00000	5.29
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	29792	5.00000	4.70
61 Ethylbenzene	106	8.309	8.309	(1.015)	39301	5.00000	4.65(M)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	91941	10.0000	8.66(M)
63 o-Xylene	106	8.747	8.747	(1.069)	51484	5.00000	4.66(M)
64 Styrene	104	8.762	8.762	(1.071)	81277	5.00000	4.80(M)
66 Bromoform	173	8.920	8.920	(1.090)	18129	5.00000	6.93
67 Isopropylbenzene	105	9.062	9.062	(1.107)	106778	5.00000	5.53(M)
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	48111	5.00000	4.97
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	43329	5.00000	4.81
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	497786	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	42193	5.00000	5.11
73 n-Propylbenzene	91	9.411	9.411	(0.925)	104281	5.00000	6.19(M)
74 Bromobenzene	156	9.317	9.317	(0.916)	37894	5.00000	4.78
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	83567	5.00000	4.46(M)
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	84153	5.00000	4.55
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	97057	5.00000	4.47(M)
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	82646	5.00000	4.58(M)
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	89902	5.00000	4.67(M)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	102146	5.00000	5.88(M)
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	91770	5.00000	6.42(M)
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	67187	5.00000	4.81
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	79406	5.00000	5.06
87 n-Butylbenzene	91	10.491	10.491	(1.031)	70297	5.00000	5.91(M)
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	68123	5.00000	4.77



89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	4962	5.00000	4.12(M)
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	38785	5.00000	4.77(M)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091406.D Page 3

Report Date: 18-Sep-2023 12:31

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)	18387	5.00000	5.04(M)
92 Naphthalene	128	12.073	12.073	(1.187)	71056	5.00000	5.75(M)
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	32422	5.00000	4.20
M 94 1,2-Dichloroethylene (total)	96				69939	10.0000	
M 95 Xylenes (total)	106				143425	15.0000	
135 1,4-Dioxane	88	6.176	6.176	(1.283)	9267	100.000	103.51(M)
141 Cyclohexane	56	4.781	4.781	(0.993)	42320	5.00000	5.69(M)
138 Freon TF	101	2.330	2.330	(0.484)	25879	5.00000	5.48
140 1,3-Butadiene	54	1.400	1.400	(0.291)	35494	5.00000	4.87(M)
147 Methylcyclohexane	55	5.951	5.951	(1.072)	69365	5.00000	4.87(M)
146 Methyl Acetate	43	2.716	2.716	(0.564)	37702	5.00000	5.04
148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	76557	100.000	101.45
149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	51206	100.000	94.58

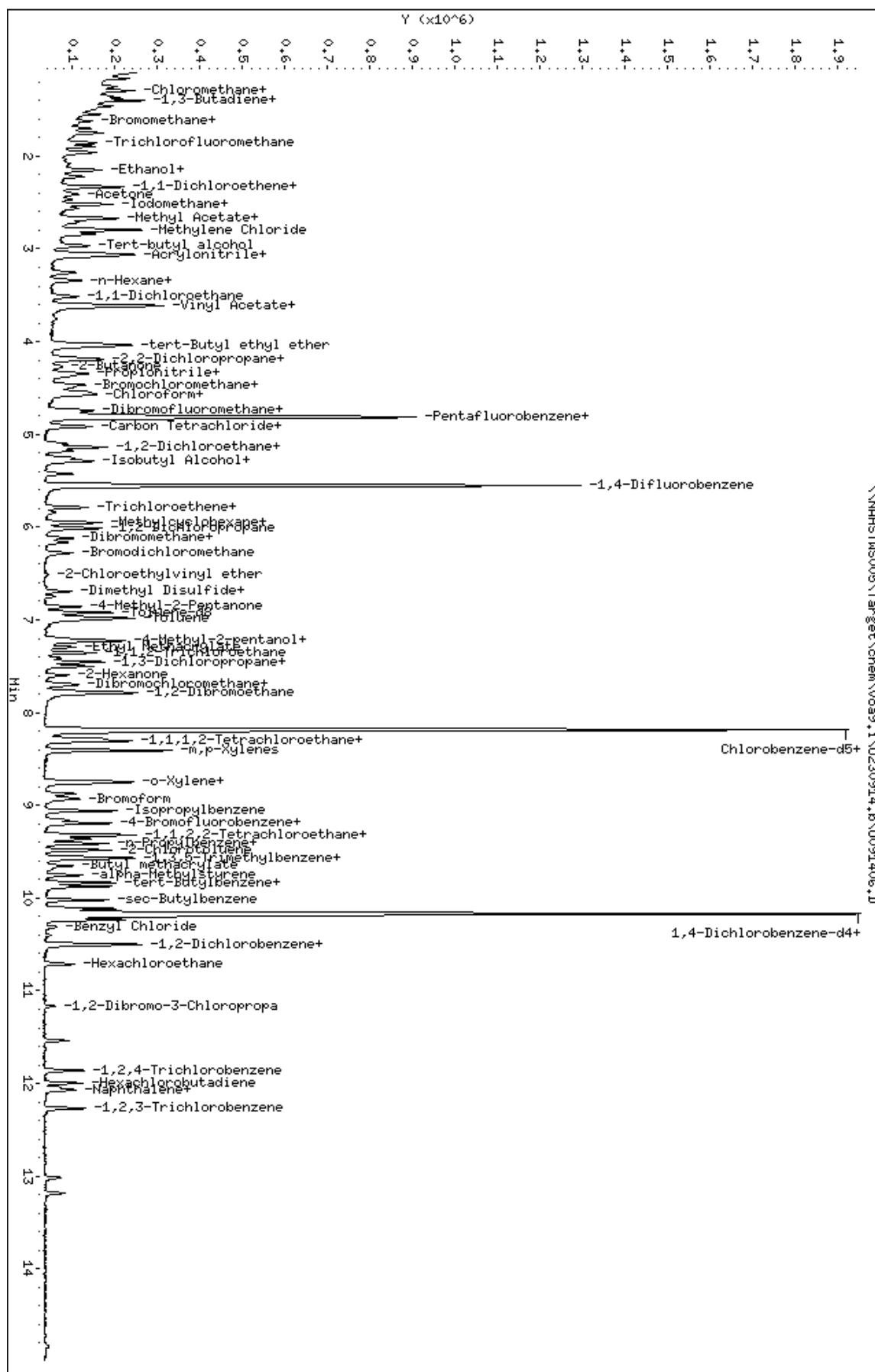
QC Flag Legend

M - Compound response manually integrated.



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 Column phase: DB624

Instrument: W089.i
 Operator: PC
 Column diameter: 0.18

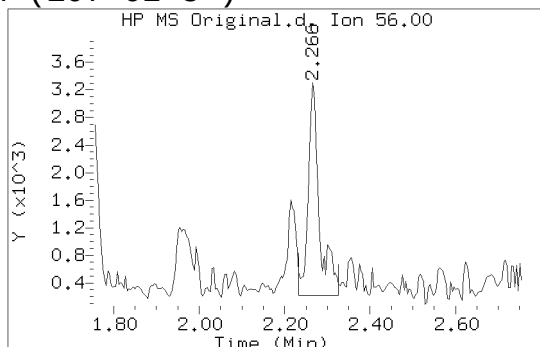


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Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Acrolein (107-02-8)

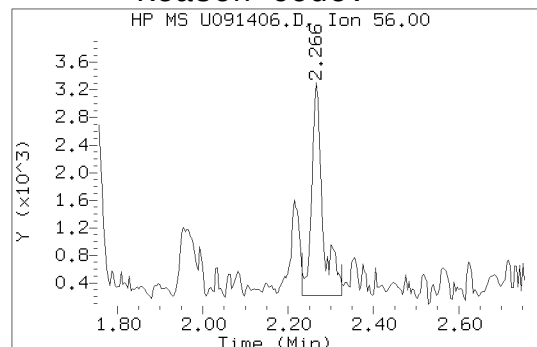
BEFORE

MASS
56
AREA
5614
HEIGHT
3082
18-Sep-2023
12:30
linh



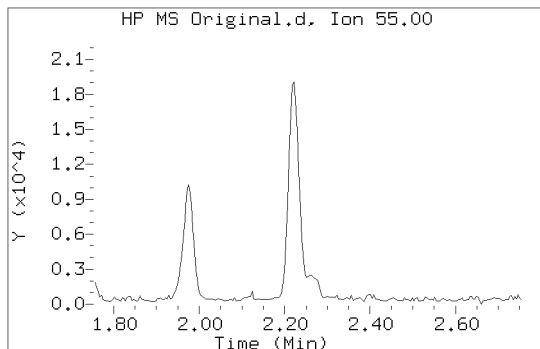
AFTER

MASS
56
AREA
5614
HEIGHT
3082
18-Sep-2023
12:30
linh



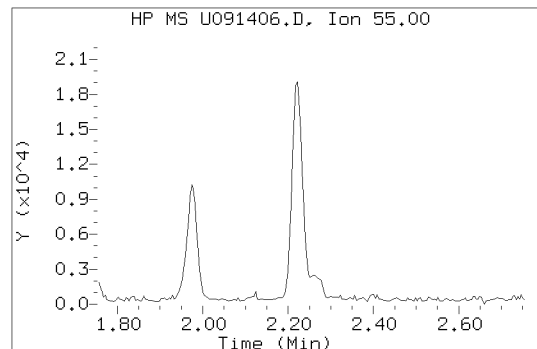
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AREA
2832
HEIGHT
1793
18-Sep-2023
12:30
linh
pham



AFTER

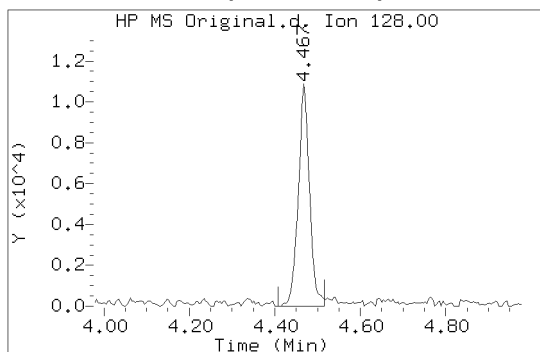
MASS
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AREA
2832
HEIGHT
1793
18-Sep-2023
12:30
linh
pham



Bromochloromethane (74-97-5)

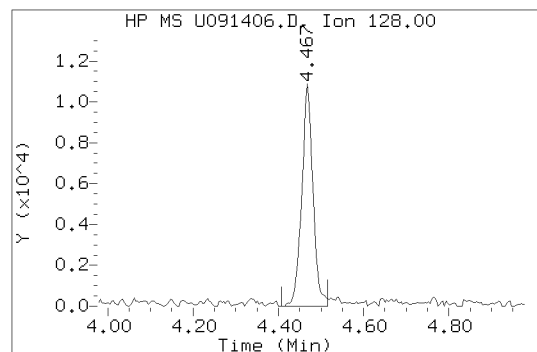
BEFORE

MASS
128
AREA
20058
HEIGHT
10880
18-Sep-2023
12:30
linh
pham



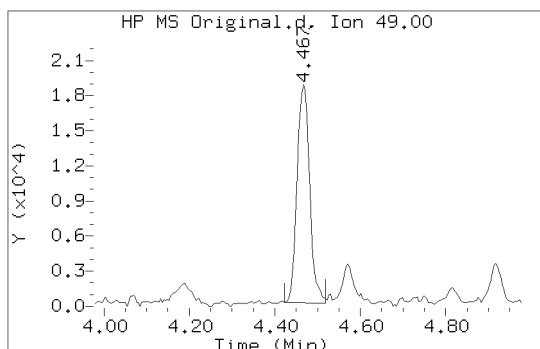
AFTER

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AREA
20058
HEIGHT
10880
18-Sep-2023
12:30
linh
pham



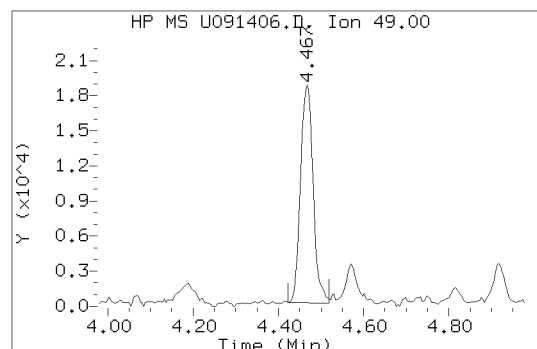
BEFORE

MASS
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AREA
38427
HEIGHT
18619
18-Sep-2023
12:30
linh
pham



AFTER

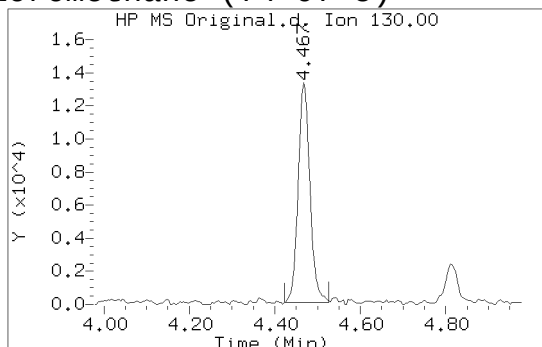
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HEIGHT
18619
18-Sep-2023
12:30
linh
pham



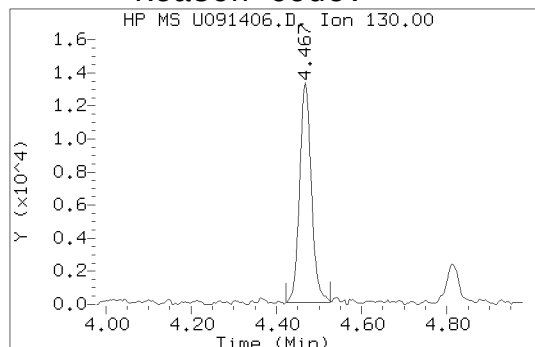
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InstruID : VOA9.i
LabSampID : VSTD005

Bromochloromethane (74-97-5)**BEFORE**

MASS
130
AREA
25690
HEIGHT
13299
18-Sep-2023
12:30
linh
pham

**AFTER**

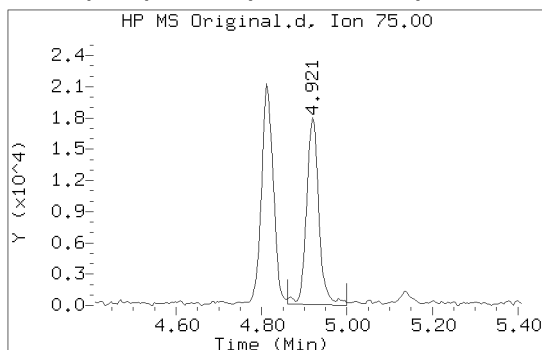
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AREA
25690
HEIGHT
13299
18-Sep-2023
12:30
linh
pham



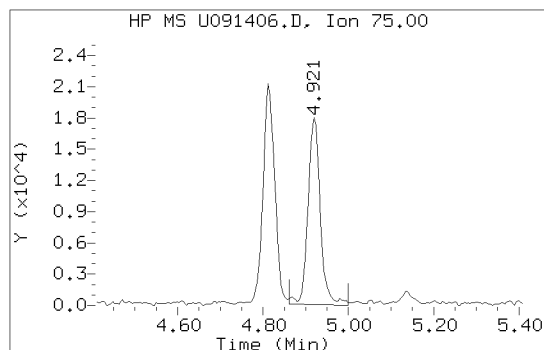
Reason Code:

1,1-Dichloropropene (563-58-6)**BEFORE**

MASS
75
AREA
36825
HEIGHT
17968
18-Sep-2023
12:30
linh
pham

**AFTER**

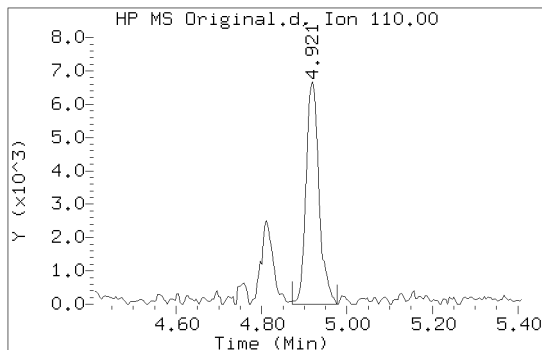
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75
AREA
36825
HEIGHT
17968
18-Sep-2023
12:30
linh
pham



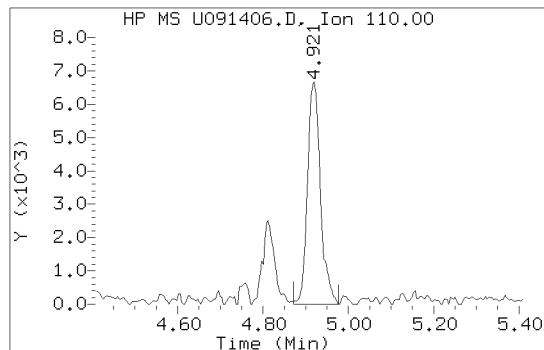
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BEFORE

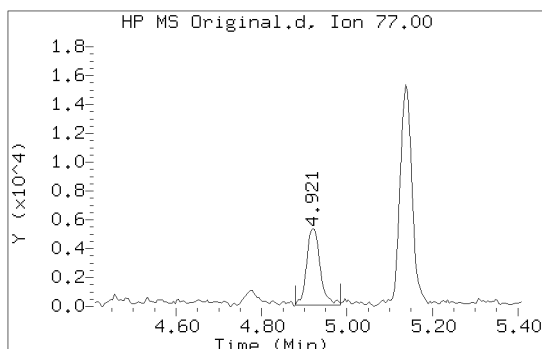
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AREA
14327
HEIGHT
6669
18-Sep-2023
12:30
linh
pham

**AFTER**

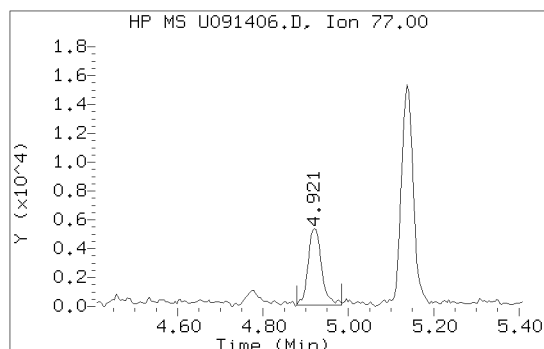
MASS
110
AREA
14327
HEIGHT
6669
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
77
AREA
11813
HEIGHT
5283
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
77
AREA
11813
HEIGHT
5283
18-Sep-2023
12:30
linh
pham

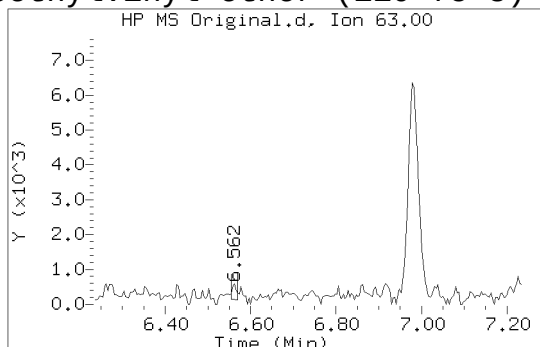


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Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

2-Chloroethylvinyl ether (110-75-8)

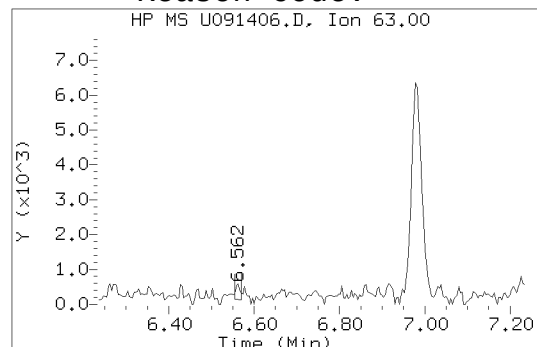
BEFORE

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63
AREA
336
HEIGHT
457
18-Sep-2023
12:30
linh



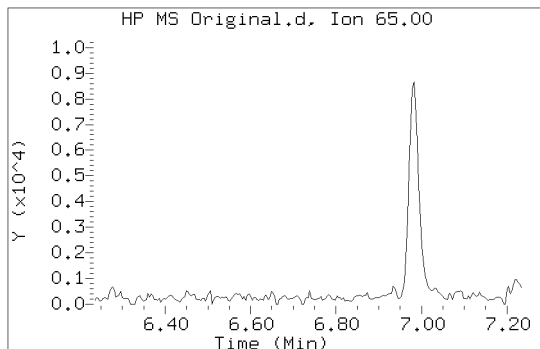
AFTER

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AREA
336
HEIGHT
457
18-Sep-2023
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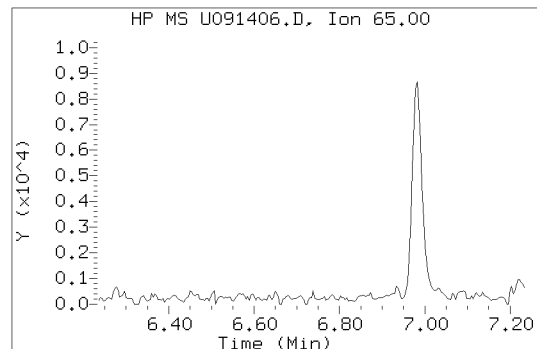
BEFORE

MASS
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AREA
0
HEIGHT
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18-Sep-2023
12:30
linh
pham



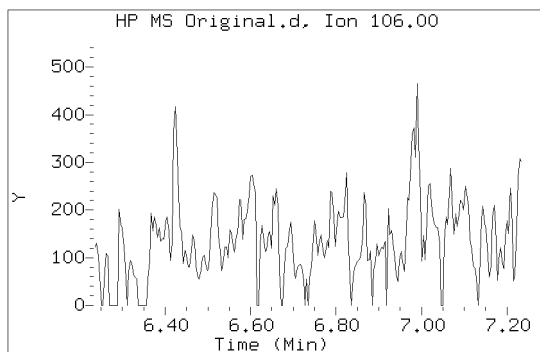
AFTER

MASS
65
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham



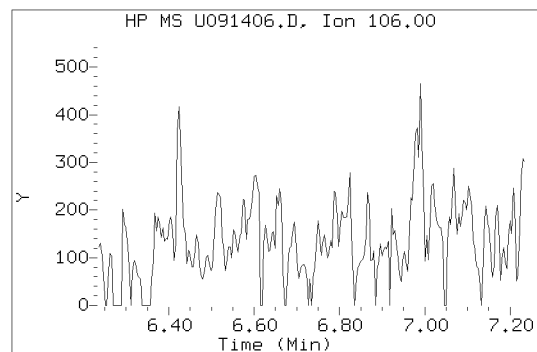
BEFORE

MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham



AFTER

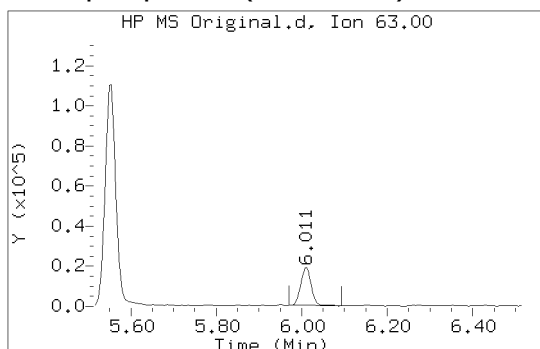
MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham



1,2-Dichloropropane (78-87-5)

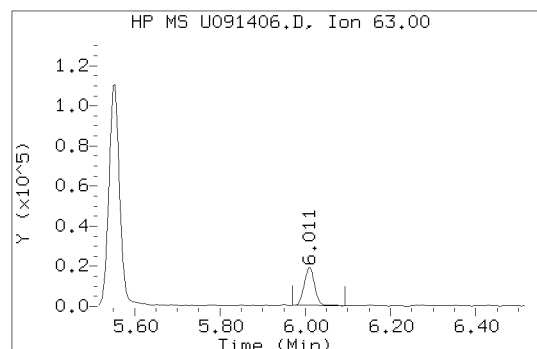
BEFORE

MASS
63
AREA
32353
HEIGHT
18996
18-Sep-2023
12:30
linh
pham



AFTER

MASS
63
AREA
32353
HEIGHT
18996
18-Sep-2023
12:30
linh
pham



Reason Code:

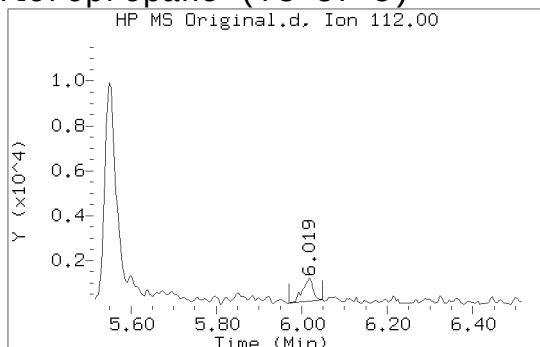


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

1,2-Dichloropropane (78-87-5)

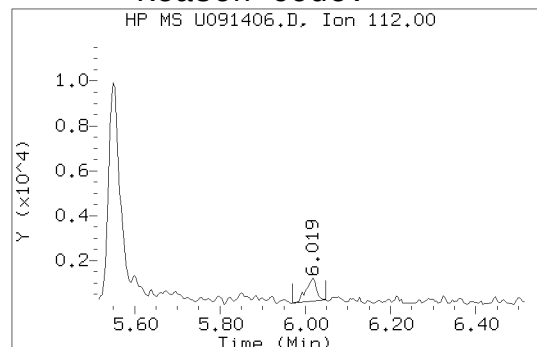
BEFORE

MASS
112
AREA
1711
HEIGHT
1017
18-Sep-2023
12:30
linh
pham



AFTER

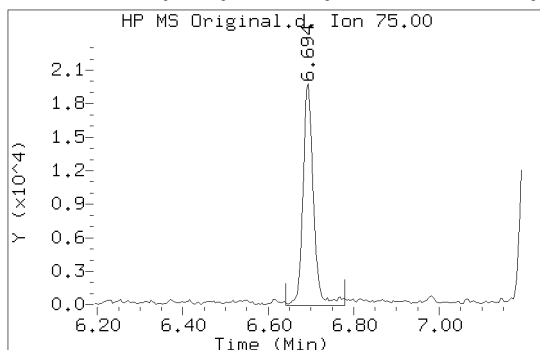
MASS
112
AREA
1711
HEIGHT
1017
18-Sep-2023
12:30
linh
pham



cis-1,3-Dichloropropene (10061-01-5)

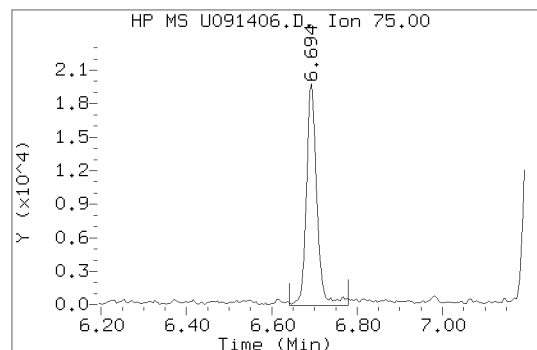
BEFORE

MASS
75
AREA
34543
HEIGHT
19820
18-Sep-2023
12:30
linh
pham



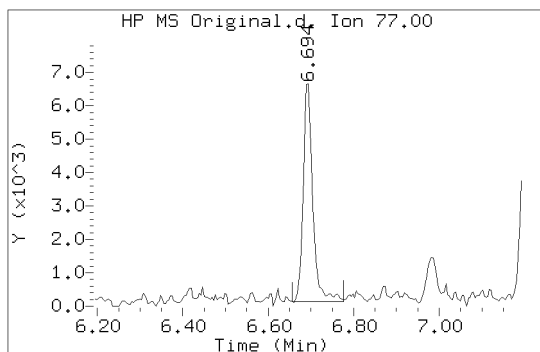
AFTER

MASS
75
AREA
34543
HEIGHT
19820
18-Sep-2023
12:30
linh
pham



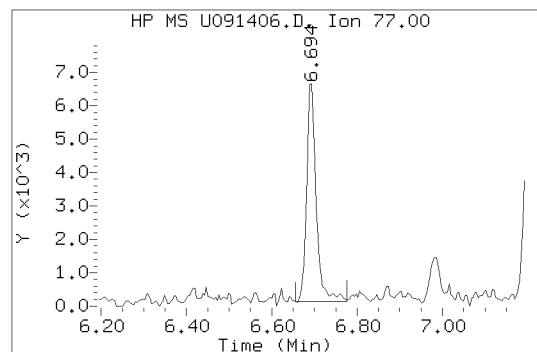
BEFORE

MASS
77
AREA
10412
HEIGHT
6520
18-Sep-2023
12:30
linh
pham



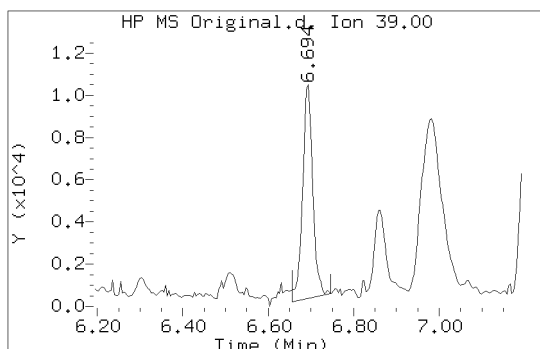
AFTER

MASS
77
AREA
10412
HEIGHT
6520
18-Sep-2023
12:30
linh
pham



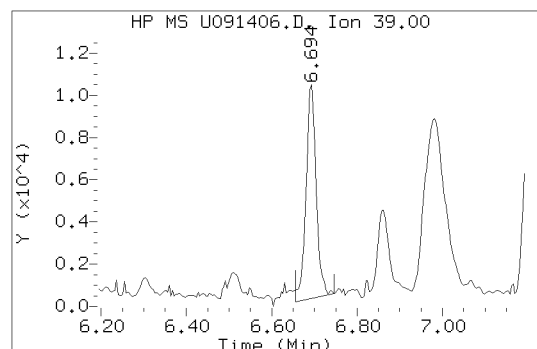
BEFORE

MASS
39
AREA
17092
HEIGHT
10125
18-Sep-2023
12:30
linh
pham



AFTER

MASS
39
AREA
17092
HEIGHT
10125
18-Sep-2023
12:30
linh
pham

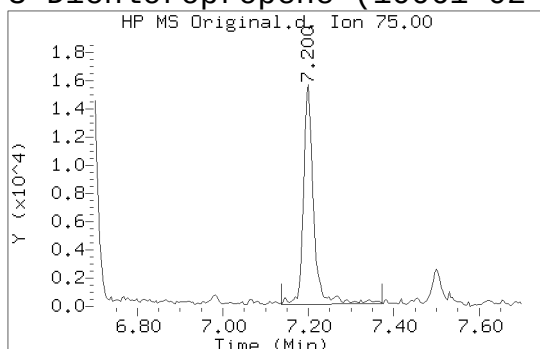


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

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

BEFORE

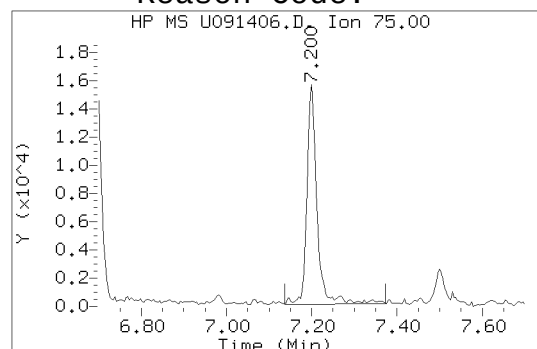
MASS
75
AREA
26471
HEIGHT
15556
18-Sep-2023
12:30
linh



AFTER

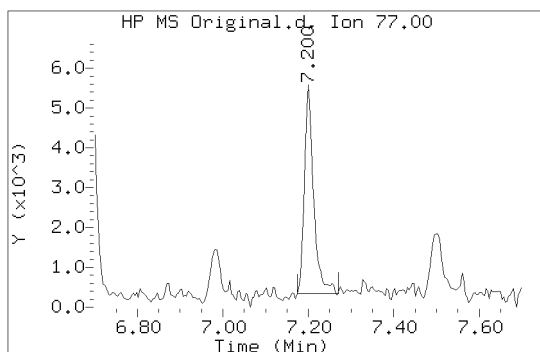
MASS
75
AREA
26471
HEIGHT
15556
18-Sep-2023
12:30
linh

Reason Code:



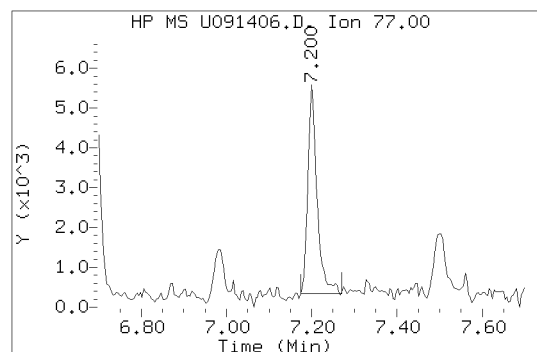
BEFORE

MASS
77
AREA
8101
HEIGHT
5246
18-Sep-2023
12:30
linh
pham



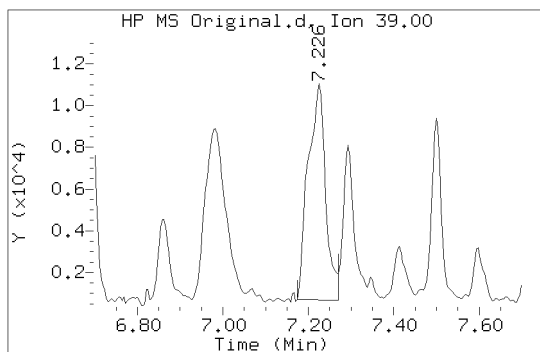
AFTER

MASS
77
AREA
8101
HEIGHT
5246
18-Sep-2023
12:30
linh
pham



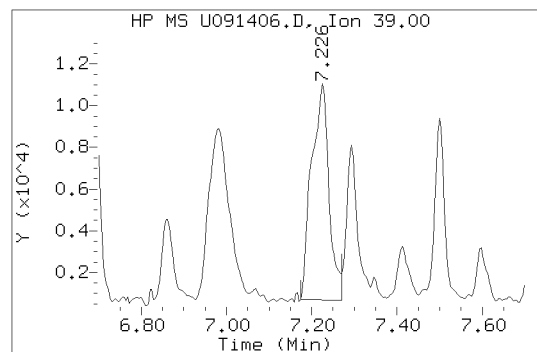
BEFORE

MASS
39
AREA
29827
HEIGHT
10370
18-Sep-2023
12:30
linh
pham



AFTER

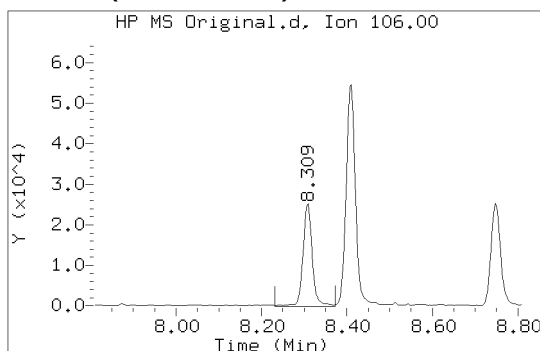
MASS
39
AREA
29827
HEIGHT
10370
18-Sep-2023
12:30
linh
pham



Ethylbenzene (100-41-4)

BEFORE

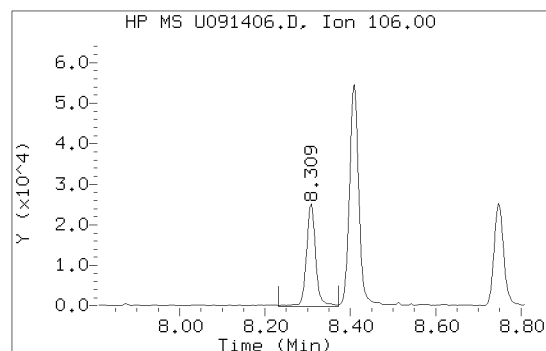
MASS
106
AREA
39301
HEIGHT
25250
18-Sep-2023
12:30
linh
pham



AFTER

MASS
106
AREA
39301
HEIGHT
25250
18-Sep-2023
12:30
linh
pham

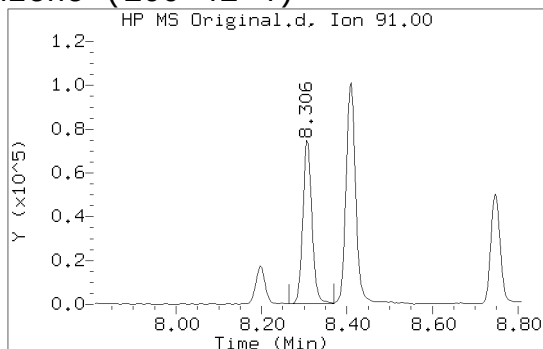
Reason Code:



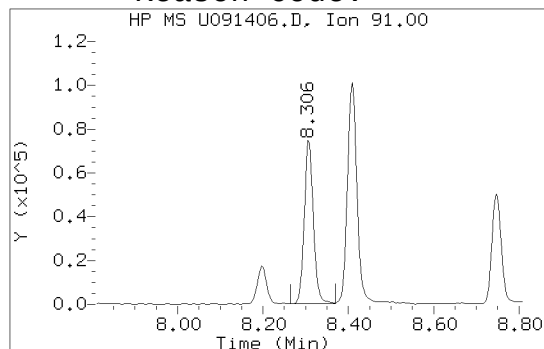
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Ethylbenzene (100-41-4)**BEFORE**

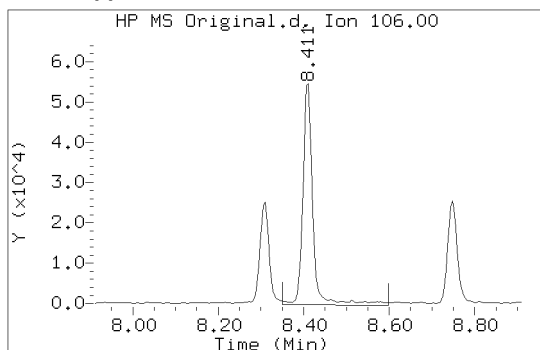
MASS
91
AREA
113082
HEIGHT
74731
18-Sep-2023
12:30
linh
pham

**AFTER**

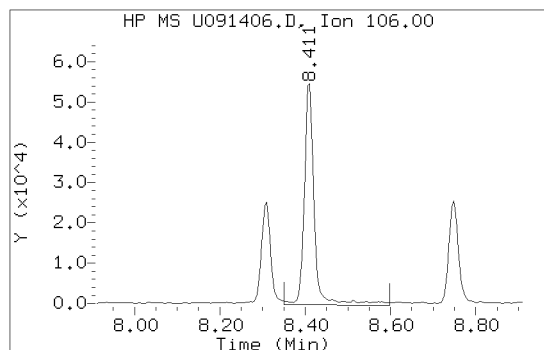
MASS
91
AREA
113082
HEIGHT
74731
18-Sep-2023
12:30
linh
pham

**m,p-Xylenes ()****BEFORE**

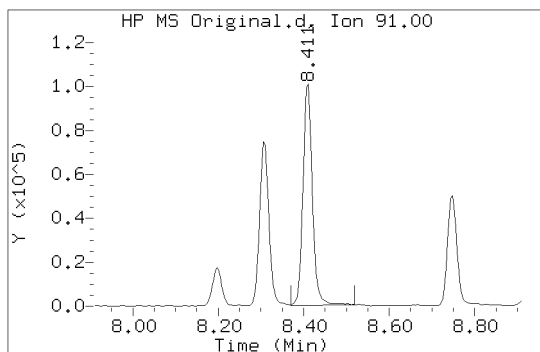
MASS
106
AREA
91941
HEIGHT
54902
18-Sep-2023
12:30
linh
pham

**AFTER**

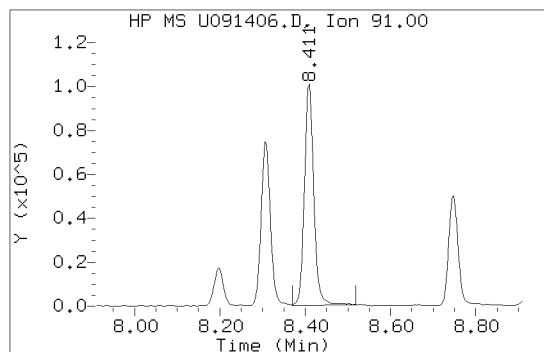
MASS
106
AREA
91941
HEIGHT
54902
18-Sep-2023
12:30
linh
pham

**BEFORE**

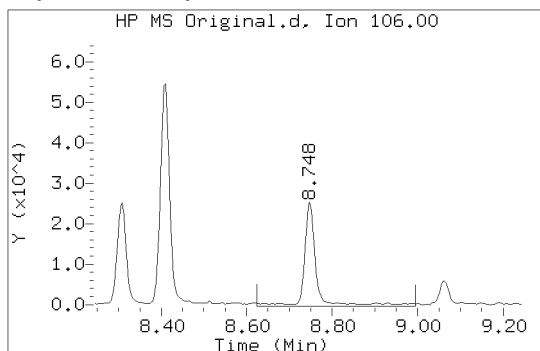
MASS
91
AREA
156925
HEIGHT
100760
18-Sep-2023
12:30
linh
pham

**AFTER**

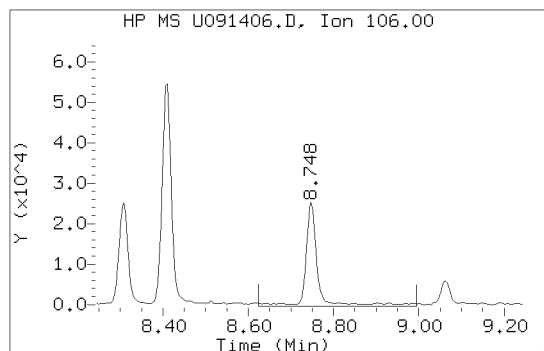
MASS
91
AREA
156925
HEIGHT
100760
18-Sep-2023
12:30
linh
pham

**o-Xylene (95-47-6)****BEFORE**

MASS
106
AREA
51484
HEIGHT
25760
18-Sep-2023
12:30
linh
pham

**AFTER**

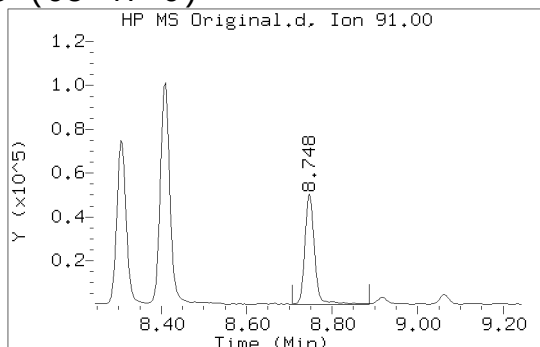
MASS
106
AREA
51484
HEIGHT
25760
18-Sep-2023
12:30
linh
pham



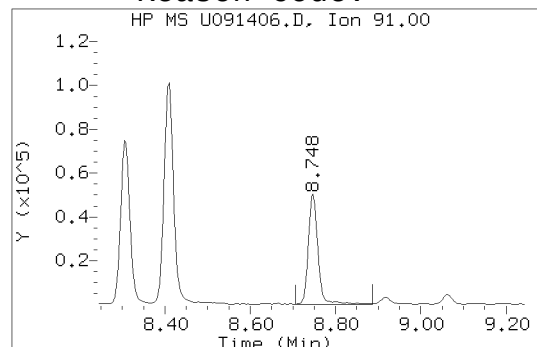
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

o-Xylene (95-47-6)**BEFORE**

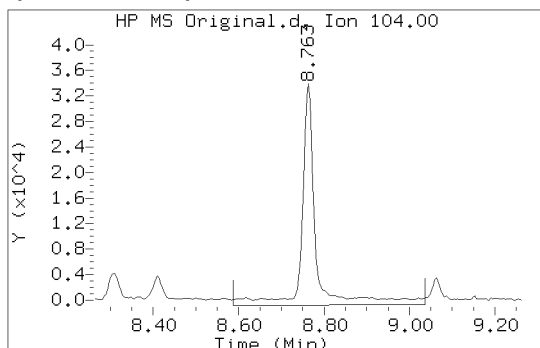
MASS
91
AREA
79419
HEIGHT
50150
18-Sep-2023
12:30
linh
pham

**AFTER**

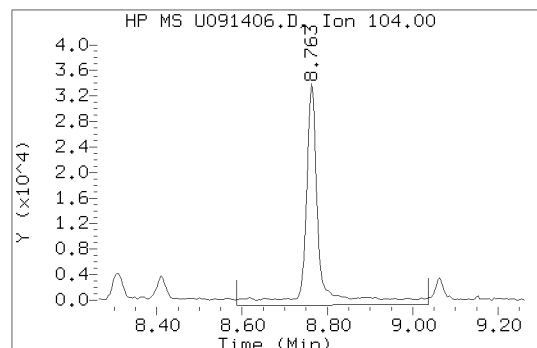
MASS
91
AREA
79419
HEIGHT
50150
18-Sep-2023
12:30
linh
pham

Reason Code:**Styrene (100-42-5)****BEFORE**

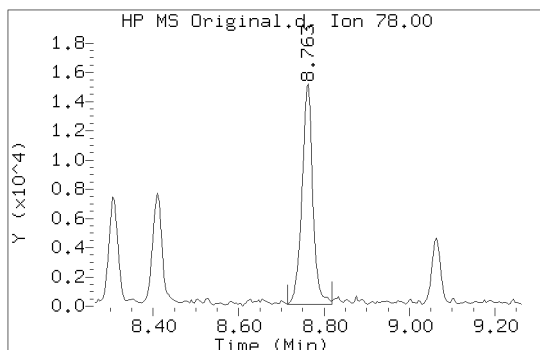
MASS
104
AREA
81277
HEIGHT
34687
18-Sep-2023
12:30
linh
pham

**AFTER**

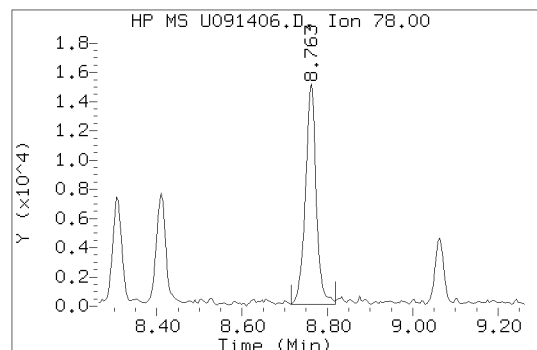
MASS
104
AREA
81277
HEIGHT
34687
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

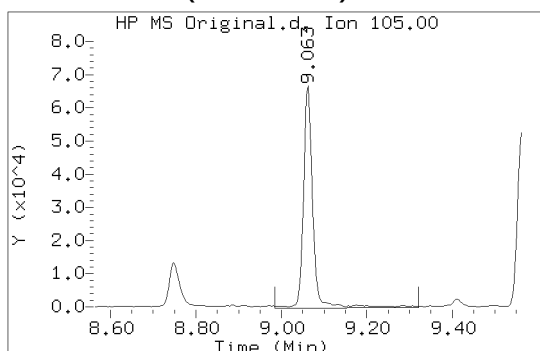
MASS
78
AREA
26871
HEIGHT
15069
18-Sep-2023
12:30
linh
pham

**AFTER**

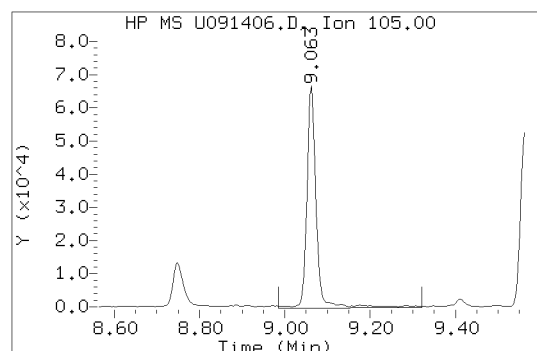
MASS
78
AREA
26871
HEIGHT
15069
18-Sep-2023
12:30
linh
pham

**Isopropylbenzene (98-82-8)****BEFORE**

MASS
105
AREA
106778
HEIGHT
66977
18-Sep-2023
12:30
linh
pham

**AFTER**

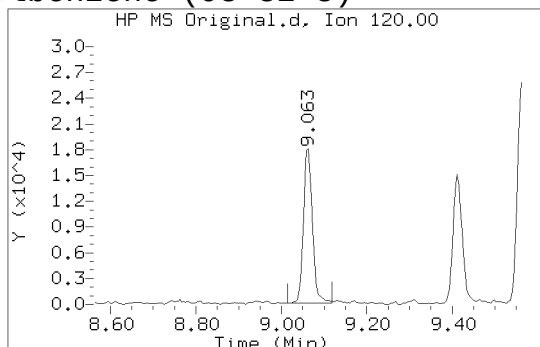
MASS
105
AREA
106778
HEIGHT
66977
18-Sep-2023
12:30
linh
pham

Reason Code:

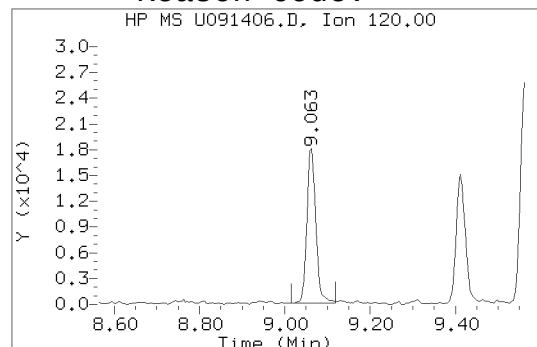
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Isopropylbenzene (98-82-8)**BEFORE**

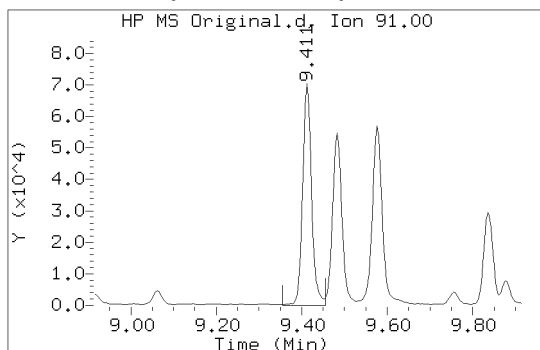
MASS
120
AREA
26818
HEIGHT
17946
18-Sep-2023
12:30
linh
pham

**AFTER**

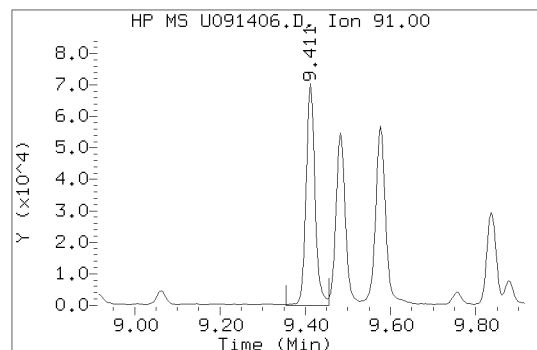
MASS
120
AREA
26818
HEIGHT
17946
18-Sep-2023
12:30
linh
pham

Reason Code:**n-Propylbenzene (106-65-1)****BEFORE**

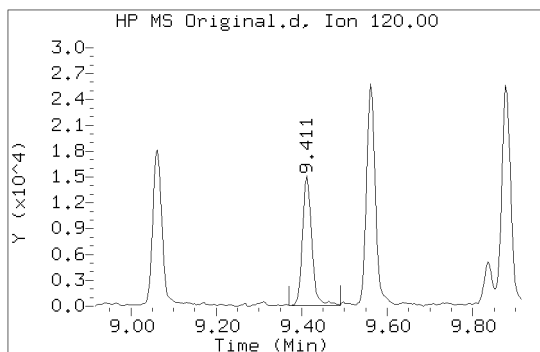
MASS
91
AREA
104281
HEIGHT
70423
18-Sep-2023
12:30
linh
pham

**AFTER**

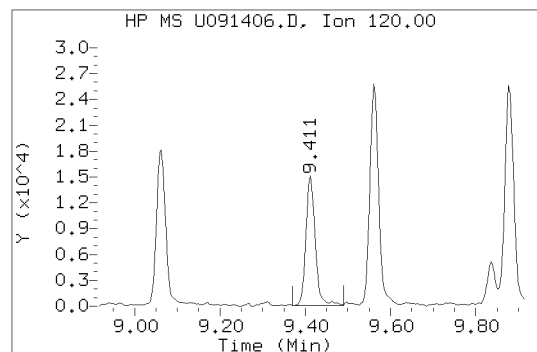
MASS
91
AREA
104281
HEIGHT
70423
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

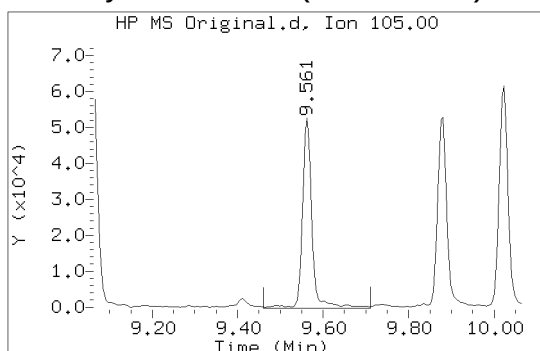
MASS
120
AREA
23145
HEIGHT
15052
18-Sep-2023
12:30
linh
pham

**AFTER**

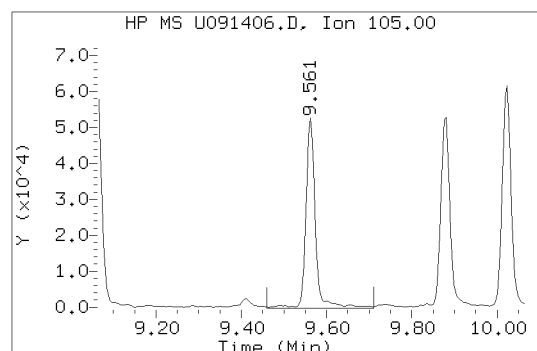
MASS
120
AREA
23145
HEIGHT
15052
18-Sep-2023
12:30
linh
pham

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

MASS
105
AREA
83567
HEIGHT
52856
18-Sep-2023
12:30
linh
pham

**AFTER**

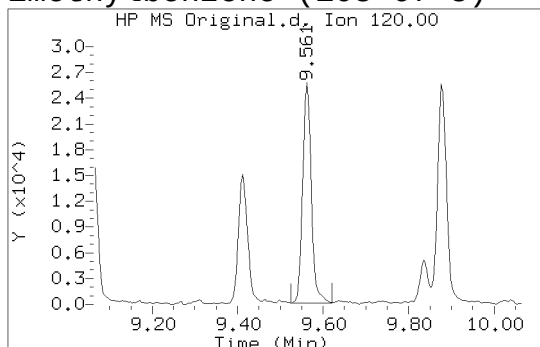
MASS
105
AREA
83567
HEIGHT
52856
18-Sep-2023
12:30
linh
pham

Reason Code:

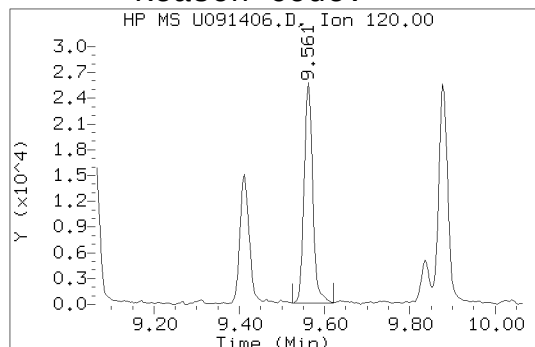
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

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

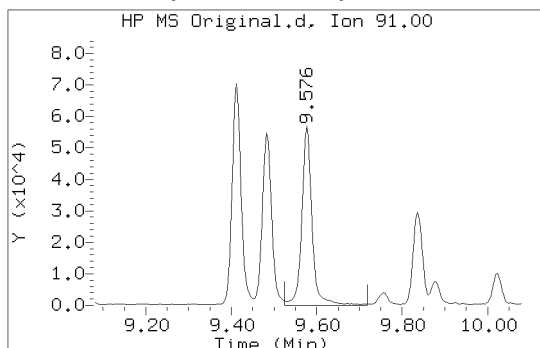
MASS
120
AREA
36704
HEIGHT
25646
18-Sep-2023
12:30
linh
pham

**AFTER**

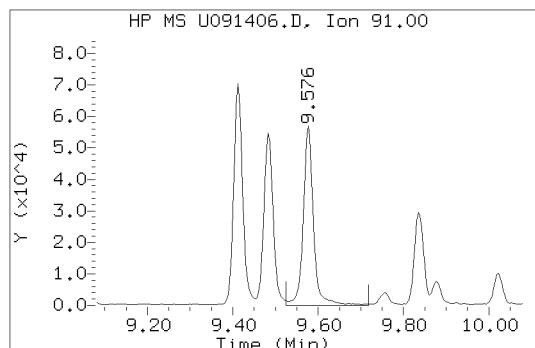
MASS
120
AREA
36704
HEIGHT
25646
18-Sep-2023
12:30
linh
pham

Reason Code:**4-Chlorotoluene (106-43-4)****BEFORE**

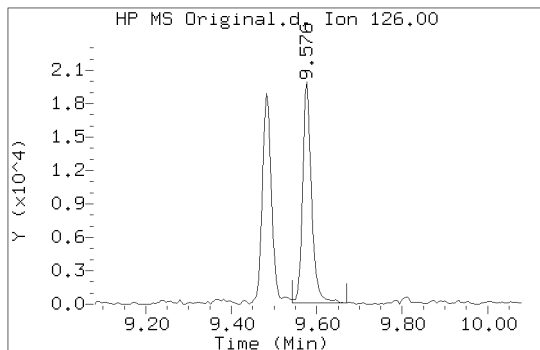
MASS
91
AREA
97057
HEIGHT
56999
18-Sep-2023
12:30
linh
pham

**AFTER**

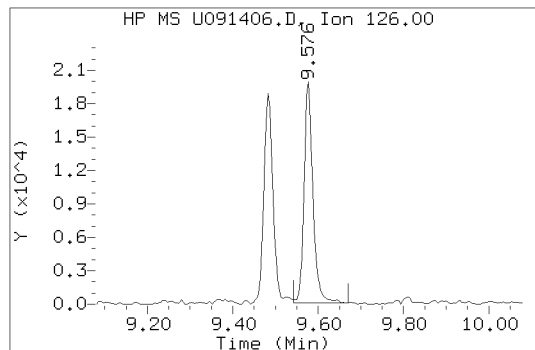
MASS
91
AREA
97057
HEIGHT
56999
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

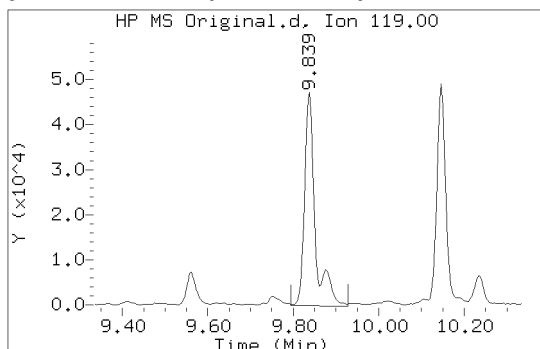
MASS
126
AREA
29274
HEIGHT
19828
18-Sep-2023
12:30
linh
pham

**AFTER**

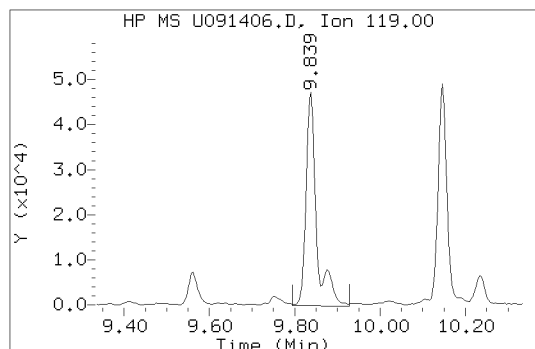
MASS
126
AREA
29274
HEIGHT
19828
18-Sep-2023
12:30
linh
pham

**tert-Butylbenzene (98-06-6)****BEFORE**

MASS
119
AREA
82646
HEIGHT
47356
18-Sep-2023
12:30
linh
pham

**AFTER**

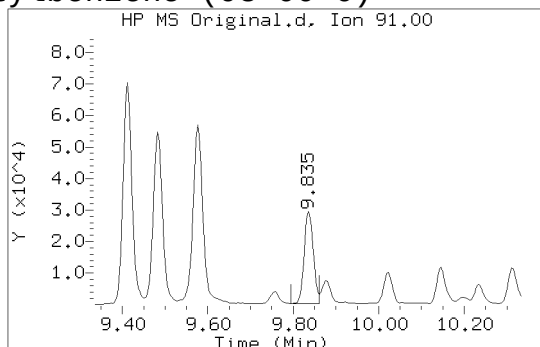
MASS
119
AREA
82646
HEIGHT
47356
18-Sep-2023
12:30
linh
pham

Reason Code:

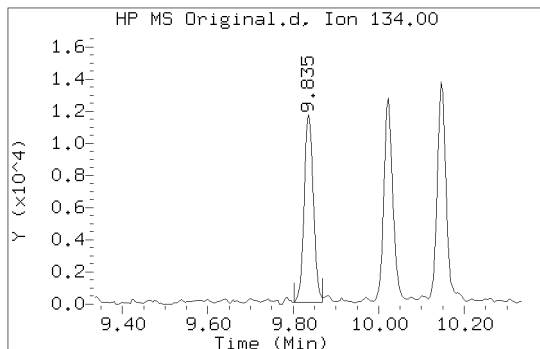
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

tert-Butylbenzene (98-06-6)**BEFORE**

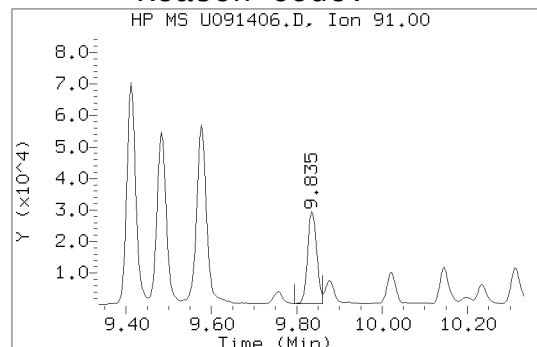
MASS
91
AREA
44815
HEIGHT
29298
18-Sep-2023
12:30
linh

**BEFORE**

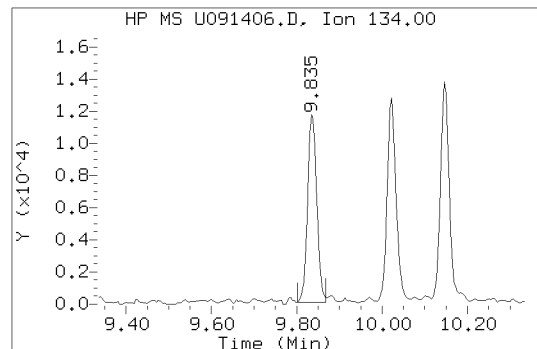
MASS
134
AREA
17772
HEIGHT
11642
18-Sep-2023
12:30
linh
pham

**AFTER**

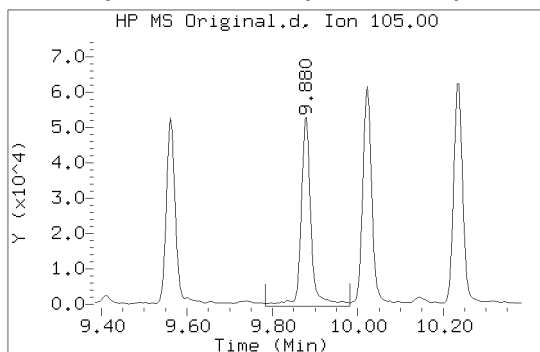
MASS
91
AREA
44815
HEIGHT
29298
18-Sep-2023
12:30
linh

**AFTER**

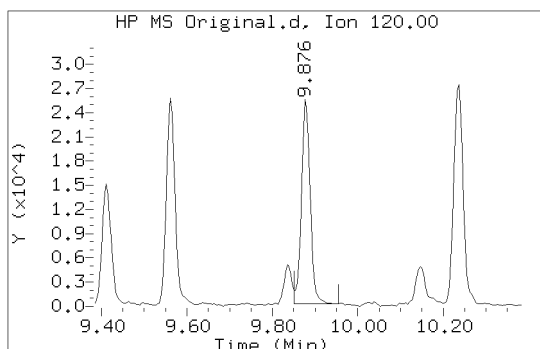
MASS
134
AREA
17772
HEIGHT
11642
18-Sep-2023
12:30
linh
pham

**1,2,4-Trimethylbenzene (95-63-6)****BEFORE**

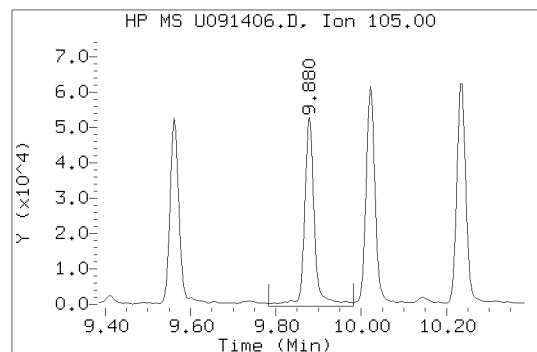
MASS
105
AREA
89902
HEIGHT
53384
18-Sep-2023
12:30
linh
pham

**BEFORE**

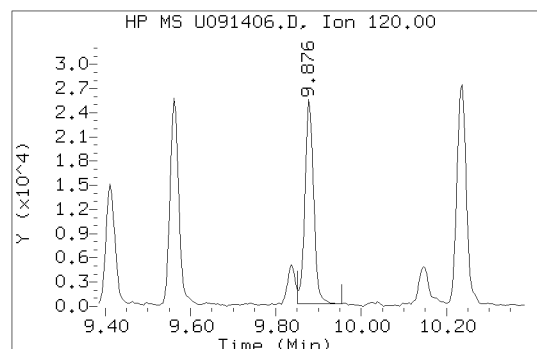
MASS
120
AREA
37339
HEIGHT
25351
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
105
AREA
89902
HEIGHT
53384
18-Sep-2023
12:30
linh
pham

**AFTER**

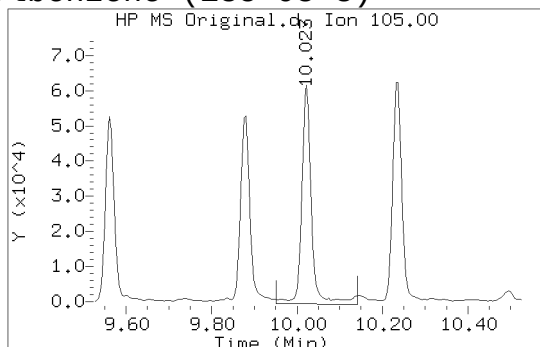
MASS
120
AREA
37339
HEIGHT
25351
18-Sep-2023
12:30
linh
pham



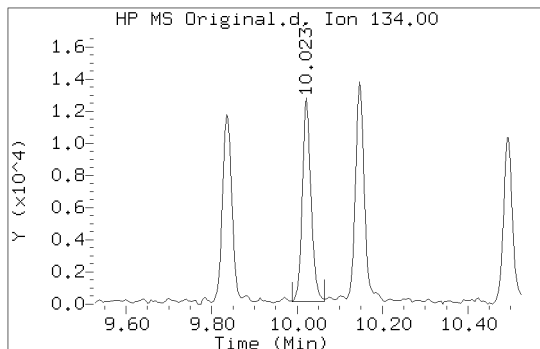
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

sec-Butylbenzene (135-98-8)**BEFORE**

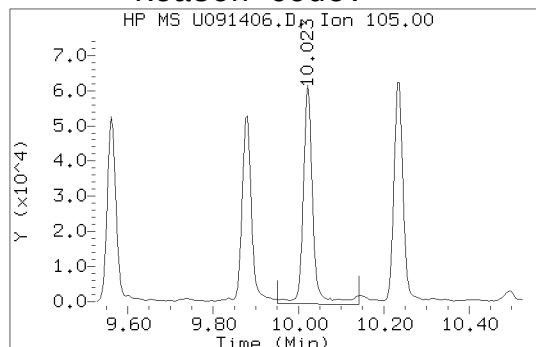
MASS
105
AREA
102146
HEIGHT
62299
18-Sep-2023
12:30
linh

**BEFORE**

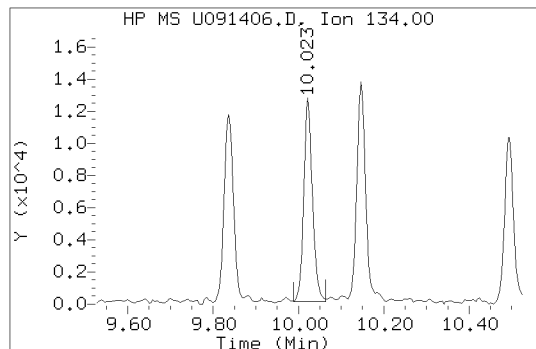
MASS
134
AREA
18328
HEIGHT
12659
18-Sep-2023
12:30
linh
pham

**AFTER**

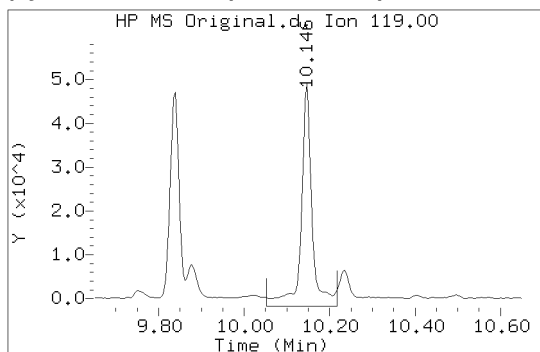
MASS
105
AREA
102146
HEIGHT
62299
18-Sep-2023
12:30
linh

**AFTER**

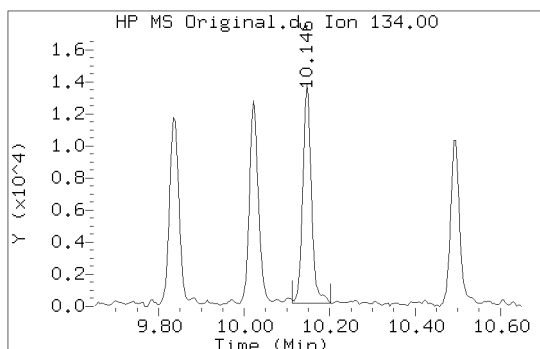
MASS
134
AREA
18328
HEIGHT
12659
18-Sep-2023
12:30
linh
pham

**Reason Code:****p-Isopropyltoluene (99-87-6)****BEFORE**

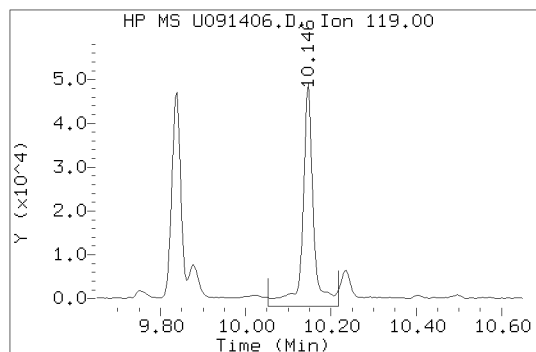
MASS
119
AREA
91770
HEIGHT
50723
18-Sep-2023
12:30
linh
pham

**BEFORE**

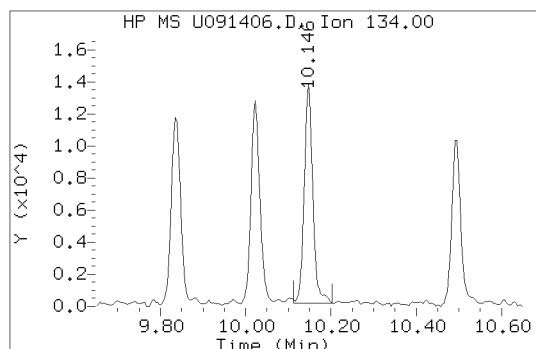
MASS
134
AREA
19665
HEIGHT
13619
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
119
AREA
91770
HEIGHT
50723
18-Sep-2023
12:30
linh
pham

**AFTER**

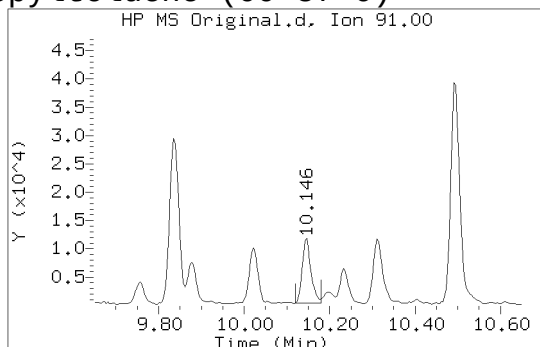
MASS
134
AREA
19665
HEIGHT
13619
18-Sep-2023
12:30
linh
pham

**Reason Code:**

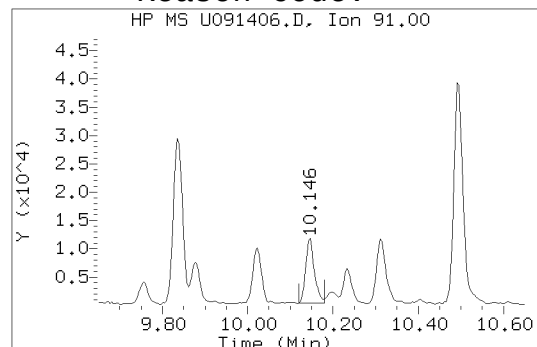
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

p-Isopropyltoluene (99-87-6)**BEFORE**

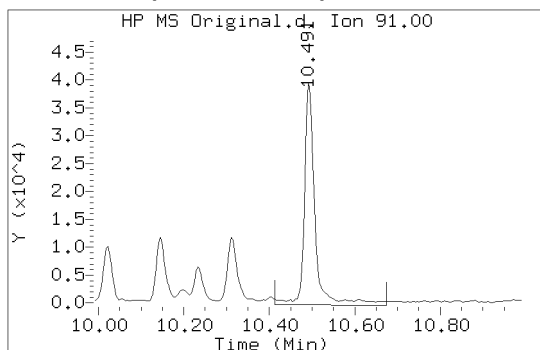
MASS
91
AREA
16727
HEIGHT
11415
18-Sep-2023
12:30
linh
pham

**AFTER**

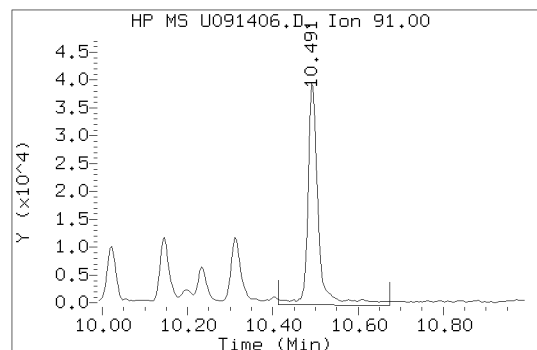
MASS
91
AREA
16727
HEIGHT
11415
18-Sep-2023
12:30
linh
pham

Reason Code:**n-Butylbenzene (104-51-8)****BEFORE**

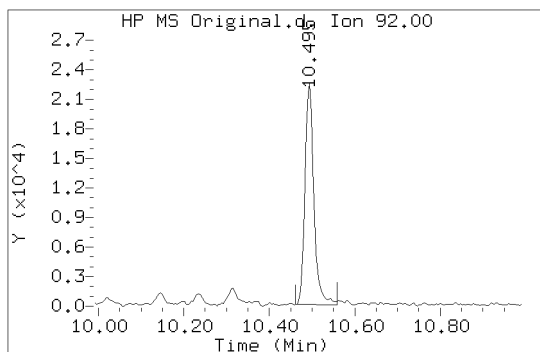
MASS
91
AREA
70297
HEIGHT
39689
18-Sep-2023
12:30
linh
pham

**AFTER**

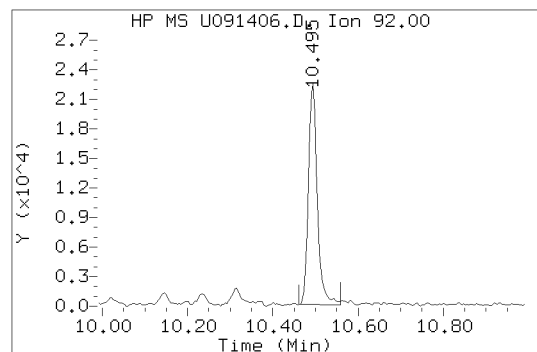
MASS
91
AREA
70297
HEIGHT
39689
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

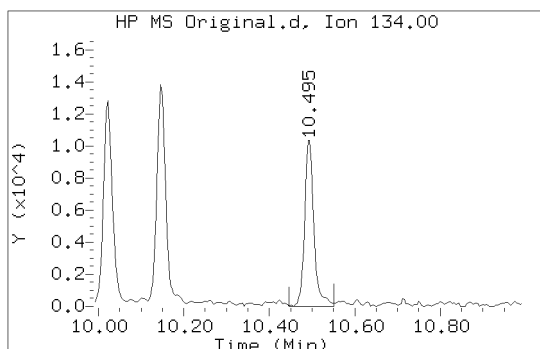
MASS
92
AREA
33008
HEIGHT
22403
18-Sep-2023
12:30
linh
pham

**AFTER**

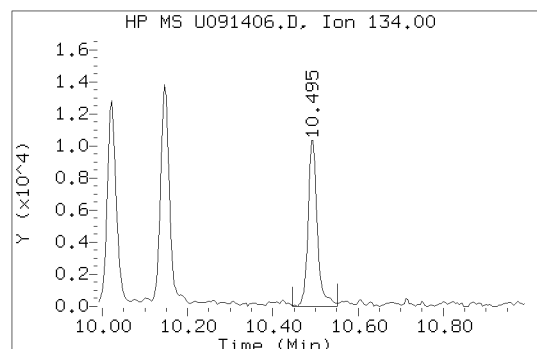
MASS
92
AREA
33008
HEIGHT
22403
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
134
AREA
15917
HEIGHT
10357
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
134
AREA
15917
HEIGHT
10357
18-Sep-2023
12:30
linh
pham

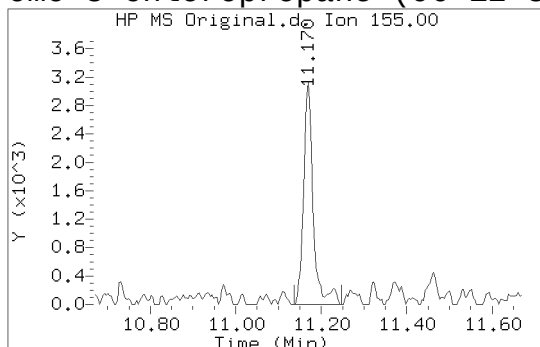


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

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

BEFORE

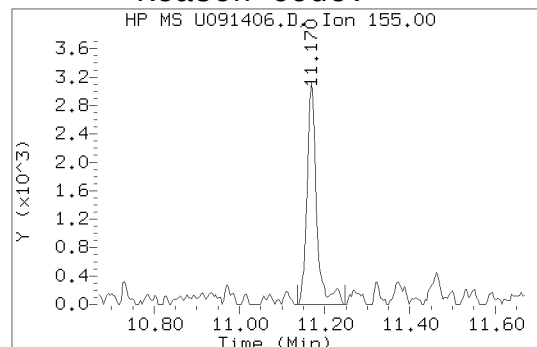
MASS
155
AREA
4962
HEIGHT
3123
18-Sep-2023
12:30
linh



AFTER

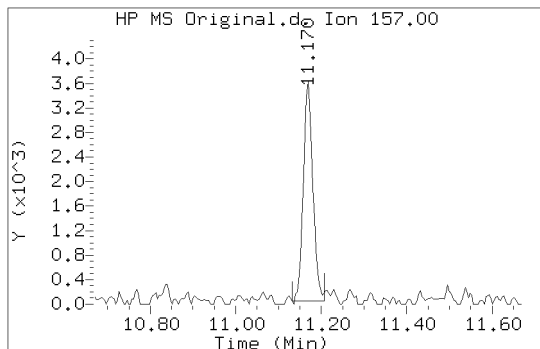
MASS
155
AREA
4962
HEIGHT
3123
18-Sep-2023
12:30
linh

Reason Code:



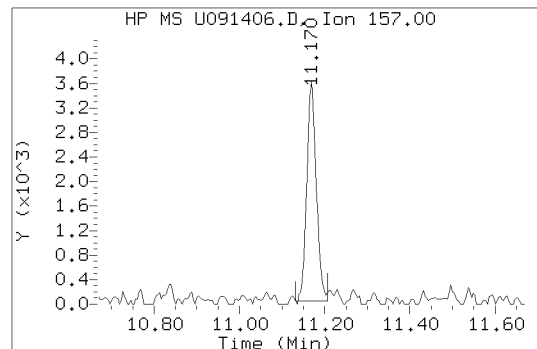
BEFORE

MASS
157
AREA
5644
HEIGHT
3570
18-Sep-2023
12:30
linh
pham



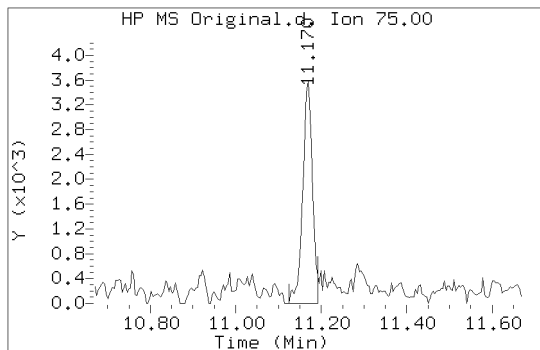
AFTER

MASS
157
AREA
5644
HEIGHT
3570
18-Sep-2023
12:30
linh
pham



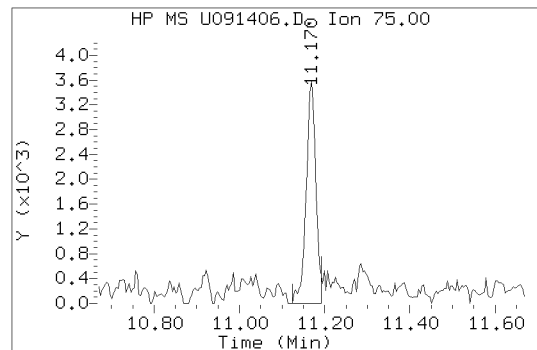
BEFORE

MASS
75
AREA
5782
HEIGHT
3574
18-Sep-2023
12:30
linh
pham



AFTER

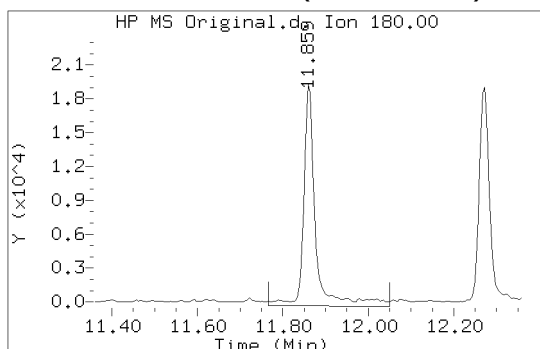
MASS
75
AREA
5782
HEIGHT
3574
18-Sep-2023
12:30
linh
pham



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

BEFORE

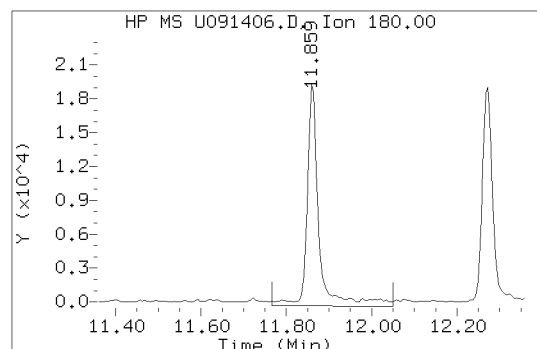
MASS
180
AREA
38785
HEIGHT
19598
18-Sep-2023
12:30
linh
pham



AFTER

MASS
180
AREA
38785
HEIGHT
19598
18-Sep-2023
12:30
linh
pham

Reason Code:

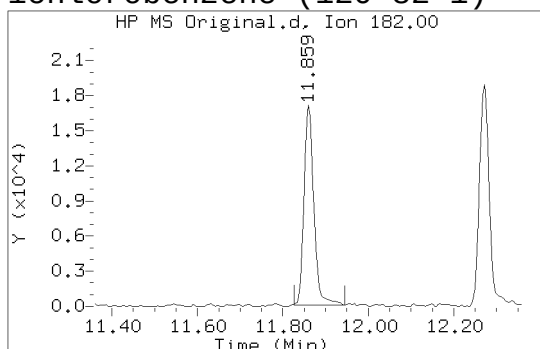


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

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

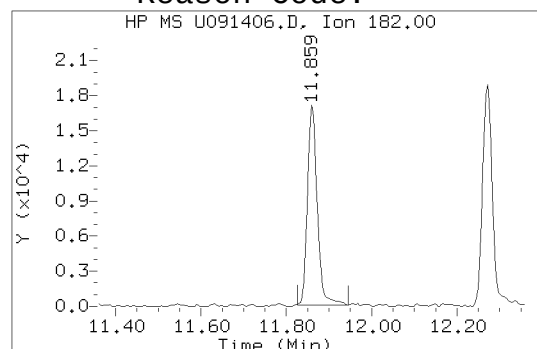
BEFORE

MASS
182
AREA
27874
HEIGHT
17066
18-Sep-2023
12:30
linh



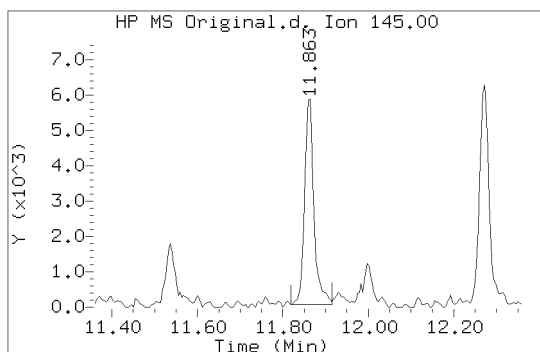
AFTER

MASS
182
AREA
27874
HEIGHT
17066
18-Sep-2023
12:30
linh



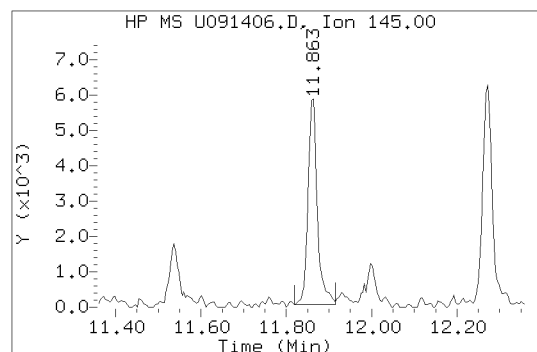
BEFORE

MASS
145
AREA
9106
HEIGHT
5827
18-Sep-2023
12:30
linh
pham



AFTER

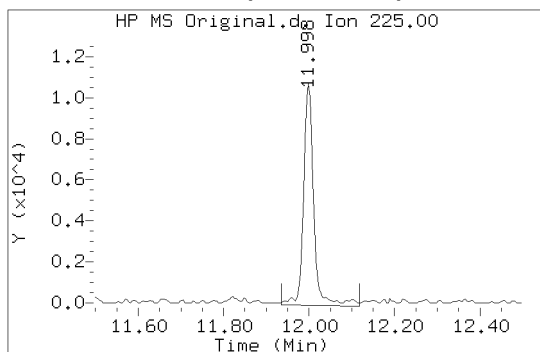
MASS
145
AREA
9106
HEIGHT
5827
18-Sep-2023
12:30
linh
pham



Hexachlorobutadiene (87-68-3)

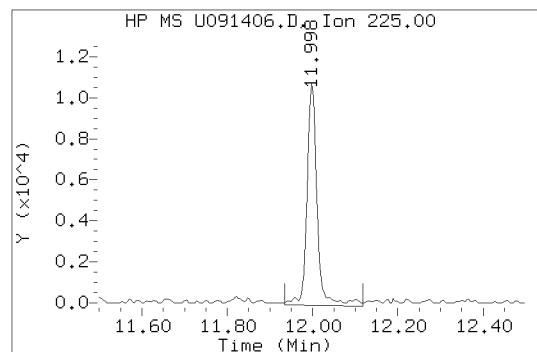
BEFORE

MASS
225
AREA
18387
HEIGHT
10796
18-Sep-2023
12:30
linh
pham



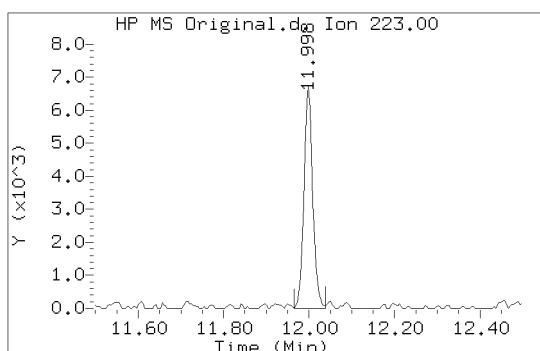
AFTER

MASS
225
AREA
18387
HEIGHT
10796
18-Sep-2023
12:30
linh
pham



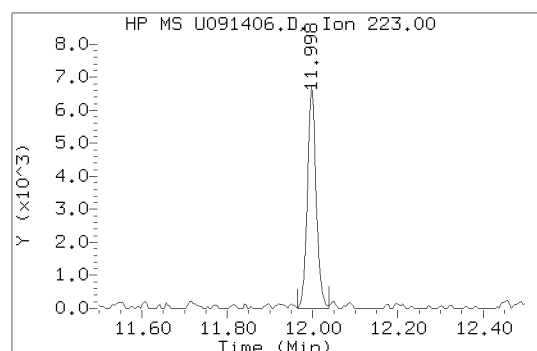
BEFORE

MASS
223
AREA
9758
HEIGHT
6712
18-Sep-2023
12:30
linh
pham



AFTER

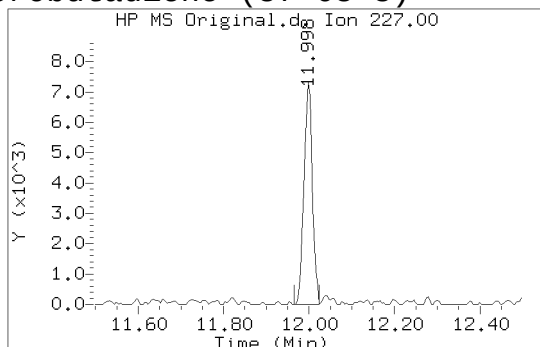
MASS
223
AREA
9758
HEIGHT
6712
18-Sep-2023
12:30
linh
pham



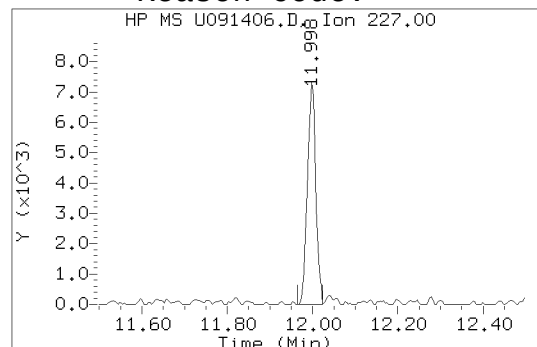
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Hexachlorobutadiene (87-68-3)**BEFORE**

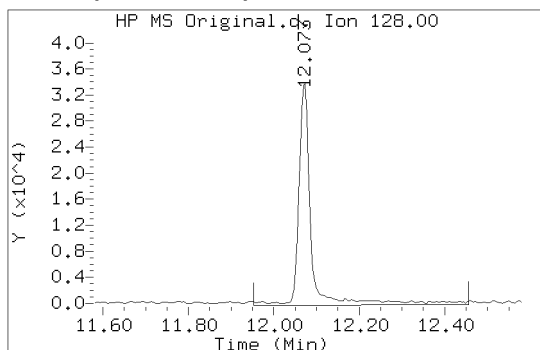
MASS
227
AREA
10189
HEIGHT
7303
18-Sep-2023
12:30
linh
pham

**AFTER**

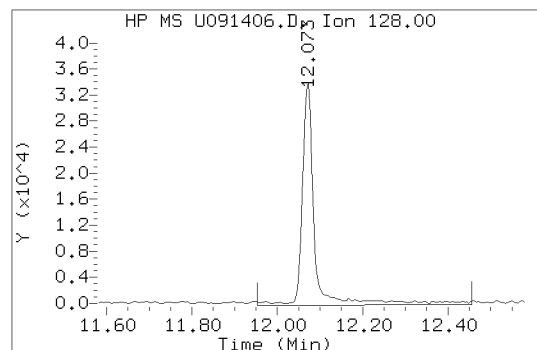
MASS
227
AREA
10189
HEIGHT
7303
18-Sep-2023
12:30
linh
pham

**Naphthalene (91-20-3)****BEFORE**

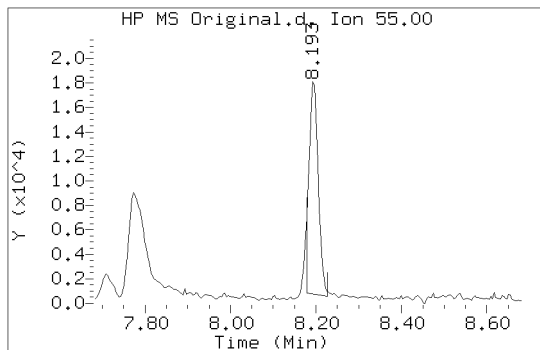
MASS
128
AREA
71056
HEIGHT
34033
18-Sep-2023
12:30
linh
pham

**AFTER**

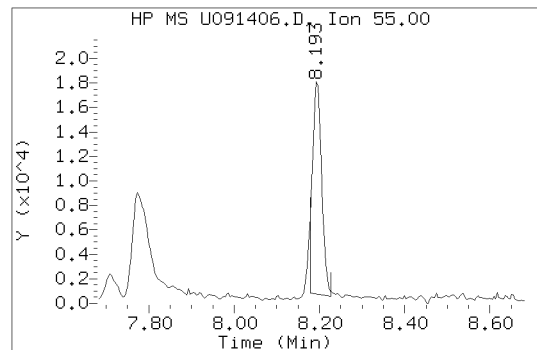
MASS
128
AREA
71056
HEIGHT
34033
18-Sep-2023
12:30
linh
pham

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

MASS
55
AREA
26895
HEIGHT
17332
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
55
AREA
26895
HEIGHT
17332
18-Sep-2023
12:30
linh
pham

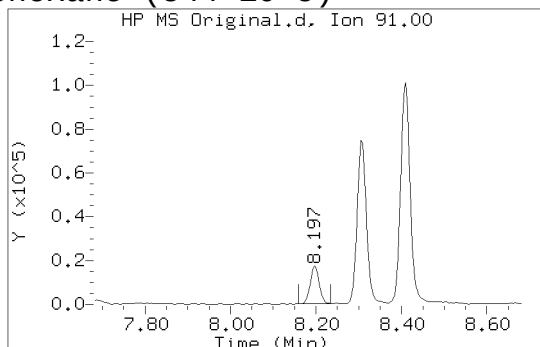


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

1-Chlorohexane (544-10-5)

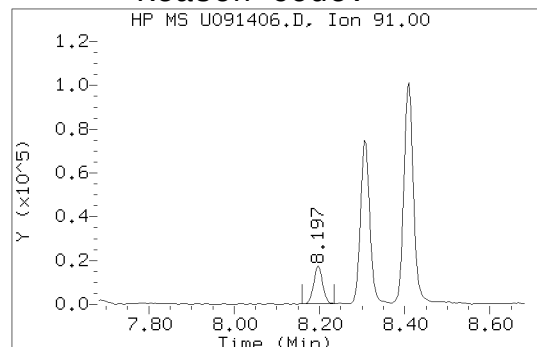
BEFORE

MASS
91
AREA
25667
HEIGHT
17258
18-Sep-2023
12:30
linh
pham



AFTER

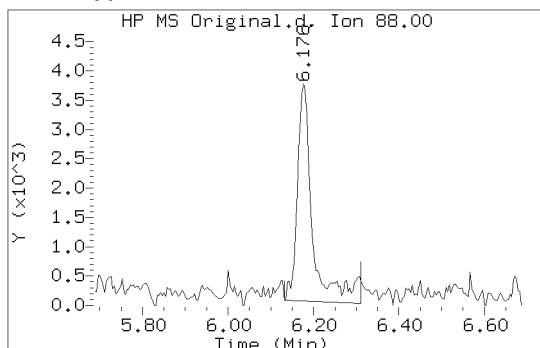
MASS
91
AREA
25667
HEIGHT
17258
18-Sep-2023
12:30
linh
pham



1,4-Dioxane ()

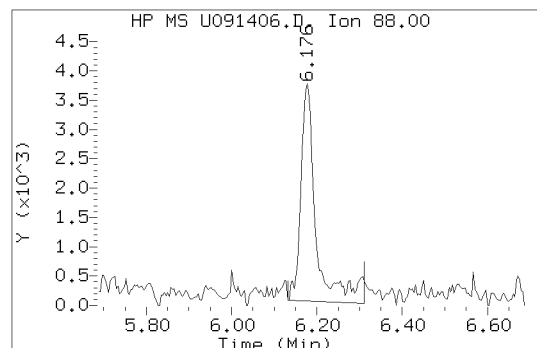
BEFORE

MASS
88
AREA
9267
HEIGHT
3705
18-Sep-2023
12:30
linh
pham



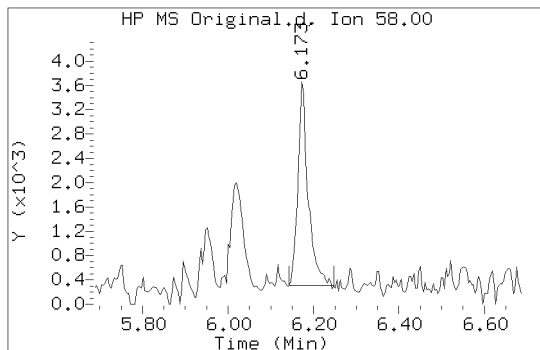
AFTER

MASS
88
AREA
9267
HEIGHT
3705
18-Sep-2023
12:30
linh
pham



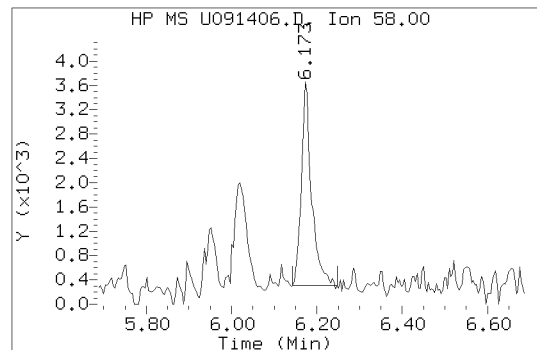
BEFORE

MASS
58
AREA
5578
HEIGHT
3349
18-Sep-2023
12:30
linh
pham



AFTER

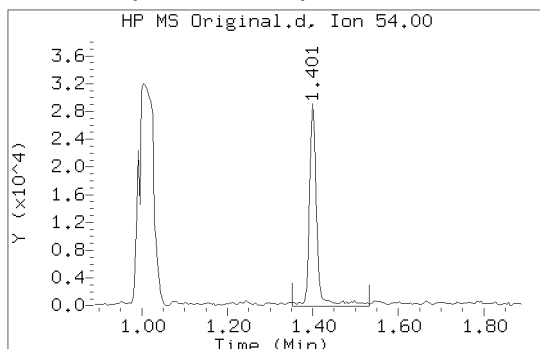
MASS
58
AREA
5578
HEIGHT
3349
18-Sep-2023
12:30
linh
pham



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

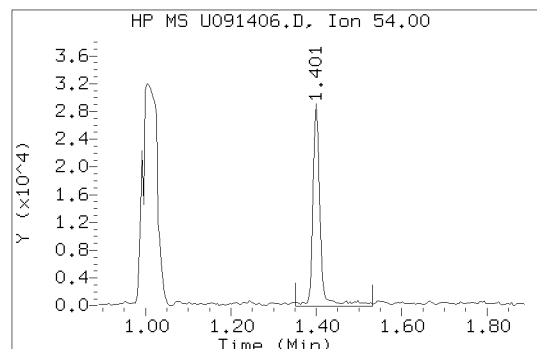
BEFORE

MASS
54
AREA
35494
HEIGHT
29135
18-Sep-2023
12:30
linh
pham



AFTER

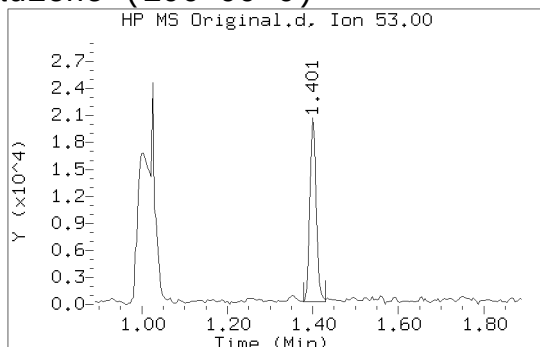
MASS
54
AREA
35494
HEIGHT
29135
18-Sep-2023
12:30
linh
pham



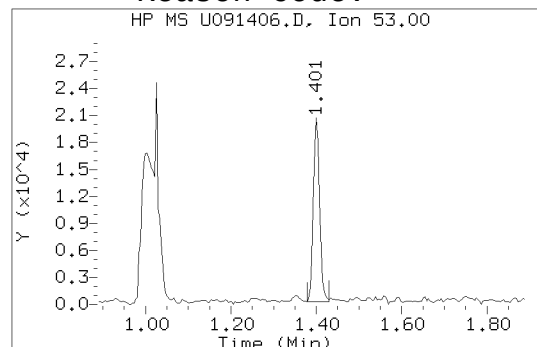
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

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

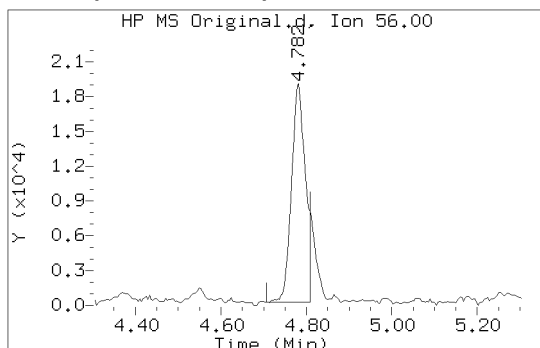
MASS
53
AREA
21126
HEIGHT
20443
18-Sep-2023
12:30
linh
pham

**AFTER**

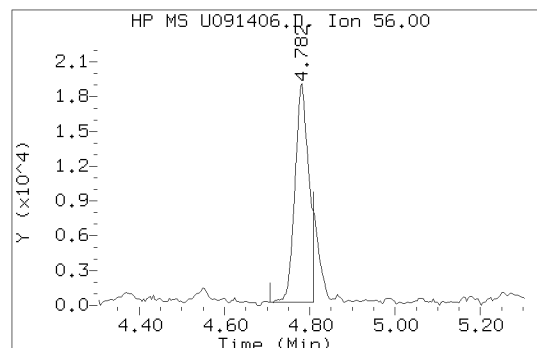
MASS
53
AREA
21126
HEIGHT
20443
18-Sep-2023
12:30
linh
pham

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

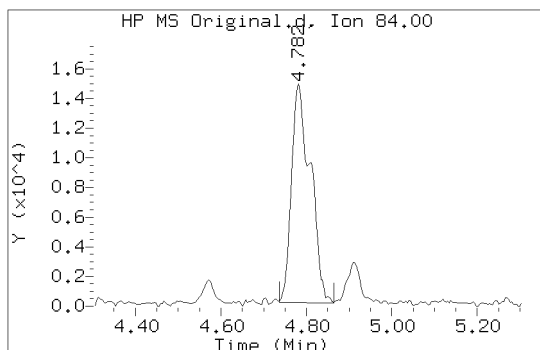
MASS
56
AREA
42320
HEIGHT
18840
18-Sep-2023
12:30
linh
pham

**AFTER**

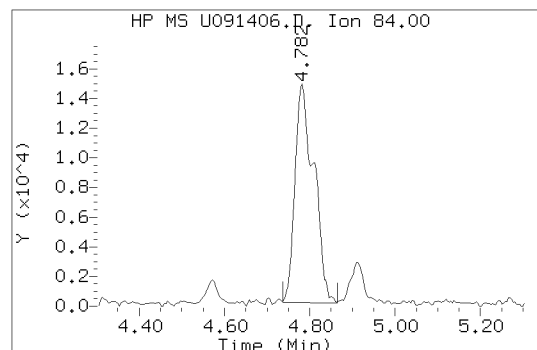
MASS
56
AREA
42320
HEIGHT
18840
18-Sep-2023
12:30
linh
pham

**BEFORE**

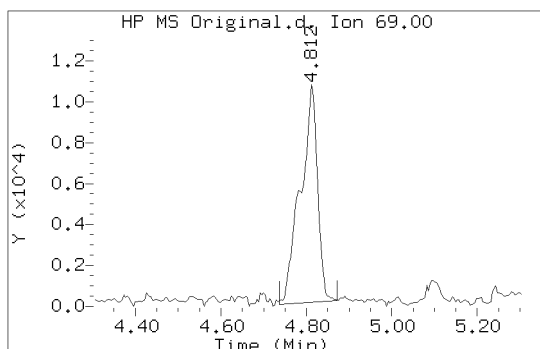
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AREA
45669
HEIGHT
14725
18-Sep-2023
12:30
linh
pham

**AFTER**

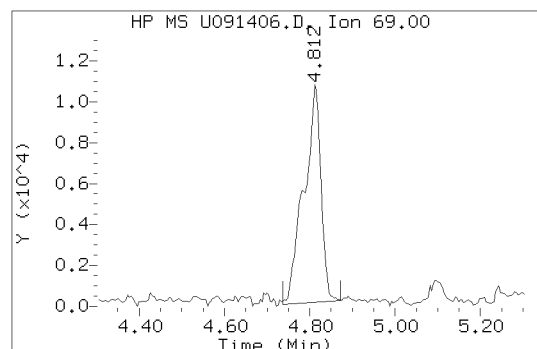
MASS
84
AREA
45669
HEIGHT
14725
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
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AREA
29867
HEIGHT
10631
18-Sep-2023
12:30
linh
pham

**AFTER**

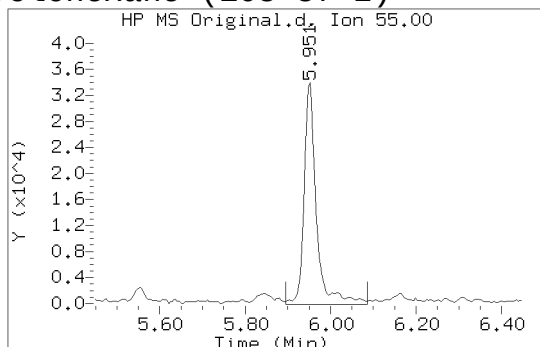
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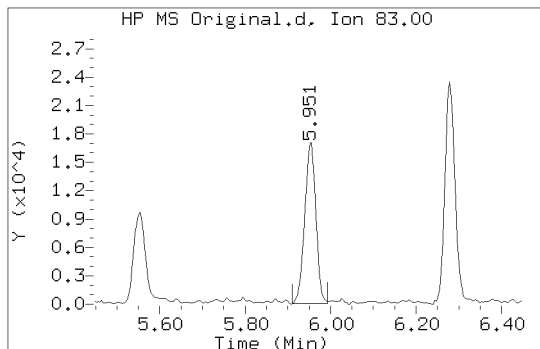
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Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Methylcyclohexane (108-87-2)**BEFORE**

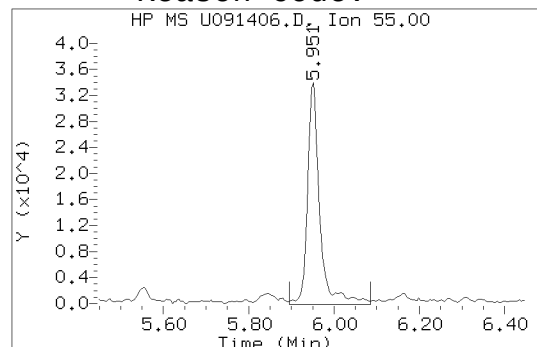
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12:30
linh

**BEFORE**

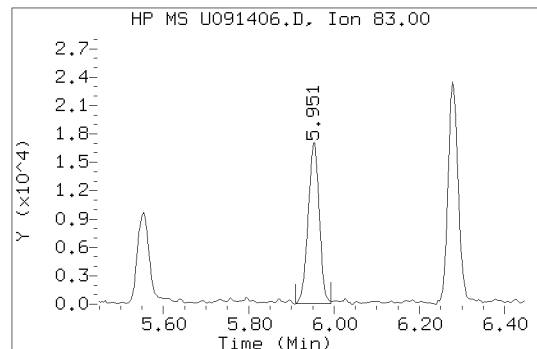
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31431
HEIGHT
16951
18-Sep-2023
12:30
linh
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**AFTER**

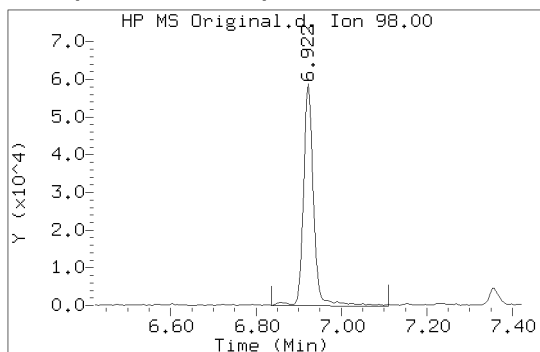
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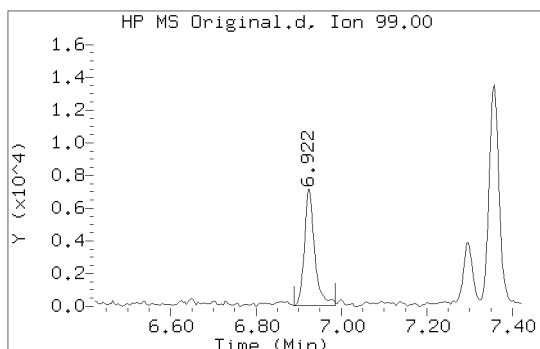
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HEIGHT
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18-Sep-2023
12:30
linh
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**Reason Code:****Toluene-d8 (2037-26-5)****BEFORE**

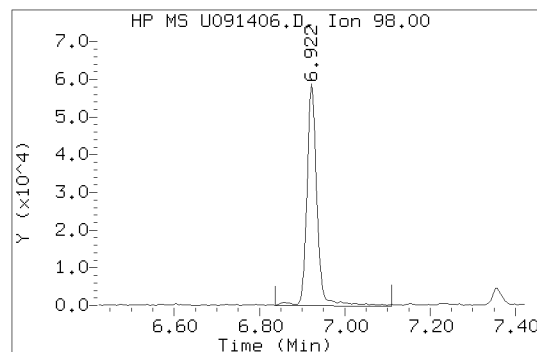
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58868
18-Sep-2023
12:30
linh
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**BEFORE**

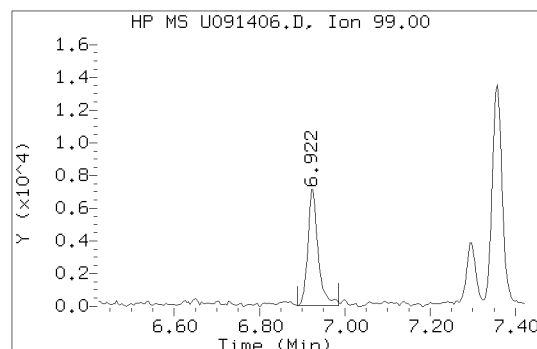
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7100
18-Sep-2023
12:30
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**AFTER**

MASS
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99501
HEIGHT
58868
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
99
AREA
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7100
18-Sep-2023
12:30
linh
pham

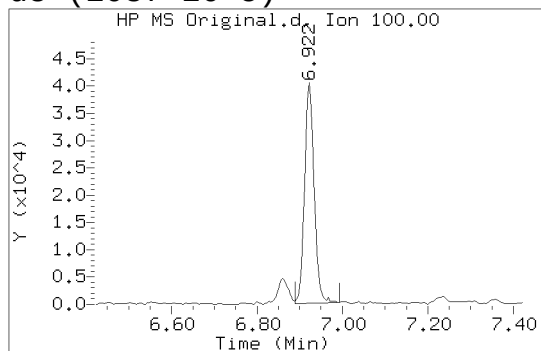
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Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Toluene-d8 (2037-26-5)

BEFORE

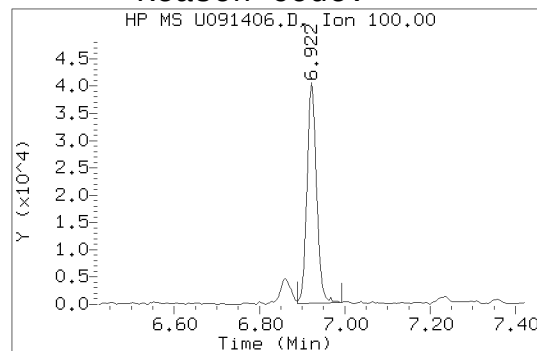
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AREA
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HEIGHT
40415
18-Sep-2023
12:30
linh
pham



AFTER

MASS
100
AREA
64121
HEIGHT
40415
18-Sep-2023
12:30
linh
pham

Reason Code:



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091407.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091407.D
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 Inj Date : 14-SEP-2023 18:00
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD020;VSTD020;1;6;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 17:37 Cal File: U091406.D
 Als bottle: 8 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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)		671734	50.0000	
2 Dichlorodifluoromethane	85		1.164	1.164	(0.242)		143501	20.0000	20.29
3 Chloromethane	50		1.299	1.299	(0.270)		265733	20.0000	20.87
5 Vinyl Chloride	62		1.378	1.378	(0.286)		175145	20.0000	20.53
6 Bromomethane	94		1.621	1.621	(0.337)		88771	20.0000	21.59
7 Chloroethane	64		1.704	1.704	(0.354)		119252	20.0000	19.01
8 Trichlorofluoromethane	101		1.899	1.899	(0.394)		212310	20.0000	19.40
9 Acrolein	56		2.266	2.266	(0.471)		24441	40.0000	42.40(M)
10 Acetone	43		2.408	2.408	(0.500)		147123	40.0000	41.95
11 1,1-Dichloroethene	96		2.333	2.333	(0.485)		128248	20.0000	19.28
15 Iodomethane	142		2.468	2.468	(0.513)		126031	40.0000	36.04
16 Acrylonitrile	53		3.068	3.068	(0.637)		149635	40.0000	38.18
17 Methylene Chloride	84		2.795	2.795	(0.580)		168006	20.0000	20.93
18 Methyl tert-butyl ether	73		3.079	3.079	(0.640)		341393	20.0000	18.08
19 Carbon Disulfide	76		2.521	2.521	(0.524)		705846	40.0000	39.30
20 trans-1,2-Dichloroethene	96		3.061	3.061	(0.636)		138453	20.0000	19.85
21 Vinyl Acetate	43		3.608	3.608	(0.749)		918233	40.0000	37.21
22 1,1-Dichloroethane	63		3.514	3.514	(0.730)		271813	20.0000	19.43
24 2-Butanone	43		4.268	4.268	(0.886)		153709	40.0000	37.75
26 2,2-Dichloropropane	77		4.182	4.182	(0.868)		158125	20.0000	18.66



27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	159142	20.0000	19.95
28 Chloroform	83	4.571	4.571 (0.949)	266054	20.0000	19.58

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091407.D Page 2
 Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.470	4.470	(0.928)	80507	20.0000	19.26
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	129138	20.0000	21.19
31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	180369	20.0000	19.55
32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	162510	20.0000	19.64
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	211015	20.0000	20.95
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	150769	20.0000	20.37
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	147451	20.0000	21.21
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1041961	50.0000	
37 Benzene	78	5.137	5.137	(0.925)	525339	20.0000	20.07
38 Trichloroethene	130	5.786	5.786	(1.042)	143886	20.0000	18.90
39 Bromodichloromethane	83	6.277	6.277	(1.130)	166894	20.0000	19.66
41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.184)	1495	40.0000	40.04(M)
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	140974	20.0000	20.39(M)
44 Dibromomethane	93	6.120	6.120	(1.102)	92428	20.0000	19.42
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	259947	40.0000	36.31
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	160625	20.0000	17.44
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1010922	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	464351	20.0000	20.83
50 Toluene	91	6.982	6.982	(0.853)	579714	20.0000	21.35
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	130809	20.0000	16.87
52 2-Hexanone	43	7.597	7.597	(0.928)	173213	40.0000	37.79
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	114140	20.0000	19.28
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	234596	20.0000	19.70
55 Dibromochloromethane	129	7.690	7.690	(0.940)	135776	20.0000	19.27
56 Tetrachloroethene	164	7.458	7.458	(0.911)	136247	20.0000	21.54
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	144305	20.0000	20.28
58 1-Chlorohexane	55	8.196	8.196	(1.476)	120323	20.0000	19.11
59 Chlorobenzene	112	8.208	8.208	(1.003)	404863	20.0000	20.16
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	135448	20.0000	20.07
61 Ethylbenzene	106	8.305	8.305	(1.015)	181087	20.0000	20.14
62 m,p-Xylenes	106	8.410	8.410	(1.027)	446127	40.0000	39.46
63 o-Xylene	106	8.747	8.747	(1.069)	212650	20.0000	18.09
64 Styrene	104	8.762	8.762	(1.071)	320982	20.0000	17.79
66 Bromoform	173	8.916	8.916	(1.089)	86866	20.0000	18.73
67 Isopropylbenzene	105	9.062	9.062	(1.107)	536621	20.0000	20.41
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	201873	20.0000	19.40
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	208648	20.0000	21.90
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	535575	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	166742	20.0000	18.80
73 n-Propylbenzene	91	9.411	9.411	(0.926)	564347	20.0000	19.01
74 Bromobenzene	156	9.317	9.317	(0.916)	172382	20.0000	20.25
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	394047	20.0000	19.56
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	411236	20.0000	20.67
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	473463	20.0000	20.28
78 tert-Butylbenzene	119	9.835	9.835	(0.967)	405132	20.0000	20.89
79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	426506	20.0000	20.59
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	487620	20.0000	19.80
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	379700	20.0000	19.43
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	313081	20.0000	20.85
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	326230	20.0000	19.34
87 n-Butylbenzene	91	10.491	10.491	(1.032)	345471	20.0000	19.47
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	309304	20.0000	20.14



89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	21321	20.0000	16.46
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	166476	20.0000	19.04

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091407.D Page 3

Report Date: 18-Sep-2023 12:31

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	(1.180)	81309	20.0000	20.73
92 Naphthalene	128	12.069	12.069	(1.187)	371874	20.0000	17.42
93 1,2,3-Trichlorobenzene	180	12.267	12.267	(1.206)	171871	20.0000	20.71
M 94 1,2-Dichloroethylene (total)	96				297595	40.0000	
M 95 Xylenes (total)	106				658777	60.0000	
135 1,4-Dioxane	88	6.172	6.172	(1.282)	36081	400.000	369.52(M)
141 Cyclohexane	56	4.781	4.781	(0.993)	197210	20.0000	22.34
138 Freon TF	101	2.337	2.337	(0.485)	120741	20.0000	22.59
140 1,3-Butadiene	54	1.404	1.404	(0.292)	154972	20.0000	19.52
147 Methylcyclohexane	55	5.951	5.951	(1.072)	298411	20.0000	19.53
146 Methyl Acetate	43	2.716	2.716	(0.564)	142578	20.0000	17.50
148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	299567	400.000	363.96
149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	207589	400.000	351.56

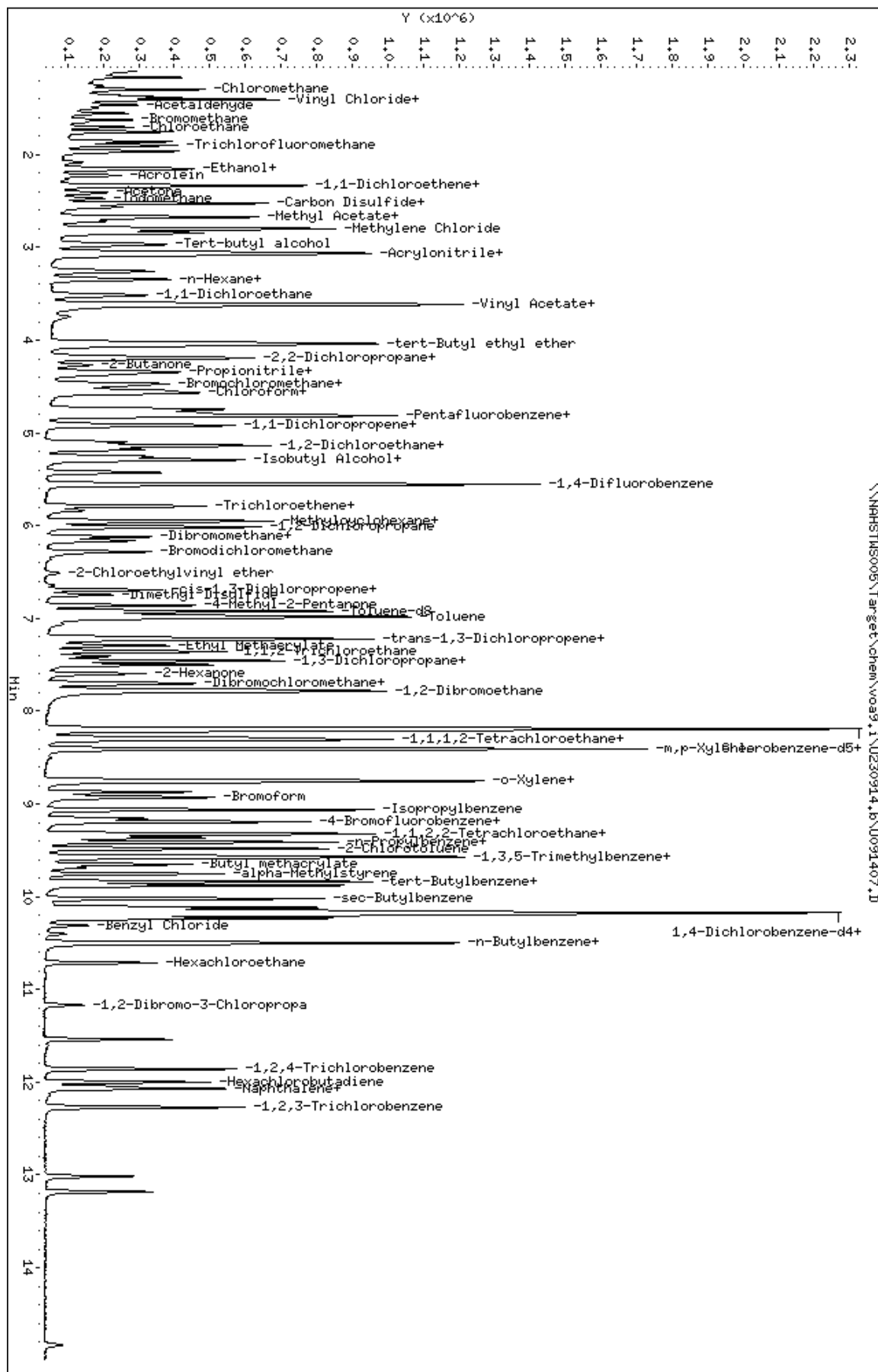
QC Flag Legend

M - Compound response manually integrated.



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

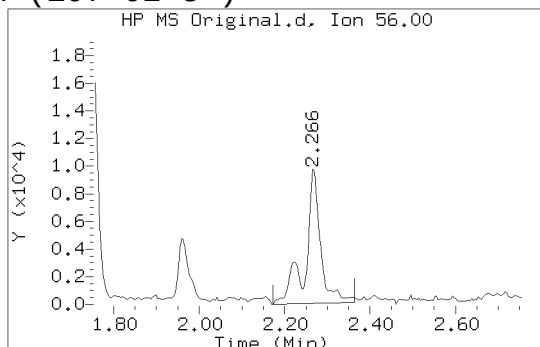


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Inj Date : 14-SEP-2023 18:00
InstruID : VOA9.i
LabSampID : VSTD020

Acrolein (107-02-8)

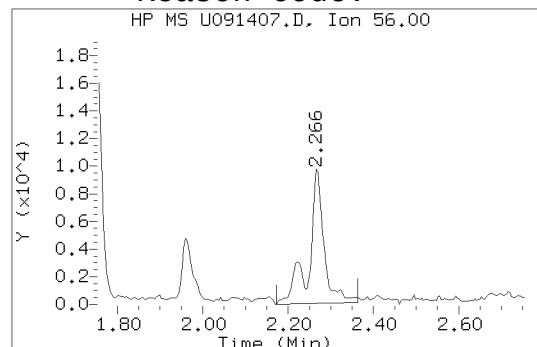
BEFORE

MASS
56
AREA
24441
HEIGHT
9725
18-Sep-2023
12:30
linh



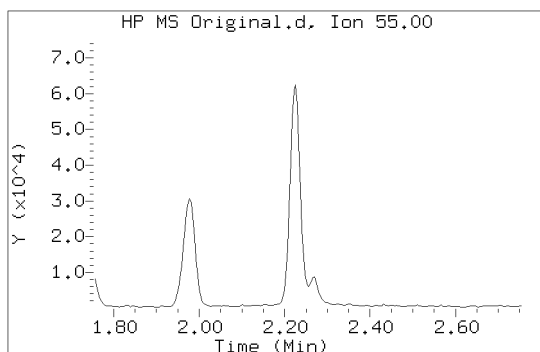
AFTER

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AREA
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18-Sep-2023
12:30
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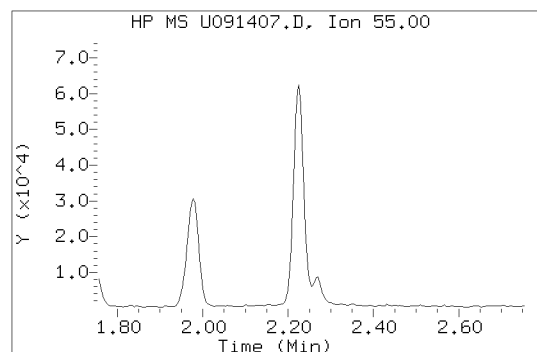
BEFORE

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AREA
11311
HEIGHT
7919
18-Sep-2023
12:30
linh
pham



AFTER

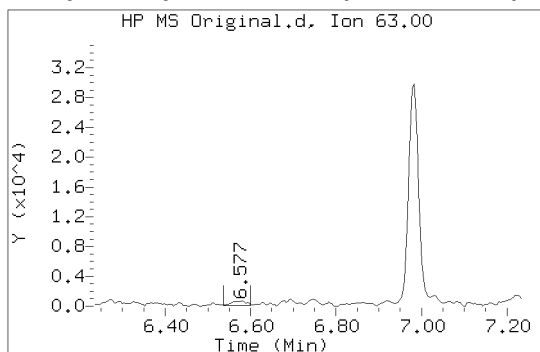
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HEIGHT
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18-Sep-2023
12:30
linh
pham



2-Chloroethylvinyl ether (110-75-8)

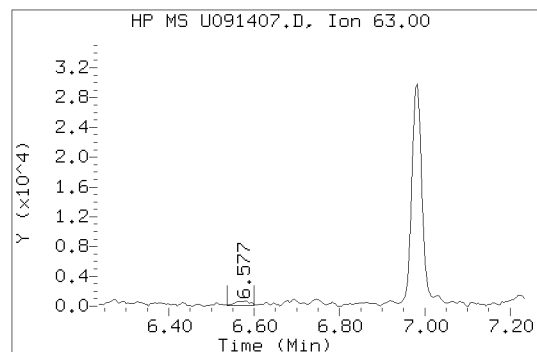
BEFORE

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AREA
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642
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12:30
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pham



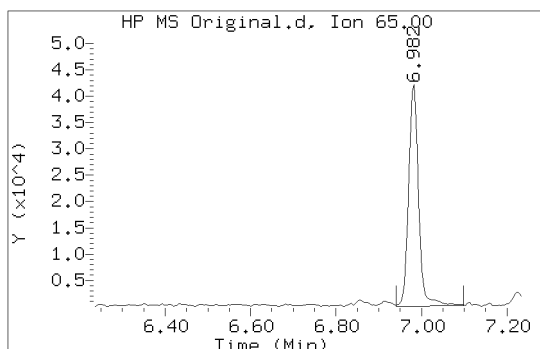
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1495
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18-Sep-2023
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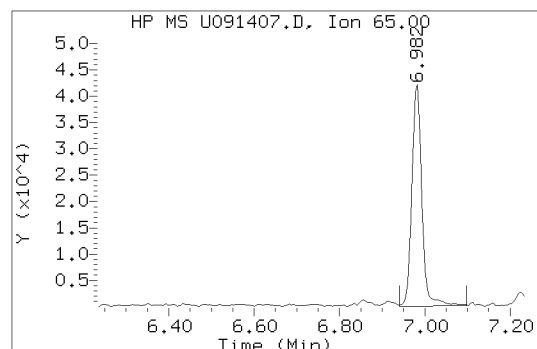
BEFORE

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65
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68691
HEIGHT
42054
18-Sep-2023
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AFTER

MASS
65
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68691
HEIGHT
42054
18-Sep-2023
12:30
linh
pham

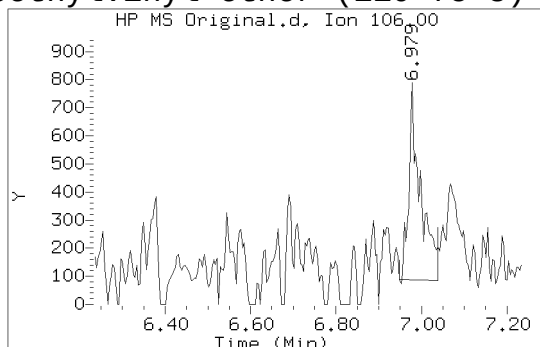


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091407.D
Inj Date : 14-SEP-2023 18:00
InstruID : VOA9.i
LabSampID : VSTD020

2-Chloroethylvinyl ether (110-75-8)

BEFORE

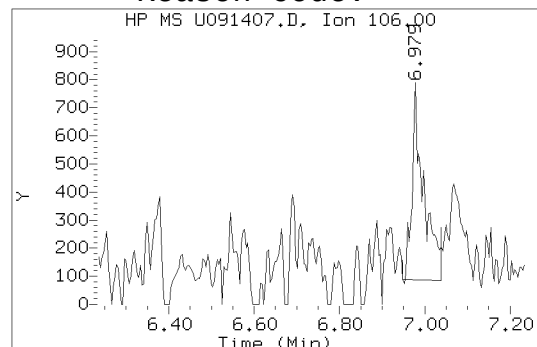
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106
AREA
1332
HEIGHT
701
18-Sep-2023
12:30
linh
pham



AFTER

MASS
106
AREA
1332
HEIGHT
701
18-Sep-2023
12:30
linh
pham

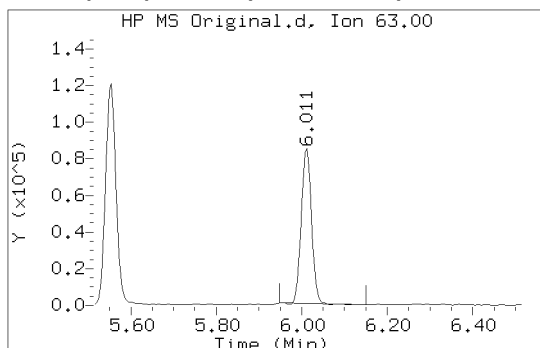
Reason Code:



1,2-Dichloropropane (78-87-5)

BEFORE

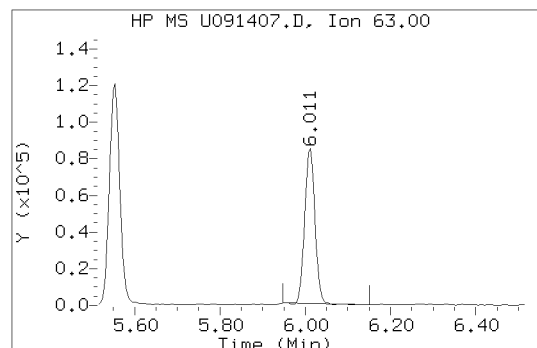
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AREA
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84706
18-Sep-2023
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linh
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AFTER

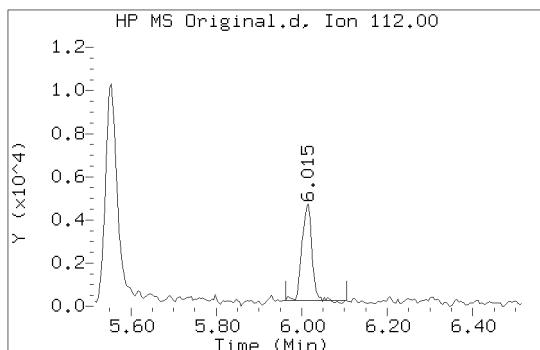
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18-Sep-2023
12:30
linh
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Reason Code:



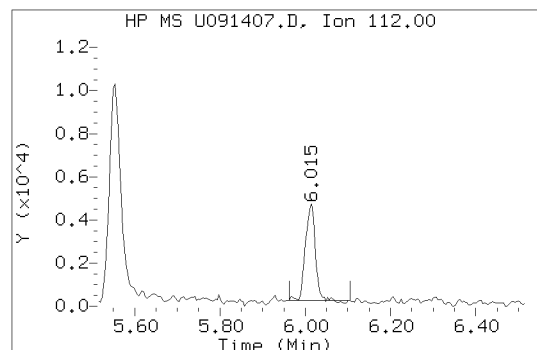
BEFORE

MASS
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18-Sep-2023
12:30
linh
pham



AFTER

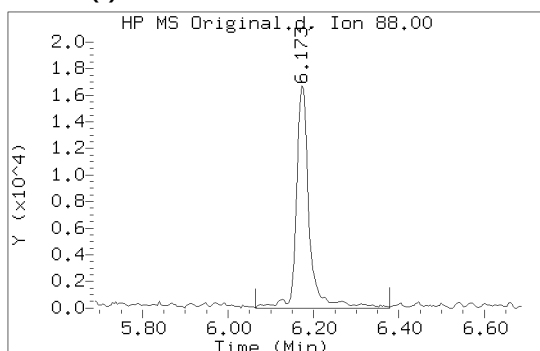
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AREA
7209
HEIGHT
4461
18-Sep-2023
12:30
linh
pham



1,4-Dioxane ()

BEFORE

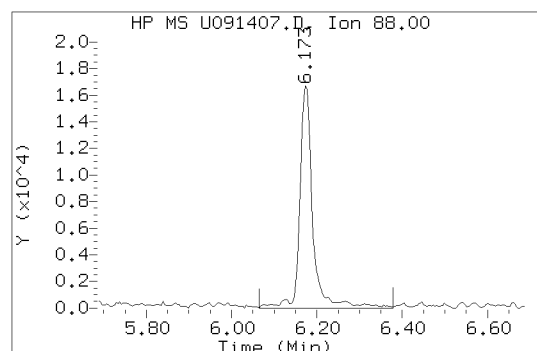
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88
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36081
HEIGHT
16712
18-Sep-2023
12:30
linh
pham



AFTER

MASS
88
AREA
36081
HEIGHT
16712
18-Sep-2023
12:30
linh
pham

Reason Code:

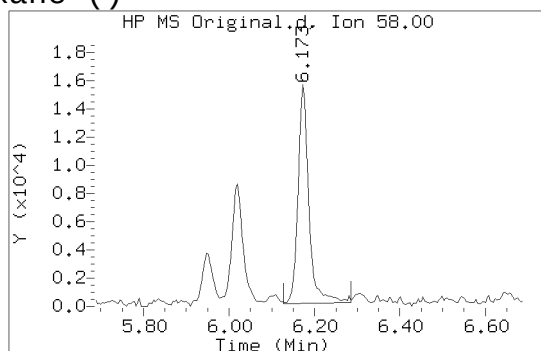


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091407.D
Inj Date : 14-SEP-2023 18:00
InstruID : VOA9.i
LabSampID : VSTD020

1,4-Dioxane ()

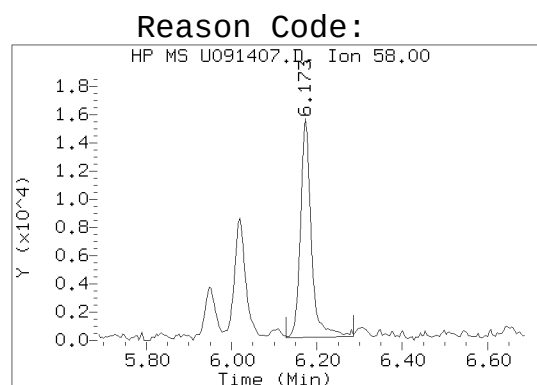
BEFORE

MASS
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AREA
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HEIGHT
15501
18-Sep-2023
12:30
linh
pham



AFTER

MASS
58
AREA
27683
HEIGHT
15501
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091408.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091408.D
 Lab Smp Id: VSTD050 Client Smp ID: VSTD050
 Inj Date : 14-SEP-2023 18:22
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD050;VSTD050;1;7;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 18:00 Cal File: U091407.D
 Als bottle: 9 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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		4.811	4.811	(1.000)		741130	50.0000	
2 Dichlorodifluoromethane	85		1.160	1.160	(0.241)		365999	50.0000	45.16
3 Chloromethane	50		1.291	1.291	(0.268)		679763	50.0000	49.67
5 Vinyl Chloride	62		1.374	1.374	(0.286)		436920	50.0000	46.44
6 Bromomethane	94		1.614	1.614	(0.335)		210271	50.0000	45.85
7 Chloroethane	64		1.696	1.696	(0.353)		302811	50.0000	43.76
8 Trichlorofluoromethane	101		1.891	1.891	(0.393)		529050	50.0000	43.83
9 Acrolein	56		2.259	2.259	(0.469)		53331	100.000	83.86(M)
10 Acetone	43		2.405	2.405	(0.500)		343448	100.000	91.17
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)		318631	50.0000	43.43
15 Iodomethane	142		2.465	2.465	(0.512)		379247	100.000	89.45
16 Acrylonitrile	53		3.061	3.061	(0.636)		385904	100.000	89.26
17 Methylene Chloride	84		2.791	2.791	(0.580)		422454	50.0000	45.54
18 Methyl tert-butyl ether	73		3.076	3.076	(0.639)		945327	50.0000	45.38
19 Carbon Disulfide	76		2.517	2.517	(0.523)		1835693	100.000	92.63
20 trans-1,2-Dichloroethene	96		3.053	3.053	(0.635)		355559	50.0000	46.20
21 Vinyl Acetate	43		3.604	3.604	(0.749)		2577244	100.000	94.66
22 1,1-Dichloroethane	63		3.511	3.511	(0.730)		696242	50.0000	45.11
24 2-Butanone	43		4.264	4.264	(0.886)		394292	100.000	87.77
26 2,2-Dichloropropane	77		4.178	4.178	(0.868)		420338	50.0000	44.97



27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	407662	50.0000	46.33
28 Chloroform	83	4.568	4.568 (0.949)	685814	50.0000	45.76

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091408.D Page 2
 Report Date: 18-Sep-2023 12:31

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)	210112	50.0000	45.56
\$ 30 Dibromofluoromethane	113	4.744	4.744	(0.986)	328369	50.0000	48.56
31 1,1,1-Trichloroethane	97	4.740	4.740	(0.985)	455322	50.0000	44.74
32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	409238	50.0000	44.95
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	531037	50.0000	47.90
34 Carbon Tetrachloride	117	4.909	4.909	(0.885)	373929	50.0000	45.90
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	379658	50.0000	49.70
* 36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	1146840	50.0000	
37 Benzene	78	5.134	5.134	(0.925)	1369056	50.0000	47.52
38 Trichloroethene	130	5.786	5.786	(1.043)	370707	50.0000	44.24
39 Bromodichloromethane	83	6.277	6.277	(1.131)	452831	50.0000	48.46
41 2-Chloroethylvinyl ether	63	6.558	6.558	(1.182)	3835	100.000	92.64(MH)
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	378563	50.0000	49.76(M)
44 Dibromomethane	93	6.120	6.120	(1.103)	252788	50.0000	48.26
45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	766488	100.000	93.58
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	501695	50.0000	43.71
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1105862	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1240380	50.0000	50.87
50 Toluene	91	6.978	6.978	(0.853)	1488148	50.0000	50.11
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	422161	50.0000	44.86
52 2-Hexanone	43	7.593	7.593	(0.928)	507183	100.000	101.16
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	307028	50.0000	47.41
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	618528	50.0000	47.49
55 Dibromochloromethane	129	7.690	7.690	(0.940)	389873	50.0000	50.58
56 Tetrachloroethene	164	7.454	7.454	(0.911)	314500	50.0000	45.45
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	383860	50.0000	49.32
58 1-Chlorohexane	55	8.197	8.197	(1.477)	266519	50.0000	38.46
59 Chlorobenzene	112	8.208	8.208	(1.003)	1013371	50.0000	46.14
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	351707	50.0000	47.64
61 Ethylbenzene	106	8.305	8.305	(1.015)	452946	50.0000	46.05
62 m,p-Xylenes	106	8.406	8.406	(1.027)	1109880	100.000	89.74
63 o-Xylene	106	8.748	8.748	(1.069)	564834	50.0000	43.94
64 Styrene	104	8.759	8.759	(1.070)	870956	50.0000	44.13(M)
66 Bromoform	173	8.920	8.920	(1.090)	248786	50.0000	43.27
67 Isopropylbenzene	105	9.062	9.062	(1.107)	1270310	50.0000	41.73
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	526118	50.0000	49.86
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	520817	50.0000	48.83
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	543081	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	452929	50.0000	50.37
73 n-Propylbenzene	91	9.411	9.411	(0.926)	1319916	50.0000	39.91
74 Bromobenzene	156	9.317	9.317	(0.916)	426954	50.0000	49.46
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	921488	50.0000	45.11
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	971738	50.0000	48.18
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	1115512	50.0000	47.14
78 tert-Butylbenzene	119	9.835	9.835	(0.967)	876778	50.0000	44.60
79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	945334	50.0000	45.02
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	1078548	50.0000	40.46
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	858100	50.0000	40.36
83 1,3-Dichlorobenzene	146	10.112	10.112	(0.994)	703640	50.0000	46.22
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	741044	50.0000	43.32
87 n-Butylbenzene	91	10.491	10.491	(1.032)	771155	50.0000	39.69
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	707974	50.0000	45.47



89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	63686	50.0000	48.51
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	429754	50.0000	48.48

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091408.D Page 3

Report Date: 18-Sep-2023 12:31

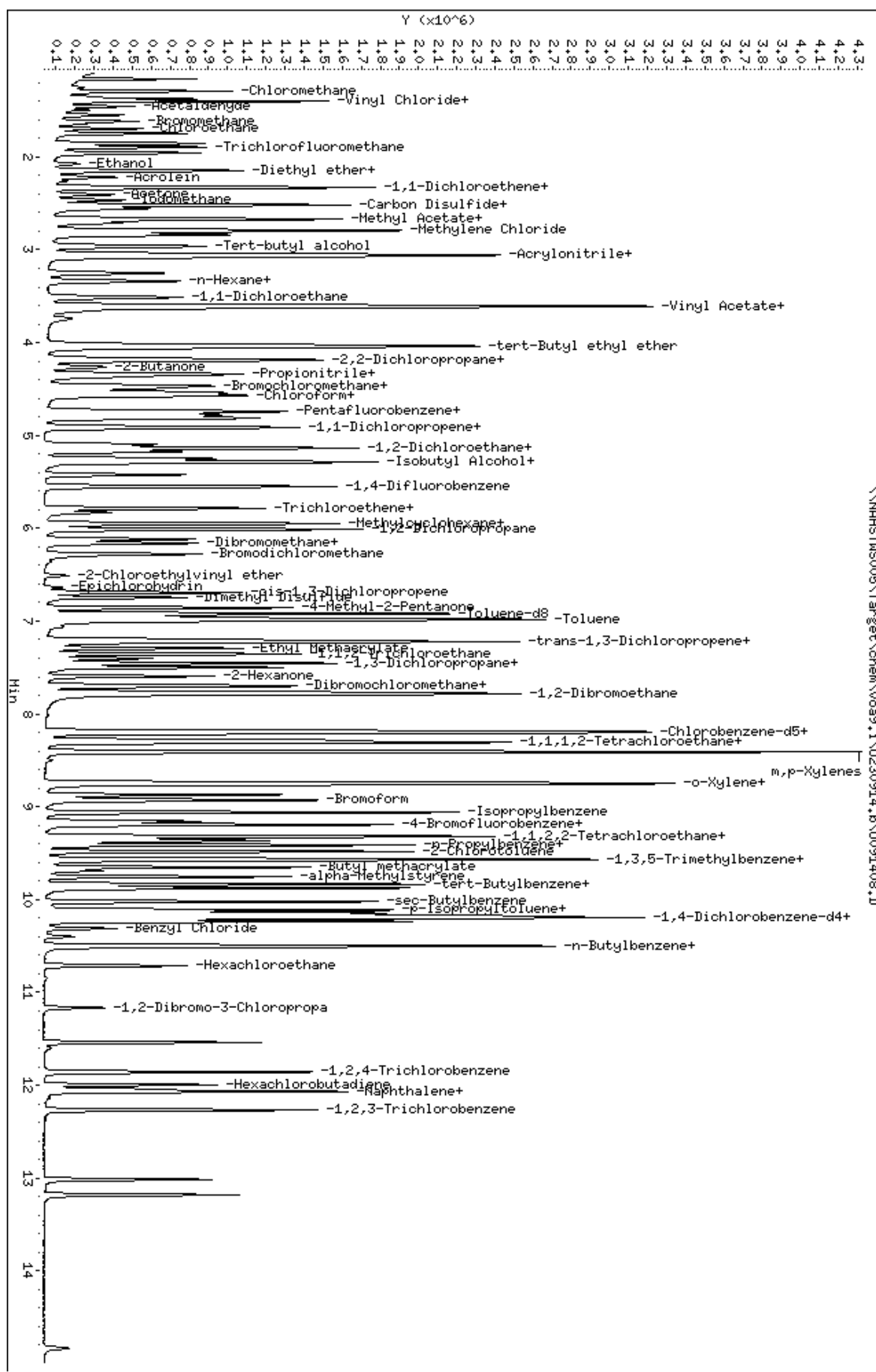
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	11.998	11.998	(1.180)	160600	50.0000	40.38
92 Naphthalene	128	12.065	12.065	(1.187)	1096628	50.0000	45.45
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	429482	50.0000	51.03
M 94 1,2-Dichloroethylene (total)	96				763221	100.000	
M 95 Xylenes (total)	106				1674714	150.000	
135 1,4-Dioxane	88	6.168	6.168	(1.282)	99629	1000.00	924.81
141 Cyclohexane	56	4.778	4.778	(0.993)	417496	50.0000	41.77
138 Freon TF	101	2.330	2.330	(0.484)	261309	50.0000	43.19
140 1,3-Butadiene	54	1.400	1.400	(0.291)	406614	50.0000	46.43
147 Methylcyclohexane	55	5.947	5.947	(1.072)	803104	50.0000	47.77
146 Methyl Acetate	43	2.708	2.708	(0.563)	393644	50.0000	43.80
148 Tert-Butyl alcohol	59	2.963	2.963	(0.616)	813074	1000.00	895.35
149 Isopropyl Alcohol	45	2.555	2.555	(0.531)	587634	1000.00	902.01

QC Flag Legend

M - Compound response manually integrated.

H - Operator selected an alternate compound hit.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091408.D
 Date: 14-SEP-2023 18:22
 Client ID: WSTD050
 Sample Info: WSTD050;WSTD050;117;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W099.i
 Operator: PC
 Column diameter: 0.18

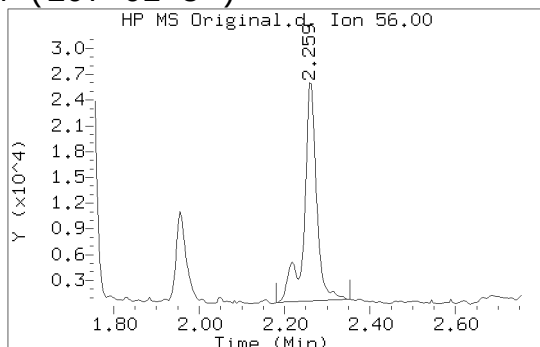


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091408.D
Inj Date : 14-SEP-2023 18:22
InstruID : VOA9.i
LabSampID : VSTD050

Acrolein (107-02-8)

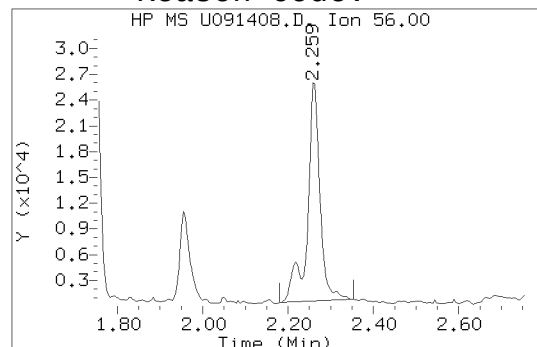
BEFORE

MASS
56
AREA
53331
HEIGHT
25428
18-Sep-2023
12:30
linh



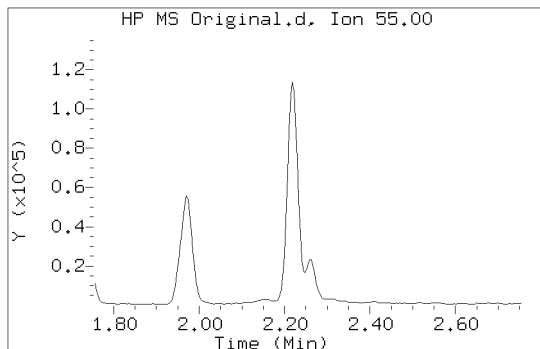
AFTER

MASS
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AREA
53331
HEIGHT
25428
18-Sep-2023
12:30
linh



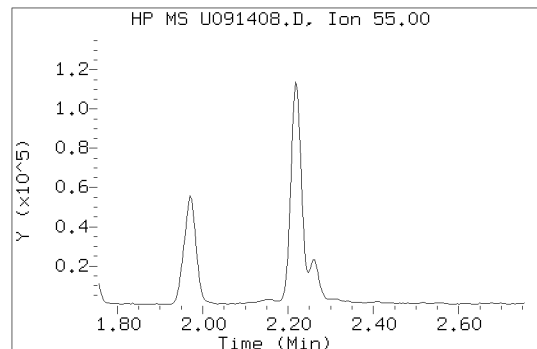
BEFORE

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AREA
23309
HEIGHT
15035
18-Sep-2023
12:30
linh
pham



AFTER

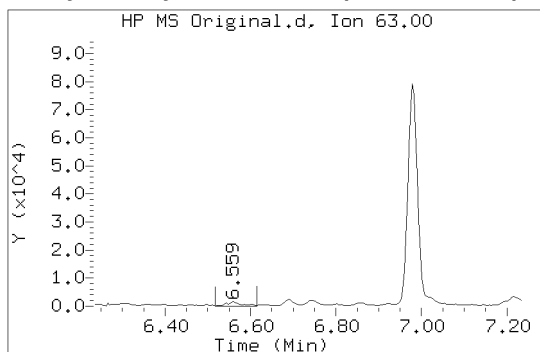
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AREA
23309
HEIGHT
15035
18-Sep-2023
12:30
linh
pham



2-Chloroethylvinyl ether (110-75-8)

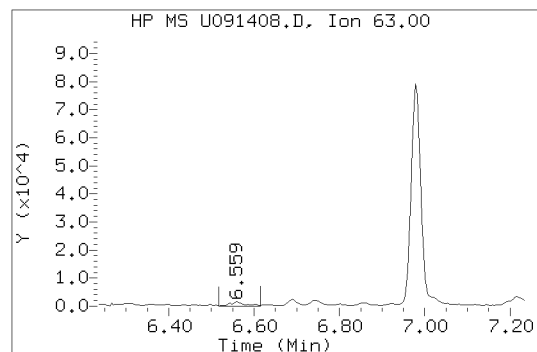
BEFORE

MASS
63
AREA
3835
HEIGHT
1530
18-Sep-2023
12:30
linh
pham



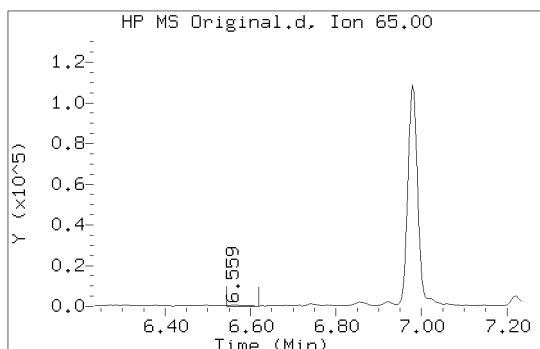
AFTER

MASS
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AREA
3835
HEIGHT
1530
18-Sep-2023
12:30
linh
pham



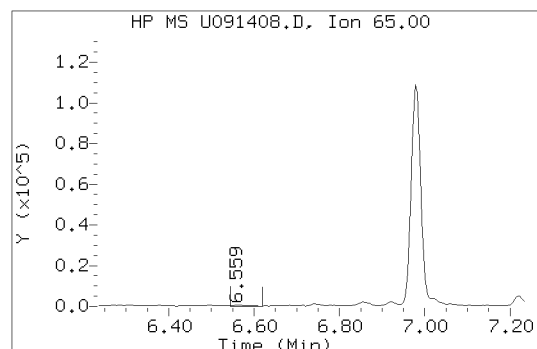
BEFORE

MASS
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AREA
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464
18-Sep-2023
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pham



AFTER

MASS
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HEIGHT
464
18-Sep-2023
12:30
linh
pham

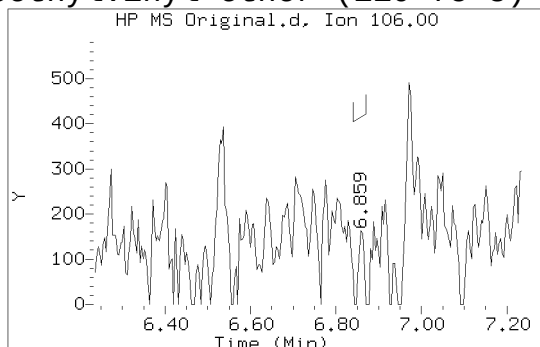


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Inj Date : 14-SEP-2023 18:22
InstruID : VOA9.i
LabSampID : VSTD050

2-Chloroethylvinyl ether (110-75-8)

BEFORE

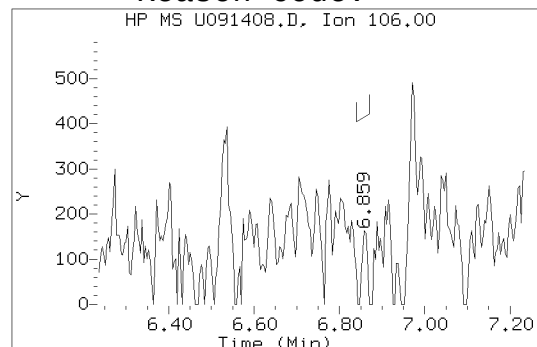
MASS
106
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682
HEIGHT
251
18-Sep-2023
12:30
linh
pham



AFTER

MASS
106
AREA
682
HEIGHT
251
18-Sep-2023
12:30
linh
pham

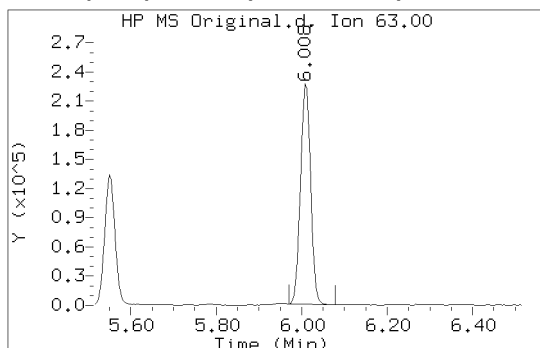
Reason Code:



1,2-Dichloropropane (78-87-5)

BEFORE

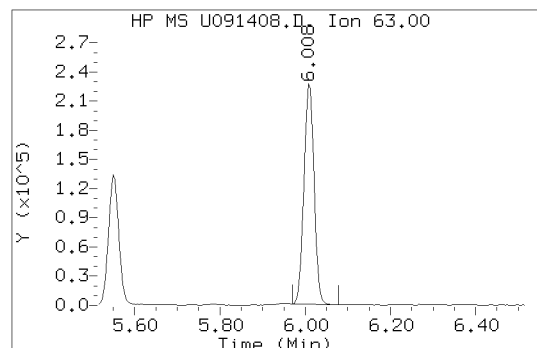
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AREA
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HEIGHT
226835
18-Sep-2023
12:30
linh
pham



AFTER

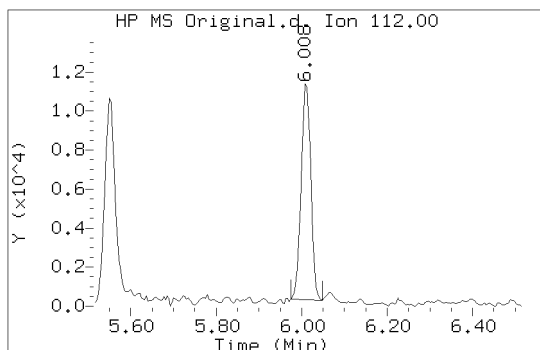
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AREA
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HEIGHT
226835
18-Sep-2023
12:30
linh
pham

Reason Code:



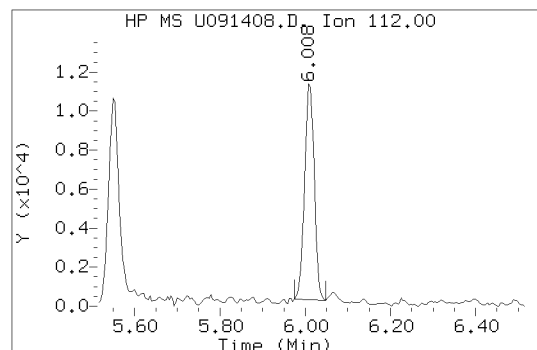
BEFORE

MASS
112
AREA
17672
HEIGHT
11065
18-Sep-2023
12:30
linh
pham



AFTER

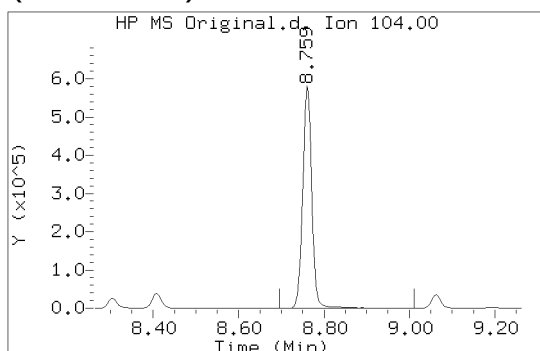
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AREA
17672
HEIGHT
11065
18-Sep-2023
12:30
linh
pham



Styrene (100-42-5)

BEFORE

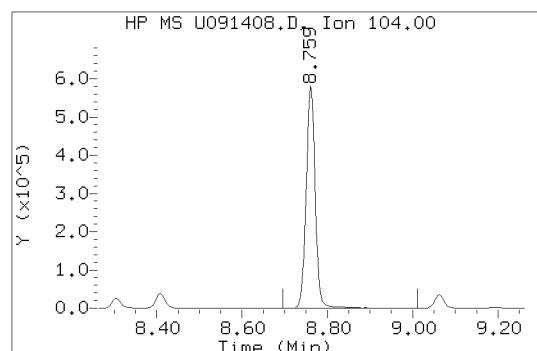
MASS
104
AREA
870956
HEIGHT
581146
18-Sep-2023
12:30
linh
pham



AFTER

MASS
104
AREA
870956
HEIGHT
581146
18-Sep-2023
12:30
linh
pham

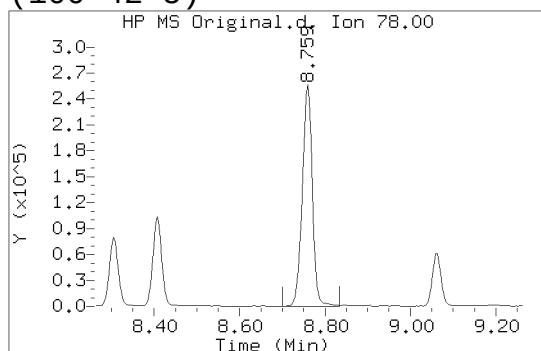
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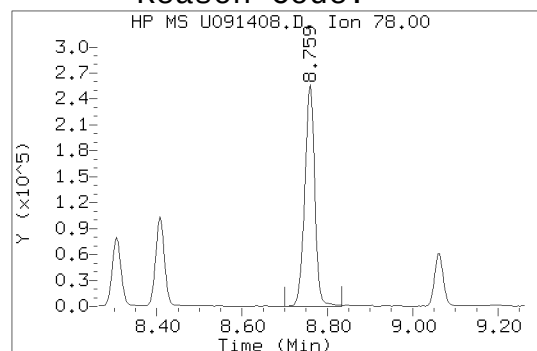
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091408.D
Inj Date : 14-SEP-2023 18:22
InstruID : VOA9.i
LabSampID : VSTD050

Styrene (100-42-5)**BEFORE**

MASS
78
AREA
421970
HEIGHT
256384
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
78
AREA
421970
HEIGHT
256384
18-Sep-2023
12:30
linh
pham

Reason Code:

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091409.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091409.D
 Lab Smp Id: VSTD100 Client Smp ID: VSTD100
 Inj Date : 14-SEP-2023 18:44
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD100;VSTD100;1;8;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 18:22 Cal File: U091408.D
 Als bottle: 10 Calibration Sample, Level: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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)		742187	50.0000	
2 Dichlorodifluoromethane	85		1.164	1.164	(0.242)		823221	100.000	99.77
3 Chloromethane	50		1.295	1.295	(0.269)		1410566	100.000	103.98
5 Vinyl Chloride	62		1.374	1.374	(0.285)		986224	100.000	104.67
6 Bromomethane	94		1.614	1.614	(0.335)		434819	100.000	94.21
7 Chloroethane	64		1.696	1.696	(0.352)		674738	100.000	97.37
8 Trichlorofluoromethane	101		1.895	1.895	(0.394)		1245989	100.000	103.08
9 Acrolein	56		2.262	2.262	(0.470)		114655	200.000	180.04(M)
10 Acetone	43		2.409	2.409	(0.500)		787149	200.000	211.45(A)
11 1,1-Dichloroethene	96		2.334	2.334	(0.485)		735651	100.000	100.14
15 Iodomethane	142		2.469	2.469	(0.513)		938697	200.000	198.45
16 Acrylonitrile	53		3.065	3.065	(0.636)		832299	200.000	192.24
17 Methylene Chloride	84		2.795	2.795	(0.580)		885454	100.000	93.47
18 Methyl tert-butyl ether	73		3.080	3.080	(0.640)		2115315	100.000	101.41
19 Carbon Disulfide	76		2.521	2.521	(0.524)		4187477	200.000	211.02
20 trans-1,2-Dichloroethene	96		3.057	3.057	(0.635)		790832	100.000	102.61
21 Vinyl Acetate	43		3.604	3.604	(0.749)		5722144	200.000	209.87
22 1,1-Dichloroethane	63		3.514	3.514	(0.730)		1523604	100.000	98.58
24 2-Butanone	43		4.264	4.264	(0.886)		892012	200.000	198.28
26 2,2-Dichloropropane	77		4.182	4.182	(0.868)		987674	100.000	105.53



27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	885739	100.000	100.52
28 Chloroform	83	4.572	4.572 (0.949)	1471908	100.000	98.08

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091409.D Page 2
Report Date: 18-Sep-2023 12:31

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)	442434	100.000	95.81
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	685902	100.000	101.07
31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	1083271	100.000	106.29
32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	960118	100.000	105.11
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	1091404	100.000	98.13
34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	938140	100.000	114.80
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	775916	100.000	101.59
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1150587	50.0000	
37 Benzene	78	5.138	5.138	(0.925)	2956564	100.000	102.30
38 Trichloroethene	130	5.786	5.786	(1.042)	833703	100.000	99.18
39 Bromodichloromethane	83	6.277	6.277	(1.130)	994877	100.000	106.14
41 2-Chloroethylvinyl ether	63	6.562	6.562	(1.182)	8728	200.000	209.49(M)
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	791531	100.000	103.71(M)
44 Dibromomethane	93	6.120	6.120	(1.102)	515227	100.000	98.05
45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	1680595	200.000	205.31
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	1167680	100.000	97.26
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1088748	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	2536024	100.000	105.65
50 Toluene	91	6.982	6.982	(0.853)	3184353	100.000	108.92
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	972012	100.000	99.85
52 2-Hexanone	43	7.593	7.593	(0.928)	1124170	200.000	227.75
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	624595	100.000	97.97
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	1299270	100.000	101.32
55 Dibromochloromethane	129	7.690	7.690	(0.940)	849759	100.000	111.98
56 Tetrachloroethene	164	7.458	7.458	(0.911)	719095	100.000	105.56
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	783163	100.000	102.22
58 1-Chlorohexane	55	8.197	8.197	(1.476)	710963	100.000	102.28
59 Chlorobenzene	112	8.208	8.208	(1.003)	2161725	100.000	99.97
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	767225	100.000	105.57
61 Ethylbenzene	106	8.305	8.305	(1.015)	1086475	100.000	112.21
62 m,p-Xylenes	106	8.410	8.410	(1.027)	2756924	200.000	226.43
63 o-Xylene	106	8.748	8.748	(1.069)	1352093	100.000	106.85
64 Styrene	104	8.759	8.759	(1.070)	2124765	100.000	109.36
66 Bromoform	173	8.916	8.916	(1.089)	553169	100.000	93.24
67 Isopropylbenzene	105	9.062	9.062	(1.107)	3338525	100.000	102.96
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1118164	100.000	99.27
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1113602	100.000	100.17
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	579795	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	1003028	100.000	104.49
73 n-Propylbenzene	91	9.411	9.411	(0.926)	3742926	100.000	101.01
74 Bromobenzene	156	9.317	9.317	(0.916)	936735	100.000	101.65
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	2477040	100.000	113.58
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	2355205	100.000	109.40
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	2811017	100.000	111.27
78 tert-Butylbenzene	119	9.838	9.838	(0.968)	2425690	100.000	115.58
79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	2490027	100.000	111.07
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	3233827	100.000	104.42
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	2596903	100.000	103.96
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	1662049	100.000	102.26
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	1821529	100.000	99.75
87 n-Butylbenzene	91	10.491	10.491	(1.032)	2423452	100.000	105.38
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	1754755	100.000	105.56



89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	148641	100.000	106.06
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	1064867	100.000	112.52

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091409.D Page 3

Report Date: 18-Sep-2023 12:31

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	(1.180)	453589	100.000	106.83
92 Naphthalene	128	12.065	12.065	(1.187)	2667441	100.000	100.07
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	1025886	100.000	114.18
M 94 1,2-Dichloroethylene (total)	96				1676571	200.000	
M 95 Xylenes (total)	106				4109017	300.000	
135 1,4-Dioxane	88	6.168	6.168	(1.281)	208874	2000.00	1936.12
141 Cyclohexane	56	4.781	4.781	(0.993)	1133205	100.000	106.39
138 Freon TF	101	2.334	2.334	(0.485)	684389	100.000	104.28
140 1,3-Butadiene	54	1.404	1.404	(0.292)	902435	100.000	102.92
147 Methylcyclohexane	55	5.947	5.947	(1.071)	1920608	100.000	113.87(A)
146 Methyl Acetate	43	2.712	2.712	(0.563)	834142	100.000	92.69
148 Tert-Butyl alcohol	59	2.963	2.963	(0.615)	1746456	2000.00	1920.45
149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	1258105	2000.00	1928.44

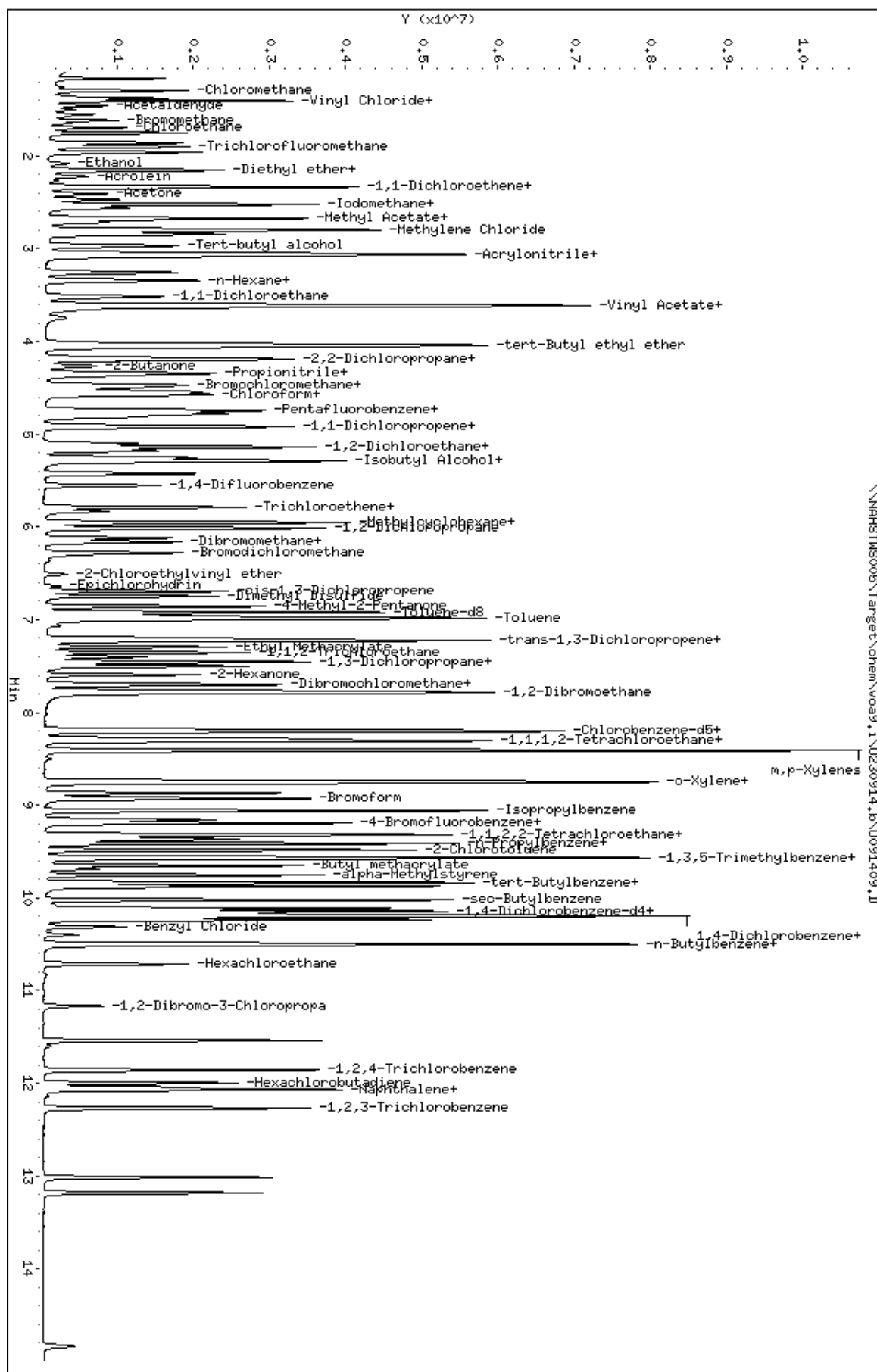
QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



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 Sample Info: VSTD100\U230914.b\U091409.D
 Purge Volume: 5.0
 Column phase: DB624

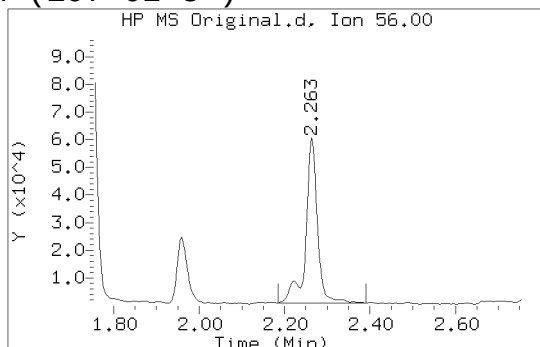
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 Operator: PC
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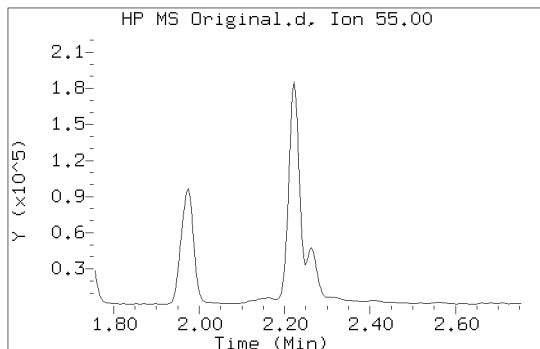
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InstruID : VOA9.i
LabSampID : VSTD100

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

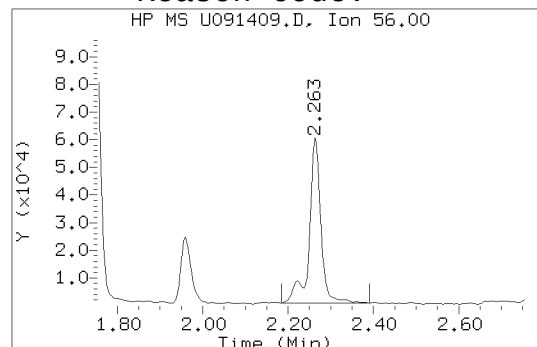
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HEIGHT
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18-Sep-2023
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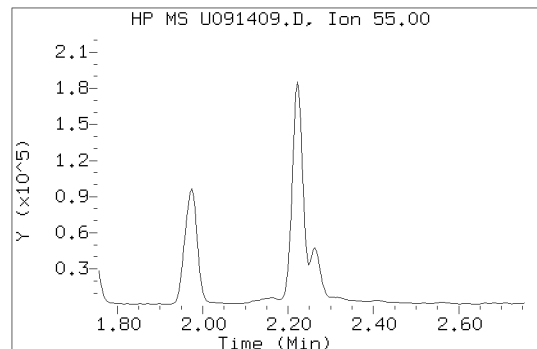
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pham

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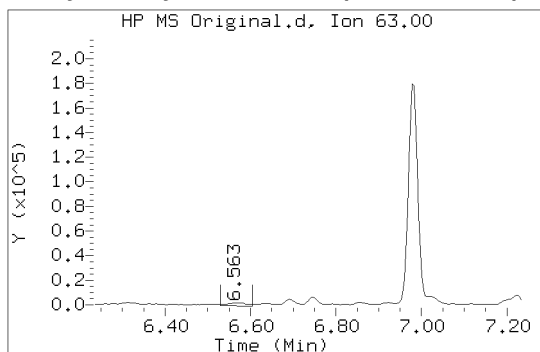
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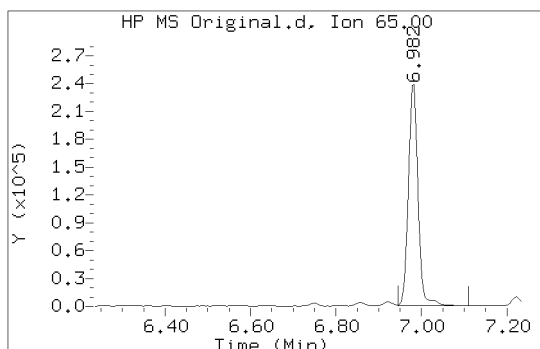
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18-Sep-2023
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**2-Chloroethylvinyl ether (110-75-8)****BEFORE**

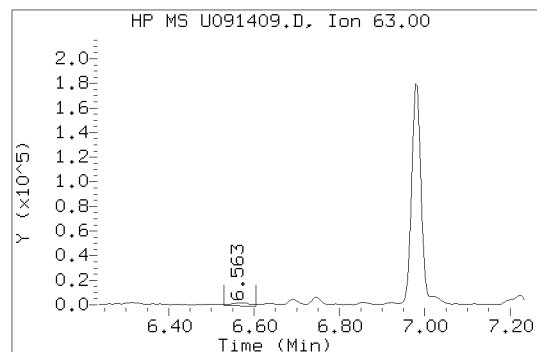
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**BEFORE**

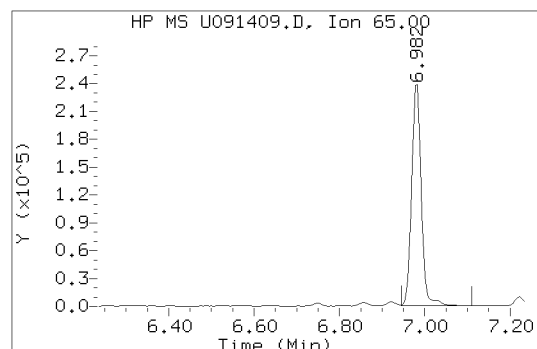
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**Reason Code:****AFTER**

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8728
HEIGHT
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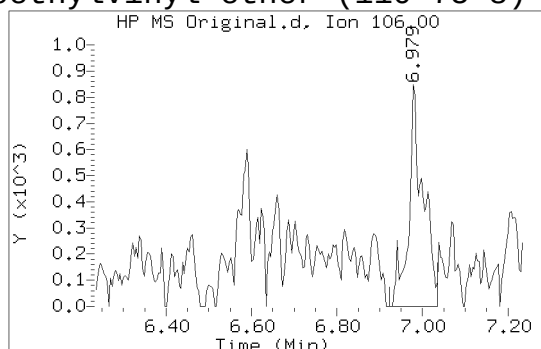


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Inj Date : 14-SEP-2023 18:44
InstruID : VOA9.i
LabSampID : VSTD100

2-Chloroethylvinyl ether (110-75-8)

BEFORE

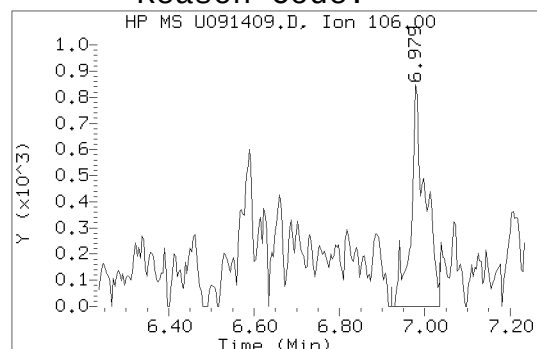
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AFTER

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18-Sep-2023
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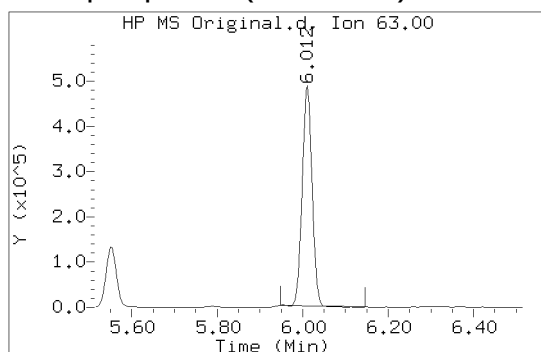
Reason Code:



1,2-Dichloropropane (78-87-5)

BEFORE

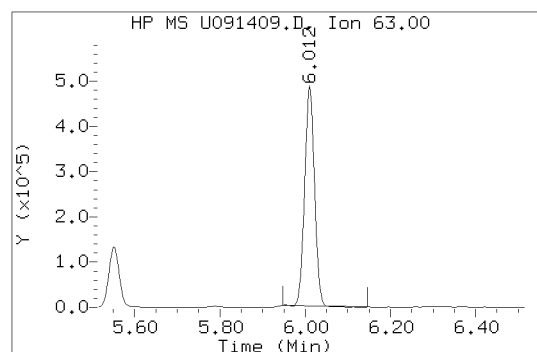
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AFTER

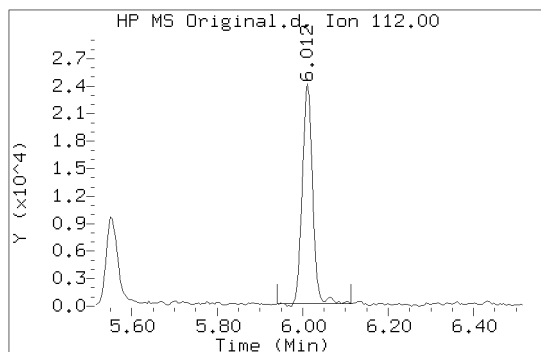
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Reason Code:



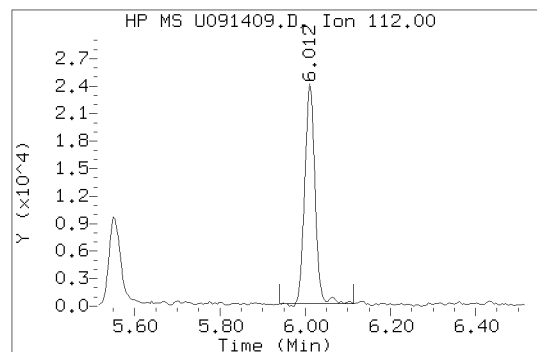
BEFORE

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18-Sep-2023
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linh
pham



AFTER

MASS
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HEIGHT
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18-Sep-2023
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linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091410.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091410.D
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 Inj Date : 14-SEP-2023 19:06
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD150;VSTD150;1;9;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 18:44 Cal File: U091409.D
 Als bottle: 11 Calibration Sample, Level: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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		4.812	4.812	(1.000)		803267	50.0000	
2 Dichlorodifluoromethane	85		1.157	1.157	(0.240)		1304711	150.000	145.48
3 Chloromethane	50		1.288	1.288	(0.268)		2165321	150.000	147.90
5 Vinyl Chloride	62		1.370	1.370	(0.285)		1647876	150.000	161.60
6 Bromomethane	94		1.603	1.603	(0.333)		772902	150.000	154.44
7 Chloroethane	64		1.689	1.689	(0.351)		1145180	150.000	152.70
8 Trichlorofluoromethane	101		1.891	1.891	(0.393)		2054095	150.000	157.01
9 Acrolein	56		2.259	2.259	(0.469)		183213	300.000	265.82(M)
10 Acetone	43		2.401	2.401	(0.499)		1181608	300.000	294.11(A)
11 1,1-Dichloroethene	96		2.326	2.326	(0.484)		1222059	150.000	153.70
15 Iodomethane	142		2.461	2.461	(0.512)		1796657	300.000	307.94
16 Acrylonitrile	53		3.057	3.057	(0.635)		1376634	300.000	293.79
17 Methylene Chloride	84		2.787	2.787	(0.579)		1469875	150.000	142.46
18 Methyl tert-butyl ether	73		3.072	3.072	(0.639)		3604607	150.000	159.67
19 Carbon Disulfide	76		2.514	2.514	(0.522)		6993810	300.000	325.64
20 trans-1,2-Dichloroethene	96		3.053	3.053	(0.635)		1316506	150.000	157.84
21 Vinyl Acetate	43		3.601	3.601	(0.748)		9900282	300.000	335.50
22 1,1-Dichloroethane	63		3.511	3.511	(0.730)		2514269	150.000	150.30
24 2-Butanone	43		4.260	4.260	(0.885)		1428537	300.000	293.40
26 2,2-Dichloropropane	77		4.178	4.178	(0.868)		1638736	150.000	161.79



27 cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	1464313	150.000	153.54
28 Chloroform	83	4.568	4.568 (0.949)	2391910	150.000	147.26

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091410.D Page 2
 Report Date: 18-Sep-2023 12:31

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)	712433	150.000	142.55
\$ 30 Dibromofluoromethane	113	4.744	4.744	(0.986)	1058564	150.000	144.04
31 1,1,1-Trichloroethane	97	4.737	4.737	(0.984)	1712311	150.000	155.24
32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	1538254	150.000	155.06
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	1690386	150.000	139.94
34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	1464787	150.000	165.04
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	1180336	150.000	142.85
* 36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	1249613	50.0000	
37 Benzene	78	5.134	5.134	(0.925)	4629744	150.000	147.50
38 Trichloroethene	130	5.786	5.786	(1.043)	1322314	150.000	144.84
39 Bromodichloromethane	83	6.277	6.277	(1.131)	1583332	150.000	155.53
41 2-Chloroethylvinyl ether	63	6.566	6.566	(1.183)	13383	300.000	295.55(M)
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	1276026	150.000	153.95(M)
44 Dibromomethane	93	6.116	6.116	(1.102)	804886	150.000	141.04
45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	2729579	300.000	300.41
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	1934103	150.000	146.67
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1203789	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	3880752	150.000	146.22
50 Toluene	91	6.978	6.978	(0.853)	5075148	150.000	157.00
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	1618558	150.000	151.81
52 2-Hexanone	43	7.593	7.593	(0.928)	1828358	300.000	335.02
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	979422	150.000	138.95
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	2074705	150.000	146.33
55 Dibromochloromethane	129	7.691	7.691	(0.940)	1359439	150.000	162.03
56 Tetrachloroethene	164	7.454	7.454	(0.911)	1103938	150.000	146.57
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	1289657	150.000	152.24
58 1-Chlorohexane	55	8.197	8.197	(1.477)	1224152	150.000	162.15
59 Chlorobenzene	112	8.208	8.208	(1.003)	3526073	150.000	147.48
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	1255141	150.000	156.20
61 Ethylbenzene	106	8.305	8.305	(1.015)	1780371	150.000	166.31
62 m,p-Xylenes	106	8.407	8.407	(1.027)	4701736	300.000	349.26
63 o-Xylene	106	8.748	8.748	(1.069)	2314095	150.000	165.40
64 Styrene	104	8.759	8.759	(1.070)	3833381	150.000	178.44
66 Bromoform	173	8.920	8.920	(1.090)	971749	150.000	146.05
67 Isopropylbenzene	105	9.063	9.063	(1.107)	5778129	150.000	151.87
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1920642	150.000	145.26
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1883700	150.000	144.24
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	680590	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	1734512	150.000	153.93
73 n-Propylbenzene	91	9.411	9.411	(0.926)	6534980	150.000	148.77
74 Bromobenzene	156	9.317	9.317	(0.916)	1596591	150.000	147.60
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	4430358	150.000	173.06
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	4034469	150.000	159.65
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	4899220	150.000	165.21
78 tert-Butylbenzene	119	9.835	9.835	(0.967)	4279534	150.000	173.71
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.972)	4477117	150.000	170.14
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	5794903	150.000	150.97
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	4754112	150.000	151.43
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	2889427	150.000	151.45
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	3065233	150.000	143.00
87 n-Butylbenzene	91	10.491	10.491	(1.032)	4319547	150.000	150.07
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	2952266	150.000	151.30



89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	250593	150.000	152.32
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	1788273	150.000	160.98

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091410.D Page 3

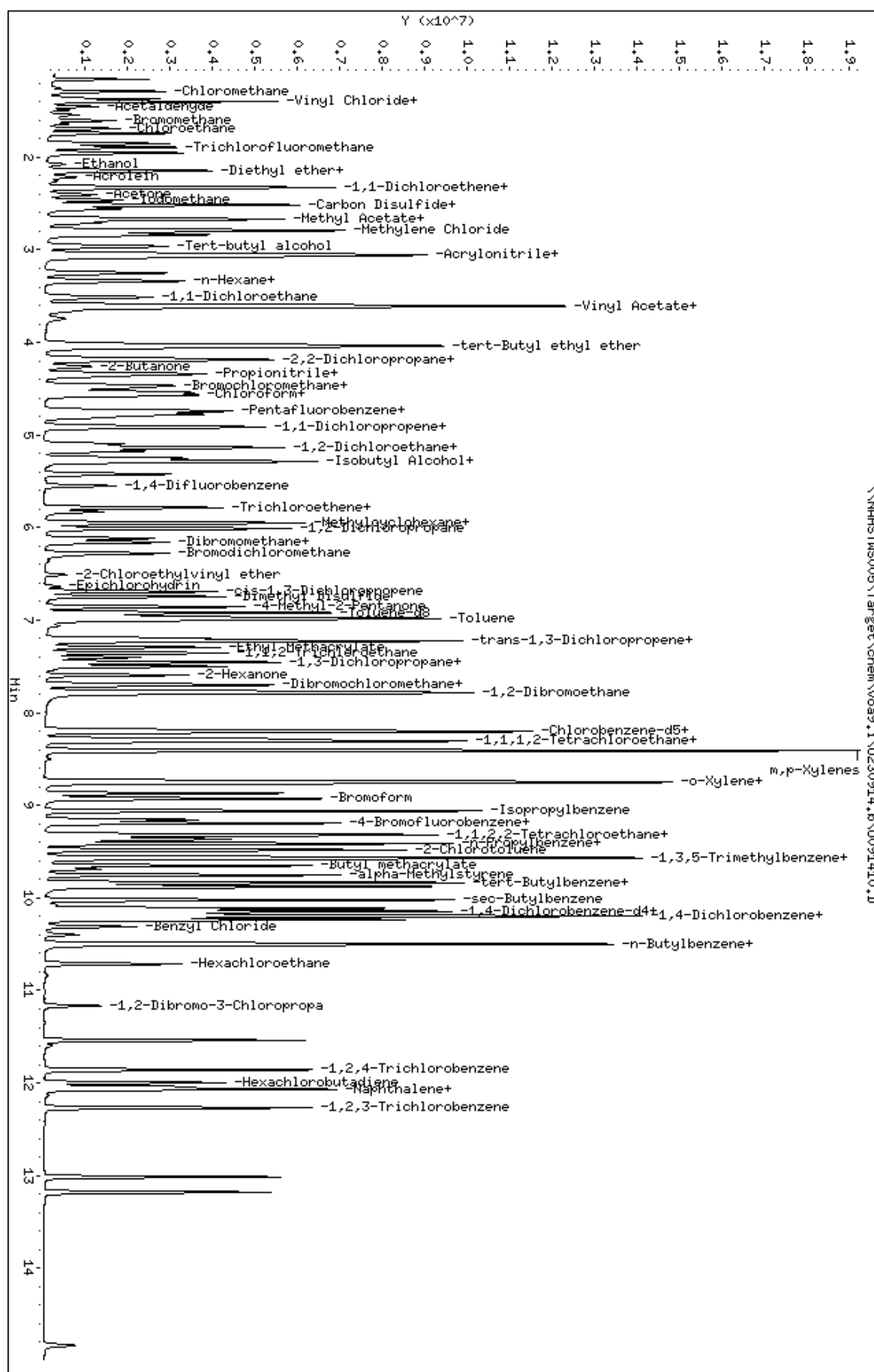
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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	11.998	11.998	(1.180)	723917	150.000	145.24
92 Naphthalene	128	12.065	12.065	(1.187)	4538786	150.000	143.84
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	1730699	150.000	164.10
M 94 1,2-Dichloroethylene (total)	96				2780819	300.000	
M 95 Xylenes (total)	106				7015831	450.000	
135 1,4-Dioxane	88	6.169	6.169	(1.282)	319192	3000.00	2733.71
141 Cyclohexane	56	4.778	4.778	(0.993)	1767337	150.000	147.10
138 Freon TF	101	2.330	2.330	(0.484)	1134738	150.000	148.53
140 1,3-Butadiene	54	1.396	1.396	(0.290)	1515916	150.000	159.74
147 Methylcyclohexane	55	5.947	5.947	(1.072)	2995811	150.000	163.54(A)
146 Methyl Acetate	43	2.709	2.709	(0.563)	1394248	150.000	143.15
148 Tert-Butyl alcohol	59	2.960	2.960	(0.615)	2979324	3000.00	3027.04
149 Isopropyl Alcohol	45	2.555	2.555	(0.531)	2140260	3000.00	3031.16

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.





Data File: \\NAHSTMS005\Target\chem\voa9.1\U230914.b\U091410.D
 Date : 14-SEP-2023 19:06
 Client ID: WSTD150
 Sample Info: WSTD150\WSTD150\119;
 Purge Volume: 5.0
 Column phase: DB624

\\NAHSTMS005\Target\chem\voa9.1\U230914.b\U091410.D

Instrument: W09.1
 Operator: PC
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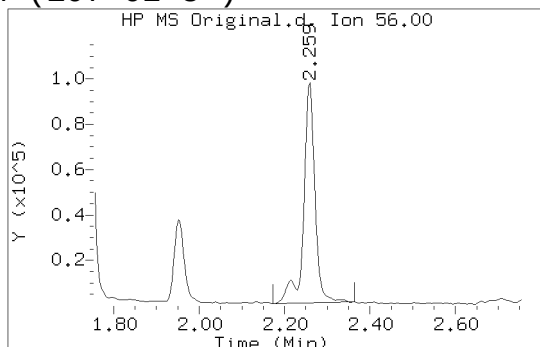


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Inj Date : 14-SEP-2023 19:06
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LabSampID : VSTD150

Acrolein (107-02-8)

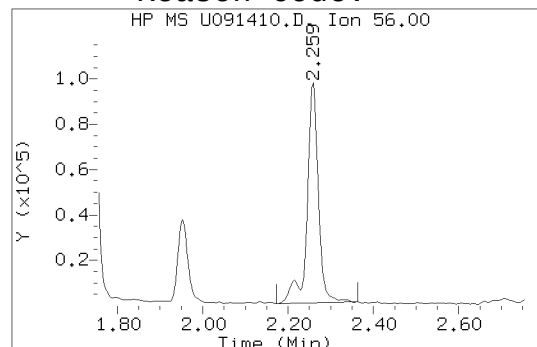
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HEIGHT
97181
18-Sep-2023
12:30
linh



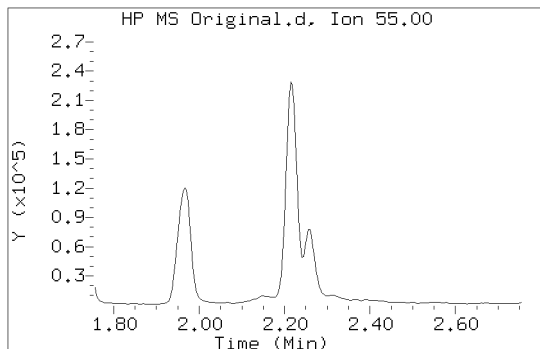
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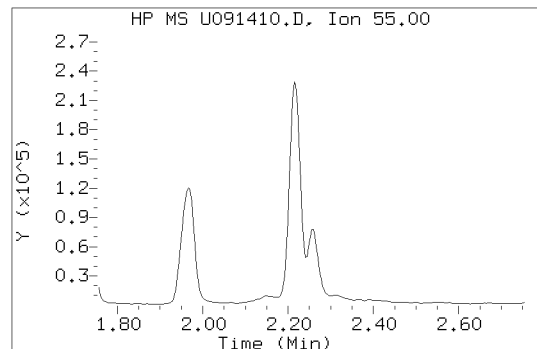
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AFTER

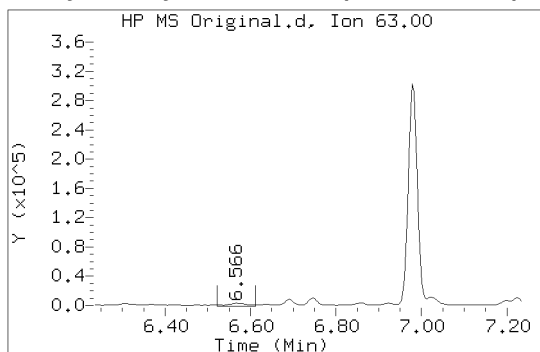
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pham



2-Chloroethylvinyl ether (110-75-8)

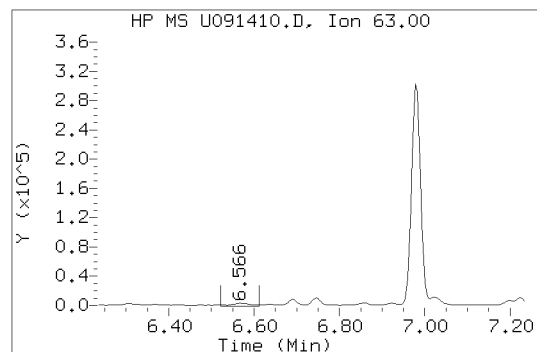
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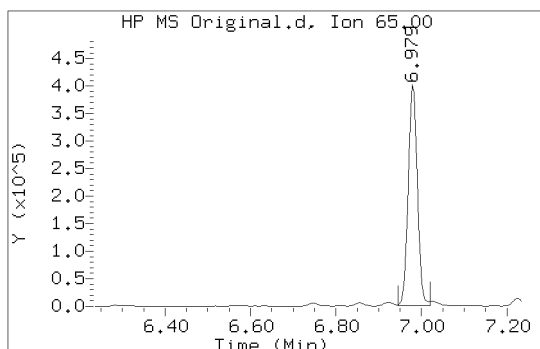
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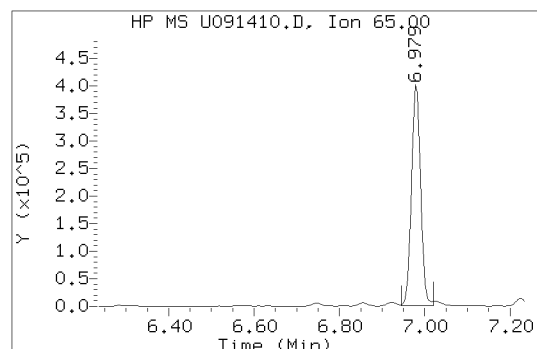
BEFORE

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401669
18-Sep-2023
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AFTER

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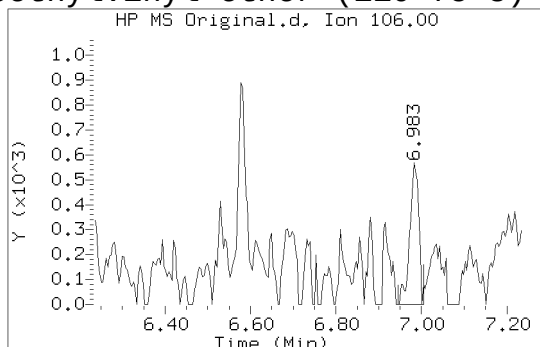


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Inj Date : 14-SEP-2023 19:06
InstruID : VOA9.i
LabSampID : VSTD150

2-Chloroethylvinyl ether (110-75-8)

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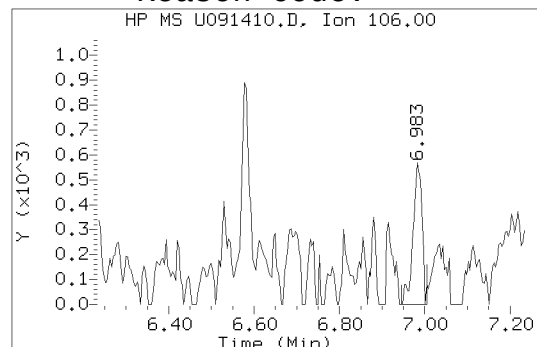
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AFTER

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pham

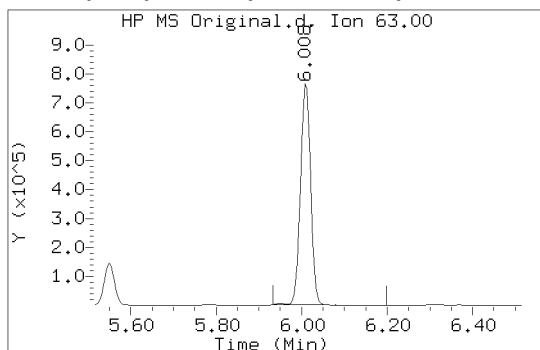
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1,2-Dichloropropane (78-87-5)

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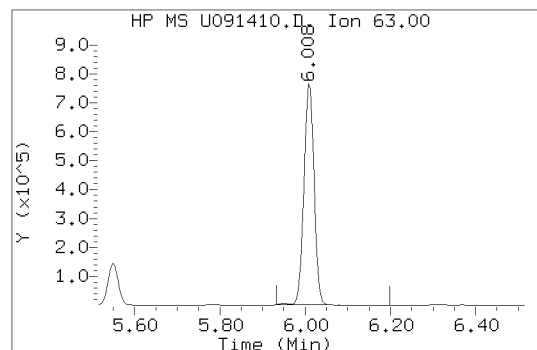
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AFTER

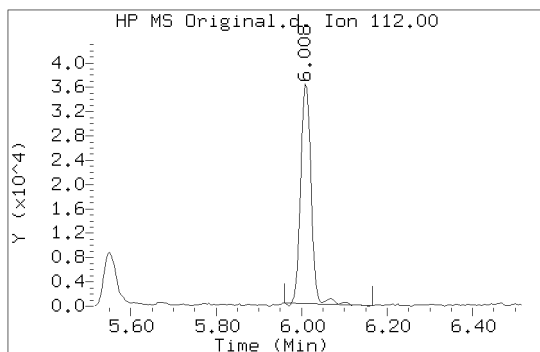
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Reason Code:



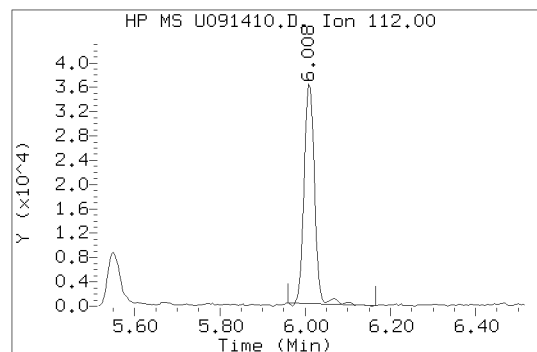
BEFORE

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18-Sep-2023
12:30
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pham



AFTER

MASS
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62404
HEIGHT
36150
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091411.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091411.D
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 Inj Date : 14-SEP-2023 19:28
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD200;VSTD200;1;10;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:06 Cal File: U091410.D
 Als bottle: 12 Calibration Sample, Level: 10
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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	4.808	4.808	(1.000)	765052	50.0000	
2 Dichlorodifluoromethane	85	1.153	1.153	(0.240)	1749434	200.000	204.28(A)
3 Chloromethane	50	1.284	1.284	(0.267)	2776648	200.000	199.46
5 Vinyl Chloride	62	1.363	1.363	(0.284)	2279456	200.000	234.71(A)
6 Bromomethane	94	1.591	1.591	(0.331)	1252773	200.000	262.52(A)
7 Chloroethane	64	1.681	1.681	(0.350)	1579435	200.000	221.13(A)
8 Trichlorofluoromethane	101	1.884	1.884	(0.392)	2896704	200.000	232.48(A)
9 Acrolein	56	2.255	2.255	(0.469)	267616	400.000	407.68(AM)
10 Acetone	43	2.397	2.397	(0.499)	1749808	400.000	458.50(A)
11 1,1-Dichloroethene	96	2.322	2.322	(0.483)	1723607	200.000	227.61(A)
15 Iodomethane	142	2.457	2.457	(0.511)	2669085	400.000	397.17
16 Acrylonitrile	53	3.053	3.053	(0.635)	2024088	400.000	453.55(A)
17 Methylene Chloride	84	2.784	2.784	(0.579)	2059188	200.000	208.75(A)
18 Methyl tert-butyl ether	73	3.068	3.068	(0.638)	5346254	200.000	248.66(A)
19 Carbon Disulfide	76	2.510	2.510	(0.522)	9712692	400.000	474.83(A)
20 trans-1,2-Dichloroethene	96	3.050	3.050	(0.634)	1843642	200.000	232.08(A)
21 Vinyl Acetate	43	3.597	3.597	(0.748)	14357679	400.000	510.86(A)
22 1,1-Dichloroethane	63	3.507	3.507	(0.729)	3596608	200.000	225.75(A)
24 2-Butanone	43	4.257	4.257	(0.885)	2106054	400.000	454.17(A)
26 2,2-Dichloropropane	77	4.174	4.174	(0.868)	2386254	200.000	247.36(A)



27 cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	2052035	200.000	225.92(A)
28 Chloroform	83	4.568	4.568 (0.950)	3356606	200.000	216.98(A)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091411.D Page 2
Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.463	4.463	(0.928)	989080	200.000	207.79(A)
\$ 30 Dibromofluoromethane	113	4.740	4.740	(0.986)	1427589	200.000	203.87(A)
31 1,1,1-Trichloroethane	97	4.737	4.737	(0.985)	2349575	200.000	223.66(A)
32 1,1-Dichloropropene	75	4.913	4.913	(0.886)	2091036	200.000	214.44(A)
33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	2264955	200.000	190.76
34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	1971605	200.000	226.00(A)
\$ 35 1,2-Dichloroethane-d4	65	5.093	5.093	(1.059)	1605933	200.000	204.13(A)
* 36 1,4-Difluorobenzene	114	5.546	5.546	(1.000)	1228306	50.0000	
37 Benzene	78	5.134	5.134	(0.926)	6155499	200.000	199.52
38 Trichloroethene	130	5.782	5.782	(1.043)	1740889	200.000	194.00
39 Bromodichloromethane	83	6.277	6.277	(1.132)	2138543	200.000	213.72(A)
41 2-Chloroethylvinyl ether	63	6.570	6.570	(1.185)	13941	400.000	313.18(M)
42 1,2-Dichloropropane	63	6.007	6.007	(1.083)	1720199	200.000	211.14(AM)
44 Dibromomethane	93	6.116	6.116	(1.103)	1103109	200.000	196.65
45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	3882854	400.000	398.73
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.206)	2674030	200.000	205.02(A)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1287469	50.0000	
\$ 48 Toluene-d8	98	6.918	6.918	(0.845)	5383811	200.000	189.67
50 Toluene	91	6.978	6.978	(0.853)	7226000	200.000	209.02(A)
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.297)	2363995	200.000	224.42(A)
52 2-Hexanone	43	7.593	7.593	(0.928)	2864702	400.000	490.80(A)
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	1441503	200.000	191.22
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	2991395	200.000	197.28
55 Dibromochloromethane	129	7.691	7.691	(0.940)	1988714	200.000	221.63(A)
56 Tetrachloroethene	164	7.454	7.454	(0.911)	1578033	200.000	195.90
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	1945642	200.000	214.75(A)
58 1-Chlorohexane	55	8.197	8.197	(1.478)	1896062	200.000	255.51(A)
59 Chlorobenzene	112	8.208	8.208	(1.003)	5236580	200.000	204.79(A)
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	1865470	200.000	217.07(A)
61 Ethylbenzene	106	8.305	8.305	(1.015)	2634094	200.000	230.06(A)
62 m,p-Xylenes	106	8.407	8.407	(1.027)	6983196	400.000	485.03(A)
63 o-Xylene	106	8.748	8.748	(1.069)	3523648	200.000	235.49(A)
64 Styrene	104	8.759	8.759	(1.070)	5763441	200.000	250.85(A)
66 Bromoform	173	8.920	8.920	(1.090)	1484437	200.000	207.07(A)
67 Isopropylbenzene	105	9.063	9.063	(1.107)	8637564	200.000	198.65
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	2800981	200.000	201.55(A)
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	2804888	200.000	186.57
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	715330	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	2671988	200.000	225.61(A)
73 n-Propylbenzene	91	9.411	9.411	(0.925)	9390355	200.000	202.29(A)
74 Bromobenzene	156	9.317	9.317	(0.916)	2358754	200.000	207.47(A)
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	6663134	200.000	247.64(A)
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	5938208	200.000	223.57(A)
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	7120485	200.000	228.46(A)
78 tert-Butylbenzene	119	9.839	9.839	(0.967)	6182289	200.000	238.77(A)
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	6708498	200.000	242.55(A)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	8545916	200.000	198.80
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	7125106	200.000	198.73
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	4176175	200.000	208.27(A)
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	4453497	200.000	197.67
87 n-Butylbenzene	91	10.491	10.491	(1.031)	6555037	200.000	199.09
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	4292379	200.000	209.30(A)



89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	401927	200.000	232.45(A)
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	2706101	200.000	231.78(A)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091411.D Page 3

Report Date: 18-Sep-2023 12:31

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)	1099198	200.000	209.83(A)
92 Naphthalene	128	12.065	12.065	(1.186)	6850147	200.000	205.35(A)
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	2632662	200.000	237.51(A)
M 94 1,2-Dichloroethylene (total)	96				3895677	400.000	
M 95 Xylenes (total)	106				10506844	600.000	
135 1,4-Dioxane	88	6.169	6.169	(1.283)	431286	4000.00	3878.25
141 Cyclohexane	56	4.774	4.774	(0.993)	2438404	200.000	200.14(A)
138 Freon TF	101	2.322	2.322	(0.483)	1638859	200.000	200.00(A)
140 1,3-Butadiene	54	1.393	1.393	(0.290)	2133087	200.000	236.00(A)
147 Methylcyclohexane	55	5.944	5.944	(1.072)	4348902	200.000	241.52(A)
146 Methyl Acetate	43	2.701	2.701	(0.562)	2016180	200.000	217.35(A)
148 Tert-Butyl alcohol	59	2.960	2.960	(0.616)	4391311	4000.00	4684.50(A)
149 Isopropyl Alcohol	45	2.555	2.555	(0.531)	3113180	4000.00	4629.30(A)

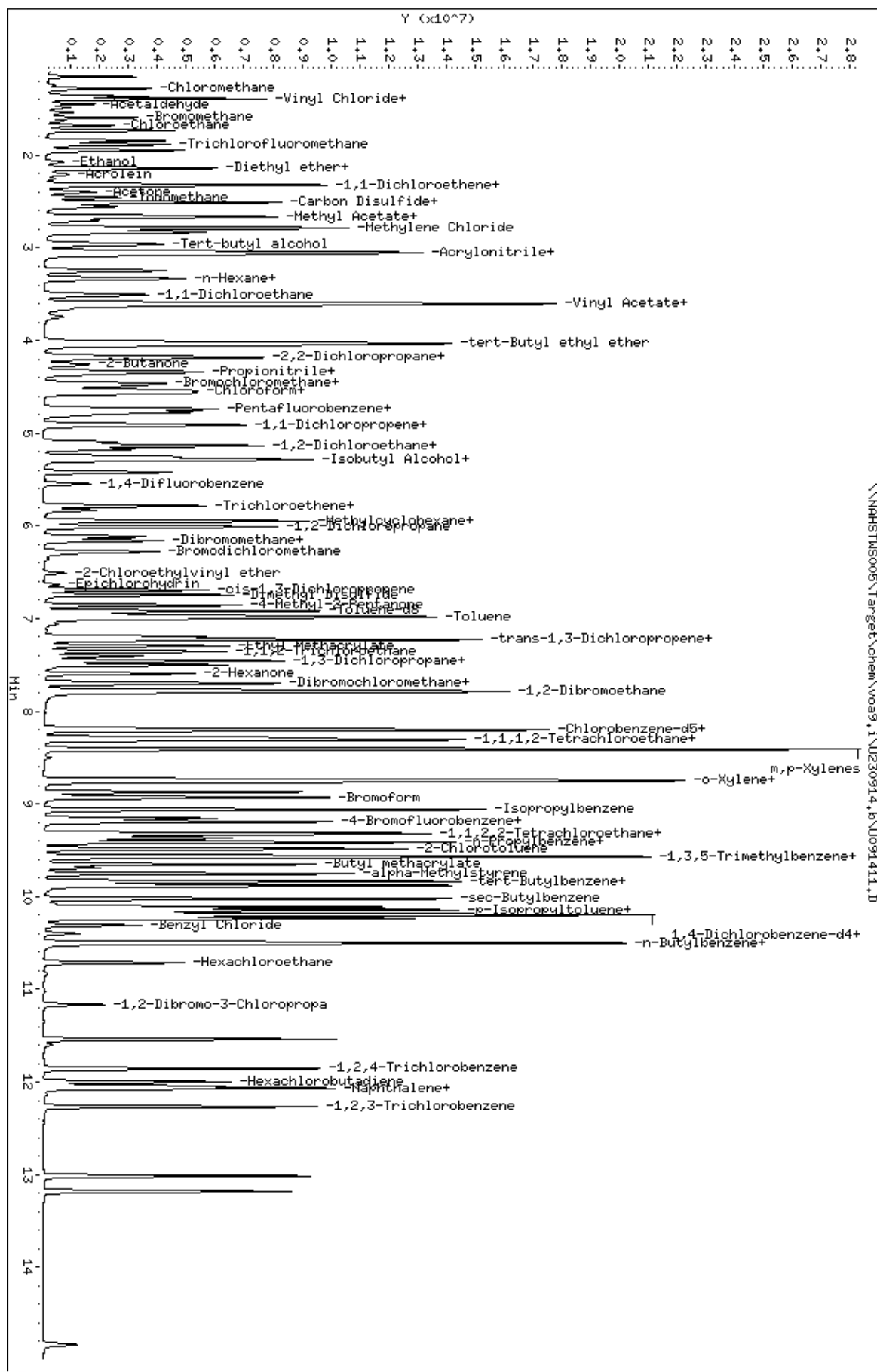
QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091411.D
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 Client ID: VSTD200
 Sample Info: VSTD200\VSTD2001110;
 Purge Volume: 5.0
 Column phase: DB624

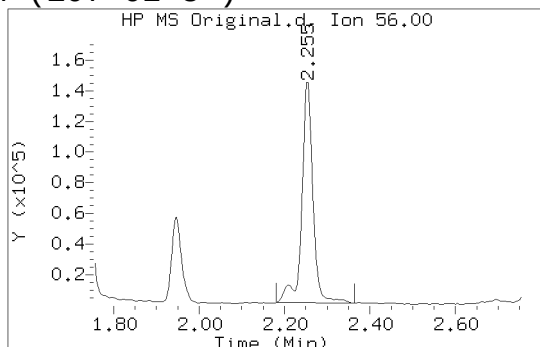
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 Operator: PC
 Column diameter: 0.18



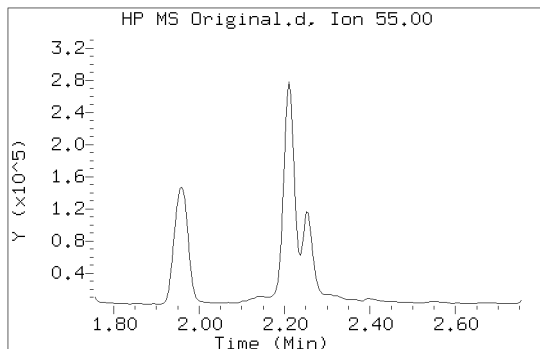
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Inj Date : 14-SEP-2023 19:28
InstruID : VOA9.i
LabSampID : VSTD200

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

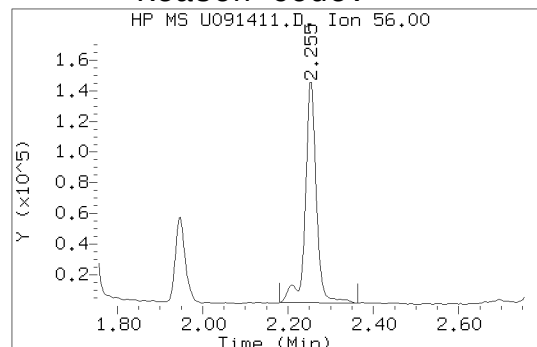
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56
AREA
267616
HEIGHT
143347
18-Sep-2023
12:30
linh

**BEFORE**

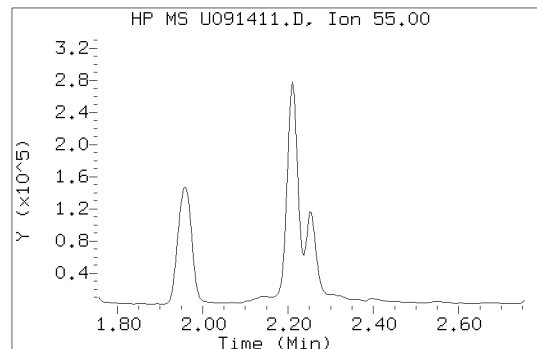
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AREA
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HEIGHT
77349
18-Sep-2023
12:30
linh
pham

**AFTER**

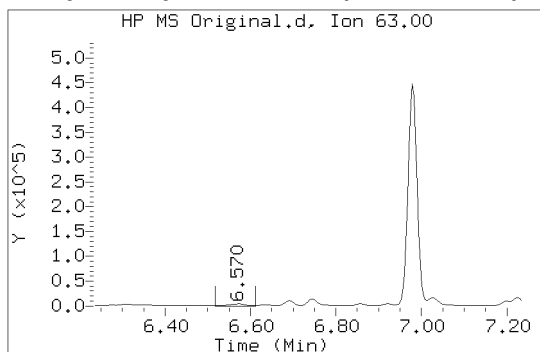
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267616
HEIGHT
143347
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linh

**AFTER**

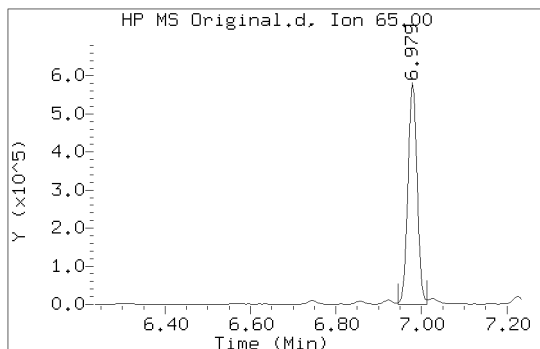
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55
AREA
121637
HEIGHT
77349
18-Sep-2023
12:30
linh
pham

**2-Chloroethylvinyl ether (110-75-8)****BEFORE**

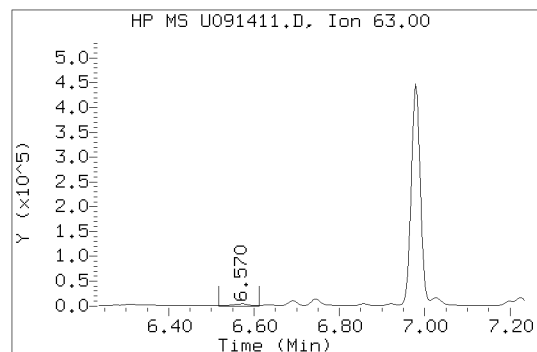
MASS
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AREA
13941
HEIGHT
4675
18-Sep-2023
12:30
linh
pham

**BEFORE**

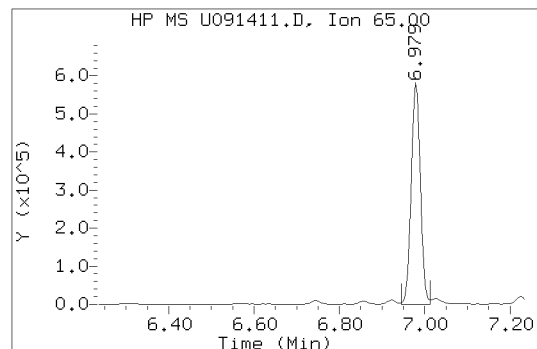
MASS
65
AREA
868455
HEIGHT
581330
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
63
AREA
13941
HEIGHT
4675
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
65
AREA
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HEIGHT
581330
18-Sep-2023
12:30
linh
pham

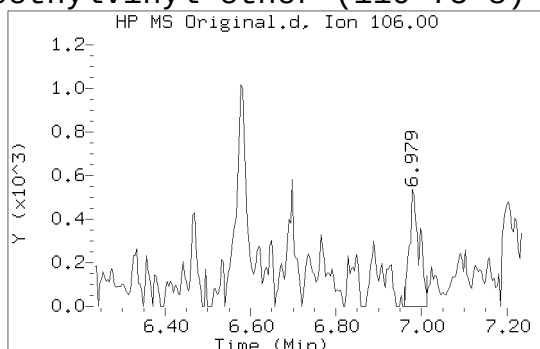


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091411.D
Inj Date : 14-SEP-2023 19:28
InstruID : VOA9.i
LabSampID : VSTD200

2-Chloroethylvinyl ether (110-75-8)

BEFORE

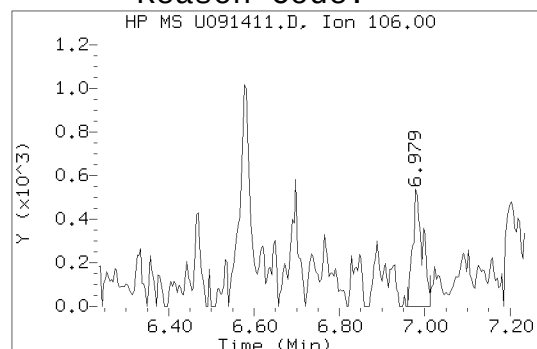
MASS
106
AREA
864
HEIGHT
538
18-Sep-2023
12:30
linh
pham



AFTER

MASS
106
AREA
864
HEIGHT
538
18-Sep-2023
12:30
linh
pham

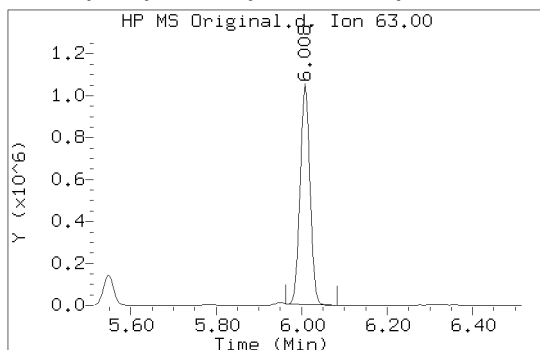
Reason Code:



1,2-Dichloropropane (78-87-5)

BEFORE

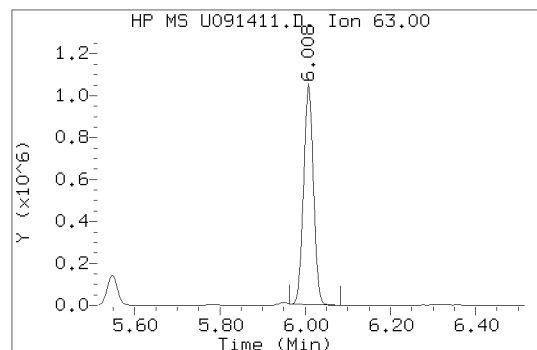
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HEIGHT
1052716
18-Sep-2023
12:30
linh
pham



AFTER

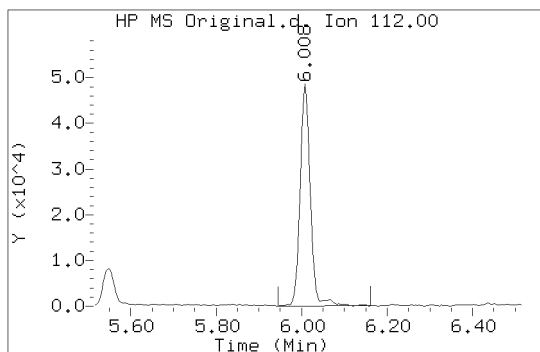
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HEIGHT
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18-Sep-2023
12:30
linh
pham

Reason Code:



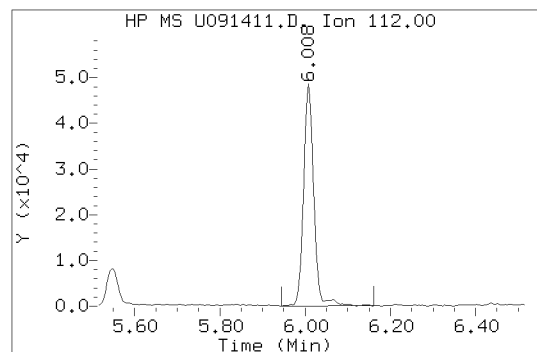
BEFORE

MASS
112
AREA
82026
HEIGHT
48516
18-Sep-2023
12:30
linh
pham



AFTER

MASS
112
AREA
82026
HEIGHT
48516
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091413.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091413.D
 Lab Smp Id: CCV Client Smp ID: CCV
 Inj Date : 14-SEP-2023 20:13
 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\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 14 QC Sample: METHSPIKE
 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				CONCENTRATIONS	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.815	4.808	(1.000)	762470	50.0000	
2 Dichlorodifluoromethane	85	1.168	1.153	(0.243)	373445	44.8060	44.80
3 Chloromethane	50	1.299	1.284	(0.270)	613546	43.4647	43.46
5 Vinyl Chloride	62	1.381	1.363	(0.287)	456551	47.1697	47.16
6 Bromomethane	94	1.621	1.591	(0.337)	254810	53.9337	53.93
7 Chloroethane	64	1.704	1.681	(0.354)	326184	45.8234	45.82
8 Trichlorofluoromethane	101	1.899	1.884	(0.394)	576233	46.4034	46.40
9 Acrolein	56	2.270	2.255	(0.471)	56069	85.7037	85.70
10 Acetone	43	2.412	2.397	(0.501)	373869	96.5981	96.59
11 1,1-Dichloroethene	96	2.337	2.322	(0.485)	341766	45.2851	45.28
15 Iodomethane	142	2.472	2.457	(0.513)	476890	107.268	107.26
16 Acrylonitrile	53	3.068	3.053	(0.637)	431945	97.1174	97.11
17 Methylene Chloride	84	2.798	2.784	(0.581)	443674	46.4573	46.45
18 Methyl tert-butyl ether	73	3.083	3.068	(0.640)	1137013	53.0633	53.06
19 Carbon Disulfide	76	2.525	2.510	(0.524)	1994333	97.8283	97.82
20 trans-1,2-Dichloroethene	96	3.061	3.050	(0.636)	383014	48.3782	48.37
21 Vinyl Acetate	43	3.608	3.597	(0.749)	2836526	101.269	101.26
22 1,1-Dichloroethane	63	3.514	3.507	(0.730)	749609	47.2111	47.21
24 2-Butanone	43	4.268	4.257	(0.886)	451092	97.6074	97.60
26 2,2-Dichloropropane	77	4.185	4.174	(0.869)	460574	47.9056	47.90



27 cis-1,2-Dichloroethene	96	4.197	4.189 (0.872)	444407	49.0944	49.09
28 Chloroform	83	4.575	4.568 (0.950)	730573	47.3872	47.38

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091413.D Page 2
Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.470	4.463	(0.928)	221891	46.7750	46.77	
\$ 30 Dibromofluoromethane	113	4.748	4.740	(0.986)	366520	52.6744	52.67	
31 1,1,1-Trichloroethane	97	4.744	4.737	(0.985)	494690	47.2502	47.25	
32 1,1-Dichloropropene	75	4.920	4.913	(0.886)	444906	46.3917	46.39	
33 1,2-Dichloroethane	62	5.179	5.171	(0.933)	535323	45.8422	45.84	
34 Carbon Tetrachloride	117	4.909	4.905	(0.884)	390361	45.4973	45.49	
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.093	(1.059)	412660	52.5221	52.52	
* 36 1,4-Difluorobenzene	114	5.554	5.546	(1.000)	1208072	50.0000		
37 Benzene	78	5.138	5.134	(0.925)	1437665	47.3803	47.38	
38 Trichloroethene	130	5.790	5.782	(1.043)	394023	44.6459	44.64	
39 Bromodichloromethane	83	6.277	6.277	(1.130)	465805	47.3312	47.33	
41 2-Chloroethylvinyl ether	63	6.566	6.570	(1.182)	3914	89.7724	89.77(M)	
42 1,2-Dichloropropane	63	6.011	6.007	(1.082)	400812	50.0216	50.02	
44 Dibromomethane	93	6.120	6.116	(1.102)	252818	45.8247	45.82	
45 4-Methyl-2-Pentanone	43	6.858	6.855	(0.838)	815463	97.6171	97.61	
46 cis-1,3-Dichloropropene	75	6.693	6.690	(1.205)	544821	44.9726	44.97	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1126682	50.0000		
\$ 48 Toluene-d8	98	6.922	6.918	(0.846)	1347261	54.2390	54.23	
50 Toluene	91	6.982	6.978	(0.853)	1516303	50.1201	50.12	
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	449839	45.3510	45.35	
52 2-Hexanone	43	7.593	7.593	(0.928)	541318	105.978	105.97	
53 1,1,2-Trichloroethane	83	7.357	7.353	(0.899)	308418	46.7513	46.75	
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	639759	48.2136	48.21	
55 Dibromochloromethane	129	7.690	7.691	(0.940)	395929	50.4227	50.42	
56 Tetrachloroethene	164	7.458	7.454	(0.911)	342764	48.6253	48.62	
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	384077	48.4428	48.44	
58 1-Chlorohexane	55	8.196	8.197	(1.476)	302754	41.4823	41.48	
59 Chlorobenzene	112	8.208	8.208	(1.003)	1030076	46.0342	46.03	
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	360975	47.9994	47.99	
61 Ethylbenzene	106	8.305	8.305	(1.015)	506381	50.5406	50.54	
62 m,p-Xylenes	106	8.406	8.407	(1.027)	1260997	100.084	100.08	
63 o-Xylene	106	8.748	8.748	(1.069)	624736	47.7110	47.71	
64 Styrene	104	8.759	8.759	(1.070)	1004768	49.9743	49.97	
66 Bromoform	173	8.920	8.920	(1.090)	249812	42.7012	42.70	
67 Isopropylbenzene	105	9.062	9.063	(1.107)	1494789	47.7375	47.73	
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	535133	47.5013	47.50	
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	577860	52.9595	52.95	
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	579889	50.0000		
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	472585	49.2242	49.22	
73 n-Propylbenzene	91	9.411	9.411	(0.926)	1689405	47.2430	47.24	
74 Bromobenzene	156	9.317	9.317	(0.916)	464477	50.3976	50.39	
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	1153378	52.8786	52.87	
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	1107535	51.4378	51.43	
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	1298176	51.3808	51.38	
78 tert-Butylbenzene	119	9.838	9.839	(0.968)	1069786	50.9670	50.96	
79 1,2,4-Trimethylbenzene	105	9.876	9.880	(0.971)	1196006	53.3442	53.34	
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	1407639	48.7491	48.74	
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	1165790	50.3945	50.39	
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	786169	48.3644	48.36	
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	844030	46.2147	46.21	
87 n-Butylbenzene	91	10.491	10.491	(1.032)	1030869	48.7630	48.76	
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	805152	48.4300	48.42	



89	1,2-Dibromo-3-Chloropropane	155	11.165	11.166 (1.098)	72413	51.6619	51.66
90	1,2,4-Trichlorobenzene	180	11.855	11.859 (1.166)	521982	55.1514	55.15

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091413.D Page 3
 Report Date: 18-Sep-2023 12:31

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	(1.180)	204226	48.0923	48.09
92 Naphthalene	128	12.065	12.065	(1.187)	1329508	51.2430	51.24
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	518198	57.6699	57.66
M 94 1,2-Dichloroethylene (total)	96				827421	97.5206	97.52
M 95 Xylenes (total)	106				1885733	142.615	142.61
135 1,4-Dioxane	88	6.172	6.169	(1.282)	101350	914.455	914.45
141 Cyclohexane	56	4.781	4.774	(0.993)	490305	47.4109	47.41
138 Freon TF	101	2.337	2.322	(0.485)	309471	49.3545	49.35
140 1,3-Butadiene	54	1.408	1.393	(0.292)	417668	46.3672	46.36
147 Methylcyclohexane	55	5.951	5.944	(1.072)	885318	49.9921	49.99
146 Methyl Acetate	43	2.716	2.701	(0.564)	440005	47.5945	47.59
148 Tert-Butyl alcohol	59	2.971	2.960	(0.617)	939019	1005.11	1005.10
149 Isopropyl Alcohol	45	2.566	2.555	(0.533)	648816	968.058	968.05
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	74288	43.6516	43.65
12 Isobutyl Alcohol	43	5.291	5.284	(1.099)	1108543	972.553	972.55
13 Acetonitrile	39	2.675	2.660	(0.555)	566596	487.050	487.04
14 Allyl Chloride	41	2.675	2.664	(0.555)	1282405	47.4353	47.43
25 Methacrylonitrile	41	4.497	4.489	(0.934)	323055	53.8984	53.89
40 Methyl Methacrylate	41	6.157	6.154	(1.279)	337141	53.9972	53.99
4 Propionitrile	54	4.343	4.335	(0.902)	802797	486.022	486.02
136 n-Hexane	57	3.346	3.331	(0.695)	423164	48.3941	48.39
194 Acetaldehyde	44	1.464	1.445	(0.304)	277537	183.566	183.56(M)
131 Methyl Acrylate	55	4.373	4.362	(0.908)	616486	51.9449	51.94
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	396963	44.4489	44.44
23 Chloroprene	53	2.161	2.146	(0.449)	155216	50.8747	50.87(M)
49 Ethyl Methacrylate	69	7.293	7.293	(1.313)	527359	50.0543	50.05
166 1,2,3-Trimethylbenzene	105	10.232	10.236	(1.006)	1166243	52.2956	52.29
167 Ethanol	45	2.082	2.075	(0.433)	142939	890.813	890.81
164 Dicyclopentadiene	66	10.198	10.198	(1.003)	1313737	46.0400	46.03
145 alpha-Methylstyrene	118	9.752	9.752	(0.959)	450685	51.5793	51.57
142 Tetrahydrofuran	42	4.545	4.538	(0.944)	193559	101.167	101.16
156 Diisopropyl ether	45	3.623	3.612	(0.752)	1601368	48.5394	48.53
151 4-Methyl-2-pentanol	45	7.222	7.226	(1.300)	1576918	1031.41	1031.41
150 Allyl alcohol	57	3.346	3.331	(0.695)	423164	959.625	959.62
86 Benzyl Chloride	91	10.311	10.311	(1.260)	276875	48.5185	48.51
162 Butyl acrylate	55	8.733	8.733	(1.067)	677049	51.8592	51.85
139 Diethyl ether	59	2.146	2.135	(0.446)	364931	48.2944	48.29
203 2-Ethylhexyl Acrylate	55	12.043	12.039	(1.184)	277284	53.0411	53.04
134 Cyclohexanone	55	9.156	9.156	(0.900)	350326	970.262	970.26
130 Ethyl Acetate	43	4.343	4.335	(0.902)	570589	50.3095	50.30
189 n-Butyl acetate	43	7.705	7.706	(0.941)	622183	46.1953	46.19
182 Epichlorohydrin	57	6.633	6.630	(1.194)	15998	169.075	169.07(M)
132 n-Butanol	56	5.831	5.831	(1.211)	222168	947.898	947.89
133 Ethyl Acrylate	55	5.951	5.944	(1.236)	885318	49.9291	49.92
163 Butyl methacrylate	41	9.651	9.651	(0.949)	412686	48.1493	48.14
174 tert-Amyl methyl ether	73	5.291	5.284	(1.099)	827355	48.8858	48.88(M)
175 tert-Butyl ethyl ether	59	4.054	4.043	(0.842)	1166776	49.9897	49.98
188 Isopropyl acetate	43	5.291	5.284	(0.953)	1108439	50.5796	50.57
179 Hexachloroethane	166	10.712	10.712	(1.053)	88328	44.0287	44.02

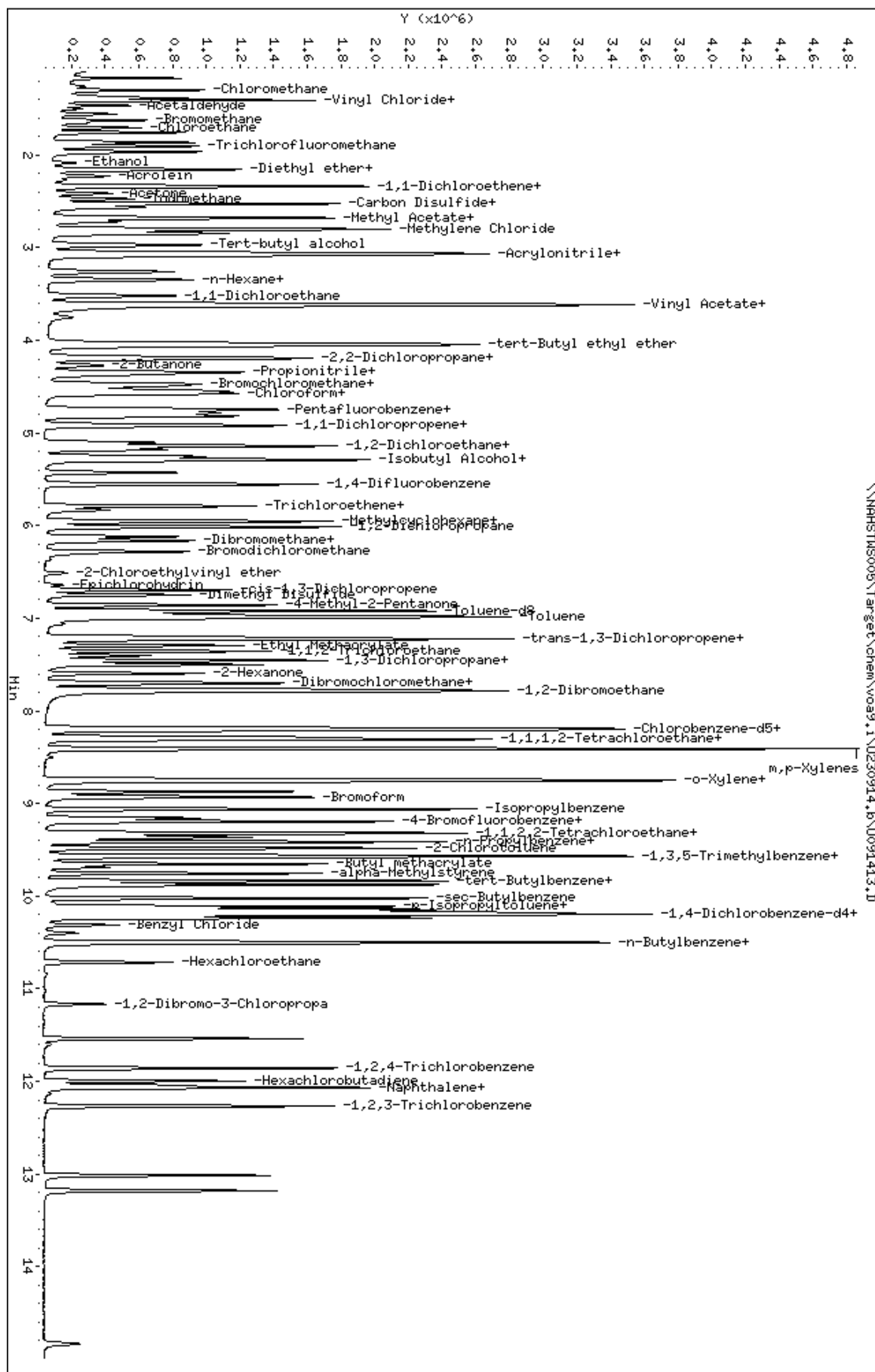


M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091413.D
 Date : 14-SEP-2023 20:13
 Client ID: CCV
 Sample Info: CCV\CCV\2;ICV
 Purge Volume: 5.0
 Column phase: DB624

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

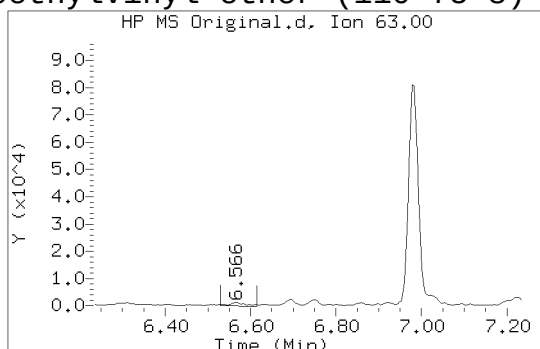


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091413.D
Inj Date : 14-SEP-2023 20:13
InstruID : VOA9.i
LabSampID : CCV

2-Chloroethylvinyl ether (110-75-8)

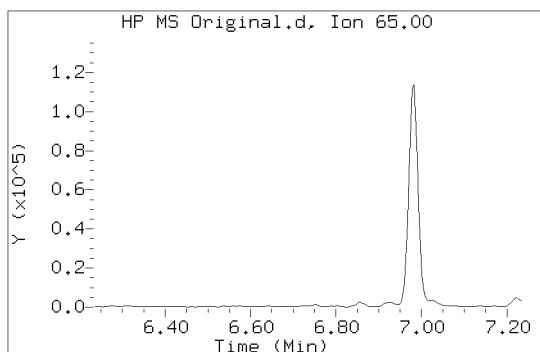
BEFORE

MASS
63
AREA
3914
HEIGHT
1394
18-Sep-2023
12:05
linh



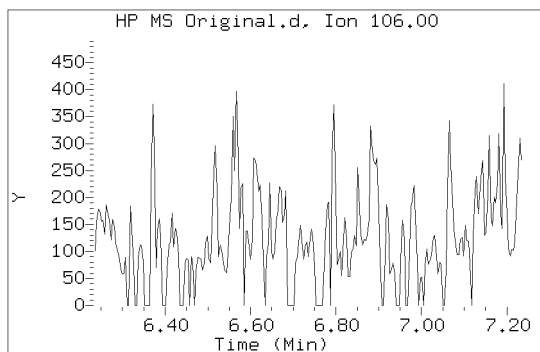
BEFORE

MASS
65
AREA
0
HEIGHT
0
18-Sep-2023
12:05
linh
pham



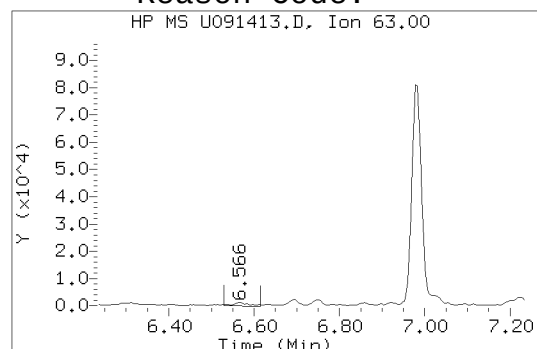
BEFORE

MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:05
linh
pham



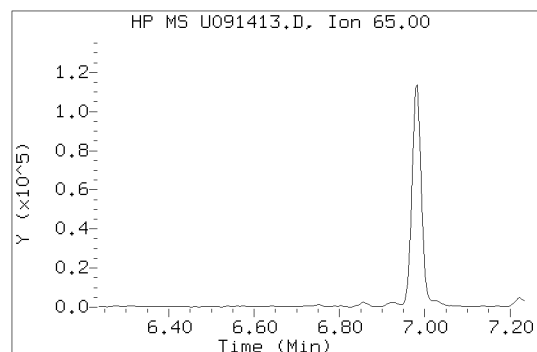
AFTER

MASS
63
AREA
3914
HEIGHT
1394
18-Sep-2023
12:31
linh



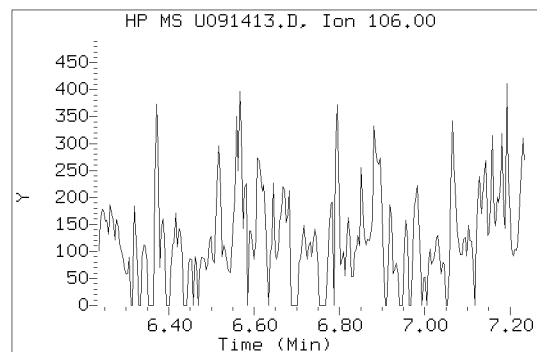
AFTER

MASS
65
AREA
0
HEIGHT
0
18-Sep-2023
12:31
linh
pham



AFTER

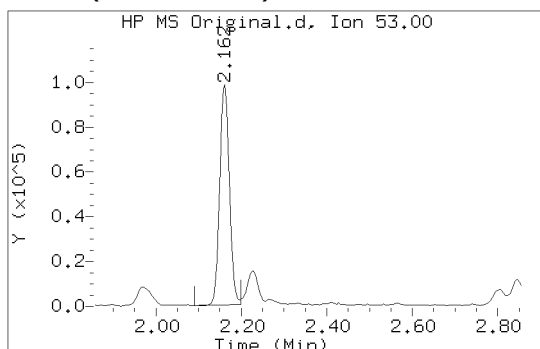
MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:31
linh
pham



Chloroprene (126-99-8)

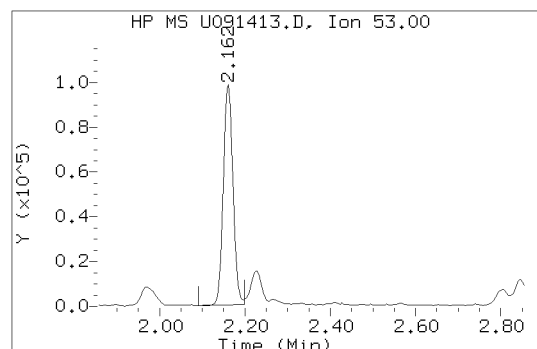
BEFORE

MASS
53
AREA
155216
HEIGHT
98361
18-Sep-2023
12:05
linh
pham



AFTER

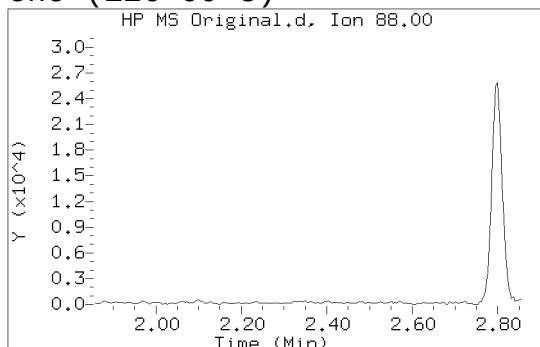
MASS
53
AREA
155216
HEIGHT
98361
18-Sep-2023
12:31
linh
pham



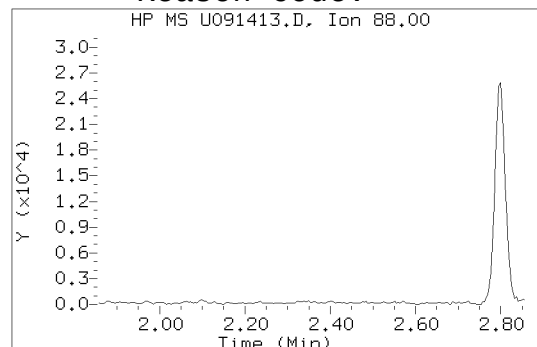
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091413.D
Inj Date : 14-SEP-2023 20:13
InstruID : VOA9.i
LabSampID : CCV

Chloroprene (126-99-8)**BEFORE**

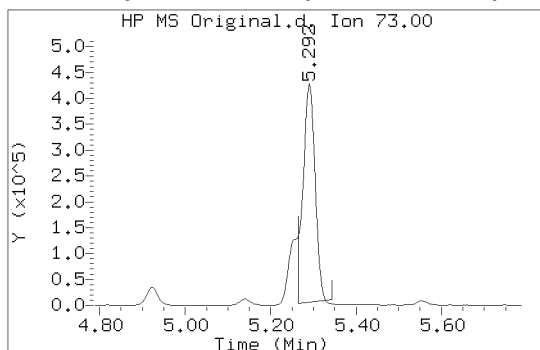
MASS
88
AREA
0
HEIGHT
0
18-Sep-2023
12:05
linh
pham

**AFTER**

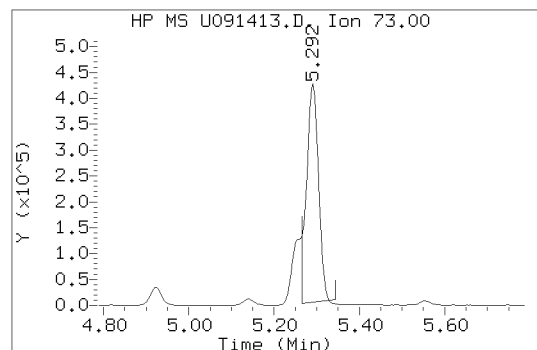
MASS
88
AREA
0
HEIGHT
0
18-Sep-2023
12:31
linh
pham

Reason Code:**tert-Amyl methyl ether (974-05-08)****BEFORE**

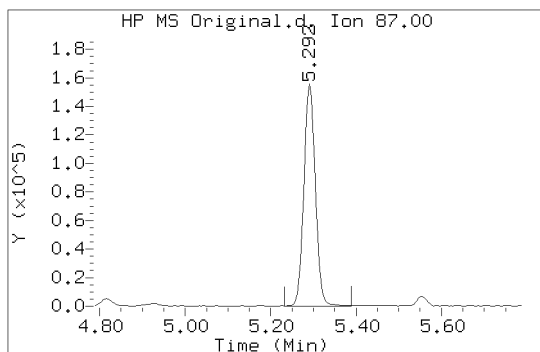
MASS
73
AREA
827355
HEIGHT
421884
18-Sep-2023
12:05
linh
pham

**AFTER**

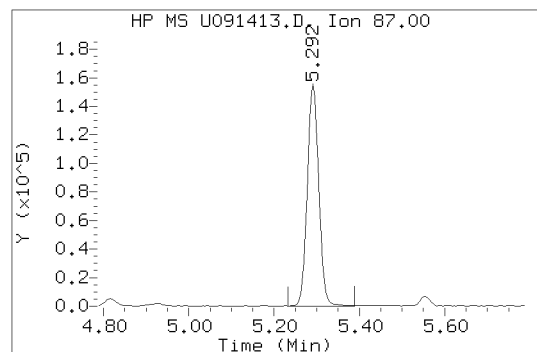
MASS
73
AREA
827355
HEIGHT
421884
18-Sep-2023
12:31
linh
pham

Reason Code:**BEFORE**

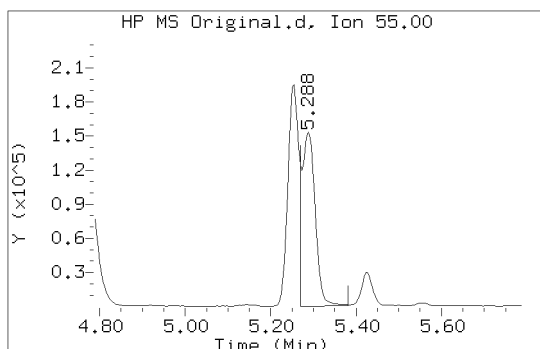
MASS
87
AREA
294664
HEIGHT
155583
18-Sep-2023
12:05
linh
pham

**AFTER**

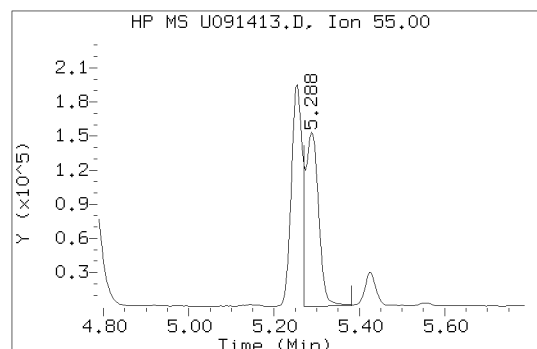
MASS
87
AREA
294664
HEIGHT
155583
18-Sep-2023
12:31
linh
pham

**BEFORE**

MASS
55
AREA
346417
HEIGHT
153157
18-Sep-2023
12:05
linh
pham

**AFTER**

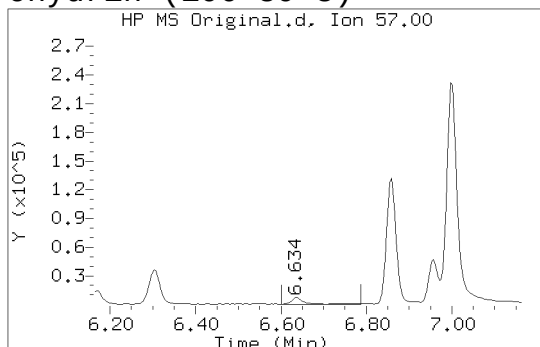
MASS
55
AREA
346417
HEIGHT
153157
18-Sep-2023
12:31
linh
pham



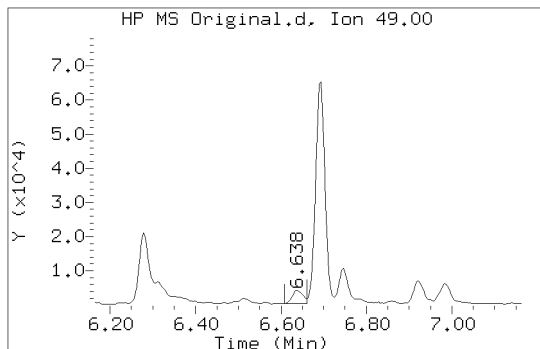
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091413.D
Inj Date : 14-SEP-2023 20:13
InstruID : VOA9.i
LabSampID : CCV

Epichlorohydrin (106-89-8)**BEFORE**

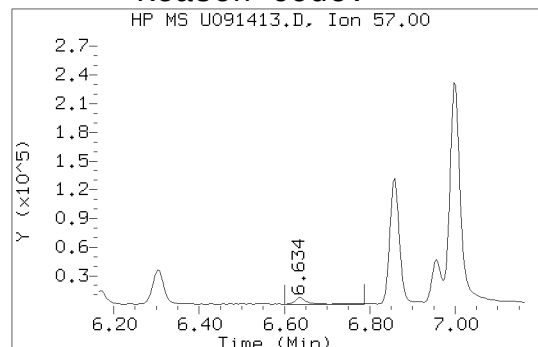
MASS
57
AREA
15998
HEIGHT
7408
18-Sep-2023
12:05
linh

**BEFORE**

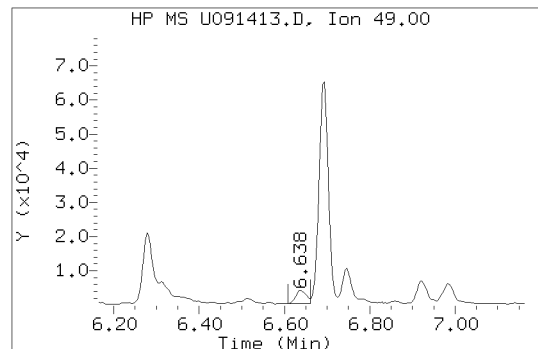
MASS
49
AREA
6932
HEIGHT
3899
18-Sep-2023
12:05
linh
pham

**AFTER**

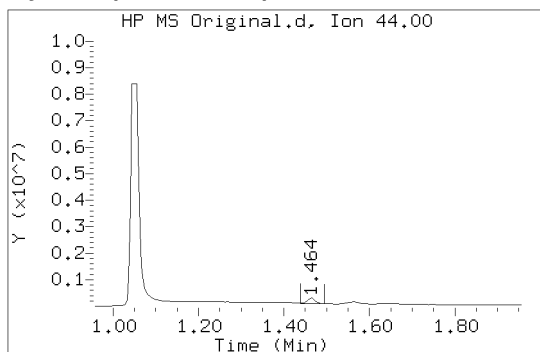
MASS
57
AREA
15998
HEIGHT
7408
18-Sep-2023
12:31
linh

**AFTER**

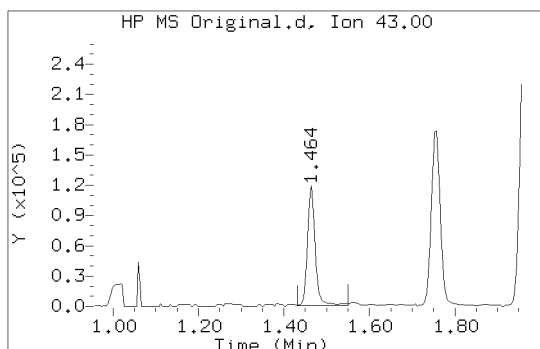
MASS
49
AREA
6932
HEIGHT
3899
18-Sep-2023
12:31
linh
pham

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

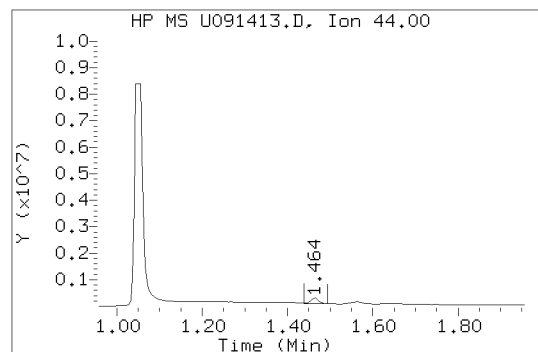
MASS
44
AREA
277537
HEIGHT
213565
18-Sep-2023
12:05
linh
pham

**BEFORE**

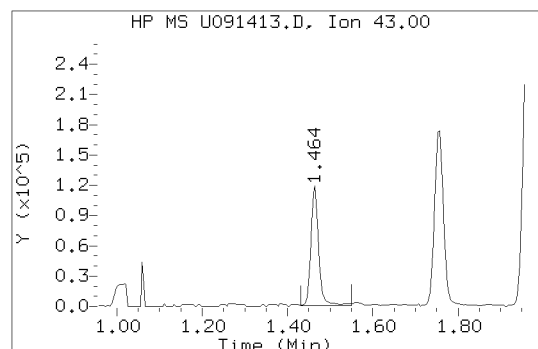
MASS
43
AREA
156467
HEIGHT
118995
18-Sep-2023
12:05
linh
pham

**AFTER**

MASS
44
AREA
277537
HEIGHT
213565
18-Sep-2023
12:31
linh
pham

**AFTER**

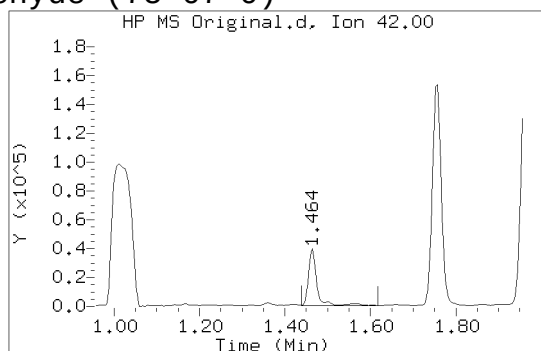
MASS
43
AREA
156467
HEIGHT
118995
18-Sep-2023
12:31
linh
pham



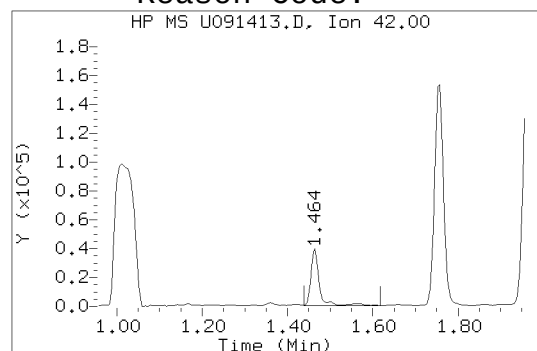
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091413.D
Inj Date : 14-SEP-2023 20:13
InstruID : VOA9.i
LabSampID : CCV

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

MASS
42
AREA
55755
HEIGHT
39637
18-Sep-2023
12:05
linh
pham

**AFTER**

MASS
42
AREA
55755
HEIGHT
39637
18-Sep-2023
12:31
linh
pham

Reason Code:



right solutions.
right partner.

Raw Data VOA9 446515

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090424

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant

09/18/2023

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\U230914.b\U091401.D Page 1
 Report Date: 15-Sep-2023 21:29

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D
 Lab Smp Id: BFB Client Smp ID: BFB
 Inj Date : 14-SEP-2023 14:11
 Operator : PC Inst ID: VOA9.i
 Smp Info : BFB;BFB;3;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.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: 64 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	196352			0.00-	100.00	100.00
9.193	9.180 (0.000)		50	36584			15.00-	40.00	18.63
9.193	9.180 (0.000)		75	93208			30.00-	60.00	47.47
9.193	9.180 (0.000)		96	11853			5.00-	9.00	6.04
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	180992			50.00-	0.00	92.18
9.193	9.180 (0.000)		175	15049			5.00-	9.00	8.31
9.193	9.180 (0.000)		176	172096			95.00-	101.00	95.08
9.193	9.180 (0.000)		177	11259			5.00-	9.00	6.54



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	47.47
96	5.00 - 9.00% of mass 95	6.04
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	92.18
175	5.00 - 9.00% of mass 174	7.66 (8.31)
176	95.00 - 101.00% of mass 174	87.65 (95.08)
177	5.00 - 9.00% of mass 176	5.73 (6.54)

Data File: U091401.D
 Spectrum: Scan 2297 (9.20)
 Location of Maximum: 95.05
 Number of points: 218

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	338	86.90	9041	138.30	188	206.60	61
35.90	1879	88.00	7559	138.80	139	207.20	53
37.00	9127	89.20	244	139.70	502	208.20	66
38.10	8259	91.00	1042	140.90	1886	208.80	64
39.10	4027	92.00	5247	142.00	526	211.10	108
40.00	818	93.00	9446	142.90	3162	211.80	69
41.00	420	94.00	24176	143.80	300	212.90	70
41.90	376	95.00	196352	144.90	1178	215.70	145
43.20	497	96.00	11853	146.00	452	218.30	168
44.10	2434	96.90	386	147.00	251	225.00	55
45.00	2046	97.40	447	147.90	677	228.20	62
46.30	459	98.10	179	148.80	237	228.60	83
47.00	2906	99.00	188	149.80	243	230.50	65
48.00	1615	100.00	249	152.00	287	234.40	63
49.00	8000	100.90	208	153.00	217	238.10	112
50.00	36584	101.70	167	153.60	167	239.90	60
51.00	10681	102.60	118	154.00	178	240.80	70
52.00	662	103.00	105	154.90	460	243.00	62
53.00	488	103.80	1048	155.90	234	243.70	63
53.70	317	104.60	258	157.00	527	245.60	74
54.10	347	105.90	942	158.10	181	250.70	66
55.00	770	106.60	274	158.80	355	256.90	65
56.00	3221	108.10	310	160.20	138	257.90	72
57.00	5330	109.90	258	161.00	280	258.70	64
58.00	518	111.00	542	161.90	227	267.60	53
59.00	237	112.10	258	162.50	84	268.70	74
60.00	2012	112.60	204	164.50	162	269.30	62
61.00	9606	113.40	85	165.20	165	275.30	85
62.00	9229	114.00	158	166.20	131	276.30	56
63.00	7568	114.80	324	167.10	74	279.30	53
64.00	1491	115.90	892	168.50	162	280.90	113
65.00	1328	116.90	1588	169.30	253	282.30	61
66.10	341	117.90	1185	169.90	185	286.30	55
66.90	716	119.00	1168	170.30	223	291.30	116
67.20	785	120.10	122	171.10	662	292.50	56
68.00	18336	121.00	110	171.90	2940	296.30	51
69.00	17200	121.60	67	173.90	180992	307.50	70
70.00	1353	122.60	259	175.00	15049	308.60	88
72.00	1009	123.20	367	175.90	172096	312.00	59
73.00	8530	123.80	303	177.00	11259	317.00	58
74.00	32336	124.90	97	178.00	251	317.80	52
75.00	93208	125.50	236	179.20	162	318.10	53
76.00	7896	126.60	148	180.90	99	318.90	152
77.00	1458	127.90	660	182.20	85	321.80	115
77.70	1123	129.00	310	187.00	100	323.10	69

78.90	6903	129.90	862	188.70	63	330.30	81
80.00	2305	130.90	523	191.60	140	332.30	53
80.90	7871	131.80	200	193.40	104	333.70	79
82.00	2213	133.00	58	195.10	120	343.40	81
82.80	270	133.90	237	195.60	75	344.50	66
83.30	198	134.80	467	197.30	70	345.60	69
84.00	274	135.90	209	198.30	228	347.10	77
84.50	197	136.70	404	201.10	77	347.50	73
85.40	209	137.10	362	203.20	68		
86.10	524	137.80	93	205.80	57		

Data File: \\NAHSTWS005\Target\chem\voa9,i\U230914,b\U091401.D

Page 1

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9,i

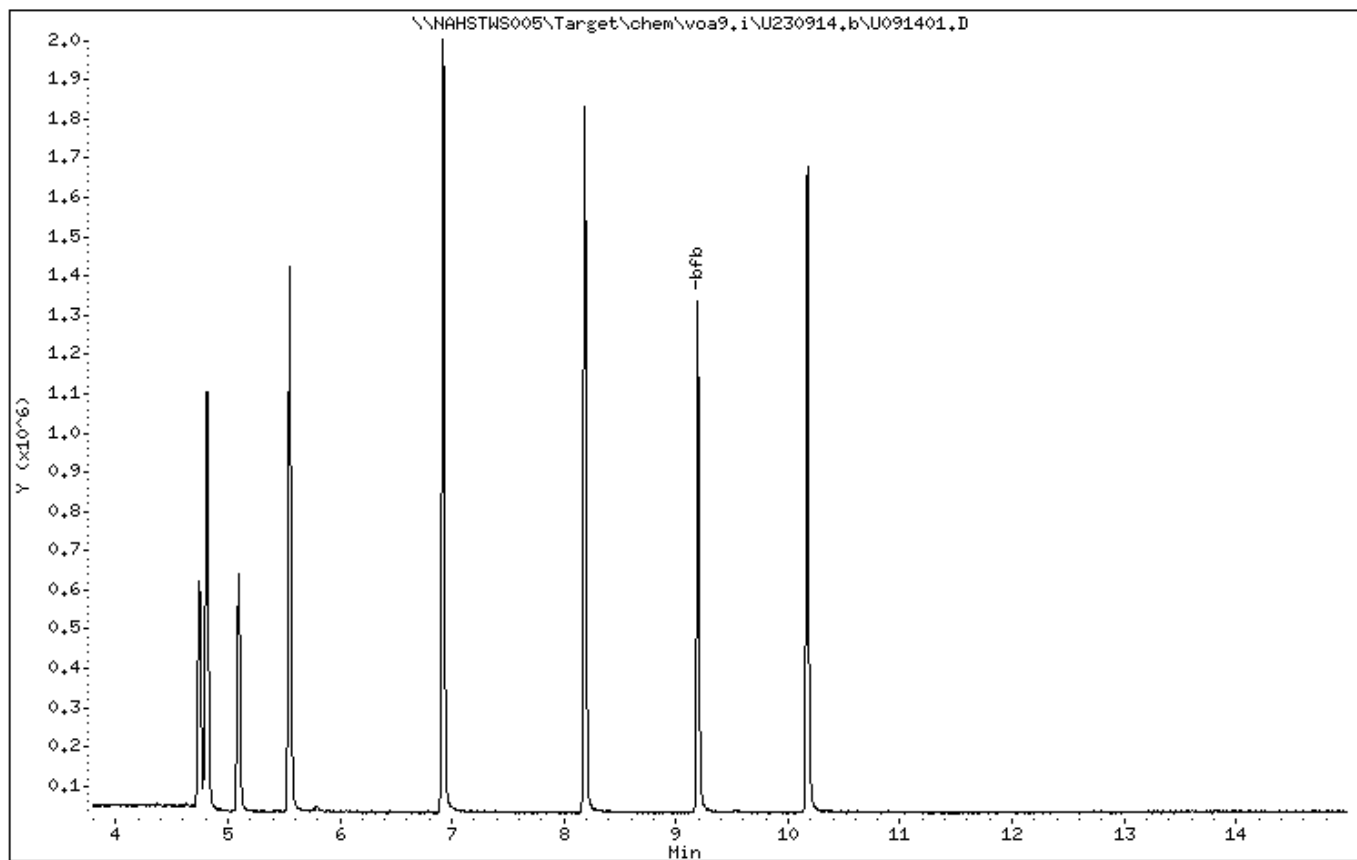
Sample Info: BFB;BFB;3;;;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0,25



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 2

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;;

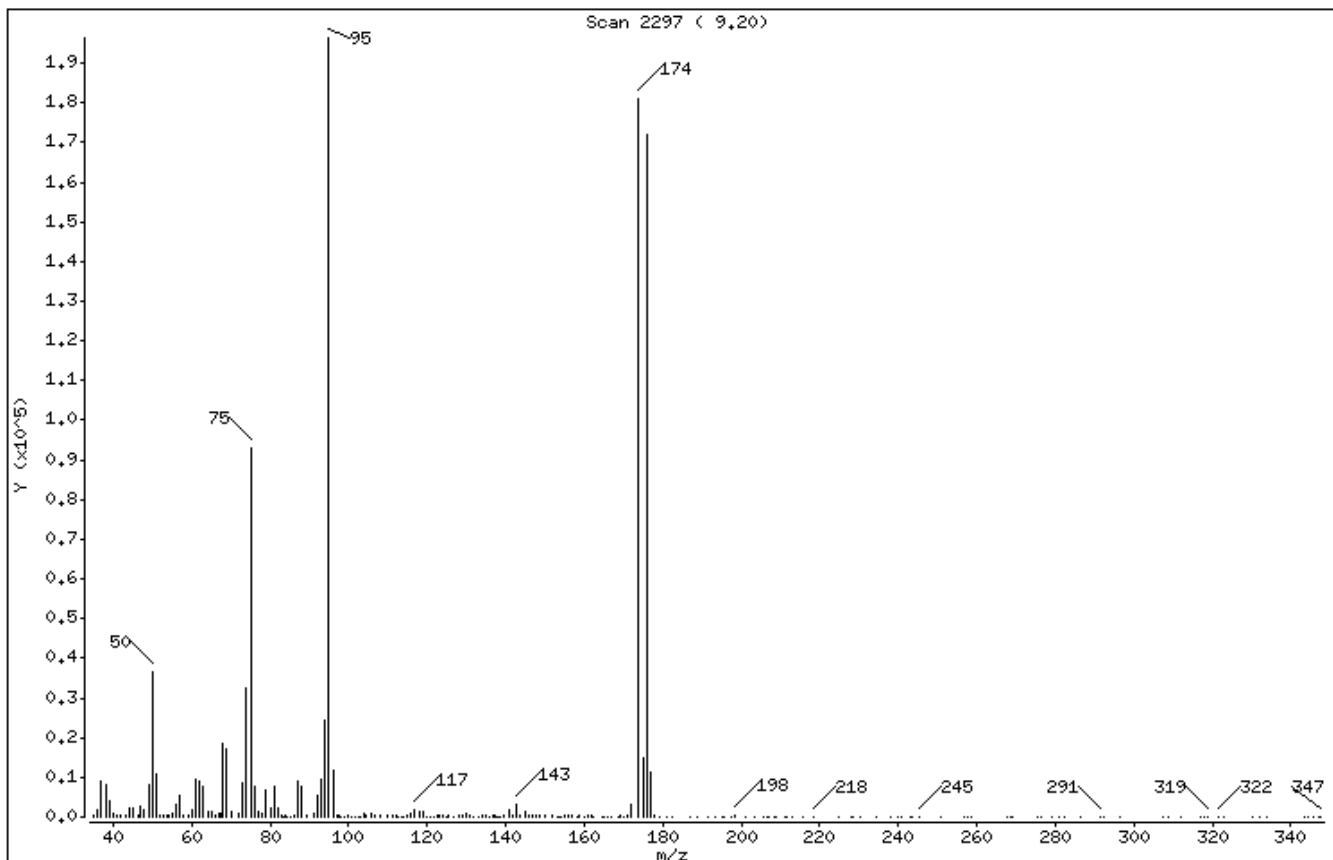
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.63
75	30.00 - 60.00% of mass 95	47.47
96	5.00 - 9.00% of mass 95	6.04
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	92.18
175	5.00 - 9.00% of mass 174	7.66 (8.31)
176	95.00 - 101.00% of mass 174	87.65 (95.08)
177	5.00 - 9.00% of mass 176	5.73 (6.54)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 3

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB:BFB;3;;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: U091401.D
 Spectrum: Scan 2297 (9.20)
 Location of Maximum: 95.05
 Number of points: 218

m/z	Y	m/z	Y	m/z	Y	m/z	Y

35.10	338	86.90	9041	138.30	188	206.60	61
35.90	1879	88.00	7559	138.80	139	207.20	53
37.00	9127	89.20	244	139.70	502	208.20	66
38.10	8259	91.00	1042	140.90	1886	208.80	64
39.10	4027	92.00	5247	142.00	526	211.10	108

40.00	818	93.00	9446	142.90	3162	211.80	69
41.00	420	94.00	24176	143.80	300	212.90	70
41.90	376	95.00	196352	144.90	1178	215.70	145
43.20	497	96.00	11853	146.00	452	218.30	168
44.10	2434	96.90	386	147.00	251	225.00	55

45.00	2046	97.40	447	147.90	677	228.20	62
46.30	459	98.10	179	148.80	237	228.60	83
47.00	2906	99.00	188	149.80	243	230.50	65
48.00	1615	100.00	249	152.00	287	234.40	63
49.00	8000	100.90	208	153.00	217	238.10	112

50.00	36584	101.70	167	153.60	167	239.90	60
51.00	10681	102.60	118	154.00	178	240.80	70
52.00	662	103.00	105	154.90	460	243.00	62
53.00	488	103.80	1048	155.90	234	243.70	63
53.70	317	104.60	258	157.00	527	245.60	74

54.10	347	105.90	942	158.10	181	250.70	66
55.00	770	106.60	274	158.80	355	256.90	65
56.00	3221	108.10	310	160.20	138	257.90	72
57.00	5330	109.90	258	161.00	280	258.70	64
58.00	518	111.00	542	161.90	227	267.60	53

59.00	237	112.10	258	162.50	84	268.70	74
60.00	2012	112.60	204	164.50	162	269.30	62
61.00	9606	113.40	85	165.20	165	275.30	85
62.00	9229	114.00	158	166.20	131	276.30	56
63.00	7568	114.80	324	167.10	74	279.30	53

64.00	1491	115.90	892	168.50	162	280.90	113
65.00	1328	116.90	1588	169.30	253	282.30	61
66.10	341	117.90	1185	169.90	185	286.30	55
66.90	716	119.00	1168	170.30	223	291.30	116
67.20	785	120.10	122	171.10	662	292.50	56

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 4

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: V0A9.i

Sample Info: BFB;BFB;3;3;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: U091401.D
 Spectrum: Scan 2297 (9.20)
 Location of Maximum: 95.05
 Number of points: 218

m/z	Y	m/z	Y	m/z	Y	m/z	Y
+-----+-----+-----+-----+-----+-----+-----+-----+							
68.00	18336	121.00	110	171.90	2940	296.30	51
69.00	17200	121.60	67	173.90	180992	307.50	70
70.00	1353	122.60	259	175.00	15049	308.60	88
72.00	1009	123.20	367	175.90	172096	312.00	59
73.00	8530	123.80	303	177.00	11259	317.00	58
+-----+-----+-----+-----+-----+-----+-----+-----+							
74.00	32336	124.90	97	178.00	251	317.80	52
75.00	93208	125.50	236	179.20	162	318.10	53
76.00	7896	126.60	148	180.90	99	318.90	152
77.00	1458	127.90	660	182.20	85	321.80	115
77.70	1123	129.00	310	187.00	100	323.10	69
+-----+-----+-----+-----+-----+-----+-----+-----+							
78.90	6903	129.90	862	188.70	63	330.30	81
80.00	2305	130.90	523	191.60	140	332.30	53
80.90	7871	131.80	200	193.40	104	333.70	79
82.00	2213	133.00	58	195.10	120	343.40	81
82.80	270	133.90	237	195.60	75	344.50	66
+-----+-----+-----+-----+-----+-----+-----+-----+							
83.30	198	134.80	467	197.30	70	345.60	69
84.00	274	135.90	209	198.30	228	347.10	77
84.50	197	136.70	404	201.10	77	347.50	73
85.40	209	137.10	362	203.20	68		
86.10	524	137.80	93	205.80	57		
+-----+-----+-----+-----+-----+-----+-----+-----+							

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091416.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091416.D
 Lab Smp Id: VLCSW-230914 Client Smp ID: VLCSW-230914
 Inj Date : 14-SEP-2023 21:20
 Operator : PC Inst ID: VOA9.i
 Smp Info : VLCSW-230914;VLCSW-230914;3;;LCS
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 17 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		4.808	4.808	(1.000)		766533	50.0000	
2 Dichlorodifluoromethane	85		1.153	1.153	(0.240)		126029	15.9297	15.92
3 Chloromethane	50		1.284	1.284	(0.267)		249547	17.0027	17.00
5 Vinyl Chloride	62		1.366	1.363	(0.284)		169112	17.3796	17.37
6 Bromomethane	94		1.610	1.591	(0.335)		97086	20.7184	20.71
7 Chloroethane	64		1.689	1.681	(0.351)		123540	17.2633	17.26
8 Trichlorofluoromethane	101		1.884	1.884	(0.392)		205641	16.4723	16.47
9 Acrolein	56		2.251	2.255	(0.468)		24306	36.9557	36.95(M)
10 Acetone	43		2.397	2.397	(0.499)		162652	40.5759	40.57
11 1,1-Dichloroethene	96		2.322	2.322	(0.483)		128829	16.9798	16.97
15 Iodomethane	142		2.457	2.457	(0.511)		181913	44.4862	44.48
16 Acrylonitrile	53		3.057	3.053	(0.636)		169957	38.0102	38.01
17 Methylene Chloride	84		2.783	2.784	(0.579)		179888	19.7466	19.74
18 Methyl tert-butyl ether	73		3.068	3.068	(0.638)		447241	20.7617	20.76
19 Carbon Disulfide	76		2.510	2.510	(0.522)		745165	36.3589	36.35
20 trans-1,2-Dichloroethene	96		3.050	3.050	(0.634)		148180	18.6173	18.61
21 Vinyl Acetate	43		3.597	3.597	(0.748)		1073433	38.1203	38.12
22 1,1-Dichloroethane	63		3.503	3.507	(0.729)		292665	18.3346	18.33
24 2-Butanone	43		4.260	4.257	(0.886)		174308	37.5169	37.51
26 2,2-Dichloropropane	77		4.170	4.174	(0.867)		165216	17.0935	17.09



27 cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	169390	18.6136	18.61
28 Chloroform	83	4.564	4.568 (0.949)	286328	18.4737	18.47

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091416.D Page 2
Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.459	4.463	(0.927)	88950	18.6514	18.65
\$ 30 Dibromofluoromethane	113	4.740	4.740	(0.986)	362705	51.8531	51.85
31 1,1,1-Trichloroethane	97	4.733	4.737	(0.984)	188519	17.9109	17.91
32 1,1-Dichloropropene	75	4.913	4.913	(0.885)	163504	17.0711	17.07
33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	218900	18.7696	18.76
34 Carbon Tetrachloride	117	4.901	4.905	(0.883)	136694	15.9525	15.95
\$ 35 1,2-Dichloroethane-d4	65	5.093	5.093	(1.059)	398262	50.4149	50.41
* 36 1,4-Difluorobenzene	114	5.550	5.546	(1.000)	1206515	50.0000	
37 Benzene	78	5.134	5.134	(0.925)	570744	18.8340	18.83
38 Trichloroethene	130	5.782	5.782	(1.042)	155481	17.6400	17.63
39 Bromodichloromethane	83	6.277	6.277	(1.131)	176488	17.9564	17.95
41 2-Chloroethylvinyl ether	63	6.566	6.570	(1.183)	1556	36.0484	36.04
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	159675	19.9533	19.95
44 Dibromomethane	93	6.116	6.116	(1.102)	101032	18.3363	18.33
45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	305286	37.8733	37.87
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	188913	17.6723	17.67
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1134902	50.0000	
\$ 48 Toluene-d8	98	6.918	6.918	(0.845)	1310629	52.3821	52.38
50 Toluene	91	6.978	6.978	(0.853)	604133	19.8245	19.82
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	156858	17.3926	17.39
52 2-Hexanone	43	7.593	7.593	(0.928)	210448	40.9028	40.90
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	122776	18.4761	18.47
54 1,3-Dichloropropane	76	7.496	7.499	(0.916)	260273	19.4727	19.47
55 Dibromochloromethane	129	7.690	7.691	(0.940)	147057	18.5925	18.59
56 Tetrachloroethene	164	7.454	7.454	(0.911)	134020	18.8747	18.87
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	158428	19.8374	19.83
58 1-Chlorohexane	55	8.197	8.197	(1.477)	115240	15.8102	15.81
59 Chlorobenzene	112	8.208	8.208	(1.003)	419958	18.6320	18.63
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	140482	18.5448	18.54
61 Ethylbenzene	106	8.305	8.305	(1.015)	191746	18.9991	18.99
62 m,p-Xylenes	106	8.406	8.407	(1.027)	476800	37.5691	37.56
63 o-Xylene	106	8.748	8.748	(1.069)	233699	17.7183	17.71
64 Styrene	104	8.759	8.759	(1.070)	380636	18.7946	18.79
66 Bromoform	173	8.916	8.920	(1.089)	97571	18.7400	18.74
67 Isopropylbenzene	105	9.062	9.063	(1.107)	556106	18.9791	18.97
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	215891	18.8644	18.86
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	559996	51.0481	51.04
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	589088	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	189681	19.4485	19.44
73 n-Propylbenzene	91	9.411	9.411	(0.926)	599835	18.4751	18.47
74 Bromobenzene	156	9.317	9.317	(0.916)	186034	19.8702	19.87
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	419360	18.9260	18.92
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	430289	19.6721	19.67
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	486600	18.9585	18.95
78 tert-Butylbenzene	119	9.835	9.839	(0.967)	383283	17.9753	17.97
79 1,2,4-Trimethylbenzene	105	9.876	9.880	(0.971)	458779	20.1429	20.14
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	483615	18.0587	18.05
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	410769	19.1469	19.14
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	312818	18.9438	18.94
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	333888	17.9965	17.99
87 n-Butylbenzene	91	10.491	10.491	(1.032)	344833	17.8892	17.88
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	318264	18.8447	18.84



89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	25935	18.2140	18.21
90	1,2,4-Trichlorobenzene	180	11.855	11.859 (1.166)	185733	19.3177	19.31

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091416.D Page 3
 Report Date: 18-Sep-2023 12:31

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	(1.180)	70291	16.2940	16.29
92 Naphthalene	128	12.065	12.065	(1.187)	454194	19.0450	19.04
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	189088	20.7149	20.71
M 94 1,2-Dichloroethylene (total)	96				317570	37.2307	37.23
M 95 Xylenes (total)	106				710499	53.8033	53.80
135 1,4-Dioxane	88	6.169	6.169	(1.283)	39327	352.957	352.95
141 Cyclohexane	56	4.774	4.774	(0.993)	178387	17.8778	17.87
138 Freon TF	101	2.322	2.322	(0.483)	106704	17.6177	17.61
140 1,3-Butadiene	54	1.389	1.393	(0.289)	150104	16.5754	16.57
147 Methylcyclohexane	55	5.947	5.944	(1.072)	361278	20.4270	20.42
146 Methyl Acetate	43	2.705	2.701	(0.563)	169958	18.2866	18.28
148 Tert-Butyl alcohol	59	2.956	2.960	(0.615)	390811	416.099	416.09
149 Isopropyl Alcohol	45	2.551	2.555	(0.531)	259582	385.253	385.25
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	28003	17.3889	17.38
12 Isobutyl Alcohol	43	5.284	5.284	(1.099)	429895	398.081	398.08
13 Acetonitrile	39	2.660	2.660	(0.553)	232405	198.718	198.71
14 Allyl Chloride	41	2.660	2.664	(0.553)	522450	19.2227	19.22
25 Methacrylonitrile	41	4.489	4.489	(0.934)	111475	18.4999	18.49
40 Methyl Methacrylate	41	6.157	6.154	(1.281)	129352	20.6075	20.60
4 Propionitrile	54	4.332	4.335	(0.901)	312951	188.460	188.45(a)
136 n-Hexane	57	3.331	3.331	(0.693)	137359	16.7031	16.70
194 Acetaldehyde	44	1.449	1.445	(0.301)	130926	81.8606	81.86(M)
131 Methyl Acrylate	55	4.362	4.362	(0.907)	235494	19.7375	19.73
200 Dimethyl Disulfide	94	6.742	6.746	(0.824)	114860	17.1511	17.15
23 Chloroprene	53	2.146	2.146	(0.446)	55323	18.0370	18.03
49 Ethyl Methacrylate	69	7.289	7.293	(1.313)	206367	19.6126	19.61
166 1,2,3-Trimethylbenzene	105	10.232	10.236	(1.006)	481239	21.2423	21.24
167 Ethanol	45	2.067	2.075	(0.430)	57528	356.621	356.62
164 Dicyclopentadiene	66	10.198	10.198	(1.003)	563873	20.8952	20.89
145 alpha-Methylstyrene	118	9.752	9.752	(0.959)	161857	19.7346	19.73
142 Tetrahydrofuran	42	4.538	4.538	(0.944)	76178	39.6047	39.60
156 Diisopropyl ether	45	3.612	3.612	(0.751)	647072	19.5096	19.50
151 4-Methyl-2-pentanol	45	7.222	7.226	(1.301)	610326	427.882	427.88
150 Allyl alcohol	57	3.331	3.331	(0.693)	137359	331.471	331.47
86 Benzyl Chloride	91	10.311	10.311	(1.260)	101591	19.1685	19.16
162 Butyl acrylate	55	8.733	8.733	(1.067)	244701	20.3986	20.39
139 Diethyl ether	59	2.131	2.135	(0.443)	141962	18.6874	18.68
203 2-Ethylhexyl Acrylate	55	12.043	12.039	(1.184)	106838	21.9842	21.98
134 Cyclohexanone	55	9.156	9.156	(0.900)	150196	427.794	427.79(a)
130 Ethyl Acetate	43	4.335	4.335	(0.902)	227128	19.9200	19.91
189 n-Butyl acetate	43	7.705	7.706	(0.941)	234444	18.8564	18.85
182 Epichlorohydrin	57	6.633	6.630	(1.195)	7671	81.1755	81.17(M)
132 n-Butanol	56	5.831	5.831	(1.213)	81600	392.267	392.26(a)
133 Ethyl Acrylate	55	5.947	5.944	(1.237)	361278	20.2669	20.26
163 Butyl methacrylate	41	9.651	9.651	(0.949)	165662	19.7746	19.77
174 tert-Amyl methyl ether	73	5.284	5.284	(1.099)	390052	23.8896	23.88
175 tert-Butyl ethyl ether	59	4.039	4.043	(0.840)	443935	20.6445	20.64
188 Isopropyl acetate	43	5.284	5.284	(0.952)	429958	19.6449	19.64
179 Hexachloroethane	166	10.712	10.712	(1.053)	43898	21.1724	21.17



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

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091416.D Page 4
Report Date: 18-Sep-2023 12:31

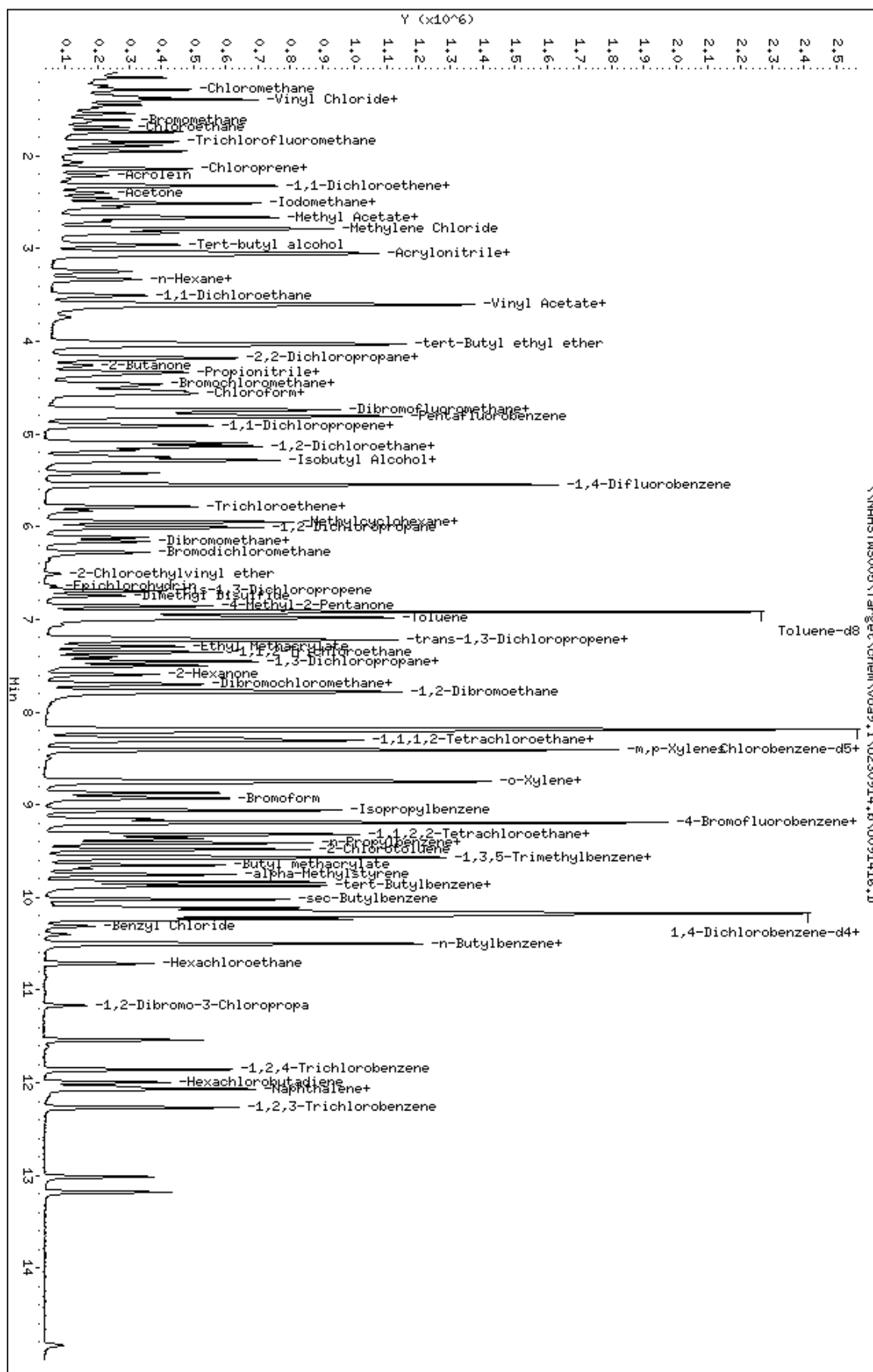
QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091416.D
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 Client ID: WLCM-230914
 Sample Info: WLCM-230914;WLCM-230914;3;1LCS
 Purge Volume: 5.0
 Column phase: DB624

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

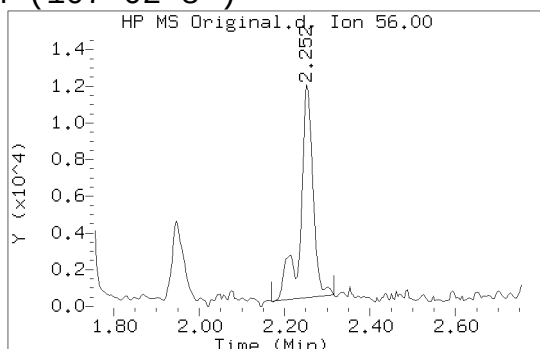


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Inj Date : 14-SEP-2023 21:20
InstruID : VOA9.i
LabSampID : VLCSW-230914

Acrolein (107-02-8)

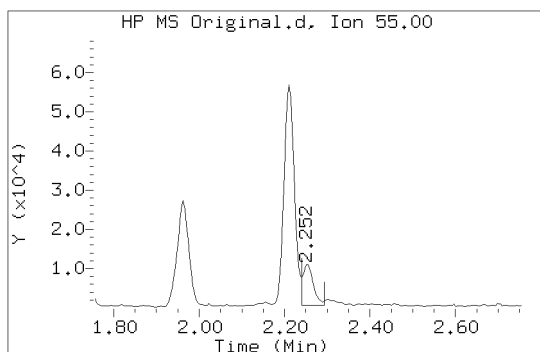
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MASS
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HEIGHT
11603
18-Sep-2023
12:31
linh



BEFORE

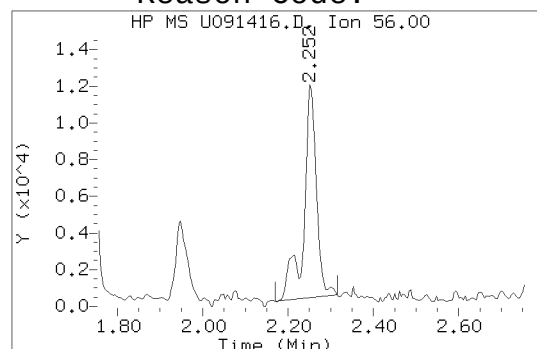
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AFTER

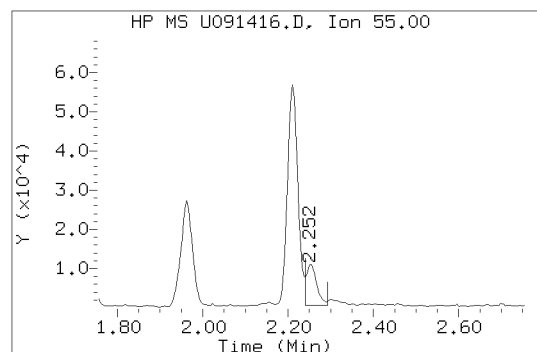
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Reason Code:



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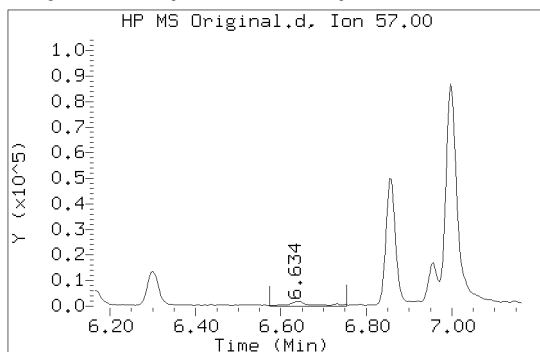
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pham



Epichlorohydrin (106-89-8)

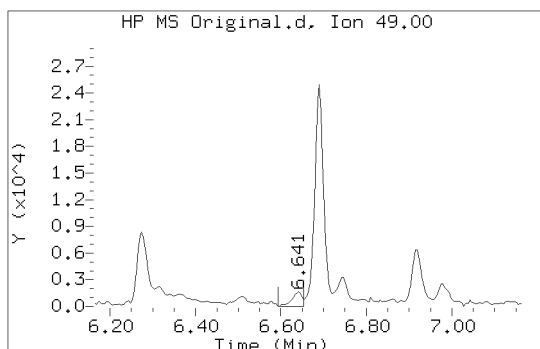
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BEFORE

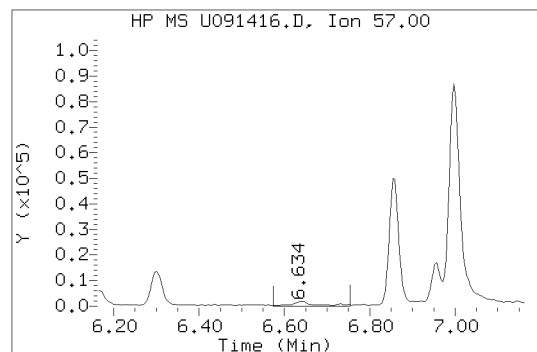
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AFTER

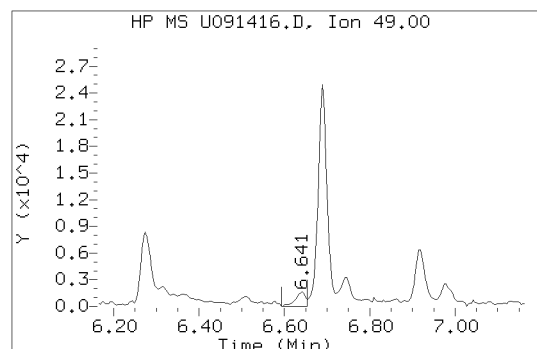
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18-Sep-2023
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linh
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Reason Code:



AFTER

MASS
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HEIGHT
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18-Sep-2023
12:31
linh
pham

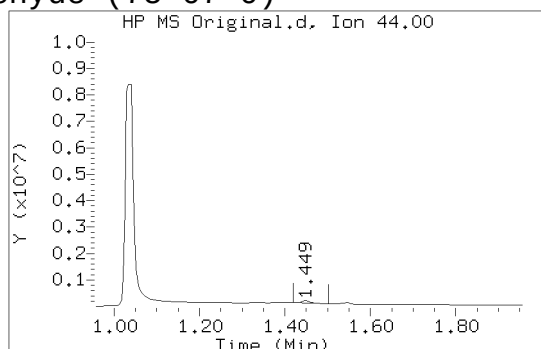


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091416.D
Inj Date : 14-SEP-2023 21:20
InstruID : VOA9.i
LabSampID : VLCSW-230914

Acetaldehyde (75-07-0)

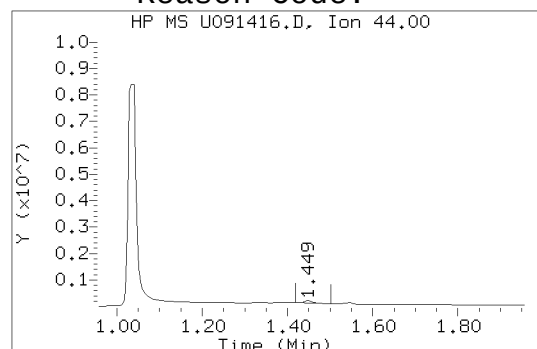
BEFORE

MASS
44
AREA
130926
HEIGHT
93260
18-Sep-2023
12:31
linh
pham



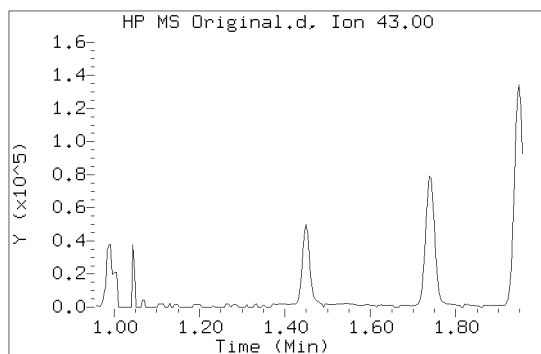
AFTER

MASS
44
AREA
130926
HEIGHT
93260
18-Sep-2023
12:31
linh
pham



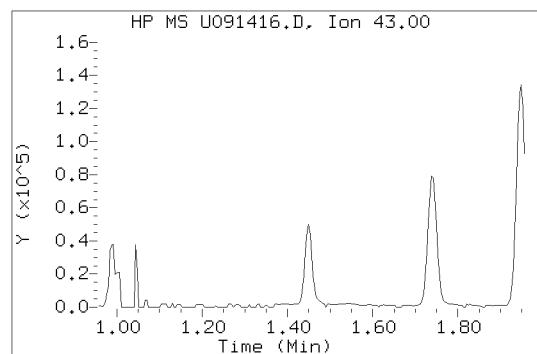
BEFORE

MASS
43
AREA
0
HEIGHT
0
18-Sep-2023
12:31
linh
pham



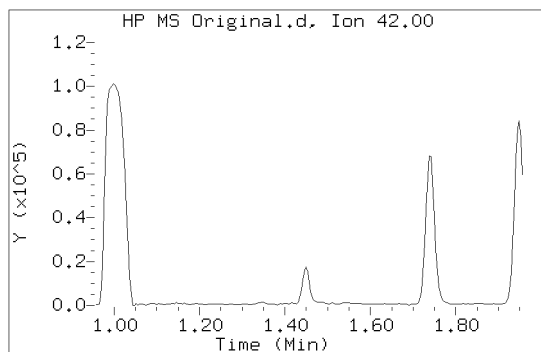
AFTER

MASS
43
AREA
0
HEIGHT
0
18-Sep-2023
12:31
linh
pham



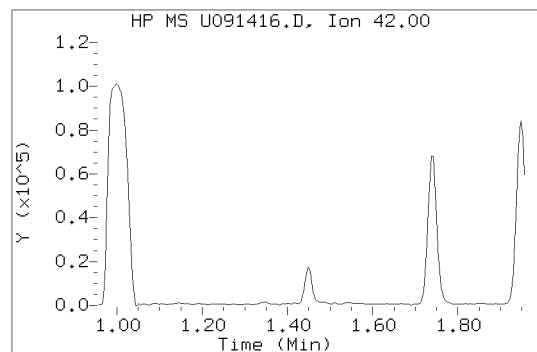
BEFORE

MASS
42
AREA
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HEIGHT
0
18-Sep-2023
12:31
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
18-Sep-2023
12:31
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091418.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091418.D
 Lab Smp Id: VBLKW-230914 Client Smp ID: VBLKW-230914
 Inj Date : 14-SEP-2023 22:04
 Operator : PC Inst ID: VOA9.i
 Smp Info : VBLKW-230914;VBLKW-230914;3;;BLANK
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 19 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

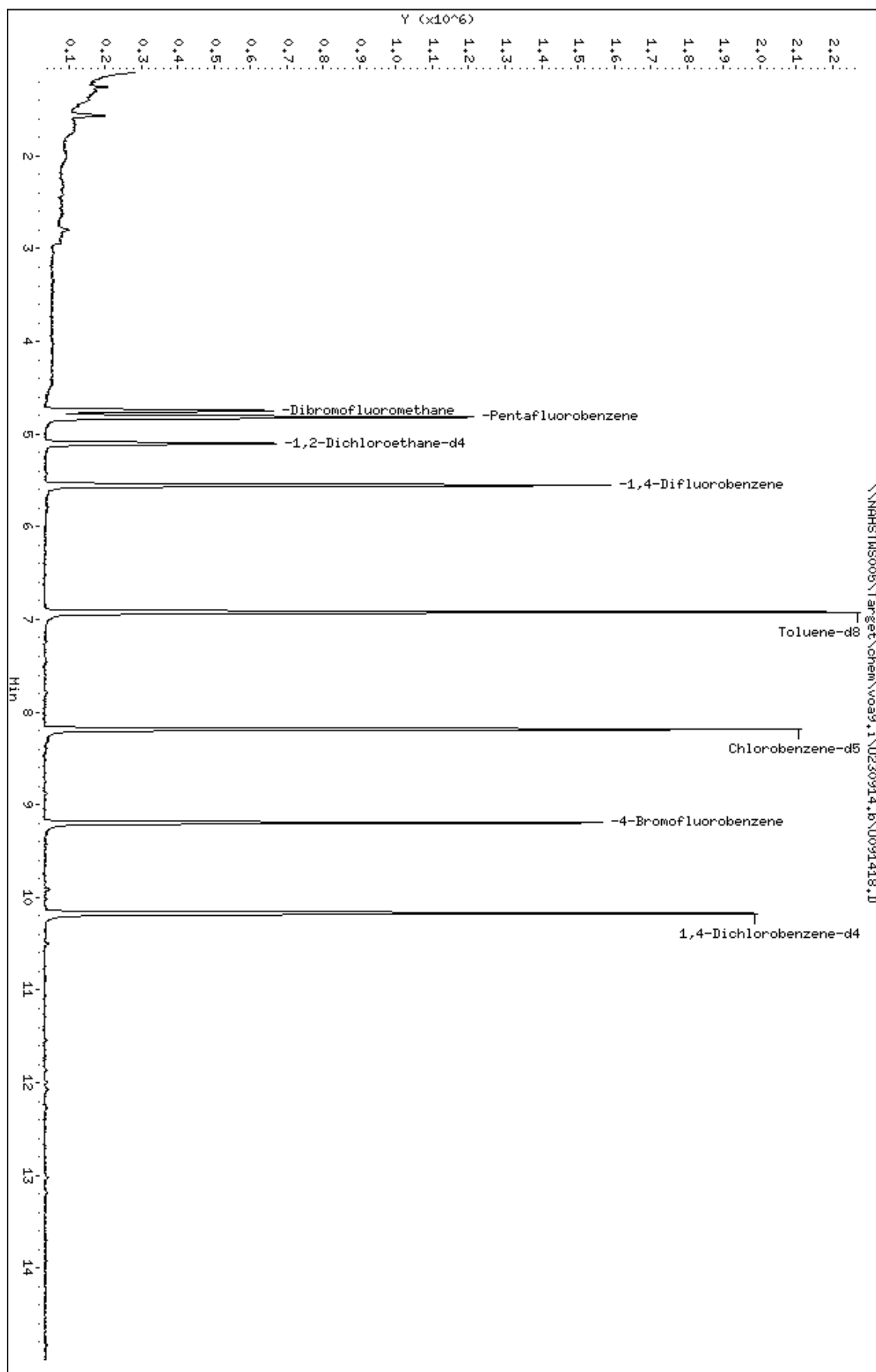
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.808	(1.000)	827641	50.0000	
\$ 30 Dibromofluoromethane	113	4.748	4.740	(0.986)	367329	48.6498	48.64
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.093	(1.059)	418334	49.0418	49.04
* 36 1,4-Difluorobenzene	114	5.554	5.546	(1.000)	1178792	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1083091	50.0000	
\$ 48 Toluene-d8	98	6.922	6.918	(0.846)	1307659	54.7635	54.76
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	462645	44.4756	44.47
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	516579	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091418.D
Date : 14-SEP-2023 22:04
Client ID: VBLKM-230914
Sample Info: VBLKM-230914;VBLKM-230914;3;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: W093.i
Operator: PC
Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091418.D
Inj Date : 14-SEP-2023 22:04
InstruID : VOA9.i
LabSampID : VBLKW-230914

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091420.D Page 1
 Report Date: 18-Sep-2023 12:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091420.D
 Lab Smp Id: HS23090424-02 Client Smp ID: HS23090424-02
 Inj Date : 14-SEP-2023 22:49
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23090424-02;HS23090424-02;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 21
 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	4.808	(1.000)		765937	50.0000	
8 Trichlorofluoromethane	101		1.895	1.884	(0.394)		12798	1.02594	1.02(a)
\$ 30 Dibromofluoromethane	113		4.748	4.740	(0.986)		349348	49.9900	49.98
\$ 35 1,2-Dichloroethane-d4	65		5.096	5.093	(1.058)		402849	51.0371	51.03
* 36 1,4-Difluorobenzene	114		5.554	5.546	(1.000)		1117867	50.0000	
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)		1014486	50.0000	
\$ 48 Toluene-d8	98		6.922	6.918	(0.846)		1217516	54.4365	54.43
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)		423325	43.4886	43.48
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		486359	50.0000	

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091420.D

Date: 14-SEP-2023 22:49

Client ID: HS23090424-02

Sample Info: HS23090424-02;HS23090424-02;;

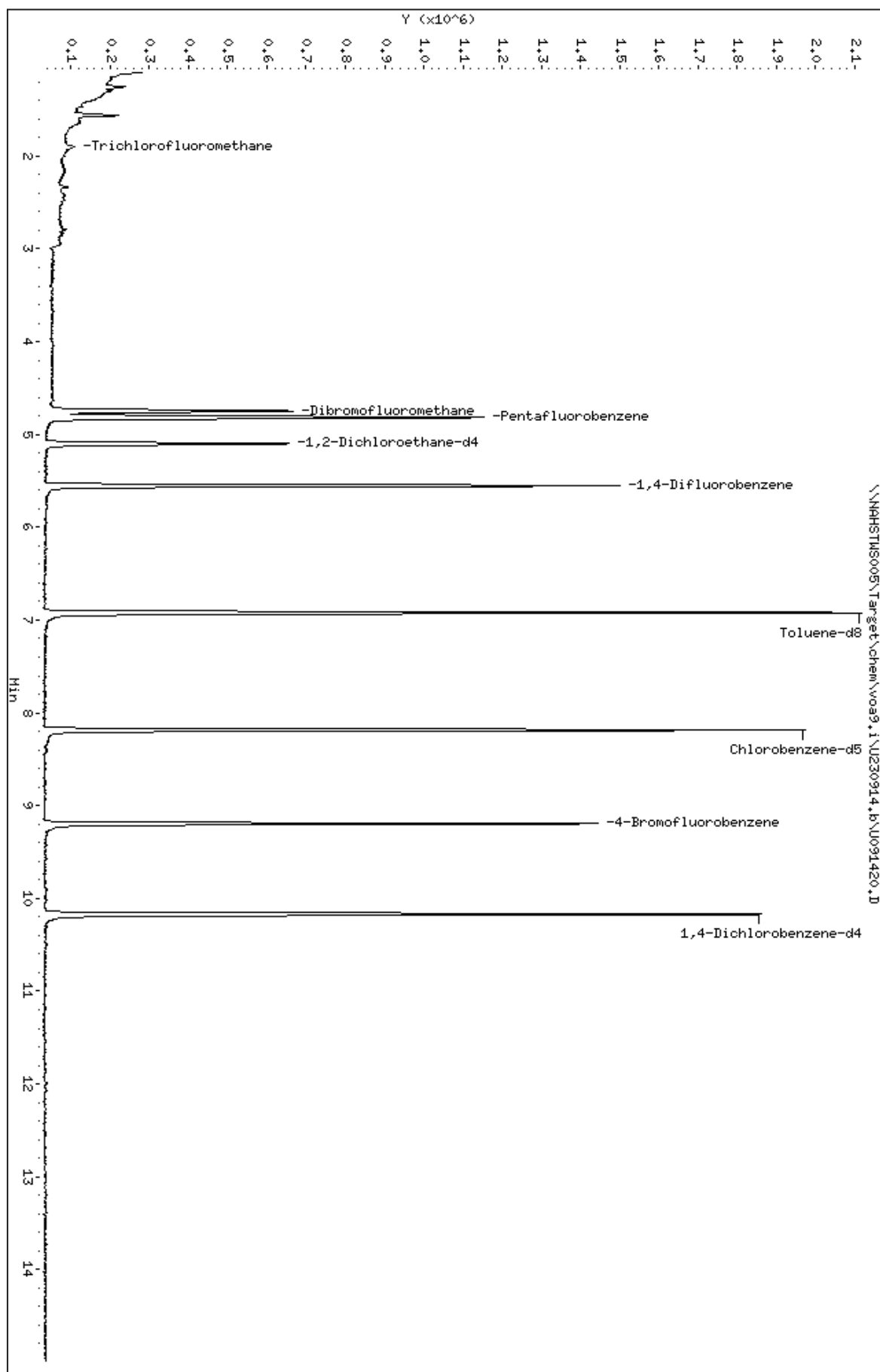
Purge Volume: 5.0

Column phase: DB624

Instrument: VDA9.i

Operator: PC

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230914,b\U091420.D

Page 2

Date : 14-SEP-2023 22:49

Client ID: HS23090424-02

Instrument: VOA9.i

Sample Info: HS23090424-02;HS23090424-02;;;

Purge Volume: 5.0

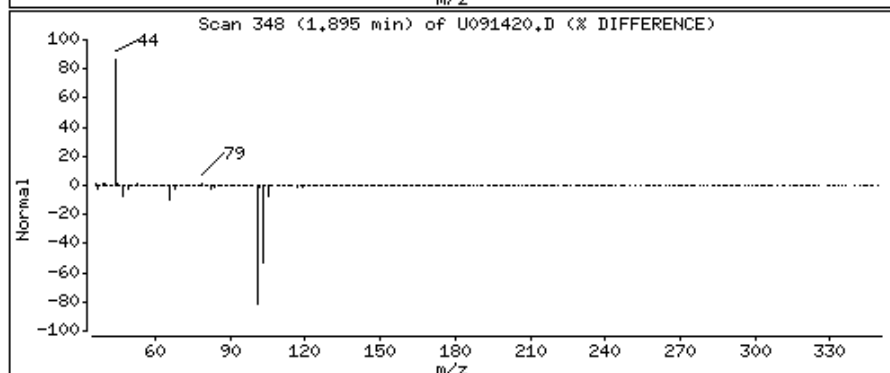
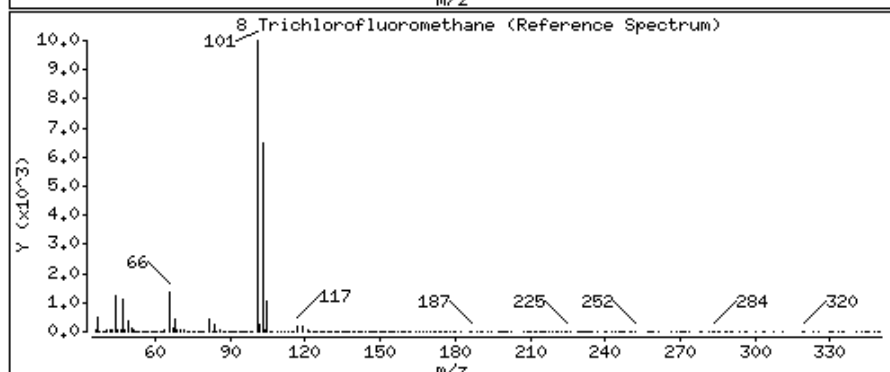
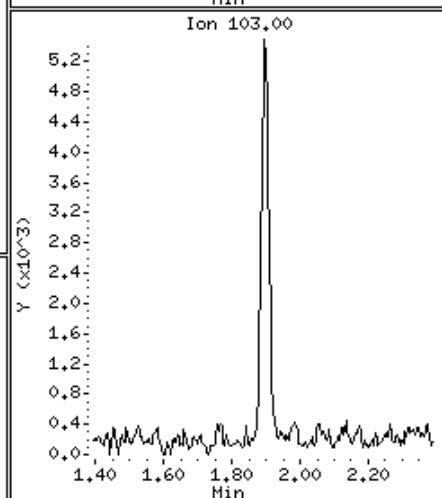
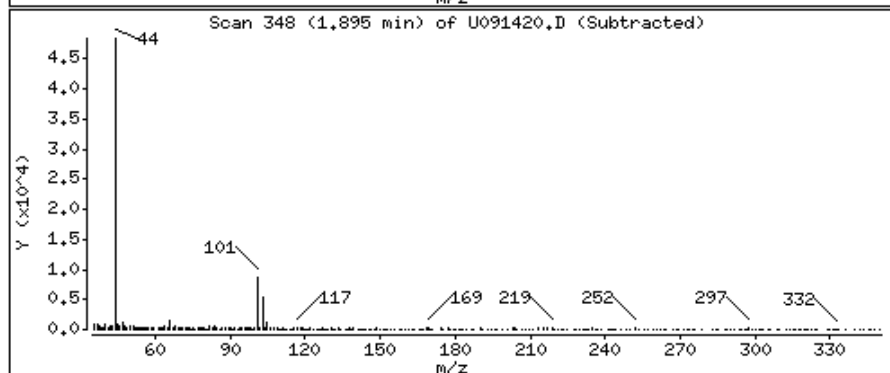
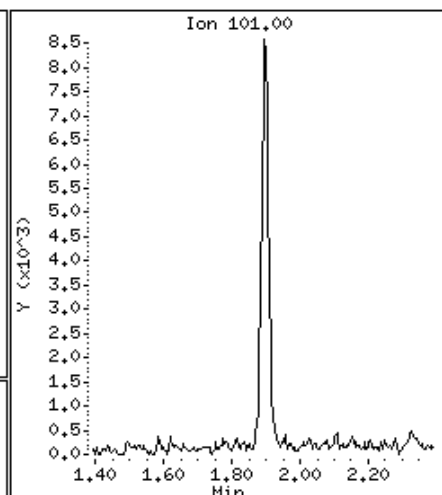
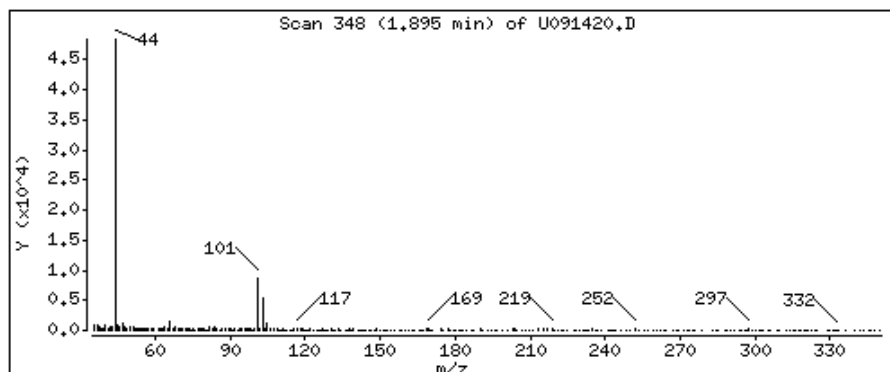
Operator: PC

Column phase: DB624

Column diameter: 0.18

8 Trichlorofluoromethane

Concentration: 1.02 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091420.D
Inj Date : 14-SEP-2023 22:49
InstruID : VOA9.i
LabSampID : HS23090424-02

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091423.D Page 1
 Report Date: 18-Sep-2023 12:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091423.D
 Lab Smp Id: HS23090424-01 Client Smp ID: HS23090424-01
 Inj Date : 14-SEP-2023 23:56
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23090424-01;HS23090424-01;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 24
 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	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.811	4.808	(1.000)	792909	50.0000		
27 cis-1,2-Dichloroethene	96		4.189	4.189	(0.871)	23238	2.46859	2.46(a)	
\$ 30 Dibromofluoromethane	113		4.744	4.740	(0.986)	353823	48.9126	48.91	
\$ 35 1,2-Dichloroethane-d4	65		5.092	5.093	(1.058)	407645	49.8846	49.88	
* 36 1,4-Difluorobenzene	114		5.550	5.546	(1.000)	1121615	50.0000		
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)	1001998	50.0000		
\$ 48 Toluene-d8	98		6.922	6.918	(0.846)	1209616	54.7573	54.75	
\$ 69 4-Bromofluorobenzene	95		9.193	9.194	(1.123)	412301	42.9076	42.90	
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)	469110	50.0000		
M 94 1,2-Dichloroethylene (total)	96					23238	2.63371	2.63(a)	

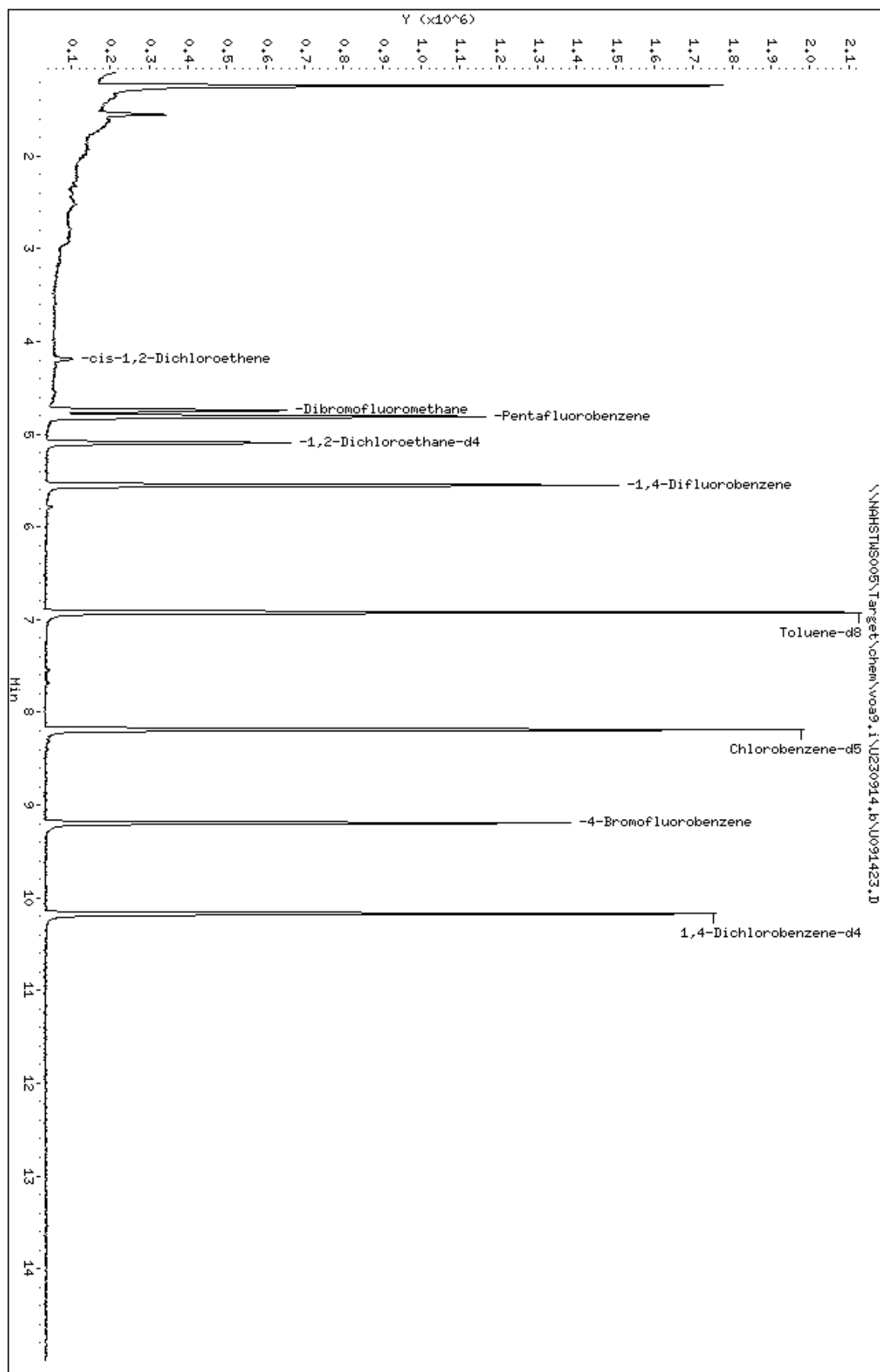
QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091423.D
Date : 14-SEP-2023 23:56
Client ID: HS23090424-01
Sample Info: HS23090424-01;HS23090424-01;;
Purge Volume: 5.0
Column phase: DB624

Instrument: V099.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091423.D

Page 2

Date : 14-SEP-2023 23:56

Client ID: HS23090424-01

Instrument: VOA9.i

Sample Info: HS23090424-01;HS23090424-01;;;

Purge Volume: 5.0

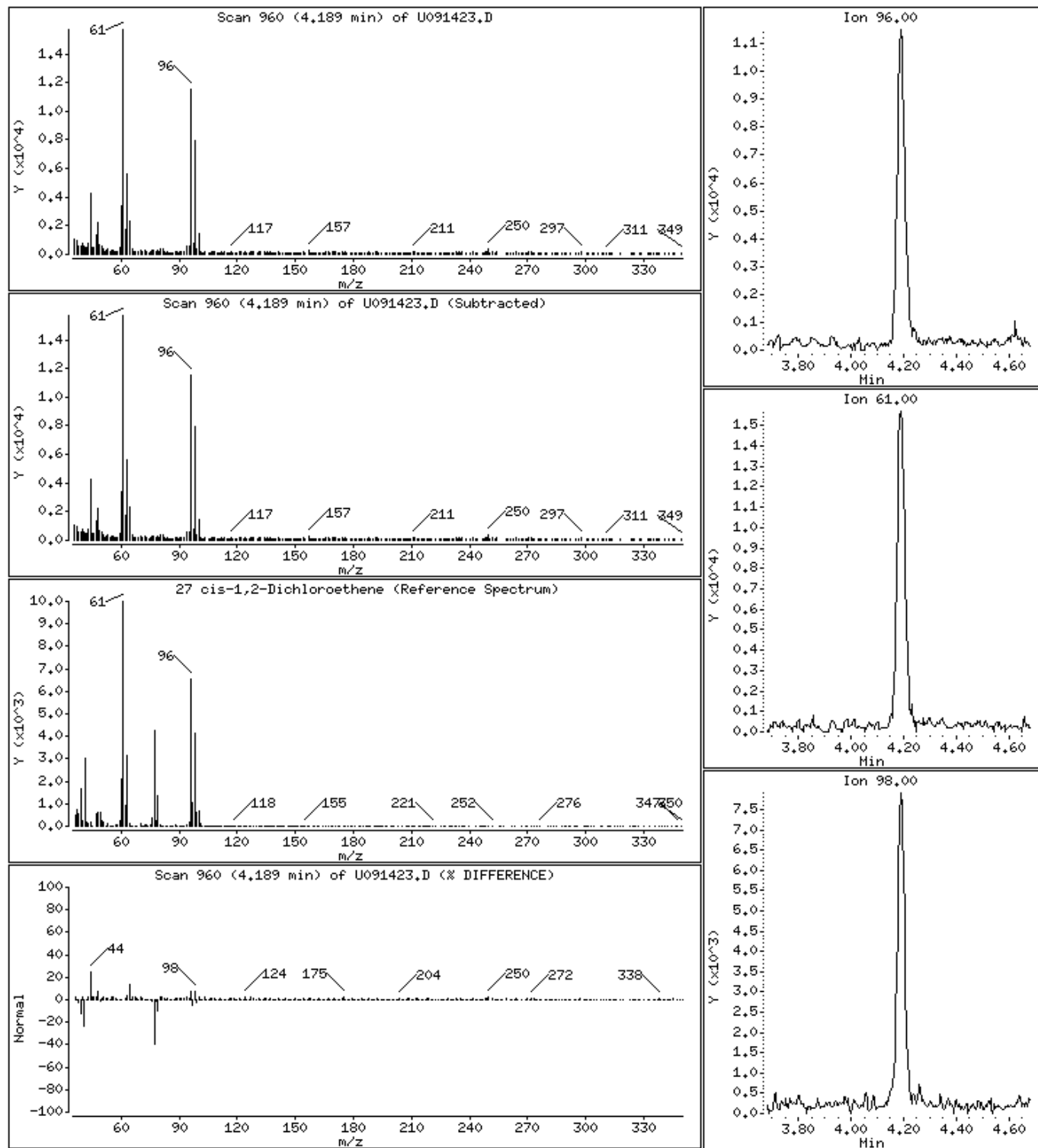
Operator: PC

Column phase: DB624

Column diameter: 0,18

27 cis-1,2-Dichloroethene

Concentration: 2,46 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091423.D
Inj Date : 14-SEP-2023 23:56
InstruID : VOA9.i
LabSampID : HS23090424-01

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091424.D Page 1
 Report Date: 18-Sep-2023 12:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091424.D
 Lab Smp Id: HS23090510-99MS Client Smp ID: HS23090510-99MS
 Inj Date : 15-SEP-2023 00:19
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23090510-99MS;HS23090510-99MS;3;;MS
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 25 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		4.812	4.808	(1.000)		794771	50.0000	
2 Dichlorodifluoromethane	85		1.160	1.153	(0.241)		110577	13.6858	13.68
3 Chloromethane	50		1.295	1.284	(0.269)		269780	17.7699	17.76
5 Vinyl Chloride	62		1.374	1.363	(0.286)		196112	19.4383	19.43
6 Bromomethane	94		1.614	1.591	(0.335)		97513	20.0841	20.08
7 Chloroethane	64		1.696	1.681	(0.353)		138644	18.6856	18.68
8 Trichlorofluoromethane	101		1.895	1.884	(0.394)		232417	17.9556	17.95
9 Acrolein	56		2.262	2.255	(0.470)		12237	17.9445	17.94
10 Acetone	43		2.405	2.397	(0.500)		142391	33.9229	33.92
11 1,1-Dichloroethene	96		2.330	2.322	(0.484)		3347365	425.510	425.51(A)
15 Iodomethane	142		2.465	2.457	(0.512)		177140	42.0427	42.04
16 Acrylonitrile	53		3.061	3.053	(0.636)		146714	31.6462	31.64
17 Methylene Chloride	84		2.791	2.784	(0.580)		181840	19.2941	19.29
18 Methyl tert-butyl ether	73		3.076	3.068	(0.639)		371318	16.6248	16.62
19 Carbon Disulfide	76		2.517	2.510	(0.523)		754289	35.4965	35.49
20 trans-1,2-Dichloroethene	96		3.057	3.050	(0.635)		151613	18.3718	18.37
21 Vinyl Acetate	43		3.608	3.597	(0.750)		633094	21.6839	21.68
22 1,1-Dichloroethane	63		3.511	3.507	(0.730)		1027876	62.1055	62.10
24 2-Butanone	43		4.264	4.257	(0.886)		169381	35.1612	35.16
26 2,2-Dichloropropane	77		4.182	4.174	(0.869)		97241	9.70325	9.70



27 cis-1,2-Dichloroethene	96	4.193	4.189 (0.871)	179583	19.0326	19.03
28 Chloroform	83	4.568	4.568 (0.949)	309274	19.2452	19.24

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091424.D Page 2
 Report Date: 18-Sep-2023 12:32

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.467	4.463	(0.928)	91420	18.4883	18.48	
\$ 30 Dibromofluoromethane	113	4.744	4.740	(0.986)	352181	48.5730	48.57	
31 1,1,1-Trichloroethane	97	4.740	4.737	(0.985)	215615	19.7574	19.75	
32 1,1-Dichloropropene	75	4.916	4.913	(0.886)	171128	18.9956	18.99	
33 1,2-Dichloroethane	62	5.175	5.171	(0.932)	235433	21.4623	21.46	
34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	118125	14.6561	14.65	
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.093	(1.059)	398494	48.6468	48.64	
* 36 1,4-Difluorobenzene	114	5.550	5.546	(1.000)	1134838	50.0000		
37 Benzene	78	5.138	5.134	(0.926)	592946	20.8024	20.80	
38 Trichloroethene	130	5.786	5.782	(1.043)	153367	18.4991	18.49	
39 Bromodichloromethane	83	6.277	6.277	(1.131)	184804	19.9901	19.99	
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	165626	22.0042	22.00	
44 Dibromomethane	93	6.120	6.116	(1.103)	105905	20.4347	20.43	
45 4-Methyl-2-Pentanone	43	6.858	6.855	(0.838)	296626	38.6111	38.61	
46 cis-1,3-Dichloropropene	75	6.693	6.690	(1.206)	161743	16.3693	16.36	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1080158	50.0000		
\$ 48 Toluene-d8	98	6.922	6.918	(0.846)	1328171	55.7735	55.77	
50 Toluene	91	6.978	6.978	(0.853)	615754	21.2299	21.22	
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	132125	15.8257	15.82	
52 2-Hexanone	43	7.593	7.593	(0.928)	198970	40.6319	40.63	
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	132385	20.9318	20.93	
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	261579	20.5622	20.56	
55 Dibromochloromethane	129	7.691	7.691	(0.940)	151033	20.0629	20.06	
56 Tetrachloroethene	164	7.454	7.454	(0.911)	119594	17.6966	17.69	
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	159921	21.0393	21.03	
58 1-Chlorohexane	55	8.197	8.197	(1.477)	90048	13.1343	13.13	
59 Chlorobenzene	112	8.208	8.208	(1.003)	420658	19.6090	19.60	
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	146327	20.2954	20.29	
61 Ethylbenzene	106	8.305	8.305	(1.015)	179958	18.7348	18.73	
62 m,p-Xylenes	106	8.410	8.407	(1.027)	459529	38.0433	38.04	
63 o-Xylene	106	8.748	8.748	(1.069)	229350	18.2698	18.26	
64 Styrene	104	8.763	8.759	(1.071)	360327	18.6936	18.69	
66 Bromoform	173	8.916	8.920	(1.089)	95760	19.2132	19.21	
67 Isopropylbenzene	105	9.063	9.063	(1.107)	485586	17.5526	17.55	
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	215274	18.8887	18.88	
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	511927	49.1247	49.12	
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	586650	50.0000		
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	179085	18.4384	18.43	
73 n-Propylbenzene	91	9.411	9.411	(0.926)	505087	16.0876	16.08	
74 Bromobenzene	156	9.317	9.317	(0.916)	180833	19.3950	19.39	
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	379877	17.2154	17.21	
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	396868	18.2195	18.21	
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	454500	17.7815	17.78	
78 tert-Butylbenzene	119	9.835	9.839	(0.967)	333512	15.7061	15.70	
79 1,2,4-Trimethylbenzene	105	9.876	9.880	(0.971)	406230	17.9098	17.90	
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	387053	14.8937	14.89	
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	332788	15.9485	15.94	
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	291265	17.7119	17.71	
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	318511	17.2390	17.23	
87 n-Butylbenzene	91	10.491	10.491	(1.032)	256805	13.9391	13.93	
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	314271	18.6856	18.68	
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.166	(1.098)	25567	18.0302	18.03	



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	158134	16.5155	16.51
91 Hexachlorobutadiene	225	11.998	11.998 (1.180)	52858	12.3039	12.30

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091424.D Page 3
 Report Date: 18-Sep-2023 12:32

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	(1.187)	389089	16.7645	16.76
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	169762	18.6750	18.67
M 94 1,2-Dichloroethylene (total)	96				331196	37.4486	37.44
M 95 Xylenes (total)	106				688879	55.4610	55.46
135 1,4-Dioxane	88	6.172	6.169	(1.283)	66120	572.338	572.33
141 Cyclohexane	56	4.778	4.774	(0.993)	150474	14.6753	14.67
138 Freon TF	101	2.330	2.322	(0.484)	112856	17.9622	17.96
140 1,3-Butadiene	54	1.400	1.393	(0.291)	151203	16.1035	16.10
147 Methylcyclohexane	55	5.947	5.944	(1.072)	232082	13.9509	13.95
146 Methyl Acetate	43	2.712	2.701	(0.564)	100072	10.3847	10.38
148 Tert-Butyl alcohol	59	2.963	2.960	(0.616)	322904	331.583	331.58
149 Isopropyl Alcohol	45	2.559	2.555	(0.532)	226103	323.644	323.64
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	19712	13.1406	13.14
12 Isobutyl Alcohol	43	5.288	5.284	(1.099)	331283	305.449	305.44
13 Acetonitrile	39	2.667	2.660	(0.554)	194761	160.614	160.61
14 Allyl Chloride	41	2.671	2.664	(0.555)	438724	15.5686	15.56
25 Methacrylonitrile	41	4.493	4.489	(0.934)	105301	16.8544	16.85
40 Methyl Methacrylate	41	6.157	6.154	(1.280)	108501	16.6715	16.67
4 Propionitrile	54	4.335	4.335	(0.901)	275872	160.228	160.22(a)
136 n-Hexane	57	3.338	3.331	(0.694)	79528	9.69062	9.69
194 Acetaldehyde	44	1.456	1.445	(0.303)	108704	63.9465	63.94
131 Methyl Acrylate	55	4.369	4.362	(0.908)	200800	16.2317	16.23
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	77771	13.8693	13.86
23 Chloroprene	53	2.154	2.146	(0.448)	49514	15.5695	15.56(M)
49 Ethyl Methacrylate	69	7.293	7.293	(1.314)	173424	17.5228	17.52
166 1,2,3-Trimethylbenzene	105	10.232	10.236	(1.006)	398912	17.6815	17.68
167 Ethanol	45	2.079	2.075	(0.432)	53435	319.479	319.47
164 Dicyclopentadiene	66	10.198	10.198	(1.003)	247732	10.3212	10.32
145 alpha-Methylstyrene	118	9.752	9.752	(0.959)	78180	10.3398	10.33
142 Tetrahydrofuran	42	4.545	4.538	(0.945)	65365	32.7756	32.77
156 Diisopropyl ether	45	3.616	3.612	(0.751)	547208	15.9124	15.91
151 4-Methyl-2-pentanol	45	7.222	7.226	(1.301)	439200	334.048	334.04
150 Allyl alcohol	57	3.338	3.331	(0.694)	79528	192.959	192.95
86 Benzyl Chloride	91	10.311	10.311	(1.260)	28498	6.34731	6.34
162 Butyl acrylate	55	8.736	8.733	(1.067)	194018	17.3288	17.32
139 Diethyl ether	59	2.142	2.135	(0.445)	124257	15.7756	15.77
203 2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	65551	14.2865	14.28
134 Cyclohexanone	55	9.156	9.156	(0.900)	86780	255.858	255.85(a)
130 Ethyl Acetate	43	4.343	4.335	(0.903)	130369	11.0276	11.02
189 n-Butyl acetate	43	7.709	7.706	(0.942)	120181	11.3176	11.31
182 Epichlorohydrin	57	6.630	6.630	(1.195)	1529	17.2020	17.20(M)
132 n-Butanol	56	5.835	5.831	(1.213)	71290	341.926	341.92(a)
133 Ethyl Acrylate	55	5.947	5.944	(1.236)	232082	12.5567	12.55
163 Butyl methacrylate	41	9.651	9.651	(0.949)	138059	16.7501	16.75
174 tert-Amyl methyl ether	73	5.288	5.284	(1.099)	326834	19.6551	19.65
175 tert-Butyl ethyl ether	59	4.047	4.043	(0.841)	367441	17.0401	17.04
188 Isopropyl acetate	43	5.288	5.284	(0.953)	331828	16.1189	16.11
179 Hexachloroethane	166	10.712	10.712	(1.053)	28178	13.3911	13.39

QC Flag Legend



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

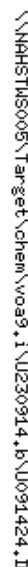
Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091424.D Page 4
Report Date: 18-Sep-2023 12:32

QC Flag Legend

M - Compound response manually integrated.



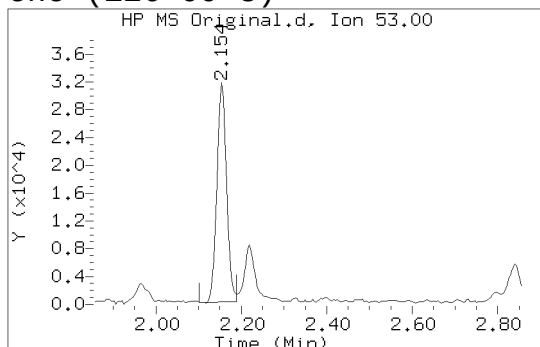
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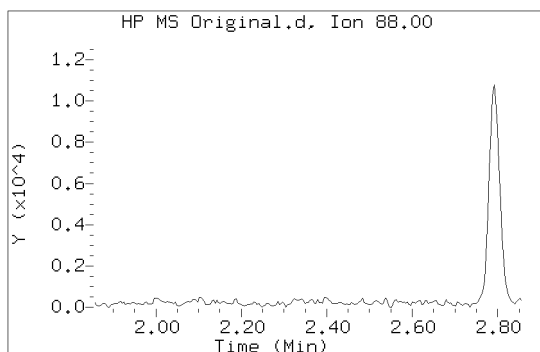
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LabSampID : HS23090510-99MS

Chloroprene (126-99-8)**BEFORE**

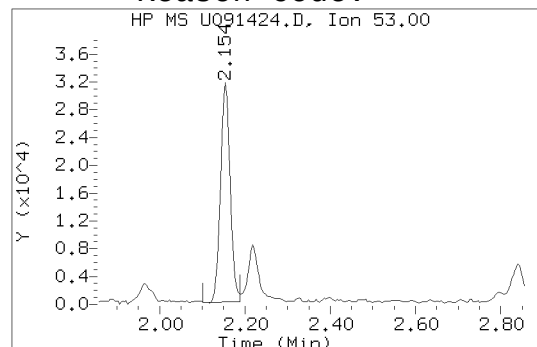
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18-Sep-2023
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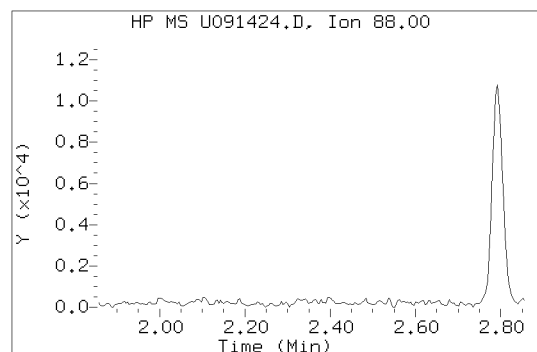
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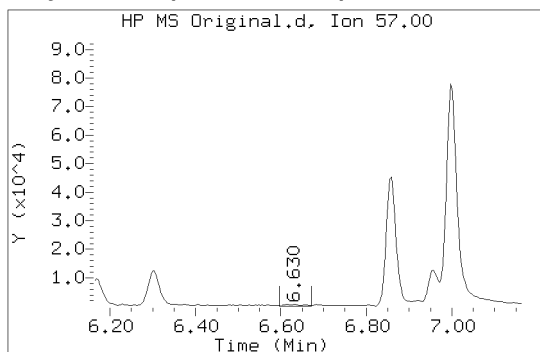
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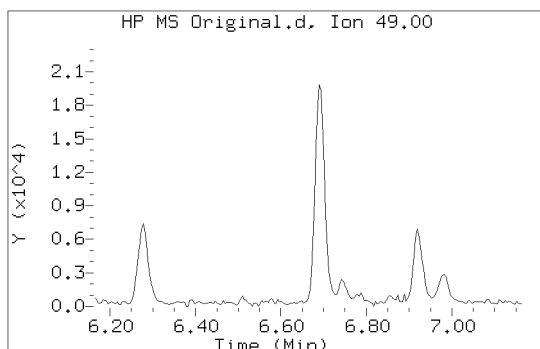
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**Epichlorohydrin (106-89-8)****BEFORE**

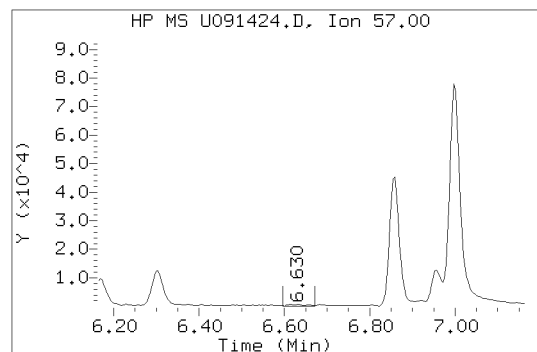
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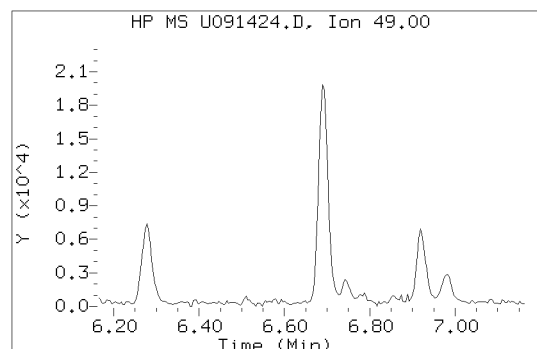
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**AFTER**

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**AFTER**

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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091425.D Page 1
 Report Date: 18-Sep-2023 12:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091425.D
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 Inj Date : 15-SEP-2023 00:41
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23090510-99MSD;HS23090510-99MSD;3;;MSD
 Misc Info : V9;WATER;0;1;
 Comment :
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 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 25 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		4.808	4.808	(1.000)		823551	50.0000	
2 Dichlorodifluoromethane	85		1.157	1.153	(0.241)		112364	13.4469	13.44
3 Chloromethane	50		1.288	1.284	(0.268)		271775	17.2486	17.24
5 Vinyl Chloride	62		1.367	1.363	(0.284)		197096	18.8531	18.85
6 Bromomethane	94		1.610	1.591	(0.335)		101115	20.0979	20.09
7 Chloroethane	64		1.689	1.681	(0.351)		144180	18.7526	18.75
8 Trichlorofluoromethane	101		1.888	1.884	(0.393)		233673	17.4218	17.42
9 Acrolein	56		2.259	2.255	(0.470)		12976	18.3633	18.36
10 Acetone	43		2.401	2.397	(0.499)		146845	33.7511	33.75
11 1,1-Dichloroethene	96		2.326	2.322	(0.484)		3356860	411.805	411.80(A)
15 Iodomethane	142		2.457	2.457	(0.511)		185092	42.3591	42.35
16 Acrylonitrile	53		3.057	3.053	(0.636)		149128	31.0427	31.04
17 Methylene Chloride	84		2.787	2.784	(0.580)		185867	19.0551	19.05
18 Methyl tert-butyl ether	73		3.072	3.068	(0.639)		387438	16.7403	16.74
19 Carbon Disulfide	76		2.514	2.510	(0.523)		732936	33.2863	33.28
20 trans-1,2-Dichloroethene	96		3.050	3.050	(0.634)		157813	18.4548	18.45
21 Vinyl Acetate	43		3.601	3.597	(0.749)		660555	21.8338	21.83
22 1,1-Dichloroethane	63		3.507	3.507	(0.729)		1040108	60.6484	60.64
24 2-Butanone	43		4.261	4.257	(0.886)		173338	34.7251	34.72
26 2,2-Dichloropropane	77		4.174	4.174	(0.868)		93237	8.97858	8.97



27 cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	176931	18.0962	18.09
28 Chloroform	83	4.564	4.568 (0.949)	305356	18.3373	18.33

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091425.D Page 2
 Report Date: 18-Sep-2023 12:32

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.463	4.463	(0.928)	93666	18.2805	18.28	
\$ 30 Dibromofluoromethane	113	4.740	4.740	(0.986)	362423	48.2402	48.24	
31 1,1,1-Trichloroethane	97	4.733	4.737	(0.984)	214875	19.0015	19.00	
32 1,1-Dichloropropene	75	4.917	4.913	(0.886)	171848	18.1998	18.19	
33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	238694	20.7607	20.76	
34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	104628	12.3856	12.38	
\$ 35 1,2-Dichloroethane-d4	65	5.093	5.093	(1.059)	411860	48.5211	48.52	
* 36 1,4-Difluorobenzene	114	5.550	5.546	(1.000)	1189438	50.0000		
37 Benzene	78	5.134	5.134	(0.925)	592176	19.8218	19.82	
38 Trichloroethene	130	5.786	5.782	(1.043)	157402	18.1143	18.11	
39 Bromodichloromethane	83	6.277	6.277	(1.131)	184876	19.0799	19.07	
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	165033	20.9189	20.91	
44 Dibromomethane	93	6.116	6.116	(1.102)	106289	19.5673	19.56	
45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	313847	40.1397	40.13	
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	167958	16.2471	16.24	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1096410	50.0000		
\$ 48 Toluene-d8	98	6.918	6.918	(0.845)	1358674	56.2087	56.20	
50 Toluene	91	6.978	6.978	(0.853)	618422	21.0058	21.00	
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	137397	15.7204	15.72	
52 2-Hexanone	43	7.593	7.593	(0.928)	208078	41.8620	41.86	
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	135789	21.1518	21.15	
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	268720	20.8105	20.81	
55 Dibromochloromethane	129	7.691	7.691	(0.940)	150736	19.7267	19.72	
56 Tetrachloroethene	164	7.454	7.454	(0.911)	121830	17.7603	17.76	
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	163372	21.1747	21.17	
58 1-Chlorohexane	55	8.197	8.197	(1.477)	93525	13.0152	13.01	
59 Chlorobenzene	112	8.208	8.208	(1.003)	426700	19.5958	19.59	
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	147058	20.0944	20.09	
61 Ethylbenzene	106	8.305	8.305	(1.015)	187477	19.2282	19.22	
62 m,p-Xylenes	106	8.407	8.407	(1.027)	454283	37.0515	37.05	
63 o-Xylene	106	8.744	8.748	(1.068)	231486	18.1666	18.16	
64 Styrene	104	8.759	8.759	(1.070)	359147	18.3562	18.35	
66 Bromoform	173	8.920	8.920	(1.090)	95064	18.8692	18.86	
67 Isopropylbenzene	105	9.063	9.063	(1.107)	502830	17.8725	17.87	
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	222088	19.1838	19.18	
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	526595	49.7525	49.75	
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	595907	50.0000		
71 1,2,3-Trichloropropane	75	9.363	9.362	(0.921)	183900	18.6400	18.64	
73 n-Propylbenzene	91	9.411	9.411	(0.926)	507724	15.9517	15.95	
74 Bromobenzene	156	9.318	9.317	(0.916)	182038	19.2209	19.22	
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	374518	16.7089	16.70	
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	400681	18.1088	18.10	
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	458320	17.6524	17.65	
78 tert-Butylbenzene	119	9.835	9.839	(0.967)	335556	15.5569	15.55	
79 1,2,4-Trimethylbenzene	105	9.876	9.880	(0.971)	409824	17.7876	17.78	
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	389438	14.7708	14.77	
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	335656	15.8498	15.84	
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	296303	17.7383	17.73	
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	324179	17.2732	17.27	
87 n-Butylbenzene	91	10.491	10.491	(1.032)	259217	13.8652	13.86	
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	314202	18.3913	18.39	
89 1,2-Dibromo-3-Chloropropane	155	11.166	11.166	(1.098)	25722	17.8577	17.85	



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	167756	17.2483	17.24
91 Hexachlorobutadiene	225	11.998	11.998 (1.180)	52789	12.0969	12.09

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091425.D Page 3
 Report Date: 18-Sep-2023 12:32

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	(1.187)	429666	17.9873	17.98
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	173213	18.7586	18.75
M 94 1,2-Dichloroethylene (total)	96				334744	36.5271	36.52
M 95 Xylenes (total)	106				685769	52.6762	52.67
135 1,4-Dioxane	88	6.169	6.169	(1.283)	72385	604.672	604.67
141 Cyclohexane	56	4.774	4.774	(0.993)	156037	14.6856	14.68
138 Freon TF	101	2.326	2.322	(0.484)	114502	17.5969	17.59
140 1,3-Butadiene	54	1.393	1.393	(0.290)	158477	16.2884	16.28
147 Methylcyclohexane	55	5.947	5.944	(1.072)	251879	14.4459	14.44
146 Methyl Acetate	43	2.705	2.701	(0.563)	104203	10.4355	10.43
148 Tert-Butyl alcohol	59	2.960	2.960	(0.616)	341865	338.785	338.78
149 Isopropyl Alcohol	45	2.551	2.555	(0.531)	242503	334.988	334.98
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	15488	10.3919	10.39
12 Isobutyl Alcohol	43	5.284	5.284	(1.099)	340252	303.084	303.08
13 Acetonitrile	39	2.664	2.660	(0.554)	203319	161.812	161.81
14 Allyl Chloride	41	2.664	2.664	(0.554)	455980	15.6155	15.61
25 Methacrylonitrile	41	4.489	4.489	(0.934)	109907	16.9768	16.97
40 Methyl Methacrylate	41	6.157	6.154	(1.281)	110915	16.4468	16.44
4 Propionitrile	54	4.332	4.335	(0.901)	279873	156.871	156.87(a)
136 n-Hexane	57	3.331	3.331	(0.693)	78922	9.31219	9.31
194 Acetaldehyde	44	1.449	1.445	(0.301)	79628	42.8440	42.84(M)
131 Methyl Acrylate	55	4.366	4.362	(0.908)	206062	16.0750	16.07
200 Dimethyl Disulfide	94	6.742	6.746	(0.824)	83749	14.3634	14.36
23 Chloroprene	53	2.146	2.146	(0.446)	54842	16.6422	16.64
49 Ethyl Methacrylate	69	7.293	7.293	(1.314)	179351	17.2898	17.28
166 1,2,3-Trimethylbenzene	105	10.232	10.236	(1.006)	400299	17.4674	17.46
167 Ethanol	45	2.071	2.075	(0.431)	55912	322.607	322.60
164 Dicyclopentadiene	66	10.198	10.198	(1.003)	298855	11.8981	11.89
145 alpha-Methylstyrene	118	9.752	9.752	(0.959)	83097	10.7542	10.75
142 Tetrahydrofuran	42	4.542	4.538	(0.945)	63286	30.6242	30.62
156 Diisopropyl ether	45	3.612	3.612	(0.751)	564938	15.8539	15.85
151 4-Methyl-2-pentanol	45	7.218	7.226	(1.301)	466050	337.865	337.86
150 Allyl alcohol	57	3.331	3.331	(0.693)	78922	185.489	185.48
86 Benzyl Chloride	91	10.311	10.311	(1.260)	30449	6.63521	6.63
162 Butyl acrylate	55	8.733	8.733	(1.067)	203791	17.8636	17.86
139 Diethyl ether	59	2.135	2.135	(0.444)	131907	16.1616	16.16
203 2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	72857	15.4601	15.46
134 Cyclohexanone	55	9.156	9.156	(0.900)	87899	255.178	255.17(a)
130 Ethyl Acetate	43	4.339	4.335	(0.903)	130470	10.6505	10.65
189 n-Butyl acetate	43	7.706	7.706	(0.941)	125612	11.5789	11.57
182 Epichlorohydrin	57	6.678	6.630	(1.203)	2259	24.2482	24.24(M)
132 n-Butanol	56	5.831	5.831	(1.213)	73848	341.840	341.83(a)
133 Ethyl Acrylate	55	5.947	5.944	(1.237)	251879	13.1516	13.15
163 Butyl methacrylate	41	9.651	9.651	(0.949)	145285	17.3084	17.30
174 tert-Amyl methyl ether	73	5.284	5.284	(1.099)	337937	19.6165	19.61
175 tert-Butyl ethyl ether	59	4.043	4.043	(0.841)	382604	17.1096	17.10
188 Isopropyl acetate	43	5.284	5.284	(0.952)	341695	15.8363	15.83
179 Hexachloroethane	166	10.712	10.712	(1.053)	24641	11.4282	11.42

QC Flag Legend



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

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091425.D Page 4
Report Date: 18-Sep-2023 12:32

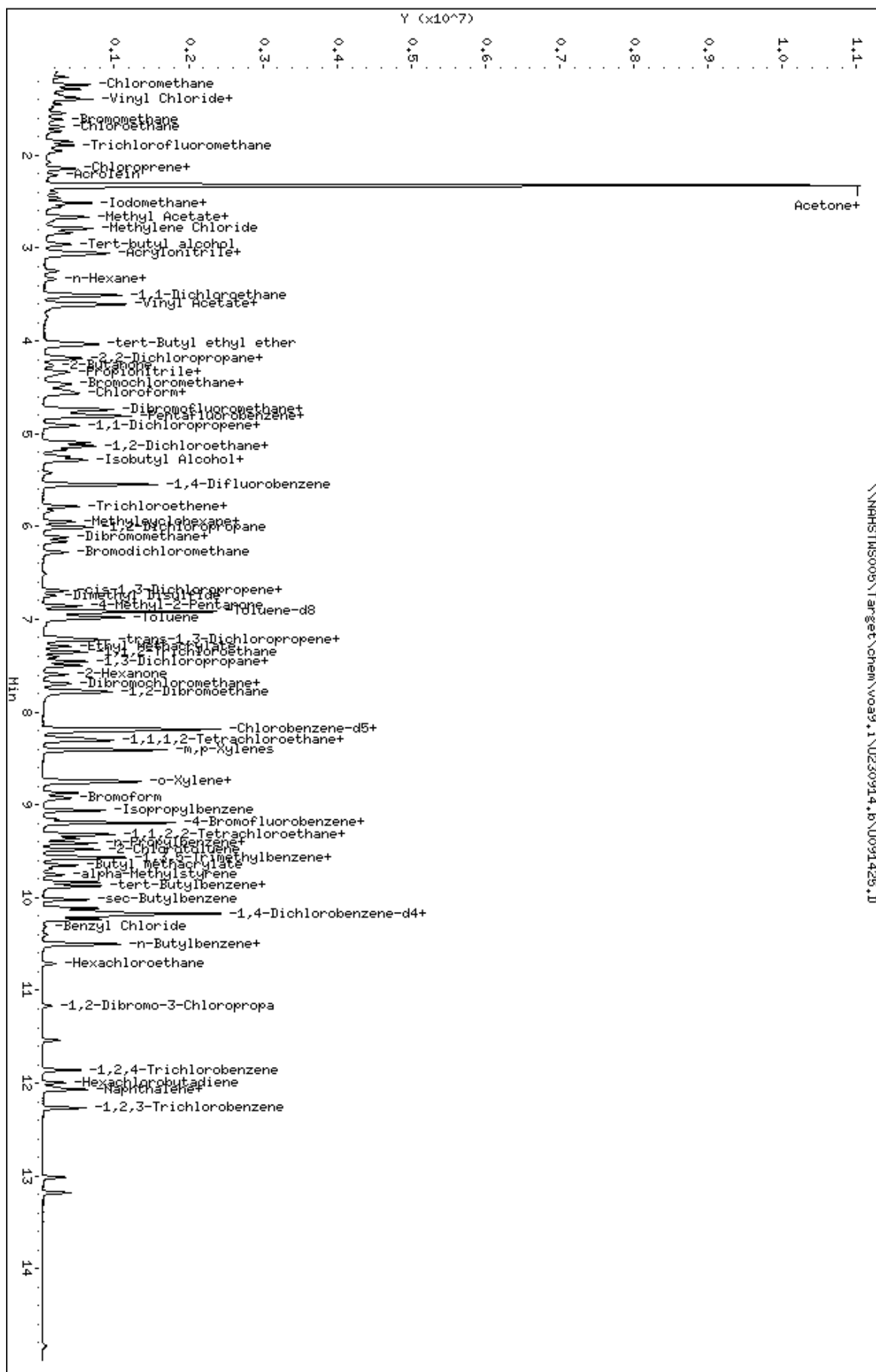
QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.1\U230914.b\U091425.D
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 Client ID: HS23090510-99MSD
 Sample Info: HS23090510-99MSD;HS23090510-99MSD;3;MSD
 Purge Volume: 5.0
 Column phase: DB624

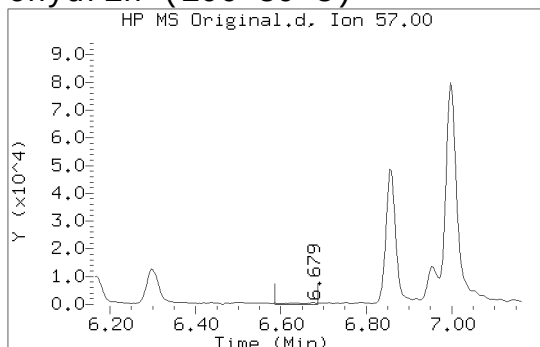
Instrument: V089.i
 Operator: PC
 Column diameter: 0.18



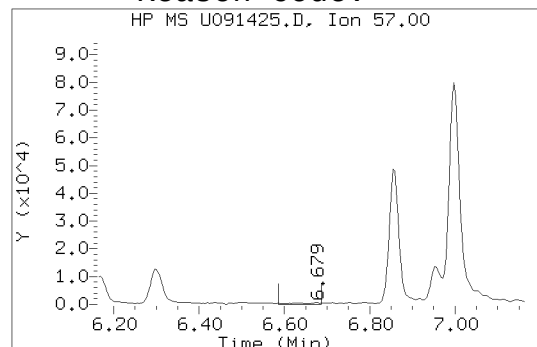
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Inj Date : 15-SEP-2023 00:41
InstruID : VOA9.i
LabSampID : HS23090510-99MSD

Epichlorohydrin (106-89-8)**BEFORE**

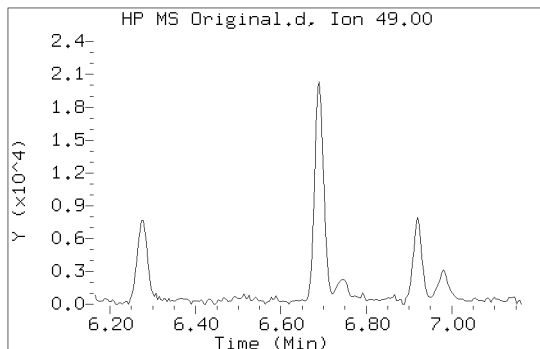
MASS
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AREA
2259
HEIGHT
627
18-Sep-2023
12:31
linh

**AFTER**

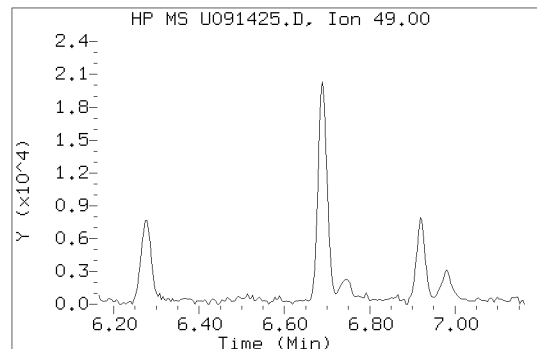
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2259
HEIGHT
627
18-Sep-2023
12:31
linh

Reason Code:**BEFORE**

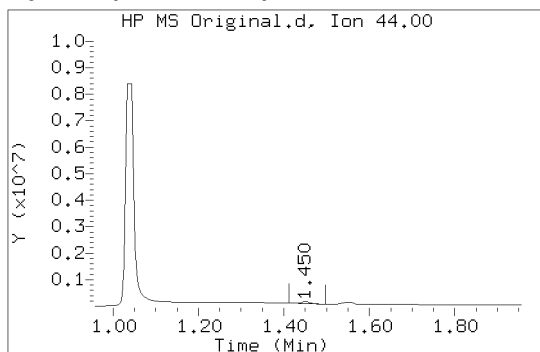
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0
18-Sep-2023
12:31
linh
pham

**AFTER**

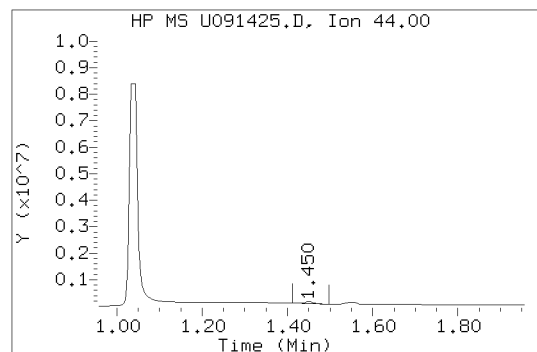
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AREA
0
HEIGHT
0
18-Sep-2023
12:31
linh
pham

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

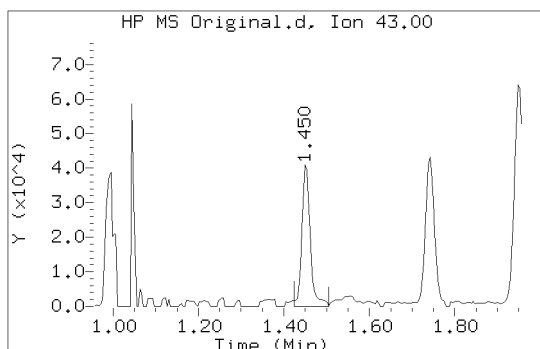
MASS
44
AREA
79628
HEIGHT
68168
18-Sep-2023
12:31
linh
pham

**AFTER**

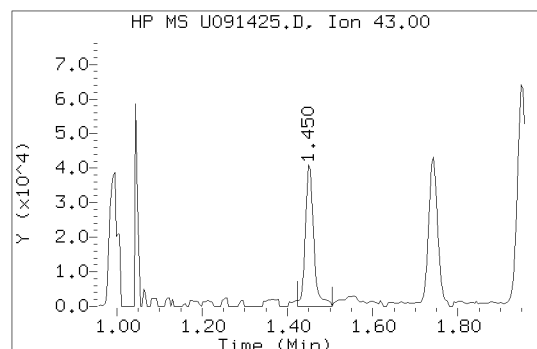
MASS
44
AREA
79628
HEIGHT
68168
18-Sep-2023
12:31
linh
pham

Reason Code:**BEFORE**

MASS
43
AREA
56706
HEIGHT
40912
18-Sep-2023
12:31
linh
pham

**AFTER**

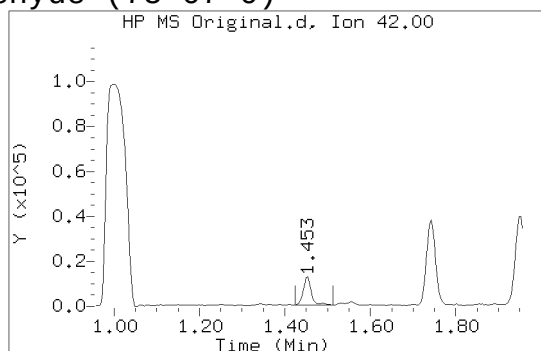
MASS
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AREA
56706
HEIGHT
40912
18-Sep-2023
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linh
pham



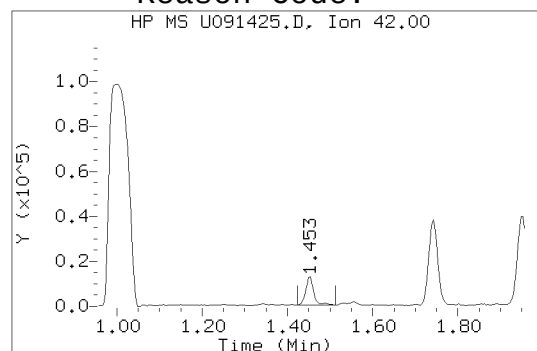
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Inj Date : 15-SEP-2023 00:41
InstruID : VOA9.i
LabSampID : HS23090510-99MSD

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

MASS
42
AREA
16474
HEIGHT
12702
18-Sep-2023
12:31
linh
pham

**AFTER**

MASS
42
AREA
16474
HEIGHT
12702
18-Sep-2023
12:31
linh
pham

Reason Code:

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091426.D Page 1
 Report Date: 18-Sep-2023 12:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091426.D
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 Inj Date : 15-SEP-2023 01:03
 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\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:32 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 26 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						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)		735144	50.0000	
2 Dichlorodifluoromethane	85		1.167	1.167	(0.243)		384783	50.0000	47.79
3 Chloromethane	50		1.299	1.299	(0.270)		670025	50.0000	49.35
5 Vinyl Chloride	62		1.381	1.381	(0.287)		462406	50.0000	49.55
6 Bromomethane	94		1.625	1.625	(0.338)		219581	50.0000	48.25
7 Chloroethane	64		1.703	1.703	(0.354)		322285	50.0000	46.95
8 Trichlorofluoromethane	101		1.902	1.902	(0.395)		575912	50.0000	48.10
9 Acrolein	56		2.269	2.269	(0.471)		50776	100.000	80.49(TM)
10 Acetone	43		2.412	2.412	(0.501)		330552	100.000	88.40
11 1,1-Dichloroethene	96		2.337	2.337	(0.485)		355410	50.0000	48.84
15 Iodomethane	142		2.472	2.472	(0.513)		448171	100.000	104.81
16 Acrylonitrile	53		3.068	3.068	(0.637)		384788	100.000	89.73
17 Methylene Chloride	84		2.798	2.798	(0.581)		433868	50.0000	47.09
18 Methyl tert-butyl ether	73		3.083	3.083	(0.640)		969454	50.0000	46.92
19 Carbon Disulfide	76		2.524	2.524	(0.524)		1968968	100.000	100.17
20 trans-1,2-Dichloroethene	96		3.060	3.060	(0.636)		372495	50.0000	48.79
21 Vinyl Acetate	43		3.612	3.612	(0.750)		2578826	100.000	95.49
22 1,1-Dichloroethane	63		3.518	3.518	(0.731)		746404	50.0000	48.75
24 2-Butanone	43		4.268	4.268	(0.886)		410927	100.000	92.22
26 2,2-Dichloropropane	77		4.185	4.185	(0.869)		410298	50.0000	44.26



27 cis-1,2-Dichloroethene	96	4.196	4.196 (0.872)	430388	50.0000	49.31
28 Chloroform	83	4.575	4.575 (0.950)	711327	50.0000	47.85

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091426.D Page 2
 Report Date: 18-Sep-2023 12:32

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)	220367	50.0000	48.18
\$ 30 Dibromofluoromethane	113	4.747	4.747	(0.986)	369527	50.0000	55.07
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	515728	50.0000	51.09
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	435311	50.0000	46.80
33 1,2-Dichloroethane	62	5.178	5.178	(0.933)	532977	50.0000	47.05
34 Carbon Tetrachloride	117	4.912	4.912	(0.885)	376919	50.0000	45.29
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	395316	50.0000	52.18
* 36 1,4-Difluorobenzene	114	5.553	5.553	(1.000)	1171658	50.0000	
37 Benzene	78	5.141	5.141	(0.926)	1426796	50.0000	48.48
38 Trichloroethene	130	5.790	5.790	(1.043)	388887	50.0000	45.43
39 Bromodichloromethane	83	6.281	6.281	(1.131)	465732	50.0000	48.79
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	395327	50.0000	50.87
44 Dibromomethane	93	6.119	6.119	(1.102)	255721	50.0000	47.79
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	775698	100.000	93.10
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	509789	50.0000	43.49
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1125134	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1348769	50.0000	54.37
50 Toluene	91	6.982	6.982	(0.853)	1573501	50.0000	52.08
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	418956	50.0000	43.64
52 2-Hexanone	43	7.593	7.593	(0.928)	512487	100.000	100.47
53 1,1,2-Trichloroethane	83	7.356	7.356	(0.899)	308206	50.0000	46.78
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	646572	50.0000	48.79
55 Dibromochloromethane	129	7.694	7.694	(0.940)	398570	50.0000	50.82
56 Tetrachloroethene	164	7.458	7.458	(0.911)	354157	50.0000	50.31
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	392085	50.0000	49.52
58 1-Chlorohexane	55	8.196	8.196	(1.476)	301120	50.0000	42.54
59 Chlorobenzene	112	8.211	8.211	(1.003)	1075034	50.0000	48.10
60 1,1,1,2-Tetrachloroethane	131	8.282	8.282	(1.012)	373523	50.0000	49.73
61 Ethylbenzene	106	8.305	8.305	(1.015)	513485	50.0000	51.32
62 m,p-Xylenes	106	8.410	8.410	(1.027)	1291885	100.000	102.67
63 o-Xylene	106	8.747	8.747	(1.069)	649639	50.0000	49.68
64 Styrene	104	8.762	8.762	(1.071)	1011004	50.0000	50.35
66 Bromoform	173	8.920	8.920	(1.090)	256095	50.0000	43.74
67 Isopropylbenzene	105	9.062	9.062	(1.107)	1510040	50.0000	48.25
68 1,1,2,2-Tetrachloroethane	83	9.328	9.328	(0.917)	536997	50.0000	48.91
\$ 69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	570684	50.0000	52.40
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	565075	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	465408	50.0000	49.74
73 n-Propylbenzene	91	9.411	9.411	(0.925)	1619361	50.0000	46.52
74 Bromobenzene	156	9.317	9.317	(0.916)	467813	50.0000	52.09
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	1125404	50.0000	52.94
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	1086949	50.0000	51.80
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1272778	50.0000	51.69
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	1046485	50.0000	51.16
79 1,2,4-Trimethylbenzene	105	9.879	9.879	(0.971)	1150023	50.0000	52.63
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	1354113	50.0000	48.16
82 p-Isopropyltoluene	119	10.145	10.145	(0.997)	1112838	50.0000	49.44
83 1,3-Dichlorobenzene	146	10.115	10.115	(0.994)	775451	50.0000	48.95
84 1,4-Dichlorobenzene	146	10.190	10.190	(1.002)	820857	50.0000	46.12
87 n-Butylbenzene	91	10.490	10.490	(1.031)	956175	50.0000	46.60
88 1,2-Dichlorobenzene	146	10.505	10.505	(1.033)	790672	50.0000	48.80
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	69502	50.0000	50.88



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	500623	50.0000	54.28
91 Hexachlorobutadiene	225	11.997	11.997 (1.179)	196660	50.0000	47.52

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091426.D Page 3
Report Date: 18-Sep-2023 12:32

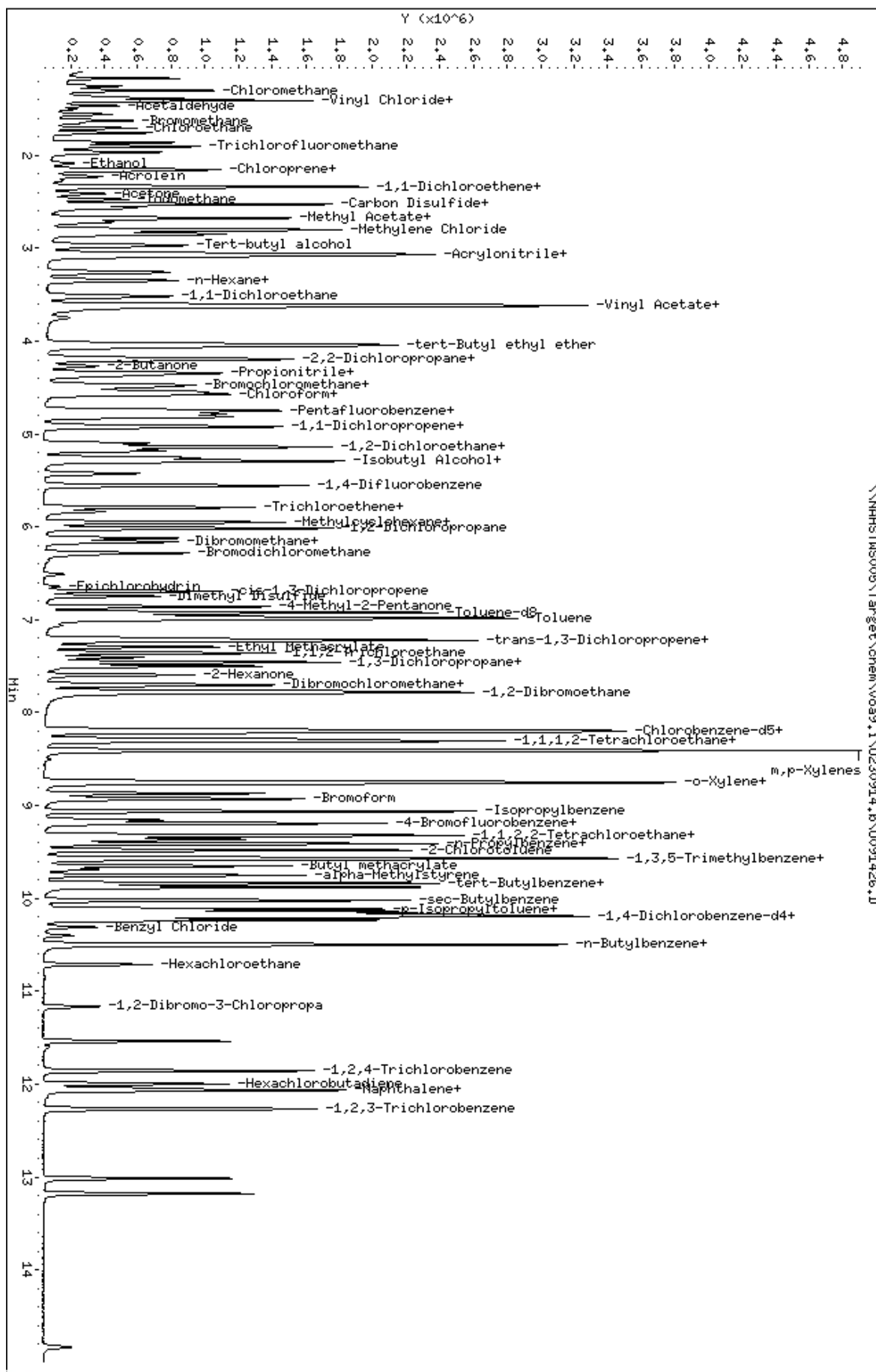
Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.065	12.065	(1.186)	1287172	50.0000	50.92
93 1,2,3-Trichlorobenzene	180	12.267	12.267	(1.206)	488247	50.0000	55.76
M 94 1,2-Dichloroethylene (total)	96				802883	100.000	(a)
135 1,4-Dioxane	88	6.172	6.172	(1.282)	96361	1000.00	901.75
141 Cyclohexane	56	4.781	4.781	(0.993)	487044	50.0000	48.77
138 Freon TF	101	2.337	2.337	(0.485)	300035	50.0000	49.61
140 1,3-Butadiene	54	1.407	1.407	(0.292)	423177	50.0000	48.72
147 Methylcyclohexane	55	5.951	5.951	(1.072)	732215	50.0000	42.63
146 Methyl Acetate	43	2.716	2.716	(0.564)	392605	50.0000	44.04
148 Tert-Butyl alcohol	59	2.970	2.970	(0.617)	838767	1000.00	931.17
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	594468	1000.00	919.93
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	65847	50.0000	39.06
12 Isobutyl Alcohol	43	5.291	5.291	(1.099)	1029193	1000.00	937.88
13 Acetonitrile	39	2.674	2.674	(0.555)	478091	500.000	426.24
14 Allyl Chloride	41	2.674	2.674	(0.555)	1115516	50.0000	42.79
25 Methacrylonitrile	41	4.500	4.500	(0.935)	276830	50.0000	47.90
40 Methyl Methacrylate	41	6.161	6.161	(1.279)	294776	50.0000	48.96
4 Propionitrile	54	4.343	4.343	(0.902)	720748	500.000	452.56
136 n-Hexane	57	3.345	3.345	(0.695)	377692	50.0000	45.04
194 Acetaldehyde	44	1.464	1.464	(0.304)	288819	200.000	198.76
131 Methyl Acrylate	55	4.373	4.373	(0.908)	532840	50.0000	46.56
200 Dimethyl Disulfide	94	6.745	6.745	(0.824)	321287	50.0000	37.35
23 Chloroprene	53	2.161	2.161	(0.449)	152191	50.0000	51.73
49 Ethyl Methacrylate	69	7.293	7.293	(1.313)	478803	50.0000	46.85
166 1,2,3-Trimethylbenzene	105	10.235	10.235	(1.006)	1013510	50.0000	46.63
167 Ethanol	45	2.086	2.086	(0.433)	127841	1000.00	826.33
164 Dicyclopentadiene	66	10.198	10.198	(1.003)	1043031	50.0000	38.08
145 alpha-Methylstyrene	118	9.752	9.752	(0.959)	432594	50.0000	50.86
142 Tetrahydrofuran	42	4.549	4.549	(0.945)	173176	100.000	93.87
156 Diisopropyl ether	45	3.623	3.623	(0.752)	1386809	50.0000	43.59
151 4-Methyl-2-pentanol	45	7.222	7.222	(1.300)	1386629	1000.00	942.54
150 Allyl alcohol	57	3.345	3.345	(0.695)	377692	1000.00	893.10
86 Benzyl Chloride	91	10.310	10.310	(1.260)	202395	50.0000	36.55
162 Butyl acrylate	55	8.736	8.736	(1.067)	588882	50.0000	45.73
139 Diethyl ether	59	2.150	2.150	(0.446)	315314	50.0000	43.27
203 2-Ethylhexyl Acrylate	55	12.042	12.042	(1.184)	227226	50.0000	45.35
134 Cyclohexanone	55	9.156	9.156	(0.900)	274486	1000.00	789.50
130 Ethyl Acetate	43	4.346	4.346	(0.903)	528868	50.0000	48.36
189 n-Butyl acetate	43	7.709	7.709	(0.942)	593436	50.0000	44.23
182 Epichlorohydrin	57	6.637	6.637	(1.195)	9123	200.000	99.41(T)
132 n-Butanol	56	5.834	5.834	(1.212)	203409	1000.00	903.77
133 Ethyl Acrylate	55	5.951	5.951	(1.236)	732215	50.0000	42.82
163 Butyl methacrylate	41	9.651	9.651	(0.949)	414522	50.0000	49.59
174 tert-Amyl methyl ether	73	5.291	5.291	(1.099)	932479	50.0000	56.83
175 tert-Butyl ethyl ether	59	4.054	4.054	(0.842)	995685	50.0000	44.56
188 Isopropyl acetate	43	5.291	5.291	(0.953)	1029799	50.0000	48.45
179 Hexachloroethane	166	10.712	10.712	(1.053)	82210	50.0000	42.02

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\U230914.b\U091426.D
 Date: 15-SEP-2023 01:03
 Client ID: CCV-END
 Sample Info: CCV-END;CCV-END;2;;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W093.i
 Operator: PC
 Column diameter: 0.18

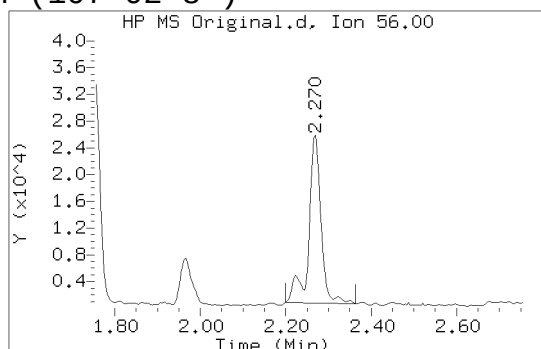


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Inj Date : 15-SEP-2023 01:03
InstruID : VOA9.i
LabSampID : CCV-END

Acrolein (107-02-8)

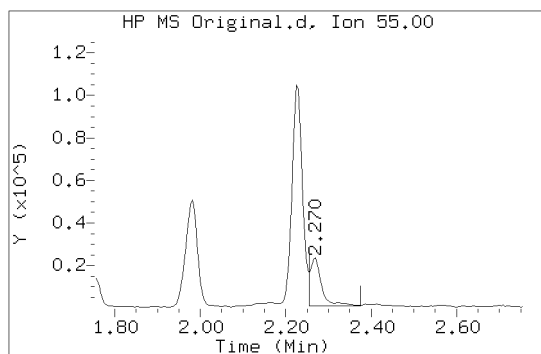
BEFORE

MASS
56
AREA
50776
HEIGHT
25116
18-Sep-2023
12:31
linh



BEFORE

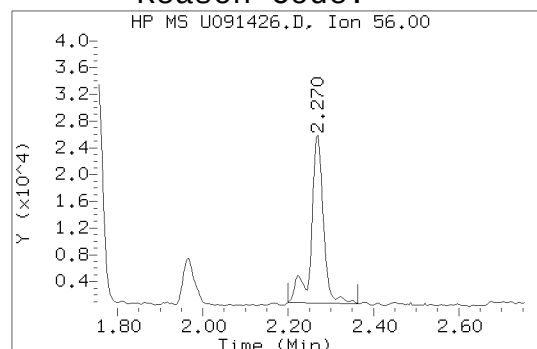
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linh
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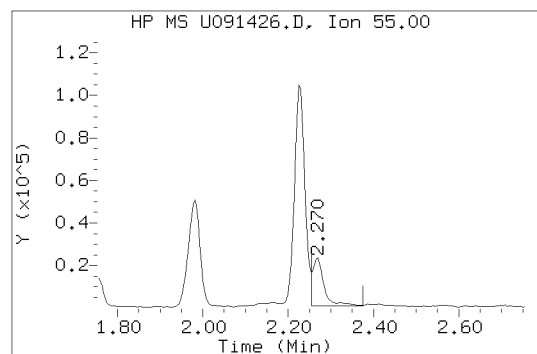
AFTER

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18-Sep-2023
12:31
linh



AFTER

MASS
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AREA
43257
HEIGHT
22587
18-Sep-2023
12:31
linh
pham



HS23090424 Wetchem 9056_W

ALS WO# HS23090424



Sequence: 091223
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	STD1	9056-W-SH	Calibration	RA1	1.00	1	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD2		Calibration	RA2	1.00	2	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD3		Calibration	RA3	1.00	3	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD4		Calibration	RA4	1.00	4	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD5		Calibration	RA5	1.00	5	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD6		Calibration	RA6	1.00	6	Anions Program ISO37mM 150mm short 0.4 Constant current
	ICV		Unknown	RA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	ICB		Unknown	RA8	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	R6	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
	HS23081962-01		Unknown	RA1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-02		Unknown	RA2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-02DF20		Unknown	RA3	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-03		Unknown	RA4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-03DF20		Unknown	RA5	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-04		Unknown	RA6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-04DF20		Unknown	RA7	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	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-05		Unknown	RA8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-05MS		Unknown	RB1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-05MSD		Unknown	RB2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-06		Unknown	RB3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-07		Unknown	RB4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-08		Unknown	RB5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081962-08DF10		Unknown	RB6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090054-01		Unknown	RB7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

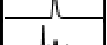
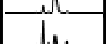
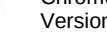


Sequence: 091223
Last Update Operator: alsht.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	HS23090054-02		Unknown	RB8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090054-07		Unknown	RC1	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090424-01DF5		Unknown	RC2	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090424-01DF50		Unknown	RC3	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090088-01		Unknown	RC4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081843-01DF50		Unknown	RC5	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081843-01DF1000		Unknown	RC6	1000.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081843-02DF50		Unknown	RC7	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081843-02DF1000	9056-W-SH	Unknown	RC8	1000.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	MBLK	300-W-SH	Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	LCS	300-W-SH	Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090607-01	300-W-SH	Unknown	RD1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090607-01MS	300-W-SH	Unknown	RD2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090607-01MSD	300-W-SH	Unknown	RD3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090607-02	300-W-SH	Unknown	RD4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090631-01DF10	9056-W-SH	Unknown	RD5	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090632-01DF2	300-W-SH	Unknown	RD6	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090632-02DF2	300-W-SH	Unknown	RD7	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090632-03DF2	300-W-SH	Unknown	RD8	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV		Unknown	G1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081833-01DF250		Unknown	RE1	250.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081833-01MSDF250		Unknown	RE2	250.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081833-01MSDDF250		Unknown	RE3	250.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081833-02DF250		Unknown	RE4	250.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23081833-03DF250		Unknown	RE5	250.00		Anions Program ISO37mM 150mm short 0.4 Constant current

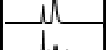
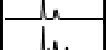
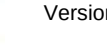


Sequence: 091223
Last Update Operator: alsht.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	 HS23081833-04DF250	300-W-NO2/NO3	Unknown	RE6	250.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081833-05DF250		Unknown	RE7	250.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081833-06DF500		Unknown	RE8	500.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081833-07DF500		Unknown	GA1	500.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081833-08DF500		Unknown	GA2	500.00		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
	 HS23081833-09DF250		Unknown	GA3	250.00		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
	 HS23081835-01DF5		Unknown	GA4	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-01MSDF5		Unknown	GA5	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-01MSDDF		Unknown	GA6	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-02DF50		Unknown	GA7	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-03DF5		Unknown	GA8	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-04DF20		Unknown	GB1	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-05DF5		Unknown	GB2	5.00		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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-06DF5		Unknown	GB3	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-07DF5		Unknown	GB4	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-08DF5		Unknown	GB5	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-09DF20		Unknown	GB6	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-10DF20		Unknown	GB7	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-11DF50		Unknown	GB8	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081835-12DF50		Unknown	GC1	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090240-01DF10		Unknown	GC2	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090240-01MSDF10		Unknown	GC3	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090240-01MSDDF		Unknown	GC4	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current



Sequence: 091223
Last Update Operator: alsht.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090240-02DF10		Unknown	GC5	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090240-03DF10		Unknown	GC6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090240-04DF10		Unknown	GC7	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090497-01DF10		Unknown	GC8	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090200-01DF5		Unknown	GD1	5.00		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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 MBLK-200217		Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 LCS-200217		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081856-01		Unknown	GD2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081856-01MS		Unknown	GD3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081856-01MSD		Unknown	GD4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081856-02		Unknown	GD5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081856-03		Unknown	GD6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081856-04		Unknown	GD7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081856-05DF2		Unknown	GD8	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081856-06DF2		Unknown	GE1	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081959-01		Unknown	GE2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23081959-02		Unknown	GE3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090261-01		Unknown	GE4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090389-01		Unknown	GE5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090389-03		Unknown	GE6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090389-05		Unknown	GE7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090389-07		Unknown	GE8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23090389-09		Unknown	BA1	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	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current



Sequence: 091223
Last Update Operator: alsht.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	 HS23090036-01		Unknown	BA2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090036-02		Unknown	BA3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090036-03		Unknown	BA4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090036-04		Unknown	BA5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090036-05		Unknown	BA6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 HS23090036-06		Unknown	BA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	 CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current



Sequence: 091223
Last Update Operator: alshs.nouser

Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		STD1	5.0	Finished	9/8/2023 6:51:59 AM -05:00
Anions Processing Method ISO		STD2	5.0	Finished	9/8/2023 6:57:46 AM -05:00
Anions Processing Method ISO		STD3	5.0	Finished	9/8/2023 7:03:33 AM -05:00
Anions Processing Method ISO		STD4	5.0	Finished	9/8/2023 7:09:20 AM -05:00
Anions Processing Method ISO		STD5	5.0	Finished	9/8/2023 7:15:07 AM -05:00
Anions Processing Method ISO		STD6	5.0	Finished	9/8/2023 7:20:54 AM -05:00
Anions Processing Method ISO		ICV	5.0	Finished	9/8/2023 7:26:41 AM -05:00
Anions Processing Method ISO		ICB	5.0	Finished	9/8/2023 7:44:36 AM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	9/12/2023 8:35:36 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 8:41:23 AM -05:00
Anions Processing Method ISO		MBLK	5.0	Finished	9/12/2023 8:52:57 AM -05:00
Anions Processing Method ISO		LCS	5.0	Finished	9/12/2023 8:58:44 AM -05:00
Anions Processing Method ISO		HS23081962-01	5.0	Finished	9/12/2023 9:04:42 AM -05:00
Anions Processing Method ISO		HS23081962-02	5.0	Finished	9/12/2023 9:10:29 AM -05:00
Anions Processing Method ISO		HS23081962-02DF20	5.0	Finished	9/12/2023 9:16:15 AM -05:00
Anions Processing Method ISO		HS23081962-03	5.0	Finished	9/12/2023 9:22:01 AM -05:00
Anions Processing Method ISO		HS23081962-03DF20	5.0	Finished	9/12/2023 9:27:48 AM -05:00
Anions Processing Method ISO		HS23081962-04	5.0	Finished	9/12/2023 9:33:34 AM -05:00
Anions Processing Method ISO		HS23081962-04DF20	5.0	Finished	9/12/2023 9:39:21 AM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	9/12/2023 9:50:54 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 9:56:41 AM -05:00
Anions Processing Method ISO		HS23081962-05	5.0	Finished	9/12/2023 10:08:14 AM -05:00
Anions Processing Method ISO		HS23081962-05MS	5.0	Finished	9/12/2023 10:14:00 AM -05:00
Anions Processing Method ISO		HS23081962-05MSD	5.0	Finished	9/12/2023 10:19:47 AM -05:00
Anions Processing Method ISO		HS23081962-06	5.0	Finished	9/12/2023 10:25:34 AM -05:00
Anions Processing Method ISO		HS23081962-07	5.0	Finished	9/12/2023 10:31:20 AM -05:00
Anions Processing Method ISO		HS23081962-08	5.0	Finished	9/12/2023 10:37:07 AM -05:00
Anions Processing Method ISO		HS23081962-08DF10	5.0	Finished	9/12/2023 10:42:53 AM -05:00
Anions Processing Method ISO		HS23090054-01	5.0	Finished	9/12/2023 10:48:39 AM -05:00



Sequence: 091223
Last Update Operator: alsht.nouser

Processing Method	CD	Name	me	Status	Inject Time
Anions Processing Method ISO		HS23090054-02	5.0	Finished	9/12/2023 10:54:26 AM -05:00
Anions Processing Method ISO		HS23090054-07	5.0	Finished	9/12/2023 11:00:12 AM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	9/12/2023 11:11:46 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 11:23:19 AM -05:00
Anions Processing Method ISO		HS23090424-01DF5	5.0	Finished	9/12/2023 11:34:52 AM -05:00
Anions Processing Method ISO		HS23090424-01DF50	5.0	Finished	9/12/2023 11:40:50 AM -05:00
Anions Processing Method ISO		HS23090088-01	5.0	Finished	9/12/2023 11:46:36 AM -05:00
Anions Processing Method ISO		HS23081843-01DF50	5.0	Finished	9/12/2023 11:52:23 AM -05:00
Anions Processing Method ISO		HS23081843-01DF1000	5.0	Finished	9/12/2023 11:58:09 AM -05:00
Anions Processing Method ISO		HS23081843-02DF50	5.0	Finished	9/12/2023 12:03:56 PM -05:00
Anions Processing Method ISO		HS23081843-02DF1000	5.0	Finished	9/12/2023 12:09:42 PM -05:00
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Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 12:32:48 PM -05:00
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Anions Processing Method ISO		HS23090607-01MS	5.0	Finished	9/12/2023 1:07:28 PM -05:00
Anions Processing Method ISO		HS23090607-01MSD	5.0	Finished	9/12/2023 1:13:14 PM -05:00
Anions Processing Method ISO		HS23090607-02	5.0	Finished	9/12/2023 1:19:01 PM -05:00
Anions Processing Method ISO		HS23090631-01DF10	5.0	Finished	9/12/2023 1:54:14 PM -05:00
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Anions Processing Method ISO		HS23090632-03DF2	5.0	Finished	9/12/2023 2:11:34 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	9/12/2023 2:23:07 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 2:34:41 PM -05:00
Anions Processing Method ISO		HS23081833-01DF250	5.0	Finished	9/12/2023 2:46:14 PM -05:00
Anions Processing Method ISO		HS23081833-01MSDF25	5.0	Finished	9/12/2023 2:52:01 PM -05:00
Anions Processing Method ISO		HS23081833-01MSDDF	5.0	Finished	9/12/2023 2:57:47 PM -05:00
Anions Processing Method ISO		HS23081833-02DF250	5.0	Finished	9/12/2023 3:03:34 PM -05:00
Anions Processing Method ISO		HS23081833-03DF250	5.0	Finished	9/12/2023 3:09:21 PM -05:00



Sequence: 091223
Last Update Operator: alsht.nouser

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Anions Processing Method ISO		HS23081833-06DF500	5.0	Finished	9/12/2023 3:26:41 PM -05:00
Anions Processing Method ISO		HS23081833-07DF500	5.0	Finished	9/12/2023 3:32:39 PM -05:00
Anions Processing Method ISO		HS23081833-08DF500	5.0	Finished	9/12/2023 3:38:25 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	9/12/2023 3:49:59 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 4:01:32 PM -05:00
Anions Processing Method ISO		HS23081833-09DF250	5.0	Finished	9/12/2023 4:07:19 PM -05:00
Anions Processing Method ISO		MBLK	5.0	Finished	9/12/2023 4:24:39 PM -05:00
Anions Processing Method ISO		LCS	5.0	Finished	9/12/2023 4:30:26 PM -05:00
Anions Processing Method ISO		HS23081835-01DF5	5.0	Finished	9/12/2023 4:36:13 PM -05:00
Anions Processing Method ISO		HS23081835-01MSDF5	5.0	Finished	9/12/2023 4:42:00 PM -05:00
Anions Processing Method ISO		HS23081835-01MSDDF	5.0	Finished	9/12/2023 4:47:46 PM -05:00
Anions Processing Method ISO		HS23081835-02DF50	5.0	Finished	9/12/2023 4:53:44 PM -05:00
Anions Processing Method ISO		HS23081835-03DF5	5.0	Finished	9/12/2023 4:59:42 PM -05:00
Anions Processing Method ISO		HS23081835-04DF20	5.0	Finished	9/12/2023 5:05:29 PM -05:00
Anions Processing Method ISO		HS23081835-05DF5	5.0	Finished	9/12/2023 5:11:16 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	9/12/2023 5:28:36 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 5:34:23 PM -05:00
Anions Processing Method ISO		HS23081835-06DF5	5.0	Finished	9/12/2023 5:45:56 PM -05:00
Anions Processing Method ISO		HS23081835-07DF5	5.0	Finished	9/12/2023 5:51:43 PM -05:00
Anions Processing Method ISO		HS23081835-08DF5	5.0	Finished	9/12/2023 5:57:29 PM -05:00
Anions Processing Method ISO		HS23081835-09DF20	5.0	Finished	9/12/2023 6:03:16 PM -05:00
Anions Processing Method ISO		HS23081835-10DF20	5.0	Finished	9/12/2023 6:09:03 PM -05:00
Anions Processing Method ISO		HS23081835-11DF50	5.0	Finished	9/12/2023 6:14:49 PM -05:00
Anions Processing Method ISO		HS23081835-12DF50	5.0	Finished	9/12/2023 6:20:36 PM -05:00
Anions Processing Method ISO		HS23090240-01DF10	5.0	Finished	9/12/2023 6:26:23 PM -05:00
Anions Processing Method ISO		HS23090240-01MSDF10	5.0	Finished	9/12/2023 6:32:10 PM -05:00
Anions Processing Method ISO		HS23090240-01MSDDF	5.0	Finished	9/12/2023 6:37:56 PM -05:00
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Sequence: 091223
Last Update Operator: alsht.nouser

Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 7:01:03 PM -05:00
Anions Processing Method ISO		HS23090240-02DF10	5.0	Finished	9/12/2023 7:12:37 PM -05:00
Anions Processing Method ISO		HS23090240-03DF10	5.0	Finished	9/12/2023 7:18:24 PM -05:00
Anions Processing Method ISO		HS23090240-04DF10	5.0	Finished	9/12/2023 7:24:10 PM -05:00
Anions Processing Method ISO		HS23090497-01DF10	5.0	Finished	9/12/2023 7:29:57 PM -05:00
Anions Processing Method ISO		HS23090200-01DF5	5.0	Finished	9/12/2023 7:35:44 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	9/12/2023 7:58:51 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 8:04:37 PM -05:00
Anions Processing Method ISO		MBLK-200217	5.0	Finished	9/12/2023 8:16:11 PM -05:00
Anions Processing Method ISO		LCS-200217	5.0	Finished	9/12/2023 8:21:58 PM -05:00
Anions Processing Method ISO		HS23081856-01	5.0	Finished	9/12/2023 8:33:31 PM -05:00
Anions Processing Method ISO		HS23081856-01MS	5.0	Finished	9/12/2023 8:39:18 PM -05:00
Anions Processing Method ISO		HS23081856-01MSD	5.0	Finished	9/12/2023 8:45:05 PM -05:00
Anions Processing Method ISO		HS23081856-02	5.0	Finished	9/12/2023 8:50:52 PM -05:00
Anions Processing Method ISO		HS23081856-03	5.0	Finished	9/12/2023 8:56:38 PM -05:00
Anions Processing Method ISO		HS23081856-04	5.0	Finished	9/12/2023 9:02:25 PM -05:00
Anions Processing Method ISO		HS23081856-05DF2	5.0	Finished	9/12/2023 9:08:12 PM -05:00
Anions Processing Method ISO		HS23081856-06DF2	5.0	Finished	9/12/2023 9:13:59 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	9/12/2023 9:25:32 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 9:31:19 PM -05:00
Anions Processing Method ISO		HS23081959-01	5.0	Finished	9/12/2023 9:42:52 PM -05:00
Anions Processing Method ISO		HS23081959-02	5.0	Finished	9/12/2023 9:48:39 PM -05:00
Anions Processing Method ISO		HS23090261-01	5.0	Finished	9/12/2023 9:54:26 PM -05:00
Anions Processing Method ISO		HS23090389-01	5.0	Finished	9/12/2023 10:00:13 PM -05:00
Anions Processing Method ISO		HS23090389-03	5.0	Finished	9/12/2023 10:05:59 PM -05:00
Anions Processing Method ISO		HS23090389-05	5.0	Finished	9/12/2023 10:11:46 PM -05:00
Anions Processing Method ISO		HS23090389-07	5.0	Finished	9/12/2023 10:17:33 PM -05:00
Anions Processing Method ISO		HS23090389-09	5.0	Finished	9/12/2023 10:23:31 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	9/12/2023 10:35:04 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 10:40:51 PM -05:00



Sequence: 091223
Last Update Operator: alshs.nouser

Processing Method	CD	Name	Volume	Status	Inject Time
Anions Processing Method ISO		HS23090036-01	5.0	Finished	9/12/2023 10:52:24 PM -05:00
Anions Processing Method ISO		HS23090036-02	5.0	Finished	9/12/2023 10:58:11 PM -05:00
Anions Processing Method ISO		HS23090036-03	5.0	Finished	9/12/2023 11:03:58 PM -05:00
Anions Processing Method ISO		HS23090036-04	5.0	Finished	9/12/2023 11:09:44 PM -05:00
Anions Processing Method ISO		HS23090036-05	5.0	Finished	9/12/2023 11:15:31 PM -05:00
Anions Processing Method ISO		HS23090036-06	5.0	Finished	9/12/2023 11:21:18 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	9/12/2023 11:32:51 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	9/12/2023 11:38:38 PM -05:00



Sequence: 090823
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	Quad, WithOffset, 1/A	Area	6	15.8030	0.99925	-0.0156	0.2362	-0.0006
2	Chloride	Lin, WithOffset, 1/A	Area	6	5.3728	0.99987	-0.0255	0.1591	0.0000
3	Nitrite,N	Quad, WithOffset, 1/A	Area	6	5.4682	0.99986	-0.0021	0.3518	-0.0040
4	Sulfate	Lin, WithOffset, 1/A	Area	6	3.8857	0.99993	-0.0152	0.1076	0.0000
5	Bromide	Quad, WithOffset, 1/A	Area	6	9.0057	0.99977	-0.0018	0.0437	0.0004
6	Nitrate	Lin, WithOffset, 1/A	Area	6	7.8483	0.99970	-0.0059	0.3375	0.0000
7	Chlorate	Quad, WithOffset, 1/A	Area	5	4.0117	0.99979	-0.0025	0.0305	-0.0005
n.a.	Phosphate	Lin, WithOffset, 1/A	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum					15.8030	0.99993			
Minimum					3.8857	0.99925			

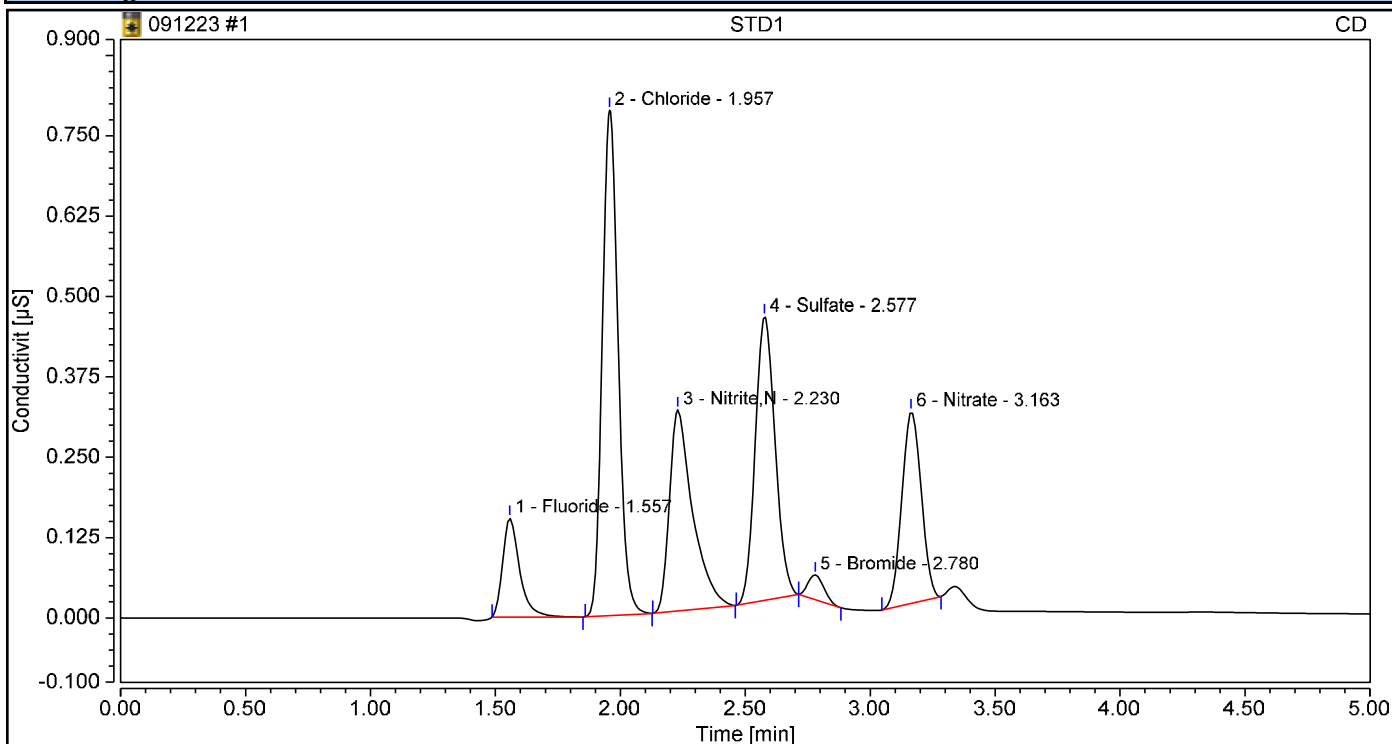


Chromatogram and Results

Injection Details

Injection Name:	STD1	Run Time (min):	5.00
Vial Number:	RA1	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	1	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Sep/23 06:51	Sample Weight:	1.0000

Chromatogram



Integration Results

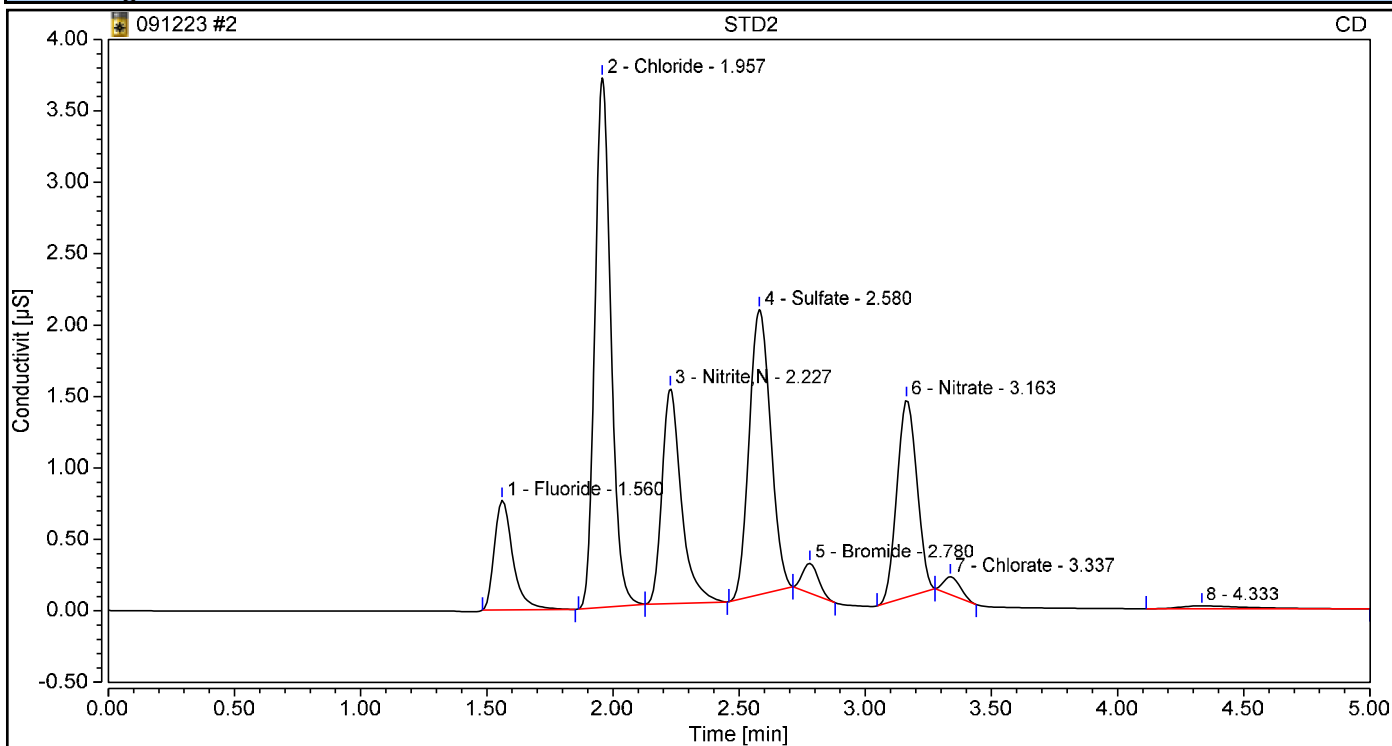
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.557	0.012	0.154	6.96	7.57	0.1174
2	Chloride	1.957	0.058	0.786	33.19	38.71	0.5224
3	Nitrite, N	2.230	0.034	0.313	19.33	15.41	0.1016
4	Sulfate	2.577	0.041	0.441	23.41	21.73	0.5194
5	Bromide	2.780	0.003	0.039	1.65	1.90	0.1058
6	Nitrate	3.163	0.027	0.298	15.47	14.69	0.0971
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.174	2.031	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	STD2	Run Time (min):	5.00
Vial Number:	RA2	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	2	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Sep/23 06:57	Sample Weight:	1.0000

Chromatogram



Integration Results

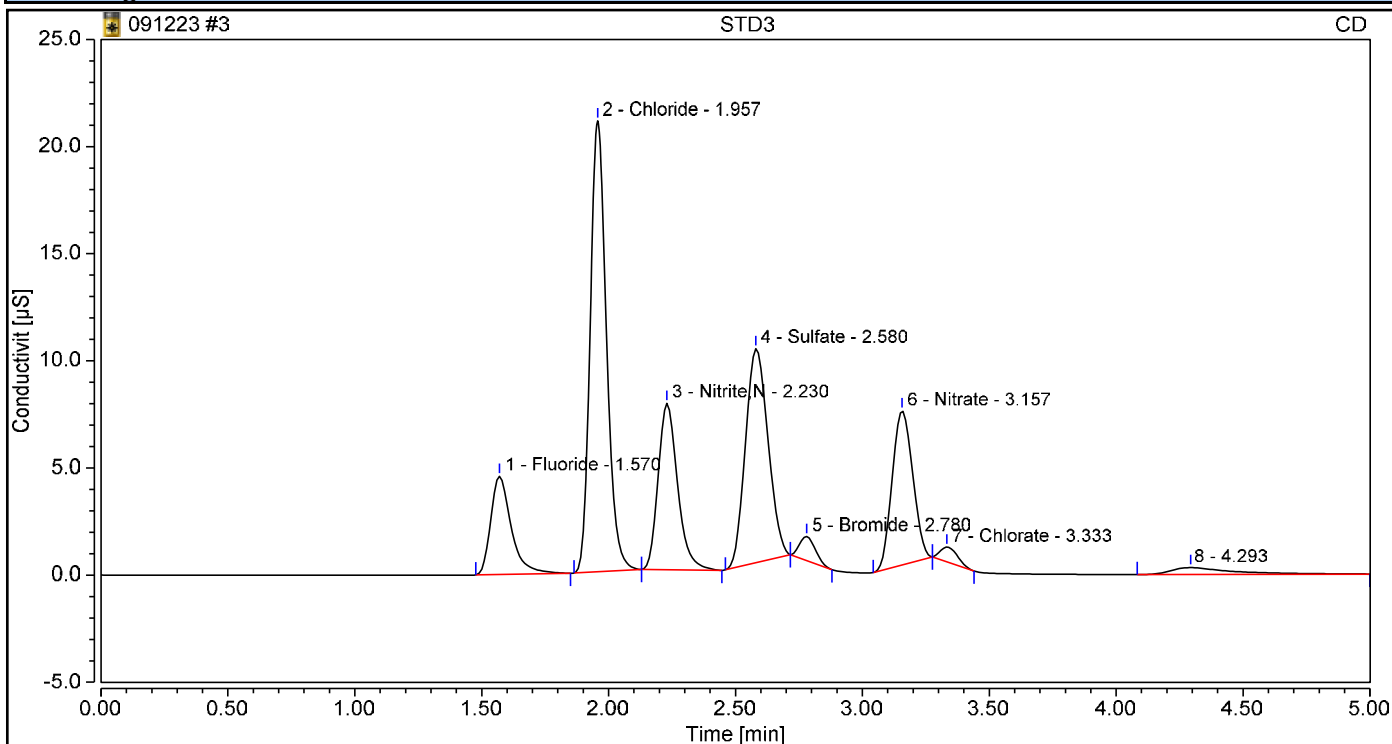
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.560	0.065	0.767	7.87	7.89	0.3421
2	Chloride	1.957	0.273	3.706	33.01	38.17	1.8754
3	Nitrite, N	2.227	0.133	1.504	16.11	15.49	0.3865
4	Sulfate	2.580	0.197	1.995	23.77	20.55	1.9680
5	Bromide	2.780	0.015	0.209	1.86	2.15	0.3911
6	Nitrate	3.163	0.127	1.383	15.39	14.25	0.3945
7	Chlorate	3.337	0.010	0.124	1.17	1.28	0.4019
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.333	0.007	0.020	0.80	0.21	n.a.
Total:			0.827	9.709	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	STD3	Run Time (min):	5.00
Vial Number:	RA3	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	3	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Sep/23 07:03	Sample Weight:	1.0000

Chromatogram



Integration Results

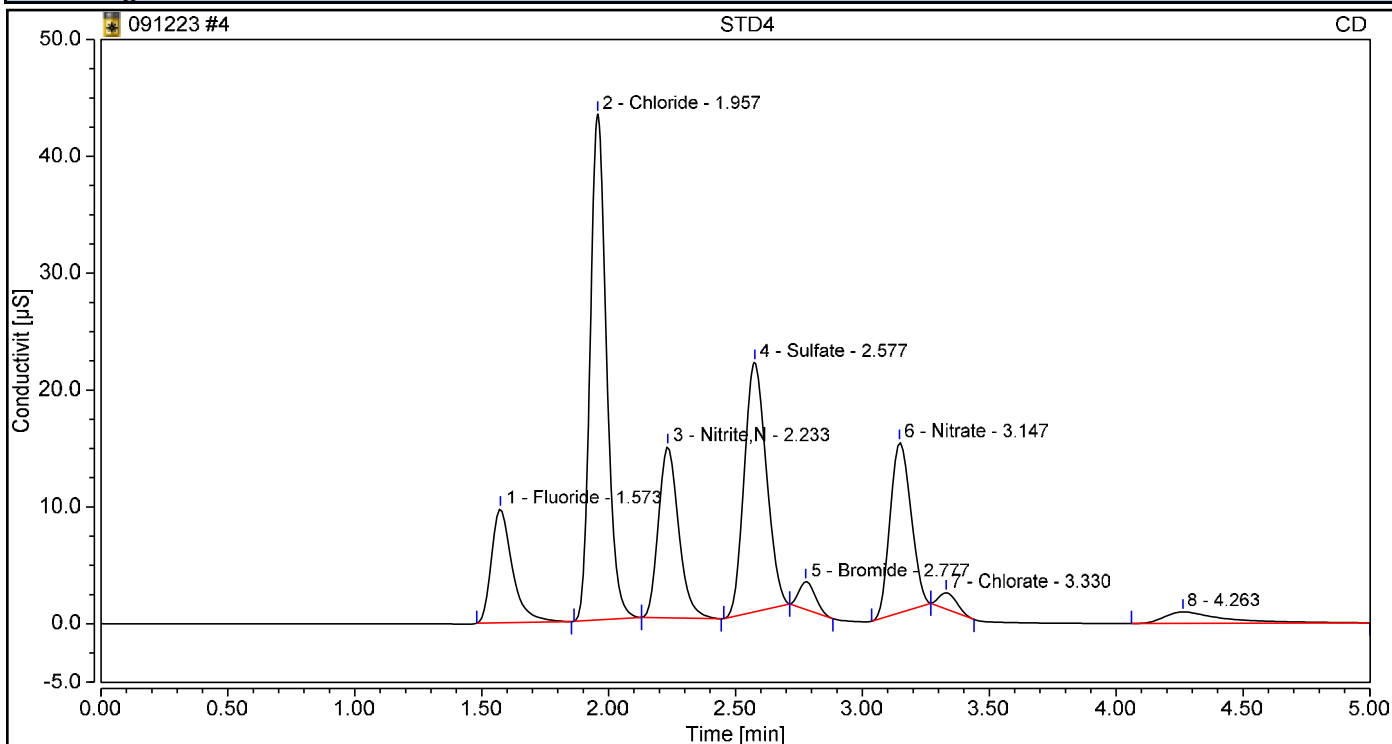
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.570	0.427	4.589	9.26	8.70	1.8834
2	Chloride	1.957	1.559	21.045	33.82	39.92	9.9624
3	Nitrite, N	2.230	0.693	7.766	15.03	14.73	2.0223
4	Sulfate	2.580	1.027	10.001	22.28	18.97	9.6884
5	Bromide	2.780	0.082	1.116	1.78	2.12	1.8873
6	Nitrate	3.157	0.675	7.195	14.65	13.65	2.0190
7	Chlorate	3.333	0.055	0.687	1.20	1.30	1.9560
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.293	0.091	0.320	1.98	0.61	n.a.
Total:			4.610	52.719	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	STD4	Run Time (min):	5.00
Vial Number:	RA4	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	4	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Sep/23 07:09	Sample Weight:	1.0000

Chromatogram



Integration Results

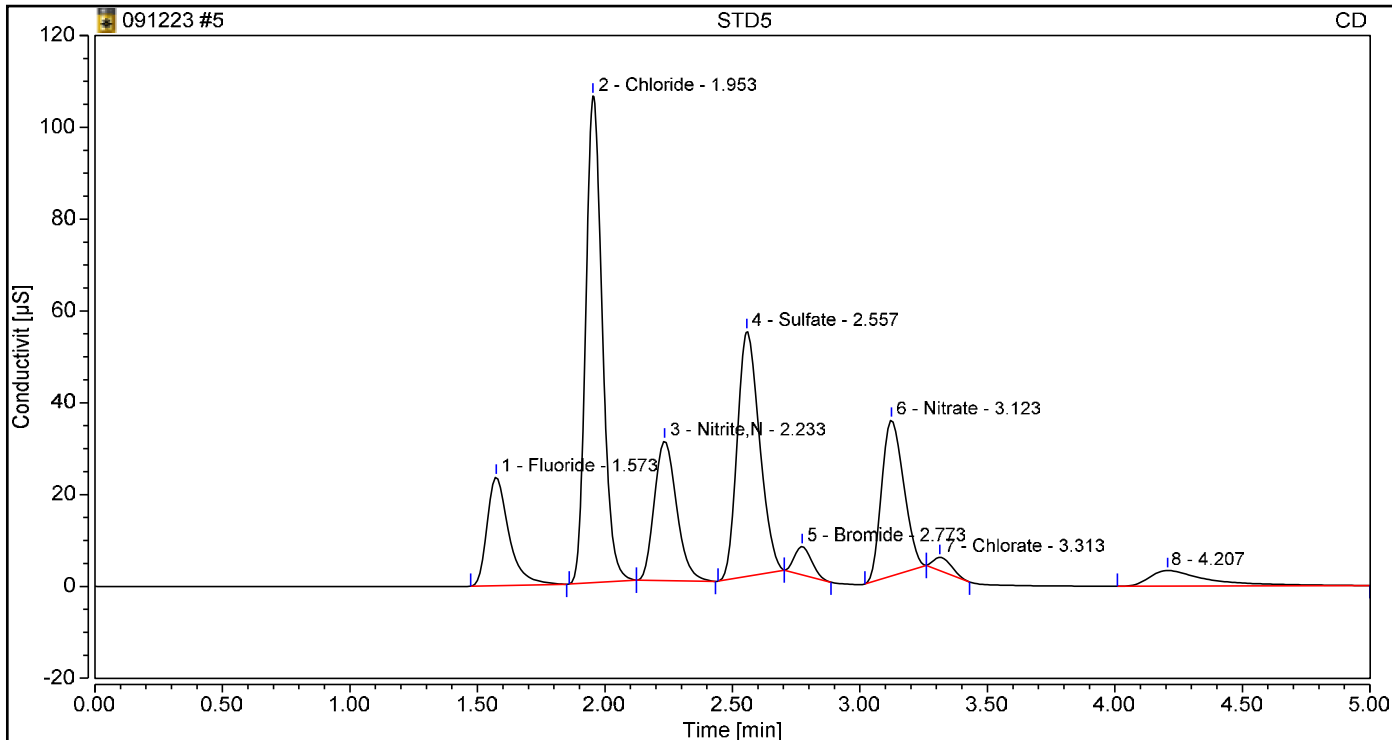
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.573	0.931	9.759	9.68	9.01	4.0504
2	Chloride	1.957	3.227	43.285	33.54	39.95	20.4428
3	Nitrite, N	2.233	1.364	14.668	14.17	13.54	4.0731
4	Sulfate	2.577	2.148	21.332	22.33	19.69	20.1055
5	Bromide	2.777	0.181	2.380	1.88	2.20	4.0444
6	Nitrate	3.147	1.390	14.577	14.45	13.45	4.1367
7	Chlorate	3.330	0.114	1.381	1.18	1.27	4.1000
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.263	0.266	0.977	2.76	0.90	n.a.
Total:			9.620	108.360	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	STD5	Run Time (min):	5.00
Vial Number:	RA5	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	5	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Sep/23 07:15	Sample Weight:	1.0000

Chromatogram



Integration Results

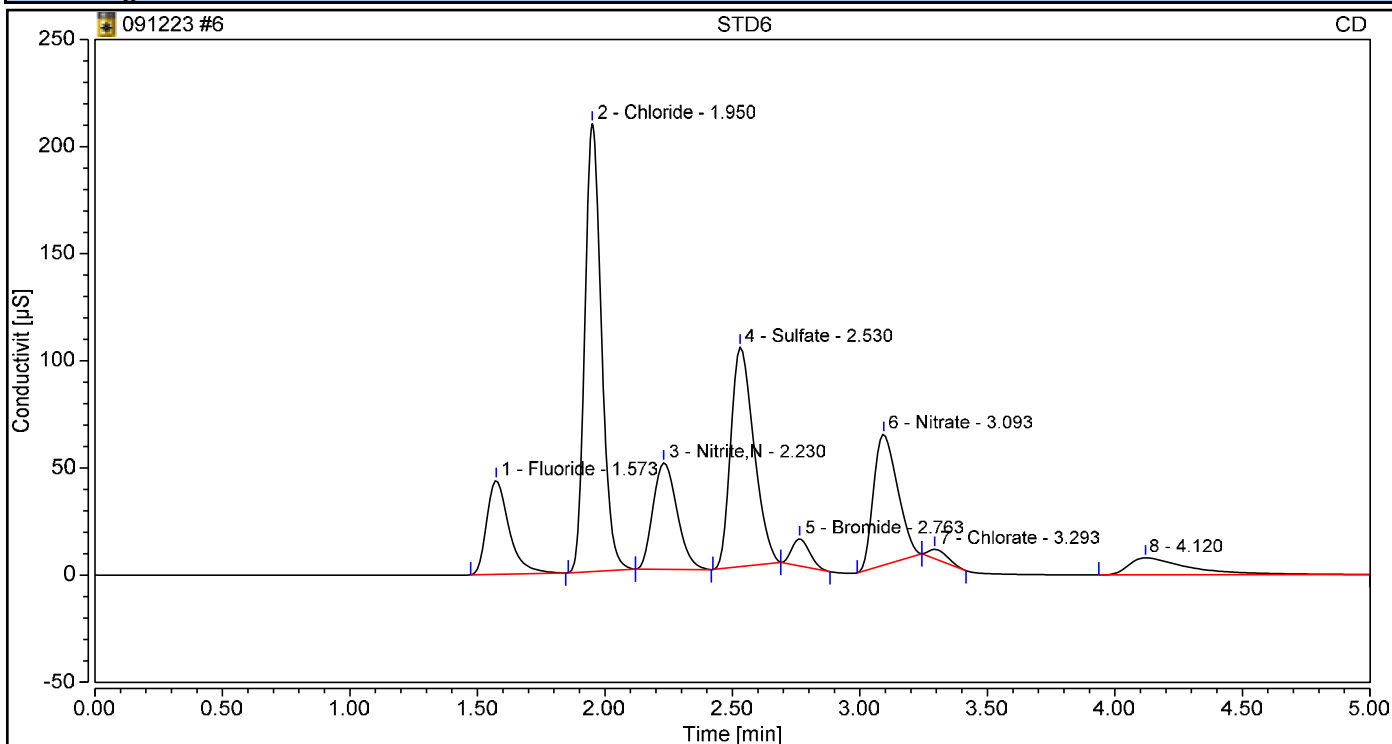
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.573	2.337	23.654	9.83	9.10	10.2185
2	Chloride	1.953	7.963	105.986	33.48	40.79	50.2135
3	Nitrite, N	2.233	3.069	30.441	12.91	11.72	9.8430
4	Sulfate	2.557	5.375	53.357	22.60	20.54	50.0975
5	Bromide	2.773	0.479	6.135	2.01	2.36	10.1194
6	Nitrate	3.123	3.410	33.964	14.34	13.07	10.1231
7	Chlorate	3.313	0.247	2.888	1.04	1.11	9.8967
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.207	0.904	3.391	3.80	1.31	n.a.
Total:			23.785	259.816	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	STD6	Run Time (min):	5.00
Vial Number:	RA6	Injection Volume:	5.00
Injection Type:	Calibration Standard	Channel:	CD
Calibration Level:	6	Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Sep/23 07:20	Sample Weight:	1.0000

Chromatogram



Integration Results

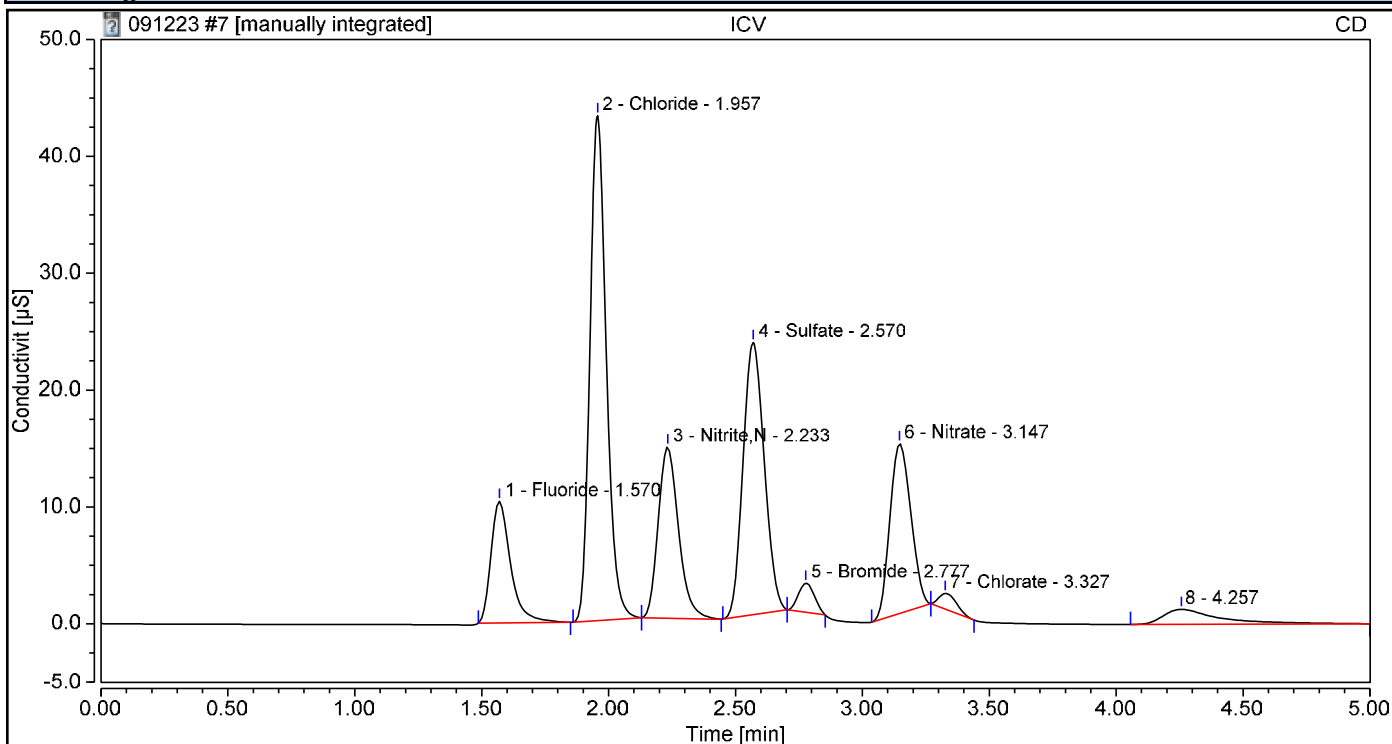
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.573	4.451	43.796	9.53	8.92	19.8879
2	Chloride	1.950	15.800	208.984	33.84	42.57	99.4835
3	Nitrite, N	2.230	5.436	49.707	11.64	10.13	20.0842
4	Sulfate	2.530	10.757	102.465	23.04	20.87	100.1213
5	Bromide	2.763	1.018	12.645	2.18	2.58	19.9495
6	Nitrate	3.093	6.652	61.046	14.25	12.43	19.7296
7	Chlorate	3.293	0.395	4.348	0.85	0.89	20.0683
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.120	2.185	7.934	4.68	1.62	n.a.
Total:			46.696	490.925	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	ICV	Run Time (min):	5.00
Vial Number:	RA7	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Sep/23 07:26	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.570	0.928	10.403	9.49	9.36	4.0367
2	Chloride	1.957	3.228	43.208	33.00	38.86	20.4498
3	Nitrite, N	2.233	1.366	14.652	13.96	13.18	4.0794
4	Sulfate	2.570	2.245	23.287	22.95	20.94	21.0047
5	Bromide	2.777	0.184	2.487	1.88	2.24	4.1028
6	Nitrate	3.147	1.387	14.531	14.18	13.07	4.1263
7	Chlorate	3.327	0.112	1.343	1.14	1.21	4.0297
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.257	0.332	1.283	3.40	1.15	n.a.
Total:			9.781	111.194	100.00	100.00	

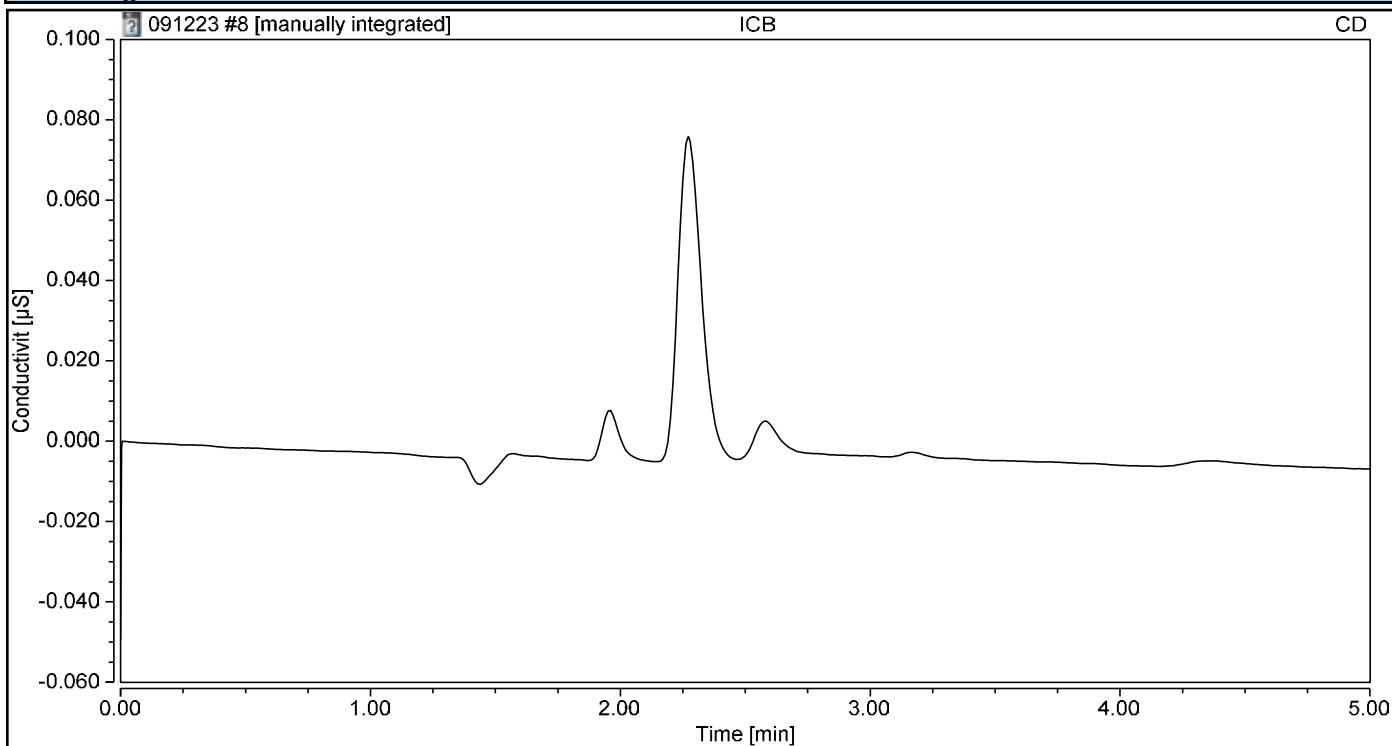


Chromatogram and Results

Injection Details

Injection Name:	ICB	Run Time (min):	5.00
Vial Number:	RA8	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	08/Sep/23 07:44	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.000	0.000	0.00	0.00	

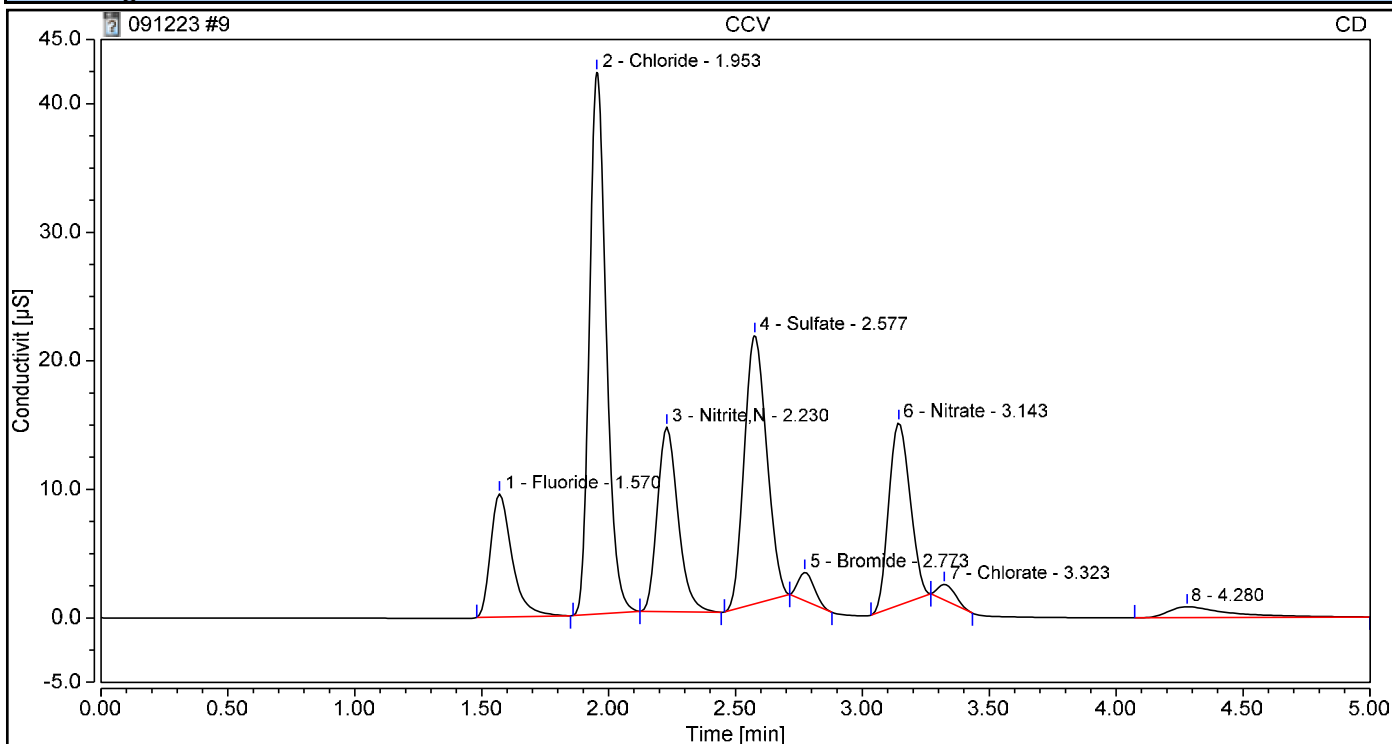


Chromatogram and Results

Injection Details

Injection Name:	CCV	Run Time (min):	5.00
Vial Number:	R1	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 08:35	Sample Weight:	1.0000

Chromatogram



Integration Results

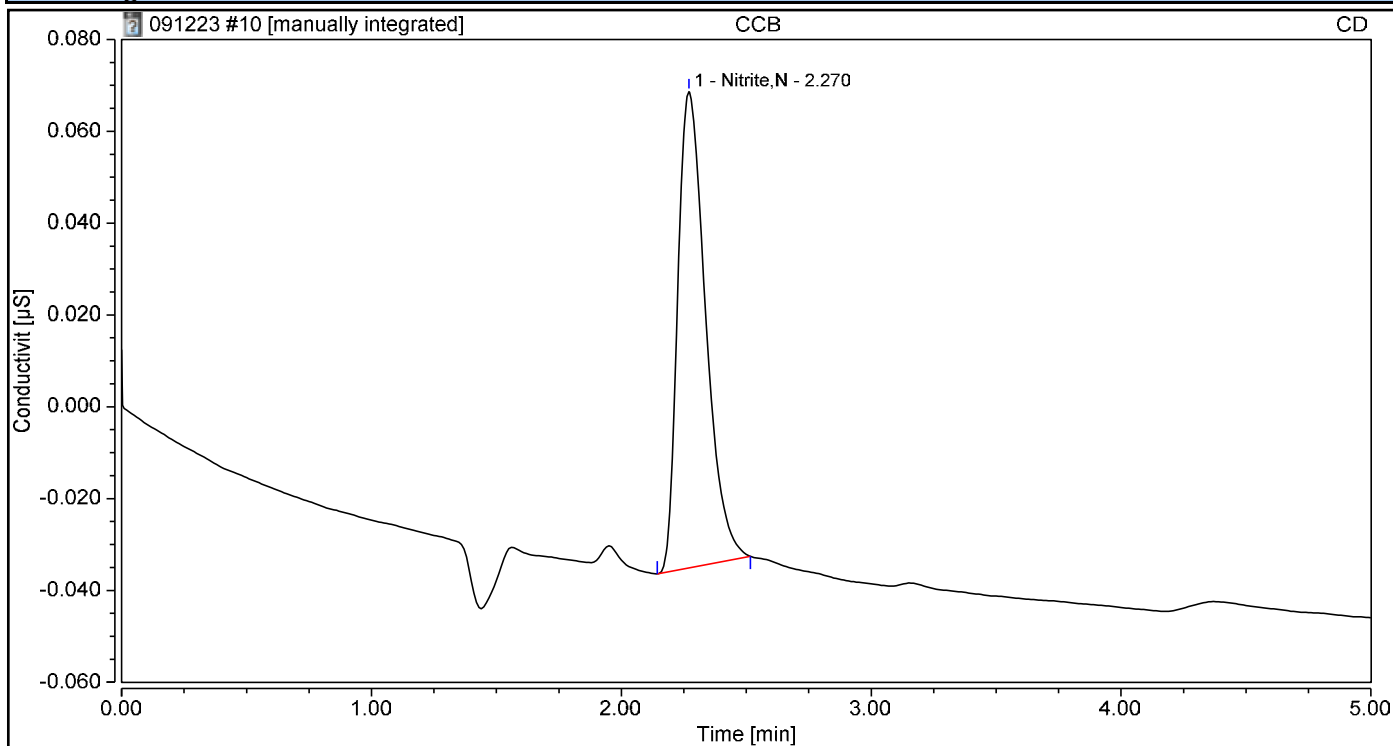
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.570	0.931	9.580	9.75	9.09	4.0464
2	Chloride	1.953	3.231	42.128	33.86	39.95	20.4734
3	Nitrite, N	2.230	1.363	14.361	14.28	13.62	4.0697
4	Sulfate	2.577	2.132	20.875	22.34	19.80	19.9543
5	Bromide	2.773	0.167	2.212	1.75	2.10	3.7356
6	Nitrate	3.143	1.382	14.217	14.48	13.48	4.1114
7	Chlorate	3.323	0.100	1.222	1.05	1.16	3.5740
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.280	0.239	0.847	2.50	0.80	n.a.
Total:			9.543	105.443	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCB	Run Time (min):	5.00
Vial Number:	R6	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 08:41	Sample Weight:	1.0000

Chromatogram



Integration Results

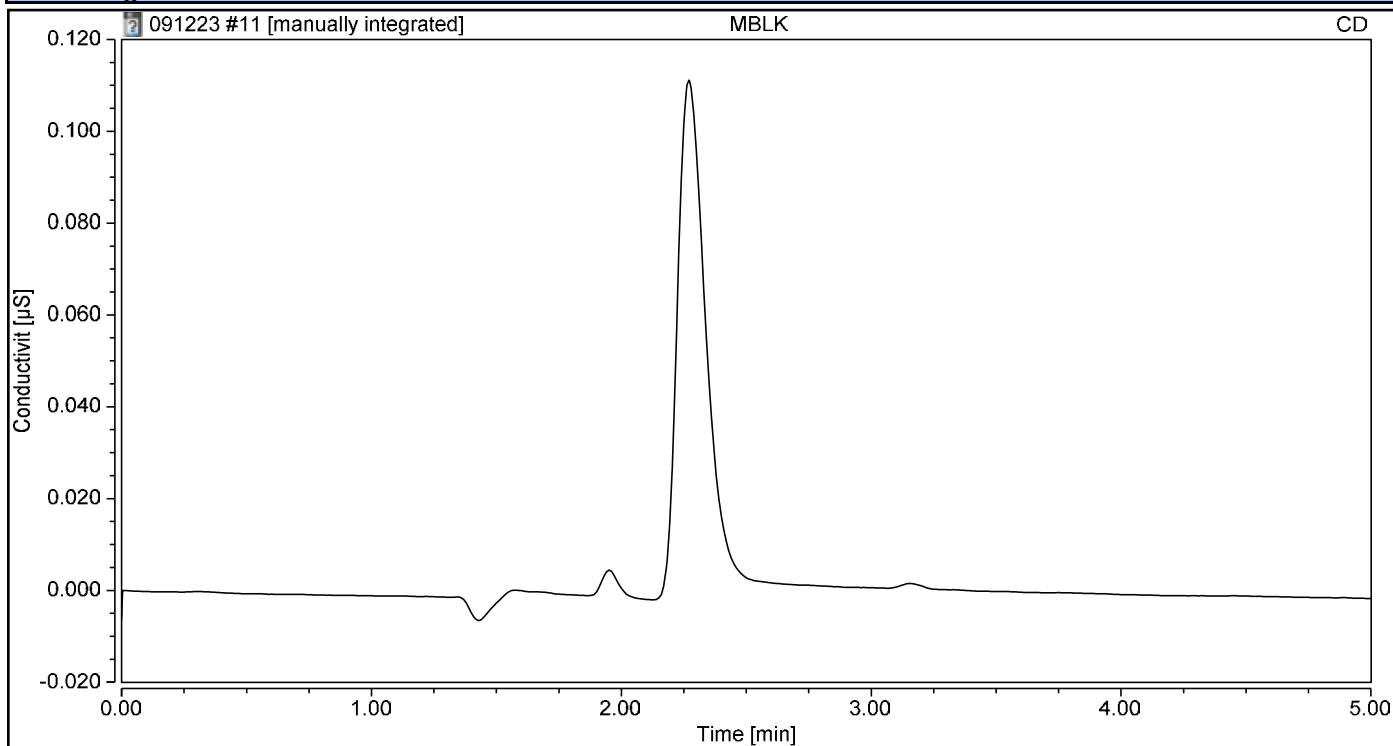
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Nitrite, N	2.270	0.013	0.104	100.00	100.00	0.0443
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.013	0.104	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	MBLK	Run Time (min):	5.00
Vial Number:	R5	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 08:52	Sample Weight:	1.0000

Chromatogram



Integration Results

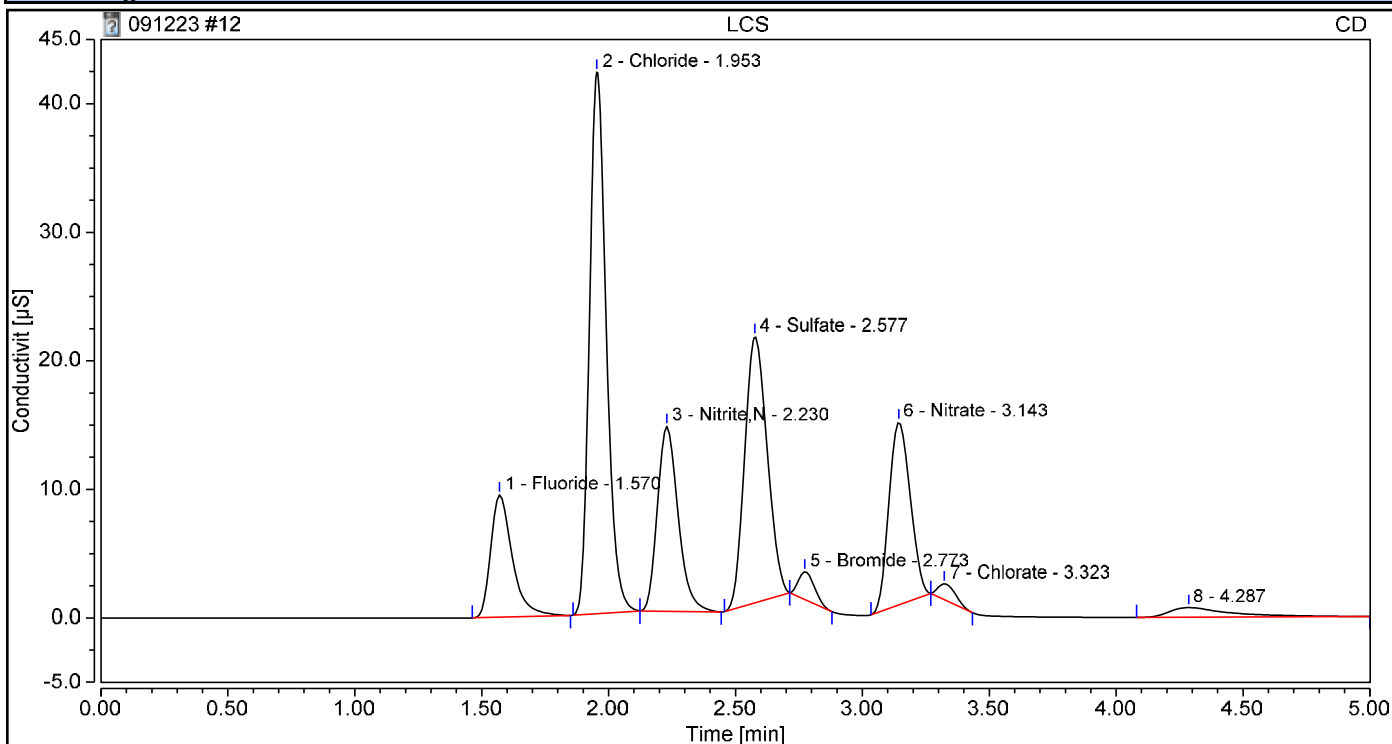
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.000	0.000	0.00	0.00	

Chromatogram and Results

Injection Details

Injection Name:	LCS	Run Time (min):	5.00
Vial Number:	R2	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 08:58	Sample Weight:	1.0000

Chromatogram



Integration Results

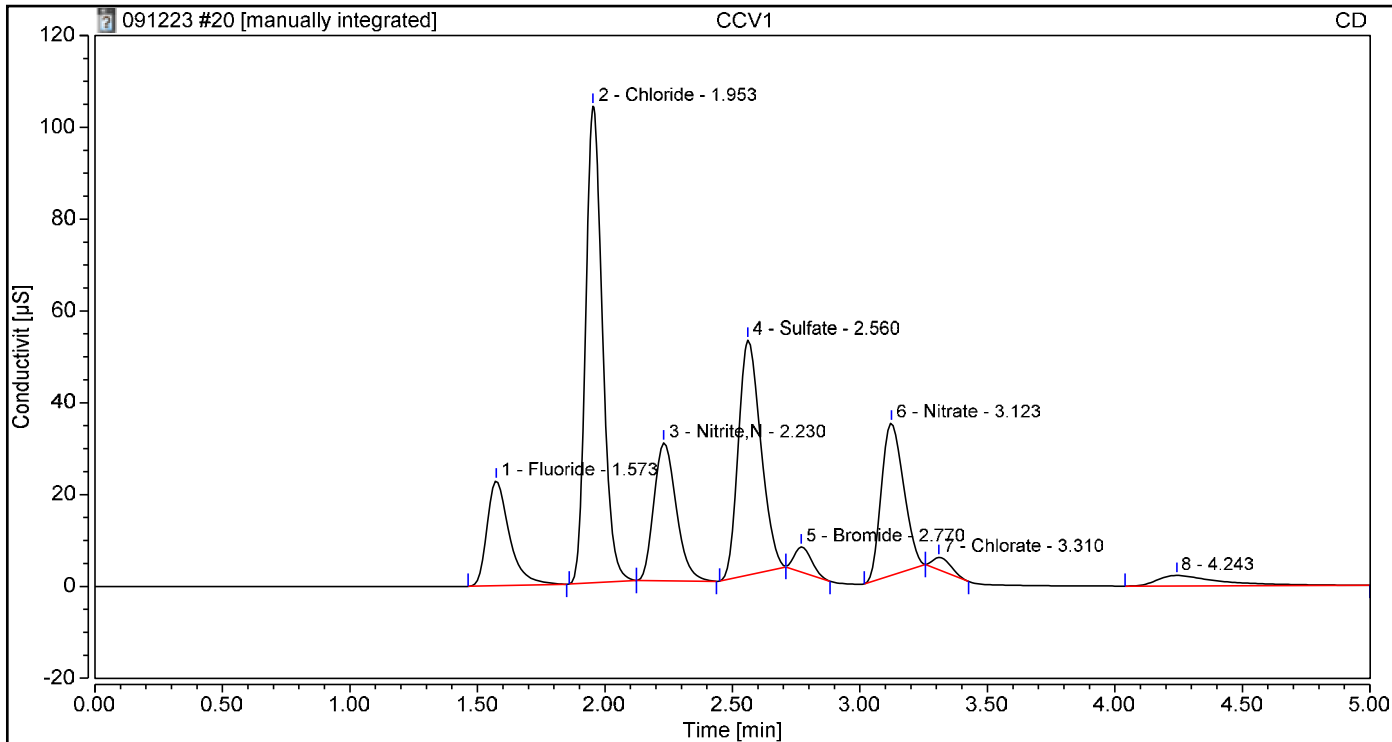
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.570	0.936	9.514	9.83	9.05	4.0715
2	Chloride	1.953	3.236	42.119	33.98	40.07	20.5026
3	Nitrite, N	2.230	1.369	14.392	14.37	13.69	4.0890
4	Sulfate	2.577	2.121	20.720	22.27	19.71	19.8515
5	Bromide	2.773	0.164	2.167	1.72	2.06	3.6717
6	Nitrate	3.143	1.383	14.232	14.52	13.54	4.1151
7	Chlorate	3.323	0.101	1.226	1.06	1.17	3.6079
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.287	0.215	0.754	2.26	0.72	n.a.
Total:			9.524	105.124	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCV1	Run Time (min):	5.00
Vial Number:	R3	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 09:50	Sample Weight:	1.0000

Chromatogram



Integration Results

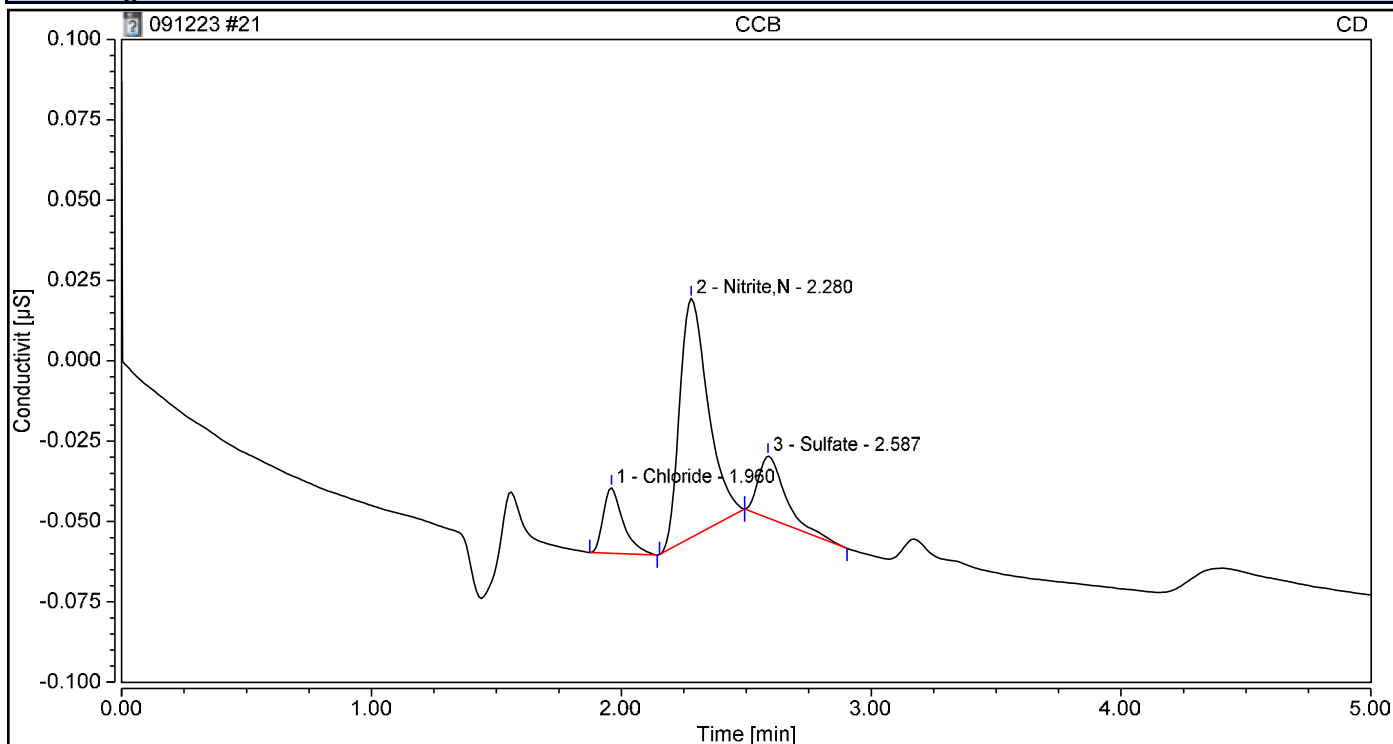
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.573	2.311	22.844	9.99	9.09	10.1032
2	Chloride	1.953	7.894	103.787	34.11	41.28	49.7844
3	Nitrite, N	2.230	3.049	30.022	13.17	11.94	9.7667
4	Sulfate	2.560	5.214	51.174	22.53	20.35	48.6006
5	Bromide	2.770	0.429	5.477	1.85	2.18	9.1305
6	Nitrate	3.123	3.351	33.139	14.48	13.18	9.9477
7	Chlorate	3.310	0.234	2.696	1.01	1.07	9.2391
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.243	0.660	2.289	2.85	0.91	n.a.
Total:			23.141	251.428	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCB	Run Time (min):	5.00
Vial Number:	R7	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 09:56	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	1.960	0.002	0.020	13.28	17.89	0.1719
2	Nitrite, N	2.280	0.010	0.074	69.56	65.21	0.0341
3	Sulfate	2.587	0.002	0.019	17.16	16.90	0.1641
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.014	0.114	100.00	100.00	

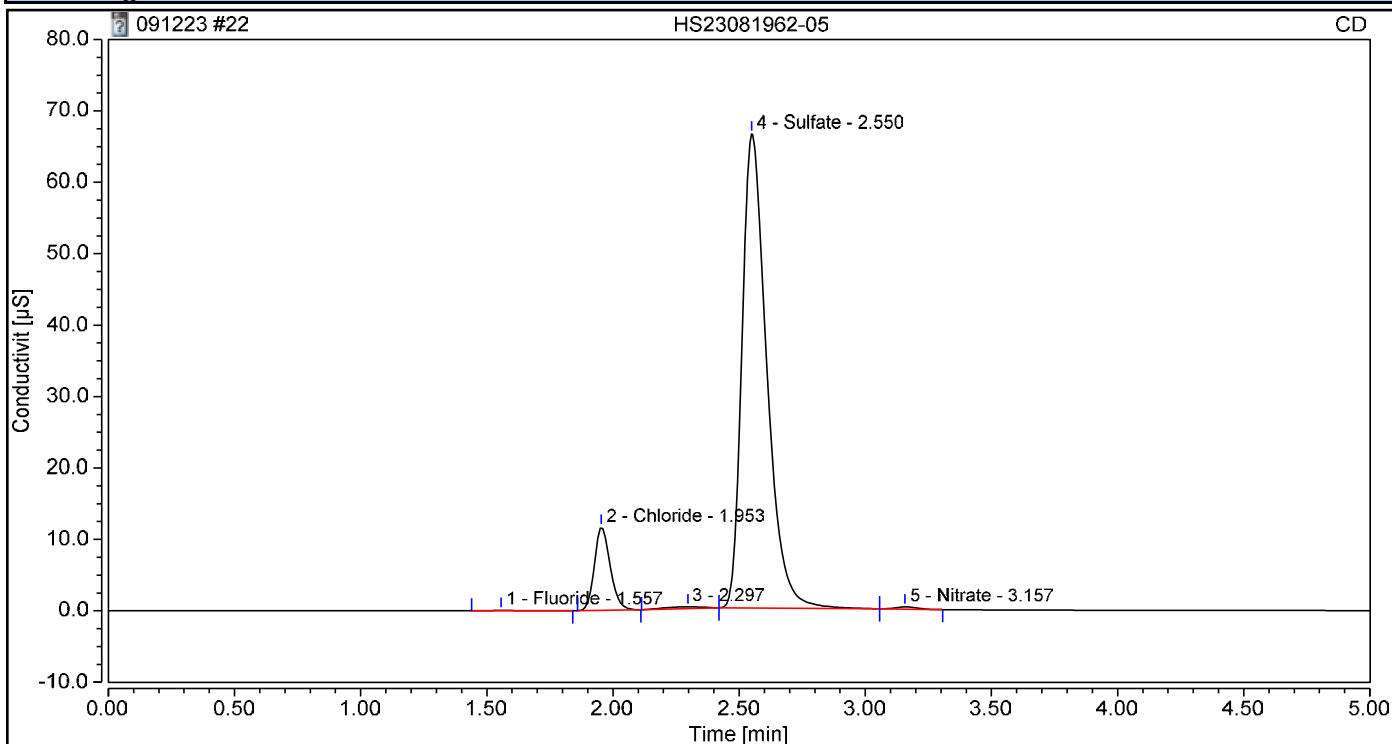


Chromatogram and Results

Injection Details

Injection Name:	HS23081962-05	Run Time (min):	5.00
Vial Number:	RA8	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 10:08	Sample Weight:	1.0000

Chromatogram



Integration Results

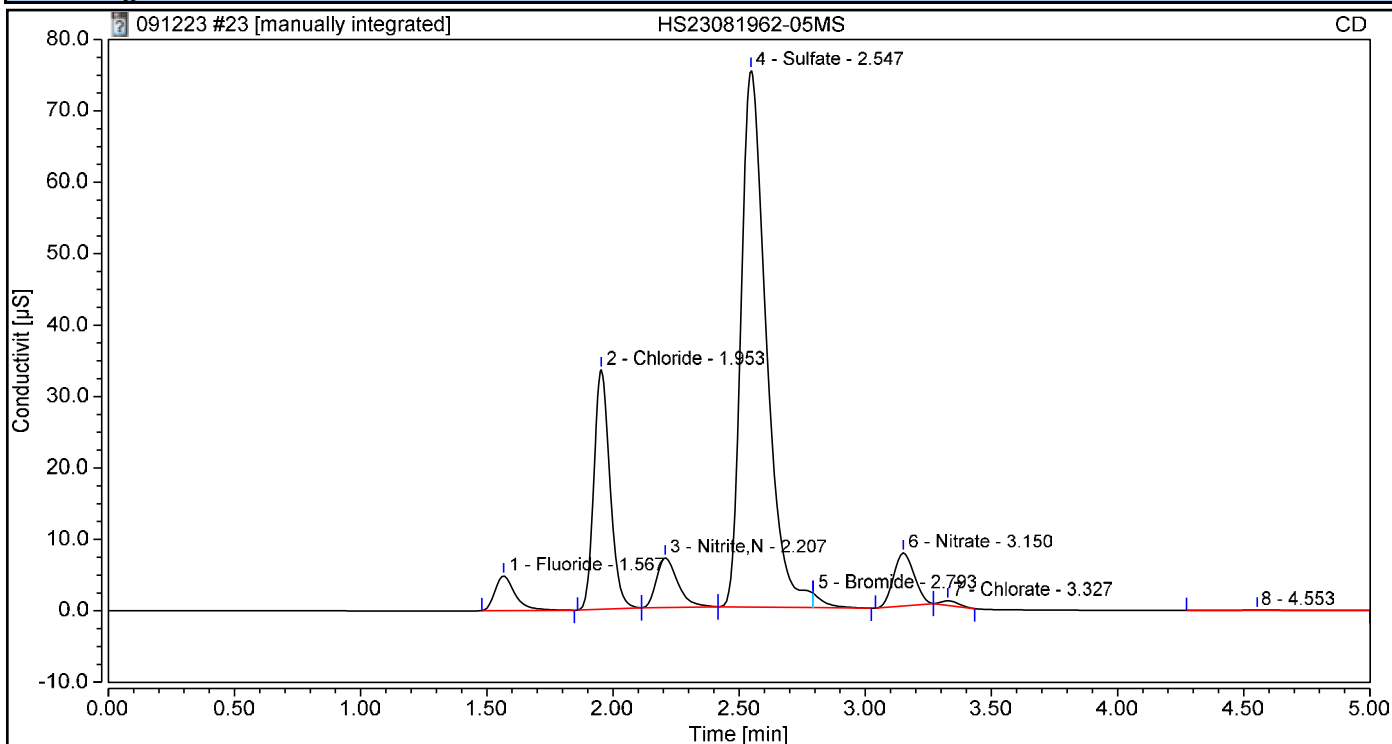
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.557	0.008	0.073	0.09	0.09	0.0995
2	Chloride	1.953	0.848	11.660	10.02	14.82	5.4930
n.a.	Nitrite, N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3		2.297	0.045	0.245	0.54	0.31	n.a.
4	Sulfate	2.550	7.532	66.390	89.00	84.37	70.1466
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	Nitrate	3.157	0.030	0.317	0.35	0.40	0.1050
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			8.463	78.685	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	HS23081962-05MS	Run Time (min):	5.00
Vial Number:	RB1	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 10:14	Sample Weight:	1.0000

Chromatogram



Integration Results

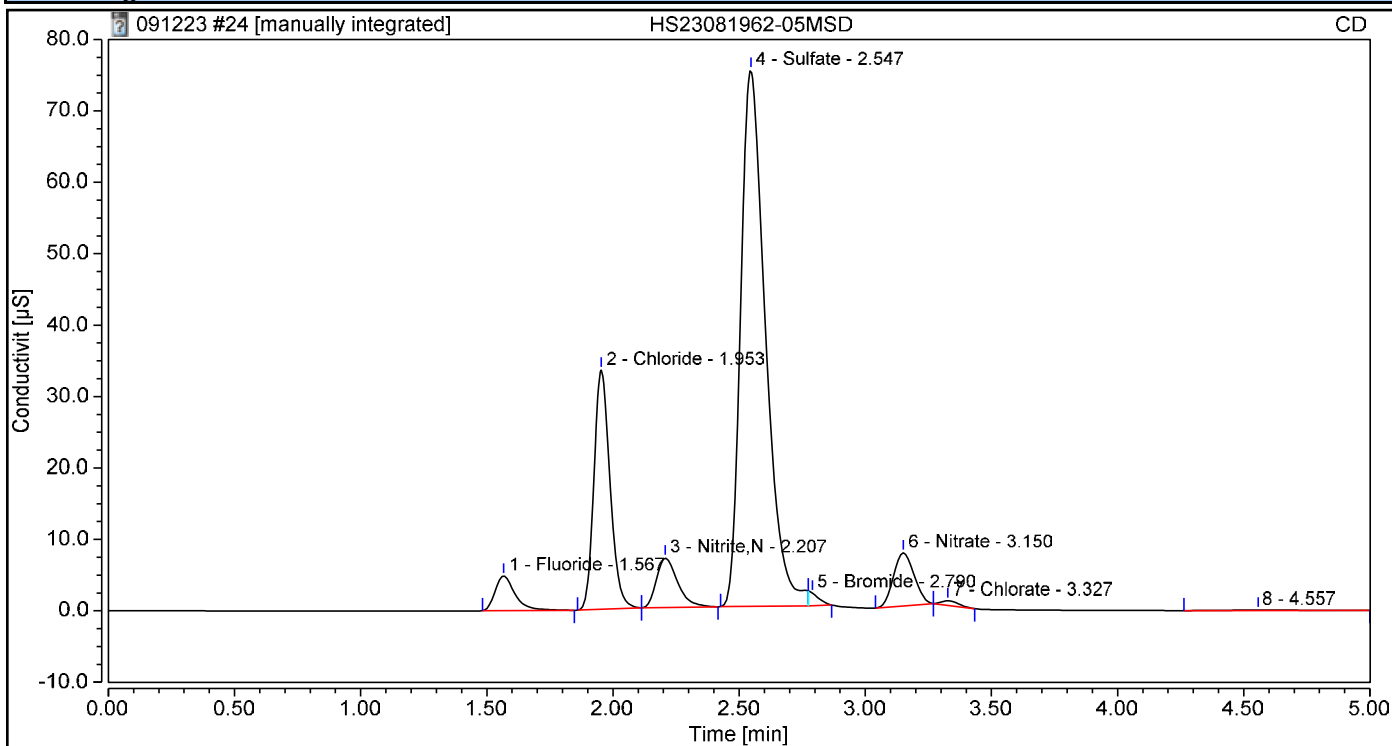
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.567	0.445	4.840	3.40	3.71	1.9600
2	Chloride	1.953	2.475	33.520	18.90	25.68	15.7206
3	Nitrite, N	2.207	0.676	6.953	5.16	5.33	1.9722
4	Sulfate	2.547	8.634	75.169	65.94	57.58	80.3843
5	Bromide	2.793	0.096	1.983	0.74	1.52	2.2009
6	Nitrate	3.150	0.704	7.422	5.37	5.69	2.1023
7	Chlorate	3.327	0.050	0.624	0.38	0.48	1.7718
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.553	0.014	0.036	0.11	0.03	n.a.
Total:			13.094	130.547	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	HS23081962-05MSD	Run Time (min):	5.00
Vial Number:	RB2	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 10:19	Sample Weight:	1.0000

Chromatogram



Integration Results

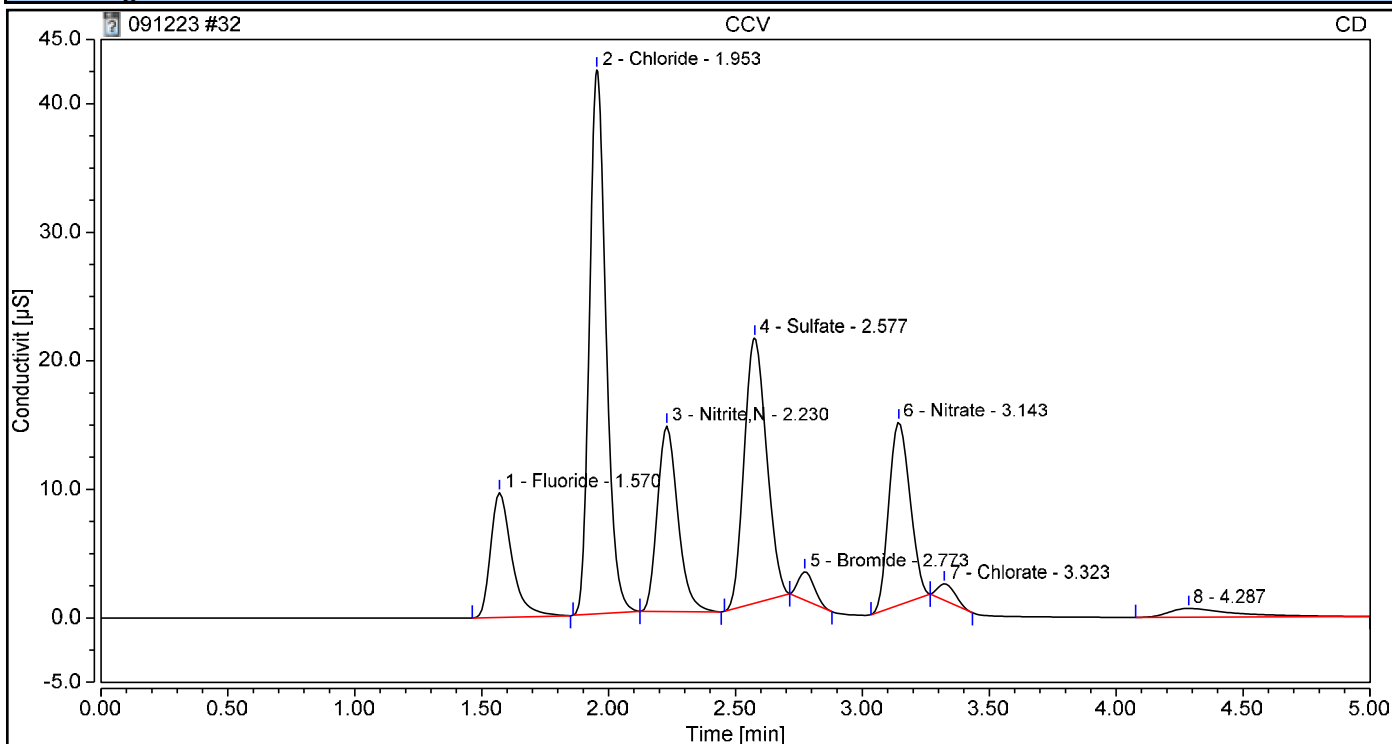
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.567	0.439	4.825	3.38	3.71	1.9356
2	Chloride	1.953	2.472	33.479	19.04	25.72	15.6985
3	Nitrite, N	2.207	0.673	6.932	5.19	5.33	1.9648
4	Sulfate	2.547	8.534	75.076	65.74	57.67	79.4577
5	Bromide	2.790	0.089	1.760	0.69	1.35	2.0395
6	Nitrate	3.150	0.703	7.423	5.42	5.70	2.1015
7	Chlorate	3.327	0.050	0.630	0.39	0.48	1.7851
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.557	0.020	0.052	0.16	0.04	n.a.
Total:			12.982	130.177	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCV	Run Time (min):	5.00
Vial Number:	R1	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 11:11	Sample Weight:	1.0000

Chromatogram



Integration Results

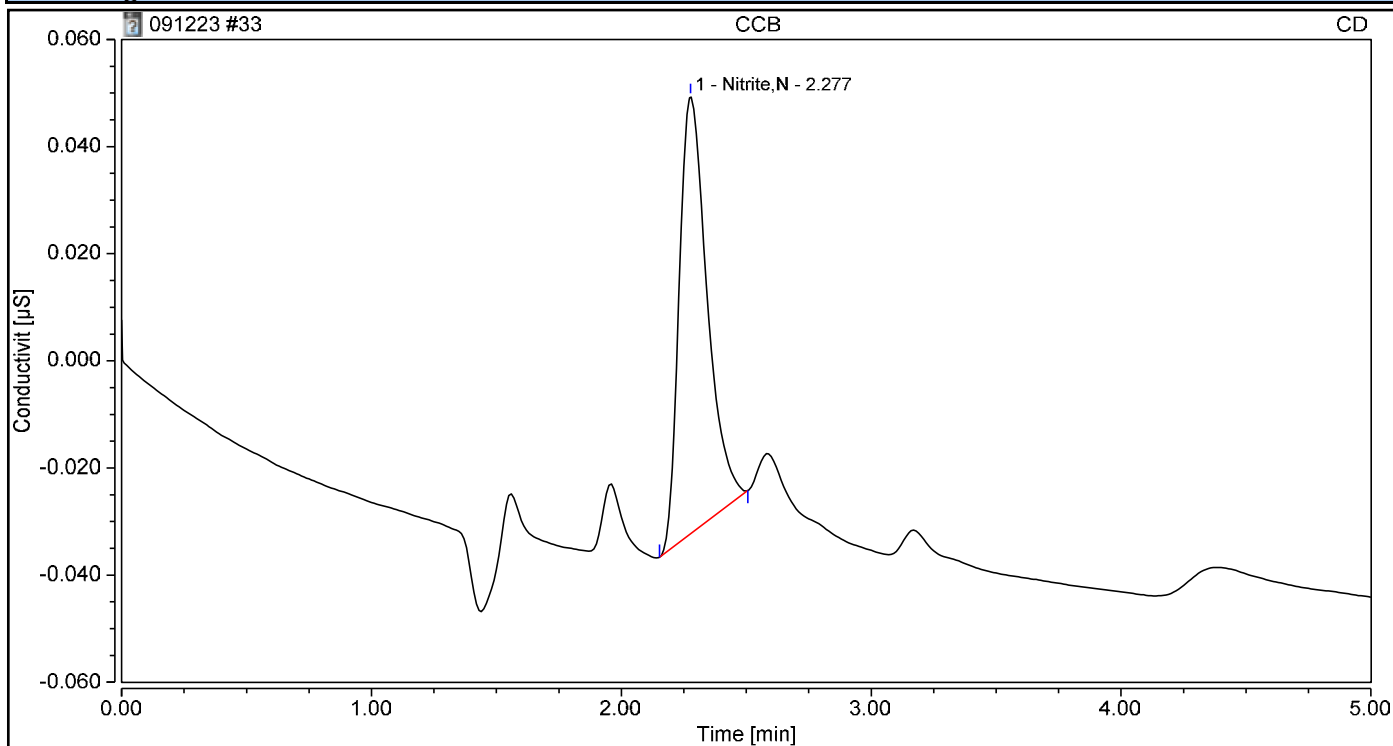
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.570	0.931	9.704	9.87	9.20	4.0504
2	Chloride	1.953	3.203	42.310	33.93	40.11	20.2920
3	Nitrite, N	2.230	1.357	14.430	14.38	13.68	4.0515
4	Sulfate	2.577	2.100	20.621	22.25	19.55	19.6615
5	Bromide	2.773	0.166	2.212	1.76	2.10	3.7204
6	Nitrate	3.143	1.370	14.234	14.52	13.49	4.0771
7	Chlorate	3.323	0.106	1.286	1.12	1.22	3.7969
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.287	0.206	0.683	2.18	0.65	n.a.
Total:			9.438	105.480	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCB	Run Time (min):	5.00
Vial Number:	R6	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 11:23	Sample Weight:	1.0000

Chromatogram



Integration Results

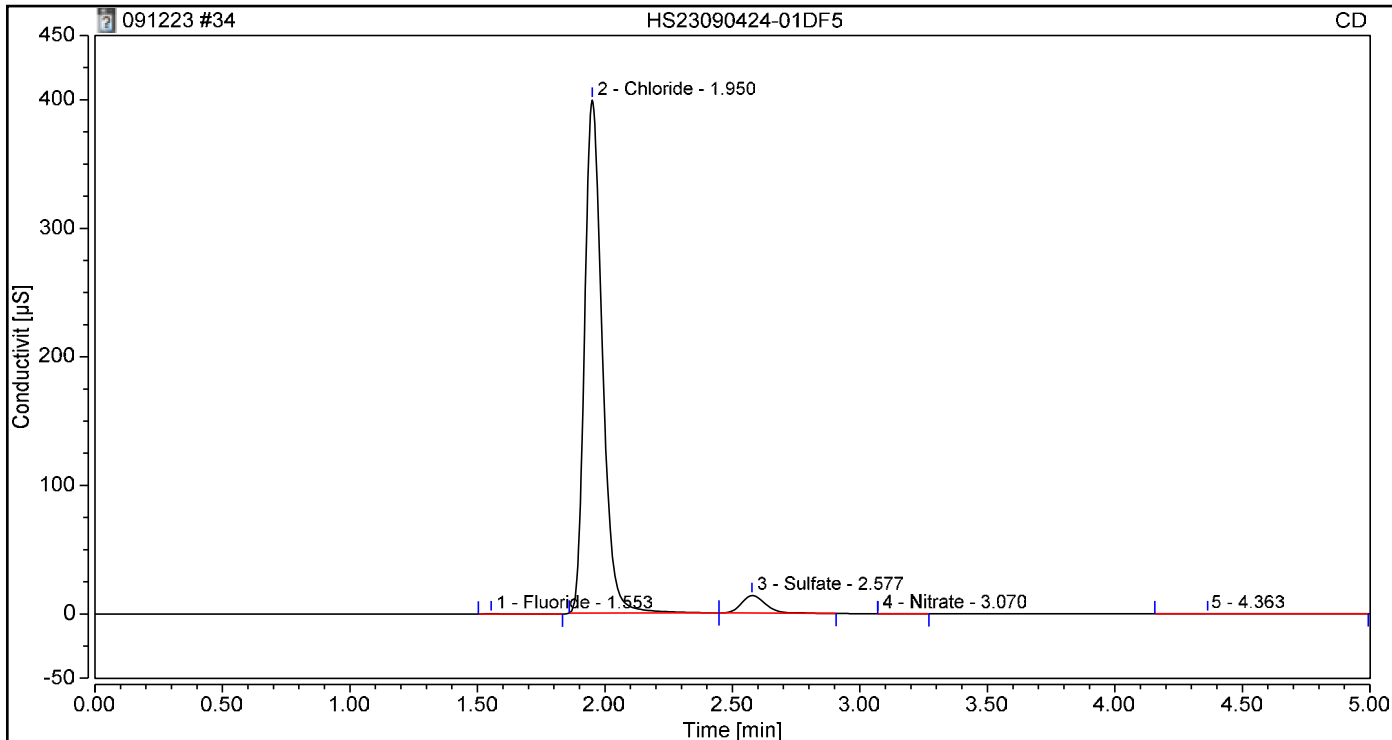
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Nitrite, N	2.277	0.011	0.082	100.00	100.00	0.0363
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.011	0.082	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	HS23090424-01DF5	Run Time (min):	5.00
Vial Number:	RC2	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	5.0000
Injection Date/Time:	12/Sep/23 11:34	Sample Weight:	1.0000

Chromatogram



Integration Results

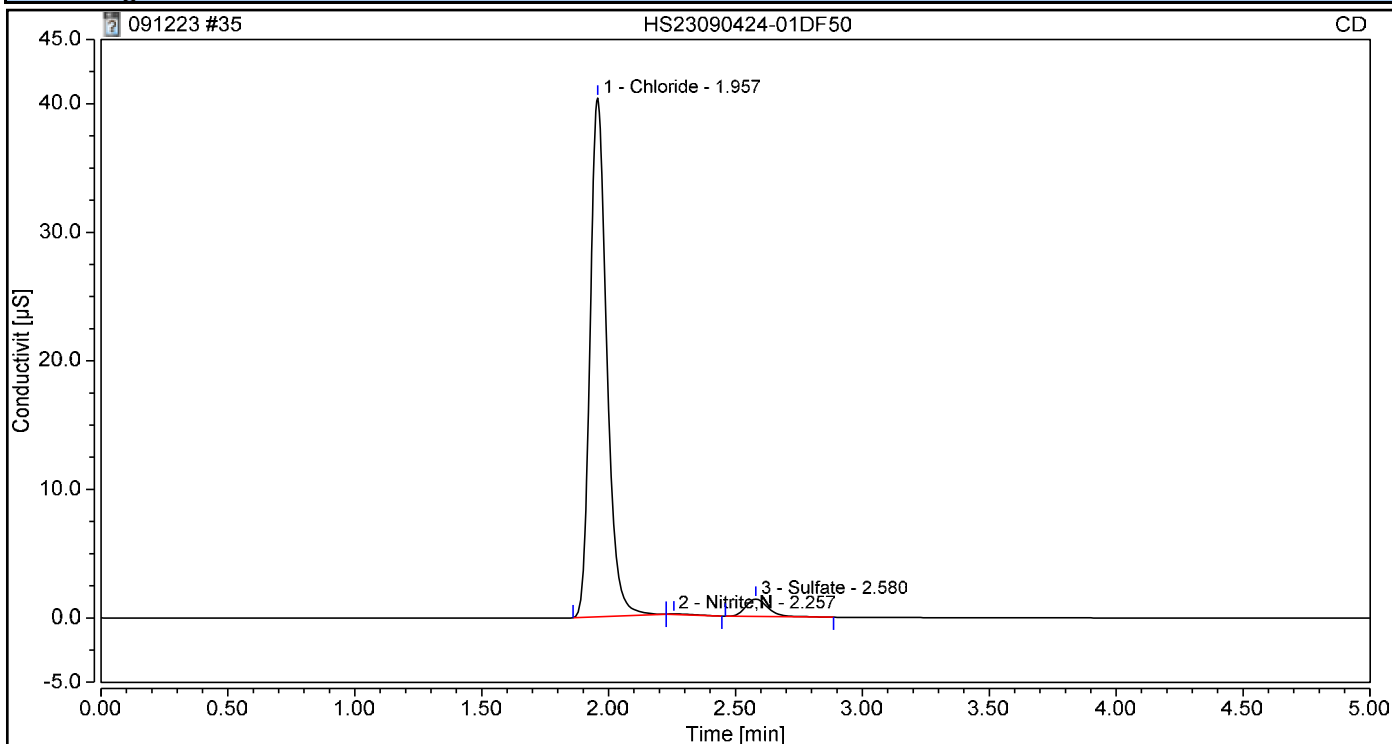
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.553	0.003	0.046	0.01	0.01	0.3967
2	Chloride	1.950	32.021	398.999	95.50	96.67	1007.2317
n.a.	Nitrite, N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Sulfate	2.577	1.496	13.666	4.46	3.31	70.2253
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Nitrate	3.070	0.002	0.000	0.01	0.00	0.1149
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5		4.363	0.008	0.024	0.03	0.01	n.a.
Total:			33.530	412.734	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	HS23090424-01DF50	Run Time (min):	5.00
Vial Number:	RC3	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	50.0000
Injection Date/Time:	12/Sep/23 11:40	Sample Weight:	1.0000

Chromatogram



Integration Results

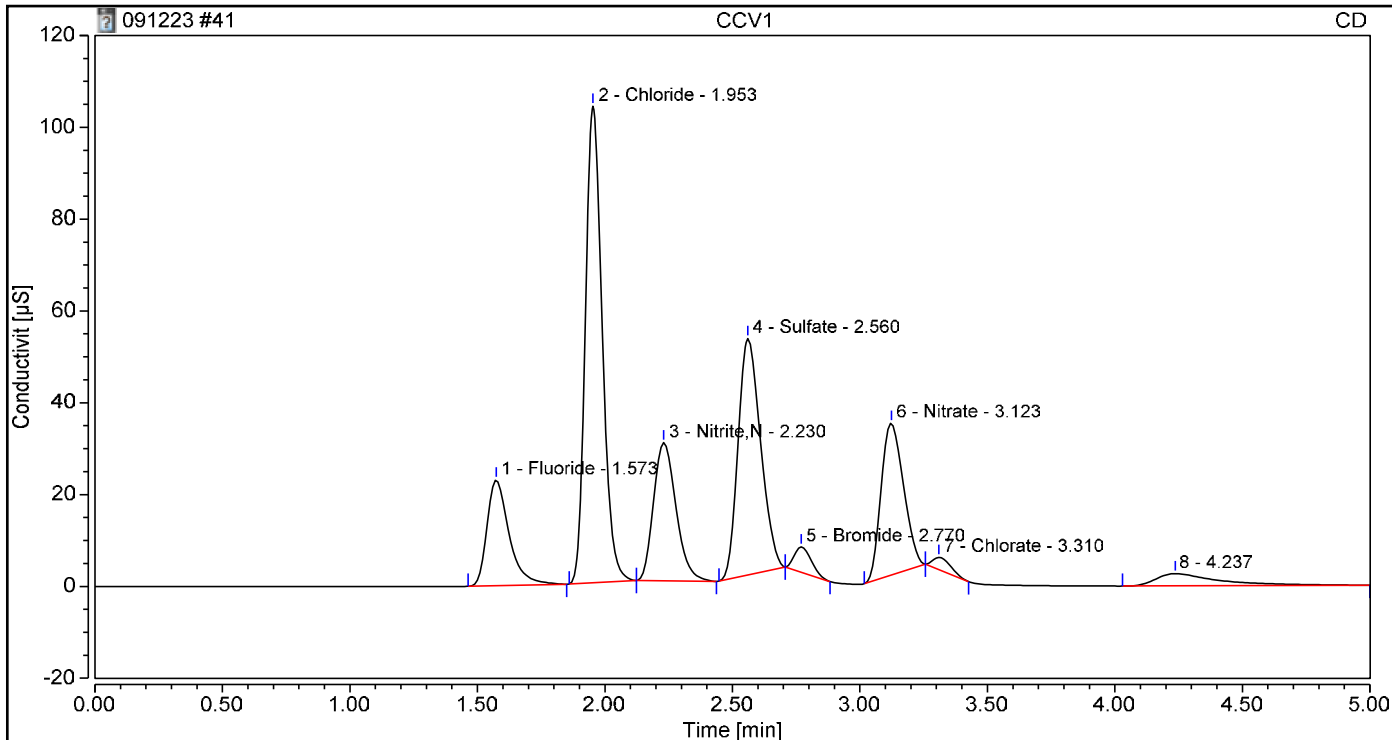
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	1.957	3.070	40.351	95.59	96.67	972.7842
2	Nitrite,N	2.257	0.005	0.035	0.16	0.08	1.0324
3	Sulfate	2.580	0.137	1.354	4.25	3.24	70.5318
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			3.211	41.740	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCV1	Run Time (min):	5.00
Vial Number:	R3	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 12:27	Sample Weight:	1.0000

Chromatogram



Integration Results

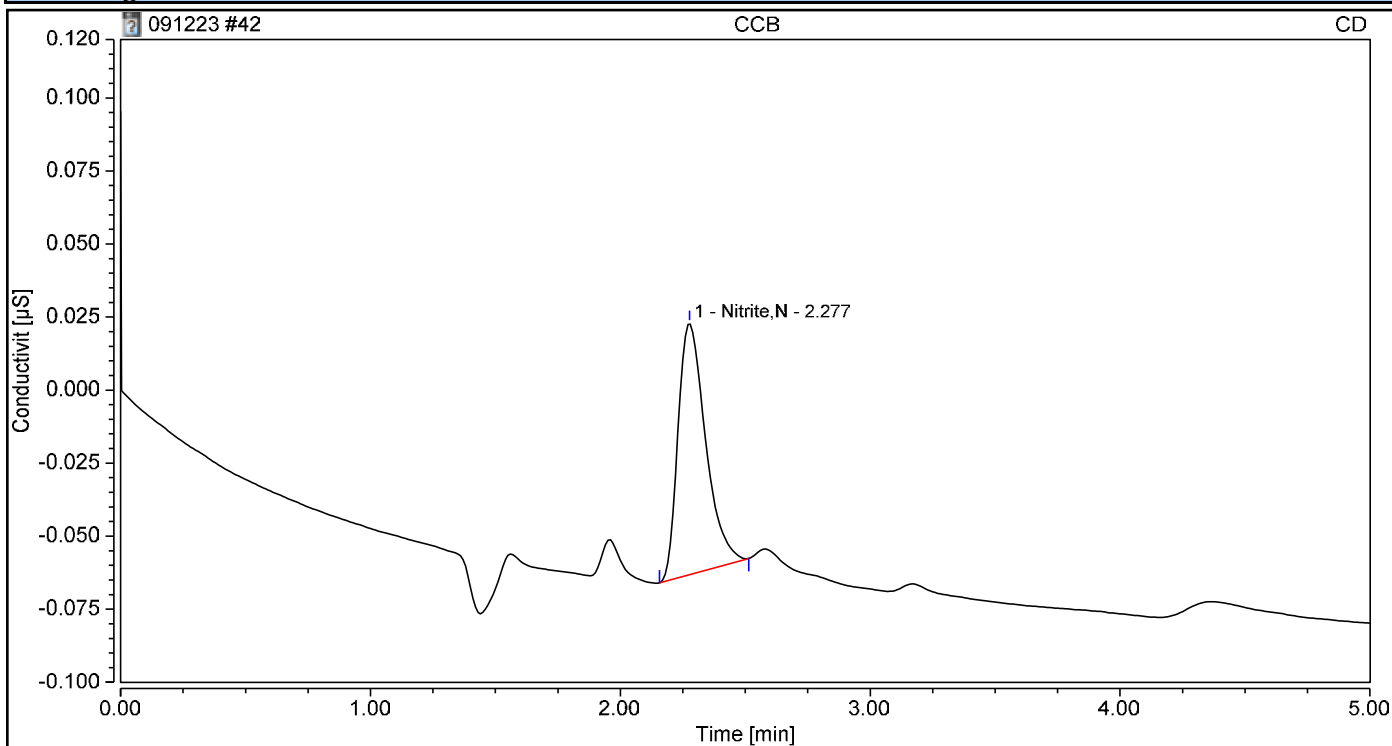
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.573	2.311	23.025	9.90	9.12	10.1025
2	Chloride	1.953	7.910	103.752	33.90	41.11	49.8853
3	Nitrite, N	2.230	3.062	30.070	13.12	11.92	9.8164
4	Sulfate	2.560	5.248	51.522	22.49	20.42	48.9135
5	Bromide	2.770	0.431	5.537	1.85	2.19	9.1755
6	Nitrate	3.123	3.367	33.087	14.43	13.11	9.9947
7	Chlorate	3.310	0.231	2.685	0.99	1.06	9.0927
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.237	0.773	2.676	3.31	1.06	n.a.
Total:			23.333	252.353	100.00	100.00	

Chromatogram and Results

Injection Details

Injection Name:	CCB	Run Time (min):	5.00
Vial Number:	R7	Injection Volume:	5.00
Injection Type:	Unknown	Channel:	CD
Calibration Level:		Wavelength:	n.a.
Instrument Method:	Anions Program ISO37mM 150mm short 0.4 Const	Bandwidth:	n.a.
Processing Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Injection Date/Time:	12/Sep/23 12:32	Sample Weight:	1.0000

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Nitrite, N	2.277	0.011	0.086	100.00	100.00	0.0374
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.011	0.086	100.00	100.00	



HS23090713 Longhorn GW Treatment Plant Monthly Influent Samples Cover Page

ALS WO# HS23090713



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

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HS23090713 E2300828 PERCH Level II Report

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Form 13 - ICPMS07_447882 Run Log

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HS23090713 E2300828 PERCH Level IV Report

CoverLetter

Certificate of Analysis

Chain of Custody

Preparation Sheets

Analytical Results

Accuracy and Precision

Initial Calibration

Chromatograms and Selected Ion Monitoring





right solutions.
right partner.

10450 Stancliff Rd. Suite 210
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T: +1 281 530 5656
F: +1 281 530 5887
alsglobal.com

WorkOrder: HS23090713

Longhorn GW Treatment Plant Monthly Influent Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

27-Sep-2023



HS23090713 Longhorn GW Treatment Plant Monthly Influent Samples Final

ALS WO# HS23090713





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

October 02, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23090713**

Laboratory Results for: **Longhorn GW Treatment Plant Monthly Influent Samples**

Dear Marcia Olive,

ALS Environmental received 1 sample(s) on Sep 13, 2023 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: DAYNA.FISHER

James Guin

ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
Work Order: HS23090713

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23090713-01	LH18/24-SP140_091223	Water		12-Sep-2023 13:00	13-Sep-2023 09:55	☐



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
Work Order: HS23090713

CASE NARRATIVE

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached
-

Metals by Method SW6020A**Batch ID: 201061**

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

WetChemistry by Method SW7196**Batch ID: R446262**

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



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
 Project: Longhorn GW Treatment Plant Monthly Influent Samples
 Sample ID: LH18/24-SP140_091223
 Collection Date: 12-Sep-2023 13:00

ANALYTICAL REPORT

WorkOrder:HS23090713
 Lab ID:HS23090713-01
 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		Method:SW6020A				Prep:SW3010A / 27-Sep-2023		Analyst: MSC
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	30-Sep-2023 16:44
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	30-Sep-2023 16:44
HEXAVALENT CHROMIUM BY SW7196A		Method:SW7196						Analyst: MZD
Chromium, Hexavalent	0.00600	U	0.00600	0.00600	0.0100	mg/L	1	13-Sep-2023 12:09
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		Method:NA						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	14-Sep-2023 16:00

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



Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

Batch ID: 201061	Start Date: 27 Sep 2023 12:00	End Date: 27 Sep 2023 12:00
Method: WATER - SW3010A	Prep Code: 3010A	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23090713-01		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 201061 (0)		Test Name : METALS BY ICPMS BY SW6020A			Matrix: Water	
HS23090713-01	LH18/24-SP140_091223	12 Sep 2023 13:00		27 Sep 2023 12:00	30 Sep 2023 16:44	1
Batch ID: R446262 (0)		Test Name : HEXAVALENT CHROMIUM BY SW7196A			Matrix: Water	
HS23090713-01	LH18/24-SP140_091223	12 Sep 2023 13:00			13 Sep 2023 12:09	1
Batch ID: R446373 (0)		Test Name : SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)			Matrix: Water	
HS23090713-01	LH18/24-SP140_091223	12 Sep 2023 13:00			14 Sep 2023 16:00	1



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

QC BATCH REPORT

Batch ID: 201061 (0)		Instrument: ICPMS07		Method: METALS BY ICPMS BY SW6020A					
MBLK	Sample ID: MBLK-201061	Units: mg/L		Analysis Date: 30-Sep-2023 16:35					
Client ID:	Run ID: ICPMS07_447812	SeqNo: 7577515		PrepDate: 27-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Selenium	0.00250	0.00500							U
Silver	0.000500	0.00500							U

LCS	Sample ID: LCS-201061	Units: mg/L		Analysis Date: 30-Sep-2023 15:39					
Client ID:	Run ID: ICPMS07_447812	SeqNo: 7577485		PrepDate: 27-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Selenium	0.0517	0.00500	0.05	0	103	80 - 120			
Silver	0.04674	0.00500	0.05	0	93.5	85 - 116			

MS	Sample ID: HS23090958-01MS	Units: mg/L		Analysis Date: 30-Sep-2023 15:48					
Client ID:	Run ID: ICPMS07_447812	SeqNo: 7577488		PrepDate: 27-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Selenium	0.05927	0.00500	0.05	0.006519	106	80 - 120			
Silver	0.0462	0.00500	0.05	0.000015	92.4	85 - 116			

MSD	Sample ID: HS23090958-01MSD	Units: mg/L		Analysis Date: 30-Sep-2023 15:50					
Client ID:	Run ID: ICPMS07_447812	SeqNo: 7577489		PrepDate: 27-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Selenium	0.05819	0.00500	0.05	0.006519	103	80 - 120	0.05927	1.85	20
Silver	0.04591	0.00500	0.05	0.000015	91.8	85 - 116	0.0462	0.617	20

PDS	Sample ID: HS23090958-01PDS	Units: mg/L		Analysis Date: 30-Sep-2023 15:52					
Client ID:	Run ID: ICPMS07_447812	SeqNo: 7577490		PrepDate: 27-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Selenium	0.1064	0.00500	0.1	0.006519	99.9	80 - 120			
Silver	0.09688	0.00500	0.1	0.000015	96.9	80 - 120			



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

QC BATCH REPORT

Batch ID: 201061 (0)		Instrument: ICPMS07		Method: METALS BY ICPMS BY SW6020A						
SD	Sample ID: HS23090958-01SD	Units: mg/L		Analysis Date: 30-Sep-2023 15:41						
Client ID:	Run ID: ICPMS07_447812		SeqNo: 7577486		PrepDate: 27-Sep-2023		DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	Limit	Qual
Selenium	0.0125	0.0250					0.006519	0	10	U
Silver	0.00250	0.0250					0.000015	0	10	U

The following samples were analyzed in this batch: HS23090713-01



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

QC BATCH REPORT

Batch ID: R446262 (0)		Instrument: UV-2450		Method: HEXAVALENT CHROMIUM BY SW7196A						
MBLK	Sample ID: MBLK-R446262	Units: mg/L		Analysis Date: 13-Sep-2023 12:09						
Client ID:	Run ID: UV-2450_446262		SeqNo: 7542658		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.00600	0.0100								U
LCS	Sample ID: LCS-R446262	Units: mg/L		Analysis Date: 13-Sep-2023 12:09						
Client ID:	Run ID: UV-2450_446262		SeqNo: 7542657		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.231	0.0100	0.25	0	92.4	90 - 111				
MS	Sample ID: HS23090713-01MS	Units: mg/L		Analysis Date: 13-Sep-2023 12:09						
Client ID: LH18/24-SP140_091223	Run ID: UV-2450_446262		SeqNo: 7542660		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.227	0.0100	0.25	0.001	90.4	90 - 111				
MSD	Sample ID: HS23090713-01MSD	Units: mg/L		Analysis Date: 13-Sep-2023 12:09						
Client ID: LH18/24-SP140_091223	Run ID: UV-2450_446262		SeqNo: 7542659		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.228	0.0100	0.25	0.001	90.8	90 - 111	0.227	0.44	20	
The following samples were analyzed in this batch: HS23090713-01										



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

**QUALIFIERS,
ACRONYMS, UNITS**

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

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



CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2023-2024	30-Apr-2024
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US

Date: 02-Oct-23

Sample Receipt Checklist

Work Order ID: HS23090713

Date/Time Received: 13-Sep-2023 09:55

Client Name: Bhate Environmental

Received by: Corey Grandits

Completed By: <u>/S/ Corey Grandits</u>	13-Sep-2023 11:30	Reviewed by: <u>/S/ Nieka Carson</u>	13-Sep-2023 14:16
eSignature	Date/Time	eSignature	Date/Time

Matrices: WCarrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Samplers name present on COC?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	

Temperature(s)/Thermometer(s):

1.9UC/1.8C IR31

Cooler(s)/Kit(s):

50156

Date/Time sample(s) sent to storage:

9/13/23

Water - VOA vials have zero headspace?

Yes ☐ No ☐ No VOA vials submitted ☒

Water - pH acceptable upon receipt?

Yes ☒ No ☐ N/A ☐

pH adjusted?

Yes ☐ No ☒ N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd., Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Ragen Gigi

Page 1 of 1[illegible]

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5666 Fax. +1 281 530 5687	CUSTODY SEAL		Seal Broken By:
	Date: 9/12/23	Time: 1330	Date: 09/13/23
	Name: Scott Belsinger	Company: BH&G	

50156 SEP 13 2023



50156

ORIGIN ID: SGRA (902) 830-6183
 SCOTT BELSINGER
 APTIS ENVIRONMENTAL & INFRASTRUCTURE
 1203-B EAST GRAND AVE
 PMB 202
 MARSHALL, TX 75570
 UNITED STATES- US

SHIP DATE: 26 JAN 22
 ACTWGT: 1.00 LB MAX
 CAD: 0221247/CAFE3509
 DIMS: 19x18x13 IN

TO SHIPPING DEPT
 ALS LABORATORY GROUP
 10450 STANCLIFF RD
 SUITE 210
 HOUSTON TX 77099

(281) 530-5666

REF: LHAAP-46-80 83270-RG

RMA: 111111

FedEx
Express

FedEx
 TRK# 5300 5227 3760
 0221

WED - 13 SEP 10:30A
 PRIORITY OVERNIGHT

AB SGRA

77099
 TX-US IAH



*0216330 09/12 58914/8835/9AE3





September 14, 2023

Service Request No:E2300828

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS23090713

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory September 13, 2023
For your reference, these analyses have been assigned our service request number **E2300828**.

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 2190. You may also contact me via email at hussam.kelany@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Hussam Kelany
Project Manager

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





Client: ALS Environmental - US
Project: HS23090713
Sample Matrix: Water

Service Request No.: E2300828
Date Received: 9/27/2023

CASE NARRATIVE

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

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 9/27/2023.

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

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300447: 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: HS23090713

Service Request:E2300828

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E2300828-001	LH18/24-SP140_091223	9/12/2023	1300



Service Request Summary

Folder #: E2300828
Client Name: ALS Environmental - US
Project Name: HS23090713
Project Number:

Report To: James Guin
 ALS Environmental - US
 10450 Standliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/13/23
Internal Due Date: 9/27/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090713
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

				HOUSTON
Lab Samp No.	Client Samp No	Matrix	Collected	CIO4 DOD/6850
E2300828-001	LH18/24-SP140_091223	Water	09/12/23 1300	IV



Service Request Summary

Folder #: E2300828
Client Name: ALS Environmental - US
Project Name: HS23090713
Project Number:

Report To: James Guin
 ALS Environmental - US
 10450 Standliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/13/23
Internal Due Date: 9/27/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090713
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivola GCMS	CIO4 DOD/6850	1	Level IV due 9/27



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
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L23-358	5/31/2025
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
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	343-2023	6/30/2024
Michigan Department of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Conservation	TN04016-2023	4/30/2024
Texas Commission on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932023-14	7/31/2024
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





C

10450 Standliff Rd, Ste 210
Houston, TX 77099
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www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense

COC ID: 23145

SUBCONTRACT TO:

ALS Environmental
10450 Standliff Road Suite 210
Houston, TX 77084

Phone: +1 281 530 5656

**CUSTOMER
INFORMATION:**

Company: ALS Houston
Contact: James Guin
Address: 10450 Standliff Rd, Ste 210
Phone: +1 281 530 5656
Email: James.Guin@alsglobal.com
**Alternate
Contact:** Jumokey M. Lawal
Email: jumokey.lawal@alsglobal.com

**INVOICE
INFORMATION:**

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Standliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS23090713
TSR: Houston House Acct

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
1. HS23090713-01	LH18/24-SP140_091223	Water	12 Sep 2023 13:00
6850-Perch. DOD Level II & Level IV in separate pdf			20 Sep 2023

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

QC Level: DOD IV (DoD Data Package)

E2300828
ALS Environmental - US
HS23090713

5



Relinquished By:

Received By:

Cooler ID(s):

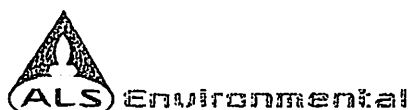
Date/Time:

Date/Time:

Temperature(s):

HOW TO COMPLETE THIS CHAIN OF CUSTODY





Cooler Receipt Form

Project Chemist HClient/Project ALS Thermometer ID 11231Date/Time Received: 9-13-23 Initials: gj Date/Time Logged in: 9-13-23 Initials: gj1. Method of delivery: ☐ US Mail ☐ Fed Ex ☐ UPS ☐ DHL ☒ ^{ALS} Courier ☐ Client2. Samples received in: ☒ Cooler ☐ Box ☐ Envelope ☐ Other3. 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 ☐ Other5. Foreign or Regulated Soil? ☐ Yes ☐ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
-		9-13-23	1223	gj	3.3	☐
						☐
						☐
						☐

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:

E2300828**5**ALS Environmental - US
HS23090713

HS-HRMSCoolerReceipt R1.0

ALS Environmental - Houston HRMS

13 of 24





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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

Prep Run#: 426475
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method:

Status: Prepped
Prep Date/Time: 9/14/23 08:10

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300814-001	130_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
2	E2300814-002	17WW03_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
3	E2300814-003	17WW01_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
4	E2300814-004	17WW02_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
5	E2300814-005	17WW02_090723_a	.01	6850/CIO4 DOD			Ground Water	10mL	
6	E2300814-006	17WW06_090723	.02	6850/CIO4 DOD			Ground Water	10mL	
7	E2300826-001	LH18/24-SP650_091223_BIX	.01	6850/CIO4 DOD			Water	10mL	
8	E2300826-002	LH18/24-SP650_091223_AIX	.01	6850/CIO4 DOD			Water	10mL	
9	E2300827-001	LH18/24-SP650_091223_AIX	.01	6850/CIO4 DOD			Water	10mL	
10	E2300828-001	LH18/24-SP140_091223	.01	6850/CIO4 DOD			Water	10mL	
11	EQ2300447-01	MB		6850/CIO4			Liquid	10mL	
12	EQ2300447-02	LCS		6850/CIO4			Liquid	10mL	
13	EQ2300447-03	DLCS		6850/CIO4			Liquid	10mL	
14	EQ2300447-04	17WW06_090723 MS	.02	6850/CIO4 DOD			Liquid	10mL	
15	EQ2300447-05	17WW06_090723 DMS	.02	6850/CIO4 DOD			Liquid	10mL	
16	K2310104-001	LGAC-INF-091123	.01	6850/CIO4			Water	10mL	
17	K2310104-002	LGAC-INT1-091123	.01	6850/CIO4			Water	10mL	
18	K2310104-003	LGAC-INT2-091123	.01	6850/CIO4			Water	10mL	

Spiking Solutions

Name:	Perchlorate Intermediate Stock1	Inventory ID	230342	Logbook Ref:	Perchlorate (1st Source)	Expires On:	03/07/2024
-------	---------------------------------	--------------	--------	--------------	--------------------------	-------------	------------

EQ2300447-02 1.00µL EQ2300447-02 1.00µL EQ2300447-03 1.00µL EQ2300447-03 1.00µL EQ2300447-04 1.00µL EQ2300447-05 1.00µL

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	230372	Logbook Ref:	Perchlorate Internal Standard	Expires On:	04/30/2024
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E2300814-001 100.00µL E2300814-002 100.00µL E2300814-003 100.00µL E2300814-004 100.00µL E2300814-005 100.00µL E2300814-006 100.00µL
E2300826-001 100.00µL E2300826-002 100.00µL E2300827-001 100.00µL E2300828-001 100.00µL EQ2300447-01 100.00µL EQ2300447-01 100.00µL
EQ2300447-02 100.00µL EQ2300447-02 100.00µL EQ2300447-03 100.00µL EQ2300447-03 100.00µL EQ2300447-04 100.00µL EQ2300447-05 100.00µL
K2310104-001 100.00µL K2310104-002 100.00µL K2310104-003 100.00µL

Preparation Materials

Water HPLC Grade HPLC water 5/18/23CG (229315) 6850 Amber Glass screw vial 2mL Screw Top Vial (221894) 6850 0.45um syringe filters 6850 0.45 SYRING FILTER (229979)
6850 20mM amonium acetate in H2O (230746) 6850 Luer-Lok Syringes luer-lock syringes (228116)



Preparation Information Benchsheet

Prep Run#: 426475
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method:

Status: Prepped
Prep Date/Time: 9/14/23 08:10

Preparation Steps

Step: Preparation
Started: 9/14/23 08:10
Finished: 9/14/23 09:10
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____	Date: _____	<u>Extracts Examined</u> Yes No
Received By: _____	Date: _____	



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: HS23090713
Sample Matrix: Water
Sample Name: LH18/24-SP140_091223
Lab Code: E2300828-001

Service Request: E2300828
Date Collected: 9/12/23 1300
Date Received: 9/13/23
Units: µg/L
Basis: NA

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

Analytical Method: 6850

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	14600		100	50.0	25.0	1000	9/14/23	9/14/23 11:49	426475	817192	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090713
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: EQ2300447-01

Service Request: E2300828
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

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	9/14/23	9/14/23 10:51	426475	817192	





Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23090713
Sample Matrix: Water

Service Request: E2300828
Date Analyzed: 9/14/23

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

Analytical Method: 6850
Prep Method:

Units: µg/L
Basis: NA

Extraction Lot: 426475

Analyte Name	Lab Control Sample EQ2300447-02			Duplicate Lab Control Sample EQ2300447-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perchlorate	0.108	0.100	108	0.114	0.100	114	84 - 119	6	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: HS23090713
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: EQ2300447-02

Service Request: E2300828
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

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	0.108		0.100	0.0500	0.0250	1	9/14/23	9/14/23 11:26	426475	817192	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090713
Sample Matrix: Water
Sample Name: Duplicate Lab Control Sample
Lab Code: EQ2300447-03

Service Request: E2300828
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

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	0.114		0.100	0.0500	0.0250	1	9/14/23	9/14/23 11:02	426475	817192	



HS23090713 - ME - ICP_W_DOD

ALS WO# HS23090713



FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713
Start Date: 30-Sep-2023 **End Date:** 30-Sep-2023

Run ID: ICPMS07_447812
Instrument: ICPMS07
Method:

Sample No.	D/F	Time	FileID	Analyses
ICPMS07_447812_Tune	1	30-Sep-2023 00:00	ICPMS07_447812_Tune_1	
CAL BLK	1	30-Sep-2023 10:12	012CALB.d_7576802	AG SE
2/10/200	1	30-Sep-2023 10:15	013CALS.d_7576803	AG SE
5/25/500	1	30-Sep-2023 10:17	014CALS.d_7576804	AG SE
CAL BLK	1	30-Sep-2023 10:24	017CALB.d_7576807	AG SE
10/50/100	1	30-Sep-2023 10:30	020CALS.d_7576810	AG SE
100/500/10K	1	30-Sep-2023 10:33	021CALS.d_7576811	AG SE
200/1000/20K	1	30-Sep-2023 10:35	022CALS.d_7576812	AG SE
ICV	1	30-Sep-2023 10:44	026_ICV.d_7576816	AG SE
LLICV2	1	30-Sep-2023 10:49	028LCV2.d_7576818	AG SE
LLICV5	1	30-Sep-2023 10:51	029LCV5.d_7576819	AG SE
ICB	1	30-Sep-2023 10:56	031_ICB.d_7576821	AG SE
ICSA	1	30-Sep-2023 10:58	032ICSA.d_7576822	AG SE
ICSAB	1	30-Sep-2023 11:00	033ICSB.d_7576823	AG SE
CCV 1	1	30-Sep-2023 15:28	138_CCV.d_7577477	AG SE
CCB 1	1	30-Sep-2023 15:30	139_CCB.d_7577478	AG SE
LCS-201061	1	30-Sep-2023 15:39	143SMPL.d_7577485	AG SE
ZZZZZZSD	5	30-Sep-2023 15:41	144SMPL.d_7577486	AG SE
ZZZZZZMS	1	30-Sep-2023 15:48	146SMPL.d_7577488	AG SE
ZZZZZZMSD	1	30-Sep-2023 15:50	147SMPL.d_7577489	AG SE
ZZZZZZPDS	1	30-Sep-2023 15:52	148SMPL.d_7577490	AG SE
CCV 2	1	30-Sep-2023 15:57	150_CCV.d_7577492	AG SE
CCB 2	1	30-Sep-2023 15:59	151_CCB.d_7577493	AG SE
CCV 3	1	30-Sep-2023 16:31	162_CCV.d_7577507	AG SE
CCB 3	1	30-Sep-2023 16:33	163_CCB.d_7577508	AG SE
MBLK-201061	1	30-Sep-2023 16:35	164SMPL.d_7577515	AG SE
ZZZZZZSD	100	30-Sep-2023 16:40	166SMPL.d_7577517	
ZZZZZZPDS	20	30-Sep-2023 16:42	167SMPL.d_7577518	
LH18/24-SP140_091223	1	30-Sep-2023 16:44	168SMPL.d_7577519	AG SE
CCV 4	1	30-Sep-2023 17:02	174_CCV.d_7577513	AG SE
CCB 4	1	30-Sep-2023 17:04	175_CCB.d_7577514	AG SE



FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713
Start Date: 02-Oct-2023 End Date: 02-Oct-2023

Run ID: ICPMS07_447882
Instrument: ICPMS07
Method: SW6020A

Sample No.	D/F	Time	FileID	Analytes
LCS-201061	1	02-Oct-2023 11:32	038SMPL.d_7578651	
LCS-201061	1	02-Oct-2023 11:36	040SMPL.d_7578652	

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

Run ID: ICPMS07_447812
Instrument: ICPMS07
Method: SW6020A

ICV	Date: 30-Sep-2023 10:44	Seq: 7576816	ICV	Units: ug/L	
Analyte	True	Found	%R	Control Limits	Flag
Selenium	100	106.754	107	90-110	
Silver	100	107.378	107	90-110	
CCV1	Date: 30-Sep-2023 15:28	Seq: 7577477	CCV	Units: ug/L	
Analyte	True	Found	%R	Control Limits	Flag
Selenium	100	98.871	99	90-110	
Silver	100	100.186	100	90-110	
CCV2	Date: 30-Sep-2023 15:57	Seq: 7577492	CCV	Units: ug/L	
Analyte	True	Found	%R	Control Limits	Flag
Selenium	100	96.06	96	90-110	
Silver	100	97.427	97	90-110	
CCV3	Date: 30-Sep-2023 16:31	Seq: 7577507	CCV	Units: ug/L	
Analyte	True	Found	%R	Control Limits	Flag
Selenium	100	101.154	101	90-110	
Silver	100	98.926	99	90-110	
CCV4	Date: 30-Sep-2023 17:02	Seq: 7577513	CCV	Units: ug/L	
Analyte	True	Found	%R	Control Limits	Flag
Selenium	100	92.259	92	90-110	
Silver	100	90.638	91	90-110	



Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

Run ID: ICPMS07_447812
Instrument: ICPMS07
Method: SW6020A

ICB	Date: 30-Sep-2023 10:56	Seq: 7576821	ICB	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Selenium	5	1.1	5	U
Silver	5	0.2	5	U
CCB1	Date: 30-Sep-2023 15:30	Seq: 7577478	CCB	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Selenium	2	1.1	2	U
Silver	2	0.2	2	U
CCB2	Date: 30-Sep-2023 15:59	Seq: 7577493	CCB	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Selenium	2	1.1	2	U
Silver	2	0.2	2	U
CCB3	Date: 30-Sep-2023 16:33	Seq: 7577508	CCB	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Selenium	2	1.1	2	U
Silver	2	0.2	2	U
MBLK-201061	Date: 30-Sep-2023 16:35	Seq: 7577515	MBLK	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Selenium	5	1.1	5	U
Silver	5	0.2	5	U
CCB4	Date: 30-Sep-2023 17:04	Seq: 7577514	CCB	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Selenium	2	1.1	2	U
Silver	2	0.2	2	U



Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

Run ID:ICPMS07_447812
Instrument:ICPMS07
Method:SW6020A

ICSA	Date: 30-Sep-2023 10:58	Seq: 7576822	ICSA	Units: ug/L
Analyte	True	Found	%R	
Selenium		0.48	0	
Silver		0.152	0	

ICSAB	Date: 30-Sep-2023 11:00	Seq: 7576823	ICSAB	Units: ug/L
Analyte	True	Found	%R	
Selenium	100	104.3	104	
Silver	100	95.95	95.9	

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

Date Analyzed: 30-Sep-2023 15:50
Date Extracted: 27-Sep-2023 12:00
Units: ug/L

Matrix Spike: HS23090958-01MS					Analysis Method: SW6020A				
Client Sample ID:									
Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD RPD Limit
Selenium	6.519	59.27	50.00	106	58.19	50.00	103	80-120	1.85 20
Silver	5.000	46.20	50.00	92.4	45.91	50.00	91.8	85-116	0.617 20

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

Date Analyzed: 30-Sep-2023 15:52
Date Extracted: 27-Sep-2023 12:00
Units: ug/L

Lab Sample ID: HS23090958-01PDS

Analysis Method: SW6020A

Client Sample ID:

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Selenium	6.519	106.4	100	100	80-120
Silver	0	96.88	100	97	80-120

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

Date Analyzed: 30-Sep-2023 15:39
Date Extracted: 27-Sep-2023 12:00
Units: ug/L

Lab Sample ID: LCS-201061

Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Selenium	50	51.7	103	80-120
Silver	50	46.74	94	85-116

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23090713

Date Analyzed: 30-Sep-2023 15:41
Date Extracted: 27-Sep-2023 12:00
Units: ug/L

Lab Sample ID: HS23090958-01SD

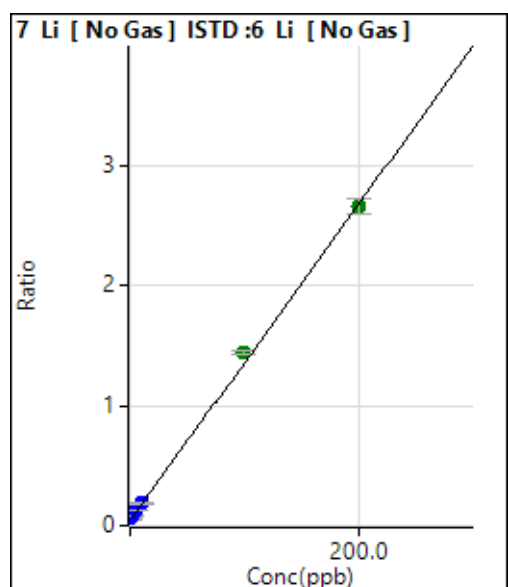
Analysis Method: SW6020A

Client Sample ID:

Analyte	Sample Result	C	SD Result	C	RPD	Q
Selenium	6.519		0	U	0	
Silver	0	U	0	U	0	

Batch Folder: C:\Agilent\ICPMH\1\DATA\093023.b\
Analysis File: 093023.batch.bin
DA Date-Time: 9/30/2023 12:56:59 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	017CALB.d	CAL BLK	9/30/2023 10:24:03 AM
2	013CALS.d	2/10/200	9/30/2023 10:15:00 AM
3	014CALS.d	5/25/500	9/30/2023 10:17:16 AM
4	020CALS.d	10/50/100	9/30/2023 10:30:53 AM
5	021CALS.d	100/500/10K	9/30/2023 10:33:09 AM
6	022CALS.d	200/1000/20K	9/30/2023 10:35:21 AM



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	38688.09	0.0565	P	1.9	
2	☐	2.000	2.005	56104.91	0.0829	P	0.9	0.2
3	☐	5.000	5.309	82991.47	0.1265	P	3.3	6.2
4	☐	10.000	9.818	123895.91	0.1860	P	3.5	-1.8
5	☐	100.000	104.756	934523.97	1.4383	A	2.2	4.8
6	☐	200.000	197.623	1724677.47	2.6634	A	4.7	-1.2

$$y = 0.0132 * x + 0.0565$$

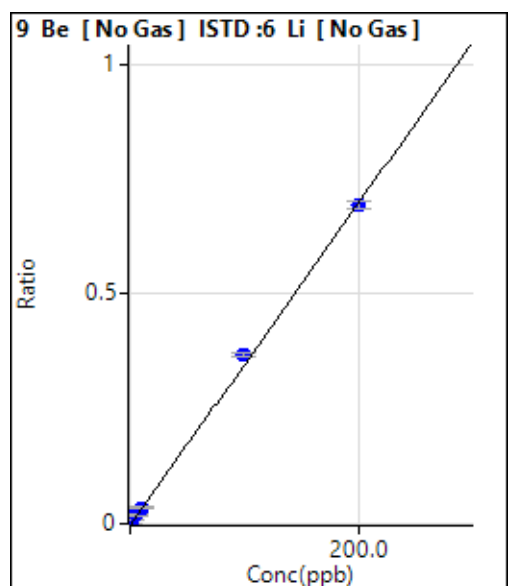
$$R = 0.9996$$

$$DL = 0.2406 \text{ ppb}$$

$$BEC = 4.28 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21.67	0.0000	P	53.1	
2	☐	2.000	2.005	4779.19	0.0071	P	5.3	0.2
3	☐	5.000	5.437	12532.33	0.0191	P	6.2	8.7
4	☐	10.000	10.032	23469.65	0.0352	P	3.5	0.3
5	☐	100.000	104.515	238227.50	0.3667	P	1.9	4.5
6	☐	200.000	197.730	449063.01	0.6937	P	3.0	-1.1

$$y = 0.0035 * x + 3.1597E-005$$

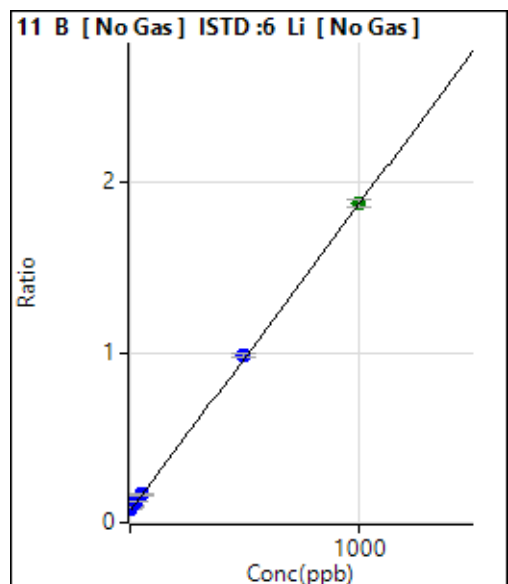
$$R = 0.9996$$

$$DL = 0.01435 \text{ ppb}$$

$$BEC = 0.009007 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	53021.44	0.0774	P	1.1	
2	☐	10.000	10.745	65490.15	0.0968	P	1.0	7.5
3	☐	25.000	27.647	83520.28	0.1273	P	2.9	10.6
4	☐	50.000	48.617	110014.01	0.1652	P	1.4	-2.8
5	☐	500.000	502.375	639582.78	0.9845	P	1.8	0.5
6	☐	1000.000	998.808	1217848.94	1.8810	A	2.2	-0.1

$$y = 0.0018 * x + 0.0774$$

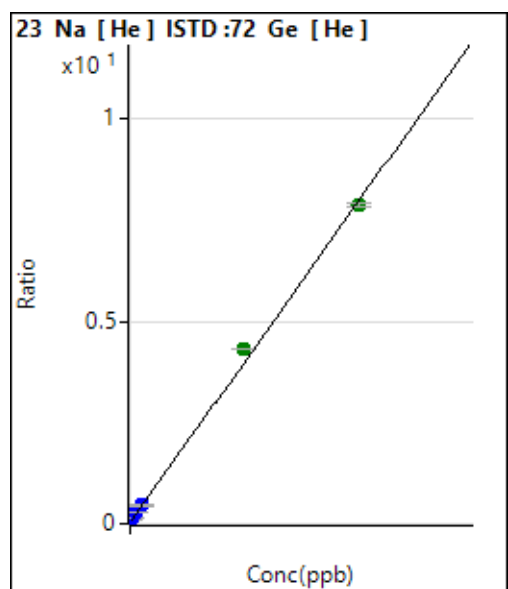
$$R = 1.0000$$

DL = 1.459 ppb

BEC = 42.84 ppb

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	99311.68	0.0734	P	0.4	
2	☐	200.000	214.541	212989.95	0.1586	P	0.7	7.3
3	☐	500.000	532.851	384987.72	0.2849	P	1.8	6.6
4	☐	1000.000	966.708	611714.69	0.4571	P	2.9	-3.3
5	☐	10000.00	10686.85	5783186.58	4.3144	A	0.5	6.9
6	☐	20000.00	19657.27	10476235.0	7.8742	A	1.4	-1.7

$$y = 3.9684E-004 * x + 0.0734$$

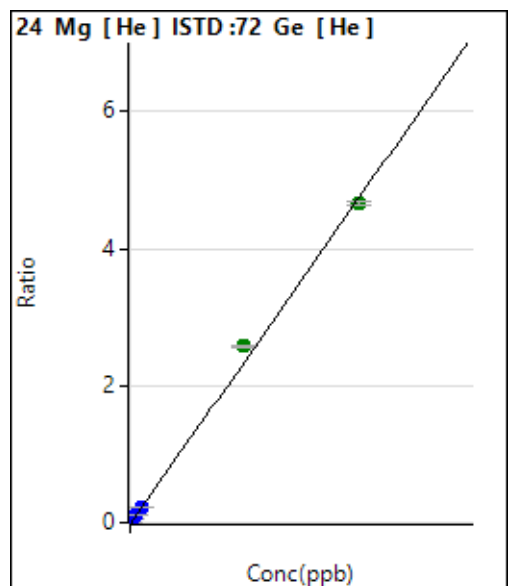
$$R = 0.9992$$

DL = 2.314 ppb

BEC = 185.1 ppb

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	263.34	0.0002	P	19.0	
2	☐	200.000	203.002	65192.24	0.0485	P	2.2	1.5
3	☐	500.000	518.391	167075.77	0.1236	P	2.1	3.7
4	☐	1000.000	945.720	301657.89	0.2254	P	4.1	-5.4
5	☐	10000.00	10830.56	3457156.93	2.5793	A	1.1	8.3
6	☐	20000.00	19586.94	6205667.20	4.6644	A	1.0	-2.1

$$y = 2.3813E-004 * x + 1.9460E-004$$

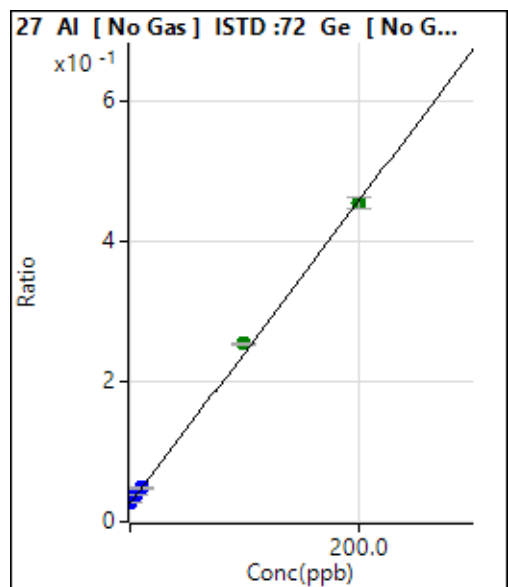
$$R = 0.9987$$

$$DL = 0.4649 \text{ ppb}$$

$$BEC = 0.8172 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	136819.12	0.0278	P	1.1	
2	☐	2.000	5.134	190010.16	0.0389	P	1.6	156.7
3	☐	5.000	4.910	186021.97	0.0384	P	1.2	-1.8
4	☐	10.000	9.400	235859.03	0.0481	P	3.0	-6.0
5	☐	100.000	104.664	1228793.89	0.2536	A	1.8	4.7
6	☐	200.000	197.669	2166779.45	0.4542	A	3.3	-1.2

$$y = 0.0022 * x + 0.0278$$

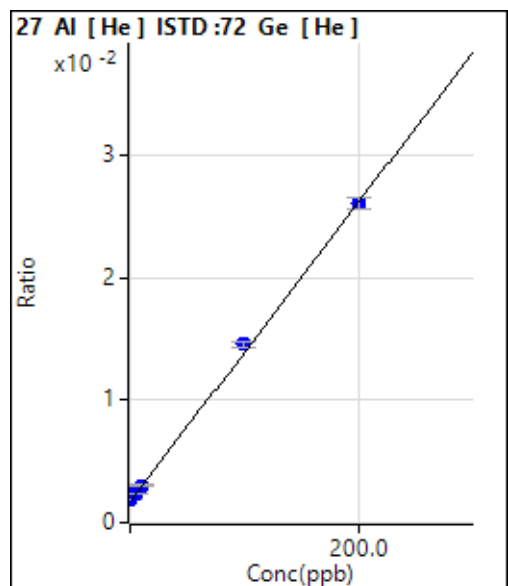
$$R = 0.9995$$

$$DL = 0.4074 \text{ ppb}$$

$$BEC = 12.89 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2493.60	0.0018	P	2.6	
2	☐	2.000	5.149	3323.79	0.0025	P	4.3	157.5
3	☐	5.000	4.321	3207.11	0.0024	P	4.6	-13.6
4	☐	10.000	9.488	4024.00	0.0030	P	4.2	-5.1
5	☐	100.000	103.809	19524.06	0.0146	P	3.8	3.8
6	☐	200.000	198.106	34733.86	0.0261	P	4.1	-0.9

$$y = 1.2250E-004 * x + 0.0018$$

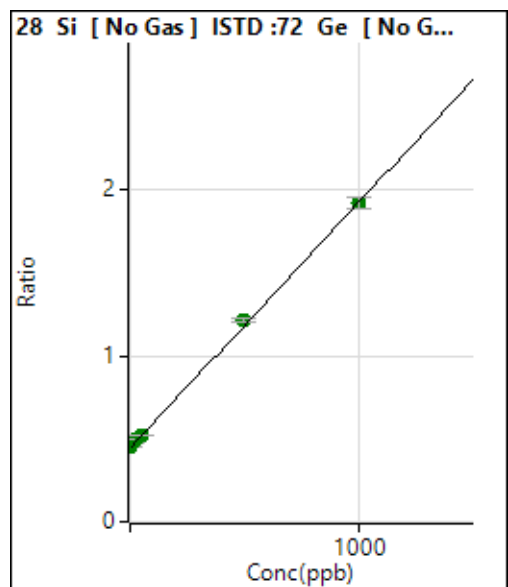
$$R = 0.9996$$

$$DL = 1.168 \text{ ppb}$$

$$BEC = 15.05 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2238097.47	0.4548	A	0.8	
2	☐	10.000	16.313	2340868.56	0.4790	A	0.6	63.1
3	☐	25.000	31.189	2426864.76	0.5010	A	0.6	24.8
4	☐	50.000	45.393	2560766.89	0.5220	A	1.4	-9.2
5	☐	500.000	516.401	5904729.08	1.2185	A	1.5	3.3
6	☐	1000.000	991.812	9166798.20	1.9216	A	3.2	-0.8

$$y = 0.0015 * x + 0.4548$$

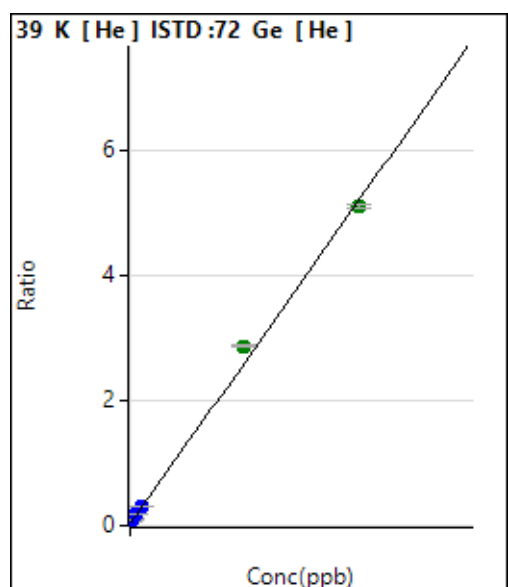
$$R = 0.9998$$

$$DL = 7.002 \text{ ppb}$$

$$BEC = 307.6 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	69980.45	0.0517	P	1.3	
2	☐	200.000	213.397	143533.07	0.1069	P	1.5	6.7
3	☐	500.000	529.117	254598.88	0.1884	P	1.4	5.8
4	☐	1000.000	958.391	400542.79	0.2993	P	3.5	-4.2
5	☐	10000.00	10900.36	3843652.55	2.8671	A	1.6	9.0
6	☐	20000.00	19551.03	6787013.44	5.1014	A	1.1	-2.2

$$y = 2.5828E-004 * x + 0.0517$$

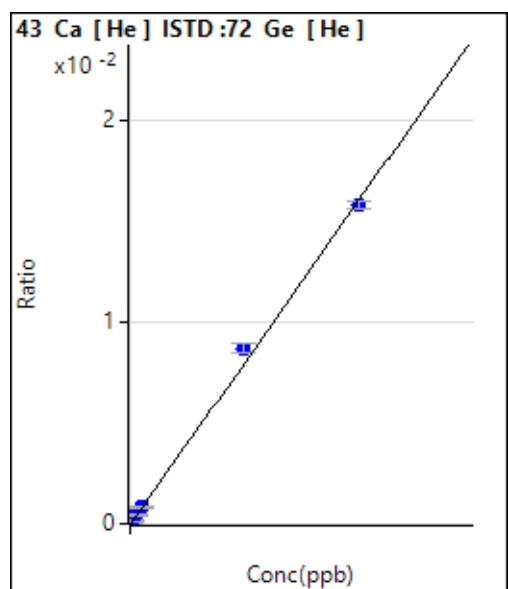
$$R = 0.9985$$

$$DL = 7.808 \text{ ppb}$$

$$BEC = 200.4 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	36.67	0.0000	P	16.1	
2	☐	200.000	163.588	213.34	0.0002	P	23.5	-18.2
3	☐	500.000	514.530	596.69	0.0004	P	14.9	2.9
4	☐	1000.000	998.783	1113.40	0.0008	P	5.8	-0.1
5	☐	10000.00	10750.83	11641.82	0.0087	P	5.5	7.5
6	☐	20000.00	19624.64	21079.72	0.0158	P	2.9	-1.9

$$y = 8.0568E-007 * x + 2.7126E-005$$

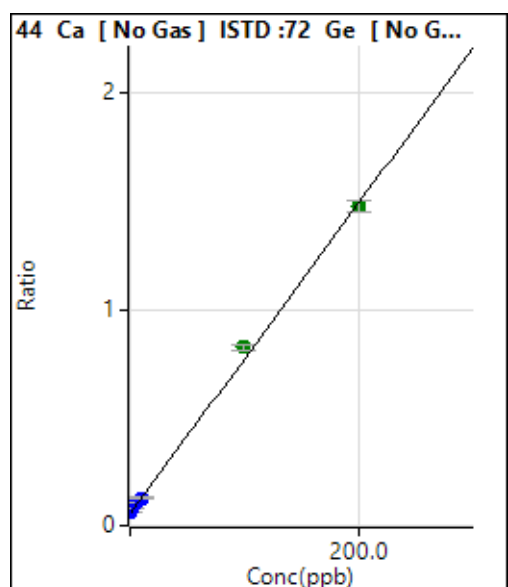
$$R = 0.9990$$

$$DL = 16.26 \text{ ppb}$$

$$BEC = 33.67 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	309320.64	0.0629	P	0.6	
2	☐	2.000	2.852	407426.60	0.0834	P	1.7	42.6
3	☐	5.000	5.964	512261.35	0.1057	P	0.4	19.3
4	☐	10.000	9.189	632466.54	0.1289	P	3.2	-8.1
5	☐	100.000	106.168	4003047.96	0.8261	A	2.9	6.2
6	☐	200.000	196.924	7053709.48	1.4786	A	3.9	-1.5

$$y = 0.0072 * x + 0.0629$$

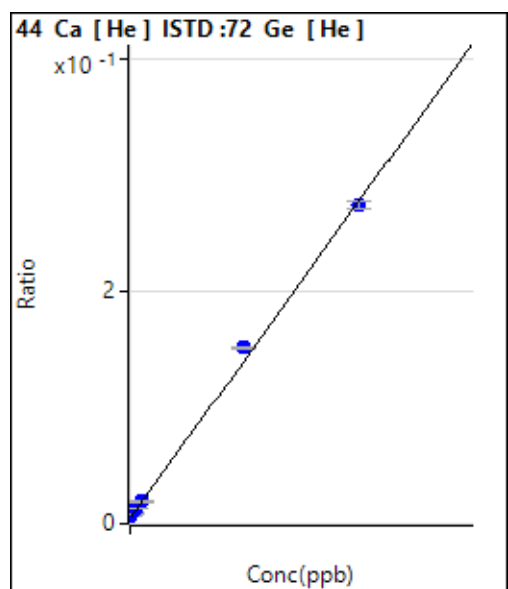
$$R = 0.9993$$

$$DL = 0.1471 \text{ ppb}$$

$$BEC = 8.744 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	8409.39	0.0062	P	3.8	
2	☐	200.000	211.435	12222.31	0.0091	P	4.8	5.7
3	☐	500.000	527.160	18112.18	0.0134	P	3.9	5.4
4	☐	1000.000	951.403	25677.57	0.0192	P	4.7	-4.9
5	☐	10000.00	10654.64	203018.91	0.1515	P	1.4	6.5
6	☐	20000.00	19674.31	365039.79	0.2744	P	1.9	-1.6

$$y = 1.3631E-005 * x + 0.0062$$

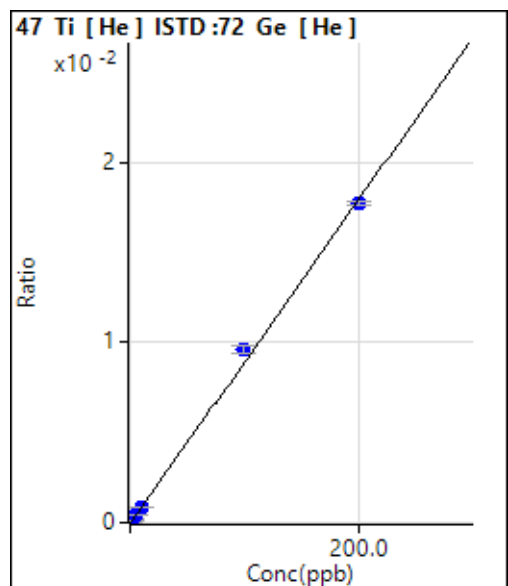
$$R = 0.9992$$

$$DL = 51.45 \text{ ppb}$$

$$BEC = 456.2 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	36.67	0.0000	P	109.8	
2	☐	2.000	1.630	233.34	0.0002	P	28.8	-18.5
3	☐	5.000	4.521	586.69	0.0004	P	5.8	-9.6
4	☐	10.000	9.162	1140.07	0.0009	P	11.7	-8.4
5	☐	100.000	106.636	12909.63	0.0096	P	4.8	6.6
6	☐	200.000	196.740	23600.60	0.0177	P	1.8	-1.6

$$y = 9.0034E-005 * x + 2.7098E-005$$

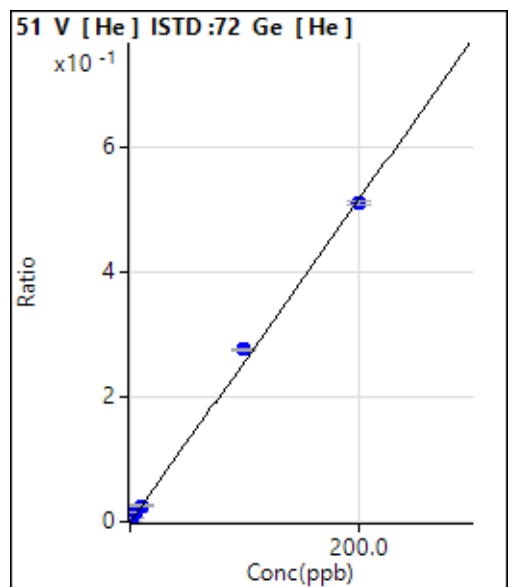
$$R = 0.9992$$

$$DL = 0.9911 \text{ ppb}$$

$$BEC = 0.301 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1775.68	0.0013	P	1.5	
2	☐	2.000	2.091	9033.02	0.0067	P	1.3	4.6
3	☐	5.000	5.217	20020.23	0.0148	P	2.3	4.3
4	☐	10.000	9.580	34938.84	0.0261	P	1.8	-4.2
5	☐	100.000	106.124	369910.46	0.2760	P	0.9	6.1
6	☐	200.000	196.953	679853.52	0.5110	P	1.0	-1.5

$$y = 0.0026 * x + 0.0013$$

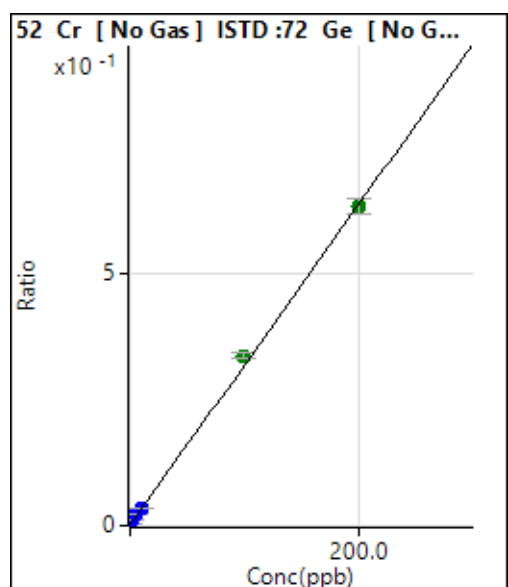
$$R = 0.9993$$

$$DL = 0.02301 \text{ ppb}$$

$$BEC = 0.5074 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21804.32	0.0044	P	2.6	
2	☐	2.000	2.138	54840.06	0.0112	P	2.7	6.9
3	☐	5.000	5.320	103325.25	0.0213	P	2.4	6.4
4	☐	10.000	9.673	172446.69	0.0352	P	4.7	-3.3
5	☐	100.000	104.467	1629374.92	0.3363	A	3.8	4.5
6	☐	200.000	197.774	3018150.58	0.6327	A	4.3	-1.1

$$y = 0.0032 * x + 0.0044$$

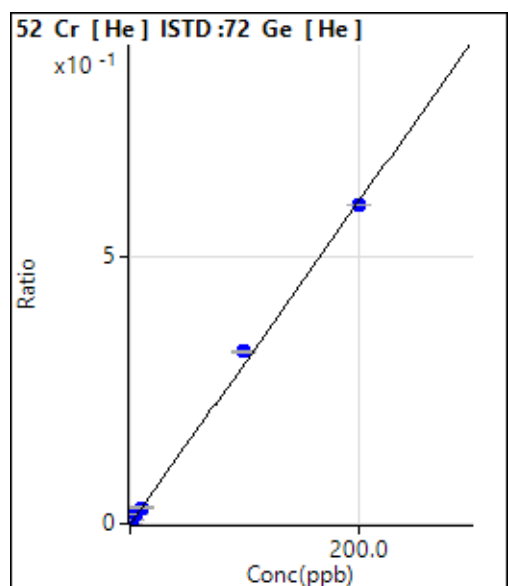
$$R = 0.9996$$

$$DL = 0.1083 \text{ ppb}$$

$$BEC = 1.395 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1960.18	0.0014	P	3.5	
2	☐	2.000	2.029	10217.31	0.0076	P	0.9	1.5
3	☐	5.000	5.379	24011.29	0.0178	P	1.6	7.6
4	☐	10.000	9.480	40433.62	0.0302	P	4.7	-5.2
5	☐	100.000	106.207	433873.43	0.3237	P	0.5	6.2
6	☐	200.000	196.912	796809.65	0.5989	P	0.1	-1.5

$$y = 0.0030 * x + 0.0014$$

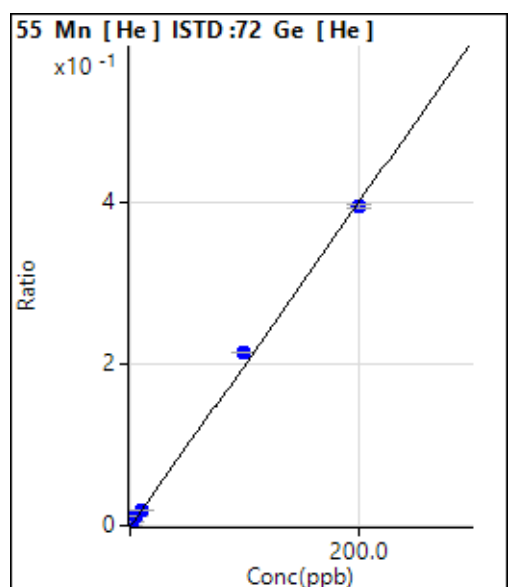
$$R = 0.9993$$

$$DL = 0.04959 \text{ ppb}$$

$$BEC = 0.4778 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	353.35	0.0003	P	26.3	
2	☐	2.000	2.188	6241.52	0.0046	P	5.3	9.4
3	☐	5.000	5.398	14971.74	0.0111	P	2.2	8.0
4	☐	10.000	9.577	26038.51	0.0195	P	4.5	-4.2
5	☐	100.000	106.657	286907.01	0.2140	P	0.5	6.7
6	☐	200.000	196.681	524898.22	0.3945	P	0.7	-1.7

$$y = 0.0020 * x + 2.6108E-004$$

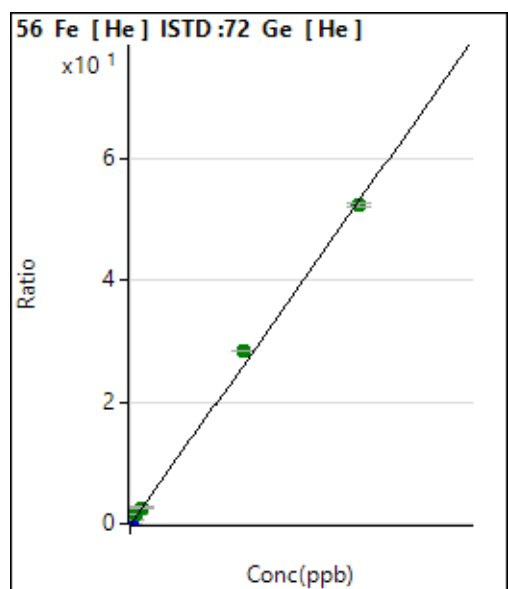
$$R = 0.9992$$

$$DL = 0.1027 \text{ ppb}$$

$$BEC = 0.1303 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	14177.58	0.0105	P	3.7	
2	☐	200.000	213.614	776430.43	0.5781	P	1.7	6.8
3	☐	500.000	553.707	2002297.00	1.4817	A	2.0	10.7
4	☐	1000.000	991.119	3538442.55	2.6439	A	4.4	-0.9
5	☐	10000.00	10643.61	37923346.9	28.290	A	0.6	6.4
6	☐	20000.00	19677.15	69575352.3	52.293	A	0.9	-1.6

$$y = 0.0027 * x + 0.0105$$

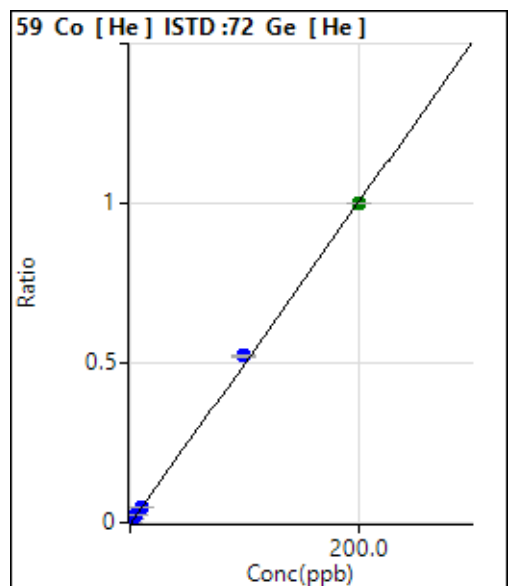
$$R = 0.9993$$

$$DL = 0.436 \text{ ppb}$$

$$BEC = 3.946 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	60.00	0.0000	P	44.9	
2	☐	2.000	2.014	13703.81	0.0102	P	4.3	0.7
3	☐	5.000	5.064	34577.77	0.0256	P	2.3	1.3
4	☐	10.000	9.336	63083.05	0.0471	P	5.5	-6.6
5	☐	100.000	103.444	699516.92	0.5218	P	0.6	3.4
6	☐	200.000	198.309	1330955.76	1.0003	A	0.5	-0.8

$$y = 0.0050 * x + 4.4464E-005$$

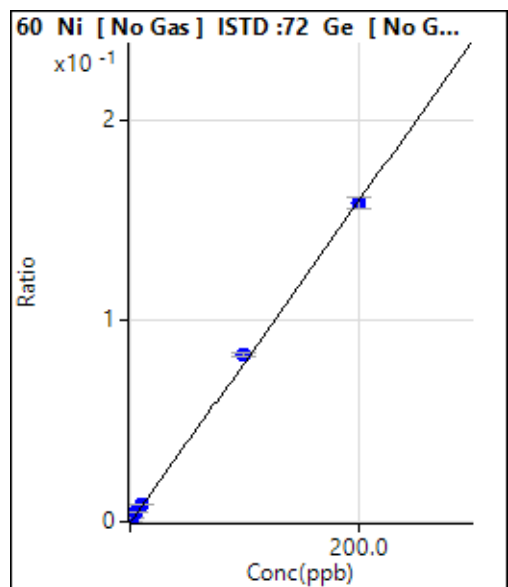
$$R = 0.9998$$

$$DL = 0.01187 \text{ ppb}$$

$$BEC = 0.008815 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	916.71	0.0002	P	11.3	
2	☐	2.000	2.159	9353.37	0.0019	P	2.5	8.0
3	☐	5.000	5.532	22342.04	0.0046	P	2.1	10.6
4	☐	10.000	10.257	41166.03	0.0084	P	5.0	2.6
5	☐	100.000	104.098	404466.75	0.0835	P	2.5	4.1
6	☐	200.000	197.923	756320.43	0.1585	P	3.9	-1.0

$$y = 8.0007E-004 * x + 1.8637E-004$$

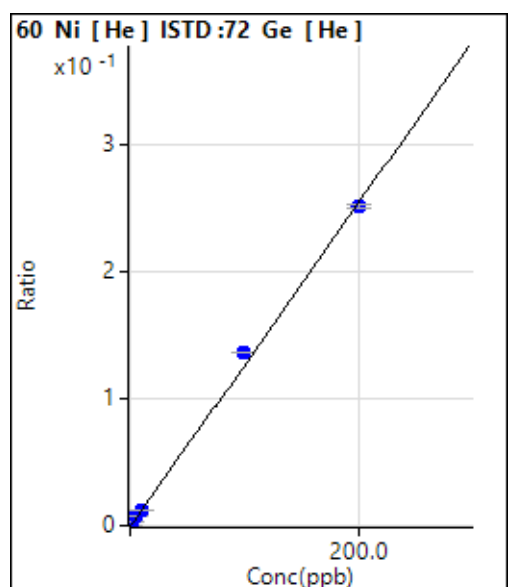
$$R = 0.9997$$

$$DL = 0.07869 \text{ ppb}$$

$$BEC = 0.2329 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	350.01	0.0003	P	3.0	
2	☐	2.000	2.175	4074.04	0.0030	P	3.4	8.7
3	☐	5.000	5.498	9827.04	0.0073	P	3.0	10.0
4	☐	10.000	9.643	16810.68	0.0126	P	3.3	-3.6
5	☐	100.000	106.415	182318.19	0.1360	P	0.4	6.4
6	☐	200.000	196.796	334326.06	0.2513	P	1.5	-1.6

$$y = 0.0013 * x + 2.5884E-004$$

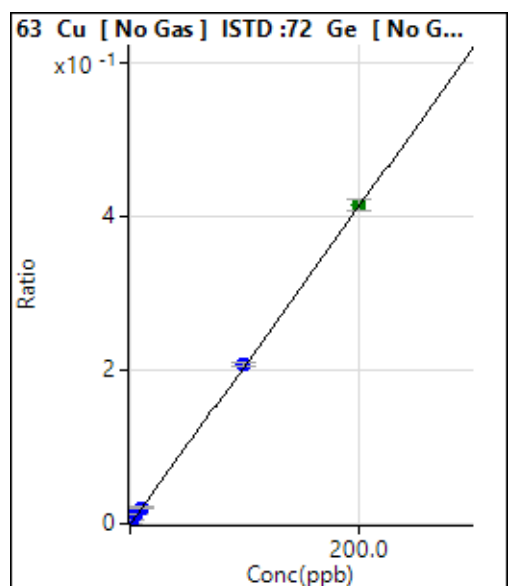
$$R = 0.9993$$

$$DL = 0.01799 \text{ ppb}$$

$$BEC = 0.2029 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	4530.84	0.0009	P	5.8	
2	☐	2.000	2.164	26345.83	0.0054	P	3.3	8.2
3	☐	5.000	5.284	57351.03	0.0118	P	2.6	5.7
4	☐	10.000	9.673	102555.82	0.0209	P	4.9	-3.3
5	☐	100.000	99.562	1001347.38	0.2067	P	2.4	-0.4
6	☐	200.000	200.227	1978336.33	0.4147	A	3.1	0.1

$$y = 0.0021 * x + 9.2061E-004$$

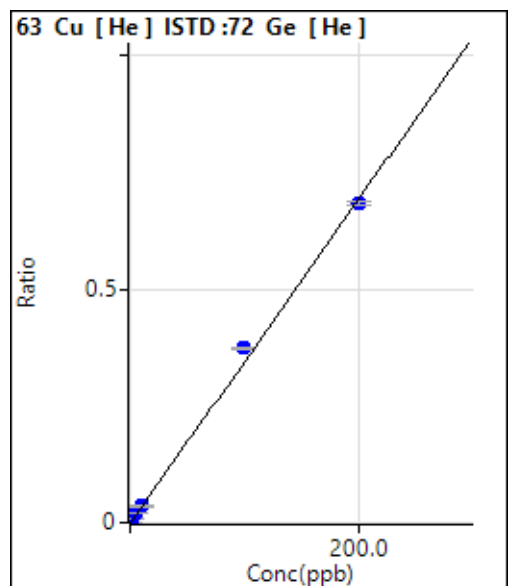
$$R = 1.0000$$

$$DL = 0.07686 \text{ ppb}$$

$$BEC = 0.4455 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2486.94	0.0018	P	2.5	
2	☐	2.000	2.317	13263.32	0.0099	P	2.2	15.9
3	☐	5.000	5.389	27745.48	0.0205	P	6.3	7.8
4	☐	10.000	9.717	47566.82	0.0355	P	4.0	-2.8
5	☐	100.000	106.958	499731.20	0.3728	P	0.7	7.0
6	☐	200.000	196.522	909285.25	0.6834	P	1.0	-1.7

$$y = 0.0035 * x + 0.0018$$

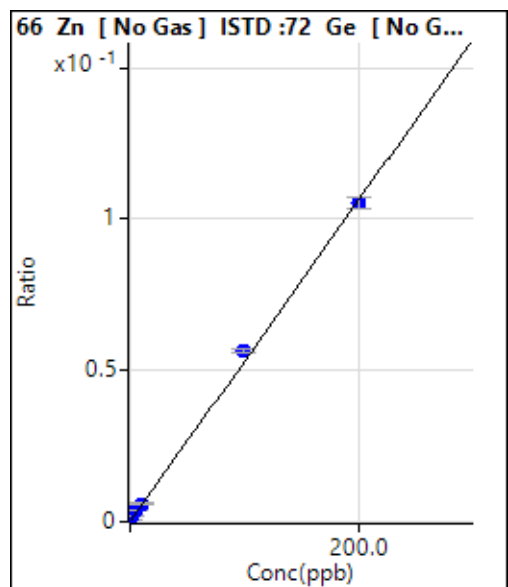
$$R = 0.9991$$

$$DL = 0.04056 \text{ ppb}$$

$$BEC = 0.5302 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2626.97	0.0005	P	3.9	
2	☐	2.000	2.638	9460.18	0.0019	P	6.0	31.9
3	☐	5.000	6.067	18215.79	0.0038	P	3.0	21.3
4	☐	10.000	10.166	29125.00	0.0059	P	5.1	1.7
5	☐	100.000	105.643	274717.18	0.0567	P	2.5	5.6
6	☐	200.000	197.137	502493.18	0.1053	P	3.6	-1.4

$$y = 5.3161E-004 * x + 5.3389E-004$$

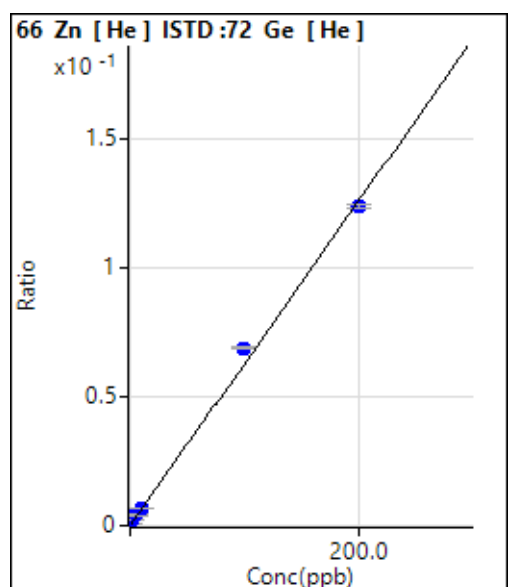
$$R = 0.9995$$

$$DL = 0.1178 \text{ ppb}$$

$$BEC = 1.004 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	820.04	0.0006	P	20.1	
2	☐	2.000	2.576	2990.38	0.0022	P	10.6	28.8
3	☐	5.000	5.578	5557.89	0.0041	P	3.3	11.6
4	☐	10.000	9.631	8913.08	0.0067	P	5.6	-3.7
5	☐	100.000	108.585	92312.82	0.0689	P	1.8	8.6
6	☐	200.000	195.706	164464.43	0.1236	P	1.6	-2.1

$$y = 6.2854\text{E-}004 * x + 6.0682\text{E-}004$$

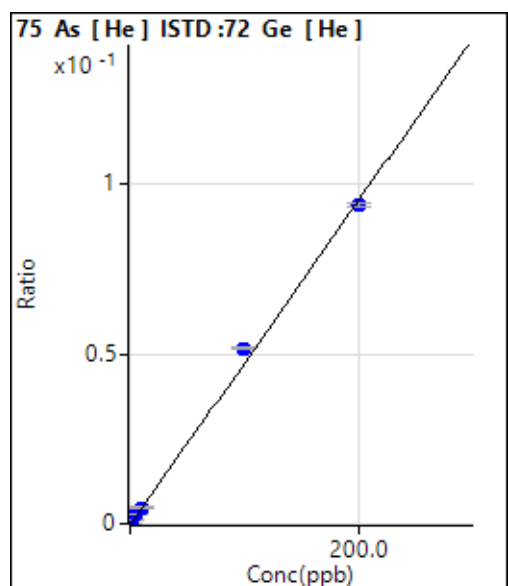
$$R = 0.9987$$

$$\text{DL} = 0.5828 \text{ ppb}$$

$$\text{BEC} = 0.9654 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	130.00	0.0001	P	28.8	
2	☐	2.000	2.127	1495.65	0.0011	P	1.0	6.4
3	☐	5.000	5.387	3611.62	0.0027	P	4.2	7.7
4	☐	10.000	9.839	6427.11	0.0048	P	2.9	-1.6
5	☐	100.000	107.713	69194.04	0.0516	P	1.0	7.7
6	☐	200.000	196.141	124940.29	0.0939	P	1.3	-1.9

$$y = 4.7831\text{E-}004 * x + 9.6080\text{E-}005$$

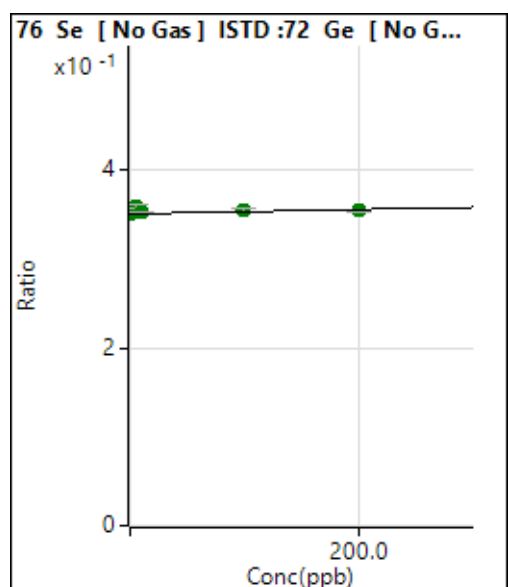
$$R = 0.9989$$

$$\text{DL} = 0.1733 \text{ ppb}$$

$$\text{BEC} = 0.2009 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1726357.89	0.3508	A	0.4	
2	☐	2.000	124.569	1729762.27	0.3539	A	1.0	6128.5
3	☐	5.000	341.342	1740538.05	0.3593	A	1.5	6726.8
4	☐	10.000	61.312	1728993.20	0.3524	A	0.7	513.1
5	☐	100.000	161.953	1719717.94	0.3549	A	1.3	62.0
6	☐	200.000	156.824	1692680.02	0.3547	A	0.5	-21.6

$$y = 2.4813E-005 * x + 0.3508$$

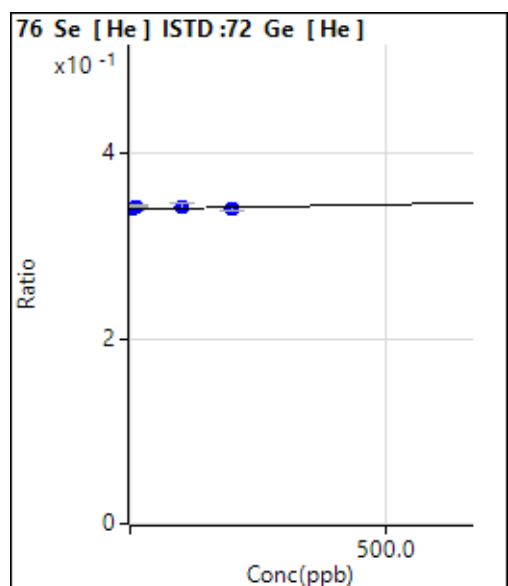
$$R = 0.1146$$

$$DL = 180.7 \text{ ppb}$$

$$BEC = 1.414E+04 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	459985.69	0.3402	P	0.7	
2	☐	2.000	-45.977	456241.39	0.3397	P	0.1	-2398.8
3	☐	5.000	-19.732	459385.50	0.3400	P	0.6	-494.6
4	☐	10.000	285.899	459247.28	0.3431	P	0.7	2759.0
5	☐	100.000	320.089	460355.64	0.3435	P	2.0	220.1
6	☐	200.000	77.259	453609.16	0.3410	P	1.3	-61.4

$$y = 1.0412E-005 * x + 0.3402$$

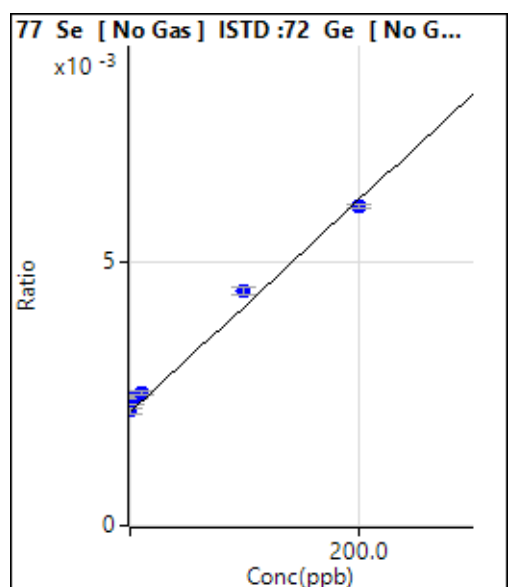
$$R = 0.2666$$

$$DL = 644.6 \text{ ppb}$$

$$BEC = 3.267E+04 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	10767.84	0.0022	P	5.5	
2	☐	2.000	8.786	11555.14	0.0024	P	4.5	339.3
3	☐	5.000	12.375	11805.35	0.0024	P	1.3	147.5
4	☐	10.000	17.079	12419.29	0.0025	P	3.2	70.8
5	☐	100.000	113.212	21647.75	0.0045	P	3.6	13.2
6	☐	200.000	192.788	28964.77	0.0061	P	1.7	-3.6

$$y = 2.0140E-005 * x + 0.0022$$

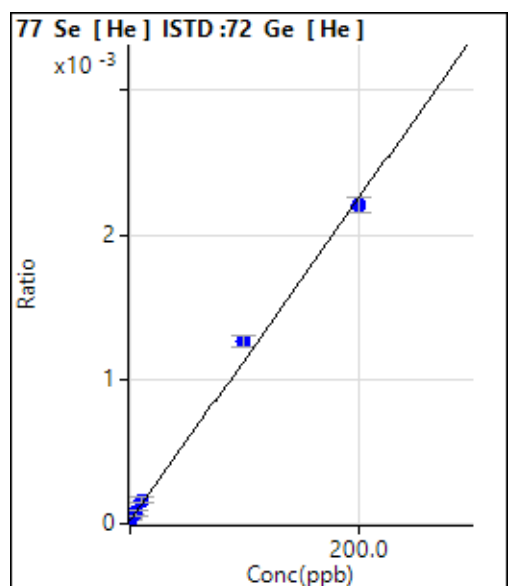
$$R = 0.9969$$

$$DL = 17.88 \text{ ppb}$$

$$BEC = 108.6 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	43.33	0.0000	P	57.7	
2	☐	2.000	2.246	76.67	0.0001	P	26.8	12.3
3	☐	5.000	3.989	103.33	0.0001	P	47.9	-20.2
4	☐	10.000	11.868	220.01	0.0002	P	27.5	18.7
5	☐	100.000	110.321	1693.48	0.0013	P	7.0	10.3
6	☐	200.000	194.769	2937.04	0.0022	P	4.6	-2.6

$$y = 1.1165E-005 * x + 3.1971E-005$$

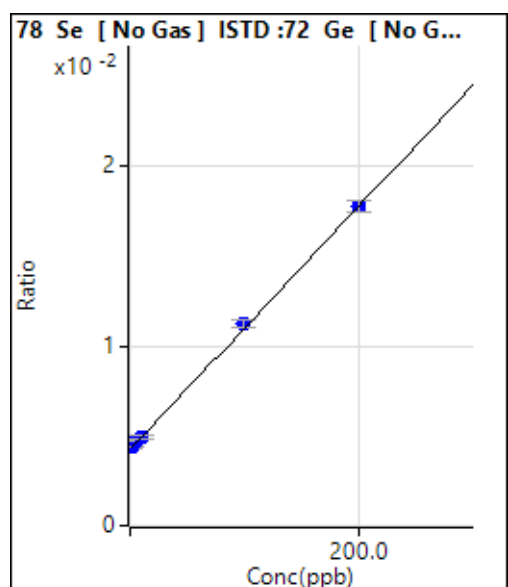
$$R = 0.9980$$

$$DL = 4.955 \text{ ppb}$$

$$BEC = 2.864 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21373.94	0.0043	P	2.5	
2	☐	2.000	0.503	21397.33	0.0044	P	1.1	-74.8
3	☐	5.000	5.678	22906.44	0.0047	P	0.6	13.6
4	☐	10.000	8.924	24275.45	0.0049	P	3.1	-10.8
5	☐	100.000	102.456	54647.58	0.0113	P	3.3	2.5
6	☐	200.000	198.824	84920.13	0.0178	P	3.5	-0.6

$$y = 6.7681\text{E-}005 * x + 0.0043$$

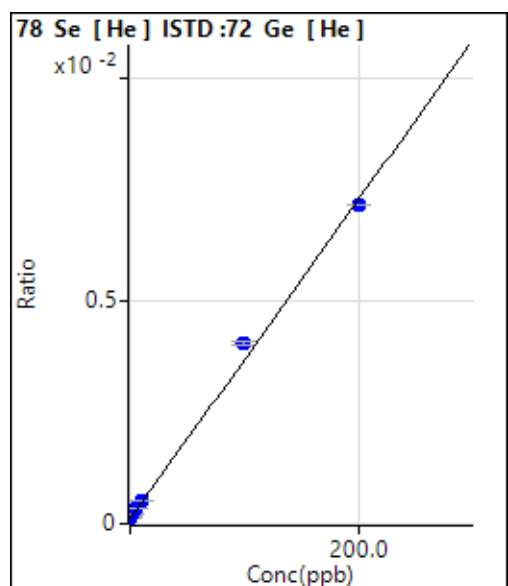
$$R = 0.9998$$

$$\text{DL} = 4.773 \text{ ppb}$$

$$\text{BEC} = 64.19 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	193.33	0.0001	P	11.3	
2	☐	2.000	2.258	300.67	0.0002	P	5.6	12.9
3	☐	5.000	5.679	468.01	0.0003	P	7.9	13.6
4	☐	10.000	10.266	683.35	0.0005	P	2.7	2.7
5	☐	100.000	108.982	5422.44	0.0040	P	2.1	9.0
6	☐	200.000	195.476	9502.03	0.0071	P	0.4	-2.3

$$y = 3.5802\text{E-}005 * x + 1.4302\text{E-}004$$

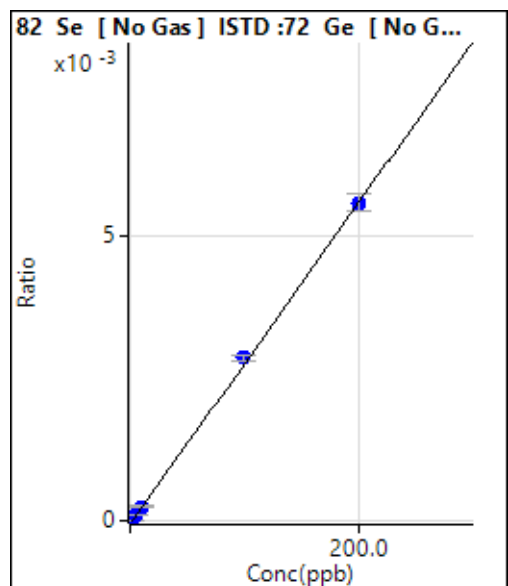
$$R = 0.9986$$

$$\text{DL} = 1.351 \text{ ppb}$$

$$\text{BEC} = 3.995 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	-111.20	0.0000	P	-169.	
2	☐	2.000	1.074	38.23	0.0000	P	76.1	-46.3
3	☐	5.000	5.060	582.51	0.0001	P	14.6	1.2
4	☐	10.000	10.013	1275.18	0.0003	P	13.4	0.1
5	☐	100.000	102.373	13870.11	0.0029	P	4.2	2.4
6	☐	200.000	198.820	26623.44	0.0056	P	5.2	-0.6

$$y = 2.8182E-005 * x - 2.2421E-005$$

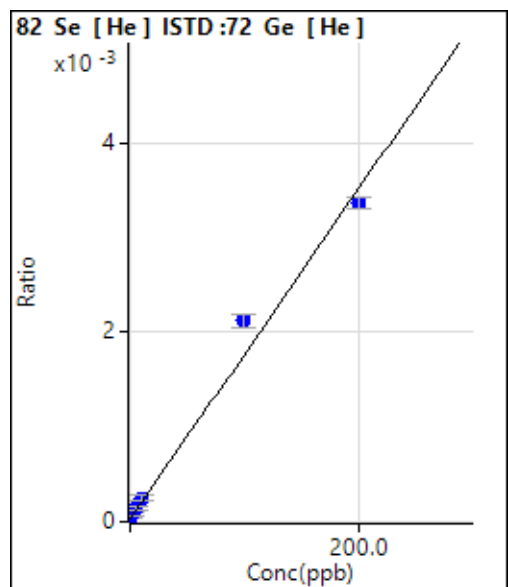
$$R = 0.9999$$

$$DL = 4.043 \text{ ppb}$$

$$BEC = -0.7956 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	60.00	0.0000	P	44.5	
2	☐	2.000	1.726	100.00	0.0001	P	56.0	-13.7
3	☐	5.000	6.080	203.34	0.0002	P	25.4	21.6
4	☐	10.000	11.874	336.68	0.0003	P	29.0	18.7
5	☐	100.000	119.128	2847.03	0.0021	P	7.1	19.1
6	☐	200.000	190.318	4477.49	0.0034	P	3.3	-4.8

$$y = 1.7446E-005 * x + 4.4431E-005$$

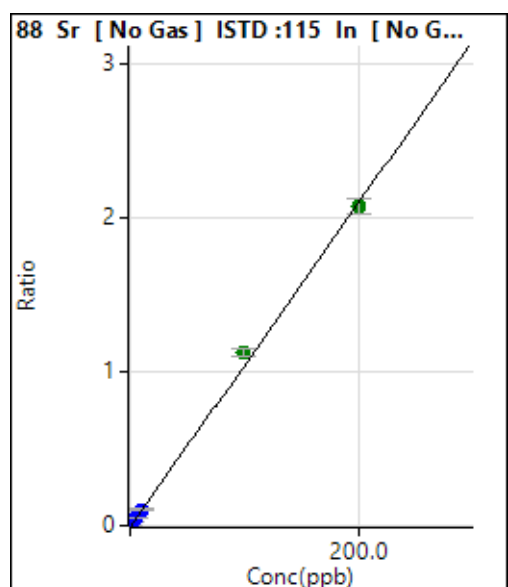
$$R = 0.9934$$

$$DL = 3.399 \text{ ppb}$$

$$BEC = 2.547 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1240.08	0.0006	P	5.6	
2	☐	2.000	2.031	44357.31	0.0220	P	5.2	1.6
3	☐	5.000	4.988	107530.89	0.0531	P	4.6	-0.2
4	☐	10.000	9.881	208793.90	0.1047	P	5.9	-1.2
5	☐	100.000	106.461	2209020.90	1.1217	A	4.9	6.5
6	☐	200.000	196.775	4087427.23	2.0728	A	4.5	-1.6

$$y = 0.0105 * x + 6.0762E-004$$

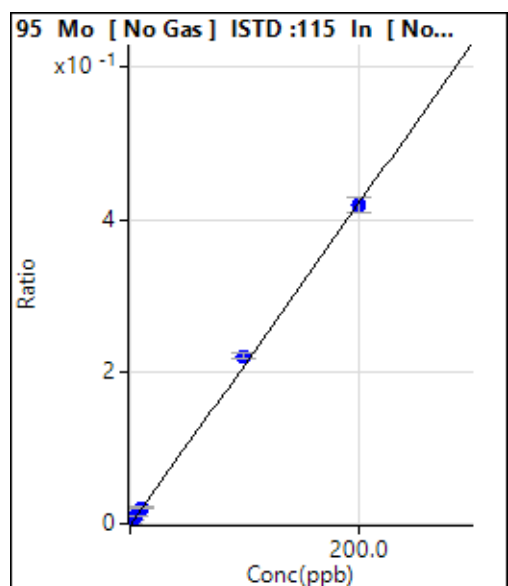
$$R = 0.9992$$

$$DL = 0.009643 \text{ ppb}$$

$$BEC = 0.0577 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	80.00	0.0000	P	12.8	
2	☐	2.000	1.985	8556.23	0.0042	P	1.5	-0.7
3	☐	5.000	5.017	21567.79	0.0107	P	6.4	0.3
4	☐	10.000	10.024	42404.32	0.0213	P	3.7	0.2
5	☐	100.000	104.006	433666.23	0.2202	P	3.8	4.0
6	☐	200.000	197.995	826305.48	0.4191	P	4.9	-1.0

$$y = 0.0021 * x + 3.9206E-005$$

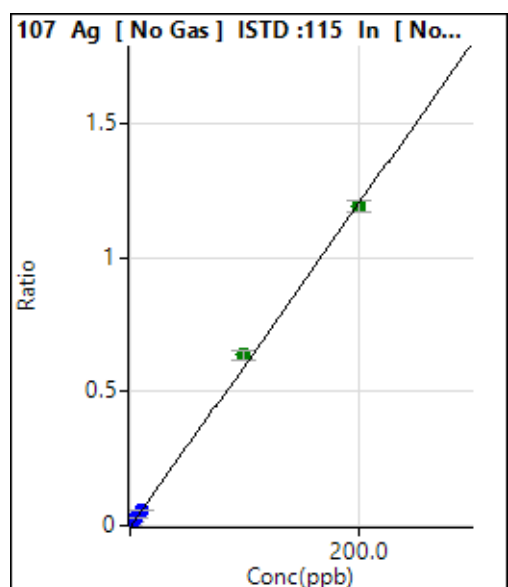
$$R = 0.9997$$

$$DL = 0.00712 \text{ ppb}$$

$$BEC = 0.01852 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	253.34	0.0001	P	16.6	
2	☐	2.000	1.937	23845.28	0.0118	P	3.5	-3.1
3	☐	5.000	4.850	59530.84	0.0294	P	4.1	-3.0
4	☐	10.000	9.665	116693.34	0.0585	P	5.7	-3.3
5	☐	100.000	105.312	1252609.96	0.6361	A	6.0	5.3
6	☐	200.000	197.365	2350700.69	1.1921	A	4.1	-1.3

$$y = 0.0060 * x + 1.2414E-004$$

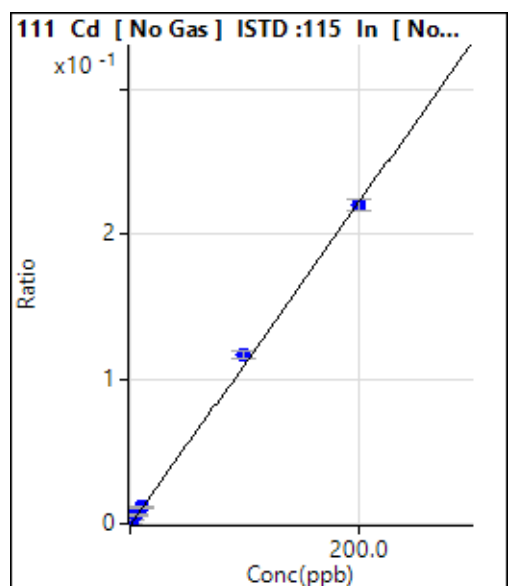
$$R = 0.9995$$

$$DL = 0.01022 \text{ ppb}$$

$$BEC = 0.02056 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	10.00	0.0000	P	173.2	
2	☐	2.000	2.110	4750.92	0.0024	P	7.9	5.5
3	☐	5.000	5.389	12169.16	0.0060	P	3.8	7.8
4	☐	10.000	10.240	22783.47	0.0114	P	6.7	2.4
5	☐	100.000	104.943	230417.52	0.1170	P	4.7	4.9
6	☐	200.000	197.506	434221.56	0.2202	P	3.9	-1.2

$$y = 0.0011 * x + 4.8983E-006$$

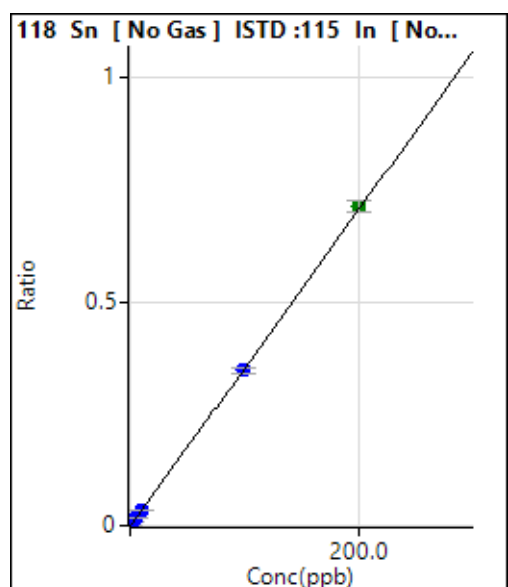
$$R = 0.9996$$

$$DL = 0.02283 \text{ ppb}$$

$$BEC = 0.004394 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2987.06	0.0015	P	5.1	
2	☐	2.000	1.956	16924.60	0.0084	P	2.2	-2.2
3	☐	5.000	4.831	37584.08	0.0186	P	3.4	-3.4
4	☐	10.000	9.427	69510.22	0.0348	P	4.6	-5.7
5	☐	100.000	97.660	684033.09	0.3472	P	3.4	-2.3
6	☐	200.000	201.203	1407667.27	0.7139	A	4.2	0.6

$$y = 0.0035 * x + 0.0015$$

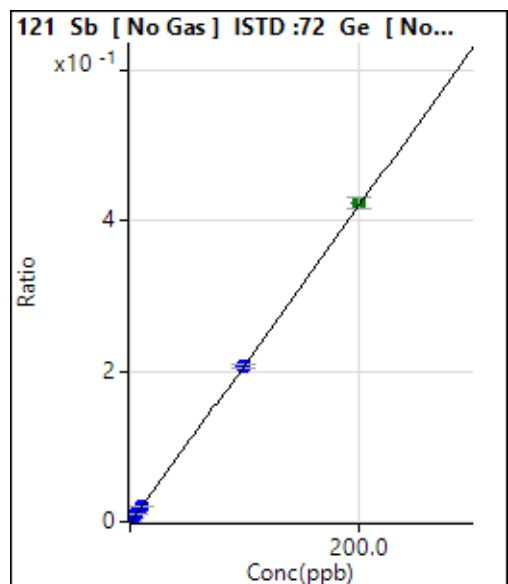
$$R = 0.9999$$

$$DL = 0.06384 \text{ ppb}$$

$$BEC = 0.4134 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	276.68	0.0001	P	10.9	
2	☐	2.000	1.916	20022.35	0.0041	P	0.5	-4.2
3	☐	5.000	5.171	53111.09	0.0110	P	1.9	3.4
4	☐	10.000	9.481	98377.74	0.0201	P	4.9	-5.2
5	☐	100.000	98.059	1002472.77	0.2069	P	2.0	-1.9
6	☐	200.000	200.993	2022671.74	0.4240	A	4.0	0.5

$$y = 0.0021 * x + 5.6247E-005$$

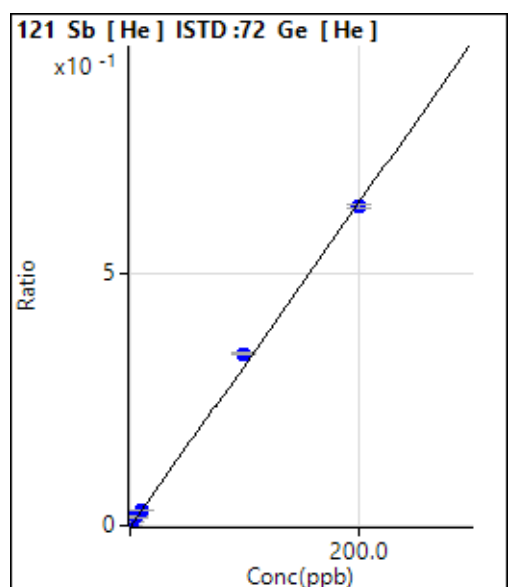
$$R = 0.9999$$

$$DL = 0.008709 \text{ ppb}$$

$$BEC = 0.02667 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	150.00	0.0001	P	47.0	
2	☐	2.000	1.995	8799.80	0.0066	P	2.2	-0.2
3	☐	5.000	5.357	23518.10	0.0174	P	4.5	7.1
4	☐	10.000	9.680	41967.46	0.0314	P	3.6	-3.2
5	☐	100.000	106.093	459251.65	0.3426	P	1.1	6.1
6	☐	200.000	196.961	846075.30	0.6359	P	0.6	-1.5

$$y = 0.0032 * x + 1.1109E-004$$

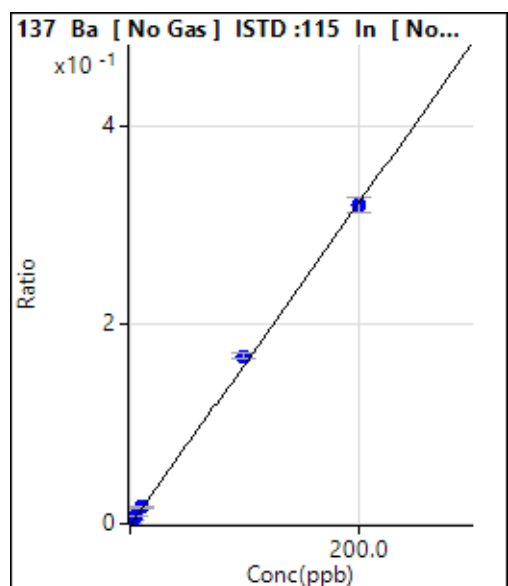
$$R = 0.9993$$

$$DL = 0.04854 \text{ ppb}$$

$$BEC = 0.03441 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	176.67	0.0001	P	20.3	
2	☐	2.000	2.033	6815.26	0.0034	P	3.2	1.7
3	☐	5.000	5.155	17068.14	0.0084	P	2.0	3.1
4	☐	10.000	10.147	32942.27	0.0165	P	6.8	1.5
5	☐	100.000	104.238	332554.14	0.1688	P	4.0	4.2
6	☐	200.000	197.870	631741.67	0.3204	P	5.0	-1.1

$$y = 0.0016 * x + 8.6595E-005$$

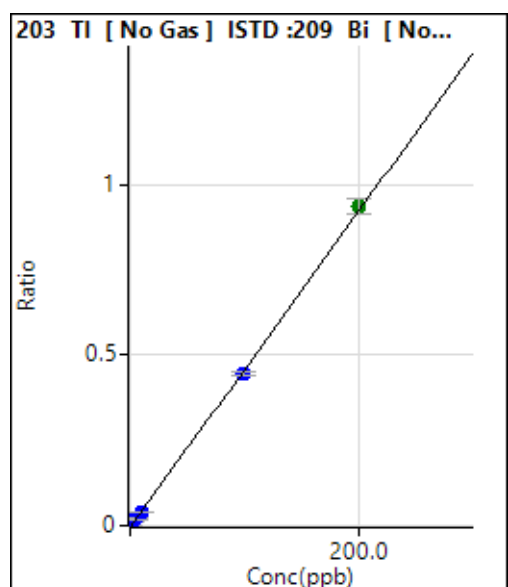
$$R = 0.9997$$

$$DL = 0.03254 \text{ ppb}$$

$$BEC = 0.05349 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	153.34	0.0001	P	26.3	
2	☐	2.000	1.950	18066.64	0.0091	P	0.7	-2.5
3	☐	5.000	4.271	39452.69	0.0199	P	3.4	-14.6
4	☐	10.000	8.498	78352.63	0.0395	P	4.6	-15.0
5	☐	100.000	96.085	854681.86	0.4457	P	3.5	-3.9
6	☐	200.000	202.051	1764339.50	0.9372	A	5.0	1.0

$$y = 0.0046 * x + 7.7807E-005$$

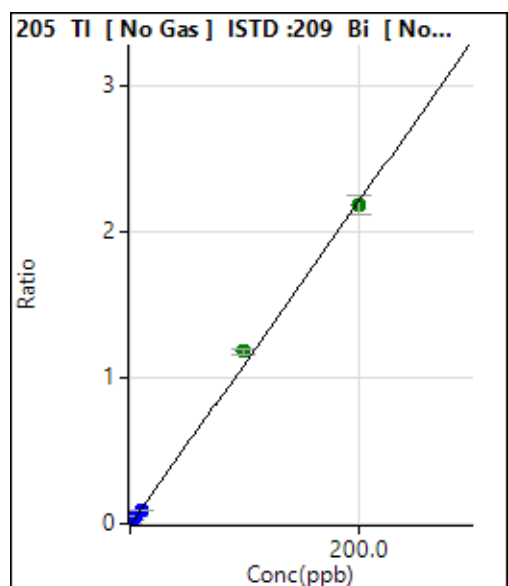
$$R = 0.9997$$

$$DL = 0.01325 \text{ ppb}$$

$$BEC = 0.01678 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	473.35	0.0002	P	10.5	
2	☐	2.000	2.010	44613.49	0.0225	P	1.5	0.5
3	☐	5.000	4.321	95518.50	0.0481	P	1.7	-13.6
4	☐	10.000	8.557	188655.93	0.0951	P	3.6	-14.4
5	☐	100.000	106.240	2258492.36	1.1778	A	2.9	6.2
6	☐	200.000	196.969	4110000.77	2.1834	A	5.9	-1.5

$$y = 0.0111 * x + 2.4070E-004$$

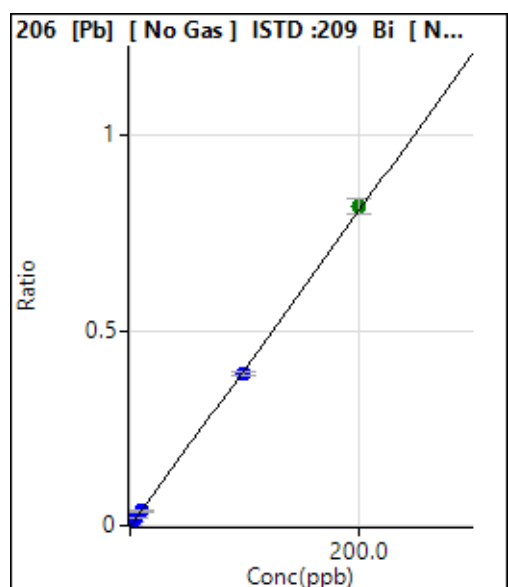
$$R = 0.9992$$

$$DL = 0.006847 \text{ ppb}$$

$$BEC = 0.02172 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2096.90	0.0011	P	4.7	
2	☐	2.000	1.992	18073.41	0.0091	P	3.1	-0.4
3	☐	5.000	4.916	41579.72	0.0210	P	2.4	-1.7
4	☐	10.000	9.015	74475.69	0.0375	P	4.6	-9.9
5	☐	100.000	95.896	746034.88	0.3891	P	3.1	-4.1
6	☐	200.000	202.103	1541515.61	0.8188	A	4.5	1.1

$$y = 0.0040 * x + 0.0011$$

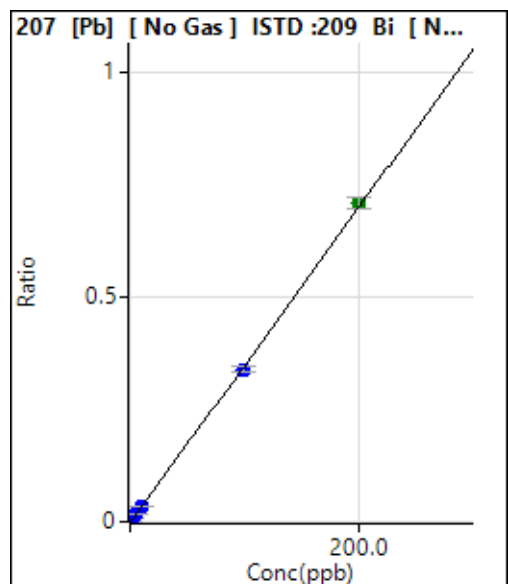
$$R = 0.9997$$

$$DL = 0.03739 \text{ ppb}$$

$$BEC = 0.2634 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1703.48	0.0009	P	7.6	
2	☐	2.000	1.991	15573.34	0.0079	P	3.9	-0.5
3	☐	5.000	4.966	36333.52	0.0183	P	4.3	-0.7
4	☐	10.000	9.164	65603.00	0.0331	P	2.7	-8.4
5	☐	100.000	96.406	651247.54	0.3396	P	3.1	-3.6
6	☐	200.000	201.840	1336827.69	0.7101	A	4.0	0.9

$$y = 0.0035 * x + 8.6544E-004$$

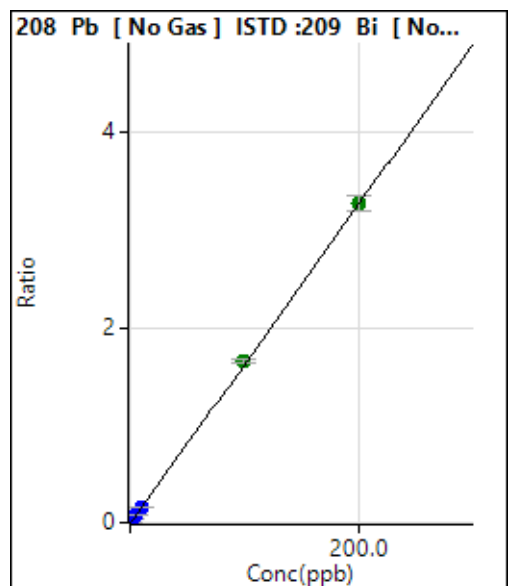
$$R = 0.9998$$

$$DL = 0.05598 \text{ ppb}$$

$$BEC = 0.2463 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	8371.31	0.0043	P	2.7	
2	☐	2.000	1.959	72016.29	0.0364	P	2.3	-2.1
3	☐	5.000	4.862	166531.17	0.0839	P	3.3	-2.8
4	☐	10.000	9.068	303283.51	0.1529	P	3.3	-9.3
5	☐	100.000	100.906	3179334.43	1.6581	A	3.4	0.9
6	☐	200.000	199.597	6166604.71	3.2756	A	4.7	-0.2

$$y = 0.0164 * x + 0.0043$$

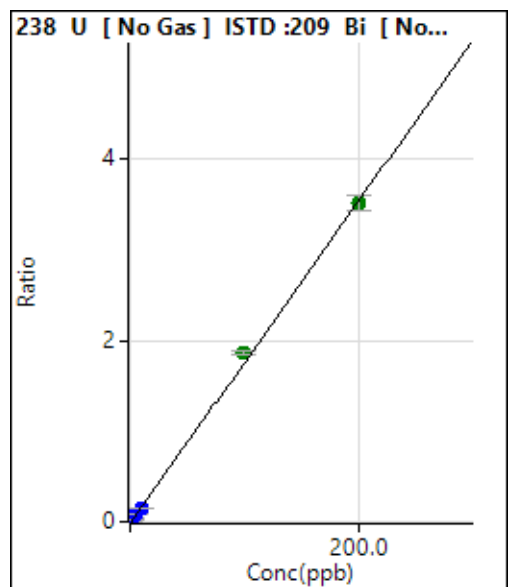
$$R = 1.0000$$

$$DL = 0.02087 \text{ ppb}$$

$$BEC = 0.2595 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	223.34	0.0001	P	14.0	
2	☐	2.000	1.794	63478.08	0.0320	P	2.3	-10.3
3	☐	5.000	4.507	159386.96	0.0803	P	2.5	-9.9
4	☐	10.000	8.713	307897.04	0.1552	P	3.2	-12.9
5	☐	100.000	104.574	3569780.47	1.8614	A	2.4	4.6
6	☐	200.000	197.792	6628278.86	3.5206	A	5.3	-1.1

$$y = 0.0178 * x + 1.1345E-004$$

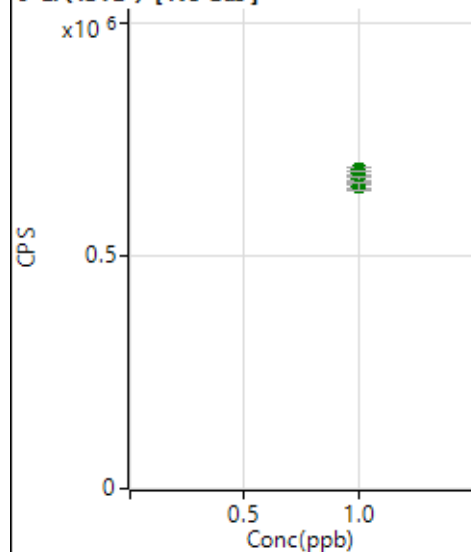
$$R = 0.9996$$

$$DL = 0.002674 \text{ ppb}$$

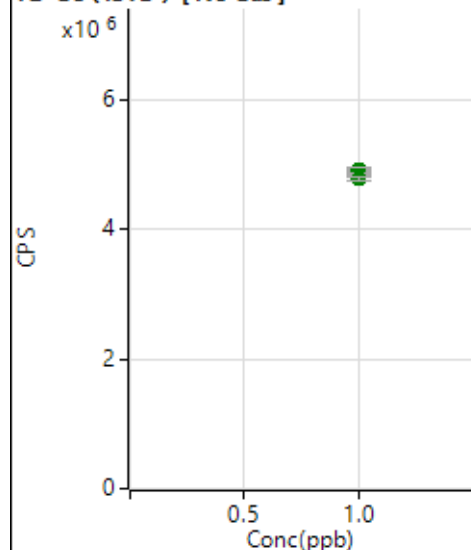
$$BEC = 0.006374 \text{ ppb}$$

Weight: <None>

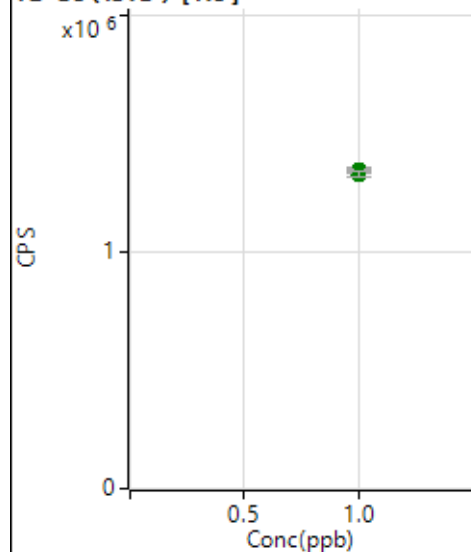
Min Conc: <None>

6 Li (ISTD) [No Gas]

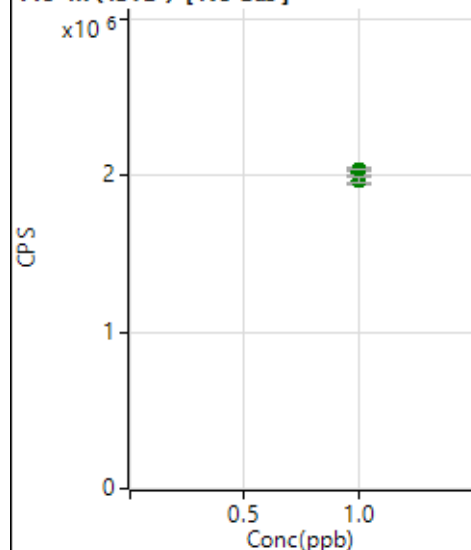
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		685402.54		A	1.7	
2	☐	1.000		676827.39		A	1.1	
3	☐	1.000		656347.14		A	1.7	
4	☐	1.000		666149.62		A	1.2	
5	☐	1.000		649726.27		A	1.3	
6	☐	1.000		647527.07		A	2.6	

72 Ge (ISTD) [No Gas]

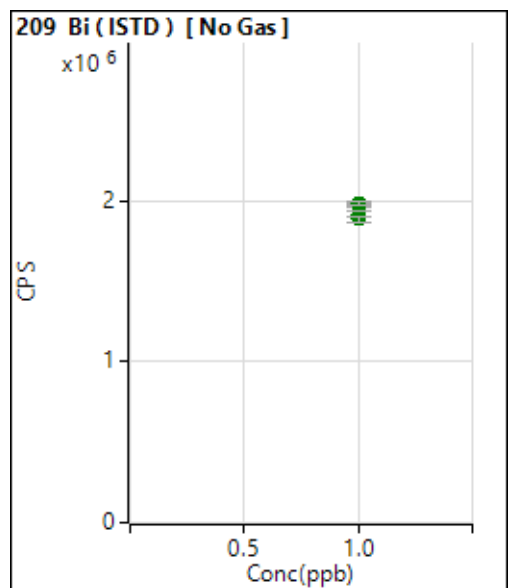
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		4920574.41		A	0.7	
2	☐	1.000		4887487.74		A	0.8	
3	☐	1.000		4844560.03		A	0.9	
4	☐	1.000		4906601.07		A	1.4	
5	☐	1.000		4846155.24		A	0.8	
6	☐	1.000		4771549.51		A	1.2	

72 Ge (ISTD) [He]

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1352312.64		A	0.7	
2	☐	1.000		1343150.14		A	0.4	
3	☐	1.000		1351308.00		A	0.3	
4	☐	1.000		1338403.11		A	0.3	
5	☐	1.000		1340444.51		A	1.2	
6	☐	1.000		1330555.86		A	1.5	

115 In (ISTD) [No Gas]

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		2041149.66		A	0.7	
2	☐	1.000		2017956.57		A	2.7	
3	☐	1.000		2024732.85		A	1.4	
4	☐	1.000		1995355.68		A	0.8	
5	☐	1.000		1971111.37		A	2.8	
6	☐	1.000		1972823.10		A	1.9	



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1967910.60		A	1.0	
2	☐	1.000		1980977.16		A	0.6	
3	☐	1.000		1984216.95		A	1.0	
4	☐	1.000		1983669.71		A	1.0	
5	☐	1.000		1918248.56		A	1.9	
6	☐	1.000		1883684.24		A	2.4	

Calibration Blank Report

Sample Table

Sample Name CAL BLK
 Data File Name 012CALB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:12:43-05:00
 Sample Type CalBlk
 Level 1
 Dilution 1
 Comment

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	38982	0.00
Be	9	1	No Gas	15	444.44
V	51	2	He	1712	0.10
Cr	52	2	He	2197	0.64
Fe	56	2	He	13941	0.02
Se	78	2	He	187	5.30
As	75	2	He	138	17.68
Ca	44	2	He	8026	0.12
Na	23	2	He	100997	0.00
Mg	24	2	He	190	9.60
K	39	2	He	70265	0.00
Mn	55	2	He	347	5.08
Co	59	2	He	123	36.21
Ni	60	2	He	627	2.42
Cu	63	2	He	3014	0.07
Zn	66	2	He	1140	0.48
Al	27	2	He	1933	0.19
B	11	1	No Gas	54492	0.00
Al	27	1	No Gas	117638	0.00
Si	28	1	No Gas	2223066	0.00
Ag	107	1	No Gas	247	13.98
Cd	111	1	No Gas	7	1299.04
Sr	88	1	No Gas	687	1.30
Mo	95	1	No Gas	90	32.66
Sn	118	1	No Gas	3681	0.19
Sb	121	1	No Gas	403	5.58
Ba	137	1	No Gas	120	48.61
Tl	205	1	No Gas	510	2.03
Tl	203	1	No Gas	193	4.09
Pb	208	1	No Gas	10715	0.01
U	238	1	No Gas	227	1.12
Ca	43	2	He	3	5196.15
Sb	121	2	He	213	5.53
Ti	47	2	He	13	324.76
Cu	63	1	No Gas	4951	0.19

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
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Calibration Blank Report

Li	6	1	No Gas	664357	1.08
Ge	72	2	He	1327709	1.04
Ge	72	1	No Gas	4895939	1.37
In	115	1	No Gas	2005778	1.59



Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	1951418	1.35



Calibration Standard Report

Sample Table

Sample Name 2/10/200
 Data File Name 013CAL.S.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:15:00-05:00
 Sample Type CalStd
 Level 2
 Dilution 1
 Comment
 ISTD Ref File Name 012CALB.d
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	4779	0.09
V	51	2	He	9033	0.02
Cr	52	2	He	10217	0.01
Fe	56	2	He	776430	0.00
Se	78	2	He	301	1.88
As	75	2	He	1496	0.06
Ca	44	2	He	12222	0.04
Na	23	2	He	212990	0.00
Mg	24	2	He	65192	0.00
K	39	2	He	143533	0.00
Mn	55	2	He	6242	0.08
Co	59	2	He	13704	0.03
Ni	60	2	He	4074	0.09
Cu	63	2	He	13263	0.01
Zn	66	2	He	2990	0.37
Al	27	2	He	3324	0.12
B	11	1	No Gas	65490	0.00
Al	27	1	No Gas	190010	0.00
Si	28	1	No Gas	2340869	0.00
Ag	107	1	No Gas	23845	0.01
Cd	111	1	No Gas	4751	0.11
Sr	88	1	No Gas	44357	0.01
Mo	95	1	No Gas	8556	0.03
Sn	118	1	No Gas	16925	0.01
Sb	121	1	No Gas	20022	0.00
Ba	137	1	No Gas	6815	0.05
Tl	205	1	No Gas	44613	0.00
Tl	203	1	No Gas	18067	0.00
Pb	208	1	No Gas	72016	0.00
U	238	1	No Gas	63478	0.00
Ca	43	2	He	213	10.84
Sb	121	2	He	8800	0.02
Cu	63	1	No Gas	26346	0.01

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	676827	1.13	664357	101.88	70	120	
Ge	72	2	He	1343150	0.39	1327709	101.16	70	120	
Ge	72	1	No Gas	4887488	0.80	4895939	99.83	70	120	



Calibration Standard Report

In	115	1	No Gas	2017957	2.71	2005778	100.61	70	120	
Bi	209	1	No Gas	1980977	0.60	1951418	101.51	70	120	



Calibration Standard Report

Sample Table

Sample Name 5/25/500
 Data File Name 014CAL.S.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:17:16-05:00
 Sample Type CalStd
 Level 3
 Dilution 1
 Comment
 ISTD Ref File Name 012CALB.d
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	12532	0.04
V	51	2	He	20020	0.01
Cr	52	2	He	24011	0.01
Fe	56	2	He	2002297	0.00
Se	78	2	He	468	1.67
As	75	2	He	3612	0.12
Ca	44	2	He	18112	0.02
Na	23	2	He	384988	0.00
Mg	24	2	He	167076	0.00
K	39	2	He	254599	0.00
Mn	55	2	He	14972	0.01
Co	59	2	He	34578	0.01
Ni	60	2	He	9827	0.03
Cu	63	2	He	27745	0.02
Zn	66	2	He	5558	0.06
Al	27	2	He	3207	0.14
B	11	1	No Gas	83520	0.00
Al	27	1	No Gas	186022	0.00
Si	28	1	No Gas	2426865	0.00
Ag	107	1	No Gas	59531	0.00
Cd	111	1	No Gas	12169	0.02
Sr	88	1	No Gas	107531	0.00
Mo	95	1	No Gas	21568	0.02
Sn	118	1	No Gas	37584	0.01
Sb	121	1	No Gas	53111	0.00
Ba	137	1	No Gas	17068	0.01
Tl	205	1	No Gas	95519	0.00
Tl	203	1	No Gas	39453	0.01
Pb	208	1	No Gas	166531	0.00
U	238	1	No Gas	159387	0.00
Ca	43	2	He	597	2.45
Sb	121	2	He	23518	0.02
Cu	63	1	No Gas	57351	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	656347	1.71	664357	98.79	70	120	
Ge	72	2	He	1351308	0.25	1327709	101.78	70	120	
Ge	72	1	No Gas	4844560	0.93	4895939	98.95	70	120	



Calibration Standard Report

In	115	1	No Gas	2024733	1.42	2005778	100.94	70	120	
Bi	209	1	No Gas	1984217	0.98	1951418	101.68	70	120	



Calibration Blank Report

Sample Table

Sample Name CAL BLK
 Data File Name 017CALB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:24:03-05:00
 Sample Type CalBlk
 Level 1
 Dilution 1
 Comment

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	38688	0.00
Be	9	1	No Gas	22	245.97
V	51	2	He	1776	0.11
Cr	52	2	He	1960	0.16
Fe	56	2	He	14178	0.02
Se	78	2	He	193	5.57
As	75	2	He	130	22.41
Ca	44	2	He	8409	0.05
Na	23	2	He	99312	0.00
Mg	24	2	He	263	7.40
K	39	2	He	69980	0.00
Mn	55	2	He	353	7.57
Co	59	2	He	60	73.49
Ni	60	2	He	350	0.82
Cu	63	2	He	2487	0.12
Zn	66	2	He	820	2.39
Al	27	2	He	2494	0.09
B	11	1	No Gas	53021	0.00
Al	27	1	No Gas	136819	0.00
Si	28	1	No Gas	2238097	0.00
Ag	107	1	No Gas	253	6.49
Cd	111	1	No Gas	10	1732.05
Sr	88	1	No Gas	1240	0.43
Mo	95	1	No Gas	80	15.63
Sn	118	1	No Gas	2987	0.15
Sb	121	1	No Gas	277	3.77
Ba	137	1	No Gas	177	11.25
Tl	205	1	No Gas	473	2.01
Tl	203	1	No Gas	153	17.71
Pb	208	1	No Gas	8371	0.04
U	238	1	No Gas	223	6.45
Ca	43	2	He	37	42.94
Sb	121	2	He	150	31.11
Ti	47	2	He	37	300.60
Cu	63	1	No Gas	4531	0.14

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
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Calibration Blank Report

Li	6	1	No Gas	685403	1.73
Ge	72	2	He	1352313	0.73
Ge	72	1	No Gas	4920574	0.70
In	115	1	No Gas	2041150	0.73



Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	1967911	0.99



Calibration Standard Report

Sample Table

Sample Name 10/50/100
 Data File Name 020CAL.S.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:30:53-05:00
 Sample Type CalStd
 Level 4
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	23470	0.02
V	51	2	He	34939	0.00
Cr	52	2	He	40434	0.01
Fe	56	2	He	3538443	0.00
Se	78	2	He	683	0.39
As	75	2	He	6427	0.05
Ca	44	2	He	25678	0.02
Na	23	2	He	611715	0.00
Mg	24	2	He	301658	0.00
K	39	2	He	400543	0.00
Mn	55	2	He	26039	0.02
Co	59	2	He	63083	0.01
Ni	60	2	He	16811	0.02
Cu	63	2	He	47567	0.01
Zn	66	2	He	8913	0.06
Al	27	2	He	4024	0.11
B	11	1	No Gas	110014	0.00
Al	27	1	No Gas	235859	0.00
Si	28	1	No Gas	2560767	0.00
Ag	107	1	No Gas	116693	0.00
Cd	111	1	No Gas	22783	0.03
Sr	88	1	No Gas	208794	0.00
Mo	95	1	No Gas	42404	0.01
Sn	118	1	No Gas	69510	0.01
Sb	121	1	No Gas	98378	0.00
Ba	137	1	No Gas	32942	0.02
Tl	205	1	No Gas	188656	0.00
Tl	203	1	No Gas	78353	0.01
Pb	208	1	No Gas	303284	0.00
U	238	1	No Gas	307897	0.00
Ca	43	2	He	1113	0.54
Sb	121	2	He	41967	0.01
Cu	63	1	No Gas	102556	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	666150	1.18	685403	97.19	70	120	
Ge	72	2	He	1338403	0.29	1352313	98.97	70	120	
Ge	72	1	No Gas	4906601	1.44	4920574	99.72	70	120	



Calibration Standard Report

In	115	1	No Gas	1995356	0.75	2041150	97.76	70	120	
Bi	209	1	No Gas	1983670	0.97	1967911	100.80	70	120	



Calibration Standard Report

Sample Table

Sample Name 100/500/10K
 Data File Name 021CAL.S.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:33:09-05:00
 Sample Type CalStd
 Level 5
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	238227	0.00
V	51	2	He	369910	0.00
Cr	52	2	He	433873	0.00
Fe	56	2	He	37923347	0.00
Se	78	2	He	5422	0.05
As	75	2	He	69194	0.00
Ca	44	2	He	203019	0.00
Na	23	2	He	5783187	0.00
Mg	24	2	He	3457157	0.00
K	39	2	He	3843653	0.00
Mn	55	2	He	286907	0.00
Co	59	2	He	699517	0.00
Ni	60	2	He	182318	0.00
Cu	63	2	He	499731	0.00
Zn	66	2	He	92313	0.00
Al	27	2	He	19524	0.03
B	11	1	No Gas	639583	0.00
Al	27	1	No Gas	1228794	0.00
Si	28	1	No Gas	5904729	0.00
Ag	107	1	No Gas	1252610	0.00
Cd	111	1	No Gas	230418	0.00
Sr	88	1	No Gas	2209021	0.00
Mo	95	1	No Gas	433666	0.00
Sn	118	1	No Gas	684033	0.00
Sb	121	1	No Gas	1002473	0.00
Ba	137	1	No Gas	332554	0.00
Tl	205	1	No Gas	2258492	0.00
Tl	203	1	No Gas	854682	0.00
Pb	208	1	No Gas	3179334	0.00
U	238	1	No Gas	3569780	0.00
Ca	43	2	He	11642	0.04
Sb	121	2	He	459252	0.00
Cu	63	1	No Gas	1001347	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	649726	1.28	685403	94.79	70	120	
Ge	72	2	He	1340445	1.22	1352313	99.12	70	120	
Ge	72	1	No Gas	4846155	0.82	4920574	98.49	70	120	



Calibration Standard Report

In	115	1	No Gas	1971111	2.80	2041150	96.57	70	120	
Bi	209	1	No Gas	1918249	1.91	1967911	97.48	70	120	



Calibration Standard Report

Sample Table

Sample Name 200/1000/20K
 Data File Name 022CAL.S.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:35:21-05:00
 Sample Type CalStd
 Level 6
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	449063	0.00
V	51	2	He	679854	0.00
Cr	52	2	He	796810	0.00
Fe	56	2	He	69575352	0.00
Se	78	2	He	9502	0.02
As	75	2	He	124940	0.00
Ca	44	2	He	365040	0.00
Na	23	2	He	10476235	0.00
Mg	24	2	He	6205667	0.00
K	39	2	He	6787013	0.00
Mn	55	2	He	524898	0.00
Co	59	2	He	1330956	0.00
Ni	60	2	He	334326	0.00
Cu	63	2	He	909285	0.00
Zn	66	2	He	164464	0.00
Al	27	2	He	34734	0.01
B	11	1	No Gas	1217849	0.00
Al	27	1	No Gas	2166779	0.00
Si	28	1	No Gas	9166798	0.00
Ag	107	1	No Gas	2350701	0.00
Cd	111	1	No Gas	434222	0.00
Sr	88	1	No Gas	4087427	0.00
Mo	95	1	No Gas	826305	0.00
Sn	118	1	No Gas	1407667	0.00
Sb	121	1	No Gas	2022672	0.00
Ba	137	1	No Gas	631742	0.00
Tl	205	1	No Gas	4110001	0.00
Tl	203	1	No Gas	1764340	0.00
Pb	208	1	No Gas	6166605	0.00
U	238	1	No Gas	6628279	0.00
Ca	43	2	He	21080	0.02
Sb	121	2	He	846075	0.00
Cu	63	1	No Gas	1978336	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	647527	2.58	685403	94.47	70	120	
Ge	72	2	He	1330556	1.53	1352313	98.39	70	120	
Ge	72	1	No Gas	4771550	1.17	4920574	96.97	70	120	



Calibration Standard Report

In	115	1	No Gas	1972823	1.90	2041150	96.65	70	120	
Bi	209	1	No Gas	1883684	2.42	1967911	95.72	70	120	



Initial Calibration Verification (ICV) Report

Sample Table

Sample Name ICV
 Data File Name 026_ICV.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:44:55-05:00
 Sample Type ICV
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

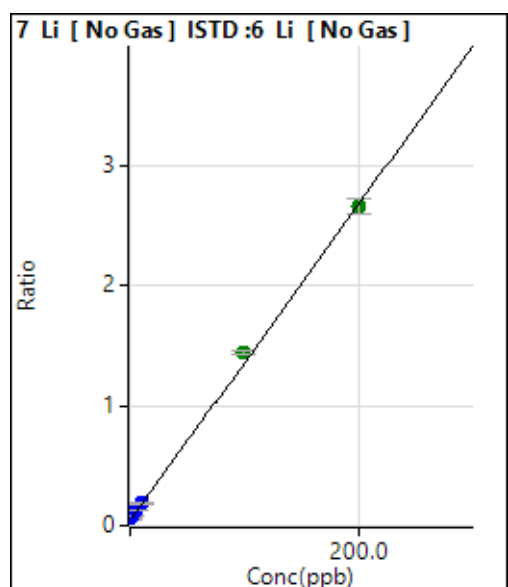
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	105.032	2.390	922753	0.92	100	105.0	90	110	
Be	9	1	No Gas	103.922	3.120	233283	1.48	100	103.9	90	110	
V	51	2	He	103.764	1.320	355187	1.14	100	103.8	90	110	
Cr	52	2	He	104.858	1.086	420647	1.01	100	104.9	90	110	
Fe	56	2	He	10408.168	1.328	36415116	1.23	10000	104.1	90	110	
Se	78	2	He	106.754	3.762	5220	4.03	100	106.8	90	110	
As	75	2	He	105.561	0.459	66588	0.81	100	105.6	90	110	
Ca	44	2	He	10437.918	1.503	195465	1.53	10000	104.4	90	110	
Na	23	2	He	10421.310	1.703	5540185	1.50	10000	104.2	90	110	
Mg	24	2	He	10576.422	2.285	3315466	2.46	10000	105.8	90	110	
K	39	2	He	10756.097	0.891	3725011	1.38	10000	107.6	90	110	
Mn	55	2	He	104.341	0.924	275630	0.76	100	104.3	90	110	
Co	59	2	He	101.603	1.315	674646	1.22	100	101.6	90	110	
Ni	60	2	He	105.144	1.009	176887	0.50	100	105.1	90	110	
Cu	63	2	He	104.984	0.828	481696	0.22	100	105.0	90	110	
Zn	66	2	He	105.637	0.520	88195	0.16	100	105.6	90	110	
Al	27	2	He	105.080	1.374	19370	0.74	100	105.1	90	110	
B	11	1	No Gas	506.263	1.827	634567	0.60	500	101.3	90	110	
Al	27	1	No Gas	103.229	1.944	1204695	1.34	100	103.2	90	110	
Si	28	1	No Gas	515.416	3.184	5853173	1.38	500	103.1	90	110	
Ag	107	1	No Gas	107.378	3.824	1260296	3.16	100	107.4	90	110	
Cd	111	1	No Gas	104.619	1.433	226660	0.55	100	104.6	90	110	
Sr	88	1	No Gas	106.397	3.220	2178271	2.36	100	106.4	90	110	
Mo	95	1	No Gas	104.204	2.190	428634	1.37	100	104.2	90	110	
Sn	118	1	No Gas	97.990	1.643	677049	0.74	100	98.0	90	110	
Sb	121	1	No Gas	97.576	1.561	990084	0.98	100	97.6	90	110	
Ba	137	1	No Gas	104.862	2.325	330034	1.47	100	104.9	90	110	
Tl	205	1	No Gas	104.998	4.022	2227828	2.50	100	105.0	90	110	
Tl	203	1	No Gas	95.467	3.214	847682	1.70	100	95.5	90	110	
Pb	208	1	No Gas	100.160	3.372	3150151	1.71	100	100.2	90	110	
U	238	1	No Gas	103.743	4.100	3534200	2.47	100	103.7	90	110	
Ca	43	2	He	10324.101	3.774	10985	3.77	10000	103.2	90	110	
Sb	121	2	He	104.735	1.275	445164	0.98	100	104.7	90	110	
Ti	47	2	He	103.347	3.099	12282	2.64	100	103.3	90	110	
Cu	63	1	No Gas	99.437	2.026	992617	1.45	100	99.4	90	110	
Se	82	1	No Gas	104.867	1.543	14107	1.92	100	104.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	640080	1.65	685403	93.39	70	120	
Ge	72	2	He	1316302	0.61	1352313	97.34	70	120	
Ge	72	1	No Gas	4809701	0.68	4920574	97.75	70	120	
In	115	1	No Gas	1943424	0.89	2041150	95.21	70	120	
Bi	209	1	No Gas	1914744	1.76	1967911	97.30	70	120	

Batch Folder: C:\Agilent\ICPMH\1\DATA\093023.b\
Analysis File: 093023.batch.bin
DA Date-Time: 9/30/2023 12:56:59 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	017CALB.d	CAL BLK	9/30/2023 10:24:03 AM
2	013CALS.d	2/10/200	9/30/2023 10:15:00 AM
3	014CALS.d	5/25/500	9/30/2023 10:17:16 AM
4	020CALS.d	10/50/100	9/30/2023 10:30:53 AM
5	021CALS.d	100/500/10K	9/30/2023 10:33:09 AM
6	022CALS.d	200/1000/20K	9/30/2023 10:35:21 AM



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	38688.09	0.0565	P	1.9	
2	☐	2.000	2.005	56104.91	0.0829	P	0.9	0.2
3	☐	5.000	5.309	82991.47	0.1265	P	3.3	6.2
4	☐	10.000	9.818	123895.91	0.1860	P	3.5	-1.8
5	☐	100.000	104.756	934523.97	1.4383	A	2.2	4.8
6	☐	200.000	197.623	1724677.47	2.6634	A	4.7	-1.2

$$y = 0.0132 * x + 0.0565$$

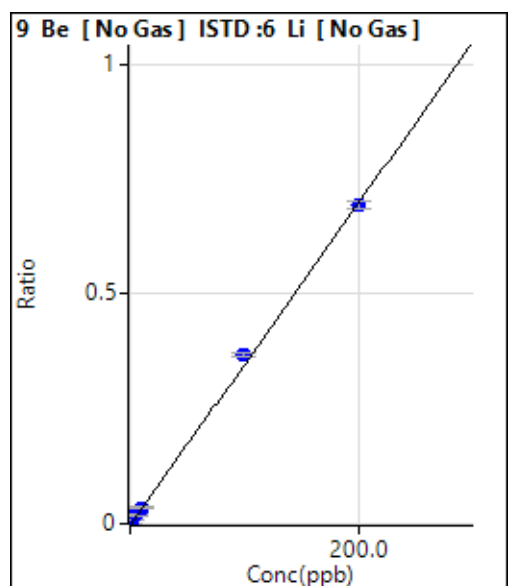
$$R = 0.9996$$

$$DL = 0.2406 \text{ ppb}$$

$$BEC = 4.28 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21.67	0.0000	P	53.1	
2	☐	2.000	2.005	4779.19	0.0071	P	5.3	0.2
3	☐	5.000	5.437	12532.33	0.0191	P	6.2	8.7
4	☐	10.000	10.032	23469.65	0.0352	P	3.5	0.3
5	☐	100.000	104.515	238227.50	0.3667	P	1.9	4.5
6	☐	200.000	197.730	449063.01	0.6937	P	3.0	-1.1

$$y = 0.0035 * x + 3.1597E-005$$

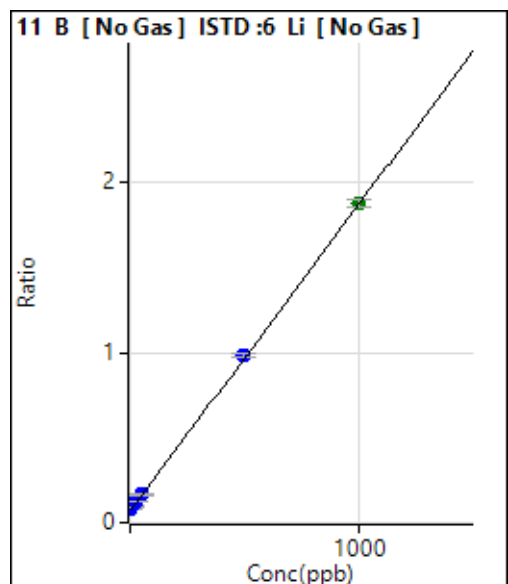
$$R = 0.9996$$

$$DL = 0.01435 \text{ ppb}$$

$$BEC = 0.009007 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	53021.44	0.0774	P	1.1	
2	☐	10.000	10.745	65490.15	0.0968	P	1.0	7.5
3	☐	25.000	27.647	83520.28	0.1273	P	2.9	10.6
4	☐	50.000	48.617	110014.01	0.1652	P	1.4	-2.8
5	☐	500.000	502.375	639582.78	0.9845	P	1.8	0.5
6	☐	1000.000	998.808	1217848.94	1.8810	A	2.2	-0.1

$$y = 0.0018 * x + 0.0774$$

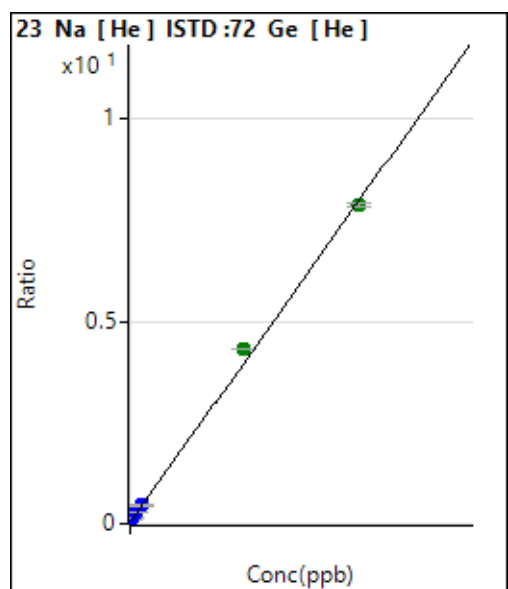
$$R = 1.0000$$

$$DL = 1.459 \text{ ppb}$$

$$BEC = 42.84 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	99311.68	0.0734	P	0.4	
2	☐	200.000	214.541	212989.95	0.1586	P	0.7	7.3
3	☐	500.000	532.851	384987.72	0.2849	P	1.8	6.6
4	☐	1000.000	966.708	611714.69	0.4571	P	2.9	-3.3
5	☐	10000.00	10686.85	5783186.58	4.3144	A	0.5	6.9
6	☐	20000.00	19657.27	10476235.0	7.8742	A	1.4	-1.7

$$y = 3.9684E-004 * x + 0.0734$$

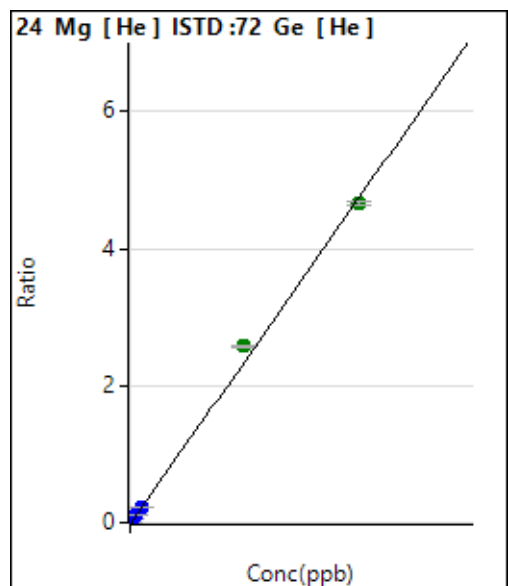
$$R = 0.9992$$

$$DL = 2.314 \text{ ppb}$$

$$BEC = 185.1 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	263.34	0.0002	P	19.0	
2	☐	200.000	203.002	65192.24	0.0485	P	2.2	1.5
3	☐	500.000	518.391	167075.77	0.1236	P	2.1	3.7
4	☐	1000.000	945.720	301657.89	0.2254	P	4.1	-5.4
5	☐	10000.00	10830.56	3457156.93	2.5793	A	1.1	8.3
6	☐	20000.00	19586.94	6205667.20	4.6644	A	1.0	-2.1

$$y = 2.3813E-004 * x + 1.9460E-004$$

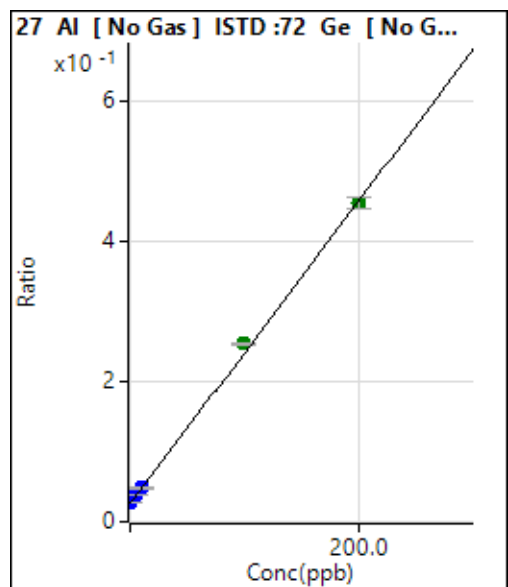
$$R = 0.9987$$

$$DL = 0.4649 \text{ ppb}$$

$$BEC = 0.8172 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	136819.12	0.0278	P	1.1	
2	☐	2.000	5.134	190010.16	0.0389	P	1.6	156.7
3	☐	5.000	4.910	186021.97	0.0384	P	1.2	-1.8
4	☐	10.000	9.400	235859.03	0.0481	P	3.0	-6.0
5	☐	100.000	104.664	1228793.89	0.2536	A	1.8	4.7
6	☐	200.000	197.669	2166779.45	0.4542	A	3.3	-1.2

$$y = 0.0022 * x + 0.0278$$

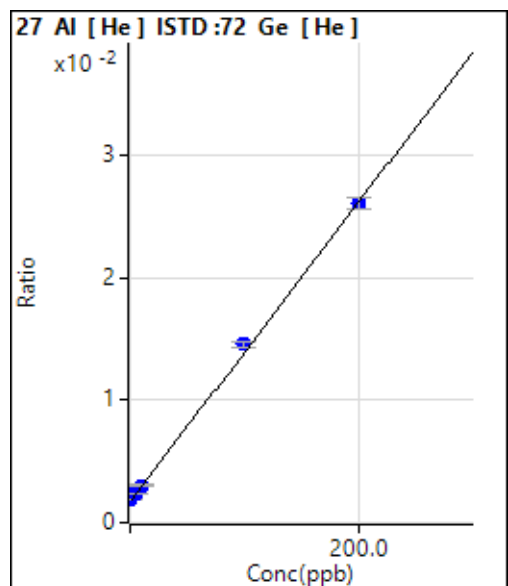
$$R = 0.9995$$

$$DL = 0.4074 \text{ ppb}$$

$$BEC = 12.89 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2493.60	0.0018	P	2.6	
2	☐	2.000	5.149	3323.79	0.0025	P	4.3	157.5
3	☐	5.000	4.321	3207.11	0.0024	P	4.6	-13.6
4	☐	10.000	9.488	4024.00	0.0030	P	4.2	-5.1
5	☐	100.000	103.809	19524.06	0.0146	P	3.8	3.8
6	☐	200.000	198.106	34733.86	0.0261	P	4.1	-0.9

$$y = 1.2250E-004 * x + 0.0018$$

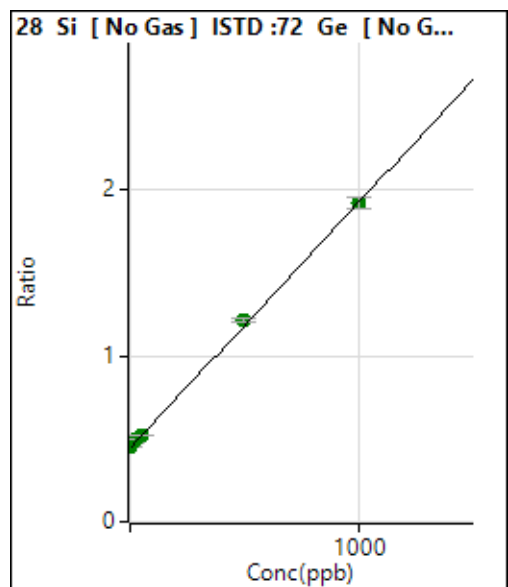
$$R = 0.9996$$

$$DL = 1.168 \text{ ppb}$$

$$BEC = 15.05 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2238097.47	0.4548	A	0.8	
2	☐	10.000	16.313	2340868.56	0.4790	A	0.6	63.1
3	☐	25.000	31.189	2426864.76	0.5010	A	0.6	24.8
4	☐	50.000	45.393	2560766.89	0.5220	A	1.4	-9.2
5	☐	500.000	516.401	5904729.08	1.2185	A	1.5	3.3
6	☐	1000.000	991.812	9166798.20	1.9216	A	3.2	-0.8

$$y = 0.0015 * x + 0.4548$$

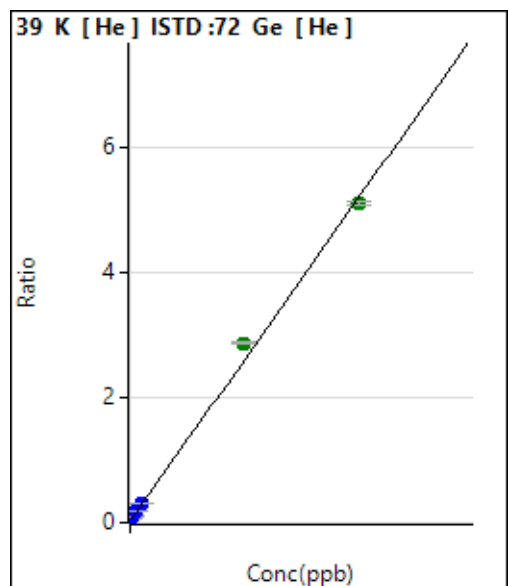
$$R = 0.9998$$

$$DL = 7.002 \text{ ppb}$$

$$BEC = 307.6 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	69980.45	0.0517	P	1.3	
2	☐	200.000	213.397	143533.07	0.1069	P	1.5	6.7
3	☐	500.000	529.117	254598.88	0.1884	P	1.4	5.8
4	☐	1000.000	958.391	400542.79	0.2993	P	3.5	-4.2
5	☐	10000.00	10900.36	3843652.55	2.8671	A	1.6	9.0
6	☐	20000.00	19551.03	6787013.44	5.1014	A	1.1	-2.2

$$y = 2.5828E-004 * x + 0.0517$$

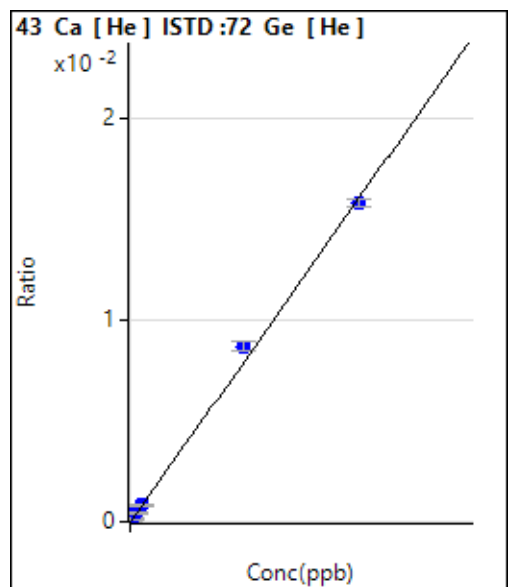
$$R = 0.9985$$

$$DL = 7.808 \text{ ppb}$$

$$BEC = 200.4 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	36.67	0.0000	P	16.1	
2	☐	200.000	163.588	213.34	0.0002	P	23.5	-18.2
3	☐	500.000	514.530	596.69	0.0004	P	14.9	2.9
4	☐	1000.000	998.783	1113.40	0.0008	P	5.8	-0.1
5	☐	10000.00	10750.83	11641.82	0.0087	P	5.5	7.5
6	☐	20000.00	19624.64	21079.72	0.0158	P	2.9	-1.9

$$y = 8.0568E-007 * x + 2.7126E-005$$

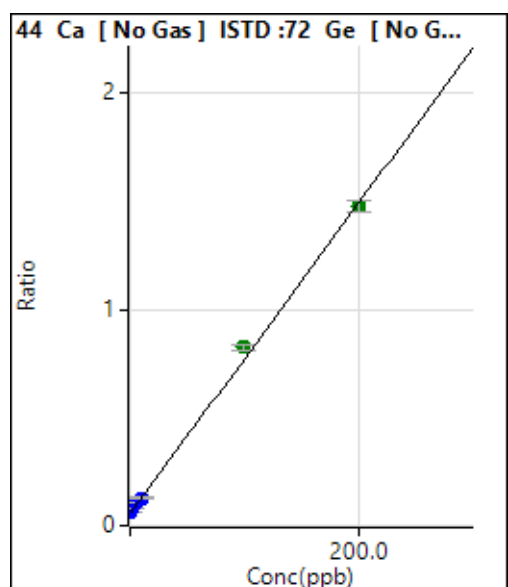
$$R = 0.9990$$

$$DL = 16.26 \text{ ppb}$$

$$BEC = 33.67 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	309320.64	0.0629	P	0.6	
2	☐	2.000	2.852	407426.60	0.0834	P	1.7	42.6
3	☐	5.000	5.964	512261.35	0.1057	P	0.4	19.3
4	☐	10.000	9.189	632466.54	0.1289	P	3.2	-8.1
5	☐	100.000	106.168	4003047.96	0.8261	A	2.9	6.2
6	☐	200.000	196.924	7053709.48	1.4786	A	3.9	-1.5

$$y = 0.0072 * x + 0.0629$$

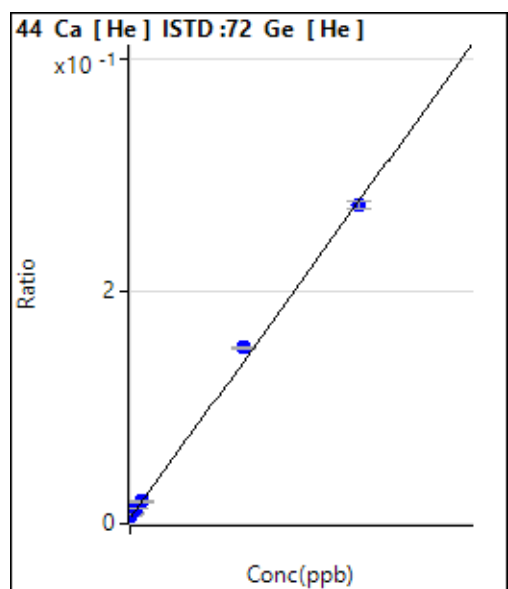
$$R = 0.9993$$

$$DL = 0.1471 \text{ ppb}$$

$$BEC = 8.744 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	8409.39	0.0062	P	3.8	
2	☐	200.000	211.435	12222.31	0.0091	P	4.8	5.7
3	☐	500.000	527.160	18112.18	0.0134	P	3.9	5.4
4	☐	1000.000	951.403	25677.57	0.0192	P	4.7	-4.9
5	☐	10000.00	10654.64	203018.91	0.1515	P	1.4	6.5
6	☐	20000.00	19674.31	365039.79	0.2744	P	1.9	-1.6

$$y = 1.3631E-005 * x + 0.0062$$

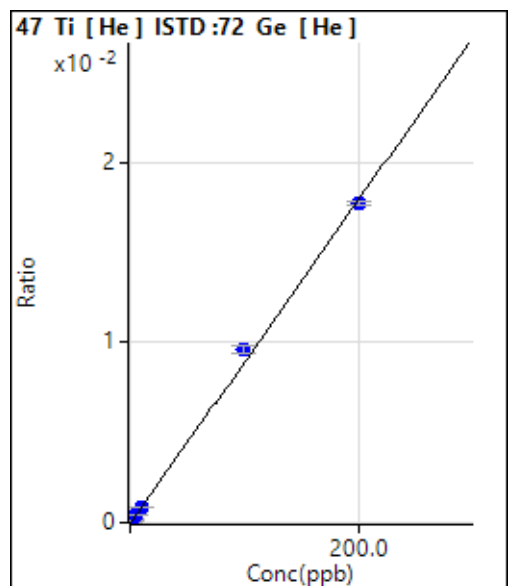
$$R = 0.9992$$

$$DL = 51.45 \text{ ppb}$$

$$BEC = 456.2 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	36.67	0.0000	P	109.8	
2	☐	2.000	1.630	233.34	0.0002	P	28.8	-18.5
3	☐	5.000	4.521	586.69	0.0004	P	5.8	-9.6
4	☐	10.000	9.162	1140.07	0.0009	P	11.7	-8.4
5	☐	100.000	106.636	12909.63	0.0096	P	4.8	6.6
6	☐	200.000	196.740	23600.60	0.0177	P	1.8	-1.6

$$y = 9.0034\text{E-}005 * x + 2.7098\text{E-}005$$

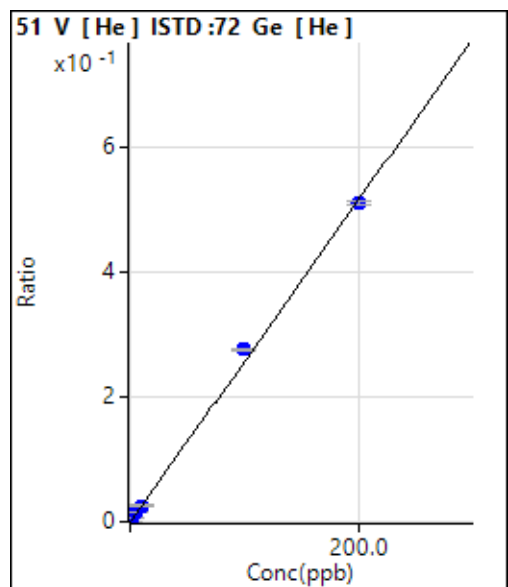
$$R = 0.9992$$

$$\text{DL} = 0.9911 \text{ ppb}$$

$$\text{BEC} = 0.301 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1775.68	0.0013	P	1.5	
2	☐	2.000	2.091	9033.02	0.0067	P	1.3	4.6
3	☐	5.000	5.217	20020.23	0.0148	P	2.3	4.3
4	☐	10.000	9.580	34938.84	0.0261	P	1.8	-4.2
5	☐	100.000	106.124	369910.46	0.2760	P	0.9	6.1
6	☐	200.000	196.953	679853.52	0.5110	P	1.0	-1.5

$$y = 0.0026 * x + 0.0013$$

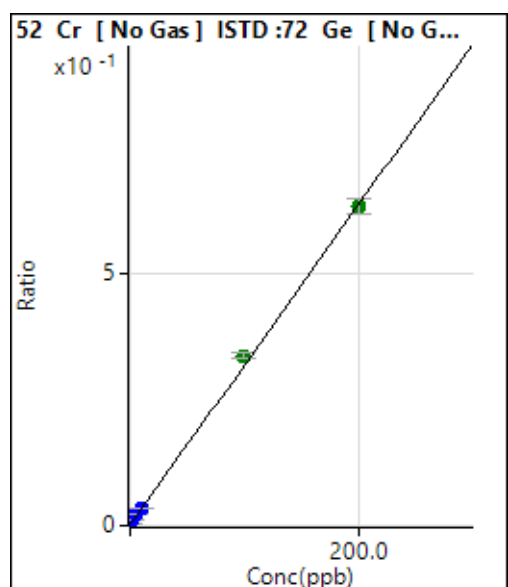
$$R = 0.9993$$

$$\text{DL} = 0.02301 \text{ ppb}$$

$$\text{BEC} = 0.5074 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21804.32	0.0044	P	2.6	
2	☐	2.000	2.138	54840.06	0.0112	P	2.7	6.9
3	☐	5.000	5.320	103325.25	0.0213	P	2.4	6.4
4	☐	10.000	9.673	172446.69	0.0352	P	4.7	-3.3
5	☐	100.000	104.467	1629374.92	0.3363	A	3.8	4.5
6	☐	200.000	197.774	3018150.58	0.6327	A	4.3	-1.1

$$y = 0.0032 * x + 0.0044$$

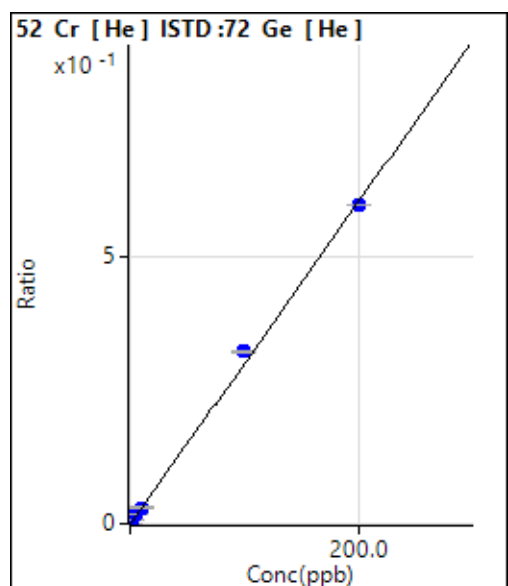
$$R = 0.9996$$

$$DL = 0.1083 \text{ ppb}$$

$$BEC = 1.395 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1960.18	0.0014	P	3.5	
2	☐	2.000	2.029	10217.31	0.0076	P	0.9	1.5
3	☐	5.000	5.379	24011.29	0.0178	P	1.6	7.6
4	☐	10.000	9.480	40433.62	0.0302	P	4.7	-5.2
5	☐	100.000	106.207	433873.43	0.3237	P	0.5	6.2
6	☐	200.000	196.912	796809.65	0.5989	P	0.1	-1.5

$$y = 0.0030 * x + 0.0014$$

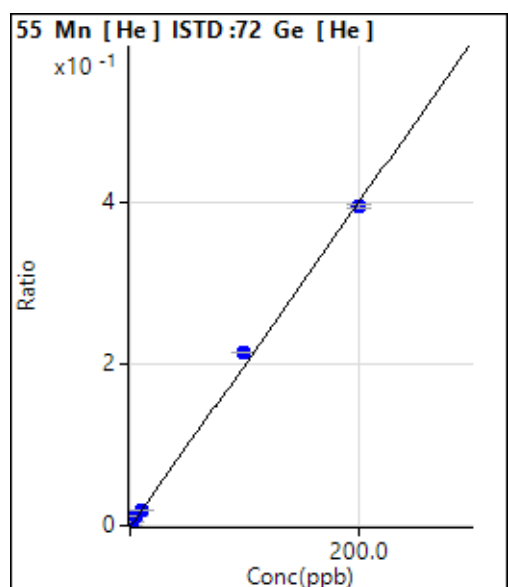
$$R = 0.9993$$

$$DL = 0.04959 \text{ ppb}$$

$$BEC = 0.4778 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	353.35	0.0003	P	26.3	
2	☐	2.000	2.188	6241.52	0.0046	P	5.3	9.4
3	☐	5.000	5.398	14971.74	0.0111	P	2.2	8.0
4	☐	10.000	9.577	26038.51	0.0195	P	4.5	-4.2
5	☐	100.000	106.657	286907.01	0.2140	P	0.5	6.7
6	☐	200.000	196.681	524898.22	0.3945	P	0.7	-1.7

$$y = 0.0020 * x + 2.6108E-004$$

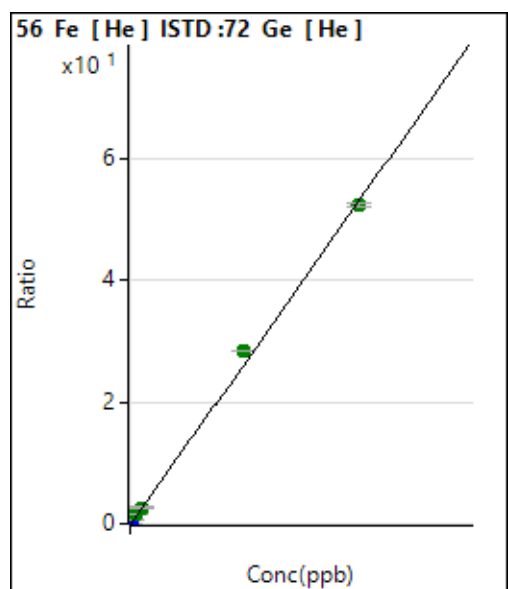
$$R = 0.9992$$

$$DL = 0.1027 \text{ ppb}$$

$$BEC = 0.1303 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	14177.58	0.0105	P	3.7	
2	☐	200.000	213.614	776430.43	0.5781	P	1.7	6.8
3	☐	500.000	553.707	2002297.00	1.4817	A	2.0	10.7
4	☐	1000.000	991.119	3538442.55	2.6439	A	4.4	-0.9
5	☐	10000.00	10643.61	37923346.9	28.290	A	0.6	6.4
6	☐	20000.00	19677.15	69575352.3	52.293	A	0.9	-1.6

$$y = 0.0027 * x + 0.0105$$

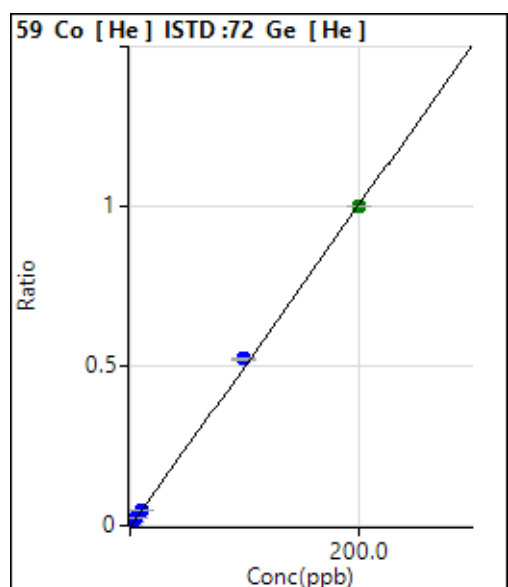
$$R = 0.9993$$

$$DL = 0.436 \text{ ppb}$$

$$BEC = 3.946 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	60.00	0.0000	P	44.9	
2	☐	2.000	2.014	13703.81	0.0102	P	4.3	0.7
3	☐	5.000	5.064	34577.77	0.0256	P	2.3	1.3
4	☐	10.000	9.336	63083.05	0.0471	P	5.5	-6.6
5	☐	100.000	103.444	699516.92	0.5218	P	0.6	3.4
6	☐	200.000	198.309	1330955.76	1.0003	A	0.5	-0.8

$$y = 0.0050 * x + 4.4464E-005$$

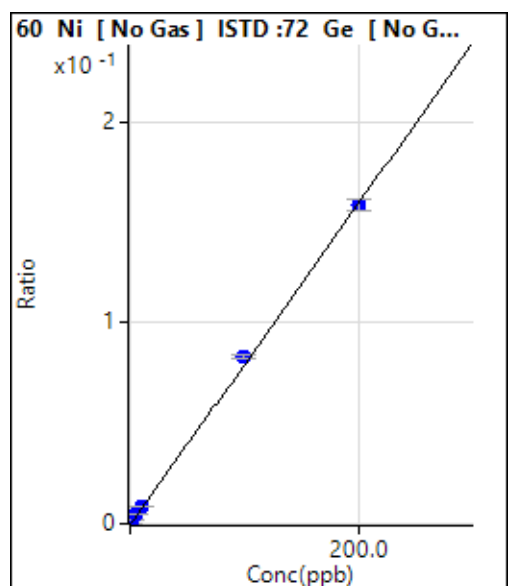
$$R = 0.9998$$

$$DL = 0.01187 \text{ ppb}$$

$$BEC = 0.008815 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	916.71	0.0002	P	11.3	
2	☐	2.000	2.159	9353.37	0.0019	P	2.5	8.0
3	☐	5.000	5.532	22342.04	0.0046	P	2.1	10.6
4	☐	10.000	10.257	41166.03	0.0084	P	5.0	2.6
5	☐	100.000	104.098	404466.75	0.0835	P	2.5	4.1
6	☐	200.000	197.923	756320.43	0.1585	P	3.9	-1.0

$$y = 8.0007E-004 * x + 1.8637E-004$$

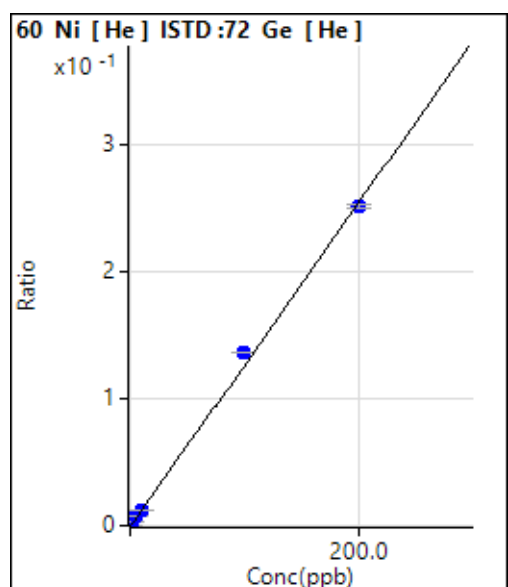
$$R = 0.9997$$

$$DL = 0.07869 \text{ ppb}$$

$$BEC = 0.2329 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	350.01	0.0003	P	3.0	
2	☐	2.000	2.175	4074.04	0.0030	P	3.4	8.7
3	☐	5.000	5.498	9827.04	0.0073	P	3.0	10.0
4	☐	10.000	9.643	16810.68	0.0126	P	3.3	-3.6
5	☐	100.000	106.415	182318.19	0.1360	P	0.4	6.4
6	☐	200.000	196.796	334326.06	0.2513	P	1.5	-1.6

$$y = 0.0013 * x + 2.5884E-004$$

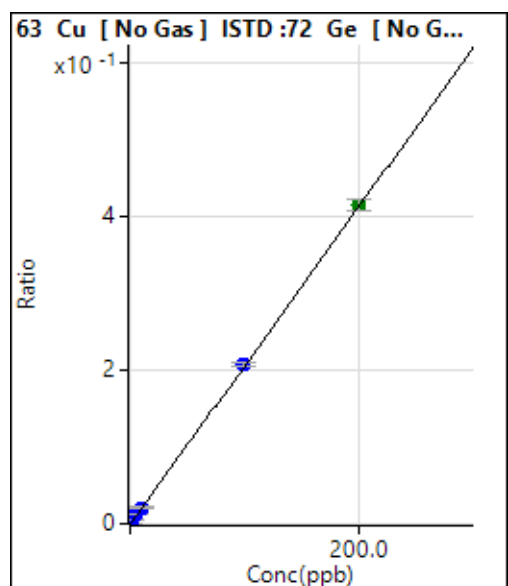
$$R = 0.9993$$

$$DL = 0.01799 \text{ ppb}$$

$$BEC = 0.2029 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	4530.84	0.0009	P	5.8	
2	☐	2.000	2.164	26345.83	0.0054	P	3.3	8.2
3	☐	5.000	5.284	57351.03	0.0118	P	2.6	5.7
4	☐	10.000	9.673	102555.82	0.0209	P	4.9	-3.3
5	☐	100.000	99.562	1001347.38	0.2067	P	2.4	-0.4
6	☐	200.000	200.227	1978336.33	0.4147	A	3.1	0.1

$$y = 0.0021 * x + 9.2061E-004$$

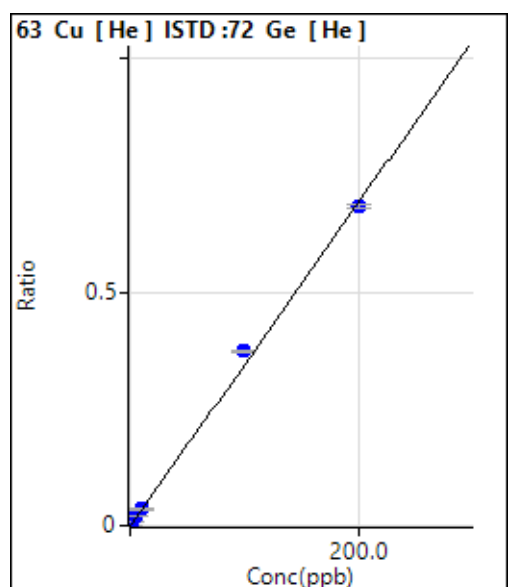
$$R = 1.0000$$

$$DL = 0.07686 \text{ ppb}$$

$$BEC = 0.4455 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2486.94	0.0018	P	2.5	
2	☐	2.000	2.317	13263.32	0.0099	P	2.2	15.9
3	☐	5.000	5.389	27745.48	0.0205	P	6.3	7.8
4	☐	10.000	9.717	47566.82	0.0355	P	4.0	-2.8
5	☐	100.000	106.958	499731.20	0.3728	P	0.7	7.0
6	☐	200.000	196.522	909285.25	0.6834	P	1.0	-1.7

$$y = 0.0035 * x + 0.0018$$

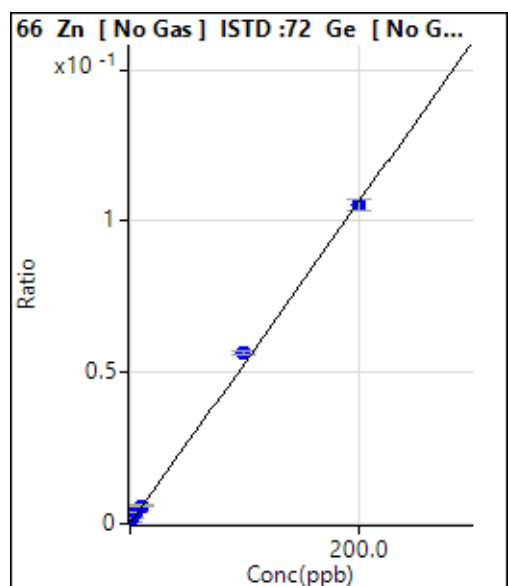
$$R = 0.9991$$

$$DL = 0.04056 \text{ ppb}$$

$$BEC = 0.5302 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2626.97	0.0005	P	3.9	
2	☐	2.000	2.638	9460.18	0.0019	P	6.0	31.9
3	☐	5.000	6.067	18215.79	0.0038	P	3.0	21.3
4	☐	10.000	10.166	29125.00	0.0059	P	5.1	1.7
5	☐	100.000	105.643	274717.18	0.0567	P	2.5	5.6
6	☐	200.000	197.137	502493.18	0.1053	P	3.6	-1.4

$$y = 5.3161\text{E-}004 * x + 5.3389\text{E-}004$$

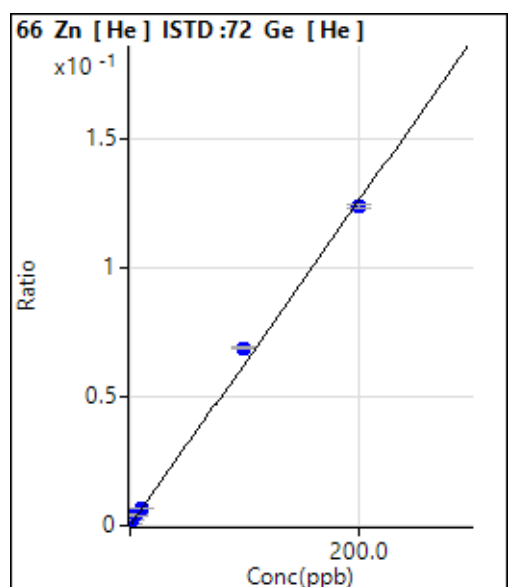
$$R = 0.9995$$

$$DL = 0.1178 \text{ ppb}$$

$$BEC = 1.004 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	820.04	0.0006	P	20.1	
2	☐	2.000	2.576	2990.38	0.0022	P	10.6	28.8
3	☐	5.000	5.578	5557.89	0.0041	P	3.3	11.6
4	☐	10.000	9.631	8913.08	0.0067	P	5.6	-3.7
5	☐	100.000	108.585	92312.82	0.0689	P	1.8	8.6
6	☐	200.000	195.706	164464.43	0.1236	P	1.6	-2.1

$$y = 6.2854\text{E-}004 * x + 6.0682\text{E-}004$$

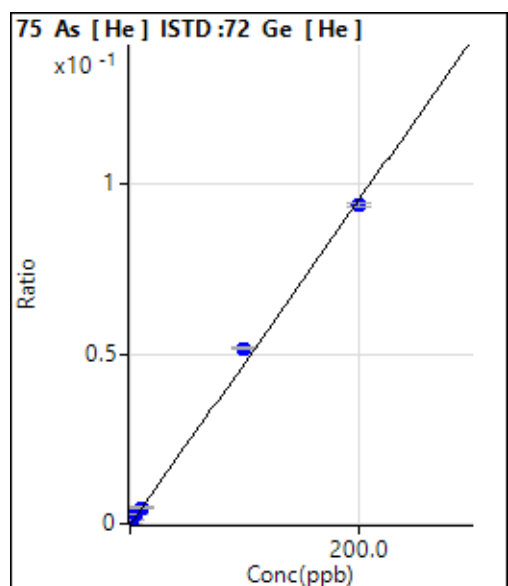
$$R = 0.9987$$

$$DL = 0.5828 \text{ ppb}$$

$$BEC = 0.9654 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	130.00	0.0001	P	28.8	
2	☐	2.000	2.127	1495.65	0.0011	P	1.0	6.4
3	☐	5.000	5.387	3611.62	0.0027	P	4.2	7.7
4	☐	10.000	9.839	6427.11	0.0048	P	2.9	-1.6
5	☐	100.000	107.713	69194.04	0.0516	P	1.0	7.7
6	☐	200.000	196.141	124940.29	0.0939	P	1.3	-1.9

$$y = 4.7831\text{E-}004 * x + 9.6080\text{E-}005$$

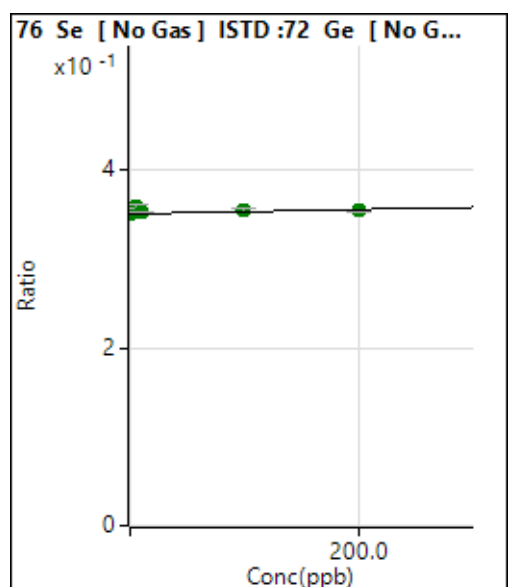
$$R = 0.9989$$

$$DL = 0.1733 \text{ ppb}$$

$$BEC = 0.2009 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1726357.89	0.3508	A	0.4	
2	☐	2.000	124.569	1729762.27	0.3539	A	1.0	6128.5
3	☐	5.000	341.342	1740538.05	0.3593	A	1.5	6726.8
4	☐	10.000	61.312	1728993.20	0.3524	A	0.7	513.1
5	☐	100.000	161.953	1719717.94	0.3549	A	1.3	62.0
6	☐	200.000	156.824	1692680.02	0.3547	A	0.5	-21.6

$$y = 2.4813E-005 * x + 0.3508$$

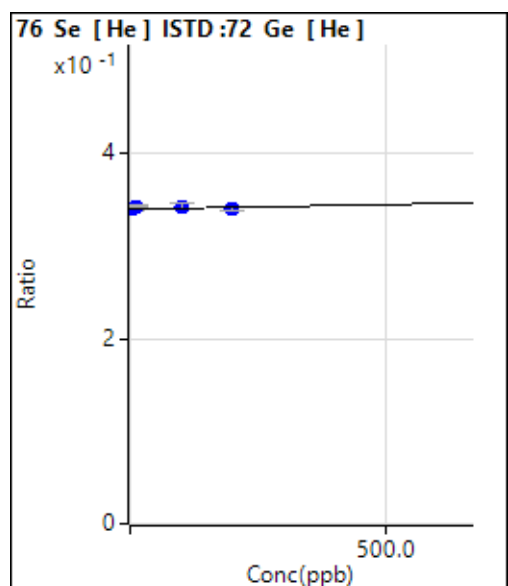
$$R = 0.1146$$

$$DL = 180.7 \text{ ppb}$$

$$BEC = 1.414E+04 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	459985.69	0.3402	P	0.7	
2	☐	2.000	-45.977	456241.39	0.3397	P	0.1	-2398.8
3	☐	5.000	-19.732	459385.50	0.3400	P	0.6	-494.6
4	☐	10.000	285.899	459247.28	0.3431	P	0.7	2759.0
5	☐	100.000	320.089	460355.64	0.3435	P	2.0	220.1
6	☐	200.000	77.259	453609.16	0.3410	P	1.3	-61.4

$$y = 1.0412E-005 * x + 0.3402$$

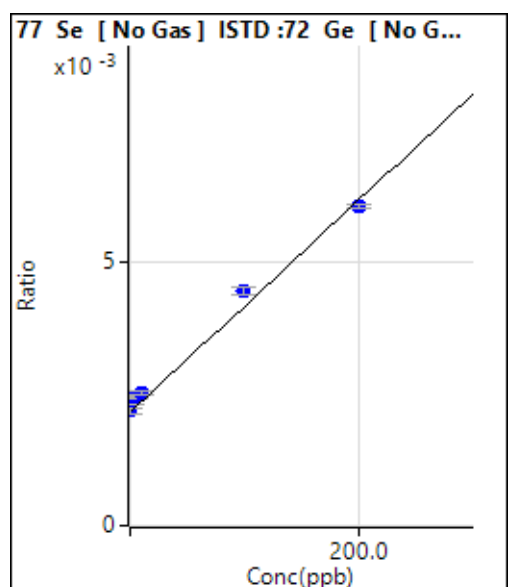
$$R = 0.2666$$

$$DL = 644.6 \text{ ppb}$$

$$BEC = 3.267E+04 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	10767.84	0.0022	P	5.5	
2	☐	2.000	8.786	11555.14	0.0024	P	4.5	339.3
3	☐	5.000	12.375	11805.35	0.0024	P	1.3	147.5
4	☐	10.000	17.079	12419.29	0.0025	P	3.2	70.8
5	☐	100.000	113.212	21647.75	0.0045	P	3.6	13.2
6	☐	200.000	192.788	28964.77	0.0061	P	1.7	-3.6

$$y = 2.0140E-005 * x + 0.0022$$

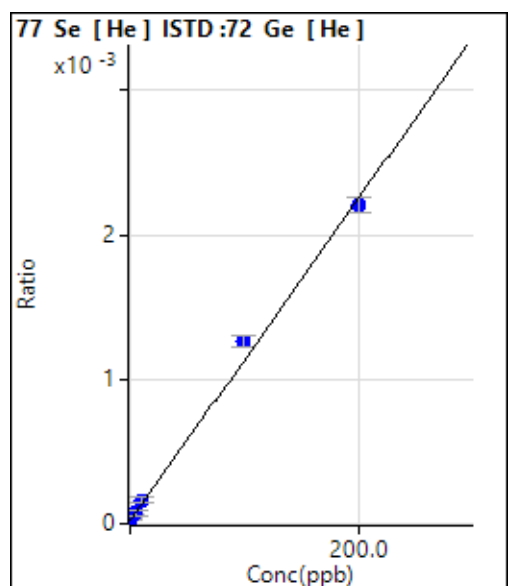
$$R = 0.9969$$

$$DL = 17.88 \text{ ppb}$$

$$BEC = 108.6 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	43.33	0.0000	P	57.7	
2	☐	2.000	2.246	76.67	0.0001	P	26.8	12.3
3	☐	5.000	3.989	103.33	0.0001	P	47.9	-20.2
4	☐	10.000	11.868	220.01	0.0002	P	27.5	18.7
5	☐	100.000	110.321	1693.48	0.0013	P	7.0	10.3
6	☐	200.000	194.769	2937.04	0.0022	P	4.6	-2.6

$$y = 1.1165E-005 * x + 3.1971E-005$$

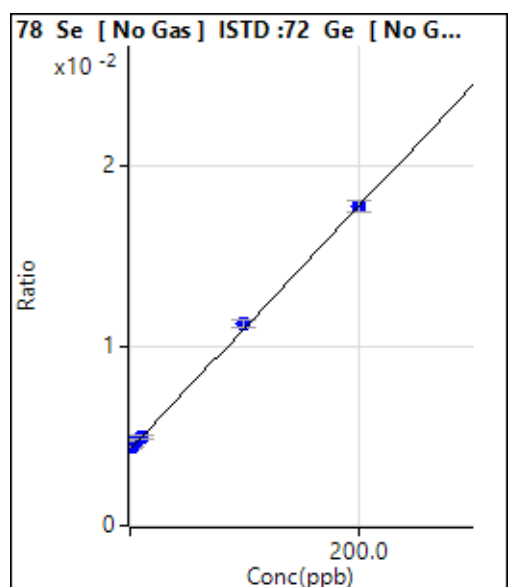
$$R = 0.9980$$

$$DL = 4.955 \text{ ppb}$$

$$BEC = 2.864 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21373.94	0.0043	P	2.5	
2	☐	2.000	0.503	21397.33	0.0044	P	1.1	-74.8
3	☐	5.000	5.678	22906.44	0.0047	P	0.6	13.6
4	☐	10.000	8.924	24275.45	0.0049	P	3.1	-10.8
5	☐	100.000	102.456	54647.58	0.0113	P	3.3	2.5
6	☐	200.000	198.824	84920.13	0.0178	P	3.5	-0.6

$$y = 6.7681\text{E-}005 * x + 0.0043$$

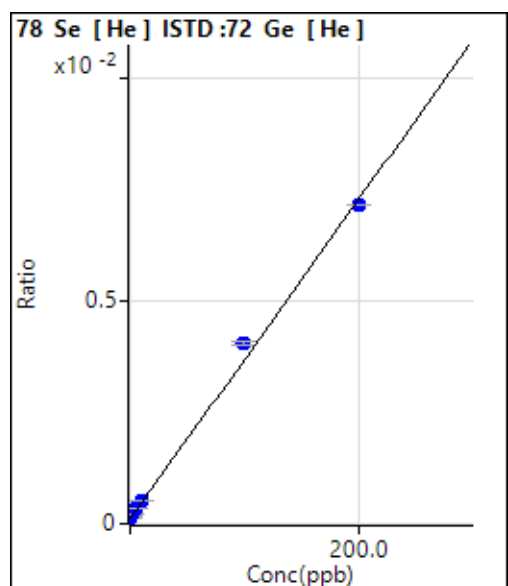
$$R = 0.9998$$

$$\text{DL} = 4.773 \text{ ppb}$$

$$\text{BEC} = 64.19 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	193.33	0.0001	P	11.3	
2	☐	2.000	2.258	300.67	0.0002	P	5.6	12.9
3	☐	5.000	5.679	468.01	0.0003	P	7.9	13.6
4	☐	10.000	10.266	683.35	0.0005	P	2.7	2.7
5	☐	100.000	108.982	5422.44	0.0040	P	2.1	9.0
6	☐	200.000	195.476	9502.03	0.0071	P	0.4	-2.3

$$y = 3.5802\text{E-}005 * x + 1.4302\text{E-}004$$

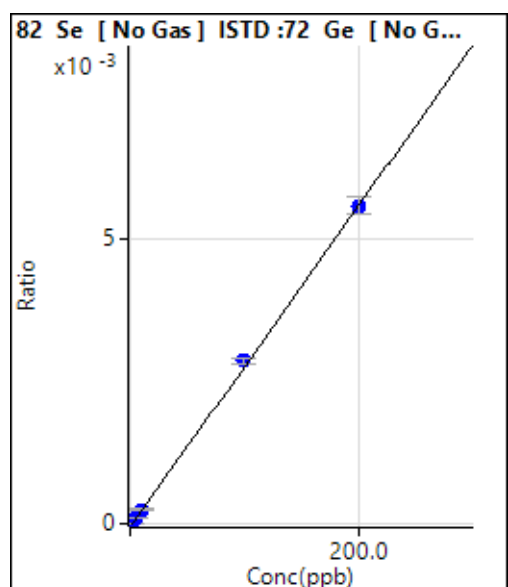
$$R = 0.9986$$

$$\text{DL} = 1.351 \text{ ppb}$$

$$\text{BEC} = 3.995 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	-111.20	0.0000	P	-169.	
2	☐	2.000	1.074	38.23	0.0000	P	76.1	-46.3
3	☐	5.000	5.060	582.51	0.0001	P	14.6	1.2
4	☐	10.000	10.013	1275.18	0.0003	P	13.4	0.1
5	☐	100.000	102.373	13870.11	0.0029	P	4.2	2.4
6	☐	200.000	198.820	26623.44	0.0056	P	5.2	-0.6

$$y = 2.8182E-005 * x - 2.2421E-005$$

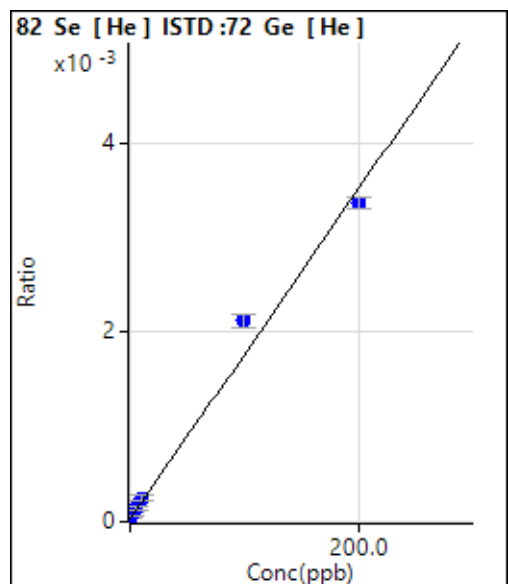
$$R = 0.9999$$

$$DL = 4.043 \text{ ppb}$$

$$BEC = -0.7956 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	60.00	0.0000	P	44.5	
2	☐	2.000	1.726	100.00	0.0001	P	56.0	-13.7
3	☐	5.000	6.080	203.34	0.0002	P	25.4	21.6
4	☐	10.000	11.874	336.68	0.0003	P	29.0	18.7
5	☐	100.000	119.128	2847.03	0.0021	P	7.1	19.1
6	☐	200.000	190.318	4477.49	0.0034	P	3.3	-4.8

$$y = 1.7446E-005 * x + 4.4431E-005$$

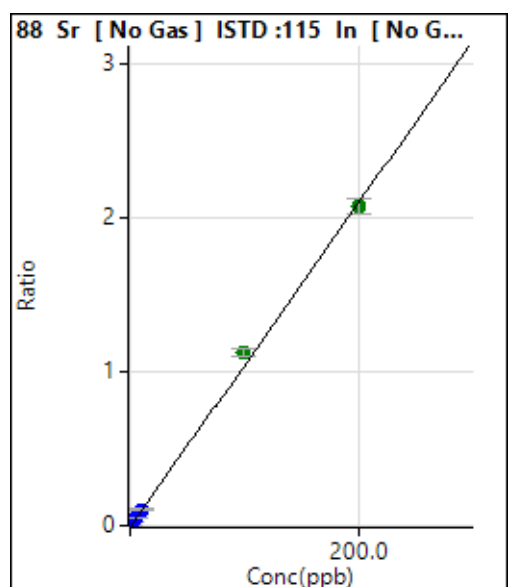
$$R = 0.9934$$

$$DL = 3.399 \text{ ppb}$$

$$BEC = 2.547 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1240.08	0.0006	P	5.6	
2	☐	2.000	2.031	44357.31	0.0220	P	5.2	1.6
3	☐	5.000	4.988	107530.89	0.0531	P	4.6	-0.2
4	☐	10.000	9.881	208793.90	0.1047	P	5.9	-1.2
5	☐	100.000	106.461	2209020.90	1.1217	A	4.9	6.5
6	☐	200.000	196.775	4087427.23	2.0728	A	4.5	-1.6

$$y = 0.0105 * x + 6.0762E-004$$

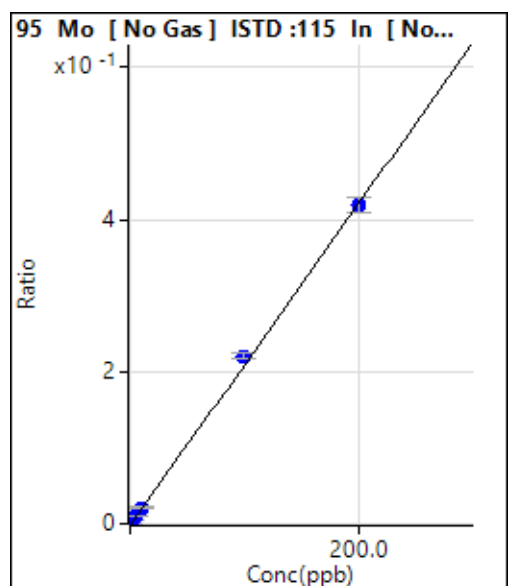
$$R = 0.9992$$

$$DL = 0.009643 \text{ ppb}$$

$$BEC = 0.0577 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	80.00	0.0000	P	12.8	
2	☐	2.000	1.985	8556.23	0.0042	P	1.5	-0.7
3	☐	5.000	5.017	21567.79	0.0107	P	6.4	0.3
4	☐	10.000	10.024	42404.32	0.0213	P	3.7	0.2
5	☐	100.000	104.006	433666.23	0.2202	P	3.8	4.0
6	☐	200.000	197.995	826305.48	0.4191	P	4.9	-1.0

$$y = 0.0021 * x + 3.9206E-005$$

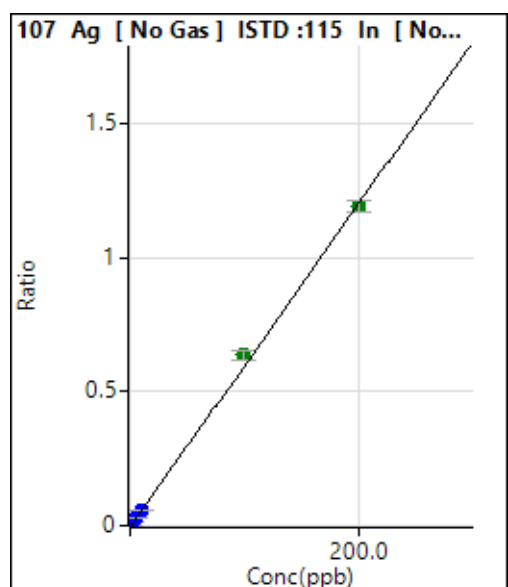
$$R = 0.9997$$

$$DL = 0.00712 \text{ ppb}$$

$$BEC = 0.01852 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	253.34	0.0001	P	16.6	
2	☐	2.000	1.937	23845.28	0.0118	P	3.5	-3.1
3	☐	5.000	4.850	59530.84	0.0294	P	4.1	-3.0
4	☐	10.000	9.665	116693.34	0.0585	P	5.7	-3.3
5	☐	100.000	105.312	1252609.96	0.6361	A	6.0	5.3
6	☐	200.000	197.365	2350700.69	1.1921	A	4.1	-1.3

$$y = 0.0060 * x + 1.2414E-004$$

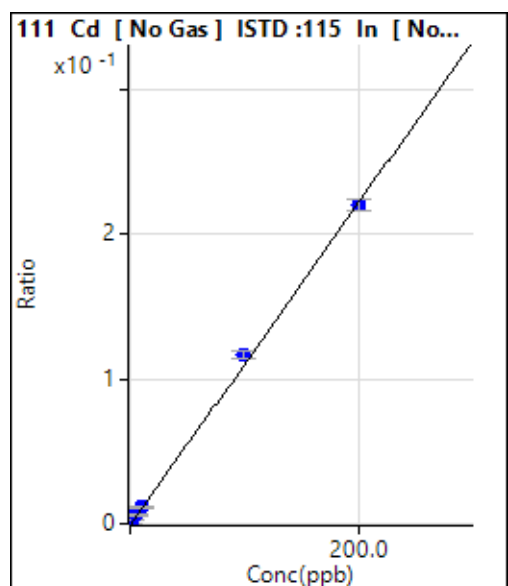
$$R = 0.9995$$

$$DL = 0.01022 \text{ ppb}$$

$$BEC = 0.02056 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	10.00	0.0000	P	173.2	
2	☐	2.000	2.110	4750.92	0.0024	P	7.9	5.5
3	☐	5.000	5.389	12169.16	0.0060	P	3.8	7.8
4	☐	10.000	10.240	22783.47	0.0114	P	6.7	2.4
5	☐	100.000	104.943	230417.52	0.1170	P	4.7	4.9
6	☐	200.000	197.506	434221.56	0.2202	P	3.9	-1.2

$$y = 0.0011 * x + 4.8983E-006$$

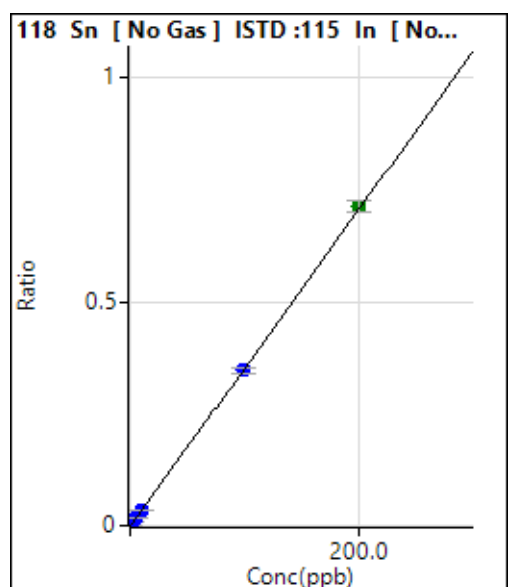
$$R = 0.9996$$

$$DL = 0.02283 \text{ ppb}$$

$$BEC = 0.004394 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2987.06	0.0015	P	5.1	
2	☐	2.000	1.956	16924.60	0.0084	P	2.2	-2.2
3	☐	5.000	4.831	37584.08	0.0186	P	3.4	-3.4
4	☐	10.000	9.427	69510.22	0.0348	P	4.6	-5.7
5	☐	100.000	97.660	684033.09	0.3472	P	3.4	-2.3
6	☐	200.000	201.203	1407667.27	0.7139	A	4.2	0.6

$$y = 0.0035 * x + 0.0015$$

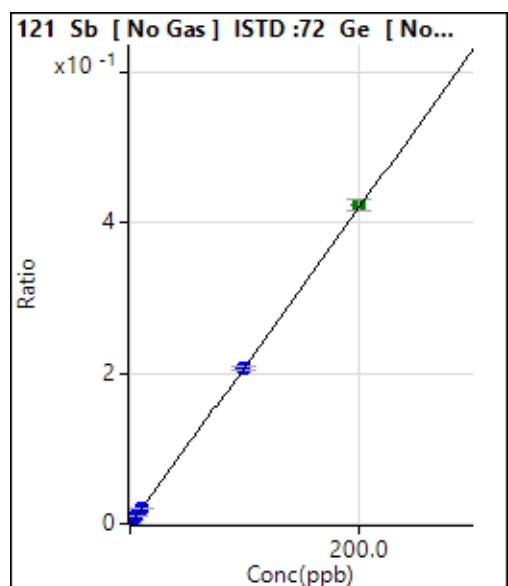
$$R = 0.9999$$

$$DL = 0.06384 \text{ ppb}$$

$$BEC = 0.4134 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	276.68	0.0001	P	10.9	
2	☐	2.000	1.916	20022.35	0.0041	P	0.5	-4.2
3	☐	5.000	5.171	53111.09	0.0110	P	1.9	3.4
4	☐	10.000	9.481	98377.74	0.0201	P	4.9	-5.2
5	☐	100.000	98.059	1002472.77	0.2069	P	2.0	-1.9
6	☐	200.000	200.993	2022671.74	0.4240	A	4.0	0.5

$$y = 0.0021 * x + 5.6247E-005$$

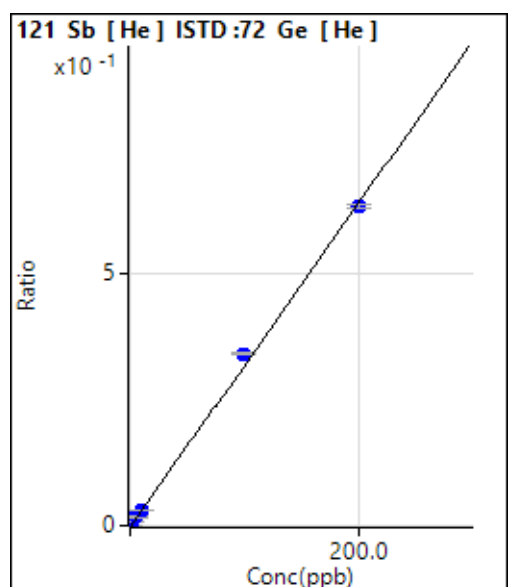
$$R = 0.9999$$

$$DL = 0.008709 \text{ ppb}$$

$$BEC = 0.02667 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	150.00	0.0001	P	47.0	
2	☐	2.000	1.995	8799.80	0.0066	P	2.2	-0.2
3	☐	5.000	5.357	23518.10	0.0174	P	4.5	7.1
4	☐	10.000	9.680	41967.46	0.0314	P	3.6	-3.2
5	☐	100.000	106.093	459251.65	0.3426	P	1.1	6.1
6	☐	200.000	196.961	846075.30	0.6359	P	0.6	-1.5

$$y = 0.0032 * x + 1.1109E-004$$

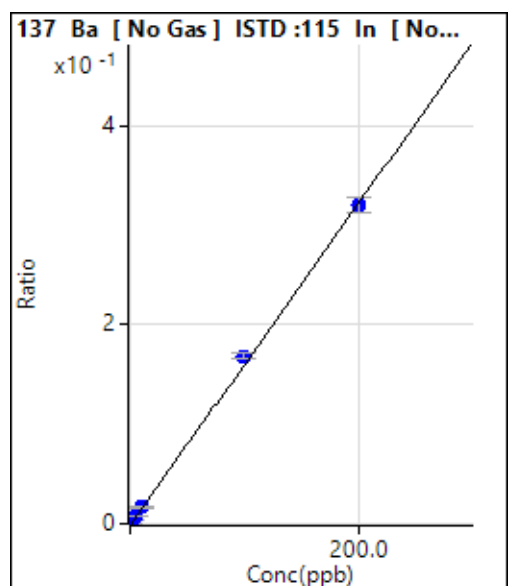
$$R = 0.9993$$

$$DL = 0.04854 \text{ ppb}$$

$$BEC = 0.03441 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	176.67	0.0001	P	20.3	
2	☐	2.000	2.033	6815.26	0.0034	P	3.2	1.7
3	☐	5.000	5.155	17068.14	0.0084	P	2.0	3.1
4	☐	10.000	10.147	32942.27	0.0165	P	6.8	1.5
5	☐	100.000	104.238	332554.14	0.1688	P	4.0	4.2
6	☐	200.000	197.870	631741.67	0.3204	P	5.0	-1.1

$$y = 0.0016 * x + 8.6595E-005$$

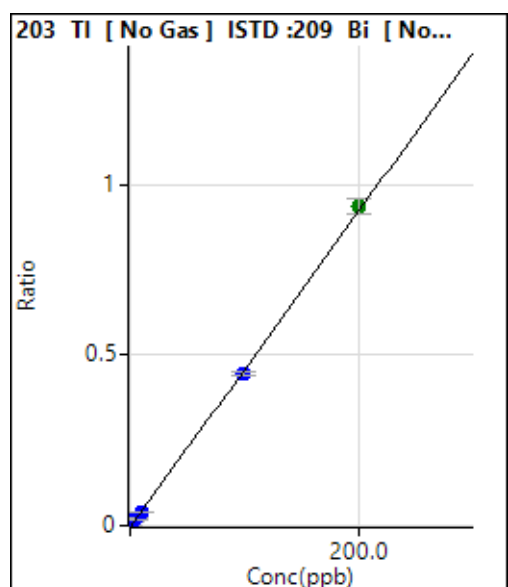
$$R = 0.9997$$

$$DL = 0.03254 \text{ ppb}$$

$$BEC = 0.05349 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	153.34	0.0001	P	26.3	
2	☐	2.000	1.950	18066.64	0.0091	P	0.7	-2.5
3	☐	5.000	4.271	39452.69	0.0199	P	3.4	-14.6
4	☐	10.000	8.498	78352.63	0.0395	P	4.6	-15.0
5	☐	100.000	96.085	854681.86	0.4457	P	3.5	-3.9
6	☐	200.000	202.051	1764339.50	0.9372	A	5.0	1.0

$$y = 0.0046 * x + 7.7807E-005$$

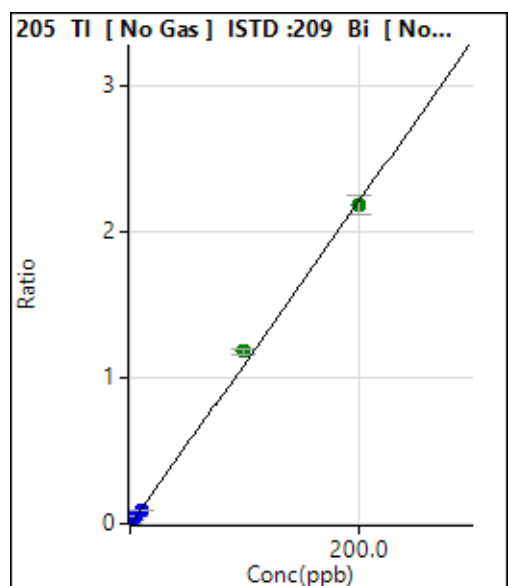
$$R = 0.9997$$

$$DL = 0.01325 \text{ ppb}$$

$$BEC = 0.01678 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	473.35	0.0002	P	10.5	
2	☐	2.000	2.010	44613.49	0.0225	P	1.5	0.5
3	☐	5.000	4.321	95518.50	0.0481	P	1.7	-13.6
4	☐	10.000	8.557	188655.93	0.0951	P	3.6	-14.4
5	☐	100.000	106.240	2258492.36	1.1778	A	2.9	6.2
6	☐	200.000	196.969	4110000.77	2.1834	A	5.9	-1.5

$$y = 0.0111 * x + 2.4070E-004$$

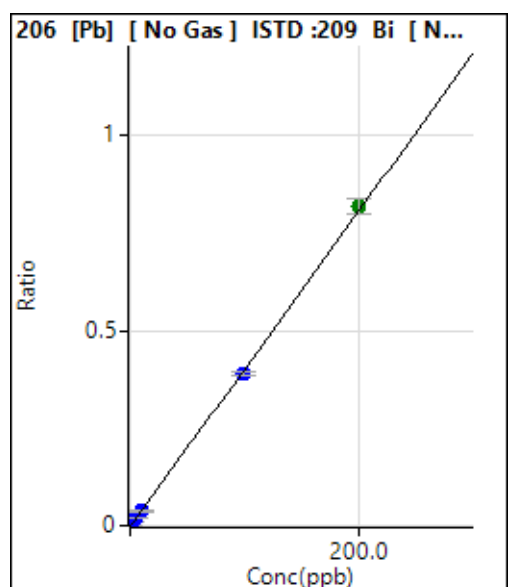
$$R = 0.9992$$

$$DL = 0.006847 \text{ ppb}$$

$$BEC = 0.02172 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2096.90	0.0011	P	4.7	
2	☐	2.000	1.992	18073.41	0.0091	P	3.1	-0.4
3	☐	5.000	4.916	41579.72	0.0210	P	2.4	-1.7
4	☐	10.000	9.015	74475.69	0.0375	P	4.6	-9.9
5	☐	100.000	95.896	746034.88	0.3891	P	3.1	-4.1
6	☐	200.000	202.103	1541515.61	0.8188	A	4.5	1.1

$$y = 0.0040 * x + 0.0011$$

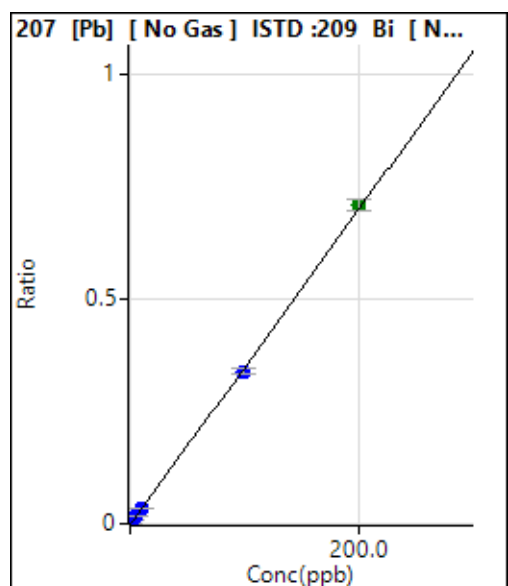
$$R = 0.9997$$

$$DL = 0.03739 \text{ ppb}$$

$$BEC = 0.2634 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1703.48	0.0009	P	7.6	
2	☐	2.000	1.991	15573.34	0.0079	P	3.9	-0.5
3	☐	5.000	4.966	36333.52	0.0183	P	4.3	-0.7
4	☐	10.000	9.164	65603.00	0.0331	P	2.7	-8.4
5	☐	100.000	96.406	651247.54	0.3396	P	3.1	-3.6
6	☐	200.000	201.840	1336827.69	0.7101	A	4.0	0.9

$$y = 0.0035 * x + 8.6544E-004$$

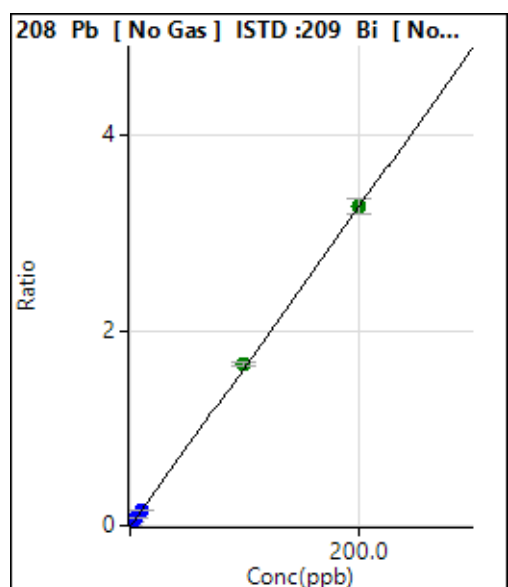
$$R = 0.9998$$

$$DL = 0.05598 \text{ ppb}$$

$$BEC = 0.2463 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	8371.31	0.0043	P	2.7	
2	☐	2.000	1.959	72016.29	0.0364	P	2.3	-2.1
3	☐	5.000	4.862	166531.17	0.0839	P	3.3	-2.8
4	☐	10.000	9.068	303283.51	0.1529	P	3.3	-9.3
5	☐	100.000	100.906	3179334.43	1.6581	A	3.4	0.9
6	☐	200.000	199.597	6166604.71	3.2756	A	4.7	-0.2

$$y = 0.0164 * x + 0.0043$$

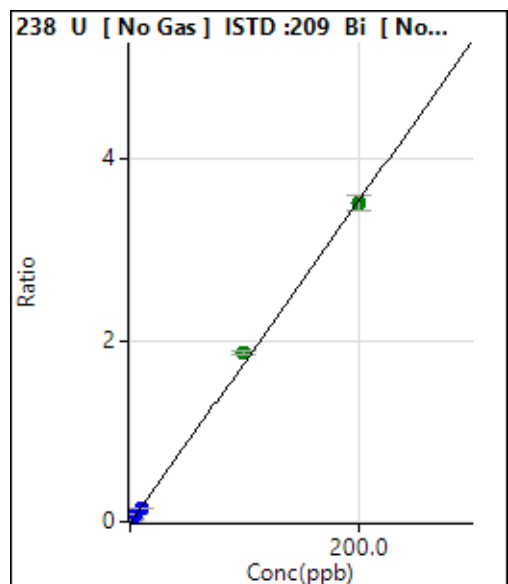
$$R = 1.0000$$

$$DL = 0.02087 \text{ ppb}$$

$$BEC = 0.2595 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	223.34	0.0001	P	14.0	
2	☐	2.000	1.794	63478.08	0.0320	P	2.3	-10.3
3	☐	5.000	4.507	159386.96	0.0803	P	2.5	-9.9
4	☐	10.000	8.713	307897.04	0.1552	P	3.2	-12.9
5	☐	100.000	104.574	3569780.47	1.8614	A	2.4	4.6
6	☐	200.000	197.792	6628278.86	3.5206	A	5.3	-1.1

$$y = 0.0178 * x + 1.1345E-004$$

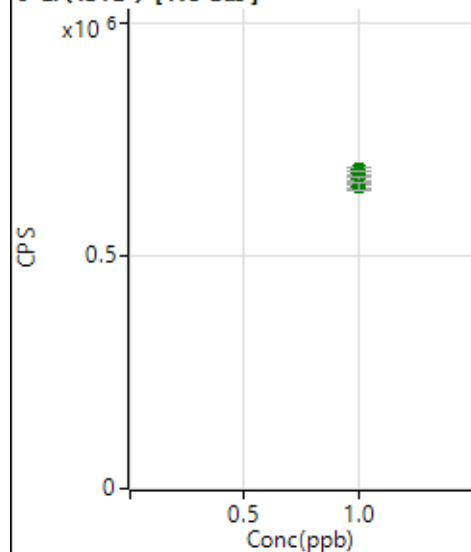
$$R = 0.9996$$

$$DL = 0.002674 \text{ ppb}$$

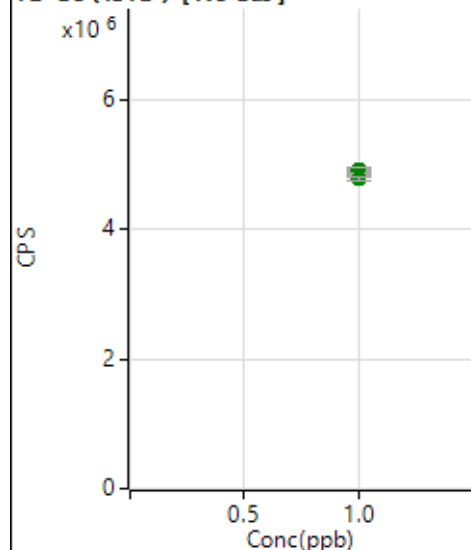
$$BEC = 0.006374 \text{ ppb}$$

Weight: <None>

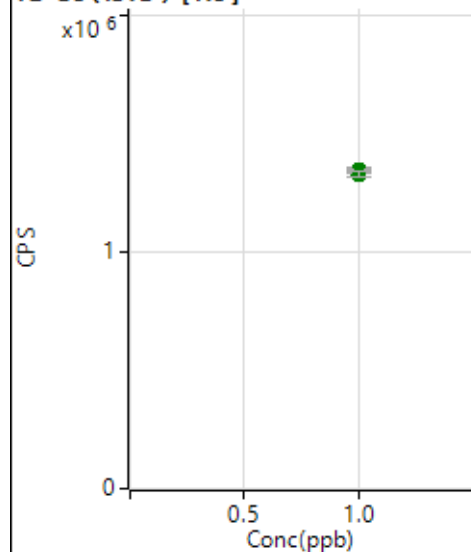
Min Conc: <None>

6 Li (ISTD) [No Gas]

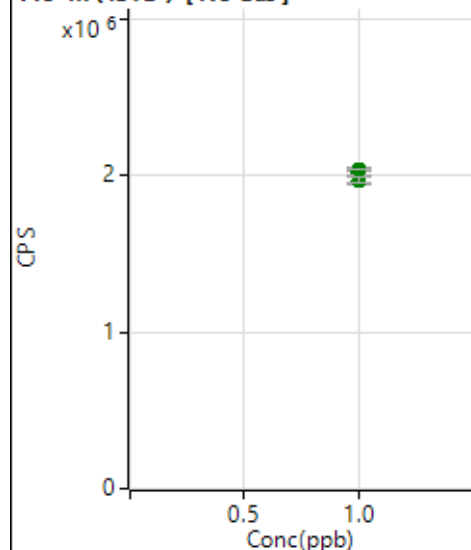
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		685402.54		A	1.7	
2	☐	1.000		676827.39		A	1.1	
3	☐	1.000		656347.14		A	1.7	
4	☐	1.000		666149.62		A	1.2	
5	☐	1.000		649726.27		A	1.3	
6	☐	1.000		647527.07		A	2.6	

72 Ge (ISTD) [No Gas]

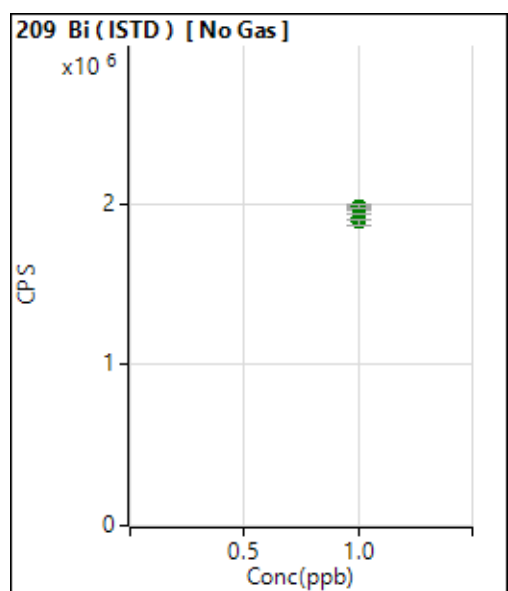
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		4920574.41		A	0.7	
2	☐	1.000		4887487.74		A	0.8	
3	☐	1.000		4844560.03		A	0.9	
4	☐	1.000		4906601.07		A	1.4	
5	☐	1.000		4846155.24		A	0.8	
6	☐	1.000		4771549.51		A	1.2	

72 Ge (ISTD) [He]

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1352312.64		A	0.7	
2	☐	1.000		1343150.14		A	0.4	
3	☐	1.000		1351308.00		A	0.3	
4	☐	1.000		1338403.11		A	0.3	
5	☐	1.000		1340444.51		A	1.2	
6	☐	1.000		1330555.86		A	1.5	

115 In (ISTD) [No Gas]

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		2041149.66		A	0.7	
2	☐	1.000		2017956.57		A	2.7	
3	☐	1.000		2024732.85		A	1.4	
4	☐	1.000		1995355.68		A	0.8	
5	☐	1.000		1971111.37		A	2.8	
6	☐	1.000		1972823.10		A	1.9	



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1967910.60		A	1.0	
2	☐	1.000		1980977.16		A	0.6	
3	☐	1.000		1984216.95		A	1.0	
4	☐	1.000		1983669.71		A	1.0	
5	☐	1.000		1918248.56		A	1.9	
6	☐	1.000		1883684.24		A	2.4	

Sample Report

Sample Table

Sample Name LLICV2
 Data File Name 028LCV2.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:49:23-05:00
 Sample Type LLCCV2
 Dilution 1
 Comment
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	2.096	2.096	6.63	55303	0.00	2	
Be	9	1	No Gas	2.037	2.037	6.26	4716	0.04	2	
V	51	2	He	1.959	1.959	5.26	8498	0.02	2	
Cr	52	2	He	2.241	2.241	3.10	10985	0.02	2	
Fe	56	2	He	217.691	217.691	2.43	784313	0.03	200	
Se	78	2	He	2.421	2.421	10.38	306	0.79	2	
As	75	2	He	2.067	2.067	12.36	1445	0.14	2	
Ca	44	2	He	222.522	222.522	4.33	12322	1.81	200	
Na	23	2	He	219.713	219.713	3.63	213929	0.10	200	
Mg	24	2	He	208.606	208.606	2.89	66418	0.31	200	
K	39	2	He	218.337	218.337	4.22	144022	0.15	200	
Mn	55	2	He	2.270	2.270	2.47	6408	0.04	2	
Co	59	2	He	2.076	2.076	1.39	14007	0.01	2	
Ni	60	2	He	2.171	2.171	7.46	4034	0.05	2	
Cu	63	2	He	2.111	2.111	3.82	12202	0.02	2	
Zn	66	2	He	2.162	2.162	12.64	2617	0.08	2	
Al	27	2	He	6.243	6.243	22.32	3474	0.18	2	NewName Main CR1 Failed
B	11	1	No Gas	23.650	23.650	8.35	78946	0.03	10	NewName Main CR1 Failed
Al	27	1	No Gas	5.327	5.327	3.21	190672	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	10.562	10.562	27.59	2282687	0.00	10	
Ag	107	1	No Gas	1.962	1.962	1.17	24089	0.01	2	
Cd	111	1	No Gas	2.106	2.106	6.12	4734	0.04	2	
Sr	88	1	No Gas	2.042	2.042	2.61	44487	0.00	2	
Mo	95	1	No Gas	2.061	2.061	4.12	8856	0.02	2	
Sn	118	1	No Gas	2.017	2.017	1.58	17315	0.01	2	
Sb	121	1	No Gas	1.995	1.995	3.45	20690	0.01	2	
Ba	137	1	No Gas	2.202	2.202	5.64	7349	0.03	2	
Tl	205	1	No Gas	2.002	2.002	3.16	44366	0.00	2	
Tl	203	1	No Gas	2.081	2.081	2.97	19238	0.01	2	
Pb	208	1	No Gas	1.857	1.857	2.41	68596	0.00	2	
U	238	1	No Gas	1.825	1.825	2.81	64450	0.00	2	
Ca	43	2	He	202.223	202.223	19.94	253	79.82	200	
Sb	121	2	He	2.091	2.091	1.57	9140	0.02	2	
Ti	47	2	He	1.893	1.893	25.09	263	0.72	200	
Cu	63	1	No Gas	2.108	2.108	1.17	25601	0.01	2	
Se	82	1	No Gas	2.917	2.917	54.88	289	1.01	2	NewName Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	657754	2.16	685403	95.97	70	120	
Ge	72	2	He	1331927	0.72	1352313	98.49	70	120	
Ge	72	1	No Gas	4852368	1.40	4920574	98.61	70	120	
In	115	1	No Gas	2012206	0.19	2041150	98.58	70	120	
Bi	209	1	No Gas	1977494	0.17	1967911	100.49	70	120	

Sample Report

Sample Table

Sample Name LLICV5
 Data File Name 029LCV5.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:51:39-05:00
 Sample Type LLCCV5
 Dilution 1
 Comment
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	4.987	4.987	2.95	81379	0.01	5	
Be	9	1	No Gas	5.275	5.275	4.72	12341	0.04	5	
V	51	2	He	5.090	5.090	2.90	19469	0.03	5	
Cr	52	2	He	5.465	5.465	4.12	24232	0.02	5	
Fe	56	2	He	564.224	564.224	3.29	2029119	0.03	500	
Se	78	2	He	5.365	5.365	19.22	450	1.19	5	
As	75	2	He	5.258	5.258	3.09	3509	0.15	5	
Ca	44	2	He	527.608	527.608	3.21	18032	2.93	500	
Na	23	2	He	544.993	544.993	3.76	389408	0.14	500	
Mg	24	2	He	524.770	524.770	3.25	168222	0.31	500	
K	39	2	He	542.774	542.774	2.33	258015	0.21	500	
Mn	55	2	He	5.419	5.419	5.36	14945	0.04	5	
Co	59	2	He	5.279	5.279	5.14	35841	0.01	5	
Ni	60	2	He	5.354	5.354	1.38	9530	0.06	5	
Cu	63	2	He	5.542	5.542	5.81	28300	0.02	5	
Zn	66	2	He	5.591	5.591	3.04	5541	0.10	5	
Al	27	2	He	6.792	6.792	8.01	3597	0.19	5	NewName2 Main CR1 Failed
B	11	1	No Gas	35.748	35.748	0.27	94479	0.04	25	NewName2 Main CR1 Failed
Al	27	1	No Gas	4.692	4.692	8.52	186046	0.00	5	
Si	28	1	No Gas	26.427	26.427	23.18	2423177	0.00	25	
Ag	107	1	No Gas	5.038	5.038	1.06	62484	0.01	5	
Cd	111	1	No Gas	5.417	5.417	0.89	12363	0.04	5	
Sr	88	1	No Gas	5.077	5.077	0.11	110595	0.00	5	
Mo	95	1	No Gas	5.291	5.291	2.29	22987	0.02	5	
Sn	118	1	No Gas	5.037	5.037	1.87	39470	0.01	5	
Sb	121	1	No Gas	5.064	5.064	2.08	52673	0.01	5	
Ba	137	1	No Gas	5.172	5.172	2.99	17302	0.03	5	
Tl	205	1	No Gas	4.450	4.450	4.90	97775	0.00	5	
Tl	203	1	No Gas	4.431	4.431	5.61	40690	0.01	5	
Pb	208	1	No Gas	4.818	4.818	5.05	164195	0.00	5	
U	238	1	No Gas	4.685	4.685	4.38	164760	0.00	5	
Ca	43	2	He	530.427	530.427	19.17	610	86.95	500	
Sb	121	2	He	5.458	5.458	4.20	23825	0.02	5	
Ti	47	2	He	4.658	4.658	8.48	600	0.78	5	
Cu	63	1	No Gas	5.146	5.146	3.80	56668	0.01	5	
Se	82	1	No Gas	5.301	5.301	14.06	623	0.85	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	665730	1.00	685403	97.13	70	120	
Ge	72	2	He	1344520	1.67	1352313	99.42	70	120	
Ge	72	1	No Gas	4906358	1.22	4920574	99.71	70	120	
In	115	1	No Gas	2045301	0.77	2041150	100.20	70	120	
Bi	209	1	No Gas	1974828	3.17	1967911	100.35	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name ICB
 Data File Name 031_ICB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:56:10-05:00
 Sample Type ICB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.138	44.9	38254	2.3	0.5	
Be	9	1	No Gas	0.001	94.5	23	12.4	0.5	
V	51	2	He	-0.127	-1.9	1329	0.5	2.5	
Cr	52	2	He	0.026	142.7	2067	8.5	2.5	
Fe	56	2	He	1.099	20.6	18113	3.9	100	
Se	78	2	He	-0.051	-812.7	191	9.5	1	
As	75	2	He	-0.046	-26.3	100	8.8	2.5	
Ca	44	2	He	-10.231	-170.6	8213	3.5	100	
Na	23	2	He	5.036	49.3	101928	1.2	100	
Mg	24	2	He	0.759	31.4	507	14.3	100	
K	39	2	He	-4.070	-123.8	68493	1.9	100	
Mn	55	2	He	0.061	22.5	517	6.2	2.5	
Co	59	2	He	0.009	29.5	120	14.4	2.5	
Ni	60	2	He	0.060	48.8	453	12.1	2.5	
Cu	63	2	He	0.066	61.9	2794	6.0	1	
Zn	66	2	He	0.094	48.6	900	4.4	2.5	
Al	27	2	He	-1.022	-72.6	2324	6.3	5	
B	11	1	No Gas	12.887	14.9	66029	0.1	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-0.469	-59.7	130649	2.1	5	
Si	28	1	No Gas	87.083	2.4	2845895	0.8	10	ICB Main CR1 Failed
Ag	107	1	No Gas	0.003	84.4	280	12.4	2.5	
Cd	111	1	No Gas	0.002	309.4	13	86.6	1	
Sr	88	1	No Gas	0.023	81.5	1690	23.5	2.5	
Mo	95	1	No Gas	0.014	23.1	137	8.4	2.5	
Sn	118	1	No Gas	0.158	46.0	4011	10.9	5	
Sb	121	1	No Gas	0.013	13.5	410	4.2	2.5	
Ba	137	1	No Gas	0.068	33.0	390	16.8	2.5	
Tl	205	1	No Gas	0.002	188.3	513	14.6	1	
Tl	203	1	No Gas	0.009	30.9	230	11.5	1	
Pb	208	1	No Gas	-0.060	-13.8	6391	5.4	2.5	
U	238	1	No Gas	0.003	48.3	317	14.9	2.5	
Ca	43	2	He	3.108	597.7	40	50.0	100	
Sb	121	2	He	0.030	36.5	280	16.4	2.5	
Ti	47	2	He	-0.108	-193.5	23	107.9	2.5	
Se	82	1	No Gas	0.327	79.4	-64	-55.7	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	656663	3.58	685403	95.81	70	120	
Ge	72	2	He	1351237	1.04	1352313	99.92	70	120	
Ge	72	1	No Gas	4876201	0.31	4920574	99.10	70	120	
In	115	1	No Gas	1986470	2.31	2041150	97.32	70	120	
Bi	209	1	No Gas	1955641	1.24	1967911	99.38	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name ICSA
 Data File Name 0321CSA.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:58:27-05:00
 Sample Type ICSA
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.368	23.4	41381	2.6	0	ICSA Main CR1 Failed
Be	9	1	No Gas	-0.004	-34.0	12	24.7	0	ICSA Main CR1 Failed
V	51	2	He	-0.252	-2.3	867	2.4	0	ICSA Main CR1 Failed
Cr	52	2	He	1.319	6.8	7149	5.1	0	ICSA Main CR1 Failed
Fe	56	2	He	100064.783	1.3	348570475	1.3	0	
Se	78	2	He	0.480	36.1	210	3.8	0	ICSA Main CR1 Failed
As	75	2	He	0.198	37.3	250	18.5	0	ICSA Main CR1 Failed
Ca	44	2	He	100799.140	2.3	1809451	2.5	0	
Na	23	2	He	99853.571	1.3	52045403	1.4	0	
Mg	24	2	He	99961.295	1.9	31206406	2.0	0	
K	39	2	He	99522.222	1.5	33766097	1.5	0	
Mn	55	2	He	0.325	5.9	1197	4.3	0	ICSA Main CR1 Failed
Co	59	2	He	0.213	6.4	1467	6.0	0	ICSA Main CR1 Failed
Ni	60	2	He	0.628	4.8	1390	3.7	0	ICSA Main CR1 Failed
Cu	63	2	He	0.477	11.6	4578	5.4	0	ICSA Main CR1 Failed
Zn	66	2	He	1.830	9.3	2304	6.0	0	ICSA Main CR1 Failed
Al	27	2	He	95644.333	1.6	15362632	1.7	0	
B	11	1	No Gas	16.687	23.0	72458	2.7	0	
Al	27	1	No Gas	96763.601	3.2	1005413852	2.8	0	
Si	28	1	No Gas	7.382	49.1	2243343	1.5	0	ICSA Main CR1 Failed
Ag	107	1	No Gas	0.152	7.4	2027	6.2	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.119	10.3	2440	8.6	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	4.438	4.8	92288	3.6	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	2101.341	4.1	8670604	2.8	0	
Sn	118	1	No Gas	0.444	1.7	5918	2.2	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.255	9.5	2864	8.4	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.601	7.3	2064	5.0	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.009	42.6	653	11.9	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.025	10.5	370	7.2	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.093	15.1	11085	3.3	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.012	23.3	640	14.9	0	ICSA Main CR1 Failed
Ca	43	2	He	95568.254	0.8	100979	0.9	0	
Sb	121	2	He	0.268	14.1	1280	12.4	0	ICSA Main CR1 Failed
Ti	47	2	He	1985.232	1.2	234359	1.2	0	
Se	82	1	No Gas	-0.124	-278.0	-125	-37.3	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	675153	3.86	685403	98.50	70	120	
Ge	72	2	He	1310979	0.15	1352313	96.94	70	120	
Ge	72	1	No Gas	4816408	0.34	4920574	97.88	70	120	
In	115	1	No Gas	1950311	1.58	2041150	95.55	70	120	
Bi	209	1	No Gas	1920484	0.86	1967911	97.59	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name ICSAB
 Data File Name 033ICS8.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T11:00:44-05:00
 Sample Type ICSB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	97.317	6.247	920248	4.84	100	97.3	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	96.743	5.855	233048	4.67	100	96.7	80	120	
V	51	2	He	105.178	0.379	352020	0.02	100	105.2	80	120	
Cr	52	2	He	104.710	0.622	410733	0.25	100	104.7	80	120	
Fe	56	2	He	112931.607	0.433	386217954	0.44	100	112931.6	80	120	ICSB Main CR1 Failed
Se	78	2	He	104.332	2.202	4992	1.93	100	104.3	80	120	
As	75	2	He	104.549	0.734	64485	0.36	100	104.5	80	120	
Ca	44	2	He	115269.392	0.794	2030311	0.95	100	115269.4	80	120	ICSB Main CR1 Failed
Na	23	2	He	114114.859	0.272	58380696	0.50	100	114114.9	80	120	ICSB Main CR1 Failed
Mg	24	2	He	113585.840	0.241	34813094	0.23	100	113585.8	80	120	ICSB Main CR1 Failed
K	39	2	He	113188.751	0.336	37693694	0.38	100	113188.8	80	120	ICSB Main CR1 Failed
Mn	55	2	He	103.447	0.090	267210	0.29	100	103.4	80	120	
Co	59	2	He	100.272	0.396	651038	0.20	100	100.3	80	120	
Ni	60	2	He	102.313	0.388	168319	0.31	100	102.3	80	120	
Cu	63	2	He	101.910	0.763	457292	0.39	100	101.9	80	120	
Zn	66	2	He	103.299	1.782	84351	2.04	100	103.3	80	120	
Al	27	2	He	98607.160	1.090	15549372	0.84	100	98607.2	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	521.813	2.439	700357	1.56	100	521.8	80	120	
Al	27	1	No Gas	97758.058	3.484	991769985	3.58	100	97758.1	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	538.282	3.454	5881959	2.17	100	538.3	80	120	
Ag	107	1	No Gas	95.946	7.812	1111509	6.41	100	95.9	80	120	
Cd	111	1	No Gas	104.340	5.923	223130	4.49	100	104.3	80	120	
Sr	88	1	No Gas	110.802	6.186	2239215	4.74	100	110.8	80	120	
Mo	95	1	No Gas	2196.178	5.979	8915622	4.54	100	2196.2	80	120	
Sn	118	1	No Gas	97.390	5.375	664253	3.91	100	97.4	80	120	
Sb	121	1	No Gas	99.142	4.152	983578	4.20	100	99.1	80	120	
Ba	137	1	No Gas	105.228	5.929	326915	4.49	100	105.2	80	120	
Tl	205	1	No Gas	91.253	4.368	1841796	4.54	100	91.3	80	120	
Tl	203	1	No Gas	83.358	3.825	703955	3.71	100	83.4	80	120	
Pb	208	1	No Gas	101.858	3.788	3047005	3.98	100	101.9	80	120	
U	238	1	No Gas	108.739	5.262	3523153	4.88	100	108.7	80	120	
Ca	43	2	He	110939.629	0.613	115078	0.76	100	110939.6	80	120	ICSB Main CR1 Failed
Sb	121	2	He	104.517	0.452	434393	0.49	100	104.5	80	120	
Ti	47	2	He	2169.045	0.510	251390	0.83	100	2169.0	80	120	ICSB Main CR1 Failed
Cu	63	1	No Gas	97.211	3.927	948934	4.03	100	97.2	80	120	
Se	82	1	No Gas	100.872	3.630	13262	3.67	100	100.9	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	686986	1.59	685403	100.23	70	120	
Ge	72	2	He	1287086	0.37	1352313	95.18	70	120	
Ge	72	1	No Gas	4702391	0.66	4920574	95.57	70	120	
In	115	1	No Gas	1919210	1.46	2041150	94.03	70	120	
Bi	209	1	No Gas	1820532	1.05	1967911	92.51	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name CCV
 Data File Name 138_CCV.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:28:02-05:00
 Sample Type CCV
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	95.384	6.196	885098	3.23	100	95.4	90	110	
Be	9	1	No Gas	93.479	6.061	220773	3.09	100	93.5	90	110	
V	51	2	He	97.992	3.557	348331	0.31	100	98.0	90	110	
Cr	52	2	He	98.556	2.977	410625	0.48	100	98.6	90	110	
Fe	56	2	He	9806.581	3.312	35622234	0.13	10000	98.1	90	110	
Se	78	2	He	98.871	2.745	5034	0.82	100	98.9	90	110	
As	75	2	He	97.518	3.259	63875	0.25	100	97.5	90	110	
Ca	44	2	He	9733.705	3.055	189832	0.76	10000	97.3	90	110	
Na	23	2	He	10071.806	2.978	5562919	0.61	10000	100.7	90	110	
Mg	24	2	He	10015.858	3.473	3260190	2.52	10000	100.2	90	110	
K	39	2	He	10060.743	3.618	3621742	1.31	10000	100.6	90	110	
Mn	55	2	He	97.355	3.193	267034	0.28	100	97.4	90	110	
Co	59	2	He	96.212	3.096	663305	0.69	100	96.2	90	110	
Ni	60	2	He	99.832	3.847	174373	0.95	100	99.8	90	110	
Cu	63	2	He	99.855	3.414	475794	0.50	100	99.9	90	110	
Zn	66	2	He	97.593	2.764	84670	1.11	100	97.6	90	110	
Al	27	2	He	98.133	5.369	18943	1.61	100	98.1	90	110	
B	11	1	No Gas	456.585	4.061	607402	0.59	500	91.3	90	110	
Al	27	1	No Gas	95.456	4.646	1171431	2.36	100	95.5	90	110	
Si	28	1	No Gas	459.598	5.689	5686871	1.79	5000	9.2	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.186	3.165	1252788	2.19	100	100.2	90	110	
Cd	111	1	No Gas	96.600	3.561	222945	2.64	100	96.6	90	110	
Sr	88	1	No Gas	99.480	4.571	2169670	3.51	100	99.5	90	110	
Mo	95	1	No Gas	95.903	4.423	420193	3.12	100	95.9	90	110	
Sn	118	1	No Gas	91.082	3.778	670558	2.48	100	91.1	90	110	
Sb	121	1	No Gas	93.012	4.598	983524	2.92	100	93.0	90	110	
Ba	137	1	No Gas	97.354	4.564	326387	3.37	100	97.4	90	110	
Tl	205	1	No Gas	99.794	1.158	2202025	1.16	100	99.8	90	110	
Tl	203	1	No Gas	88.979	0.967	821720	2.52	100	89.0	90	110	CCV Main CR1-2 Failed
Pb	208	1	No Gas	95.911	1.867	3138184	3.59	100	95.9	90	110	
U	238	1	No Gas	98.327	2.093	3484523	3.51	100	98.3	90	110	
Ca	43	2	He	9798.097	2.580	10828	1.80	10000	98.0	90	110	
Sb	121	2	He	97.723	2.831	431299	0.63	100	97.7	90	110	
Ti	47	2	He	99.572	4.280	12286	1.14	100	99.6	90	110	
Cu	63	1	No Gas	91.967	4.053	957145	2.45	100	92.0	90	110	
Se	82	1	No Gas	96.258	1.267	13489	0.54	100	96.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	674040	3.21	685403	98.34	70	120	
Ge	72	2	He	1367621	3.47	1352313	101.13	70	120	
Ge	72	1	No Gas	5014610	1.83	4920574	101.91	70	120	
In	115	1	No Gas	2070672	1.67	2041150	101.45	70	120	
Bi	209	1	No Gas	1990552	1.72	1967911	101.15	70	120	



Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name CCB
 Data File Name 139_CCB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:30:15-05:00
 Sample Type CCB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.055	-269.6	37873	0.9	0.5	
Be	9	1	No Gas	-0.003	-35.0	13	21.7	0.5	
V	51	2	He	-0.334	-4.5	621	9.7	2.5	
Cr	52	2	He	0.039	124.5	2167	9.3	2.5	
Fe	56	2	He	1.540	4.5	20152	0.9	100	
Se	78	2	He	0.046	522.2	200	6.0	2	
As	75	2	He	-0.091	-33.0	72	26.6	2.5	
Ca	44	2	He	27.554	59.4	9113	2.2	100	
Na	23	2	He	4.210	65.8	103838	2.1	100	
Mg	24	2	He	0.286	38.3	363	10.4	100	
K	39	2	He	-15.344	-22.3	66051	1.0	100	
Mn	55	2	He	0.102	46.3	643	20.7	2.5	
Co	59	2	He	0.002	337.5	73	55.1	2.5	
Ni	60	2	He	0.132	47.2	590	17.9	2.5	
Cu	63	2	He	0.050	114.3	2780	9.5	2	
Zn	66	2	He	0.501	39.2	1273	12.6	2.5	
Al	27	2	He	-2.357	-6.6	2150	1.9	5	
B	11	1	No Gas	11.148	28.4	66221	2.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.198	-8.0	127593	0.3	5	
Si	28	1	No Gas	-10.225	-67.8	2224698	2.7	10	
Ag	107	1	No Gas	0.004	105.2	313	18.4	2.5	
Cd	111	1	No Gas	0.000	-4098.2	10	100.0	1	
Sr	88	1	No Gas	-0.017	-15.7	900	6.7	2.5	
Mo	95	1	No Gas	0.030	62.8	217	38.7	2.5	
Sn	118	1	No Gas	0.024	88.2	3247	5.5	5	
Sb	121	1	No Gas	0.101	19.6	1357	15.1	2.5	
Ba	137	1	No Gas	0.049	4.7	347	1.7	2.5	
Tl	205	1	No Gas	0.159	53.1	4158	45.2	1	
Tl	203	1	No Gas	0.150	59.1	1603	51.8	1	
Pb	208	1	No Gas	-0.188	-1.7	2440	4.7	2.5	
U	238	1	No Gas	0.006	29.7	457	13.2	2.5	
Ca	43	2	He	-15.840	-111.9	20	100.0	100	
Sb	121	2	He	0.086	10.7	537	6.5	2.5	
Ti	47	2	He	-0.141	-112.3	20	100.0	2.5	
Cu	63	1	No Gas	-0.018	-136.3	4471	6.1	2.5	
Se	82	1	No Gas	-0.055	-1736.1	-121	-112.3	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	680231	3.94	685403	99.25	70	120	
Ge	72	2	He	1382460	1.16	1352313	102.23	70	120	
Ge	72	1	No Gas	5059087	0.54	4920574	102.81	70	120	
In	115	1	No Gas	2094011	0.71	2041150	102.59	70	120	
Bi	209	1	No Gas	2085270	1.54	1967911	105.96	70	120	



Sample Report

Sample Table

Sample Name LCS-201061
 Data File Name 143SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:39:39-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	96.424	96.424	2.13	936277	0.01	2000	
Be	9	1	No Gas	48.534	48.534	1.84	120016	0.04	2000	
V	51	2	He	50.705	50.705	4.89	190347	0.03	2000	
Cr	52	2	He	51.582	51.582	4.74	226845	0.02	2000	
Fe	56	2	He	5170.265	5170.265	4.34	19747751	0.03	200000	
Se	78	2	He	51.703	51.703	2.46	2865	1.80	2000	
As	75	2	He	53.427	53.427	5.38	36841	0.15	2000	
Ca	44	2	He	5350.347	5350.347	3.61	113697	4.71	200000	
Na	23	2	He	5302.273	5302.273	3.23	3128258	0.17	200000	
Mg	24	2	He	5379.014	5379.014	5.04	1839864	0.29	200000	
K	39	2	He	5412.306	5412.306	3.94	2082272	0.26	200000	
Mn	55	2	He	55.594	55.594	5.23	160417	0.03	2000	
Co	59	2	He	50.071	50.071	4.42	362835	0.01	2000	
Ni	60	2	He	51.722	51.722	3.78	95154	0.05	2000	
Cu	63	2	He	52.993	52.993	4.07	266645	0.02	2000	
Zn	66	2	He	56.541	56.541	3.45	51923	0.11	2000	
Al	27	2	He	155.782	155.782	3.68	30063	0.52	2000	
B	11	1	No Gas	462.870	462.870	1.78	643641	0.07	2000	
Al	27	1	No Gas	151.484	151.484	1.10	1854884	0.01	2000	
Si	28	1	No Gas	394.844	394.844	4.10	5433349	0.01	2000	
Ag	107	1	No Gas	46.738	46.738	1.22	620457	0.01	2000	
Cd	111	1	No Gas	50.851	50.851	1.97	124568	0.04	2000	
Sr	88	1	No Gas	99.034	99.034	2.41	2292680	0.00	2000	
Mo	95	1	No Gas	47.673	47.673	1.50	221773	0.02	2000	
Sn	118	1	No Gas	91.673	91.673	1.85	716362	0.01	2000	
Sb	121	1	No Gas	48.713	48.713	2.99	537687	0.01	2000	
Ba	137	1	No Gas	49.046	49.046	2.18	174641	0.03	2000	
Tl	205	1	No Gas	34.147	34.147	3.28	799972	0.00	2000	
Tl	203	1	No Gas	34.098	34.098	2.12	334286	0.01	2000	
Pb	208	1	No Gas	45.701	45.701	2.88	1591240	0.00	2000	
U	238	1	No Gas	97.066	97.066	1.72	3650435	0.00	2000	
Ca	43	2	He	5324.422	5324.422	9.11	6198	85.90	200000	
Sb	121	2	He	50.902	50.902	4.31	236179	0.02	2000	
Ti	47	2	He	151.653	151.653	4.44	19651	0.77	2000	
Cu	63	1	No Gas	49.341	49.341	2.53	538114	0.01	2000	
Zn	66	1	No Gas	55.973	55.973	2.70	158433	0.04	2000	
Se	82	1	No Gas	51.780	51.780	7.44	7514	0.69	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	704944	1.98	685403	102.85	70	120	
Ge	72	2	He	1437106	1.93	1352313	106.27	70	120	
Ge	72	1	No Gas	5231544	1.15	4920574	106.32	70	120	
In	115	1	No Gas	2197272	0.57	2041150	107.65	70	120	



Sample Report

Bi	209	1	No Gas	2113217	2.01	1967911	107.38	70	120	
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Sample Report

Sample Table

Sample Name HS23090958-01SD
 Data File Name 144SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:41:52-05:00
 Sample Type Sample
 Dilution 5
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	17.412	87.059	4.35	188528	0.01	2000	
Be	9	1	No Gas	-0.003	-0.016	-136.51	13	-0.02	2000	
V	51	2	He	3.317	16.586	4.41	13870	0.02	2000	
Cr	52	2	He	0.122	0.610	24.83	2550	0.00	2000	
Fe	56	2	He	1.127	5.633	5.88	18890	0.01	200000	
Se	78	2	He	1.001	5.005	51.04	251	0.40	2000	
As	75	2	He	0.208	1.042	59.77	274	0.08	2000	
Ca	44	2	He	8059.009	40295.043	2.98	162660	4.95	200000	
Na	23	2	He	62237.322	311186.610	4.00	34714704	0.18	200000	
Mg	24	2	He	7151.520	35757.600	3.96	2386799	0.30	200000	
K	39	2	He	1079.771	5398.857	4.57	463341	0.23	200000	
Mn	55	2	He	0.394	1.971	8.04	1473	0.03	2000	
Co	59	2	He	0.021	0.107	36.47	213	0.01	2000	
Ni	60	2	He	0.133	0.664	40.51	600	0.02	2000	
Cu	63	2	He	0.018	0.092	149.66	2667	0.00	2000	
Zn	66	2	He	1.286	6.432	7.28	1984	0.06	2000	
Al	27	2	He	2.988	14.939	50.90	3097	0.10	2000	
B	11	1	No Gas	191.185	955.926	2.63	278476	0.07	2000	
Al	27	1	No Gas	4.545	22.726	6.28	190623	0.00	2000	
Si	28	1	No Gas	807.256	4036.282	1.57	8356382	0.01	2000	
Ag	107	1	No Gas	0.005	0.024	119.83	317	0.00	2000	
Cd	111	1	No Gas	0.009	0.043	50.26	30	0.03	2000	
Sr	88	1	No Gas	346.739	1733.695	2.22	7550529	0.00	2000	
Mo	95	1	No Gas	1.250	6.249	9.59	5548	0.02	2000	
Sn	118	1	No Gas	0.079	0.395	37.47	3604	0.00	2000	
Sb	121	1	No Gas	0.068	0.339	26.86	1010	0.01	2000	
Ba	137	1	No Gas	4.226	21.131	1.45	14325	0.03	2000	
Tl	205	1	No Gas	0.293	1.464	49.26	7146	0.00	2000	
Tl	203	1	No Gas	0.292	1.461	49.88	2937	0.01	2000	
Pb	208	1	No Gas	-0.189	-0.943	-3.16	2383	-0.01	2000	
U	238	1	No Gas	2.281	11.403	2.78	83421	0.00	2000	
Ca	43	2	He	8539.556	42697.782	2.76	9680	88.22	200000	
Sb	121	2	He	0.058	0.292	23.22	420	0.01	2000	
Ti	47	2	He	-0.037	-0.184	-247.59	33	-0.11	2000	
Cu	63	1	No Gas	0.191	0.954	23.56	6665	0.00	2000	
Zn	66	1	No Gas	1.227	6.135	6.76	6011	0.02	2000	
Se	82	1	No Gas	1.110	5.550	39.30	45	2.46	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	659100	1.55	685403	96.16	70	120	
Ge	72	2	He	1401429	0.15	1352313	103.63	70	120	
Ge	72	1	No Gas	5068900	1.12	4920574	103.01	70	120	
In	115	1	No Gas	2067605	0.56	2041150	101.30	70	120	



Sample Report

Bi	209	1	No Gas	2049210	0.28	1967911	104.13	70	120	
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Sample Report

Sample Table

Sample Name HS23090958-01MS
 Data File Name 146SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:48:15-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	187.675	187.675	0.74	1765205	0.01	2000	
Be	9	1	No Gas	49.020	49.020	1.15	119896	0.04	2000	
V	51	2	He	69.751	69.751	4.05	260621	0.03	2000	
Cr	52	2	He	50.127	50.127	4.16	220061	0.02	2000	
Fe	56	2	He	5057.214	5057.214	3.87	19276319	0.03	200000	
Se	78	2	He	59.274	59.274	3.96	3247	1.83	2000	
As	75	2	He	54.468	54.468	4.07	37483	0.15	2000	
Ca	44	2	He	50685.587	50685.587	3.92	999224	5.07	200000	
Na	23	2	He	336204.324	336204.324	3.39	191363537	0.18	200000	>LDR
Mg	24	2	He	41631.559	41631.559	3.43	14211335	0.29	200000	
K	39	2	He	11285.368	11285.368	2.99	4252808	0.27	200000	
Mn	55	2	He	49.567	49.567	3.05	142804	0.03	2000	
Co	59	2	He	48.354	48.354	4.21	349673	0.01	2000	
Ni	60	2	He	49.518	49.518	3.33	90936	0.05	2000	
Cu	63	2	He	50.307	50.307	3.49	252775	0.02	2000	
Zn	66	2	He	50.355	50.355	2.55	46249	0.11	2000	
Al	27	2	He	110.374	110.374	6.36	22021	0.50	2000	
B	11	1	No Gas	1407.490	1407.490	1.74	1825674	0.08	2000	
Al	27	1	No Gas	110.587	110.587	3.26	1363354	0.01	2000	
Si	28	1	No Gas	4590.313	4590.313	1.77	37075294	0.01	2000	>LDR
Ag	107	1	No Gas	46.199	46.199	1.05	579263	0.01	2000	
Cd	111	1	No Gas	50.399	50.399	1.31	116618	0.04	2000	
Sr	88	1	No Gas	1872.352	1872.352	0.84	40919007	0.00	2000	>LDR
Mo	95	1	No Gas	55.786	55.786	0.52	245103	0.02	2000	
Sn	118	1	No Gas	95.222	95.222	0.53	702715	0.01	2000	
Sb	121	1	No Gas	48.459	48.459	1.69	523463	0.01	2000	
Ba	137	1	No Gas	72.272	72.272	1.64	242978	0.03	2000	
Tl	205	1	No Gas	33.811	33.811	0.81	749978	0.00	2000	
Tl	203	1	No Gas	33.366	33.366	0.67	309657	0.01	2000	
Pb	208	1	No Gas	45.564	45.564	1.20	1501975	0.00	2000	
U	238	1	No Gas	115.014	115.014	1.25	4094480	0.00	2000	
Ca	43	2	He	50977.197	50977.197	3.47	58913	86.53	200000	
Sb	121	2	He	50.515	50.515	3.09	233922	0.02	2000	
Ti	47	2	He	150.410	150.410	2.03	19454	0.77	2000	
Cu	63	1	No Gas	48.434	48.434	1.96	517010	0.01	2000	
Zn	66	1	No Gas	51.416	51.416	1.25	142654	0.04	2000	
Se	82	1	No Gas	56.221	56.221	3.21	7995	0.70	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	697147	0.64	685403	101.71	70	120	
Ge	72	2	He	1433918	1.45	1352313	106.03	70	120	
Ge	72	1	No Gas	5119225	0.96	4920574	104.04	70	120	
In	115	1	No Gas	2075311	0.98	2041150	101.67	70	120	
Bi	209	1	No Gas	2000020	1.01	1967911	101.63	70	120	



Sample Report

Sample Table

Sample Name HS23090958-01MSD
 Data File Name 147SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:50:29-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	188.349	188.349	0.66	1778131	0.01	2000	
Be	9	1	No Gas	48.830	48.830	0.39	119893	0.04	2000	
V	51	2	He	71.053	71.053	3.84	259692	0.03	2000	
Cr	52	2	He	51.194	51.194	4.08	219822	0.02	2000	
Fe	56	2	He	5143.984	5143.984	3.55	19181053	0.03	200000	
Se	78	2	He	58.186	58.186	0.31	3122	1.86	2000	
As	75	2	He	55.811	55.811	4.07	37568	0.15	2000	
Ca	44	2	He	52274.384	52274.384	4.26	1007934	5.19	200000	
Na	23	2	He	339486.083	339486.083	3.37	189023824	0.18	200000	>LDR
Mg	24	2	He	41899.308	41899.308	3.91	13991230	0.30	200000	
K	39	2	He	11262.397	11262.397	2.72	4151863	0.27	200000	
Mn	55	2	He	50.565	50.565	3.74	142492	0.04	2000	
Co	59	2	He	49.112	49.112	3.57	347454	0.01	2000	
Ni	60	2	He	50.609	50.609	1.82	90906	0.06	2000	
Cu	63	2	He	51.600	51.600	3.48	253547	0.02	2000	
Zn	66	2	He	51.225	51.225	3.05	46005	0.11	2000	
Al	27	2	He	112.217	112.217	3.13	21864	0.51	2000	
B	11	1	No Gas	1420.547	1420.547	1.84	1849100	0.08	2000	
Al	27	1	No Gas	108.666	108.666	2.10	1346485	0.01	2000	
Si	28	1	No Gas	4591.219	4591.219	1.43	37193883	0.01	2000	>LDR
Ag	107	1	No Gas	45.915	45.915	2.60	579222	0.01	2000	
Cd	111	1	No Gas	50.336	50.336	2.36	117180	0.04	2000	
Sr	88	1	No Gas	1844.040	1844.040	2.19	40547995	0.00	2000	>LDR
Mo	95	1	No Gas	55.387	55.387	2.27	244846	0.02	2000	
Sn	118	1	No Gas	94.707	94.707	2.13	703209	0.01	2000	
Sb	121	1	No Gas	48.874	48.874	0.82	529556	0.01	2000	
Ba	137	1	No Gas	71.528	71.528	2.29	241969	0.03	2000	
Tl	205	1	No Gas	34.792	34.792	1.66	768692	0.00	2000	
Tl	203	1	No Gas	34.623	34.623	1.77	320056	0.01	2000	
Pb	208	1	No Gas	45.634	45.634	1.44	1498399	0.00	2000	
U	238	1	No Gas	114.685	114.685	0.78	4066678	0.00	2000	
Ca	43	2	He	51358.152	51358.152	4.80	58059	88.46	200000	
Sb	121	2	He	51.324	51.324	3.89	232486	0.02	2000	
Ti	47	2	He	150.463	150.463	3.02	19037	0.79	2000	
Cu	63	1	No Gas	49.523	49.523	1.57	530116	0.01	2000	
Zn	66	1	No Gas	51.542	51.542	0.41	143426	0.04	2000	
Se	82	1	No Gas	57.347	57.347	2.57	8182	0.70	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	699793	0.73	685403	102.10	70	120	
Ge	72	2	He	1402574	0.86	1352313	103.72	70	120	
Ge	72	1	No Gas	5134476	0.89	4920574	104.35	70	120	
In	115	1	No Gas	2088499	1.73	2041150	102.32	70	120	
Bi	209	1	No Gas	1992136	0.36	1967911	101.23	70	120	



Sample Report

Sample Table

Sample Name HS23090958-01PDS
 Data File Name 148SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:52:44-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	86.088	86.088	1.23	850581	0.01	2000	
Be	9	1	No Gas	95.239	95.239	1.58	238394	0.04	2000	
V	51	2	He	119.554	119.554	4.43	443187	0.03	2000	
Cr	52	2	He	99.360	99.360	4.01	432058	0.02	2000	
Fe	56	2	He	10032.053	10032.053	3.87	38037313	0.03	200000	
Se	78	2	He	106.389	106.389	6.01	5637	1.89	2000	
As	75	2	He	105.722	105.722	3.87	72270	0.15	2000	
Ca	44	2	He	54374.672	54374.672	5.01	1066045	5.10	200000	
Na	23	2	He	330623.538	330623.538	3.48	187264937	0.18	200000	>LDR
Mg	24	2	He	45709.439	45709.439	3.60	15527119	0.29	200000	
K	39	2	He	16050.404	16050.404	3.14	5987456	0.27	200000	
Mn	55	2	He	98.674	98.674	3.38	282503	0.03	2000	
Co	59	2	He	95.063	95.063	3.67	684076	0.01	2000	
Ni	60	2	He	96.892	96.892	3.71	176689	0.05	2000	
Cu	63	2	He	98.576	98.576	3.60	490336	0.02	2000	
Zn	66	2	He	97.888	97.888	4.36	88625	0.11	2000	
Al	27	2	He	107.316	107.316	6.33	21380	0.50	2000	
B	11	1	No Gas	886.890	886.890	2.51	1197715	0.07	2000	
Al	27	1	No Gas	107.169	107.169	1.85	1341696	0.01	2000	
Si	28	1	No Gas	4131.715	4131.715	0.24	34009456	0.01	2000	>LDR
Ag	107	1	No Gas	96.881	96.881	3.19	1204453	0.01	2000	
Cd	111	1	No Gas	100.687	100.687	2.12	231049	0.04	2000	
Sr	88	1	No Gas	1734.908	1734.908	1.65	37604800	0.00	2000	
Mo	95	1	No Gas	105.360	105.360	2.14	459038	0.02	2000	
Sn	118	1	No Gas	0.061	0.061	34.98	3454	0.00	2000	
Sb	121	1	No Gas	84.601	84.601	0.83	924707	0.01	2000	
Ba	137	1	No Gas	121.621	121.621	1.61	405413	0.03	2000	
Tl	205	1	No Gas	107.335	107.335	2.25	2364303	0.00	2000	
Tl	203	1	No Gas	97.484	97.484	2.02	898574	0.01	2000	
Pb	208	1	No Gas	95.362	95.362	2.46	3114147	0.00	2000	
U	238	1	No Gas	11.659	11.659	1.52	412557	0.00	2000	
Ca	43	2	He	55279.722	55279.722	5.02	63563	86.97	200000	
Sb	121	2	He	88.392	88.392	4.21	407170	0.02	2000	
Ti	47	2	He	98.075	98.075	1.95	12636	0.78	2000	
Cu	63	1	No Gas	93.448	93.448	0.86	1005104	0.01	2000	
Zn	66	1	No Gas	98.771	98.771	0.76	274779	0.04	2000	
Se	82	1	No Gas	106.559	106.559	2.33	15442	0.69	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	713662	2.31	685403	104.12	70	120	
Ge	72	2	He	1426844	1.19	1352313	105.51	70	120	
Ge	72	1	No Gas	5180491	0.38	4920574	105.28	70	120	
In	115	1	No Gas	2058303	0.52	2041150	100.84	70	120	
Bi	209	1	No Gas	1987318	1.57	1967911	100.99	70	120	



Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name CCV
 Data File Name 150_CCV.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:57:13-05:00
 Sample Type CCV
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	95.431	4.847	914339	3.78	100	95.4	90	110	
Be	9	1	No Gas	91.389	2.569	222910	1.89	100	91.4	90	110	
V	51	2	He	96.316	2.698	344404	3.07	100	96.3	90	110	
Cr	52	2	He	96.965	2.060	406326	2.43	100	97.0	90	110	
Fe	56	2	He	9695.047	1.709	35420119	2.08	10000	97.0	90	110	
Se	78	2	He	96.060	4.784	4924	4.78	100	96.1	90	110	
As	75	2	He	96.014	2.383	63254	2.77	100	96.0	90	110	
Ca	44	2	He	9590.450	1.250	188220	1.55	10000	95.9	90	110	
Na	23	2	He	9845.855	2.614	5471333	2.95	10000	98.5	90	110	
Mg	24	2	He	9865.418	2.808	3229255	3.20	10000	98.7	90	110	
K	39	2	He	9876.015	2.070	3577071	2.42	10000	98.8	90	110	
Mn	55	2	He	95.947	2.341	264689	2.71	100	95.9	90	110	
Co	59	2	He	94.021	2.526	651908	2.90	100	94.0	90	110	
Ni	60	2	He	97.446	2.312	171214	2.69	100	97.4	90	110	
Cu	63	2	He	97.069	2.247	465268	2.63	100	97.1	90	110	
Zn	66	2	He	96.214	1.903	83952	2.18	100	96.2	90	110	
Al	27	2	He	94.642	2.835	18469	2.65	100	94.6	90	110	
B	11	1	No Gas	454.128	1.165	623991	0.99	500	90.8	90	110	
Al	27	1	No Gas	96.740	2.960	1177085	2.43	100	96.7	90	110	
Si	28	1	No Gas	468.797	3.012	5714723	1.82	5000	9.4	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	97.427	3.368	1209118	1.90	100	97.4	90	110	
Cd	111	1	No Gas	96.641	3.371	221362	1.89	100	96.6	90	110	
Sr	88	1	No Gas	97.891	5.284	2118782	3.83	100	97.9	90	110	
Mo	95	1	No Gas	95.013	3.163	413234	1.71	100	95.0	90	110	
Sn	118	1	No Gas	90.820	3.528	663657	2.05	100	90.8	90	110	
Sb	121	1	No Gas	92.412	2.755	970451	2.64	100	92.4	90	110	
Ba	137	1	No Gas	97.539	3.955	324572	2.49	100	97.5	90	110	
Tl	205	1	No Gas	98.833	3.560	2146564	2.96	100	98.8	90	110	
Tl	203	1	No Gas	88.886	2.900	807848	2.30	100	88.9	90	110	CCV Main CR1-2 Failed
Pb	208	1	No Gas	95.678	4.040	3079648	2.09	100	95.7	90	110	
U	238	1	No Gas	98.322	2.479	3428655	1.29	100	98.3	90	110	
Ca	43	2	He	9717.184	1.748	10798	2.07	10000	97.2	90	110	
Sb	121	2	He	96.063	1.525	426370	1.91	100	96.1	90	110	
Ti	47	2	He	93.607	4.880	11622	5.26	100	93.6	90	110	
Cu	63	1	No Gas	92.140	2.366	952264	2.22	100	92.1	90	110	
Se	82	1	No Gas	96.368	2.735	13407	2.72	100	96.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	695391	1.68	685403	101.46	70	120	
Ge	72	2	He	1374388	0.39	1352313	101.63	70	120	
Ge	72	1	No Gas	4977504	0.21	4920574	101.16	70	120	
In	115	1	No Gas	2055200	1.49	2041150	100.69	70	120	
Bi	209	1	No Gas	1959806	2.59	1967911	99.59	70	120	



Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name CCB
 Data File Name 151_CCB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:59:26-05:00
 Sample Type CCB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.016	-478.8	39634	0.8	0.5	
Be	9	1	No Gas	-0.002	-247.9	18	56.8	0.5	
V	51	2	He	-0.289	-3.4	789	5.8	2.5	
Cr	52	2	He	0.027	39.8	2140	1.6	2.5	
Fe	56	2	He	1.024	18.3	18443	4.6	100	
Se	78	2	He	-0.023	-1359.1	199	9.4	2	
As	75	2	He	-0.061	-14.7	93	6.2	2.5	
Ca	44	2	He	-2.044	-1010.4	8643	4.7	100	
Na	23	2	He	53.791	8.1	132343	2.3	100	
Mg	24	2	He	0.418	59.7	410	19.1	100	
K	39	2	He	-3.987	-20.6	70811	1.1	100	
Mn	55	2	He	0.110	19.0	673	9.1	2.5	
Co	59	2	He	0.007	33.1	110	15.7	2.5	
Ni	60	2	He	0.131	47.1	593	17.0	2.5	
Cu	63	2	He	0.084	55.0	2970	6.1	2	
Zn	66	2	He	0.524	16.6	1307	5.8	2.5	
Al	27	2	He	-1.450	-7.7	2327	2.2	5	
B	11	1	No Gas	17.508	4.0	76811	2.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.183	-15.0	125608	1.8	5	
Si	28	1	No Gas	-2.527	-276.3	2243558	2.3	10	
Ag	107	1	No Gas	0.009	73.3	377	23.8	2.5	
Cd	111	1	No Gas	0.004	1.8	20	0.0	1	
Sr	88	1	No Gas	-0.008	-7.4	1083	1.1	2.5	
Mo	95	1	No Gas	0.052	27.6	310	19.6	2.5	
Sn	118	1	No Gas	0.052	65.4	3437	6.6	5	
Sb	121	1	No Gas	0.128	10.9	1623	8.7	2.5	
Ba	137	1	No Gas	0.052	19.4	357	9.8	2.5	
Tl	205	1	No Gas	0.113	45.0	3044	37.8	1	
Tl	203	1	No Gas	0.129	36.2	1373	32.1	1	
Pb	208	1	No Gas	-0.186	-2.3	2450	5.7	2.5	
U	238	1	No Gas	0.005	39.6	413	17.2	2.5	
Ca	43	2	He	-16.064	-109.1	20	100.0	100	
Sb	121	2	He	0.125	30.1	717	22.3	2.5	
Ti	47	2	He	-0.063	-210.8	30	57.7	2.5	
Cu	63	1	No Gas	0.107	14.6	5675	3.0	2.5	
Se	82	1	No Gas	-0.714	-150.3	-212	-71.3	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	704760	1.67	685403	102.82	70	120	
Ge	72	2	He	1396254	1.49	1352313	103.25	70	120	
Ge	72	1	No Gas	4973492	0.34	4920574	101.08	70	120	
In	115	1	No Gas	2084476	0.88	2041150	102.12	70	120	
Bi	209	1	No Gas	2035766	0.36	1967911	103.45	70	120	



Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name CCV
 Data File Name 162_CCV.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:31:00-05:00
 Sample Type CCV
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	100.089	4.551	974427	1.93	100	100.1	90	110	
Be	9	1	No Gas	96.385	4.212	239336	1.78	100	96.4	90	110	
V	51	2	He	100.677	1.199	350029	1.62	100	100.7	90	110	
Cr	52	2	He	100.183	1.010	408225	1.55	100	100.2	90	110	
Fe	56	2	He	10108.982	1.048	35918398	1.49	10000	101.1	90	110	
Se	78	2	He	101.154	2.915	5032	2.31	100	101.2	90	110	
As	75	2	He	99.962	0.421	64041	1.10	100	100.0	90	110	
Ca	44	2	He	10112.741	0.470	192567	0.44	10000	101.1	90	110	
Na	23	2	He	10459.320	1.051	5646483	1.45	10000	104.6	90	110	
Mg	24	2	He	10378.138	0.594	3303610	0.43	10000	103.8	90	110	
K	39	2	He	10266.754	2.583	3613841	2.84	10000	102.7	90	110	
Mn	55	2	He	100.576	1.257	269836	1.96	100	100.6	90	110	
Co	59	2	He	98.197	0.563	662153	0.90	100	98.2	90	110	
Ni	60	2	He	102.407	2.361	174978	2.79	100	102.4	90	110	
Cu	63	2	He	102.183	0.220	476199	0.93	100	102.2	90	110	
Zn	66	2	He	100.738	0.376	85448	0.67	100	100.7	90	110	
Al	27	2	He	101.762	3.189	19130	3.35	100	101.8	90	110	
B	11	1	No Gas	472.916	4.523	659373	3.26	500	94.6	90	110	
Al	27	1	No Gas	101.083	2.991	1186209	1.50	100	101.1	90	110	
Si	28	1	No Gas	507.756	3.603	5817501	0.99	5000	10.2	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.926	3.421	1211473	3.29	100	98.9	90	110	
Cd	111	1	No Gas	99.185	0.593	224191	0.44	100	99.2	90	110	
Sr	88	1	No Gas	100.641	1.897	2149884	1.73	100	100.6	90	110	
Mo	95	1	No Gas	97.761	0.922	419562	0.76	100	97.8	90	110	
Sn	118	1	No Gas	93.688	1.161	675486	1.02	100	93.7	90	110	
Sb	121	1	No Gas	97.653	2.366	994022	0.86	100	97.7	90	110	
Ba	137	1	No Gas	100.346	1.478	329514	1.34	100	100.3	90	110	
Tl	205	1	No Gas	98.804	2.397	2215345	1.20	100	98.8	90	110	
Tl	203	1	No Gas	89.734	2.508	841900	1.32	100	89.7	90	110	CCV Main CR1-2 Failed
Pb	208	1	No Gas	96.345	2.637	3202167	1.51	100	96.3	90	110	
U	238	1	No Gas	100.951	1.919	3634394	0.71	100	101.0	90	110	
Ca	43	2	He	10212.331	5.028	11038	5.91	10000	102.1	90	110	
Sb	121	2	He	101.570	0.693	438427	1.01	100	101.6	90	110	
Ti	47	2	He	101.275	1.604	12226	2.37	100	101.3	90	110	
Cu	63	1	No Gas	96.677	3.161	968213	1.61	100	96.7	90	110	
Se	82	1	No Gas	97.587	1.141	13166	2.66	100	97.6	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	708282	2.49	685403	103.34	70	120	
Ge	72	2	He	1336717	0.89	1352313	98.85	70	120	
Ge	72	1	No Gas	4825932	1.56	4920574	98.08	70	120	
In	115	1	No Gas	2027406	0.16	2041150	99.33	70	120	
Bi	209	1	No Gas	2022861	1.22	1967911	102.79	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name CCB
 Data File Name 163_CCB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:33:13-05:00
 Sample Type CCB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.073	-119.9	40965	1.9	0.5	
Be	9	1	No Gas	0.004	80.8	33	22.9	0.5	
V	51	2	He	-0.110	-23.1	1375	5.8	2.5	
Cr	52	2	He	0.056	31.3	2167	2.3	2.5	
Fe	56	2	He	0.881	10.4	17158	1.7	100	
Se	78	2	He	0.138	304.0	198	10.7	2	
As	75	2	He	0.004	1175.9	131	23.1	2.5	
Ca	44	2	He	21.387	79.6	8710	4.1	100	
Na	23	2	He	58.950	4.0	129533	0.6	100	
Mg	24	2	He	0.457	61.1	407	22.8	100	
K	39	2	He	-6.368	-10.4	67026	1.0	100	
Mn	55	2	He	0.121	20.4	673	9.7	2.5	
Co	59	2	He	0.007	79.5	107	35.5	2.5	
Ni	60	2	He	0.139	10.1	583	4.3	2.5	
Cu	63	2	He	0.345	3.7	4061	2.2	2	
Zn	66	2	He	0.656	9.3	1363	3.7	2.5	
Al	27	2	He	-1.770	-3.0	2177	0.7	5	
B	11	1	No Gas	13.487	32.1	74976	3.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.229	-26.2	123270	0.9	5	
Si	28	1	No Gas	-6.587	-52.3	2181830	1.4	10	
Ag	107	1	No Gas	0.024	14.0	550	9.1	2.5	
Cd	111	1	No Gas	-0.002	-331.4	7	173.2	1	
Sr	88	1	No Gas	-0.017	-19.1	873	6.5	2.5	
Mo	95	1	No Gas	0.051	6.2	303	5.0	2.5	
Sn	118	1	No Gas	0.211	145.7	4557	50.1	5	
Sb	121	1	No Gas	0.114	17.5	1457	12.1	2.5	
Ba	137	1	No Gas	0.068	48.6	403	24.8	2.5	
Tl	205	1	No Gas	0.153	58.8	4054	50.6	1	
Tl	203	1	No Gas	0.156	56.3	1674	50.0	1	
Pb	208	1	No Gas	-0.195	-2.5	2200	8.7	2.5	
U	238	1	No Gas	0.004	20.0	403	7.2	2.5	
Ca	43	2	He	-8.810	-267.9	27	94.4	100	
Sb	121	2	He	0.127	21.4	700	17.8	2.5	
Ti	47	2	He	-0.079	-163.6	27	57.3	2.5	
Cu	63	1	No Gas	0.310	3.3	7652	3.2	2.5	
Se	82	1	No Gas	-0.294	-278.7	-151	-76.5	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	738546	3.86	685403	107.75	70	120	
Ge	72	2	He	1337792	1.07	1352313	98.93	70	120	
Ge	72	1	No Gas	4902459	2.03	4920574	99.63	70	120	
In	115	1	No Gas	2055863	2.54	2041150	100.72	70	120	
Bi	209	1	No Gas	2095421	1.16	1967911	106.48	70	120	



Sample Report

Sample Table

Sample Name MBLK-201061
 Data File Name 164SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:35:29-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	-0.008	-0.008	-2044.87	43285	0.00	2000	
Be	9	1	No Gas	-0.007	-0.007	-26.86	5	-0.14	2000	
V	51	2	He	0.011	0.011	266.82	1841	0.00	2000	
Cr	52	2	He	-0.028	-0.028	-101.80	1874	0.00	2000	
Fe	56	2	He	0.660	0.660	8.99	16794	0.00	200000	
Se	78	2	He	-0.493	-0.493	-40.92	172	-0.29	2000	
As	75	2	He	0.009	0.009	94.90	138	0.01	2000	
Ca	44	2	He	-4.328	-4.328	-388.05	8453	-0.05	200000	
Na	23	2	He	53.150	53.150	4.67	129722	0.04	200000	
Mg	24	2	He	13.977	13.977	0.48	4834	0.29	200000	
K	39	2	He	-3.632	-3.632	-45.87	69726	-0.01	200000	
Mn	55	2	He	0.106	0.106	22.77	650	0.02	2000	
Co	59	2	He	-0.002	-0.002	-108.30	47	0.00	2000	
Ni	60	2	He	-0.028	-0.028	-61.64	307	-0.01	2000	
Cu	63	2	He	0.190	0.190	23.68	3430	0.01	2000	
Zn	66	2	He	-0.339	-0.339	-34.22	540	-0.06	2000	
Al	27	2	He	3.627	3.627	7.03	3140	0.12	2000	
B	11	1	No Gas	3.072	3.072	39.12	63707	0.00	2000	
Al	27	1	No Gas	4.669	4.669	5.29	192414	0.00	2000	
Si	28	1	No Gas	42.660	42.660	4.85	2631131	0.00	2000	
Ag	107	1	No Gas	0.016	0.016	5.48	467	0.00	2000	
Cd	111	1	No Gas	-0.002	-0.002	-157.81	7	-0.02	2000	
Sr	88	1	No Gas	-0.010	-0.010	-31.13	1080	0.00	2000	
Mo	95	1	No Gas	0.021	0.021	14.76	177	0.01	2000	
Sn	118	1	No Gas	0.102	0.102	32.34	3891	0.00	2000	
Sb	121	1	No Gas	0.031	0.031	3.12	617	0.01	2000	
Ba	137	1	No Gas	0.019	0.019	180.33	250	0.01	2000	
Tl	205	1	No Gas	-0.005	-0.005	-25.74	410	0.00	2000	
Tl	203	1	No Gas	0.002	0.002	130.37	187	0.00	2000	
Pb	208	1	No Gas	-0.198	-0.198	-1.54	2177	-0.01	2000	
U	238	1	No Gas	0.000	0.000	1057.15	253	0.00	2000	
Ca	43	2	He	5.573	5.573	678.91	43	12.86	200000	
Sb	121	2	He	0.016	0.016	22.76	223	0.01	2000	
Ti	47	2	He	0.022	0.022	717.99	40	0.06	2000	
Cu	63	1	No Gas	0.241	0.241	6.39	7205	0.00	2000	
Zn	66	1	No Gas	-0.299	-0.299	-27.32	1904	-0.02	2000	
Se	82	1	No Gas	0.489	0.489	229.95	-44	-1.11	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	768741	2.94	685403	112.16	70	120	
Ge	72	2	He	1372269	0.54	1352313	101.48	70	120	



Sample Report

Ge	72	1	No Gas	5080271	0.84	4920574	103.25	70	120	
In	115	1	No Gas	2135732	2.26	2041150	104.63	70	120	
Bi	209	1	No Gas	2159308	2.55	1967911	109.73	70	120	



Sample Report

Sample Table

Sample Name HS23090958-01SD
 Data File Name 166SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:40:01-05:00
 Sample Type Sample
 Dilution 100
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.712	71.171	14.45	49018	0.00	2000	
Be	9	1	No Gas	-0.007	-0.710	-26.83	5	-0.14	2000	
V	51	2	He	0.251	25.126	17.34	2594	0.01	2000	
Cr	52	2	He	0.025	2.538	108.54	2017	0.00	2000	
Fe	56	2	He	0.155	15.470	10.29	14404	0.00	200000	
Se	78	2	He	-0.526	-52.648	-52.29	164	-0.32	2000	
As	75	2	He	0.019	1.893	72.18	139	0.01	2000	
Ca	44	2	He	478.199	47819.882	3.69	16834	2.84	200000	
Na	23	2	He	3579.305	357930.503	3.85	1974185	0.18	200000	
Mg	24	2	He	373.613	37361.337	3.49	117839	0.32	200000	
K	39	2	He	55.325	5532.516	20.03	87262	0.06	200000	
Mn	55	2	He	0.064	6.428	74.76	517	0.01	2000	
Co	59	2	He	0.000	0.020	2018.60	60	0.00	2000	
Ni	60	2	He	0.171	17.096	15.23	630	0.03	2000	
Cu	63	2	He	0.135	13.463	15.77	3047	0.00	2000	
Zn	66	2	He	-0.140	-13.971	-65.18	687	-0.02	2000	
Al	27	2	He	-1.162	-116.244	-63.02	2250	-0.05	2000	
B	11	1	No Gas	9.018	901.773	4.32	69720	0.01	2000	
Al	27	1	No Gas	-0.374	-37.448	-70.78	130834	0.00	2000	
Si	28	1	No Gas	34.213	3421.345	12.13	2449768	0.00	2000	
Ag	107	1	No Gas	0.010	1.015	50.36	380	0.00	2000	
Cd	111	1	No Gas	0.000	-0.003	-14302.14	10	0.00	2000	
Sr	88	1	No Gas	17.508	1750.781	3.65	379331	0.00	2000	
Mo	95	1	No Gas	0.068	6.827	12.29	377	0.02	2000	
Sn	118	1	No Gas	-0.101	-10.081	-24.88	2270	0.00	2000	
Sb	121	1	No Gas	0.013	1.316	56.85	407	0.00	2000	
Ba	137	1	No Gas	0.218	21.766	12.97	900	0.02	2000	
Tl	205	1	No Gas	-0.006	-0.622	-41.84	357	0.00	2000	
Tl	203	1	No Gas	-0.003	-0.260	-86.74	137	0.00	2000	
Pb	208	1	No Gas	-0.211	-21.123	-1.05	1643	-0.01	2000	
U	238	1	No Gas	0.124	12.445	8.58	4838	0.00	2000	
Ca	43	2	He	464.635	46463.484	18.77	530	87.66	200000	
Sb	121	2	He	0.020	1.972	128.54	230	0.01	2000	
Ti	47	2	He	-0.049	-4.894	-346.18	30	-0.16	2000	
Cu	63	1	No Gas	0.132	13.233	17.22	5788	0.00	2000	
Zn	66	1	No Gas	-0.198	-19.839	-10.53	2077	-0.01	2000	
Se	82	1	No Gas	0.870	87.019	152.95	10	9.08	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	744500	0.46	685403	108.62	70	120	
Ge	72	2	He	1321840	1.57	1352313	97.75	70	120	
Ge	72	1	No Gas	4846762	1.10	4920574	98.50	70	120	
In	115	1	No Gas	2050869	0.71	2041150	100.48	70	120	



Sample Report

Bi	209	1	No Gas	2076659	1.22	1967911	105.53	70	120	
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Sample Report

Sample Table

Sample Name HS23090958-01PDS
 Data File Name 167SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:42:16-05:00
 Sample Type Sample
 Dilution 20
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	4.291	85.830	5.03	82473	0.01	2000	
Be	9	1	No Gas	94.906	1898.113	3.72	242843	0.04	2000	
V	51	2	He	99.812	1996.245	4.71	350066	0.03	2000	
Cr	52	2	He	98.144	1962.876	4.66	403441	0.02	2000	
Fe	56	2	He	10027.246	200544.922	5.15	35938497	0.03	200000	
Se	78	2	He	98.390	1967.792	2.49	4944	1.99	2000	
As	75	2	He	102.078	2041.555	4.27	65969	0.15	2000	
Ca	44	2	He	11915.000	238300.007	4.89	227381	5.24	200000	
Na	23	2	He	26582.417	531648.346	4.61	14323664	0.19	200000	
Mg	24	2	He	12321.113	246422.268	5.66	3956091	0.31	200000	
K	39	2	He	10442.832	208856.639	3.92	3707033	0.28	200000	
Mn	55	2	He	98.583	1971.652	5.38	266775	0.04	2000	
Co	59	2	He	95.671	1913.425	4.58	650793	0.01	2000	
Ni	60	2	He	98.917	1978.345	4.83	170504	0.06	2000	
Cu	63	2	He	99.140	1982.803	4.85	466137	0.02	2000	
Zn	66	2	He	98.333	1966.659	6.05	84154	0.12	2000	
Al	27	2	He	96.270	1925.397	7.18	18386	0.52	2000	
B	11	1	No Gas	42.372	847.448	2.66	112255	0.04	2000	
Al	27	1	No Gas	105.317	2106.343	4.66	1240083	0.01	2000	
Si	28	1	No Gas	204.925	4098.508	4.14	3686819	0.01	2000	
Ag	107	1	No Gas	102.601	2052.028	3.27	1255743	0.01	2000	
Cd	111	1	No Gas	102.778	2055.568	2.23	232191	0.04	2000	
Sr	88	1	No Gas	91.347	1826.935	3.24	1950555	0.00	2000	
Mo	95	1	No Gas	99.897	1997.946	3.20	428469	0.02	2000	
Sn	118	1	No Gas	-0.092	-1.834	-41.11	2310	0.00	2000	
Sb	121	1	No Gas	94.618	1892.357	3.92	970854	0.01	2000	
Ba	137	1	No Gas	103.428	2068.567	2.39	339453	0.03	2000	
Tl	205	1	No Gas	108.353	2167.056	0.51	2442751	0.00	2000	
Tl	203	1	No Gas	99.535	1990.705	2.06	939052	0.01	2000	
Pb	208	1	No Gas	98.359	1967.188	0.45	3286848	0.00	2000	
U	238	1	No Gas	0.604	12.087	1.35	22104	0.00	2000	
Ca	43	2	He	11607.952	232159.044	5.38	12646	91.79	200000	
Sb	121	2	He	95.177	1903.547	4.52	414444	0.02	2000	
Ti	47	2	He	98.302	1966.037	5.05	11972	0.82	2000	
Cu	63	1	No Gas	97.039	1940.773	3.10	979764	0.01	2000	
Zn	66	1	No Gas	101.991	2039.823	3.64	266297	0.04	2000	
Se	82	1	No Gas	99.318	1986.350	3.88	13504	0.74	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	729584	1.32	685403	106.45	70	120	
Ge	72	2	He	1348882	1.31	1352313	99.75	70	120	
Ge	72	1	No Gas	4865455	1.64	4920574	98.88	70	120	
In	115	1	No Gas	2026569	1.08	2041150	99.29	70	120	



Sample Report

Bi	209	1	No Gas	2033502	1.43	1967911	103.33	70	120	
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Sample Report

Sample Table

Sample Name HS23090713-01
 Data File Name 168SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:44:29-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	37.916	37.916	3.05	410509	0.01	2000	
Be	9	1	No Gas	0.078	0.078	39.46	225	0.03	2000	
V	51	2	He	0.932	0.932	2.78	5101	0.02	2000	
Cr	52	2	He	4.647	4.647	4.51	21287	0.02	2000	
Fe	56	2	He	918.284	918.284	4.70	3354539	0.03	200000	
Se	78	2	He	0.575	0.575	25.73	224	0.26	2000	
As	75	2	He	1.269	1.269	4.10	963	0.13	2000	
Ca	44	2	He	27731.323	27731.323	3.57	526048	5.27	200000	
Na	23	2	He	598115.345	598115.345	3.52	325071602	0.18	200000	>LDR
Mg	24	2	He	26920.463	26920.463	3.10	8777359	0.31	200000	
K	39	2	He	2632.424	2632.424	2.87	1001802	0.26	200000	
Mn	55	2	He	181.100	181.100	3.06	497363	0.04	2000	
Co	59	2	He	3.418	3.418	2.48	23668	0.01	2000	
Ni	60	2	He	12.836	12.836	3.00	22776	0.06	2000	
Cu	63	2	He	14.912	14.912	3.42	73335	0.02	2000	
Zn	66	2	He	99.397	99.397	3.44	86367	0.12	2000	
Al	27	2	He	157.048	157.048	4.11	28864	0.54	2000	
B	11	1	No Gas	36.940	36.940	6.62	106244	0.03	2000	
Al	27	1	No Gas	155.459	155.459	3.05	1831348	0.01	2000	
Si	28	1	No Gas	7233.911	7233.911	2.07	56243782	0.01	2000	>LDR
Ag	107	1	No Gas	0.014	0.014	74.56	430	0.00	2000	
Cd	111	1	No Gas	0.223	0.223	7.96	520	0.04	2000	
Sr	88	1	No Gas	511.663	511.663	0.72	11065743	0.00	2000	
Mo	95	1	No Gas	2.946	2.946	3.28	12883	0.02	2000	
Sn	118	1	No Gas	0.003	0.003	498.79	3024	0.00	2000	
Sb	121	1	No Gas	2.208	2.208	4.37	23769	0.01	2000	
Ba	137	1	No Gas	222.584	222.584	1.12	740083	0.03	2000	
Tl	205	1	No Gas	0.017	0.017	33.51	860	0.00	2000	
Tl	203	1	No Gas	0.019	0.019	21.25	330	0.01	2000	
Pb	208	1	No Gas	0.264	0.264	5.01	16998	0.00	2000	
U	238	1	No Gas	1.068	1.068	1.28	37876	0.00	2000	
Ca	43	2	He	28182.326	28182.326	3.95	31122	90.55	200000	
Sb	121	2	He	2.297	2.297	1.79	10308	0.02	2000	
Ti	47	2	He	1.301	1.301	48.79	197	0.66	2000	
Cu	63	1	No Gas	14.950	14.950	2.03	160443	0.01	2000	
Zn	66	1	No Gas	97.312	97.312	2.57	263572	0.04	2000	
Se	82	1	No Gas	1.464	1.464	60.57	95	1.54	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	737956	3.40	685403	107.67	70	120	
Ge	72	2	He	1369656	1.78	1352313	101.28	70	120	
Ge	72	1	No Gas	5043929	1.24	4920574	102.51	70	120	
In	115	1	No Gas	2053533	0.92	2041150	100.61	70	120	
Bi	209	1	No Gas	1980877	0.44	1967911	100.66	70	120	



Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name CCV
 Data File Name 174_CCV.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T17:02:34-05:00
 Sample Type CCV
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	92.517	6.620	923047	5.75	100	92.5	90	110	
Be	9	1	No Gas	88.015	3.904	223243	3.38	100	88.0	90	110	CCV Main CR1-2 Failed
V	51	2	He	91.096	1.951	319894	1.62	100	91.1	90	110	
Cr	52	2	He	91.567	2.851	376810	2.36	100	91.6	90	110	
Fe	56	2	He	9131.347	2.321	32753878	1.98	10000	91.3	90	110	
Se	78	2	He	92.259	2.072	4650	1.50	100	92.3	90	110	
As	75	2	He	89.459	2.056	57869	1.55	100	89.5	90	110	CCV Main CR1-2 Failed
Ca	44	2	He	9156.214	1.684	176812	1.37	10000	91.6	90	110	
Na	23	2	He	9521.056	2.004	5197520	1.33	10000	95.2	90	110	
Mg	24	2	He	9447.945	2.056	3036276	1.90	10000	94.5	90	110	
K	39	2	He	9294.218	1.469	3309182	1.12	10000	92.9	90	110	
Mn	55	2	He	91.782	1.562	248603	1.22	100	91.8	90	110	
Co	59	2	He	88.352	1.963	601438	1.54	100	88.4	90	110	CCV Main CR1-2 Failed
Ni	60	2	He	91.531	1.684	157910	1.14	100	91.5	90	110	
Cu	63	2	He	91.267	1.589	429641	1.34	100	91.3	90	110	
Zn	66	2	He	91.899	3.384	78758	2.72	100	91.9	90	110	
Al	27	2	He	89.194	4.438	17231	3.20	100	89.2	90	110	CCV Main CR1-2 Failed
B	11	1	No Gas	425.072	2.416	610908	1.58	500	85.0	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	97.114	5.517	1147862	3.16	100	97.1	90	110	
Si	28	1	No Gas	469.011	6.691	5555796	2.33	5000	9.4	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	90.638	7.529	1106718	6.69	100	90.6	90	110	
Cd	111	1	No Gas	94.829	3.666	213747	2.72	100	94.8	90	110	
Sr	88	1	No Gas	95.262	4.717	2029238	3.73	100	95.3	90	110	
Mo	95	1	No Gas	92.567	4.426	396150	3.49	100	92.6	90	110	
Sn	118	1	No Gas	88.306	4.123	635058	3.15	100	88.3	90	110	CCV Main CR1-2 Failed
Sb	121	1	No Gas	91.364	5.119	932417	3.40	100	91.4	90	110	
Ba	137	1	No Gas	95.363	5.103	312260	4.15	100	95.4	90	110	
Tl	205	1	No Gas	93.400	6.370	2096248	4.69	100	93.4	90	110	
Tl	203	1	No Gas	84.423	5.914	792871	4.09	100	84.4	90	110	CCV Main CR1-2 Failed
Pb	208	1	No Gas	90.997	4.746	3028482	3.16	100	91.0	90	110	
U	238	1	No Gas	94.715	4.562	3413787	2.94	100	94.7	90	110	
Ca	43	2	He	9196.900	6.324	10034	5.75	10000	92.0	90	110	
Sb	121	2	He	91.965	1.784	400762	1.51	100	92.0	90	110	
Ti	47	2	He	89.116	0.771	10864	1.36	100	89.1	90	110	CCV Main CR1-2 Failed
Cu	63	1	No Gas	89.869	5.128	902724	3.39	100	89.9	90	110	CCV Main CR1-2 Failed
Se	82	1	No Gas	94.264	8.198	12739	6.76	100	94.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	723080	0.63	685403	105.50	70	120	
Ge	72	2	He	1349499	0.67	1352313	99.79	70	120	
Ge	72	1	No Gas	4839999	1.73	4920574	98.36	70	120	
In	115	1	No Gas	2022217	1.02	2041150	99.07	70	120	
Bi	209	1	No Gas	2025930	1.97	1967911	102.95	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name CCB
 Data File Name 175_CCB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T17:04:46-05:00
 Sample Type CCB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.074	-45.9	41123	0.3	0.5	
Be	9	1	No Gas	-0.003	-59.4	15	33.3	0.5	
V	51	2	He	-0.005	-459.1	1768	4.0	2.5	
Cr	52	2	He	-0.003	-1659.7	1960	8.9	2.5	
Fe	56	2	He	0.442	18.2	15879	3.0	100	
Se	78	2	He	-0.111	-42.4	189	1.6	2	
As	75	2	He	0.031	71.3	151	10.2	2.5	
Ca	44	2	He	-10.011	-149.3	8283	4.6	100	
Na	23	2	He	52.713	8.5	128450	0.9	100	
Mg	24	2	He	0.479	79.8	420	29.0	100	
K	39	2	He	-13.637	-33.9	65646	1.3	100	
Mn	55	2	He	0.050	37.8	493	11.9	2.5	
Co	59	2	He	0.005	66.7	93	24.7	2.5	
Ni	60	2	He	0.089	68.2	507	20.7	2.5	
Cu	63	2	He	0.035	30.2	2667	2.2	2	
Zn	66	2	He	0.206	64.4	1003	12.2	2.5	
Al	27	2	He	-1.983	-47.9	2180	7.5	5	
B	11	1	No Gas	7.379	16.3	67220	2.3	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.248	-17.8	121181	0.9	5	
Si	28	1	No Gas	-6.747	-37.4	2146938	1.9	10	
Ag	107	1	No Gas	0.009	33.8	373	10.1	2.5	
Cd	111	1	No Gas	0.000	-8855.9	10	100.0	1	
Sr	88	1	No Gas	-0.023	-9.4	753	6.5	2.5	
Mo	95	1	No Gas	0.039	22.8	250	16.0	2.5	
Sn	118	1	No Gas	-0.003	-848.3	3000	7.0	5	
Sb	121	1	No Gas	0.108	14.4	1367	10.1	2.5	
Ba	137	1	No Gas	0.025	66.3	263	20.9	2.5	
Tl	205	1	No Gas	0.145	58.3	3757	48.4	1	
Tl	203	1	No Gas	0.149	43.6	1567	36.9	1	
Pb	208	1	No Gas	-0.200	-4.0	1997	11.7	2.5	
U	238	1	No Gas	0.004	28.9	387	12.2	2.5	
Ca	43	2	He	-18.446	-103.7	17	124.9	100	
Sb	121	2	He	0.072	20.0	467	12.4	2.5	
Ti	47	2	He	-0.112	-109.1	23	65.5	2.5	
Cu	63	1	No Gas	0.041	104.7	4851	9.7	2.5	
Se	82	1	No Gas	0.446	210.7	-48	-267.9	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	741226	0.64	685403	108.14	70	120	
Ge	72	2	He	1361528	1.29	1352313	100.68	70	120	
Ge	72	1	No Gas	4825913	1.45	4920574	98.08	70	120	
In	115	1	No Gas	2064835	0.75	2041150	101.16	70	120	
Bi	209	1	No Gas	2052383	2.22	1967911	104.29	70	120	

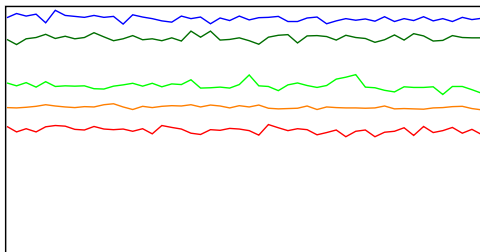


Tune Check Report

Operator Name ALSHS NoUser
Acq/Data Batch C:\Agilent\ICPMH\1\DATA\093023.b
Acq. Date-Time 9/30/2023 9:14:38 AM
Report Comment ---
Instrument Name G8422A SG22121190

[No Gas]

Sensitivity



Sampling Period [sec] 0.514

Integration Time [sec] 0.1

Mass	Range	Count	Resp [cps/(ug/L)]	Resp (Required) [cps/(ug/L)]	Resp (Flag)
9	5000	2514	25139.68		
24	20000	13667	136672.07		
59	20000	19128	191281.60		
115	50000	29828	298283.04		
208	20000	17548	175482.80		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.418	5.000	
24	2.312	5.000	
59	1.188	5.000	
115	0.971	5.000	
208	1.369	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	5.700		
24	1.200		
59	0.700		
115	1.900		
208	4.200		

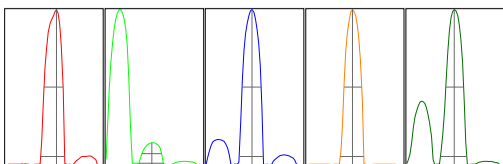
Oxide/Doubly Charged Ratio

Oxide 156 / 140 0.596 %

Doubly Charged 70 / 140 5.076 %

Tune Check Report

Resolution/Axis



Integration Time [sec] 0.1
 Acquisition Time [sec] 37.4
 Y Axis Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	2540.38	9.10	8.90 - 9.10	
24	13172.82	23.95	23.90 - 24.10	
59	19191.78	58.95	58.90 - 59.10	
115	29627.58	114.95	114.90 - 115.10	
208	17478.39	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.58	0.730		
24	0.60	0.740		
59	0.58	0.737		
115	0.54	0.715		
208	0.55	0.805		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.80 L/min	Dilution Gas	0.27 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.0 V	Deflect	14.0 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-85 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	123	Axis Gain	0.9994	QP Bias	-3.0 V
Mass Offset	127	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	0.0 mm	Torch V	-0.2 mm
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EM

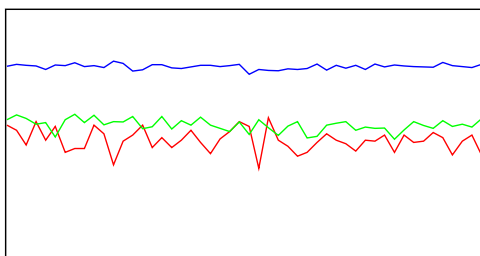
Discriminator	4.0 mV	Analog HV	2244 V	Pulse HV	1336 V
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[He]



Tune Check Report

Sensitivity



Sampling Period [sec] 0.306

Integration Time [sec] 0.1

Mass	Range	Count	Resp [cps/(ug/L)]	Resp (Required) [cps/(ug/L)]	Resp (Flag)
9	200	95	947.63		
24	1000	536	5361.03		
59	10000	7729	77287.96		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	9.421	5.000	Fail
24	4.644	5.000	
59	1.324	5.000	

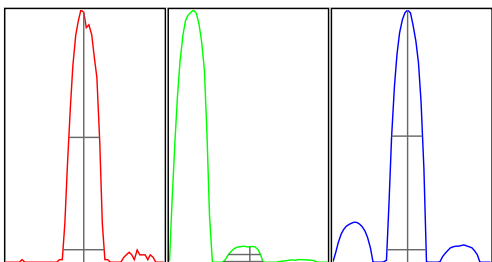
Mass	Background	Background (Required)	Background (Flag)
9	0.600		
24	0.200		
59	0.100		

Oxide/Doubly Charged Ratio

Oxide 156 / 140 0.338 %

Doubly Charged 70 / 140 2.474 %

Resolution/Axis



Integration Time [sec] 0.1

Acquisition Time [sec] 22.24

Y Axis Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	101.51	9.00	8.90 - 9.10	
24	488.85	24.05	23.90 - 24.10	
59	7810.56	58.95	58.90 - 59.10	
Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.57	0.773		
24	0.60	0.737		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.57	0.734		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.80 L/min	Dilution Gas	0.27 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.0 V	Deflect	1.0 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-95 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	123	Axis Gain	0.9994	QP Bias	-15.0 V
Mass Offset	127	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	0.0 mm	Torch V	-0.2 mm
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EM

Discriminator	4.0 mV	Analog HV	2244 V	Pulse HV	1336 V
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HS23090713 Wetchem Cr6_W

ALS WO# HS23090713

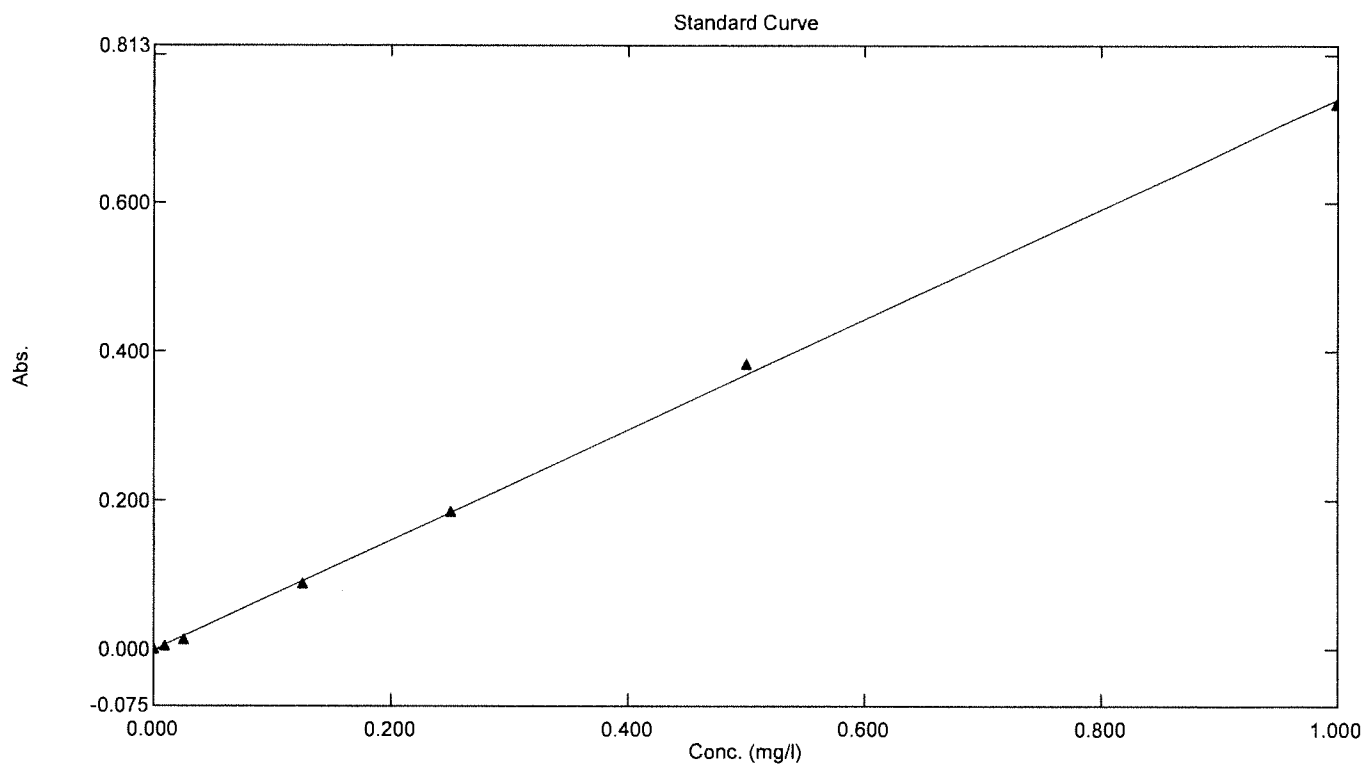


Standard Table Report

09/19/2023 05:06:08 PM

File Name: C:\Program Files

(x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\09132023CR6_Wpho..pho



Standard Table

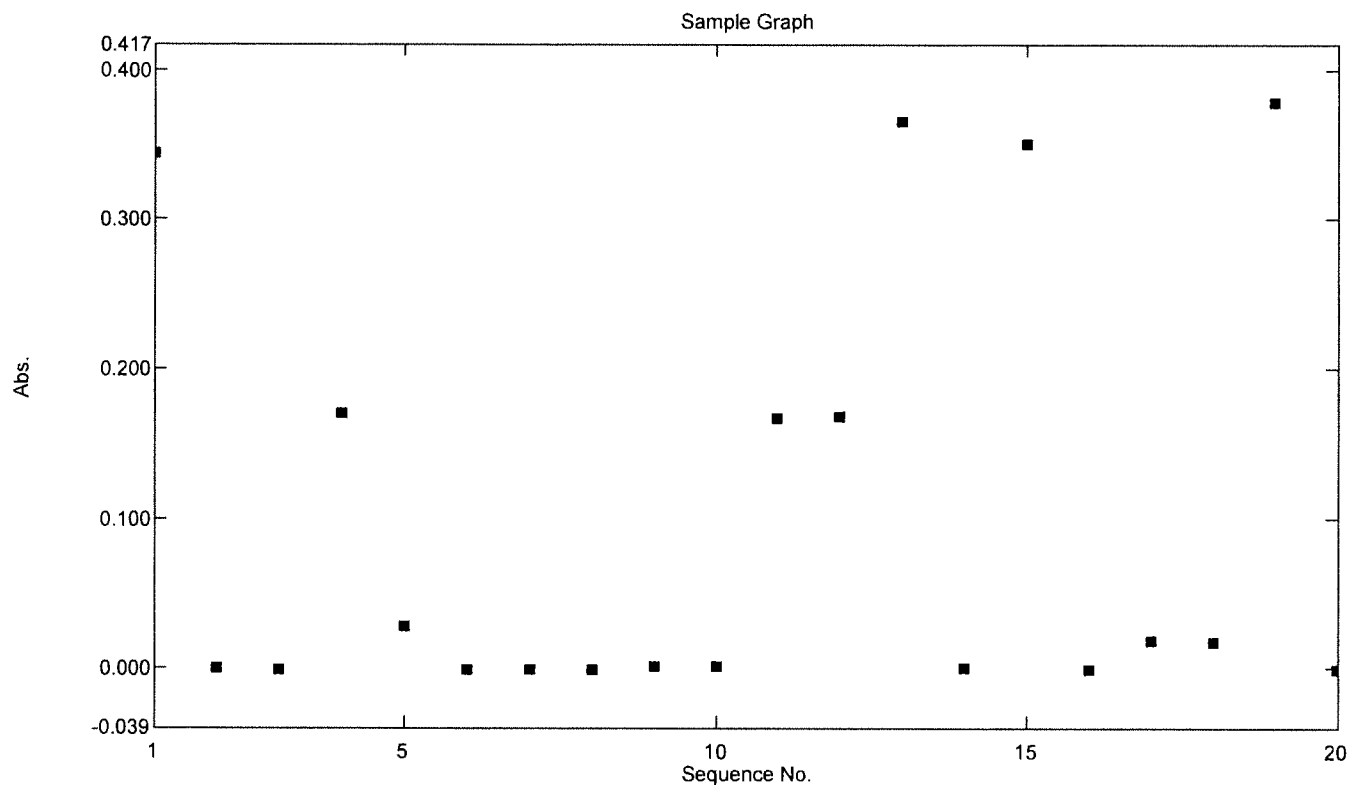
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1	STD1	Standard		0.000	0.000	1.000	
2	STD2	Standard		0.010	0.004	1.000	
3	STD3	Standard		0.025	0.013	1.000	
4	STD4	Standard		0.125	0.089	1.000	
5	STD5	Standard		0.250	0.186	1.000	
6	STD6	Standard		0.500	0.383	1.000	
7	STD7	Standard		1.000	0.733	1.000	10/13/2023
8							

Sample Table Report

09/19/2023 05:06:10 PM

File Name: C:\Program Files

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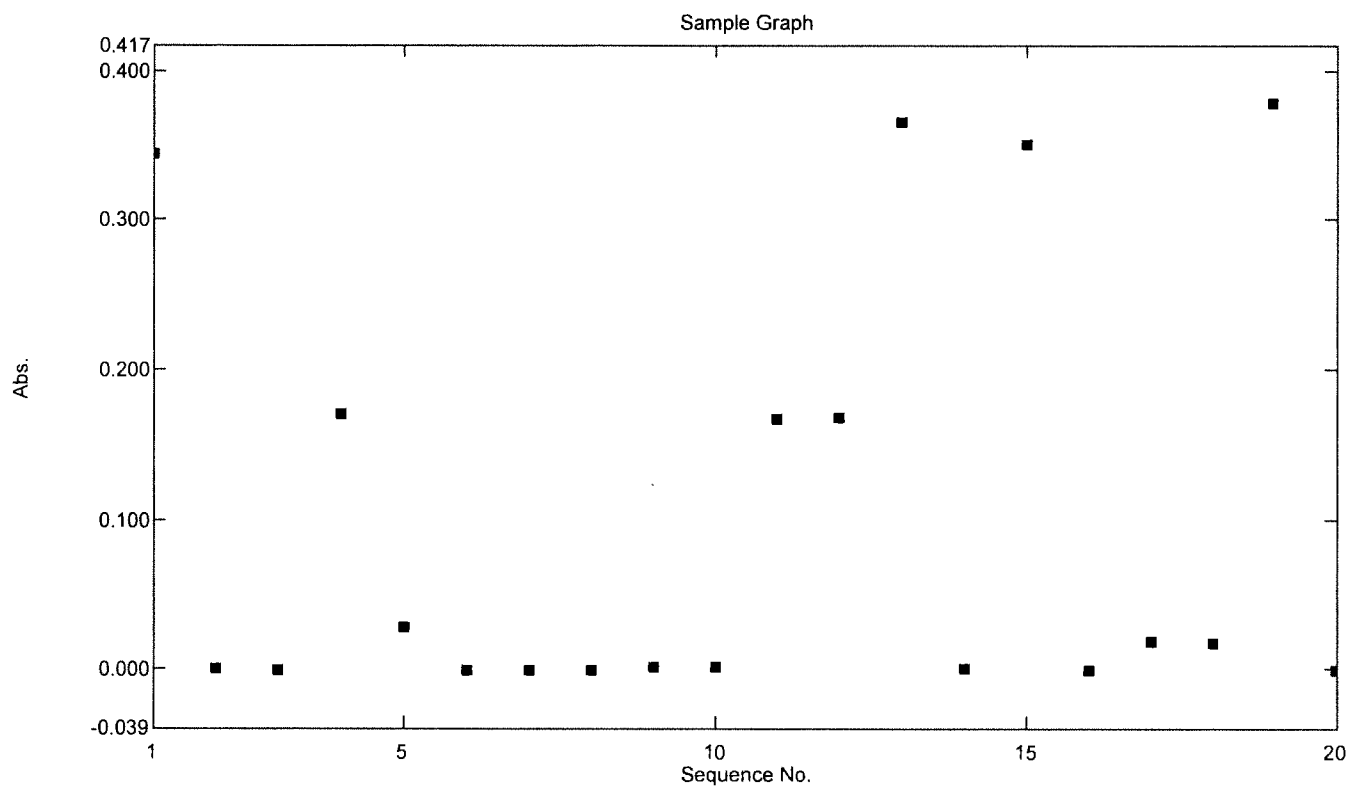
Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
1	CCV	Unknown		09/13/2023	12:09:33 PM	0.466	0.344	322144902 IC-4
2	CCB	Unknown		09/13/2023	12:09:44 PM	0.001	0.000	31000606911
3	MBLK	Unknown		09/13/2023	12:09:46 PM	0.001	-0.000	322144901 IC-4
4	LCS	Unknown		09/13/2023	12:10:16 PM	0.231	0.170	322145003 UV-03
5	HS23090652.01	Unknown		09/13/2023	12:17:02 PM	0.039	0.028	
6	HS23090652.01BKG	Unknown		09/13/2023	12:17:08 PM	0.000	-0.001	0.039
7	HS23090714.01	Unknown		09/13/2023	12:17:32 PM	-0.000	-0.001	
8	HS3090714.01BKG	Unknown		09/13/2023	12:17:34 PM	0.000	-0.001	
9	HS23090713.01	Unknown		09/13/2023	12:17:56 PM	0.004	0.002	
10	HS23090713.01BKG	Unknown		09/13/2023	12:17:58 PM	0.003	0.001	0.001
11	HS23090713.01MS	Unknown		09/13/2023	12:18:25 PM	0.227	0.167	
12	HS23090713.01MSD	Unknown		09/13/2023	12:18:27 PM	0.228	0.168	
13	CCV3	Unknown		09/13/2023	12:18:53 PM	0.495	0.366	
14	CCB3	Unknown		09/13/2023	12:19:02 PM	0.001	0.000	
15	CCV4	Unknown		09/13/2023	04:59:57 PM	0.474	0.350	
16	CCB4	Unknown		09/13/2023	05:00:12 PM	0.001	-0.000	
17	HS23090731.01	Unknown		09/13/2023	05:00:39 PM	0.026	0.018	0.001
18	HS23090731.01BKG	Unknown		09/13/2023	05:01:05 PM	0.025	0.018	
19	CCV5	Unknown		09/13/2023	05:01:27 PM	0.513	0.379	

Sample Table Report

09/19/2023 05:06:11 PM

File Name: C:\Program Files
(x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\09132023CR6_Wpho..pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
20	CCB5	Unknown		09/13/2023	05:01:39 PM	0.001	-0.000	
21								

HS23090713 E2300828 PERCH Level IV Report

ALS WO# HS23090713





September 14, 2023

Service Request No:E2300828

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS23090713

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory September 13, 2023
For your reference, these analyses have been assigned our service request number **E2300828**.

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 2190. You may also contact me via email at hussam.kelany@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Hussam Kelany
Project Manager

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





Client: ALS Environmental - US
Project: HS23090713
Sample Matrix: Water

Service Request No.: E2300828
Date Received: 9/27/2023

CASE NARRATIVE

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

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 9/27/2023.

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

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300447: 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: HS23090713

Service Request:E2300828

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E2300828-001	LH18/24-SP140_091223	9/12/2023	1300



Service Request Summary

Folder #: E2300828
Client Name: ALS Environmental - US
Project Name: HS23090713
Project Number:
Report To: James Guin
 ALS Environmental - US
 10450 Standcliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/13/23
Internal Due Date: 9/27/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090713
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

				HOUSTON
Lab Samp No.	Client Samp No	Matrix	Collected	CIO4 DOD/6850
E2300828-001	LH18/24-SP140_091223	Water	09/12/23 1300	IV



Service Request Summary

Folder #: E2300828
Client Name: ALS Environmental - US
Project Name: HS23090713
Project Number:

Report To: James Guin
 ALS Environmental - US
 10450 Standliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/13/23
Internal Due Date: 9/27/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090713
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivola GCMS	CIO4 DOD/6850	1	Level IV due 9/27



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



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
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L23-358	5/31/2025
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
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	343-2023	6/30/2024
Michigan Department of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Conservation	TN04016-2023	4/30/2024
Texas Commission on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932023-14	7/31/2024
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





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Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
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Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense

COC ID: 23145

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff Road Suite 210
Houston, TX 77084

Phone: +1 281 530 5656

**CUSTOMER
INFORMATION:**

Company: ALS Houston
Contact: James Guin
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Email: James.Guin@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: HS23090713
TSR: Houston House Acct

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
1. HS23090713-01	LH18/24-SP140_091223	Water	12 Sep 2023 13:00
6850-Perch. DOD Level II & Level IV in separate pdf			20 Sep 2023

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

QC Level: DOD IV (DoD Data Package)

E2300828
ALS Environmental - US
HS23090713

5



Relinquished By:

Date/Time:

Received By:

Date/Time:

Cooler ID(s):

Temperature(s):





Cooler Receipt Form

Project Chemist H

Client/Project

AL5

Thermometer ID

11231

Date/Time Received:

9-13-23

Initials:

gj

Date/Time Logged in:

9-13-23

Initials

gj

1. Method of delivery:

☐ US Mail☐ Fed Ex☐ UPS☐ DHL☒ ^{AL5} Courier☐ Client

2. Samples received in:

☒ Cooler☐ Box☐ Envelope☐ Other

3. Were custody seals on coolers?

☐ Yes☒ NoIf yes, how many
and where?

Were they intact?

☐ Yes☐ No☒ N/A

Were they signed and dated?

☐ Yes☐ No☒ N/A

4. Packing Material:

☐ Inserts☒ Baggies☒ Bubble Wrap☐ Gel Packs☒ Wet Ice☐ Sleeves☐ Other

5. Foreign or Regulated Soil?

☐ Yes☐ No

Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
-		9-13-23	1223	gj	3.3	☐
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)?

☒ Yes☐ No

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

☒ Yes☐ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)?

☒ Yes☐ No

9. Were appropriate bottles/containers and volumes received for the requested tests?

☒ Yes☐ No

10. Did sample labels and tags agree with custody documents?

☒ Yes☐ No

Notes, Discrepancies, & Resolutions:

Service request Label:

E2300828ALS Environmental - US
HS23090713**5**

HS-HRMSCoolerReceipt R1.0

ALS Environmental - Houston HRMS





10450 Stancliff Rd., Suite 210
Houston, TX 77099
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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

Prep Run#: 426475
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method:

Status: Prepped
Prep Date/Time: 9/14/23 08:10

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300814-001	130_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
2	E2300814-002	17WW03_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
3	E2300814-003	17WW01_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
4	E2300814-004	17WW02_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
5	E2300814-005	17WW02_090723_a	.01	6850/CIO4 DOD			Ground Water	10mL	
6	E2300814-006	17WW06_090723	.02	6850/CIO4 DOD			Ground Water	10mL	
7	E2300826-001	LH18/24-SP650_091223_BIX	.01	6850/CIO4 DOD			Water	10mL	
8	E2300826-002	LH18/24-SP650_091223_AIX	.01	6850/CIO4 DOD			Water	10mL	
9	E2300827-001	LH18/24-SP650_091223_AIX	.01	6850/CIO4 DOD			Water	10mL	
10	E2300828-001	LH18/24-SP140_091223	.01	6850/CIO4 DOD			Water	10mL	
11	EQ2300447-01	MB		6850/CIO4			Liquid	10mL	
12	EQ2300447-02	LCS		6850/CIO4			Liquid	10mL	
13	EQ2300447-03	DLCS		6850/CIO4			Liquid	10mL	
14	EQ2300447-04	17WW06_090723 MS	.02	6850/CIO4 DOD			Liquid	10mL	
15	EQ2300447-05	17WW06_090723 DMS	.02	6850/CIO4 DOD			Liquid	10mL	
16	K2310104-001	LGAC-INF-091123	.01	6850/CIO4			Water	10mL	
17	K2310104-002	LGAC-INT1-091123	.01	6850/CIO4			Water	10mL	
18	K2310104-003	LGAC-INT2-091123	.01	6850/CIO4			Water	10mL	

Spiking Solutions

Name:	Perchlorate Intermediate Stock1	Inventory ID	230342	Logbook Ref:	Perchlorate (1st Source)	Expires On:	03/07/2024
-------	---------------------------------	--------------	--------	--------------	--------------------------	-------------	------------

EQ2300447-02 1.00µL EQ2300447-02 1.00µL EQ2300447-03 1.00µL EQ2300447-03 1.00µL EQ2300447-04 1.00µL EQ2300447-05 1.00µL

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	230372	Logbook Ref:	Perchlorate Internal Standard	Expires On:	04/30/2024
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E2300814-001 100.00µL E2300814-002 100.00µL E2300814-003 100.00µL E2300814-004 100.00µL E2300814-005 100.00µL E2300814-006 100.00µL
E2300826-001 100.00µL E2300826-002 100.00µL E2300827-001 100.00µL E2300828-001 100.00µL EQ2300447-01 100.00µL EQ2300447-01 100.00µL
EQ2300447-02 100.00µL EQ2300447-02 100.00µL EQ2300447-03 100.00µL EQ2300447-03 100.00µL EQ2300447-04 100.00µL EQ2300447-05 100.00µL
K2310104-001 100.00µL K2310104-002 100.00µL K2310104-003 100.00µL

Preparation Materials

Water HPLC Grade HPLC water 5/18/23CG (229315) 6850 Amber Glass screw vial 2mL Screw Top Vial (221894) 6850 0.45um syringe filters 6850 0.45 SYRING FILTER (229979)
6850 20mM amonium acetate in H2O (230746) 6850 Luer-Lok Syringes luer-lock syringes (228116)



Preparation Information Benchsheet

Prep Run#: 426475
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method:

Status: Prepped
Prep Date/Time: 9/14/23 08:10

Preparation Steps

Step: Preparation
Started: 9/14/23 08:10
Finished: 9/14/23 09:10
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____	Date: _____	<u>Extracts Examined</u> Yes No
Received By: _____	Date: _____	



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: HS23090713
Sample Matrix: Water
Sample Name: LH18/24-SP140_091223
Lab Code: E2300828-001

Service Request: E2300828
Date Collected: 9/12/23 1300
Date Received: 9/13/23
Units: µg/L
Basis: NA

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

Analytical Method: 6850

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	14600		100	50.0	25.0	1000	9/14/23	9/14/23 11:49	426475	817192	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090713
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: EQ2300447-01

Service Request: E2300828
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

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	9/14/23	9/14/23 10:51	426475	817192	





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



Client: ALS Environmental - US
Project: HS23090713
Sample Matrix: Water

Service Request: E2300828
Date Analyzed: 9/14/23

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

Analytical Method: 6850
Prep Method:

Units: µg/L
Basis: NA

Extraction Lot: 426475

Analyte Name	Lab Control Sample EQ2300447-02			Duplicate Lab Control Sample EQ2300447-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perchlorate	0.108	0.100	108	0.114	0.100	114	84 - 119	6	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: HS23090713
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: EQ2300447-02

Service Request: E2300828
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

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	0.108		0.100	0.0500	0.0250	1	9/14/23	9/14/23 11:26	426475	817192	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090713
Sample Matrix: Water
Sample Name: Duplicate Lab Control Sample
Lab Code: EQ2300447-03

Service Request: E2300828
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

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	0.114		0.100	0.0500	0.0250	1	9/14/23	9/14/23 11:02	426475	817192	





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





20230802

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: KN

ICAL Date: 8/2/2023

Cal. Std. xp: 03/07/2024

ICAL ID: EC2300012

Mobile Phases : A:20mM ammonium acetate in water 230388 B:Acetonitrile 229152

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB	2230802-001	Perchlorate6850c.lcm	1x		8/2/2023 13:05
2	IB	2230802-002	Perchlorate6850c.lcm	1x		8/2/2023 13:11
3	Perchlorate ICAL 1	2230802-003	Perchlorate6850c.lcm	1x	230373	8/2/2023 13:17
4	Perchlorate ICAL 2	2230802-004	Perchlorate6850c.lcm	1x	230375	8/2/2023 13:23
5	Perchlorate ICAL 3	2230802-005	Perchlorate6850c.lcm	1x	230376	8/2/2023 13:28
6	Perchlorate ICAL 4	2230802-006	Perchlorate6850c.lcm	1x	230377	8/2/2023 13:34
7	Perchlorate ICAL 5	2230802-007	Perchlorate6850c.lcm	1x	230378	8/2/2023 13:39
8	Perchlorate ICAL 6	2230802-008	Perchlorate6850c.lcm	1x	230379	8/2/2023 13:45
9	Perchlorate ICAL 7	2230802-009	Perchlorate6850c.lcm	1x	230380	8/2/2023 13:50
10	Perchlorate ICAL 8	2230802-010	Perchlorate6850c.lcm	1x	230381	8/2/2023 13:56
11	Perchlorate ICAL 9	2230802-011	Perchlorate6850c.lcm	1x	230382	8/2/2023 14:02
12	Perchlorate ICAL 10	2230802-012	Perchlorate6850c.lcm	1x	230383	8/2/2023 14:07
13	PerchlorateICV	2230802-013	Perchlorate6850c.lcm	1x	230385	8/2/2023 14:19



Initial Calibration - Detailed Report

Calibration ID: EC2300012

Instrument ID: E-LCMS-01

Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300012-01	Perchlorate ICAL 1	2230802-003	08/02/2023 13:17
02	EC2300012-02	Perchlorate ICAL 2	2230802-004	08/02/2023 13:23
03	EC2300012-03	Perchlorate ICAL 3	2230802-005	08/02/2023 13:28
04	EC2300012-04	Perchlorate ICAL 4	2230802-006	08/02/2023 13:34
05	EC2300012-05	Perchlorate ICAL 5	2230802-007	08/02/2023 13:39
06	EC2300012-06	Perchlorate ICAL 6	2230802-008	08/02/2023 13:45
07	EC2300012-07	Perchlorate ICAL 7	2230802-009	08/02/2023 13:50
08	EC2300012-08	Perchlorate ICAL 8	2230802-010	08/02/2023 13:56
09	EC2300012-09	Perchlorate ICAL 9	2230802-011	08/02/2023 14:02
10	EC2300012-10	Perchlorate ICAL 10	2230802-012	08/02/2023 14:07

Analyte**Curve Fit****Weighting****Perchlorate****Average RF**

RSD = 2.086

Average RF = 0.1475

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1428	02	0.5000	0.1421	03	0.7000	0.1457	04	1.0000	0.149
05	2.0000	0.1515	06	5.0000	0.1475	07	10.0000	0.1503	08	20.0000	0.1477
09	30.0000	0.1485	10	50.0000	0.1496						

Analyte**Perchlorate**

RSE = 2.09

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0968	-3.2	02	0.5000	0.482	-3.6	03	0.7000	0.692	-1.2
04	1.0000	1.01	1.0	05	2.0000	2.05	2.7	06	5.0000	5.00	-0.0
07	10.0000	10.2	1.9	08	20.0000	20.0	0.2	09	30.0000	30.2	0.7
10	50.0000	50.7	1.4								



Initial Calibration Verification Summary Report

Calibration ID:	EC2300012	Instrument ID:	E-LCMS-01
Datafile ID:	2230802-013	Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300012-11	T	Average RF	10	10.670	ng/mL	6.7	<= 15



Insight Report

Printed at 8/3/2023 9:30:46 AM

Method File: I:\LCMS01\DATA\20230802\20230802ICAL.lcm

Project File: I:\LCMS01\DATA\20230802\20230802ICAL.dam\p

Perchlorate ICAL 1

Sample ID: Perchlorate ICAL 1

Date Acquired: 8/2/2023 1:17:39 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\20230802-003.lcd

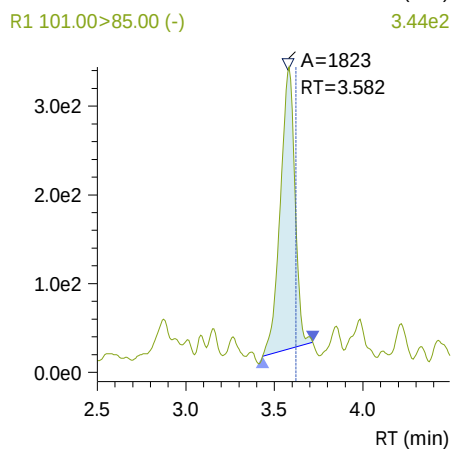
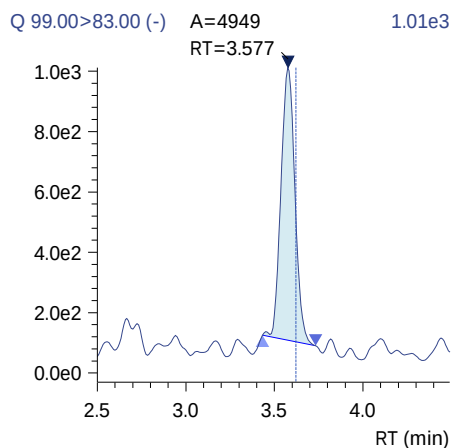
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.577	4949	346538	0.0968	ng/mL	101.00 >85.00	36.83	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.572	346538	346538	1.0000	ng/mL	----	----	

Perchlorate

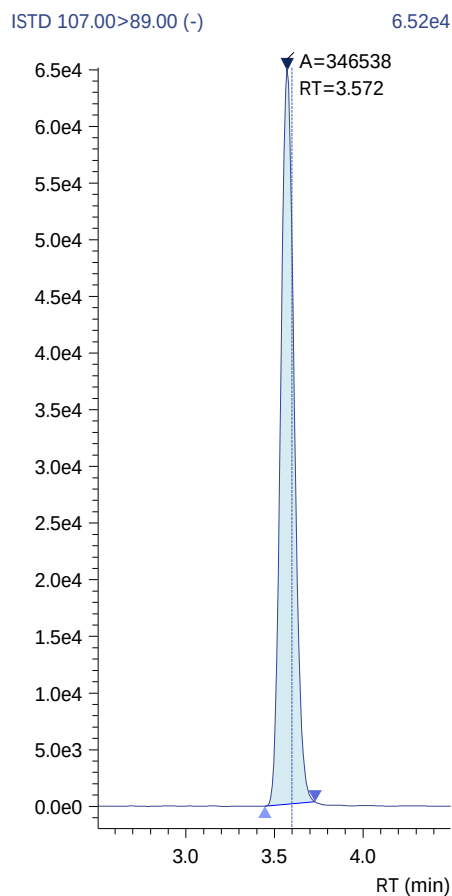
Conc 0.0968

R#1 36.83 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 2

Sample ID: Perchlorate ICAL 2

Date Acquired: 8/2/2023 1:23:13 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-004.lcd

Vial: 2 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.576	24530	345149	0.4820	ng/mL	101.00 >85.00	31.03	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.571	345149	345149	1.0000	ng/mL	----	----	

Perchlorate

Conc 0.4820

R#1 31.03 (30.41)

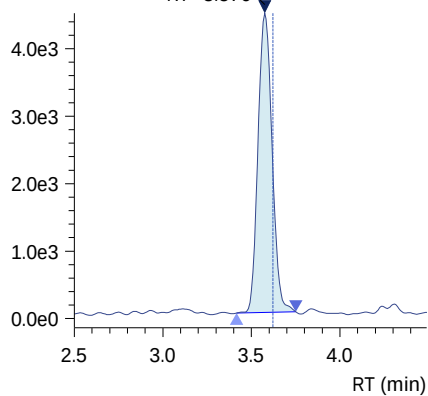
Q 99.00>83.00 (-)

A=24530
RT=3.576

4.53e3

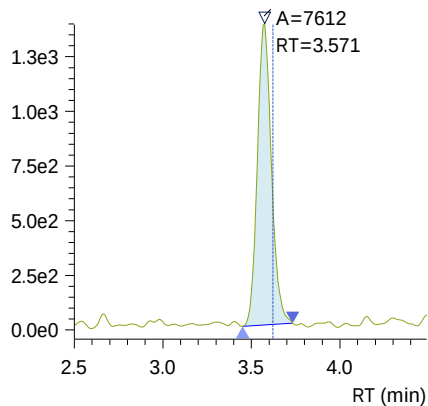
ISTD 107.00>89.00 (-)

6.45e4



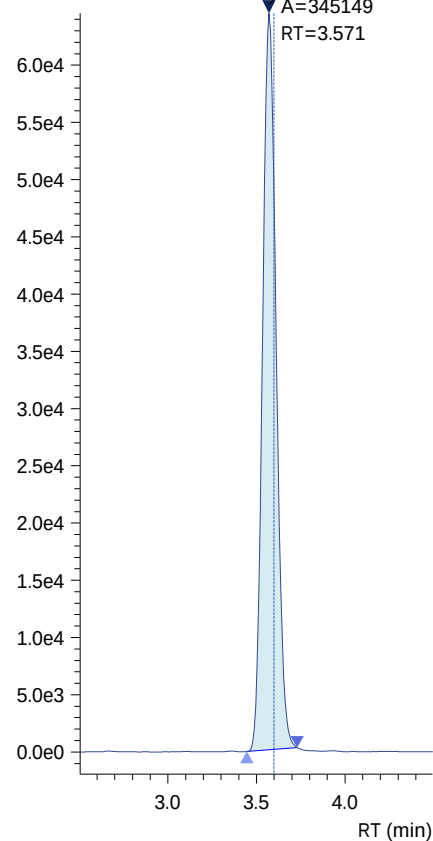
R1 101.00>85.00 (-)

1.40e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=345149
RT=3.571

Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 3

Sample ID: Perchlorate ICAL 3

Date Acquired: 8/2/2023 1:28:44 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-005.lcd

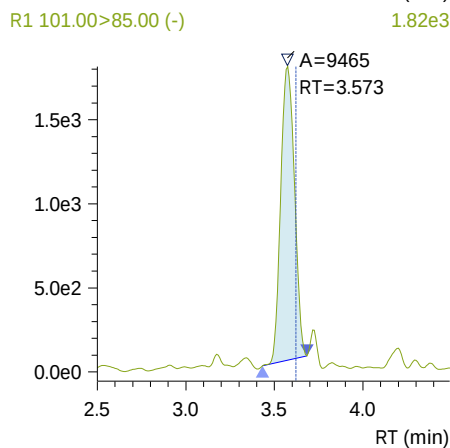
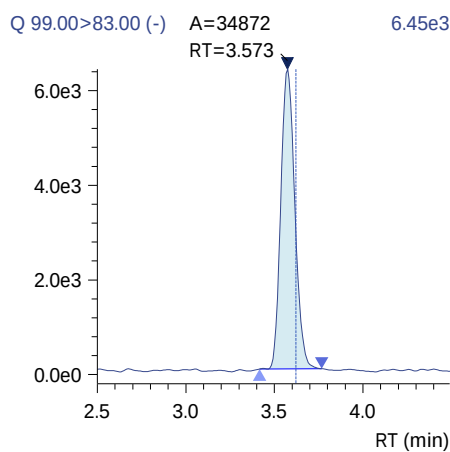
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	34872	341974	0.6915	ng/mL	101.00 >85.00	27.14	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	341974	341974	1.0000	ng/mL	----	----	

Perchlorate

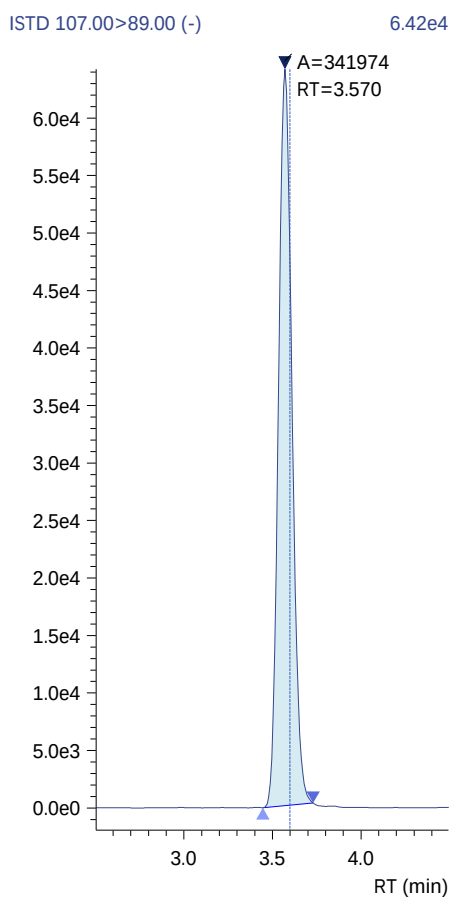
Conc 0.6915

R#1 27.14 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 4

Sample ID: Perchlorate ICAL 4

Date Acquired: 8/2/2023 1:34:20 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-006.lcd

Vial: 4 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	50483	338838	1.0104	ng/mL	101.00 >85.00	28.12	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	338838	338838	1.0000	ng/mL	----	----	

Perchlorate

Conc 1.0104

R#1 28.12 (30.41)

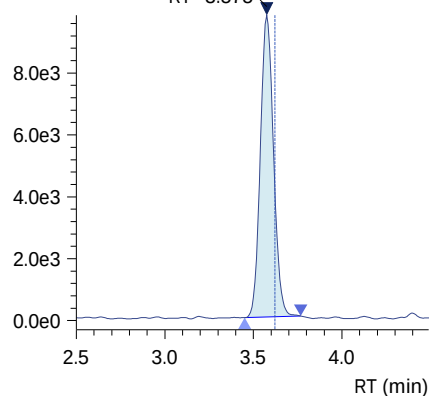
Q 99.00>83.00 (-)

A=50483
RT=3.575

9.87e3

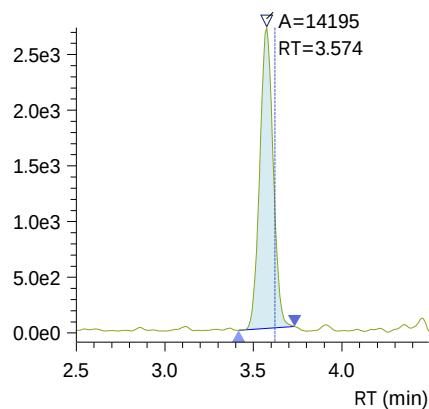
ISTD 107.00>89.00 (-)

6.49e4



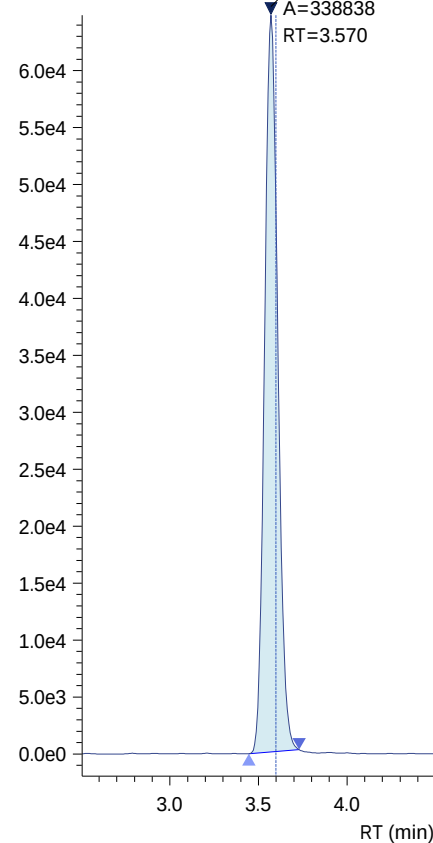
R1 101.00>85.00 (-)

2.74e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=338838
RT=3.570

Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 5

Sample ID: Perchlorate ICAL 5

Date Acquired: 8/2/2023 1:39:51 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-007.lcd

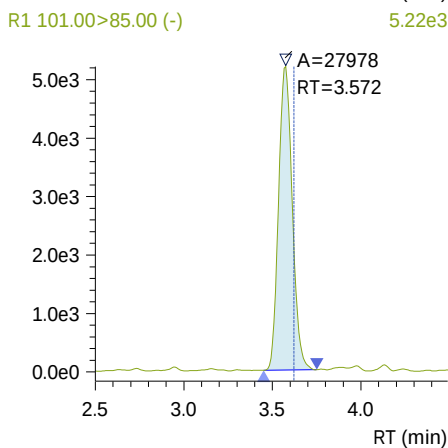
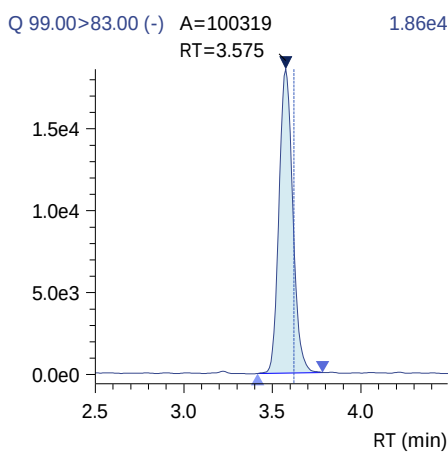
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	100319	331124	2.0545	ng/mL	101.00 >85.00	27.89	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	331124	331124	1.0000	ng/mL	----	----	

Perchlorate

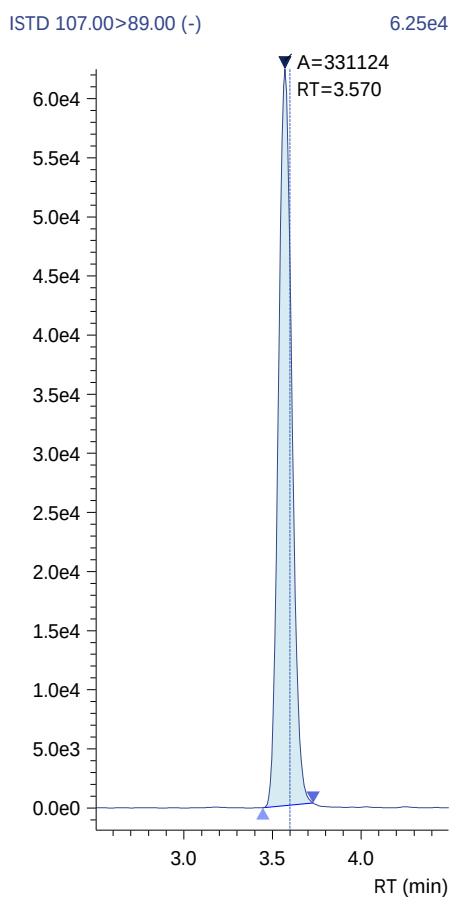
Conc 2.0545

R#1 27.89 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 6

Sample ID: Perchlorate ICAL 6

Date Acquired: 8/2/2023 1:45:24 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-008.lcd

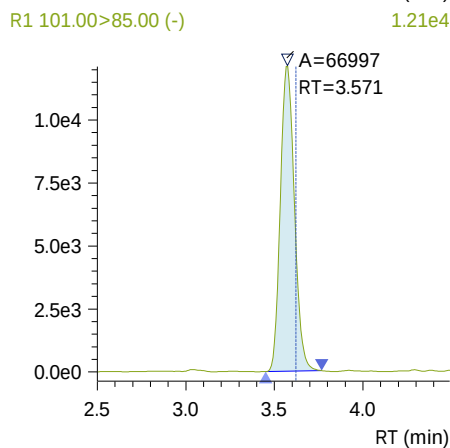
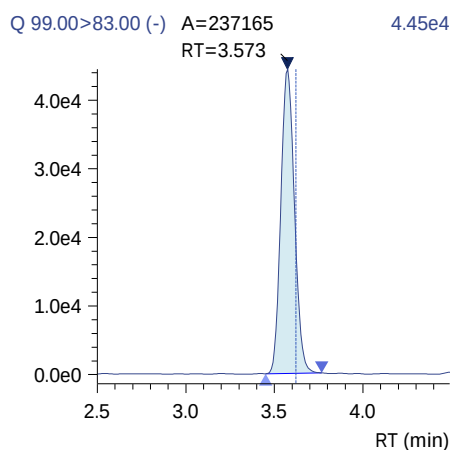
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	237165	321666	5.0000	ng/mL	101.00 >85.00	28.25	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	321666	321666	1.0000	ng/mL	----	----	

Perchlorate

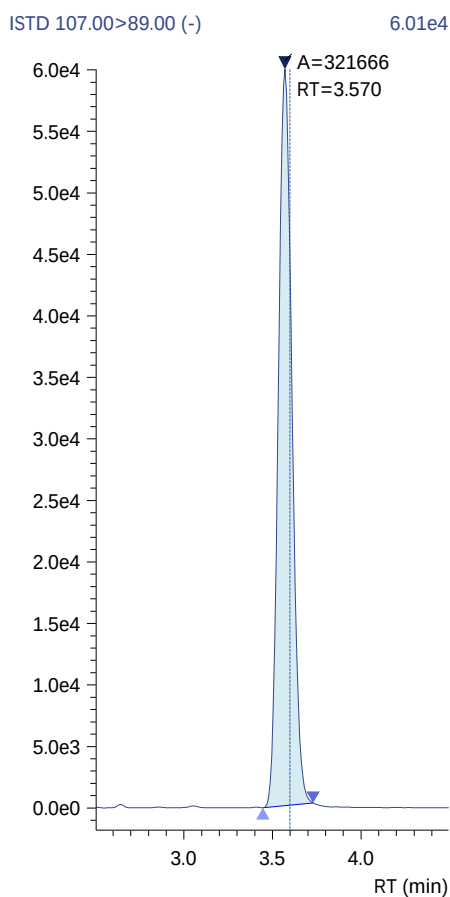
Conc 5.0000

R#1 28.25 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 7

Sample ID: Perchlorate ICAL 7

Date Acquired: 8/2/2023 1:50:57 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-009.lcd

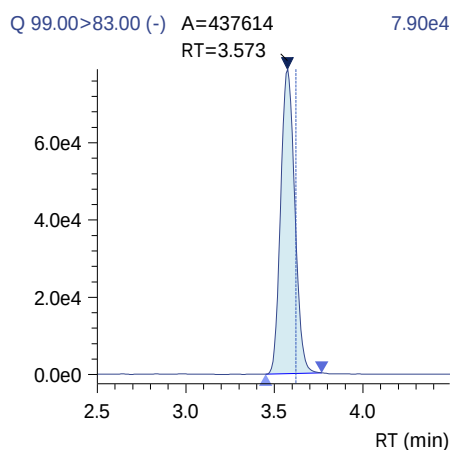
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	437614	291215	10.1905	ng/mL	101.00 >85.00	28.36	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291215	291215	1.0000	ng/mL	----	----	

Perchlorate

Conc 10.1905

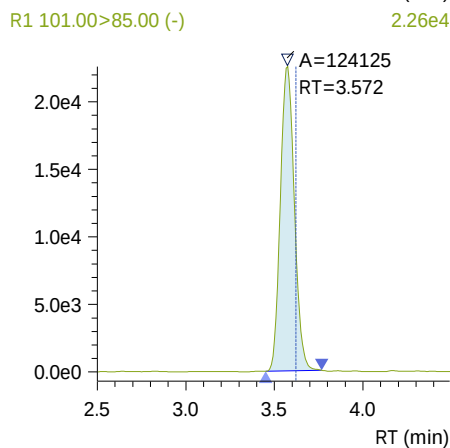
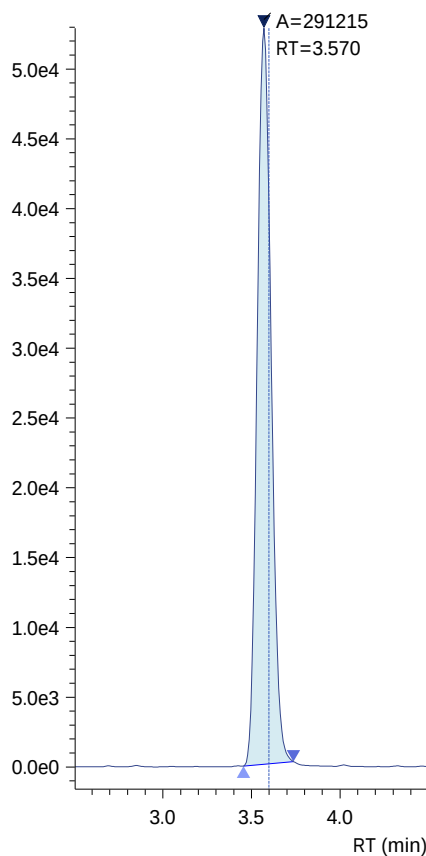
R#1 28.36 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.29e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 8

Sample ID: Perchlorate ICAL 8

Date Acquired: 8/2/2023 1:56:33 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-010.lcd

Vial: 8 | Inj. Volume: 10.0000uL | Tray: 1

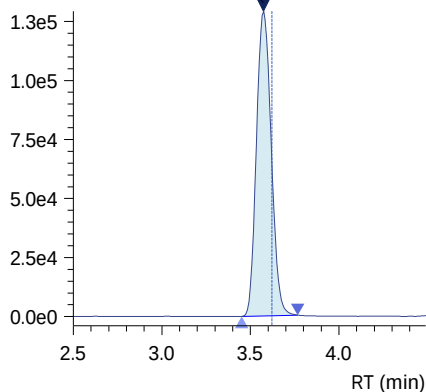
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	749856	253829	20.0336	ng/mL	101.00 >85.00	28.56	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.569	253829	253829	1.0000	ng/mL	----	----	

Perchlorate

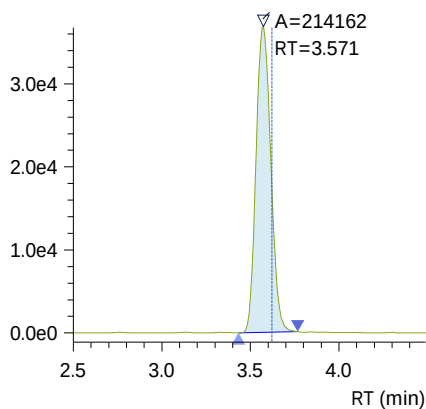
Conc 20.0336

R#1 28.56 (30.41)

Q 99.00>83.00 (-) A=749856 RT=3.574 1.29e5 ISTD 107.00>89.00 (-) 4.37e4



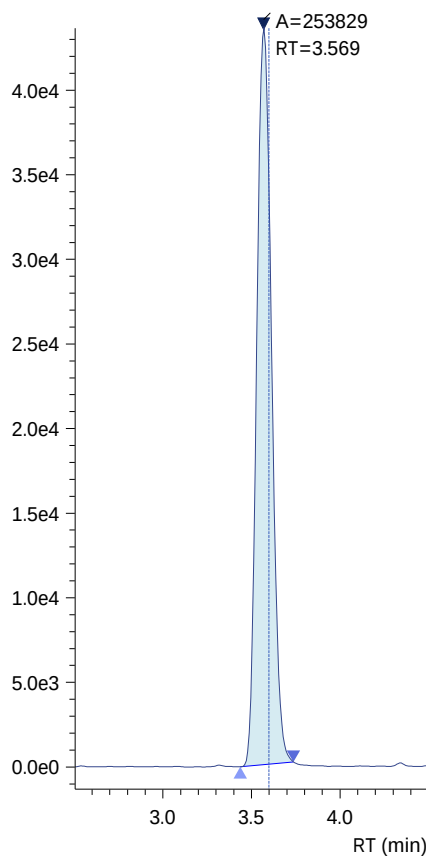
R1 101.00>85.00 (-) 3.68e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.37e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 9

Sample ID: Perchlorate ICAL 9

Date Acquired: 8/2/2023 2:02:07 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-011.lcd

Vial: 9 | Inj. Volume: 10.0000uL | Tray: 1

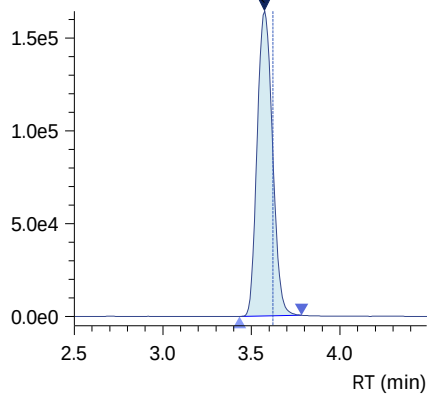
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	990671	222379	30.2105	ng/mL	101.00 >85.00	27.95	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.568	222379	222379	1.0000	ng/mL	----	----	

Perchlorate

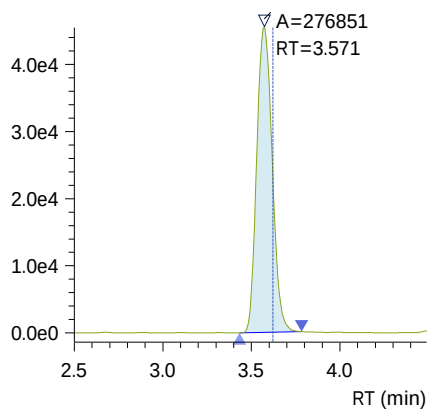
Conc 30.2105

R#1 27.95 (30.41)

Q 99.00>83.00 (-) A=990671 RT=3.574 1.64e5 ISTD 107.00>89.00 (-) 3.69e4



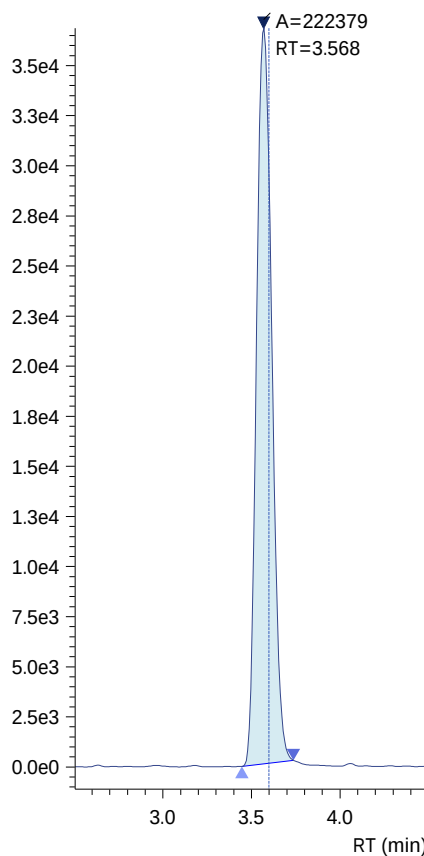
R1 101.00>85.00 (-) 4.55e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.69e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 10

Sample ID: Perchlorate ICAL 10

Date Acquired: 8/2/2023 2:07:39 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-012.lcd

Vial: 10 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	1335647	178573	50.72 20	ng/mL	101.00 >85.00	28.04	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.567	178573	178573	1.0000	ng/mL	----	----	

Perchlorate

Conc 50.7220

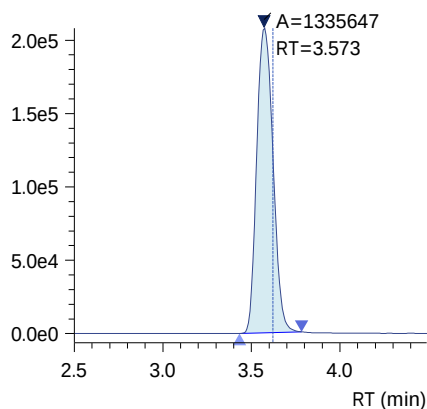
R#1 28.04 (30.41)

Q 99.00>83.00 (-)

2.08e5

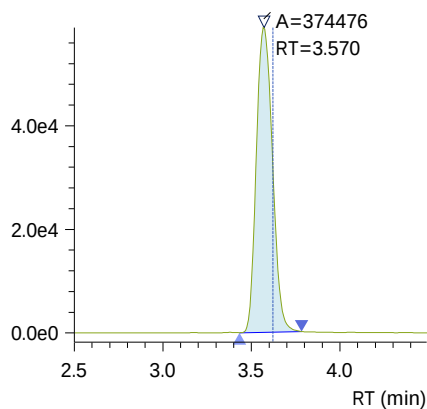
ISTD 107.00>89.00 (-)

2.78e4



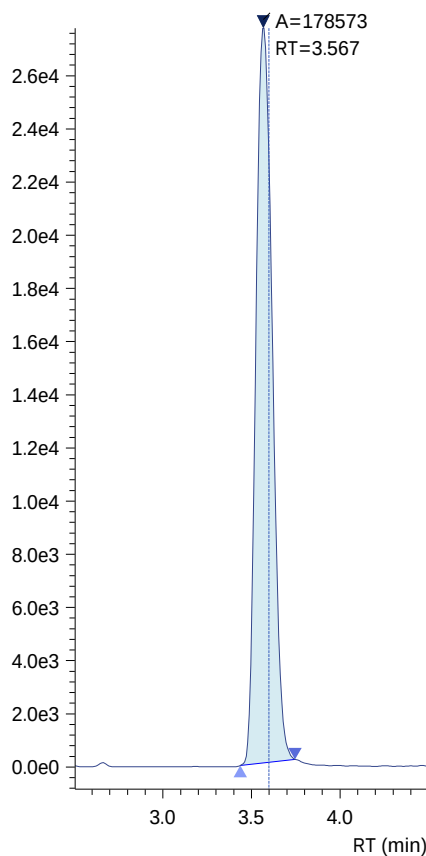
R1 101.00>85.00 (-)

5.90e4



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

PerchlorateICV

Sample ID: PerchlorateICV

Date Acquired: 8/2/2023 2:19:46 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-013.lcd

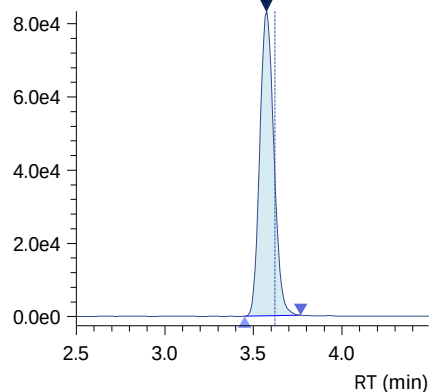
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	459277	291890	10.6703	ng/mL	101.00 >85.00	28.35	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291890	291890	1.0000	ng/mL	----	----	

Perchlorate

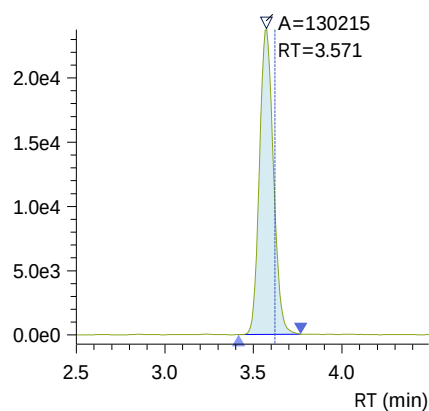
Conc 10.6703

R#1 28.35 (30.41)

Q 99.00>83.00 (-) A=459277
RT=3.574

R1 101.00>85.00 (-)

2.38e4

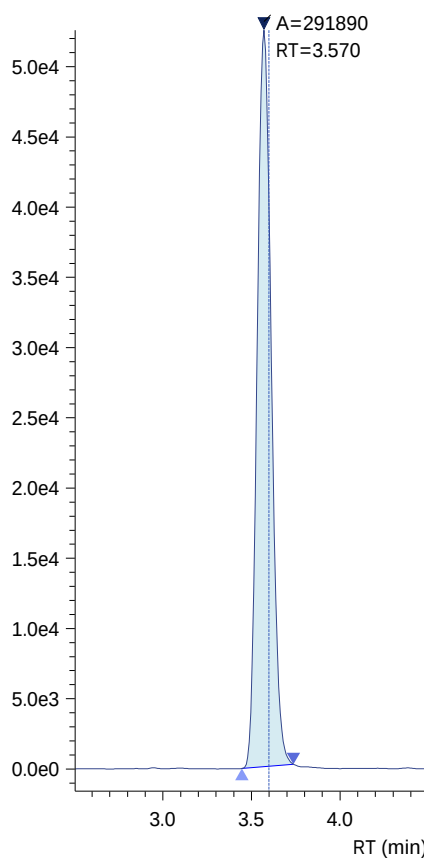


Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-)

5.26e4





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





20230914-817192

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: KN

ICAL Date: 8/2/2023

Cal. Std. xp: 02/02/2024

ICAL ID: EC2300012

Mobile Phases : A:20mM ammonium acetate in water 231240 B:Acetonitrile 229152

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB	2230914-001	Perchlorate6850c.lcm	1x		9/14/2023 9:58
2	LODV	2230914-002	Perchlorate6850c.lcm	1x	230386	9/14/2023 10:04
3	ICS	2230914-003	Perchlorate6850c.lcm	1x	32103051	9/14/2023 10:39
4	CCV	2230914-004	Perchlorate6850c.lcm	1x	230380	9/14/2023 10:44
5	EQ2300447-01	2230914-005	Perchlorate6850c.lcm	1x		9/14/2023 10:51
6	EQ2300447-03	2230914-007	Perchlorate6850c.lcm	1x		9/14/2023 11:02
7	EQ2300447-02	2230914-006	Perchlorate6850c.lcm	1x		9/14/2023 11:26
8	E2300826-001x5	2230914-008	Perchlorate6850c.lcm	5x		9/14/2023 11:32
9	E2300826-002	2230914-009	Perchlorate6850c.lcm	1x		9/14/2023 11:38
10	E2300827-001	2230914-010	Perchlorate6850c.lcm	1x		9/14/2023 11:43
11	E2300828-001x1k	2230914-011	Perchlorate6850c.lcm	1000x		9/14/2023 11:49
12	K2310104-001	2230914-012	Perchlorate6850c.lcm	1x		9/14/2023 11:54
13	K2310104-002	2230914-013	Perchlorate6850c.lcm	1x		9/14/2023 12:00
14	K2310104-003	2230914-014	Perchlorate6850c.lcm	1x		9/14/2023 12:05
15	CCV	2230914-015	Perchlorate6850c.lcm	1x	230380	9/14/2023 12:11
16	E2300814-001	2230914-016	Perchlorate6850c.lcm	1x		9/14/2023 12:17
17	E2300814-002	2230914-017	Perchlorate6850c.lcm	1x		9/14/2023 12:22
18	E2300814-003	2230914-018	Perchlorate6850c.lcm	1x		9/14/2023 12:28
19	E2300814-004x500	2230914-019	Perchlorate6850c.lcm	500x		9/14/2023 12:33
20	E2300814-005x500	2230914-020	Perchlorate6850c.lcm	500x		9/14/2023 12:39
21	E2300814-006x5k	2230914-021	Perchlorate6850c.lcm	5000x		9/14/2023 12:45
22	EQ2300447-04x5k	2230914-022	Perchlorate6850c.lcm	5000x		9/14/2023 12:50
23	EQ2300447-05x5k	2230914-023	Perchlorate6850c.lcm	5000x		9/14/2023 12:56
24	CCV	2230914-024	Perchlorate6850c.lcm	1x	230380	9/14/2023 13:07



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23090713

Service Request: E2300828
Date Analyzed: 9/14/23 10:44

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230914\2230914-004
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300448-01
Analysis Lot: 817192
Signal ID: 1

Sodium Perchlorate-18O4			
		<u>Area</u>	<u>RT</u>
ICAL Average ==>		297,129	3.57
Upper Limit ==>		445,694	5.57
Lower Limit ==>		148,565	1.57
Associated Analyses			
Continuing Calibration Verification	EQ2300448-01	276,448	3.57
Method Blank	EQ2300447-01	329,992	3.57
Duplicate Lab Control Sample	EQ2300447-03	339,139	3.57
Lab Control Sample	EQ2300447-02	347,265	3.58
LH18/24-SP140_091223	E2300828-001	283,361	3.57

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



Printed 9/14/23 13:35

Form 2B
42 of 57

\\alprews001\starlims\LIMSReps\InternalStandardSummary.rpt

SuperSet Reference: 23-0000674602 rev 00

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23090713

Service Request: E2300828
Date Analyzed: 9/14/23 12:11

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230914\2230914-015
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300448-02
Analysis Lot: 817192
Signal ID: 1

Sodium Perchlorate-18O4			
	<u>Area</u>	<u>RT</u>	
ICAL Average ==>	297,129	3.57	
Upper Limit ==>	445,694	5.57	
Lower Limit ==>	148,565	1.57	
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300448-02	292,197	3.57

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: HS23090713

Service Request: E2300828
Date Analyzed: 9/14/23 13:07

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230914\2230914-024
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300448-03
Analysis Lot: 817192
Signal ID: 1

Sodium Perchlorate-18O4			
	<u>Area</u>	<u>RT</u>	
ICAL Average ==>	297,129	3.57	
Upper Limit ==>	445,694	5.57	
Lower Limit ==>	148,565	1.57	
<i>Associated Analyses</i>			
Continuing Calibration Verification	EQ2300448-03	287,057	3.57

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



Client: ALS Environmental - US
Project: HS23090713

Service Request: E2300828
Date Analyzed: 9/14/23

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\20230914\2230914-004

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 817192
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.76	0.1475	0.1440	-2.4	NA	± 15 %	Average RF



Client: ALS Environmental - US
Project: HS23090713

Service Request: E2300828
Date Analyzed: 9/14/23

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\20230914\2230914-015

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 817192
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.88	0.1475	0.1457	-1.2	NA	± 15 %	Average RF



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23090713

Service Request: E2300828
Date Analyzed: 9/14/23

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\20230914\2230914-024

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 817192
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.99	0.1475	0.1473	-0.1	NA	± 15 %	Average RF



Insight Report

Printed at 9/14/2023 1:26:53 PM

Method File: I:\LCMS01\DATA\20230914\20230914.lcm

Project File: I:\LCMS01\DATA\20230914\20230914.damip

IB

Sample ID: IB

Date Acquired: 9/14/2023 9:58:39 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230914\2230914-001.lcd

Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

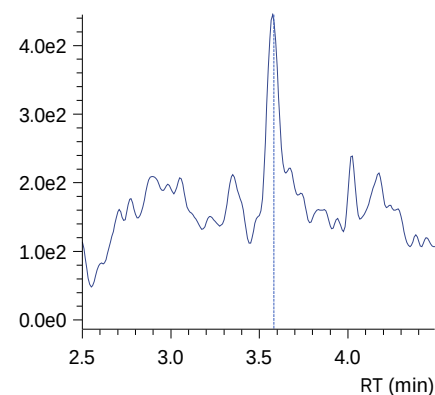
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	445314	----	ng/mL	101.00 >85.00	0.00	19.12-35.51
Sodium Perchlorate-18O4_IS	Auto	3.575	445314	445314	1.0000	ng/mL	----	----	

Perchlorate

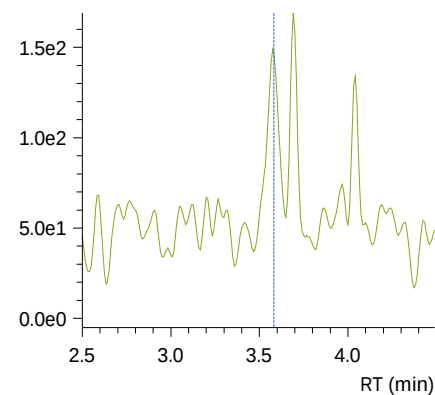
Conc ----

R#1 0.00 (27.31)

Q 99.00>83.00 (-)



R1 101.00>85.00 (-)

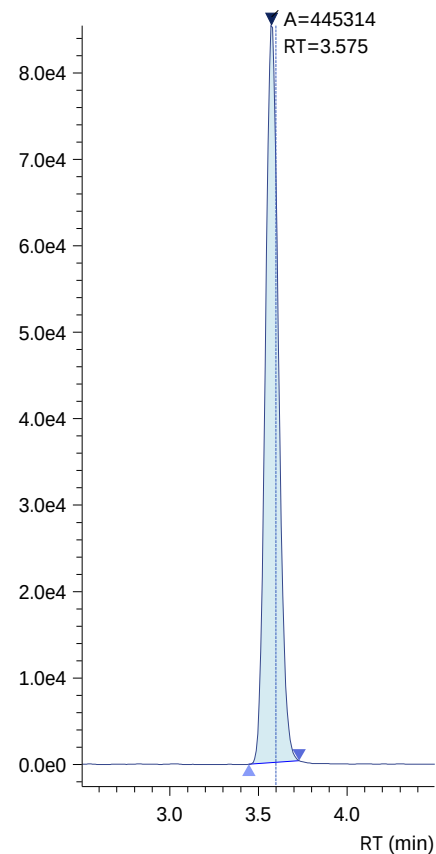


Sodium Perchlorate-18O4_IS

Conc 1.0000

4.45e2 ISTD 107.00>89.00 (-)

8.55e4



Insight Report

Printed at 9/14/2023 1:26:53 PM

LODV

Sample ID: LODV

Date Acquired: 9/14/2023 10:04:17 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230914\2230914-002.lcd

Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

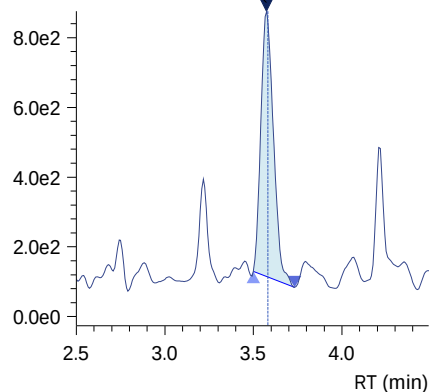
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	3765	401553	0.0636	ng/mL	101.00 >85.00	30.30	19.12-35.51
Sodium Perchlorate-18O4_IS	Auto	3.574	401553	401553	1.0000	ng/mL	----	----	

Perchlorate

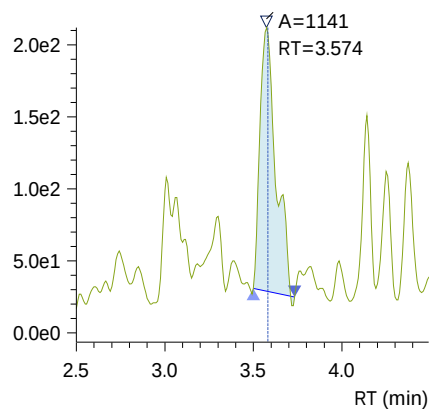
Conc 0.0636

R#1 30.30 (27.31)

Q 99.00>83.00 (-) A=3765 RT=3.573 8.76e2 ISTD 107.00>89.00 (-) 7.88e4



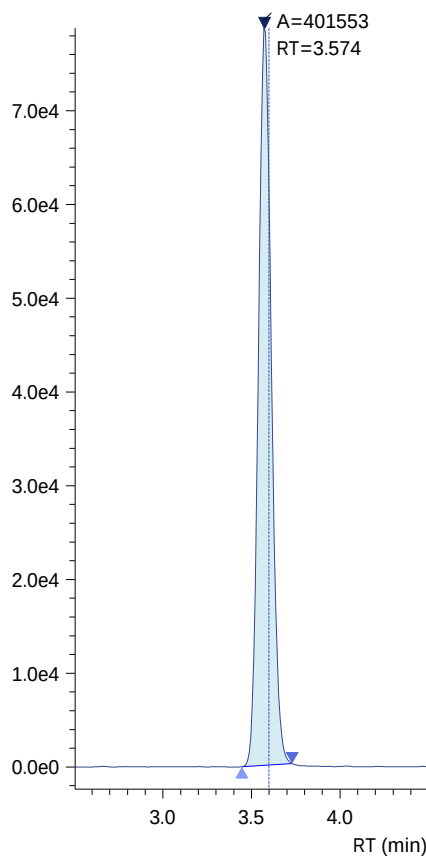
R1 101.00>85.00 (-) 2.12e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.88e4



Insight Report

Printed at 9/14/2023 1:26:53 PM

ICS

Sample ID: ICS

Date Acquired: 9/14/2023 10:39:02 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230914\2230914-003.lcd

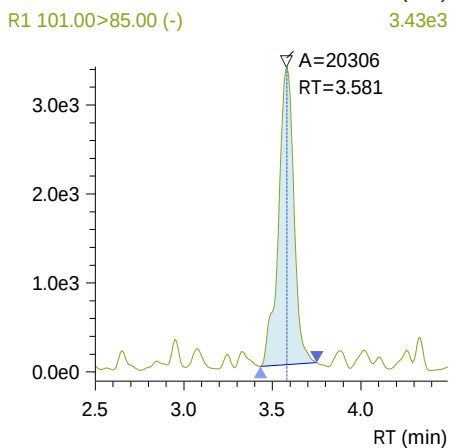
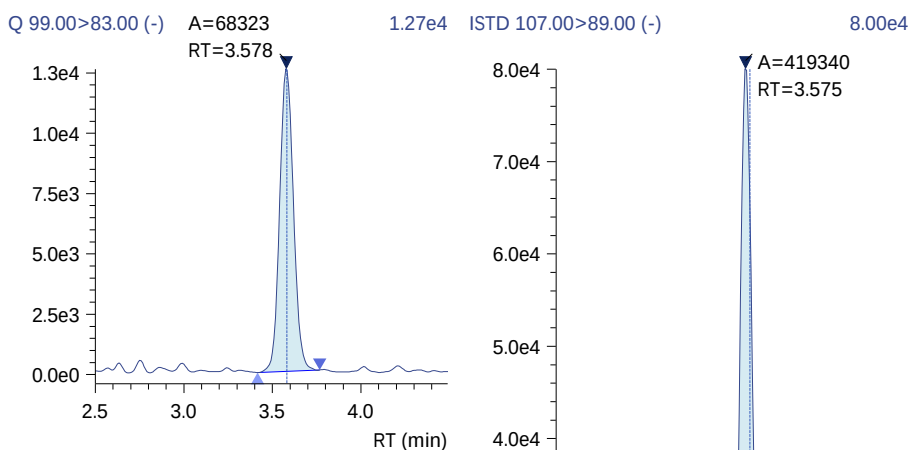
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.578	68323	419340	1.1049	ng/mL	101.00 >85.00	29.72	19.12-35.51
Sodium Perchlorate-18O4_IS	Auto	3.575	419340	419340	1.0000	ng/mL	----	----	

Perchlorate

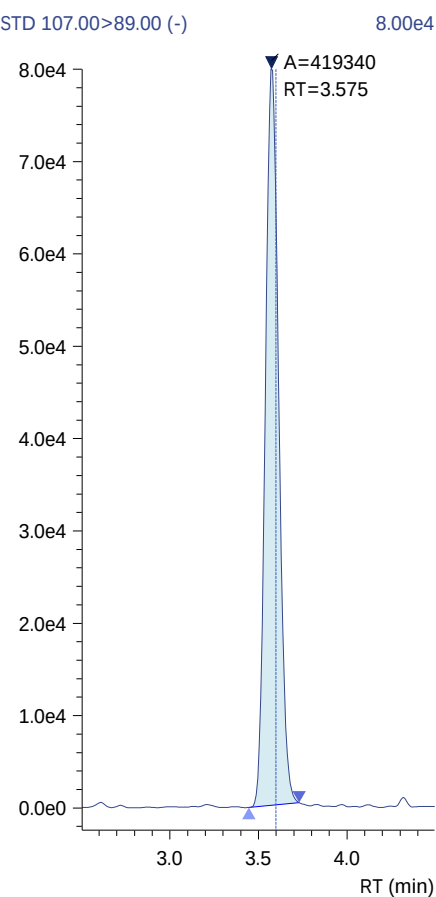
Conc 1.1049

R#1 29.72 (27.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 9/14/2023 1:26:53 PM

CCV

Sample ID: CCV

Date Acquired: 9/14/2023 10:44:37 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230914\2230914-004.lcd

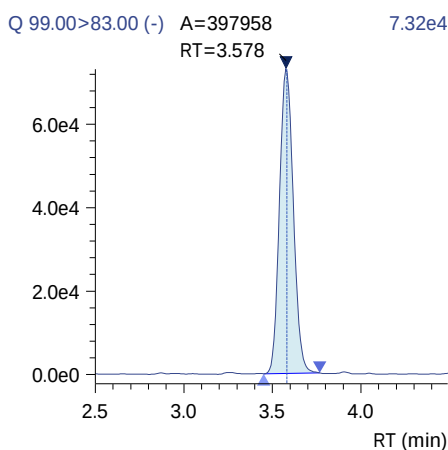
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.578	397958	276448	9.7621	ng/mL	101.00 >85.00	27.65	19.12-35.51
Sodium Perchlorate-18O4_IS	Auto	3.574	276448	276448	1.0000	ng/mL	----	----	

Perchlorate

Conc 9.7621

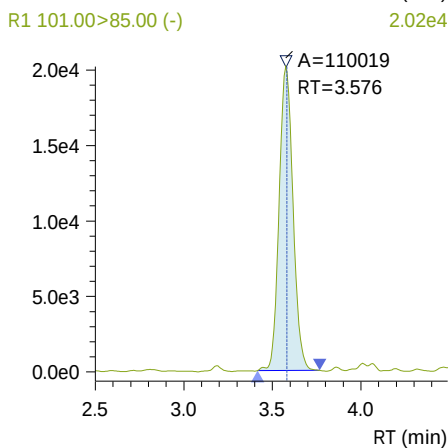
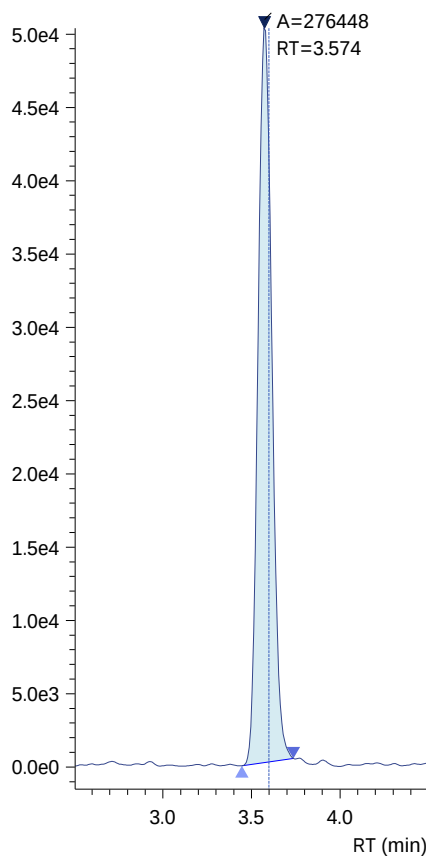
R#1 27.65 (27.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.04e4



Insight Report

Printed at 9/14/2023 1:26:53 PM

EQ2300447-01

Sample ID: EQ2300447-01

Date Acquired: 9/14/2023 10:51:06 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230914\2230914-005.lcd

Vial: 22 | Inj. Volume: 10.0000uL | Tray: 3

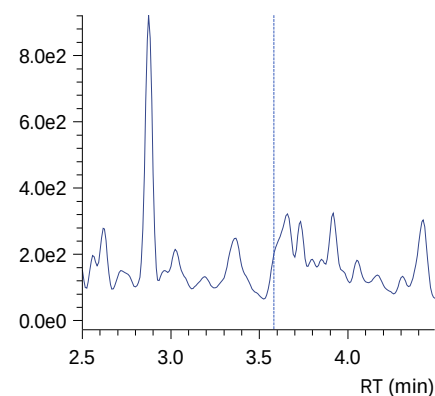
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	329992	----	ng/mL	101.00 >85.00	0.00	19.12-35.51
Sodium Perchlorate-18O4_IS	Auto	3.573	3299 92	329992	1.0000	ng/mL	----	----	

Perchlorate

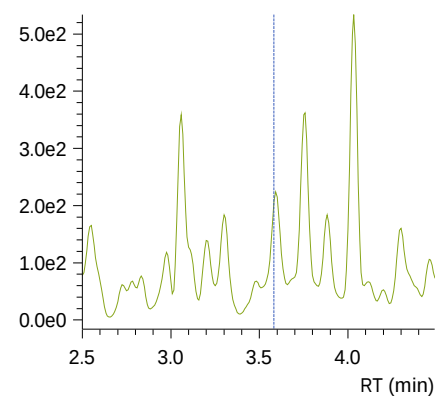
Conc ----

R#1 0.00 (27.31)

Q 99.00>83.00 (-)



R1 101.00>85.00 (-)

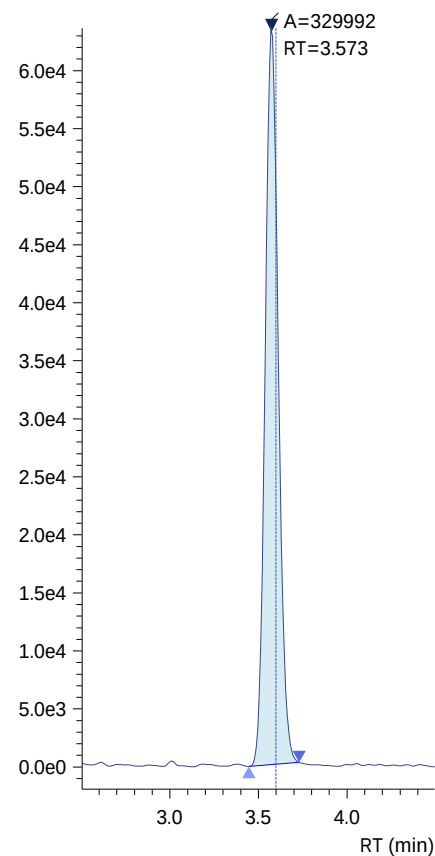


Sodium Perchlorate-18O4_IS

Conc 1.0000

9.22e2 ISTD 107.00>89.00 (-)

6.37e4



Insight Report

Printed at 9/14/2023 1:26:53 PM

EQ2300447-02

Sample ID: EQ2300447-02

Date Acquired: 9/14/2023 11:26:00 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230914\2230914-006.lcd

Vial: 23 | Inj. Volume: 10.0000uL | Tray: 3

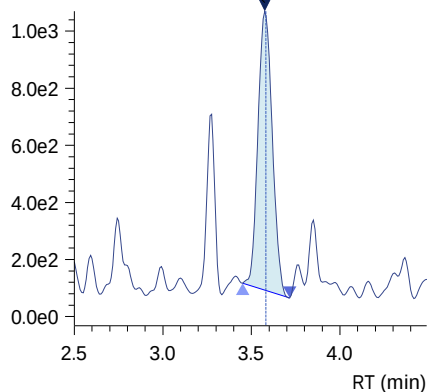
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.576	5508	347265	0.1076	ng/mL	101.00 >85.00	24.80	19.12-35.51
Sodium Perchlorate-18O4_IS	Auto	3.575	347265	347265	1.0000	ng/mL	----	----	

Perchlorate

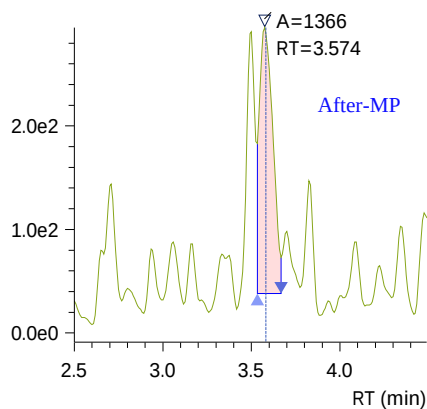
Conc 0.1076

R#1 24.80 (27.31)

Q 99.00>83.00 (-) A=5508 RT=3.576 1.07e3 ISTD 107.00>89.00 (-)



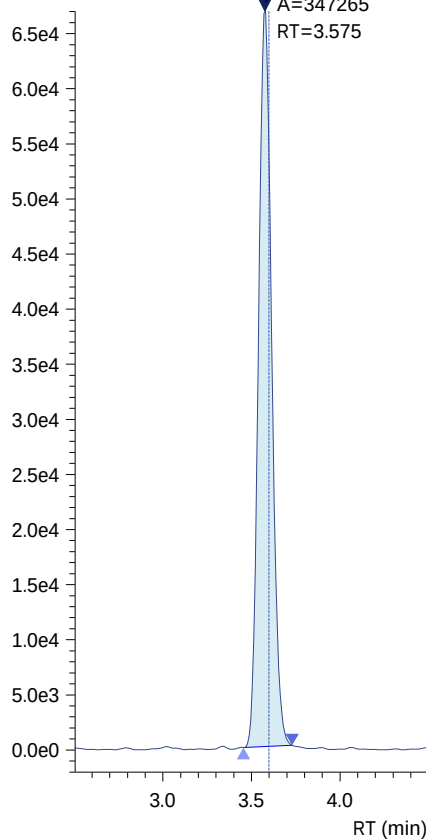
R1 101.00>85.00 (-) 2.95e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=347265 RT=3.575 6.70e4



Insight Report

Printed at 9/14/2023 1:27:41 PM

Method File: I:\LCMS01\DATA\20230914\20230914.lcm

Project File: I:\LCMS01\DATA\20230914\20230914.damip

EQ2300447-02

Sample ID: EQ2300447-02

Date Acquired: 9/14/2023 11:26:00 AM

Acquired by: System Administrator

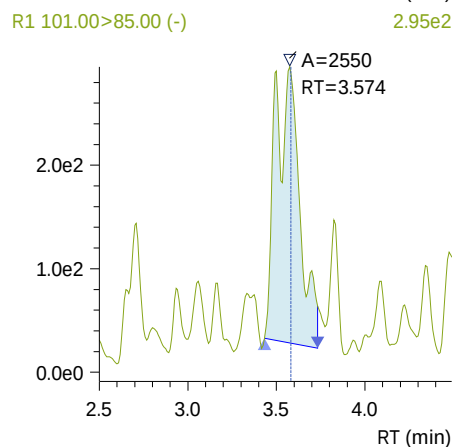
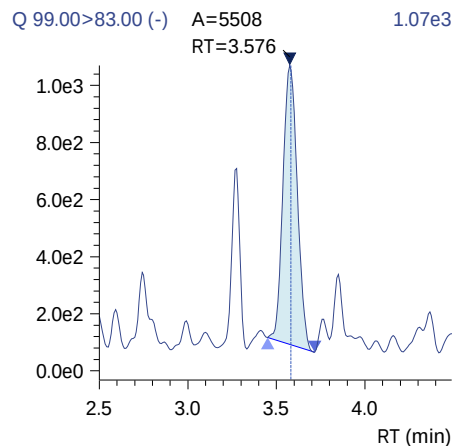
Data File: I:\LCMS01\DATA\20230914\2230914-006.lcd

Vial: 23 | Inj. Volume: 10.0000uL | Tray: 3

Perchlorate

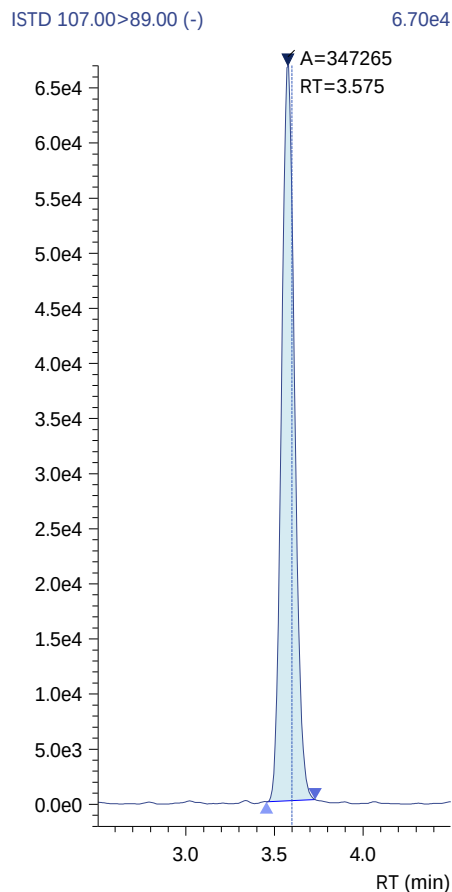
Conc 0.1076

R#1 46.30 (27.31)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 9/14/2023 1:26:53 PM

EQ2300447-03

Sample ID: EQ2300447-03

Date Acquired: 9/14/2023 11:02:07 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230914\2230914-007.lcd

Vial: 24 | Inj. Volume: 10.0000uL | Tray: 3

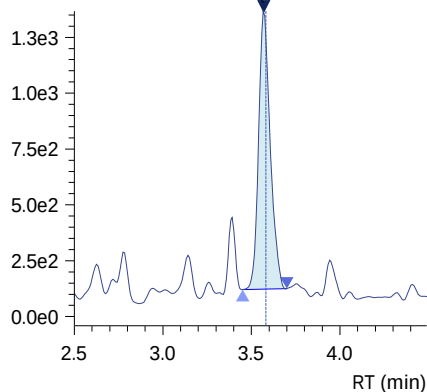
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.569	5690	339139	0.1138	ng/mL	101.00 >85.00	28.86	19.12-35.51
Sodium Perchlorate-18O4_IS	Auto	3.574	339139	339139	1.0000	ng/mL	----	----	

Perchlorate

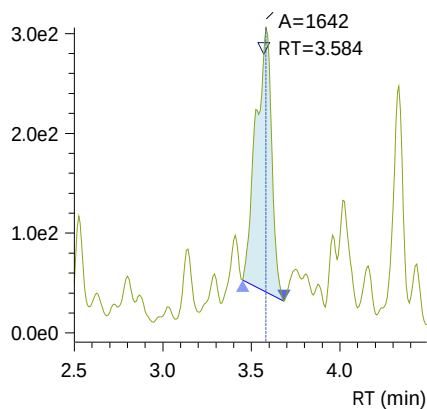
Conc 0.1138

R#1 28.86 (27.31)

Q 99.00>83.00 (-) A=5690 RT=3.569 1.37e3 ISTD 107.00>89.00 (-)



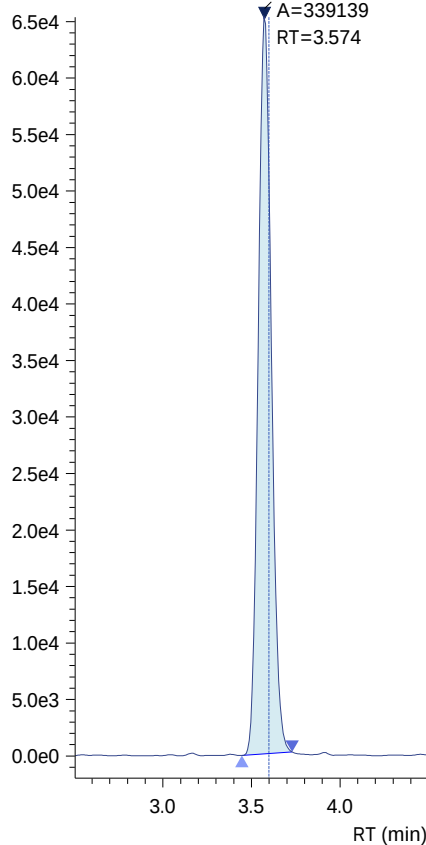
R1 101.00>85.00 (-) 3.06e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=339139 RT=3.574 6.54e4



Insight Report

Printed at 9/14/2023 1:26:53 PM

E2300828-001x1k

Sample ID: E2300828-001

Date Acquired: 9/14/2023 11:49:19 AM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230914\2230914-011.lcd

Vial: 28 | Inj. Volume: 10.0000uL | Tray: 3

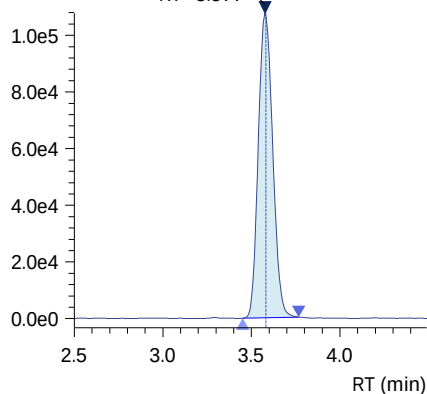
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.577	609402	283361	14.5843	ng/mL	101.00 >85.00	27.35	19.12-35.51
Sodium Perchlorate-18O4_IS	Auto	3.574	283361	283361	1.0000	ng/mL	----	----	

Perchlorate

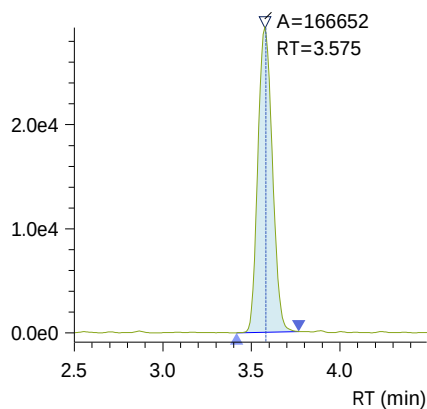
Conc 14.5843

R#1 27.35 (27.31)

Q 99.00>83.00 (-) A=609402 RT=3.577 1.08e5 ISTD 107.00>89.00 (-) 4.97e4



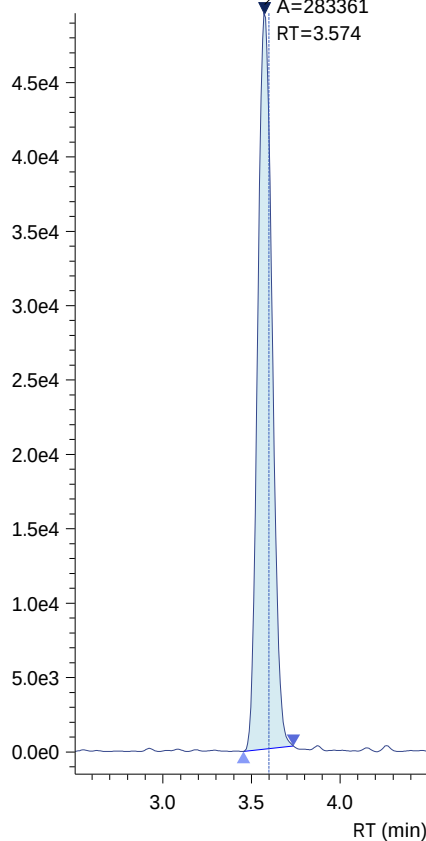
R1 101.00>85.00 (-) 2.93e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

A=283361 RT=3.574 4.97e4



Insight Report

Printed at 9/14/2023 1:26:53 PM

CCV

Sample ID: CCV

Date Acquired: 9/14/2023 12:11:30 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230914\2230914-015.lcd

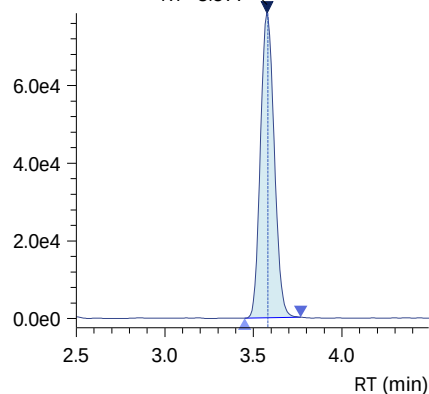
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.577	425639	292197	9.8784	ng/mL	101.00 >85.00	27.50	19.12-35.51
Sodium Perchlorate-18O4_IS	Auto	3.573	292197	292197	1.0000	ng/mL	----	----	

Perchlorate

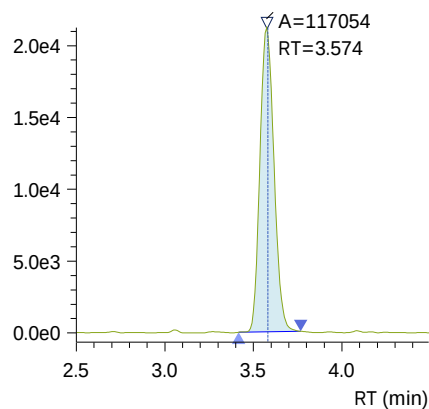
Conc 9.8784

R#1 27.50 (27.31)

Q 99.00>83.00 (-) A=425639
RT=3.577

R1 101.00>85.00 (-)

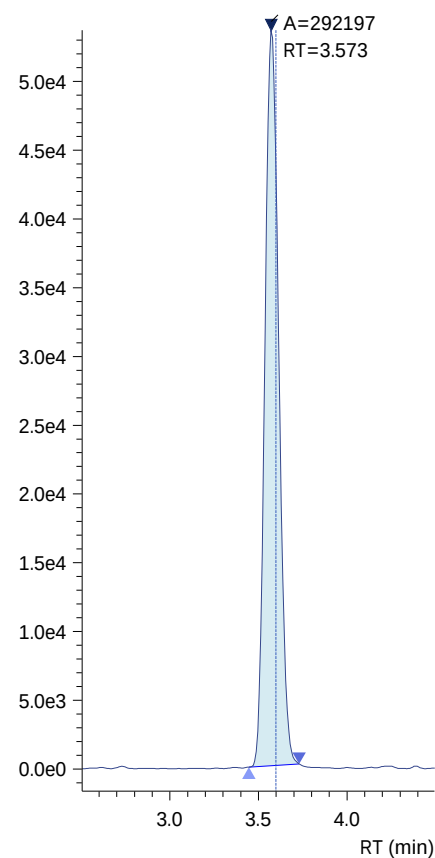
2.13e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

7.86e4 ISTD 107.00>89.00 (-) 5.37e4



HS23090714 Longhorn GW Treatment Plant Monthly Effluent Samples Cover Page

ALS WO# HS23090714



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HS23090714 E2300827 PERCH Final Report Level II

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HS23090714 Wetchem Cr6_W

HS23090714 E2300827 PERCH Final Report Level IV





right solutions.
right partner.

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WorkOrder: HS23090714

Longhorn GW Treatment Plant Monthly Effluent Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

27-Sep-2023



HS23090714 Longhorn GW Treatment Plant Monthly Effluent Samples Final

ALS WO# HS23090714





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October 02, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23090714**

Laboratory Results for: **Longhorn GW Treatment Plant Monthly Effluent Samples**

Dear Marcia Olive,

ALS Environmental received 3 sample(s) on Sep 13, 2023 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: DAYNA.FISHER

James Guin

ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
Work Order: HS23090714

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23090714-01	LH18/24-SP650_091223	Water		12-Sep-2023 13:00	13-Sep-2023 09:55	☐
HS23090714-02	LH18/24-SP650_091223_AIX	Water		12-Sep-2023 13:00	13-Sep-2023 09:55	☐
HS23090714-03	Trip Blank	Water	CG-041923 -761	12-Sep-2023 00:00	13-Sep-2023 09:55	☐



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
Work Order: HS23090714

CASE NARRATIVE**Work Order Comments**

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached

GCMS Semivolatiles by Method SW8270SIM**Batch ID: 200383****Sample ID: LCS1-200383/LCSD1-200383**

- LCS contained double surrogate amount. Calculations adjusted accordingly.

Sample ID: LCSD1-200383

- LCSD RPD was above the upper control limit. The individual recoveries were in control.

GCMS Volatiles by Method SW8260**Batch ID: R446515**

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

Metals by Method SW6020A**Batch ID: 201061**

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

WetChemistry by Method SW7196**Batch ID: R446262**

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



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
 Project: Longhorn GW Treatment Plant Monthly Effluent Samples
 Sample ID: LH18/24-SP650_091223
 Collection Date: 12-Sep-2023 13:00

ANALYTICAL REPORT

WorkOrder: HS23090714
 Lab ID: HS23090714-01
 Matrix: Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		Method: SW8260						Analyst: PC
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:34
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	14-Sep-2023 23:34
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	14-Sep-2023 23:34
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:34
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	14-Sep-2023 23:34
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	14-Sep-2023 23:34
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	14-Sep-2023 23:34
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34

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



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
 Project: Longhorn GW Treatment Plant Monthly Effluent Samples
 Sample ID: LH18/24-SP650_091223
 Collection Date: 12-Sep-2023 13:00

ANALYTICAL REPORT

WorkOrder: HS23090714
 Lab ID: HS23090714-01
 Matrix: Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C			Method: SW8260					Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
cis-1,2-Dichloroethene	2.4		0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	14-Sep-2023 23:34
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	14-Sep-2023 23:34
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:34
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:34
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:34
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>102</i>			0	<i>81-118</i>	%REC	<i>1</i>	<i>14-Sep-2023 23:34</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>86.8</i>			0	<i>85-114</i>	%REC	<i>1</i>	<i>14-Sep-2023 23:34</i>
<i>Surr: Dibromofluoromethane</i>	<i>96.2</i>			0	<i>80-119</i>	%REC	<i>1</i>	<i>14-Sep-2023 23:34</i>
<i>Surr: Toluene-d8</i>	<i>110</i>			0	<i>89-112</i>	%REC	<i>1</i>	<i>14-Sep-2023 23:34</i>
SEMIVOLATILES SIM			Method: SW8270SIM					Prep: SW3510 / 14-Sep-2023 Analyst: MBG
1,4-Dioxane	0.48	a	0.010	0	0.010	ug/L	1	28-Sep-2023 19:08
<i>Surr: 2-Fluorobiphenyl</i>	<i>78.9</i>			0	<i>40-140</i>	%REC	<i>1</i>	<i>28-Sep-2023 19:08</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>80.5</i>			0	<i>40-140</i>	%REC	<i>1</i>	<i>28-Sep-2023 19:08</i>
<i>Surr: Nitrobenzene-d5</i>	<i>80.6</i>			0	<i>40-140</i>	%REC	<i>1</i>	<i>28-Sep-2023 19:08</i>
METALS BY ICPMS BY SW6020A			Method: SW6020A					Prep: SW3010A / 27-Sep-2023 Analyst: MSC
Barium	0.258		0.00190	0.00250	0.00500	mg/L	1	30-Sep-2023 16:46
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	30-Sep-2023 16:46
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	30-Sep-2023 16:46
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	30-Sep-2023 16:46

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



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
Sample ID: LH18/24-SP650_091223
Collection Date: 12-Sep-2023 13:00

ANALYTICAL REPORT

WorkOrder:HS23090714
Lab ID:HS23090714-01
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
HEXAVALENT CHROMIUM BY SW7196A		Method:SW7196		Analyst: MZD				
Chromium, Hexavalent	0.00600	U	0.00600	0.00600	0.0100	mg/L	1	13-Sep-2023 12:09

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



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
Sample ID: LH18/24-SP650_091223_AIX
Collection Date: 12-Sep-2023 13:00

ANALYTICAL REPORT

WorkOrder:HS23090714
Lab ID:HS23090714-02
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		Method:NA						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	14-Sep-2023 15:56

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



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
 Project: Longhorn GW Treatment Plant Monthly Effluent Samples
 Sample ID: Trip Blank
 Collection Date: 12-Sep-2023 00:00

ANALYTICAL REPORT

WorkOrder:HS23090714
 Lab ID:HS23090714-03
 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD		Method:SW8260						Analyst: PC
8260C								
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:12
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	14-Sep-2023 23:12
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	14-Sep-2023 23:12
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:12
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	14-Sep-2023 23:12
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	14-Sep-2023 23:12
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	14-Sep-2023 23:12
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12

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



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
 Project: Longhorn GW Treatment Plant Monthly Effluent Samples
 Sample ID: Trip Blank
 Collection Date: 12-Sep-2023 00:00

ANALYTICAL REPORT

WorkOrder: HS23090714
 Lab ID: HS23090714-03
 Matrix: Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		Method: SW8260						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	14-Sep-2023 23:12
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	14-Sep-2023 23:12
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	14-Sep-2023 23:12
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Trichlorofluoromethane	0.93	J	0.30	0.50	1.0	ug/L	1	14-Sep-2023 23:12
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	14-Sep-2023 23:12
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>100</i>			0	<i>81-118</i>	%REC	1	<i>14-Sep-2023 23:12</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>85.9</i>			0	<i>85-114</i>	%REC	1	<i>14-Sep-2023 23:12</i>
<i>Surr: Dibromofluoromethane</i>	<i>95.7</i>			0	<i>80-119</i>	%REC	1	<i>14-Sep-2023 23:12</i>
<i>Surr: Toluene-d8</i>	<i>108</i>			0	<i>89-112</i>	%REC	1	<i>14-Sep-2023 23:12</i>

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



Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

Batch ID: 200383	Start Date: 14 Sep 2023 10:45	End Date: 14 Sep 2023 10:45
Method: SV AQ SEP FUN EXTRACT-LOWLEV - 3510C	Prep Code: 3510_B_SIM	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23090714-01	1	1000 (mL)	1 (mL)	0.001	1-liter amber glass, Neat

Batch ID: 201061	Start Date: 27 Sep 2023 12:00	End Date: 27 Sep 2023 12:00
Method: WATER - SW3010A	Prep Code: 3010A	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23090714-01		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 200383 (1)		Test Name : SEMIVOLATILES SIM			Matrix: Water	
HS23090714-01	LH18/24-SP650_091223	12 Sep 2023 13:00		14 Sep 2023 10:45	28 Sep 2023 19:08	1
Batch ID: 201061 (0)		Test Name : METALS BY ICPMS BY SW6020A			Matrix: Water	
HS23090714-01	LH18/24-SP650_091223	12 Sep 2023 13:00		27 Sep 2023 12:00	30 Sep 2023 16:46	1
Batch ID: R446262 (0)		Test Name : HEXAVALENT CHROMIUM BY SW7196A			Matrix: Water	
HS23090714-01	LH18/24-SP650_091223	12 Sep 2023 13:00			13 Sep 2023 12:09	1
Batch ID: R446372 (0)		Test Name : SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)			Matrix: Water	
HS23090714-02	LH18/24-SP650_091223_AIX	12 Sep 2023 13:00			14 Sep 2023 15:56	1
Batch ID: R446515 (0)		Test Name : VOLATILES ORGANICS BY METHOD 8260C			Matrix: Water	
HS23090714-01	LH18/24-SP650_091223	12 Sep 2023 13:00			14 Sep 2023 23:34	1
HS23090714-03	Trip Blank	12 Sep 2023 00:00			14 Sep 2023 23:12	1



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: 201061 (0)		Instrument: ICPMS07		Method: METALS BY ICPMS BY SW6020A					
MBLK	Sample ID: MBLK-201061	Units: mg/L		Analysis Date: 30-Sep-2023 16:35					
Client ID:	Run ID: ICPMS07_447812	SeqNo: 7577515		PrepDate: 27-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Barium	0.00250	0.00500							U
Lead	0.00125	0.00500							U
Selenium	0.00250	0.00500							U
Silver	0.000500	0.00500							U

LCS	Sample ID: LCS-201061	Units: mg/L		Analysis Date: 30-Sep-2023 15:39					
Client ID:	Run ID: ICPMS07_447812	SeqNo: 7577485		PrepDate: 27-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Barium	0.04905	0.00500	0.05	0	98.1	86 - 114			
Lead	0.0457	0.00500	0.05	0	91.4	88 - 115			
Selenium	0.0517	0.00500	0.05	0	103	80 - 120			
Silver	0.04674	0.00500	0.05	0	93.5	85 - 116			

MS	Sample ID: HS23090958-01MS	Units: mg/L		Analysis Date: 30-Sep-2023 15:48					
Client ID:	Run ID: ICPMS07_447812	SeqNo: 7577488		PrepDate: 27-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Barium	0.07227	0.00500	0.05	0.02064	103	86 - 114			
Lead	0.04556	0.00500	0.05	-0.000157	91.4	88 - 115			
Selenium	0.05927	0.00500	0.05	0.006519	106	80 - 120			
Silver	0.0462	0.00500	0.05	0.000015	92.4	85 - 116			

MSD	Sample ID: HS23090958-01MSD	Units: mg/L		Analysis Date: 30-Sep-2023 15:50					
Client ID:	Run ID: ICPMS07_447812	SeqNo: 7577489		PrepDate: 27-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Barium	0.07153	0.00500	0.05	0.02064	102	86 - 114	0.07227	1.03	20
Lead	0.04563	0.00500	0.05	-0.000157	91.6	88 - 115	0.04556	0.154	20
Selenium	0.05819	0.00500	0.05	0.006519	103	80 - 120	0.05927	1.85	20
Silver	0.04591	0.00500	0.05	0.000015	91.8	85 - 116	0.0462	0.617	20



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: 201061 (0)		Instrument: ICPMS07		Method: METALS BY ICPMS BY SW6020A					
PDS		Sample ID: HS23090958-01PDS		Units: mg/L		Analysis Date: 30-Sep-2023 15:52			
Client ID:		Run ID: ICPMS07_447812		SeqNo: 7577490		PrepDate: 27-Sep-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Barium	0.1216	0.00500	0.1	0.02064	101	80 - 120			
Lead	0.09536	0.00500	0.1	-0.000157	95.5	80 - 120			
Selenium	0.1064	0.00500	0.1	0.006519	99.9	80 - 120			
Silver	0.09688	0.00500	0.1	0.000015	96.9	80 - 120			

SD		Sample ID: HS23090958-01SD		Units: mg/L		Analysis Date: 30-Sep-2023 15:41			
Client ID:		Run ID: ICPMS07_447812		SeqNo: 7577486		PrepDate: 27-Sep-2023		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit Qual
Barium	0.02113	0.0250					0.02064	0 10	J
Lead	0.00625	0.0250					-0.000157	0 10	U
Selenium	0.0125	0.0250					0.006519	0 10	U
Silver	0.00250	0.0250					0.000015	0 10	U

The following samples were analyzed in this batch: HS23090714-01



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: 200383 (1)		Instrument: SV-6		Method: SEMIVOLATILES SIM					
MBLK	Sample ID: MBLK-200383	Units: ug/L		Analysis Date: 29-Sep-2023 12:43					
Client ID:	Run ID: SV-6_447716	SeqNo: 7574125		PrepDate: 14-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,4-Dioxane	0	0.030							U
Surr: 2-Fluorobiphenyl	0.0703	0	0.08	0	87.9	40 - 140			
Surr: 4-Terphenyl-d14	0.0689	0	0.08	0	86.1	40 - 140			
Surr: Nitrobenzene-d5	0.07688	0	0.08	0	96.1	40 - 140			

LCS	Sample ID: LCS1-200383	Units: ug/L		Analysis Date: 28-Sep-2023 17:58					
Client ID:	Run ID: SV-6_447716	SeqNo: 7574126		PrepDate: 14-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,4-Dioxane	0.07334	0.030	0.08	0	91.7	40 - 140			
Surr: 2-Fluorobiphenyl	0.1315	0	0.16	0	82.2	40 - 140			
Surr: 4-Terphenyl-d14	0.0893	0	0.16	0	55.8	40 - 140			
Surr: Nitrobenzene-d5	0.1841	0	0.16	0	115	40 - 140			

LCSD	Sample ID: LCSD1-200383	Units: ug/L		Analysis Date: 28-Sep-2023 18:16					
Client ID:	Run ID: SV-6_447716	SeqNo: 7574127		PrepDate: 14-Sep-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,4-Dioxane	0.06515	0.030	0.08	0	81.4	40 - 140	0.07334	11.8	20
Surr: 2-Fluorobiphenyl	0.1294	0	0.16	0	80.9	40 - 140	0.1315	1.6	20
Surr: 4-Terphenyl-d14	0.1397	0	0.16	0	87.3	40 - 140	0.0893	44	20 R
Surr: Nitrobenzene-d5	0.1463	0	0.16	0	91.4	40 - 140	0.1841	22.9	20 R

The following samples were analyzed in this batch: HS23090714-01



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
MBLK	Sample ID: VBLKW-230914	Units: ug/L		Analysis Date: 14-Sep-2023 22:04					
Client ID:	Run ID: VOA9_446515	SeqNo: 7546918		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1,2-Tetrachloroethane	0.50	1.0							U
1,1,1-Trichloroethane	0.50	1.0							U
1,1,2,2-Tetrachloroethane	0.50	1.0							U
1,1,2-Trichloroethane	0.50	1.0							U
1,1-Dichloroethane	0.50	1.0							U
1,1-Dichloroethene	0.50	1.0							U
1,1-Dichloropropene	0.50	1.0							U
1,2,3-Trichlorobenzene	0.50	1.0							U
1,2,3-Trichloropropane	0.50	1.0							U
1,2,4-Trichlorobenzene	0.50	1.0							U
1,2,4-Trimethylbenzene	0.50	1.0							U
1,2-Dibromo-3-chloropropane	0.50	1.0							U
1,2-Dibromoethane	0.50	1.0							U
1,2-Dichlorobenzene	0.50	1.0							U
1,2-Dichloroethane	0.50	1.0							U
1,2-Dichloropropane	0.50	1.0							U
1,3,5-Trimethylbenzene	0.50	1.0							U
1,3-Dichlorobenzene	0.50	1.0							U
1,3-Dichloropropane	0.50	1.0							U
1,4-Dichlorobenzene	0.50	1.0							U
2,2-Dichloropropane	0.50	1.0							U
2-Butanone	0.50	2.0							U
2-Chlorotoluene	0.50	1.0							U
2-Hexanone	2.0	2.0							U
4-Chlorotoluene	0.50	1.0							U
4-Isopropyltoluene	0.50	1.0							U
4-Methyl-2-pentanone	2.0	2.0							U
Acetone	2.0	2.0							U
Benzene	0.50	1.0							U
Bromobenzene	0.50	1.0							U
Bromochloromethane	0.50	1.0							U
Bromodichloromethane	0.50	1.0							U
Bromoform	0.50	1.0							U
Bromomethane	0.50	1.0							U



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
MBLK	Sample ID: VBLKW-230914	Units: ug/L		Analysis Date: 14-Sep-2023 22:04					
Client ID:	Run ID: VOA9_446515	SeqNo: 7546918		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Carbon disulfide	2.0	2.0							U
Carbon tetrachloride	0.50	1.0							U
Chlorobenzene	0.50	1.0							U
Chloroethane	0.50	1.0							U
Chloroform	0.50	1.0							U
Chloromethane	0.50	1.0							U
cis-1,2-Dichloroethene	0.50	1.0							U
cis-1,3-Dichloropropene	0.50	1.0							U
Dibromochloromethane	0.50	1.0							U
Dibromomethane	0.50	1.0							U
Dichlorodifluoromethane	0.50	1.0							U
Ethylbenzene	0.50	1.0							U
Hexachlorobutadiene	0.50	1.0							U
Isopropylbenzene	0.50	1.0							U
m,p-Xylene	1.0	2.0							U
Methylene chloride	2.0	2.0							U
Naphthalene	0.50	1.0							U
n-Butylbenzene	0.50	1.0							U
n-Propylbenzene	0.50	1.0							U
o-Xylene	0.50	1.0							U
sec-Butylbenzene	0.50	1.0							U
Styrene	0.50	1.0							U
tert-Butylbenzene	0.50	1.0							U
Tetrachloroethene	0.50	1.0							U
Toluene	0.50	1.0							U
trans-1,2-Dichloroethene	0.50	1.0							U
trans-1,3-Dichloropropene	0.50	1.0							U
Trichloroethene	0.50	1.0							U
Trichlorofluoromethane	0.50	1.0							U
Vinyl chloride	0.50	1.0							U
Surr: 1,2-Dichloroethane-d4	49.04	1.0	50	0	98.1	81 - 118			
Surr: 4-Bromofluorobenzene	44.48	1.0	50	0	89.0	85 - 114			
Surr: Dibromofluoromethane	48.65	1.0	50	0	97.3	80 - 119			
Surr: Toluene-d8	54.76	1.0	50	0	110	89 - 112			



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C						
LCS		Sample ID: VLCSW-230914		Units: ug/L		Analysis Date: 14-Sep-2023 21:20				
Client ID:		Run ID: VOA9_446515		SeqNo: 7546917		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	18.54	1.0	20	0	92.7	78 - 124				
1,1,1-Trichloroethane	17.91	1.0	20	0	89.6	74 - 131				
1,1,2,2-Tetrachloroethane	18.86	1.0	20	0	94.3	71 - 121				
1,1,2-Trichloroethane	18.48	1.0	20	0	92.4	80 - 119				
1,1-Dichloroethane	18.33	1.0	20	0	91.7	77 - 125				
1,1-Dichloroethene	16.98	1.0	20	0	84.9	71 - 131				
1,1-Dichloropropene	17.07	1.0	20	0	85.4	78 - 125				
1,2,3-Trichlorobenzene	20.71	1.0	20	0	104	69 - 129				
1,2,3-Trichloropropane	19.45	1.0	20	0	97.2	73 - 122				
1,2,4-Trichlorobenzene	19.32	1.0	20	0	96.6	69 - 130				
1,2,4-Trimethylbenzene	20.14	1.0	20	0	101	76 - 124				
1,2-Dibromo-3-chloropropane	18.21	1.0	20	0	91.1	62 - 128				
1,2-Dibromoethane	19.84	1.0	20	0	99.2	77 - 121				
1,2-Dichlorobenzene	18.84	1.0	20	0	94.2	80 - 119				
1,2-Dichloroethane	18.77	1.0	20	0	93.8	73 - 128				
1,2-Dichloropropane	19.95	1.0	20	0	99.8	78 - 122				
1,3,5-Trimethylbenzene	18.93	1.0	20	0	94.6	75 - 124				
1,3-Dichlorobenzene	18.94	1.0	20	0	94.7	80 - 119				
1,3-Dichloropropane	19.47	1.0	20	0	97.4	80 - 119				
1,4-Dichlorobenzene	18	1.0	20	0	90.0	79 - 118				
2,2-Dichloropropane	17.09	1.0	20	0	85.5	60 - 139				
2-Butanone	37.52	2.0	40	0	93.8	56 - 143				
2-Chlorotoluene	19.67	1.0	20	0	98.4	79 - 122				
2-Hexanone	40.9	2.0	40	0	102	57 - 139				
4-Chlorotoluene	18.96	1.0	20	0	94.8	78 - 122				
4-Isopropyltoluene	19.15	1.0	20	0	95.7	77 - 127				
4-Methyl-2-pentanone	37.87	2.0	40	0	94.7	67 - 130				
Acetone	40.58	2.0	40	0	101	39 - 160				
Benzene	18.83	1.0	20	0	94.2	79 - 120				
Bromobenzene	19.87	1.0	20	0	99.4	80 - 120				
Bromochloromethane	18.65	1.0	20	0	93.3	78 - 123				
Bromodichloromethane	17.96	1.0	20	0	89.8	79 - 125				
Bromoform	18.74	1.0	20	0	93.7	66 - 130				
Bromomethane	20.72	1.0	20	0	104	53 - 141				



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
LCS		Sample ID: VLCSW-230914		Units: ug/L		Analysis Date: 14-Sep-2023 21:20			
Client ID:		Run ID: VOA9_446515		SeqNo: 7546917		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Carbon disulfide	36.36	2.0	40	0	90.9	64 - 133			
Carbon tetrachloride	15.95	1.0	20	0	79.8	72 - 136			
Chlorobenzene	18.63	1.0	20	0	93.2	82 - 118			
Chloroethane	17.26	1.0	20	0	86.3	60 - 138			
Chloroform	18.47	1.0	20	0	92.4	79 - 124			
Chloromethane	17	1.0	20	0	85.0	50 - 139			
cis-1,2-Dichloroethene	18.61	1.0	20	0	93.1	78 - 123			
cis-1,3-Dichloropropene	17.67	1.0	20	0	88.4	75 - 124			
Dibromochloromethane	18.59	1.0	20	0	93.0	74 - 126			
Dibromomethane	18.34	1.0	20	0	91.7	79 - 123			
Dichlorodifluoromethane	15.93	1.0	20	0	79.6	32 - 152			
Ethylbenzene	19	1.0	20	0	95.0	79 - 121			
Hexachlorobutadiene	16.29	1.0	20	0	81.5	66 - 134			
Isopropylbenzene	18.98	1.0	20	0	94.9	72 - 131			
m,p-Xylene	37.57	2.0	40	0	93.9	80 - 121			
Methylene chloride	19.75	2.0	20	0	98.7	74 - 124			
Naphthalene	19.04	1.0	20	0	95.2	61 - 128			
n-Butylbenzene	17.89	1.0	20	0	89.4	75 - 128			
n-Propylbenzene	18.48	1.0	20	0	92.4	76 - 126			
o-Xylene	17.72	1.0	20	0	88.6	78 - 122			
sec-Butylbenzene	18.06	1.0	20	0	90.3	77 - 126			
Styrene	18.79	1.0	20	0	94.0	78 - 123			
tert-Butylbenzene	17.98	1.0	20	0	89.9	78 - 124			
Tetrachloroethene	18.87	1.0	20	0	94.4	74 - 129			
Toluene	19.82	1.0	20	0	99.1	80 - 121			
trans-1,2-Dichloroethene	18.62	1.0	20	0	93.1	75 - 124			
trans-1,3-Dichloropropene	17.39	1.0	20	0	87.0	73 - 127			
Trichloroethene	17.64	1.0	20	0	88.2	79 - 123			
Trichlorofluoromethane	16.47	1.0	20	0	82.4	65 - 141			
Vinyl chloride	17.38	1.0	20	0	86.9	58 - 137			
Surr: 1,2-Dichloroethane-d4	50.41	1.0	50	0	101	81 - 118			
Surr: 4-Bromofluorobenzene	51.05	1.0	50	0	102	85 - 114			
Surr: Dibromofluoromethane	51.85	1.0	50	0	104	80 - 119			
Surr: Toluene-d8	52.38	1.0	50	0	105	89 - 112			



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
MS		Sample ID: HS23090510-99MS		Units: ug/L		Analysis Date: 15-Sep-2023 00:19			
Client ID:		Run ID: VOA9_446515		SeqNo: 7546924		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1,2-Tetrachloroethane	20.3	1.0	20	0	101	78 - 124			
1,1,1-Trichloroethane	19.76	1.0	20	0	98.8	74 - 131			
1,1,2,2-Tetrachloroethane	18.89	1.0	20	0	94.4	71 - 121			
1,1,2-Trichloroethane	20.93	1.0	20	0	105	80 - 119			
1,1-Dichloroethane	62.11	1.0	20	45.19	84.6	77 - 125			
1,1-Dichloroethene	425.5	1.0	20	451.9	-132	71 - 131			SEO
1,1-Dichloropropene	19	1.0	20	0	95.0	78 - 125			
1,2,3-Trichlorobenzene	18.67	1.0	20	0	93.4	69 - 129			
1,2,3-Trichloropropane	18.44	1.0	20	0	92.2	73 - 122			
1,2,4-Trichlorobenzene	16.52	1.0	20	0	82.6	69 - 130			
1,2,4-Trimethylbenzene	17.91	1.0	20	0	89.5	76 - 124			
1,2-Dibromo-3-chloropropane	18.03	1.0	20	0	90.2	62 - 128			
1,2-Dibromoethane	21.04	1.0	20	0	105	77 - 121			
1,2-Dichlorobenzene	18.69	1.0	20	0	93.4	80 - 119			
1,2-Dichloroethane	21.46	1.0	20	0.7927	103	73 - 128			
1,2-Dichloropropane	22	1.0	20	0	110	78 - 122			
1,3,5-Trimethylbenzene	17.22	1.0	20	0	86.1	75 - 124			
1,3-Dichlorobenzene	17.71	1.0	20	0	88.6	80 - 119			
1,3-Dichloropropane	20.56	1.0	20	0	103	80 - 119			
1,4-Dichlorobenzene	17.24	1.0	20	0	86.2	79 - 118			
2,2-Dichloropropane	9.703	1.0	20	0	48.5	60 - 139			S
2-Butanone	35.16	2.0	40	0	87.9	56 - 143			
2-Chlorotoluene	18.22	1.0	20	0	91.1	79 - 122			
2-Hexanone	40.63	2.0	40	0	102	57 - 139			
4-Chlorotoluene	17.78	1.0	20	0	88.9	78 - 122			
4-Isopropyltoluene	15.95	1.0	20	0	79.7	77 - 127			
4-Methyl-2-pentanone	38.61	2.0	40	0	96.5	67 - 130			
Acetone	33.92	2.0	40	0	84.8	39 - 160			
Benzene	20.8	1.0	20	0	104	79 - 120			
Bromobenzene	19.39	1.0	20	0	97.0	80 - 120			
Bromochloromethane	18.49	1.0	20	0	92.4	78 - 123			
Bromodichloromethane	19.99	1.0	20	0	100.0	79 - 125			
Bromoform	19.21	1.0	20	0	96.1	66 - 130			
Bromomethane	20.08	1.0	20	0	100	53 - 141			



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
MS		Sample ID: HS23090510-99MS		Units: ug/L		Analysis Date: 15-Sep-2023 00:19			
Client ID:		Run ID: VOA9_446515		SeqNo: 7546924		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Carbon disulfide	35.5	2.0	40	0	88.7	64 - 133			
Carbon tetrachloride	14.66	1.0	20	0	73.3	72 - 136			
Chlorobenzene	19.61	1.0	20	0	98.0	82 - 118			
Chloroethane	18.69	1.0	20	0	93.4	60 - 138			
Chloroform	19.25	1.0	20	0	96.2	79 - 124			
Chloromethane	17.77	1.0	20	0	88.8	50 - 139			
cis-1,2-Dichloroethene	19.03	1.0	20	0	95.2	78 - 123			
cis-1,3-Dichloropropene	16.37	1.0	20	0	81.8	75 - 124			
Dibromochloromethane	20.06	1.0	20	0	100	74 - 126			
Dibromomethane	20.43	1.0	20	0	102	79 - 123			
Dichlorodifluoromethane	13.69	1.0	20	0	68.4	32 - 152			
Ethylbenzene	18.73	1.0	20	0	93.7	79 - 121			
Hexachlorobutadiene	12.3	1.0	20	0	61.5	66 - 134			S
Isopropylbenzene	17.55	1.0	20	0	87.8	72 - 131			
m,p-Xylene	38.04	2.0	40	0	95.1	80 - 121			
Methylene chloride	19.29	2.0	20	0	96.5	74 - 124			
Naphthalene	16.76	1.0	20	0	83.8	61 - 128			
n-Butylbenzene	13.94	1.0	20	0	69.7	75 - 128			S
n-Propylbenzene	16.09	1.0	20	0	80.4	76 - 126			
o-Xylene	18.27	1.0	20	0	91.3	78 - 122			
sec-Butylbenzene	14.89	1.0	20	0	74.5	77 - 126			S
Styrene	18.69	1.0	20	0	93.5	78 - 123			
tert-Butylbenzene	15.71	1.0	20	0	78.5	78 - 124			
Tetrachloroethene	17.7	1.0	20	0	88.5	74 - 129			
Toluene	21.23	1.0	20	0	106	80 - 121			
trans-1,2-Dichloroethene	18.37	1.0	20	0	91.9	75 - 124			
trans-1,3-Dichloropropene	15.83	1.0	20	0	79.1	73 - 127			
Trichloroethene	18.5	1.0	20	0	92.5	79 - 123			
Trichlorofluoromethane	17.96	1.0	20	0	89.8	65 - 141			
Vinyl chloride	19.44	1.0	20	1.463	89.9	58 - 137			
Surr: 1,2-Dichloroethane-d4	48.65	1.0	50	0	97.3	81 - 118			
Surr: 4-Bromofluorobenzene	49.12	1.0	50	0	98.2	85 - 114			
Surr: Dibromofluoromethane	48.57	1.0	50	0	97.1	80 - 119			
Surr: Toluene-d8	55.77	1.0	50	0	112	89 - 112			



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C					
MSD		Sample ID: HS23090510-99MSD		Units: ug/L		Analysis Date: 15-Sep-2023 00:41			
Client ID:		Run ID: VOA9_446515		SeqNo: 7546925		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1,2-Tetrachloroethane	20.09	1.0	20	0	100	78 - 124	20.3	0.995	20
1,1,1-Trichloroethane	19	1.0	20	0	95.0	74 - 131	19.76	3.9	20
1,1,2,2-Tetrachloroethane	19.18	1.0	20	0	95.9	71 - 121	18.89	1.55	20
1,1,2-Trichloroethane	21.15	1.0	20	0	106	80 - 119	20.93	1.05	20
1,1-Dichloroethane	60.65	1.0	20	45.19	77.3	77 - 125	62.11	2.37	20
1,1-Dichloroethene	411.8	1.0	20	451.9	-200	71 - 131	425.5	3.27	20 SEO
1,1-Dichloropropene	18.2	1.0	20	0	91.0	78 - 125	19	4.28	20
1,2,3-Trichlorobenzene	18.76	1.0	20	0	93.8	69 - 129	18.67	0.447	20
1,2,3-Trichloropropane	18.64	1.0	20	0	93.2	73 - 122	18.44	1.09	20
1,2,4-Trichlorobenzene	17.25	1.0	20	0	86.2	69 - 130	16.52	4.34	20
1,2,4-Trimethylbenzene	17.79	1.0	20	0	88.9	76 - 124	17.91	0.685	20
1,2-Dibromo-3-chloropropane	17.86	1.0	20	0	89.3	62 - 128	18.03	0.961	20
1,2-Dibromoethane	21.17	1.0	20	0	106	77 - 121	21.04	0.642	20
1,2-Dichlorobenzene	18.39	1.0	20	0	92.0	80 - 119	18.69	1.59	20
1,2-Dichloroethane	20.76	1.0	20	0.7927	99.8	73 - 128	21.46	3.32	20
1,2-Dichloropropane	20.92	1.0	20	0	105	78 - 122	22	5.06	20
1,3,5-Trimethylbenzene	16.71	1.0	20	0	83.5	75 - 124	17.22	2.99	20
1,3-Dichlorobenzene	17.74	1.0	20	0	88.7	80 - 119	17.71	0.149	20
1,3-Dichloropropane	20.81	1.0	20	0	104	80 - 119	20.56	1.2	20
1,4-Dichlorobenzene	17.27	1.0	20	0	86.4	79 - 118	17.24	0.198	20
2,2-Dichloropropane	8.979	1.0	20	0	44.9	60 - 139	9.703	7.76	20 S
2-Butanone	34.73	2.0	40	0	86.8	56 - 143	35.16	1.25	20
2-Chlorotoluene	18.11	1.0	20	0	90.5	79 - 122	18.22	0.609	20
2-Hexanone	41.86	2.0	40	0	105	57 - 139	40.63	2.98	20
4-Chlorotoluene	17.65	1.0	20	0	88.3	78 - 122	17.78	0.729	20
4-Isopropyltoluene	15.85	1.0	20	0	79.2	77 - 127	15.95	0.621	20
4-Methyl-2-pentanone	40.14	2.0	40	0	100	67 - 130	38.61	3.88	20
Acetone	33.75	2.0	40	0	84.4	39 - 160	33.92	0.508	20
Benzene	19.82	1.0	20	0	99.1	79 - 120	20.8	4.83	20
Bromobenzene	19.22	1.0	20	0	96.1	80 - 120	19.39	0.901	20
Bromochloromethane	18.28	1.0	20	0	91.4	78 - 123	18.49	1.13	20
Bromodichloromethane	19.08	1.0	20	0	95.4	79 - 125	19.99	4.66	20
Bromoform	18.87	1.0	20	0	94.3	66 - 130	19.21	1.81	20
Bromomethane	20.1	1.0	20	0	100	53 - 141	20.08	0.0686	20



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: R446515 (0)		Instrument: VOA9		Method: VOLATILES ORGANICS BY METHOD 8260C						
MSD		Sample ID: HS23090510-99MSD		Units: ug/L		Analysis Date: 15-Sep-2023 00:41				
Client ID:		Run ID: VOA9_446515		SeqNo: 7546925		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	33.29	2.0	40	0	83.2	64 - 133	35.5	6.43	20	
Carbon tetrachloride	12.39	1.0	20	0	61.9	72 - 136	14.66	16.8	20	S
Chlorobenzene	19.6	1.0	20	0	98.0	82 - 118	19.61	0.0673	20	
Chloroethane	18.75	1.0	20	0	93.8	60 - 138	18.69	0.358	20	
Chloroform	18.34	1.0	20	0	91.7	79 - 124	19.25	4.83	20	
Chloromethane	17.25	1.0	20	0	86.2	50 - 139	17.77	2.98	20	
cis-1,2-Dichloroethene	18.1	1.0	20	0	90.5	78 - 123	19.03	5.04	20	
cis-1,3-Dichloropropene	16.25	1.0	20	0	81.2	75 - 124	16.37	0.749	20	
Dibromochloromethane	19.73	1.0	20	0	98.6	74 - 126	20.06	1.69	20	
Dibromomethane	19.57	1.0	20	0	97.8	79 - 123	20.43	4.34	20	
Dichlorodifluoromethane	13.45	1.0	20	0	67.2	32 - 152	13.69	1.76	20	
Ethylbenzene	19.23	1.0	20	0	96.1	79 - 121	18.73	2.6	20	
Hexachlorobutadiene	12.1	1.0	20	0	60.5	66 - 134	12.3	1.7	20	S
Isopropylbenzene	17.87	1.0	20	0	89.4	72 - 131	17.55	1.81	20	
m,p-Xylene	37.05	2.0	40	0	92.6	80 - 121	38.04	2.64	20	
Methylene chloride	19.06	2.0	20	0	95.3	74 - 124	19.29	1.25	20	
Naphthalene	17.99	1.0	20	0	89.9	61 - 128	16.76	7.04	20	
n-Butylbenzene	13.87	1.0	20	0	69.3	75 - 128	13.94	0.532	20	S
n-Propylbenzene	15.95	1.0	20	0	79.8	76 - 126	16.09	0.848	20	
o-Xylene	18.17	1.0	20	0	90.8	78 - 122	18.27	0.566	20	
sec-Butylbenzene	14.77	1.0	20	0	73.9	77 - 126	14.89	0.829	20	S
Styrene	18.36	1.0	20	0	91.8	78 - 123	18.69	1.82	20	
tert-Butylbenzene	15.56	1.0	20	0	77.8	78 - 124	15.71	0.955	20	S
Tetrachloroethene	17.76	1.0	20	0	88.8	74 - 129	17.7	0.359	20	
Toluene	21.01	1.0	20	0	105	80 - 121	21.23	1.06	20	
trans-1,2-Dichloroethene	18.45	1.0	20	0	92.3	75 - 124	18.37	0.451	20	
trans-1,3-Dichloropropene	15.72	1.0	20	0	78.6	73 - 127	15.83	0.667	20	
Trichloroethene	18.11	1.0	20	0	90.6	79 - 123	18.5	2.1	20	
Trichlorofluoromethane	17.42	1.0	20	0	87.1	65 - 141	17.96	3.02	20	
Vinyl chloride	18.85	1.0	20	1.463	87.0	58 - 137	19.44	3.06	20	
Surr: 1,2-Dichloroethane-d4	48.52	1.0	50	0	97.0	81 - 118	48.65	0.259	20	
Surr: 4-Bromofluorobenzene	49.75	1.0	50	0	99.5	85 - 114	49.12	1.27	20	
Surr: Dibromofluoromethane	48.24	1.0	50	0	96.5	80 - 119	48.57	0.687	20	
Surr: Toluene-d8	56.21	1.0	50	0	112	89 - 112	55.77	0.777	20	S



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT**Batch ID:** R446515 (0)**Instrument:** VOA9**Method:** VOLATILES ORGANICS BY METHOD
8260C

The following samples were analyzed in this batch: HS23090714-01 HS23090714-03



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

QC BATCH REPORT

Batch ID: R446262 (0)		Instrument: UV-2450		Method: HEXAVALENT CHROMIUM BY SW7196A						
MBLK	Sample ID: MBLK-R446262	Units: mg/L		Analysis Date: 13-Sep-2023 12:09						
Client ID:	Run ID: UV-2450_446262		SeqNo: 7542658		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.00600	0.0100								U
LCS	Sample ID: LCS-R446262	Units: mg/L		Analysis Date: 13-Sep-2023 12:09						
Client ID:	Run ID: UV-2450_446262		SeqNo: 7542657		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.231	0.0100	0.25	0	92.4	90 - 111				
MS	Sample ID: HS23090713-01MS	Units: mg/L		Analysis Date: 13-Sep-2023 12:09						
Client ID:	Run ID: UV-2450_446262		SeqNo: 7542660		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.227	0.0100	0.25	0.001	90.4	90 - 111				
MSD	Sample ID: HS23090713-01MSD	Units: mg/L		Analysis Date: 13-Sep-2023 12:09						
Client ID:	Run ID: UV-2450_446262		SeqNo: 7542659		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.228	0.0100	0.25	0.001	90.8	90 - 111	0.227	0.44	20	
The following samples were analyzed in this batch: HS23090714-01										



ALS Houston, US

Date: 02-Oct-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

**QUALIFIERS,
ACRONYMS, UNITS**

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

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



CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2023-2024	30-Apr-2024
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US

Date: 02-Oct-23

Sample Receipt Checklist

Work Order ID: HS23090714

Date/Time Received: 13-Sep-2023 09:55

Client Name: Bhate Environmental

Received by: Corey Grandits

Completed By: /S/ Corey Grandits

13-Sep-2023 14:10

Reviewed by: /S/ Nieka Carson

13-Sep-2023 14:12

eSignature

Date/Time

eSignature

Date/Time

Matrices: WCarrier name: FedEx

Shipping container/cooler in good condition?

Yes ☒No ☐Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒No ☐Not Present ☐

Custody seals intact on sample bottles?

Yes ☐No ☐Not Present ☒

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes ☐No ☐Not Present ☒

Chain of custody present?

Yes ☒No ☐

1 Page(s)

Chain of custody signed when relinquished and received?

Yes ☒No ☐

Samplers name present on COC?

Yes ☒No ☐

Chain of custody agrees with sample labels?

Yes ☒No ☐

Samples in proper container/bottle?

Yes ☒No ☐

Sample containers intact?

Yes ☒No ☐

Sufficient sample volume for indicated test?

Yes ☒No ☐

All samples received within holding time?

Yes ☒No ☐

Container/Temp Blank temperature in compliance?

Yes ☒No ☐

Temperature(s)/Thermometer(s):

1.9UC/1.8C

IR31

Cooler(s)/Kit(s):

50156

Date/Time sample(s) sent to storage:

9/13/23

Water - VOA vials have zero headspace?

Yes ☒No ☐No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☒No ☐N/A ☐

pH adjusted?

Yes ☐No ☒N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

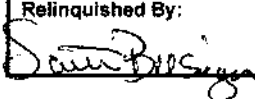
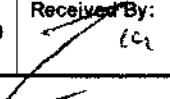
Comments:

Corrective Action:



CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd., Suite 210 Houston, TX 77099 (281) 530 - 5656 ATTN: Dane WacaseyPage 1 of 1

Project: BHATE LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS			Project No. JVPCIBH.0001		Analyses VOLATILES SILVER, SELENIUM, LEAD, BARIUM HEXAVALENT CHROMIUM 1,4 - DIOXANE PERCHLORATE										HS23090714 Bhate Environmental Associates, Inc. Longhorn GW Treatment Plant Monthly Effluent Sam	
Job: GROUNDWATER TREATMENT PLANT MONTHLY EFFLUENT SAMPLES																
Prepared By: Scott Beesinger			P.O. Number													
Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	VOLATILES	SILVER, SELENIUM, LEAD, BARIUM	HEXAVALENT CHROMIUM	1,4 - DIOXANE	PERCHLORATE					Remarks (Preservatives, etc.)	Lab I.D.#	
LH18/24-SP650_091223	Water	09/12/23 / 13:00		3	X									HCL		
LH18/24-SP650_091223	Water	09/12/23 / 13:00		2			X	X						NONE		
LH18/24-SP650_091223_AIX	Water	09/12/23 / 13:00		1					X					NONE		
LH18/24-SP650_091223	Water	09/12/23 / 13:00		1	X									HNO3		
Trip Blank	Water	09/12/23		2	X									HCL		
Additional Remarks: <u>Standard TAT on all parameters</u>																
Relinquished By:		Date	Time	Received By:		Date	Time	Relinquished By:		Date	Time	Received By:		Date	Time	
		09/12/23	13:30			09/12/23	07:55									
For Lab Use Only																
Received At Lab By:		Date	Time	Airbill No.		Opened By:		Date	Time	Temp of Container	Seal No.	Condition				
Remarks:																
50156 1251 1.90																

(Word) S-1-est/Forms/Chain of Custody - BiWeekly



 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5858 Fax. +1 281 530 5887	Date: 4/12/23 Time: 1330		Date: 09/13/23
	Name: Scott Beesinger		
	Company: DHAAP		

50156 SEP 13 2023



50152

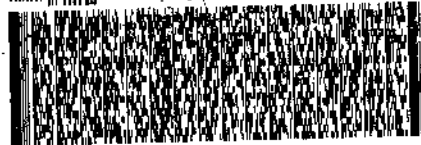
ORIGIN ID:SGRA (903) 930-6183
 SCOTT BEESINGER
 APTIM ENVIRONMENTAL & INFRASTRUCTURE
 1203-B EAST GRAND AVE
 PHD 202
 MARSHALL, TX 75670
 UNITED STATES-US

SHIP DATE: 26 JAN 22
 ACTWGT: 1.00 LB MAX
 CAD: 0221247/CAGE9509
 DIMS: 19x16x13 IN

TO SHIPPING DEPT
 ALS LABORATORY GROUP
 10450 STANCLIFF RD
 SUITE 210
 HOUSTON TX 77099

(281) 530-5858
 REF: LHAAP-46-BO 83270-RG

RMA: 111111



FedEx
 Express



FedEx
 TRK# 5300 5227 3760
 0221

WED - 13 SEP 10:30A
 PRIORITY OVERNIGHT

AB SGRA

77099
 TX-US



45216330 09/10 58334/0836/9053





September 14, 2023

Service Request No:E2300827

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS23090714

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory September 13, 2023
For your reference, these analyses have been assigned our service request number **E2300827**.

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 2190. You may also contact me via email at hussam.kelany@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Hussam Kelany
Project Manager

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





Client: ALS Environmental - US
Project: HS23090714
Sample Matrix: Water

Service Request No.: E2300827
Date Received: 09/13/23

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

One sample was received for analysis at ALS Environmental in Houston on 03/07/23.

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

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300447: 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: HS23090714

Service Request:E2300827

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E2300827-001	LH18/24-SP650_091223_AIX	9/12/2023	1300



Service Request Summary

Folder #: E2300827
Client Name: ALS Environmental - US
Project Name: HS23090714
Project Number:

Report To: James Guin
 ALS Environmental - US
 10450 Standcliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/13/23
Internal Due Date: 9/20/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090714
EDD: BASIC_WQC_CASNo
 _LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

				HOUSTON
				CIO4 DOD/6850
Lab Samp No.	Client Samp No	Matrix	Collected	
E2300827-001	LH18/24-SP650_091223_AIX	Water	09/12/23 1300	IV



Service Request Summary

Folder #: E2300827
Client Name: ALS Environmental - US
Project Name: HS23090714
Project Number:

Report To: James Guin
 ALS Environmental - US
 10450 Standcliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/13/23
Internal Due Date: 9/20/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090714
EDD: BASIC_WQC_CASNo
 _LOD

1 120 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	Level IV due 9/27



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
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L23-358	5/31/2025
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
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	343-2023	6/30/2024
Michigan Department of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Conservation	TN04016-2023	4/30/2024
Texas Commission on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932023-14	7/31/2024
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 Standliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense

COC ID: 23146

SUBCONTRACT TO:

ALS Environmental
10450 Standliff Road Suite 210
Houston, TX 77084

Phone: +1 281 530 5656

**CUSTOMER
INFORMATION:**

Company: ALS Houston
Contact: James Guin
Address: 10450 Standliff Rd, Ste 210
Phone: +1 281 530 5656
Email: James.Guin@alsglobal.com
**Alternate
Contact:** Jumoke M. Lawal
Email: jumoke.lawal@alsglobal.com

**INVOICE
INFORMATION:**

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Standliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS23090714
TSR: Houston House Acct

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
1. HS23090714-02	LH18/24-SP650_091223_AIX	Water	12 Sep 2023 13:00
Provide Level II and Level IV reports in separate pdf			20 Sep 2023

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

QC Level: DOD IV (DoD Data Package)

E2300827
ALS Environmental - US
HS23090714

5



Relinquished By:

Received By:

Cooler ID(s):

Date/Time:

Date/Time:

Temperature(s):





Cooler Receipt Form

Project Chemist H

Client/Project

AL5

Thermometer ID

17231

Date/Time Received:

9-13-23

Initials:

ij

Date/Time Logged in:

9-13-23

Initials

ij1. Method of delivery: ☐ US Mail ☐ Fed Ex ☐ UPS ☐ DHL ☒ ^{AL5} Courier ☐ Client2. Samples received in: ☒ Cooler ☐ Box ☐ Envelope ☐ Other3. Were custody seals on coolers? ☐ Yes ☒ NoIf 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?
-		9-13-23	1223	ij	3.3	☐
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)?

☒ Yes ☐ No

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

☒ Yes ☐ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)?

☒ Yes ☐ No

9. Were appropriate bottles/containers and volumes received for the requested tests?

☒ Yes ☐ No

10. Did sample labels and tags agree with custody documents?

☒ Yes ☐ No

Notes, Discrepancies, & Resolutions:

E2300827**5**ALS Environmental - US
HS23090714

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

Prep Run#: 426475
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method:

Status: Prepped
Prep Date/Time: 9/14/23 08:10

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300814-001	130_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
2	E2300814-002	17WW03_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
3	E2300814-003	17WW01_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
4	E2300814-004	17WW02_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
5	E2300814-005	17WW02_090723_a	.01	6850/CIO4 DOD			Ground Water	10mL	
6	E2300814-006	17WW06_090723	.02	6850/CIO4 DOD			Ground Water	10mL	
7	E2300826-001	LH18/24-SP650_091223_BIX	.01	6850/CIO4 DOD			Water	10mL	
8	E2300826-002	LH18/24-SP650_091223_AIX	.01	6850/CIO4 DOD			Water	10mL	
9	E2300827-001	LH18/24-SP650_091223_AIX	.01	6850/CIO4 DOD			Water	10mL	
10	E2300828-001	LH18/24-SP140_091223	.01	6850/CIO4 DOD			Water	10mL	
11	EQ2300447-01	MB		6850/CIO4			Liquid	10mL	
12	EQ2300447-02	LCS		6850/CIO4			Liquid	10mL	
13	EQ2300447-03	DLCS		6850/CIO4			Liquid	10mL	
14	EQ2300447-04	17WW06_090723 MS	.02	6850/CIO4 DOD			Liquid	10mL	
15	EQ2300447-05	17WW06_090723 DMS	.02	6850/CIO4 DOD			Liquid	10mL	
16	K2310104-001	LGAC-INF-091123	.01	6850/CIO4			Water	10mL	
17	K2310104-002	LGAC-INT1-091123	.01	6850/CIO4			Water	10mL	
18	K2310104-003	LGAC-INT2-091123	.01	6850/CIO4			Water	10mL	

Spiking Solutions

Name:	Perchlorate Intermediate Stock1	Inventory ID	230342	Logbook Ref:	Perchlorate (1st Source)	Expires On:	03/07/2024
-------	---------------------------------	--------------	--------	--------------	--------------------------	-------------	------------

EQ2300447-02 1.00µL EQ2300447-02 1.00µL EQ2300447-03 1.00µL EQ2300447-03 1.00µL EQ2300447-04 1.00µL EQ2300447-05 1.00µL

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	230372	Logbook Ref:	Perchlorate Internal Standard	Expires On:	04/30/2024
-------	--------------------------------------	--------------	--------	--------------	-------------------------------	-------------	------------

E2300814-001 100.00µL E2300814-002 100.00µL E2300814-003 100.00µL E2300814-004 100.00µL E2300814-005 100.00µL E2300814-006 100.00µL
E2300826-001 100.00µL E2300826-002 100.00µL E2300827-001 100.00µL E2300828-001 100.00µL EQ2300447-01 100.00µL EQ2300447-01 100.00µL
EQ2300447-02 100.00µL EQ2300447-02 100.00µL EQ2300447-03 100.00µL EQ2300447-03 100.00µL EQ2300447-04 100.00µL EQ2300447-05 100.00µL
K2310104-001 100.00µL K2310104-002 100.00µL K2310104-003 100.00µL

Preparation Materials

Water HPLC Grade HPLC water 5/18/23CG (229315) 6850 Amber Glass screw vial 2mL Screw Top Vial (221894) 6850 0.45um syringe filters 6850 0.45 SYRING FILTER (229979)
6850 20mM amonium acetate in H2O (230746) 6850 Luer-Lok Syringes luer-lock syringes (228116)



Preparation Information Benchsheet

Prep Run#: 426475
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method:

Status: Prepped
Prep Date/Time: 9/14/23 08:10

Preparation Steps

Step: Preparation
Started: 9/14/23 08:10
Finished: 9/14/23 09:10
By: XMI
Comments

Comments:

Reviewed By: Date:

Chain of Custody

Relinquished By:	Date:	<u>Extracts Examined</u> Yes No
Received By:	Date:	



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: HS23090714
Sample Matrix: Water
Sample Name: LH18/24-SP650_091223_AIX
Lab Code: E2300827-001

Service Request: E2300827
Date Collected: 9/12/23 1300
Date Received: 9/13/23
Units: µg/L
Basis: NA

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

Analytical Method: 6850

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	0.0578	J	0.100	0.0500	0.0250	1	9/14/23	9/14/23 11:43	426475	817192	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090714
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: EQ2300447-01

Service Request: E2300827
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

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	9/14/23	9/14/23 10:51	426475	817192	





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: HS23090714
Sample Matrix: Water

Service Request: E2300827
Date Analyzed: 9/14/23

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

Analytical Method: 6850
Prep Method:

Units: µg/L
Basis: NA

Extraction Lot: 426475

Analyte Name	Lab Control Sample EQ2300447-02			Duplicate Lab Control Sample EQ2300447-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perchlorate	0.108	0.100	108	0.114	0.100	114	84 - 119	6	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: HS23090714
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: EQ2300447-02

Service Request: E2300827
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

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	0.108		0.100	0.0500	0.0250	1	9/14/23	9/14/23 11:26	426475	817192	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090714
Sample Matrix: Water
Sample Name: Duplicate Lab Control Sample
Lab Code: EQ2300447-03

Service Request: E2300827
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

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	0.114		0.100	0.0500	0.0250	1	9/14/23	9/14/23 11:02	426475	817192	



HS23090714-MSVOA-SW8260

ALS WO# HS23090714





right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS23090714

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

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.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

Volatiles by EPA Volatiles Organics by Method 8260C

HS23090714-01				Collected		Received		Matrix		Basis	
LH18/24-SP650_091223				09/12/23 13:00		09/13/23 09:55		Water		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Bromoform	uq/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

Volatiles by EPA Volatiles Organics by Method 8260C

HS23090714-01				Collected		Received		Matrix		Basis	
LH18/24-SP650_091223				09/12/23 13:00		09/13/23 09:55		Water		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
cis-1,2-Dichloroethene	ug/L	2.4		0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:34	VOA9_446515	U091422.D	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

Volatiles by EPA Volatiles Organics by Method 8260C

HS23090714-03				Collected		Received		Matrix		Basis	
Trip Blank				09/12/23 00:00		09/13/23 09:55		Water		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Bromoform	uq/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

Volatiles by EPA Volatiles Organics by Method 8260C

HS23090714-03				Collected		Received		Matrix		Basis	
Trip Blank				09/12/23 00:00		09/13/23 09:55		Water		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Trichlorofluoromethane	ug/L	0.93	J	0.30	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 23:12	VOA9_446515	U091421.D	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

Volatiles by EPA Volatiles Organics by Method 8260C

VBLKW-230914				Collected		Received		Matrix		Basis	
VBLKW-230914				NA		NA		Aqueous		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

Volatiles by EPA Volatiles Organics by Method 8260C

VBLKW-230914				Collected		Received		Matrix		Basis	
VBLKW-230914				NA		NA		Aqueous		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	09/14/23 22:04	VOA9_446515	U091418.D	





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Form 2

System Monitoring Compound Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com





Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

HS23090510-99MS	Analyzed	Conc Units	Dilution
HS23090510-99MS	09/15/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	48.65	50	97.3		81-118
4-Bromofluorobenzene	49.12	50	98.2		85-114
Dibromofluoromethane	48.57	50	97.1		80-119
Toluene-d8	55.77	50	112		89-112

HS23090510-99MSD	Analyzed	Conc Units	Dilution
HS23090510-99MSD	09/15/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	48.52	50	97.0		81-118
4-Bromofluorobenzene	49.75	50	99.5		85-114
Dibromofluoromethane	48.24	50	96.5		80-119
Toluene-d8	56.21	50	112		89-112

HS23090714-01	Analyzed	Conc Units	Dilution
LH18/24-SP650_091223	09/14/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51	50	102		81-118
4-Bromofluorobenzene	43	50	86.8		85-114
Dibromofluoromethane	48	50	96.2		80-119
Toluene-d8	55	50	110		89-112





Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

HS23090714-03	Analyzed	Conc Units	Dilution
Trip Blank	09/14/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	50	50	100		81-118
4-Bromofluorobenzene	43	50	85.9		85-114
Dibromofluoromethane	48	50	95.7		80-119
Toluene-d8	54	50	108		89-112

VBLKW-230914	Analyzed	Conc Units	Dilution
VBLKW-230914	09/14/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	49.04	50	98.1		81-118
4-Bromofluorobenzene	44.48	50	89.0		85-114
Dibromofluoromethane	48.65	50	97.3		80-119
Toluene-d8	54.76	50	110		89-112

VLCSW-230914	Analyzed	Conc Units	Dilution
VLCSW-230914	09/14/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	50.41	50	101		81-118
4-Bromofluorobenzene	51.05	50	102		85-114
Dibromofluoromethane	51.85	50	104		80-119
Toluene-d8	52.38	50	105		89-112





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Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

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.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

BatchQC (HS23090510-99)				HS23090510-99MS				HS23090510-99MSD						
Sample Matrix Aqueous		Run Date		09/15/23		09/15/23		09/15/23						
Result Units ug/L		Run Time		00:19		00:41		00:41						
		Data File		U091424.D		U091425.D								
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1,1,2-Tetrachloroethane	78-124	1	0	20.3	20	101		20.09	20	100		20	0.995	
1,1,1-Trichloroethane	74-131	1	0	19.76	20	99		19	20	95		20	3.9	
1,1,2,2-Tetrachloroethane	71-121	1	0	18.89	20	94		19.18	20	96		20	1.55	
1,1,2-Trichloroethane	80-119	1	0	20.93	20	105		21.15	20	106		20	1.05	
1,1-Dichloroethane	77-125	1	45.19	62.11	20	85		60.65	20	77		20	2.37	
1,1-Dichloroethene	71-131	1	451.9	425.5	20	-132		411.8	20	-200		20	3.27	
1,1-Dichloropropene	78-125	1	0	19	20	95		18.2	20	91		20	4.28	
1,2,3-Trichlorobenzene	69-129	1	0	18.67	20	93		18.76	20	94		20	0.447	
1,2,3-Trichloropropane	73-122	1	0	18.44	20	92		18.64	20	93		20	1.09	
1,2,4-Trichlorobenzene	69-130	1	0	16.52	20	83		17.25	20	86		20	4.34	
1,2,4-Trimethylbenzene	76-124	1	0	17.91	20	90		17.79	20	89		20	0.685	
1,2-Dibromo-3-chloropropane	62-128	1	0	18.03	20	90		17.86	20	89		20	0.961	
1,2-Dibromoethane	77-121	1	0	21.04	20	105		21.17	20	106		20	0.642	
1,2-Dichlorobenzene	80-119	1	0	18.69	20	93		18.39	20	92		20	1.59	
1,2-Dichloroethane	73-128	1	0.7927	21.46	20	103		20.76	20	100		20	3.32	
1,2-Dichloropropane	78-122	1	0	22	20	110		20.92	20	105		20	5.06	
1,3,5-Trimethylbenzene	75-124	1	0	17.22	20	86		16.71	20	84		20	2.99	
1,3-Dichlorobenzene	80-119	1	0	17.71	20	89		17.74	20	89		20	0.149	
1,3-Dichloropropane	80-119	1	0	20.56	20	103		20.81	20	104		20	1.2	
1,4-Dichlorobenzene	79-118	1	0	17.24	20	86		17.27	20	86		20	0.198	
2,2-Dichloropropane	60-139	1	0	9.703	20	48		8.979	20	45		20	7.76	
2-Butanone	56-143	1	0	35.16	40	88		34.73	40	87		20	1.25	
2-Chlorotoluene	79-122	1	0	18.22	20	91		18.11	20	90		20	0.609	
2-Hexanone	57-139	1	0	40.63	40	102		41.86	40	105		20	2.98	
4-Chlorotoluene	78-122	1	0	17.78	20	89		17.65	20	88		20	0.729	
4-Isopropyltoluene	77-127	1	0	15.95	20	80		15.85	20	79		20	0.621	
4-Methyl-2-pentanone	67-130	1	0	38.61	40	96		40.14	40	100		20	3.88	
Acetone	39-160	1	0	33.92	40	85		33.75	40	84		20	0.508	
Benzene	79-120	1	0	20.8	20	104		19.82	20	99		20	4.83	
Bromobenzene	80-120	1	0	19.39	20	97		19.22	20	96		20	0.901	
Bromochloromethane	78-123	1	0	18.49	20	92		18.28	20	91		20	1.13	
Bromodichloromethane	79-125	1	0	19.99	20	100		19.08	20	95		20	4.66	
Bromoform	66-130	1	0	19.21	20	96		18.87	20	94		20	1.81	
Bromomethane	53-141	1	0	20.08	20	100		20.1	20	100		20	0.0686	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)





Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

BatchQC (HS23090510-99)				HS23090510-99MS				HS23090510-99MSD						
Sample Matrix Aqueous		Run Date		09/15/23		09/15/23		09/15/23						
Result Units ug/L		Run Time		00:19		00:41		00:41						
		Data File		U091424.D		U091425.D								
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Carbon disulfide	64-133	1	0	35.5	40	89		33.29	40	83		20	6.43	
Carbon tetrachloride	72-136	1	0	14.66	20	73		12.39	20	62		20	16.8	
Chlorobenzene	82-118	1	0	19.61	20	98		19.6	20	98		20	0.0673	
Chloroethane	60-138	1	0	18.69	20	93		18.75	20	94		20	0.358	
Chloroform	79-124	1	0	19.25	20	96		18.34	20	92		20	4.83	
Chloromethane	50-139	1	0	17.77	20	89		17.25	20	86		20	2.98	
cis-1,2-Dichloroethene	78-123	1	0	19.03	20	95		18.1	20	90		20	5.04	
cis-1,3-Dichloropropene	75-124	1	0	16.37	20	82		16.25	20	81		20	0.749	
Dibromochloromethane	74-126	1	0	20.06	20	100		19.73	20	99		20	1.69	
Dibromomethane	79-123	1	0	20.43	20	102		19.57	20	98		20	4.34	
Dichlorodifluoromethane	32-152	1	0	13.69	20	68		13.45	20	67		20	1.76	
Ethylbenzene	79-121	1	0	18.73	20	94		19.23	20	96		20	2.6	
Hexachlorobutadiene	66-134	1	0	12.3	20	62		12.1	20	60		20	1.7	
Isopropylbenzene	72-131	1	0	17.55	20	88		17.87	20	89		20	1.81	
m,p-Xylene	80-121	1	0	38.04	40	95		37.05	40	93		20	2.64	
Methylene chloride	74-124	1	0	19.29	20	96		19.06	20	95		20	1.25	
Naphthalene	61-128	1	0	16.76	20	84		17.99	20	90		20	7.04	
n-Butylbenzene	75-128	1	0	13.94	20	70		13.87	20	69		20	0.532	
n-Propylbenzene	76-126	1	0	16.09	20	80		15.95	20	80		20	0.848	
o-Xylene	78-122	1	0	18.27	20	91		18.17	20	91		20	0.566	
sec-Butylbenzene	77-126	1	0	14.89	20	74		14.77	20	74		20	0.829	
Styrene	78-123	1	0	18.69	20	94		18.36	20	92		20	1.82	
tert-Butylbenzene	78-124	1	0	15.71	20	78		15.56	20	78		20	0.955	
Tetrachloroethene	74-129	1	0	17.7	20	88		17.76	20	89		20	0.359	
Toluene	80-121	1	0	21.23	20	106		21.01	20	105		20	1.06	
trans-1,2-Dichloroethene	75-124	1	0	18.37	20	92		18.45	20	92		20	0.451	
trans-1,3-Dichloropropene	73-127	1	0	15.83	20	79		15.72	20	79		20	0.667	
Trichloroethene	79-123	1	0	18.5	20	92		18.11	20	91		20	2.1	
Trichlorofluoromethane	65-141	1	0	17.96	20	90		17.42	20	87		20	3.02	
Vinyl chloride	58-137	1	1.463	19.44	20	90		18.85	20	87		20	3.06	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)





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Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

SAMPLENUM

Volatiles by EPA Volatiles Organics by Method 8260C

VLCSW-230914

VOA9_446515	VLCSW-230914
Spike Matrix Aqueous	Run Date 09/14/23
Result Units ug/L	Run Time 21:20
	Data File U091416.D

Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q
1,1,1,2-Tetrachloroethane	78-124	20	18.54	92.7	
1,1,1-Trichloroethane	74-131	20	17.91	89.6	
1,1,2,2-Tetrachloroethane	71-121	20	18.86	94.3	
1,1,2-Trichloroethane	80-119	20	18.48	92.4	
1,1-Dichloroethane	77-125	20	18.33	91.7	
1,1-Dichloroethene	71-131	20	16.98	84.9	
1,1-Dichloropropene	78-125	20	17.07	85.4	
1,2,3-Trichlorobenzene	69-129	20	20.71	104	
1,2,3-Trichloropropane	73-122	20	19.45	97.2	
1,2,4-Trichlorobenzene	69-130	20	19.32	96.6	
1,2,4-Trimethylbenzene	76-124	20	20.14	101	
1,2-Dibromo-3-chloropropane	62-128	20	18.21	91.1	
1,2-Dibromoethane	77-121	20	19.84	99.2	
1,2-Dichlorobenzene	80-119	20	18.84	94.2	
1,2-Dichloroethane	73-128	20	18.77	93.8	
1,2-Dichloropropane	78-122	20	19.95	99.8	
1,3,5-Trimethylbenzene	75-124	20	18.93	94.6	
1,3-Dichlorobenzene	80-119	20	18.94	94.7	
1,3-Dichloropropane	80-119	20	19.47	97.4	
1,4-Dichlorobenzene	79-118	20	18	90.0	
2,2-Dichloropropane	60-139	20	17.09	85.5	
2-Butanone	56-143	40	37.52	93.8	
2-Chlorotoluene	79-122	20	19.67	98.4	
2-Hexanone	57-139	40	40.9	102	
4-Chlorotoluene	78-122	20	18.96	94.8	
4-Isopropyltoluene	77-127	20	19.15	95.7	
4-Methyl-2-pentanone	67-130	40	37.87	94.7	
Acetone	39-160	40	40.58	101	
Benzene	79-120	20	18.83	94.2	
Bromobenzene	80-120	20	19.87	99.4	
Bromochloromethane	78-123	20	18.65	93.3	
Bromodichloromethane	79-125	20	17.96	89.8	
Bromoform	66-130	20	18.74	93.7	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)





Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

SAMPLENUM

Volatiles by EPA Volatiles Organics by Method 8260C

VLCSW-230914

VOA9_446515	VLCSW-230914
Spike Matrix Aqueous	Run Date 09/14/23
Result Units ug/L	Run Time 21:20
	Data File U091416.D

Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q
Bromomethane	53-141	20	20.72	104	
Carbon disulfide	64-133	40	36.36	90.9	
Carbon tetrachloride	72-136	20	15.95	79.8	
Chlorobenzene	82-118	20	18.63	93.2	
Chloroethane	60-138	20	17.26	86.3	
Chloroform	79-124	20	18.47	92.4	
Chloromethane	50-139	20	17	85.0	
cis-1,2-Dichloroethene	78-123	20	18.61	93.1	
cis-1,3-Dichloropropene	75-124	20	17.67	88.4	
Dibromochloromethane	74-126	20	18.59	93.0	
Dibromomethane	79-123	20	18.34	91.7	
Dichlorodifluoromethane	32-152	20	15.93	79.6	
Ethylbenzene	79-121	20	19	95.0	
Hexachlorobutadiene	66-134	20	16.29	81.5	
Isopropylbenzene	72-131	20	18.98	94.9	
m,p-Xylene	80-121	40	37.57	93.9	
Methylene chloride	74-124	20	19.75	98.7	
Naphthalene	61-128	20	19.04	95.2	
n-Butylbenzene	75-128	20	17.89	89.4	
n-Propylbenzene	76-126	20	18.48	92.4	
o-Xylene	78-122	20	17.72	88.6	
sec-Butylbenzene	77-126	20	18.06	90.3	
Styrene	78-123	20	18.79	94.0	
tert-Butylbenzene	78-124	20	17.98	89.9	
Tetrachloroethene	74-129	20	18.87	94.4	
Toluene	80-121	20	19.82	99.1	
trans-1,2-Dichloroethene	75-124	20	18.62	93.1	
trans-1,3-Dichloropropene	73-127	20	17.39	87.0	
Trichloroethene	79-123	20	17.64	88.2	
Trichlorofluoromethane	65-141	20	16.47	82.4	
Vinyl chloride	58-137	20	17.38	86.9	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)





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Form 4

Method Blank Summary

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

Volatiles by EPA Volatiles Organics by Method 8260C

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	BatchID
METHOD BLANK	MBLK	VBLKW-230914	U091418.D	09/14/23 22:04	0
VLCSW-230914	LCS	VLCSW-230914	U091416.D	09/14/23 21:20	0
Trip Blank	SAMP	HS23090714-03	U091421.D	09/14/23 23:12	0
LH18/24-SP650_091223	SAMP	HS23090714-01	U091422.D	09/14/23 23:34	0
HS23090510-99MS	MS	HS23090510-99MS	U091424.D	09/15/23 00:19	0
HS23090510-99MSD	MSD	HS23090510-99MSD	U091425.D	09/15/23 00:41	0





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Form 5

Instrument Performance Check

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

ALS Environmental–Houston Laboratory

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Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446513

Tune File U091401.D 09/14/23 9/14/2023			This check applies to the following analyses				
m / e	Ion Abundance Criterion	%RA	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
50	15.0 - 40.0% of mass 95	18.6 (18.6)	1	VSTD000.25	ICAL1	9/14/2023	U091402 VSTD000.25
75	30.0 - 60.0% of mass 95	47.5 (47.5)	2	VSTD000.5	ICAL2	9/14/2023	U091403 VSTD000.5
95	Base peak, 100% RA	100 (100)	3	VSTD001	ICAL3	9/14/2023	U091404 VSTD001
96	5.0 - 9.0% of mass 95	6 (6.04)	4	VSTD002	ICAL4	9/14/2023	U091405 VSTD002
173	Less than 2.0% of mass 174	0 (0) 1	5	VSTD005	ICAL5	9/14/2023	U091406 VSTD005
174	50.0 - 120.0% of mass 95	92.2 (92.2)	6	VSTD020	ICAL6	9/14/2023	U091407 VSTD020
175	4.0 - 9.0% of mass 174	7.7 (8.32) 1	7	VSTD050	ICAL7	9/14/2023	U091408 VSTD050
176	93.0 - 101.0% of mass 174	87.6 (95.1) 1	8	VSTD100	ICAL8	9/14/2023	U091409 VSTD100
177	5.0 - 9.0% of mass 176	5.7 (6.54) 2	9	VSTD150	ICAL9	9/14/2023	U091410 VSTD150
%RA - Percent Relative Abundance			10	VSTD200	ICAL	9/14/2023	U091411 VSTD200
			11	CCV	ICV	9/14/2023	U091413 CCV





Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

Tune File U091401.D 09/14/23 9/14/2023			This check applies to the following analyses					
m / e	Ion Abundance Criterion	%RA	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID	
50	15.0 - 40.0% of mass 95	18.6 (18.6)	1	VLCSW-	LCS	9/14/2023	U091416	VLCSW-230914
75	30.0 - 60.0% of mass 95	47.5 (47.5)	2	VBLKW-	MBLK	9/14/2023	U091418	VBLKW-230914
95	Base peak, 100% RA	100 (100)	3	HS23090714-	SAMP	9/14/2023	U091421	Trip Blank
96	5.0 - 9.0% of mass 95	6 (6.04)	4	HS23090714-	SAMP	9/14/2023	U091422	LH18/24-SP650_091223
173	Less than 2.0% of mass 174	0 (0) 1	5	HS23090510-	MS	9/15/2023	U091424	ZZZZZMS
174	50.0 - 120.0% of mass 95	92.2 (92.2)	6	HS23090510-	MSD	9/15/2023	U091425	ZZZZZMSD
175	4.0 - 9.0% of mass 174	7.7 (8.32) 1	7	CCV-END	CCV_EN	9/15/2023	U091426	CCV-END
176	93.0 - 101.0% of mass 174	87.6 (95.1) 1						
177	5.0 - 9.0% of mass 176	5.7 (6.54) 2						
%RA - Percent Relative Abundance								





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Form 6

Initial Calibration Data

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

ALS Environmental–Houston Laboratory

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9_446513

Calibration Files

Level 1..target\chem\voa9.i\230914.b\091414.d **Level 5**..target\chem\voa9.i\230914.b\091406.d
Level 2..target\chem\voa9.i\230914.b\091403.d **Level 6**..target\chem\voa9.i\230914.b\091407.d
ICAL Start Date 24-AUG-2023 1226 **Level 3**..target\chem\voa9.i\230914.b\091404.d **Level 7**..target\chem\voa9.i\230914.b\091408.d **Level 9**..target\chem\voa9.i\230914.b\091410.d
ICAL End Date 14-SEP-2023 2035 **Level 4**..target\chem\voa9.i\230914.b\091405.d **Level 8**..target\chem\voa9.i\230914.b\091409.d **Level 10**target\chem\voa9.i\230914.b\091411.d

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Dichlorodifluoromethane	NE 365999	3707 823221	6349 1304711	13431 1749434	33181	143501	LINR	0.02676	0.56338		0.99846	
Chloromethane	NE 679763	8313 1410566	14060 2165321	29214 2776648	65950	265733	LINR	-0.01955	0.90532		0.99949	
Propionitrile	NE 0.09762	0.11348 0.10097	0.13080 0.10334	0.09983 0.11732	0.11356	0.09793	AVRG		0.10832		10.39324	
Vinyl Chloride	NE 0.58953	0.63500 0.66440	0.51826 0.68382	0.61359 0.74487	0.61105	0.65184	AVRG		0.63471		10.01584	
Bromomethane	NE 210271	2668 434819	5410 772902	10105 NE	22775	88771	LINR	0.00895	0.31241		0.99649	
Chloroethane	NE 0.40858	0.51407 0.45456	0.43546 0.47522	0.48696 0.51612	0.46633	0.44382	AVRG		0.46679		7.64729	
Trichlorofluoromethane	NE 0.71384	0.84307 0.83940	0.70050 0.85239	0.85787 0.94657	0.78508	0.79016	AVRG		0.81432		9.39063	
Acrolein	NE 0.03598	0.05030 0.03862	0.04568 0.03801	0.04274 0.04373	0.04558	0.04548	AVRG		0.04290		10.65123	
Acetone	NE 343448	7172 787149	11344 1181608	19383 NE	44971	147123	LINR	-0.04324	0.24825		0.99709	
1,1-Dichloroethene	NE 0.42993	0.48044 0.49560	0.49561 0.50712	0.53277 0.56323	0.47214	0.47730	AVRG		0.49490		7.66489	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits





Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 2 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Isobutyl Alcohol	NE 1000328	6981 2260477	14479 3741011	29170 NE	69816	337097	LINR	0.74634	0.07773		0.99832	
Acetonitrile	NE 0.06976	0.06905 0.07789	0.07382 0.08058	0.07474 0.09190	0.07703	0.07180	AVRG		0.07629		9.13624	
Allyl Chloride	NE 1.58330	1.99685 1.71222	1.73391 1.75396	1.71895 2.00686	1.79500	1.65455	AVRG		1.77284		8.07147	
Iodomethane	NE 379247	3691 938697	6809 1796657	12296 2669085	28118	126031	QUAD	0.06674	3.55616	-0.37217	0.99869	
Acrylonitrile	NE 0.26035	0.31688 0.28035	0.31053 0.28563	0.25151 0.33071	0.31054	0.27845	AVRG		0.29166		9.23533	
Methylene Chloride	NE 422454	5165 885454	11952 1469875	21334 2059188	46477	168006	LINR	0.03386	0.64995		0.99512	
Methyl tert-butyl ether	NE 1.27552	1.62967 1.42506	1.35198 1.49581	1.14063 1.74702	1.30996	1.27057	AVRG		1.40514		13.61238	
Carbon Disulfide	NE 1.23844	1.26383 1.41052	1.07437 1.45112	1.46170 1.58693	1.23120	1.31348	AVRG		1.33684		11.59541	
trans-1,2-Dichloroethene	NE 0.47975	0.55428 0.53277	0.39266 0.54631	0.51711 0.60246	0.53193	0.51528	AVRG		0.51917		11.15481	
Vinyl Acetate	NE 1.73873	1.90853 1.92746	1.50781 2.05417	1.65026 2.34587	1.68954	1.70870	AVRG		1.83679		13.75302	
1,1-Dichloroethane	NE 0.93943	1.07383 1.02643	0.91917 1.04335	1.14236 1.17528	1.03943	1.01161	AVRG		1.04121		8.00852	
Chloroprene	NE 0.18634	0.20040 0.22946	0.15392 0.24364	0.19604 NE	0.19444	0.19631	AVRG		0.20007		13.54802	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

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Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
2-Butanone	NE 0.26601	0.32564 0.30047	0.30306 0.29640	0.29810 0.34410	0.30774	0.28603	AVRG		0.30306		7.33642	
Methacrylonitrile	NE 0.34930	0.43147 0.38177	0.33617 0.41204	0.40568 0.45363	0.40218	0.36522	AVRG		0.39305		9.77190	
2,2-Dichloropropane	NE 0.56716	0.67818 0.66538	0.50690 0.68003	0.59851 0.77977	0.60975	0.58850	AVRG		0.63046		12.63104	
cis-1,2-Dichloroethene	NE 0.55005	0.60106 0.59671	0.53281 0.60765	0.58764 0.67055	0.60368	0.59228	AVRG		0.59360		6.50141	
Chloroform	NE 0.92536	1.01438 0.99160	0.93201 0.99258	1.09787 1.09686	1.05814	0.99018	AVRG		1.01100		6.24335	
Bromochloromethane	NE 0.28350	0.31930 0.29806	0.30348 0.29564	0.35122 0.32321	0.32568	0.29962	AVRG		0.31108		6.62379	
1,1,1-Trichloroethane	NE 0.61436	0.71682 0.72978	0.58230 0.71056	0.74141 0.76778	0.64471	0.67128	AVRG		0.68656		9.07185	
1,1-Dichloropropene	NE 0.35684	0.40403 0.41723	0.37255 0.41033	0.41616 0.42559	0.37965	0.38991	AVRG		0.39692		5.89717	
1,2-Dichloroethane	NE 0.46304	0.54072 0.47428	0.47800 0.45091	0.47176 0.46099	0.50381	0.50629	AVRG		0.48331		5.87332	
Carbon Tetrachloride	NE 0.32605	0.35901 0.40768	0.29944 0.39073	0.34386 0.40129	0.30615	0.36174	AVRG		0.35511		11.21576	
Benzene	NE 1.19376	1.43643 1.28481	1.14071 1.23498	1.25495 1.25284	1.24368	1.26046	AVRG		1.25585		6.36851	
Trichloroethene	NE 0.32324	0.38916 0.36229	0.41141 0.35273	0.40076 0.35433	0.34830	0.34523	AVRG		0.36527		7.92367	

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Bromodichloromethane	NE 0.39485	0.45127 0.43233	0.32945 0.42235	0.38930 0.43526	0.41061	0.40043	AVRG		0.40732		8.75214	
Methyl Methacrylate	NE 0.41200	0.43648 0.44683	0.35111 0.44968	0.37495 0.50094	0.35765	0.35529	AVRG		0.40944		12.90456	
2-Chloroethylvinyl ether	NE 3835	53.00000 8728	75.00000 13383	139 NE	336	1495	LINR	0.01042	0.00182		0.99811	
1,2-Dichloropropane	NE 0.33009	0.33257 0.34397	0.25940 0.34038	0.35639 0.35012	0.33355	0.33824	AVRG		0.33163		8.56288	
2-Nitropropane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Dibromomethane	NE 0.22042	0.26403 0.22390	0.21630 0.21470	0.23416 0.22452	0.23528	0.22176	AVRG		0.22834		6.61787	
4-Methyl-2-Pentanone	NE 766488	6101 1680595	7941 2729579	19237 3882854	55368	259947	LINR	0.05070	0.38061		0.99946	
cis-1,3-Dichloropropene	NE 501695	4418 1167680	6792 1934103	14220 2674030	34543	160625	LINR	0.06306	0.53920		0.99740	
Ethyl Methacrylate	NE 0.41268	0.45680 0.45442	0.36246 0.46735	0.38395 0.54587	0.45021	0.39076	AVRG		0.43606		12.75212	
Toluene	NE 1.34569	1.45082 1.46239	1.07184 1.40533	1.23344 1.40314	1.27701	1.43363	AVRG		1.34259		9.54890	
trans-1,3-Dichloropropene	NE 422161	3003 972012	5013 1618558	11642 NE	26471	130809	LINR	0.04789	0.43342		0.99763	
2-Hexanone	NE 0.22932	0.20700 0.25813	0.18903 0.25314	0.21693 0.27813	0.19422	0.21418	AVRG		0.22667		13.46620	

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
1,1,2-Trichloroethane	NE 0.27764	0.34447 0.28684	0.28956 0.27121	0.30896 0.27991	0.29400	0.28227	AVRG		0.29276		7.59199	
1,3-Dichloropropane	NE 0.55932	0.64394 0.59668	0.53726 0.57449	0.60703 0.58087	0.62003	0.58015	AVRG		0.58886		5.46268	
Dibromochloromethane	NE 0.35255	0.39670 0.39025	0.27799 0.37643	0.31490 0.38617	0.30544	0.33577	AVRG		0.34847		12.17510	
Tetrachloroethene	NE 0.28439	0.33768 0.33024	0.29417 0.30568	0.32019 0.30642	0.29970	0.33694	AVRG		0.31283		6.16711	
1,2-Dibromoethane	NE 0.34711	0.36002 0.35966	0.32308 0.35711	0.32188 0.37780	0.36311	0.35686	AVRG		0.35185		5.24926	
1-Chlorohexane	NE 0.23239	0.33730 0.30896	0.28436 0.32654	0.27718 0.38591	0.27728	0.28869	AVRG		0.30207		14.57094	
Chlorobenzene	NE 0.91636	1.06386 0.99276	0.87812 0.97638	1.03958 1.01684	1.05205	1.00122	AVRG		0.99302		6.23425	
1,1,1,2-Tetrachloroethane	NE 0.31804	0.36834 0.35234	0.29571 0.34755	0.31049 0.36224	0.31400	0.33496	AVRG		0.33374		7.61789	
Ethylbenzene	NE 0.40959	0.45057 0.49896	0.36253 0.49299	0.41356 0.51149	0.41423	0.44783	AVRG		0.44464		11.15028	
m,p-Xylenes	NE 0.50182	0.51611 0.63305	0.47807 0.65096	0.53806 0.67800	0.48452	0.55163	AVRG		0.55914		13.53220	
o-Xylene	NE 0.51076	0.60409 0.62094	0.55400 0.64078	0.54655 0.68422	0.54264	0.52588	AVRG		0.58109		10.12904	
Styrene	NE 0.78758	0.87651 0.97578	0.72659 1.06148	0.83274 1.11914	0.85665	0.79379	AVRG		0.89225		14.83920	

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
cis-1,4-Dichloro-2-butene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Bromoform	NE 248786	2213 553169	3346 971749	7208 1484437	18129	86866	LINR	0.07130	0.28327		0.99565	
Isopropylbenzene	NE 1270310	12158 3338525	19078 5778129	40776 8637564	106778	536621	QUAD	0.02951	0.72440	-0.02036	0.99802	
1,1,2,2-Tetrachloroethane	NE 0.96877	1.07691 0.96428	0.94252 0.94068	0.96138 0.97891	0.96650	0.94232	AVRG		0.97136		4.30583	
1,2,3-Trichloropropane	NE 0.83400	0.92643 0.86499	0.68740 0.84951	0.72811 0.93383	0.84761	0.77833	AVRG		0.82780		10.04826	
trans-1,4-Dichloro-2-butene	NE 75428	725 182461	1290 338574	2699 554286	7259	27892	QUAD	0.01682	13.66836	-10.35493	0.99923	
n-Propylbenzene	NE 1319916	9893 3742926	15066 6534980	40048 9390355	104281	564347	LINR	0.06036	3.29374		0.99702	
Bromobenzene	NE 0.78617	0.82872 0.80782	0.79775 0.78196	0.75922 0.82436	0.76125	0.80466	AVRG		0.79466		3.12387	
1,3,5-Trimethylbenzene	NE 1.69678	1.83479 2.13613	1.54429 2.16986	1.69752 2.32869	1.67877	1.83936	AVRG		1.88069		14.25145	
2-Chlorotoluene	NE 1.78931	1.84667 2.03107	1.55647 1.97597	1.82372 2.07534	1.69055	1.91960	AVRG		1.85652		8.92955	
4-Chlorotoluene	NE 2.05404	2.45550 2.42415	1.76830 2.39950	1.85665 2.48853	1.94977	2.21007	AVRG		2.17850		12.80654	
tert-Butylbenzene	NE 1.61445	1.73209 2.09185	1.34748 2.09599	1.69439 2.16064	1.66027	1.89111	AVRG		1.80981		14.93883	

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Volatiles by EPA Volatiles Organics by Method 8260C

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ICAL Summary Page 7 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
1,2,4-Trimethylbenzene	NE 1.74069	1.99835 2.14733	1.50833 2.19276	1.66966 2.34455	1.80604	1.99088	AVRG		1.93318		14.08589	
Pentachloroethane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
sec-Butylbenzene	NE 1078548	9443 3233827	14747 5794903	37386 8545916	102146	487620	QUAD	0.03553	0.40159	-0.00601	0.99728	
p-Isopropyltoluene	NE 858100	7845 2596903	10971 4754112	30473 7125106	91770	379700	QUAD	0.03551	0.50599	-0.01109	0.99726	
1,3-Dichlorobenzene	NE 1.29564	1.64936 1.43331	1.14193 1.41516	1.40808 1.45953	1.34972	1.46142	AVRG		1.40157		9.79907	
1,4-Dichlorobenzene	NE 1.36452	1.73898 1.57084	1.64932 1.50126	1.67312 1.55645	1.59518	1.52280	AVRG		1.57472		6.93007	
bis(2-Chloro-isopropyl)ether	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Benzyl Chloride	NE 238400	2308 669969	4481 1319002	10494 NE	25511	90176	QUAD	0.01651	4.22254	-1.38763	0.99660	
n-Butylbenzene	NE 771155	6875 2423452	10524 4319547	25685 6555037	70297	345471	QUAD	0.04120	0.54839	-0.01292	0.99669	
1,2-Dichlorobenzene	NE 1.30363	1.59492 1.51325	1.25783 1.44593	1.47321 1.50014	1.36852	1.44379	AVRG		1.43347		7.42571	
1,2-Dibromo-3-Chloropropane	NE 0.11727	0.12528 0.12818	0.13519 0.12273	0.11938 0.14047	0.09968	0.09952	AVRG		0.12086		11.64772	
1,2,4-Trichlorobenzene	NE 0.79133	0.79544 0.91831	0.65973 0.87584	0.80193 0.94575	0.77915	0.77709	AVRG		0.81606		10.55973	

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Hexachlorobutadiene	NE 0.29572	0.39938 0.39116	0.32726 0.35455	0.39421 0.38416	0.36938	0.37954	AVRG		0.36615		9.47976	
Naphthalene	NE 1096628	8877 2667441	13176 4538786	27784 6850147	71056	371874	LINR	0.05461	2.36301		0.99749	
1,2,3-Trichlorobenzene	NE 0.79082	0.80281 0.88470	0.63654 0.84765	0.63671 0.92009	0.65132	0.80227	AVRG		0.77477		13.96996	
Ethyl Acetate	NE 0.69285	0.73810 0.74414	0.74245 0.75653	0.69433 0.88171	0.73387	0.70967	AVRG		0.74374		7.59451	
Methyl Acrylate	NE 0.72768	0.85841 0.76506	0.74004 0.79249	0.66578 0.91860	0.81516	0.72118	AVRG		0.77827		9.93062	
n-Butanol	NE 192290	1719 457128	2369 763912	6853 1029553	13604	59879	LINR	1.44831	0.01664		0.99636	
Ethyl Acrylate	NE 1.08362	1.18005 1.29388	0.94913 1.24318	1.03653 1.42111	1.14681	1.11060	AVRG		1.16277		12.21999	
Cyclohexanone	NE 317398	2558 842236	3824 1362676	10101 2213446	25352	118478	QUAD	0.27792	33.05577	-2.30848	0.99696	
1,4-Dioxane	0.00807 0.00672	0.00846 0.00704	0.00769 0.00662	0.00679 0.00705	0.00752	0.00671	AVRG		0.00727		8.78626	
n-Hexane	NE 339399	3717 992187	6922 1644568	14741 NE	34377	167899	QUAD	0.01308	1.82503	-0.18854	0.99366	
n-Pentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Freon TF	NE 261309	3073 684389	4663 1134738	11603 1638859	25879	120741	QUAD	0.00284	2.55565	-0.32192	0.99833	

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Methyl Acetate	NE 0.53114	0.71573 0.56195	0.61926 0.57857	0.64790 0.65884	0.61217	0.53063	AVRG		0.60624		10.23128	
Methylcyclohexane	NE 0.70028	0.77480 0.83462	0.54081 0.79913	0.63067 0.88514	0.71513	0.71598	AVRG		0.73295		14.36482	
Isopropyl alcohol	NE 0.03964	0.05144 0.04238	0.03837 0.04441	0.04825 0.05087	0.04157	0.03863	AVRG		0.04395		11.62350	
Amyl alcohol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Allyl alcohol	NE 339399	3417 992187	8402 1644568	15482 2449493	34377	167899	QUAD	0.29393	35.97672	-3.46793	0.99684	
4-Methyl-2-pentanol	NE 1331093	11606 3282152	16850 5678265	33476 8869066	97556	463540	QUAD	0.42184	16.46473	-0.75433	0.99939	
Tert-butyl alcohol	NE 0.05485	0.07444 0.05883	0.05025 0.06182	0.06155 0.07175	0.06215	0.05575	AVRG		0.06126		12.68809	
Diethyl ether	NE 0.44841	0.51001 0.48146	0.50059 0.49697	0.51274 0.57102	0.48968	0.44880	AVRG		0.49552		7.43867	
1,3-Butadiene	NE 0.54864	0.57853 0.60796	0.52627 0.62906	0.57573 0.69704	0.57632	0.57676	AVRG		0.59070		8.41589	
Cyclohexane	NE 417496	4570 1133205	7153 1767337	16765 2438404	42320	197210	QUAD	0.01046	1.51027	-0.08083	0.99721	
Tetrahydrofuran	NE 0.11413	0.14518 0.12434	0.12875 0.12454	0.12727 NE	0.12313	0.11639	AVRG		0.12546		7.50836	
1-Chlorobutane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Nitrobenzene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
alpha-Methylstyrene	NE 352370	3195 970876	5828 1832249	12611 2850527	31357	140696	QUAD	0.02640	1.36617	-0.09368	0.99875	
Tetraethyl lead	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
2,3-Dichlorobutane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
2-Pentanone	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Diisopropyl ether	NE 1.90181	2.45961 2.14417	1.76200 2.27331	2.18177 2.64480	2.13132	1.97215	AVRG		2.16344		12.65258	
n-Heptane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Dichlorofluoromethane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Propylene oxide	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
2-Methylnaphthalene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
3-Methyl-1-butanol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Butyl acrylate	NE 562929	5050 1404394	9090 2571857	17459 4194332	43284	183149	QUAD	0.03352	1.77384	-0.17247	0.99886	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits





Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 11 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Butyl methacrylate	NE 397835	3041 868381	4447 1540788	11040 NE	28545	128376	LINR	0.02474	0.75850		0.99944	
Dicyclopentadiene	NE 1106882	9699 3293174	16090 5605401	38550 8504352	93143	439065	QUAD	0.03707	0.40356	-0.00595	0.99703	
4-Vinyl-1-cyclohexene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
1,2,3-Trimethylbenzene	NE 1.76481	2.18615 2.15125	1.58793 2.06712	1.53675 2.23855	1.83555	1.93767	AVRG		1.92286		13.46175	
Ethanol	NE 0.00887	0.01253 0.00934	0.01156 0.00936	0.01068 0.01039	0.01216	0.00981	AVRG		0.01052		12.48629	
1-Propanol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
1,3,5-Trichlorobenzene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
tert-Butyl formate	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
3,3-Dimethyl-1-butanol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
tert-Amyl methyl ether	NE 755560	5959 1694814	8748 2759489	20046 NE	51688	241640	LINR	0.03634	1.15267		0.99861	
tert-Butyl ethyl ether	NE 945112	9169 2285735	15060 3927060	32331 NE	73009	318352	LINR	0.05551	1.62056		0.99506	
tert-Amyl alcohol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*

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Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 12 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Dimethyl ether	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Ethylene oxide	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Hexachloroethane	NE 89758	922 205287	1951 332300	3866 497508	11282	42815	LINR	-0.01440	0.17019		0.99796	
1-Methylnaphthalene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
2-Furfural	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Epichlorohydrin	NE 0.00375	0.00412 0.00358	0.00371 0.00365	0.00370 0.00487	0.00383	0.00404	AVRG		0.00392		10.15581	
2-Methylpropane(1)	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
(2)	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Cyclopentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Isoprene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Isopentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
n-Amyl acetate	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*

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Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 13 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Isopropyl acetate	NE 0.87221	0.96616 0.98368	0.73129 0.99770	0.85589 1.09873	0.84865	0.80880	AVRG		0.90701		12.45603	
n-Butyl acetate	NE 574264	4460 1317192	7154 2291727	16908 NE	47093	186665	LINR	0.05035	0.63216		0.99642	
Propanal	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
n-Buteraldehyde	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Isobuteraldehyde	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
2-Ethyl-1-hexanol	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Acetaldehyde	NE 311342	NE 541574	NE 885769	9425 1211017	48054	122532	LINR	-0.16114	0.09498		0.99574	
Methyl Amyl Ketone	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
2-Methylpentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
3-Methylpentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
Methylcyclopentane	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
1-Hexene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	

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Volatiles by EPA Volatiles Organics by Method 8260C

ICAL Start Date 24-AUG-2023 1226

ICAL End Date 14-SEP-2023 2035

ICAL Summary Page 14 / 14

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Dimethyl Disulfide	NE 337308	NE 1019789	900 1911544	3526 2897727	12037	88155	QUAD	0.11368	2.29247	-0.26107	0.99489	*
1-Butene(1)	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	
(2)	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
Isobutylene	NE NE	NE NE	NE NE	NE NE	NE	NE	AVRG		0.000e+000		0.000e+000	*
2-Ethylhexyl Acrylate	NE 201286	1841 600525	3245 1150692	7443 2059168	20556	79669	QUAD	0.03210	2.30600	-0.32334	0.99803	
94 1,2-Dichloroethylene (total)	NE 0.51490	0.57767 0.56474	0.46274 0.57698	0.55237 0.63651	0.56780	0.55378	AVRG		0.55639		8.52781	
95 Xylenes (total)	NE 0.48676	0.50065 0.59521	0.46742 0.62382	0.51887 0.71283	0.49289	0.52687	AVRG		0.54726		14.72625	
30 Dibromofluoromethane	NE 328369	3104 685902	5321 1058564	11893 1427589	30159	129138	LINR	0.00417	0.45811		0.99875	
35 1,2-Dichloroethane-d4	NE 379658	4043 775916	8172 1180336	13220 1605933	35545	147451	LINR	-0.00299	0.51376		0.99837	
48 Toluene-d8	NE 1.12164	1.28011 1.16465	1.05099 1.07459	0.98642 1.04543	1.04873	1.14834	AVRG		1.10232		7.91712	
69 4-Bromofluorobenzene	NE 520817	4793 1113602	7585 NE	14167 NE	43329	208648	QUAD	-0.00276	2.18031	-0.21402	0.99937	

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Form 6I

Initial Calibration Verification (ICV)

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id CCV
Data Type MS DATA
File ID U091413.D

Fraction VOA
Client Smp ID CCV
SampleType METHSPIKE
Inj Date 14-SEP-2023 2013

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachloroethane	50.00	47.99	96.00	80-120	
1,1,1-Trichloroethane	50.00	47.25	94.50	80-120	
1,1,2,2-Tetrachloroethane	50.00	47.50	95.00	80-120	
Freon TF	50.00	49.35	98.71	80-120	
Methyl Acetate	50.00	47.59	95.19	80-120	
Cyclohexane	50.00	47.41	94.82	80-120	
Methylcyclohexane	50.00	49.99	99.98	80-120	
Carbon Disulfide	100.00	97.82	97.83	80-120	
2-Hexanone	100.00	105.97	105.98	80-120	
1,1,2-Trichloroethane	50.00	46.75	93.50	80-120	
1,1-Dichloroethane	50.00	47.21	94.42	80-120	
1,1-Dichloroethene	50.00	45.28	90.57	80-120	
1,1-Dichloropropene	50.00	46.39	92.78	80-120	
1,2,3-Trichlorobenzene	50.00	57.66	115.34	80-120	
1,2,3-Trichloropropane	50.00	49.22	98.45	80-120	
1,2,4-Trichlorobenzene	50.00	55.15	110.30	80-120	
1,2,4-Trimethylbenzene	50.00	53.34	106.69	80-120	
1,2-Dibromo-3-Chloropropane	50.00	51.66	103.32	80-120	
1,2-Dibromoethane	50.00	48.44	96.89	80-120	
Acrolein	100.00	85.70	85.70	80-120	
Acrylonitrile	100.00	97.11	97.12	80-120	
1,2-Dichlorobenzene	50.00	48.42	96.86	80-120	
1,2-Dichloroethane	50.00	45.84	91.68	80-120	
1,2-Dichloropropane	50.00	50.02	100.04	80-120	
1,3,5-Trimethylbenzene	50.00	52.87	105.76	80-120	
1,3-Dichlorobenzene	50.00	48.36	96.73	80-120	
1,3-Dichloropropane	50.00	48.21	96.43	80-120	
1,4-Dichlorobenzene	50.00	46.21	92.43	80-120	
1-Chlorohexane	50.00	41.48	82.96	80-120	
2,2-Dichloropropane	50.00	47.90	95.81	80-120	
2-Butanone	100.00	97.60	97.61	80-120	
2-Chloroethylvinyl ether	100.00	89.77	89.77	80-120	
2-Chlorotoluene	50.00	51.43	102.88	80-120	
4-Chlorotoluene	50.00	51.38	102.76	80-120	





Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id CCV
Data Type MS DATA
File ID U091413.D

Fraction VOA
Client Smp ID CCV
SampleType METHSPIKE
Inj Date 14-SEP-2023 2013

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
p-Isopropyltoluene	50.00	50.39	100.79	80-120	
4-Methyl-2-Pentanone	100.00	97.61	97.62	80-120	
Acetone	100.00	96.59	96.60	80-120	
Acetonitrile	500.00	487.04	97.41	80-120	
Allyl Chloride	50.00	47.43	94.87	80-120	
Benzene	50.00	47.38	94.76	80-120	
Bromobenzene	50.00	50.39	100.80	80-120	
Bromochloromethane	50.00	46.77	93.55	80-120	
Bromodichloromethane	50.00	47.33	94.66	80-120	
Bromoform	50.00	42.70	85.40	80-120	
Bromomethane	50.00	53.93	107.87	80-120	
Carbon Tetrachloride	50.00	45.49	90.99	80-120	
Chlorobenzene	50.00	46.03	92.07	80-120	
Chloroethane	50.00	45.82	91.65	80-120	
Chloroform	50.00	47.38	94.77	80-120	
Chloromethane	50.00	43.46	86.93	80-120	
Chloroprene	50.00	50.87	101.75	80-120	
cis-1,2-Dichloroethene	50.00	49.09	98.19	80-120	
cis-1,3-Dichloropropene	50.00	44.97	89.95	80-120	
Dibromochloromethane	50.00	50.42	100.85	80-120	
Dibromomethane	50.00	45.82	91.65	80-120	
Dichlorodifluoromethane	50.00	44.80	89.61	80-120	
Ethylbenzene	50.00	50.54	101.08	80-120	
Ethyl Methacrylate	50.00	50.05	100.11	80-120	
Iodomethane	100.00	107.26	107.27	80-120	
Isobutyl Alcohol	1000.00	972.55	97.26	70-130	
Propionitrile	500.00	486.02	97.20	70-130	
Hexachlorobutadiene	50.00	48.09	96.18	80-120	
Isopropylbenzene	50.00	47.73	95.48	80-120	
m,p-Xylenes	100.00	100.08	100.08	80-120	
Methyl tert-butyl ether	50.00	53.06	106.13	80-120	
Methylene Chloride	50.00	46.45	92.91	80-120	
Methacrylonitrile	50.00	53.89	107.80	80-120	
Methyl Methacrylate	50.00	53.99	107.99	80-120	





Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

VOA9_446513

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id CCV
Data Type MS DATA
File ID U091413.D

Fraction VOA
Client Smp ID CCV
SampleType METHSPIKE
Inj Date 14-SEP-2023 2013

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
n-Butylbenzene	50.00	48.76	97.53	80-120	
n-Propylbenzene	50.00	47.24	94.49	80-120	
Naphthalene	50.00	51.24	102.49	80-120	
o-Xylene	50.00	47.71	95.42	80-120	
sec-Butylbenzene	50.00	48.74	97.50	80-120	
Styrene	50.00	49.97	99.95	80-120	
tert-Butylbenzene	50.00	50.96	101.93	80-120	
Tetrachloroethene	50.00	48.62	97.25	80-120	
Toluene	50.00	50.12	100.24	80-120	
trans-1,2-Dichloroethene	50.00	48.37	96.76	80-120	
trans-1,3-Dichloropropene	50.00	45.35	90.70	80-120	
trans-1,4-Dichloro-2-butene	50.00	43.65	87.30	80-120	
Trichloroethene	50.00	44.64	89.29	80-120	
Trichlorofluoromethane	50.00	46.40	92.81	80-120	
Vinyl Acetate	100.00	101.26	101.27	80-120	
Vinyl Chloride	50.00	47.16	94.34	80-120	
Ethyl Acrylate	50.00	49.92	99.86	80-120	
Butyl acrylate	50.00	51.85	103.72	80-120	
2-Ethylhexyl Acrylate	50.00	53.04	106.08	80-120	
1,2-Dichloroethylene (total)	100.00	97.52	97.52	80-120	
Xylenes (total)	150.00	142.61	95.08	80-120	
1,4-Dioxane	1000.00	914.45	91.45	80-120	
Dibromofluoromethane	50.00	52.67	105.35	71-125	
1,2-Dichloroethane-d4	50.00	52.52	105.04	70-125	
Toluene-d8	50.00	54.23	108.48	75-125	
4-Bromofluorobenzene	50.00	52.95	105.92	72-125	





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Form 7

Continuing Calibration Verification (CCV)

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

ALS Environmental–Houston Laboratory

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Phone (281) 530-5656 Fax (281) 530-5887

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Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9_446515

Instrument ID VOA9.i
Lab File ID U091426.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 15-SEP-2023 0103
ICAL Date(s) 24-AUG-2023, 14-SEP-2023
ICAL Times 12:26, 20:35
Quant Type ISTD

Compound	RRF / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dichlorodifluoromethane	50.0	47.79052	0.52341	0.100	4.41896	50.0	Linear	
Chloromethane	50.0	49.35979	0.91142	0.100	1.28042	50.0	Linear	
Vinyl Chloride	0.63471	0.62900	0.62900	0.100	0.89913	50.0	Averaged	
Bromomethane	50.0	48.25215	0.29869	0.100	3.49569	50.0	Linear	
Chloroethane	0.46679	0.43840	0.43840	0.100	6.08280	50.0	Averaged	
Trichlorofluoromethane	0.81432	0.78340	0.78340	0.100	3.79715	50.0	Averaged	
Acrolein	0.04290	0.03453	0.03453	0.010	19.50195	50.0	Averaged	
Acetone	100	88.40131	0.22482	0.100	11.59869	50.0	Linear	
1,1-Dichloroethene	0.49490	0.48346	0.48346	0.100	2.31308	50.0	Averaged	
Iodomethane	100	105	0.30482	0.100	-4.81930	50.0	Quadratic	
Acrylonitrile	0.29166	0.26171	0.26171	0.050	10.26941	50.0	Averaged	
Methylene Chloride	50.0	47.09513	0.59018	0.100	5.80974	50.0	Linear	
Methyl tert-butyl ether	1.40514	1.31873	1.31873	0.100	6.14948	50.0	Averaged	
Carbon Disulfide	1.33684	1.33917	1.33917	0.100	-0.17420	50.0	Averaged	
trans-1,2-Dichloroethene	0.51917	0.50670	0.50670	0.100	2.40306	50.0	Averaged	
Vinyl Acetate	1.83679	1.75396	1.75396	0.010	4.50926	50.0	Averaged	
1,1-Dichloroethane	1.04121	1.01532	1.01532	0.200	2.48684	50.0	Averaged	
2-Butanone	0.30306	0.27949	0.27949	0.100	7.77839	50.0	Averaged	
2,2-Dichloropropane	0.63046	0.55812	0.55812	0.100	11.47480	50.0	Averaged	
cis-1,2-Dichloroethene	0.59360	0.58545	0.58545	0.100	1.37392	50.0	Averaged	
Chloroform	1.01100	0.96760	0.96760	0.200	4.29217	50.0	Averaged	
Bromochloromethane	0.31108	0.29976	0.29976	0.100	3.63897	50.0	Averaged	
30 Dibromofluoromethane	50.0	55.07109	0.50266	0.100	-10.14217	50.0	Linear	
1,1,1-Trichloroethane	0.68656	0.70153	0.70153	0.100	-2.18129	50.0	Averaged	
1,1-Dichloropropene	0.39692	0.37153	0.37153	0.100	6.39618	50.0	Averaged	
1,2-Dichloroethane	0.48331	0.45489	0.45489	0.100	5.88036	50.0	Averaged	
Carbon Tetrachloride	0.35511	0.32170	0.32170	0.100	9.40823	50.0	Averaged	
35 1,2-Dichloroethane-d4	50.0	52.18393	0.53774	0.100	-4.36787	50.0	Linear	
Benzene	1.25585	1.21776	1.21776	0.500	3.03297	50.0	Averaged	
Trichloroethene	0.36527	0.33191	0.33191	0.200	9.13317	50.0	Averaged	
Bromodichloromethane	0.40732	0.39750	0.39750	0.200	2.41079	50.0	Averaged	
2-Chloroethylvinyl ether	100	++++	0.05821	0.001	++++	50.0	Linear	*
1,2-Dichloropropane	0.33163	0.33741	0.33741	0.100	-1.74093	50.0	Averaged	
Dibromomethane	0.22834	0.21826	0.21826	0.100	4.41710	50.0	Averaged	





Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9_446515

Instrument ID VOA9.i
Lab File ID U091426.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 15-SEP-2023 0103
ICAL Date(s) 24-AUG-2023, 14-SEP-2023
ICAL Times 12:26, 20:35
Quant Type ISTD

Compound	RRF / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Methyl-2-Pentanone	100	93.10501	0.34471	0.100	6.89499	50.0	Linear	
cis-1,3-Dichloropropene	50.0	43.49973	0.43510	0.200	13.00055	50.0	Linear	
48 Toluene-d8	1.10232	1.19876	1.19876	0.100	-8.74884	50.0	Averaged	
Toluene	1.34259	1.39850	1.39850	0.400	-4.16465	50.0	Averaged	
trans-1,3-Dichloropropene	50.0	43.64527	0.35758	0.100	12.70946	50.0	Linear	
2-Hexanone	0.22667	0.22774	0.22774	0.100	-0.47204	50.0	Averaged	
1,1,2-Trichloroethane	0.29276	0.27393	0.27393	0.100	6.43310	50.0	Averaged	
1,3-Dichloropropane	0.58886	0.57466	0.57466	0.100	2.41174	50.0	Averaged	
Dibromochloromethane	0.34847	0.35424	0.35424	0.100	-1.65772	50.0	Averaged	
Tetrachloroethene	0.31283	0.31477	0.31477	0.200	-0.62134	50.0	Averaged	
1,2-Dibromoethane	0.35185	0.34848	0.34848	0.100	0.95832	50.0	Averaged	
1-Chlorohexane	0.30207	0.25700	0.25700	0.100	14.91866	50.0	Averaged	
Chlorobenzene	0.99302	0.95547	0.95547	0.500	3.78109	50.0	Averaged	
1,1,1,2-Tetrachloroethane	0.33374	0.33198	0.33198	0.100	0.52752	50.0	Averaged	
Ethylbenzene	0.44464	0.45638	0.45638	0.100	-2.64024	50.0	Averaged	
m,p-Xylenes	0.55914	0.57410	0.57410	0.100	-2.67680	50.0	Averaged	
o-Xylene	0.58109	0.57739	0.57739	0.300	0.63788	50.0	Averaged	
Styrene	0.89225	0.89856	0.89856	0.300	-0.70732	50.0	Averaged	
Bromoform	50.0	43.74076	0.22761	0.100	12.51848	50.0	Linear	
Isopropylbenzene	50.0	48.25281	1.34210	0.100	3.49438	50.0	Quadratic	
1,1,2,2-Tetrachloroethane	0.97136	0.95031	0.95031	0.300	2.16715	50.0	Averaged	
69 4-Bromofluorobenzene	50.0	52.40308	0.50721	0.100	-4.80616	50.0	Quadratic	
1,2,3-Trichloropropane	0.82780	0.82362	0.82362	0.100	0.50500	50.0	Averaged	
n-Propylbenzene	50.0	46.52069	2.86575	0.100	6.95862	50.0	Linear	
Bromobenzene	0.79466	0.82788	0.82788	0.100	-4.18048	50.0	Averaged	
1,3,5-Trimethylbenzene	1.88069	1.99160	1.99160	0.100	-5.89739	50.0	Averaged	
2-Chlorotoluene	1.85652	1.92355	1.92355	0.100	-3.61034	50.0	Averaged	
4-Chlorotoluene	2.17850	2.25241	2.25241	0.100	-3.39248	50.0	Averaged	
tert-Butylbenzene	1.80981	1.85194	1.85194	0.100	-2.32793	50.0	Averaged	
1,2,4-Trimethylbenzene	1.93318	2.03517	2.03517	0.100	-5.27592	50.0	Averaged	
sec-Butylbenzene	50.0	48.16989	2.39634	0.100	3.66022	50.0	Quadratic	
p-Isopropyltoluene	50.0	49.44767	1.96936	0.100	1.10466	50.0	Quadratic	
1,3-Dichlorobenzene	1.40157	1.37230	1.37230	0.600	2.08866	50.0	Averaged	
1,4-Dichlorobenzene	1.57472	1.45265	1.45265	0.400	7.75172	50.0	Averaged	





Continuing Calibration Verification (CCV)

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Project Longhorn GW Treatment Plant Monthly Effluent Samples

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Volatiles by EPA Volatiles Organics by Method 8260C

VOA9_446515

Instrument ID VOA9.i
Lab File ID U091426.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 15-SEP-2023 0103
ICAL Date(s) 24-AUG-2023, 14-SEP-2023
ICAL Times 12:26, 20:35
Quant Type ISTD

Compound	RRF / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
n-Butylbenzene	50.0	46.60822	1.69212	0.500	6.78357	50.0	Quadratic	
1,2-Dichlorobenzene	1.43347	1.39923	1.39923	0.400	2.38838	50.0	Averaged	
1,2-Dibromo-3-Chloropropane	0.12086	0.12300	0.12300	0.050	-1.77006	50.0	Averaged	
1,2,4-Trichlorobenzene	0.81606	0.88594	0.88594	0.200	-8.56269	50.0	Averaged	
Hexachlorobutadiene	0.36615	0.34802	0.34802	0.100	4.95060	50.0	Averaged	
Naphthalene	50.0	50.92947	2.27788	0.200	-1.85893	50.0	Linear	
1,2,3-Trichlorobenzene	0.77477	0.86404	0.86404	0.100	-11.52228	50.0	Averaged	
94 1,2-Dichloroethylene (total	0.55639	0.54607	0.54607	0.200	1.85407	50.0	Averaged	
95 Xylenes (total)	0.54726	0.55236	0.55236	0.100	-0.93207	50.0	Averaged	
1,4-Dioxane	0.00727	0.00655	0.00655	0.001	9.82411	50.0	Averaged	
Cyclohexane	50.0	48.77821	0.66252	0.100	2.44359	50.0	Quadratic	
Freon TF	50.0	49.61267	0.40813	0.100	0.77466	50.0	Quadratic	
1,3-Butadiene	0.59070	0.57564	0.57564	0.100	2.55001	50.0	Averaged	
Methylcyclohexane	0.73295	0.62494	0.62494	0.100	14.73655	50.0	Averaged	
Methyl Acetate	0.60624	0.53405	0.53405	0.100	11.90816	50.0	Averaged	
Tert-butyl alcohol	0.06126	0.05705	0.05705	0.005	6.88292	50.0	Averaged	
Isopropyl alcohol	0.04395	0.04043	0.04043	0.005	8.00616	50.0	Averaged	
trans-1,4-Dichloro-2-butene	50.0	39.06404	0.05852	0.050	21.87191	50.0	Quadratic	
Isobutyl Alcohol	1000	938	0.07000	0.005	6.21161	50.0	Linear	
Acetonitrile	0.07629	0.06503	0.06503	0.005	14.75068	50.0	Averaged	
Allyl Chloride	1.77284	1.51741	1.51741	0.100	14.40805	50.0	Averaged	
Methacrylonitrile	0.39305	0.37657	0.37657	0.100	4.19397	50.0	Averaged	
Methyl Methacrylate	0.40944	0.40098	0.40098	0.100	2.06630	50.0	Averaged	
Propionitrile	0.10832	0.09804	0.09804	0.010	9.48638	50.0	Averaged	
n-Hexane	50.0	45.04764	0.51377	0.100	9.90472	50.0	Quadratic	
Acetaldehyde	200	199	0.09822	0.001	0.61614	50.0	Linear	
Methyl Acrylate	0.77827	0.72481	0.72481	0.100	6.86848	50.0	Averaged	
Dimethyl Disulfide	50.0	37.35091	0.28555	0.020	25.29817	50.0	Quadratic	
Chloroprene	0.20007	0.20702	0.20702	0.100	-3.47485	50.0	Averaged	
Ethyl Methacrylate	0.43606	0.40865	0.40865	0.100	6.28389	50.0	Averaged	
1,2,3-Trimethylbenzene	1.92286	1.79358	1.79358	0.100	6.72330	50.0	Averaged	
Ethanol	0.01052	0.00869	0.00869	0.001	17.36643	50.0	Averaged	
Dicyclopentadiene	50.0	38.08506	1.84583	0.100	23.82988	50.0	Quadratic	
alpha-Methylstyrene	50.0	50.86824	0.76555	0.100	-1.73649	50.0	Quadratic	





Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9_446515

Instrument ID VOA9.i
Lab File ID U091426.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 15-SEP-2023 0103
ICAL Date(s) 24-AUG-2023, 14-SEP-2023
ICAL Times 12:26, 20:35
Quant Type ISTD

Compound	RRF / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Tetrahydrofuran	0.12546	0.11778	0.11778	0.001	6.12222	50.0	Averaged	
Diisopropyl ether	2.16344	1.88645	1.88645	0.100	12.80333	50.0	Averaged	
4-Methyl-2-pentanol	1000	943	0.05917	0.005	5.74538	50.0	Quadratic	
Allyl alcohol	1000	893	0.02569	0.004	10.68919	50.0	Quadratic	
Benzyl Chloride	50.0	36.55891	0.17989	0.010	26.88219	50.0	Quadratic	
Butyl acrylate	50.0	45.73424	0.52339	0.100	8.53153	50.0	Quadratic	
Diethyl ether	0.49552	0.42891	0.42891	0.100	13.44161	50.0	Averaged	
2-Ethylhexyl Acrylate	50.0	45.35479	0.40212	0.100	9.29041	50.0	Quadratic	
Cyclohexanone	1000	790	0.02429	0.005	21.04945	50.0	Quadratic	
Ethyl Acetate	0.74374	0.71941	0.71941	0.100	3.27155	50.0	Averaged	
n-Butyl acetate	50.0	44.23459	0.52744	0.100	11.53082	50.0	Linear	
Epichlorohydrin	0.00392	0.00195	0.00195	0.001	50.29357	50.0	Averaged	*
n-Butanol	1000	904	0.01383	0.005	9.62296	50.0	Linear	
Ethyl Acrylate	1.16277	0.99602	0.99602	0.100	14.34098	50.0	Averaged	
Butyl methacrylate	50.0	49.59332	0.73357	0.100	0.81337	50.0	Linear	
tert-Amyl methyl ether	50.0	56.83824	1.26843	0.005	-13.67649	50.0	Linear	
tert-Butyl ethyl ether	50.0	44.56406	1.35441	0.100	10.87188	50.0	Linear	
Isopropyl acetate	0.90701	0.87892	0.87892	0.100	3.09685	50.0	Averaged	
Hexachloroethane	50.0	42.02110	0.14549	0.001	15.95781	50.0	Linear	





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Form 8

Internal Standard Area and RT Summary

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Form 8 - Internal Standard Area and RT Summary

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9_446515		Pentafluorobenzene				1,4-Difluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
Sample ID	File ID	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
HS23090714-01	U091422.D	788915		4.81		1126002		5.55		1022535		8.19		475621		10.17	
HS23090714-03	U091421.D	796359		4.81		1123470		5.55		1018826		8.19		486289		10.17	
VBLKW-230914	U091418.D	827641		4.82		1178792		5.55		1083091		8.19		516579		10.17	
VLCSW-230914	U091416.D	766533		4.81		1206515		5.55		1134902		8.19		589088		10.17	
MS-ZZZZZMS	U091424.D	794771		4.81		1134838		5.55		1080158		8.19		586650		10.17	
ZZZZZMSD	U091425.D	823551		4.81		1189438		5.55		1096410		8.19		595907		10.17	

AREA UPPER LIMIT = +100% of STD IS Area

AREA LOWER LIMIT = - 50% of STD IS Area

RT - Retention IS - Internal StandardTime

RT UPPER LIMIT = + 0.50 of STD IS RT

RT LOWER LIMIT = - 0.50 of STD IS RT

CCV - Continuing Calibration Verification

- Area or RT Limit Flag

* - Value Outside Area or RT limits

H - Hour STD - Standard





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Analysis Run Log

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

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Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446513

Run ID	VOA9_446513	Start Date	09/14/23	EndDate	09/14/23	
Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
14:11	BFB	TUNE	BFB	U091401.D	09/14/23	1
15:47	VSTD000.25	ICAL1	VSTD000.25	U091402.D	09/14/23	1
16:09	VSTD000.5	ICAL2	VSTD000.5	U091403.D	09/14/23	1
16:53	VSTD001	ICAL3	VSTD001	U091404.D	09/14/23	1
17:15	VSTD002	ICAL4	VSTD002	U091405.D	09/14/23	1
17:37	VSTD005	ICAL5	VSTD005	U091406.D	09/14/23	1
18:00	VSTD020	ICAL6	VSTD020	U091407.D	09/14/23	1
18:22	VSTD050	ICAL7	VSTD050	U091408.D	09/14/23	1
18:44	VSTD100	ICAL8	VSTD100	U091409.D	09/14/23	1
19:06	VSTD150	ICAL9	VSTD150	U091410.D	09/14/23	1
19:28	VSTD200	ICAL	VSTD200	U091411.D	09/14/23	1
20:13	CCV	ICV	CCV	U091413.D	09/14/23	1





Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9-446515

Run ID	VOA9_446515	Start Date	09/14/23	EndDate	09/15/23	
Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
14:11	BFB	TUNE	BFB	U091401.D	09/14/23	1
21:20	VLCSW-230914	LCS	VLCSW-230914	U091416.D	09/14/23	1
22:04	VBKWK-230914	MBLK	VBKWK-230914	U091418.D	09/14/23	1
22:27	HS23090510-99	SAMP	ZZZZZZZZZZ	U091419.D	09/14/23	1
22:49	HS23090424-02	SAMP	ZZZZZZZZZZ	U091420.D	09/14/23	1
23:12	HS23090714-03	SAMP	Trip Blank	U091421.D	09/14/23	1
23:34	HS23090714-01	SAMP	LH18/24-	U091422.D	09/14/23	1
23:56	HS23090424-01	SAMP	ZZZZZZZZZZ	U091423.D	09/14/23	1
00:19	HS23090510-99MS	MS	ZZZZZZMS	U091424.D	09/15/23	1
00:41	HS23090510-99MSD	MSD	ZZZZZZMSD	U091425.D	09/15/23	1
01:03	CCV-END	CCV_END	CCV-END	U091426.D	09/15/23	1





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Raw Data VOA9 446513

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D Page 1
 Report Date: 15-Sep-2023 21:29

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D
 Lab Smp Id: BFB Client Smp ID: BFB
 Inj Date : 14-SEP-2023 14:11
 Operator : PC Inst ID: VOA9.i
 Smp Info : BFB;BFB;3;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.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: 64 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	196352			0.00-	100.00	100.00
9.193	9.180 (0.000)		50	36584			15.00-	40.00	18.63
9.193	9.180 (0.000)		75	93208			30.00-	60.00	47.47
9.193	9.180 (0.000)		96	11853			5.00-	9.00	6.04
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	180992			50.00-	0.00	92.18
9.193	9.180 (0.000)		175	15049			5.00-	9.00	8.31
9.193	9.180 (0.000)		176	172096			95.00-	101.00	95.08
9.193	9.180 (0.000)		177	11259			5.00-	9.00	6.54



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	47.47
96	5.00 - 9.00% of mass 95	6.04
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	92.18
175	5.00 - 9.00% of mass 174	7.66 (8.31)
176	95.00 - 101.00% of mass 174	87.65 (95.08)
177	5.00 - 9.00% of mass 176	5.73 (6.54)

Data File: U091401.D
 Spectrum: Scan 2297 (9.20)
 Location of Maximum: 95.05
 Number of points: 218

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	338	86.90	9041	138.30	188	206.60	61
35.90	1879	88.00	7559	138.80	139	207.20	53
37.00	9127	89.20	244	139.70	502	208.20	66
38.10	8259	91.00	1042	140.90	1886	208.80	64
39.10	4027	92.00	5247	142.00	526	211.10	108
40.00	818	93.00	9446	142.90	3162	211.80	69
41.00	420	94.00	24176	143.80	300	212.90	70
41.90	376	95.00	196352	144.90	1178	215.70	145
43.20	497	96.00	11853	146.00	452	218.30	168
44.10	2434	96.90	386	147.00	251	225.00	55
45.00	2046	97.40	447	147.90	677	228.20	62
46.30	459	98.10	179	148.80	237	228.60	83
47.00	2906	99.00	188	149.80	243	230.50	65
48.00	1615	100.00	249	152.00	287	234.40	63
49.00	8000	100.90	208	153.00	217	238.10	112
50.00	36584	101.70	167	153.60	167	239.90	60
51.00	10681	102.60	118	154.00	178	240.80	70
52.00	662	103.00	105	154.90	460	243.00	62
53.00	488	103.80	1048	155.90	234	243.70	63
53.70	317	104.60	258	157.00	527	245.60	74
54.10	347	105.90	942	158.10	181	250.70	66
55.00	770	106.60	274	158.80	355	256.90	65
56.00	3221	108.10	310	160.20	138	257.90	72
57.00	5330	109.90	258	161.00	280	258.70	64
58.00	518	111.00	542	161.90	227	267.60	53
59.00	237	112.10	258	162.50	84	268.70	74
60.00	2012	112.60	204	164.50	162	269.30	62
61.00	9606	113.40	85	165.20	165	275.30	85
62.00	9229	114.00	158	166.20	131	276.30	56
63.00	7568	114.80	324	167.10	74	279.30	53
64.00	1491	115.90	892	168.50	162	280.90	113
65.00	1328	116.90	1588	169.30	253	282.30	61
66.10	341	117.90	1185	169.90	185	286.30	55
66.90	716	119.00	1168	170.30	223	291.30	116
67.20	785	120.10	122	171.10	662	292.50	56
68.00	18336	121.00	110	171.90	2940	296.30	51
69.00	17200	121.60	67	173.90	180992	307.50	70
70.00	1353	122.60	259	175.00	15049	308.60	88
72.00	1009	123.20	367	175.90	172096	312.00	59
73.00	8530	123.80	303	177.00	11259	317.00	58
74.00	32336	124.90	97	178.00	251	317.80	52
75.00	93208	125.50	236	179.20	162	318.10	53
76.00	7896	126.60	148	180.90	99	318.90	152
77.00	1458	127.90	660	182.20	85	321.80	115
77.70	1123	129.00	310	187.00	100	323.10	69

78.90	6903	129.90	862	188.70	63	330.30	81
80.00	2305	130.90	523	191.60	140	332.30	53
80.90	7871	131.80	200	193.40	104	333.70	79
82.00	2213	133.00	58	195.10	120	343.40	81
82.80	270	133.90	237	195.60	75	344.50	66
83.30	198	134.80	467	197.30	70	345.60	69
84.00	274	135.90	209	198.30	228	347.10	77
84.50	197	136.70	404	201.10	77	347.50	73
85.40	209	137.10	362	203.20	68		
86.10	524	137.80	93	205.80	57		

Data File: \\NAHSTWS005\Target\chem\voa9,i\U230914,b\U091401.D

Page 1

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

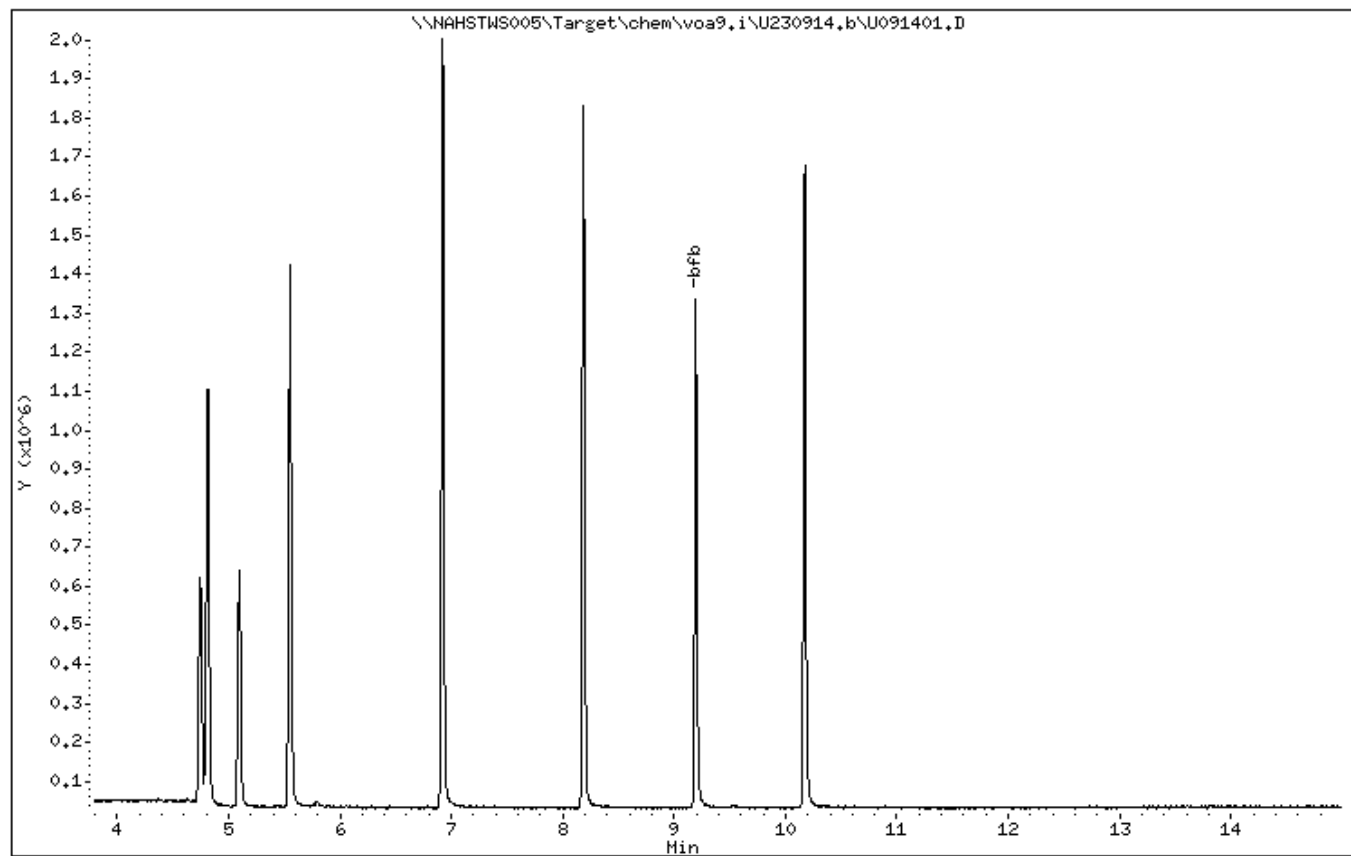
Sample Info: BFB;BFB;3;;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0,25



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 2

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;;

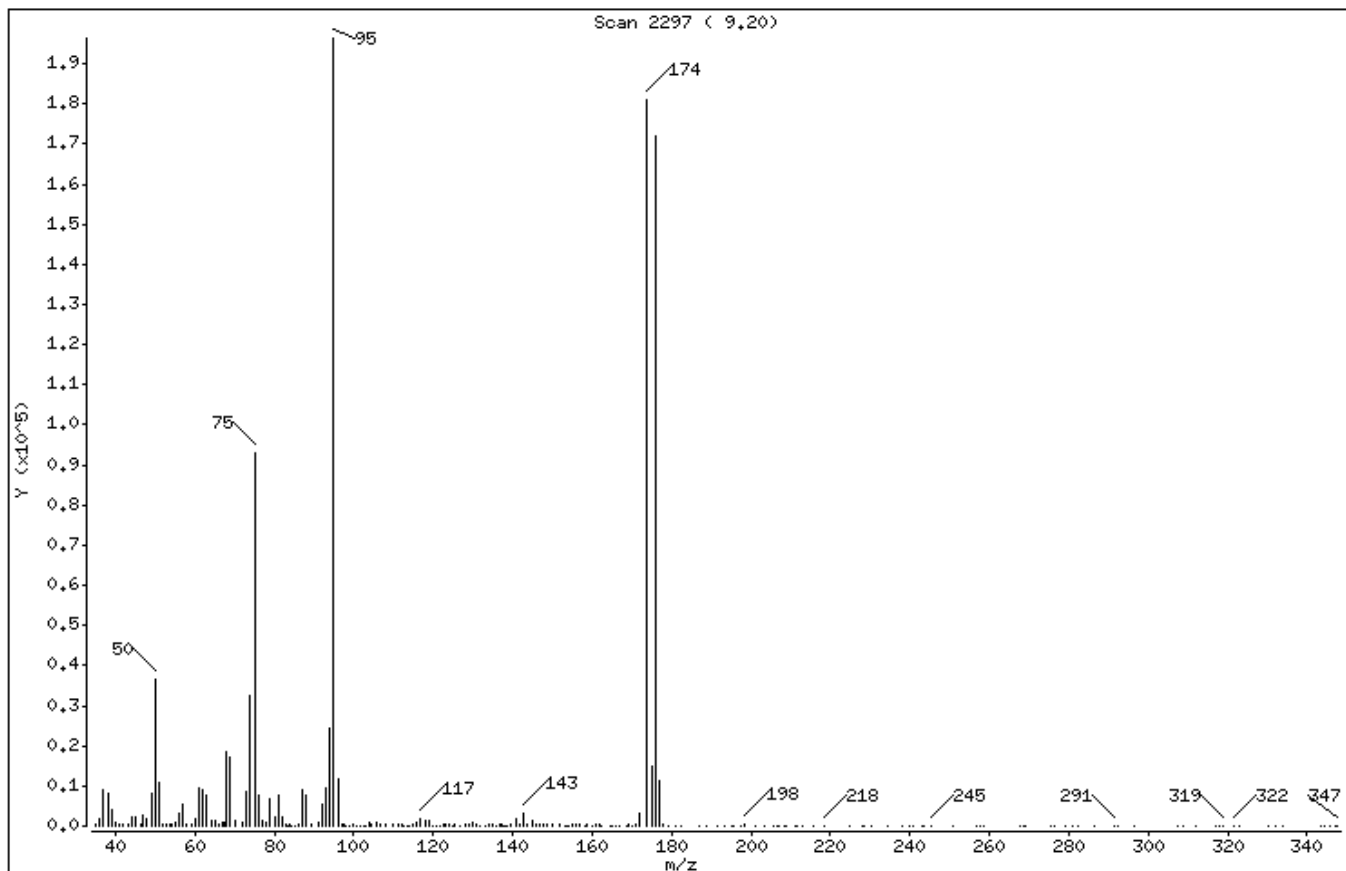
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.63
75	30.00 - 60.00% of mass 95	47.47
96	5.00 - 9.00% of mass 95	6.04
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	92.18
175	5.00 - 9.00% of mass 174	7.66 (8.31)
176	95.00 - 101.00% of mass 174	87.65 (95.08)
177	5.00 - 9.00% of mass 176	5.73 (6.54)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 3

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: U091401.D

Spectrum: Scan 2297 (9.20)

Location of Maximum: 95.05

Number of points: 218

m/z	Y	m/z	Y	m/z	Y	m/z	Y

35.10	338	86.90	9041	138.30	188	206.60	61
35.90	1879	88.00	7559	138.80	139	207.20	53
37.00	9127	89.20	244	139.70	502	208.20	66
38.10	8259	91.00	1042	140.90	1886	208.80	64
39.10	4027	92.00	5247	142.00	526	211.10	108

40.00	818	93.00	9446	142.90	3162	211.80	69
41.00	420	94.00	24176	143.80	300	212.90	70
41.90	376	95.00	196352	144.90	1178	215.70	145
43.20	497	96.00	11853	146.00	452	218.30	168
44.10	2434	96.90	386	147.00	251	225.00	55

45.00	2046	97.40	447	147.90	677	228.20	62
46.30	459	98.10	179	148.80	237	228.60	83
47.00	2906	99.00	188	149.80	243	230.50	65
48.00	1615	100.00	249	152.00	287	234.40	63
49.00	8000	100.90	208	153.00	217	238.10	112

50.00	36584	101.70	167	153.60	167	239.90	60
51.00	10681	102.60	118	154.00	178	240.80	70
52.00	662	103.00	105	154.90	460	243.00	62
53.00	488	103.80	1048	155.90	234	243.70	63
53.70	317	104.60	258	157.00	527	245.60	74

54.10	347	105.90	942	158.10	181	250.70	66
55.00	770	106.60	274	158.80	355	256.90	65
56.00	3221	108.10	310	160.20	138	257.90	72
57.00	5330	109.90	258	161.00	280	258.70	64
58.00	518	111.00	542	161.90	227	267.60	53

59.00	237	112.10	258	162.50	84	268.70	74
60.00	2012	112.60	204	164.50	162	269.30	62
61.00	9606	113.40	85	165.20	165	275.30	85
62.00	9229	114.00	158	166.20	131	276.30	56
63.00	7568	114.80	324	167.10	74	279.30	53

64.00	1491	115.90	892	168.50	162	280.90	113
65.00	1328	116.90	1588	169.30	253	282.30	61
66.10	341	117.90	1185	169.90	185	286.30	55
66.90	716	119.00	1168	170.30	223	291.30	116
67.20	785	120.10	122	171.10	662	292.50	56

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 4

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: U091401.D							
Spectrum: Scan 2297 (9.20)							
Location of Maximum: 95.05							
Number of points: 218							
m/z	Y	m/z	Y	m/z	Y	m/z	Y

68.00	18336	121.00	110	171.90	2940	296.30	51
69.00	17200	121.60	67	173.90	180992	307.50	70
70.00	1353	122.60	259	175.00	15049	308.60	88
72.00	1009	123.20	367	175.90	172096	312.00	59
73.00	8530	123.80	303	177.00	11259	317.00	58

74.00	32336	124.90	97	178.00	251	317.80	52
75.00	93208	125.50	236	179.20	162	318.10	53
76.00	7896	126.60	148	180.90	99	318.90	152
77.00	1458	127.90	660	182.20	85	321.80	115
77.70	1123	129.00	310	187.00	100	323.10	69

78.90	6903	129.90	862	188.70	63	330.30	81
80.00	2305	130.90	523	191.60	140	332.30	53
80.90	7871	131.80	200	193.40	104	333.70	79
82.00	2213	133.00	58	195.10	120	343.40	81
82.80	270	133.90	237	195.60	75	344.50	66

83.30	198	134.80	467	197.30	70	345.60	69
84.00	274	135.90	209	198.30	228	347.10	77
84.50	197	136.70	404	201.10	77	347.50	73
85.40	209	137.10	362	203.20	68		
86.10	524	137.80	93	205.80	57		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091402.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091402.D
 Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
 Inj Date : 14-SEP-2023 15:47
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD000.25;VSTD000.25;1;1;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 20:35 Cal File: U091414.D
 Als bottle: 2 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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		4.808	4.808	(1.000)		748271	50.0000	
2 Dichlorodifluoromethane	85		1.153	1.153	(0.240)		1252	0.25000	1.48
3 Chloromethane	50		1.288	1.288	(0.268)		5836	0.25000	
5 Vinyl Chloride	62		1.366	1.366	(0.284)		1642	0.25000	0.17
6 Bromomethane	94		1.610	1.610	(0.335)		2097	0.25000	0.89
7 Chloroethane	64		1.696	1.696	(0.353)		2268	0.25000	0.32
8 Trichlorofluoromethane	101		1.891	1.891	(0.393)		2050	0.25000	0.16
9 Acrolein	56		2.255	2.255	(0.469)		684	0.50000	1.06
10 Acetone	43		2.401	2.401	(0.499)		11222	0.50000	0.85
11 1,1-Dichloroethene	96		2.315	2.315	(0.482)		1221	0.25000	0.16
15 Iodomethane	142		2.457	2.457	(0.511)		3284	0.50000	4.11
16 Acrylonitrile	53		3.057	3.057	(0.636)		1975	0.50000	0.45
17 Methylene Chloride	84		2.787	2.787	(0.580)		9572	0.25000	2.67
18 Methyl tert-butyl ether	73		3.076	3.076	(0.640)		5540	0.25000	0.26
19 Carbon Disulfide	76		2.514	2.514	(0.523)		8172	0.50000	0.40
20 trans-1,2-Dichloroethene	96		3.053	3.053	(0.635)		1955	0.25000	0.25
21 Vinyl Acetate	43		3.608	3.608	(0.751)		10128	0.50000	0.36
22 1,1-Dichloroethane	63		3.503	3.503	(0.729)		4248	0.25000	0.27
24 2-Butanone	43		4.264	4.264	(0.887)		1605	0.50000	0.35
26 2,2-Dichloropropane	77		4.170	4.170	(0.867)		1960	0.25000	0.20



27 cis-1,2-Dichloroethene	96	4.182	4.182 (0.870)	2075	0.25000	0.23
28 Chloroform	83	4.564	4.564 (0.949)	4138	0.25000	0.27

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091402.D Page 2
 Report Date: 18-Sep-2023 12:31

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====		=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128		4.478	4.478	(0.931)		1452	0.25000	0.31
\$ 30 Dibromofluoromethane	113		4.744	4.744	(0.987)		2743	0.25000	0.60
31 1,1,1-Trichloroethane	97		4.736	4.736	(0.985)		2559	0.25000	0.24
32 1,1-Dichloropropene	75		4.909	4.909	(0.885)		2443	0.25000	0.26
33 1,2-Dichloroethane	62		5.171	5.171	(0.932)		2347	0.25000	0.20
34 Carbon Tetrachloride	117		4.901	4.901	(0.883)		1512	0.25000	0.18
\$ 35 1,2-Dichloroethane-d4	65		5.093	5.093	(1.059)		2797	0.25000	0.21
* 36 1,4-Difluorobenzene	114		5.550	5.550	(1.000)		1177001	50.00000	
37 Benzene	78		5.134	5.134	(0.925)		5679	0.25000	0.19
38 Trichloroethene	130		5.782	5.782	(1.042)		3364	0.25000	0.39
41 2-Chloroethylvinyl ether	63		6.735	6.735	(1.213)		885	0.50000	21.23
42 1,2-Dichloropropane	63		6.015	6.015	(1.084)		3155	0.25000	0.40
44 Dibromomethane	93		6.116	6.116	(1.102)		1176	0.25000	0.21
45 4-Methyl-2-Pentanone	43		6.862	6.862	(0.838)		3325	0.50000	2.94
46 cis-1,3-Dichloropropene	75		6.693	6.693	(1.206)		1689	0.25000	3.28
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)		1066883	50.00000	
\$ 48 Toluene-d8	98		6.922	6.922	(0.846)		8336	0.25000	0.35
50 Toluene	91		6.982	6.982	(0.853)		4621	0.25000	0.16
51 trans-1,3-Dichloropropene	75		7.199	7.199	(1.297)		1636	0.25000	2.55
52 2-Hexanone	43		7.600	7.600	(0.929)		1577	0.50000	0.32
53 1,1,2-Trichloroethane	83		7.353	7.353	(0.898)		1758	0.25000	0.28
54 1,3-Dichloropropane	76		7.499	7.499	(0.916)		3756	0.25000	0.29
55 Dibromochloromethane	129		7.690	7.690	(0.940)		1267	0.25000	0.17
56 Tetrachloroethene	164		7.454	7.454	(0.911)		1717	0.25000	0.25
57 1,2-Dibromoethane	107		7.788	7.788	(0.951)		2046	0.25000	0.27
58 1-Chlorohexane	55		8.182	8.182	(1.474)		11449	0.25000	1.61
59 Chlorobenzene	112		8.208	8.208	(1.003)		4876	0.25000	0.23
60 1,1,1,2-Tetrachloroethane	131		8.286	8.286	(1.012)		1675	0.25000	0.23
61 Ethylbenzene	106		8.309	8.309	(1.015)		1685	0.25000	0.17
62 m,p-Xylenes	106		8.410	8.410	(1.027)		3241	0.50000	0.27
63 o-Xylene	106		8.744	8.744	(1.068)		1589	0.25000	0.12
64 Styrene	104		8.763	8.763	(1.071)		2629	0.25000	0.13
67 Isopropylbenzene	105		9.062	9.062	(1.107)		3737	0.25000	1.60
68 1,1,2,2-Tetrachloroethane	83		9.329	9.329	(0.917)		2546	0.25000	0.26
\$ 69 4-Bromofluorobenzene	95		9.197	9.197	(1.124)		4117	0.25000	0.28
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		492391	50.00000	
71 1,2,3-Trichloropropane	75		9.366	9.366	(0.921)		2245	0.25000	0.27
73 n-Propylbenzene	91		9.415	9.415	(0.926)		3500	0.25000	3.12
74 Bromobenzene	156		9.317	9.317	(0.916)		1599	0.25000	0.20
75 1,3,5-Trimethylbenzene	105		9.565	9.565	(0.940)		3420	0.25000	0.18
76 2-Chlorotoluene	91		9.486	9.486	(0.933)		3449	0.25000	0.18
77 4-Chlorotoluene	91		9.580	9.580	(0.942)		2806	0.25000	0.13
78 tert-Butylbenzene	119		9.835	9.835	(0.967)		2327	0.25000	0.13
79 1,2,4-Trimethylbenzene	105		9.883	9.883	(0.972)		2697	0.25000	0.14
81 sec-Butylbenzene	105		10.026	10.026	(0.986)		2617	0.25000	1.88
82 p-Isopropyltoluene	119		10.150	10.150	(0.998)		2450	0.25000	1.90
83 1,3-Dichlorobenzene	146		10.116	10.116	(0.994)		2184	0.25000	0.15
84 1,4-Dichlorobenzene	146		10.191	10.191	(1.002)		4567	0.25000	0.29
87 n-Butylbenzene	91		10.491	10.491	(1.031)		2414	0.25000	2.19
88 1,2-Dichlorobenzene	146		10.509	10.509	(1.033)		3430	0.25000	0.24
92 Naphthalene	128		12.080	12.080	(1.188)		2827	0.25000	2.85
M 94 1,2-Dichloroethylene (total)	96						4030	0.50000	



M 95 Xylenes (total)	106			4830	0.75000	
135 1,4-Dioxane	88	6.187	6.187 (1.287)	604	5.00000	5.55(M)

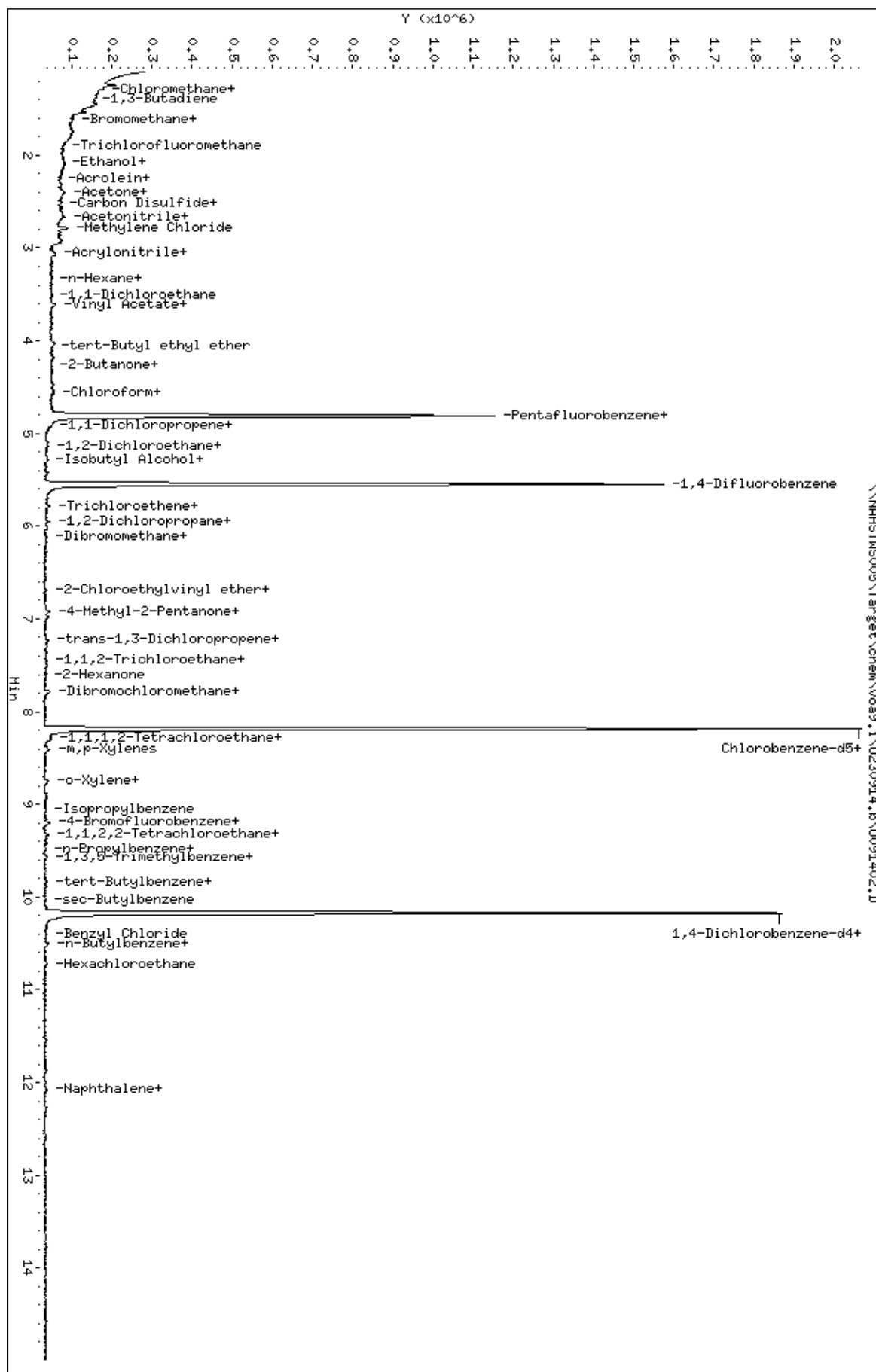
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Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG						AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE		CAL-AMT	ON-COL
	MASS						(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====		=====	=====
141 Cyclohexane	56	4.804	4.804 (0.999)		21349		0.25000	2.67
140 1,3-Butadiene	54	1.389	1.389 (0.289)		1355		0.25000	0.15
147 Methylcyclohexane	55	5.947	5.947 (1.072)		3460		0.25000	0.20

QC Flag Legend

M - Compound response manually integrated.





Data File: \\NAHSTMS005\Target\chem\voa9,i\U230914,b\U091402.D
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 Sample Info: WSTD000,25;WSTD000,25;1;1;
 Purge Volume: 5.0
 Column phase: DB624

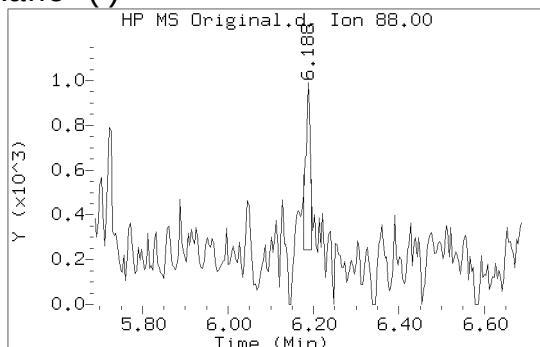
Instrument: W09,1
 Operator: PC
 Column diameter: 0.18

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Inj Date : 14-SEP-2023 15:47
InstruID : VOA9.i
LabSampID : VSTD000.25

1,4-Dioxane ()

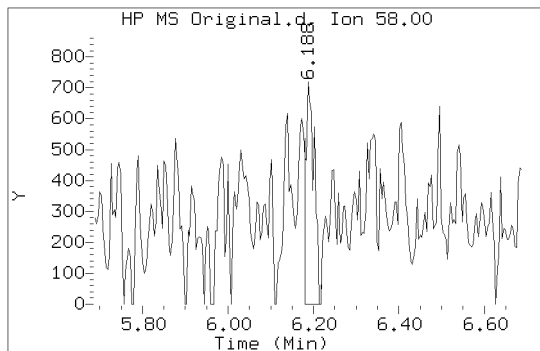
BEFORE

MASS
88
AREA
604
HEIGHT
748
18-Sep-2023
12:30
linh
pham



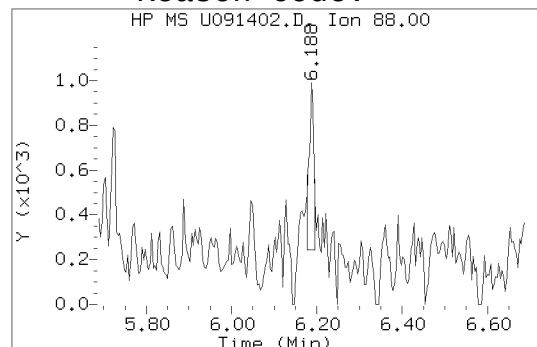
BEFORE

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AREA
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HEIGHT
719
18-Sep-2023
12:30
linh
pham

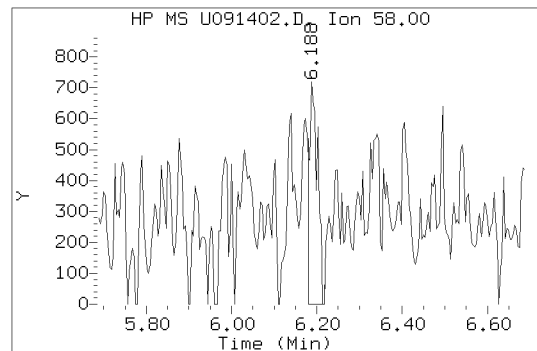


AFTER

MASS
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AREA
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748
18-Sep-2023
12:30
linh

pham
AFTER

MASS
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AREA
996
HEIGHT
719
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
 Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
 Inj Date : 14-SEP-2023 16:09
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD000.5;VSTD000.5;1;2;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 20:35 Cal File: U091414.D
 Als bottle: 3 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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		4.811	4.811	(1.000)	639208	50.0000	
2 Dichlorodifluoromethane	85		1.156	1.156	(0.240)	3707	0.50000	1.85(M)
3 Chloromethane	50		1.291	1.291	(0.268)	8313	0.50000	(M)
5 Vinyl Chloride	62		1.370	1.370	(0.285)	4059	0.50000	0.50(M)
6 Bromomethane	94		1.618	1.618	(0.336)	2668	0.50000	1.11(M)
7 Chloroethane	64		1.692	1.692	(0.352)	3286	0.50000	0.55
8 Trichlorofluoromethane	101		1.887	1.887	(0.392)	5389	0.50000	0.51
9 Acrolein	56		2.259	2.259	(0.469)	643	1.00000	1.17(M)
10 Acetone	43		2.408	2.408	(0.501)	7172	1.00000	0.09(M)
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)	3071	0.50000	0.48(M)
15 Iodomethane	142		2.461	2.461	(0.512)	3691	1.00000	4.36(M)
16 Acrylonitrile	53		3.068	3.068	(0.638)	4051	1.00000	1.08(M)
17 Methylene Chloride	84		2.787	2.787	(0.579)	5165	0.50000	2.31(M)
18 Methyl tert-butyl ether	73		3.072	3.072	(0.639)	10417	0.50000	0.57
19 Carbon Disulfide	76		2.513	2.513	(0.522)	16157	1.00000	0.94
20 trans-1,2-Dichloroethene	96		3.050	3.050	(0.634)	3543	0.50000	0.53(M)
21 Vinyl Acetate	43		3.604	3.604	(0.749)	24399	1.00000	1.03
22 1,1-Dichloroethane	63		3.511	3.511	(0.730)	6864	0.50000	0.51(T)
24 2-Butanone	43		4.272	4.272	(0.888)	4163	1.00000	1.07(M)
26 2,2-Dichloropropane	77		4.170	4.170	(0.867)	4335	0.50000	0.53(M)



27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	3842	0.50000	0.50(M)
28 Chloroform	83	4.571	4.571 (0.950)	6484	0.50000	0.50(M)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D Page 2
Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.467	4.467	(0.928)	2041	0.50000	0.51(M)
\$ 30 Dibromofluoromethane	113	4.744	4.744	(0.986)	3104	0.50000	0.73
31 1,1,1-Trichloroethane	97	4.733	4.733	(0.984)	4582	0.50000	0.52(M)
32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	4020	0.50000	0.50(M)
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	5380	0.50000	0.55
34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	3572	0.50000	0.50
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	4043	0.50000	0.46
* 36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	994968	50.0000	
37 Benzene	78	5.138	5.138	(0.926)	14292	0.50000	0.57
38 Trichloroethene	130	5.782	5.782	(1.042)	3872	0.50000	0.53(M)
39 Bromodichloromethane	83	6.277	6.277	(1.131)	4490	0.50000	0.55(M)
41 2-Chloroethylvinyl ether	63	6.562	6.562	(1.182)	53	1.00000	1.98(M)
42 1,2-Dichloropropane	63	6.011	6.011	(1.083)	3309	0.50000	0.50(M)
44 Dibromomethane	93	6.120	6.120	(1.103)	2627	0.50000	0.57(M)
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	6101	1.00000	3.41
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.206)	4418	0.50000	3.56(M)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	913278	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	11691	0.50000	0.58(M)
50 Toluene	91	6.982	6.982	(0.853)	13250	0.50000	0.54(M)
51 trans-1,3-Dichloropropene	75	7.203	7.203	(1.298)	3003	0.50000	2.74(M)
52 2-Hexanone	43	7.600	7.600	(0.929)	3781	1.00000	0.91
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	3146	0.50000	0.58
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	5881	0.50000	0.54(M)
55 Dibromochloromethane	129	7.687	7.687	(0.939)	3623	0.50000	0.56
56 Tetrachloroethene	164	7.458	7.458	(0.911)	3084	0.50000	0.53(M)
57 1,2-Dibromoethane	107	7.792	7.792	(0.952)	3288	0.50000	0.51
58 1-Chlorohexane	55	8.193	8.193	(1.476)	3356	0.50000	0.55(M)
59 Chlorobenzene	112	8.211	8.211	(1.003)	9716	0.50000	0.53
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	3364	0.50000	0.55
61 Ethylbenzene	106	8.309	8.309	(1.015)	4115	0.50000	0.50(M)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	9427	1.00000	0.92(M)
63 o-Xylene	106	8.748	8.748	(1.069)	5517	0.50000	0.51(M)
64 Styrene	104	8.766	8.766	(1.071)	8005	0.50000	0.49(M)
66 Bromoform	173	8.916	8.916	(1.089)	2213	0.50000	3.99(T)
67 Isopropylbenzene	105	9.062	9.062	(1.107)	12158	0.50000	1.95(M)
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	4530	0.50000	0.55(M)
\$ 69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	4793	0.50000	0.43(M)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	420648	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	3897	0.50000	0.55
73 n-Propylbenzene	91	9.411	9.411	(0.925)	9893	0.50000	3.37(M)
74 Bromobenzene	156	9.321	9.321	(0.916)	3486	0.50000	0.52(M)
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	7718	0.50000	0.48(M)
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	7768	0.50000	0.49(M)
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	10329	0.50000	0.56(M)
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	7286	0.50000	0.47(M)
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	8406	0.50000	0.51(M)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	9443	0.50000	2.22(M)
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	7845	0.50000	2.24(M)
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	6938	0.50000	0.58
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	7315	0.50000	0.55(M)
87 n-Butylbenzene	91	10.494	10.494	(1.032)	6875	0.50000	2.50(M)
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	6709	0.50000	0.55



89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	527	0.50000	0.51(M)
90	1,2,4-Trichlorobenzene	180	11.863	11.863 (1.166)	3346	0.50000	0.48(M)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D Page 3

Report Date: 18-Sep-2023 12:31

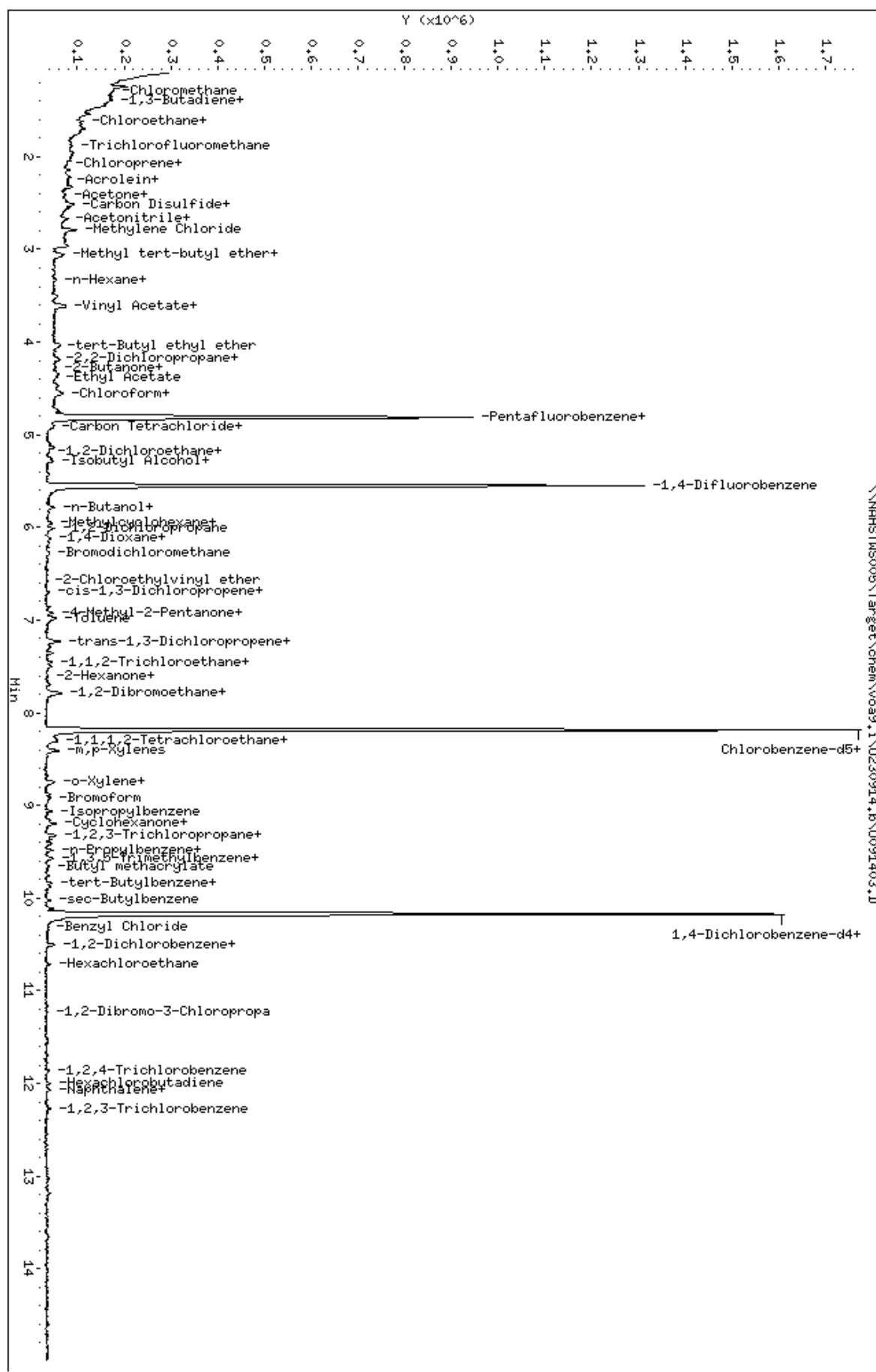
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	12.001	12.001	(1.180)	1680	0.50000	0.54
92 Naphthalene	128	12.069	12.069	(1.186)	8877	0.50000	3.17(M)
93 1,2,3-Trichlorobenzene	180	12.275	12.275	(1.207)	3377	0.50000	0.51
M 94 1,2-Dichloroethylene (total)	96				7385	1.00000	
M 95 Xylenes (total)	106				14944	1.50000	
135 1,4-Dioxane	88	6.176	6.176	(1.284)	1082	10.0000	11.64(M)
141 Cyclohexane	56	4.785	4.785	(0.995)	4570	0.50000	1.06(M)
138 Freon TF	101	2.334	2.334	(0.485)	3073	0.50000	0.75(M)
140 1,3-Butadiene	54	1.396	1.396	(0.290)	3698	0.50000	0.48
147 Methylcyclohexane	55	5.951	5.951	(1.072)	7709	0.50000	0.52(M)
146 Methyl Acetate	43	2.716	2.716	(0.565)	4575	0.50000	0.59(M)

QC Flag Legend

T - Target compound detected outside RT window.

M - Compound response manually integrated.





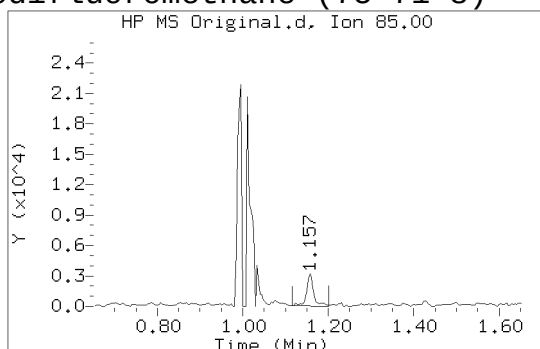
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Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;
Purge Volume: 5.0
Column phase: DB624

Instrument: W093.1
Operator: PC
Column diameter: 0.18

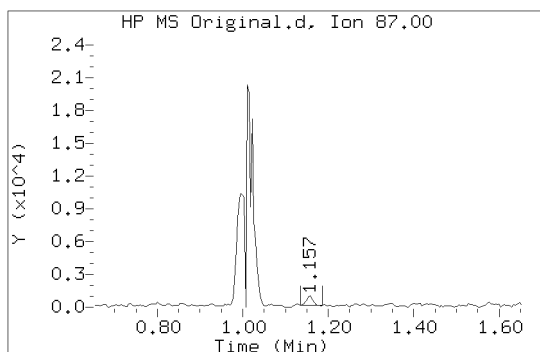
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Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Dichlorodifluoromethane (75-71-8)**BEFORE**

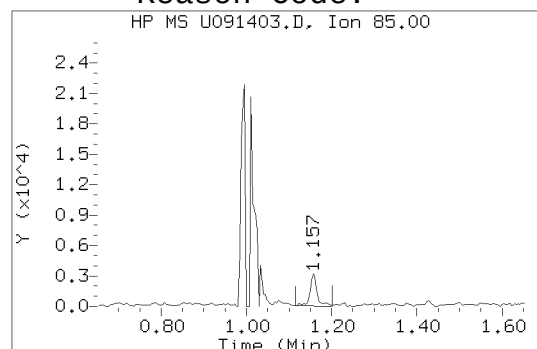
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HEIGHT
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18-Sep-2023
12:30
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**BEFORE**

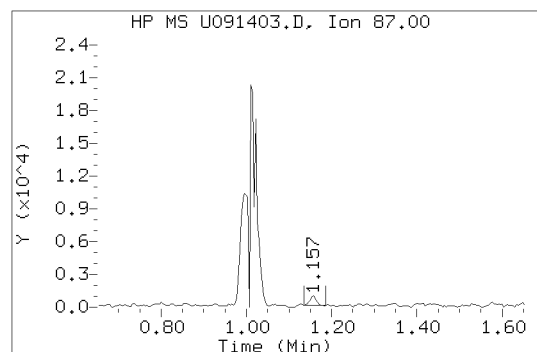
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975
HEIGHT
873
18-Sep-2023
12:30
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pham

**AFTER**

MASS
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AREA
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HEIGHT
3190
18-Sep-2023
12:30
linh

**AFTER**

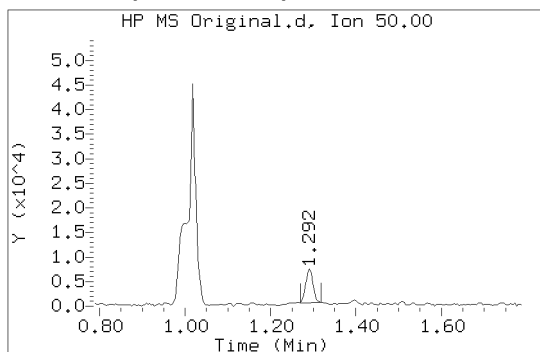
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HEIGHT
873
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12:30
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pham



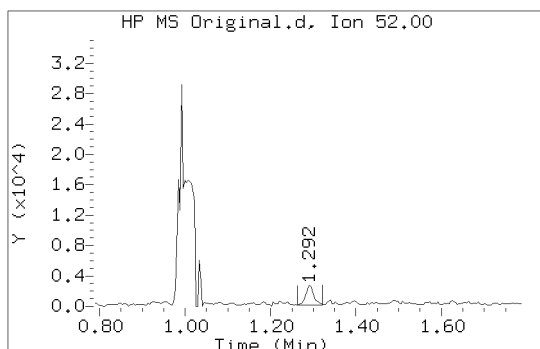
Reason Code:

Chloromethane (74-87-3)**BEFORE**

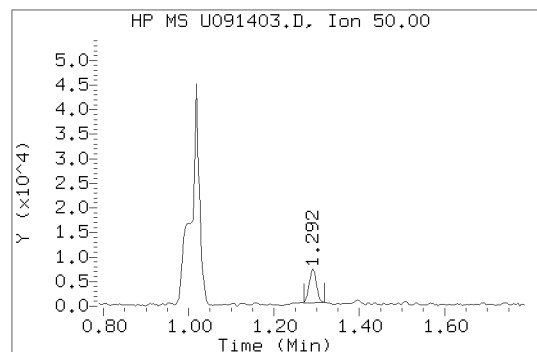
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HEIGHT
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**BEFORE**

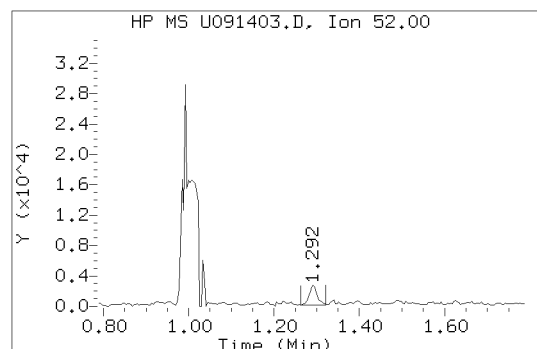
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**AFTER**

MASS
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AREA
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HEIGHT
6896
18-Sep-2023
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**AFTER**

MASS
52
AREA
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18-Sep-2023
12:30
linh
pham



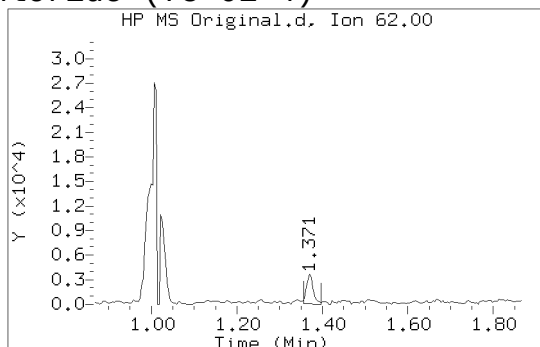
Reason Code:

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Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Vinyl Chloride (75-01-4)

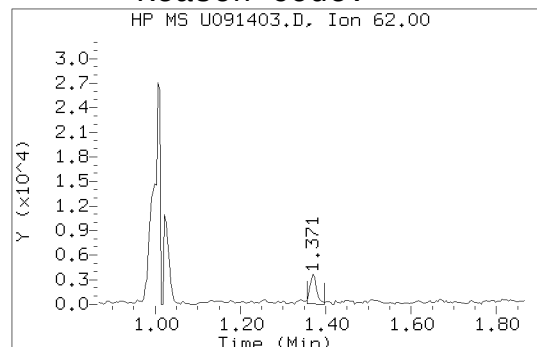
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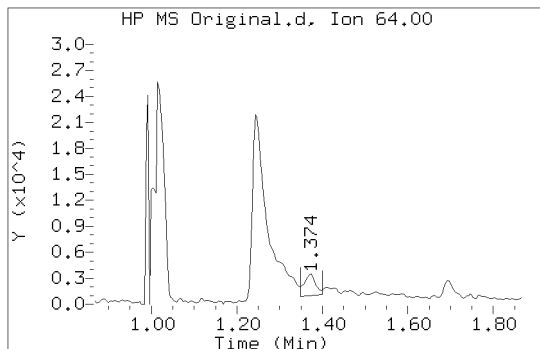
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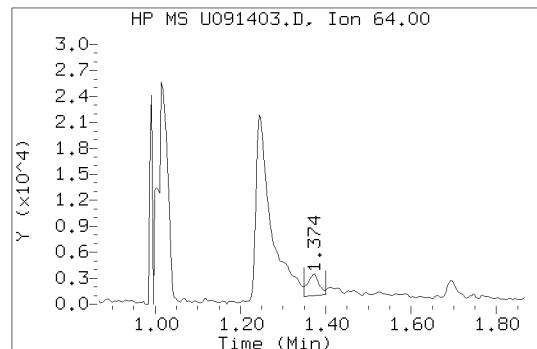
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pham



AFTER

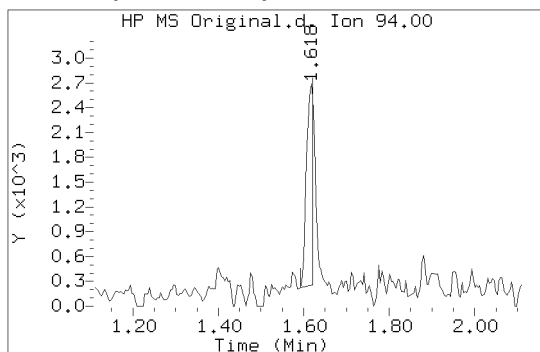
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Bromomethane (74-83-9)

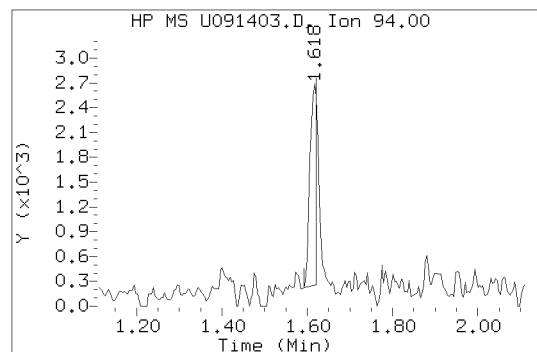
BEFORE

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18-Sep-2023
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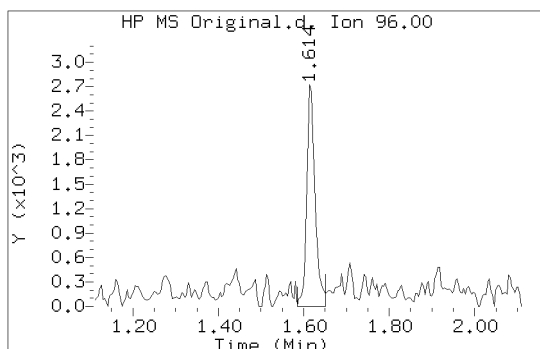
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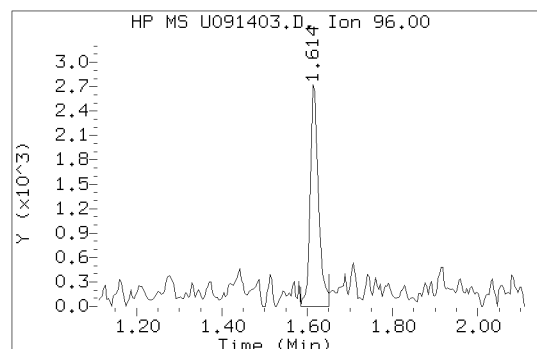
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AFTER

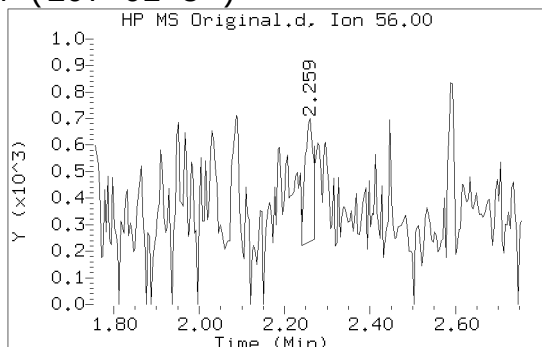
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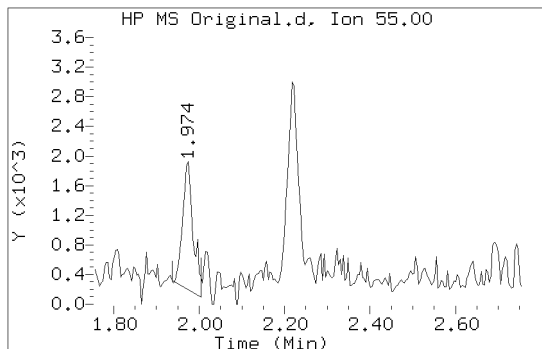
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Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

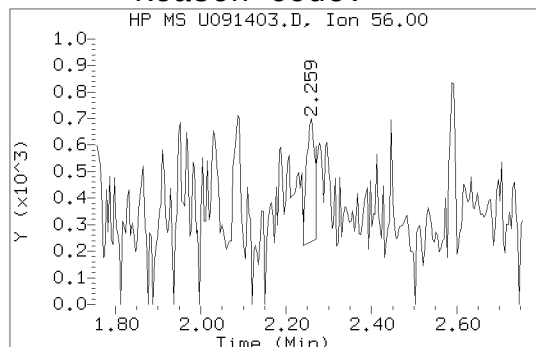
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HEIGHT
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**BEFORE**

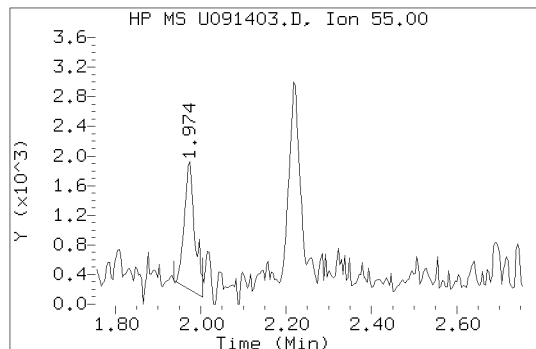
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18-Sep-2023
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linh
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**AFTER**

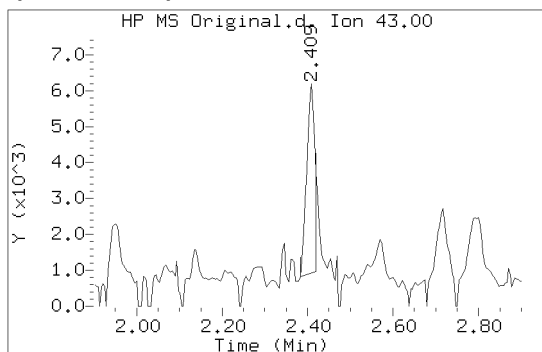
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**AFTER**

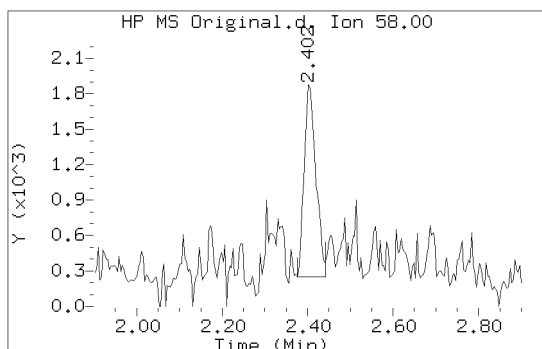
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**Reason Code:****Acetone (67-64-1)****BEFORE**

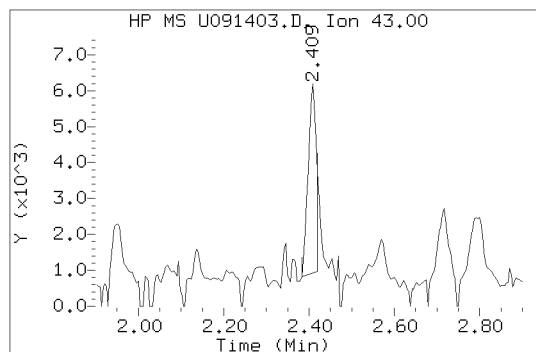
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linh
pham

**BEFORE**

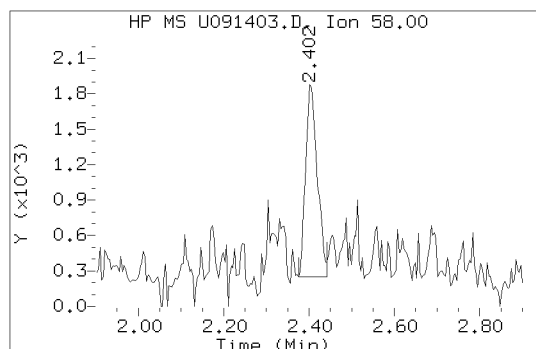
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HEIGHT
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18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
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AREA
7172
HEIGHT
5265
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
58
AREA
3174
HEIGHT
1628
18-Sep-2023
12:30
linh
pham

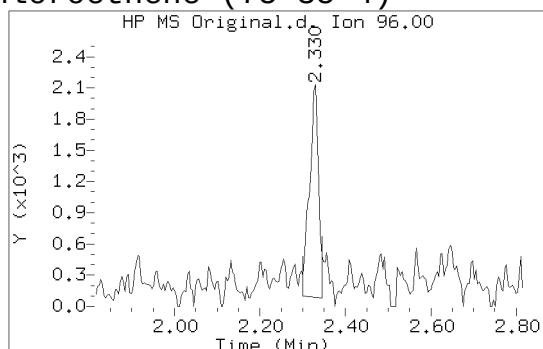
**Reason Code:**

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1,1-Dichloroethene (75-35-4)

BEFORE

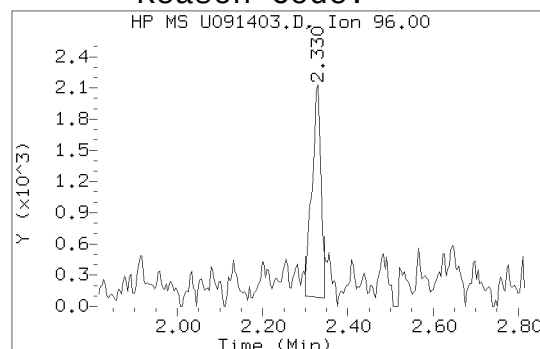
MASS
96
AREA
3071
HEIGHT
2046
18-Sep-2023
12:30
linh



AFTER

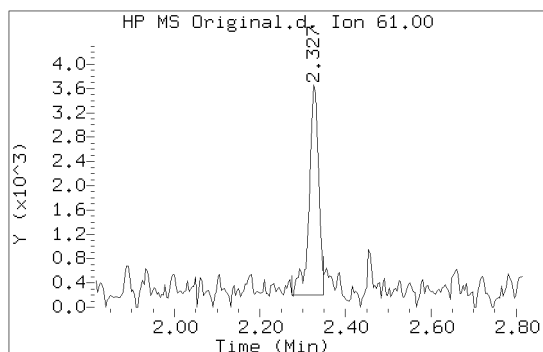
MASS
96
AREA
3071
HEIGHT
2046
18-Sep-2023
12:30
linh

Reason Code:



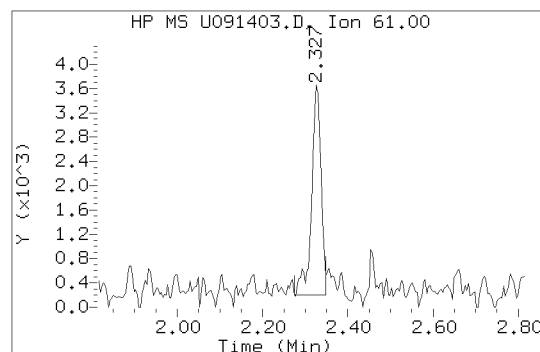
BEFORE

MASS
61
AREA
5392
HEIGHT
3461
18-Sep-2023
12:30
linh
pham



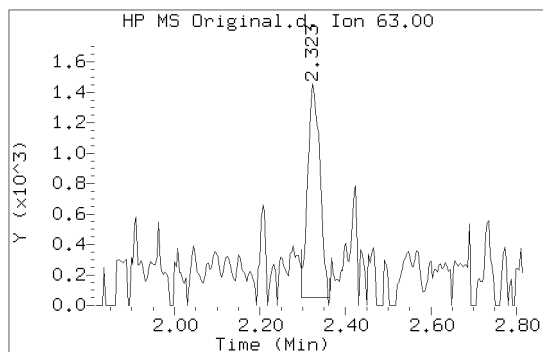
AFTER

MASS
61
AREA
5392
HEIGHT
3461
18-Sep-2023
12:30
linh
pham



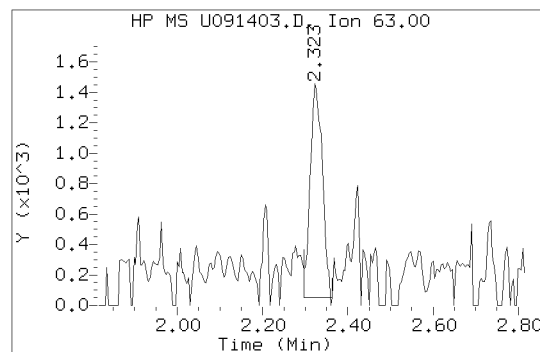
BEFORE

MASS
63
AREA
2803
HEIGHT
1406
18-Sep-2023
12:30
linh
pham



AFTER

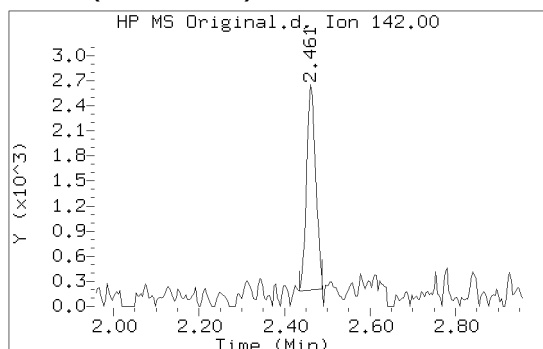
MASS
63
AREA
2803
HEIGHT
1406
18-Sep-2023
12:30
linh
pham



Iodomethane (74-88-4)

BEFORE

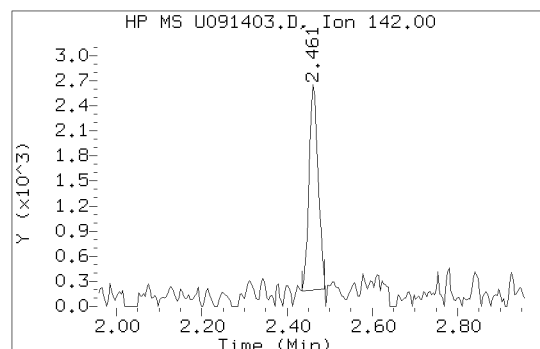
MASS
142
AREA
3691
HEIGHT
2458
18-Sep-2023
12:30
linh
pham



AFTER

MASS
142
AREA
3691
HEIGHT
2458
18-Sep-2023
12:30
linh
pham

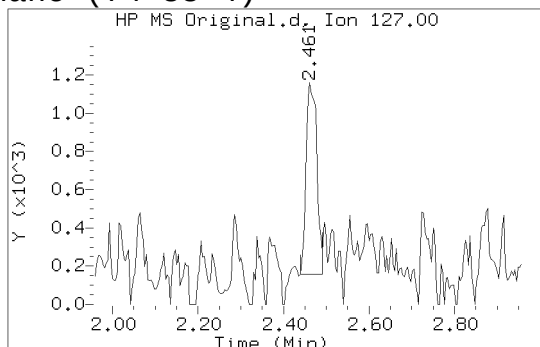
Reason Code:



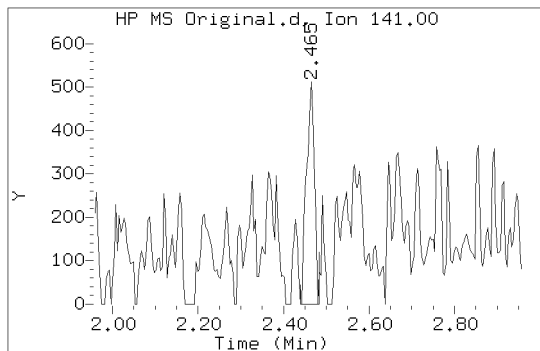
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Iodomethane (74-88-4)**BEFORE**

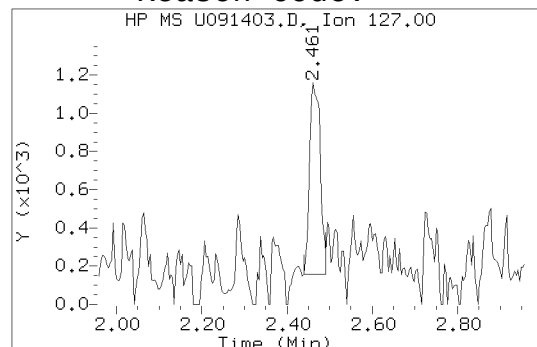
MASS
127
AREA
1758
HEIGHT
1002
18-Sep-2023
12:30
linh

**BEFORE**

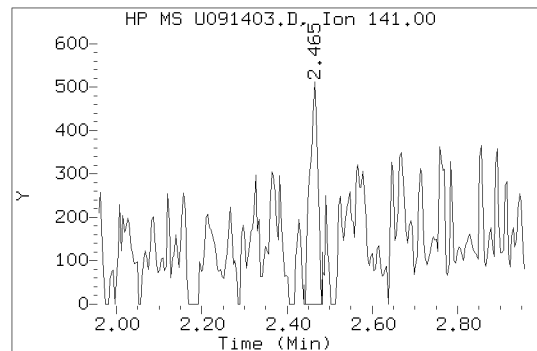
MASS
141
AREA
687
HEIGHT
512
18-Sep-2023
12:30
linh
pham

**AFTER**

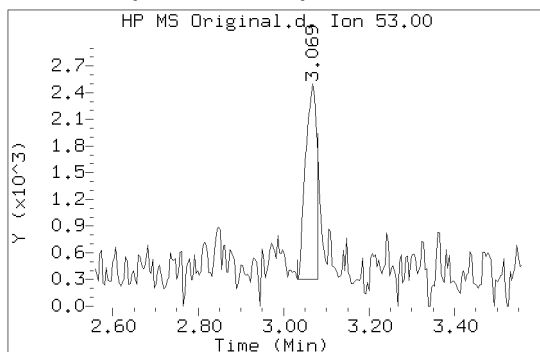
MASS
127
AREA
1758
HEIGHT
1002
18-Sep-2023
12:30
linh

**AFTER**

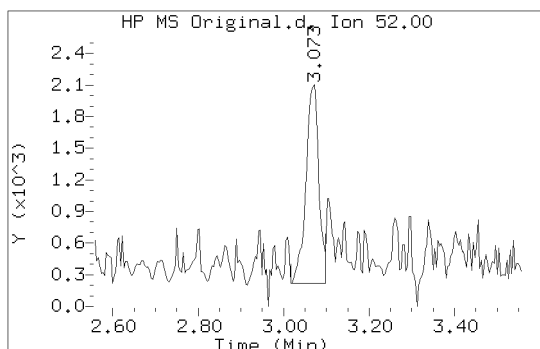
MASS
141
AREA
687
HEIGHT
512
18-Sep-2023
12:30
linh
pham

**Acrylonitrile (107-13-1)****BEFORE**

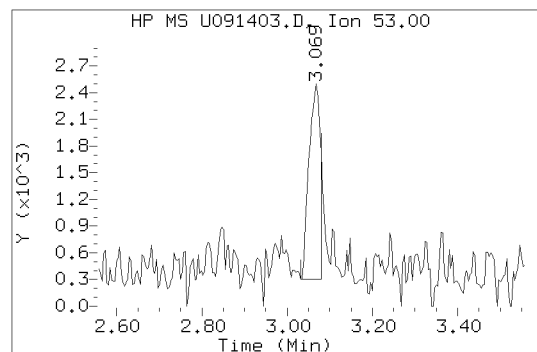
MASS
53
AREA
4051
HEIGHT
2195
18-Sep-2023
12:30
linh
pham

**BEFORE**

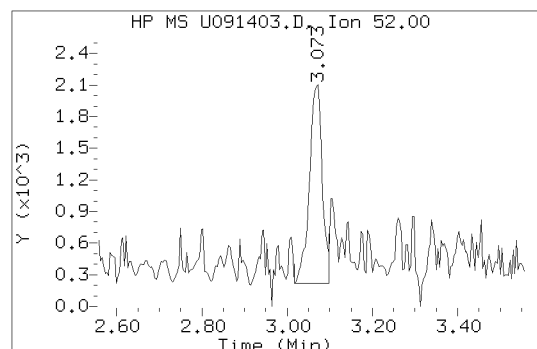
MASS
52
AREA
4049
HEIGHT
1884
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
53
AREA
4051
HEIGHT
2195
18-Sep-2023
12:30
linh
pham

**AFTER**

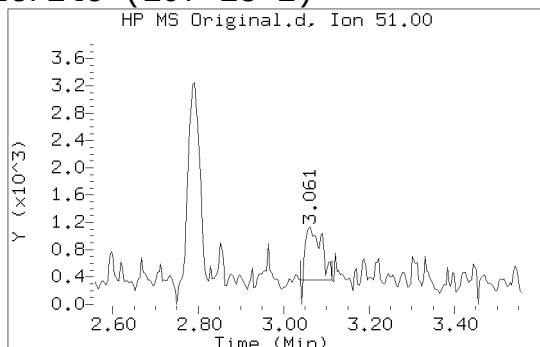
MASS
52
AREA
4049
HEIGHT
1884
18-Sep-2023
12:30
linh
pham



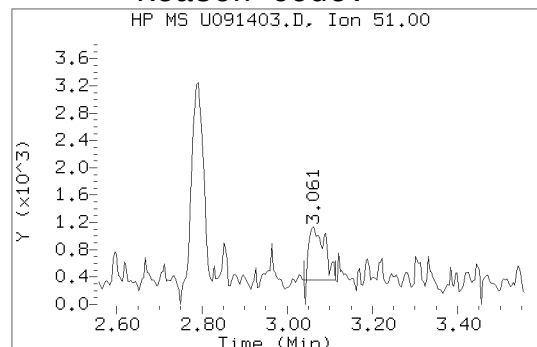
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Acrylonitrile (107-13-1)**BEFORE**

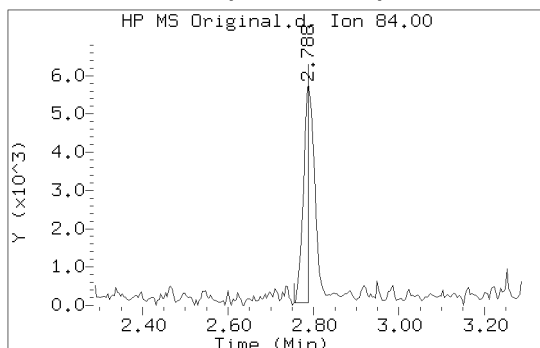
MASS
51
AREA
1987
HEIGHT
782
18-Sep-2023
12:30
linh
pham

**AFTER**

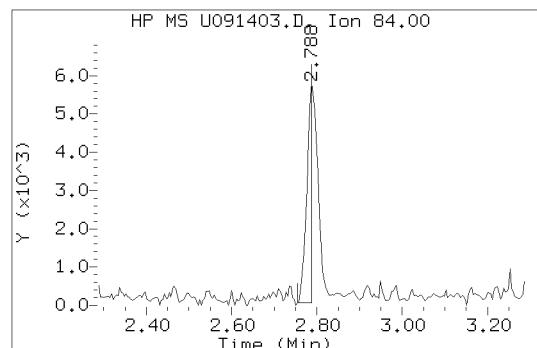
MASS
51
AREA
1987
HEIGHT
782
18-Sep-2023
12:30
linh
pham

**Methylene Chloride (75-09-2)****BEFORE**

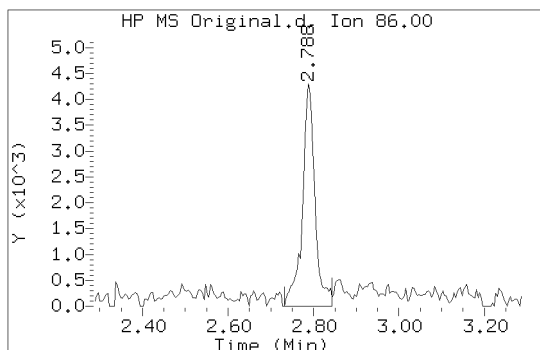
MASS
84
AREA
5165
HEIGHT
5730
18-Sep-2023
12:30
linh
pham

**AFTER**

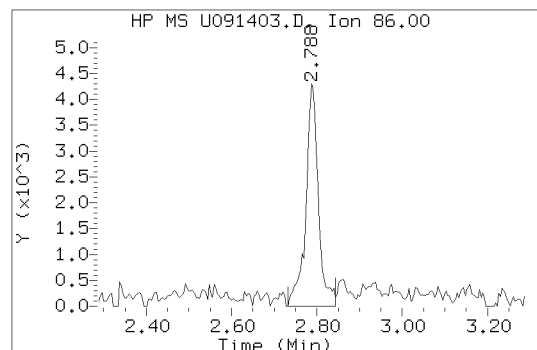
MASS
84
AREA
5165
HEIGHT
5730
18-Sep-2023
12:30
linh
pham

**BEFORE**

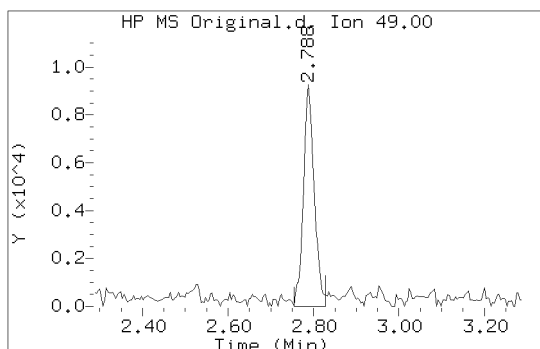
MASS
86
AREA
8962
HEIGHT
4299
18-Sep-2023
12:30
linh
pham

**AFTER**

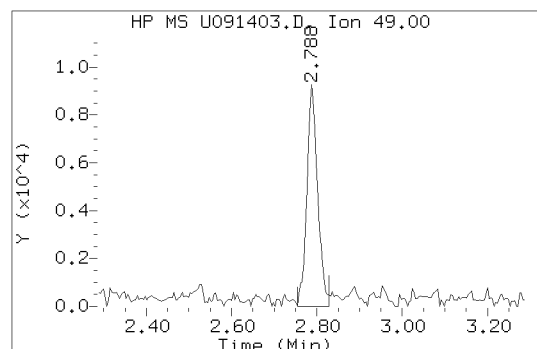
MASS
86
AREA
8962
HEIGHT
4299
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
49
AREA
16630
HEIGHT
9267
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
49
AREA
16630
HEIGHT
9267
18-Sep-2023
12:30
linh
pham

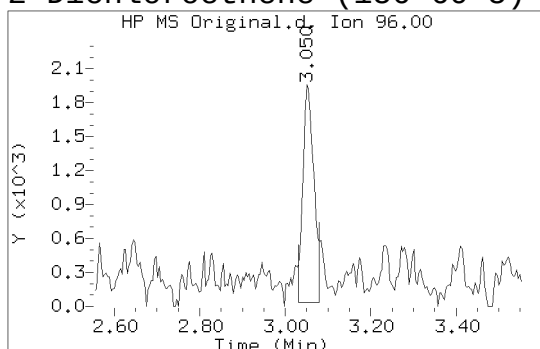


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

trans-1,2-Dichloroethene (156-60-5)

BEFORE

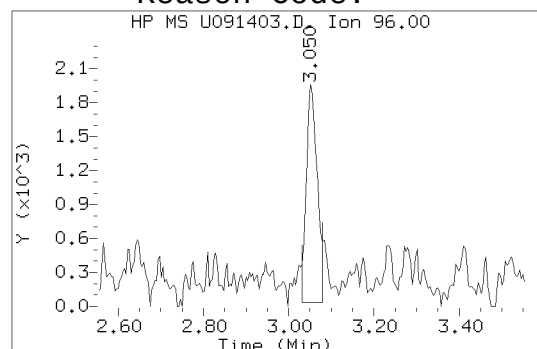
MASS
96
AREA
3543
HEIGHT
1925
18-Sep-2023
12:30
linh



AFTER

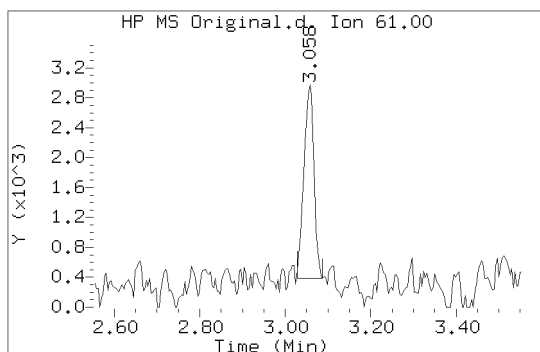
MASS
96
AREA
3543
HEIGHT
1925
18-Sep-2023
12:30
linh

Reason Code:



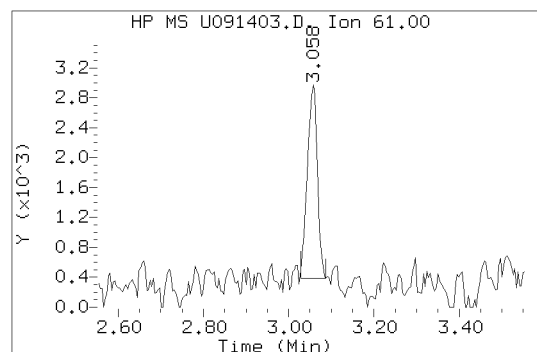
BEFORE

MASS
61
AREA
4316
HEIGHT
2583
18-Sep-2023
12:30
linh
pham



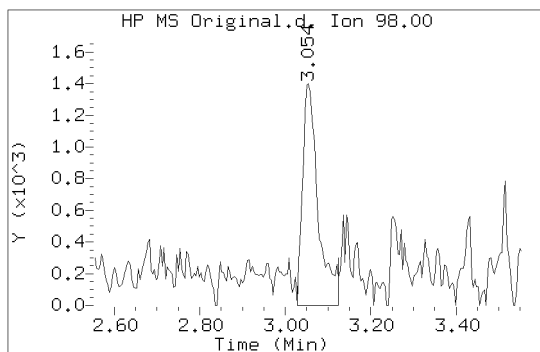
AFTER

MASS
61
AREA
4316
HEIGHT
2583
18-Sep-2023
12:30
linh
pham



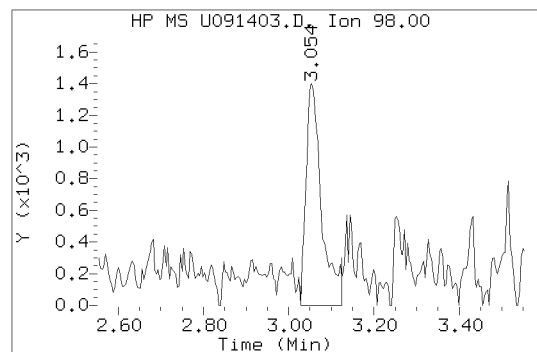
BEFORE

MASS
98
AREA
3586
HEIGHT
1400
18-Sep-2023
12:30
linh
pham



AFTER

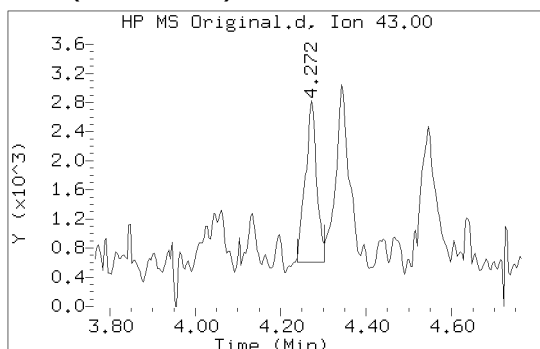
MASS
98
AREA
3586
HEIGHT
1400
18-Sep-2023
12:30
linh
pham



2-Butanone (78-93-3)

BEFORE

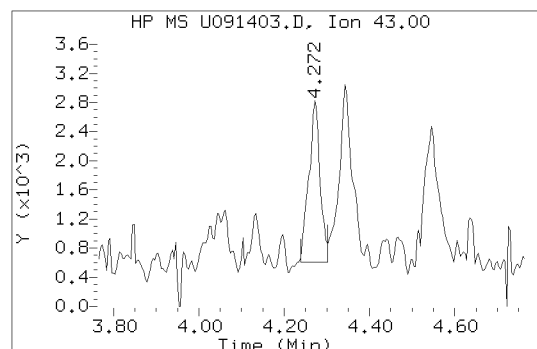
MASS
43
AREA
4163
HEIGHT
2215
18-Sep-2023
12:30
linh
pham



AFTER

MASS
43
AREA
4163
HEIGHT
2215
18-Sep-2023
12:30
linh
pham

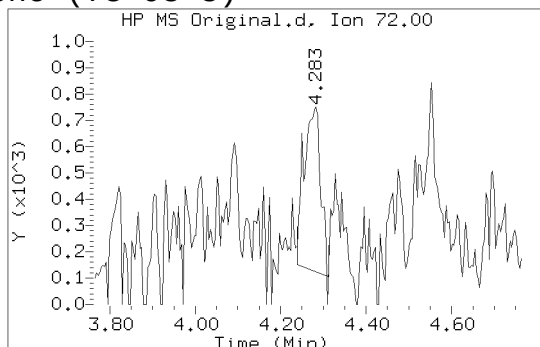
Reason Code:



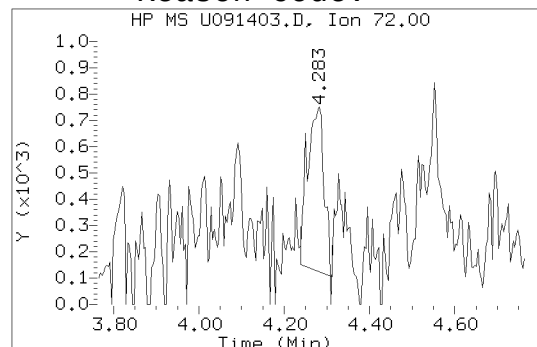
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

2-Butanone (78-93-3)**BEFORE**

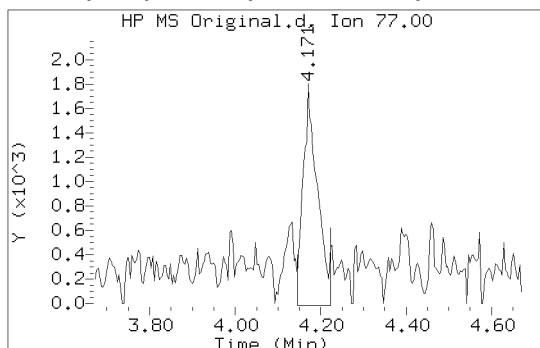
MASS
72
AREA
1704
HEIGHT
626
18-Sep-2023
12:30
linh
pham

**AFTER**

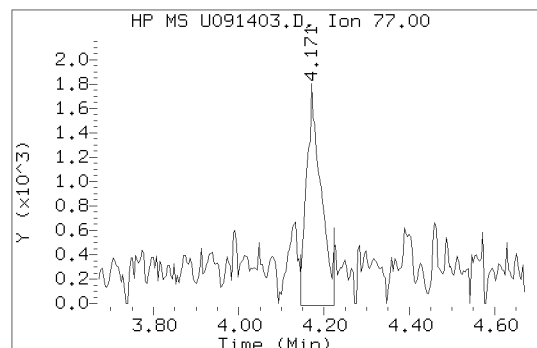
MASS
72
AREA
1704
HEIGHT
626
18-Sep-2023
12:30
linh
pham

Reason Code:**2,2-Dichloropropane (594-20-7)****BEFORE**

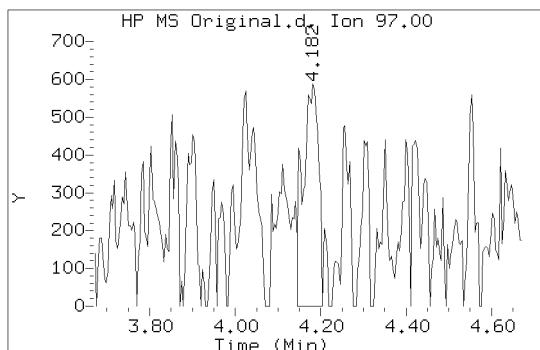
MASS
77
AREA
4335
HEIGHT
1818
18-Sep-2023
12:30
linh
pham

**AFTER**

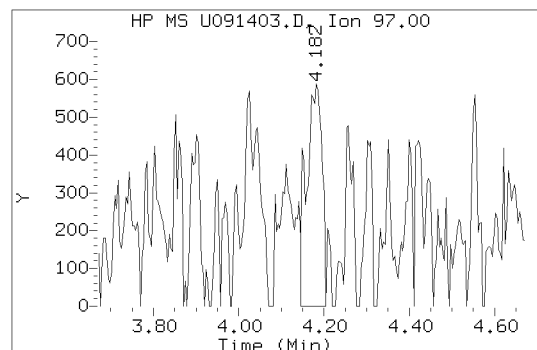
MASS
77
AREA
4335
HEIGHT
1818
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

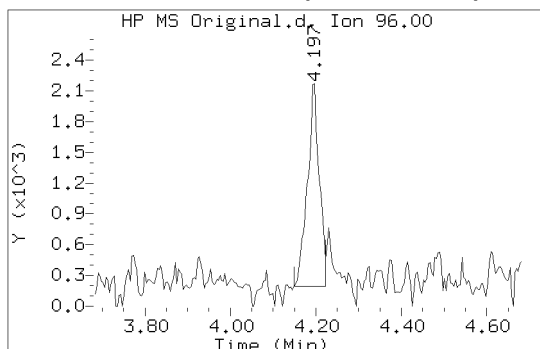
MASS
97
AREA
1521
HEIGHT
588
18-Sep-2023
12:30
linh
pham

**AFTER**

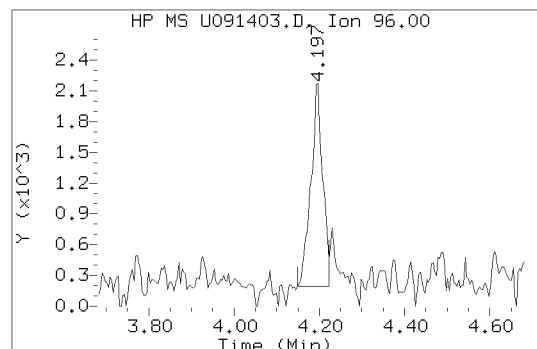
MASS
97
AREA
1521
HEIGHT
588
18-Sep-2023
12:30
linh
pham

**cis-1,2-Dichloroethene (156-59-2)****BEFORE**

MASS
96
AREA
3842
HEIGHT
1975
18-Sep-2023
12:30
linh
pham

**AFTER**

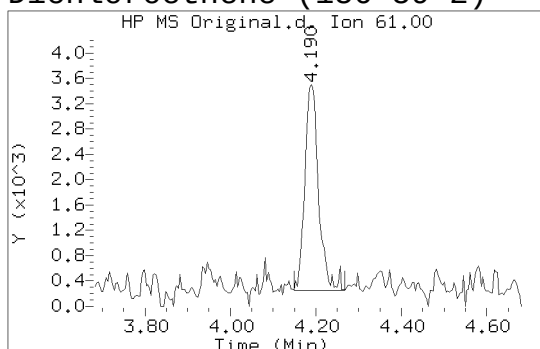
MASS
96
AREA
3842
HEIGHT
1975
18-Sep-2023
12:30
linh
pham

Reason Code:

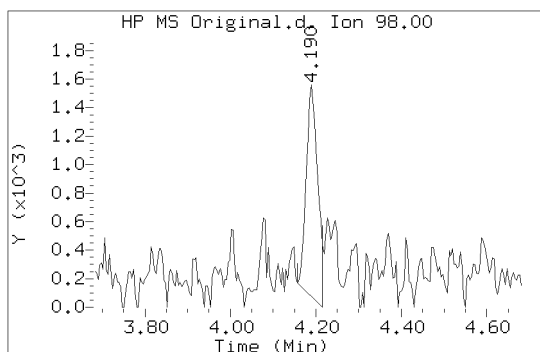
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

cis-1,2-Dichloroethene (156-59-2)**BEFORE**

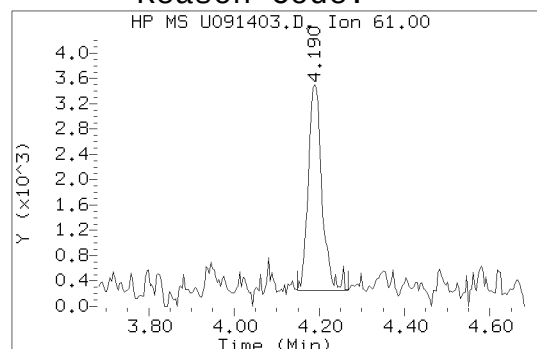
MASS
61
AREA
7338
HEIGHT
3252
18-Sep-2023
12:30
linh

**BEFORE**

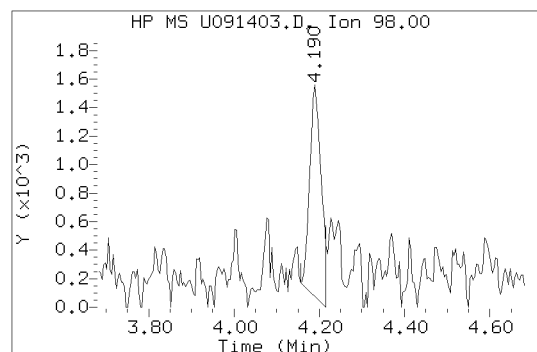
MASS
98
AREA
2809
HEIGHT
1484
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
61
AREA
7338
HEIGHT
3252
18-Sep-2023
12:30
linh

**AFTER**

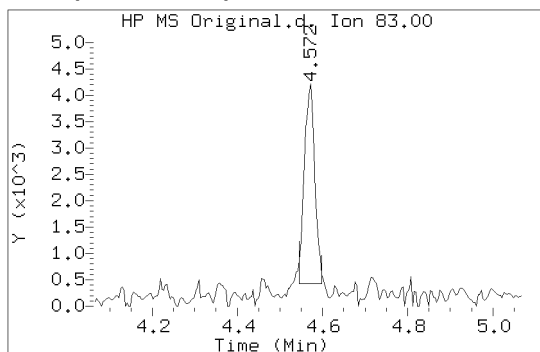
MASS
98
AREA
2809
HEIGHT
1484
18-Sep-2023
12:30
linh
pham



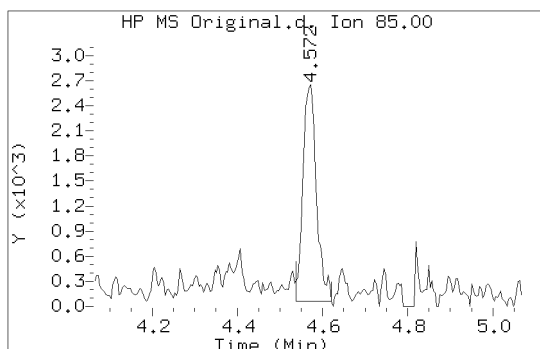
Reason Code:

Chloroform (67-66-3)**BEFORE**

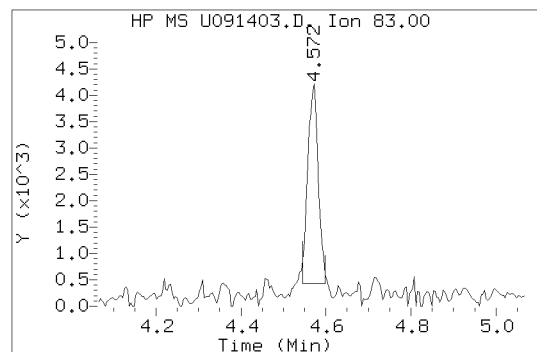
MASS
83
AREA
6484
HEIGHT
3793
18-Sep-2023
12:30
linh
pham

**BEFORE**

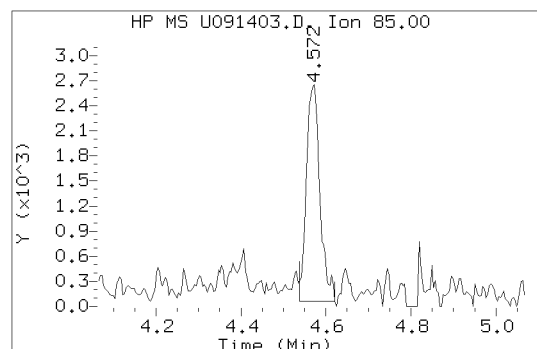
MASS
85
AREA
5687
HEIGHT
2588
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
83
AREA
6484
HEIGHT
3793
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
85
AREA
5687
HEIGHT
2588
18-Sep-2023
12:30
linh
pham

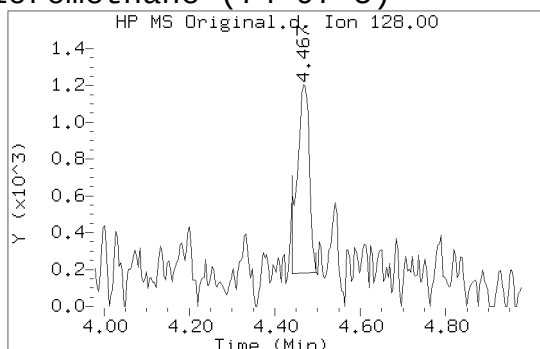


Reason Code:

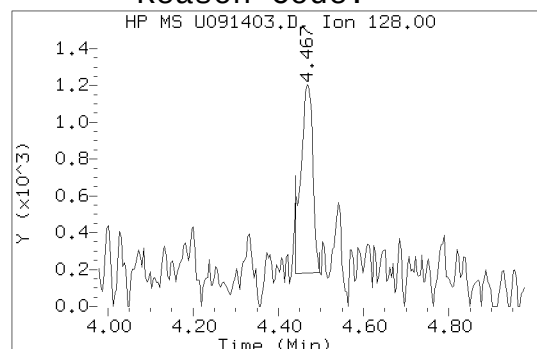
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Bromochloromethane (74-97-5)**BEFORE**

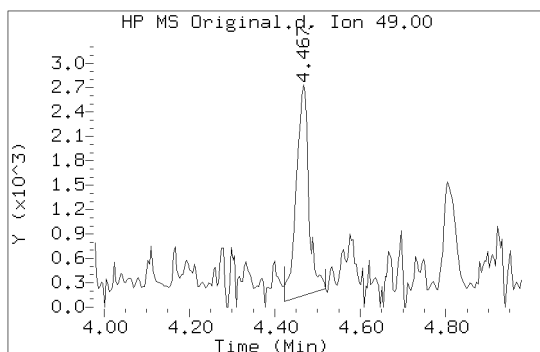
MASS
128
AREA
2041
HEIGHT
1023
18-Sep-2023
12:30
linh

**AFTER**

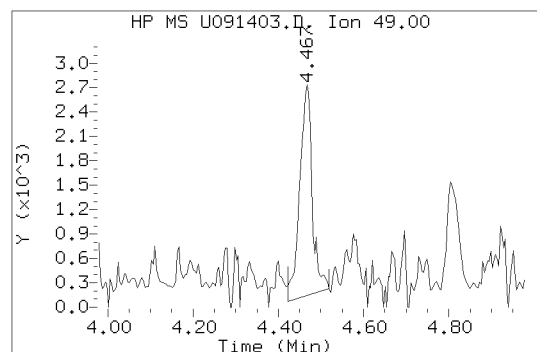
MASS
128
AREA
2041
HEIGHT
1023
18-Sep-2023
12:30
linh

**BEFORE**

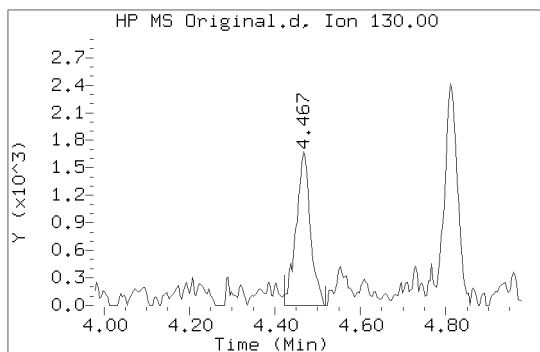
MASS
49
AREA
5348
HEIGHT
2591
18-Sep-2023
12:30
linh
pham

**AFTER**

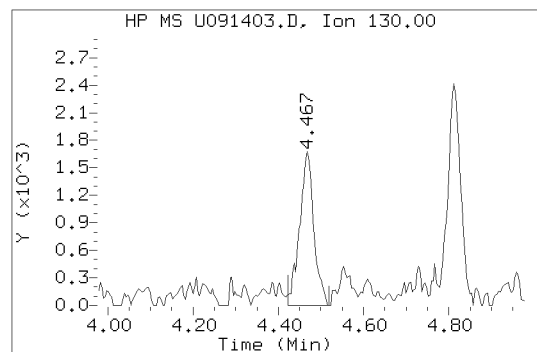
MASS
49
AREA
5348
HEIGHT
2591
18-Sep-2023
12:30
linh
pham

**BEFORE**

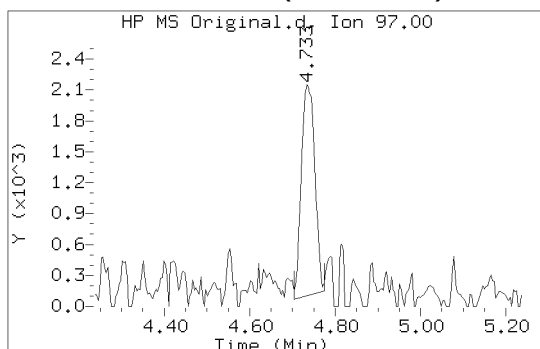
MASS
130
AREA
3935
HEIGHT
1676
18-Sep-2023
12:30
linh
pham

**AFTER**

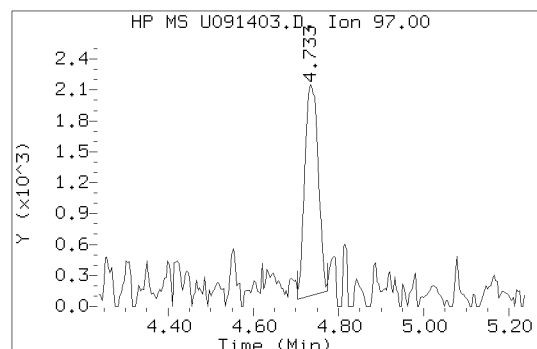
MASS
130
AREA
3935
HEIGHT
1676
18-Sep-2023
12:30
linh
pham

**1,1,1-Trichloroethane (71-55-6)****BEFORE**

MASS
97
AREA
4582
HEIGHT
2046
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
97
AREA
4582
HEIGHT
2046
18-Sep-2023
12:30
linh
pham

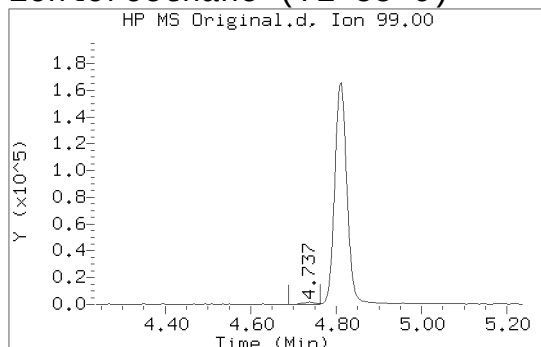


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1,1,1-Trichloroethane (71-55-6)

BEFORE

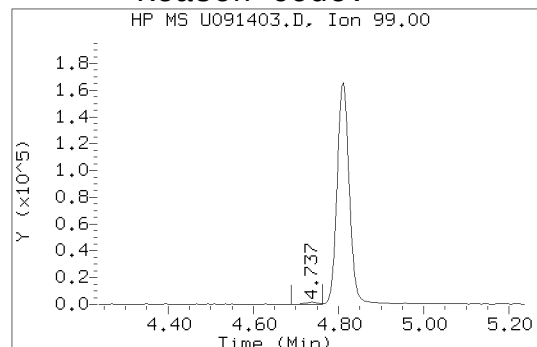
MASS
99
AREA
3449
HEIGHT
1683
18-Sep-2023
12:30
linh



AFTER

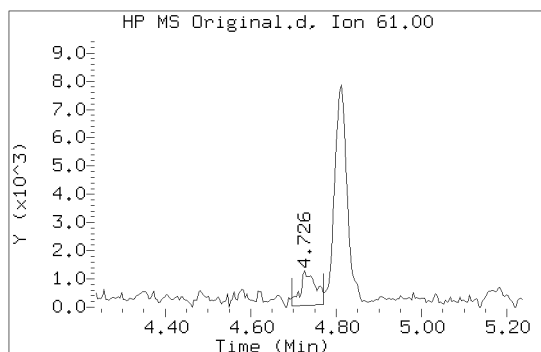
MASS
99
AREA
3449
HEIGHT
1683
18-Sep-2023
12:30
linh

Reason Code:



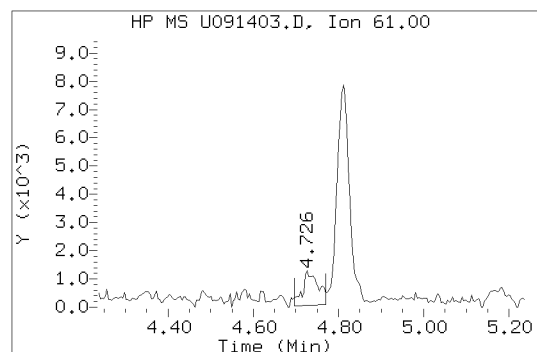
BEFORE

MASS
61
AREA
3147
HEIGHT
1220
18-Sep-2023
12:30
linh
pham



AFTER

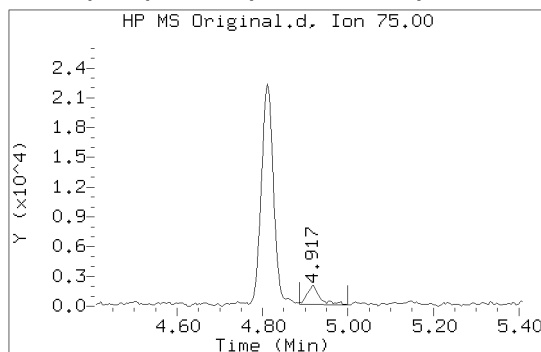
MASS
61
AREA
3147
HEIGHT
1220
18-Sep-2023
12:30
linh
pham



1,1-Dichloropropene (563-58-6)

BEFORE

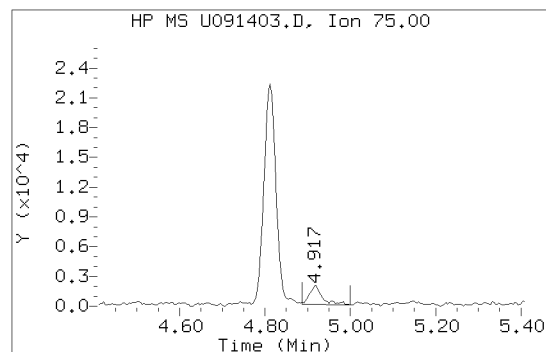
MASS
75
AREA
4020
HEIGHT
1887
18-Sep-2023
12:30
linh
pham



AFTER

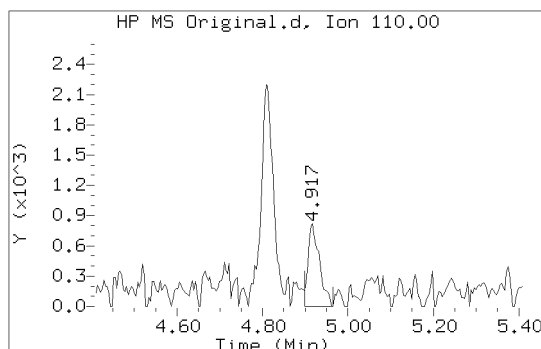
MASS
75
AREA
4020
HEIGHT
1887
18-Sep-2023
12:30
linh
pham

Reason Code:



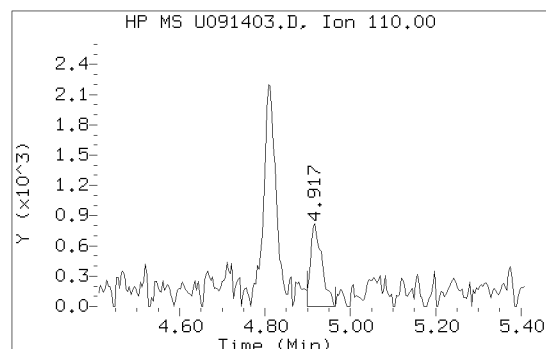
BEFORE

MASS
110
AREA
1559
HEIGHT
820
18-Sep-2023
12:30
linh
pham



AFTER

MASS
110
AREA
1559
HEIGHT
820
18-Sep-2023
12:30
linh
pham

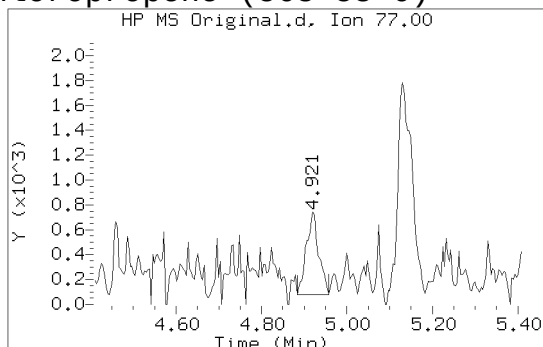


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1,1-Dichloropropene (563-58-6)

BEFORE

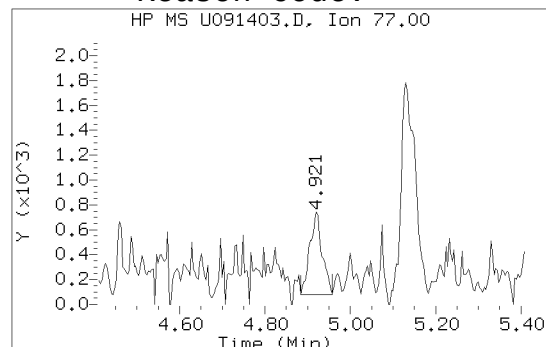
MASS
77
AREA
1366
HEIGHT
664
18-Sep-2023
12:30
linh
pham



AFTER

MASS
77
AREA
1366
HEIGHT
664
18-Sep-2023
12:30
linh
pham

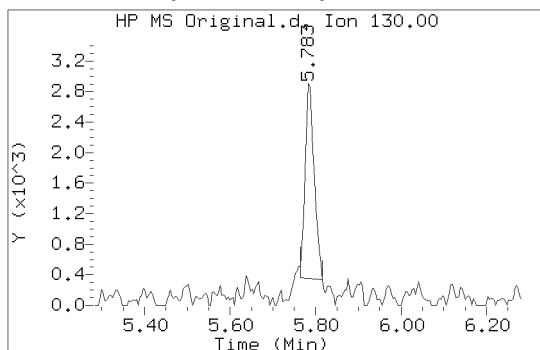
Reason Code:



Trichloroethene (79-01-6)

BEFORE

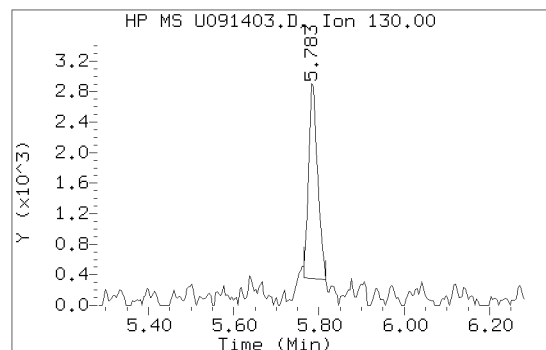
MASS
130
AREA
3872
HEIGHT
2551
18-Sep-2023
12:30
linh
pham



AFTER

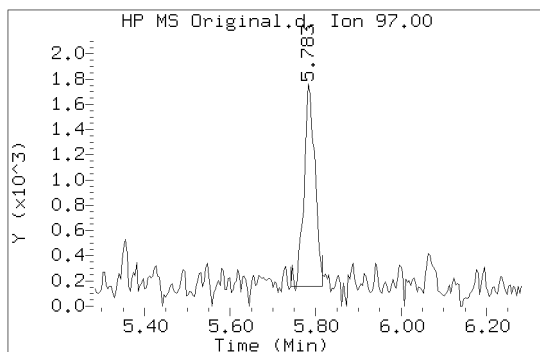
MASS
130
AREA
3872
HEIGHT
2551
18-Sep-2023
12:30
linh
pham

Reason Code:



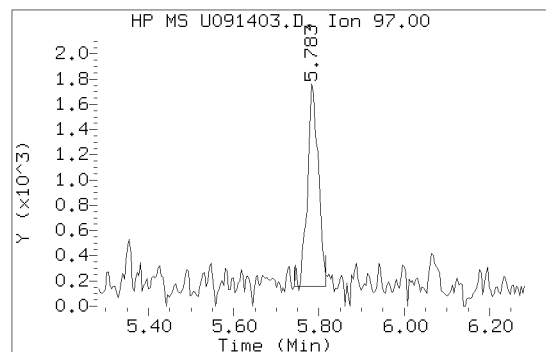
BEFORE

MASS
97
AREA
2892
HEIGHT
1606
18-Sep-2023
12:30
linh
pham



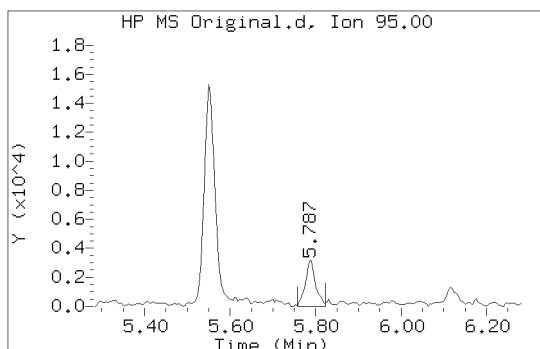
AFTER

MASS
97
AREA
2892
HEIGHT
1606
18-Sep-2023
12:30
linh
pham



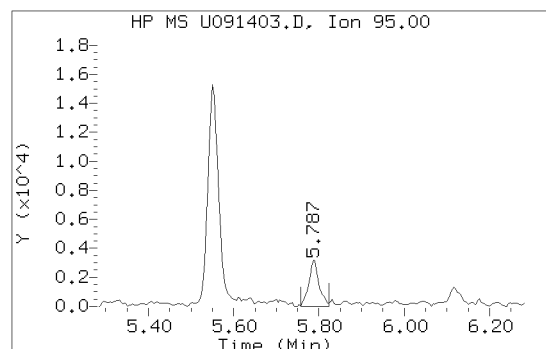
BEFORE

MASS
95
AREA
5465
HEIGHT
3194
18-Sep-2023
12:30
linh
pham



AFTER

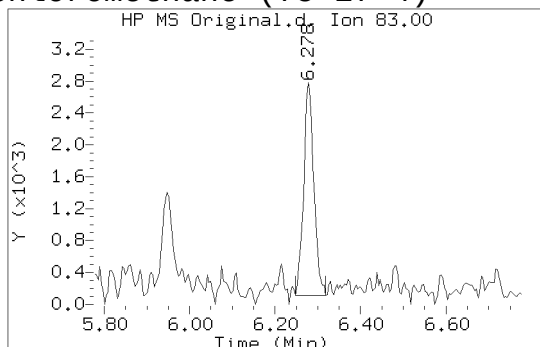
MASS
95
AREA
5465
HEIGHT
3194
18-Sep-2023
12:30
linh
pham



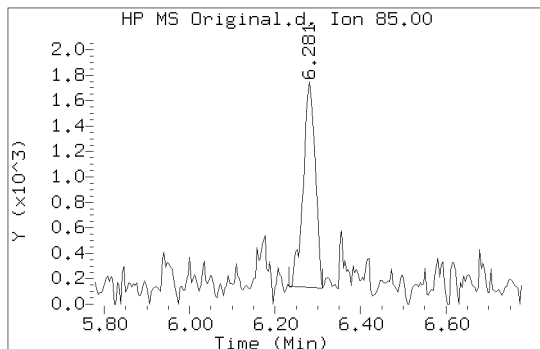
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Bromodichloromethane (75-27-4)**BEFORE**

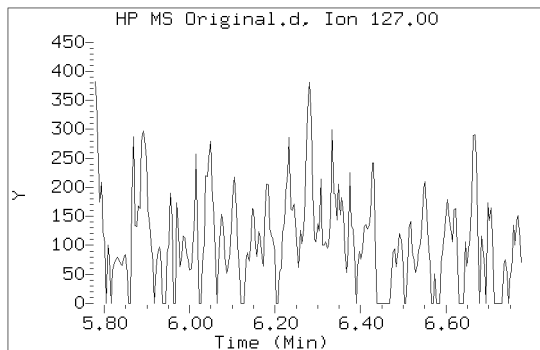
MASS
83
AREA
4490
HEIGHT
2669
18-Sep-2023
12:30
linh

**BEFORE**

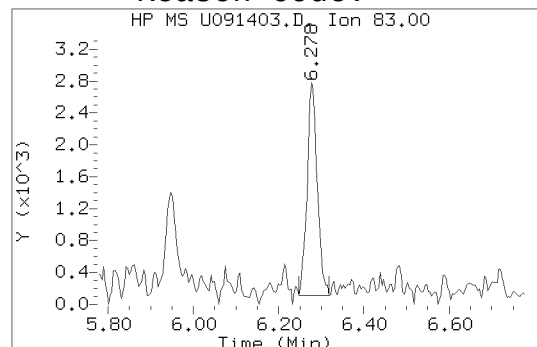
MASS
85
AREA
3201
HEIGHT
1615
18-Sep-2023
12:30
linh
pham

**BEFORE**

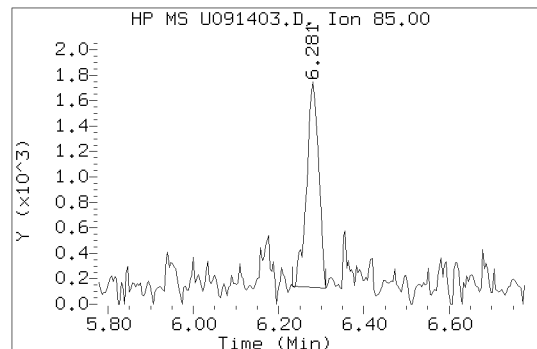
MASS
127
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham

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

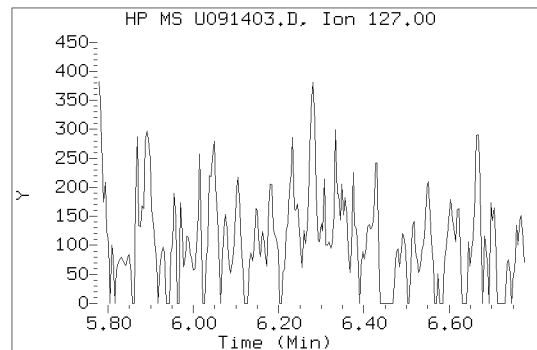
MASS
83
AREA
4490
HEIGHT
2669
18-Sep-2023
12:30
linh

**AFTER**

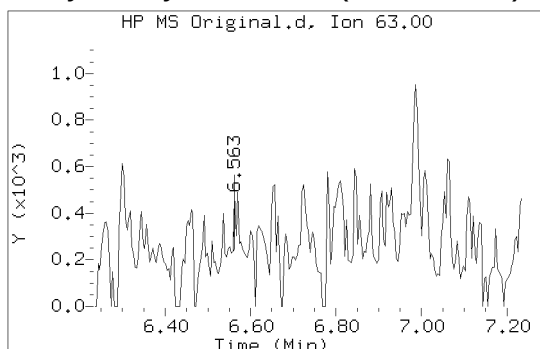
MASS
85
AREA
3201
HEIGHT
1615
18-Sep-2023
12:30
linh
pham

**AFTER**

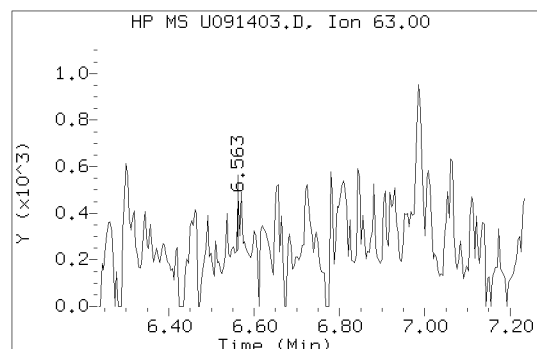
MASS
127
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham

**2-Chloroethylvinyl ether (110-75-8)****BEFORE**

MASS
63
AREA
53
HEIGHT
239
18-Sep-2023
12:30
linh
pham

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

MASS
63
AREA
53
HEIGHT
239
18-Sep-2023
12:30
linh
pham

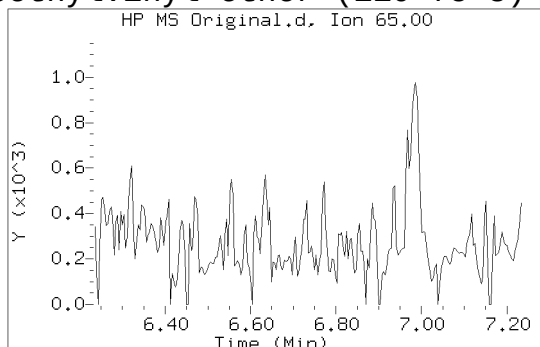


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

2-Chloroethylvinyl ether (110-75-8)

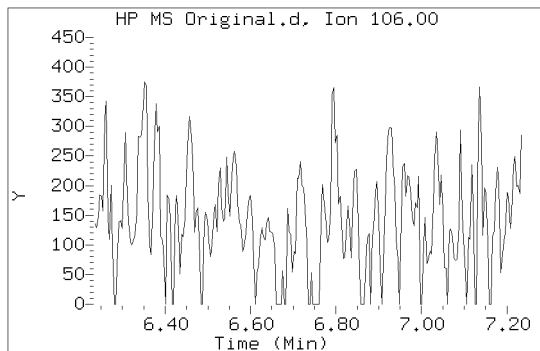
BEFORE

MASS
65
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh



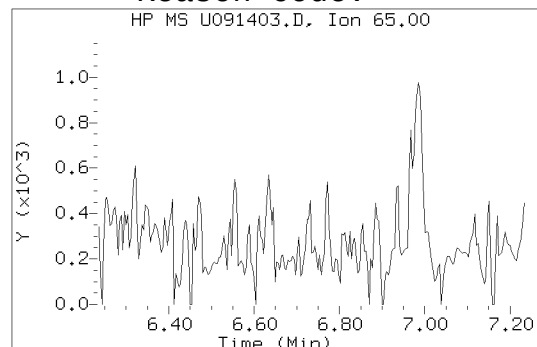
BEFORE

MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham



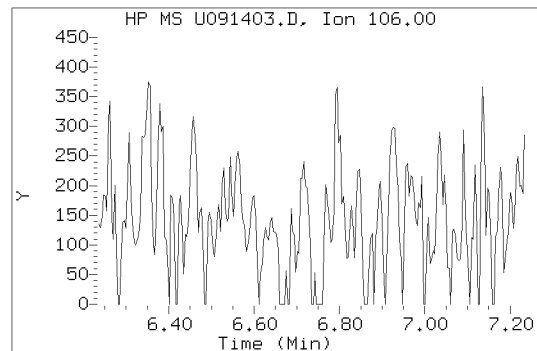
AFTER

MASS
65
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh



AFTER

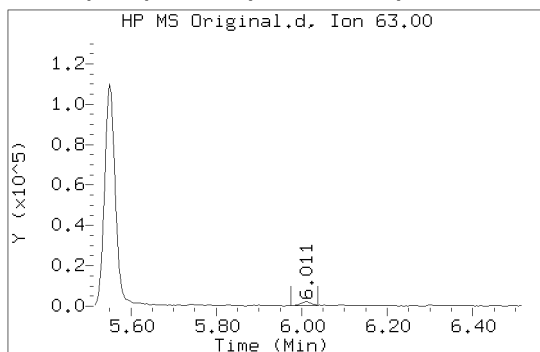
MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham



1,2-Dichloropropane (78-87-5)

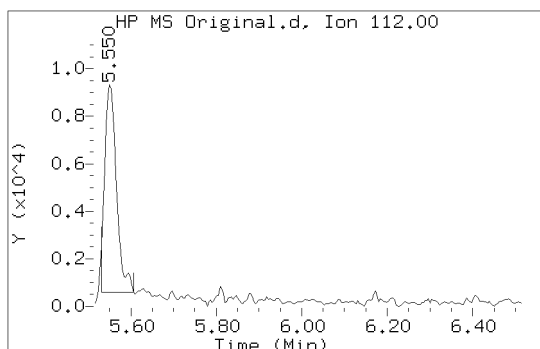
BEFORE

MASS
63
AREA
3309
HEIGHT
1990
18-Sep-2023
12:30
linh
pham



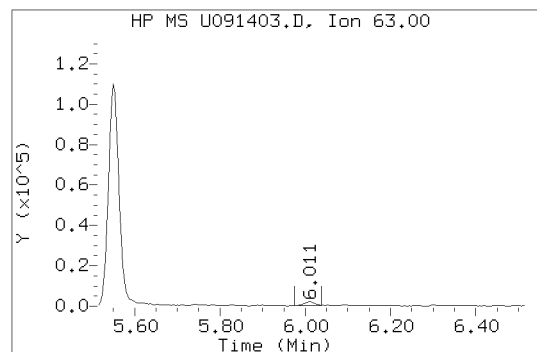
BEFORE

MASS
112
AREA
16878
HEIGHT
8745
18-Sep-2023
12:30
linh
pham



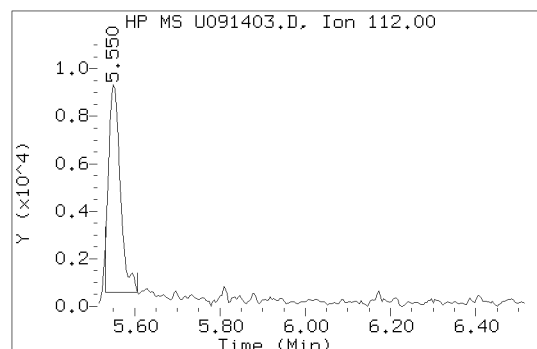
AFTER

MASS
63
AREA
3309
HEIGHT
1990
18-Sep-2023
12:30
linh
pham



AFTER

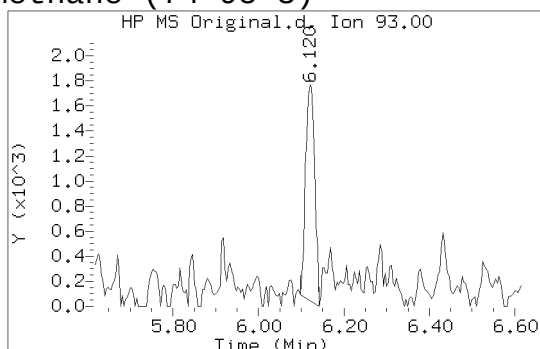
MASS
112
AREA
16878
HEIGHT
8745
18-Sep-2023
12:30
linh
pham



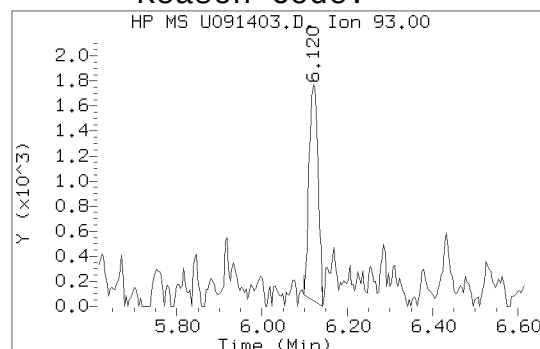
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Dibromomethane (74-95-3)**BEFORE**

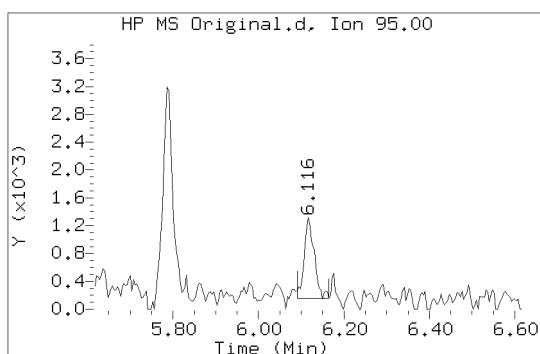
MASS
93
AREA
2627
HEIGHT
1725
18-Sep-2023
12:30
linh

**AFTER**

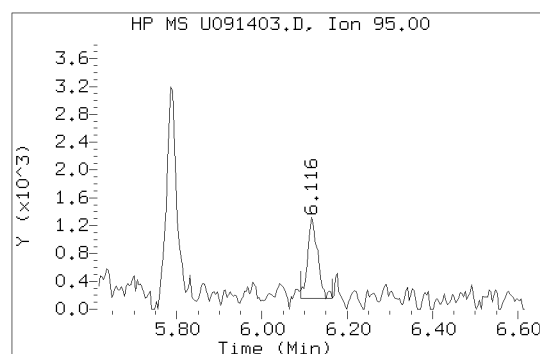
MASS
93
AREA
2627
HEIGHT
1725
18-Sep-2023
12:30
linh

**BEFORE**

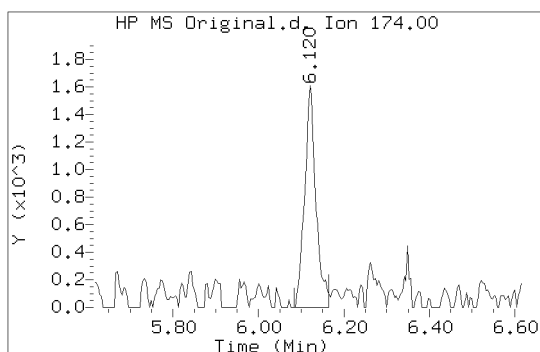
MASS
95
AREA
1958
HEIGHT
1167
18-Sep-2023
12:30
linh
pham

**AFTER**

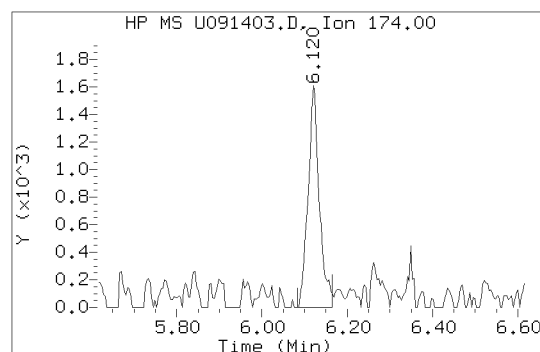
MASS
95
AREA
1958
HEIGHT
1167
18-Sep-2023
12:30
linh
pham

**BEFORE**

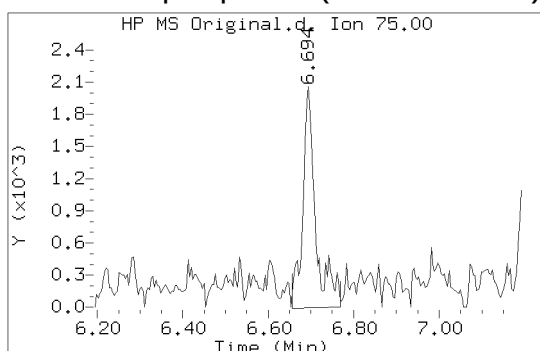
MASS
174
AREA
3013
HEIGHT
1609
18-Sep-2023
12:30
linh
pham

**AFTER**

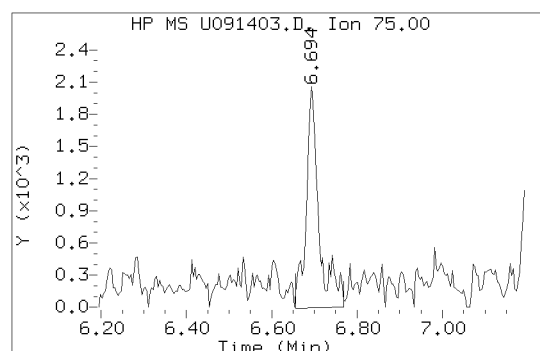
MASS
174
AREA
3013
HEIGHT
1609
18-Sep-2023
12:30
linh
pham

**cis-1,3-Dichloropropene (10061-01-5)****BEFORE**

MASS
75
AREA
4418
HEIGHT
2062
18-Sep-2023
12:30
linh
pham

**AFTER**

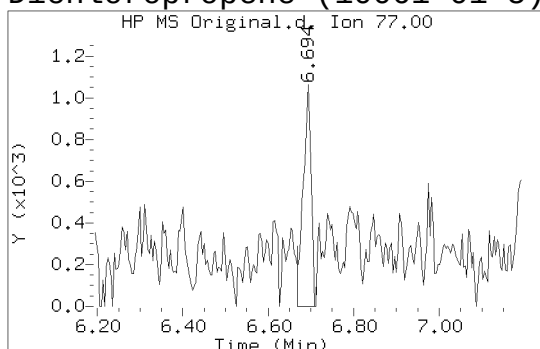
MASS
75
AREA
4418
HEIGHT
2062
18-Sep-2023
12:30
linh
pham



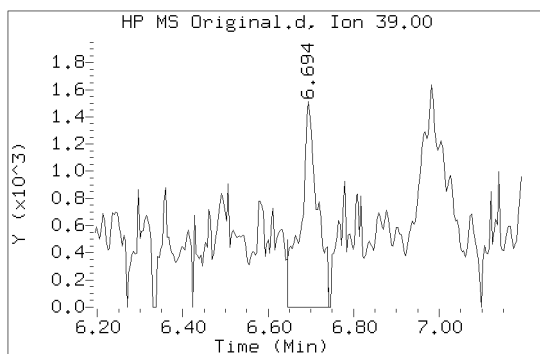
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

cis-1,3-Dichloropropene (10061-01-5)**BEFORE**

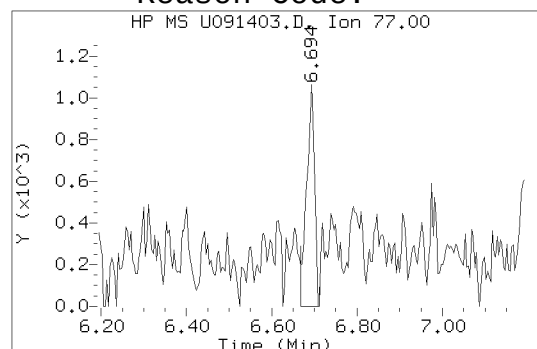
MASS
77
AREA
1433
HEIGHT
1063
18-Sep-2023
12:30
linh

**BEFORE**

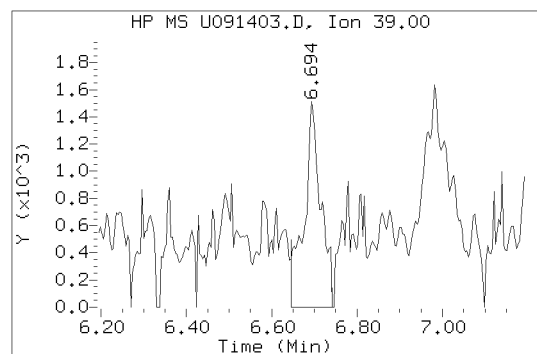
MASS
39
AREA
4202
HEIGHT
1514
18-Sep-2023
12:30
linh
pham

**AFTER**

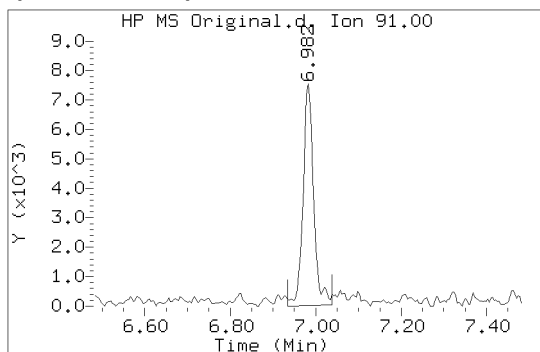
MASS
77
AREA
1433
HEIGHT
1063
18-Sep-2023
12:30
linh

**AFTER**

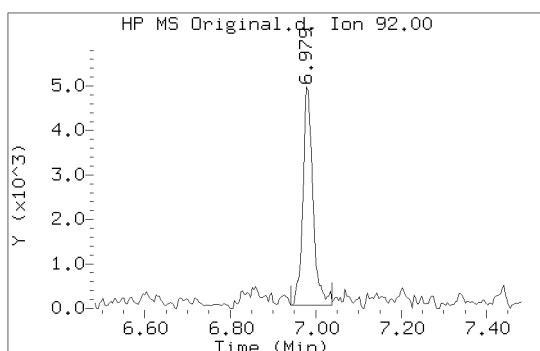
MASS
39
AREA
4202
HEIGHT
1514
18-Sep-2023
12:30
linh
pham

**Toluene (108-88-3)****BEFORE**

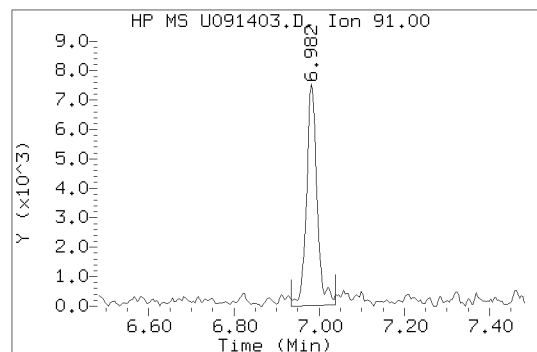
MASS
91
AREA
13250
HEIGHT
7524
18-Sep-2023
12:30
linh
pham

**BEFORE**

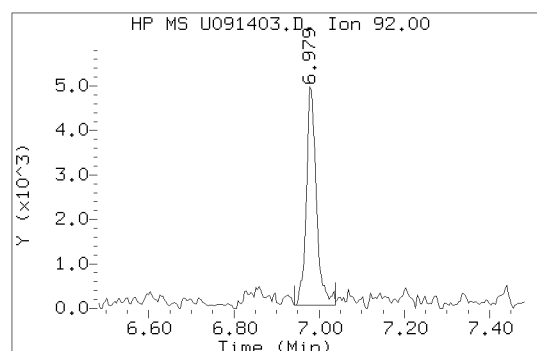
MASS
92
AREA
8238
HEIGHT
4915
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
91
AREA
13250
HEIGHT
7524
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
92
AREA
8238
HEIGHT
4915
18-Sep-2023
12:30
linh
pham

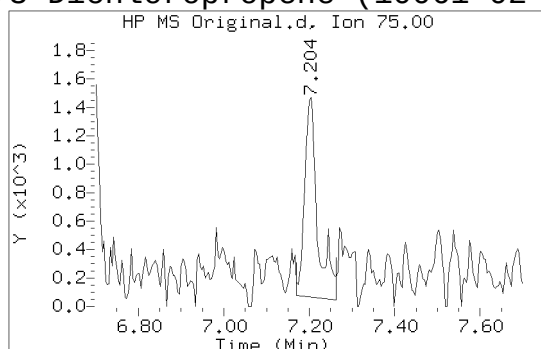


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

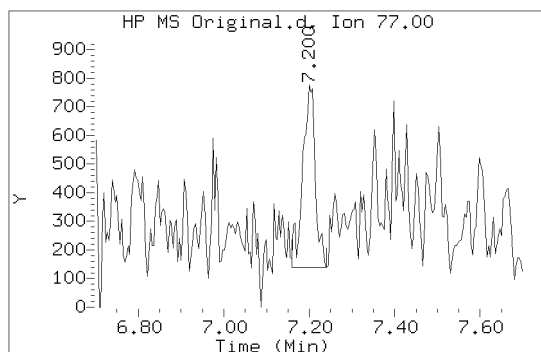
BEFORE

MASS
75
AREA
3003
HEIGHT
1406
18-Sep-2023
12:30
linh



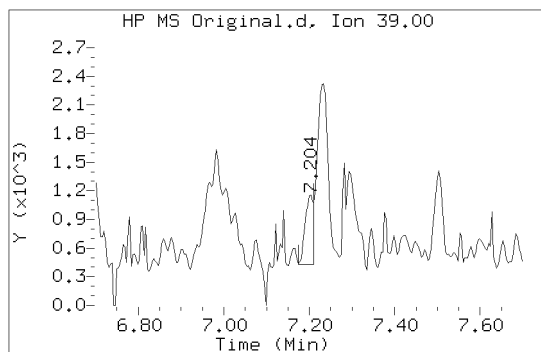
BEFORE

MASS
77
AREA
1328
HEIGHT
638
18-Sep-2023
12:30
linh
pham



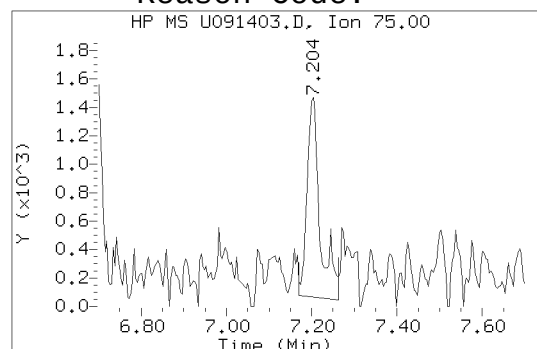
BEFORE

MASS
39
AREA
1030
HEIGHT
723
18-Sep-2023
12:30
linh
pham



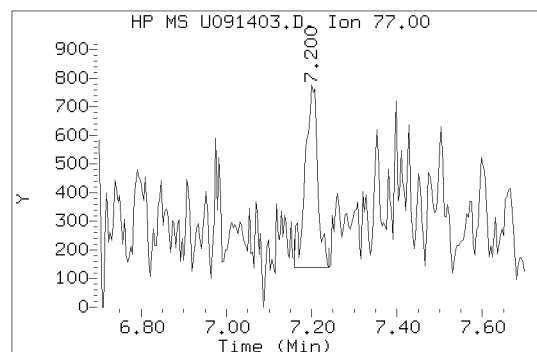
AFTER

MASS
75
AREA
3003
HEIGHT
1406
18-Sep-2023
12:30
linh



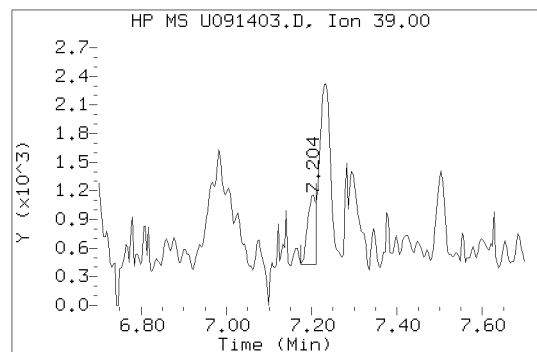
AFTER

MASS
77
AREA
1328
HEIGHT
638
18-Sep-2023
12:30
linh
pham



AFTER

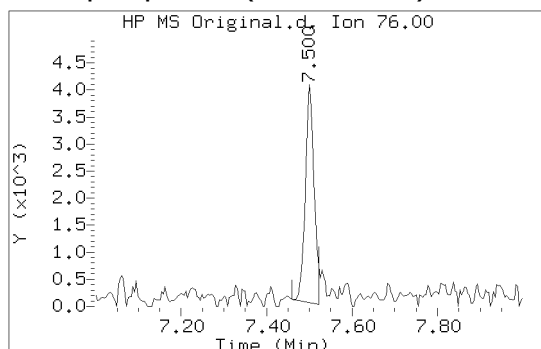
MASS
39
AREA
1030
HEIGHT
723
18-Sep-2023
12:30
linh
pham



1,3-Dichloropropane (142-28-9)

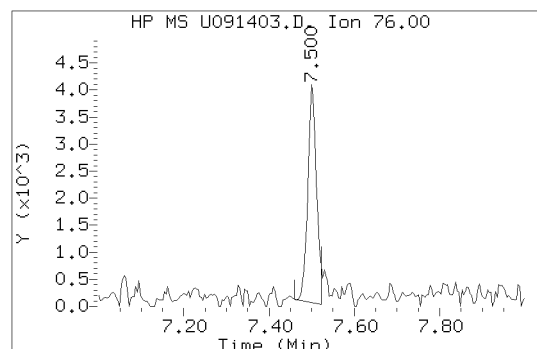
BEFORE

MASS
76
AREA
5881
HEIGHT
4027
18-Sep-2023
12:30
linh
pham



AFTER

MASS
76
AREA
5881
HEIGHT
4027
18-Sep-2023
12:30
linh
pham

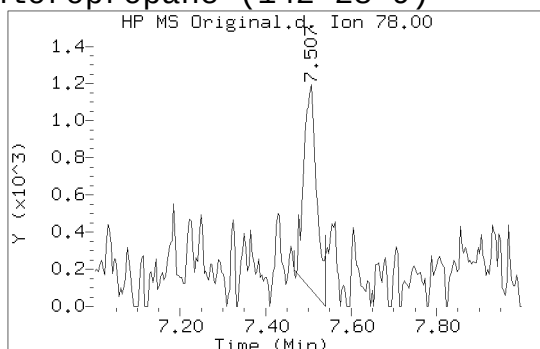


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1,3-Dichloropropane (142-28-9)

BEFORE

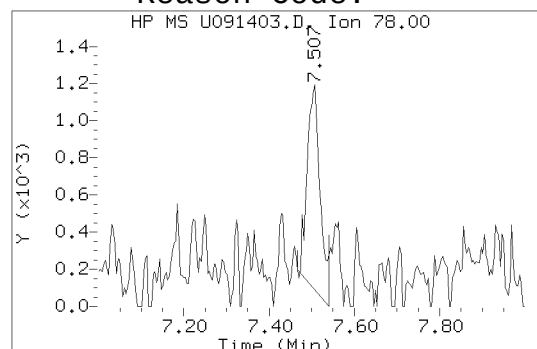
MASS
78
AREA
2367
HEIGHT
1105
18-Sep-2023
12:30
linh
pham



AFTER

MASS
78
AREA
2367
HEIGHT
1105
18-Sep-2023
12:30
linh
pham

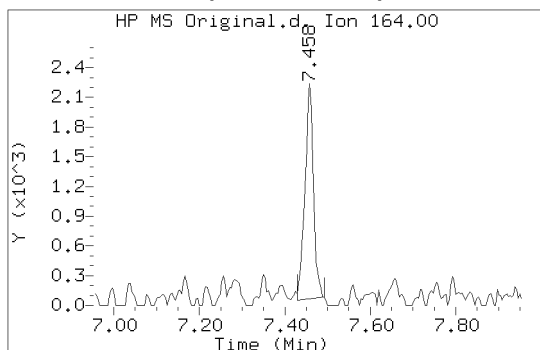
Reason Code:



Tetrachloroethene (127-18-4)

BEFORE

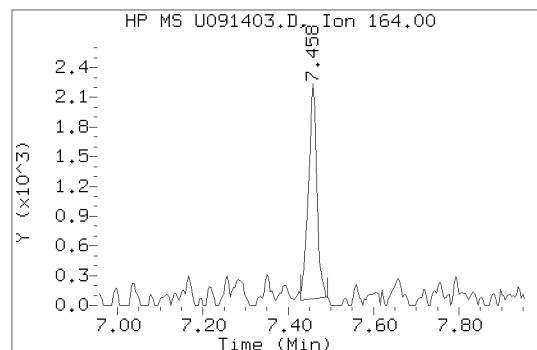
MASS
164
AREA
3084
HEIGHT
2170
18-Sep-2023
12:30
linh
pham



AFTER

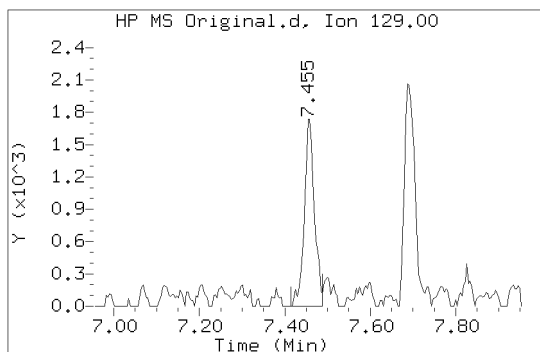
MASS
164
AREA
3084
HEIGHT
2170
18-Sep-2023
12:30
linh
pham

Reason Code:



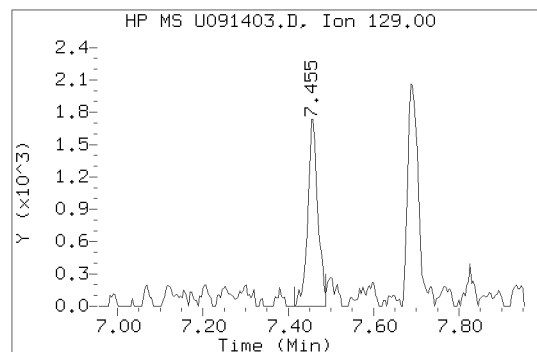
BEFORE

MASS
129
AREA
2929
HEIGHT
1733
18-Sep-2023
12:30
linh
pham



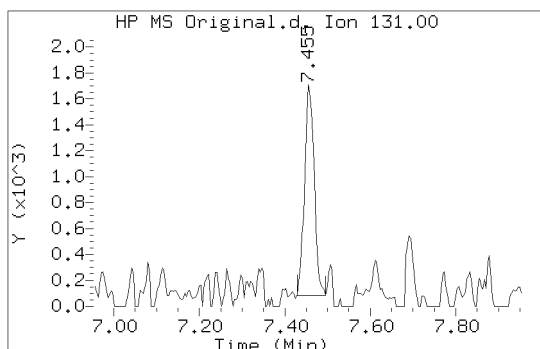
AFTER

MASS
129
AREA
2929
HEIGHT
1733
18-Sep-2023
12:30
linh
pham



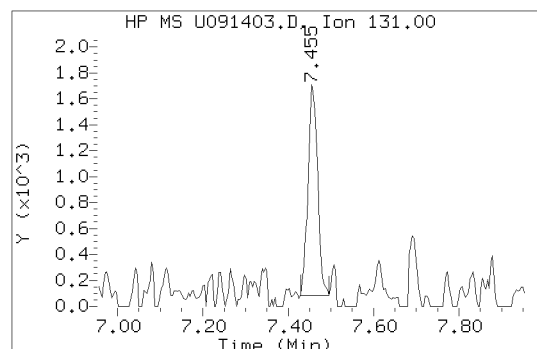
BEFORE

MASS
131
AREA
2616
HEIGHT
1625
18-Sep-2023
12:30
linh
pham



AFTER

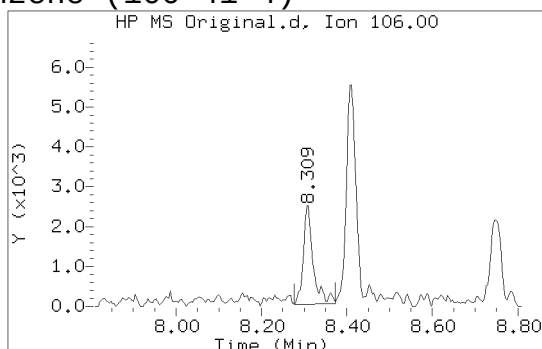
MASS
131
AREA
2616
HEIGHT
1625
18-Sep-2023
12:30
linh
pham



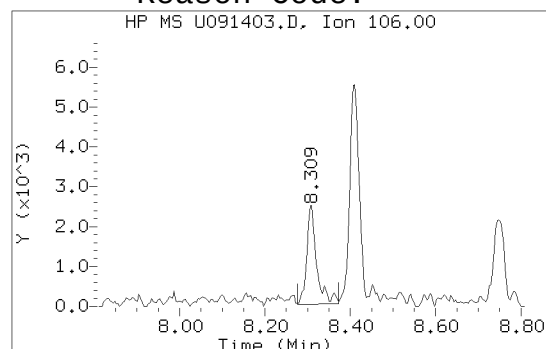
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Ethylbenzene (100-41-4)**BEFORE**

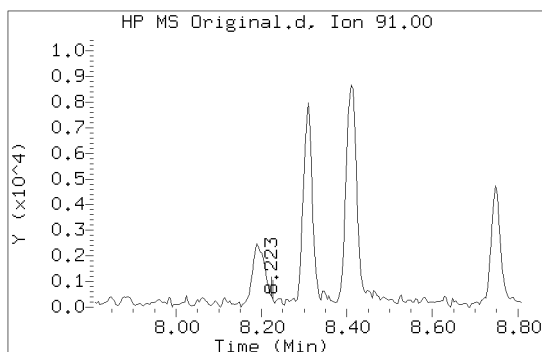
MASS
106
AREA
4115
HEIGHT
2465
18-Sep-2023
12:30
linh

**AFTER**

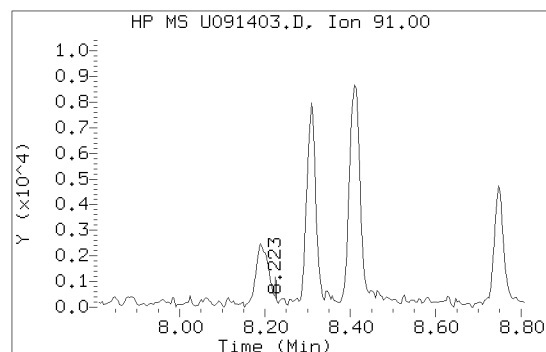
MASS
106
AREA
4115
HEIGHT
2465
18-Sep-2023
12:30
linh

**BEFORE**

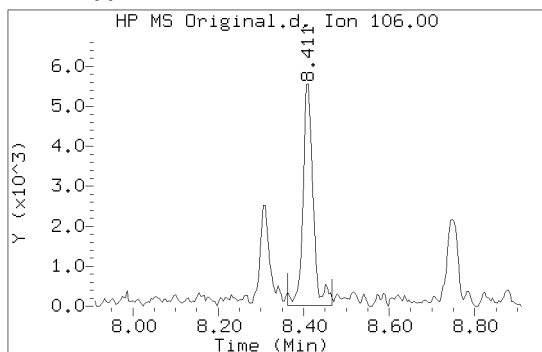
MASS
91
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham

**AFTER**

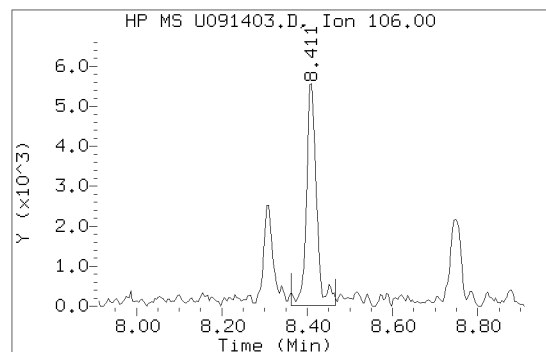
MASS
91
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham

**m,p-Xylenes ()****BEFORE**

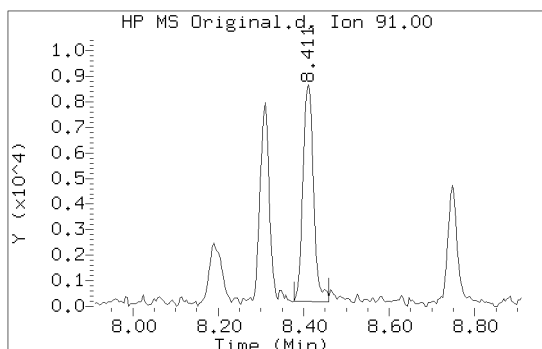
MASS
106
AREA
9427
HEIGHT
5551
18-Sep-2023
12:30
linh
pham

**AFTER**

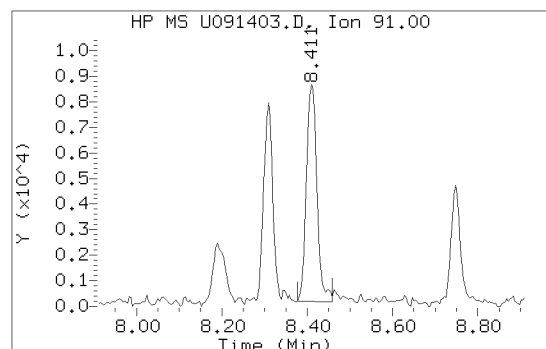
MASS
106
AREA
9427
HEIGHT
5551
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
91
AREA
15016
HEIGHT
8490
18-Sep-2023
12:30
linh
pham

**AFTER**

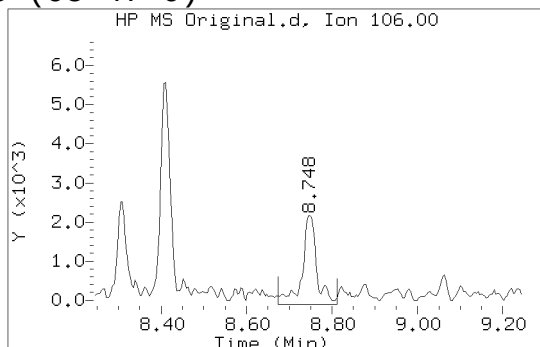
MASS
91
AREA
15016
HEIGHT
8490
18-Sep-2023
12:30
linh
pham



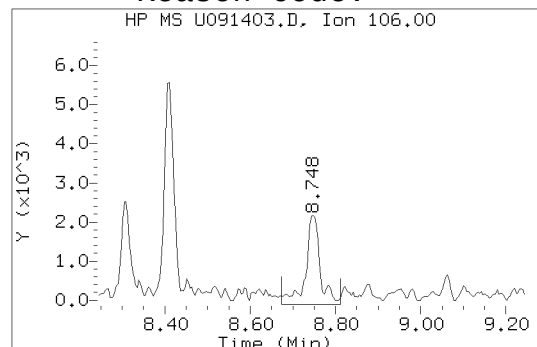
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

o-Xylene (95-47-6)**BEFORE**

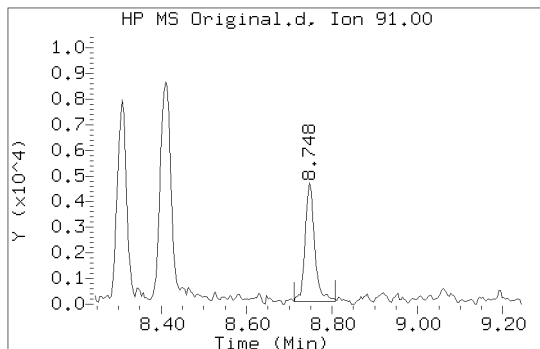
MASS
106
AREA
5517
HEIGHT
2284
18-Sep-2023
12:30
linh

**AFTER**

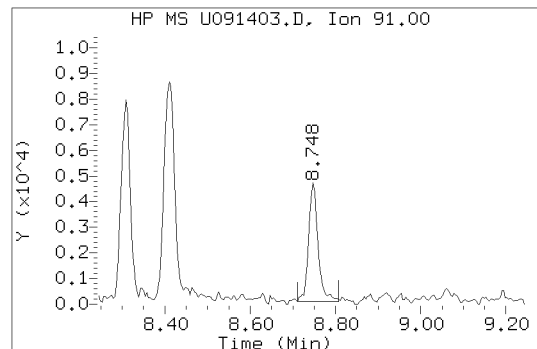
MASS
106
AREA
5517
HEIGHT
2284
18-Sep-2023
12:30
linh

**BEFORE**

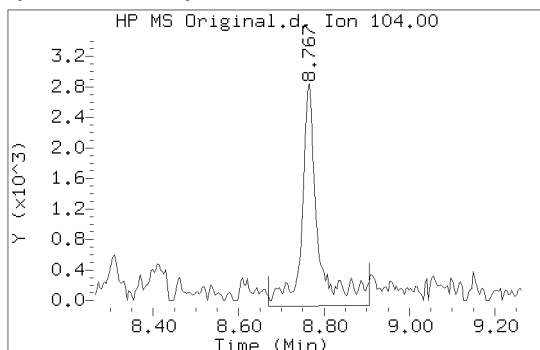
MASS
91
AREA
7272
HEIGHT
4637
18-Sep-2023
12:30
linh
pham

**AFTER**

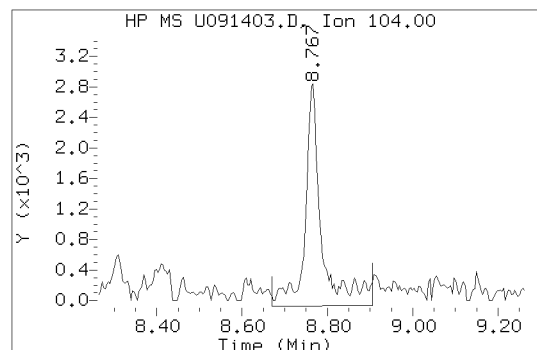
MASS
91
AREA
7272
HEIGHT
4637
18-Sep-2023
12:30
linh
pham

**Styrene (100-42-5)****BEFORE**

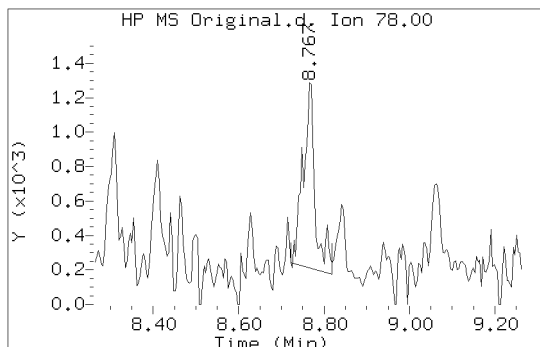
MASS
104
AREA
8005
HEIGHT
2909
18-Sep-2023
12:30
linh
pham

**AFTER**

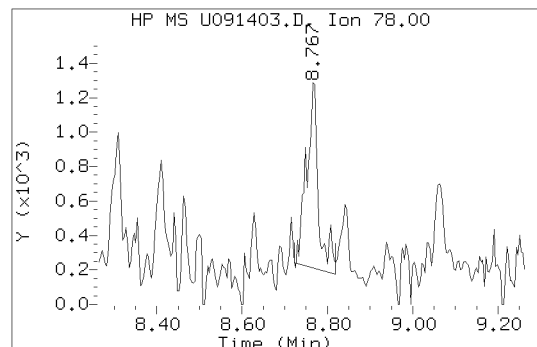
MASS
104
AREA
8005
HEIGHT
2909
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
78
AREA
2114
HEIGHT
1076
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
78
AREA
2114
HEIGHT
1076
18-Sep-2023
12:30
linh
pham

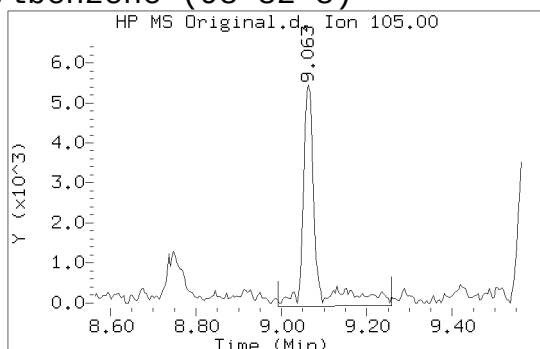


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Isopropylbenzene (98-82-8)

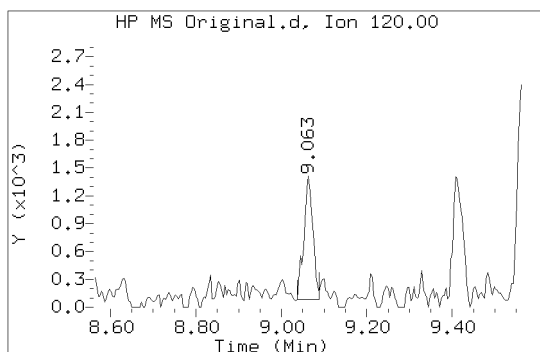
BEFORE

MASS
105
AREA
12158
HEIGHT
5539
18-Sep-2023
12:30
linh



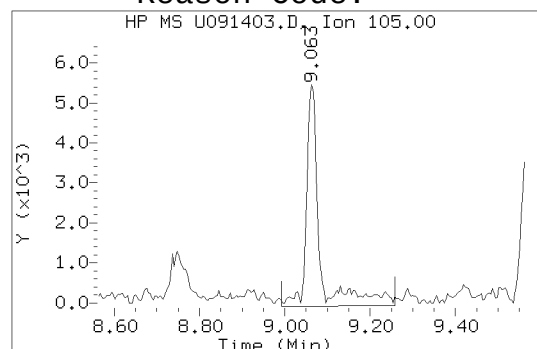
BEFORE

MASS
120
AREA
2003
HEIGHT
1331
18-Sep-2023
12:30
linh
pham



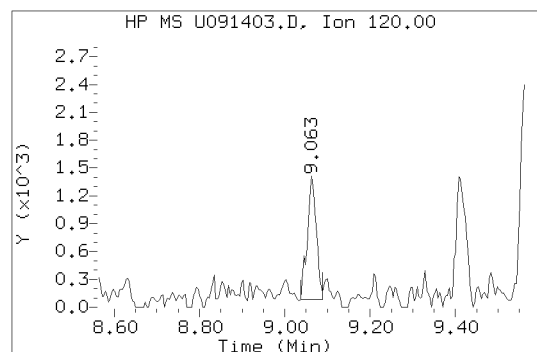
AFTER

MASS
105
AREA
12158
HEIGHT
5539
18-Sep-2023
12:30
linh



AFTER

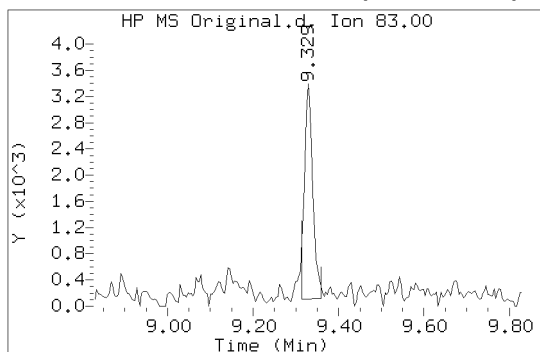
MASS
120
AREA
2003
HEIGHT
1331
18-Sep-2023
12:30
linh
pham



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

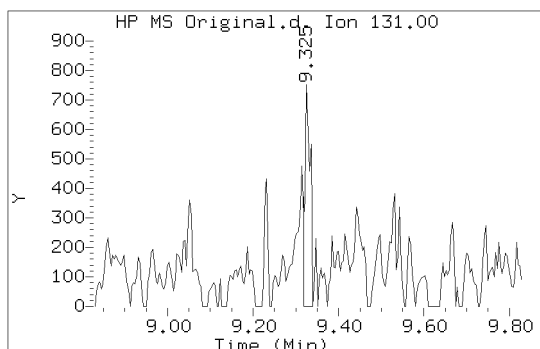
BEFORE

MASS
83
AREA
4530
HEIGHT
3283
18-Sep-2023
12:30
linh
pham



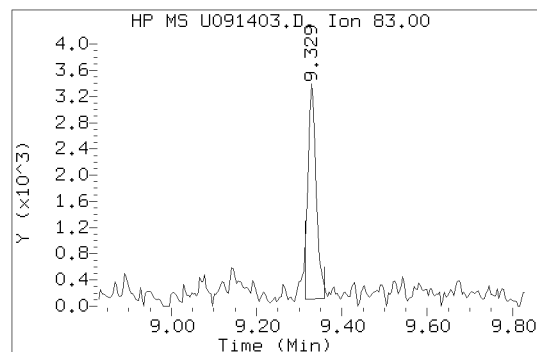
BEFORE

MASS
131
AREA
677
HEIGHT
752
18-Sep-2023
12:30
linh
pham



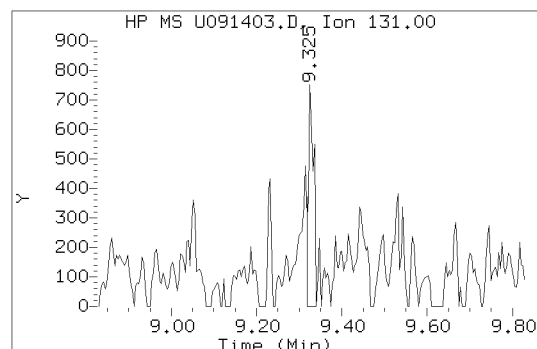
AFTER

MASS
83
AREA
4530
HEIGHT
3283
18-Sep-2023
12:30
linh
pham



AFTER

MASS
131
AREA
677
HEIGHT
752
18-Sep-2023
12:30
linh
pham

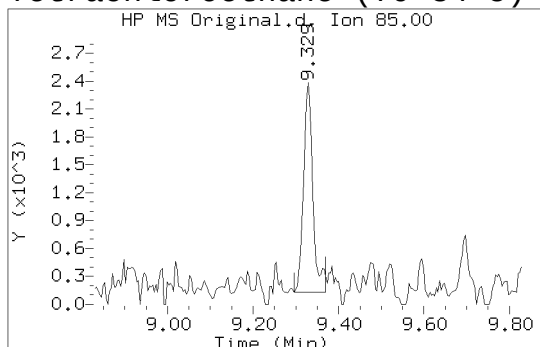


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

BEFORE

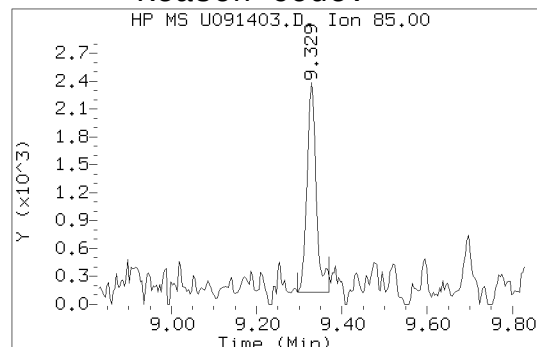
MASS
85
AREA
3496
HEIGHT
2256
18-Sep-2023
12:30
linh
pham



AFTER

MASS
85
AREA
3496
HEIGHT
2256
18-Sep-2023
12:30
linh
pham

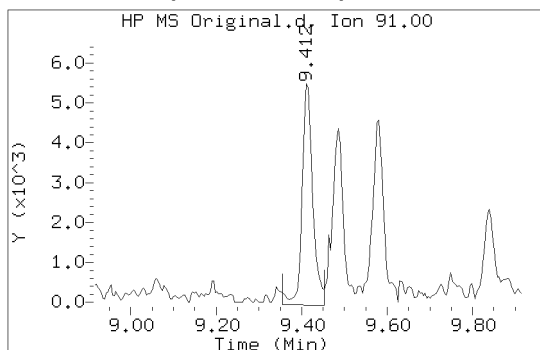
Reason Code:



n-Propylbenzene (106-65-1)

BEFORE

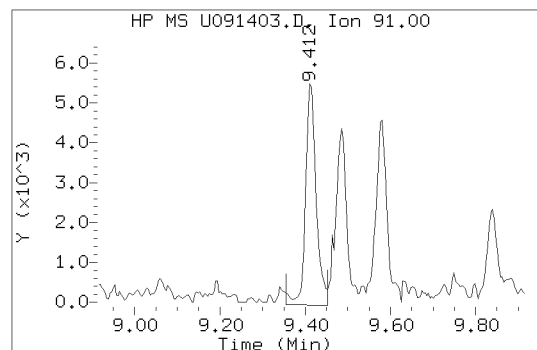
MASS
91
AREA
9893
HEIGHT
5551
18-Sep-2023
12:30
linh
pham



AFTER

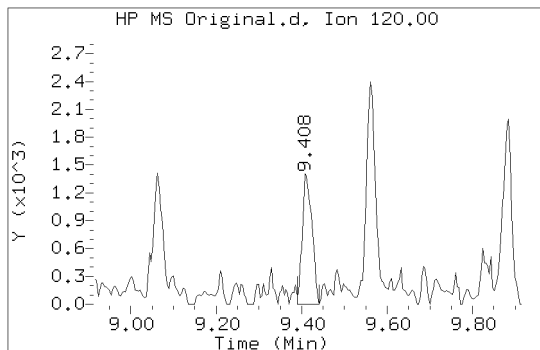
MASS
91
AREA
9893
HEIGHT
5551
18-Sep-2023
12:30
linh
pham

Reason Code:



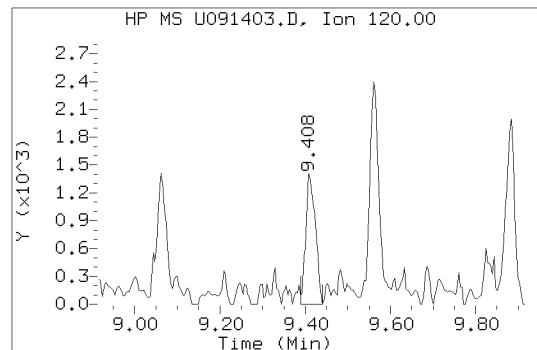
BEFORE

MASS
120
AREA
2270
HEIGHT
1403
18-Sep-2023
12:30
linh
pham



AFTER

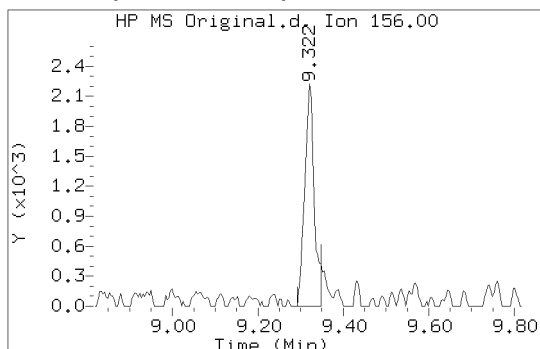
MASS
120
AREA
2270
HEIGHT
1403
18-Sep-2023
12:30
linh
pham



Bromobenzene (108-86-1)

BEFORE

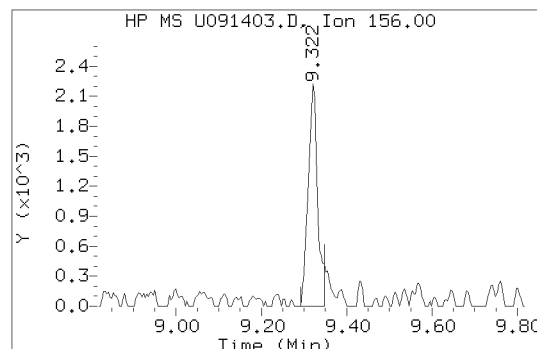
MASS
156
AREA
3486
HEIGHT
2224
18-Sep-2023
12:30
linh
pham



AFTER

MASS
156
AREA
3486
HEIGHT
2224
18-Sep-2023
12:30
linh
pham

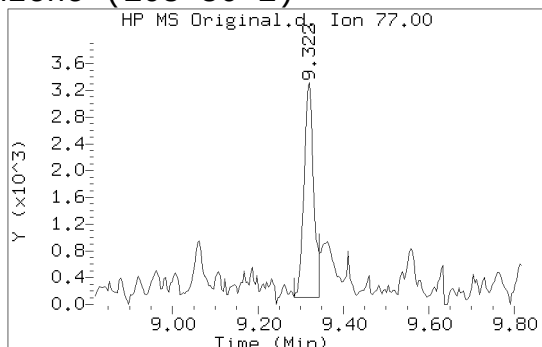
Reason Code:



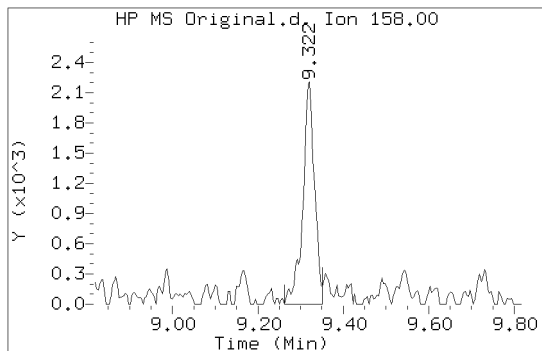
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Bromobenzene (108-86-1)**BEFORE**

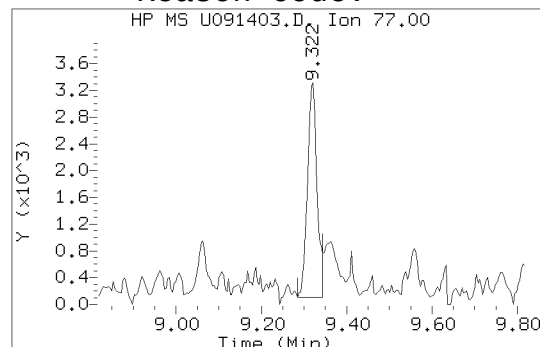
MASS
77
AREA
5111
HEIGHT
3204
18-Sep-2023
12:30
linh

**BEFORE**

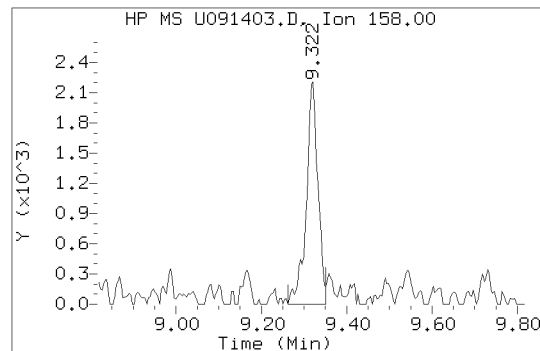
MASS
158
AREA
4263
HEIGHT
2208
18-Sep-2023
12:30
linh
pham

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

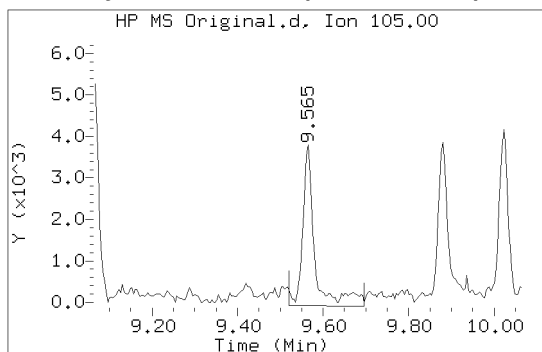
MASS
77
AREA
5111
HEIGHT
3204
18-Sep-2023
12:30
linh

**AFTER**

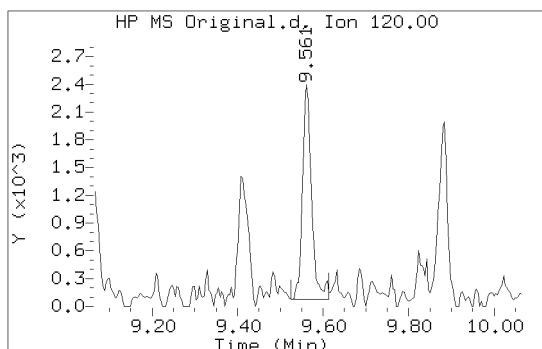
MASS
158
AREA
4263
HEIGHT
2208
18-Sep-2023
12:30
linh
pham

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

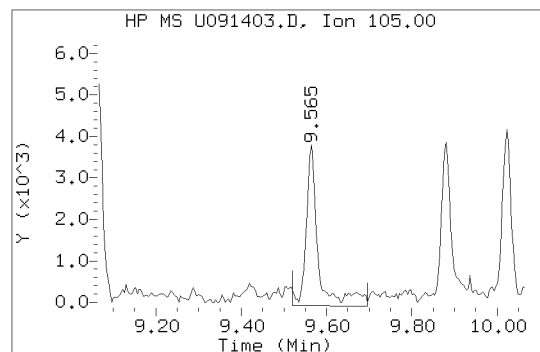
MASS
105
AREA
7718
HEIGHT
3866
18-Sep-2023
12:30
linh
pham

**BEFORE**

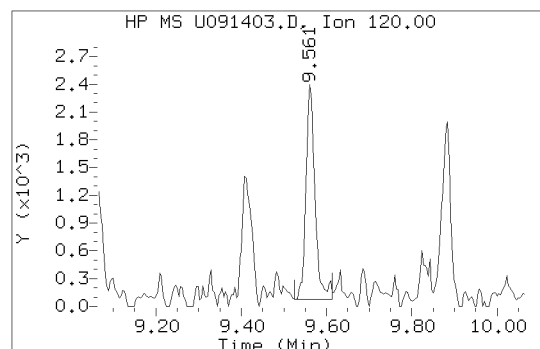
MASS
120
AREA
3516
HEIGHT
2319
18-Sep-2023
12:30
linh
pham

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

MASS
105
AREA
7718
HEIGHT
3866
18-Sep-2023
12:30
linh
pham

**AFTER**

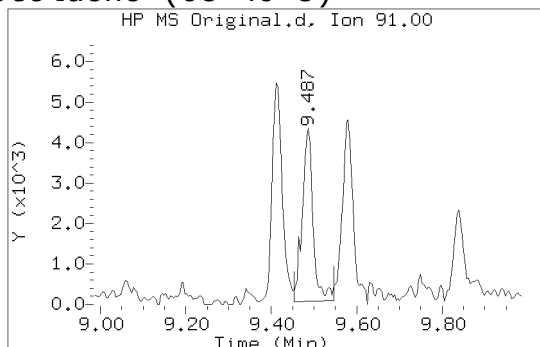
MASS
120
AREA
3516
HEIGHT
2319
18-Sep-2023
12:30
linh
pham



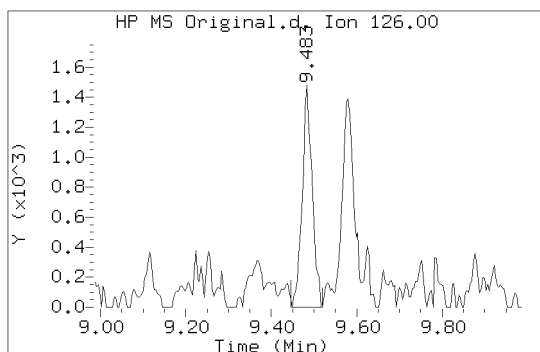
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

2-Chlorotoluene (95-49-8)**BEFORE**

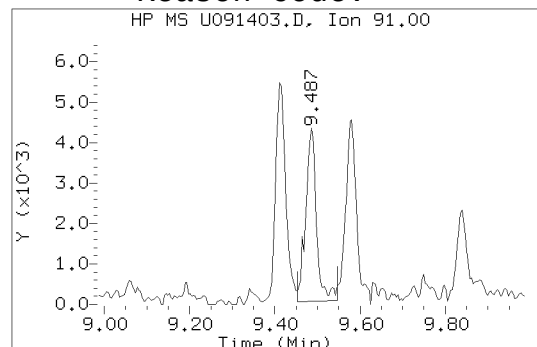
MASS
91
AREA
7768
HEIGHT
4287
18-Sep-2023
12:30
linh

**BEFORE**

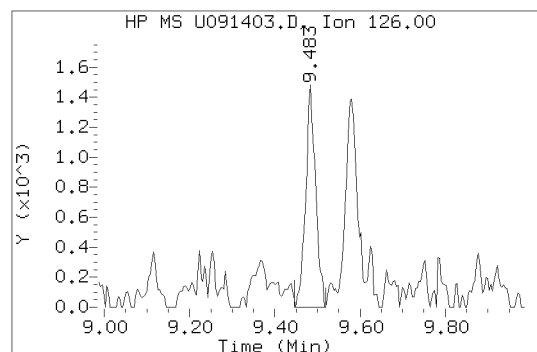
MASS
126
AREA
2440
HEIGHT
1482
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
91
AREA
7768
HEIGHT
4287
18-Sep-2023
12:30
linh

**AFTER**

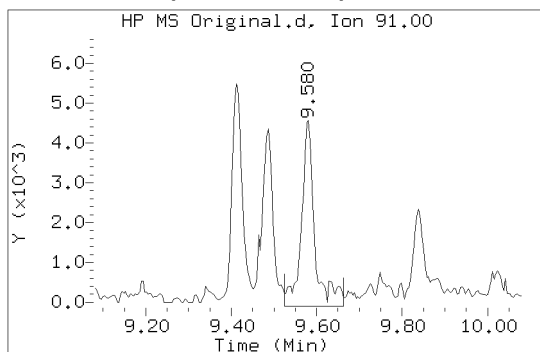
MASS
126
AREA
2440
HEIGHT
1482
18-Sep-2023
12:30
linh
pham



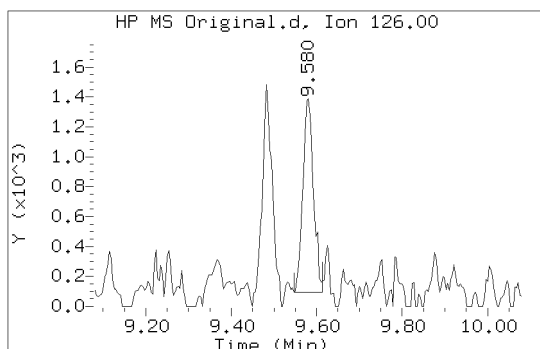
Reason Code:

4-Chlorotoluene (106-43-4)**BEFORE**

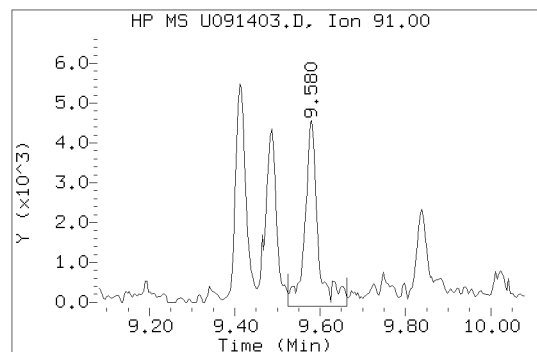
MASS
91
AREA
10329
HEIGHT
4669
18-Sep-2023
12:30
linh
pham

**BEFORE**

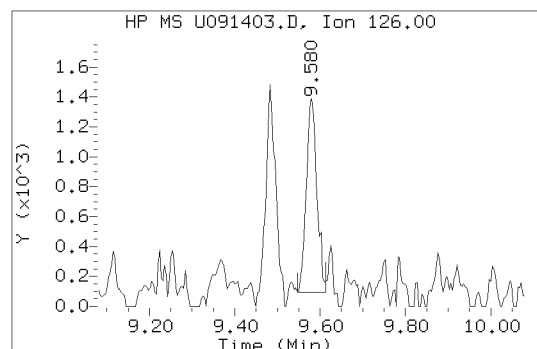
MASS
126
AREA
2282
HEIGHT
1295
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
91
AREA
10329
HEIGHT
4669
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
126
AREA
2282
HEIGHT
1295
18-Sep-2023
12:30
linh
pham



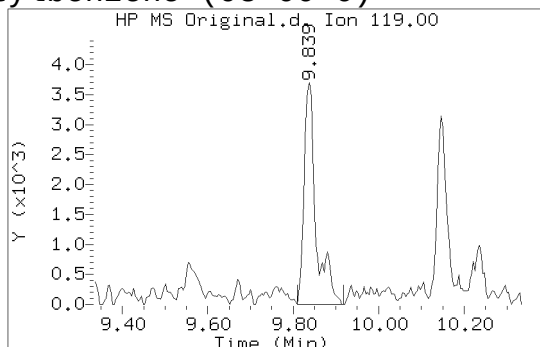
Reason Code:



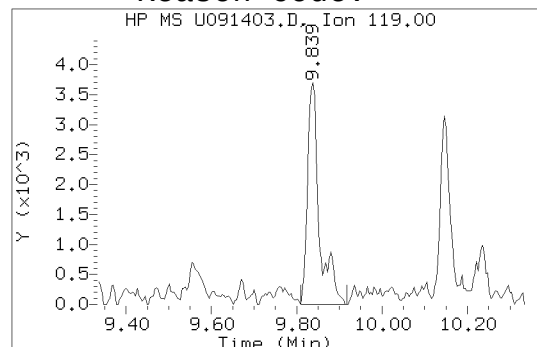
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

tert-Butylbenzene (98-06-6)**BEFORE**

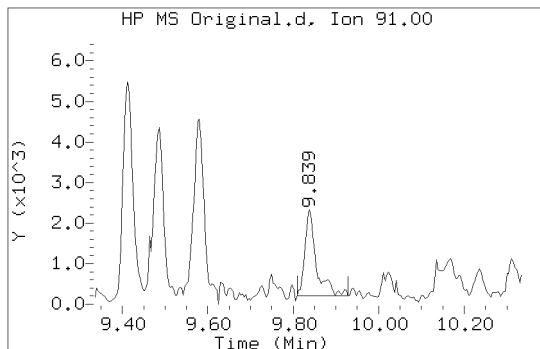
MASS
119
AREA
7286
HEIGHT
3699
18-Sep-2023
12:30
linh
pham

**AFTER**

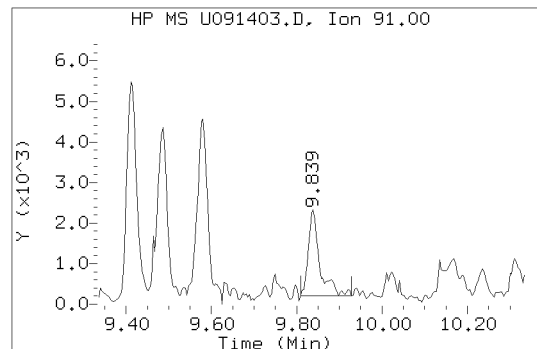
MASS
119
AREA
7286
HEIGHT
3699
18-Sep-2023
12:30
linh
pham

**BEFORE**

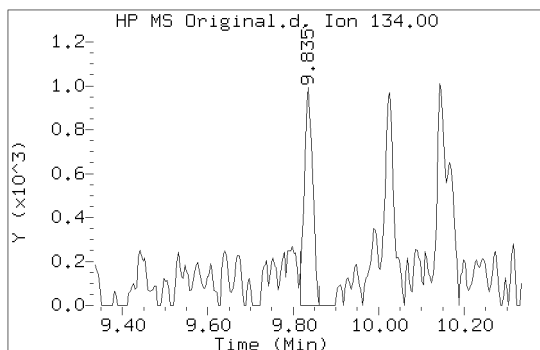
MASS
91
AREA
4023
HEIGHT
2123
18-Sep-2023
12:30
linh
pham

**AFTER**

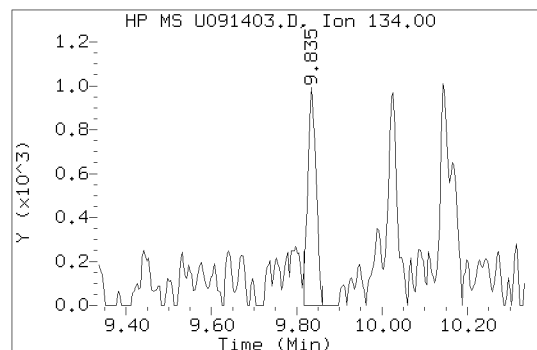
MASS
91
AREA
4023
HEIGHT
2123
18-Sep-2023
12:30
linh
pham

**BEFORE**

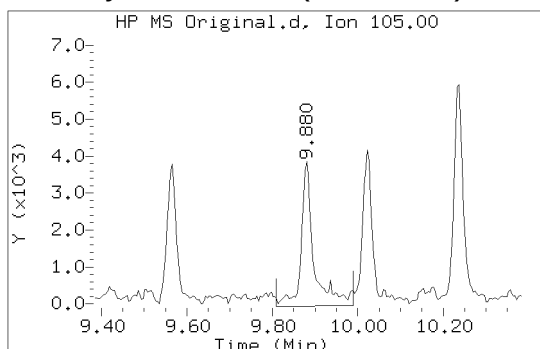
MASS
134
AREA
1409
HEIGHT
994
18-Sep-2023
12:30
linh
pham

**AFTER**

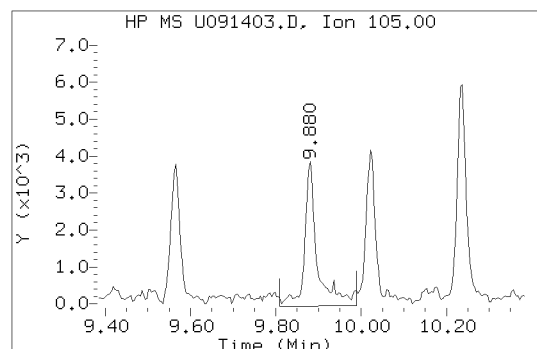
MASS
134
AREA
1409
HEIGHT
994
18-Sep-2023
12:30
linh
pham

**1,2,4-Trimethylbenzene (95-63-6)****BEFORE**

MASS
105
AREA
8406
HEIGHT
3915
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
105
AREA
8406
HEIGHT
3915
18-Sep-2023
12:30
linh
pham

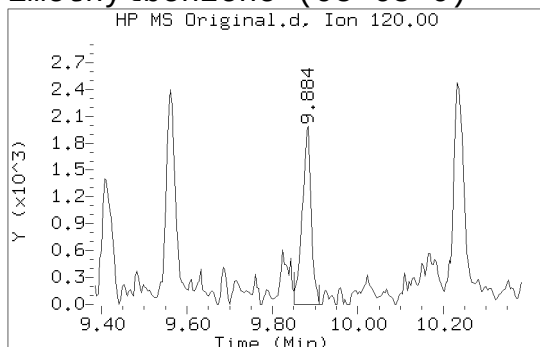


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1,2,4-Trimethylbenzene (95-63-6)

BEFORE

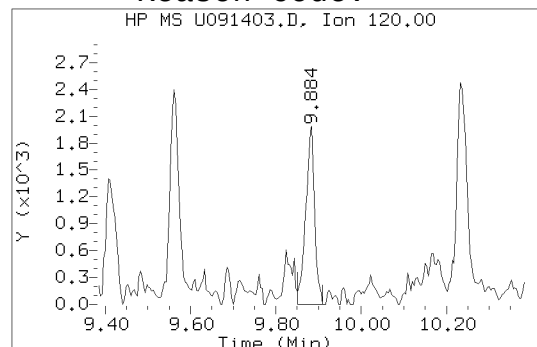
MASS
120
AREA
2962
HEIGHT
1993
18-Sep-2023
12:30
linh
pham



AFTER

MASS
120
AREA
2962
HEIGHT
1993
18-Sep-2023
12:30
linh
pham

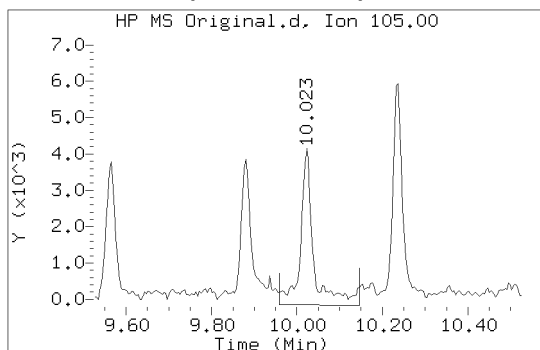
Reason Code:



sec-Butylbenzene (135-98-8)

BEFORE

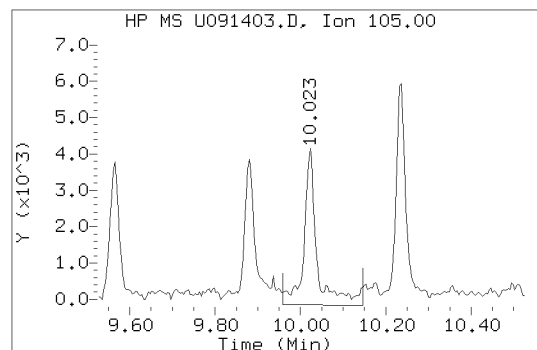
MASS
105
AREA
9443
HEIGHT
4309
18-Sep-2023
12:30
linh
pham



AFTER

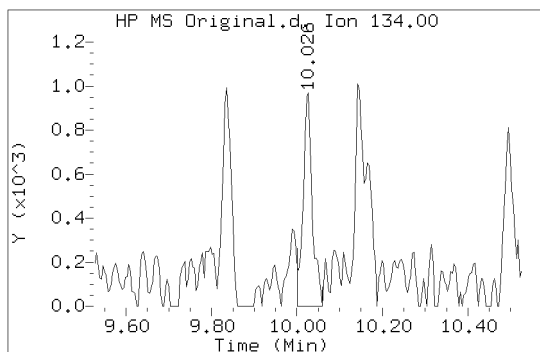
MASS
105
AREA
9443
HEIGHT
4309
18-Sep-2023
12:30
linh
pham

Reason Code:



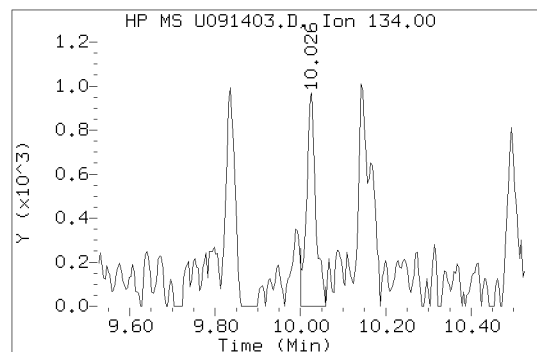
BEFORE

MASS
134
AREA
1500
HEIGHT
970
18-Sep-2023
12:30
linh
pham



AFTER

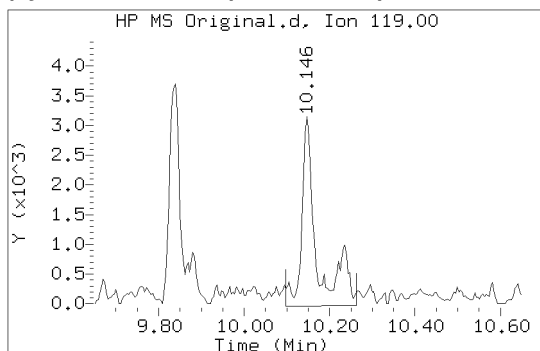
MASS
134
AREA
1500
HEIGHT
970
18-Sep-2023
12:30
linh
pham



p-Isopropyltoluene (99-87-6)

BEFORE

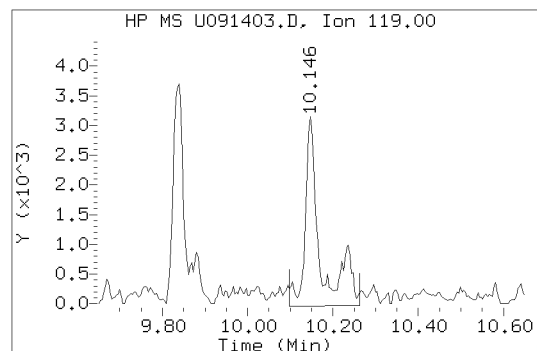
MASS
119
AREA
7845
HEIGHT
3180
18-Sep-2023
12:30
linh
pham



AFTER

MASS
119
AREA
7845
HEIGHT
3180
18-Sep-2023
12:30
linh
pham

Reason Code:

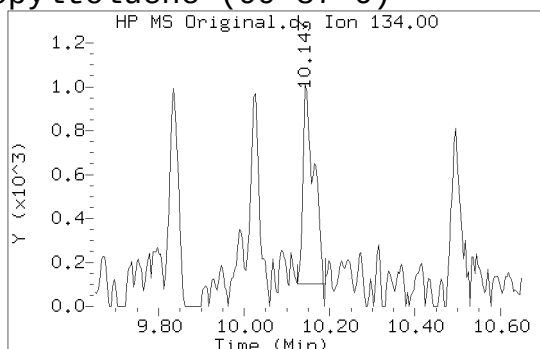


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

p-Isopropyltoluene (99-87-6)

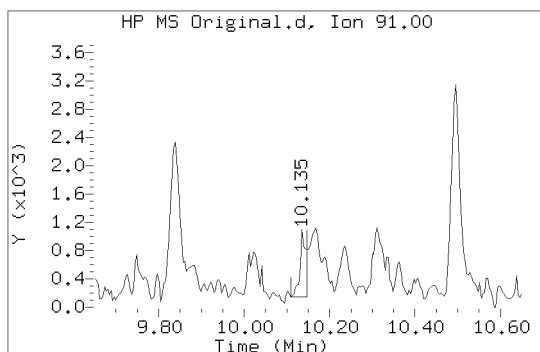
BEFORE

MASS
134
AREA
1607
HEIGHT
908
18-Sep-2023
12:30
linh



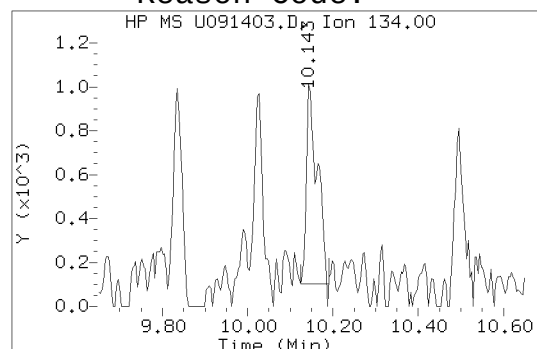
BEFORE

MASS
91
AREA
898
HEIGHT
951
18-Sep-2023
12:30
linh
pham



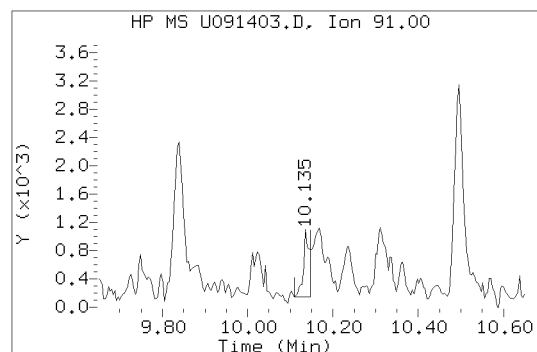
AFTER

MASS
134
AREA
1607
HEIGHT
908
18-Sep-2023
12:30
linh



AFTER

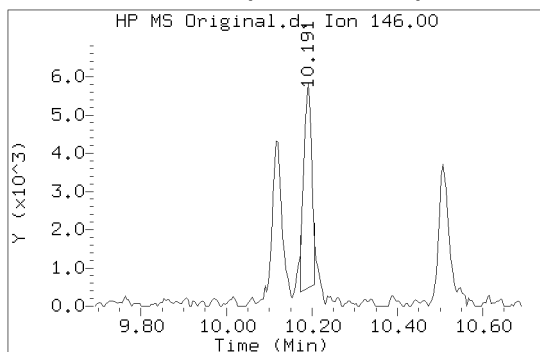
MASS
91
AREA
898
HEIGHT
951
18-Sep-2023
12:30
linh
pham



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

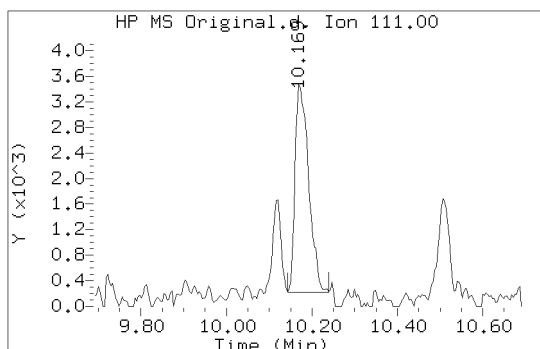
BEFORE

MASS
146
AREA
7315
HEIGHT
5331
18-Sep-2023
12:30
linh
pham



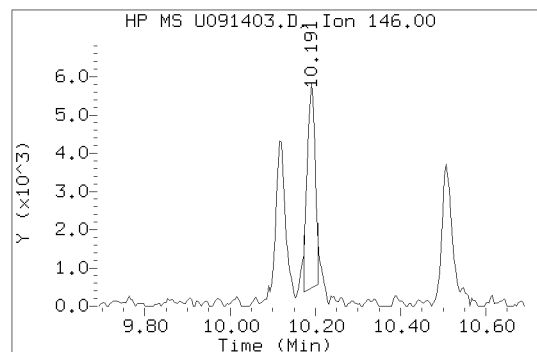
BEFORE

MASS
111
AREA
7250
HEIGHT
3248
18-Sep-2023
12:30
linh
pham



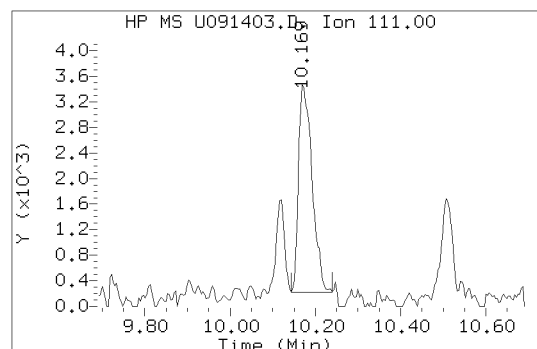
AFTER

MASS
146
AREA
7315
HEIGHT
5331
18-Sep-2023
12:30
linh
pham



AFTER

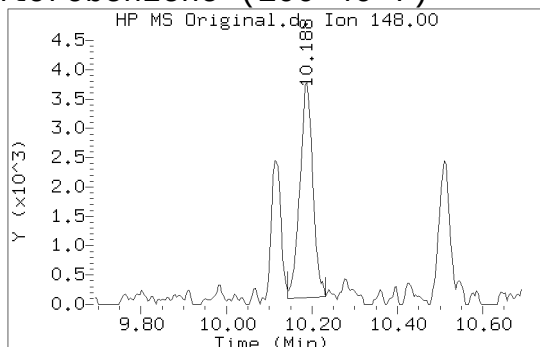
MASS
111
AREA
7250
HEIGHT
3248
18-Sep-2023
12:30
linh
pham



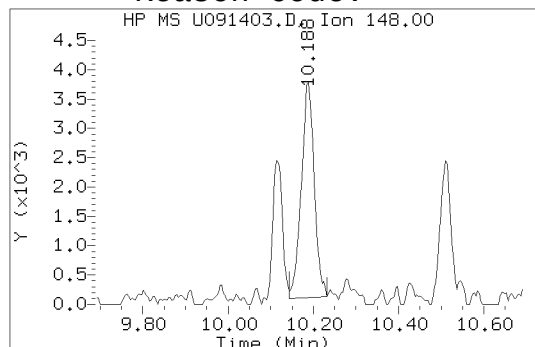
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

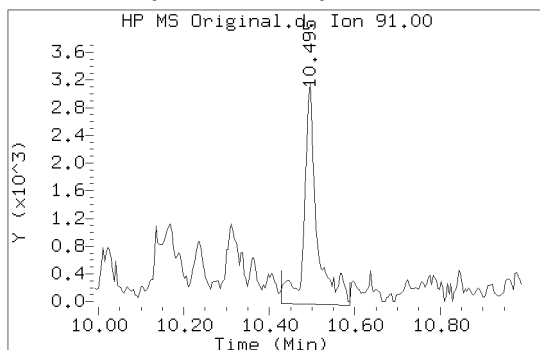
MASS
148
AREA
7869
HEIGHT
3662
18-Sep-2023
12:30
linh
pham

**AFTER**

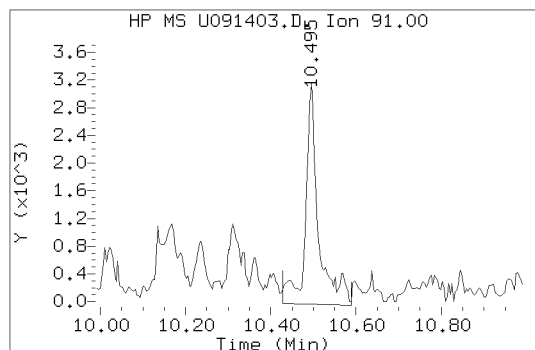
MASS
148
AREA
7869
HEIGHT
3662
18-Sep-2023
12:30
linh
pham

Reason Code:**n-Butylbenzene (104-51-8)****BEFORE**

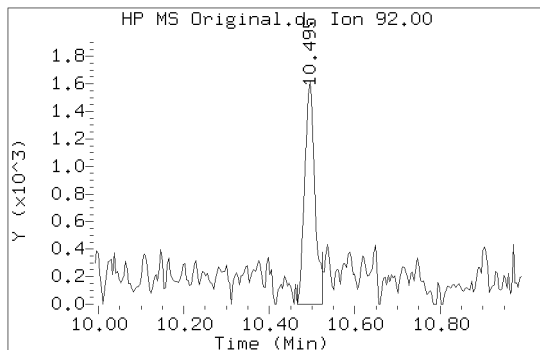
MASS
91
AREA
6875
HEIGHT
3187
18-Sep-2023
12:30
linh
pham

**AFTER**

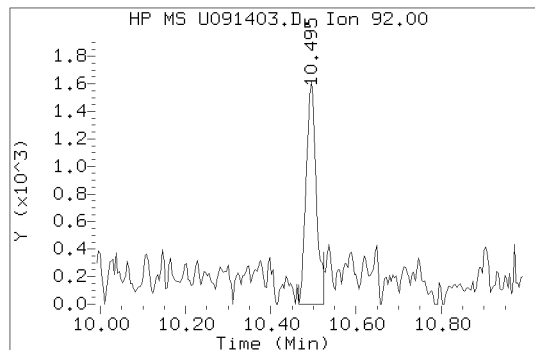
MASS
91
AREA
6875
HEIGHT
3187
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

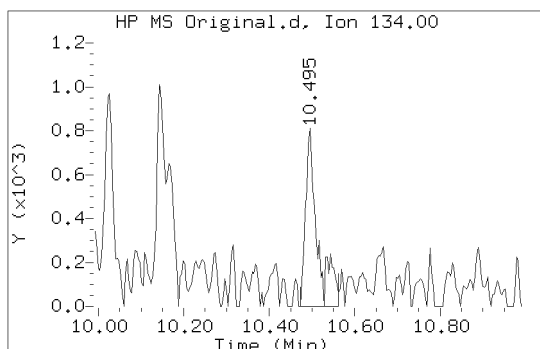
MASS
92
AREA
2737
HEIGHT
1614
18-Sep-2023
12:30
linh
pham

**AFTER**

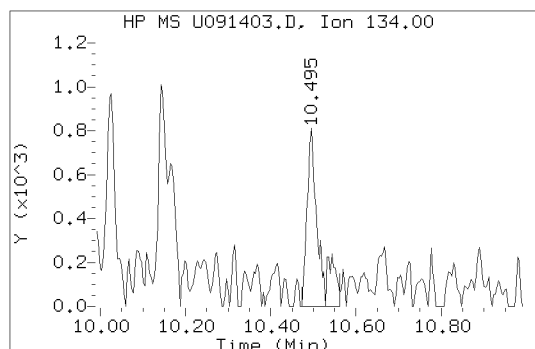
MASS
92
AREA
2737
HEIGHT
1614
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
134
AREA
1609
HEIGHT
813
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
134
AREA
1609
HEIGHT
813
18-Sep-2023
12:30
linh
pham

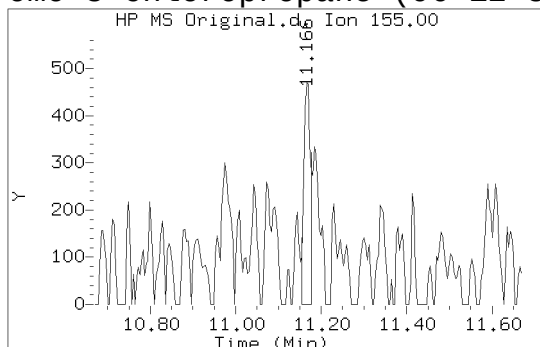


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

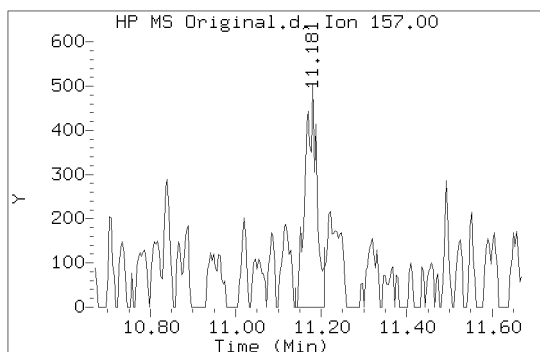
BEFORE

MASS
155
AREA
527
HEIGHT
470
18-Sep-2023
12:30
linh



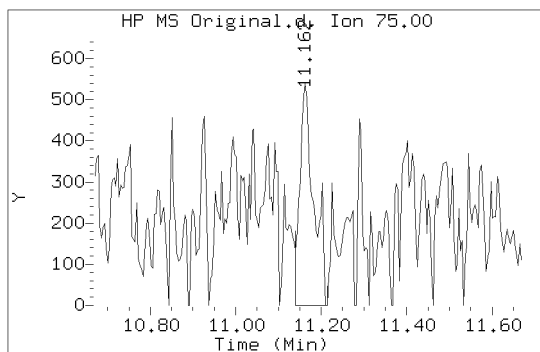
BEFORE

MASS
157
AREA
947
HEIGHT
503
18-Sep-2023
12:30
linh
pham



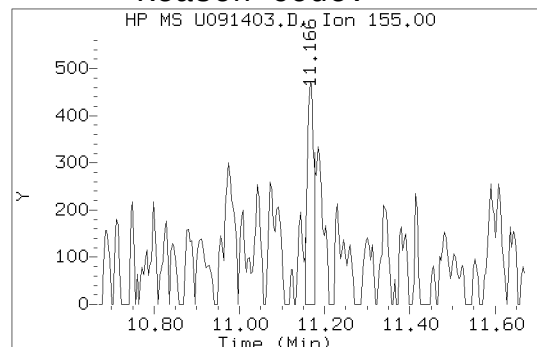
BEFORE

MASS
75
AREA
1237
HEIGHT
539
18-Sep-2023
12:30
linh
pham



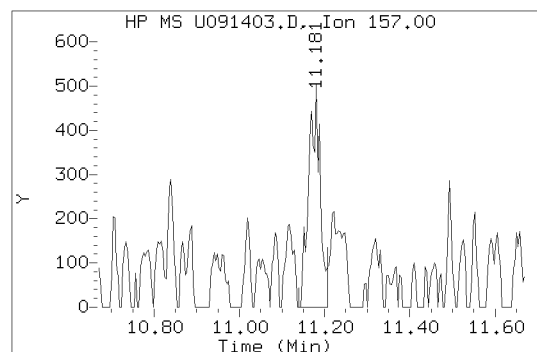
AFTER

MASS
155
AREA
527
HEIGHT
470
18-Sep-2023
12:30
linh



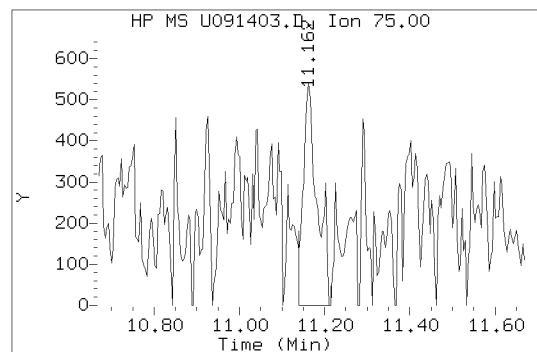
AFTER

MASS
157
AREA
947
HEIGHT
503
18-Sep-2023
12:30
linh
pham



AFTER

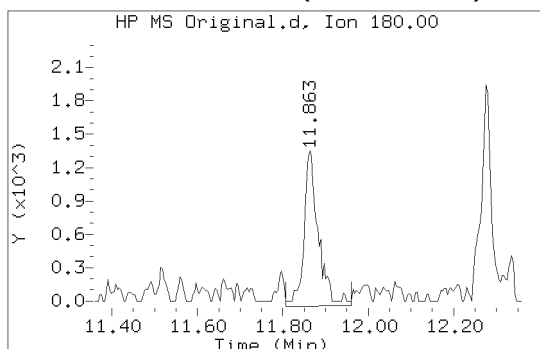
MASS
75
AREA
1237
HEIGHT
539
18-Sep-2023
12:30
linh
pham



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

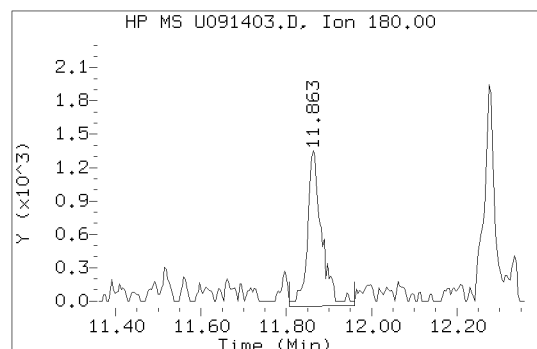
BEFORE

MASS
180
AREA
3346
HEIGHT
1400
18-Sep-2023
12:30
linh
pham



AFTER

MASS
180
AREA
3346
HEIGHT
1400
18-Sep-2023
12:30
linh
pham



Reason Code:

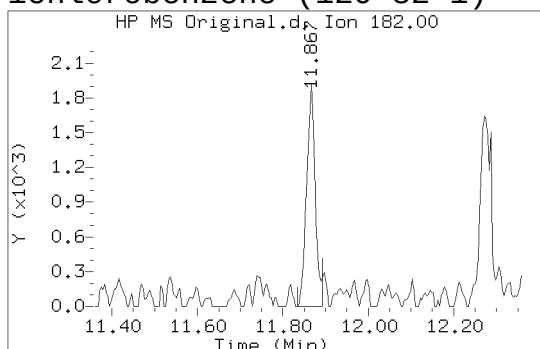


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

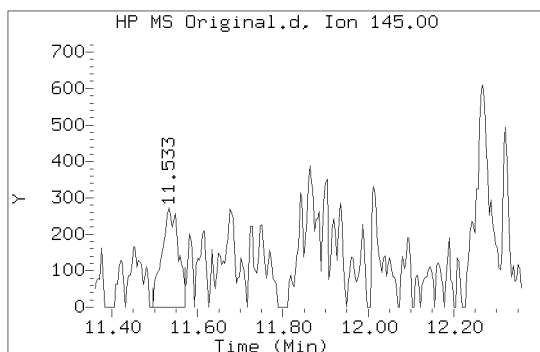
BEFORE

MASS
182
AREA
2793
HEIGHT
1914
18-Sep-2023
12:30
linh



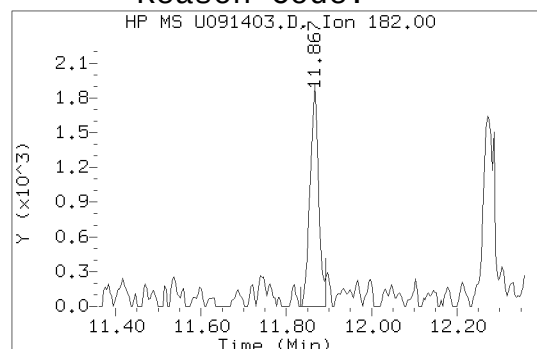
BEFORE

MASS
145
AREA
733
HEIGHT
273
18-Sep-2023
12:30
linh
pham



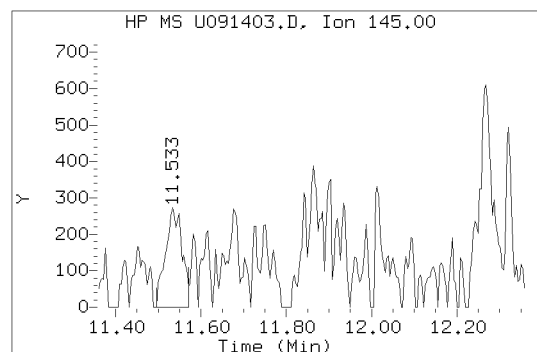
AFTER

MASS
182
AREA
2793
HEIGHT
1914
18-Sep-2023
12:30
linh



AFTER

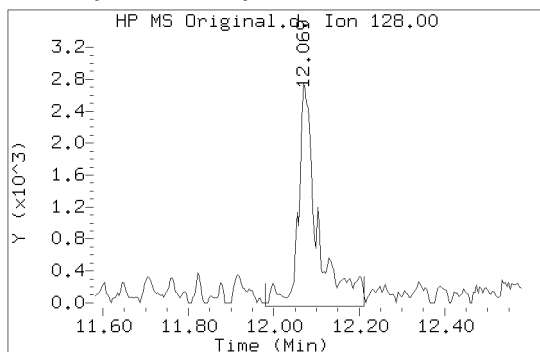
MASS
145
AREA
733
HEIGHT
273
18-Sep-2023
12:30
linh
pham



Naphthalene (91-20-3)

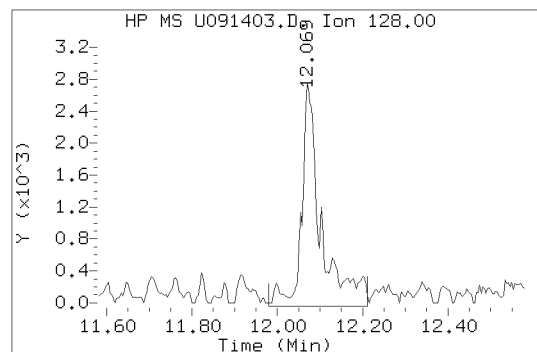
BEFORE

MASS
128
AREA
8877
HEIGHT
2783
18-Sep-2023
12:30
linh
pham



AFTER

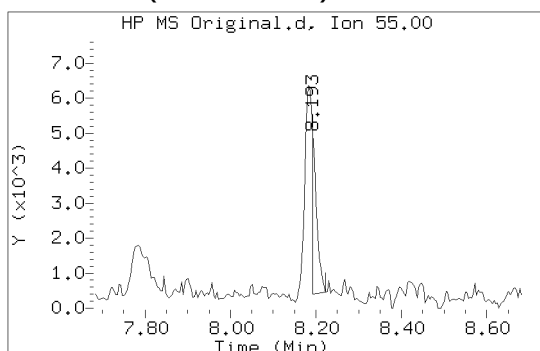
MASS
128
AREA
8877
HEIGHT
2783
18-Sep-2023
12:30
linh
pham



1-Chlorohexane (544-10-5)

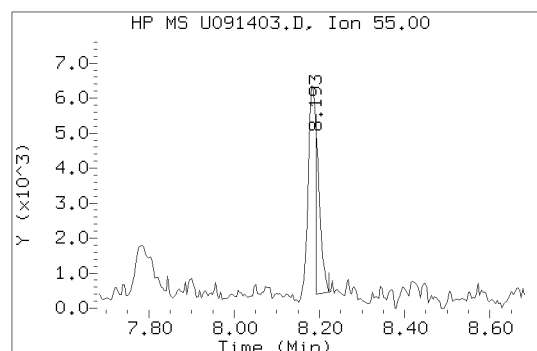
BEFORE

MASS
55
AREA
3356
HEIGHT
4579
18-Sep-2023
12:30
linh
pham



AFTER

MASS
55
AREA
3356
HEIGHT
4579
18-Sep-2023
12:30
linh
pham

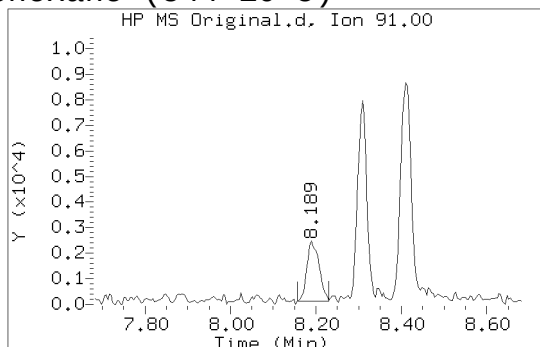


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

1-Chlorohexane (544-10-5)

BEFORE

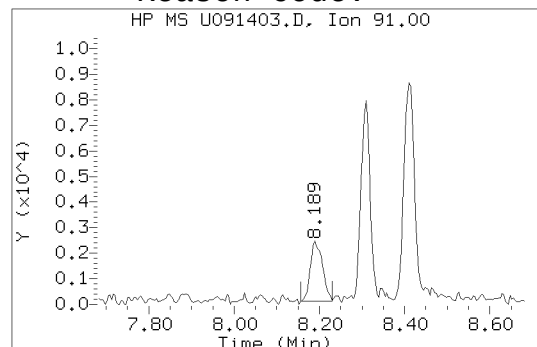
MASS
91
AREA
4622
HEIGHT
2357
18-Sep-2023
12:30
linh
pham



AFTER

MASS
91
AREA
4622
HEIGHT
2357
18-Sep-2023
12:30
linh
pham

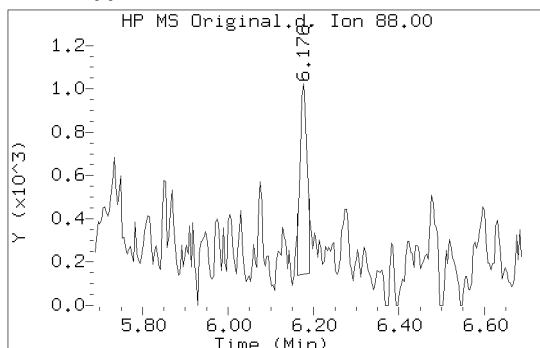
Reason Code:



1,4-Dioxane ()

BEFORE

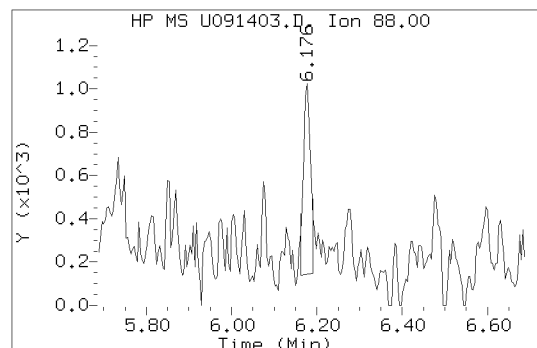
MASS
88
AREA
1082
HEIGHT
881
18-Sep-2023
12:30
linh
pham



AFTER

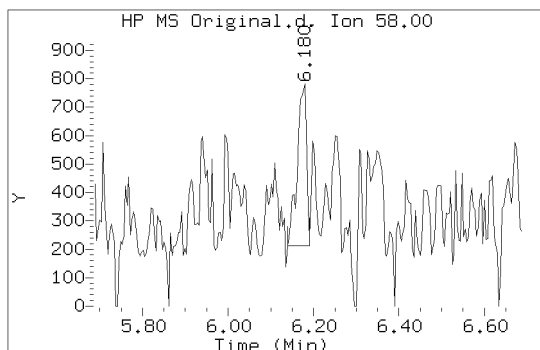
MASS
88
AREA
1082
HEIGHT
881
18-Sep-2023
12:30
linh
pham

Reason Code:



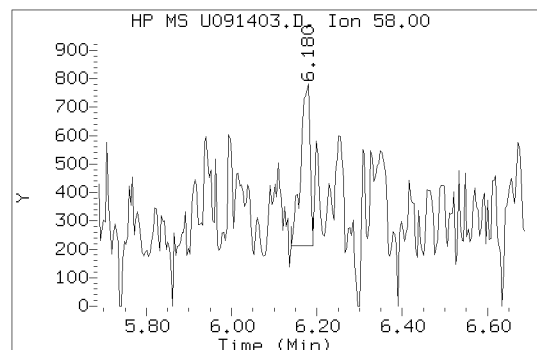
BEFORE

MASS
58
AREA
890
HEIGHT
569
18-Sep-2023
12:30
linh
pham



AFTER

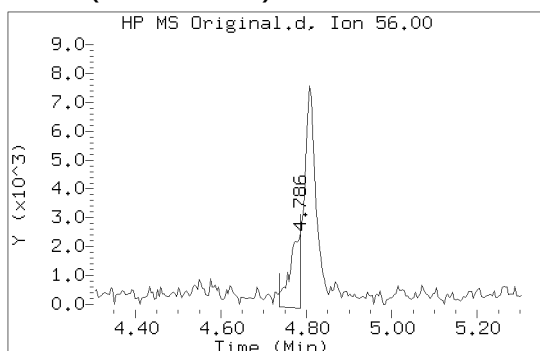
MASS
58
AREA
890
HEIGHT
569
18-Sep-2023
12:30
linh
pham



Cyclohexane (110-82-7)

BEFORE

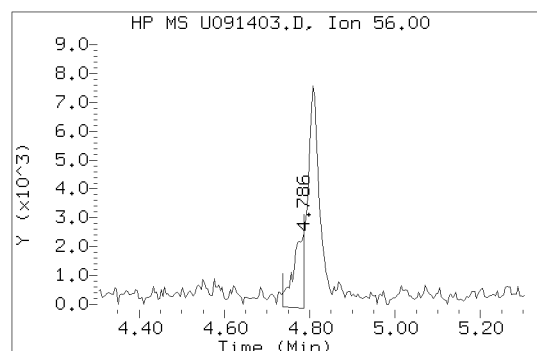
MASS
56
AREA
4570
HEIGHT
2576
18-Sep-2023
12:30
linh
pham



AFTER

MASS
56
AREA
4570
HEIGHT
2576
18-Sep-2023
12:30
linh
pham

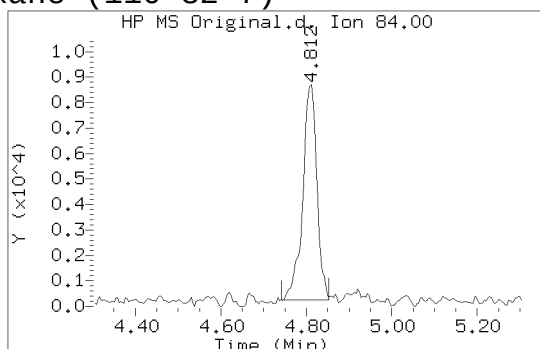
Reason Code:



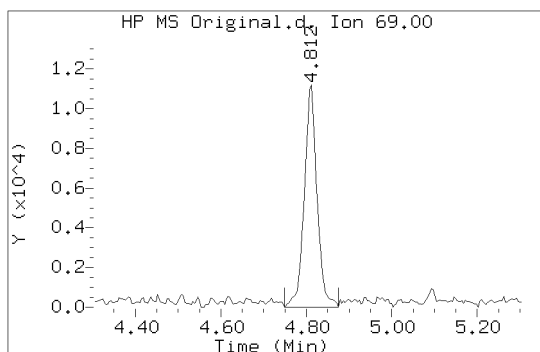
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

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

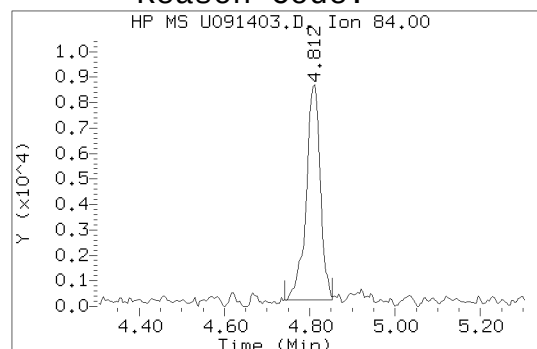
MASS
84
AREA
19761
HEIGHT
8461
18-Sep-2023
12:30
linh

**BEFORE**

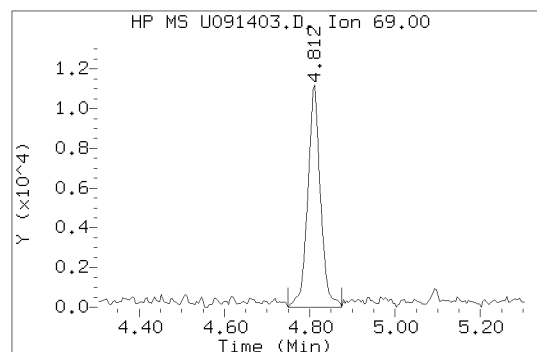
MASS
69
AREA
23379
HEIGHT
11194
18-Sep-2023
12:30
linh
pham

**AFTER**

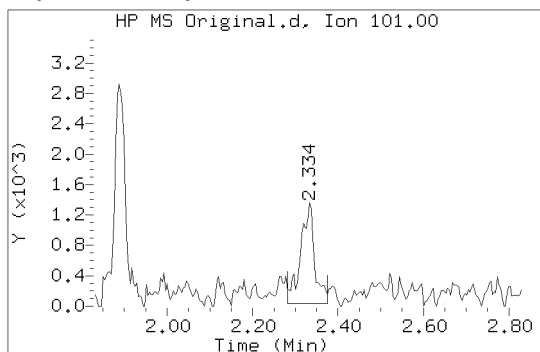
MASS
84
AREA
19761
HEIGHT
8461
18-Sep-2023
12:30
linh

**AFTER**

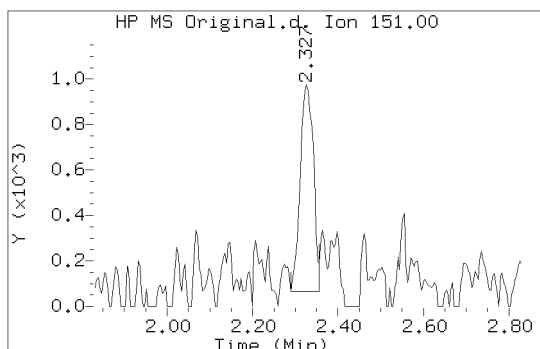
MASS
69
AREA
23379
HEIGHT
11194
18-Sep-2023
12:30
linh
pham

**Freon TF (76-13-1)****BEFORE**

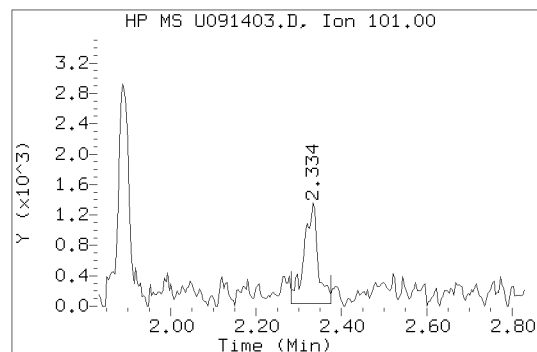
MASS
101
AREA
3073
HEIGHT
1330
18-Sep-2023
12:30
linh
pham

**BEFORE**

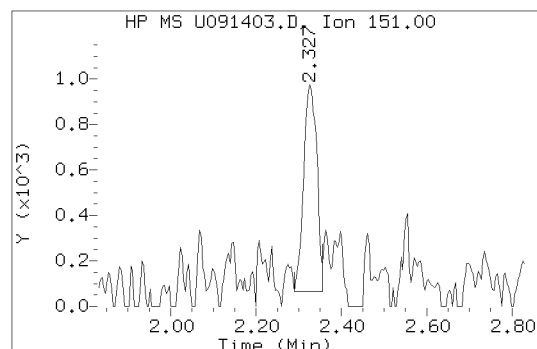
MASS
151
AREA
2005
HEIGHT
911
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
101
AREA
3073
HEIGHT
1330
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
151
AREA
2005
HEIGHT
911
18-Sep-2023
12:30
linh
pham

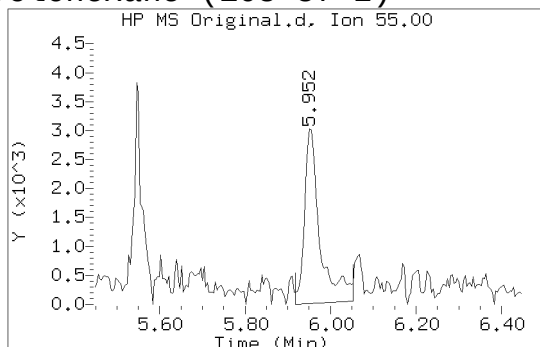


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Methylcyclohexane (108-87-2)

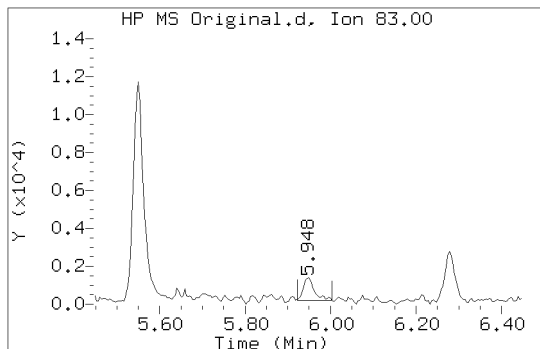
BEFORE

MASS
55
AREA
7709
HEIGHT
3017
18-Sep-2023
12:30
linh



BEFORE

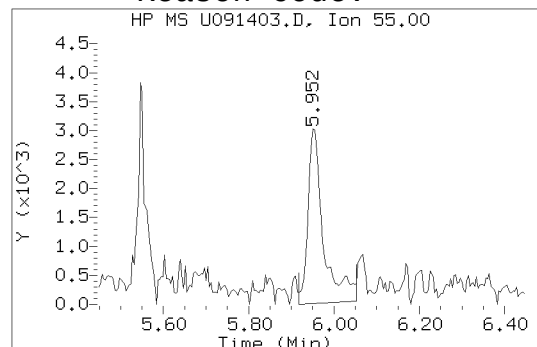
MASS
83
AREA
2258
HEIGHT
1213
18-Sep-2023
12:30
linh
pham



Reason Code:

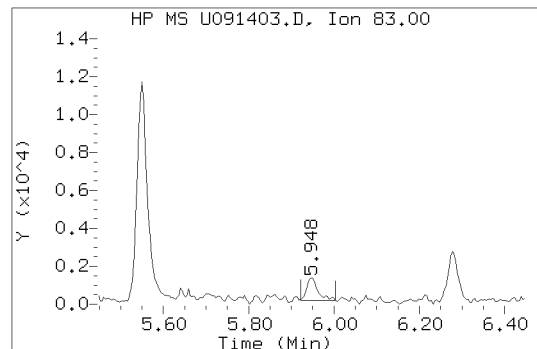
AFTER

MASS
55
AREA
7709
HEIGHT
3017
18-Sep-2023
12:30
linh



AFTER

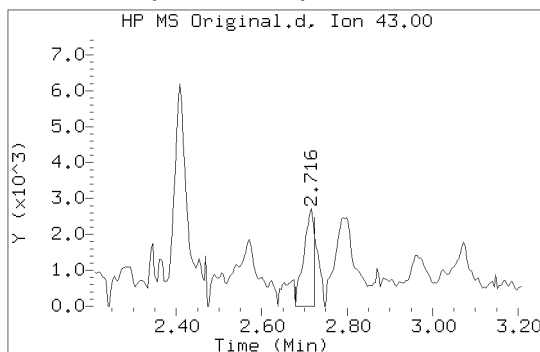
MASS
83
AREA
2258
HEIGHT
1213
18-Sep-2023
12:30
linh
pham



Methyl Acetate (79-20-9)

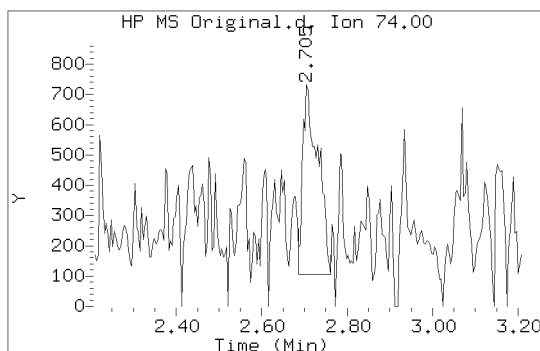
BEFORE

MASS
43
AREA
4575
HEIGHT
2716
18-Sep-2023
12:30
linh
pham



BEFORE

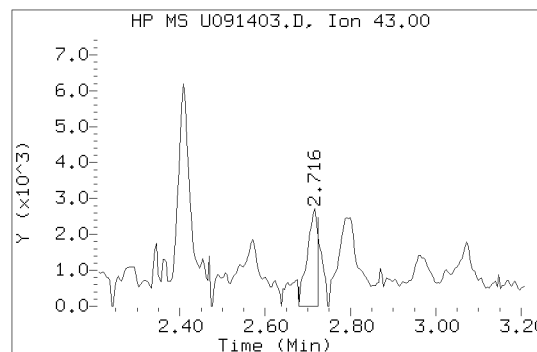
MASS
74
AREA
1565
HEIGHT
626
18-Sep-2023
12:30
linh
pham



Reason Code:

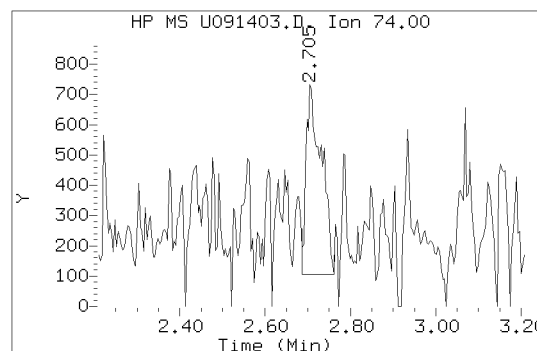
AFTER

MASS
43
AREA
4575
HEIGHT
2716
18-Sep-2023
12:30
linh
pham



AFTER

MASS
74
AREA
1565
HEIGHT
626
18-Sep-2023
12:30
linh
pham

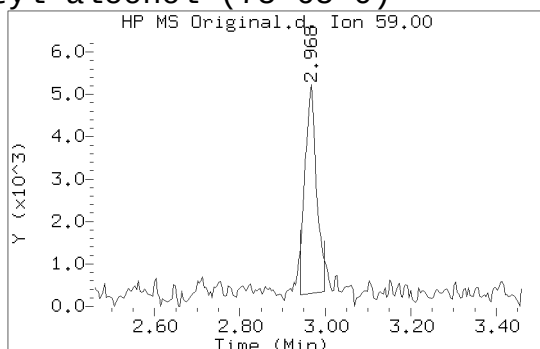


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Tert-Butyl alcohol (75-65-0)

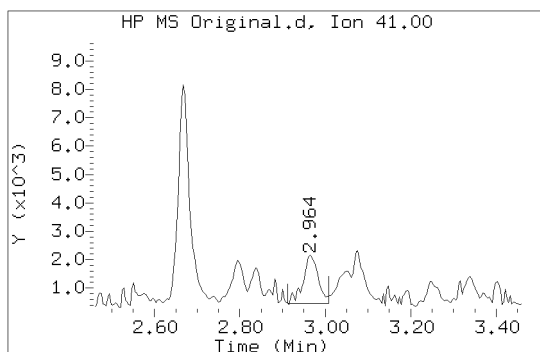
BEFORE

MASS
59
AREA
9516
HEIGHT
4923
18-Sep-2023
12:30
linh



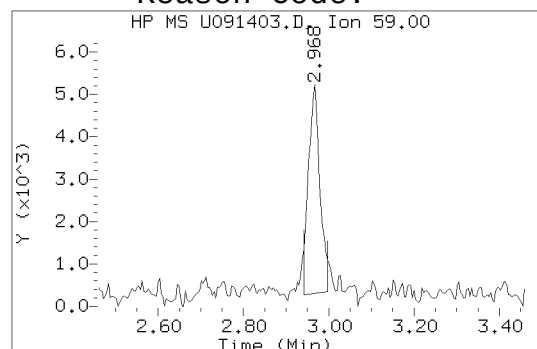
BEFORE

MASS
41
AREA
4255
HEIGHT
1693
18-Sep-2023
12:30
linh
pham



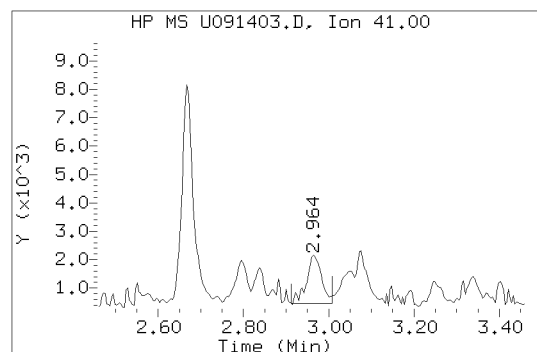
AFTER

MASS
59
AREA
9516
HEIGHT
4923
18-Sep-2023
12:30
linh



AFTER

MASS
41
AREA
4255
HEIGHT
1693
18-Sep-2023
12:30
linh
pham

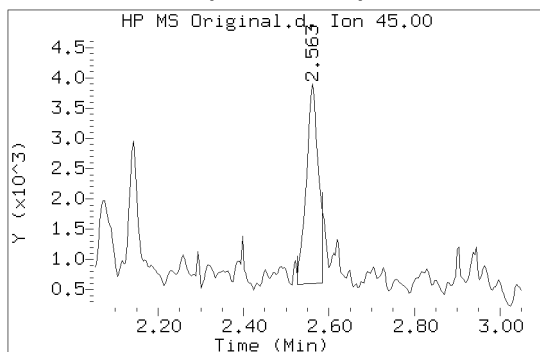


Reason Code:

Isopropyl Alcohol (67-63-0)

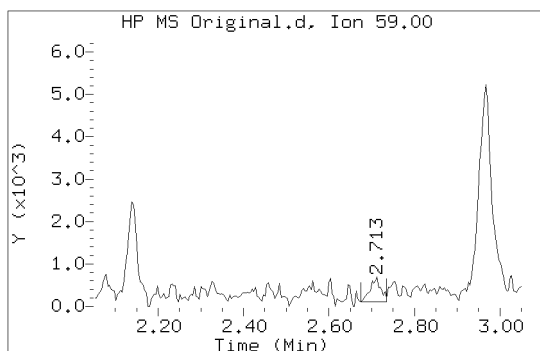
BEFORE

MASS
45
AREA
6576
HEIGHT
3298
18-Sep-2023
12:30
linh
pham



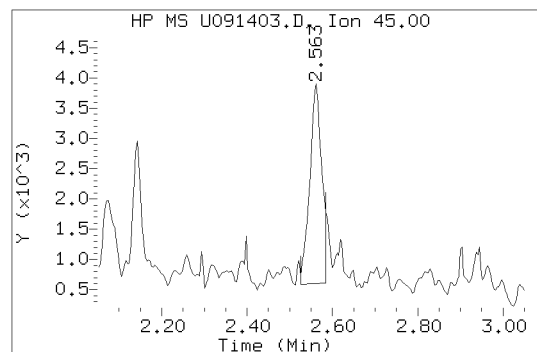
BEFORE

MASS
59
AREA
968
HEIGHT
584
18-Sep-2023
12:30
linh
pham



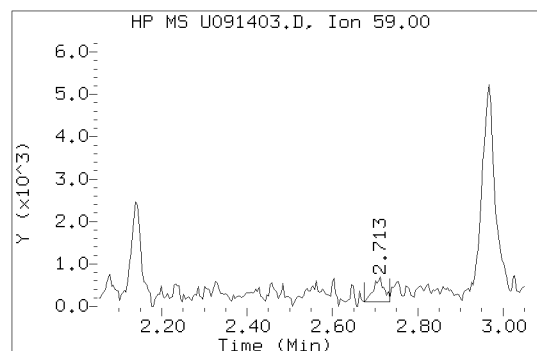
AFTER

MASS
45
AREA
6576
HEIGHT
3298
18-Sep-2023
12:30
linh
pham



AFTER

MASS
59
AREA
968
HEIGHT
584
18-Sep-2023
12:30
linh
pham



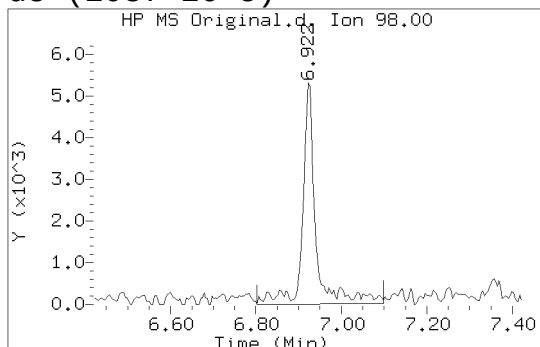
Reason Code:

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

Toluene-d8 (2037-26-5)

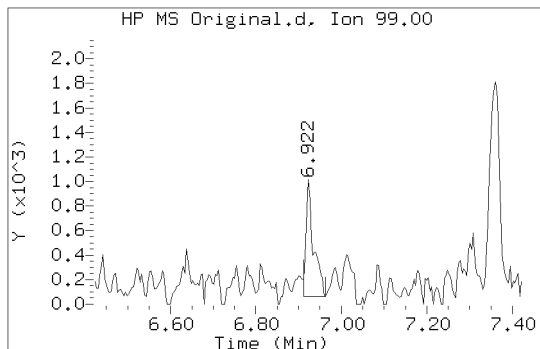
BEFORE

MASS
98
AREA
11691
HEIGHT
5323
18-Sep-2023
12:30
linh



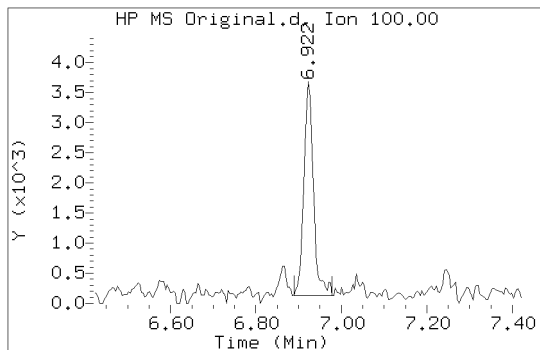
BEFORE

MASS
99
AREA
1192
HEIGHT
953
18-Sep-2023
12:30
linh
pham



BEFORE

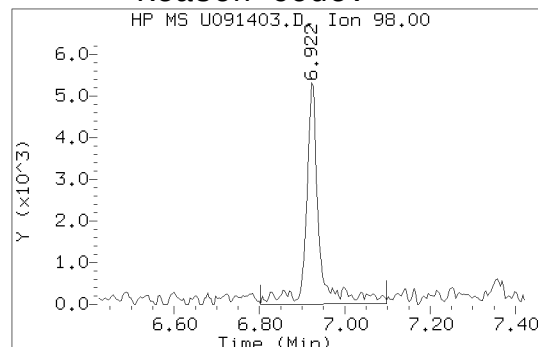
MASS
100
AREA
5706
HEIGHT
3557
18-Sep-2023
12:30
linh
pham



Reason Code:

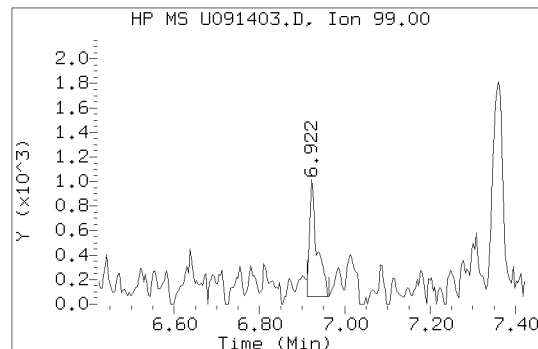
AFTER

MASS
98
AREA
11691
HEIGHT
5323
18-Sep-2023
12:30
linh



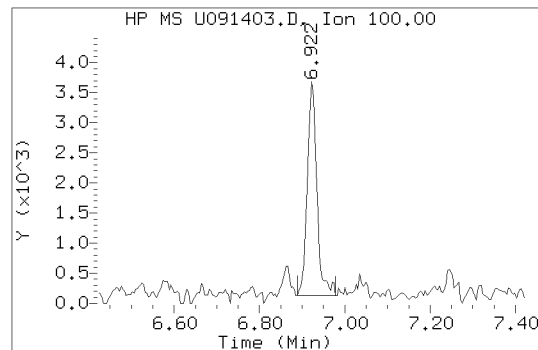
AFTER

MASS
99
AREA
1192
HEIGHT
953
18-Sep-2023
12:30
linh
pham



AFTER

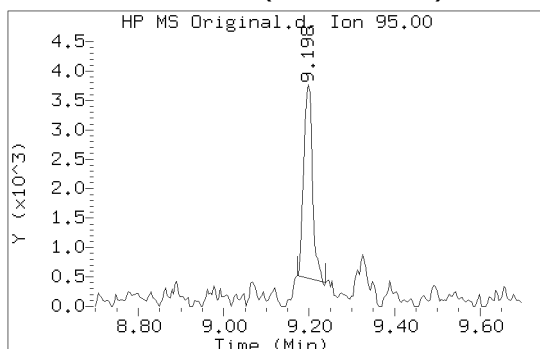
MASS
100
AREA
5706
HEIGHT
3557
18-Sep-2023
12:30
linh
pham



4-Bromofluorobenzene (460-00-4)

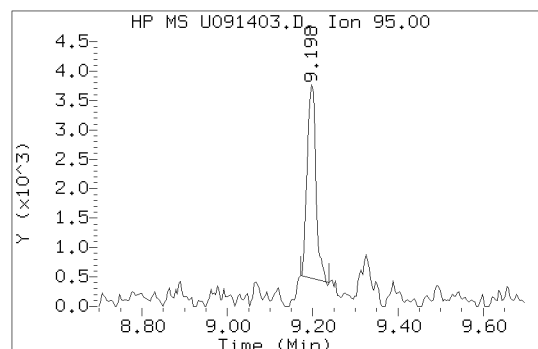
BEFORE

MASS
95
AREA
4793
HEIGHT
3293
18-Sep-2023
12:30
linh
pham



AFTER

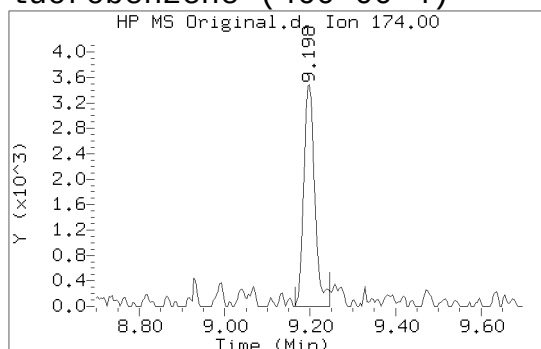
MASS
95
AREA
4793
HEIGHT
3293
18-Sep-2023
12:30
linh
pham



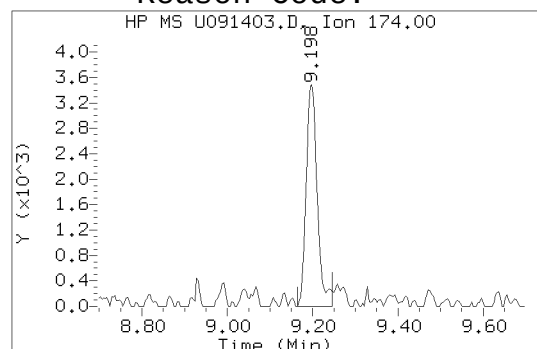
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091403.D
Inj Date : 14-SEP-2023 16:09
InstruID : VOA9.i
LabSampID : VSTD000.5

4-Bromofluorobenzene (460-00-4)**BEFORE**

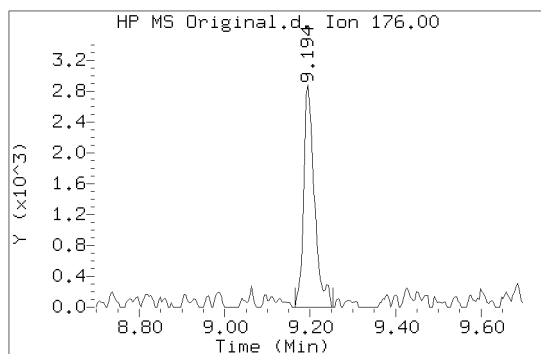
MASS
174
AREA
6424
HEIGHT
3486
18-Sep-2023
12:30
linh

**AFTER**

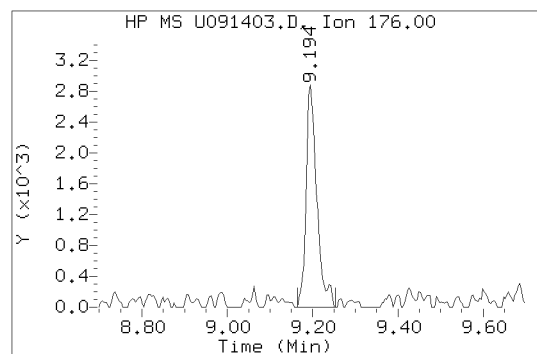
MASS
174
AREA
6424
HEIGHT
3486
18-Sep-2023
12:30
linh

**BEFORE**

MASS
176
AREA
5114
HEIGHT
2882
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
176
AREA
5114
HEIGHT
2882
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D
 Lab Smp Id: VSTD001 Client Smp ID: VSTD001
 Inj Date : 14-SEP-2023 16:53
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD001;VSTD001;1;3;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 16:09 Cal File: U091403.D
 Als bottle: 5 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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)	642537	50.0000		
2 Dichlorodifluoromethane	85		1.164	1.164	(0.242)	6349	1.00000	2.21	
3 Chloromethane	50		1.295	1.295	(0.269)	14060	1.00000	0.23	
5 Vinyl Chloride	62		1.377	1.377	(0.286)	6660	1.00000	0.81	
6 Bromomethane	94		1.625	1.625	(0.338)	5410	1.00000	1.79	
7 Chloroethane	64		1.700	1.700	(0.353)	5596	1.00000	0.93	
8 Trichlorofluoromethane	101		1.895	1.895	(0.394)	9002	1.00000	0.86(M)	
9 Acrolein	56		2.266	2.266	(0.471)	1174	2.00000	2.12(M)	
10 Acetone	43		2.412	2.412	(0.501)	11344	2.00000	1.39(M)	
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)	6369	1.00000	1.00(M)	
15 Iodomethane	142		2.472	2.472	(0.513)	6809	2.00000	5.21(M)	
16 Acrylonitrile	53		3.072	3.072	(0.638)	7981	2.00000	2.12	
17 Methylene Chloride	84		2.794	2.794	(0.580)	11952	1.00000	3.12(M)	
18 Methyl tert-butyl ether	73		3.079	3.079	(0.640)	17374	1.00000	0.96	
19 Carbon Disulfide	76		2.521	2.521	(0.524)	27613	2.00000	1.60	
20 trans-1,2-Dichloroethene	96		3.061	3.061	(0.636)	5046	1.00000	0.75	
21 Vinyl Acetate	43		3.615	3.615	(0.751)	38753	2.00000	1.64	
22 1,1-Dichloroethane	63		3.510	3.510	(0.729)	11812	1.00000	0.88	
24 2-Butanone	43		4.271	4.271	(0.887)	7789	2.00000	1.99	
26 2,2-Dichloropropane	77		4.181	4.181	(0.868)	6514	1.00000	0.80(M)	



27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	6847	1.00000	0.89
28 Chloroform	83	4.571	4.571 (0.949)	11977	1.00000	0.92

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D Page 2
 Report Date: 18-Sep-2023 12:31

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)	3900	1.00000	0.97(M)
\$ 30 Dibromofluoromethane	113	4.751	4.751	(0.987)	5321	1.00000	1.11
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	7483	1.00000	0.84
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	7313	1.00000	0.93(M)
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	9383	1.00000	0.98
34 Carbon Tetrachloride	117	4.912	4.912	(0.885)	5878	1.00000	0.84
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.060)	8172	1.00000	1.08
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	981491	50.0000	
37 Benzene	78	5.137	5.137	(0.925)	22392	1.00000	0.90
38 Trichloroethene	130	5.786	5.786	(1.042)	8076	1.00000	1.12
39 Bromodichloromethane	83	6.273	6.273	(1.130)	6467	1.00000	0.80
41 2-Chloroethylvinyl ether	63	6.543	6.543	(1.178)	75	2.00000	2.62(M)
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	5092	1.00000	0.78(M)
44 Dibromomethane	93	6.123	6.123	(1.103)	4246	1.00000	0.94(M)
45 4-Methyl-2-Pentanone	43	6.862	6.862	(0.838)	7941	2.00000	3.67
46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.206)	6792	1.00000	3.79(M)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	911378	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	19157	1.00000	0.95(M)
50 Toluene	91	6.982	6.982	(0.853)	19537	1.00000	0.79(M)
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	5013	1.00000	2.98(M)
52 2-Hexanone	43	7.604	7.604	(0.929)	6891	2.00000	1.66
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	5278	1.00000	0.98
54 1,3-Dichloropropane	76	7.503	7.503	(0.917)	9793	1.00000	0.91
55 Dibromochloromethane	129	7.694	7.694	(0.940)	5067	1.00000	0.79
56 Tetrachloroethene	164	7.458	7.458	(0.911)	5362	1.00000	0.94
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	5889	1.00000	0.91
58 1-Chlorohexane	55	8.193	8.193	(1.475)	5582	1.00000	0.94(M)
59 Chlorobenzene	112	8.208	8.208	(1.003)	16006	1.00000	0.88
60 1,1,1,2-Tetrachloroethane	131	8.279	8.279	(1.011)	5390	1.00000	0.88
61 Ethylbenzene	106	8.309	8.309	(1.015)	6608	1.00000	0.81(M)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	17428	2.00000	1.71(M)
63 o-Xylene	106	8.747	8.747	(1.069)	10098	1.00000	0.95(M)
64 Styrene	104	8.766	8.766	(1.071)	13244	1.00000	0.81(M)
66 Bromoform	173	8.920	8.920	(1.090)	3346	1.00000	4.21(T)
67 Isopropylbenzene	105	9.062	9.062	(1.107)	19078	1.00000	2.23(M)
68 1,1,2,2-Tetrachloroethane	83	9.328	9.328	(0.917)	7969	1.00000	0.97
\$ 69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	7585	1.00000	0.76
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	422751	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	5812	1.00000	0.83
73 n-Propylbenzene	91	9.411	9.411	(0.925)	15066	1.00000	3.55(M)
74 Bromobenzene	156	9.317	9.317	(0.916)	6745	1.00000	1.00
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	13057	1.00000	0.82(M)
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	13160	1.00000	0.83(M)
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	14951	1.00000	0.81(M)
78 tert-Butylbenzene	119	9.835	9.835	(0.967)	11393	1.00000	0.74(M)
79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	12753	1.00000	0.78(M)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	14747	1.00000	2.47(M)
82 p-Isopropyltoluene	119	10.142	10.142	(0.997)	10971	1.00000	2.43(M)
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	9655	1.00000	0.81
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	13945	1.00000	1.04
87 n-Butylbenzene	91	10.491	10.491	(1.031)	10524	1.00000	2.74(M)
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	10635	1.00000	0.87



89	1,2-Dibromo-3-Chloropropane	155	11.173	11.173 (1.098)	1143	1.00000	1.11
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	5578	1.00000	0.80(M)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D Page 3

Report Date: 18-Sep-2023 12:31

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)	2767	1.00000	0.89
92 Naphthalene	128	12.072	12.072	(1.187)	13176	1.00000	3.39(M)
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	5382	1.00000	0.82
M 94 1,2-Dichloroethylene (total)	96				11893	2.00000	
M 95 Xylenes (total)	106				27526	3.00000	
135 1,4-Dioxane	88	6.176	6.176	(1.283)	1976	20.0000	21.15(M)
141 Cyclohexane	56	4.796	4.796	(0.996)	7153	1.00000	1.36(M)
138 Freon TF	101	2.337	2.337	(0.485)	4663	1.00000	1.06(M)
140 1,3-Butadiene	54	1.400	1.400	(0.291)	6763	1.00000	0.89(M)
147 Methylcyclohexane	55	5.951	5.951	(1.072)	10616	1.00000	0.73(M)
146 Methyl Acetate	43	2.720	2.720	(0.565)	7958	1.00000	1.02
148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	12915	20.0000	16.40(a)

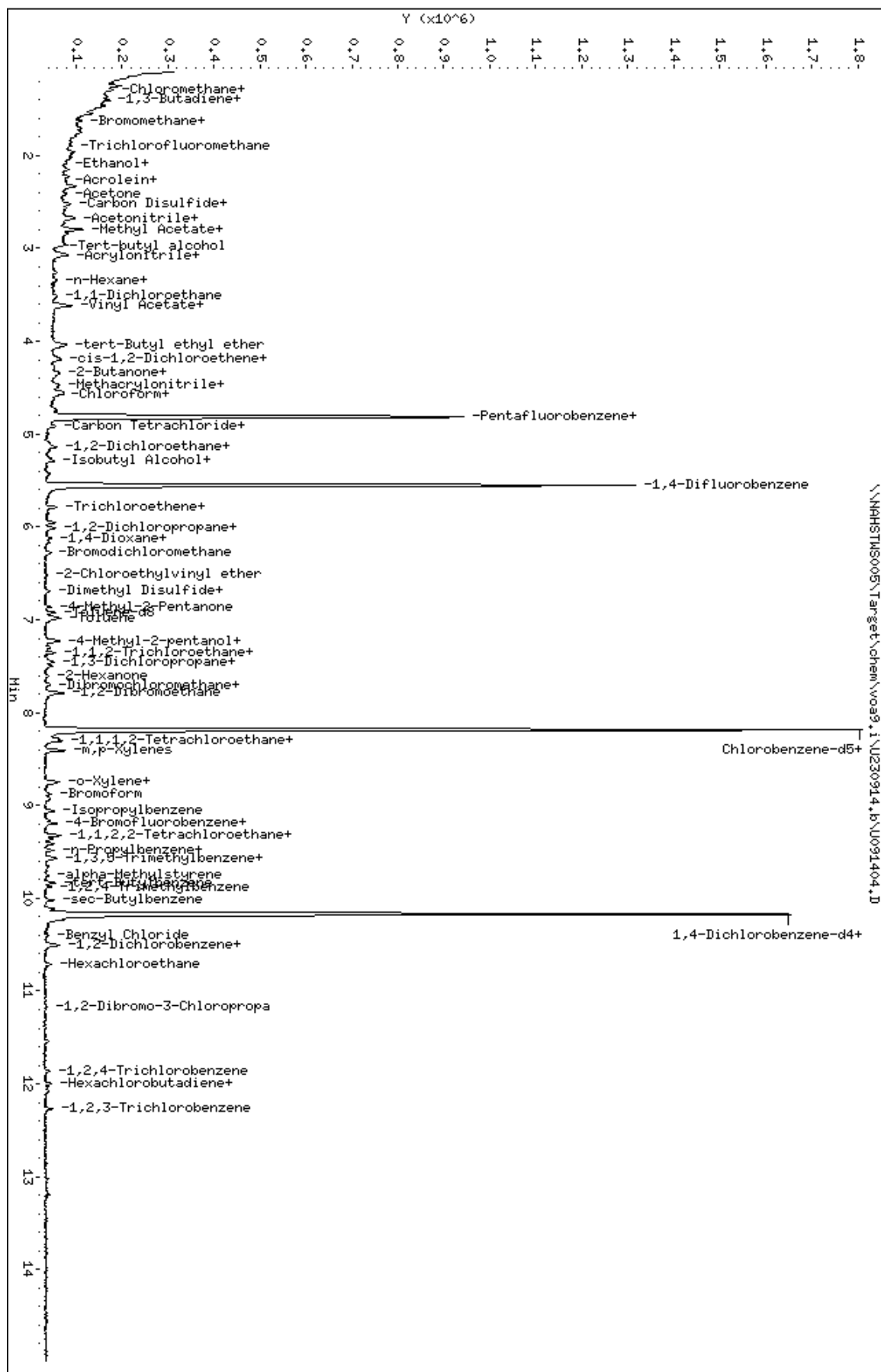
QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091404.D
 Date : 14-SEP-2023 16:53
 Client ID: WSTD001
 Sample Info: WSTD001;WSTD001;1;3;
 Purge Volume: 5.0
 Column phase: DB624

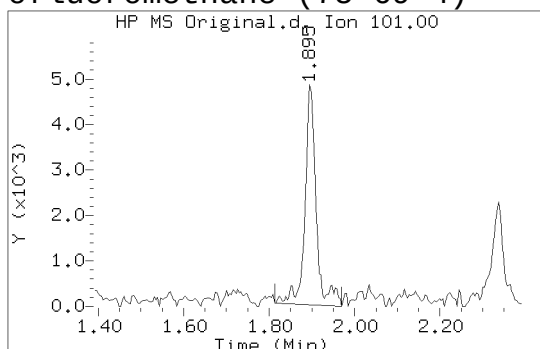
Instrument: VOA9.i
 Operator: PC
 Column diameter: 0.18



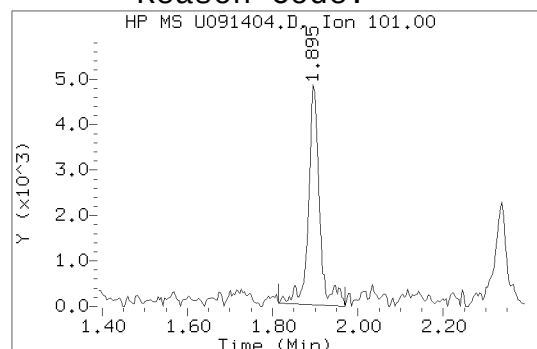
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

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

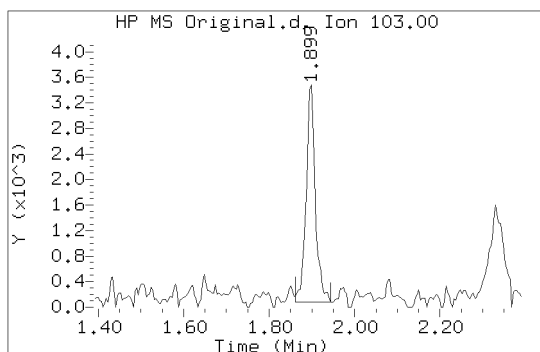
MASS
101
AREA
9002
HEIGHT
4845
18-Sep-2023
12:30
linh

**AFTER**

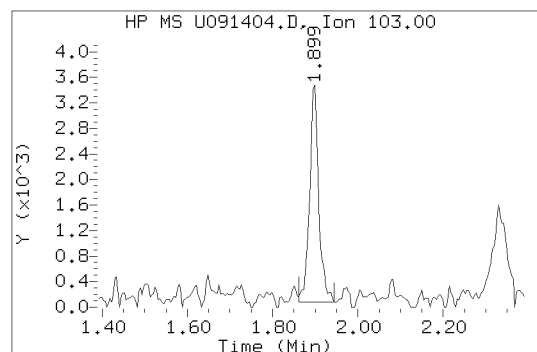
MASS
101
AREA
9002
HEIGHT
4845
18-Sep-2023
12:30
linh

**BEFORE**

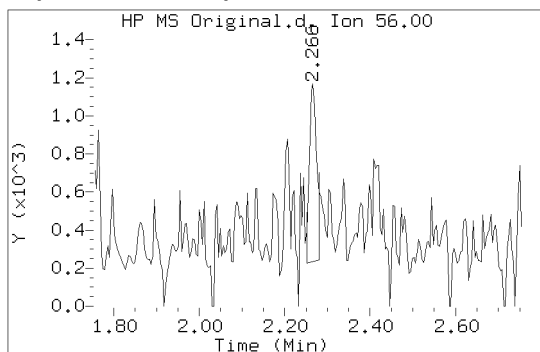
MASS
103
AREA
5215
HEIGHT
3403
18-Sep-2023
12:30
linh
pham

**AFTER**

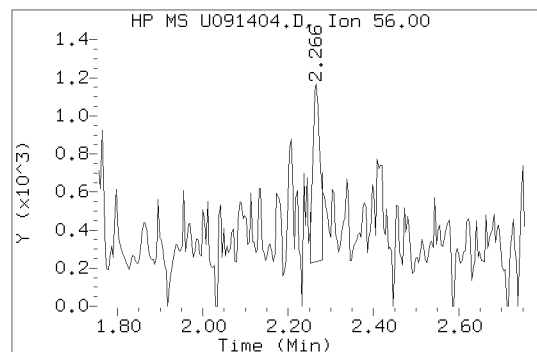
MASS
103
AREA
5215
HEIGHT
3403
18-Sep-2023
12:30
linh
pham

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

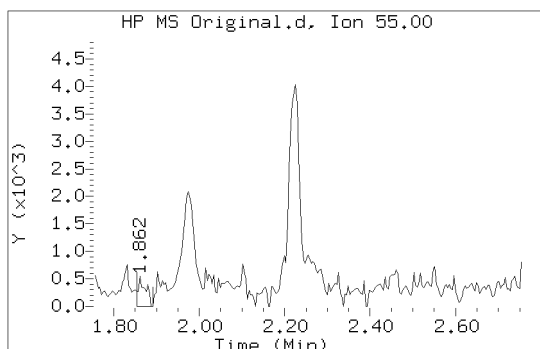
MASS
56
AREA
1174
HEIGHT
933
18-Sep-2023
12:30
linh
pham

**AFTER**

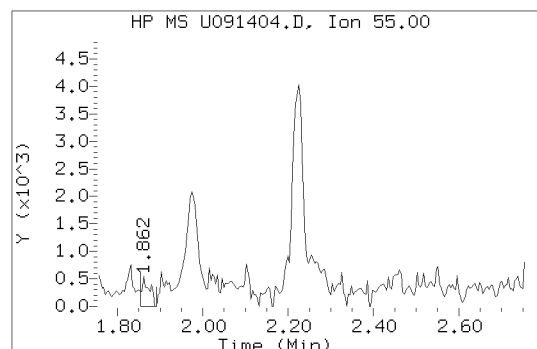
MASS
56
AREA
1174
HEIGHT
933
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
55
AREA
674
HEIGHT
550
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
55
AREA
674
HEIGHT
550
18-Sep-2023
12:30
linh
pham

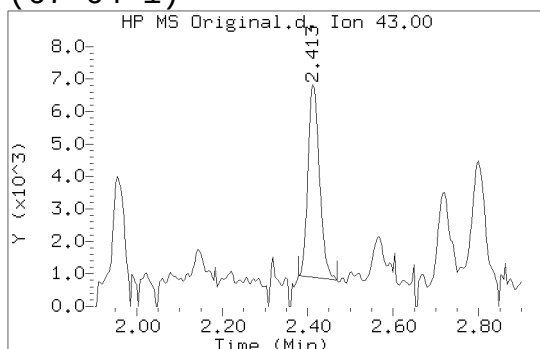


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Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Acetone (67-64-1)

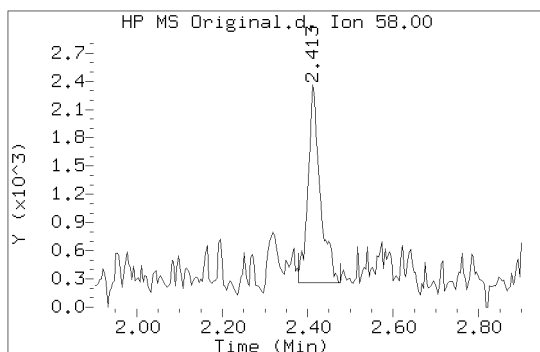
BEFORE

MASS
43
AREA
11344
HEIGHT
5928
18-Sep-2023
12:30
linh



BEFORE

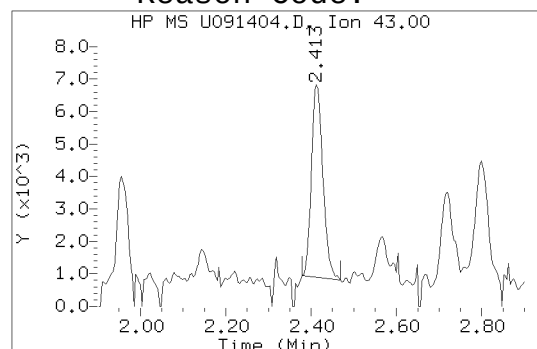
MASS
58
AREA
4229
HEIGHT
2101
18-Sep-2023
12:30
linh
pham



AFTER

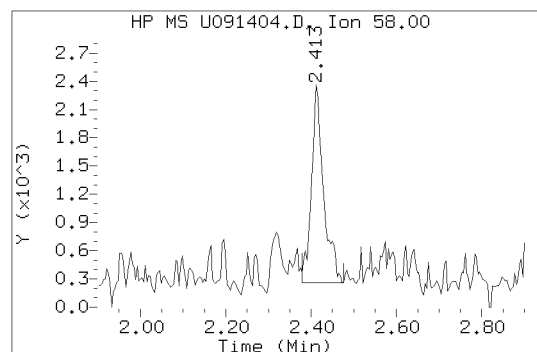
MASS
43
AREA
11344
HEIGHT
5928
18-Sep-2023
12:30
linh

Reason Code:



AFTER

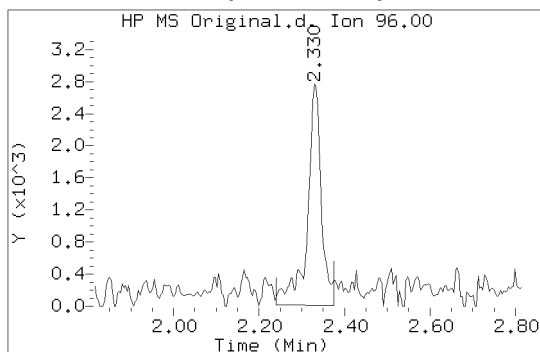
MASS
58
AREA
4229
HEIGHT
2101
18-Sep-2023
12:30
linh
pham



1,1-Dichloroethene (75-35-4)

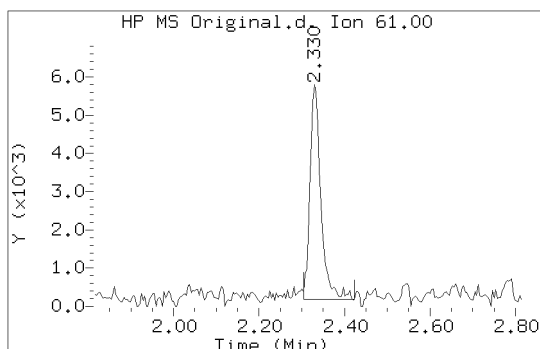
BEFORE

MASS
96
AREA
6369
HEIGHT
2762
18-Sep-2023
12:30
linh
pham



BEFORE

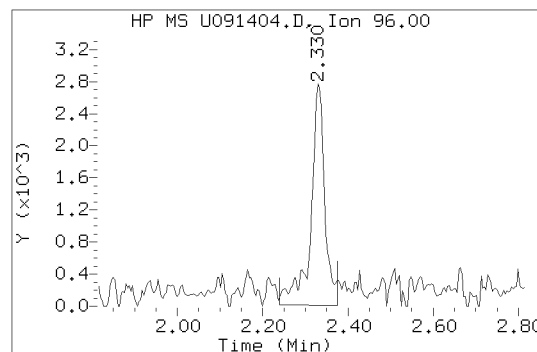
MASS
61
AREA
10041
HEIGHT
5615
18-Sep-2023
12:30
linh
pham



AFTER

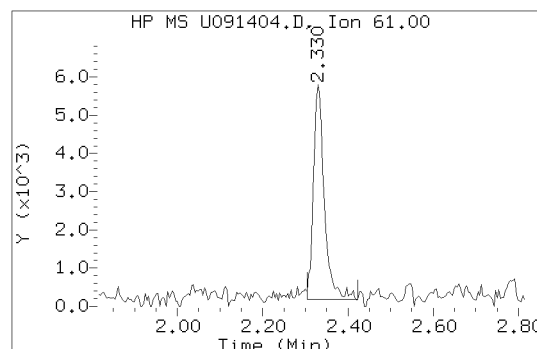
MASS
96
AREA
6369
HEIGHT
2762
18-Sep-2023
12:30
linh
pham

Reason Code:



AFTER

MASS
61
AREA
10041
HEIGHT
5615
18-Sep-2023
12:30
linh
pham

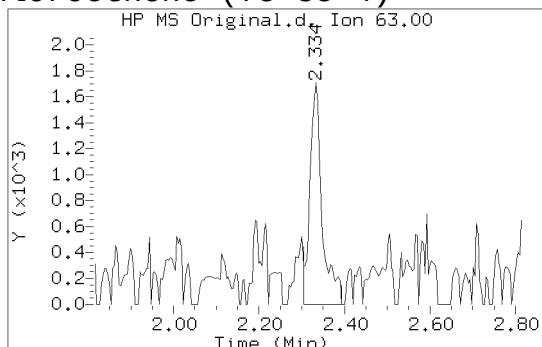


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

1,1-Dichloroethene (75-35-4)

BEFORE

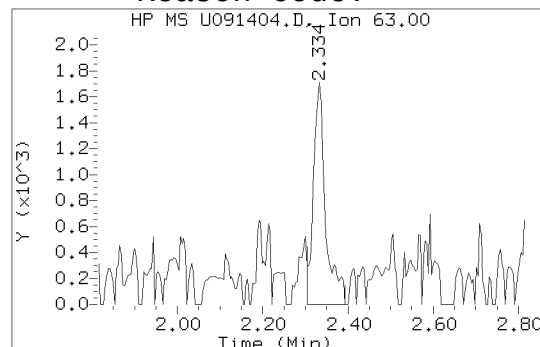
MASS
63
AREA
3420
HEIGHT
1708
18-Sep-2023
12:30
linh
pham



AFTER

MASS
63
AREA
3420
HEIGHT
1708
18-Sep-2023
12:30
linh
pham

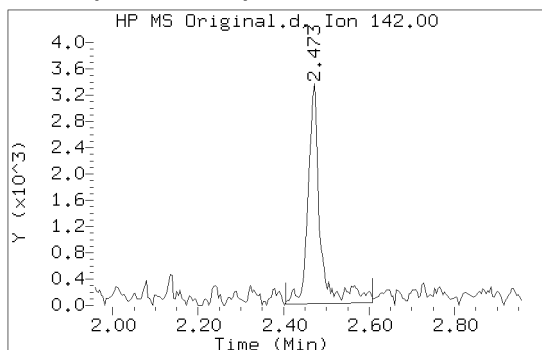
Reason Code:



Iodomethane (74-88-4)

BEFORE

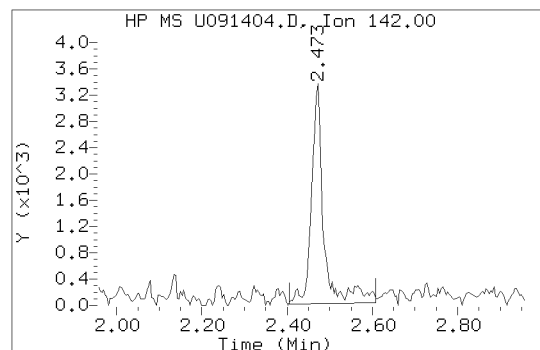
MASS
142
AREA
6809
HEIGHT
3349
18-Sep-2023
12:30
linh
pham



AFTER

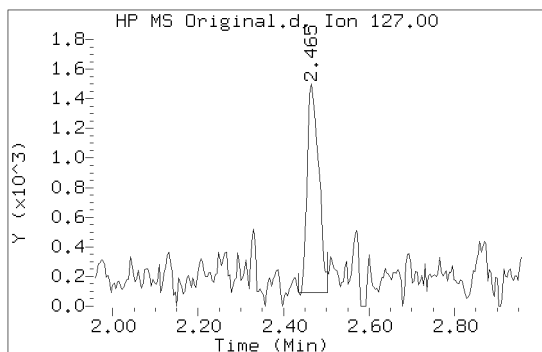
MASS
142
AREA
6809
HEIGHT
3349
18-Sep-2023
12:30
linh
pham

Reason Code:



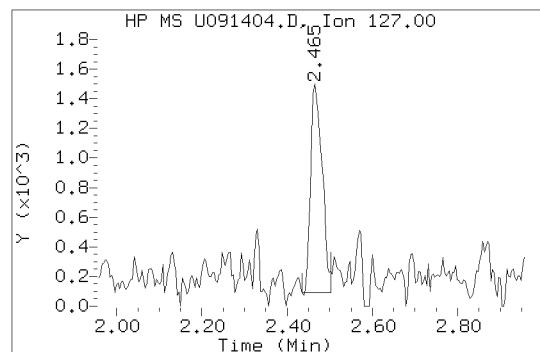
BEFORE

MASS
127
AREA
2690
HEIGHT
1409
18-Sep-2023
12:30
linh
pham



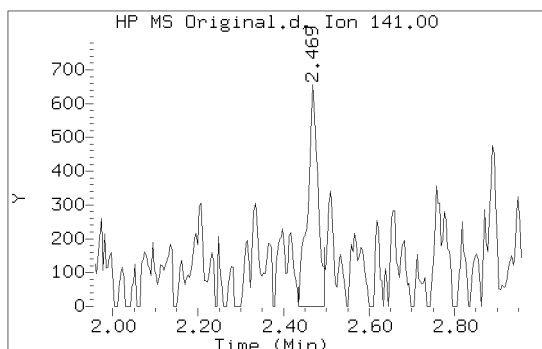
AFTER

MASS
127
AREA
2690
HEIGHT
1409
18-Sep-2023
12:30
linh
pham



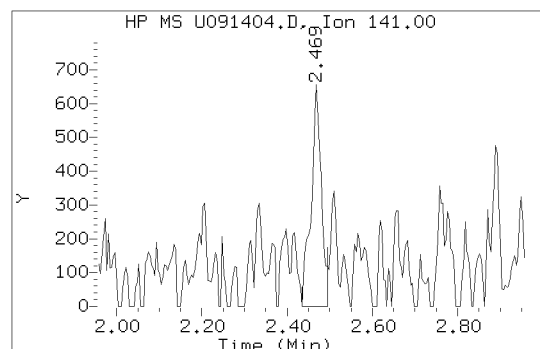
BEFORE

MASS
141
AREA
1100
HEIGHT
656
18-Sep-2023
12:30
linh
pham



AFTER

MASS
141
AREA
1100
HEIGHT
656
18-Sep-2023
12:30
linh
pham

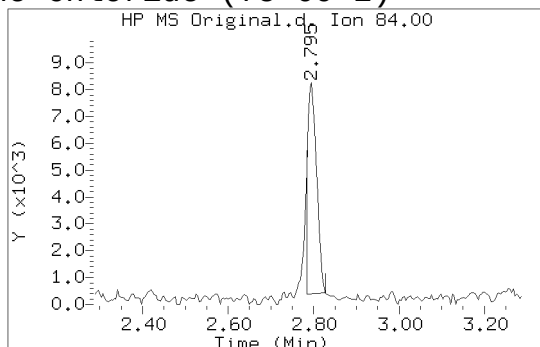


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Methylene Chloride (75-09-2)

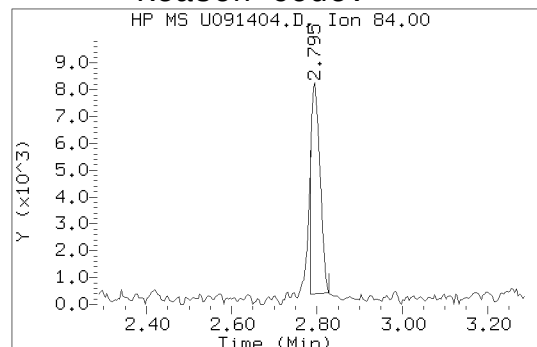
BEFORE

MASS
84
AREA
11952
HEIGHT
7860
18-Sep-2023
12:30
linh



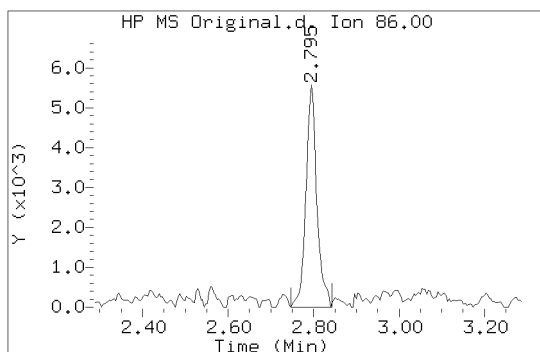
AFTER

MASS
84
AREA
11952
HEIGHT
7860
18-Sep-2023
12:30
linh



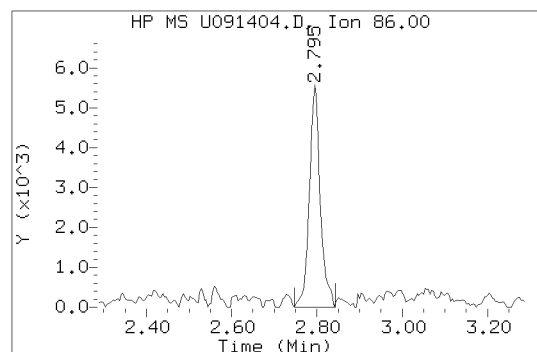
BEFORE

MASS
86
AREA
10136
HEIGHT
5573
18-Sep-2023
12:30
linh
pham



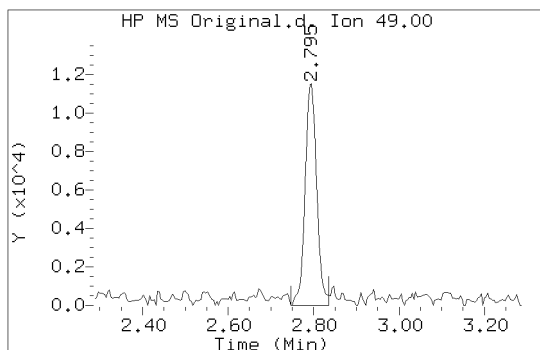
AFTER

MASS
86
AREA
10136
HEIGHT
5573
18-Sep-2023
12:30
linh
pham



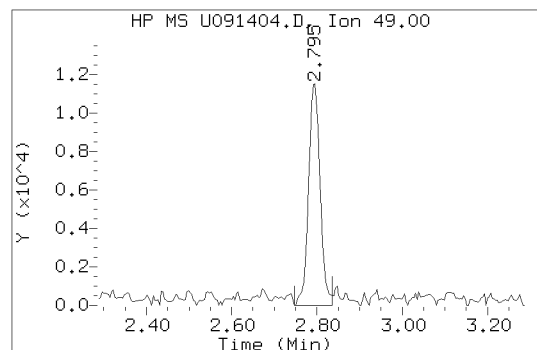
BEFORE

MASS
49
AREA
22277
HEIGHT
11532
18-Sep-2023
12:30
linh
pham



AFTER

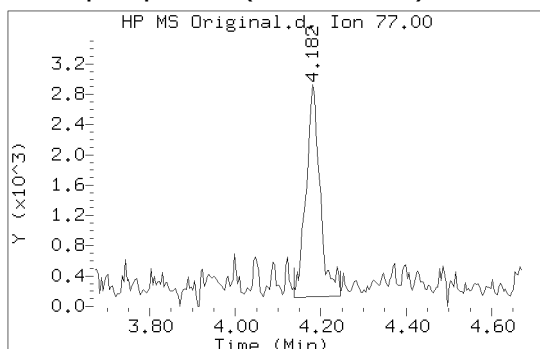
MASS
49
AREA
22277
HEIGHT
11532
18-Sep-2023
12:30
linh
pham



2,2-Dichloropropane (594-20-7)

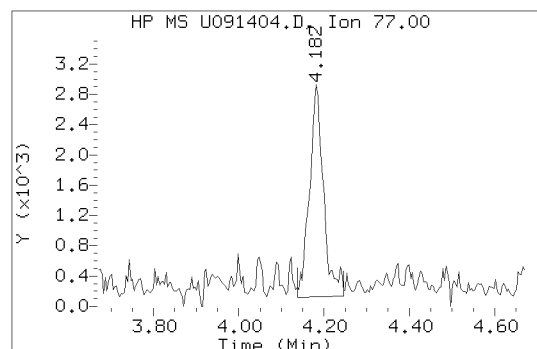
BEFORE

MASS
77
AREA
6514
HEIGHT
2800
18-Sep-2023
12:30
linh
pham



AFTER

MASS
77
AREA
6514
HEIGHT
2800
18-Sep-2023
12:30
linh
pham

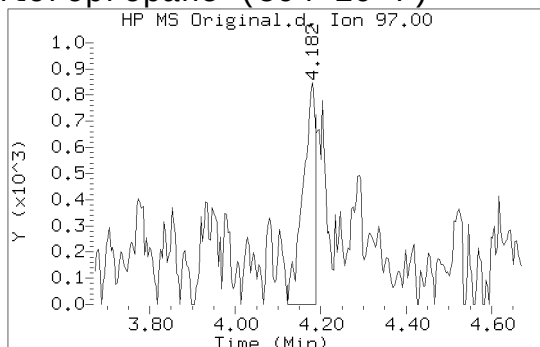


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

2,2-Dichloropropane (594-20-7)

BEFORE

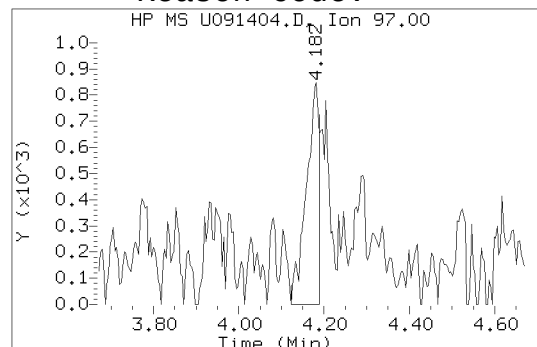
MASS
97
AREA
1771
HEIGHT
847
18-Sep-2023
12:30
linh
pham



AFTER

MASS
97
AREA
1771
HEIGHT
847
18-Sep-2023
12:30
linh
pham

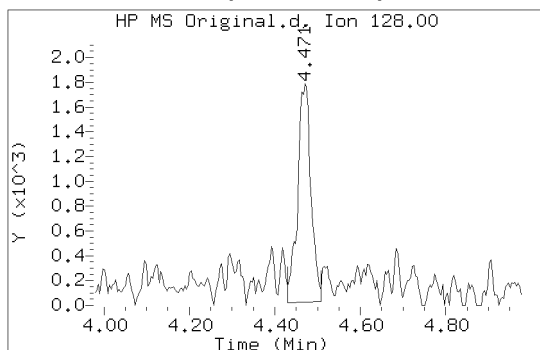
Reason Code:



Bromochloromethane (74-97-5)

BEFORE

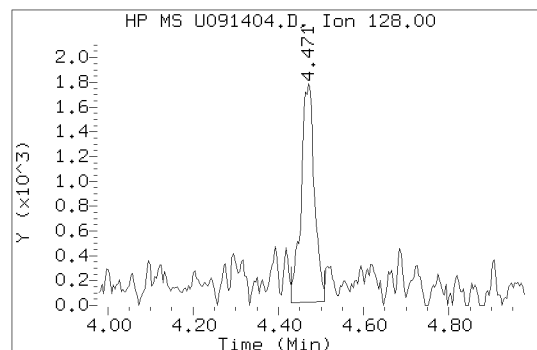
MASS
128
AREA
3900
HEIGHT
1760
18-Sep-2023
12:30
linh
pham



AFTER

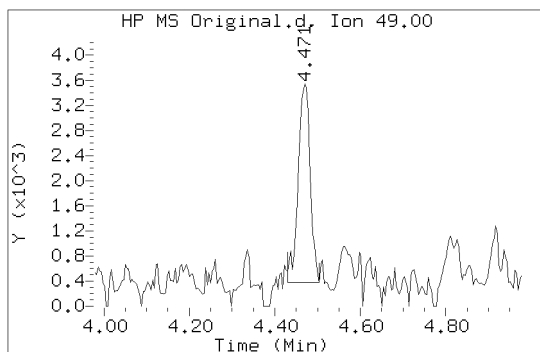
MASS
128
AREA
3900
HEIGHT
1760
18-Sep-2023
12:30
linh
pham

Reason Code:



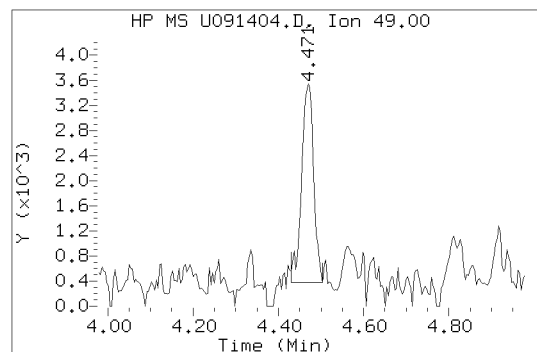
BEFORE

MASS
49
AREA
6333
HEIGHT
3163
18-Sep-2023
12:30
linh
pham



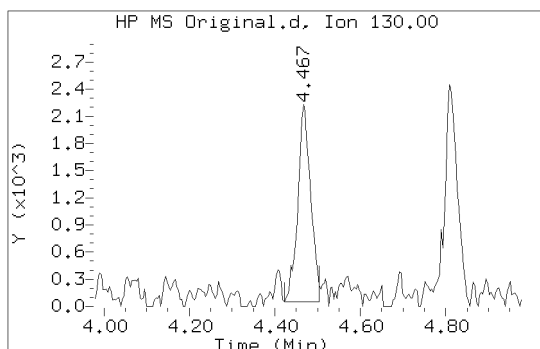
AFTER

MASS
49
AREA
6333
HEIGHT
3163
18-Sep-2023
12:30
linh
pham



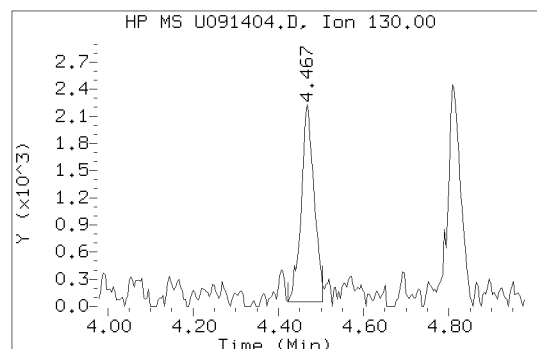
BEFORE

MASS
130
AREA
4634
HEIGHT
2183
18-Sep-2023
12:30
linh
pham



AFTER

MASS
130
AREA
4634
HEIGHT
2183
18-Sep-2023
12:30
linh
pham

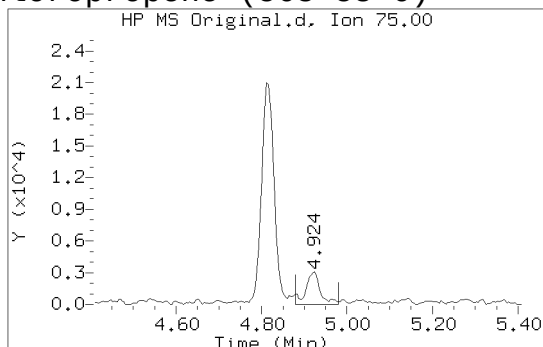


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

1,1-Dichloropropene (563-58-6)

BEFORE

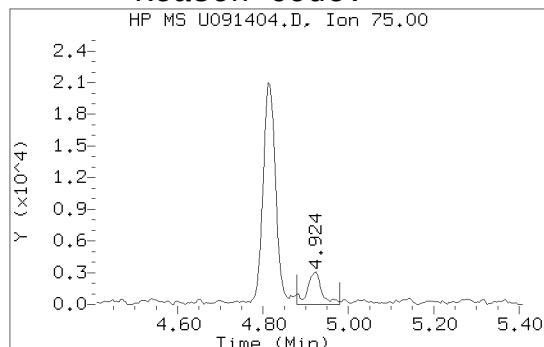
MASS
75
AREA
7313
HEIGHT
3072
18-Sep-2023
12:30
linh



AFTER

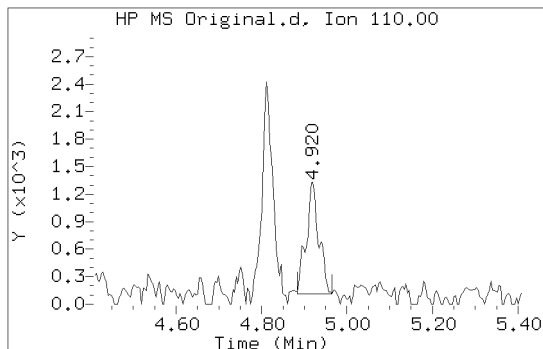
MASS
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AREA
7313
HEIGHT
3072
18-Sep-2023
12:30
linh

Reason Code:



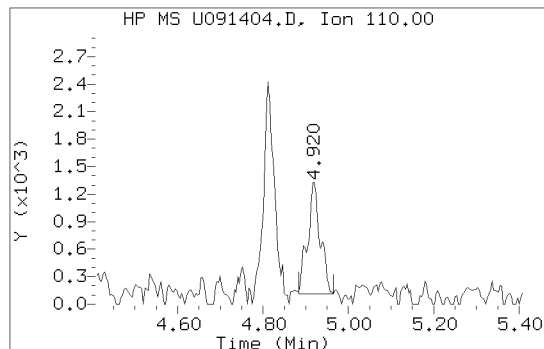
BEFORE

MASS
110
AREA
2544
HEIGHT
1225
18-Sep-2023
12:30
linh
pham



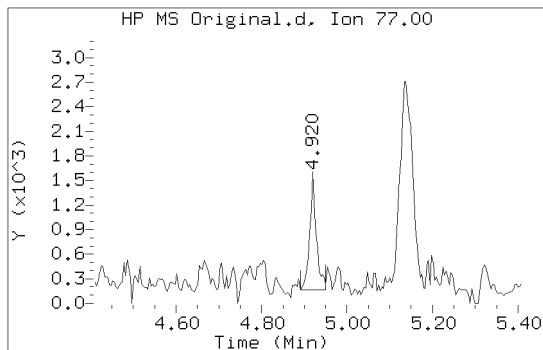
AFTER

MASS
110
AREA
2544
HEIGHT
1225
18-Sep-2023
12:30
linh
pham



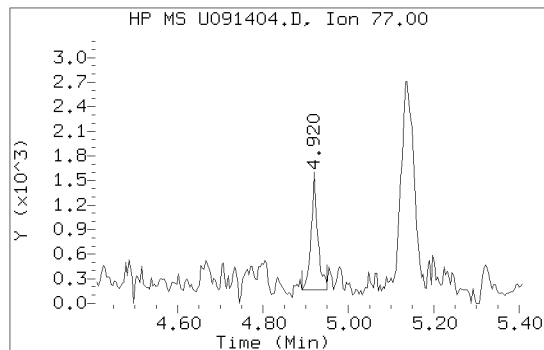
BEFORE

MASS
77
AREA
1545
HEIGHT
1442
18-Sep-2023
12:30
linh
pham



AFTER

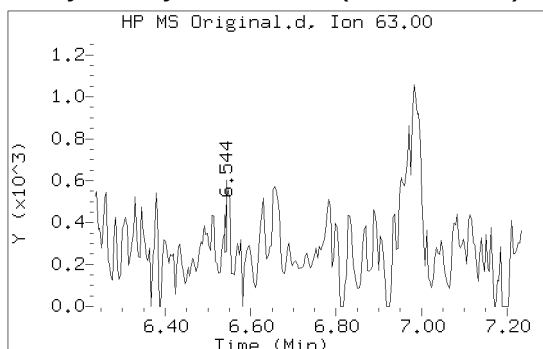
MASS
77
AREA
1545
HEIGHT
1442
18-Sep-2023
12:30
linh
pham



2-Chloroethylvinyl ether (110-75-8)

BEFORE

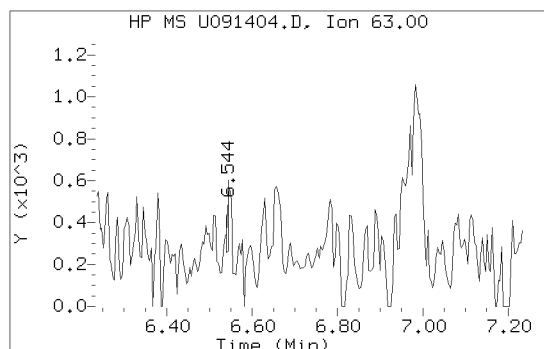
MASS
63
AREA
75
HEIGHT
246
18-Sep-2023
12:30
linh
pham



AFTER

MASS
63
AREA
75
HEIGHT
246
18-Sep-2023
12:30
linh
pham

Reason Code:

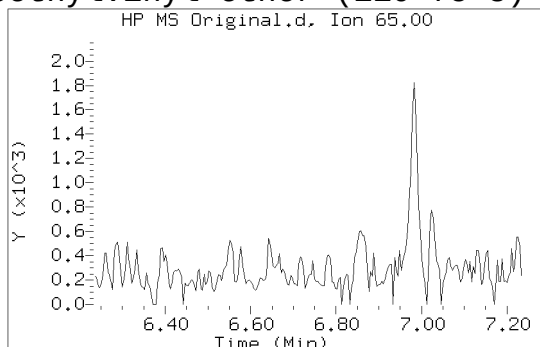


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

2-Chloroethylvinyl ether (110-75-8)

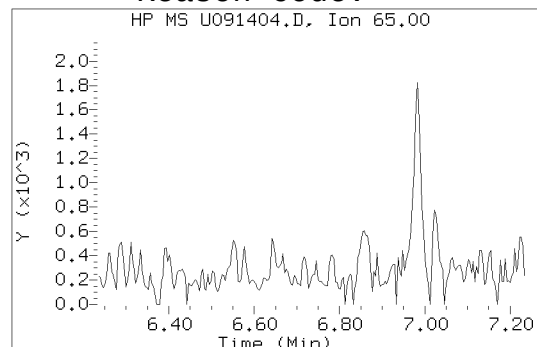
BEFORE

MASS
65
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh



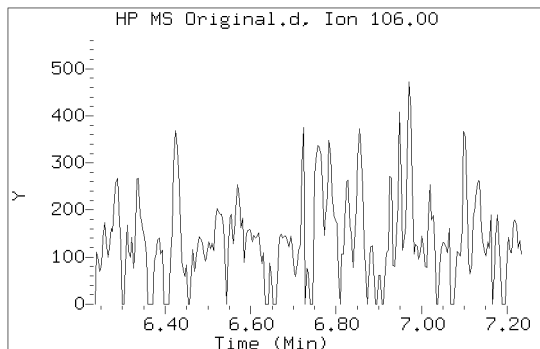
AFTER

MASS
65
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh



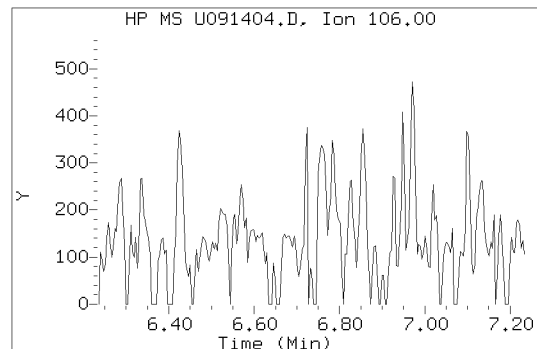
BEFORE

MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham



AFTER

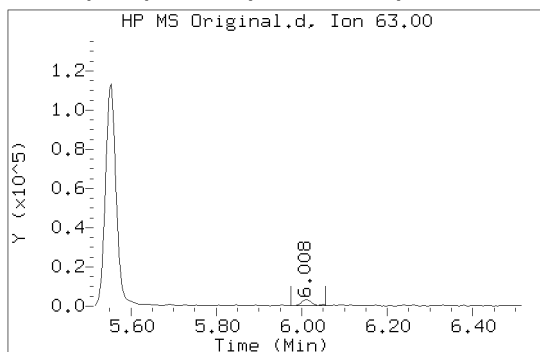
MASS
106
AREA
0
HEIGHT
0
18-Sep-2023
12:30
linh
pham



1,2-Dichloropropane (78-87-5)

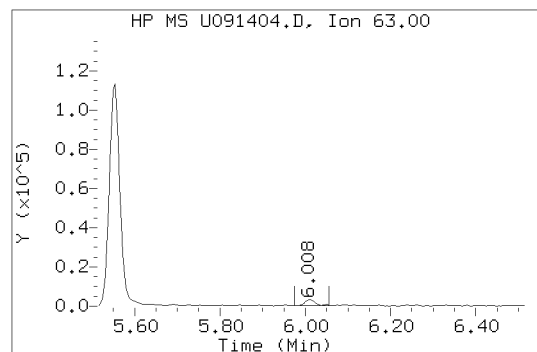
BEFORE

MASS
63
AREA
5092
HEIGHT
3016
18-Sep-2023
12:30
linh
pham



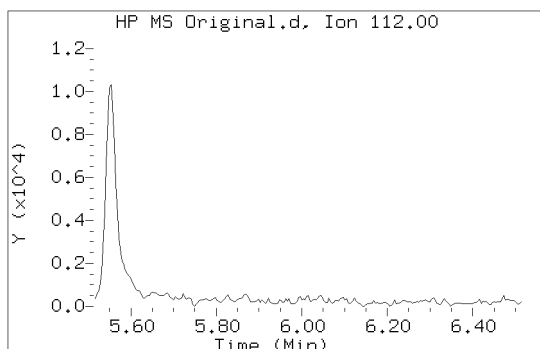
AFTER

MASS
63
AREA
5092
HEIGHT
3016
18-Sep-2023
12:30
linh
pham



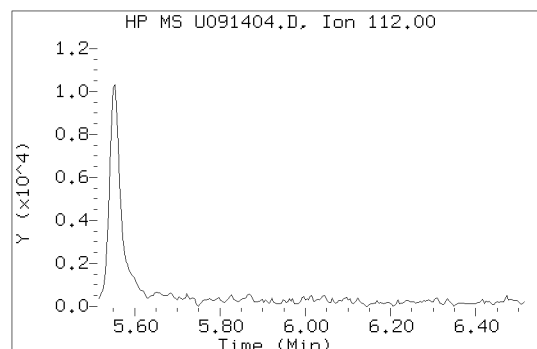
BEFORE

MASS
112
AREA
21302
HEIGHT
10267
18-Sep-2023
12:30
linh
pham



AFTER

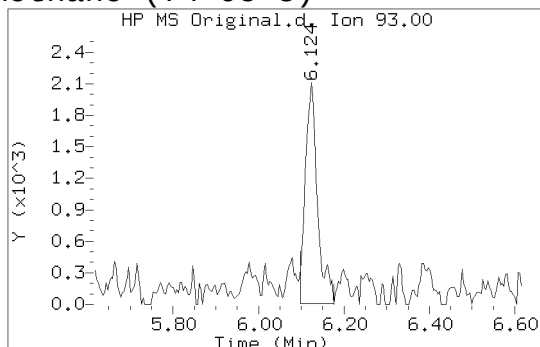
MASS
112
AREA
21302
HEIGHT
10267
18-Sep-2023
12:30
linh
pham



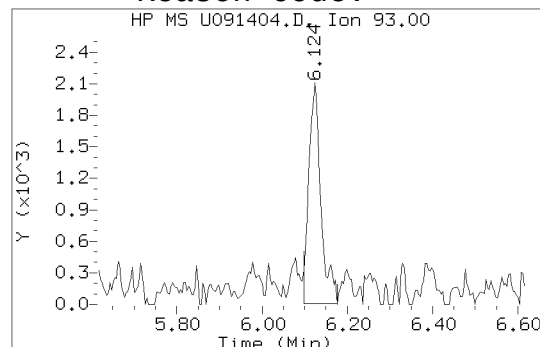
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Dibromomethane (74-95-3)**BEFORE**

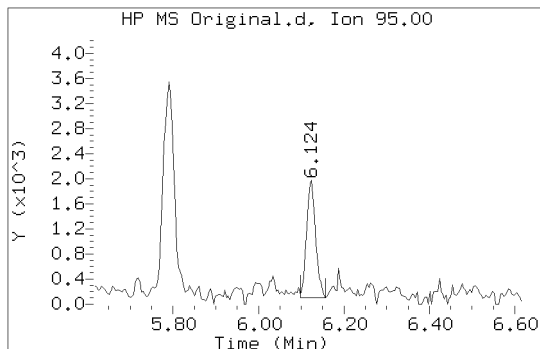
MASS
93
AREA
4246
HEIGHT
2105
18-Sep-2023
12:30
linh

**AFTER**

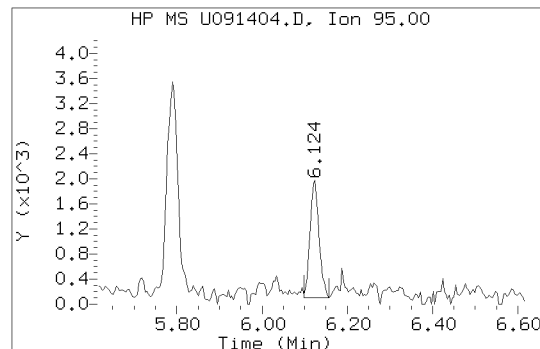
MASS
93
AREA
4246
HEIGHT
2105
18-Sep-2023
12:30
linh

**BEFORE**

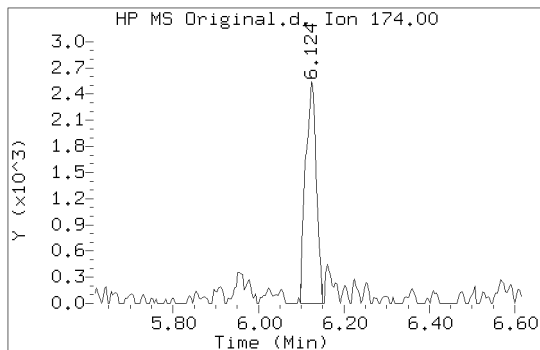
MASS
95
AREA
2839
HEIGHT
1877
18-Sep-2023
12:30
linh
pham

**AFTER**

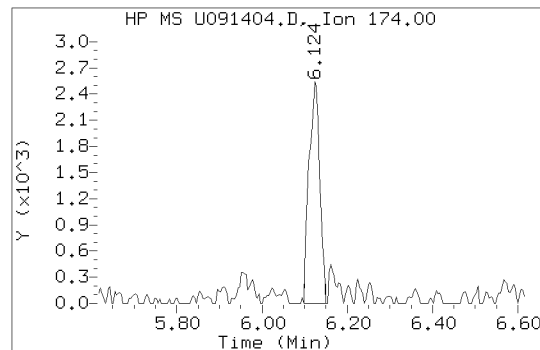
MASS
95
AREA
2839
HEIGHT
1877
18-Sep-2023
12:30
linh
pham

**BEFORE**

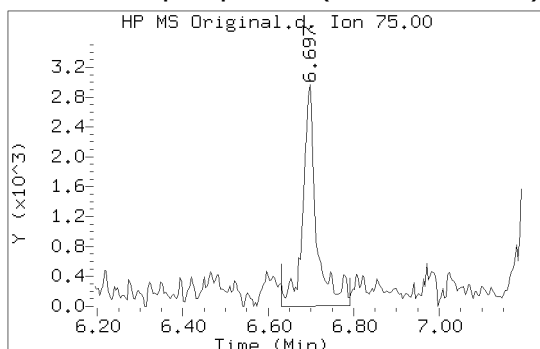
MASS
174
AREA
4553
HEIGHT
2542
18-Sep-2023
12:30
linh
pham

**AFTER**

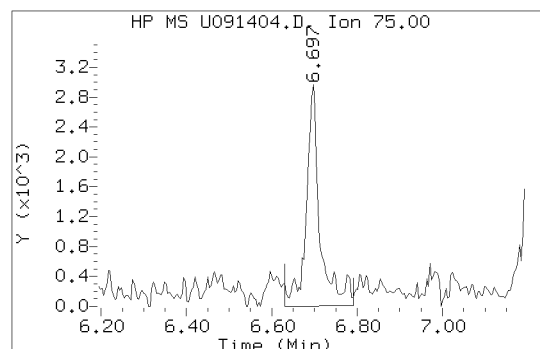
MASS
174
AREA
4553
HEIGHT
2542
18-Sep-2023
12:30
linh
pham

**cis-1,3-Dichloropropene (10061-01-5)****BEFORE**

MASS
75
AREA
6792
HEIGHT
2962
18-Sep-2023
12:30
linh
pham

**AFTER**

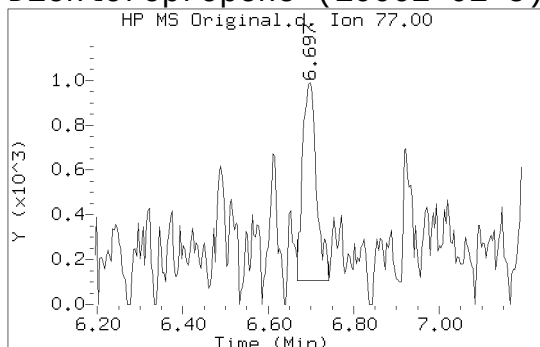
MASS
75
AREA
6792
HEIGHT
2962
18-Sep-2023
12:30
linh
pham



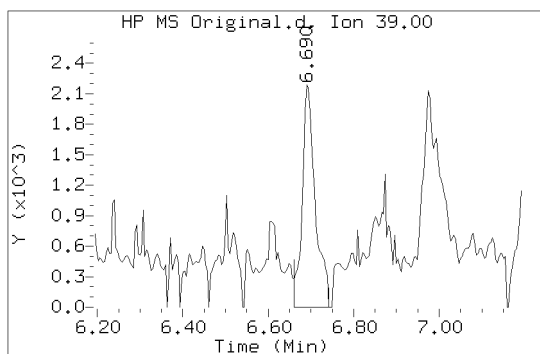
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

cis-1,3-Dichloropropene (10061-01-5)**BEFORE**

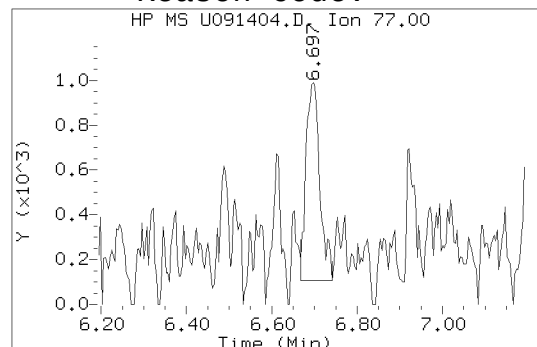
MASS
77
AREA
2047
HEIGHT
885
18-Sep-2023
12:30
linh

**BEFORE**

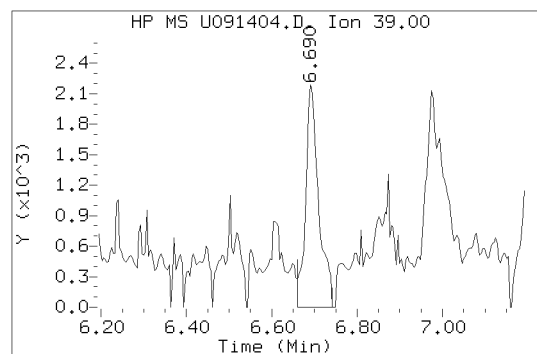
MASS
39
AREA
4707
HEIGHT
2187
18-Sep-2023
12:30
linh
pham

**AFTER**

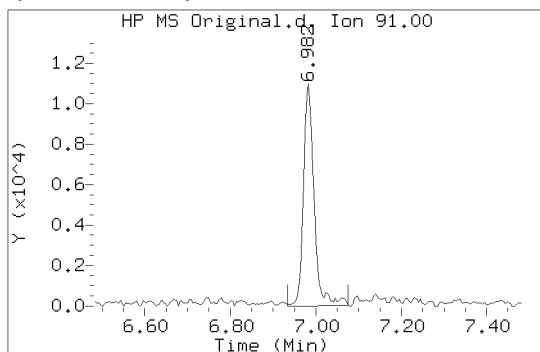
MASS
77
AREA
2047
HEIGHT
885
18-Sep-2023
12:30
linh

Reason Code:**AFTER**

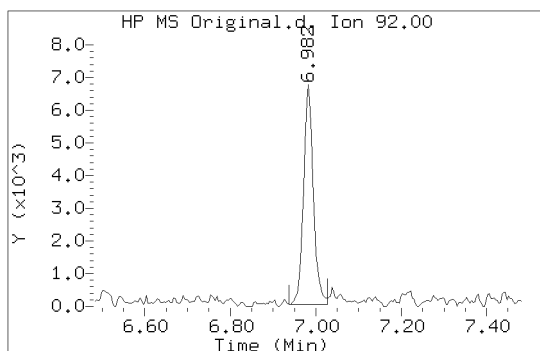
MASS
39
AREA
4707
HEIGHT
2187
18-Sep-2023
12:30
linh
pham

**Toluene (108-88-3)****BEFORE**

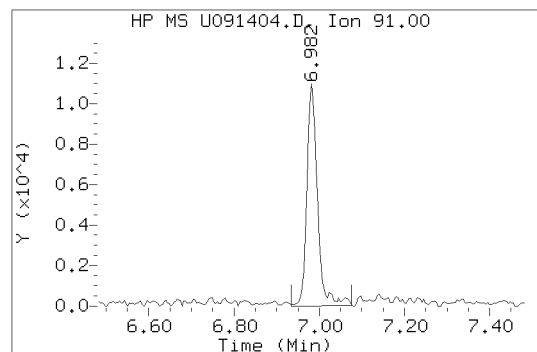
MASS
91
AREA
19537
HEIGHT
10979
18-Sep-2023
12:30
linh
pham

**BEFORE**

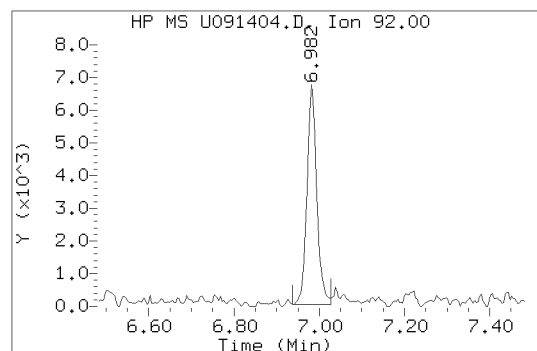
MASS
92
AREA
10970
HEIGHT
6718
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
91
AREA
19537
HEIGHT
10979
18-Sep-2023
12:30
linh
pham

Reason Code:**AFTER**

MASS
92
AREA
10970
HEIGHT
6718
18-Sep-2023
12:30
linh
pham

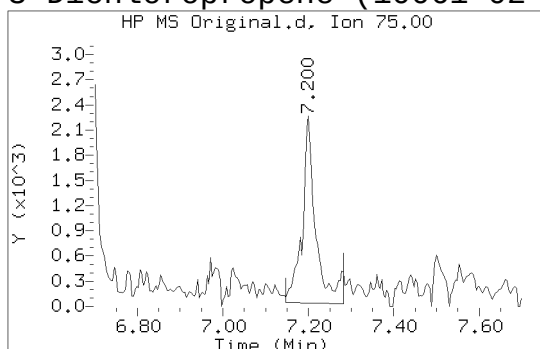


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

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

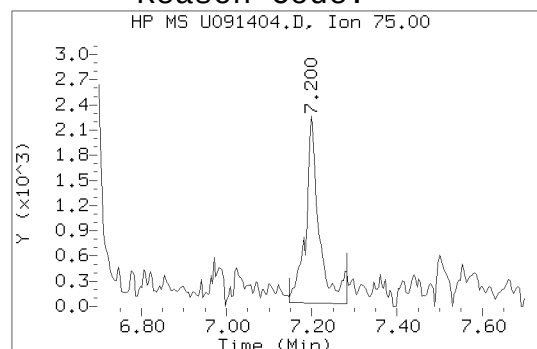
BEFORE

MASS
75
AREA
5013
HEIGHT
2230
18-Sep-2023
12:30
linh



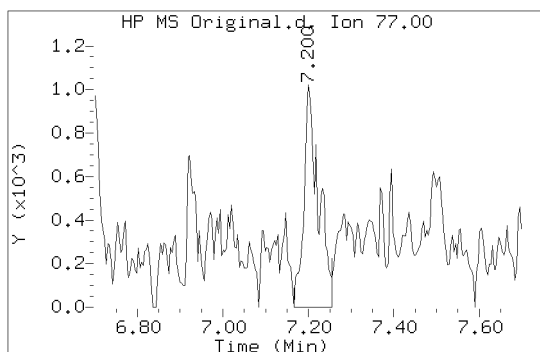
AFTER

MASS
75
AREA
5013
HEIGHT
2230
18-Sep-2023
12:30
linh



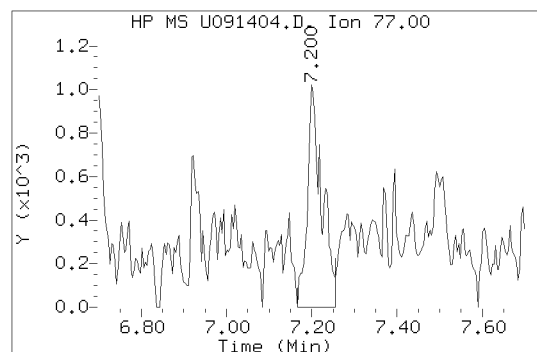
BEFORE

MASS
77
AREA
2458
HEIGHT
1021
18-Sep-2023
12:30
linh
pham



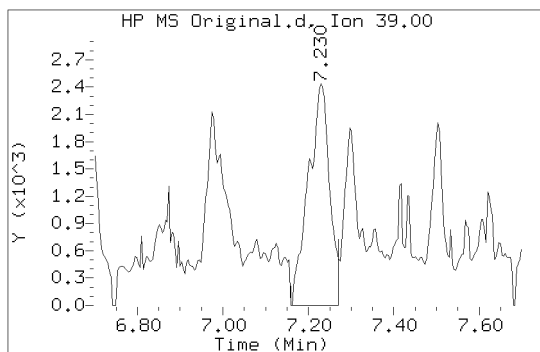
AFTER

MASS
77
AREA
2458
HEIGHT
1021
18-Sep-2023
12:30
linh
pham



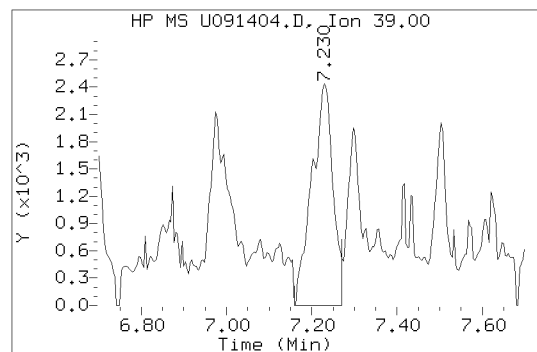
BEFORE

MASS
39
AREA
8449
HEIGHT
2437
18-Sep-2023
12:30
linh
pham



AFTER

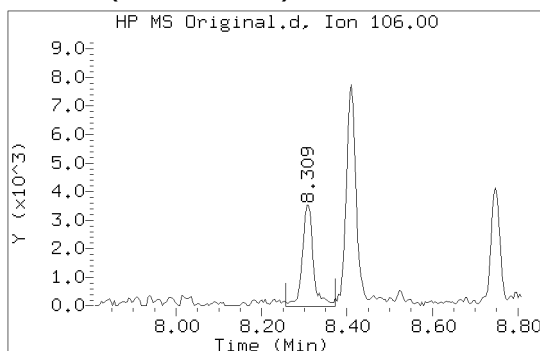
MASS
39
AREA
8449
HEIGHT
2437
18-Sep-2023
12:30
linh
pham



Ethylbenzene (100-41-4)

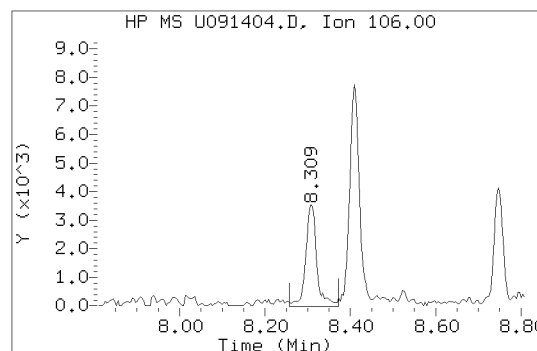
BEFORE

MASS
106
AREA
6608
HEIGHT
3550
18-Sep-2023
12:30
linh
pham



AFTER

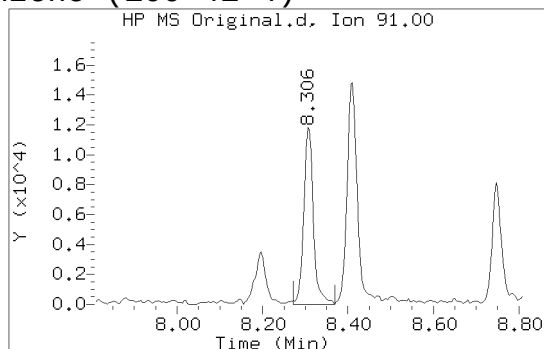
MASS
106
AREA
6608
HEIGHT
3550
18-Sep-2023
12:30
linh
pham



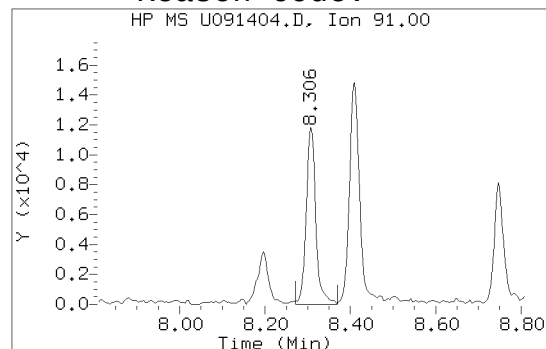
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Ethylbenzene (100-41-4)**BEFORE**

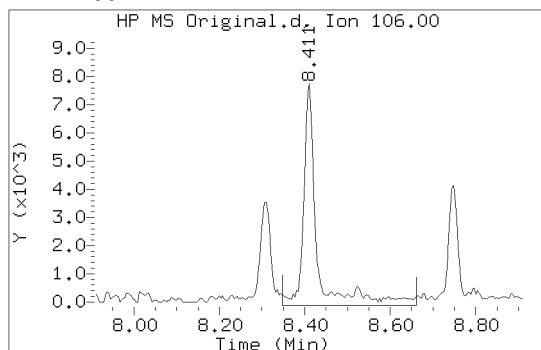
MASS
91
AREA
18837
HEIGHT
11841
18-Sep-2023
12:30
linh
pham

**AFTER**

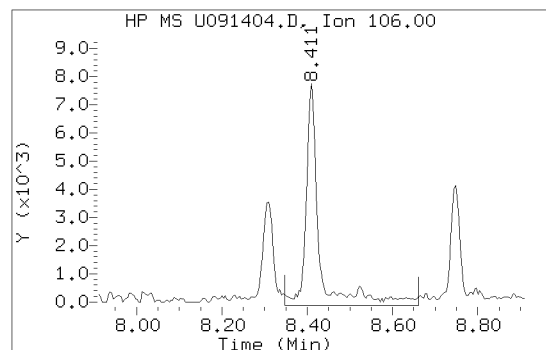
MASS
91
AREA
18837
HEIGHT
11841
18-Sep-2023
12:30
linh
pham

**m,p-Xylenes ()****BEFORE**

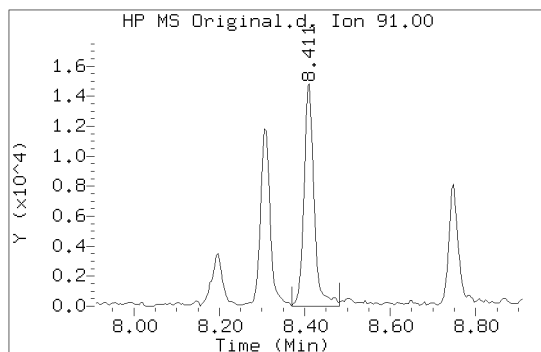
MASS
106
AREA
17428
HEIGHT
7866
18-Sep-2023
12:30
linh
pham

**AFTER**

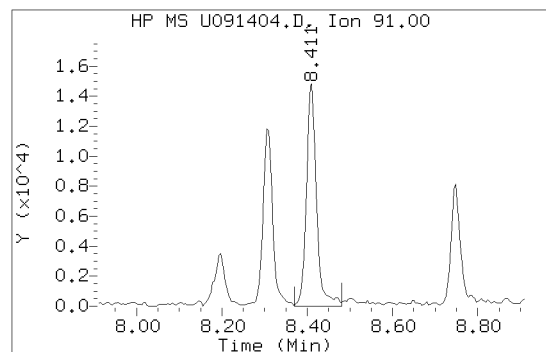
MASS
106
AREA
17428
HEIGHT
7866
18-Sep-2023
12:30
linh
pham

**BEFORE**

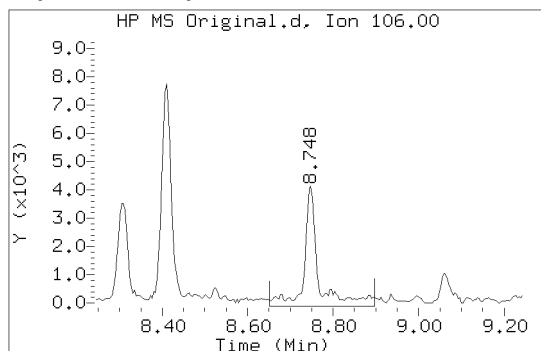
MASS
91
AREA
25036
HEIGHT
14820
18-Sep-2023
12:30
linh
pham

**AFTER**

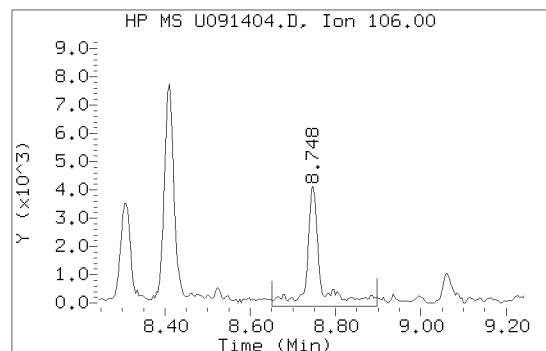
MASS
91
AREA
25036
HEIGHT
14820
18-Sep-2023
12:30
linh
pham

**o-Xylene (95-47-6)****BEFORE**

MASS
106
AREA
10098
HEIGHT
4252
18-Sep-2023
12:30
linh
pham

**AFTER**

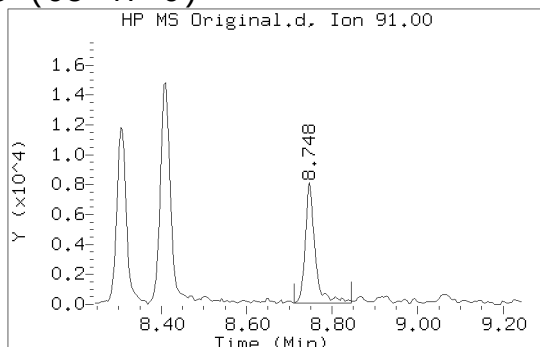
MASS
106
AREA
10098
HEIGHT
4252
18-Sep-2023
12:30
linh
pham



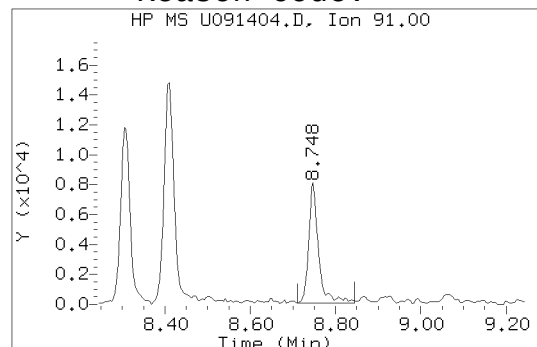
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

o-Xylene (95-47-6)**BEFORE**

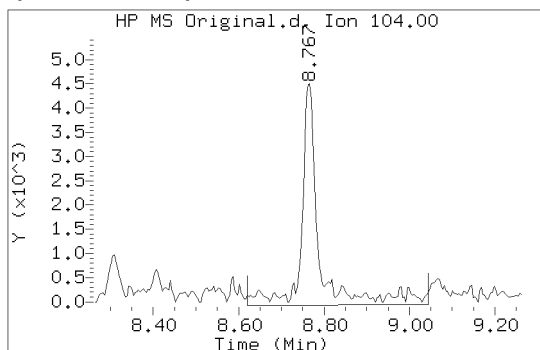
MASS
91
AREA
13234
HEIGHT
8071
18-Sep-2023
12:30
linh
pham

**AFTER**

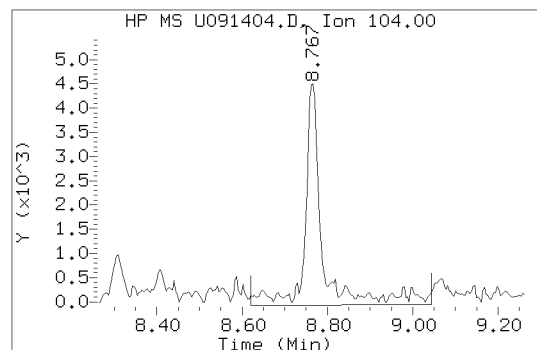
MASS
91
AREA
13234
HEIGHT
8071
18-Sep-2023
12:30
linh
pham

Reason Code:**Styrene (100-42-5)****BEFORE**

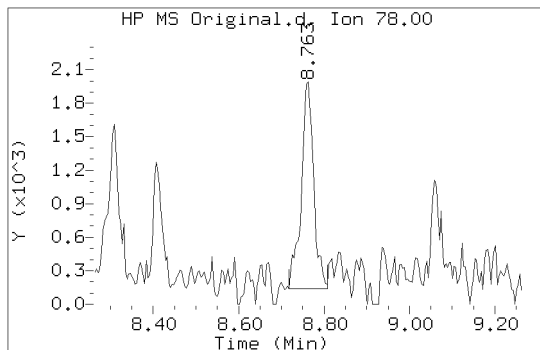
MASS
104
AREA
13244
HEIGHT
4573
18-Sep-2023
12:30
linh
pham

**AFTER**

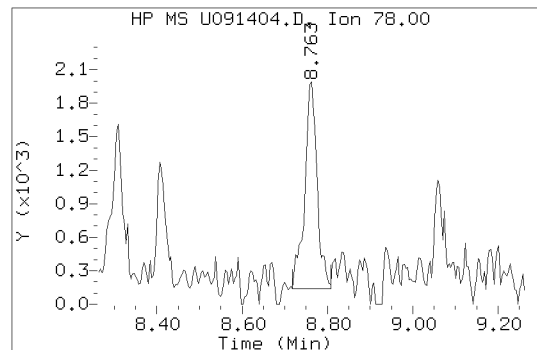
MASS
104
AREA
13244
HEIGHT
4573
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

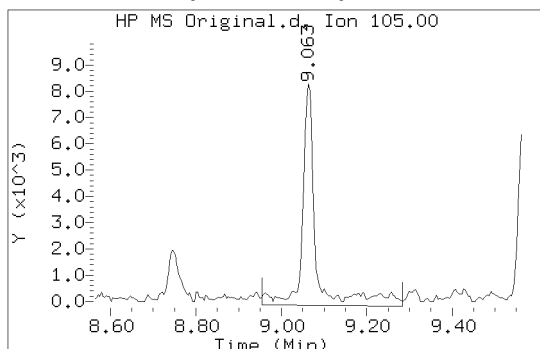
MASS
78
AREA
3820
HEIGHT
1855
18-Sep-2023
12:30
linh
pham

**AFTER**

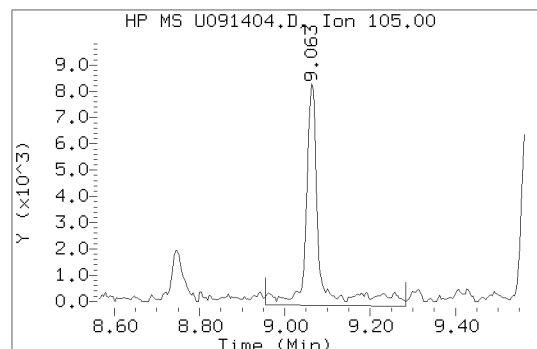
MASS
78
AREA
3820
HEIGHT
1855
18-Sep-2023
12:30
linh
pham

**Isopropylbenzene (98-82-8)****BEFORE**

MASS
105
AREA
19078
HEIGHT
8430
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
105
AREA
19078
HEIGHT
8430
18-Sep-2023
12:30
linh
pham

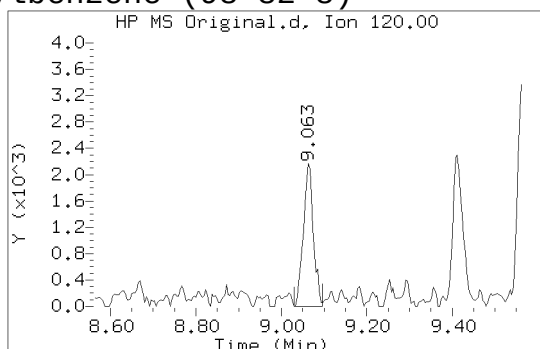
Reason Code:

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Isopropylbenzene (98-82-8)

BEFORE

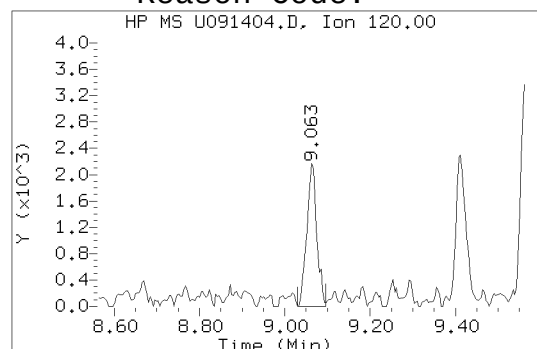
MASS
120
AREA
3600
HEIGHT
2175
18-Sep-2023
12:30
linh
pham



AFTER

MASS
120
AREA
3600
HEIGHT
2175
18-Sep-2023
12:30
linh
pham

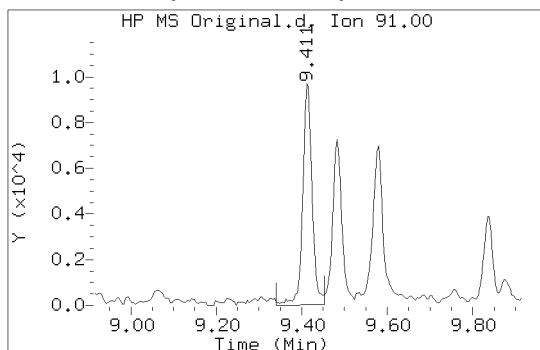
Reason Code:



n-Propylbenzene (106-65-1)

BEFORE

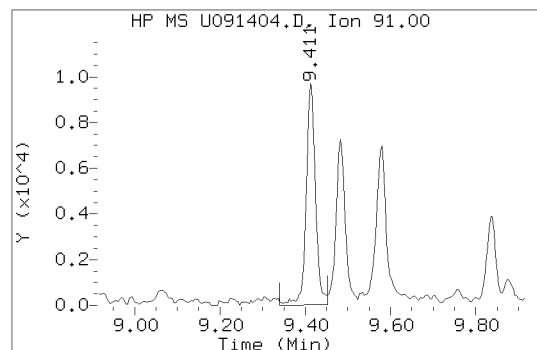
MASS
91
AREA
15066
HEIGHT
9677
18-Sep-2023
12:30
linh
pham



AFTER

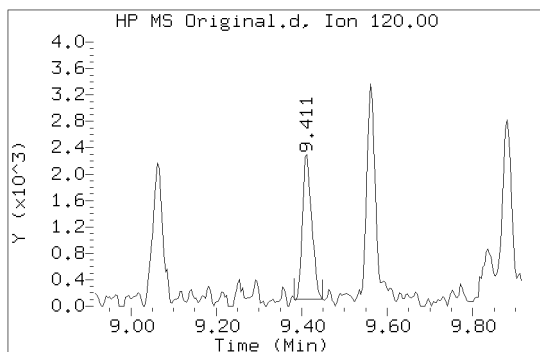
MASS
91
AREA
15066
HEIGHT
9677
18-Sep-2023
12:30
linh
pham

Reason Code:



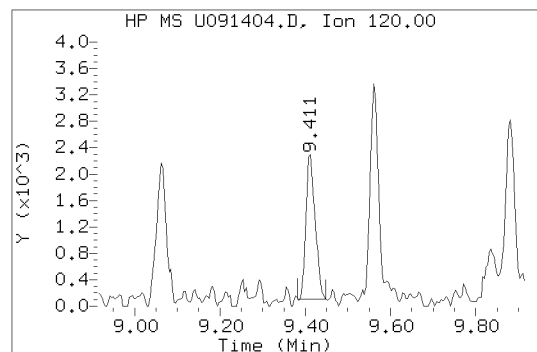
BEFORE

MASS
120
AREA
3359
HEIGHT
2192
18-Sep-2023
12:30
linh
pham



AFTER

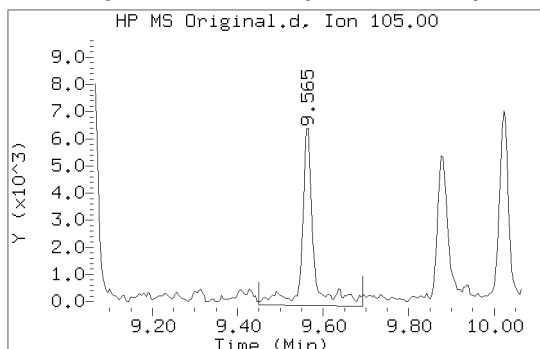
MASS
120
AREA
3359
HEIGHT
2192
18-Sep-2023
12:30
linh
pham



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

BEFORE

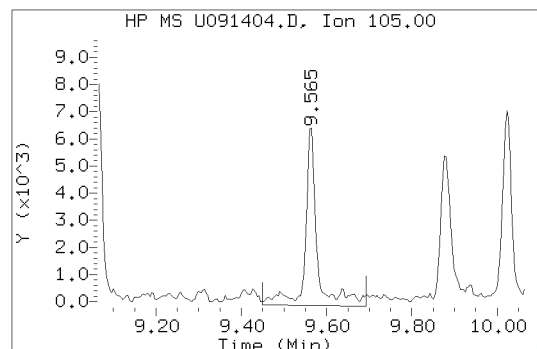
MASS
105
AREA
13057
HEIGHT
6515
18-Sep-2023
12:30
linh
pham



AFTER

MASS
105
AREA
13057
HEIGHT
6515
18-Sep-2023
12:30
linh
pham

Reason Code:

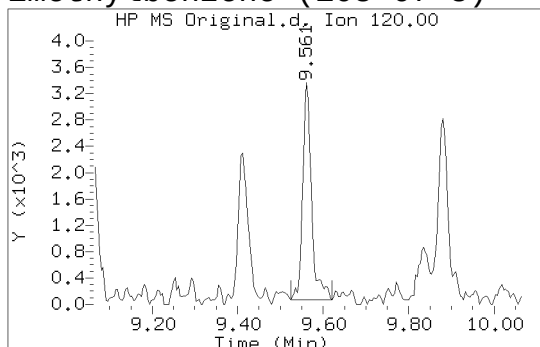


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

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

BEFORE

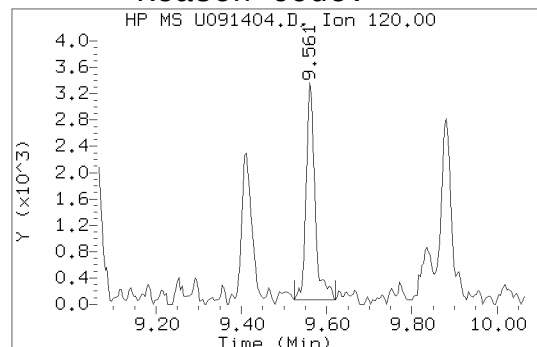
MASS
120
AREA
4890
HEIGHT
3298
18-Sep-2023
12:30
linh
pham



AFTER

MASS
120
AREA
4890
HEIGHT
3298
18-Sep-2023
12:30
linh
pham

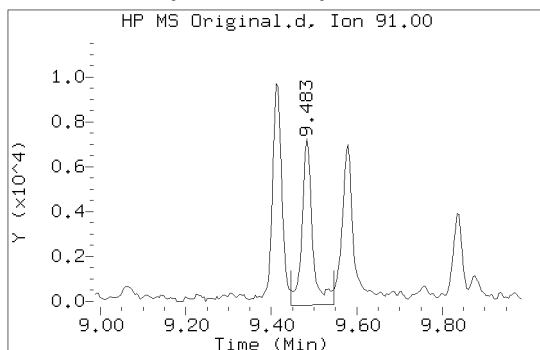
Reason Code:



2-Chlorotoluene (95-49-8)

BEFORE

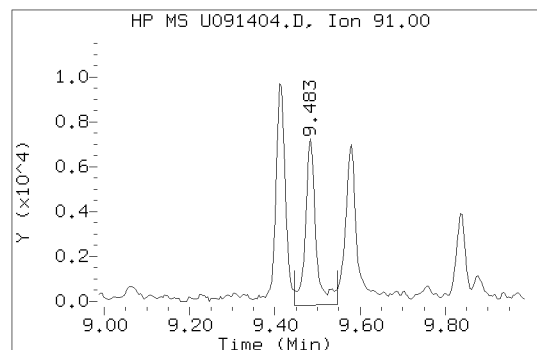
MASS
91
AREA
13160
HEIGHT
7432
18-Sep-2023
12:30
linh
pham



AFTER

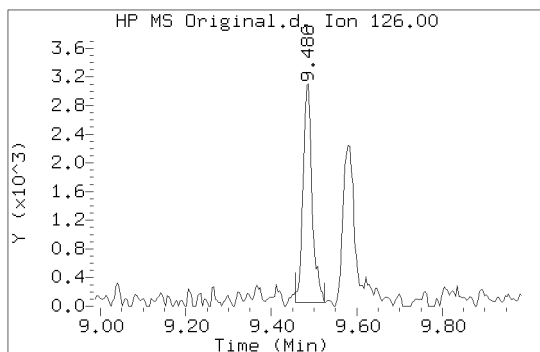
MASS
91
AREA
13160
HEIGHT
7432
18-Sep-2023
12:30
linh
pham

Reason Code:



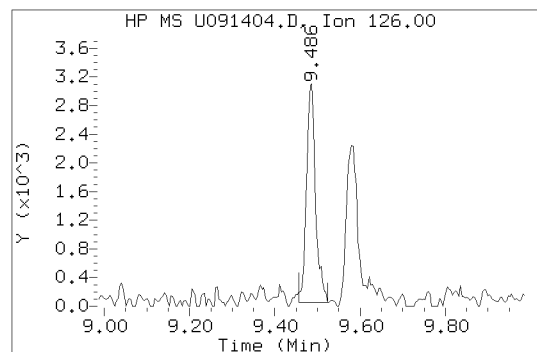
BEFORE

MASS
126
AREA
4570
HEIGHT
3049
18-Sep-2023
12:30
linh
pham



AFTER

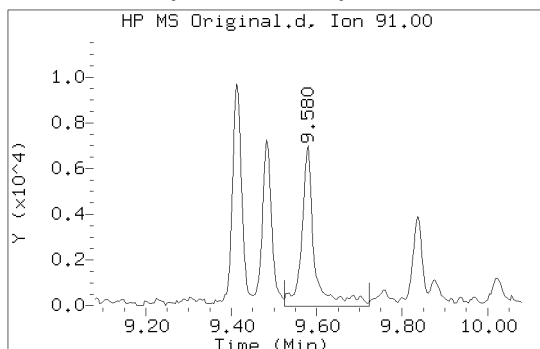
MASS
126
AREA
4570
HEIGHT
3049
18-Sep-2023
12:30
linh
pham



4-Chlorotoluene (106-43-4)

BEFORE

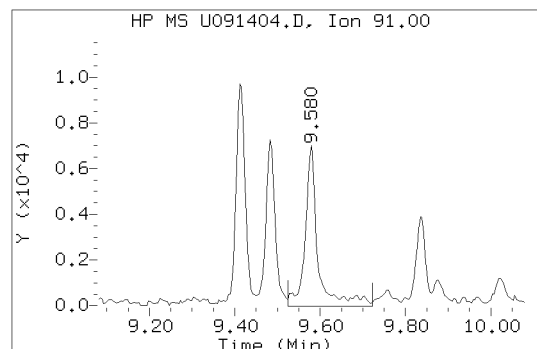
MASS
91
AREA
14951
HEIGHT
7013
18-Sep-2023
12:30
linh
pham



AFTER

MASS
91
AREA
14951
HEIGHT
7013
18-Sep-2023
12:30
linh
pham

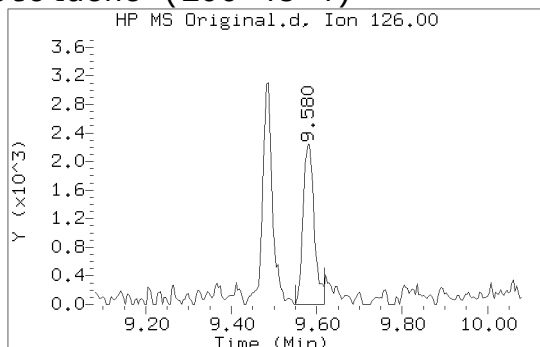
Reason Code:



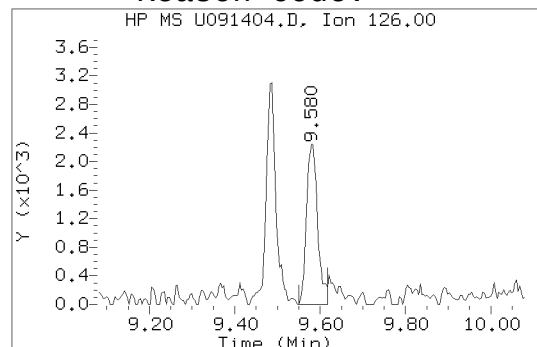
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

4-Chlorotoluene (106-43-4)**BEFORE**

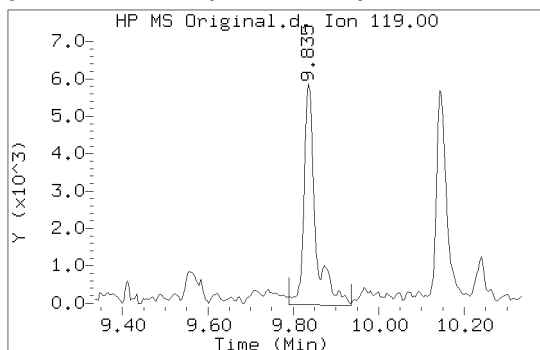
MASS
126
AREA
4174
HEIGHT
2241
18-Sep-2023
12:30
linh
pham

**AFTER**

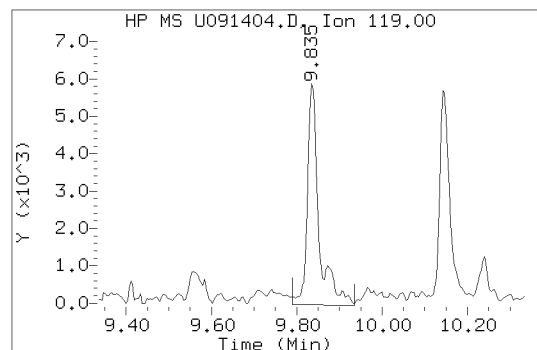
MASS
126
AREA
4174
HEIGHT
2241
18-Sep-2023
12:30
linh
pham

Reason Code:**tert-Butylbenzene (98-06-6)****BEFORE**

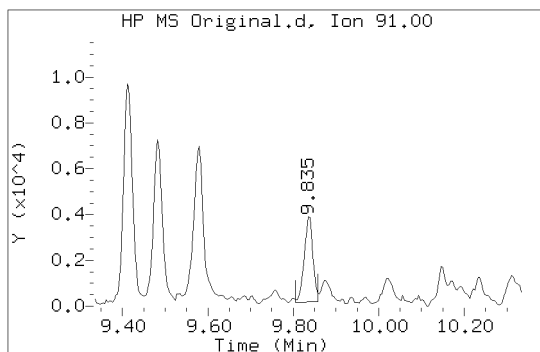
MASS
119
AREA
11393
HEIGHT
5910
18-Sep-2023
12:30
linh
pham

**AFTER**

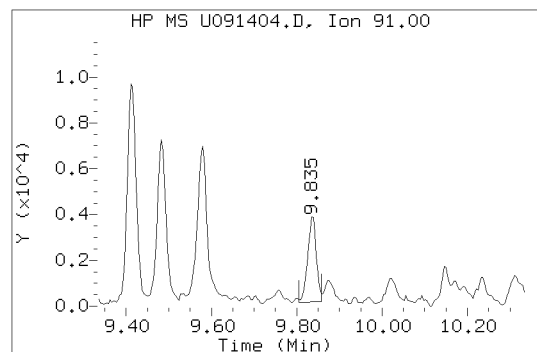
MASS
119
AREA
11393
HEIGHT
5910
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

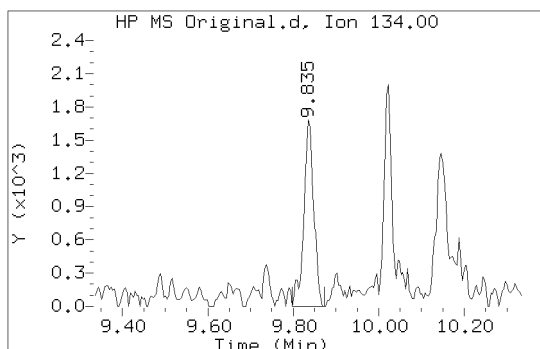
MASS
91
AREA
5384
HEIGHT
3707
18-Sep-2023
12:30
linh
pham

**AFTER**

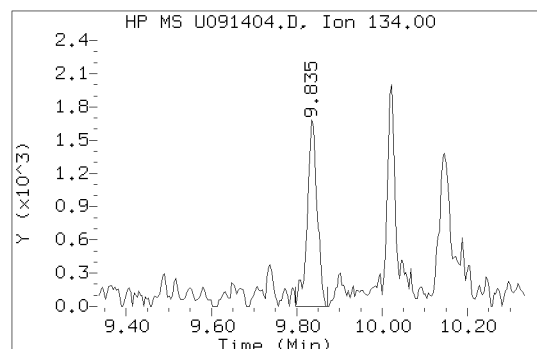
MASS
91
AREA
5384
HEIGHT
3707
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
134
AREA
2769
HEIGHT
1683
18-Sep-2023
12:30
linh
pham

**AFTER**

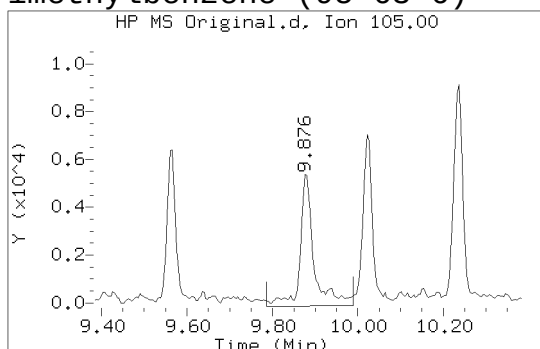
MASS
134
AREA
2769
HEIGHT
1683
18-Sep-2023
12:30
linh
pham



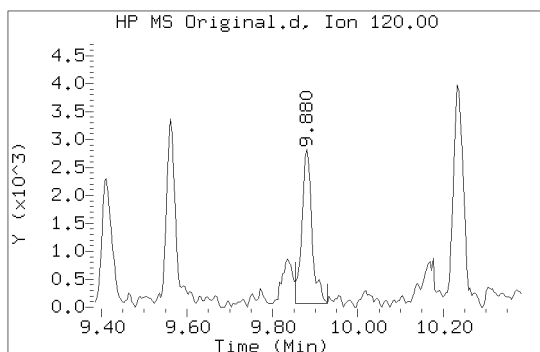
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

1,2,4-Trimethylbenzene (95-63-6)**BEFORE**

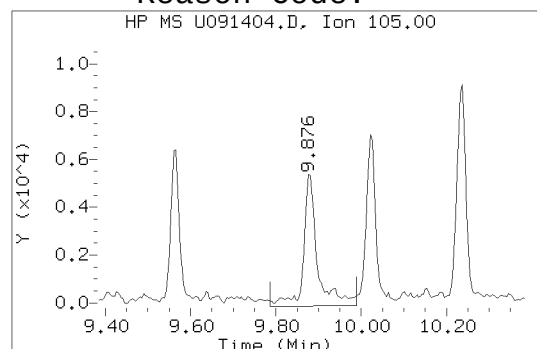
MASS
105
AREA
12753
HEIGHT
5515
18-Sep-2023
12:30
linh

**BEFORE**

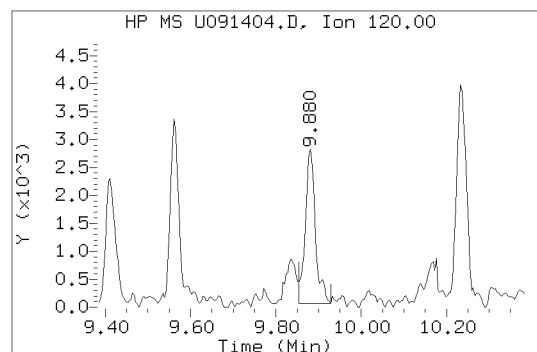
MASS
120
AREA
4598
HEIGHT
2753
18-Sep-2023
12:30
linh
pham

**AFTER**

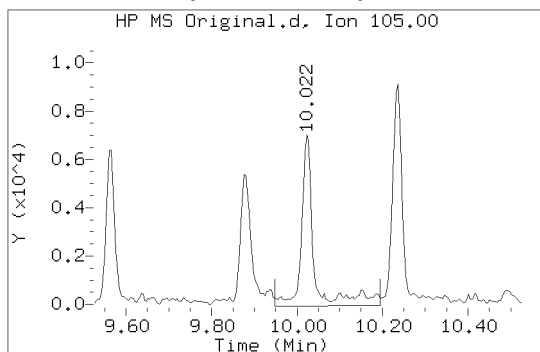
MASS
105
AREA
12753
HEIGHT
5515
18-Sep-2023
12:30
linh

**AFTER**

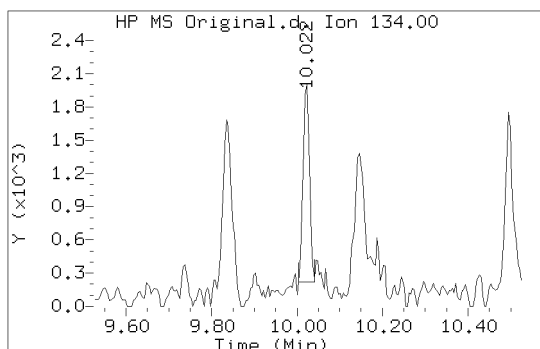
MASS
120
AREA
4598
HEIGHT
2753
18-Sep-2023
12:30
linh
pham

**Reason Code:****sec-Butylbenzene (135-98-8)****BEFORE**

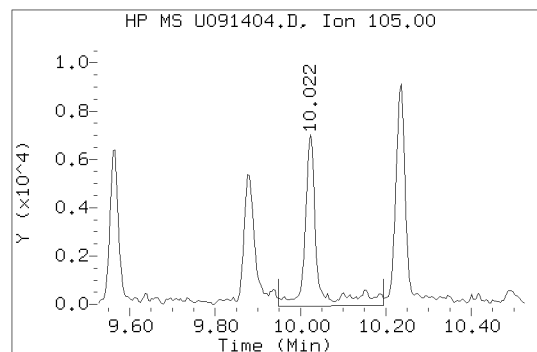
MASS
105
AREA
14747
HEIGHT
7102
18-Sep-2023
12:30
linh
pham

**BEFORE**

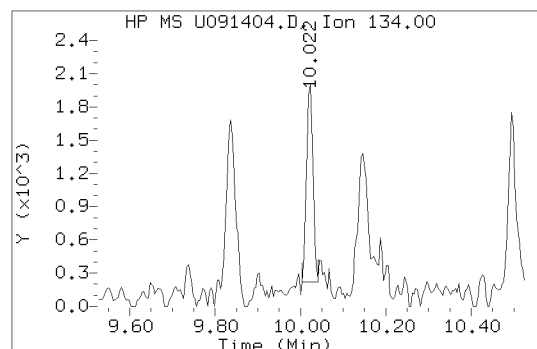
MASS
134
AREA
1895
HEIGHT
1783
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
105
AREA
14747
HEIGHT
7102
18-Sep-2023
12:30
linh
pham

**AFTER**

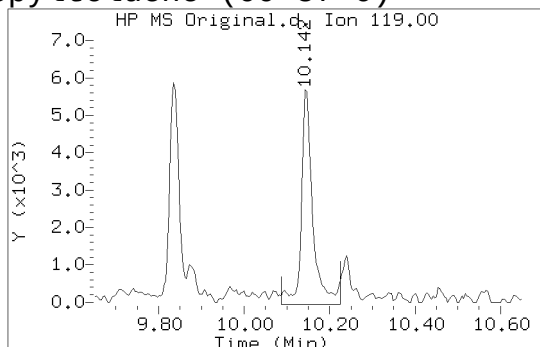
MASS
134
AREA
1895
HEIGHT
1783
18-Sep-2023
12:30
linh
pham

**Reason Code:**

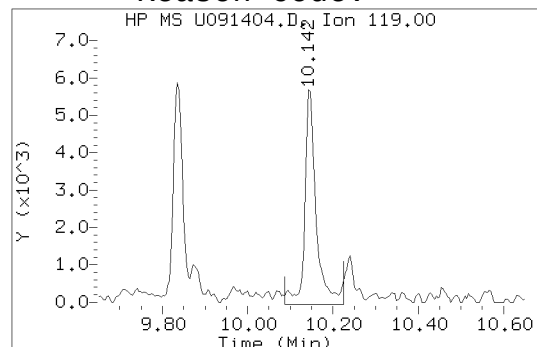
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

p-Isopropyltoluene (99-87-6)**BEFORE**

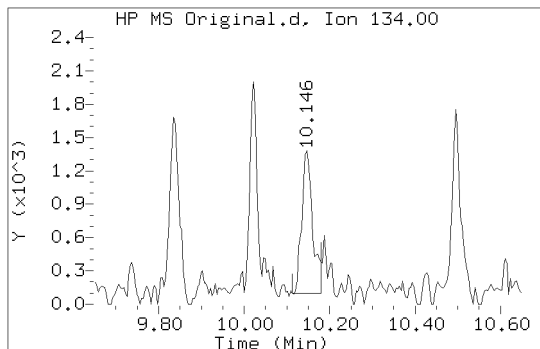
MASS
119
AREA
10971
HEIGHT
5738
18-Sep-2023
12:30
linh
pham

**AFTER**

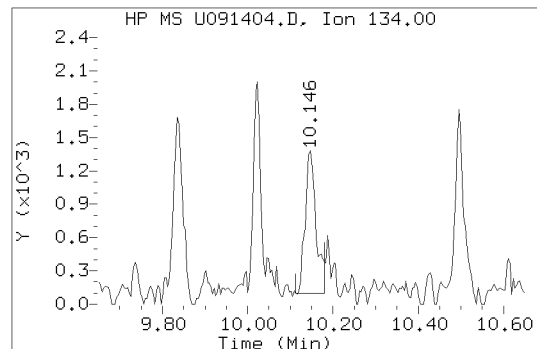
MASS
119
AREA
10971
HEIGHT
5738
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

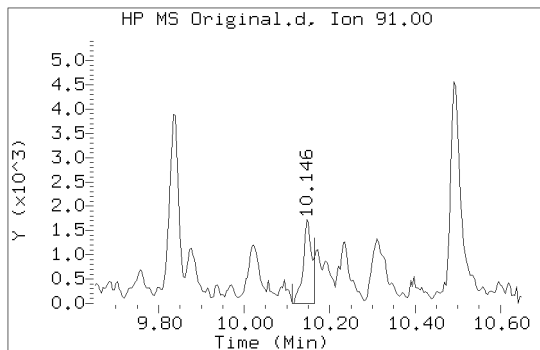
MASS
134
AREA
2324
HEIGHT
1281
18-Sep-2023
12:30
linh
pham

**AFTER**

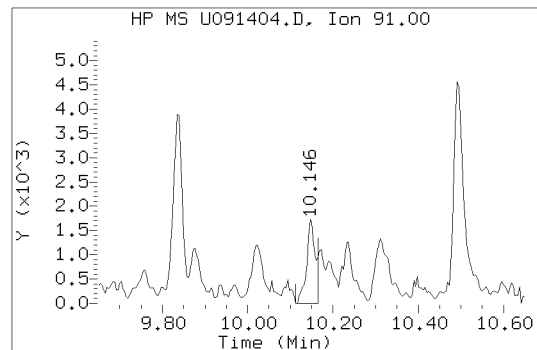
MASS
134
AREA
2324
HEIGHT
1281
18-Sep-2023
12:30
linh
pham

**BEFORE**

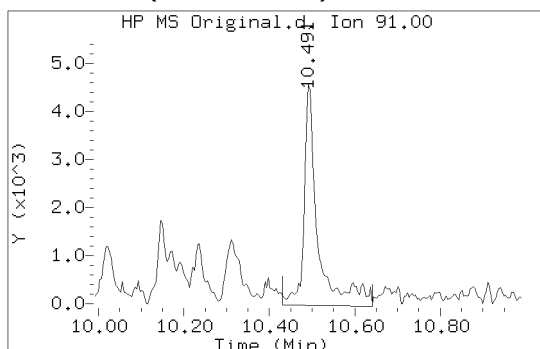
MASS
91
AREA
2549
HEIGHT
1733
18-Sep-2023
12:30
linh
pham

**AFTER**

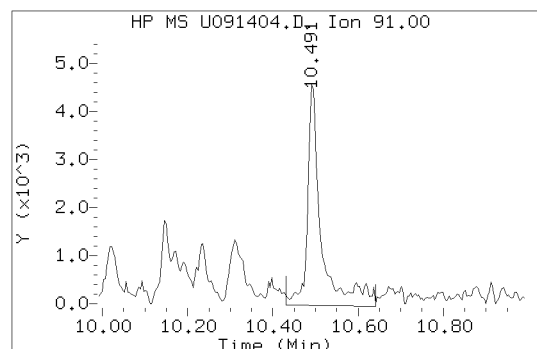
MASS
91
AREA
2549
HEIGHT
1733
18-Sep-2023
12:30
linh
pham

**n-Butylbenzene (104-51-8)****BEFORE**

MASS
91
AREA
10524
HEIGHT
4594
18-Sep-2023
12:30
linh
pham

**AFTER**

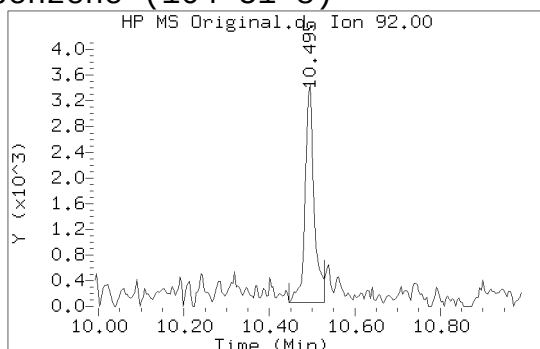
MASS
91
AREA
10524
HEIGHT
4594
18-Sep-2023
12:30
linh
pham

Reason Code:

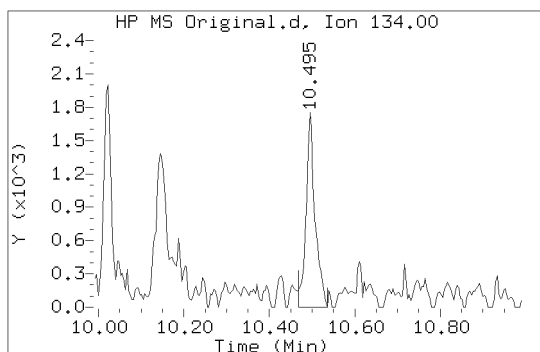
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

n-Butylbenzene (104-51-8)**BEFORE**

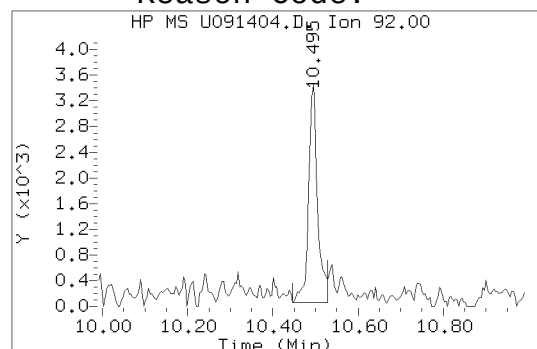
MASS
92
AREA
5135
HEIGHT
3395
18-Sep-2023
12:30
linh

**BEFORE**

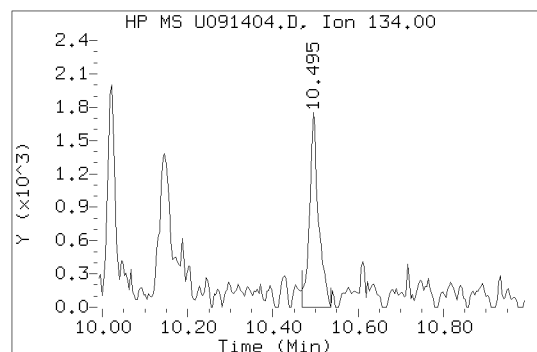
MASS
134
AREA
2625
HEIGHT
1752
18-Sep-2023
12:30
linh
pham

**AFTER**

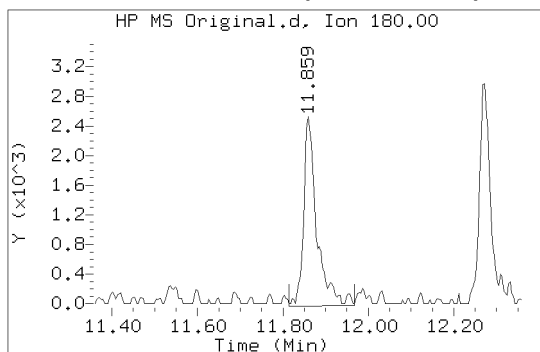
MASS
92
AREA
5135
HEIGHT
3395
18-Sep-2023
12:30
linh

**AFTER**

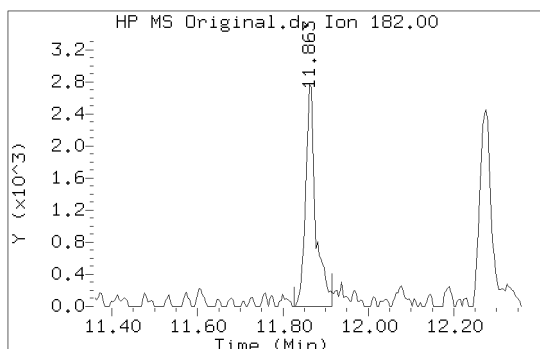
MASS
134
AREA
2625
HEIGHT
1752
18-Sep-2023
12:30
linh
pham

**Reason Code:****1,2,4-Trichlorobenzene (120-82-1)****BEFORE**

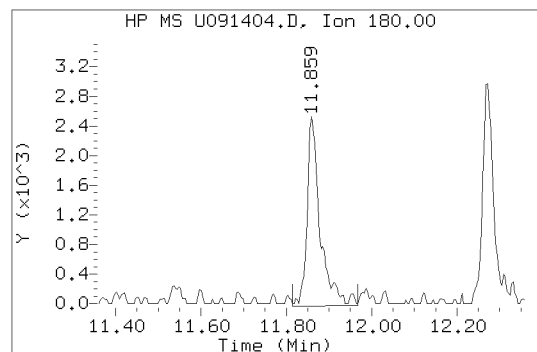
MASS
180
AREA
5578
HEIGHT
2558
18-Sep-2023
12:30
linh
pham

**BEFORE**

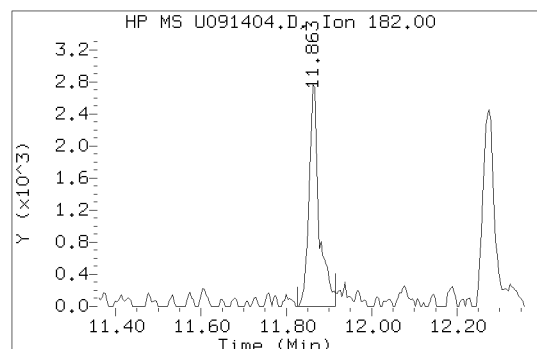
MASS
182
AREA
4594
HEIGHT
2764
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
180
AREA
5578
HEIGHT
2558
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
182
AREA
4594
HEIGHT
2764
18-Sep-2023
12:30
linh
pham

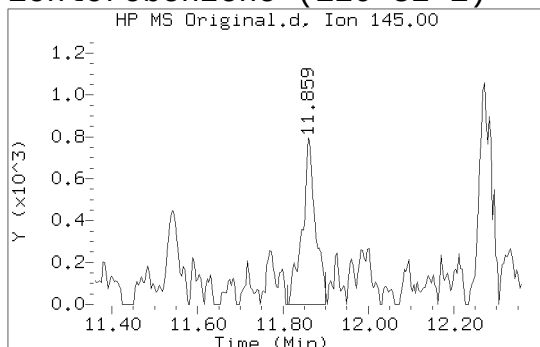
**Reason Code:**

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

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

BEFORE

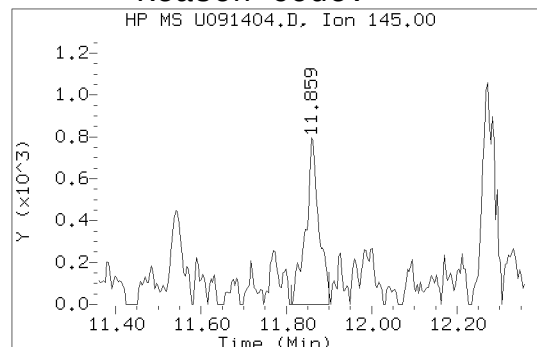
MASS
145
AREA
1727
HEIGHT
795
18-Sep-2023
12:30
linh
pham



AFTER

MASS
145
AREA
1727
HEIGHT
795
18-Sep-2023
12:30
linh
pham

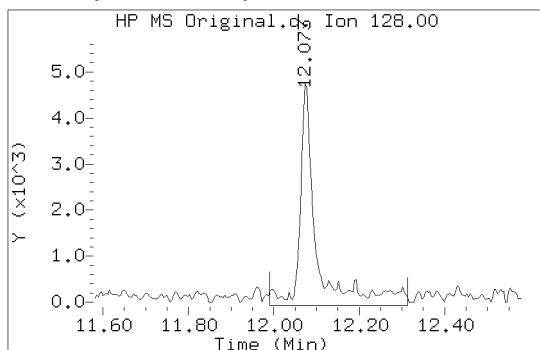
Reason Code:



Naphthalene (91-20-3)

BEFORE

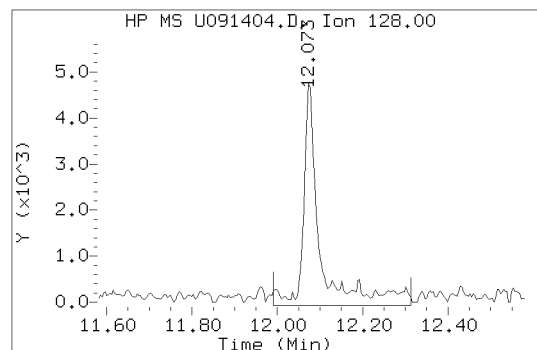
MASS
128
AREA
13176
HEIGHT
4813
18-Sep-2023
12:30
linh
pham



AFTER

MASS
128
AREA
13176
HEIGHT
4813
18-Sep-2023
12:30
linh
pham

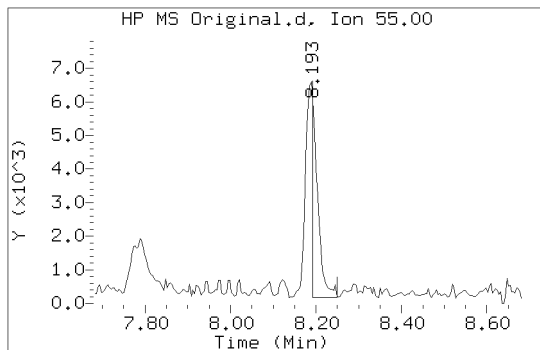
Reason Code:



1-Chlorohexane (544-10-5)

BEFORE

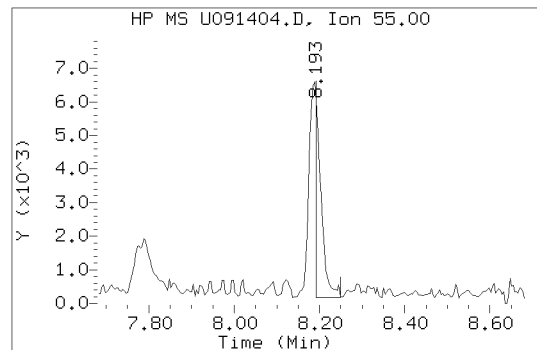
MASS
55
AREA
5582
HEIGHT
5875
18-Sep-2023
12:30
linh
pham



AFTER

MASS
55
AREA
5582
HEIGHT
5875
18-Sep-2023
12:30
linh
pham

Reason Code:

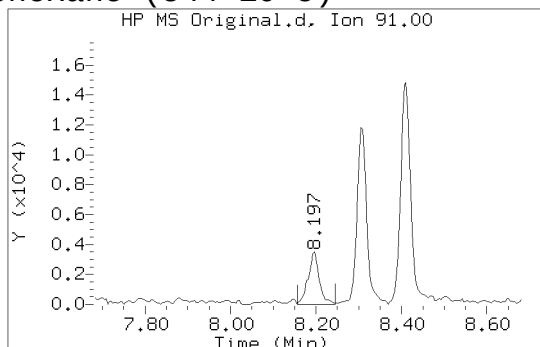


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

1-Chlorohexane (544-10-5)

BEFORE

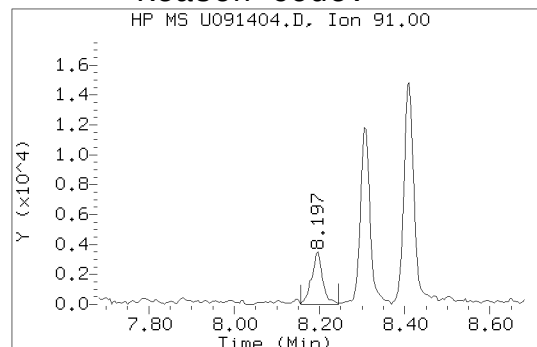
MASS
91
AREA
6348
HEIGHT
3532
18-Sep-2023
12:30
linh
pham



AFTER

MASS
91
AREA
6348
HEIGHT
3532
18-Sep-2023
12:30
linh
pham

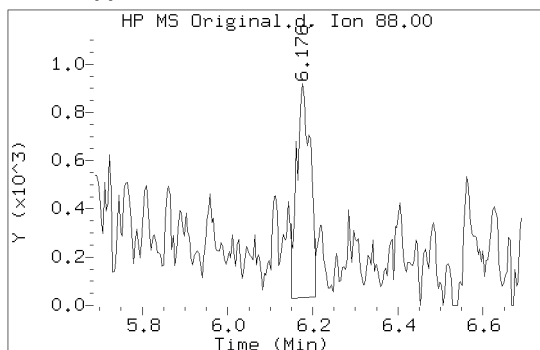
Reason Code:



1,4-Dioxane ()

BEFORE

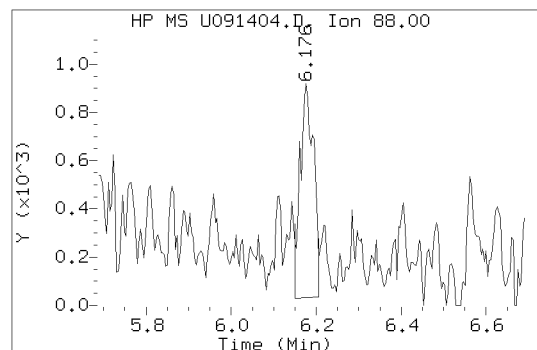
MASS
88
AREA
1976
HEIGHT
888
18-Sep-2023
12:30
linh
pham



AFTER

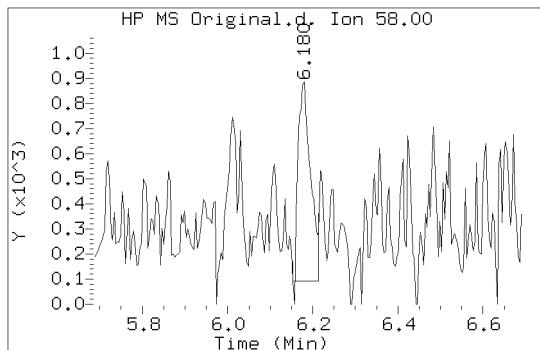
MASS
88
AREA
1976
HEIGHT
888
18-Sep-2023
12:30
linh
pham

Reason Code:



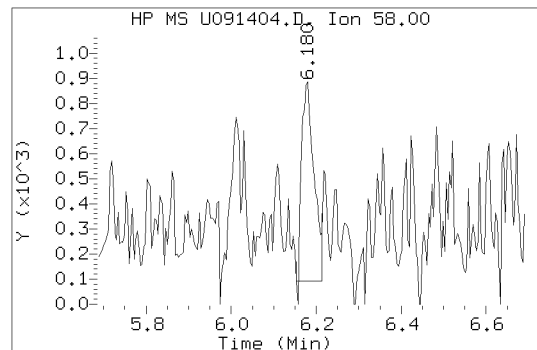
BEFORE

MASS
58
AREA
1583
HEIGHT
793
18-Sep-2023
12:30
linh
pham



AFTER

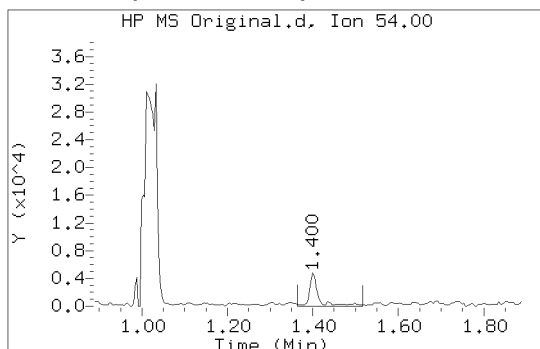
MASS
58
AREA
1583
HEIGHT
793
18-Sep-2023
12:30
linh
pham



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

BEFORE

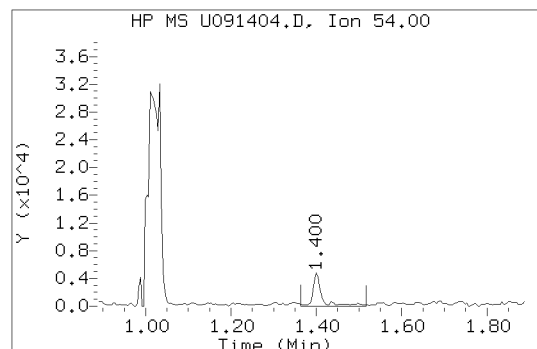
MASS
54
AREA
6763
HEIGHT
4736
18-Sep-2023
12:30
linh
pham



AFTER

MASS
54
AREA
6763
HEIGHT
4736
18-Sep-2023
12:30
linh
pham

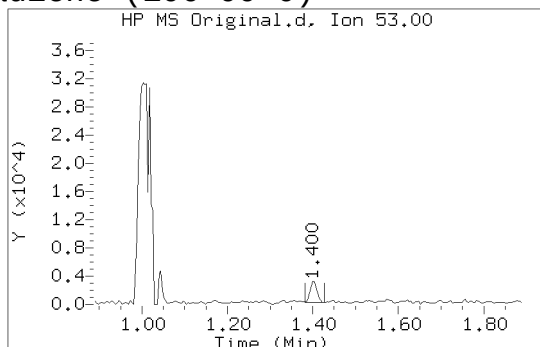
Reason Code:



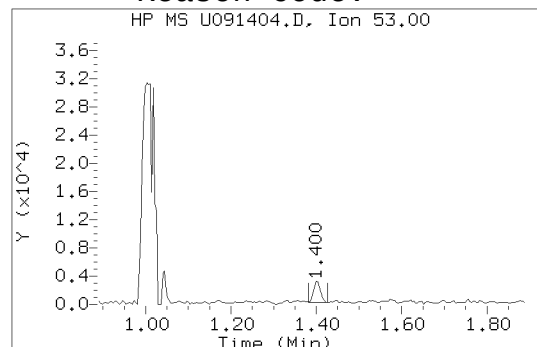
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Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

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

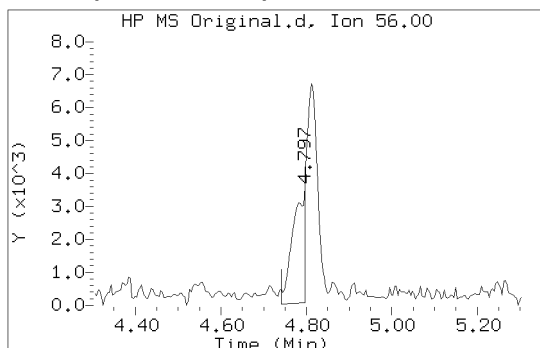
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53
AREA
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HEIGHT
3057
18-Sep-2023
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linh
pham

**AFTER**

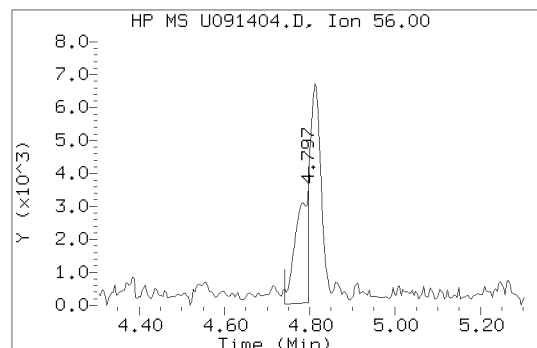
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53
AREA
3441
HEIGHT
3057
18-Sep-2023
12:30
linh
pham

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

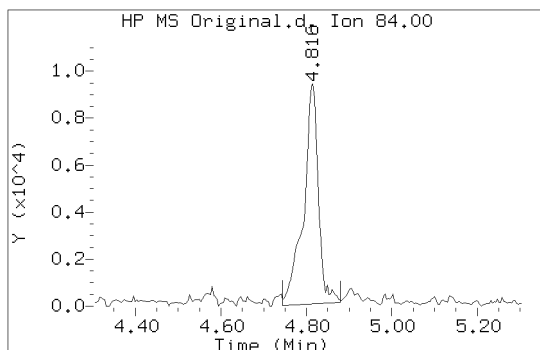
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**AFTER**

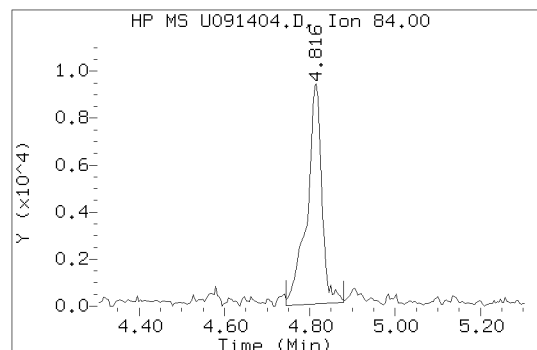
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AREA
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**BEFORE**

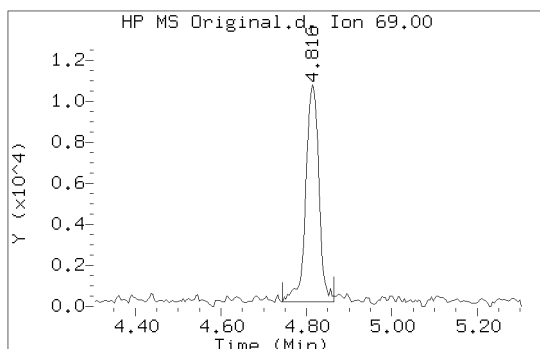
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**AFTER**

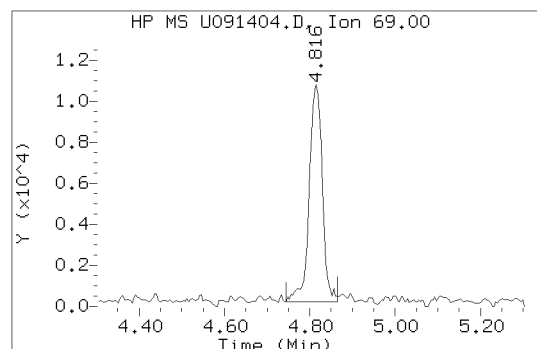
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**BEFORE**

MASS
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22855
HEIGHT
10596
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
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AREA
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HEIGHT
10596
18-Sep-2023
12:30
linh
pham

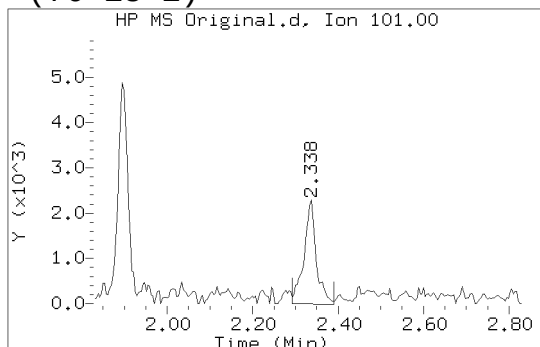


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Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Freon TF (76-13-1)

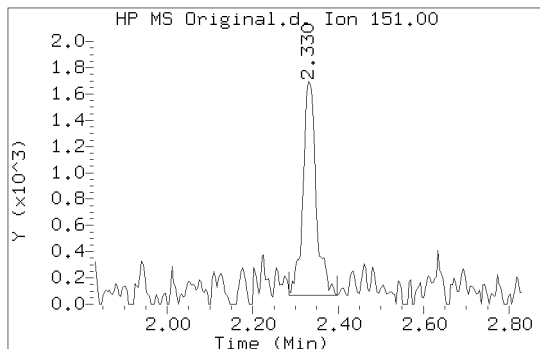
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HEIGHT
2302
18-Sep-2023
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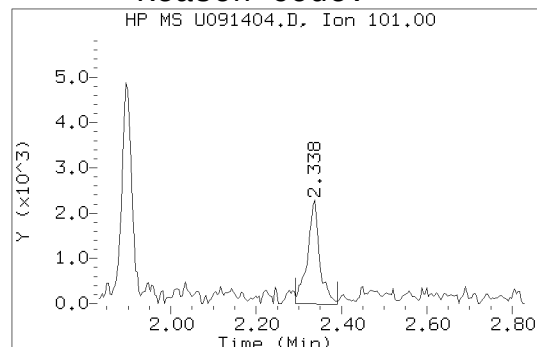
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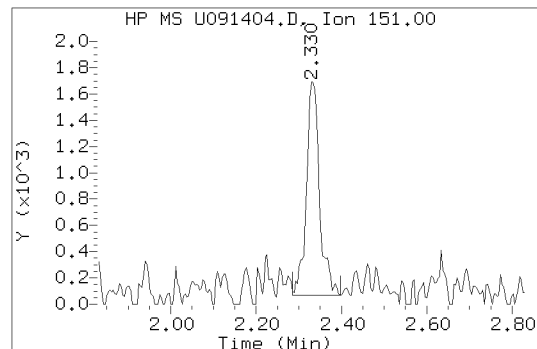
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12:30
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AFTER

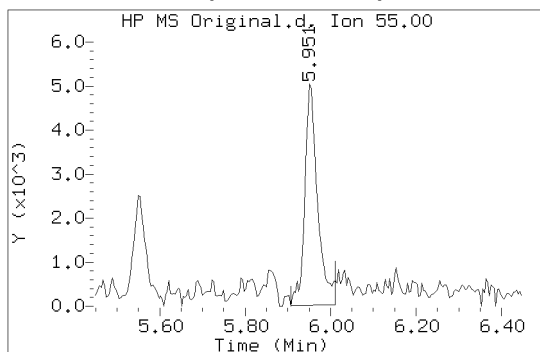
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12:30
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Methylcyclohexane (108-87-2)

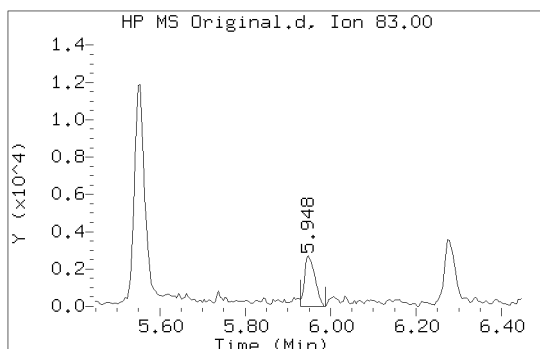
BEFORE

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AREA
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HEIGHT
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18-Sep-2023
12:30
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pham



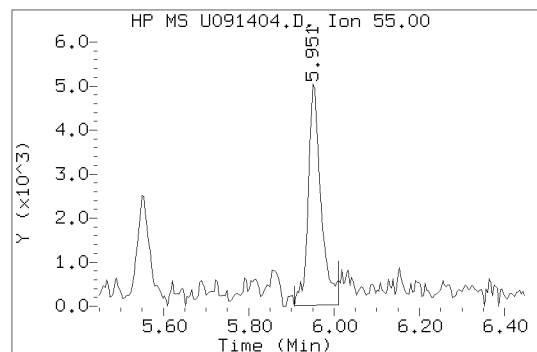
BEFORE

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HEIGHT
2721
18-Sep-2023
12:30
linh
pham



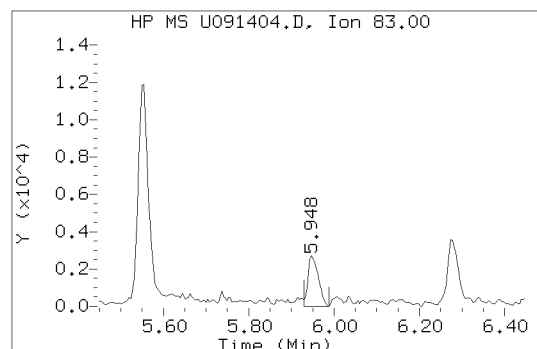
AFTER

MASS
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5027
18-Sep-2023
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AFTER

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HEIGHT
2721
18-Sep-2023
12:30
linh
pham

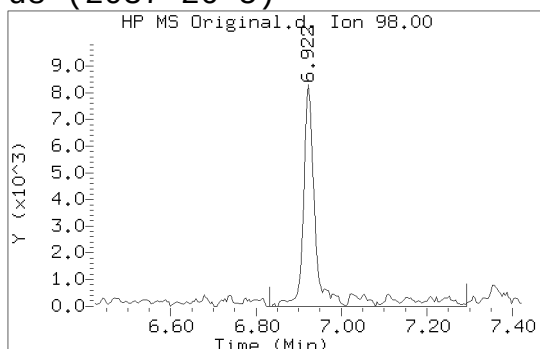


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091404.D
Inj Date : 14-SEP-2023 16:53
InstruID : VOA9.i
LabSampID : VSTD001

Toluene-d8 (2037-26-5)

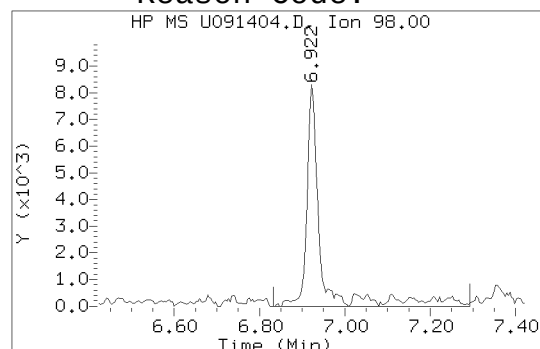
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AREA
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HEIGHT
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18-Sep-2023
12:30
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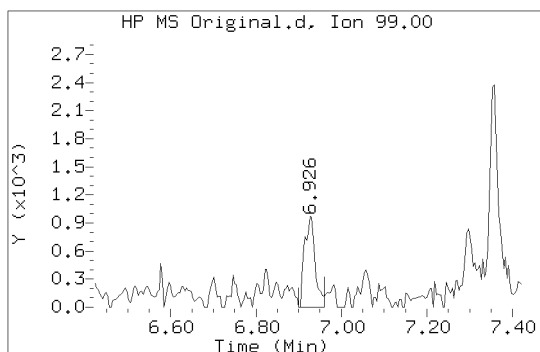
AFTER

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AREA
19157
HEIGHT
8311
18-Sep-2023
12:30
linh



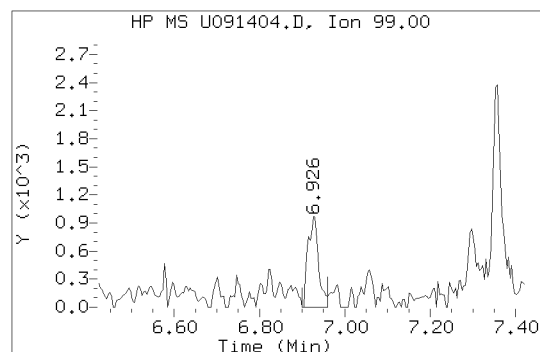
BEFORE

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18-Sep-2023
12:30
linh
pham



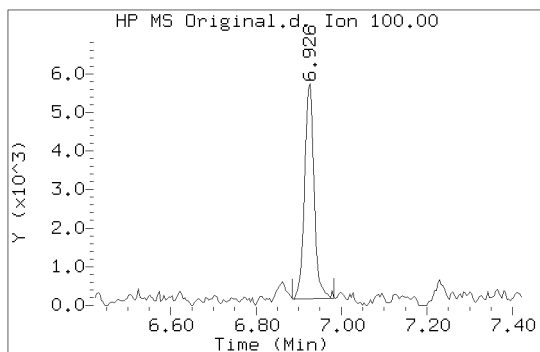
AFTER

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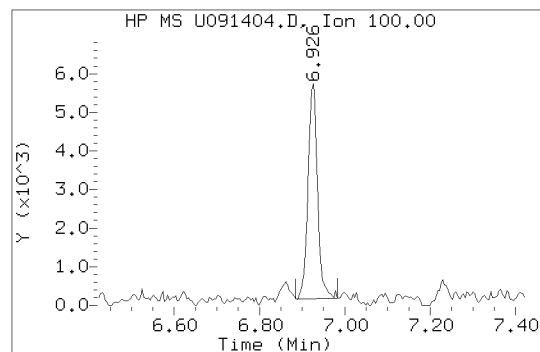
BEFORE

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AREA
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HEIGHT
5569
18-Sep-2023
12:30
linh
pham



AFTER

MASS
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AREA
8885
HEIGHT
5569
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D
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 Inj Date : 14-SEP-2023 17:15
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD002;VSTD002;1;4;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 16:53 Cal File: U091404.D
 Als bottle: 6 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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)	606881	50.0000		
2 Dichlorodifluoromethane	85		1.168	1.168	(0.243)	13431	2.00000	3.30(M)	
3 Chloromethane	50		1.299	1.299	(0.270)	29214	2.00000	1.68	
5 Vinyl Chloride	62		1.382	1.382	(0.287)	14895	2.00000	1.93	
6 Bromomethane	94		1.625	1.625	(0.338)	10105	2.00000	3.11(M)	
7 Chloroethane	64		1.704	1.704	(0.354)	11821	2.00000	2.08	
8 Trichlorofluoromethane	101		1.899	1.899	(0.394)	20825	2.00000	2.10(M)	
9 Acrolein	56		2.274	2.274	(0.472)	2075	4.00000	3.98(M)	
10 Acetone	43		2.416	2.416	(0.502)	19383	4.00000	4.27	
11 1,1-Dichloroethene	96		2.337	2.337	(0.485)	12933	2.00000	2.15(M)	
15 Iodomethane	142		2.472	2.472	(0.513)	12296	4.00000	6.93	
16 Acrylonitrile	53		3.068	3.068	(0.637)	12211	4.00000	3.44	
17 Methylene Chloride	84		2.799	2.799	(0.581)	21334	2.00000	4.39(M)	
18 Methyl tert-butyl ether	73		3.087	3.087	(0.641)	27689	2.00000	1.62	
19 Carbon Disulfide	76		2.525	2.525	(0.524)	70966	4.00000	4.37	
20 trans-1,2-Dichloroethene	96		3.061	3.061	(0.636)	12553	2.00000	1.99	
21 Vinyl Acetate	43		3.616	3.616	(0.751)	80121	4.00000	3.59	
22 1,1-Dichloroethane	63		3.518	3.518	(0.731)	27731	2.00000	2.19	
24 2-Butanone	43		4.276	4.276	(0.888)	14473	4.00000	3.93(M)	
26 2,2-Dichloropropane	77		4.182	4.182	(0.868)	14529	2.00000	1.89	



27 cis-1,2-Dichloroethene	96	4.201	4.201 (0.872)	14265	2.00000	1.97
28 Chloroform	83	4.575	4.575 (0.950)	26651	2.00000	2.17

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D Page 2

Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.470	4.470	(0.928)	8526	2.00000	2.25(M)
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	11893	2.00000	2.34
31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	17998	2.00000	2.15(M)
32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	15645	2.00000	2.09
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	17735	2.00000	1.95
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	12927	2.00000	1.93
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.060)	13220	2.00000	1.97
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	939835	50.0000	
37 Benzene	78	5.141	5.141	(0.926)	47178	2.00000	1.99
38 Trichloroethene	130	5.794	5.794	(1.043)	15066	2.00000	2.19(M)
39 Bromodichloromethane	83	6.281	6.281	(1.131)	14635	2.00000	1.91
41 2-Chloroethylvinyl ether	63	6.543	6.543	(1.178)	139	4.00000	4.59(M)
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	13398	2.00000	2.14(M)
44 Dibromomethane	93	6.120	6.120	(1.102)	8803	2.00000	2.05
45 4-Methyl-2-Pentanone	43	6.862	6.862	(0.838)	19237	4.00000	5.33
46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.206)	14220	2.00000	4.55(M)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	901567	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	35573	2.00000	1.78(M)
50 Toluene	91	6.982	6.982	(0.853)	44481	2.00000	1.83
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	11642	2.00000	3.82(M)
52 2-Hexanone	43	7.601	7.601	(0.929)	15646	4.00000	3.82
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	11142	2.00000	2.11
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	21891	2.00000	2.06
55 Dibromochloromethane	129	7.691	7.691	(0.940)	11356	2.00000	1.80
56 Tetrachloroethene	164	7.458	7.458	(0.911)	11547	2.00000	2.04
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	11608	2.00000	1.82
58 1-Chlorohexane	55	8.193	8.193	(1.475)	10420	2.00000	1.83(M)
59 Chlorobenzene	112	8.212	8.212	(1.003)	37490	2.00000	2.09
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	11197	2.00000	1.86
61 Ethylbenzene	106	8.305	8.305	(1.015)	14914	2.00000	1.86(M)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	38808	4.00000	3.84(M)
63 o-Xylene	106	8.748	8.748	(1.069)	19710	2.00000	1.88(M)
64 Styrene	104	8.763	8.763	(1.071)	30031	2.00000	1.86(M)
66 Bromoform	173	8.920	8.920	(1.090)	7208	2.00000	4.97
67 Isopropylbenzene	105	9.063	9.063	(1.107)	40776	2.00000	3.11(M)
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	17491	2.00000	1.97
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	14167	2.00000	1.57
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	454839	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	13247	2.00000	1.75
73 n-Propylbenzene	91	9.411	9.411	(0.925)	40048	2.00000	4.35(M)
74 Bromobenzene	156	9.321	9.321	(0.916)	13813	2.00000	1.91
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	30884	2.00000	1.80(M)
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	33180	2.00000	1.96(M)
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	33779	2.00000	1.70(M)
78 tert-Butylbenzene	119	9.835	9.835	(0.967)	30827	2.00000	1.87(M)
79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	30377	2.00000	1.72(M)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	37386	2.00000	3.42(M)
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	30473	2.00000	3.46(M)
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	25618	2.00000	2.00
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	30440	2.00000	2.12
87 n-Butylbenzene	91	10.495	10.495	(1.032)	25685	2.00000	3.60(M)
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	26803	2.00000	2.05



89	1,2-Dibromo-3-Chloropropane	155	11.173	11.173 (1.098)	2172	2.00000	1.97
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	14590	2.00000	1.96(M)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D Page 3

Report Date: 18-Sep-2023 12:31

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)	7172	2.00000	2.15
92 Naphthalene	128	12.069	12.069	(1.186)	27784	2.00000	4.02(M)
93 1,2,3-Trichlorobenzene	180	12.275	12.275	(1.207)	11584	2.00000	1.64
M 94 1,2-Dichloroethylene (total)	96				26818	4.00000	
M 95 Xylenes (total)	106				58518	6.00000	
135 1,4-Dioxane	88	6.176	6.176	(1.283)	3297	40.0000	37.37(M)
141 Cyclohexane	56	4.782	4.782	(0.993)	16765	2.00000	2.60(H)
138 Freon TF	101	2.337	2.337	(0.485)	11603	2.00000	2.57(M)
140 1,3-Butadiene	54	1.404	1.404	(0.292)	13976	2.00000	1.94
147 Methylcyclohexane	55	5.951	5.951	(1.072)	23709	2.00000	1.72(M)
146 Methyl Acetate	43	2.720	2.720	(0.565)	15728	2.00000	2.13
148 Tert-Butyl alcohol	59	2.975	2.975	(0.618)	29883	40.0000	40.18(a)
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	23428	40.0000	43.91(T)

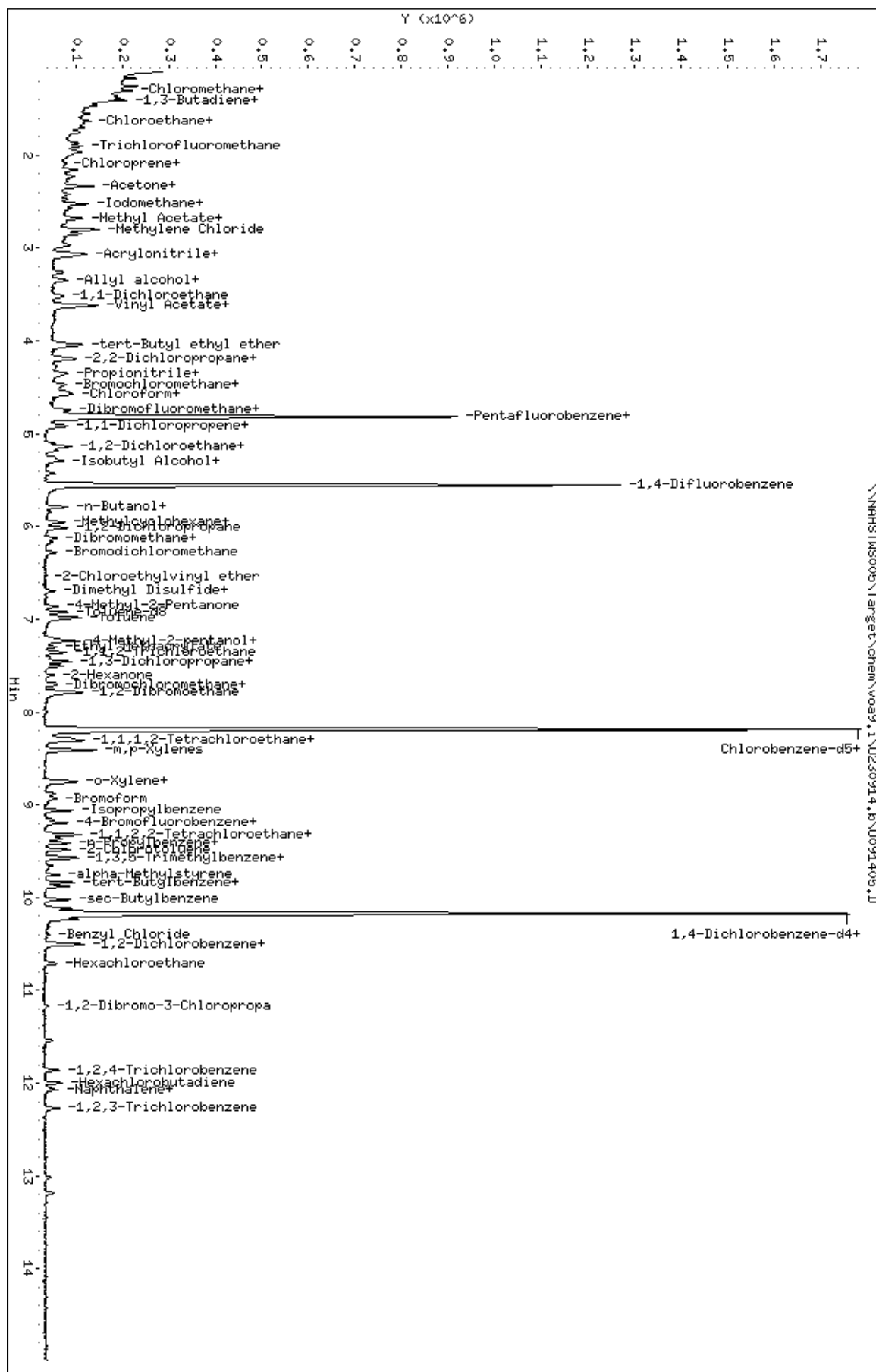
QC Flag Legend

- 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\U230914.b\U091405.D
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 Column phase: DB624

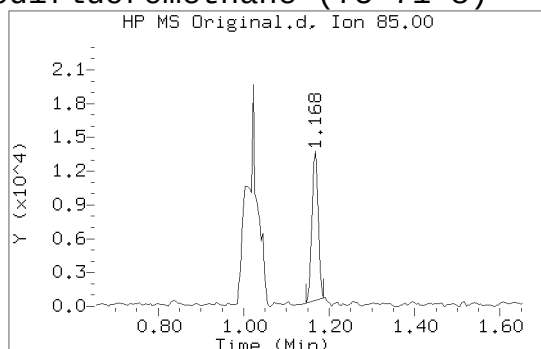
Instrument: VOA9.1
 Operator: PC
 Column diameter: 0.18



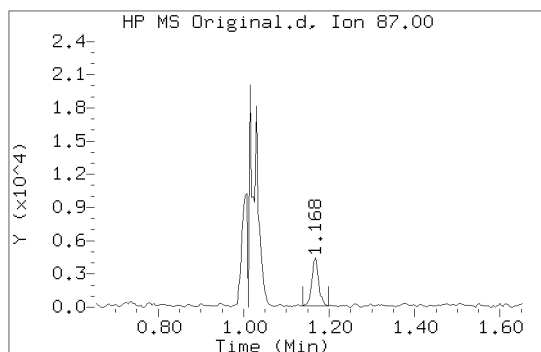
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Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Dichlorodifluoromethane (75-71-8)**BEFORE**

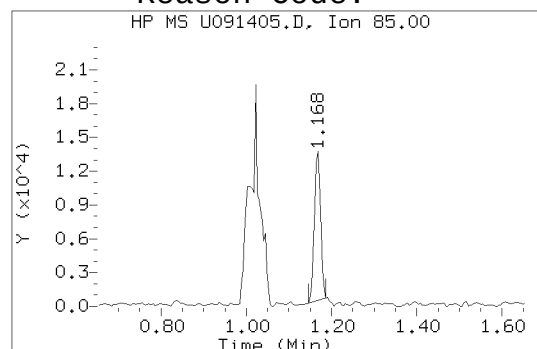
MASS
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AREA
13431
HEIGHT
13229
18-Sep-2023
12:30
linh

**BEFORE**

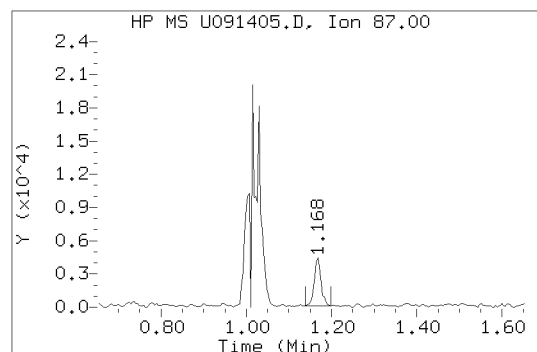
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18-Sep-2023
12:30
linh
pham

**AFTER**

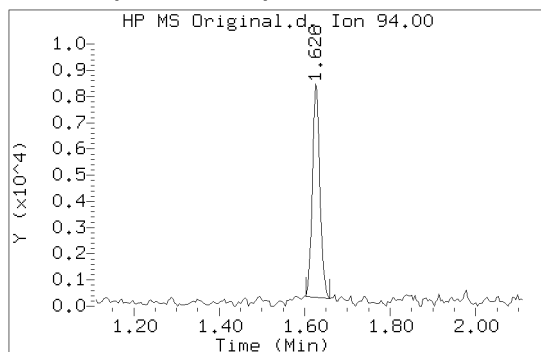
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18-Sep-2023
12:30
linh

**AFTER**

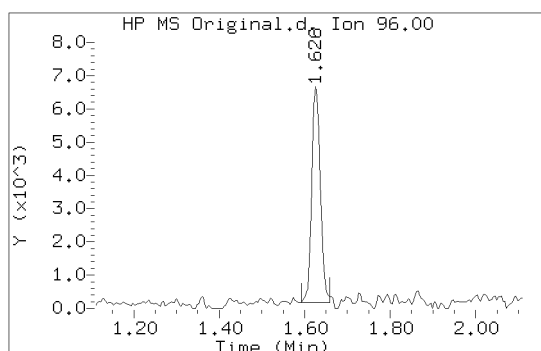
MASS
87
AREA
4877
HEIGHT
4400
18-Sep-2023
12:30
linh
pham

**Bromomethane (74-83-9)****BEFORE**

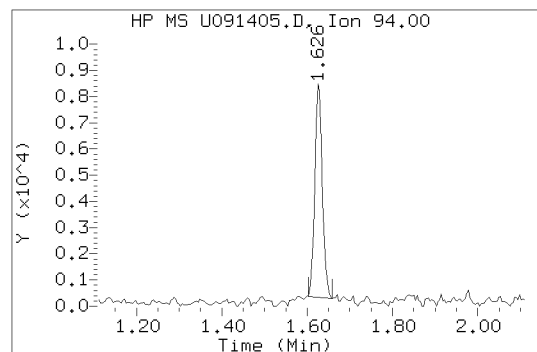
MASS
94
AREA
10105
HEIGHT
8143
18-Sep-2023
12:30
linh
pham

**BEFORE**

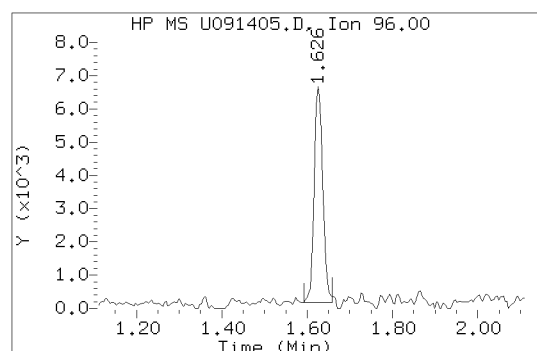
MASS
96
AREA
9375
HEIGHT
6502
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
94
AREA
10105
HEIGHT
8143
18-Sep-2023
12:30
linh
pham

**AFTER**

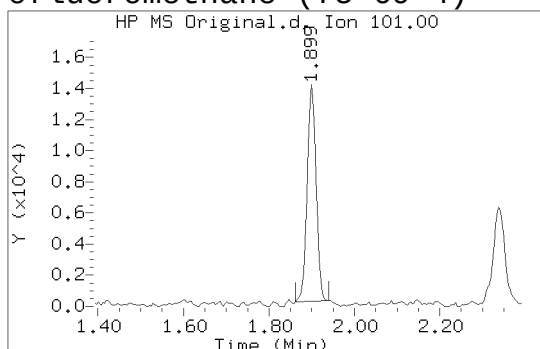
MASS
96
AREA
9375
HEIGHT
6502
18-Sep-2023
12:30
linh
pham



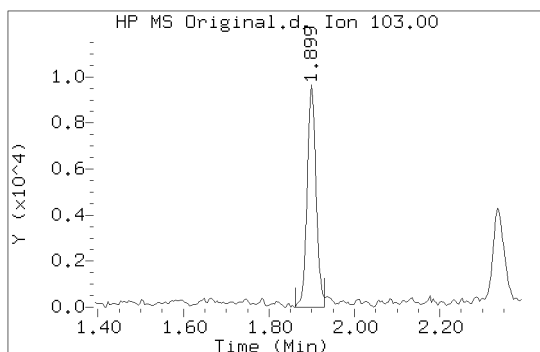
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

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

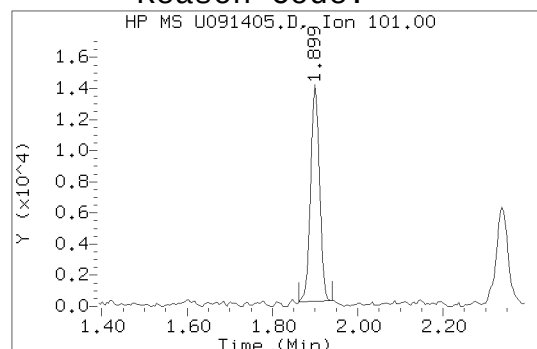
MASS
101
AREA
20825
HEIGHT
13925
18-Sep-2023
12:30
linh

**BEFORE**

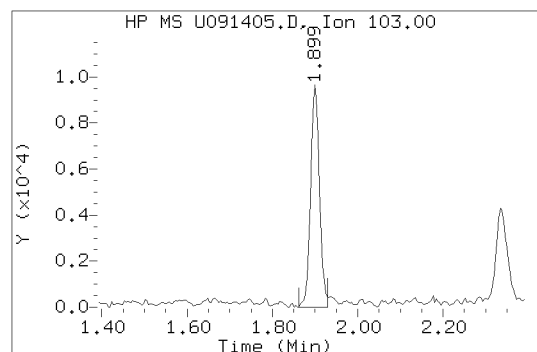
MASS
103
AREA
14400
HEIGHT
9653
18-Sep-2023
12:30
linh
pham

**AFTER**

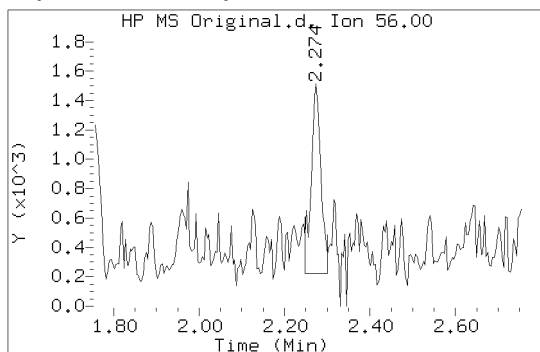
MASS
101
AREA
20825
HEIGHT
13925
18-Sep-2023
12:30
linh

**AFTER**

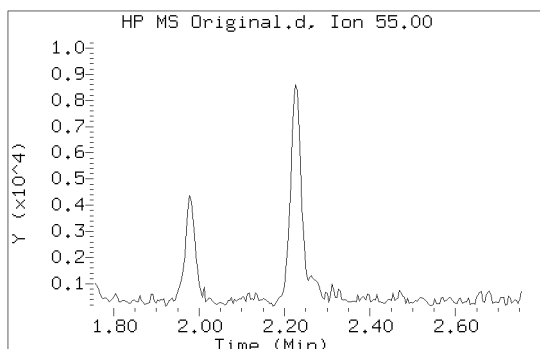
MASS
103
AREA
14400
HEIGHT
9653
18-Sep-2023
12:30
linh
pham

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

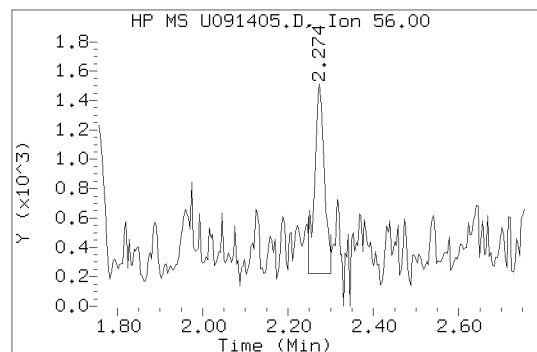
MASS
56
AREA
2075
HEIGHT
1289
18-Sep-2023
12:30
linh
pham

**BEFORE**

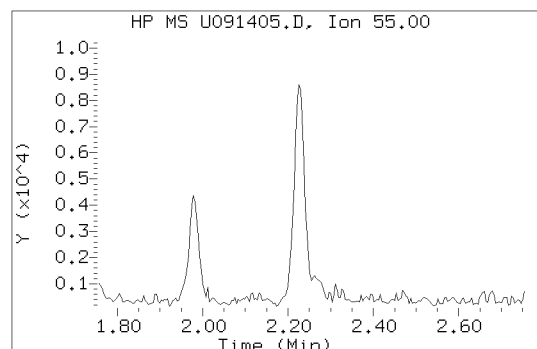
MASS
55
AREA
1182
HEIGHT
715
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
56
AREA
2075
HEIGHT
1289
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
55
AREA
1182
HEIGHT
715
18-Sep-2023
12:30
linh
pham

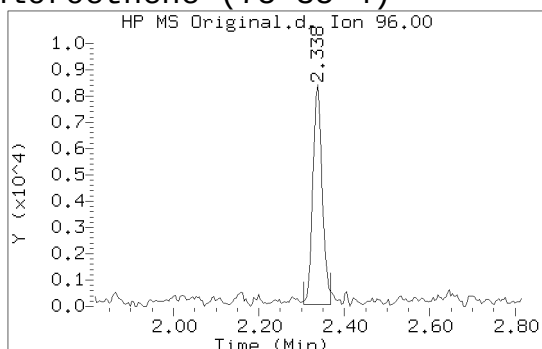


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

1,1-Dichloroethene (75-35-4)

BEFORE

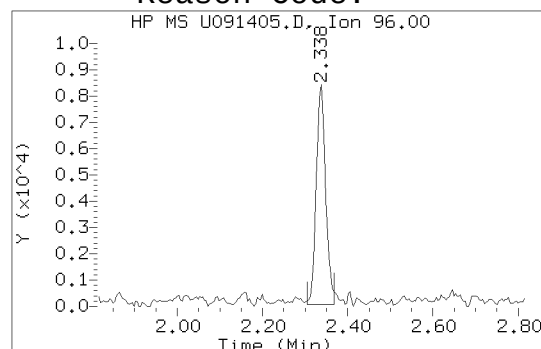
MASS
96
AREA
12933
HEIGHT
8352
18-Sep-2023
12:30
linh



AFTER

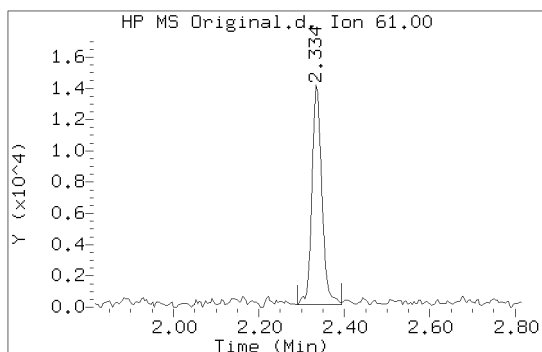
MASS
96
AREA
12933
HEIGHT
8352
18-Sep-2023
12:30
linh

Reason Code:



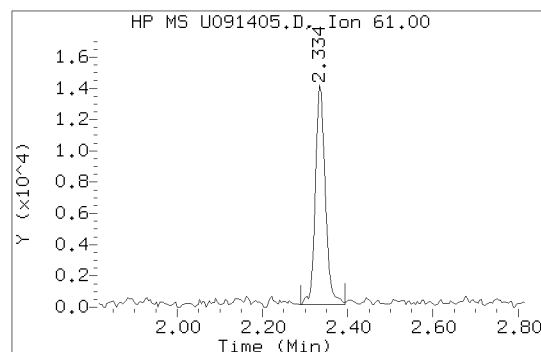
BEFORE

MASS
61
AREA
22923
HEIGHT
14042
18-Sep-2023
12:30
linh
pham



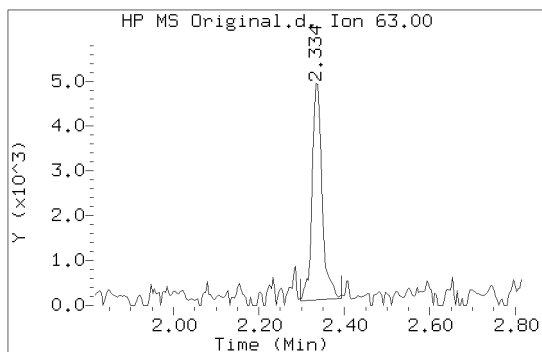
AFTER

MASS
61
AREA
22923
HEIGHT
14042
18-Sep-2023
12:30
linh
pham



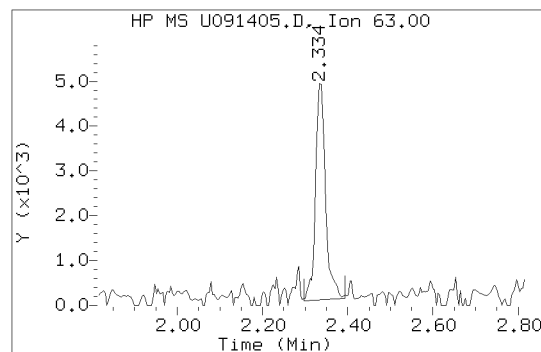
BEFORE

MASS
63
AREA
8018
HEIGHT
4827
18-Sep-2023
12:30
linh
pham



AFTER

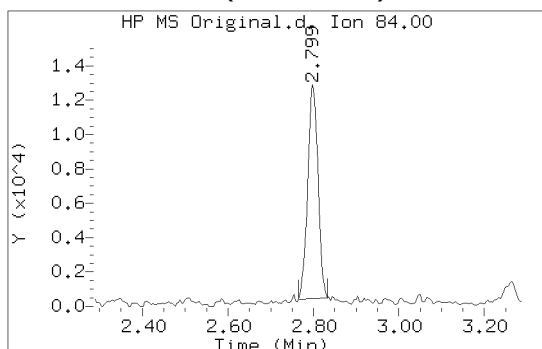
MASS
63
AREA
8018
HEIGHT
4827
18-Sep-2023
12:30
linh
pham



Methylene Chloride (75-09-2)

BEFORE

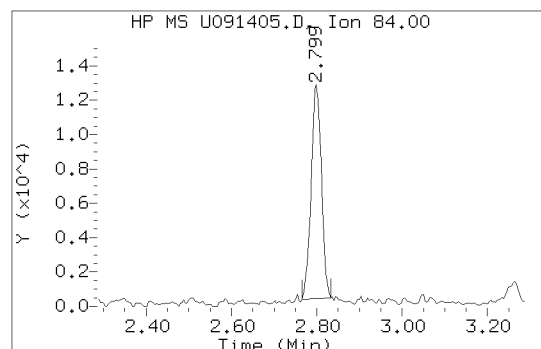
MASS
84
AREA
21334
HEIGHT
12461
18-Sep-2023
12:30
linh
pham



AFTER

MASS
84
AREA
21334
HEIGHT
12461
18-Sep-2023
12:30
linh
pham

Reason Code:

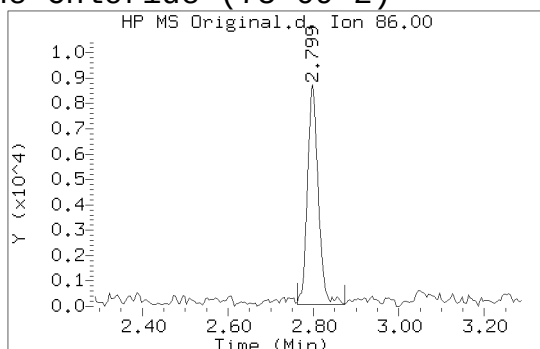


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Methylene Chloride (75-09-2)

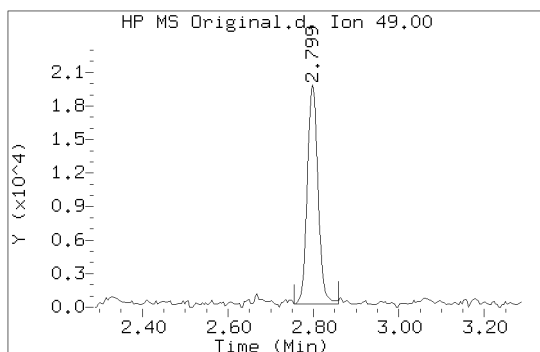
BEFORE

MASS
86
AREA
15642
HEIGHT
8668
18-Sep-2023
12:30
linh



BEFORE

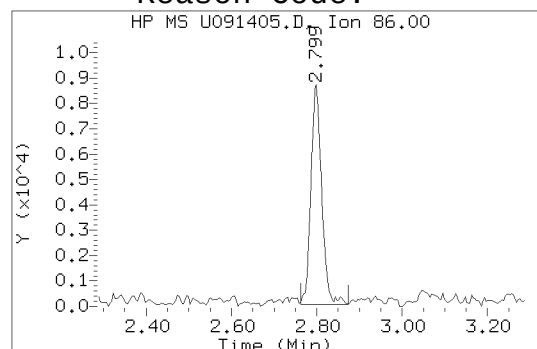
MASS
49
AREA
35009
HEIGHT
19575
18-Sep-2023
12:30
linh
pham



Reason Code:

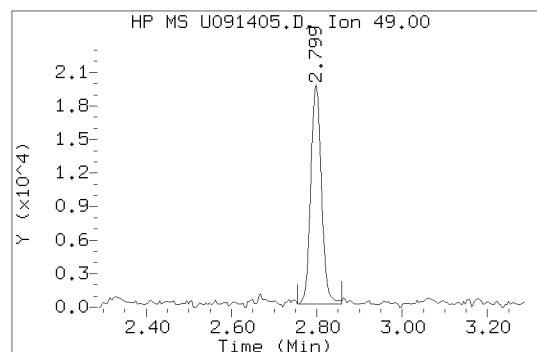
AFTER

MASS
86
AREA
15642
HEIGHT
8668
18-Sep-2023
12:30
linh



AFTER

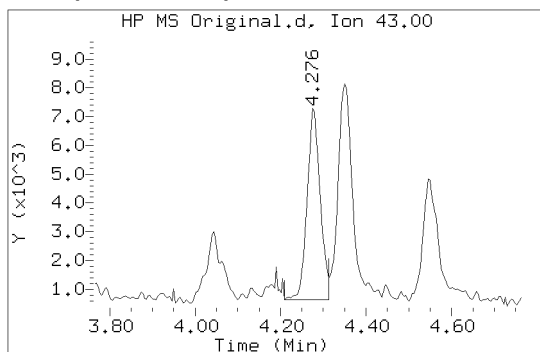
MASS
49
AREA
35009
HEIGHT
19575
18-Sep-2023
12:30
linh
pham



2-Butanone (78-93-3)

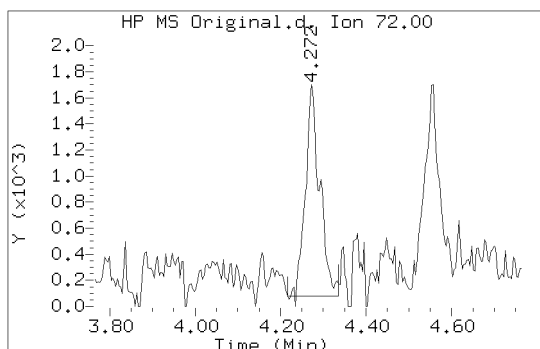
BEFORE

MASS
43
AREA
14473
HEIGHT
6657
18-Sep-2023
12:30
linh
pham



BEFORE

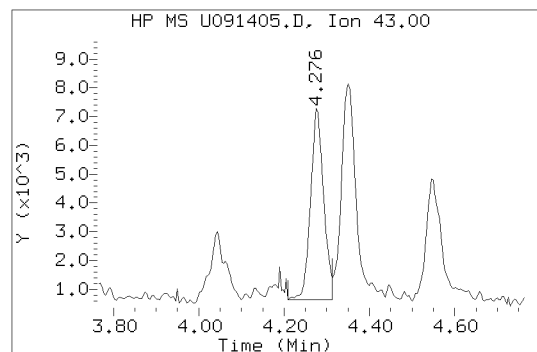
MASS
72
AREA
3852
HEIGHT
1624
18-Sep-2023
12:30
linh
pham



Reason Code:

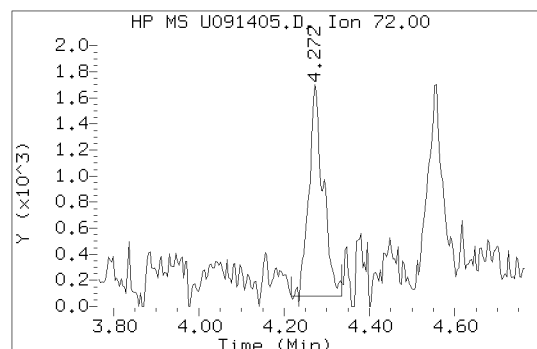
AFTER

MASS
43
AREA
14473
HEIGHT
6657
18-Sep-2023
12:30
linh
pham



AFTER

MASS
72
AREA
3852
HEIGHT
1624
18-Sep-2023
12:30
linh
pham

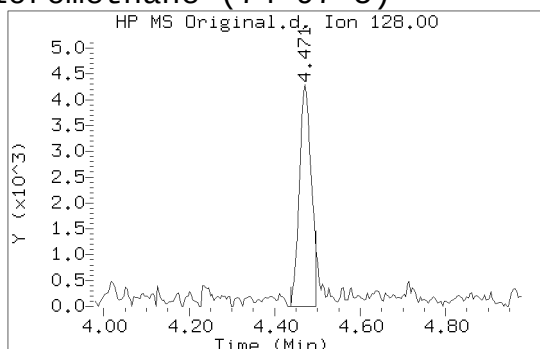


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D
 Inj Date : 14-SEP-2023 17:15
 InstruID : VOA9.i
 LabSampID : VSTD002

Bromochloromethane (74-97-5)

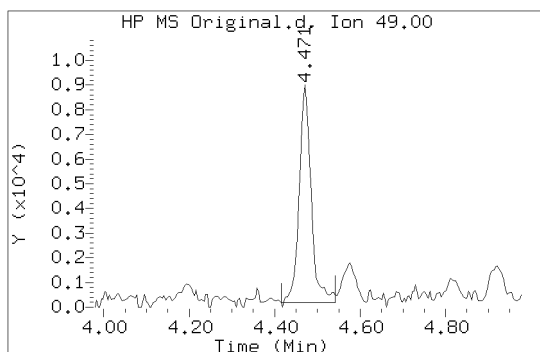
BEFORE

MASS
128
AREA
8526
HEIGHT
4291
18-Sep-2023
12:30
linh



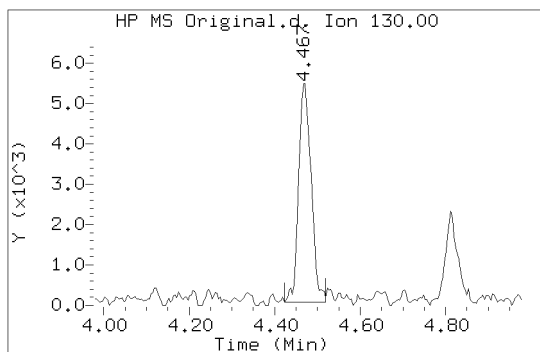
BEFORE

MASS
49
AREA
17595
HEIGHT
8817
18-Sep-2023
12:30
linh
pham



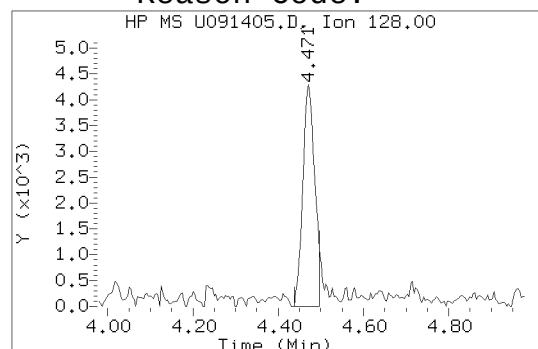
BEFORE

MASS
130
AREA
11331
HEIGHT
5416
18-Sep-2023
12:30
linh
pham



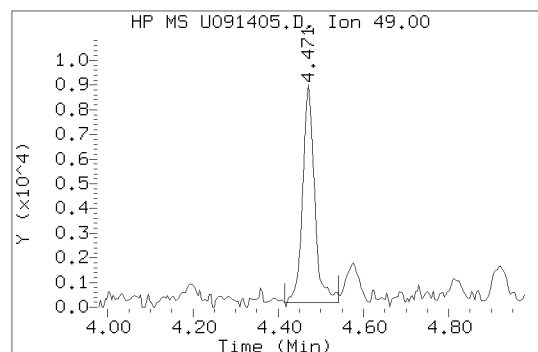
AFTER

MASS
128
AREA
8526
HEIGHT
4291
18-Sep-2023
12:30
linh



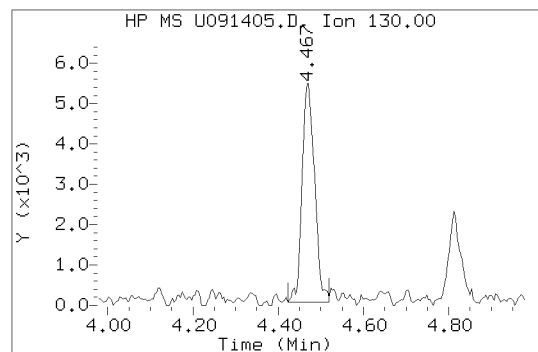
AFTER

MASS
49
AREA
17595
HEIGHT
8817
18-Sep-2023
12:30
linh
pham



AFTER

MASS
130
AREA
11331
HEIGHT
5416
18-Sep-2023
12:30
linh
pham

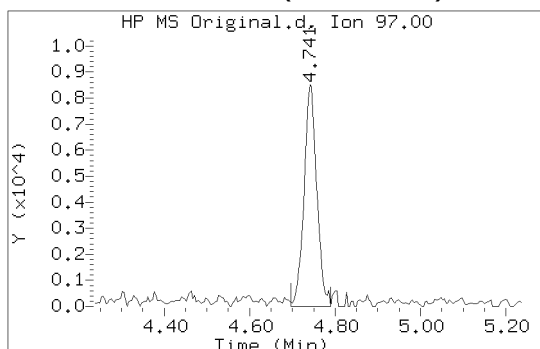


Reason Code:

1,1,1-Trichloroethane (71-55-6)

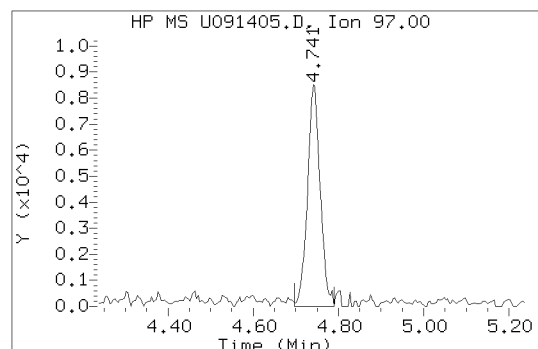
BEFORE

MASS
97
AREA
17998
HEIGHT
8513
18-Sep-2023
12:30
linh
pham



AFTER

MASS
97
AREA
17998
HEIGHT
8513
18-Sep-2023
12:30
linh
pham



Reason Code:

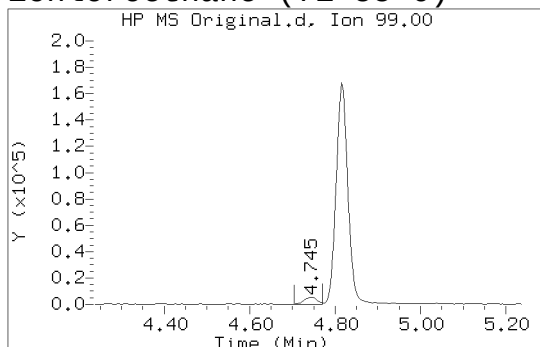


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

1,1,1-Trichloroethane (71-55-6)

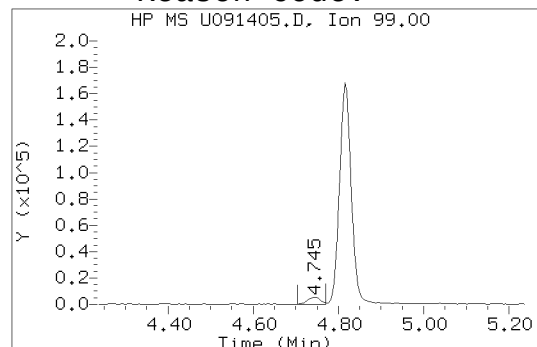
BEFORE

MASS
99
AREA
11140
HEIGHT
5410
18-Sep-2023
12:30
linh



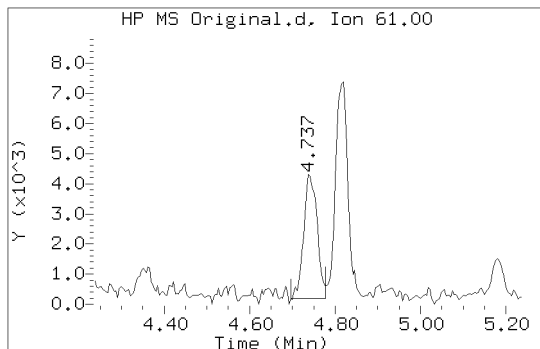
AFTER

MASS
99
AREA
11140
HEIGHT
5410
18-Sep-2023
12:30
linh



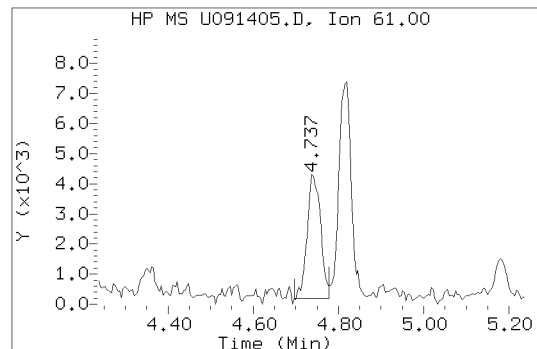
BEFORE

MASS
61
AREA
9216
HEIGHT
4125
18-Sep-2023
12:30
linh
pham



AFTER

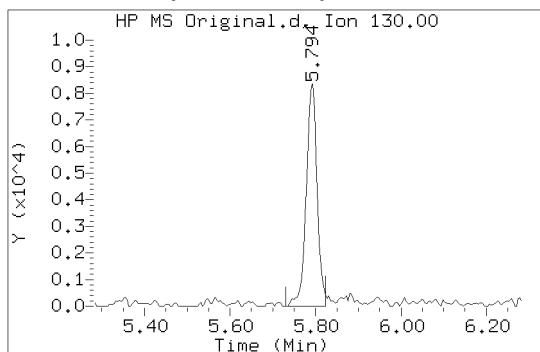
MASS
61
AREA
9216
HEIGHT
4125
18-Sep-2023
12:30
linh
pham



Trichloroethene (79-01-6)

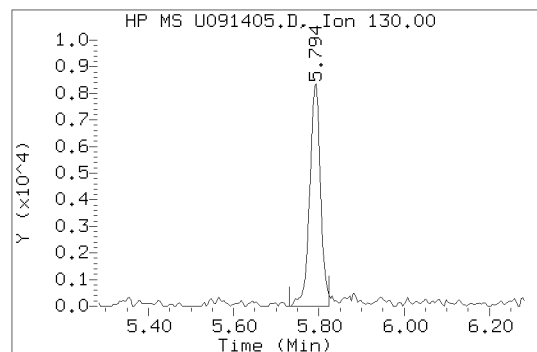
BEFORE

MASS
130
AREA
15066
HEIGHT
8354
18-Sep-2023
12:30
linh
pham



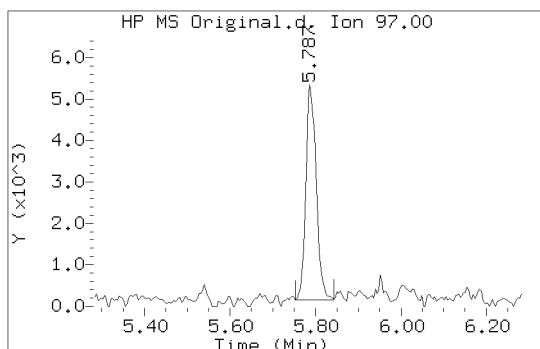
AFTER

MASS
130
AREA
15066
HEIGHT
8354
18-Sep-2023
12:30
linh
pham



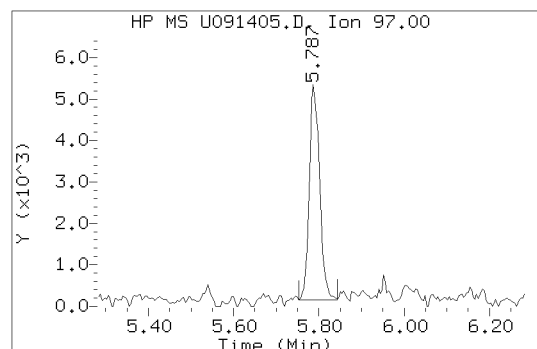
BEFORE

MASS
97
AREA
8937
HEIGHT
5190
18-Sep-2023
12:30
linh
pham



AFTER

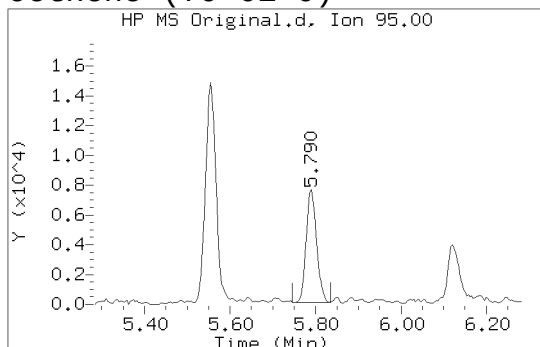
MASS
97
AREA
8937
HEIGHT
5190
18-Sep-2023
12:30
linh
pham



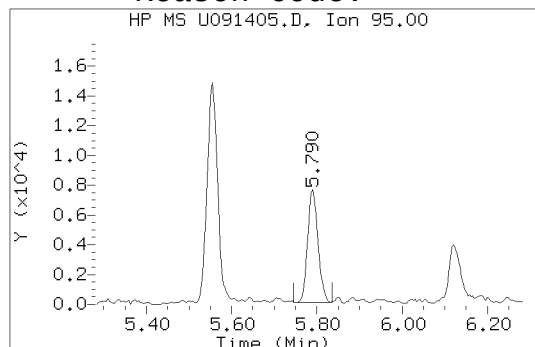
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Trichloroethene (79-01-6)**BEFORE**

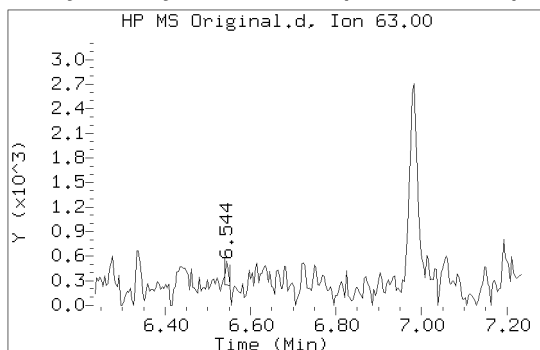
MASS
95
AREA
13039
HEIGHT
7554
18-Sep-2023
12:30
linh
pham

**AFTER**

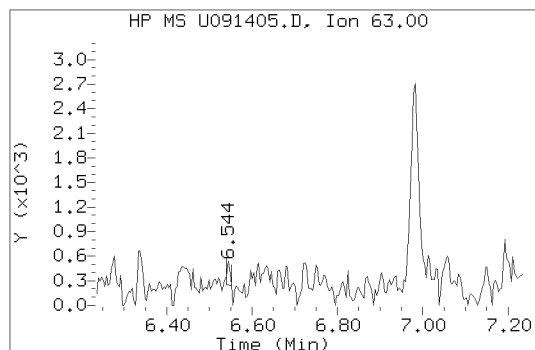
MASS
95
AREA
13039
HEIGHT
7554
18-Sep-2023
12:30
linh
pham

Reason Code:**2-Chloroethylvinyl ether (110-75-8)****BEFORE**

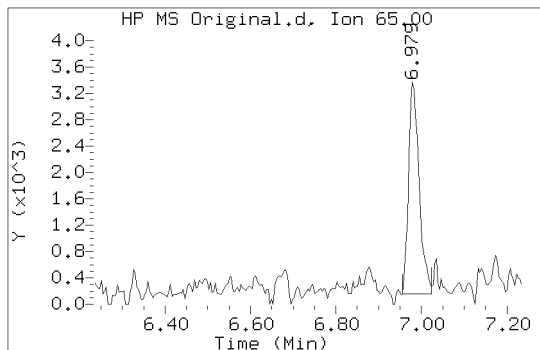
MASS
63
AREA
139
HEIGHT
291
18-Sep-2023
12:30
linh
pham

**AFTER**

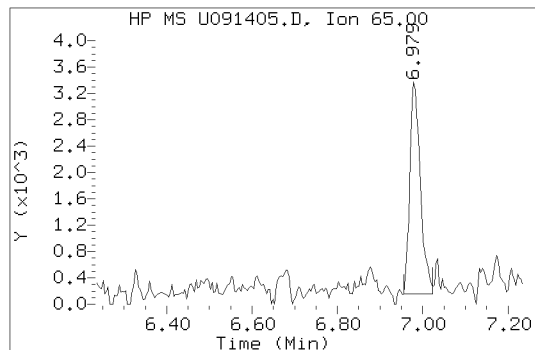
MASS
63
AREA
139
HEIGHT
291
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

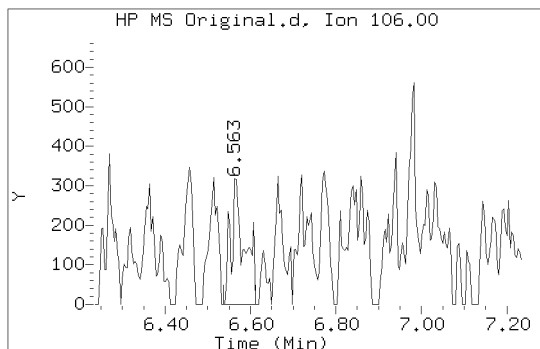
MASS
65
AREA
5530
HEIGHT
3214
18-Sep-2023
12:30
linh
pham

**AFTER**

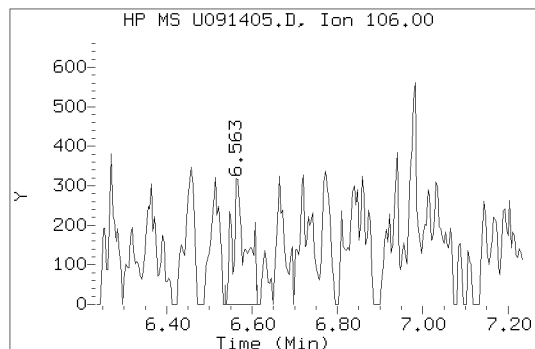
MASS
65
AREA
5530
HEIGHT
3214
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
106
AREA
680
HEIGHT
318
18-Sep-2023
12:30
linh
pham

**AFTER**

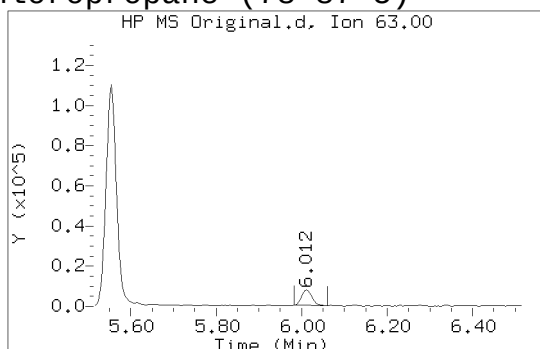
MASS
106
AREA
680
HEIGHT
318
18-Sep-2023
12:30
linh
pham



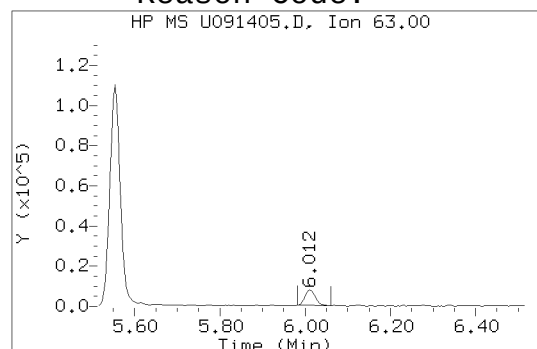
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

1,2-Dichloropropane (78-87-5)**BEFORE**

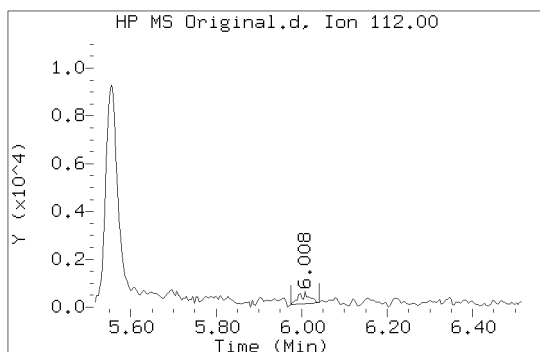
MASS
63
AREA
13398
HEIGHT
7758
18-Sep-2023
12:30
linh

**AFTER**

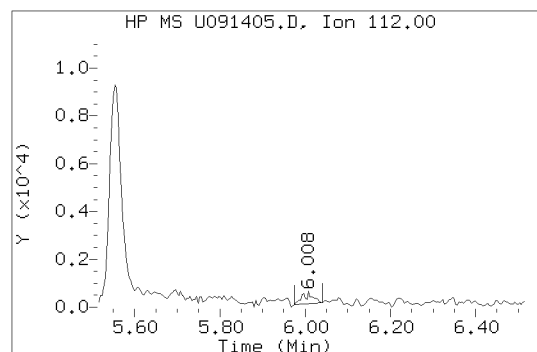
MASS
63
AREA
13398
HEIGHT
7758
18-Sep-2023
12:30
linh

**BEFORE**

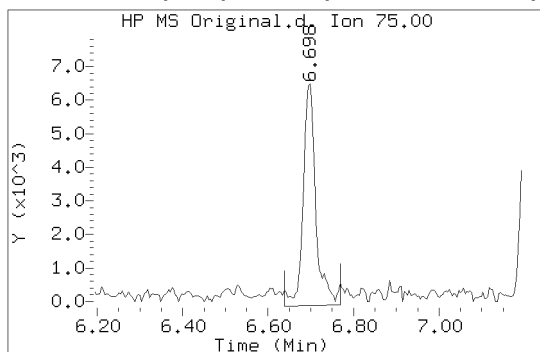
MASS
112
AREA
841
HEIGHT
513
18-Sep-2023
12:30
linh
pham

**AFTER**

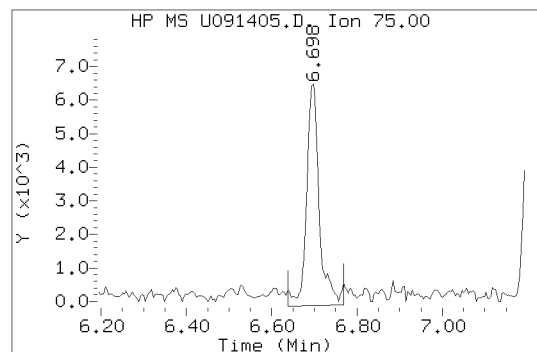
MASS
112
AREA
841
HEIGHT
513
18-Sep-2023
12:30
linh
pham

**cis-1,3-Dichloropropene (10061-01-5)****BEFORE**

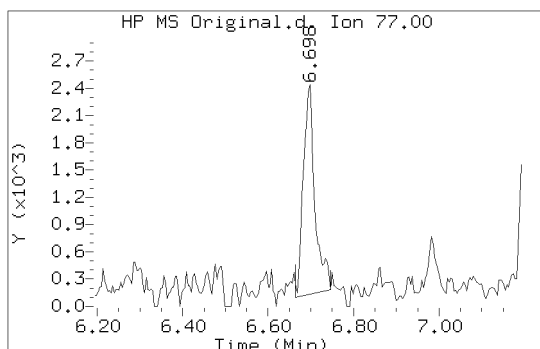
MASS
75
AREA
14220
HEIGHT
6609
18-Sep-2023
12:30
linh
pham

**AFTER**

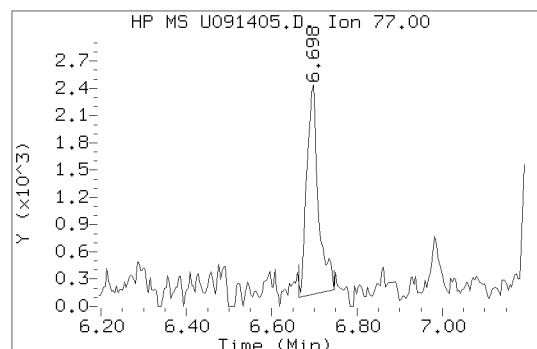
MASS
75
AREA
14220
HEIGHT
6609
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
77
AREA
4432
HEIGHT
2307
18-Sep-2023
12:30
linh
pham

**AFTER**

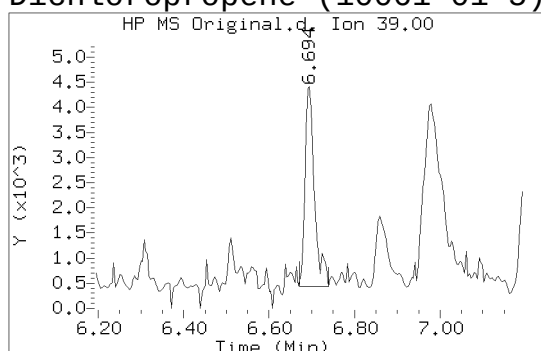
MASS
77
AREA
4432
HEIGHT
2307
18-Sep-2023
12:30
linh
pham



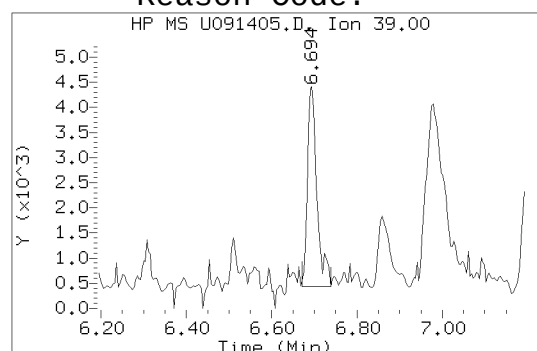
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

cis-1,3-Dichloropropene (10061-01-5)**BEFORE**

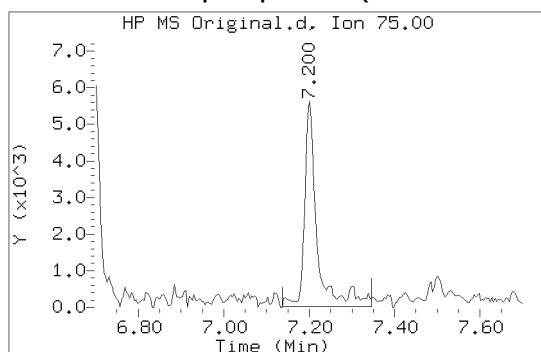
MASS
39
AREA
6245
HEIGHT
3975
18-Sep-2023
12:30
linh
pham

**AFTER**

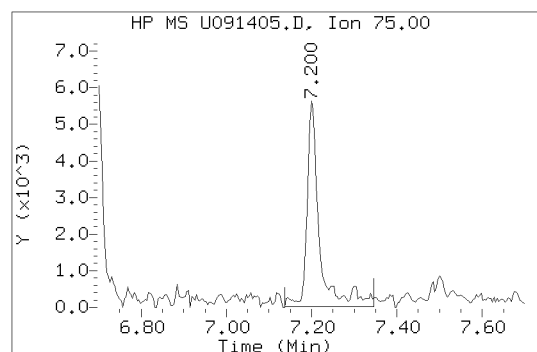
MASS
39
AREA
6245
HEIGHT
3975
18-Sep-2023
12:30
linh
pham

Reason Code:**trans-1,3-Dichloropropene (10061-02-6)****BEFORE**

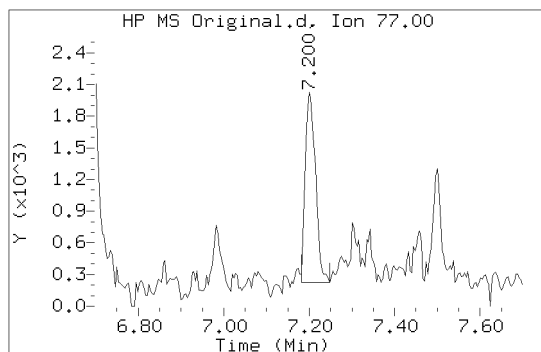
MASS
75
AREA
11642
HEIGHT
5619
18-Sep-2023
12:30
linh
pham

**AFTER**

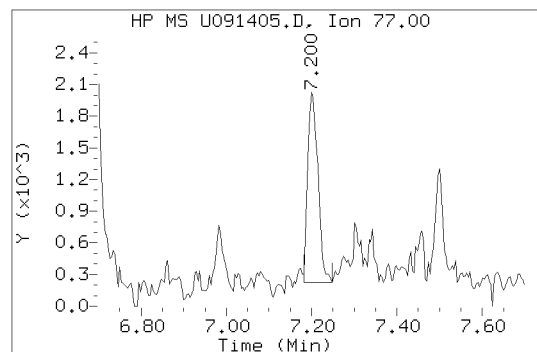
MASS
75
AREA
11642
HEIGHT
5619
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

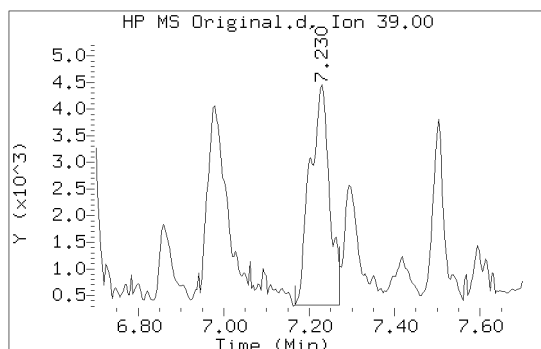
MASS
77
AREA
3067
HEIGHT
1799
18-Sep-2023
12:30
linh
pham

**AFTER**

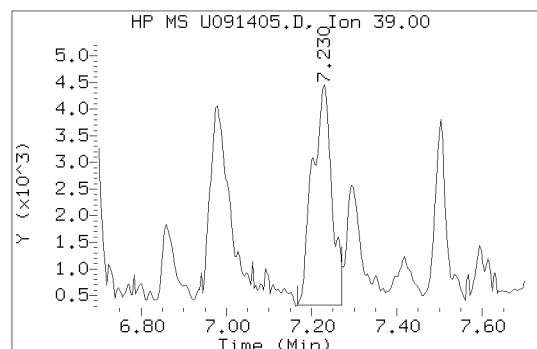
MASS
77
AREA
3067
HEIGHT
1799
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
39
AREA
13138
HEIGHT
4140
18-Sep-2023
12:30
linh
pham

**AFTER**

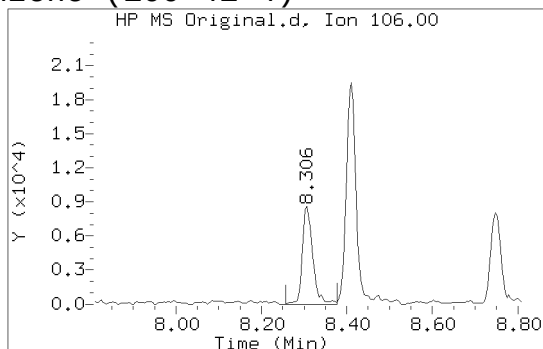
MASS
39
AREA
13138
HEIGHT
4140
18-Sep-2023
12:30
linh
pham



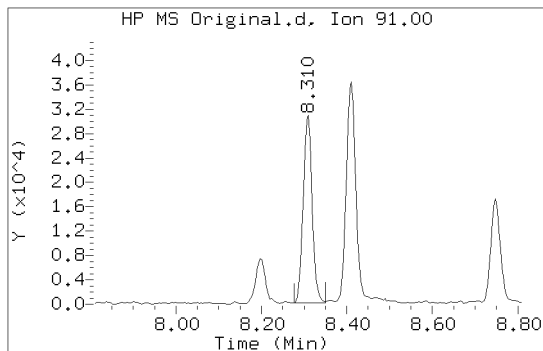
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Ethylbenzene (100-41-4)**BEFORE**

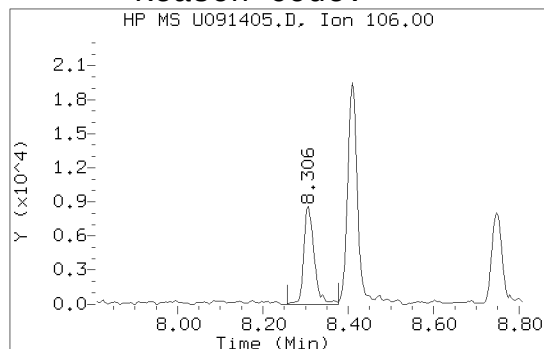
MASS
106
AREA
14914
HEIGHT
8633
18-Sep-2023
12:30
linh

**BEFORE**

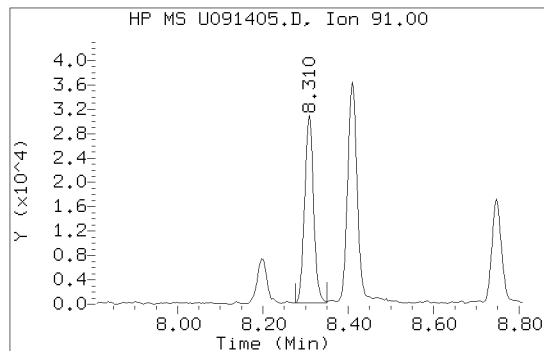
MASS
91
AREA
45649
HEIGHT
30852
18-Sep-2023
12:30
linh
pham

**AFTER**

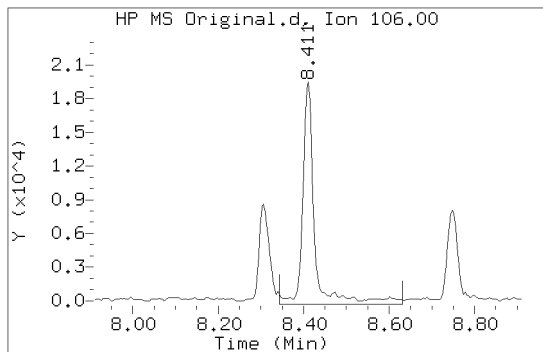
MASS
106
AREA
14914
HEIGHT
8633
18-Sep-2023
12:30
linh

**AFTER**

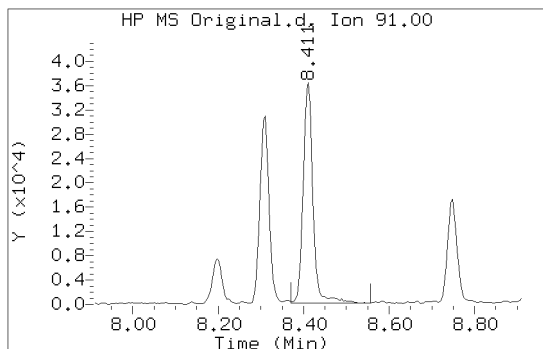
MASS
91
AREA
45649
HEIGHT
30852
18-Sep-2023
12:30
linh
pham

**m,p-Xylenes ()****BEFORE**

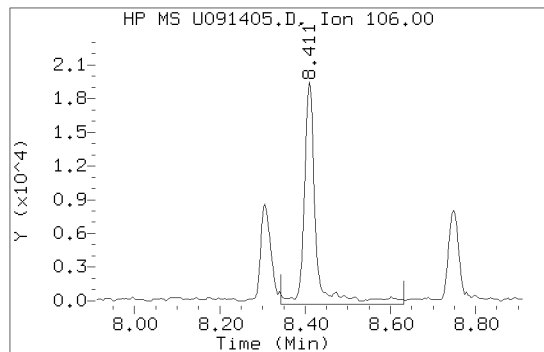
MASS
106
AREA
38808
HEIGHT
19783
18-Sep-2023
12:30
linh
pham

**BEFORE**

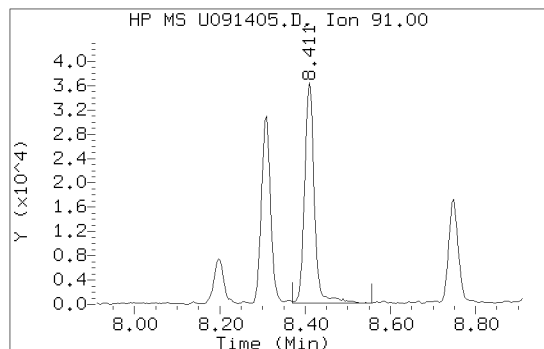
MASS
91
AREA
58496
HEIGHT
36279
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
106
AREA
38808
HEIGHT
19783
18-Sep-2023
12:30
linh
pham

**AFTER**

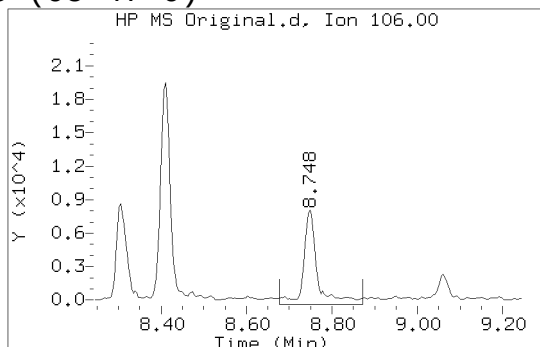
MASS
91
AREA
58496
HEIGHT
36279
18-Sep-2023
12:30
linh
pham



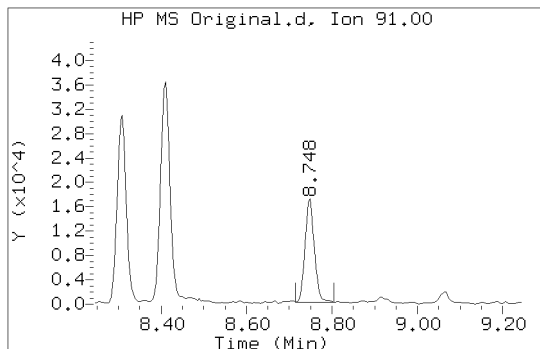
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

o-Xylene (95-47-6)**BEFORE**

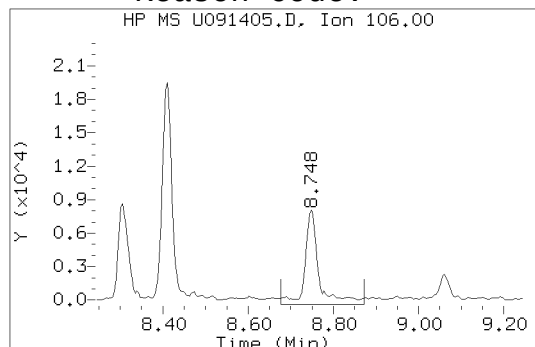
MASS
106
AREA
19710
HEIGHT
8443
18-Sep-2023
12:30
linh

**BEFORE**

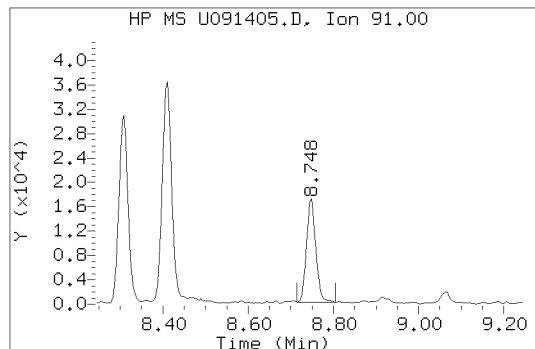
MASS
91
AREA
26164
HEIGHT
17001
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
106
AREA
19710
HEIGHT
8443
18-Sep-2023
12:30
linh

**AFTER**

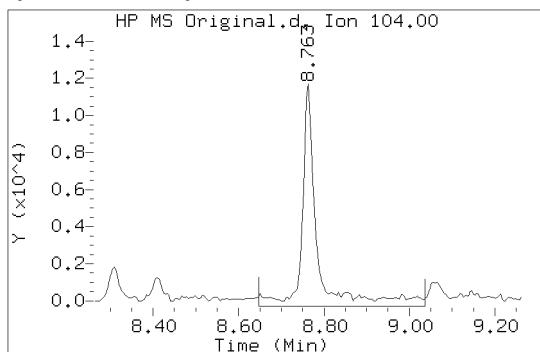
MASS
91
AREA
26164
HEIGHT
17001
18-Sep-2023
12:30
linh
pham



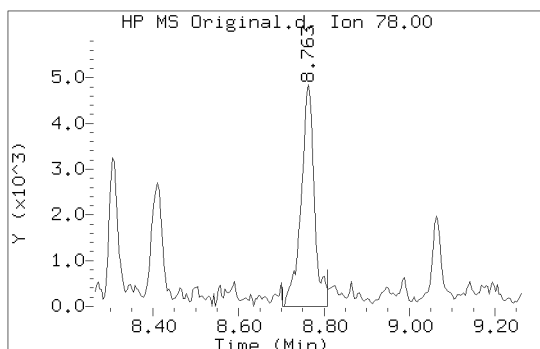
Reason Code:

Styrene (100-42-5)**BEFORE**

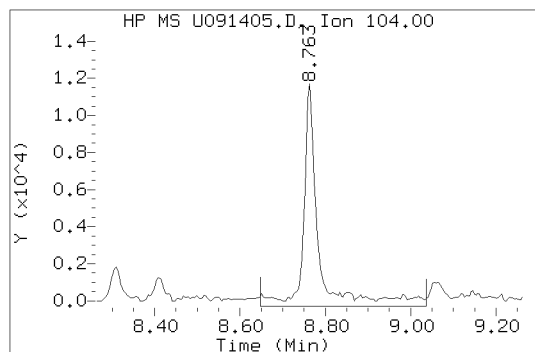
MASS
104
AREA
30031
HEIGHT
11988
18-Sep-2023
12:30
linh
pham

**BEFORE**

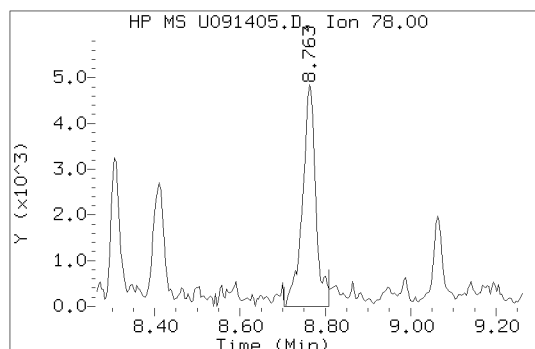
MASS
78
AREA
10635
HEIGHT
4848
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
104
AREA
30031
HEIGHT
11988
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
78
AREA
10635
HEIGHT
4848
18-Sep-2023
12:30
linh
pham



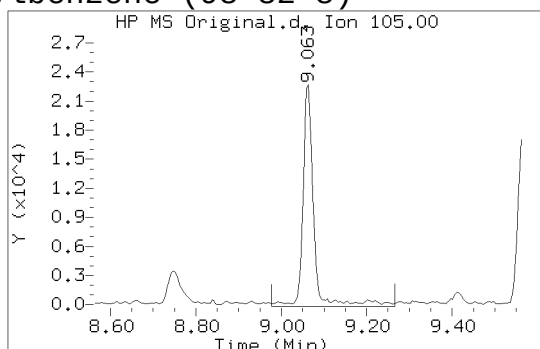
Reason Code:

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Isopropylbenzene (98-82-8)

BEFORE

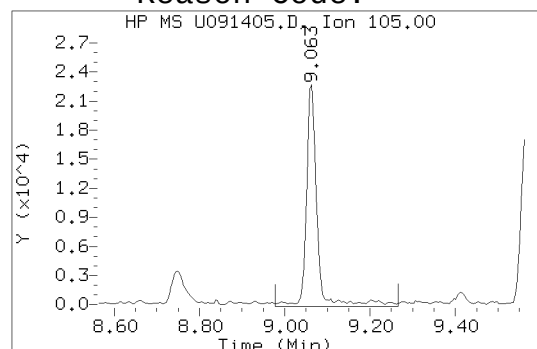
MASS
105
AREA
40776
HEIGHT
22862
18-Sep-2023
12:30
linh



AFTER

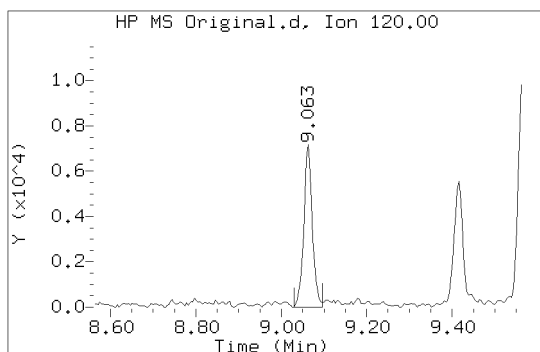
MASS
105
AREA
40776
HEIGHT
22862
18-Sep-2023
12:30
linh

Reason Code:



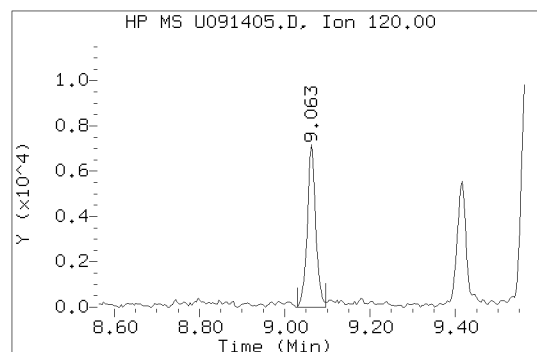
BEFORE

MASS
120
AREA
10093
HEIGHT
7186
18-Sep-2023
12:30
linh
pham



AFTER

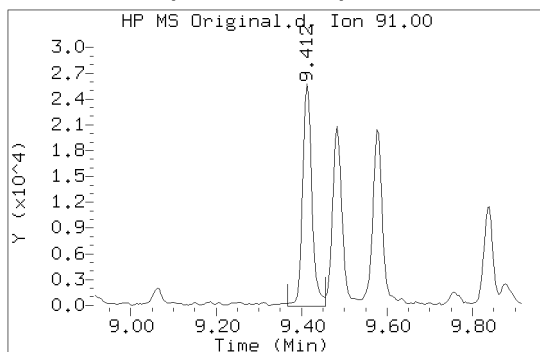
MASS
120
AREA
10093
HEIGHT
7186
18-Sep-2023
12:30
linh
pham



n-Propylbenzene (106-65-1)

BEFORE

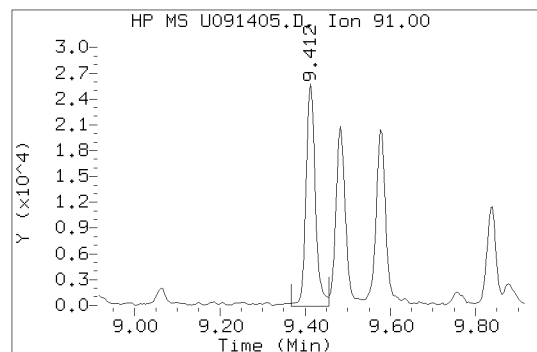
MASS
91
AREA
40048
HEIGHT
25844
18-Sep-2023
12:30
linh
pham



AFTER

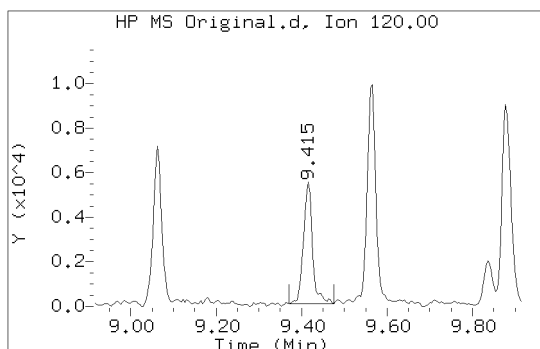
MASS
91
AREA
40048
HEIGHT
25844
18-Sep-2023
12:30
linh
pham

Reason Code:



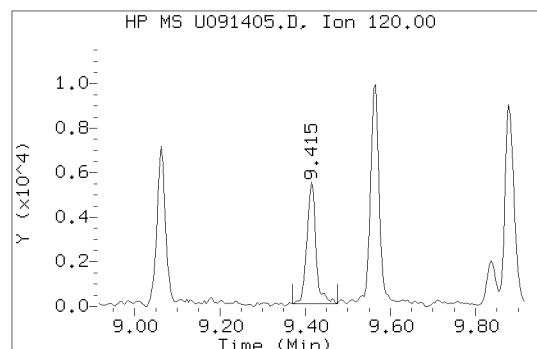
BEFORE

MASS
120
AREA
8282
HEIGHT
5468
18-Sep-2023
12:30
linh
pham



AFTER

MASS
120
AREA
8282
HEIGHT
5468
18-Sep-2023
12:30
linh
pham

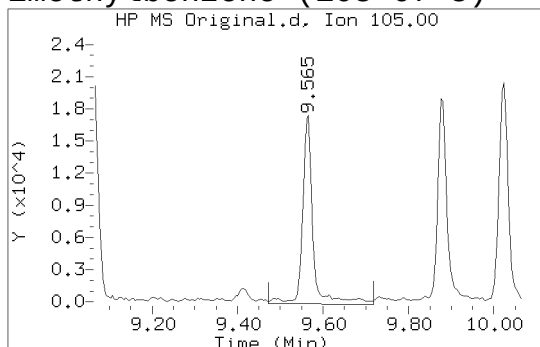


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

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

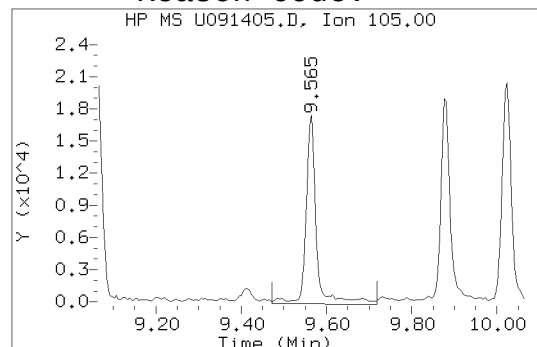
BEFORE

MASS
105
AREA
30884
HEIGHT
17593
18-Sep-2023
12:30
linh



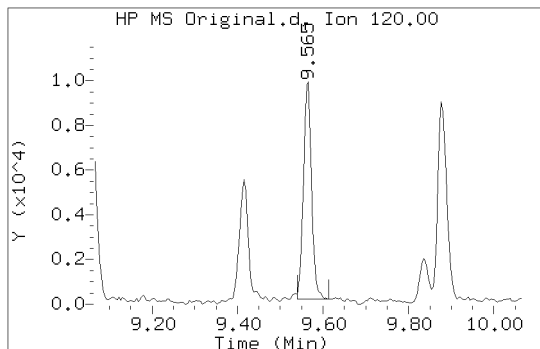
AFTER

MASS
105
AREA
30884
HEIGHT
17593
18-Sep-2023
12:30
linh



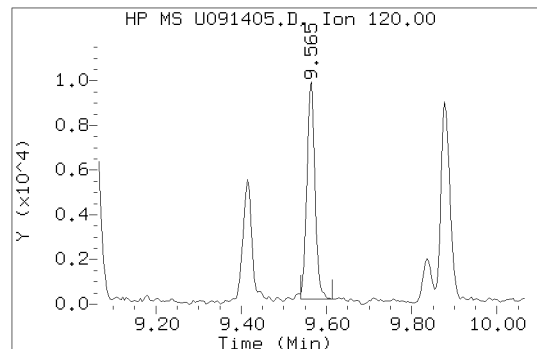
BEFORE

MASS
120
AREA
13262
HEIGHT
9724
18-Sep-2023
12:30
linh
pham



AFTER

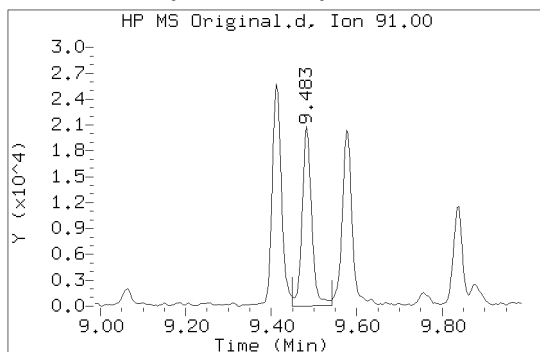
MASS
120
AREA
13262
HEIGHT
9724
18-Sep-2023
12:30
linh
pham



2-Chlorotoluene (95-49-8)

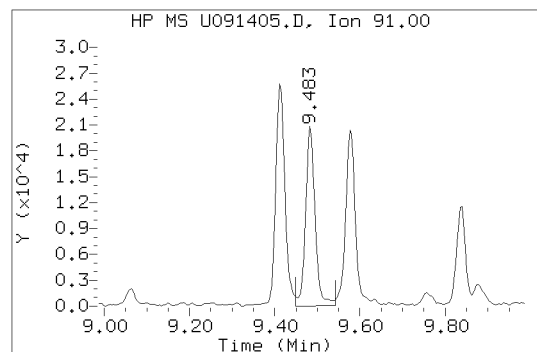
BEFORE

MASS
91
AREA
33180
HEIGHT
20846
18-Sep-2023
12:30
linh
pham



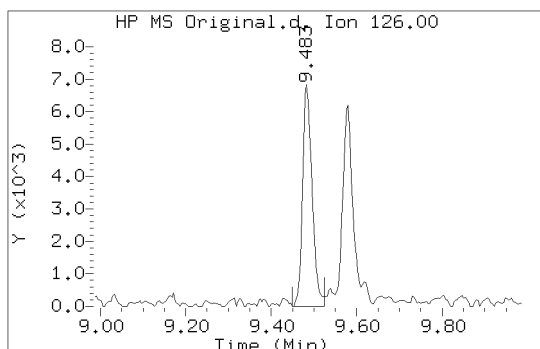
AFTER

MASS
91
AREA
33180
HEIGHT
20846
18-Sep-2023
12:30
linh
pham



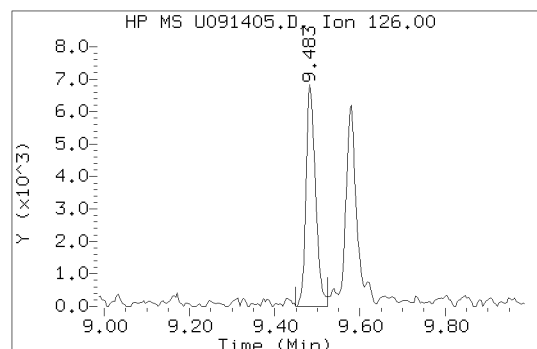
BEFORE

MASS
126
AREA
10850
HEIGHT
6830
18-Sep-2023
12:30
linh
pham



AFTER

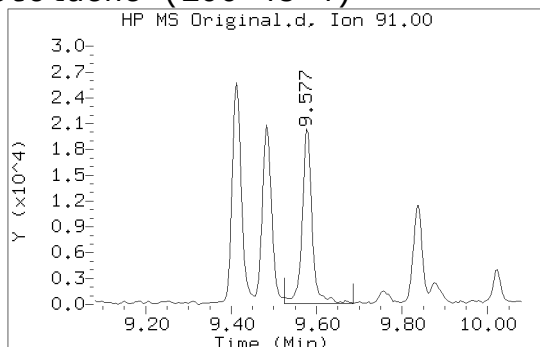
MASS
126
AREA
10850
HEIGHT
6830
18-Sep-2023
12:30
linh
pham



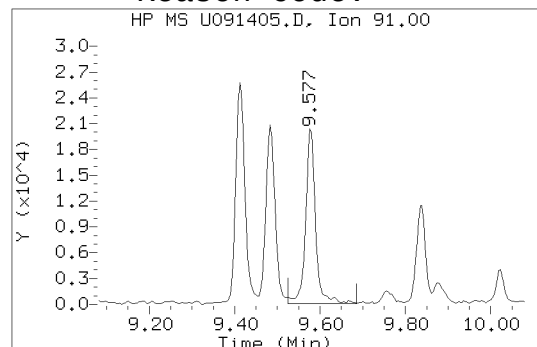
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

4-Chlorotoluene (106-43-4)**BEFORE**

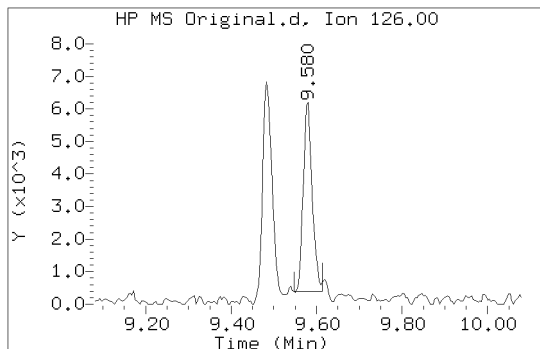
MASS
91
AREA
33779
HEIGHT
20346
18-Sep-2023
12:30
linh

**AFTER**

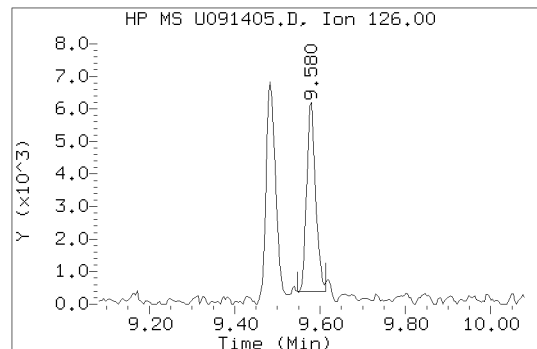
MASS
91
AREA
33779
HEIGHT
20346
18-Sep-2023
12:30
linh

**BEFORE**

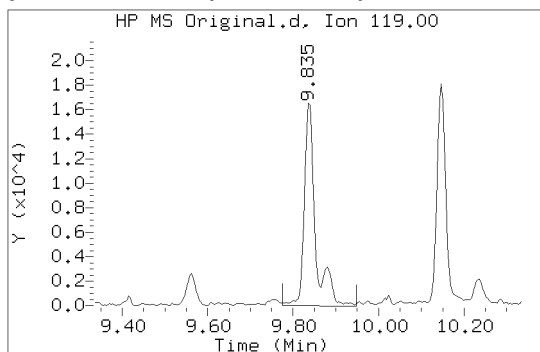
MASS
126
AREA
8669
HEIGHT
5811
18-Sep-2023
12:30
linh
pham

**AFTER**

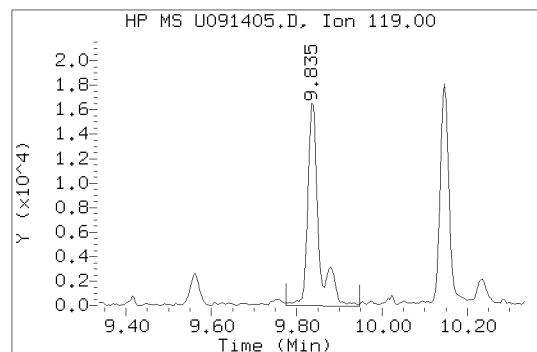
MASS
126
AREA
8669
HEIGHT
5811
18-Sep-2023
12:30
linh
pham

**tert-Butylbenzene (98-06-6)****BEFORE**

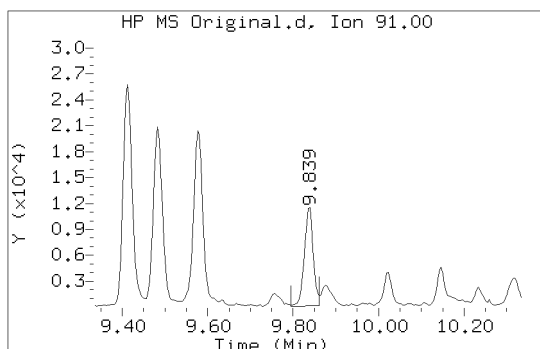
MASS
119
AREA
30827
HEIGHT
16520
18-Sep-2023
12:30
linh
pham

**AFTER**

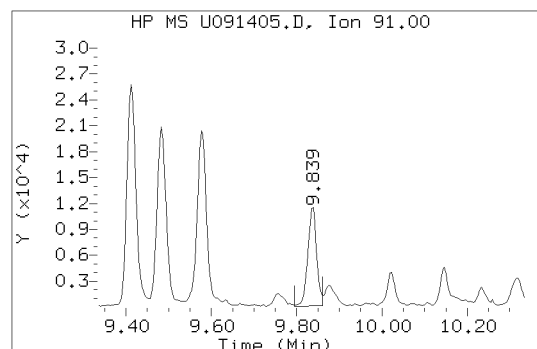
MASS
119
AREA
30827
HEIGHT
16520
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
91
AREA
16917
HEIGHT
11357
18-Sep-2023
12:30
linh
pham

**AFTER**

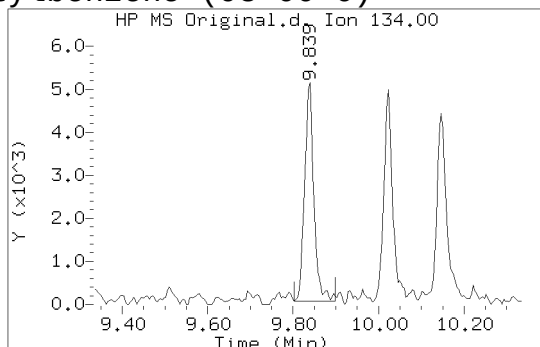
MASS
91
AREA
16917
HEIGHT
11357
18-Sep-2023
12:30
linh
pham



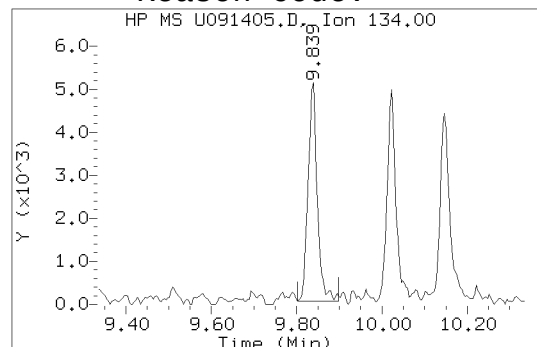
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

tert-Butylbenzene (98-06-6)**BEFORE**

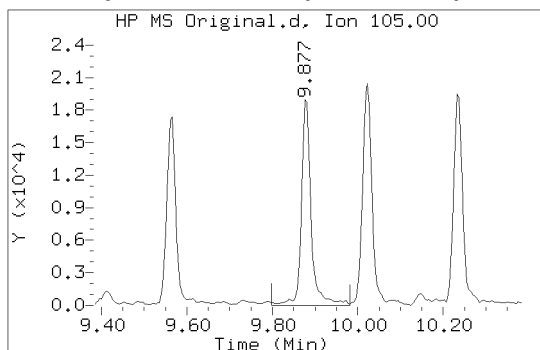
MASS
134
AREA
7780
HEIGHT
5075
18-Sep-2023
12:30
linh
pham

**AFTER**

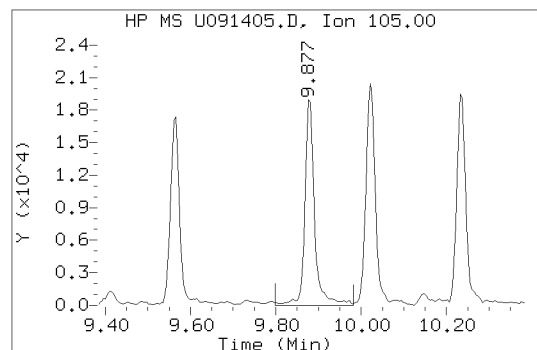
MASS
134
AREA
7780
HEIGHT
5075
18-Sep-2023
12:30
linh
pham

Reason Code:**1,2,4-Trimethylbenzene (95-63-6)****BEFORE**

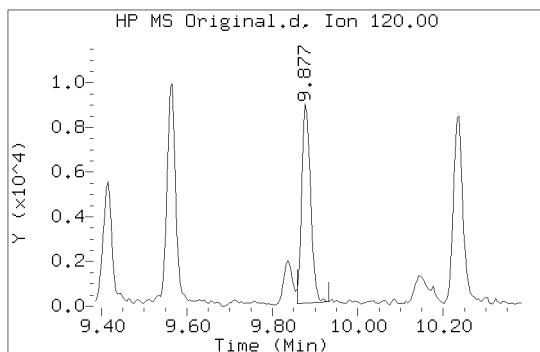
MASS
105
AREA
30377
HEIGHT
18980
18-Sep-2023
12:30
linh
pham

**AFTER**

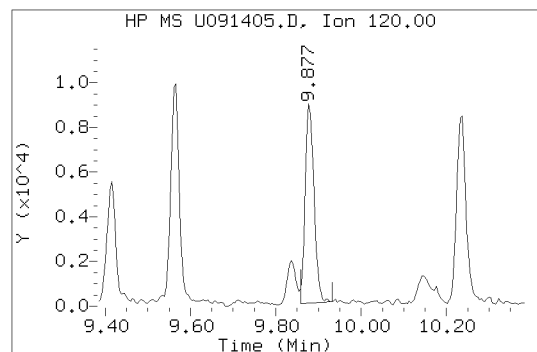
MASS
105
AREA
30377
HEIGHT
18980
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

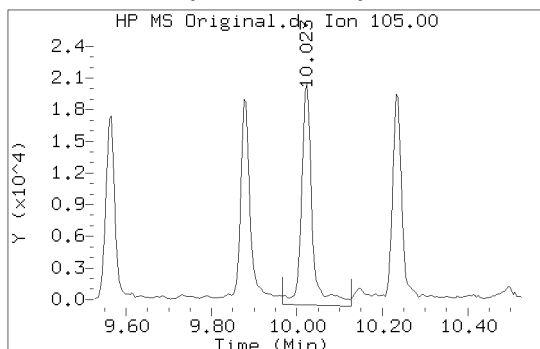
MASS
120
AREA
13034
HEIGHT
8920
18-Sep-2023
12:30
linh
pham

**AFTER**

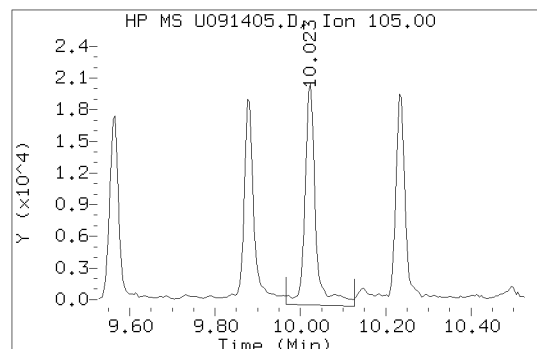
MASS
120
AREA
13034
HEIGHT
8920
18-Sep-2023
12:30
linh
pham

**sec-Butylbenzene (135-98-8)****BEFORE**

MASS
105
AREA
37386
HEIGHT
20926
18-Sep-2023
12:30
linh
pham

**AFTER**

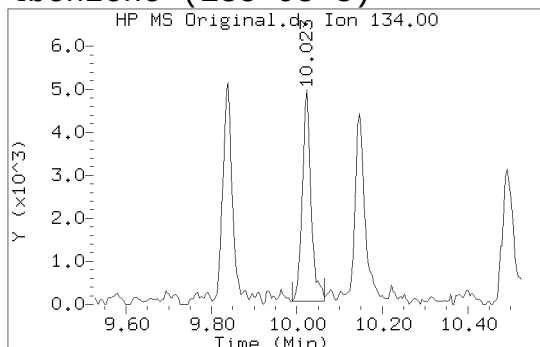
MASS
105
AREA
37386
HEIGHT
20926
18-Sep-2023
12:30
linh
pham

Reason Code:

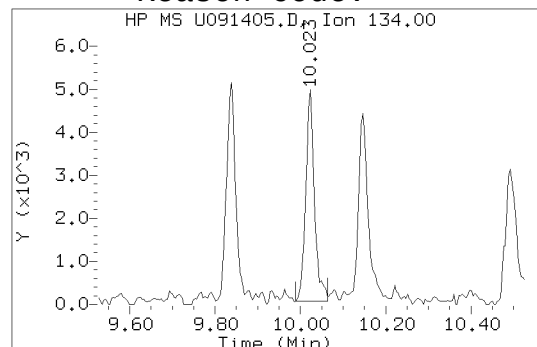
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

sec-Butylbenzene (135-98-8)**BEFORE**

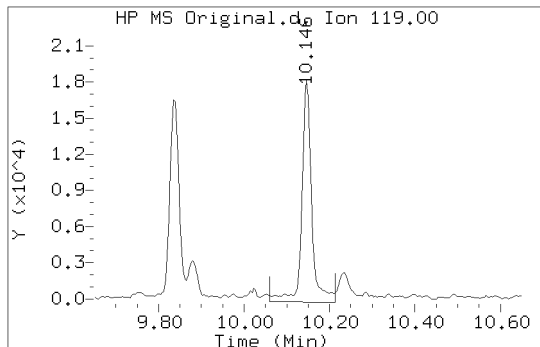
MASS
134
AREA
7013
HEIGHT
4913
18-Sep-2023
12:30
linh
pham

**AFTER**

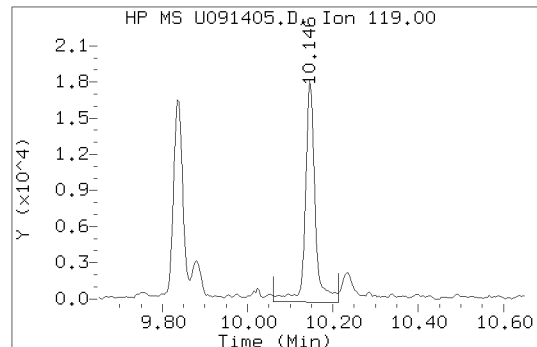
MASS
134
AREA
7013
HEIGHT
4913
18-Sep-2023
12:30
linh
pham

Reason Code:**p-Isopropyltoluene (99-87-6)****BEFORE**

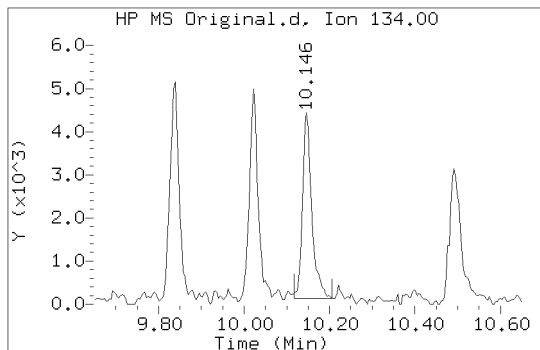
MASS
119
AREA
30473
HEIGHT
18370
18-Sep-2023
12:30
linh
pham

**AFTER**

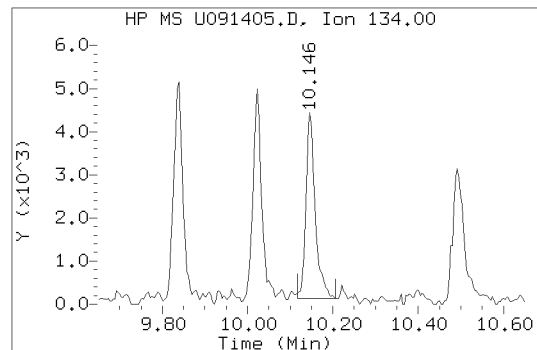
MASS
119
AREA
30473
HEIGHT
18370
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

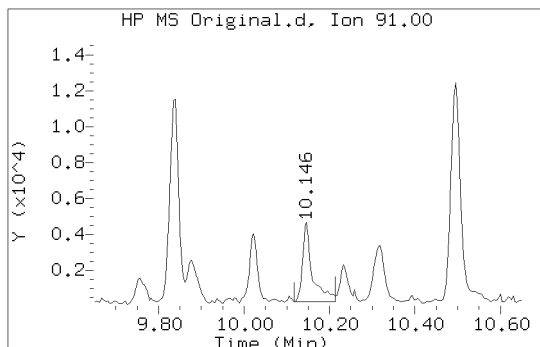
MASS
134
AREA
6684
HEIGHT
4315
18-Sep-2023
12:30
linh
pham

**AFTER**

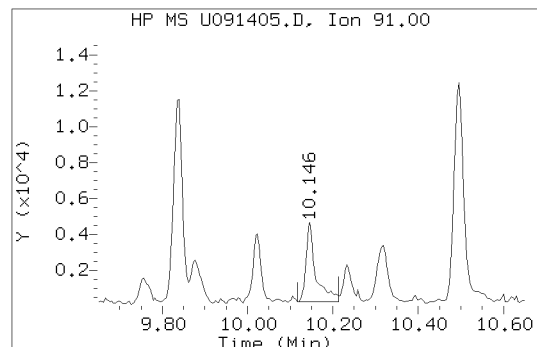
MASS
134
AREA
6684
HEIGHT
4315
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
91
AREA
7318
HEIGHT
4419
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
91
AREA
7318
HEIGHT
4419
18-Sep-2023
12:30
linh
pham

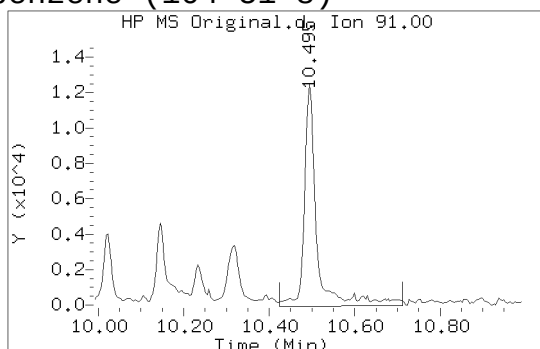


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
 Inj Date : 14-SEP-2023 17:15
 InstruID : VOA9.i
 LabSampID : VSTD002

n-Butylbenzene (104-51-8)

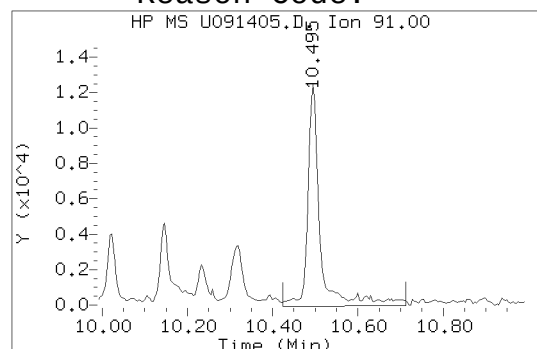
BEFORE

MASS
91
AREA
25685
HEIGHT
12495
18-Sep-2023
12:30
linh



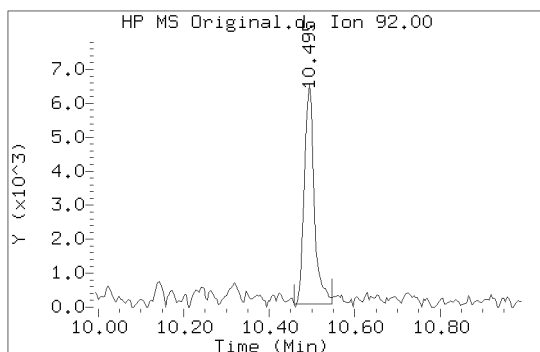
AFTER

MASS
91
AREA
25685
HEIGHT
12495
18-Sep-2023
12:30
linh



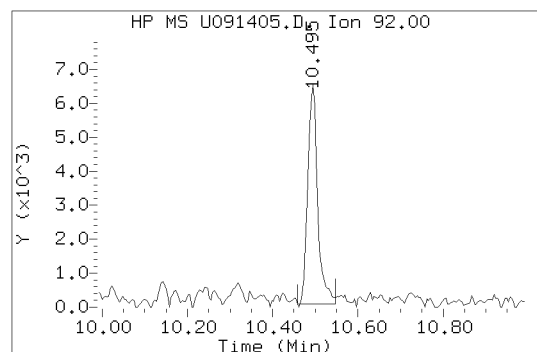
BEFORE

MASS
92
AREA
10649
HEIGHT
6452
18-Sep-2023
12:30
linh
pham



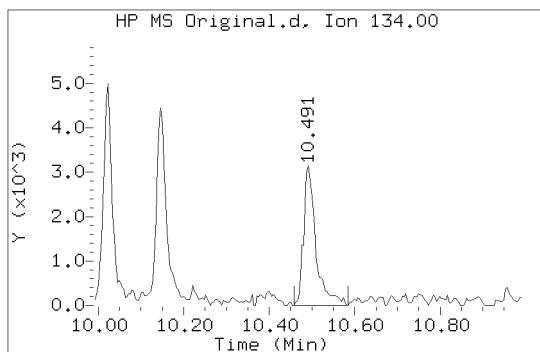
AFTER

MASS
92
AREA
10649
HEIGHT
6452
18-Sep-2023
12:30
linh
pham



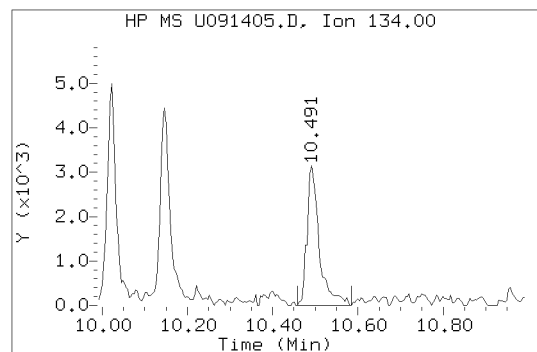
BEFORE

MASS
134
AREA
6384
HEIGHT
3141
18-Sep-2023
12:30
linh
pham



AFTER

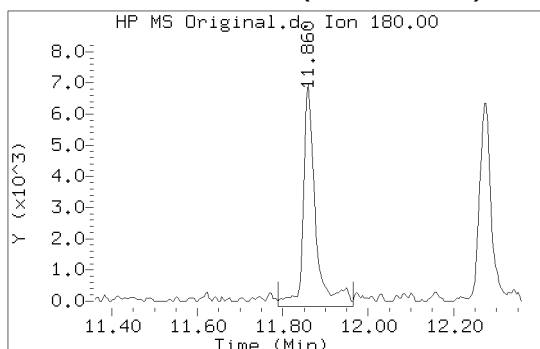
MASS
134
AREA
6384
HEIGHT
3141
18-Sep-2023
12:30
linh
pham



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

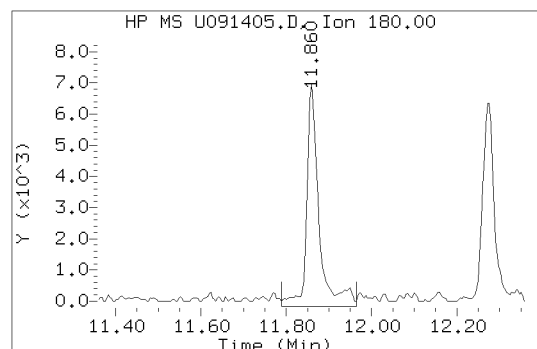
BEFORE

MASS
180
AREA
14590
HEIGHT
7111
18-Sep-2023
12:30
linh
pham



AFTER

MASS
180
AREA
14590
HEIGHT
7111
18-Sep-2023
12:30
linh
pham



Reason Code:

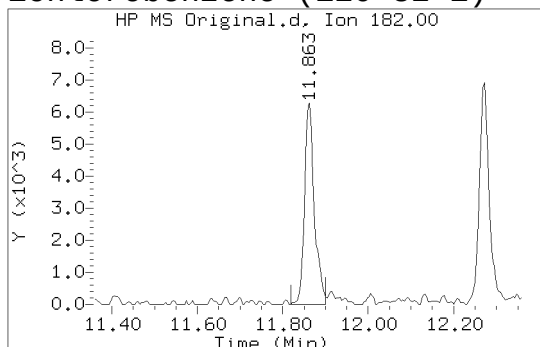


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

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

BEFORE

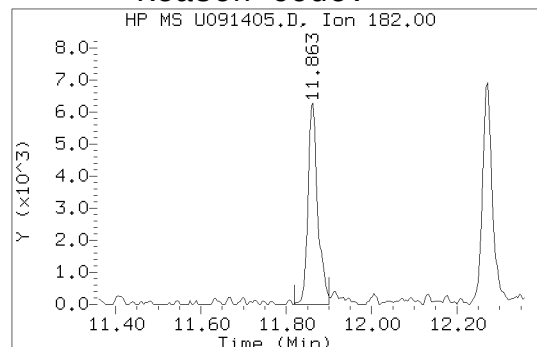
MASS
182
AREA
10193
HEIGHT
6281
18-Sep-2023
12:30
linh



AFTER

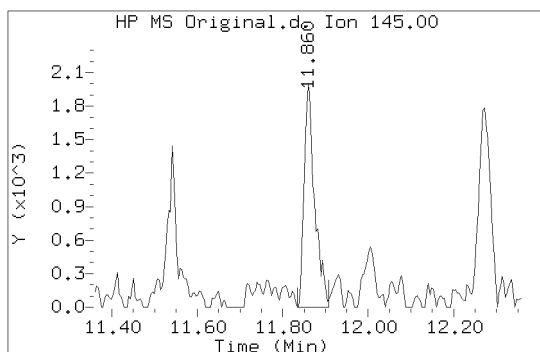
MASS
182
AREA
10193
HEIGHT
6281
18-Sep-2023
12:30
linh

Reason Code:



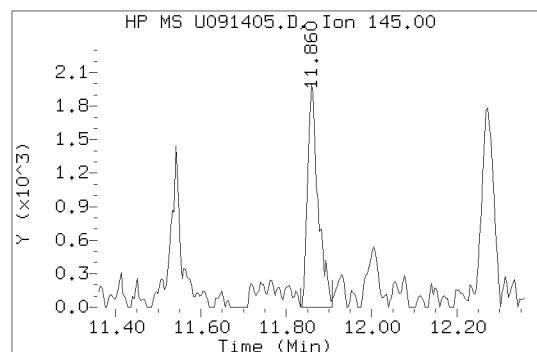
BEFORE

MASS
145
AREA
3481
HEIGHT
1990
18-Sep-2023
12:30
linh
pham



AFTER

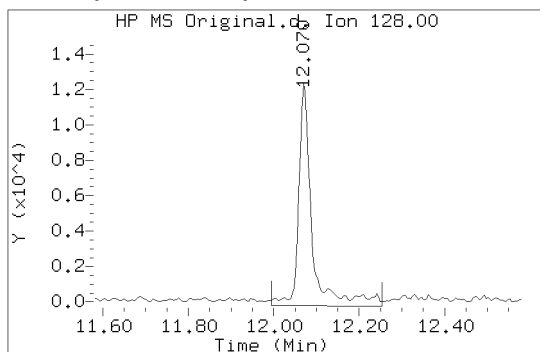
MASS
145
AREA
3481
HEIGHT
1990
18-Sep-2023
12:30
linh
pham



Naphthalene (91-20-3)

BEFORE

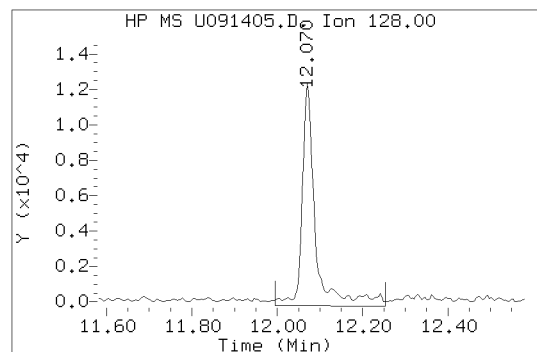
MASS
128
AREA
27784
HEIGHT
12537
18-Sep-2023
12:30
linh
pham



AFTER

MASS
128
AREA
27784
HEIGHT
12537
18-Sep-2023
12:30
linh
pham

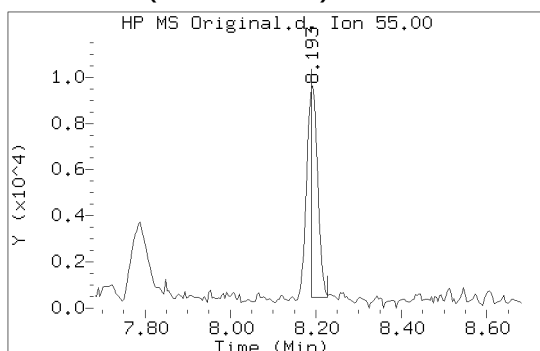
Reason Code:



1-Chlorohexane (544-10-5)

BEFORE

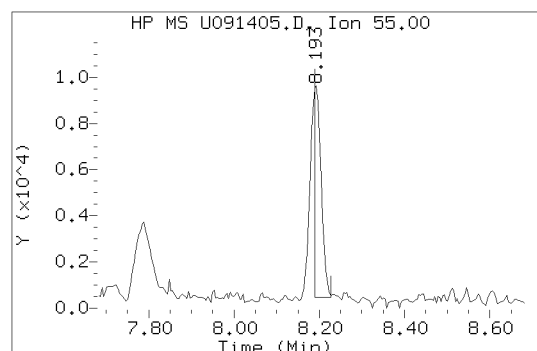
MASS
55
AREA
10420
HEIGHT
9163
18-Sep-2023
12:30
linh
pham



AFTER

MASS
55
AREA
10420
HEIGHT
9163
18-Sep-2023
12:30
linh
pham

Reason Code:

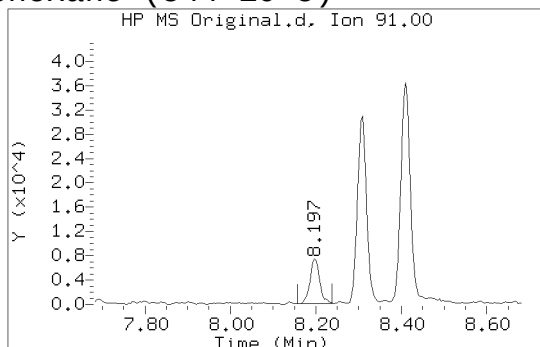


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

1-Chlorohexane (544-10-5)

BEFORE

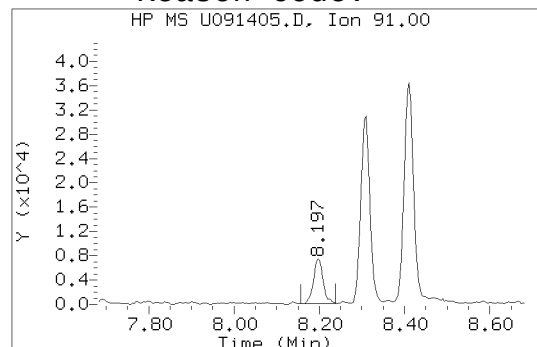
MASS
91
AREA
11923
HEIGHT
7414
18-Sep-2023
12:30
linh
pham



AFTER

MASS
91
AREA
11923
HEIGHT
7414
18-Sep-2023
12:30
linh
pham

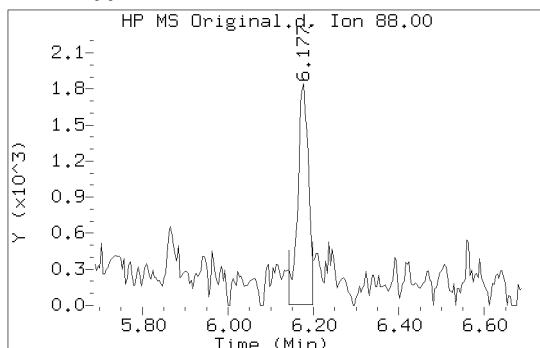
Reason Code:



1,4-Dioxane ()

BEFORE

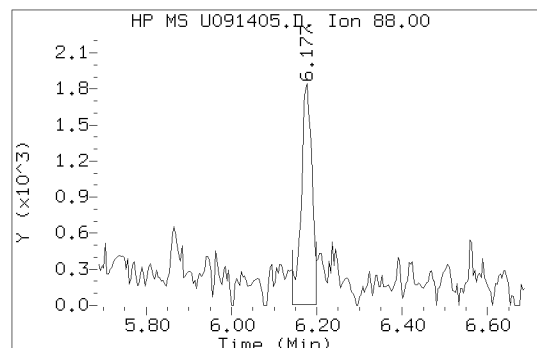
MASS
88
AREA
3297
HEIGHT
1839
18-Sep-2023
12:30
linh
pham



AFTER

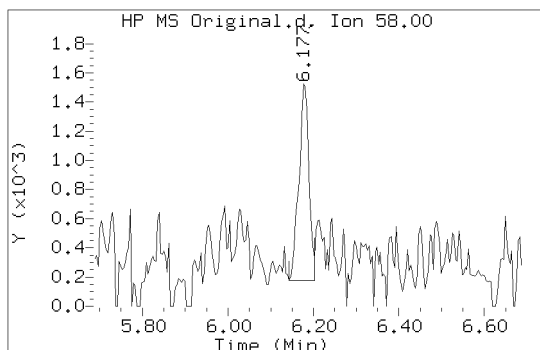
MASS
88
AREA
3297
HEIGHT
1839
18-Sep-2023
12:30
linh
pham

Reason Code:



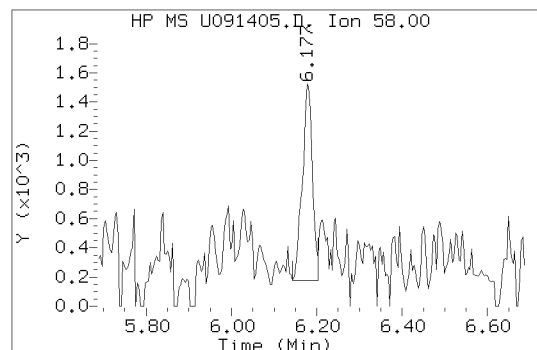
BEFORE

MASS
58
AREA
2246
HEIGHT
1346
18-Sep-2023
12:30
linh
pham



AFTER

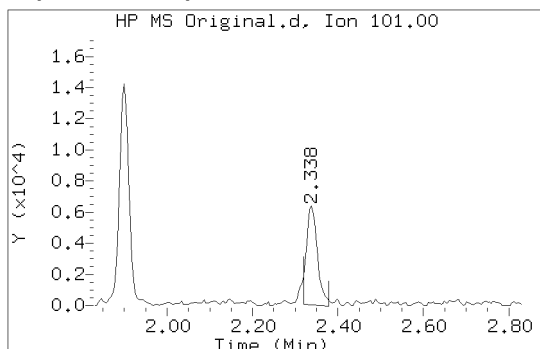
MASS
58
AREA
2246
HEIGHT
1346
18-Sep-2023
12:30
linh
pham



Freon TF (76-13-1)

BEFORE

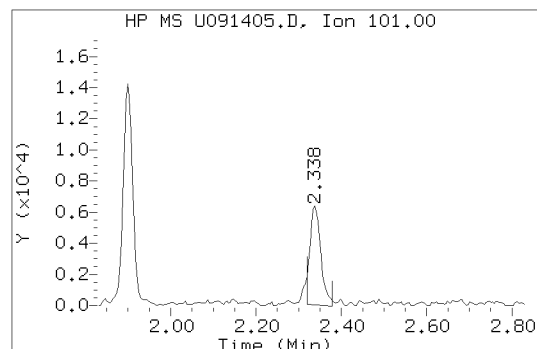
MASS
101
AREA
11603
HEIGHT
6340
18-Sep-2023
12:30
linh
pham



AFTER

MASS
101
AREA
11603
HEIGHT
6340
18-Sep-2023
12:30
linh
pham

Reason Code:

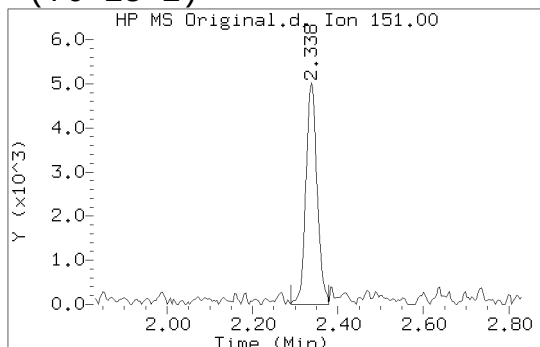


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Freon TF (76-13-1)

BEFORE

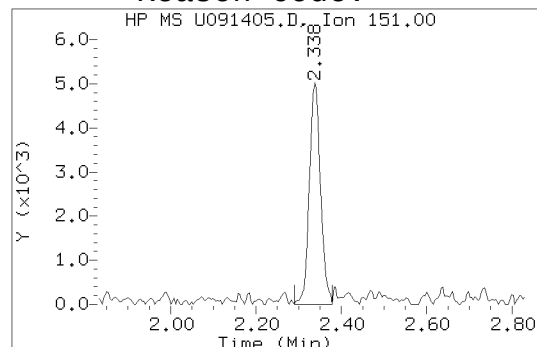
MASS
151
AREA
9320
HEIGHT
5025
18-Sep-2023
12:30
linh
pham



AFTER

MASS
151
AREA
9320
HEIGHT
5025
18-Sep-2023
12:30
linh
pham

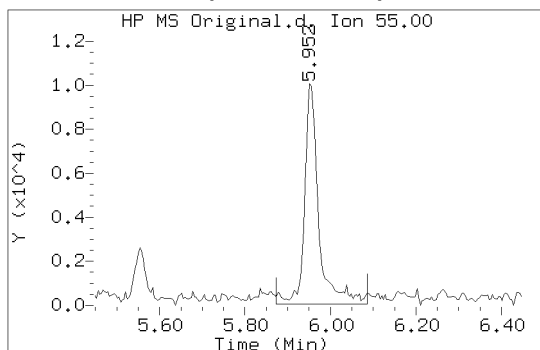
Reason Code:



Methylcyclohexane (108-87-2)

BEFORE

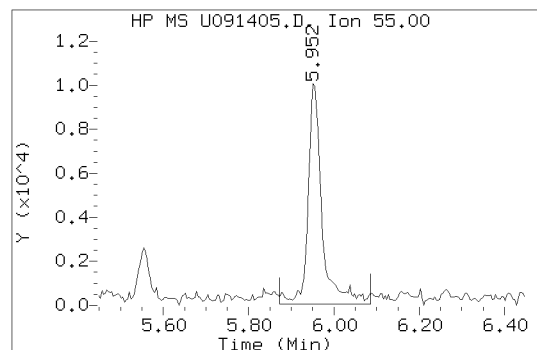
MASS
55
AREA
23709
HEIGHT
10015
18-Sep-2023
12:30
linh
pham



AFTER

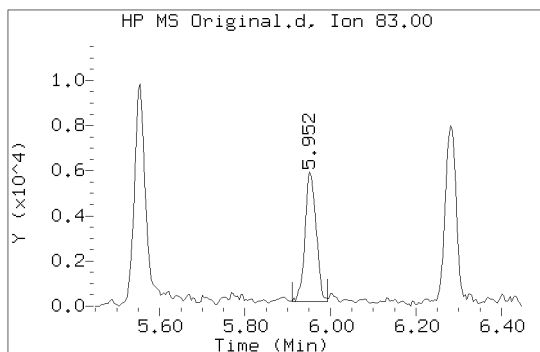
MASS
55
AREA
23709
HEIGHT
10015
18-Sep-2023
12:30
linh
pham

Reason Code:



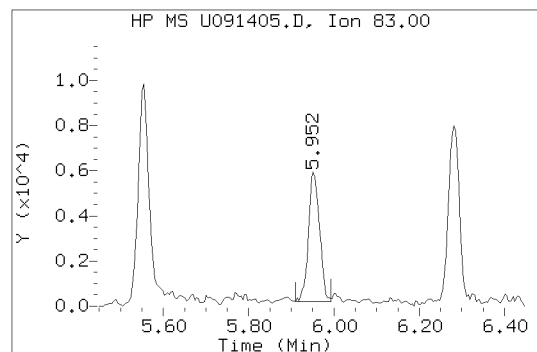
BEFORE

MASS
83
AREA
10672
HEIGHT
5759
18-Sep-2023
12:30
linh
pham



AFTER

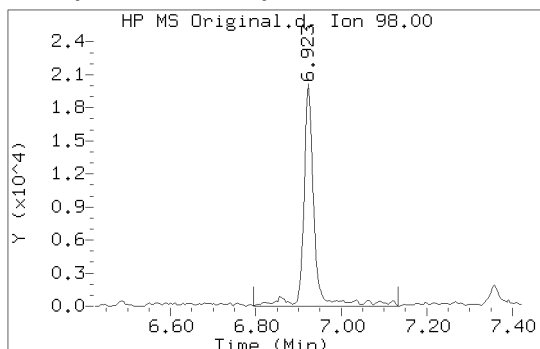
MASS
83
AREA
10672
HEIGHT
5759
18-Sep-2023
12:30
linh
pham



Toluene-d8 (2037-26-5)

BEFORE

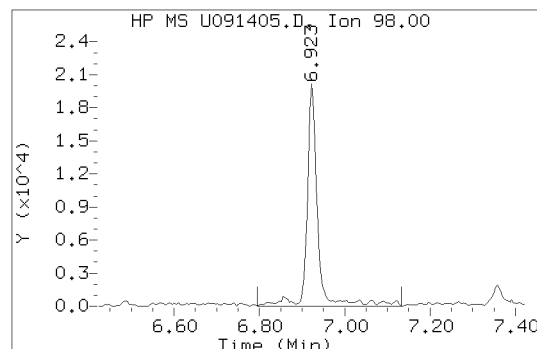
MASS
98
AREA
35573
HEIGHT
20167
18-Sep-2023
12:30
linh
pham



AFTER

MASS
98
AREA
35573
HEIGHT
20167
18-Sep-2023
12:30
linh
pham

Reason Code:

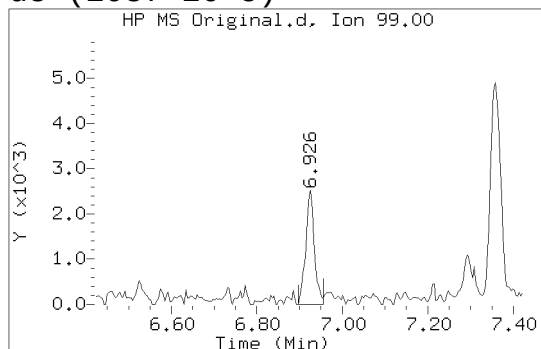


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091405.D
Inj Date : 14-SEP-2023 17:15
InstruID : VOA9.i
LabSampID : VSTD002

Toluene-d8 (2037-26-5)

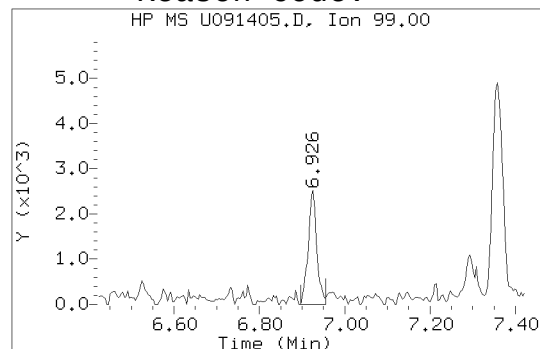
BEFORE

MASS
99
AREA
3611
HEIGHT
2529
18-Sep-2023
12:30
linh
pham



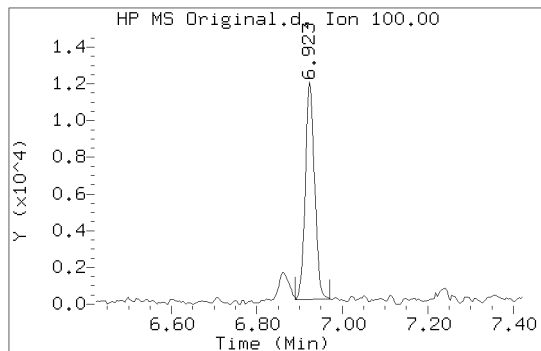
AFTER

MASS
99
AREA
3611
HEIGHT
2529
18-Sep-2023
12:30
linh
pham



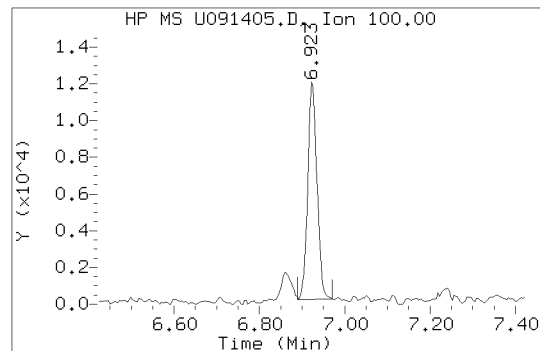
BEFORE

MASS
100
AREA
18195
HEIGHT
11842
18-Sep-2023
12:30
linh
pham



AFTER

MASS
100
AREA
18195
HEIGHT
11842
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091406.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091406.D
 Lab Smp Id: VSTD005 Client Smp ID: VSTD005
 Inj Date : 14-SEP-2023 17:37
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD005;VSTD005;1;5;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 17:15 Cal File: U091405.D
 Als bottle: 7 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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)		615876	50.0000	
2 Dichlorodifluoromethane	85		1.164	1.164	(0.242)		33181	5.00000	6.11
3 Chloromethane	50		1.295	1.295	(0.269)		65950	5.00000	4.93
5 Vinyl Chloride	62		1.374	1.374	(0.285)		37633	5.00000	4.81
6 Bromomethane	94		1.621	1.621	(0.337)		22775	5.00000	6.36
7 Chloroethane	64		1.700	1.700	(0.353)		28720	5.00000	4.99
8 Trichlorofluoromethane	101		1.895	1.895	(0.394)		48351	5.00000	4.82
9 Acrolein	56		2.266	2.266	(0.471)		5614	10.0000	10.62(M)
10 Acetone	43		2.408	2.408	(0.500)		44971	10.0000	12.54
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)		29078	5.00000	4.77
15 Iodomethane	142		2.468	2.468	(0.513)		28118	10.0000	11.41
16 Acrylonitrile	53		3.064	3.064	(0.636)		38251	10.0000	10.64
17 Methylene Chloride	84		2.791	2.791	(0.580)		46477	5.00000	7.49
18 Methyl tert-butyl ether	73		3.079	3.079	(0.640)		80677	5.00000	4.66
19 Carbon Disulfide	76		2.521	2.521	(0.524)		151653	10.0000	9.20
20 trans-1,2-Dichloroethene	96		3.057	3.057	(0.635)		32760	5.00000	5.12
21 Vinyl Acetate	43		3.608	3.608	(0.749)		208109	10.0000	9.19
22 1,1-Dichloroethane	63		3.514	3.514	(0.730)		64016	5.00000	4.99
24 2-Butanone	43		4.272	4.272	(0.887)		37906	10.0000	10.15
26 2,2-Dichloropropane	77		4.178	4.178	(0.868)		37553	5.00000	4.83



27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	37179	5.00000	5.08
28 Chloroform	83	4.571	4.571 (0.949)	65168	5.00000	5.23

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091406.D Page 2
Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.466	4.466	(0.928)	20058	5.00000	5.23(M)
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	30159	5.00000	5.55
31 1,1,1-Trichloroethane	97	4.736	4.736	(0.984)	39706	5.00000	4.69
32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	36825	5.00000	4.78(M)
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	48868	5.00000	5.21
34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	29696	5.00000	4.31
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	35545	5.00000	5.46
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	969968	50.0000	
37 Benzene	78	5.137	5.137	(0.925)	120633	5.00000	4.95
38 Trichloroethene	130	5.790	5.790	(1.043)	33784	5.00000	4.76
39 Bromodichloromethane	83	6.277	6.277	(1.130)	39828	5.00000	5.04
41 2-Chloroethylvinyl ether	63	6.562	6.562	(1.182)	336	10.0000	10.06(M)
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	32353	5.00000	5.02(M)
44 Dibromomethane	93	6.120	6.120	(1.102)	22821	5.00000	5.15
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	55368	10.0000	10.20
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	34543	5.00000	6.45(M)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	948776	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	99501	5.00000	4.75(M)
50 Toluene	91	6.982	6.982	(0.853)	121160	5.00000	4.75
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	26471	5.00000	5.54(M)
52 2-Hexanone	43	7.597	7.597	(0.928)	36854	10.0000	8.56
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	27894	5.00000	5.02
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	58827	5.00000	5.26
55 Dibromochloromethane	129	7.694	7.694	(0.940)	28979	5.00000	4.38
56 Tetrachloroethene	164	7.458	7.458	(0.911)	28435	5.00000	4.79
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	34451	5.00000	5.16
58 1-Chlorohexane	55	8.193	8.193	(1.475)	26895	5.00000	4.58(M)
59 Chlorobenzene	112	8.208	8.208	(1.003)	99816	5.00000	5.29
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	29792	5.00000	4.70
61 Ethylbenzene	106	8.309	8.309	(1.015)	39301	5.00000	4.65(M)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	91941	10.0000	8.66(M)
63 o-Xylene	106	8.747	8.747	(1.069)	51484	5.00000	4.66(M)
64 Styrene	104	8.762	8.762	(1.071)	81277	5.00000	4.80(M)
66 Bromoform	173	8.920	8.920	(1.090)	18129	5.00000	6.93
67 Isopropylbenzene	105	9.062	9.062	(1.107)	106778	5.00000	5.53(M)
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	48111	5.00000	4.97
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	43329	5.00000	4.81
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	497786	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	42193	5.00000	5.11
73 n-Propylbenzene	91	9.411	9.411	(0.925)	104281	5.00000	6.19(M)
74 Bromobenzene	156	9.317	9.317	(0.916)	37894	5.00000	4.78
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	83567	5.00000	4.46(M)
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	84153	5.00000	4.55
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	97057	5.00000	4.47(M)
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	82646	5.00000	4.58(M)
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	89902	5.00000	4.67(M)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	102146	5.00000	5.88(M)
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	91770	5.00000	6.42(M)
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	67187	5.00000	4.81
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	79406	5.00000	5.06
87 n-Butylbenzene	91	10.491	10.491	(1.031)	70297	5.00000	5.91(M)
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	68123	5.00000	4.77



89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	4962	5.00000	4.12(M)
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	38785	5.00000	4.77(M)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091406.D Page 3

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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)	18387	5.00000	5.04(M)
92 Naphthalene	128	12.073	12.073	(1.187)	71056	5.00000	5.75(M)
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	32422	5.00000	4.20
M 94 1,2-Dichloroethylene (total)	96				69939	10.0000	
M 95 Xylenes (total)	106				143425	15.0000	
135 1,4-Dioxane	88	6.176	6.176	(1.283)	9267	100.000	103.51(M)
141 Cyclohexane	56	4.781	4.781	(0.993)	42320	5.00000	5.69(M)
138 Freon TF	101	2.330	2.330	(0.484)	25879	5.00000	5.48
140 1,3-Butadiene	54	1.400	1.400	(0.291)	35494	5.00000	4.87(M)
147 Methylcyclohexane	55	5.951	5.951	(1.072)	69365	5.00000	4.87(M)
146 Methyl Acetate	43	2.716	2.716	(0.564)	37702	5.00000	5.04
148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	76557	100.000	101.45
149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	51206	100.000	94.58

QC Flag Legend

M - Compound response manually integrated.

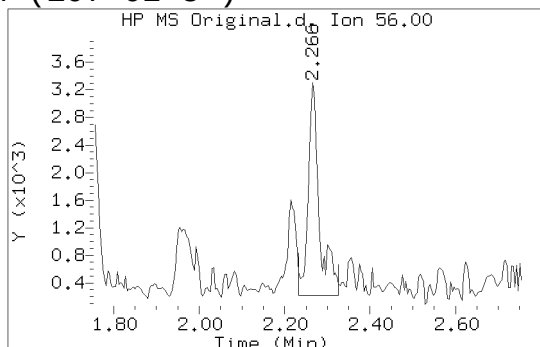


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Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Acrolein (107-02-8)

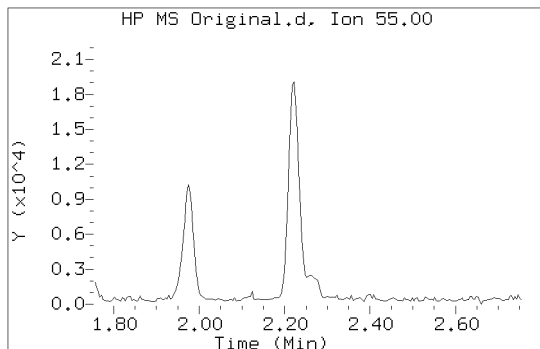
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18-Sep-2023
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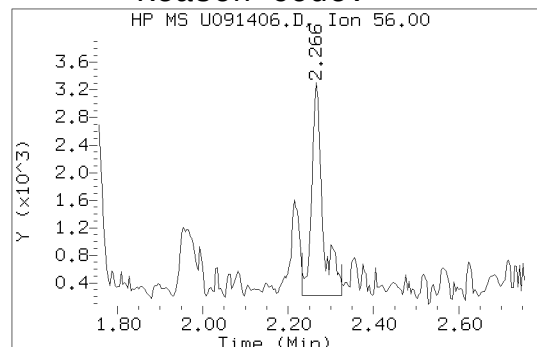
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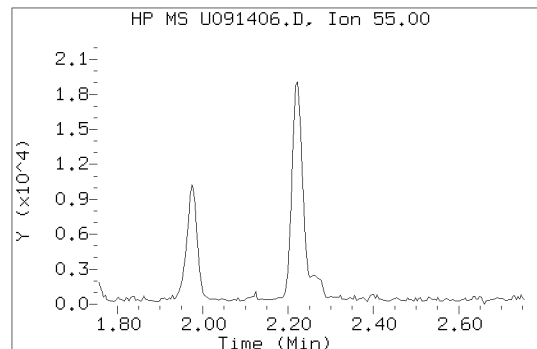
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AFTER

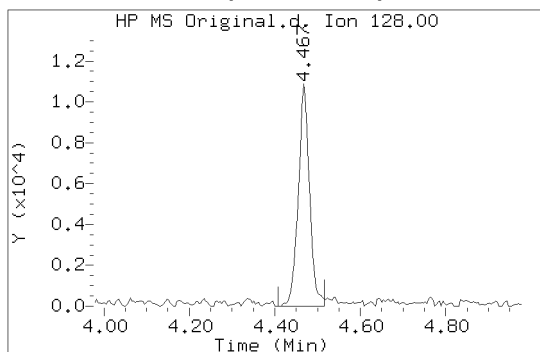
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Bromochloromethane (74-97-5)

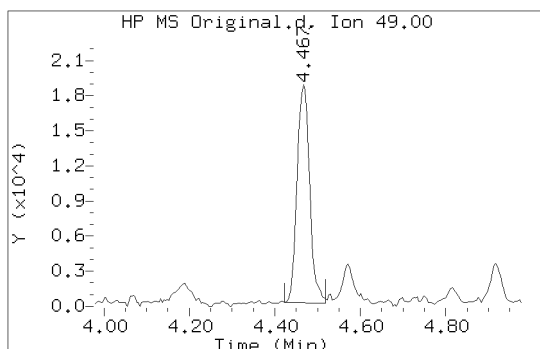
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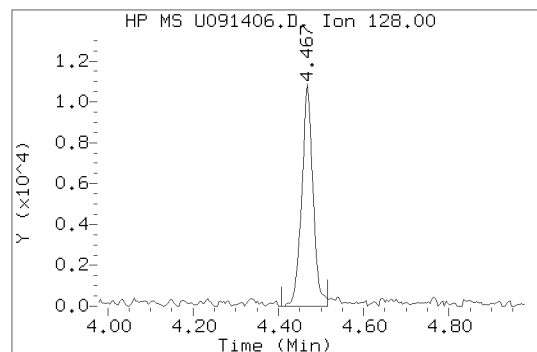
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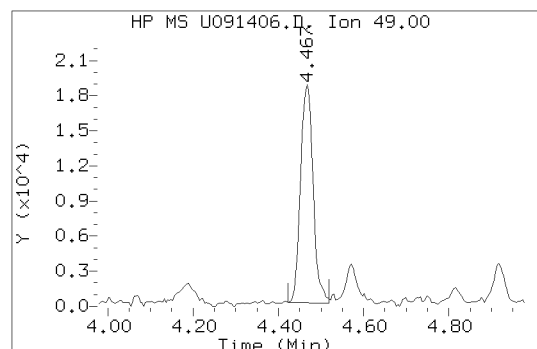
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AFTER

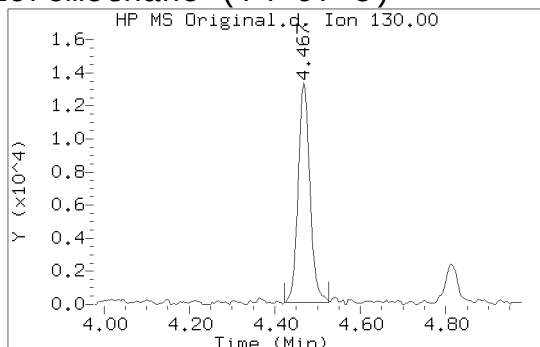
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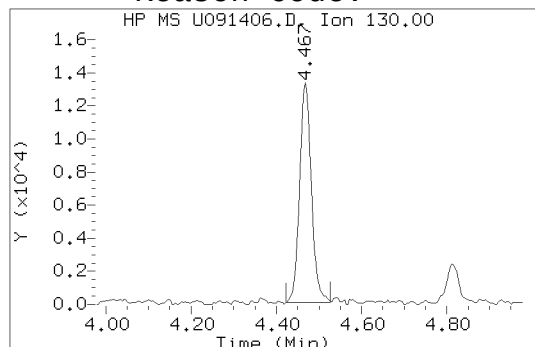
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InstruID : VOA9.i
LabSampID : VSTD005

Bromochloromethane (74-97-5)**BEFORE**

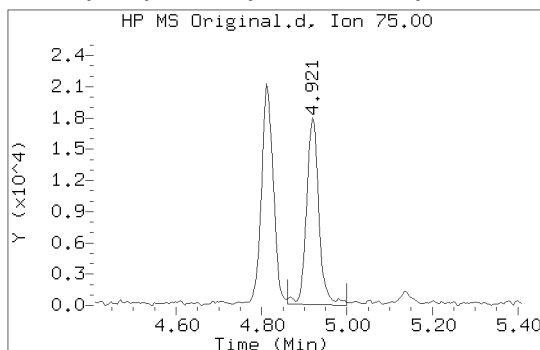
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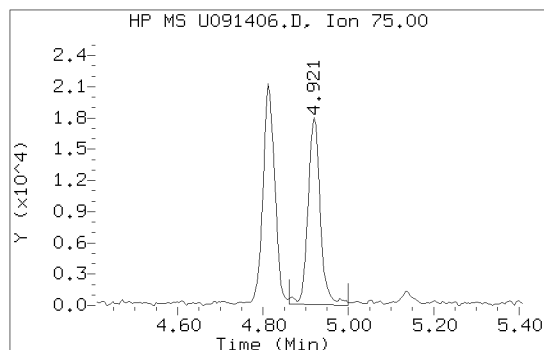
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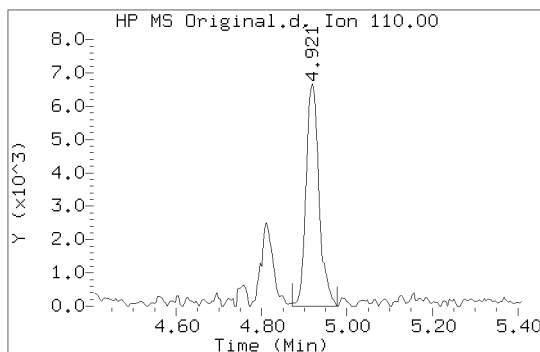
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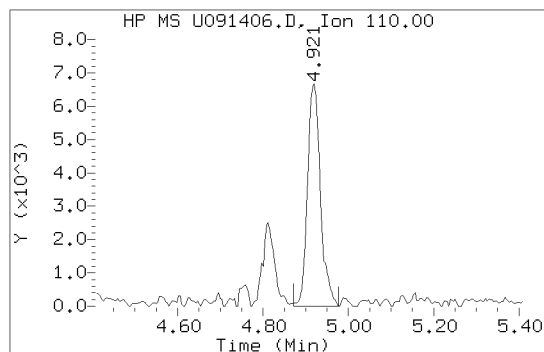
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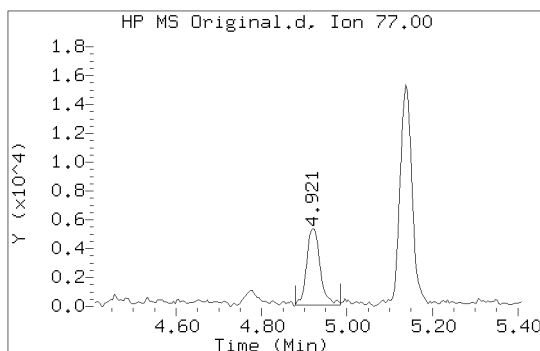
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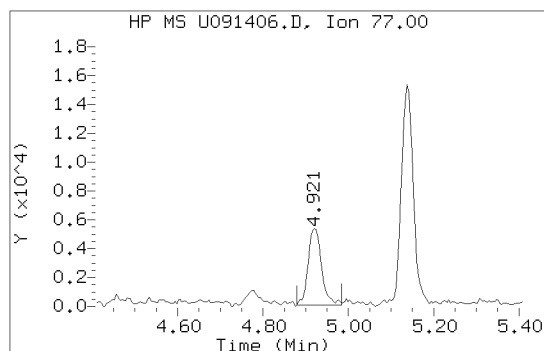
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**BEFORE**

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HEIGHT
5283
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**AFTER**

MASS
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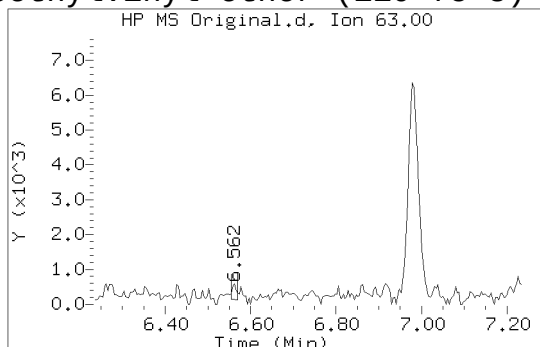


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InstruID : VOA9.i
LabSampID : VSTD005

2-Chloroethylvinyl ether (110-75-8)

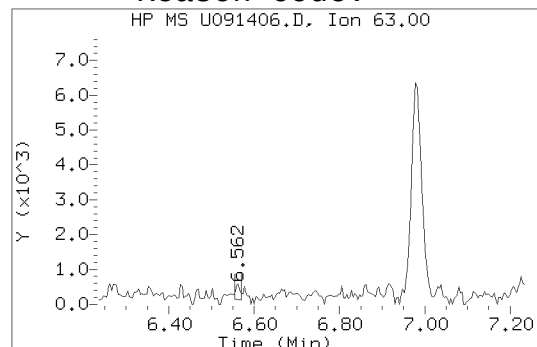
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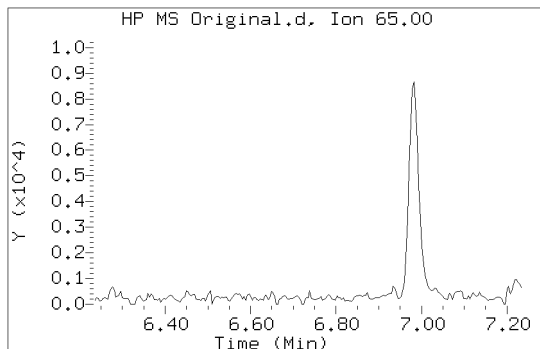
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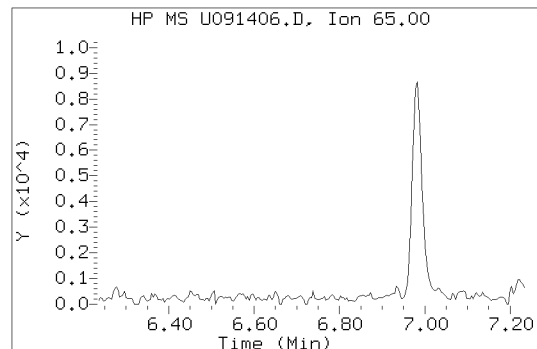
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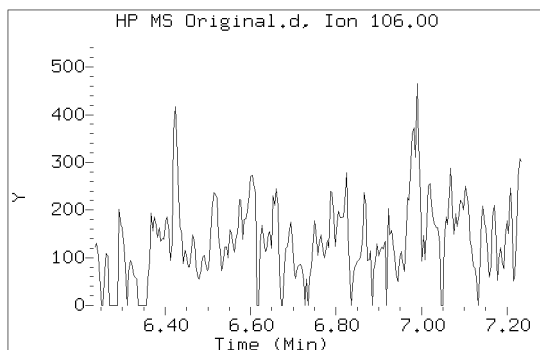
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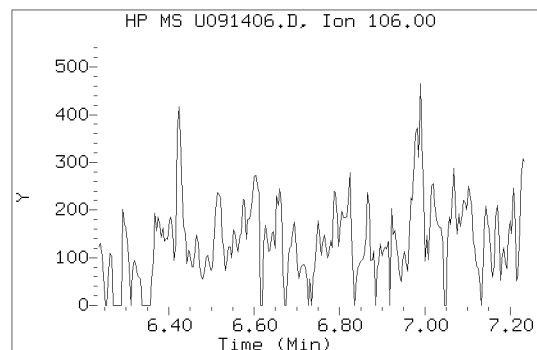
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AFTER

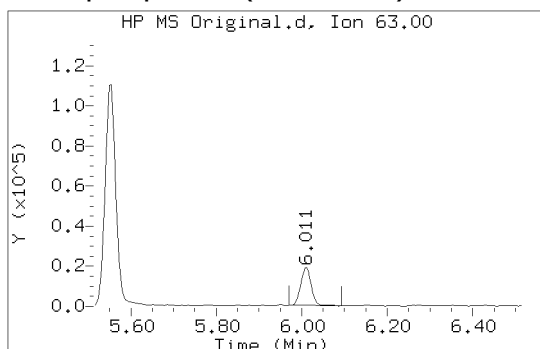
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1,2-Dichloropropane (78-87-5)

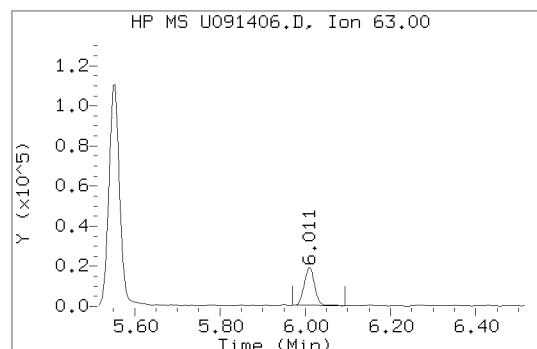
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AFTER

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12:30
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pham

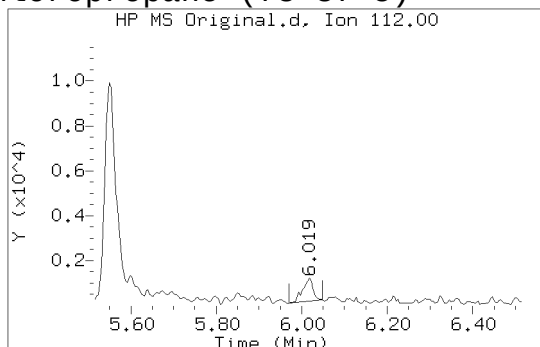


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InstruID : VOA9.i
LabSampID : VSTD005

1,2-Dichloropropane (78-87-5)

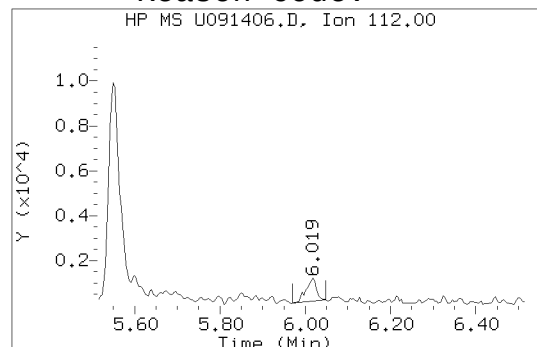
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pham



AFTER

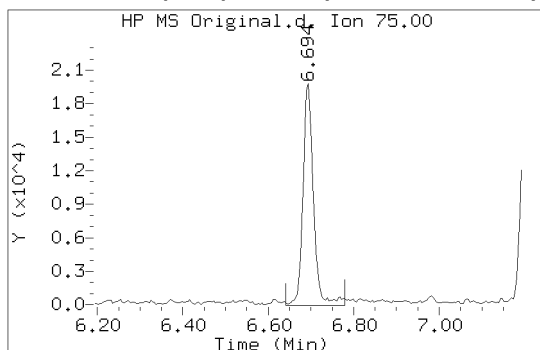
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cis-1,3-Dichloropropene (10061-01-5)

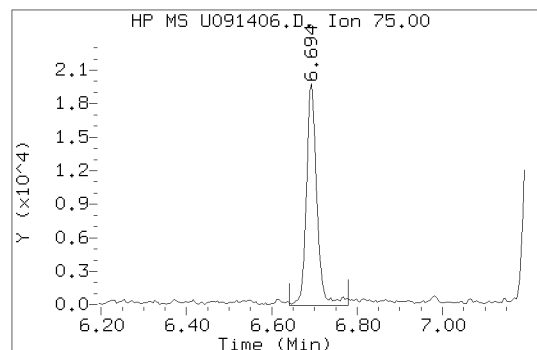
BEFORE

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12:30
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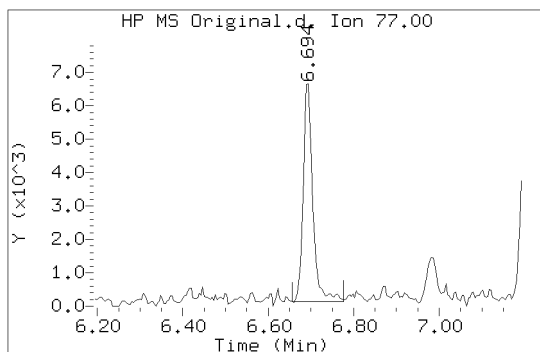
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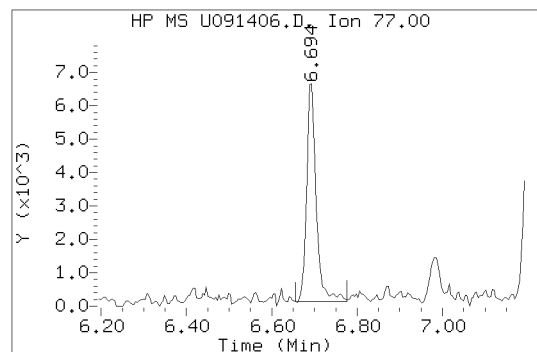
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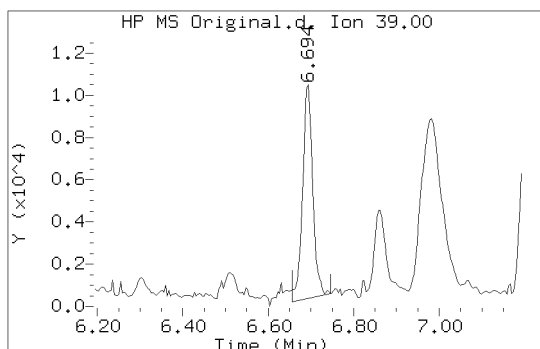
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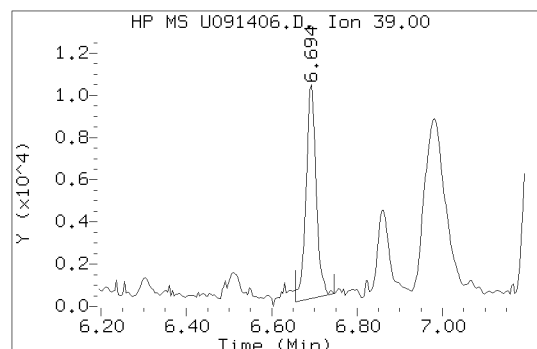
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AFTER

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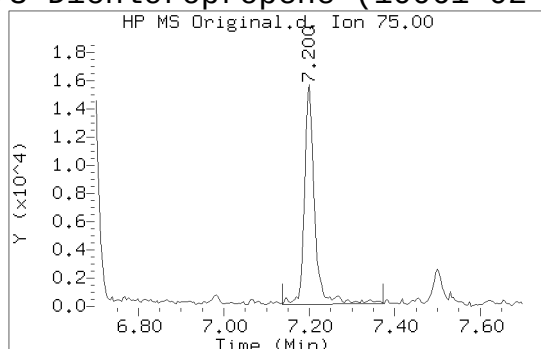


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 Inj Date : 14-SEP-2023 17:37
 InstruID : VOA9.i
 LabSampID : VSTD005

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

BEFORE

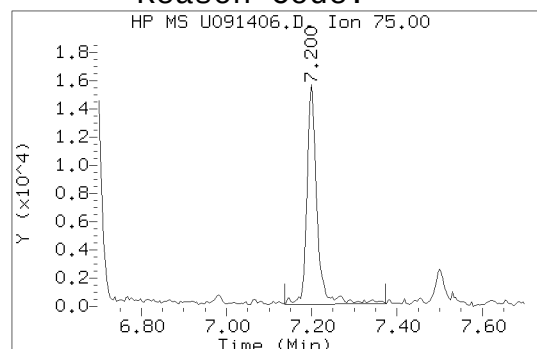
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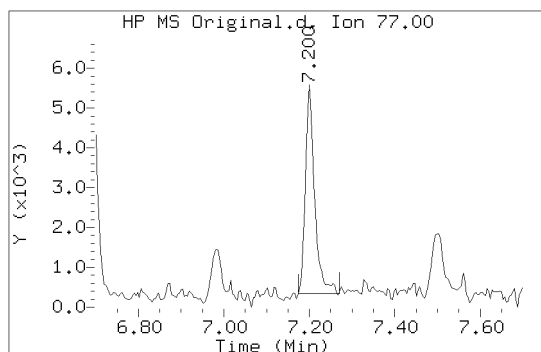
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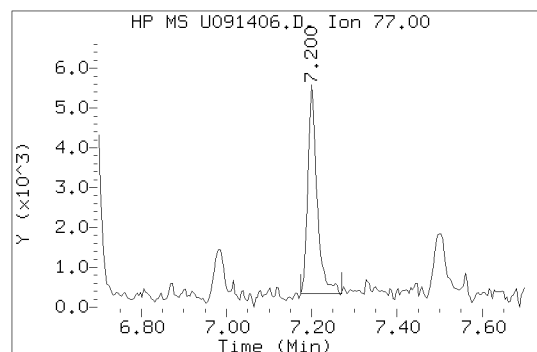
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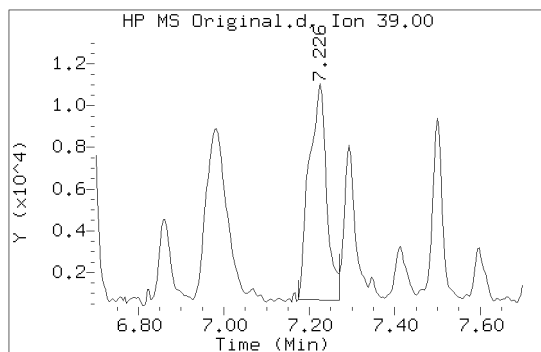
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12:30
linh
pham



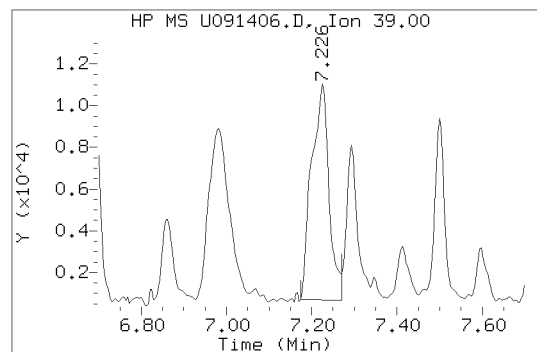
BEFORE

MASS
39
AREA
29827
HEIGHT
10370
18-Sep-2023
12:30
linh
pham



AFTER

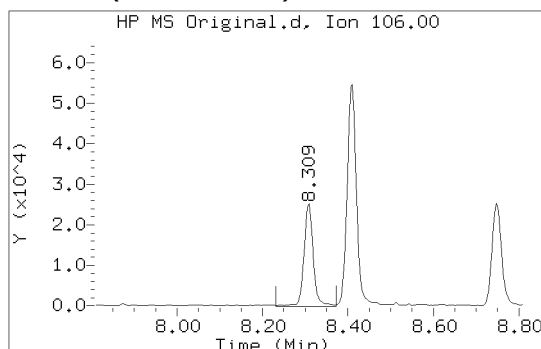
MASS
39
AREA
29827
HEIGHT
10370
18-Sep-2023
12:30
linh
pham



Ethylbenzene (100-41-4)

BEFORE

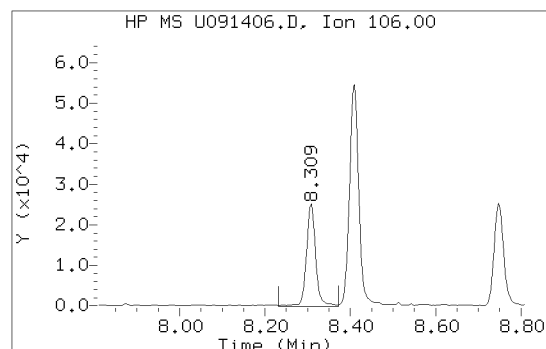
MASS
106
AREA
39301
HEIGHT
25250
18-Sep-2023
12:30
linh
pham



AFTER

MASS
106
AREA
39301
HEIGHT
25250
18-Sep-2023
12:30
linh
pham

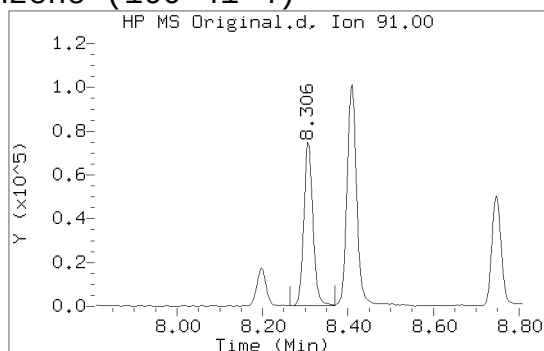
Reason Code:



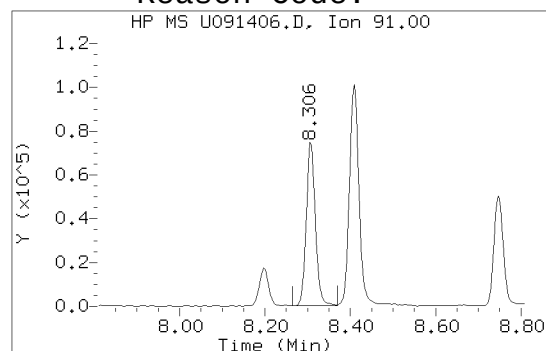
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Ethylbenzene (100-41-4)**BEFORE**

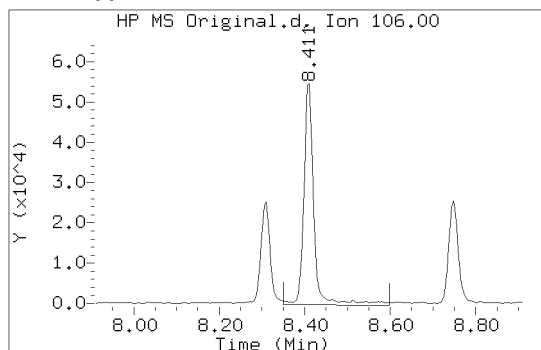
MASS
91
AREA
113082
HEIGHT
74731
18-Sep-2023
12:30
linh
pham

**AFTER**

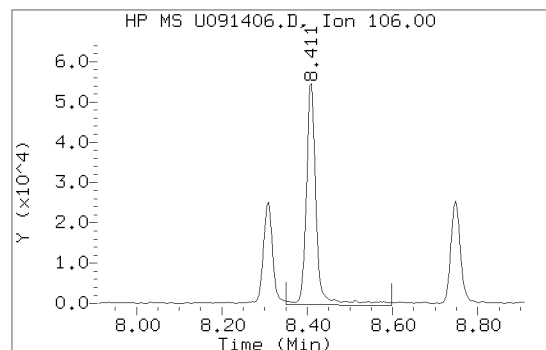
MASS
91
AREA
113082
HEIGHT
74731
18-Sep-2023
12:30
linh
pham

**m,p-Xylenes ()****BEFORE**

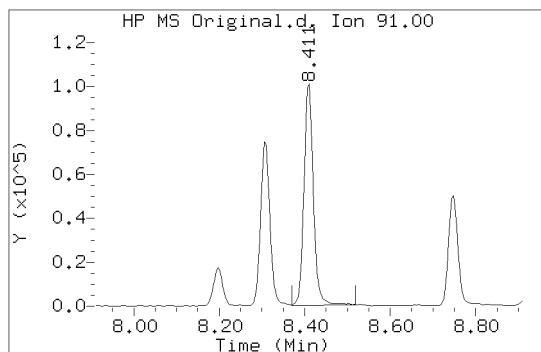
MASS
106
AREA
91941
HEIGHT
54902
18-Sep-2023
12:30
linh
pham

**AFTER**

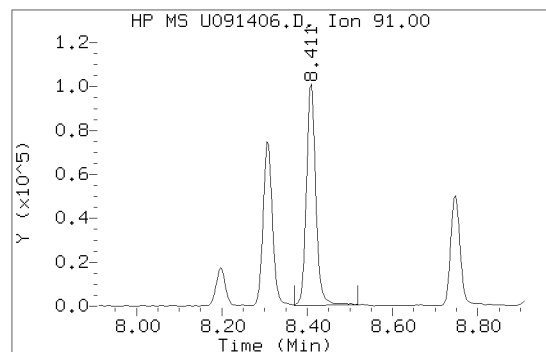
MASS
106
AREA
91941
HEIGHT
54902
18-Sep-2023
12:30
linh
pham

**BEFORE**

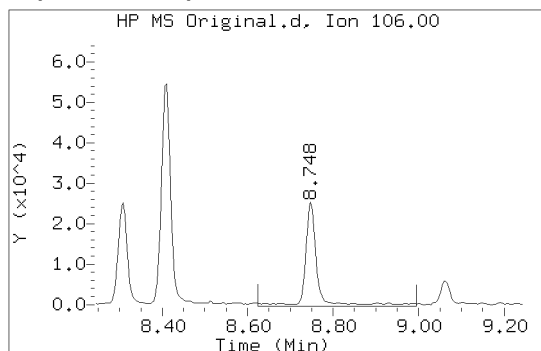
MASS
91
AREA
156925
HEIGHT
100760
18-Sep-2023
12:30
linh
pham

**AFTER**

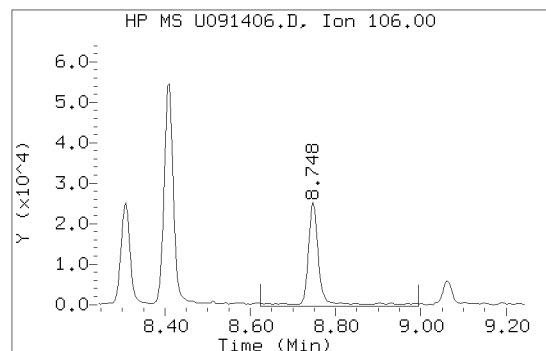
MASS
91
AREA
156925
HEIGHT
100760
18-Sep-2023
12:30
linh
pham

**o-Xylene (95-47-6)****BEFORE**

MASS
106
AREA
51484
HEIGHT
25760
18-Sep-2023
12:30
linh
pham

**AFTER**

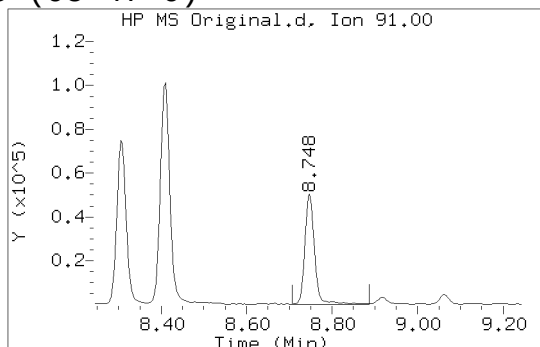
MASS
106
AREA
51484
HEIGHT
25760
18-Sep-2023
12:30
linh
pham



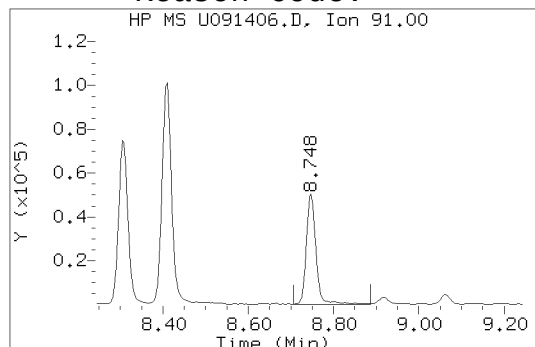
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

o-Xylene (95-47-6)**BEFORE**

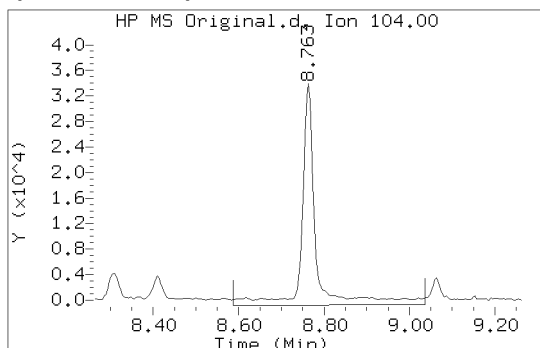
MASS
91
AREA
79419
HEIGHT
50150
18-Sep-2023
12:30
linh
pham

**AFTER**

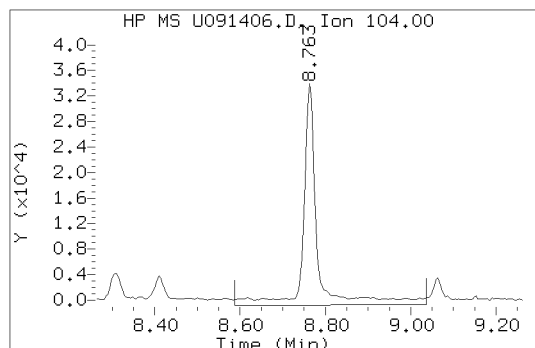
MASS
91
AREA
79419
HEIGHT
50150
18-Sep-2023
12:30
linh
pham

Reason Code:**Styrene (100-42-5)****BEFORE**

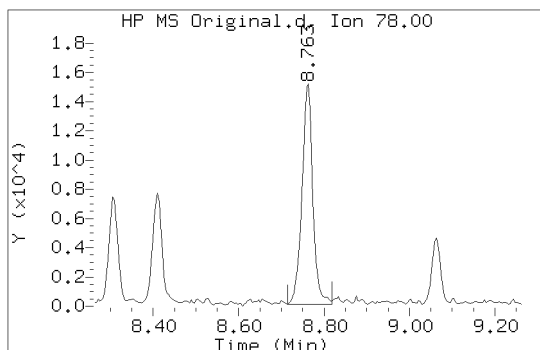
MASS
104
AREA
81277
HEIGHT
34687
18-Sep-2023
12:30
linh
pham

**AFTER**

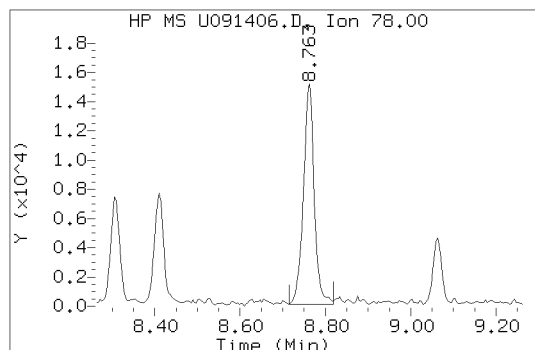
MASS
104
AREA
81277
HEIGHT
34687
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

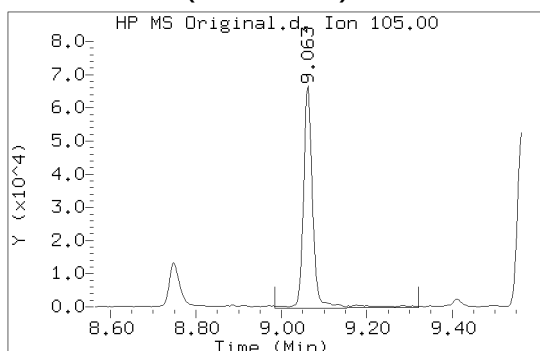
MASS
78
AREA
26871
HEIGHT
15069
18-Sep-2023
12:30
linh
pham

**AFTER**

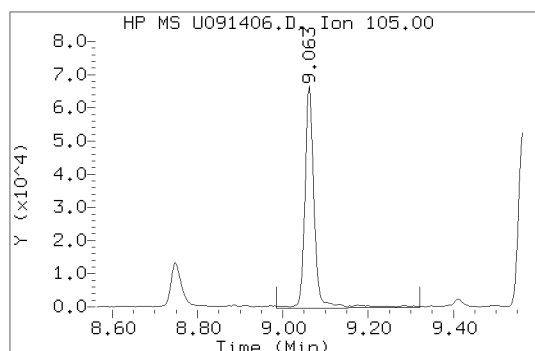
MASS
78
AREA
26871
HEIGHT
15069
18-Sep-2023
12:30
linh
pham

**Isopropylbenzene (98-82-8)****BEFORE**

MASS
105
AREA
106778
HEIGHT
66977
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
105
AREA
106778
HEIGHT
66977
18-Sep-2023
12:30
linh
pham

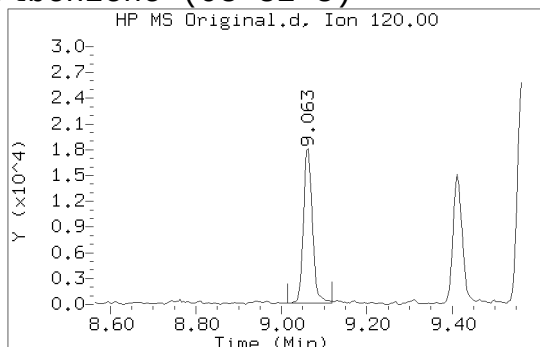
Reason Code:

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Isopropylbenzene (98-82-8)

BEFORE

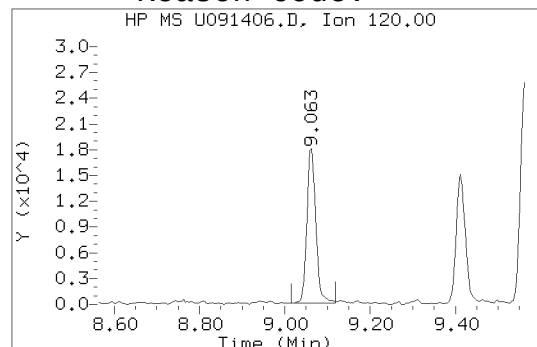
MASS
120
AREA
26818
HEIGHT
17946
18-Sep-2023
12:30
linh
pham



AFTER

MASS
120
AREA
26818
HEIGHT
17946
18-Sep-2023
12:30
linh
pham

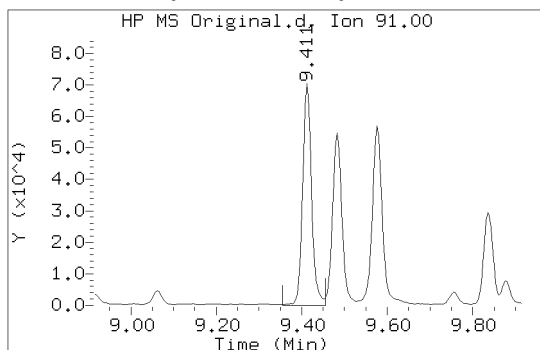
Reason Code:



n-Propylbenzene (106-65-1)

BEFORE

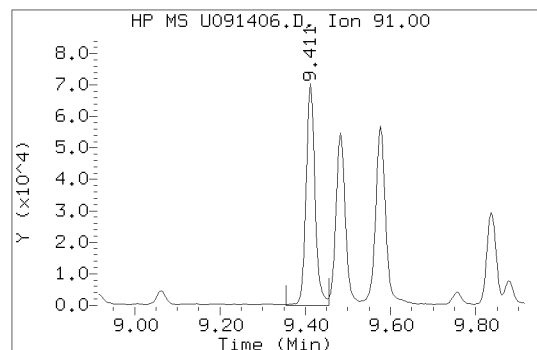
MASS
91
AREA
104281
HEIGHT
70423
18-Sep-2023
12:30
linh
pham



AFTER

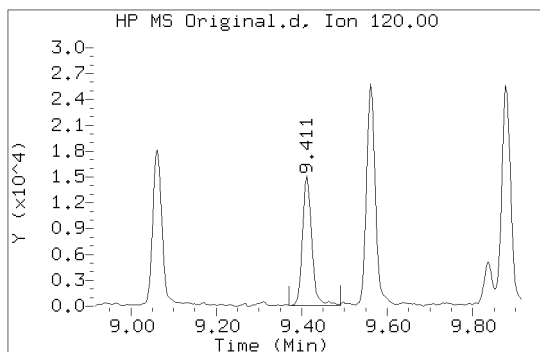
MASS
91
AREA
104281
HEIGHT
70423
18-Sep-2023
12:30
linh
pham

Reason Code:



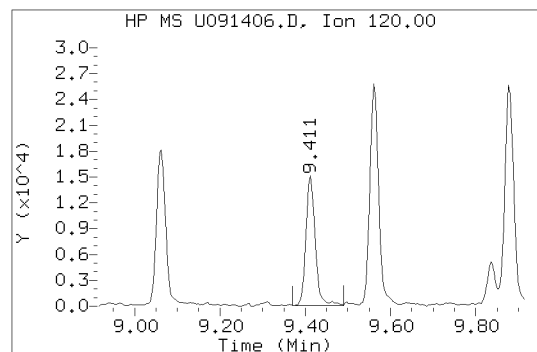
BEFORE

MASS
120
AREA
23145
HEIGHT
15052
18-Sep-2023
12:30
linh
pham



AFTER

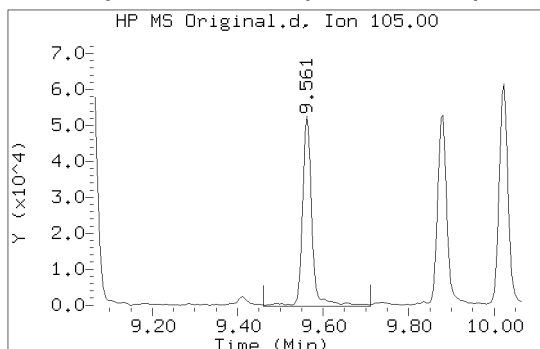
MASS
120
AREA
23145
HEIGHT
15052
18-Sep-2023
12:30
linh
pham



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

BEFORE

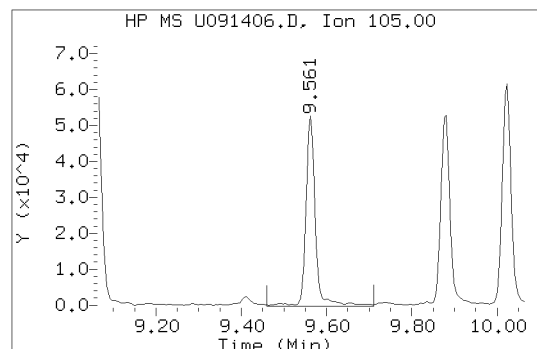
MASS
105
AREA
83567
HEIGHT
52856
18-Sep-2023
12:30
linh
pham



AFTER

MASS
105
AREA
83567
HEIGHT
52856
18-Sep-2023
12:30
linh
pham

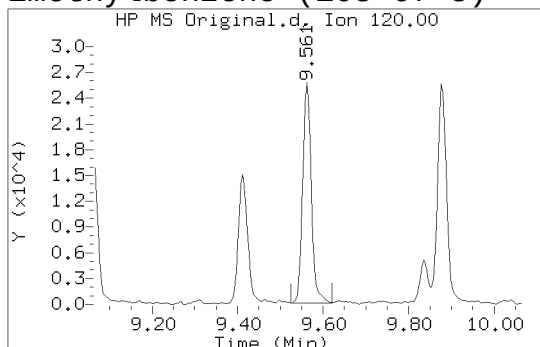
Reason Code:



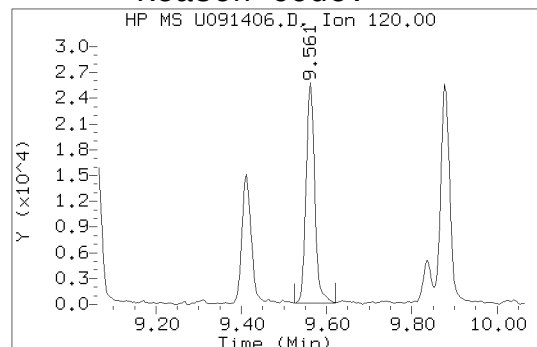
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

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

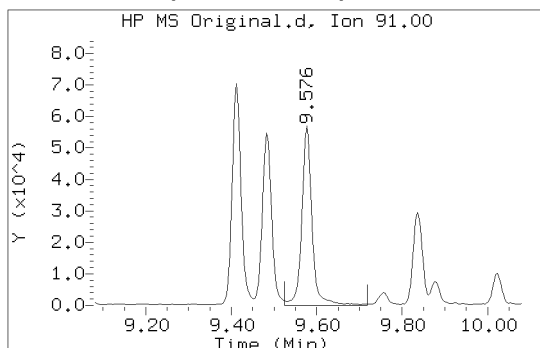
MASS
120
AREA
36704
HEIGHT
25646
18-Sep-2023
12:30
linh
pham

**AFTER**

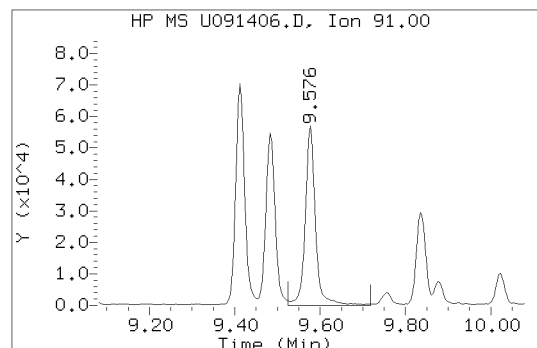
MASS
120
AREA
36704
HEIGHT
25646
18-Sep-2023
12:30
linh
pham

Reason Code:**4-Chlorotoluene (106-43-4)****BEFORE**

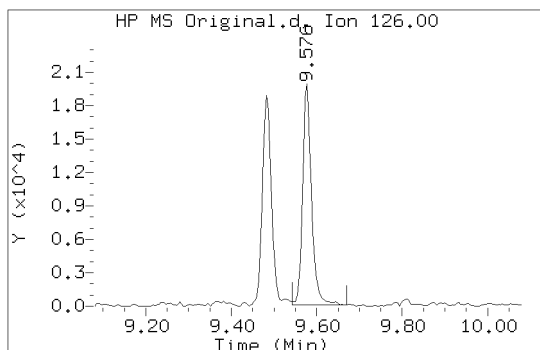
MASS
91
AREA
97057
HEIGHT
56999
18-Sep-2023
12:30
linh
pham

**AFTER**

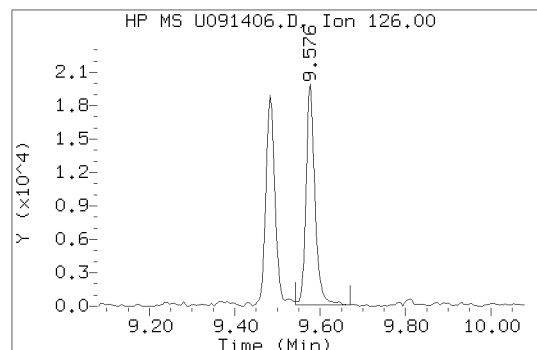
MASS
91
AREA
97057
HEIGHT
56999
18-Sep-2023
12:30
linh
pham

Reason Code:**BEFORE**

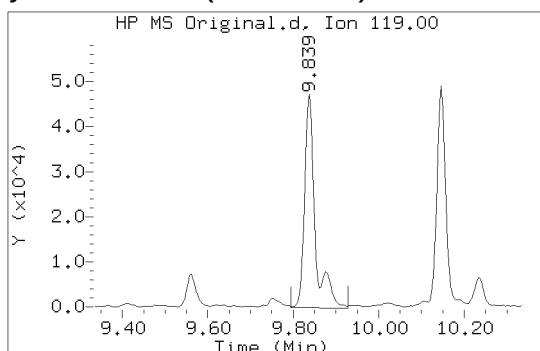
MASS
126
AREA
29274
HEIGHT
19828
18-Sep-2023
12:30
linh
pham

**AFTER**

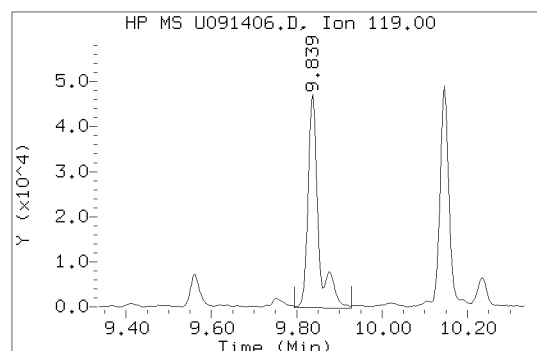
MASS
126
AREA
29274
HEIGHT
19828
18-Sep-2023
12:30
linh
pham

**tert-Butylbenzene (98-06-6)****BEFORE**

MASS
119
AREA
82646
HEIGHT
47356
18-Sep-2023
12:30
linh
pham

**AFTER**

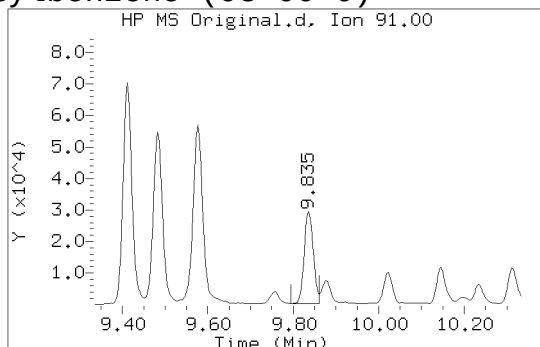
MASS
119
AREA
82646
HEIGHT
47356
18-Sep-2023
12:30
linh
pham

Reason Code:

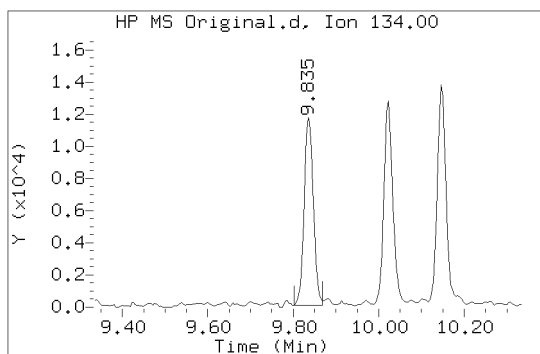
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

tert-Butylbenzene (98-06-6)**BEFORE**

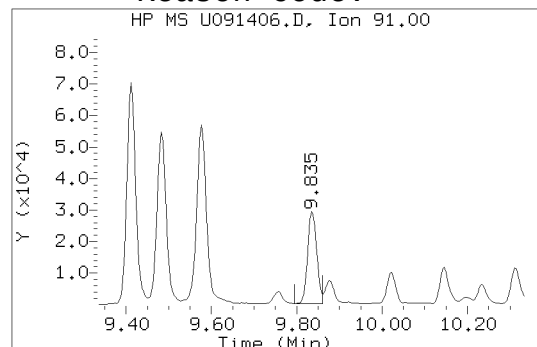
MASS
91
AREA
44815
HEIGHT
29298
18-Sep-2023
12:30
linh

**BEFORE**

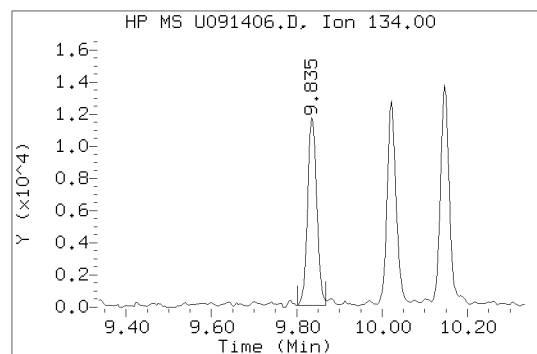
MASS
134
AREA
17772
HEIGHT
11642
18-Sep-2023
12:30
linh
pham

**AFTER**

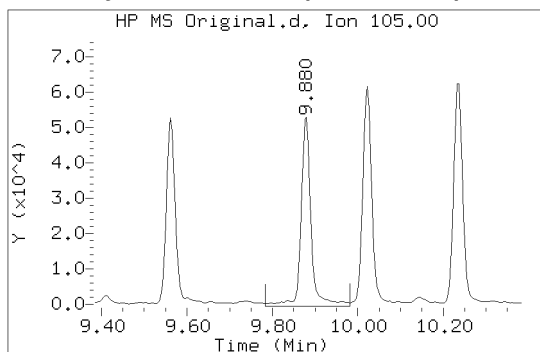
MASS
91
AREA
44815
HEIGHT
29298
18-Sep-2023
12:30
linh

**AFTER**

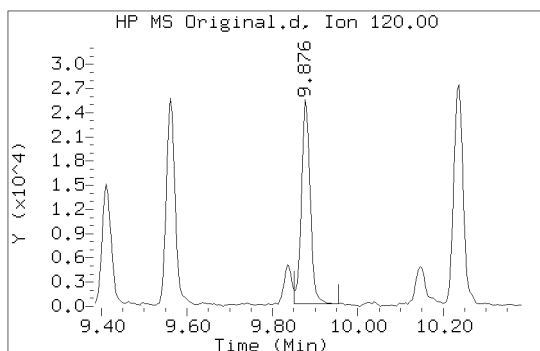
MASS
134
AREA
17772
HEIGHT
11642
18-Sep-2023
12:30
linh
pham

**1,2,4-Trimethylbenzene (95-63-6)****BEFORE**

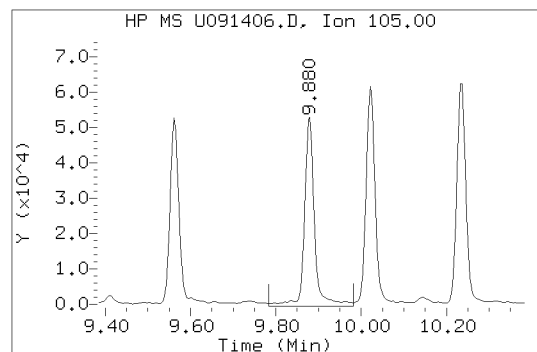
MASS
105
AREA
89902
HEIGHT
53384
18-Sep-2023
12:30
linh
pham

**BEFORE**

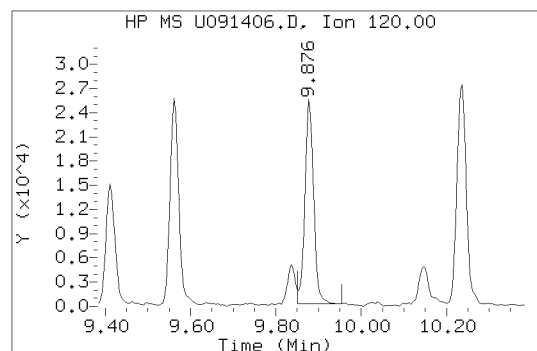
MASS
120
AREA
37339
HEIGHT
25351
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
105
AREA
89902
HEIGHT
53384
18-Sep-2023
12:30
linh
pham

**AFTER**

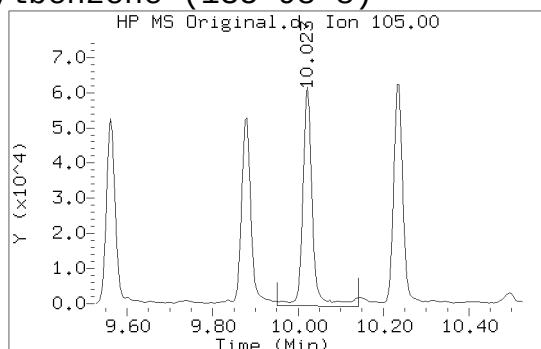
MASS
120
AREA
37339
HEIGHT
25351
18-Sep-2023
12:30
linh
pham



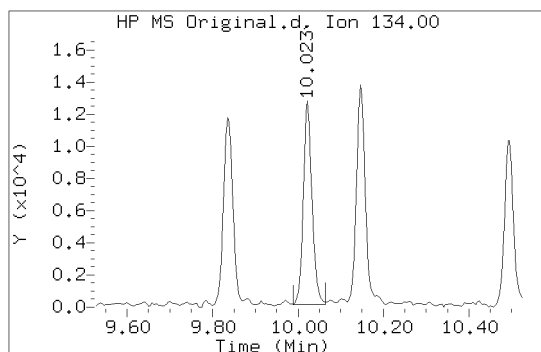
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

sec-Butylbenzene (135-98-8)**BEFORE**

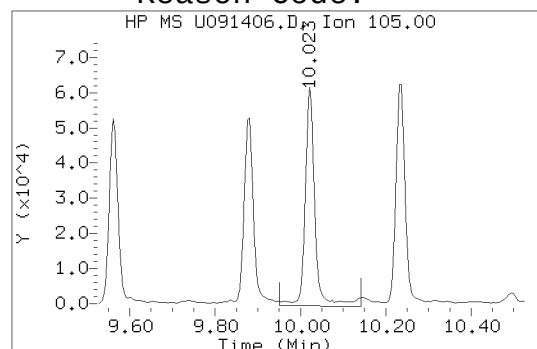
MASS
105
AREA
102146
HEIGHT
62299
18-Sep-2023
12:30
linh

**BEFORE**

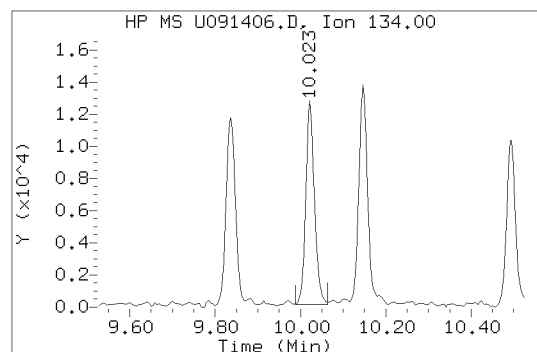
MASS
134
AREA
18328
HEIGHT
12659
18-Sep-2023
12:30
linh
pham

**AFTER**

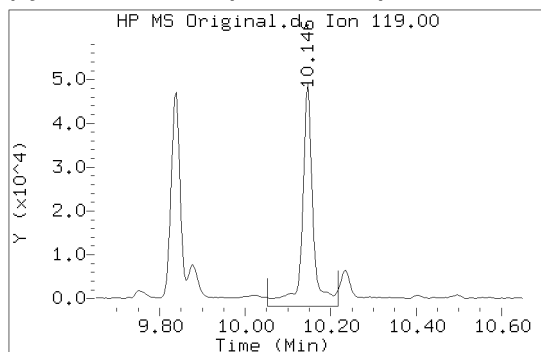
MASS
105
AREA
102146
HEIGHT
62299
18-Sep-2023
12:30
linh

**AFTER**

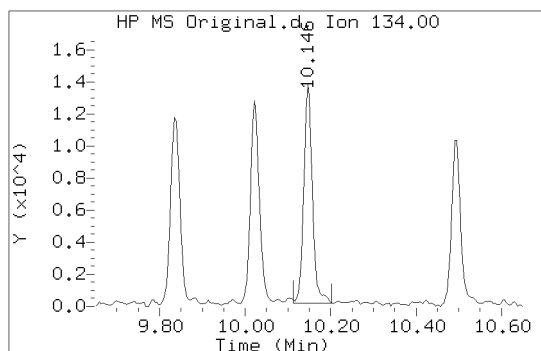
MASS
134
AREA
18328
HEIGHT
12659
18-Sep-2023
12:30
linh
pham

**Reason Code:****p-Isopropyltoluene (99-87-6)****BEFORE**

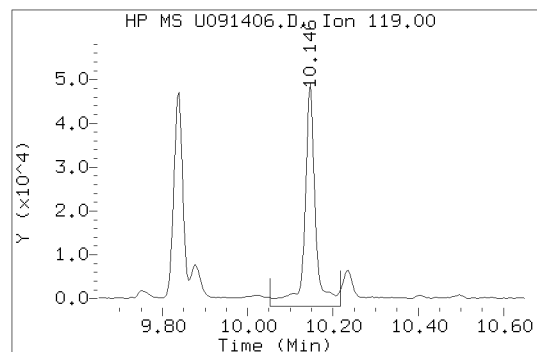
MASS
119
AREA
91770
HEIGHT
50723
18-Sep-2023
12:30
linh
pham

**BEFORE**

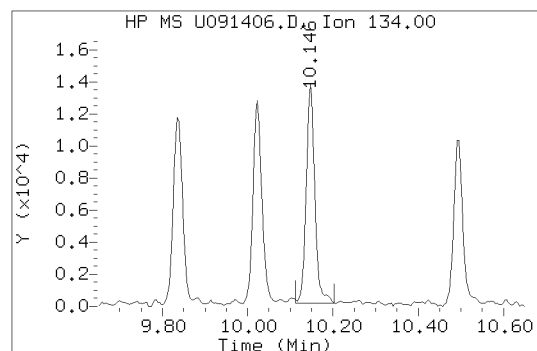
MASS
134
AREA
19665
HEIGHT
13619
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
119
AREA
91770
HEIGHT
50723
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
134
AREA
19665
HEIGHT
13619
18-Sep-2023
12:30
linh
pham

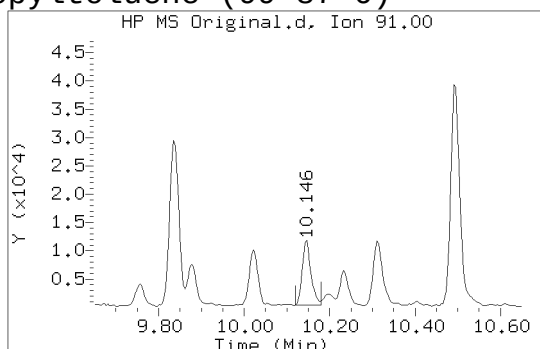
**Reason Code:**

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

p-Isopropyltoluene (99-87-6)

BEFORE

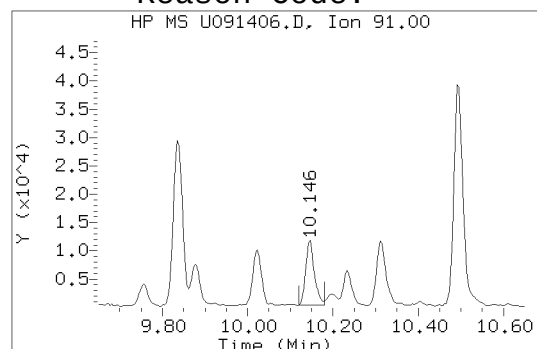
MASS
91
AREA
16727
HEIGHT
11415
18-Sep-2023
12:30
linh
pham



AFTER

MASS
91
AREA
16727
HEIGHT
11415
18-Sep-2023
12:30
linh
pham

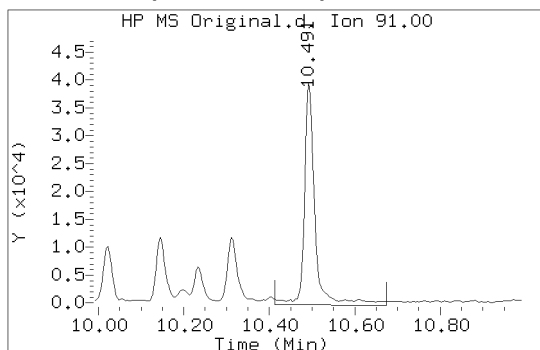
Reason Code:



n-Butylbenzene (104-51-8)

BEFORE

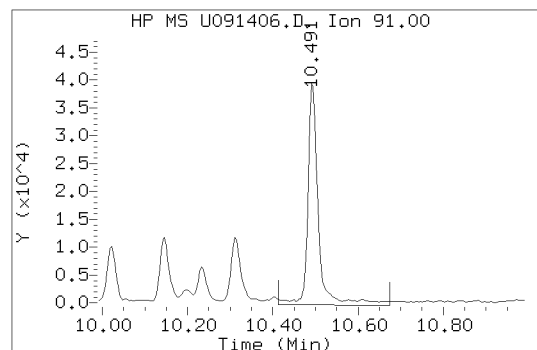
MASS
91
AREA
70297
HEIGHT
39689
18-Sep-2023
12:30
linh
pham



AFTER

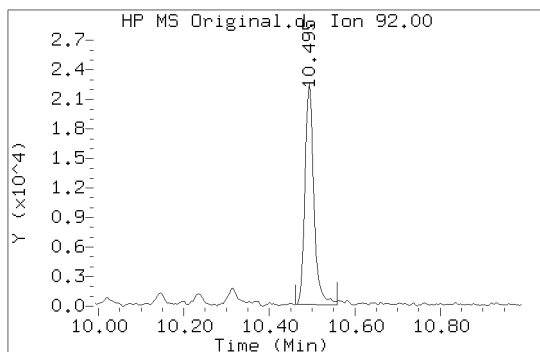
MASS
91
AREA
70297
HEIGHT
39689
18-Sep-2023
12:30
linh
pham

Reason Code:



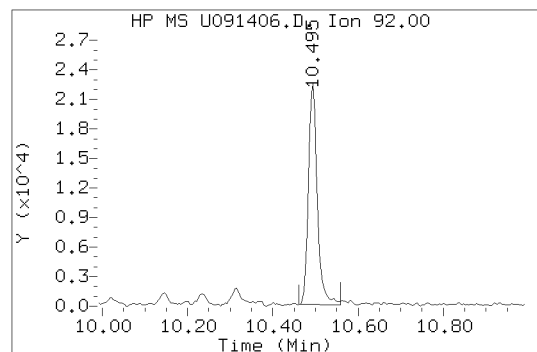
BEFORE

MASS
92
AREA
33008
HEIGHT
22403
18-Sep-2023
12:30
linh
pham



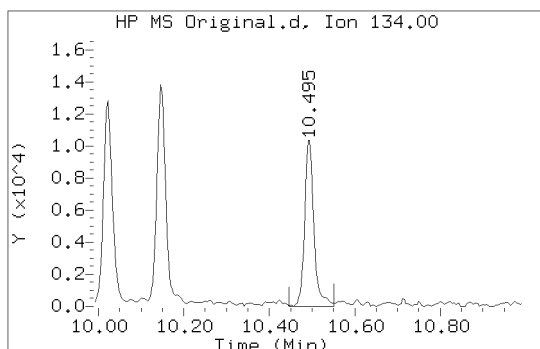
AFTER

MASS
92
AREA
33008
HEIGHT
22403
18-Sep-2023
12:30
linh
pham



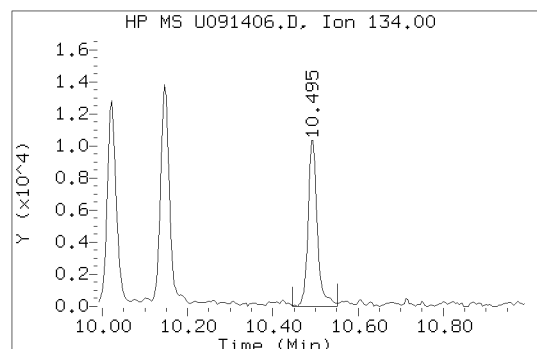
BEFORE

MASS
134
AREA
15917
HEIGHT
10357
18-Sep-2023
12:30
linh
pham



AFTER

MASS
134
AREA
15917
HEIGHT
10357
18-Sep-2023
12:30
linh
pham

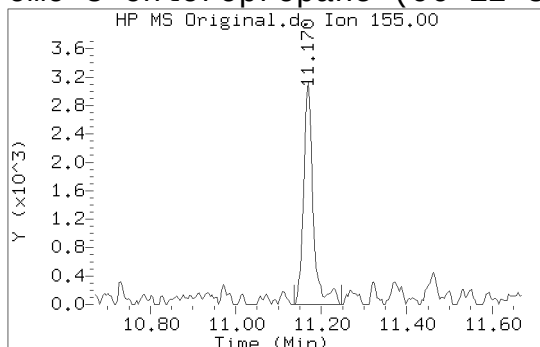


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

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

BEFORE

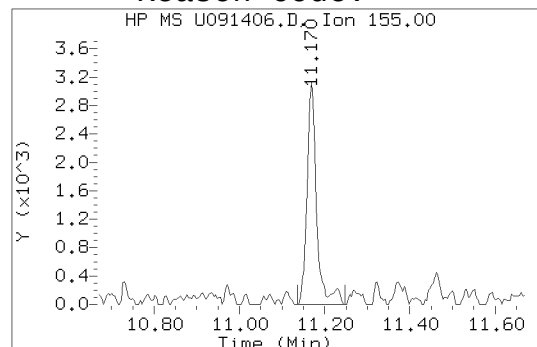
MASS
155
AREA
4962
HEIGHT
3123
18-Sep-2023
12:30
linh



AFTER

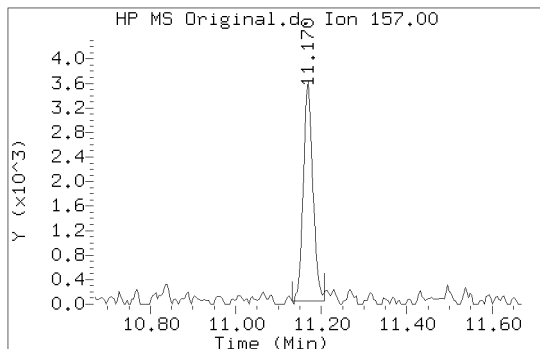
MASS
155
AREA
4962
HEIGHT
3123
18-Sep-2023
12:30
linh

Reason Code:



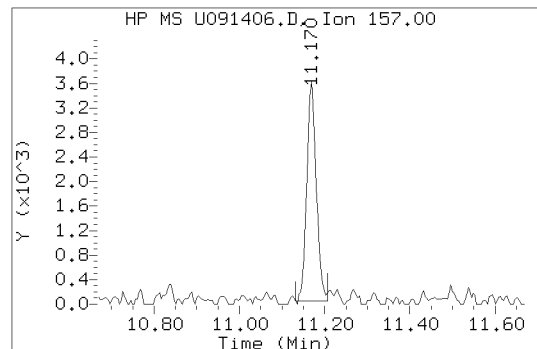
BEFORE

MASS
157
AREA
5644
HEIGHT
3570
18-Sep-2023
12:30
linh
pham



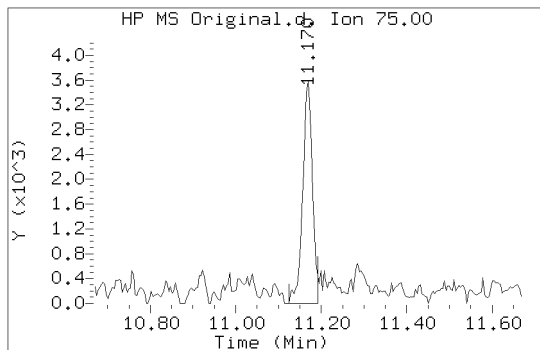
AFTER

MASS
157
AREA
5644
HEIGHT
3570
18-Sep-2023
12:30
linh
pham



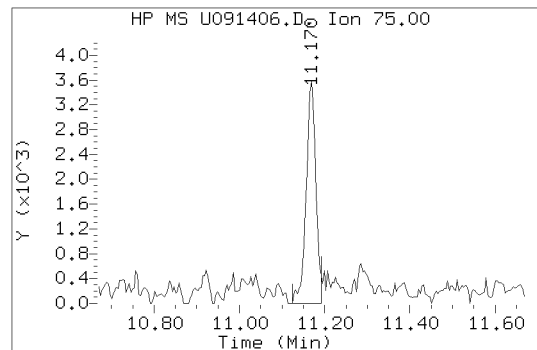
BEFORE

MASS
75
AREA
5782
HEIGHT
3574
18-Sep-2023
12:30
linh
pham



AFTER

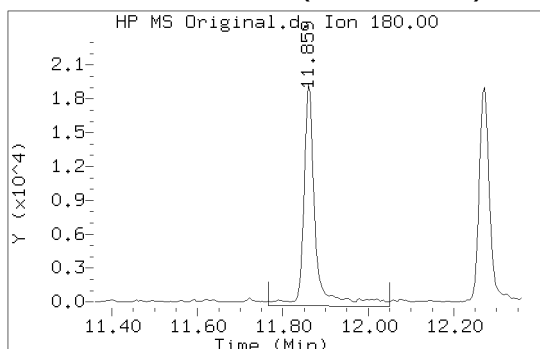
MASS
75
AREA
5782
HEIGHT
3574
18-Sep-2023
12:30
linh
pham



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

BEFORE

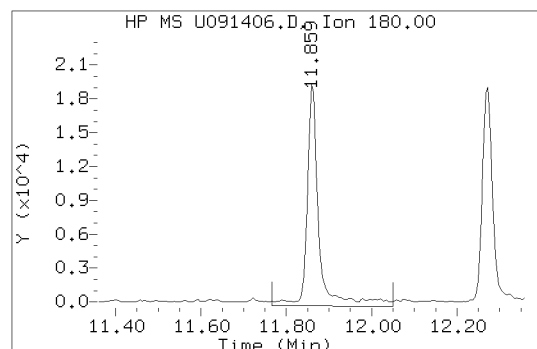
MASS
180
AREA
38785
HEIGHT
19598
18-Sep-2023
12:30
linh
pham



AFTER

MASS
180
AREA
38785
HEIGHT
19598
18-Sep-2023
12:30
linh
pham

Reason Code:

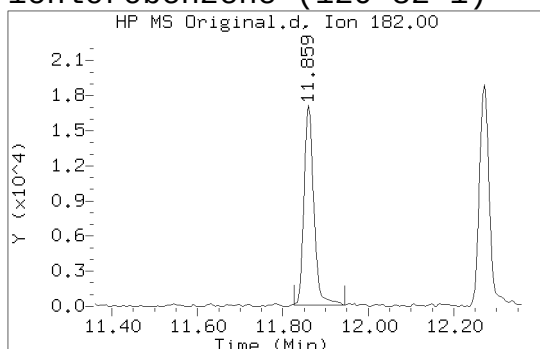


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

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

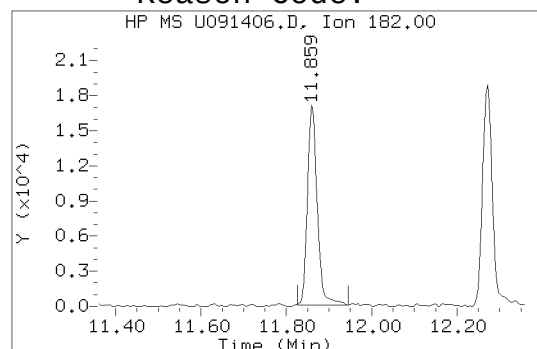
BEFORE

MASS
182
AREA
27874
HEIGHT
17066
18-Sep-2023
12:30
linh



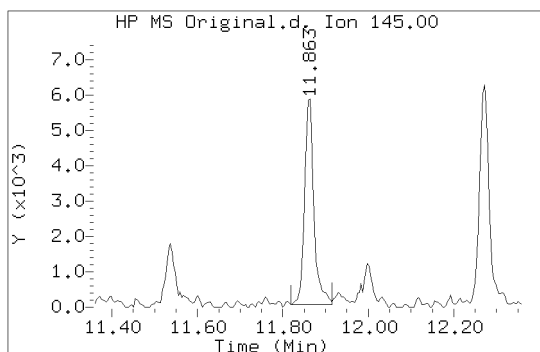
AFTER

MASS
182
AREA
27874
HEIGHT
17066
18-Sep-2023
12:30
linh



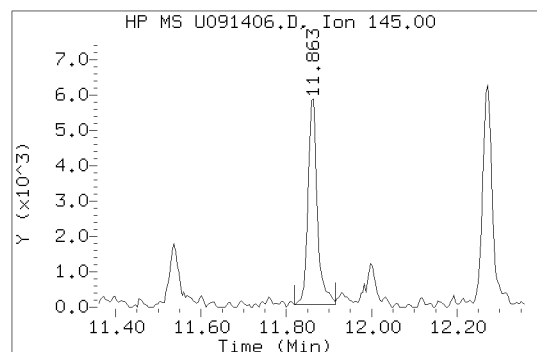
BEFORE

MASS
145
AREA
9106
HEIGHT
5827
18-Sep-2023
12:30
linh
pham



AFTER

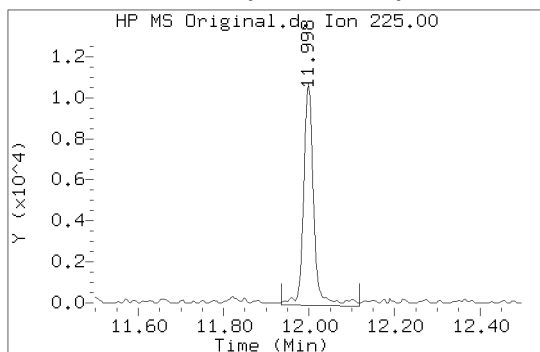
MASS
145
AREA
9106
HEIGHT
5827
18-Sep-2023
12:30
linh
pham



Hexachlorobutadiene (87-68-3)

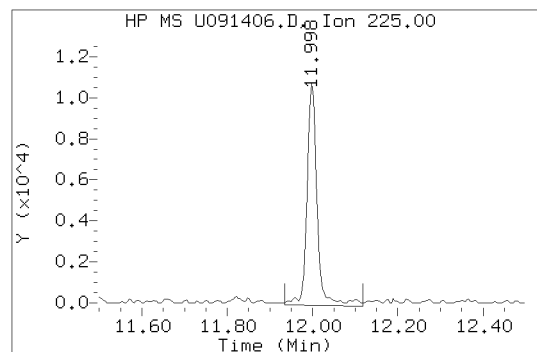
BEFORE

MASS
225
AREA
18387
HEIGHT
10796
18-Sep-2023
12:30
linh
pham



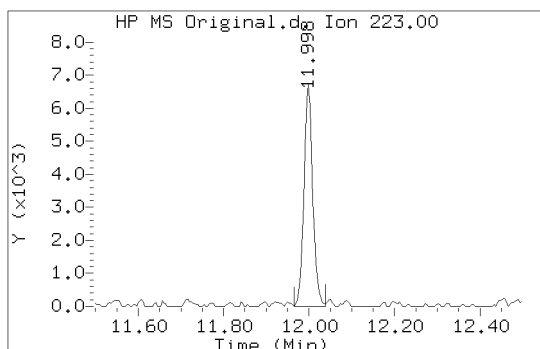
AFTER

MASS
225
AREA
18387
HEIGHT
10796
18-Sep-2023
12:30
linh
pham



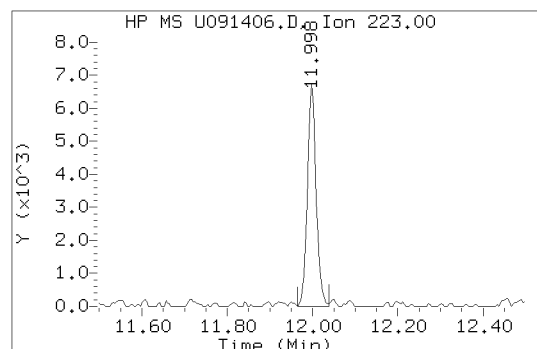
BEFORE

MASS
223
AREA
9758
HEIGHT
6712
18-Sep-2023
12:30
linh
pham



AFTER

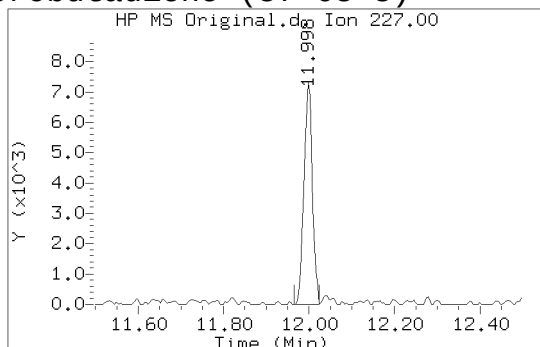
MASS
223
AREA
9758
HEIGHT
6712
18-Sep-2023
12:30
linh
pham



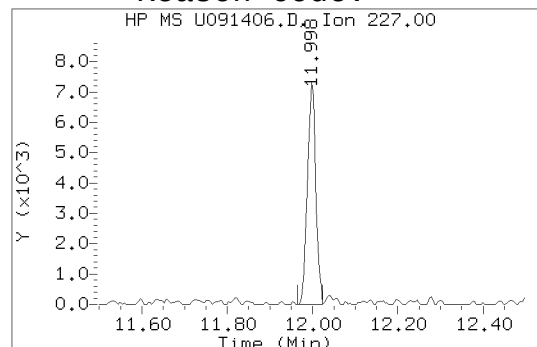
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Hexachlorobutadiene (87-68-3)**BEFORE**

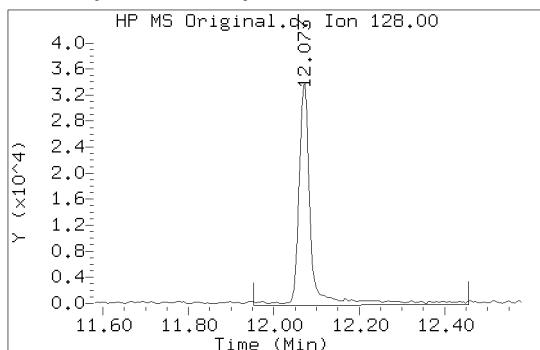
MASS
227
AREA
10189
HEIGHT
7303
18-Sep-2023
12:30
linh
pham

**AFTER**

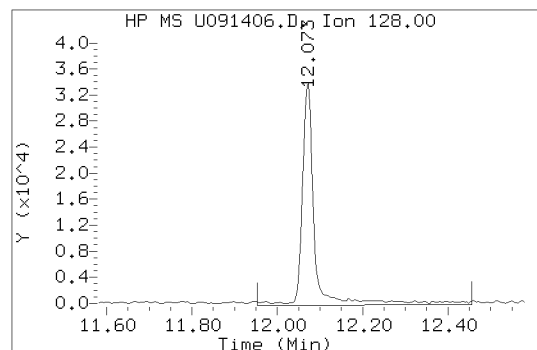
MASS
227
AREA
10189
HEIGHT
7303
18-Sep-2023
12:30
linh
pham

**Naphthalene (91-20-3)****BEFORE**

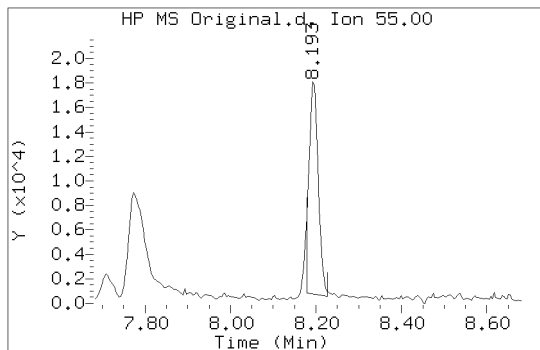
MASS
128
AREA
71056
HEIGHT
34033
18-Sep-2023
12:30
linh
pham

**AFTER**

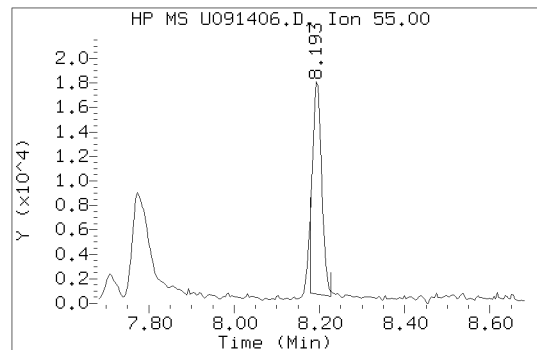
MASS
128
AREA
71056
HEIGHT
34033
18-Sep-2023
12:30
linh
pham

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

MASS
55
AREA
26895
HEIGHT
17332
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
55
AREA
26895
HEIGHT
17332
18-Sep-2023
12:30
linh
pham

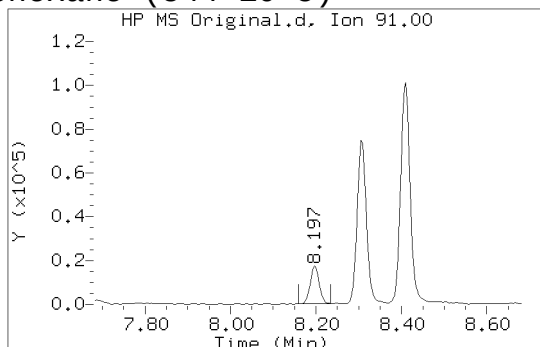


Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

1-Chlorohexane (544-10-5)

BEFORE

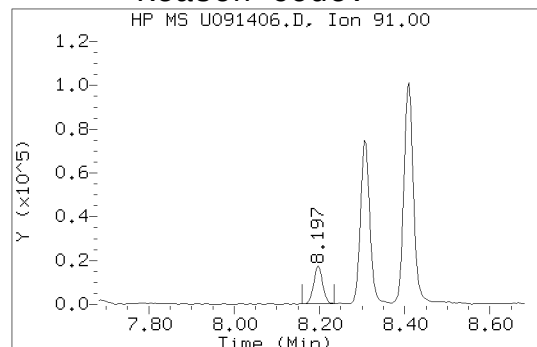
MASS
91
AREA
25667
HEIGHT
17258
18-Sep-2023
12:30
linh
pham



AFTER

MASS
91
AREA
25667
HEIGHT
17258
18-Sep-2023
12:30
linh
pham

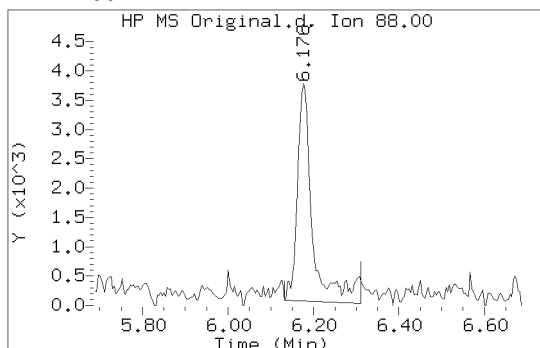
Reason Code:



1,4-Dioxane ()

BEFORE

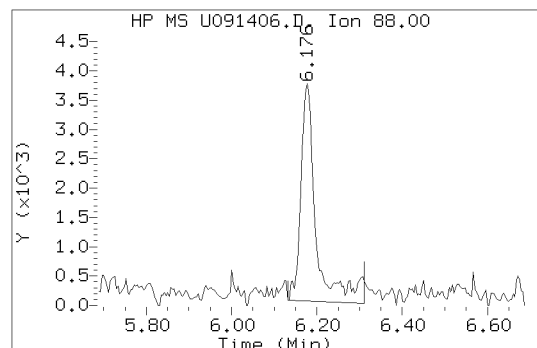
MASS
88
AREA
9267
HEIGHT
3705
18-Sep-2023
12:30
linh
pham



AFTER

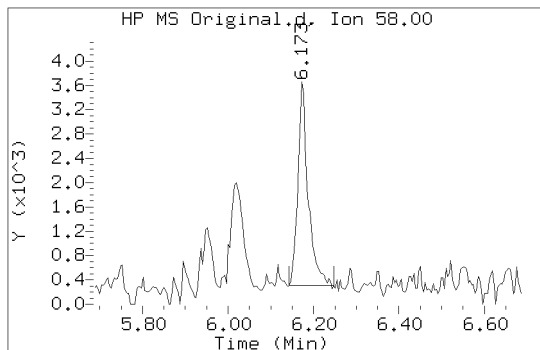
MASS
88
AREA
9267
HEIGHT
3705
18-Sep-2023
12:30
linh
pham

Reason Code:



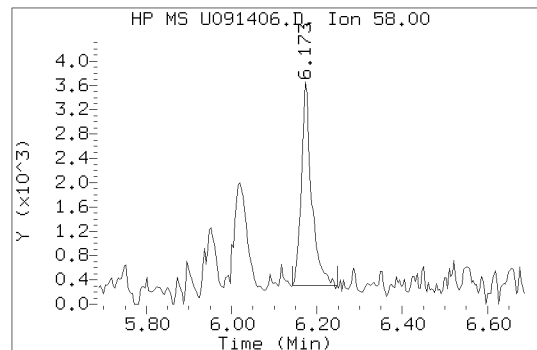
BEFORE

MASS
58
AREA
5578
HEIGHT
3349
18-Sep-2023
12:30
linh
pham



AFTER

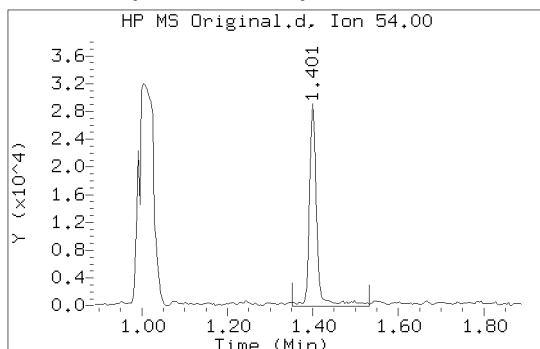
MASS
58
AREA
5578
HEIGHT
3349
18-Sep-2023
12:30
linh
pham



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

BEFORE

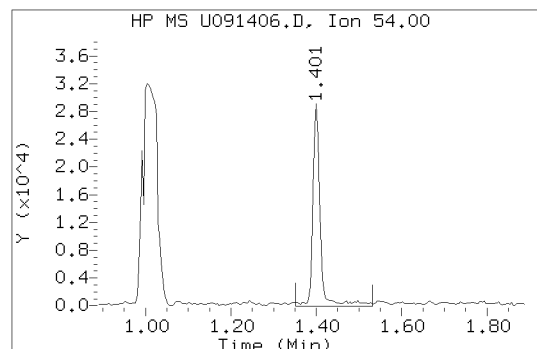
MASS
54
AREA
35494
HEIGHT
29135
18-Sep-2023
12:30
linh
pham



AFTER

MASS
54
AREA
35494
HEIGHT
29135
18-Sep-2023
12:30
linh
pham

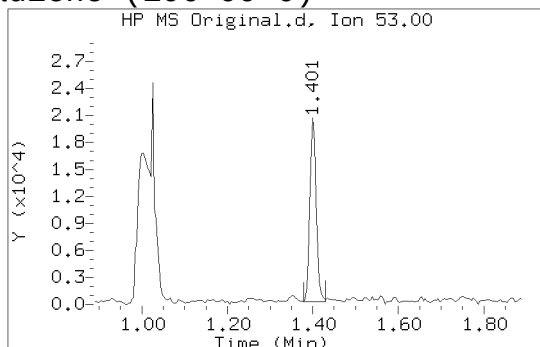
Reason Code:



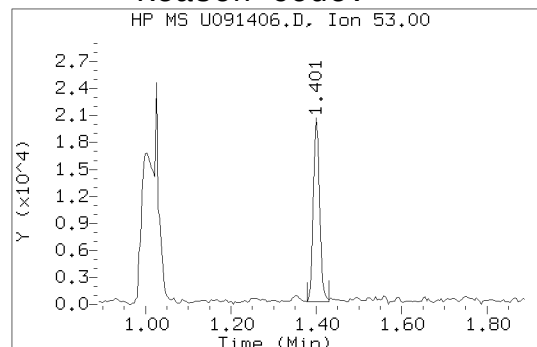
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

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

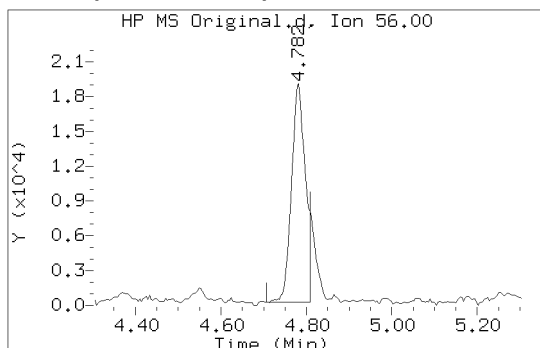
MASS
53
AREA
21126
HEIGHT
20443
18-Sep-2023
12:30
linh
pham

**AFTER**

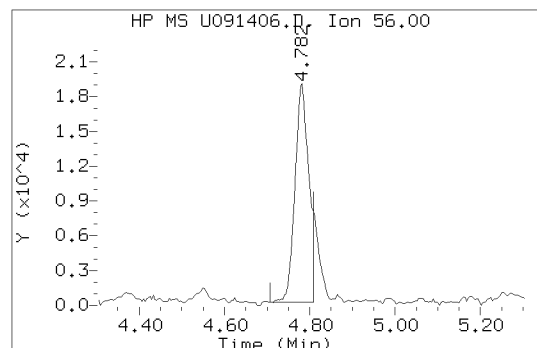
MASS
53
AREA
21126
HEIGHT
20443
18-Sep-2023
12:30
linh
pham

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

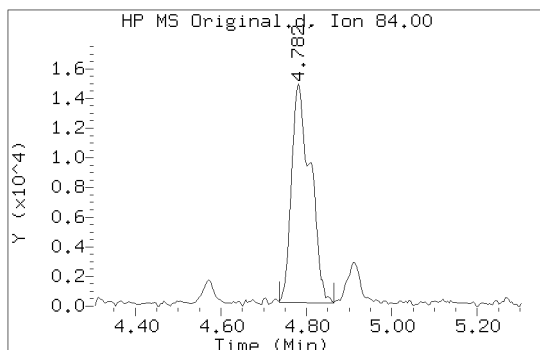
MASS
56
AREA
42320
HEIGHT
18840
18-Sep-2023
12:30
linh
pham

**AFTER**

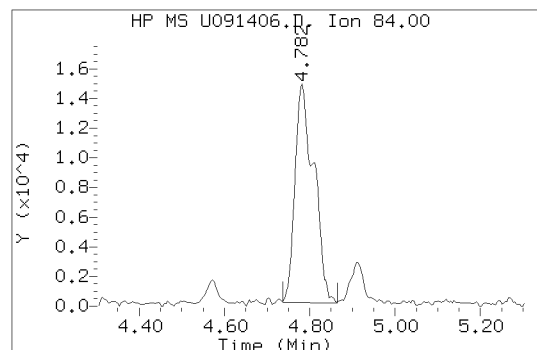
MASS
56
AREA
42320
HEIGHT
18840
18-Sep-2023
12:30
linh
pham

**BEFORE**

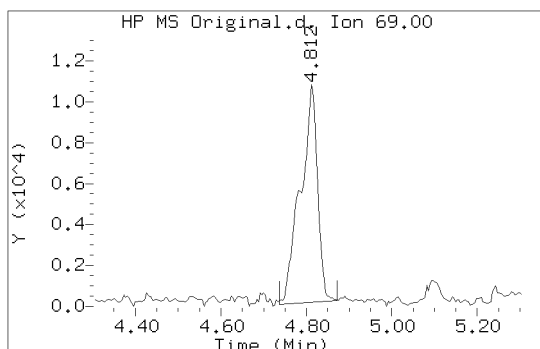
MASS
84
AREA
45669
HEIGHT
14725
18-Sep-2023
12:30
linh
pham

**AFTER**

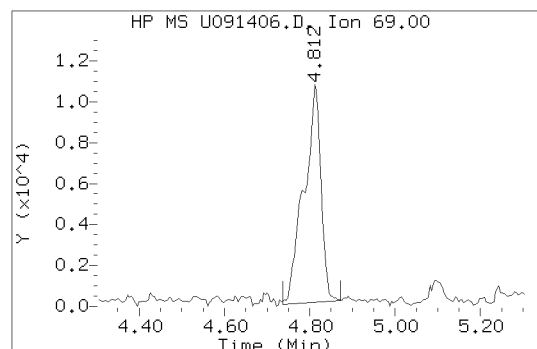
MASS
84
AREA
45669
HEIGHT
14725
18-Sep-2023
12:30
linh
pham

**BEFORE**

MASS
69
AREA
29867
HEIGHT
10631
18-Sep-2023
12:30
linh
pham

**AFTER**

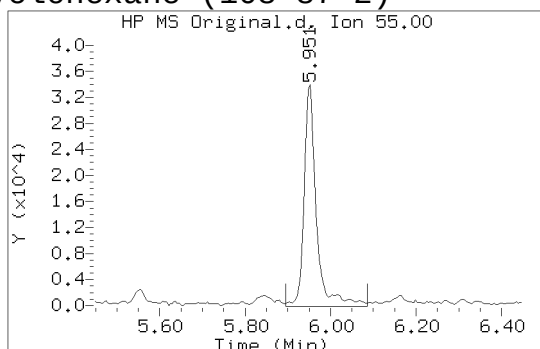
MASS
69
AREA
29867
HEIGHT
10631
18-Sep-2023
12:30
linh
pham



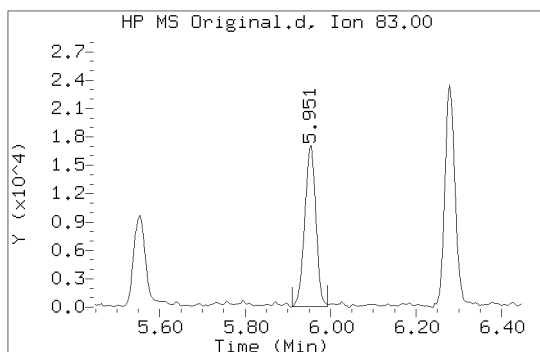
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Methylcyclohexane (108-87-2)**BEFORE**

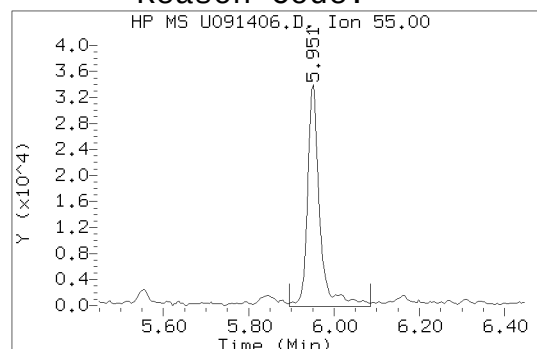
MASS
55
AREA
69365
HEIGHT
34069
18-Sep-2023
12:30
linh

**BEFORE**

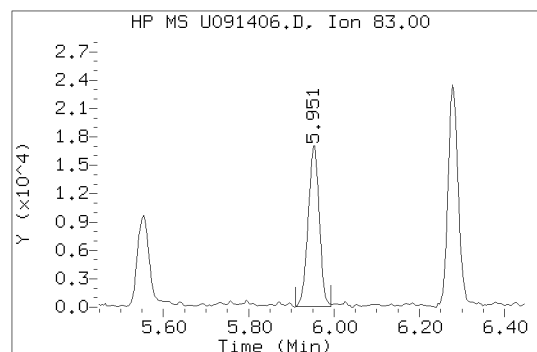
MASS
83
AREA
31431
HEIGHT
16951
18-Sep-2023
12:30
linh
pham

**AFTER**

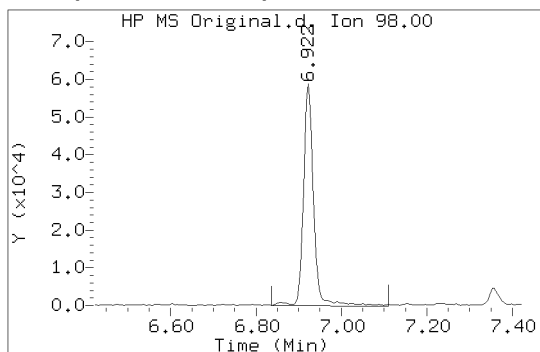
MASS
55
AREA
69365
HEIGHT
34069
18-Sep-2023
12:30
linh

**AFTER**

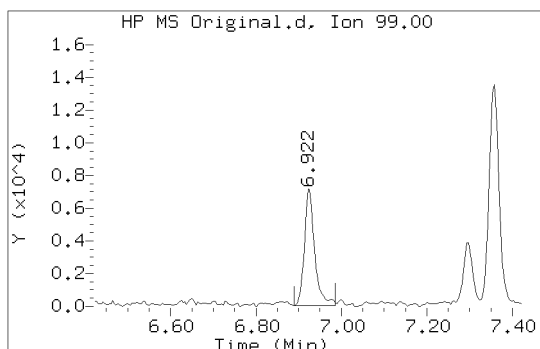
MASS
83
AREA
31431
HEIGHT
16951
18-Sep-2023
12:30
linh
pham

**Reason Code:****Toluene-d8 (2037-26-5)****BEFORE**

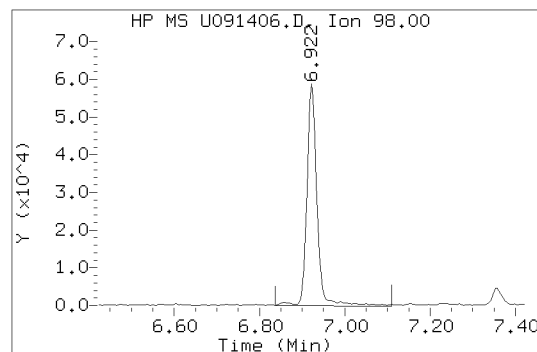
MASS
98
AREA
99501
HEIGHT
58868
18-Sep-2023
12:30
linh
pham

**BEFORE**

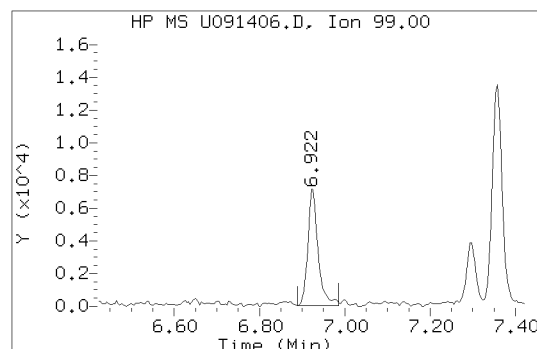
MASS
99
AREA
12052
HEIGHT
7100
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
98
AREA
99501
HEIGHT
58868
18-Sep-2023
12:30
linh
pham

**AFTER**

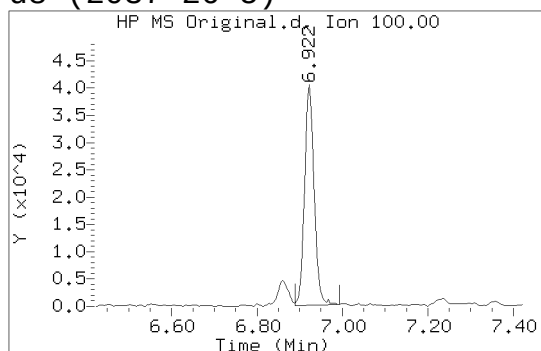
MASS
99
AREA
12052
HEIGHT
7100
18-Sep-2023
12:30
linh
pham

**Reason Code:**

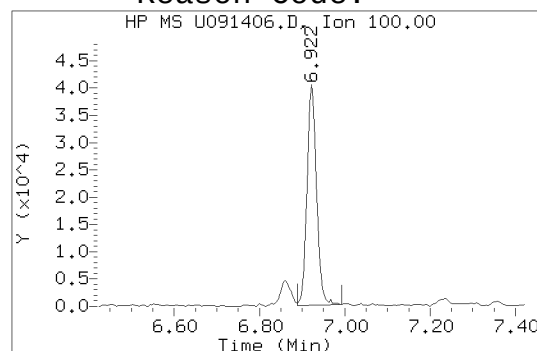
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091406.D
Inj Date : 14-SEP-2023 17:37
InstruID : VOA9.i
LabSampID : VSTD005

Toluene-d8 (2037-26-5)**BEFORE**

MASS
100
AREA
64121
HEIGHT
40415
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
100
AREA
64121
HEIGHT
40415
18-Sep-2023
12:30
linh
pham

Reason Code:

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091407.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091407.D
 Lab Smp Id: VSTD020 Client Smp ID: VSTD020
 Inj Date : 14-SEP-2023 18:00
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD020;VSTD020;1;6;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 17:37 Cal File: U091406.D
 Als bottle: 8 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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)	671734	50.0000	
2 Dichlorodifluoromethane	85	1.164	1.164	(0.242)	143501	20.0000	20.29
3 Chloromethane	50	1.299	1.299	(0.270)	265733	20.0000	20.87
5 Vinyl Chloride	62	1.378	1.378	(0.286)	175145	20.0000	20.53
6 Bromomethane	94	1.621	1.621	(0.337)	88771	20.0000	21.59
7 Chloroethane	64	1.704	1.704	(0.354)	119252	20.0000	19.01
8 Trichlorofluoromethane	101	1.899	1.899	(0.394)	212310	20.0000	19.40
9 Acrolein	56	2.266	2.266	(0.471)	24441	40.0000	42.40(M)
10 Acetone	43	2.408	2.408	(0.500)	147123	40.0000	41.95
11 1,1-Dichloroethene	96	2.333	2.333	(0.485)	128248	20.0000	19.28
15 Iodomethane	142	2.468	2.468	(0.513)	126031	40.0000	36.04
16 Acrylonitrile	53	3.068	3.068	(0.637)	149635	40.0000	38.18
17 Methylene Chloride	84	2.795	2.795	(0.580)	168006	20.0000	20.93
18 Methyl tert-butyl ether	73	3.079	3.079	(0.640)	341393	20.0000	18.08
19 Carbon Disulfide	76	2.521	2.521	(0.524)	705846	40.0000	39.30
20 trans-1,2-Dichloroethene	96	3.061	3.061	(0.636)	138453	20.0000	19.85
21 Vinyl Acetate	43	3.608	3.608	(0.749)	918233	40.0000	37.21
22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	271813	20.0000	19.43
24 2-Butanone	43	4.268	4.268	(0.886)	153709	40.0000	37.75
26 2,2-Dichloropropane	77	4.182	4.182	(0.868)	158125	20.0000	18.66



27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	159142	20.0000	19.95
28 Chloroform	83	4.571	4.571 (0.949)	266054	20.0000	19.58

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091407.D Page 2
 Report Date: 18-Sep-2023 12:31

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)	80507	20.0000	19.26
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	129138	20.0000	21.19
31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	180369	20.0000	19.55
32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	162510	20.0000	19.64
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	211015	20.0000	20.95
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	150769	20.0000	20.37
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	147451	20.0000	21.21
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1041961	50.0000	
37 Benzene	78	5.137	5.137	(0.925)	525339	20.0000	20.07
38 Trichloroethene	130	5.786	5.786	(1.042)	143886	20.0000	18.90
39 Bromodichloromethane	83	6.277	6.277	(1.130)	166894	20.0000	19.66
41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.184)	1495	40.0000	40.04(M)
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	140974	20.0000	20.39(M)
44 Dibromomethane	93	6.120	6.120	(1.102)	92428	20.0000	19.42
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	259947	40.0000	36.31
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	160625	20.0000	17.44
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1010922	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	464351	20.0000	20.83
50 Toluene	91	6.982	6.982	(0.853)	579714	20.0000	21.35
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	130809	20.0000	16.87
52 2-Hexanone	43	7.597	7.597	(0.928)	173213	40.0000	37.79
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	114140	20.0000	19.28
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	234596	20.0000	19.70
55 Dibromochloromethane	129	7.690	7.690	(0.940)	135776	20.0000	19.27
56 Tetrachloroethene	164	7.458	7.458	(0.911)	136247	20.0000	21.54
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	144305	20.0000	20.28
58 1-Chlorohexane	55	8.196	8.196	(1.476)	120323	20.0000	19.11
59 Chlorobenzene	112	8.208	8.208	(1.003)	404863	20.0000	20.16
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	135448	20.0000	20.07
61 Ethylbenzene	106	8.305	8.305	(1.015)	181087	20.0000	20.14
62 m,p-Xylenes	106	8.410	8.410	(1.027)	446127	40.0000	39.46
63 o-Xylene	106	8.747	8.747	(1.069)	212650	20.0000	18.09
64 Styrene	104	8.762	8.762	(1.071)	320982	20.0000	17.79
66 Bromoform	173	8.916	8.916	(1.089)	86866	20.0000	18.73
67 Isopropylbenzene	105	9.062	9.062	(1.107)	536621	20.0000	20.41
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	201873	20.0000	19.40
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	208648	20.0000	21.90
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	535575	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	166742	20.0000	18.80
73 n-Propylbenzene	91	9.411	9.411	(0.926)	564347	20.0000	19.01
74 Bromobenzene	156	9.317	9.317	(0.916)	172382	20.0000	20.25
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	394047	20.0000	19.56
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	411236	20.0000	20.67
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	473463	20.0000	20.28
78 tert-Butylbenzene	119	9.835	9.835	(0.967)	405132	20.0000	20.89
79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	426506	20.0000	20.59
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	487620	20.0000	19.80
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	379700	20.0000	19.43
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	313081	20.0000	20.85
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	326230	20.0000	19.34
87 n-Butylbenzene	91	10.491	10.491	(1.032)	345471	20.0000	19.47
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	309304	20.0000	20.14



89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	21321	20.0000	16.46
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	166476	20.0000	19.04

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091407.D Page 3

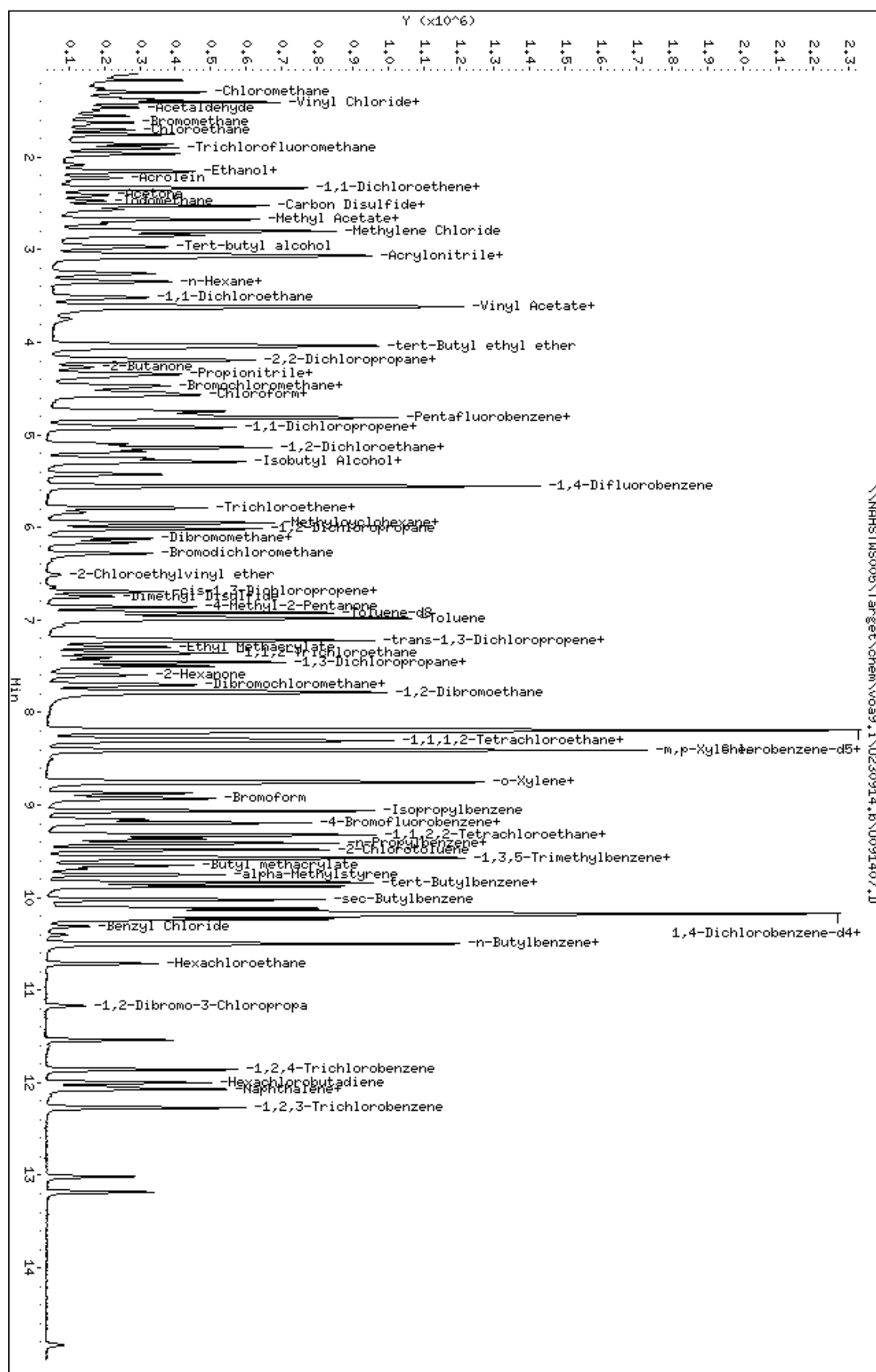
Report Date: 18-Sep-2023 12:31

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	(1.180)	81309	20.0000	20.73
92 Naphthalene	128	12.069	12.069	(1.187)	371874	20.0000	17.42
93 1,2,3-Trichlorobenzene	180	12.267	12.267	(1.206)	171871	20.0000	20.71
M 94 1,2-Dichloroethylene (total)	96				297595	40.0000	
M 95 Xylenes (total)	106				658777	60.0000	
135 1,4-Dioxane	88	6.172	6.172	(1.282)	36081	400.000	369.52(M)
141 Cyclohexane	56	4.781	4.781	(0.993)	197210	20.0000	22.34
138 Freon TF	101	2.337	2.337	(0.485)	120741	20.0000	22.59
140 1,3-Butadiene	54	1.404	1.404	(0.292)	154972	20.0000	19.52
147 Methylcyclohexane	55	5.951	5.951	(1.072)	298411	20.0000	19.53
146 Methyl Acetate	43	2.716	2.716	(0.564)	142578	20.0000	17.50
148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	299567	400.000	363.96
149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	207589	400.000	351.56

QC Flag Legend

M - Compound response manually integrated.





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 Sample Info: WSTD020\WSTD020\116;
 Purity Volume: 5.0
 Column phase: DB624

\\NAHSTMS005\Target\chem\voa3.i\U230914.b\U091407.D

Operator: PC
 Column diameter: 0.18
 Instrument: VOA9.1

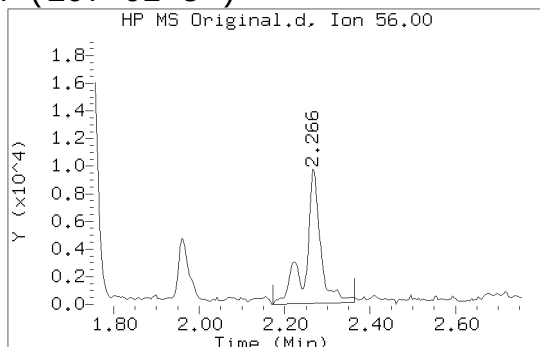


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Inj Date : 14-SEP-2023 18:00
InstruID : VOA9.i
LabSampID : VSTD020

Acrolein (107-02-8)

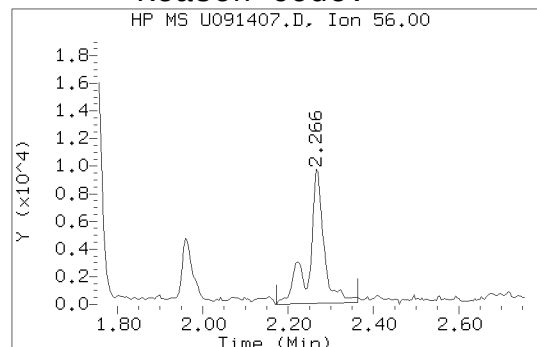
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HEIGHT
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18-Sep-2023
12:30
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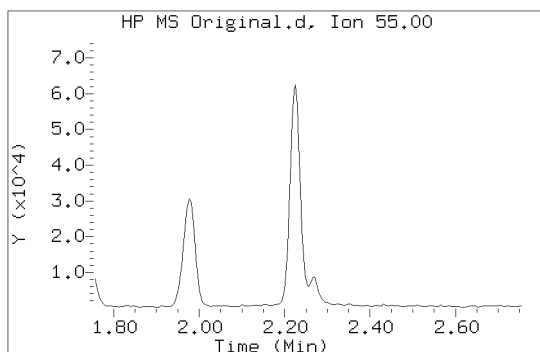
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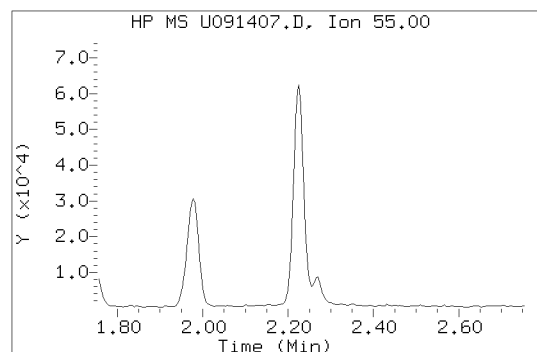
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pham



AFTER

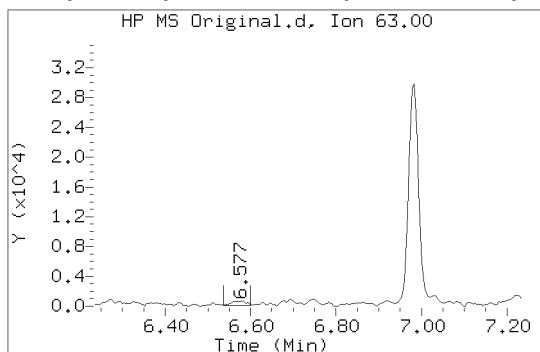
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pham



2-Chloroethylvinyl ether (110-75-8)

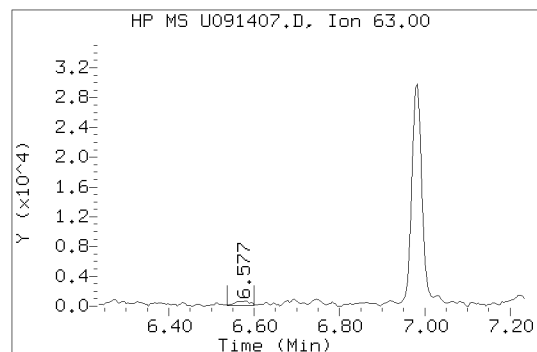
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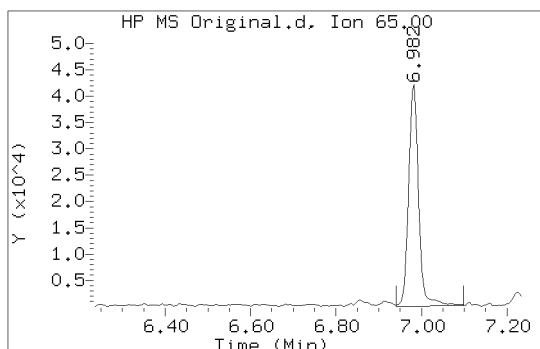
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pham



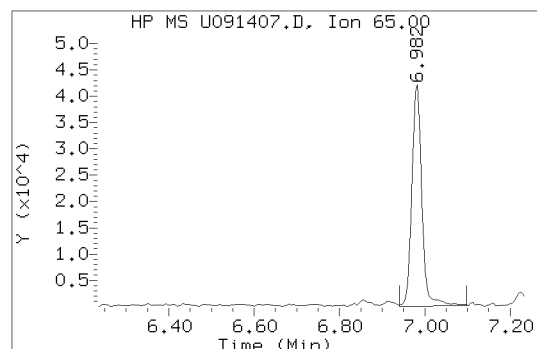
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AFTER

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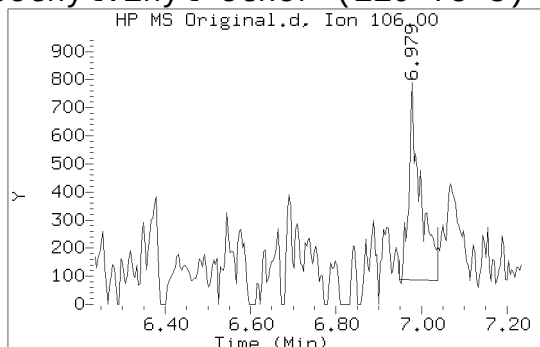


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Inj Date : 14-SEP-2023 18:00
InstruID : VOA9.i
LabSampID : VSTD020

2-Chloroethylvinyl ether (110-75-8)

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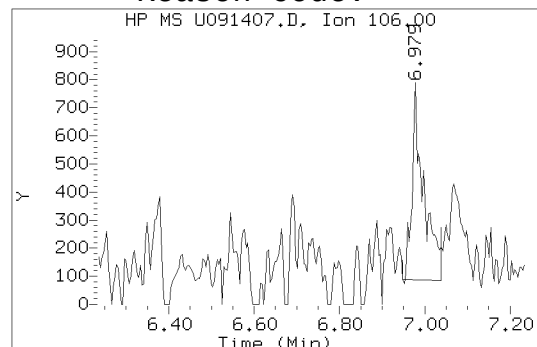
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18-Sep-2023
12:30
linh
pham



AFTER

MASS
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18-Sep-2023
12:30
linh
pham

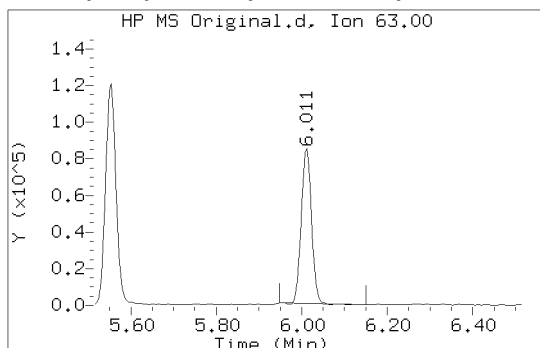
Reason Code:



1,2-Dichloropropane (78-87-5)

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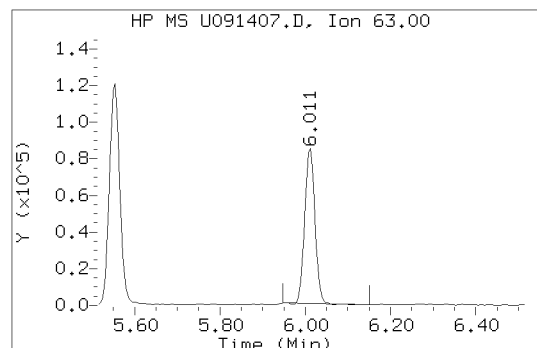
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AFTER

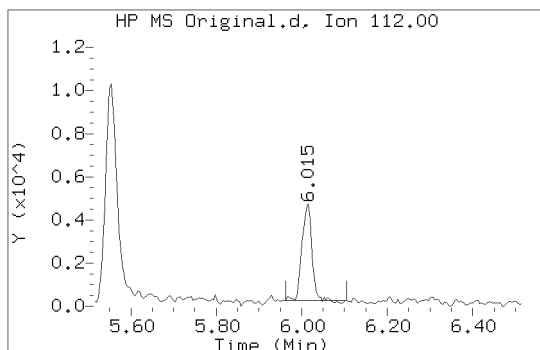
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Reason Code:



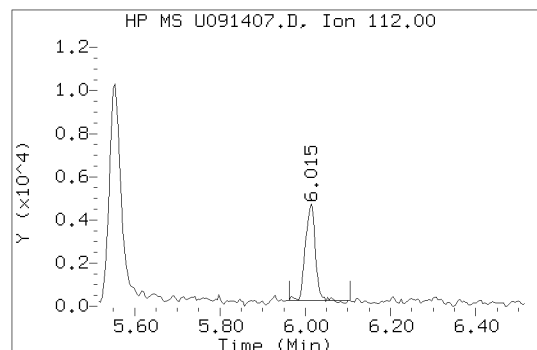
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pham



AFTER

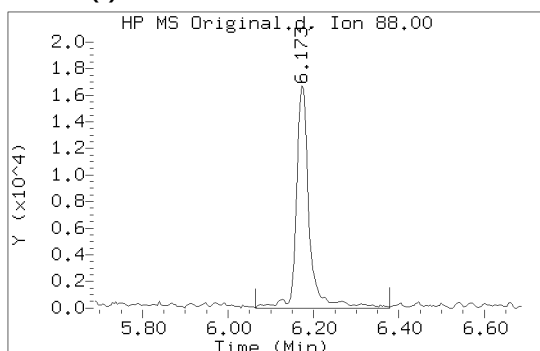
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pham



1,4-Dioxane ()

BEFORE

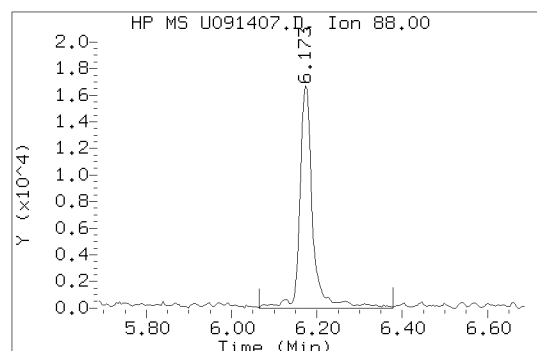
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18-Sep-2023
12:30
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pham



AFTER

MASS
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HEIGHT
16712
18-Sep-2023
12:30
linh
pham

Reason Code:

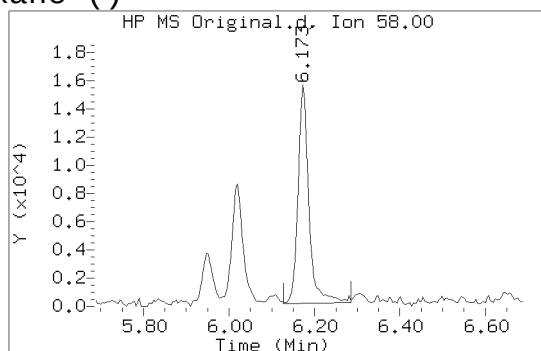


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Inj Date : 14-SEP-2023 18:00
InstruID : VOA9.i
LabSampID : VSTD020

1,4-Dioxane ()

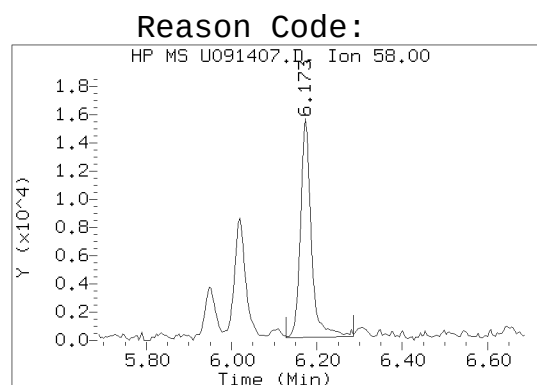
BEFORE

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18-Sep-2023
12:30
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pham



AFTER

MASS
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AREA
27683
HEIGHT
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18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091408.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091408.D
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 Inj Date : 14-SEP-2023 18:22
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD050;VSTD050;1;7;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 18:00 Cal File: U091407.D
 Als bottle: 9 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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		4.811	4.811	(1.000)		741130	50.0000	
2 Dichlorodifluoromethane	85		1.160	1.160	(0.241)		365999	50.0000	45.16
3 Chloromethane	50		1.291	1.291	(0.268)		679763	50.0000	49.67
5 Vinyl Chloride	62		1.374	1.374	(0.286)		436920	50.0000	46.44
6 Bromomethane	94		1.614	1.614	(0.335)		210271	50.0000	45.85
7 Chloroethane	64		1.696	1.696	(0.353)		302811	50.0000	43.76
8 Trichlorofluoromethane	101		1.891	1.891	(0.393)		529050	50.0000	43.83
9 Acrolein	56		2.259	2.259	(0.469)		53331	100.000	83.86(M)
10 Acetone	43		2.405	2.405	(0.500)		343448	100.000	91.17
11 1,1-Dichloroethene	96		2.330	2.330	(0.484)		318631	50.0000	43.43
15 Iodomethane	142		2.465	2.465	(0.512)		379247	100.000	89.45
16 Acrylonitrile	53		3.061	3.061	(0.636)		385904	100.000	89.26
17 Methylene Chloride	84		2.791	2.791	(0.580)		422454	50.0000	45.54
18 Methyl tert-butyl ether	73		3.076	3.076	(0.639)		945327	50.0000	45.38
19 Carbon Disulfide	76		2.517	2.517	(0.523)		1835693	100.000	92.63
20 trans-1,2-Dichloroethene	96		3.053	3.053	(0.635)		355559	50.0000	46.20
21 Vinyl Acetate	43		3.604	3.604	(0.749)		2577244	100.000	94.66
22 1,1-Dichloroethane	63		3.511	3.511	(0.730)		696242	50.0000	45.11
24 2-Butanone	43		4.264	4.264	(0.886)		394292	100.000	87.77
26 2,2-Dichloropropane	77		4.178	4.178	(0.868)		420338	50.0000	44.97



27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	407662	50.0000	46.33
28 Chloroform	83	4.568	4.568 (0.949)	685814	50.0000	45.76

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091408.D Page 2
 Report Date: 18-Sep-2023 12:31

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)	210112	50.0000	45.56
\$ 30 Dibromofluoromethane	113	4.744	4.744	(0.986)	328369	50.0000	48.56
31 1,1,1-Trichloroethane	97	4.740	4.740	(0.985)	455322	50.0000	44.74
32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	409238	50.0000	44.95
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	531037	50.0000	47.90
34 Carbon Tetrachloride	117	4.909	4.909	(0.885)	373929	50.0000	45.90
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	379658	50.0000	49.70
* 36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	1146840	50.0000	
37 Benzene	78	5.134	5.134	(0.925)	1369056	50.0000	47.52
38 Trichloroethene	130	5.786	5.786	(1.043)	370707	50.0000	44.24
39 Bromodichloromethane	83	6.277	6.277	(1.131)	452831	50.0000	48.46
41 2-Chloroethylvinyl ether	63	6.558	6.558	(1.182)	3835	100.000	92.64(MH)
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	378563	50.0000	49.76(M)
44 Dibromomethane	93	6.120	6.120	(1.103)	252788	50.0000	48.26
45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	766488	100.000	93.58
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	501695	50.0000	43.71
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1105862	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1240380	50.0000	50.87
50 Toluene	91	6.978	6.978	(0.853)	1488148	50.0000	50.11
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	422161	50.0000	44.86
52 2-Hexanone	43	7.593	7.593	(0.928)	507183	100.000	101.16
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	307028	50.0000	47.41
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	618528	50.0000	47.49
55 Dibromochloromethane	129	7.690	7.690	(0.940)	389873	50.0000	50.58
56 Tetrachloroethene	164	7.454	7.454	(0.911)	314500	50.0000	45.45
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	383860	50.0000	49.32
58 1-Chlorohexane	55	8.197	8.197	(1.477)	266519	50.0000	38.46
59 Chlorobenzene	112	8.208	8.208	(1.003)	1013371	50.0000	46.14
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	351707	50.0000	47.64
61 Ethylbenzene	106	8.305	8.305	(1.015)	452946	50.0000	46.05
62 m,p-Xylenes	106	8.406	8.406	(1.027)	1109880	100.000	89.74
63 o-Xylene	106	8.748	8.748	(1.069)	564834	50.0000	43.94
64 Styrene	104	8.759	8.759	(1.070)	870956	50.0000	44.13(M)
66 Bromoform	173	8.920	8.920	(1.090)	248786	50.0000	43.27
67 Isopropylbenzene	105	9.062	9.062	(1.107)	1270310	50.0000	41.73
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	526118	50.0000	49.86
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	520817	50.0000	48.83
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	543081	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	452929	50.0000	50.37
73 n-Propylbenzene	91	9.411	9.411	(0.926)	1319916	50.0000	39.91
74 Bromobenzene	156	9.317	9.317	(0.916)	426954	50.0000	49.46
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	921488	50.0000	45.11
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	971738	50.0000	48.18
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	1115512	50.0000	47.14
78 tert-Butylbenzene	119	9.835	9.835	(0.967)	876778	50.0000	44.60
79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	945334	50.0000	45.02
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	1078548	50.0000	40.46
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	858100	50.0000	40.36
83 1,3-Dichlorobenzene	146	10.112	10.112	(0.994)	703640	50.0000	46.22
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	741044	50.0000	43.32
87 n-Butylbenzene	91	10.491	10.491	(1.032)	771155	50.0000	39.69
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	707974	50.0000	45.47



89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	63686	50.0000	48.51
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	429754	50.0000	48.48

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091408.D Page 3

Report Date: 18-Sep-2023 12:31

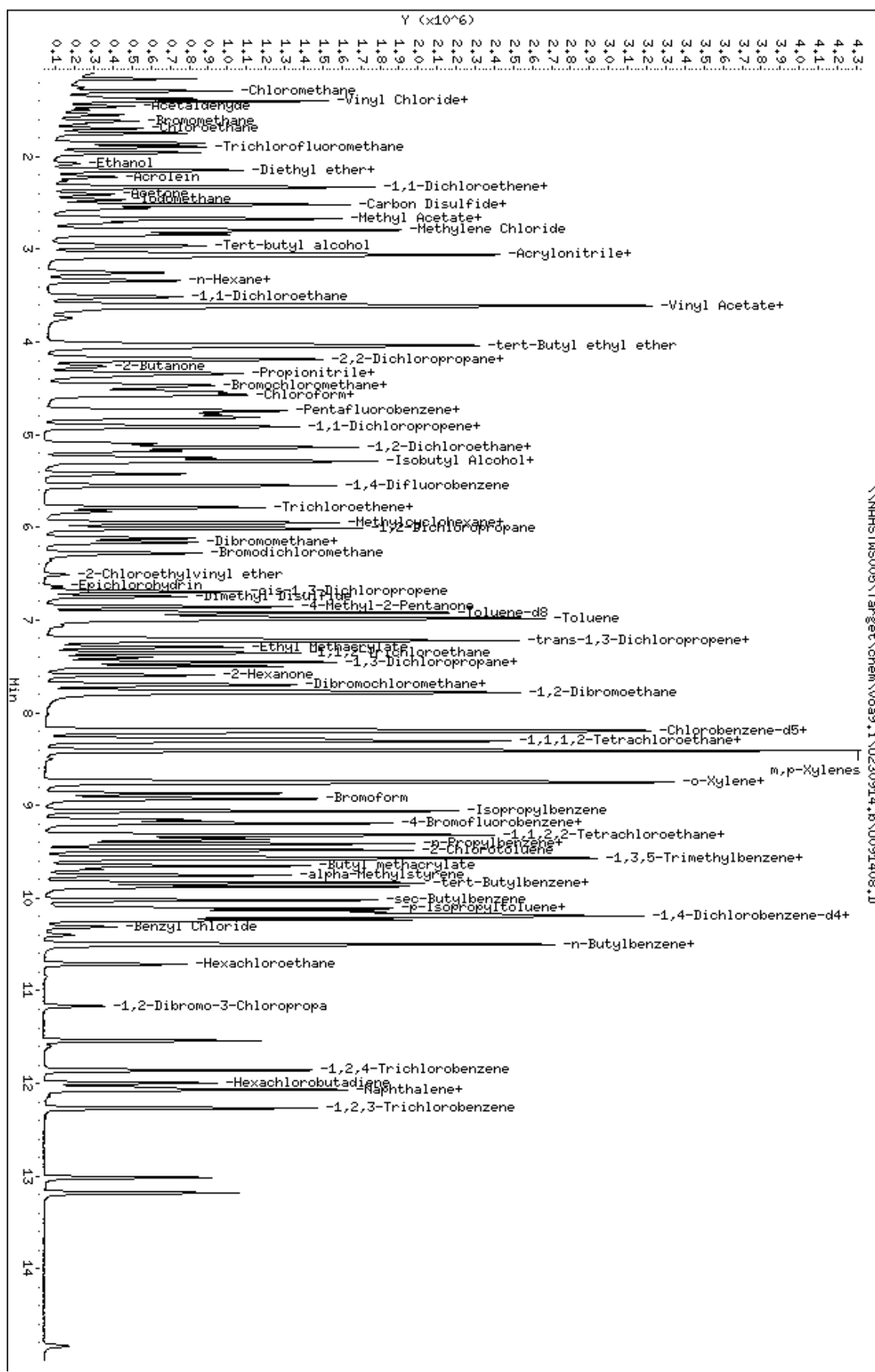
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	11.998	11.998	(1.180)	160600	50.0000	40.38
92 Naphthalene	128	12.065	12.065	(1.187)	1096628	50.0000	45.45
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	429482	50.0000	51.03
M 94 1,2-Dichloroethylene (total)	96				763221	100.000	
M 95 Xylenes (total)	106				1674714	150.000	
135 1,4-Dioxane	88	6.168	6.168	(1.282)	99629	1000.00	924.81
141 Cyclohexane	56	4.778	4.778	(0.993)	417496	50.0000	41.77
138 Freon TF	101	2.330	2.330	(0.484)	261309	50.0000	43.19
140 1,3-Butadiene	54	1.400	1.400	(0.291)	406614	50.0000	46.43
147 Methylcyclohexane	55	5.947	5.947	(1.072)	803104	50.0000	47.77
146 Methyl Acetate	43	2.708	2.708	(0.563)	393644	50.0000	43.80
148 Tert-Butyl alcohol	59	2.963	2.963	(0.616)	813074	1000.00	895.35
149 Isopropyl Alcohol	45	2.555	2.555	(0.531)	587634	1000.00	902.01

QC Flag Legend

M - Compound response manually integrated.

H - Operator selected an alternate compound hit.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091408.D
 Date: 14-SEP-2023 18:22
 Client ID: VST0050
 Sample Info: VST0050;VST0050;117;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W093.1
 Operator: PC
 Column diameter: 0.18

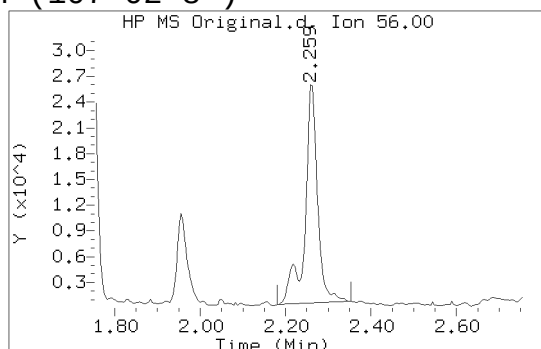


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Inj Date : 14-SEP-2023 18:22
InstruID : VOA9.i
LabSampID : VSTD050

Acrolein (107-02-8)

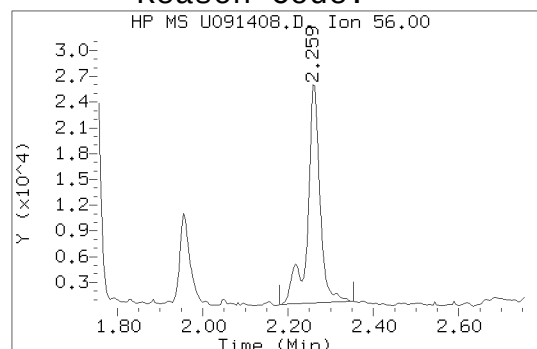
BEFORE

MASS
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AREA
53331
HEIGHT
25428
18-Sep-2023
12:30
linh



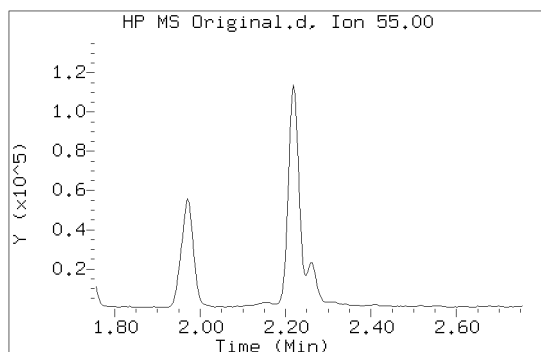
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AREA
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HEIGHT
25428
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12:30
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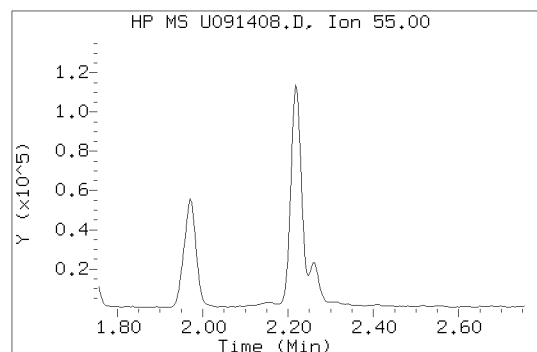
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HEIGHT
15035
18-Sep-2023
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linh
pham



AFTER

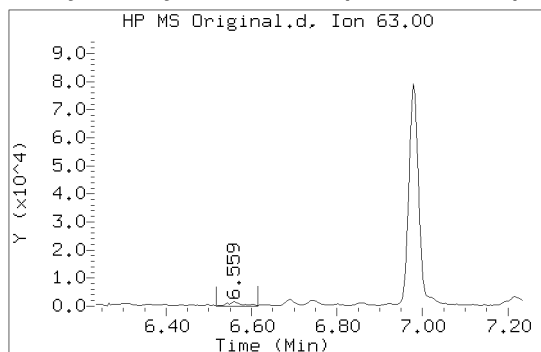
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12:30
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pham



2-Chloroethylvinyl ether (110-75-8)

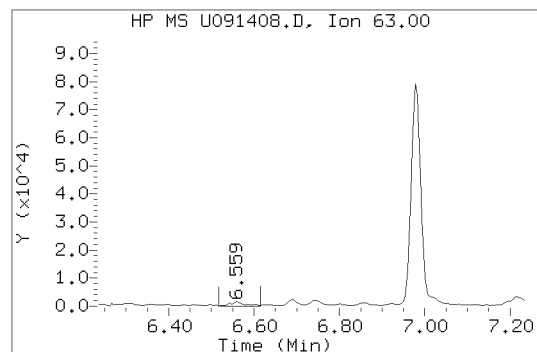
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18-Sep-2023
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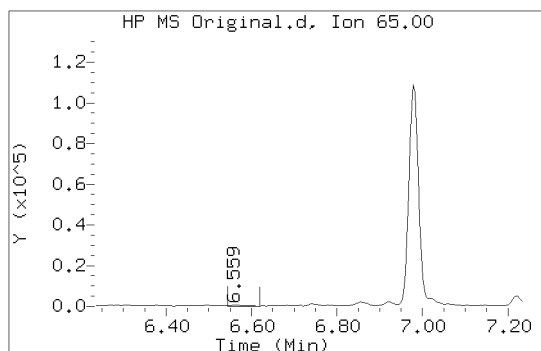
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AREA
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HEIGHT
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18-Sep-2023
12:30
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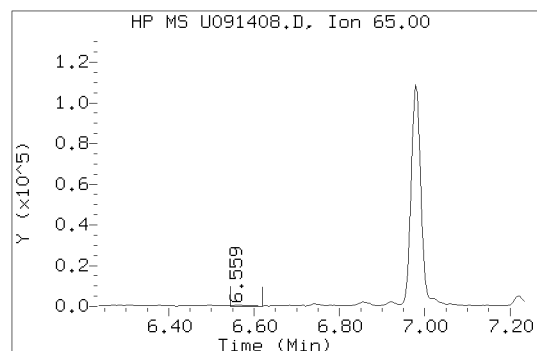
BEFORE

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AREA
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HEIGHT
464
18-Sep-2023
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linh
pham



AFTER

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HEIGHT
464
18-Sep-2023
12:30
linh
pham

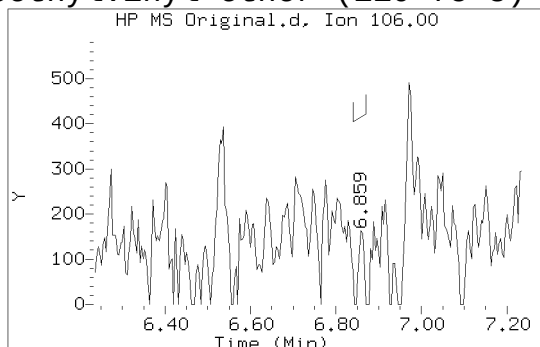


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Inj Date : 14-SEP-2023 18:22
InstruID : VOA9.i
LabSampID : VSTD050

2-Chloroethylvinyl ether (110-75-8)

BEFORE

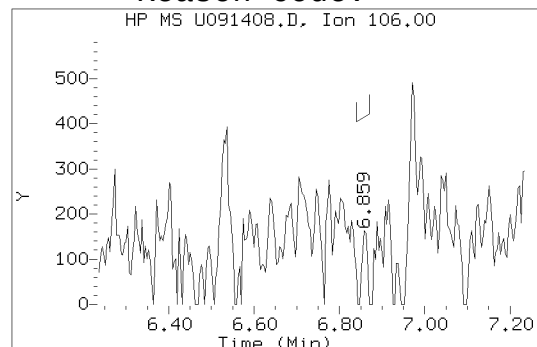
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AREA
682
HEIGHT
251
18-Sep-2023
12:30
linh
pham



AFTER

MASS
106
AREA
682
HEIGHT
251
18-Sep-2023
12:30
linh
pham

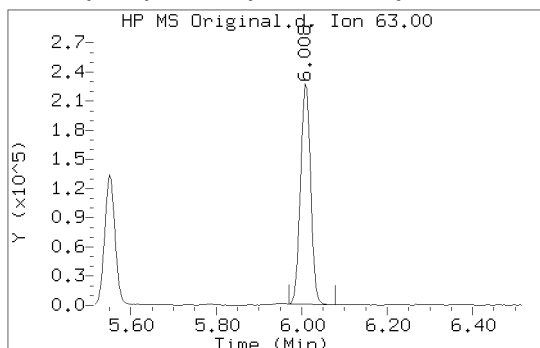
Reason Code:



1,2-Dichloropropane (78-87-5)

BEFORE

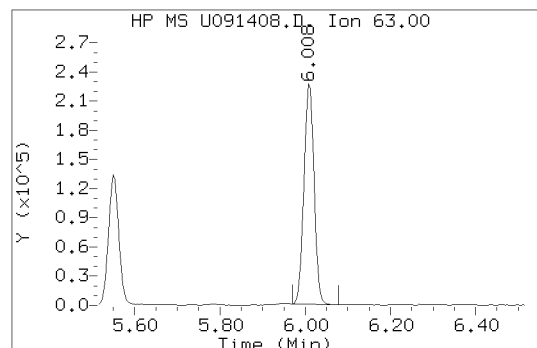
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HEIGHT
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18-Sep-2023
12:30
linh
pham



AFTER

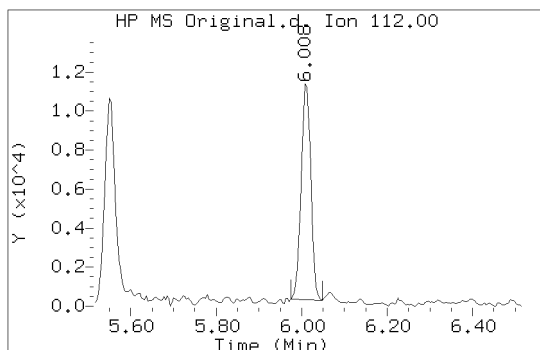
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HEIGHT
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18-Sep-2023
12:30
linh
pham

Reason Code:



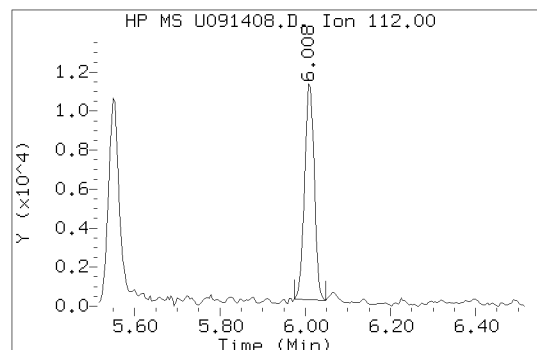
BEFORE

MASS
112
AREA
17672
HEIGHT
11065
18-Sep-2023
12:30
linh
pham



AFTER

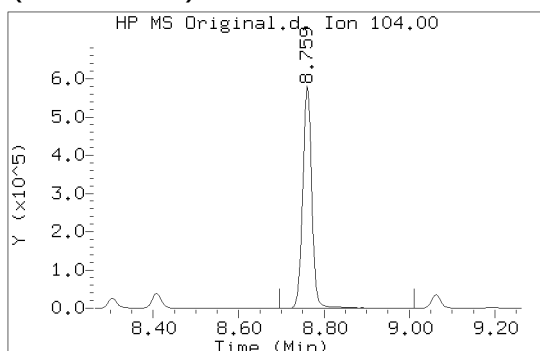
MASS
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AREA
17672
HEIGHT
11065
18-Sep-2023
12:30
linh
pham



Styrene (100-42-5)

BEFORE

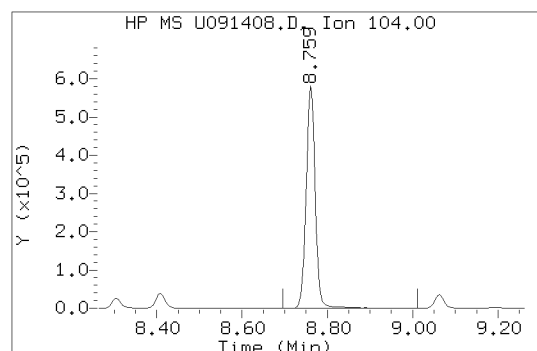
MASS
104
AREA
870956
HEIGHT
581146
18-Sep-2023
12:30
linh
pham



AFTER

MASS
104
AREA
870956
HEIGHT
581146
18-Sep-2023
12:30
linh
pham

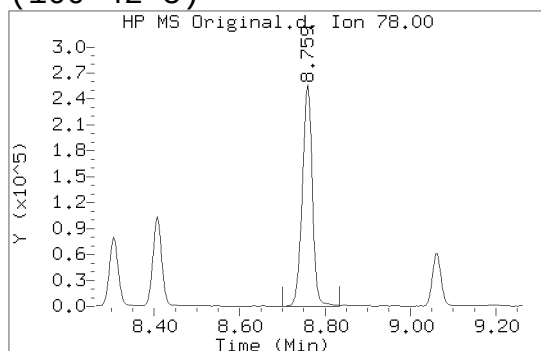
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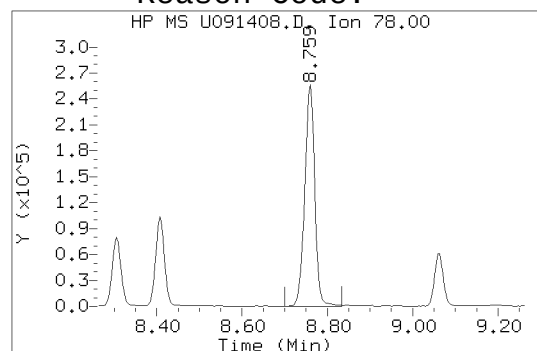
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Inj Date : 14-SEP-2023 18:22
InstruID : VOA9.i
LabSampID : VSTD050

Styrene (100-42-5)**BEFORE**

MASS
78
AREA
421970
HEIGHT
256384
18-Sep-2023
12:30
linh
pham

**AFTER**

MASS
78
AREA
421970
HEIGHT
256384
18-Sep-2023
12:30
linh
pham

Reason Code:

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091409.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091409.D
 Lab Smp Id: VSTD100 Client Smp ID: VSTD100
 Inj Date : 14-SEP-2023 18:44
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD100;VSTD100;1;8;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 18:22 Cal File: U091408.D
 Als bottle: 10 Calibration Sample, Level: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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)	742187	50.0000	
2 Dichlorodifluoromethane	85	1.164	1.164	(0.242)	823221	100.000	99.77
3 Chloromethane	50	1.295	1.295	(0.269)	1410566	100.000	103.98
5 Vinyl Chloride	62	1.374	1.374	(0.285)	986224	100.000	104.67
6 Bromomethane	94	1.614	1.614	(0.335)	434819	100.000	94.21
7 Chloroethane	64	1.696	1.696	(0.352)	674738	100.000	97.37
8 Trichlorofluoromethane	101	1.895	1.895	(0.394)	1245989	100.000	103.08
9 Acrolein	56	2.262	2.262	(0.470)	114655	200.000	180.04(M)
10 Acetone	43	2.409	2.409	(0.500)	787149	200.000	211.45(A)
11 1,1-Dichloroethene	96	2.334	2.334	(0.485)	735651	100.000	100.14
15 Iodomethane	142	2.469	2.469	(0.513)	938697	200.000	198.45
16 Acrylonitrile	53	3.065	3.065	(0.636)	832299	200.000	192.24
17 Methylene Chloride	84	2.795	2.795	(0.580)	885454	100.000	93.47
18 Methyl tert-butyl ether	73	3.080	3.080	(0.640)	2115315	100.000	101.41
19 Carbon Disulfide	76	2.521	2.521	(0.524)	4187477	200.000	211.02
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	790832	100.000	102.61
21 Vinyl Acetate	43	3.604	3.604	(0.749)	5722144	200.000	209.87
22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	1523604	100.000	98.58
24 2-Butanone	43	4.264	4.264	(0.886)	892012	200.000	198.28
26 2,2-Dichloropropane	77	4.182	4.182	(0.868)	987674	100.000	105.53



27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	885739	100.000	100.52
28 Chloroform	83	4.572	4.572 (0.949)	1471908	100.000	98.08

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091409.D Page 2
 Report Date: 18-Sep-2023 12:31

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)	442434	100.000	95.81
\$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	685902	100.000	101.07
31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	1083271	100.000	106.29
32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	960118	100.000	105.11
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	1091404	100.000	98.13
34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	938140	100.000	114.80
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	775916	100.000	101.59
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1150587	50.0000	
37 Benzene	78	5.138	5.138	(0.925)	2956564	100.000	102.30
38 Trichloroethene	130	5.786	5.786	(1.042)	833703	100.000	99.18
39 Bromodichloromethane	83	6.277	6.277	(1.130)	994877	100.000	106.14
41 2-Chloroethylvinyl ether	63	6.562	6.562	(1.182)	8728	200.000	209.49(M)
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	791531	100.000	103.71(M)
44 Dibromomethane	93	6.120	6.120	(1.102)	515227	100.000	98.05
45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	1680595	200.000	205.31
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	1167680	100.000	97.26
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1088748	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	2536024	100.000	105.65
50 Toluene	91	6.982	6.982	(0.853)	3184353	100.000	108.92
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	972012	100.000	99.85
52 2-Hexanone	43	7.593	7.593	(0.928)	1124170	200.000	227.75
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	624595	100.000	97.97
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	1299270	100.000	101.32
55 Dibromochloromethane	129	7.690	7.690	(0.940)	849759	100.000	111.98
56 Tetrachloroethene	164	7.458	7.458	(0.911)	719095	100.000	105.56
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	783163	100.000	102.22
58 1-Chlorohexane	55	8.197	8.197	(1.476)	710963	100.000	102.28
59 Chlorobenzene	112	8.208	8.208	(1.003)	2161725	100.000	99.97
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	767225	100.000	105.57
61 Ethylbenzene	106	8.305	8.305	(1.015)	1086475	100.000	112.21
62 m,p-Xylenes	106	8.410	8.410	(1.027)	2756924	200.000	226.43
63 o-Xylene	106	8.748	8.748	(1.069)	1352093	100.000	106.85
64 Styrene	104	8.759	8.759	(1.070)	2124765	100.000	109.36
66 Bromoform	173	8.916	8.916	(1.089)	553169	100.000	93.24
67 Isopropylbenzene	105	9.062	9.062	(1.107)	3338525	100.000	102.96
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1118164	100.000	99.27
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1113602	100.000	100.17
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	579795	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	1003028	100.000	104.49
73 n-Propylbenzene	91	9.411	9.411	(0.926)	3742926	100.000	101.01
74 Bromobenzene	156	9.317	9.317	(0.916)	936735	100.000	101.65
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	2477040	100.000	113.58
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	2355205	100.000	109.40
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	2811017	100.000	111.27
78 tert-Butylbenzene	119	9.838	9.838	(0.968)	2425690	100.000	115.58
79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	2490027	100.000	111.07
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	3233827	100.000	104.42
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	2596903	100.000	103.96
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	1662049	100.000	102.26
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	1821529	100.000	99.75
87 n-Butylbenzene	91	10.491	10.491	(1.032)	2423452	100.000	105.38
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	1754755	100.000	105.56



89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	148641	100.000	106.06
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	1064867	100.000	112.52

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091409.D Page 3

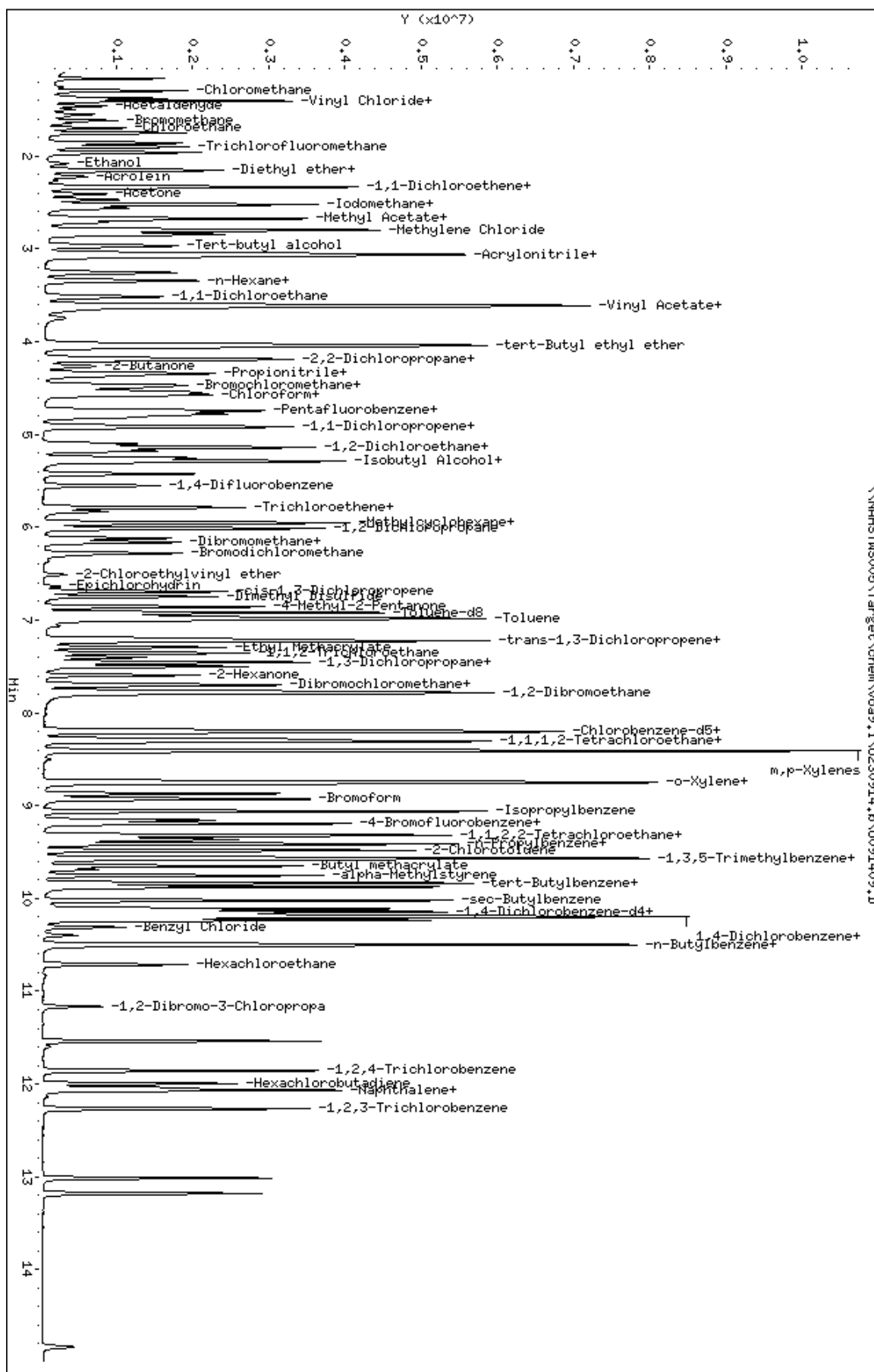
Report Date: 18-Sep-2023 12:31

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	(1.180)	453589	100.000	106.83
92 Naphthalene	128	12.065	12.065	(1.187)	2667441	100.000	100.07
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	1025886	100.000	114.18
M 94 1,2-Dichloroethylene (total)	96				1676571	200.000	
M 95 Xylenes (total)	106				4109017	300.000	
135 1,4-Dioxane	88	6.168	6.168	(1.281)	208874	2000.00	1936.12
141 Cyclohexane	56	4.781	4.781	(0.993)	1133205	100.000	106.39
138 Freon TF	101	2.334	2.334	(0.485)	684389	100.000	104.28
140 1,3-Butadiene	54	1.404	1.404	(0.292)	902435	100.000	102.92
147 Methylcyclohexane	55	5.947	5.947	(1.071)	1920608	100.000	113.87(A)
146 Methyl Acetate	43	2.712	2.712	(0.563)	834142	100.000	92.69
148 Tert-Butyl alcohol	59	2.963	2.963	(0.615)	1746456	2000.00	1920.45
149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	1258105	2000.00	1928.44

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.





Data File: \\NAHSTMS005\Target\chem\voa3.1\U230914.b\U091409.D
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 Sample Info: WSTD100;WSTD100;118;
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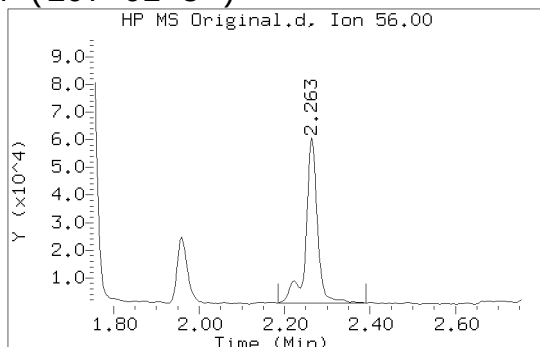
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Instrument: W09.i
 Operator: PC
 Column diameter: 0.18

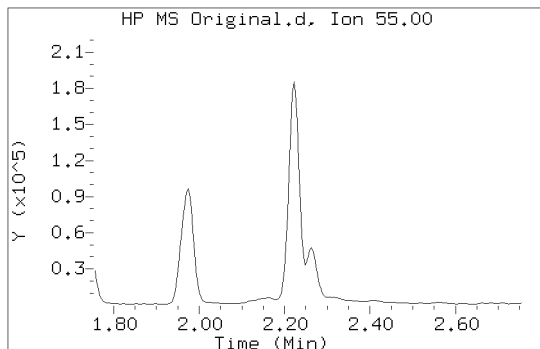
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InstruID : VOA9.i
LabSampID : VSTD100

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

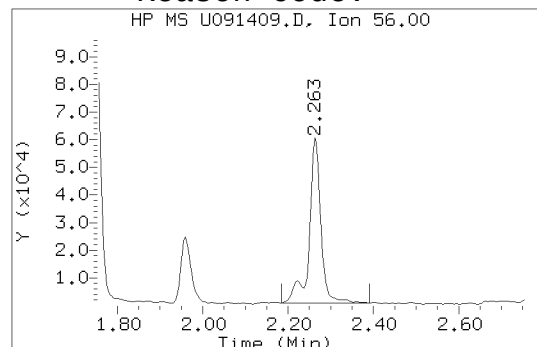
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AREA
114655
HEIGHT
59737
18-Sep-2023
12:30
linh

**BEFORE**

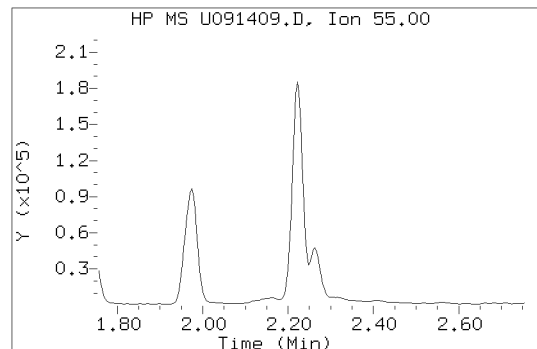
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HEIGHT
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18-Sep-2023
12:30
linh
pham

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

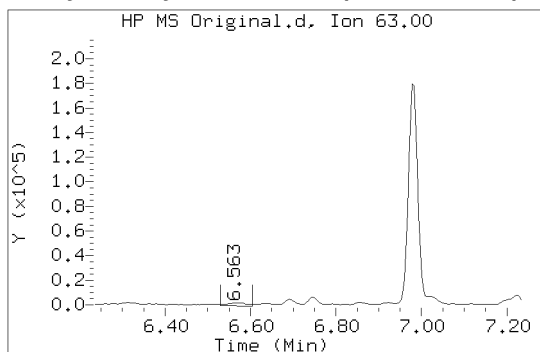
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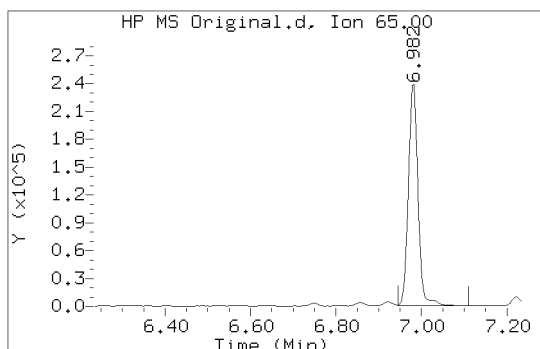
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12:30
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pham

**2-Chloroethylvinyl ether (110-75-8)****BEFORE**

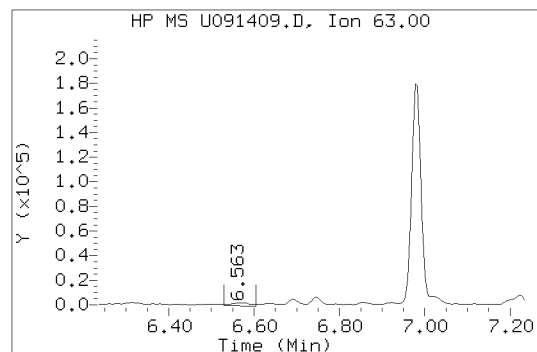
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pham

**BEFORE**

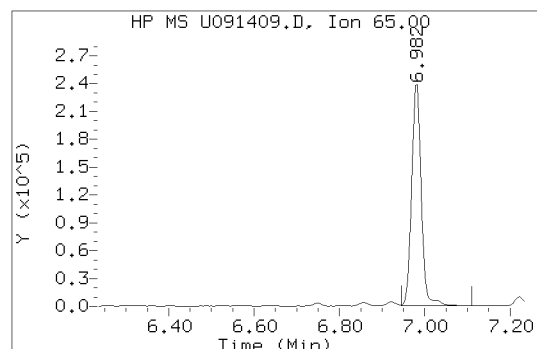
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HEIGHT
238391
18-Sep-2023
12:30
linh
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**Reason Code:****AFTER**

MASS
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AREA
8728
HEIGHT
2668
18-Sep-2023
12:30
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**AFTER**

MASS
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HEIGHT
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18-Sep-2023
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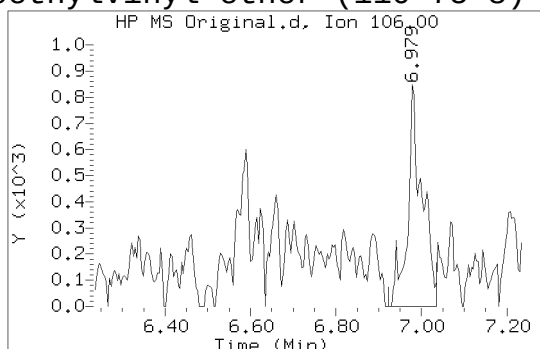


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Inj Date : 14-SEP-2023 18:44
InstruID : VOA9.i
LabSampID : VSTD100

2-Chloroethylvinyl ether (110-75-8)

BEFORE

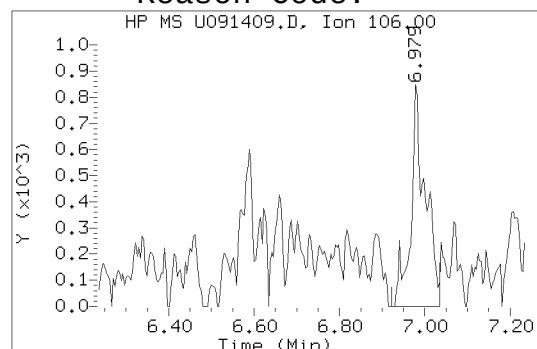
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HEIGHT
848
18-Sep-2023
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pham



AFTER

MASS
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AREA
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848
18-Sep-2023
12:30
linh
pham

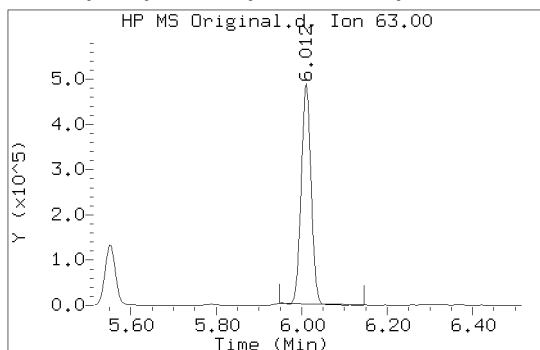
Reason Code:



1,2-Dichloropropane (78-87-5)

BEFORE

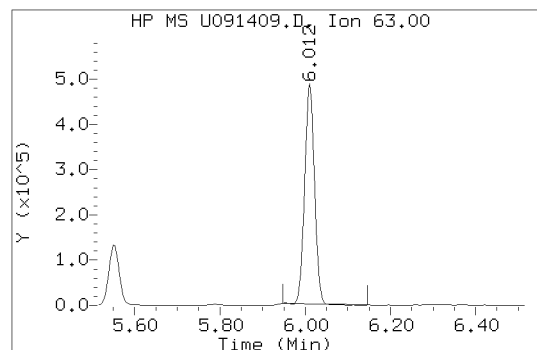
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18-Sep-2023
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linh
pham



AFTER

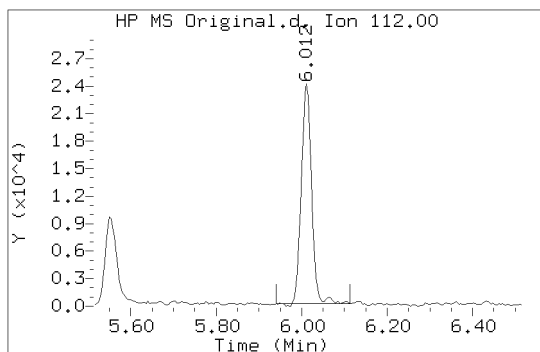
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Reason Code:



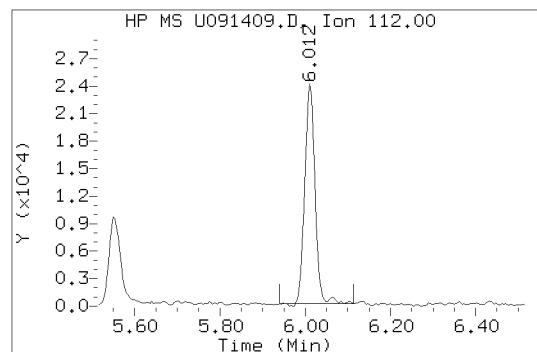
BEFORE

MASS
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HEIGHT
23961
18-Sep-2023
12:30
linh
pham



AFTER

MASS
112
AREA
40778
HEIGHT
23961
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091410.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091410.D
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 Inj Date : 14-SEP-2023 19:06
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD150;VSTD150;1;9;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 18:44 Cal File: U091409.D
 Als bottle: 11 Calibration Sample, Level: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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	4.812	4.812	(1.000)	803267	50.0000	
2 Dichlorodifluoromethane	85	1.157	1.157	(0.240)	1304711	150.000	145.48
3 Chloromethane	50	1.288	1.288	(0.268)	2165321	150.000	147.90
5 Vinyl Chloride	62	1.370	1.370	(0.285)	1647876	150.000	161.60
6 Bromomethane	94	1.603	1.603	(0.333)	772902	150.000	154.44
7 Chloroethane	64	1.689	1.689	(0.351)	1145180	150.000	152.70
8 Trichlorofluoromethane	101	1.891	1.891	(0.393)	2054095	150.000	157.01
9 Acrolein	56	2.259	2.259	(0.469)	183213	300.000	265.82(M)
10 Acetone	43	2.401	2.401	(0.499)	1181608	300.000	294.11(A)
11 1,1-Dichloroethene	96	2.326	2.326	(0.484)	1222059	150.000	153.70
15 Iodomethane	142	2.461	2.461	(0.512)	1796657	300.000	307.94
16 Acrylonitrile	53	3.057	3.057	(0.635)	1376634	300.000	293.79
17 Methylene Chloride	84	2.787	2.787	(0.579)	1469875	150.000	142.46
18 Methyl tert-butyl ether	73	3.072	3.072	(0.639)	3604607	150.000	159.67
19 Carbon Disulfide	76	2.514	2.514	(0.522)	6993810	300.000	325.64
20 trans-1,2-Dichloroethene	96	3.053	3.053	(0.635)	1316506	150.000	157.84
21 Vinyl Acetate	43	3.601	3.601	(0.748)	9900282	300.000	335.50
22 1,1-Dichloroethane	63	3.511	3.511	(0.730)	2514269	150.000	150.30
24 2-Butanone	43	4.260	4.260	(0.885)	1428537	300.000	293.40
26 2,2-Dichloropropane	77	4.178	4.178	(0.868)	1638736	150.000	161.79



27 cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	1464313	150.000	153.54
28 Chloroform	83	4.568	4.568 (0.949)	2391910	150.000	147.26

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091410.D Page 2
Report Date: 18-Sep-2023 12:31

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)	712433	150.000	142.55
\$ 30 Dibromofluoromethane	113	4.744	4.744	(0.986)	1058564	150.000	144.04
31 1,1,1-Trichloroethane	97	4.737	4.737	(0.984)	1712311	150.000	155.24
32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	1538254	150.000	155.06
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	1690386	150.000	139.94
34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	1464787	150.000	165.04
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	1180336	150.000	142.85
* 36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	1249613	50.0000	
37 Benzene	78	5.134	5.134	(0.925)	4629744	150.000	147.50
38 Trichloroethene	130	5.786	5.786	(1.043)	1322314	150.000	144.84
39 Bromodichloromethane	83	6.277	6.277	(1.131)	1583332	150.000	155.53
41 2-Chloroethylvinyl ether	63	6.566	6.566	(1.183)	13383	300.000	295.55(M)
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	1276026	150.000	153.95(M)
44 Dibromomethane	93	6.116	6.116	(1.102)	804886	150.000	141.04
45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	2729579	300.000	300.41
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	1934103	150.000	146.67
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1203789	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	3880752	150.000	146.22
50 Toluene	91	6.978	6.978	(0.853)	5075148	150.000	157.00
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	1618558	150.000	151.81
52 2-Hexanone	43	7.593	7.593	(0.928)	1828358	300.000	335.02
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	979422	150.000	138.95
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	2074705	150.000	146.33
55 Dibromochloromethane	129	7.691	7.691	(0.940)	1359439	150.000	162.03
56 Tetrachloroethene	164	7.454	7.454	(0.911)	1103938	150.000	146.57
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	1289657	150.000	152.24
58 1-Chlorohexane	55	8.197	8.197	(1.477)	1224152	150.000	162.15
59 Chlorobenzene	112	8.208	8.208	(1.003)	3526073	150.000	147.48
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	1255141	150.000	156.20
61 Ethylbenzene	106	8.305	8.305	(1.015)	1780371	150.000	166.31
62 m,p-Xylenes	106	8.407	8.407	(1.027)	4701736	300.000	349.26
63 o-Xylene	106	8.748	8.748	(1.069)	2314095	150.000	165.40
64 Styrene	104	8.759	8.759	(1.070)	3833381	150.000	178.44
66 Bromoform	173	8.920	8.920	(1.090)	971749	150.000	146.05
67 Isopropylbenzene	105	9.063	9.063	(1.107)	5778129	150.000	151.87
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1920642	150.000	145.26
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1883700	150.000	144.24
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	680590	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	1734512	150.000	153.93
73 n-Propylbenzene	91	9.411	9.411	(0.926)	6534980	150.000	148.77
74 Bromobenzene	156	9.317	9.317	(0.916)	1596591	150.000	147.60
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	4430358	150.000	173.06
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	4034469	150.000	159.65
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	4899220	150.000	165.21
78 tert-Butylbenzene	119	9.835	9.835	(0.967)	4279534	150.000	173.71
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.972)	4477117	150.000	170.14
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	5794903	150.000	150.97
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	4754112	150.000	151.43
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	2889427	150.000	151.45
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	3065233	150.000	143.00
87 n-Butylbenzene	91	10.491	10.491	(1.032)	4319547	150.000	150.07
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	2952266	150.000	151.30



89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	250593	150.000	152.32
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	1788273	150.000	160.98

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091410.D Page 3

Report Date: 18-Sep-2023 12:31

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	(1.180)	723917	150.000	145.24
92 Naphthalene	128	12.065	12.065	(1.187)	4538786	150.000	143.84
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	1730699	150.000	164.10
M 94 1,2-Dichloroethylene (total)	96				2780819	300.000	
M 95 Xylenes (total)	106				7015831	450.000	
135 1,4-Dioxane	88	6.169	6.169	(1.282)	319192	3000.00	2733.71
141 Cyclohexane	56	4.778	4.778	(0.993)	1767337	150.000	147.10
138 Freon TF	101	2.330	2.330	(0.484)	1134738	150.000	148.53
140 1,3-Butadiene	54	1.396	1.396	(0.290)	1515916	150.000	159.74
147 Methylcyclohexane	55	5.947	5.947	(1.072)	2995811	150.000	163.54(A)
146 Methyl Acetate	43	2.709	2.709	(0.563)	1394248	150.000	143.15
148 Tert-Butyl alcohol	59	2.960	2.960	(0.615)	2979324	3000.00	3027.04
149 Isopropyl Alcohol	45	2.555	2.555	(0.531)	2140260	3000.00	3031.16

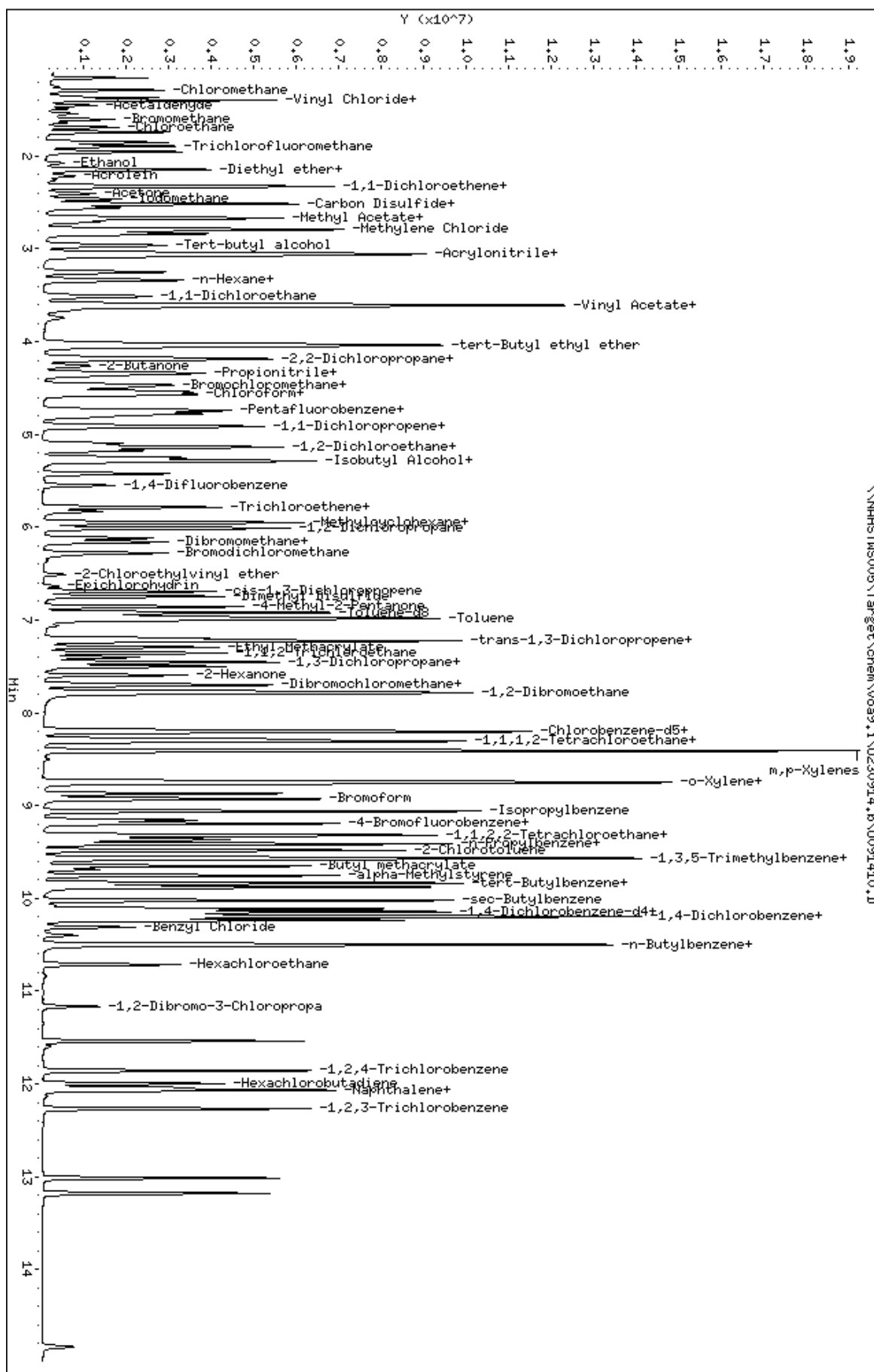
QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.1\U230914.b\U091410.D
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Instrument: VOA9.1
 Operator: PC
 Column diameter: 0.18

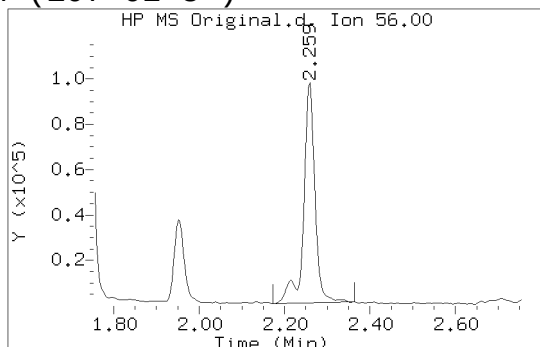


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Inj Date : 14-SEP-2023 19:06
InstruID : VOA9.i
LabSampID : VSTD150

Acrolein (107-02-8)

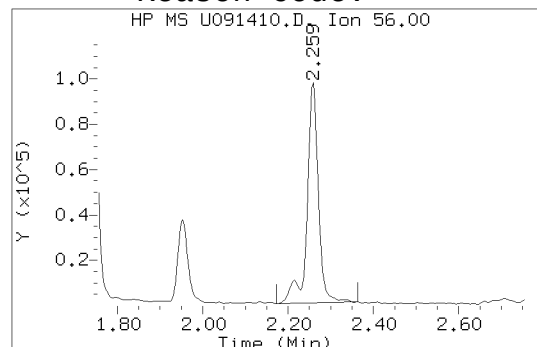
BEFORE

MASS
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HEIGHT
97181
18-Sep-2023
12:30
linh



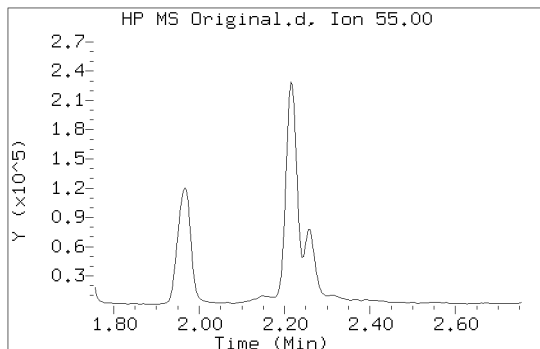
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97181
18-Sep-2023
12:30
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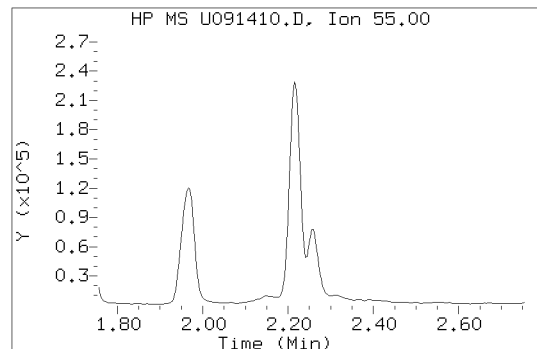
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54842
18-Sep-2023
12:30
linh
pham



AFTER

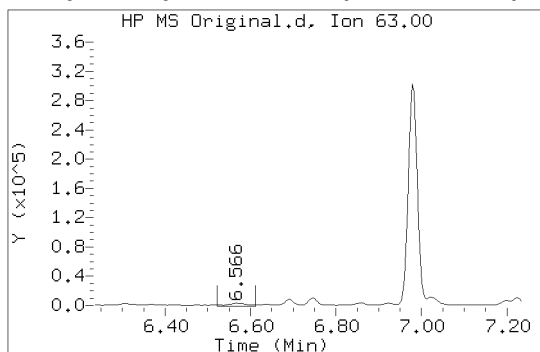
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HEIGHT
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18-Sep-2023
12:30
linh
pham



2-Chloroethylvinyl ether (110-75-8)

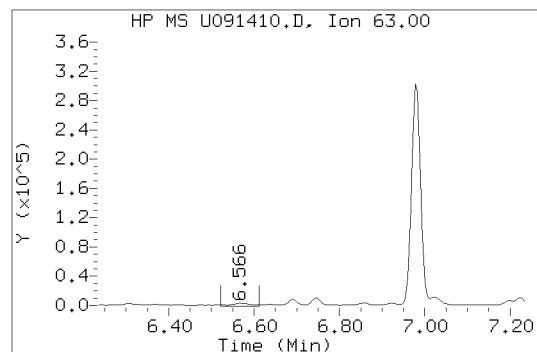
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18-Sep-2023
12:30
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pham



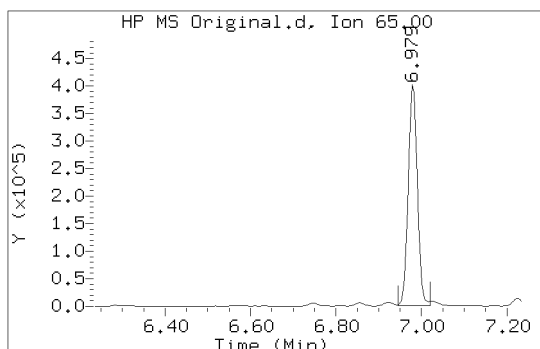
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18-Sep-2023
12:30
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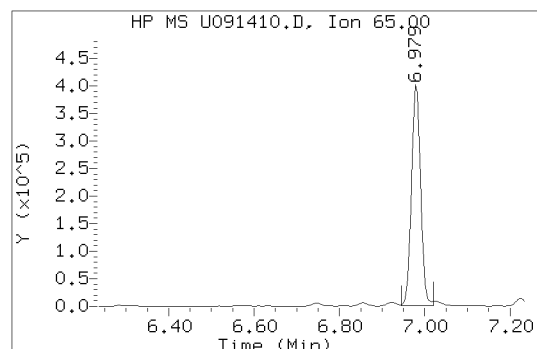
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401669
18-Sep-2023
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AFTER

MASS
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18-Sep-2023
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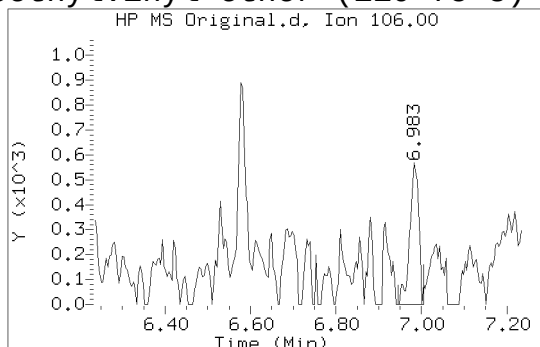


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Inj Date : 14-SEP-2023 19:06
InstruID : VOA9.i
LabSampID : VSTD150

2-Chloroethylvinyl ether (110-75-8)

BEFORE

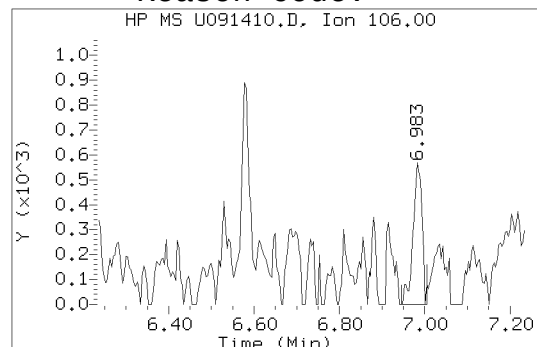
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18-Sep-2023
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linh
pham



AFTER

MASS
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HEIGHT
570
18-Sep-2023
12:30
linh
pham

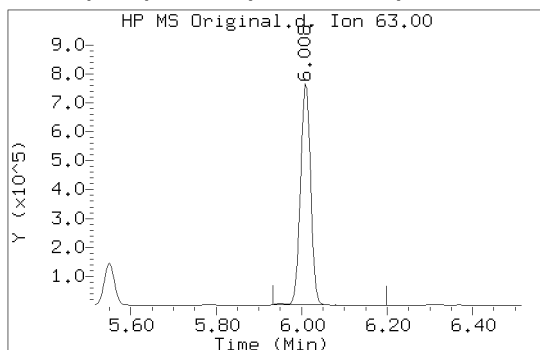
Reason Code:



1,2-Dichloropropane (78-87-5)

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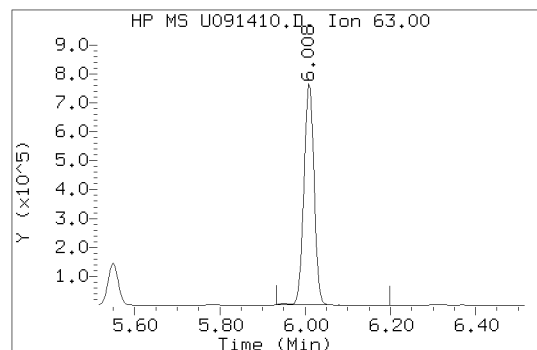
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AFTER

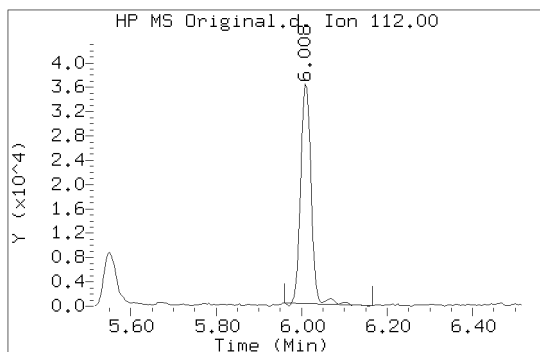
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Reason Code:



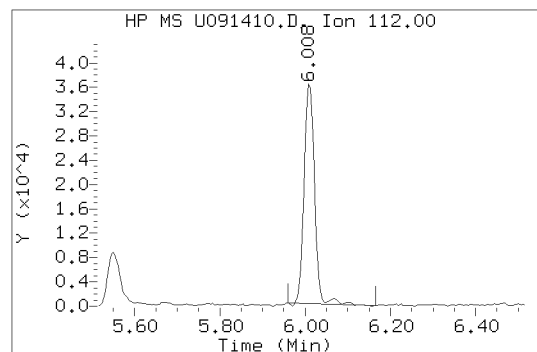
BEFORE

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36150
18-Sep-2023
12:30
linh
pham



AFTER

MASS
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62404
HEIGHT
36150
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091411.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091411.D
 Lab Smp Id: VSTD200 Client Smp ID: VSTD200
 Inj Date : 14-SEP-2023 19:28
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD200;VSTD200;1;10;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:06 Cal File: U091410.D
 Als bottle: 12 Calibration Sample, Level: 10
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.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	4.808	4.808	(1.000)	765052	50.0000	
2 Dichlorodifluoromethane	85	1.153	1.153	(0.240)	1749434	200.000	204.28(A)
3 Chloromethane	50	1.284	1.284	(0.267)	2776648	200.000	199.46
5 Vinyl Chloride	62	1.363	1.363	(0.284)	2279456	200.000	234.71(A)
6 Bromomethane	94	1.591	1.591	(0.331)	1252773	200.000	262.52(A)
7 Chloroethane	64	1.681	1.681	(0.350)	1579435	200.000	221.13(A)
8 Trichlorofluoromethane	101	1.884	1.884	(0.392)	2896704	200.000	232.48(A)
9 Acrolein	56	2.255	2.255	(0.469)	267616	400.000	407.68(AM)
10 Acetone	43	2.397	2.397	(0.499)	1749808	400.000	458.50(A)
11 1,1-Dichloroethene	96	2.322	2.322	(0.483)	1723607	200.000	227.61(A)
15 Iodomethane	142	2.457	2.457	(0.511)	2669085	400.000	397.17
16 Acrylonitrile	53	3.053	3.053	(0.635)	2024088	400.000	453.55(A)
17 Methylene Chloride	84	2.784	2.784	(0.579)	2059188	200.000	208.75(A)
18 Methyl tert-butyl ether	73	3.068	3.068	(0.638)	5346254	200.000	248.66(A)
19 Carbon Disulfide	76	2.510	2.510	(0.522)	9712692	400.000	474.83(A)
20 trans-1,2-Dichloroethene	96	3.050	3.050	(0.634)	1843642	200.000	232.08(A)
21 Vinyl Acetate	43	3.597	3.597	(0.748)	14357679	400.000	510.86(A)
22 1,1-Dichloroethane	63	3.507	3.507	(0.729)	3596608	200.000	225.75(A)
24 2-Butanone	43	4.257	4.257	(0.885)	2106054	400.000	454.17(A)
26 2,2-Dichloropropane	77	4.174	4.174	(0.868)	2386254	200.000	247.36(A)



27 cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	2052035	200.000	225.92(A)
28 Chloroform	83	4.568	4.568 (0.950)	3356606	200.000	216.98(A)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091411.D Page 2
 Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.463	4.463	(0.928)	989080	200.000	207.79(A)
\$ 30 Dibromofluoromethane	113	4.740	4.740	(0.986)	1427589	200.000	203.87(A)
31 1,1,1-Trichloroethane	97	4.737	4.737	(0.985)	2349575	200.000	223.66(A)
32 1,1-Dichloropropene	75	4.913	4.913	(0.886)	2091036	200.000	214.44(A)
33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	2264955	200.000	190.76
34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	1971605	200.000	226.00(A)
\$ 35 1,2-Dichloroethane-d4	65	5.093	5.093	(1.059)	1605933	200.000	204.13(A)
* 36 1,4-Difluorobenzene	114	5.546	5.546	(1.000)	1228306	50.0000	
37 Benzene	78	5.134	5.134	(0.926)	6155499	200.000	199.52
38 Trichloroethene	130	5.782	5.782	(1.043)	1740889	200.000	194.00
39 Bromodichloromethane	83	6.277	6.277	(1.132)	2138543	200.000	213.72(A)
41 2-Chloroethylvinyl ether	63	6.570	6.570	(1.185)	13941	400.000	313.18(M)
42 1,2-Dichloropropane	63	6.007	6.007	(1.083)	1720199	200.000	211.14(AM)
44 Dibromomethane	93	6.116	6.116	(1.103)	1103109	200.000	196.65
45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	3882854	400.000	398.73
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.206)	2674030	200.000	205.02(A)
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1287469	50.0000	
\$ 48 Toluene-d8	98	6.918	6.918	(0.845)	5383811	200.000	189.67
50 Toluene	91	6.978	6.978	(0.853)	7226000	200.000	209.02(A)
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.297)	2363995	200.000	224.42(A)
52 2-Hexanone	43	7.593	7.593	(0.928)	2864702	400.000	490.80(A)
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	1441503	200.000	191.22
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	2991395	200.000	197.28
55 Dibromochloromethane	129	7.691	7.691	(0.940)	1988714	200.000	221.63(A)
56 Tetrachloroethene	164	7.454	7.454	(0.911)	1578033	200.000	195.90
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	1945642	200.000	214.75(A)
58 1-Chlorohexane	55	8.197	8.197	(1.478)	1896062	200.000	255.51(A)
59 Chlorobenzene	112	8.208	8.208	(1.003)	5236580	200.000	204.79(A)
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	1865470	200.000	217.07(A)
61 Ethylbenzene	106	8.305	8.305	(1.015)	2634094	200.000	230.06(A)
62 m,p-Xylenes	106	8.407	8.407	(1.027)	6983196	400.000	485.03(A)
63 o-Xylene	106	8.748	8.748	(1.069)	3523648	200.000	235.49(A)
64 Styrene	104	8.759	8.759	(1.070)	5763441	200.000	250.85(A)
66 Bromoform	173	8.920	8.920	(1.090)	1484437	200.000	207.07(A)
67 Isopropylbenzene	105	9.063	9.063	(1.107)	8637564	200.000	198.65
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	2800981	200.000	201.55(A)
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	2804888	200.000	186.57
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	715330	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	2671988	200.000	225.61(A)
73 n-Propylbenzene	91	9.411	9.411	(0.925)	9390355	200.000	202.29(A)
74 Bromobenzene	156	9.317	9.317	(0.916)	2358754	200.000	207.47(A)
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	6663134	200.000	247.64(A)
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	5938208	200.000	223.57(A)
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	7120485	200.000	228.46(A)
78 tert-Butylbenzene	119	9.839	9.839	(0.967)	6182289	200.000	238.77(A)
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	6708498	200.000	242.55(A)
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	8545916	200.000	198.80
82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	7125106	200.000	198.73
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	4176175	200.000	208.27(A)
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	4453497	200.000	197.67
87 n-Butylbenzene	91	10.491	10.491	(1.031)	6555037	200.000	199.09
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	4292379	200.000	209.30(A)



89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	401927	200.000	232.45(A)
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	2706101	200.000	231.78(A)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091411.D Page 3

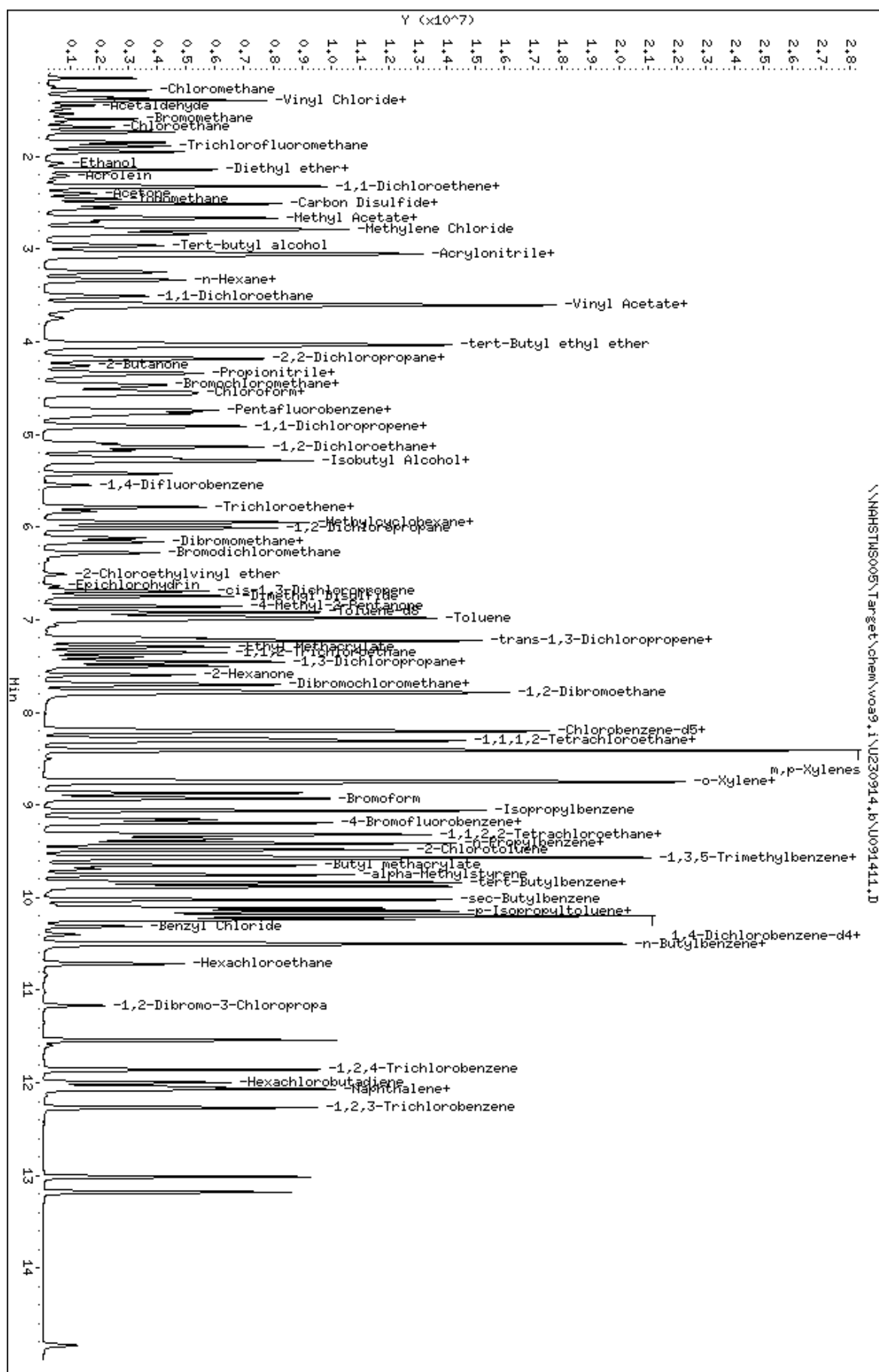
Report Date: 18-Sep-2023 12:31

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)	1099198	200.000	209.83(A)
92 Naphthalene	128	12.065	12.065	(1.186)	6850147	200.000	205.35(A)
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	2632662	200.000	237.51(A)
M 94 1,2-Dichloroethylene (total)	96				3895677	400.000	
M 95 Xylenes (total)	106				10506844	600.000	
135 1,4-Dioxane	88	6.169	6.169	(1.283)	431286	4000.00	3878.25
141 Cyclohexane	56	4.774	4.774	(0.993)	2438404	200.000	200.14(A)
138 Freon TF	101	2.322	2.322	(0.483)	1638859	200.000	200.00(A)
140 1,3-Butadiene	54	1.393	1.393	(0.290)	2133087	200.000	236.00(A)
147 Methylcyclohexane	55	5.944	5.944	(1.072)	4348902	200.000	241.52(A)
146 Methyl Acetate	43	2.701	2.701	(0.562)	2016180	200.000	217.35(A)
148 Tert-Butyl alcohol	59	2.960	2.960	(0.616)	4391311	4000.00	4684.50(A)
149 Isopropyl Alcohol	45	2.555	2.555	(0.531)	3113180	4000.00	4629.30(A)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091411.D
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 Column phase: DB624

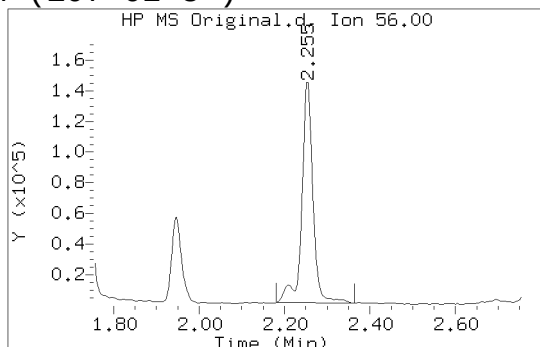
Instrument: V099.1
 Operator: PC
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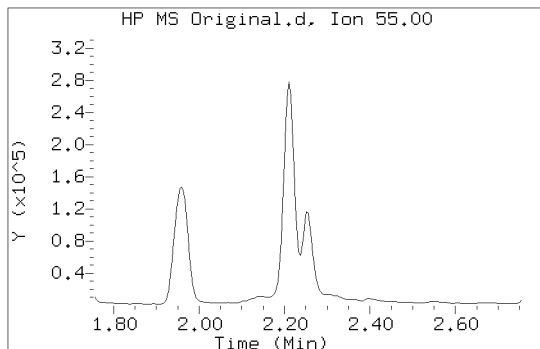
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Inj Date : 14-SEP-2023 19:28
InstruID : VOA9.i
LabSampID : VSTD200

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

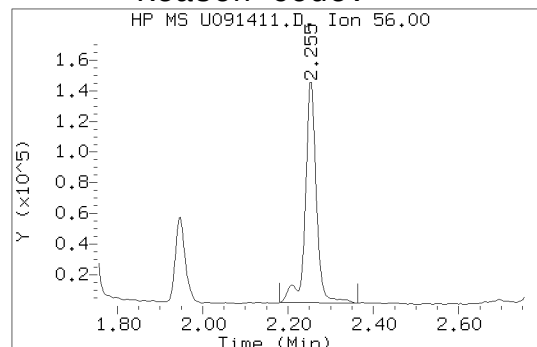
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56
AREA
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HEIGHT
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18-Sep-2023
12:30
linh

**BEFORE**

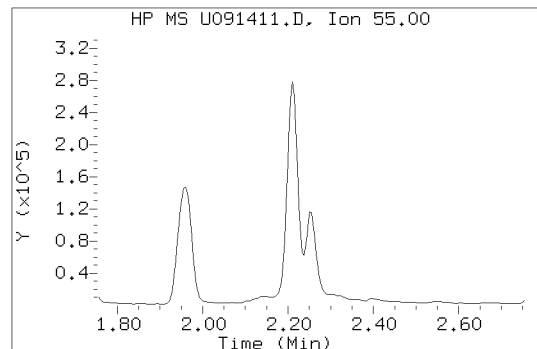
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HEIGHT
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18-Sep-2023
12:30
linh
pham

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

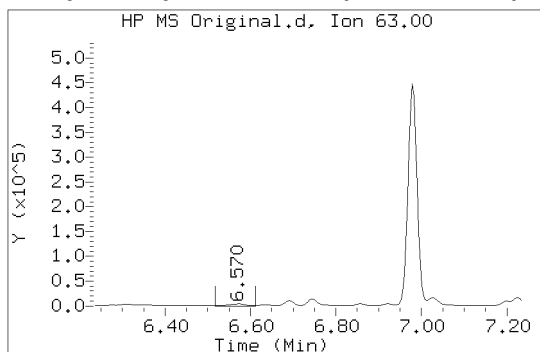
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18-Sep-2023
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**AFTER**

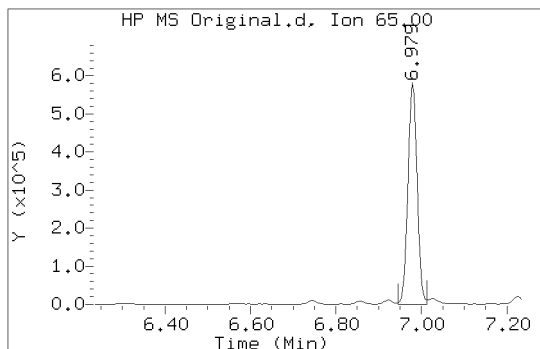
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**2-Chloroethylvinyl ether (110-75-8)****BEFORE**

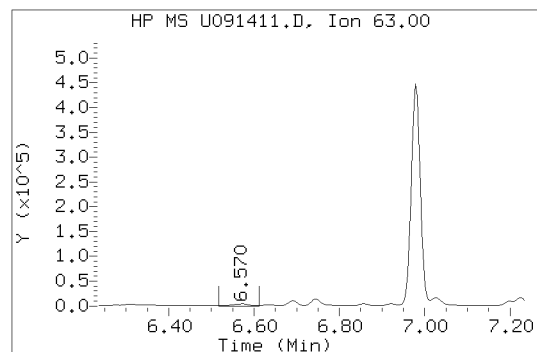
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**BEFORE**

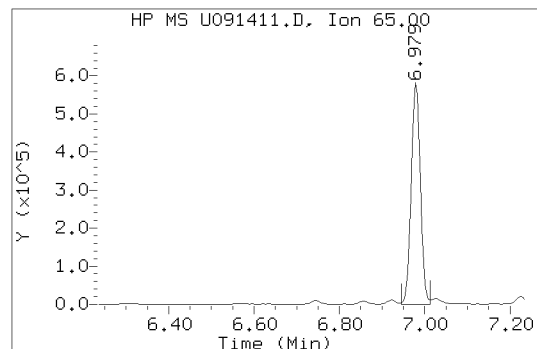
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18-Sep-2023
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**Reason Code:****AFTER**

MASS
63
AREA
13941
HEIGHT
4675
18-Sep-2023
12:30
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pham

**AFTER**

MASS
65
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linh
pham

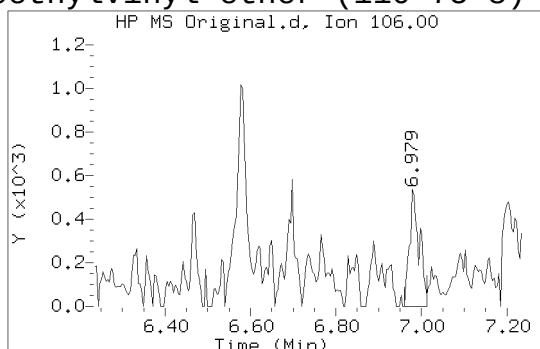


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Inj Date : 14-SEP-2023 19:28
InstruID : VOA9.i
LabSampID : VSTD200

2-Chloroethylvinyl ether (110-75-8)

BEFORE

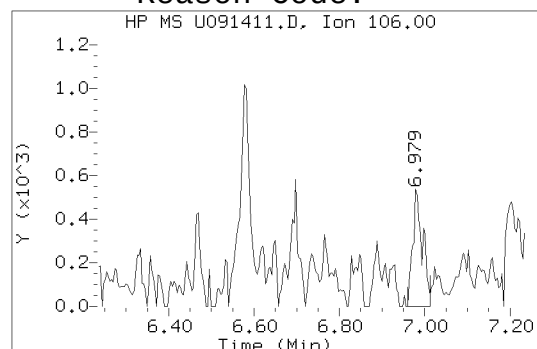
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106
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864
HEIGHT
538
18-Sep-2023
12:30
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pham



AFTER

MASS
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864
HEIGHT
538
18-Sep-2023
12:30
linh
pham

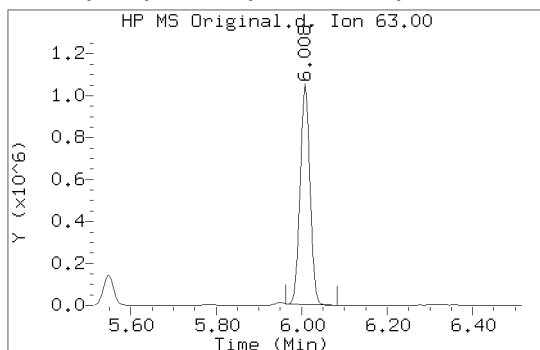
Reason Code:



1,2-Dichloropropane (78-87-5)

BEFORE

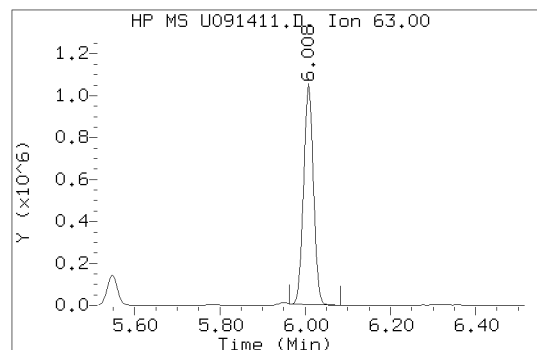
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AFTER

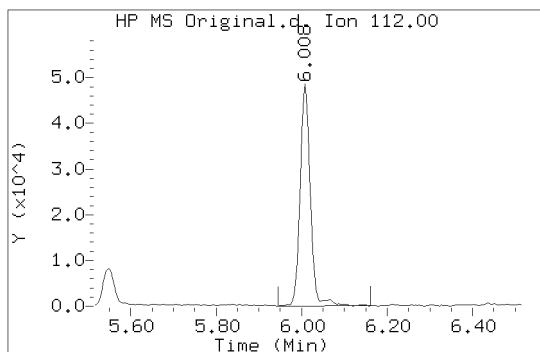
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18-Sep-2023
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pham

Reason Code:



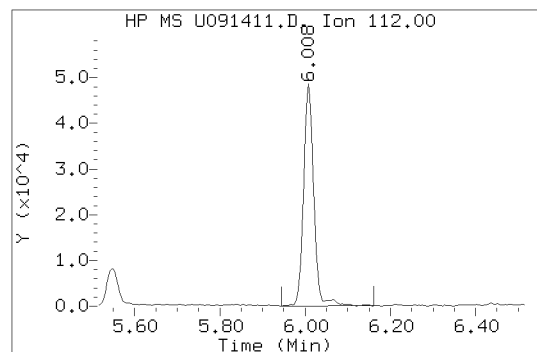
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82026
HEIGHT
48516
18-Sep-2023
12:30
linh
pham



AFTER

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AREA
82026
HEIGHT
48516
18-Sep-2023
12:30
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091413.D Page 1
 Report Date: 18-Sep-2023 13:23

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091413.D
 Lab Smp Id: CCV Client Smp ID: CCV
 Inj Date : 14-SEP-2023 20:13
 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\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:32 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 14 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)		762470	50.0000	
2 Dichlorodifluoromethane	85		1.168	1.167	(0.243)		373445	44.8060	44.80
3 Chloromethane	50		1.299	1.299	(0.270)		613546	43.4647	43.46
5 Vinyl Chloride	62		1.381	1.381	(0.287)		456551	47.1697	47.16
6 Bromomethane	94		1.621	1.625	(0.337)		254810	53.9337	53.93
7 Chloroethane	64		1.704	1.703	(0.354)		326184	45.8234	45.82
8 Trichlorofluoromethane	101		1.899	1.902	(0.394)		576233	46.4034	46.40
9 Acrolein	56		2.270	2.269	(0.471)		56069	85.7037	85.70
10 Acetone	43		2.412	2.412	(0.501)		373869	96.5981	96.59
11 1,1-Dichloroethene	96		2.337	2.337	(0.485)		341766	45.2851	45.28
15 Iodomethane	142		2.472	2.472	(0.513)		476890	107.268	107.26
16 Acrylonitrile	53		3.068	3.068	(0.637)		431945	97.1174	97.11
17 Methylene Chloride	84		2.798	2.798	(0.581)		443674	46.4573	46.45
18 Methyl tert-butyl ether	73		3.083	3.083	(0.640)		1137013	53.0633	53.06
19 Carbon Disulfide	76		2.525	2.524	(0.524)		1994333	97.8283	97.82
20 trans-1,2-Dichloroethene	96		3.061	3.060	(0.636)		383014	48.3782	48.37
21 Vinyl Acetate	43		3.608	3.612	(0.749)		2836526	101.269	101.26
22 1,1-Dichloroethane	63		3.514	3.518	(0.730)		749609	47.2111	47.21
24 2-Butanone	43		4.268	4.268	(0.886)		451092	97.6074	97.60
26 2,2-Dichloropropane	77		4.185	4.185	(0.869)		460574	47.9056	47.90



27 cis-1,2-Dichloroethene	96	4.197	4.196 (0.872)	444407	49.0944	49.09
28 Chloroform	83	4.575	4.575 (0.950)	730573	47.3872	47.38

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091413.D Page 2
Report Date: 18-Sep-2023 13:23

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)	221891	46.7750	46.77	
\$ 30 Dibromofluoromethane	113	4.748	4.747	(0.986)	366520	52.6744	52.67	
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	494690	47.2502	47.25	
32 1,1-Dichloropropene	75	4.920	4.924	(0.886)	444906	46.3917	46.39	
33 1,2-Dichloroethane	62	5.179	5.178	(0.933)	535323	45.8422	45.84	
34 Carbon Tetrachloride	117	4.909	4.912	(0.884)	390361	45.4973	45.49	
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	412660	52.5221	52.52	
* 36 1,4-Difluorobenzene	114	5.554	5.553	(1.000)	1208072	50.0000		
37 Benzene	78	5.138	5.141	(0.925)	1437665	47.3803	47.38	
38 Trichloroethene	130	5.790	5.790	(1.043)	394023	44.6459	44.64	
39 Bromodichloromethane	83	6.277	6.281	(1.130)	465805	47.3312	47.33	
41 2-Chloroethylvinyl ether	63	6.566	6.570	(1.182)	3914	89.7724	89.77(M)	
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	400812	50.0216	50.02	
44 Dibromomethane	93	6.120	6.119	(1.102)	252818	45.8247	45.82	
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	815463	97.6171	97.61	
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	544821	44.9726	44.97	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1126682	50.0000		
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1347261	54.2390	54.23	
50 Toluene	91	6.982	6.982	(0.853)	1516303	50.1201	50.12	
51 trans-1,3-Dichloropropene	75	7.196	7.199	(1.296)	449839	45.3510	45.35	
52 2-Hexanone	43	7.593	7.593	(0.928)	541318	105.978	105.97	
53 1,1,2-Trichloroethane	83	7.357	7.356	(0.899)	308418	46.7513	46.75	
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	639759	48.2136	48.21	
55 Dibromochloromethane	129	7.690	7.694	(0.940)	395929	50.4227	50.42	
56 Tetrachloroethene	164	7.458	7.458	(0.911)	342764	48.6253	48.62	
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	384077	48.4428	48.44	
58 1-Chlorohexane	55	8.196	8.196	(1.476)	302754	41.4823	41.48	
59 Chlorobenzene	112	8.208	8.211	(1.003)	1030076	46.0342	46.03	
60 1,1,1,2-Tetrachloroethane	131	8.283	8.282	(1.012)	360975	47.9994	47.99	
61 Ethylbenzene	106	8.305	8.305	(1.015)	506381	50.5406	50.54	
62 m,p-Xylenes	106	8.406	8.410	(1.027)	1260997	100.084	100.08	
63 o-Xylene	106	8.748	8.747	(1.069)	624736	47.7110	47.71	
64 Styrene	104	8.759	8.762	(1.070)	1004768	49.9743	49.97	
66 Bromoform	173	8.920	8.920	(1.090)	249812	42.7012	42.70	
67 Isopropylbenzene	105	9.062	9.062	(1.107)	1494789	47.7375	47.73	
68 1,1,2,2-Tetrachloroethane	83	9.329	9.328	(0.917)	535133	47.5013	47.50	
\$ 69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	577860	52.9595	52.95	
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	579889	50.0000		
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	472585	49.2242	49.22	
73 n-Propylbenzene	91	9.411	9.411	(0.926)	1689405	47.2430	47.24	
74 Bromobenzene	156	9.317	9.317	(0.916)	464477	50.3976	50.39	
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	1153378	52.8786	52.87	
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	1107535	51.4378	51.43	
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	1298176	51.3808	51.38	
78 tert-Butylbenzene	119	9.838	9.838	(0.968)	1069786	50.9670	50.96	
79 1,2,4-Trimethylbenzene	105	9.876	9.879	(0.971)	1196006	53.3442	53.34	
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	1407639	48.7491	48.74	
82 p-Isopropyltoluene	119	10.146	10.145	(0.998)	1165790	50.3945	50.39	
83 1,3-Dichlorobenzene	146	10.116	10.115	(0.995)	786169	48.3644	48.36	
84 1,4-Dichlorobenzene	146	10.191	10.190	(1.002)	844030	46.2147	46.21	
87 n-Butylbenzene	91	10.491	10.490	(1.032)	1030869	48.7630	48.76	
88 1,2-Dichlorobenzene	146	10.506	10.505	(1.033)	805152	48.4300	48.42	



89	1,2-Dibromo-3-Chloropropane	155	11.165	11.169 (1.098)	72413	51.6619	51.66
90	1,2,4-Trichlorobenzene	180	11.855	11.859 (1.166)	521982	55.1514	55.15

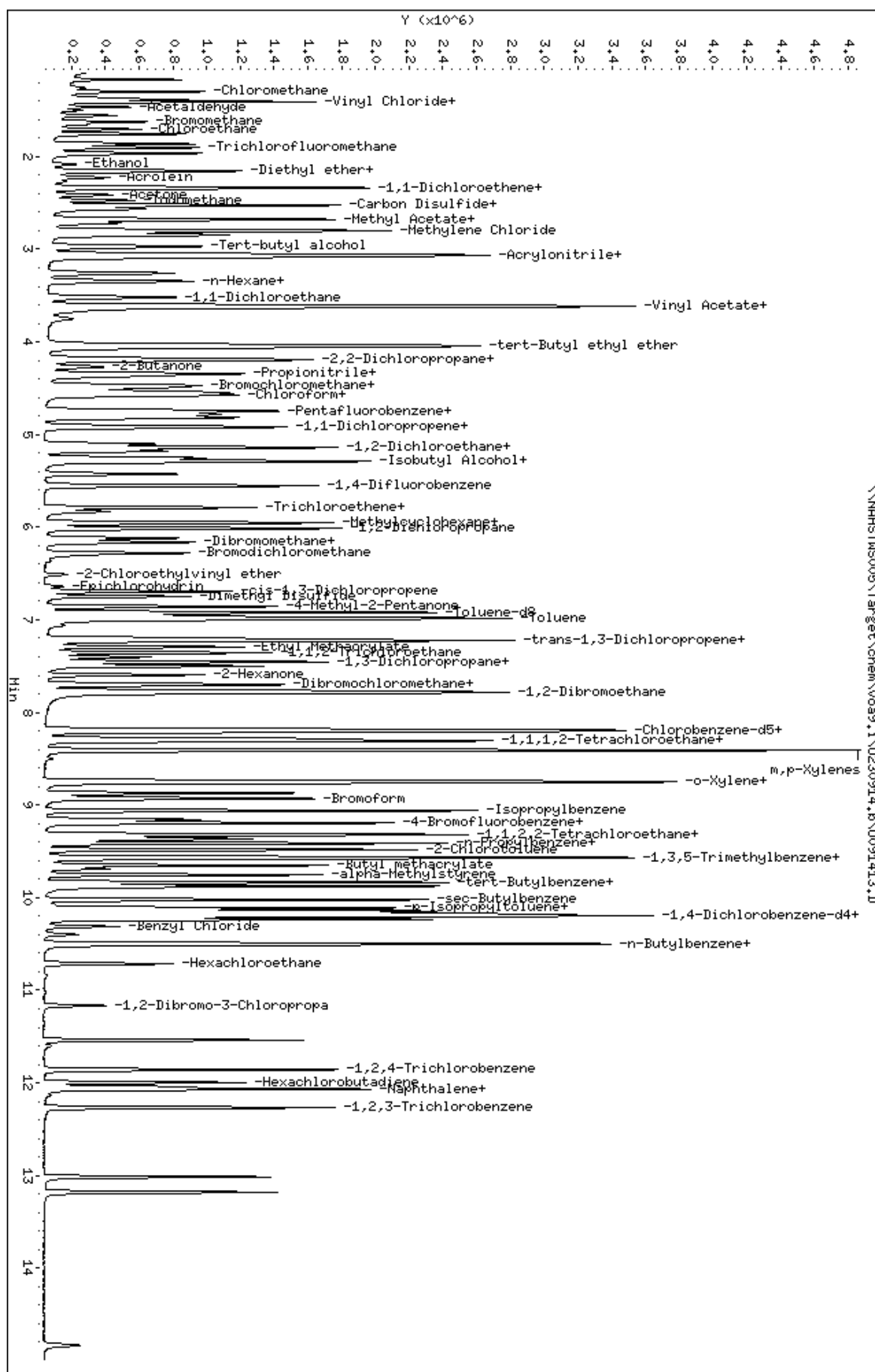
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Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	11.998	11.997	(1.180)	204226	48.0923	48.09
92 Naphthalene	128	12.065	12.065	(1.187)	1329508	51.2430	51.24
93 1,2,3-Trichlorobenzene	180	12.268	12.267	(1.206)	518198	57.6699	57.66
M 94 1,2-Dichloroethylene (total)	96				827421	97.5206	97.52
M 95 Xylenes (total)	106				1885733	142.615	142.61
135 1,4-Dioxane	88	6.172	6.172	(1.282)	101350	914.455	914.45
141 Cyclohexane	56	4.781	4.781	(0.993)	490305	47.4109	47.41
138 Freon TF	101	2.337	2.337	(0.485)	309471	49.3545	49.35
140 1,3-Butadiene	54	1.408	1.407	(0.292)	417668	46.3672	46.36
147 Methylcyclohexane	55	5.951	5.951	(1.072)	885318	49.9921	49.99
146 Methyl Acetate	43	2.716	2.716	(0.564)	440005	47.5945	47.59
148 Tert-Butyl alcohol	59	2.971	2.970	(0.617)	939019	1005.11	1005.10
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	648816	968.058	968.05
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	74288	43.6516	43.65
12 Isobutyl Alcohol	43	5.291	5.291	(1.099)	1108543	972.553	972.55
13 Acetonitrile	39	2.675	2.674	(0.555)	566596	487.050	487.04
14 Allyl Chloride	41	2.675	2.674	(0.555)	1282405	47.4353	47.43
25 Methacrylonitrile	41	4.497	4.500	(0.934)	323055	53.8984	53.89
40 Methyl Methacrylate	41	6.157	6.161	(1.279)	337141	53.9972	53.99
4 Propionitrile	54	4.343	4.343	(0.902)	802797	486.022	486.02
136 n-Hexane	57	3.346	3.345	(0.695)	423164	48.3941	48.39
194 Acetaldehyde	44	1.464	1.464	(0.304)	277537	183.566	183.56(M)
131 Methyl Acrylate	55	4.373	4.373	(0.908)	616486	51.9449	51.94
200 Dimethyl Disulfide	94	6.746	6.745	(0.824)	396963	44.4489	44.44
23 Chloroprene	53	2.161	2.161	(0.449)	155216	50.8747	50.87(M)
49 Ethyl Methacrylate	69	7.293	7.293	(1.313)	527359	50.0543	50.05
166 1,2,3-Trimethylbenzene	105	10.232	10.235	(1.006)	1166243	52.2956	52.29
167 Ethanol	45	2.082	2.086	(0.433)	142939	890.813	890.81
164 Dicyclopentadiene	66	10.198	10.198	(1.003)	1313737	46.0400	46.03
145 alpha-Methylstyrene	118	9.752	9.752	(0.959)	450685	51.5793	51.57
142 Tetrahydrofuran	42	4.545	4.549	(0.944)	193559	101.167	101.16
156 Diisopropyl ether	45	3.623	3.623	(0.752)	1601368	48.5394	48.53
151 4-Methyl-2-pentanol	45	7.222	7.222	(1.300)	1576918	1031.41	1031.41
150 Allyl alcohol	57	3.346	3.345	(0.695)	423164	959.625	959.62
86 Benzyl Chloride	91	10.311	10.310	(1.260)	276875	48.5185	48.51
162 Butyl acrylate	55	8.733	8.736	(1.067)	677049	51.8592	51.85
139 Diethyl ether	59	2.146	2.150	(0.446)	364931	48.2944	48.29
203 2-Ethylhexyl Acrylate	55	12.043	12.042	(1.184)	277284	53.0411	53.04
134 Cyclohexanone	55	9.156	9.156	(0.900)	350326	970.262	970.26
130 Ethyl Acetate	43	4.343	4.346	(0.902)	570589	50.3095	50.30
189 n-Butyl acetate	43	7.705	7.709	(0.941)	622183	46.1953	46.19
182 Epichlorohydrin	57	6.633	6.637	(1.194)	15998	169.075	169.07(M)
132 n-Butanol	56	5.831	5.834	(1.211)	222168	947.898	947.89
133 Ethyl Acrylate	55	5.951	5.951	(1.236)	885318	49.9291	49.92
163 Butyl methacrylate	41	9.651	9.651	(0.949)	412686	48.1493	48.14
174 tert-Amyl methyl ether	73	5.291	5.291	(1.099)	827355	48.8858	48.88(M)
175 tert-Butyl ethyl ether	59	4.054	4.054	(0.842)	1166776	49.9897	49.98
188 Isopropyl acetate	43	5.291	5.291	(0.953)	1108439	50.5796	50.57
179 Hexachloroethane	166	10.712	10.712	(1.053)	88328	44.0287	44.02



M - Compound response manually integrated.





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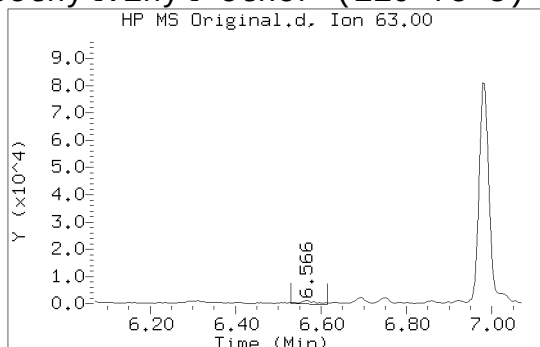
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LabSampID : CCV

2-Chloroethylvinyl ether (110-75-8)

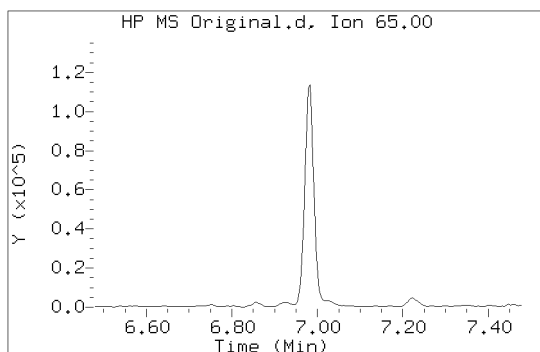
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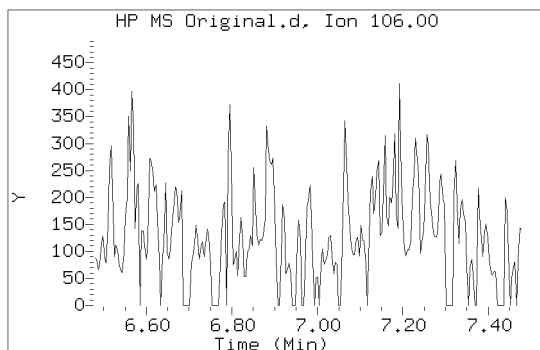
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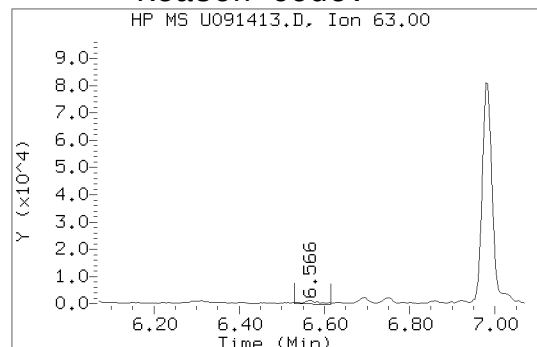
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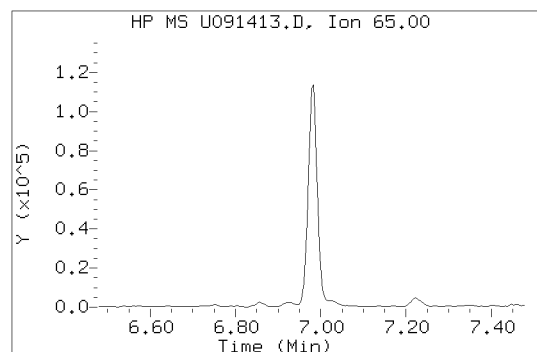
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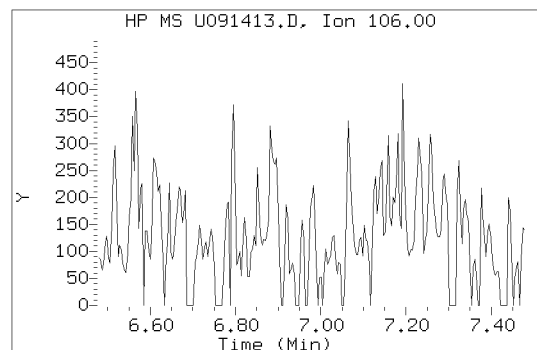
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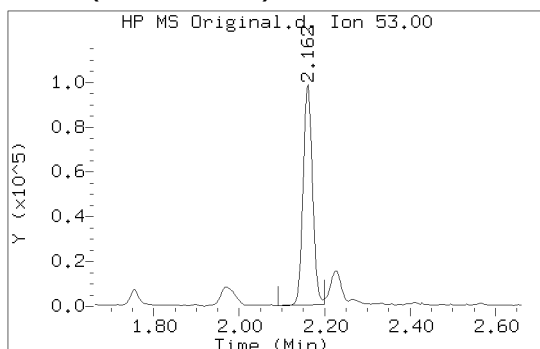
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Chloroprene (126-99-8)

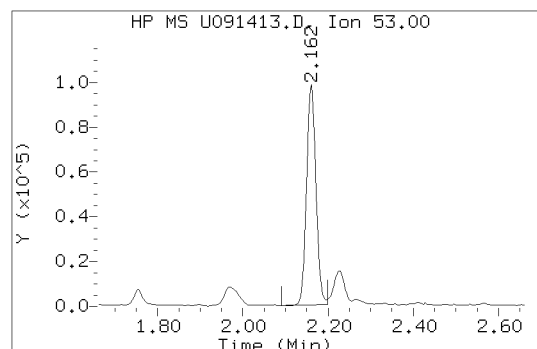
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AFTER

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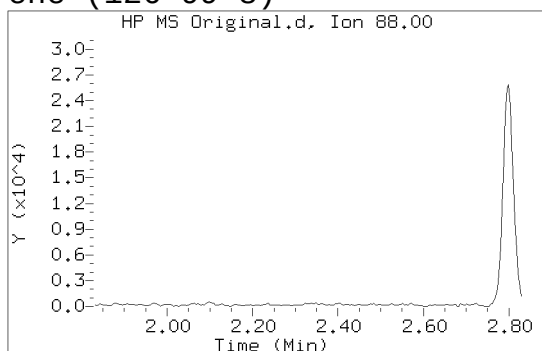


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InstruID : VOA9.i
LabSampID : CCV

Chloroprene (126-99-8)

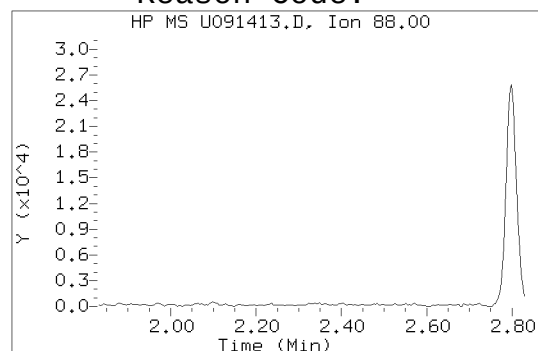
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AFTER

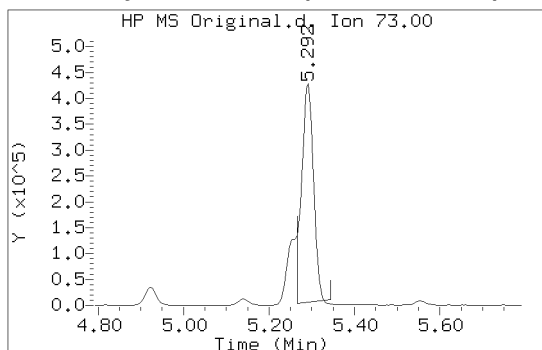
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tert-Amyl methyl ether (974-05-08)

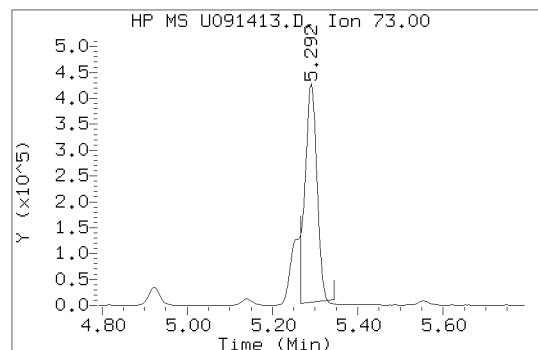
BEFORE

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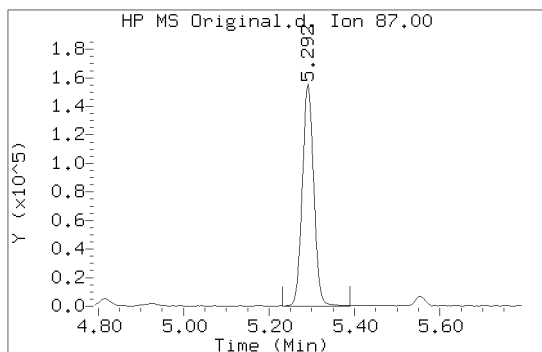
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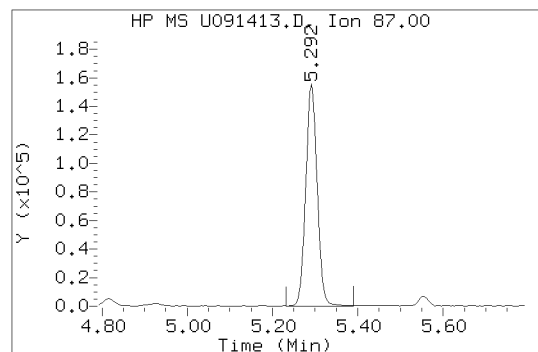
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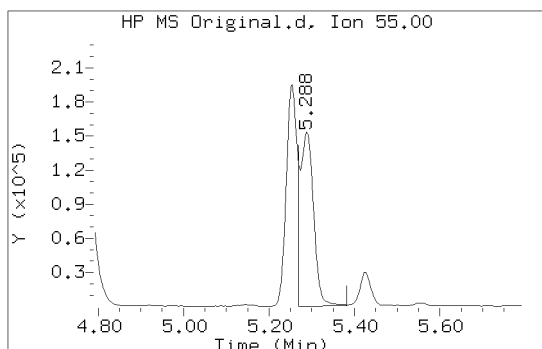
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pham



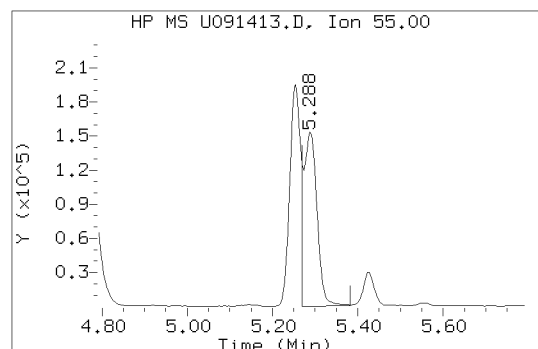
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AREA
346417
HEIGHT
153157
18-Sep-2023
12:05
linh
pham



AFTER

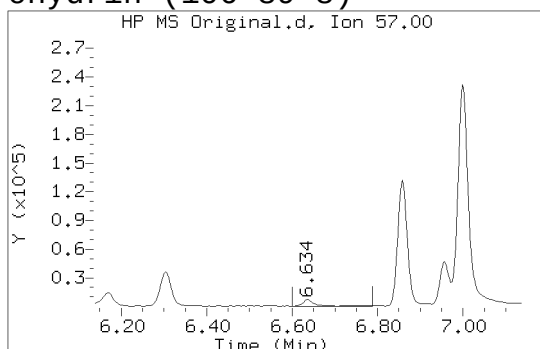
MASS
55
AREA
346417
HEIGHT
153157
18-Sep-2023
13:23
linh
pham



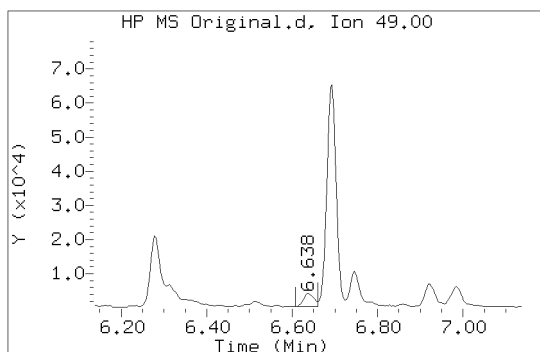
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U230914.b\\U091413.D
Inj Date : 14-SEP-2023 20:13
InstruID : VOA9.i
LabSampID : CCV

Epichlorohydrin (106-89-8)**BEFORE**

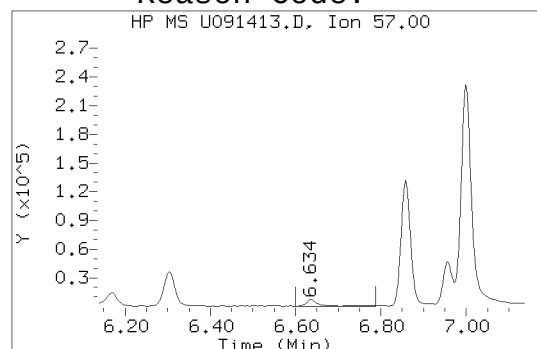
MASS
57
AREA
15998
HEIGHT
7408
18-Sep-2023
12:05
linh

**BEFORE**

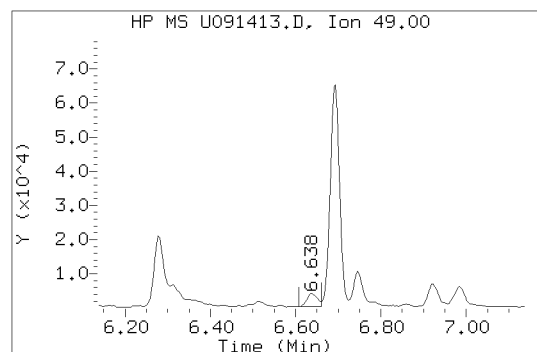
MASS
49
AREA
6932
HEIGHT
3899
18-Sep-2023
12:05
linh
pham

**AFTER**

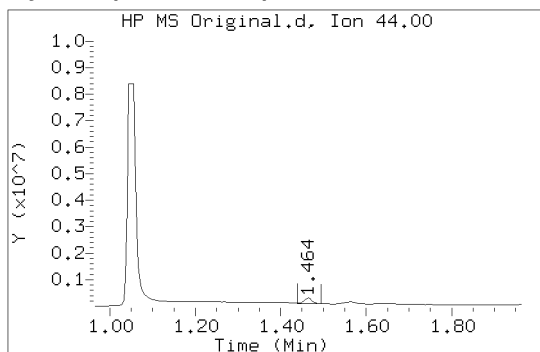
MASS
57
AREA
15998
HEIGHT
7408
18-Sep-2023
13:23
linh

Reason Code:**AFTER**

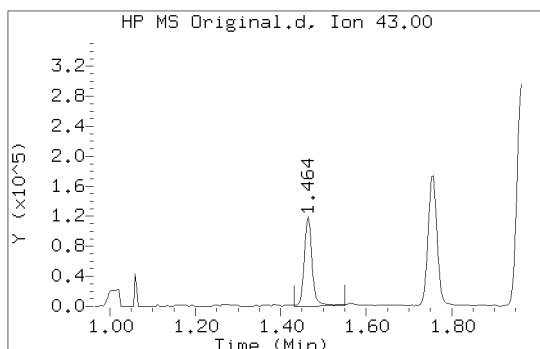
MASS
49
AREA
6932
HEIGHT
3899
18-Sep-2023
13:23
linh
pham

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

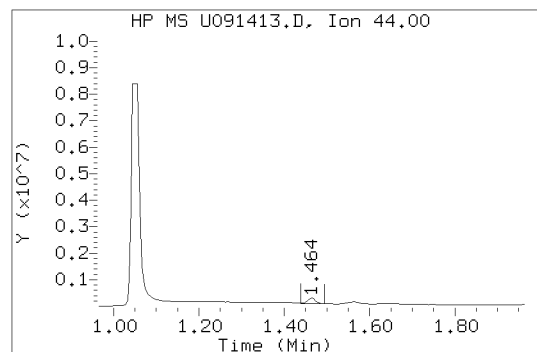
MASS
44
AREA
277537
HEIGHT
213565
18-Sep-2023
12:05
linh
pham

**BEFORE**

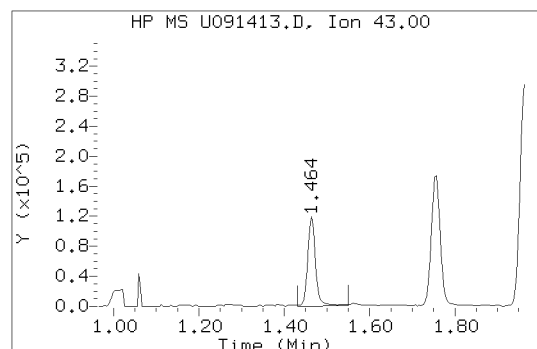
MASS
43
AREA
156467
HEIGHT
118995
18-Sep-2023
12:05
linh
pham

**AFTER**

MASS
44
AREA
277537
HEIGHT
213565
18-Sep-2023
13:23
linh
pham

Reason Code:**AFTER**

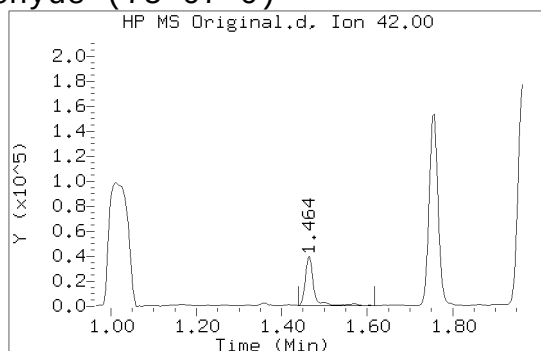
MASS
43
AREA
156467
HEIGHT
118995
18-Sep-2023
13:23
linh
pham



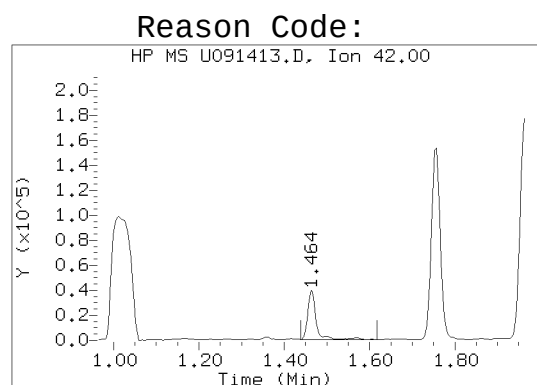
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091413.D
Inj Date : 14-SEP-2023 20:13
InstruID : VOA9.i
LabSampID : CCV

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

MASS
42
AREA
55755
HEIGHT
39637
18-Sep-2023
12:05
linh
pham

**AFTER**

MASS
42
AREA
55755
HEIGHT
39637
18-Sep-2023
13:23
linh
pham





right solutions.
right partner.

Raw Data VOA9 446515

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

09/18/2023

ALS Environmental—Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D Page 1
 Report Date: 15-Sep-2023 21:29

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D
 Lab Smp Id: BFB Client Smp ID: BFB
 Inj Date : 14-SEP-2023 14:11
 Operator : PC Inst ID: VOA9.i
 Smp Info : BFB;BFB;3;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.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: 64 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	196352			0.00-	100.00	100.00
9.193	9.180 (0.000)		50	36584			15.00-	40.00	18.63
9.193	9.180 (0.000)		75	93208			30.00-	60.00	47.47
9.193	9.180 (0.000)		96	11853			5.00-	9.00	6.04
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	180992			50.00-	0.00	92.18
9.193	9.180 (0.000)		175	15049			5.00-	9.00	8.31
9.193	9.180 (0.000)		176	172096			95.00-	101.00	95.08
9.193	9.180 (0.000)		177	11259			5.00-	9.00	6.54



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	47.47
96	5.00 - 9.00% of mass 95	6.04
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	92.18
175	5.00 - 9.00% of mass 174	7.66 (8.31)
176	95.00 - 101.00% of mass 174	87.65 (95.08)
177	5.00 - 9.00% of mass 176	5.73 (6.54)

Data File: U091401.D
 Spectrum: Scan 2297 (9.20)
 Location of Maximum: 95.05
 Number of points: 218

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	338	86.90	9041	138.30	188	206.60	61
35.90	1879	88.00	7559	138.80	139	207.20	53
37.00	9127	89.20	244	139.70	502	208.20	66
38.10	8259	91.00	1042	140.90	1886	208.80	64
39.10	4027	92.00	5247	142.00	526	211.10	108
40.00	818	93.00	9446	142.90	3162	211.80	69
41.00	420	94.00	24176	143.80	300	212.90	70
41.90	376	95.00	196352	144.90	1178	215.70	145
43.20	497	96.00	11853	146.00	452	218.30	168
44.10	2434	96.90	386	147.00	251	225.00	55
45.00	2046	97.40	447	147.90	677	228.20	62
46.30	459	98.10	179	148.80	237	228.60	83
47.00	2906	99.00	188	149.80	243	230.50	65
48.00	1615	100.00	249	152.00	287	234.40	63
49.00	8000	100.90	208	153.00	217	238.10	112
50.00	36584	101.70	167	153.60	167	239.90	60
51.00	10681	102.60	118	154.00	178	240.80	70
52.00	662	103.00	105	154.90	460	243.00	62
53.00	488	103.80	1048	155.90	234	243.70	63
53.70	317	104.60	258	157.00	527	245.60	74
54.10	347	105.90	942	158.10	181	250.70	66
55.00	770	106.60	274	158.80	355	256.90	65
56.00	3221	108.10	310	160.20	138	257.90	72
57.00	5330	109.90	258	161.00	280	258.70	64
58.00	518	111.00	542	161.90	227	267.60	53
59.00	237	112.10	258	162.50	84	268.70	74
60.00	2012	112.60	204	164.50	162	269.30	62
61.00	9606	113.40	85	165.20	165	275.30	85
62.00	9229	114.00	158	166.20	131	276.30	56
63.00	7568	114.80	324	167.10	74	279.30	53
64.00	1491	115.90	892	168.50	162	280.90	113
65.00	1328	116.90	1588	169.30	253	282.30	61
66.10	341	117.90	1185	169.90	185	286.30	55
66.90	716	119.00	1168	170.30	223	291.30	116
67.20	785	120.10	122	171.10	662	292.50	56
68.00	18336	121.00	110	171.90	2940	296.30	51
69.00	17200	121.60	67	173.90	180992	307.50	70
70.00	1353	122.60	259	175.00	15049	308.60	88
72.00	1009	123.20	367	175.90	172096	312.00	59
73.00	8530	123.80	303	177.00	11259	317.00	58
74.00	32336	124.90	97	178.00	251	317.80	52
75.00	93208	125.50	236	179.20	162	318.10	53
76.00	7896	126.60	148	180.90	99	318.90	152
77.00	1458	127.90	660	182.20	85	321.80	115
77.70	1123	129.00	310	187.00	100	323.10	69

78.90	6903	129.90	862	188.70	63	330.30	81
80.00	2305	130.90	523	191.60	140	332.30	53
80.90	7871	131.80	200	193.40	104	333.70	79
82.00	2213	133.00	58	195.10	120	343.40	81
82.80	270	133.90	237	195.60	75	344.50	66
83.30	198	134.80	467	197.30	70	345.60	69
84.00	274	135.90	209	198.30	228	347.10	77
84.50	197	136.70	404	201.10	77	347.50	73
85.40	209	137.10	362	203.20	68		
86.10	524	137.80	93	205.80	57		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 1

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

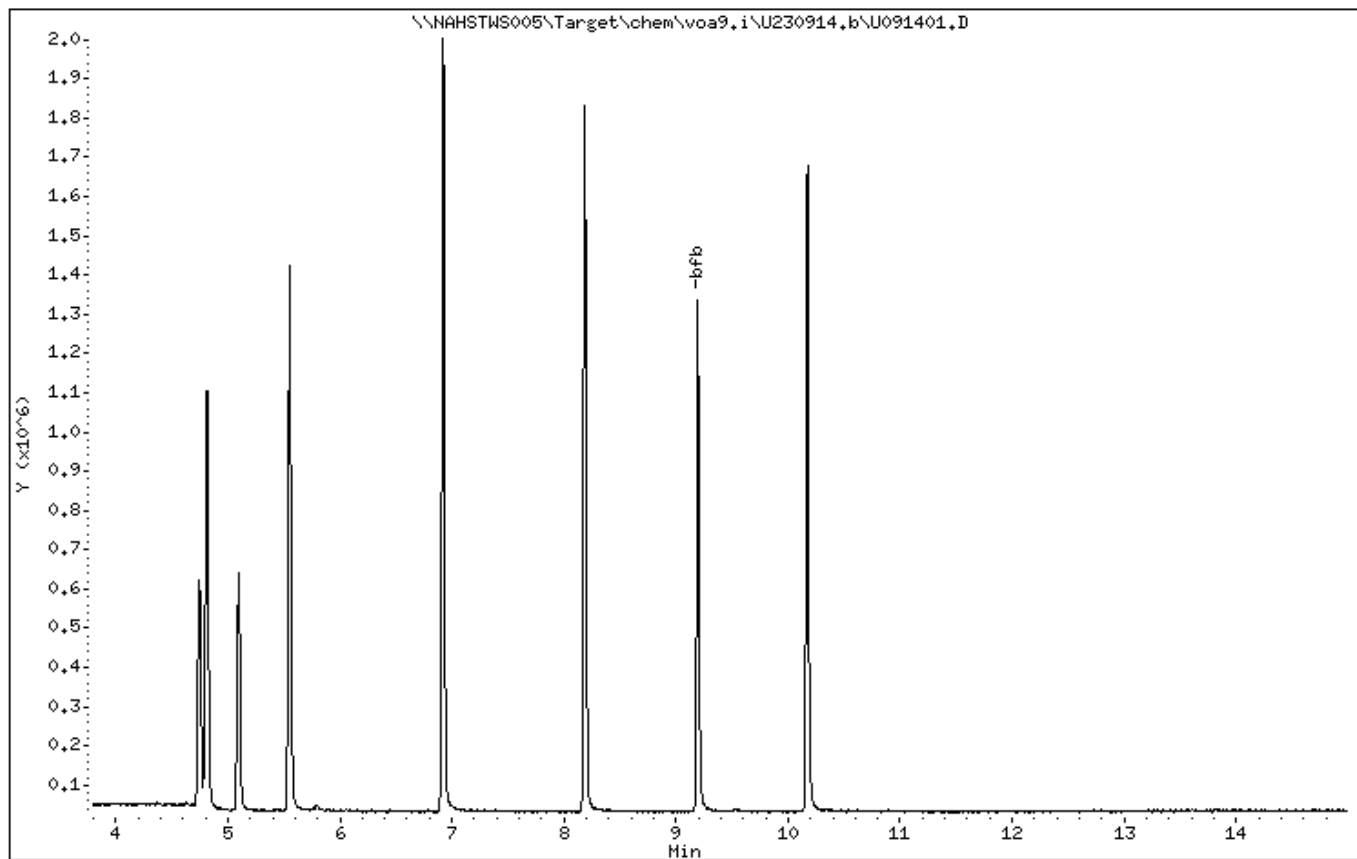
Sample Info: BFB;BFB;3;;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0,25



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 2

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB:BFB;3;3;

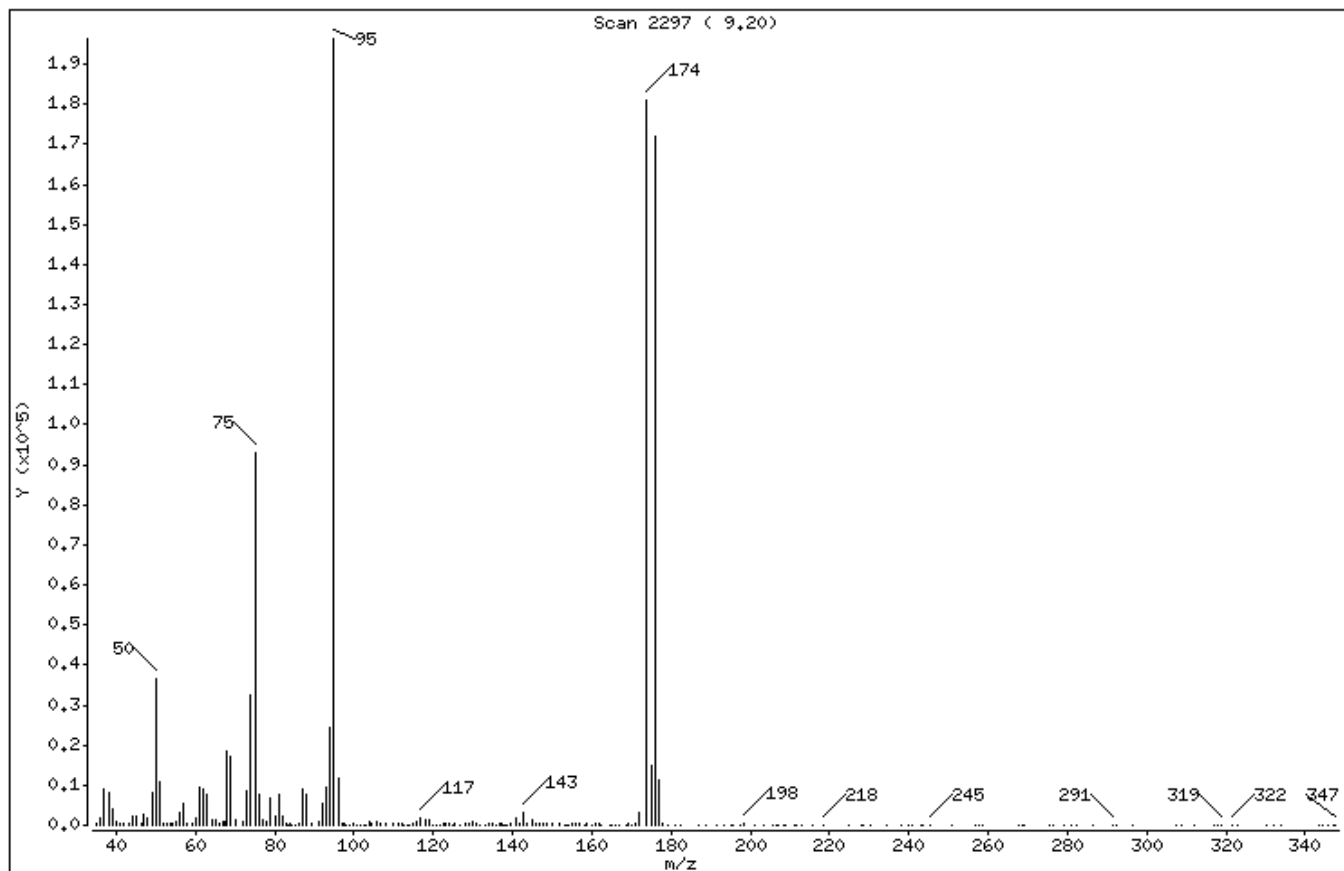
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.63
75	30.00 - 60.00% of mass 95	47.47
96	5.00 - 9.00% of mass 95	6.04
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	92.18
175	5.00 - 9.00% of mass 174	7.66 (8.31)
176	95.00 - 101.00% of mass 174	87.65 (95.08)
177	5.00 - 9.00% of mass 176	5.73 (6.54)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 3

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB:BFB:3;3;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: U091401.D
 Spectrum: Scan 2297 (9.20)
 Location of Maximum: 95.05
 Number of points: 218

m/z	Y	m/z	Y	m/z	Y	m/z	Y

35.10	338	86.90	9041	138.30	188	206.60	61
35.90	1879	88.00	7559	138.80	139	207.20	53
37.00	9127	89.20	244	139.70	502	208.20	66
38.10	8259	91.00	1042	140.90	1886	208.80	64
39.10	4027	92.00	5247	142.00	526	211.10	108

40.00	818	93.00	9446	142.90	3162	211.80	69
41.00	420	94.00	24176	143.80	300	212.90	70
41.90	376	95.00	196352	144.90	1178	215.70	145
43.20	497	96.00	11853	146.00	452	218.30	168
44.10	2434	96.90	386	147.00	251	225.00	55

45.00	2046	97.40	447	147.90	677	228.20	62
46.30	459	98.10	179	148.80	237	228.60	83
47.00	2906	99.00	188	149.80	243	230.50	65
48.00	1615	100.00	249	152.00	287	234.40	63
49.00	8000	100.90	208	153.00	217	238.10	112

50.00	36584	101.70	167	153.60	167	239.90	60
51.00	10681	102.60	118	154.00	178	240.80	70
52.00	662	103.00	105	154.90	460	243.00	62
53.00	488	103.80	1048	155.90	234	243.70	63
53.70	317	104.60	258	157.00	527	245.60	74

54.10	347	105.90	942	158.10	181	250.70	66
55.00	770	106.60	274	158.80	355	256.90	65
56.00	3221	108.10	310	160.20	138	257.90	72
57.00	5330	109.90	258	161.00	280	258.70	64
58.00	518	111.00	542	161.90	227	267.60	53

59.00	237	112.10	258	162.50	84	268.70	74
60.00	2012	112.60	204	164.50	162	269.30	62
61.00	9606	113.40	85	165.20	165	275.30	85
62.00	9229	114.00	158	166.20	131	276.30	56
63.00	7568	114.80	324	167.10	74	279.30	53

64.00	1491	115.90	892	168.50	162	280.90	113
65.00	1328	116.90	1588	169.30	253	282.30	61
66.10	341	117.90	1185	169.90	185	286.30	55
66.90	716	119.00	1168	170.30	223	291.30	116
67.20	785	120.10	122	171.10	662	292.50	56

Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091401.D

Page 4

Date : 14-SEP-2023 14:11

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB:BFB;3;;

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0,25

Data File: U091401.D

Spectrum: Scan 2297 (9.20)

Location of Maximum: 95.05

Number of points: 218

m/z	Y	m/z	Y	m/z	Y	m/z	Y

68.00	18336	121.00	110	171.90	2940	296.30	51
69.00	17200	121.60	67	173.90	180992	307.50	70
70.00	1353	122.60	259	175.00	15049	308.60	88
72.00	1009	123.20	367	175.90	172096	312.00	59
73.00	8530	123.80	303	177.00	11259	317.00	58

74.00	32336	124.90	97	178.00	251	317.80	52
75.00	93208	125.50	236	179.20	162	318.10	53
76.00	7896	126.60	148	180.90	99	318.90	152
77.00	1458	127.90	660	182.20	85	321.80	115
77.70	1123	129.00	310	187.00	100	323.10	69

78.90	6903	129.90	862	188.70	63	330.30	81
80.00	2305	130.90	523	191.60	140	332.30	53
80.90	7871	131.80	200	193.40	104	333.70	79
82.00	2213	133.00	58	195.10	120	343.40	81
82.80	270	133.90	237	195.60	75	344.50	66

83.30	198	134.80	467	197.30	70	345.60	69
84.00	274	135.90	209	198.30	228	347.10	77
84.50	197	136.70	404	201.10	77	347.50	73
85.40	209	137.10	362	203.20	68		
86.10	524	137.80	93	205.80	57		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091416.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091416.D
 Lab Smp Id: VLCSW-230914 Client Smp ID: VLCSW-230914
 Inj Date : 14-SEP-2023 21:20
 Operator : PC Inst ID: VOA9.i
 Smp Info : VLCSW-230914;VLCSW-230914;3;;LCS
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 17 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		4.808	4.808	(1.000)		766533	50.0000	
2 Dichlorodifluoromethane	85		1.153	1.153	(0.240)		126029	15.9297	15.92
3 Chloromethane	50		1.284	1.284	(0.267)		249547	17.0027	17.00
5 Vinyl Chloride	62		1.366	1.363	(0.284)		169112	17.3796	17.37
6 Bromomethane	94		1.610	1.591	(0.335)		97086	20.7184	20.71
7 Chloroethane	64		1.689	1.681	(0.351)		123540	17.2633	17.26
8 Trichlorofluoromethane	101		1.884	1.884	(0.392)		205641	16.4723	16.47
9 Acrolein	56		2.251	2.255	(0.468)		24306	36.9557	36.95(M)
10 Acetone	43		2.397	2.397	(0.499)		162652	40.5759	40.57
11 1,1-Dichloroethene	96		2.322	2.322	(0.483)		128829	16.9798	16.97
15 Iodomethane	142		2.457	2.457	(0.511)		181913	44.4862	44.48
16 Acrylonitrile	53		3.057	3.053	(0.636)		169957	38.0102	38.01
17 Methylene Chloride	84		2.783	2.784	(0.579)		179888	19.7466	19.74
18 Methyl tert-butyl ether	73		3.068	3.068	(0.638)		447241	20.7617	20.76
19 Carbon Disulfide	76		2.510	2.510	(0.522)		745165	36.3589	36.35
20 trans-1,2-Dichloroethene	96		3.050	3.050	(0.634)		148180	18.6173	18.61
21 Vinyl Acetate	43		3.597	3.597	(0.748)		1073433	38.1203	38.12
22 1,1-Dichloroethane	63		3.503	3.507	(0.729)		292665	18.3346	18.33
24 2-Butanone	43		4.260	4.257	(0.886)		174308	37.5169	37.51
26 2,2-Dichloropropane	77		4.170	4.174	(0.867)		165216	17.0935	17.09



27 cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	169390	18.6136	18.61
28 Chloroform	83	4.564	4.568 (0.949)	286328	18.4737	18.47

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091416.D Page 2
 Report Date: 18-Sep-2023 12:31

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.459	4.463	(0.927)	88950	18.6514	18.65
\$ 30 Dibromofluoromethane	113	4.740	4.740	(0.986)	362705	51.8531	51.85
31 1,1,1-Trichloroethane	97	4.733	4.737	(0.984)	188519	17.9109	17.91
32 1,1-Dichloropropene	75	4.913	4.913	(0.885)	163504	17.0711	17.07
33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	218900	18.7696	18.76
34 Carbon Tetrachloride	117	4.901	4.905	(0.883)	136694	15.9525	15.95
\$ 35 1,2-Dichloroethane-d4	65	5.093	5.093	(1.059)	398262	50.4149	50.41
* 36 1,4-Difluorobenzene	114	5.550	5.546	(1.000)	1206515	50.0000	
37 Benzene	78	5.134	5.134	(0.925)	570744	18.8340	18.83
38 Trichloroethene	130	5.782	5.782	(1.042)	155481	17.6400	17.63
39 Bromodichloromethane	83	6.277	6.277	(1.131)	176488	17.9564	17.95
41 2-Chloroethylvinyl ether	63	6.566	6.570	(1.183)	1556	36.0484	36.04
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	159675	19.9533	19.95
44 Dibromomethane	93	6.116	6.116	(1.102)	101032	18.3363	18.33
45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	305286	37.8733	37.87
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	188913	17.6723	17.67
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1134902	50.0000	
\$ 48 Toluene-d8	98	6.918	6.918	(0.845)	1310629	52.3821	52.38
50 Toluene	91	6.978	6.978	(0.853)	604133	19.8245	19.82
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	156858	17.3926	17.39
52 2-Hexanone	43	7.593	7.593	(0.928)	210448	40.9028	40.90
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	122776	18.4761	18.47
54 1,3-Dichloropropane	76	7.496	7.499	(0.916)	260273	19.4727	19.47
55 Dibromochloromethane	129	7.690	7.691	(0.940)	147057	18.5925	18.59
56 Tetrachloroethene	164	7.454	7.454	(0.911)	134020	18.8747	18.87
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	158428	19.8374	19.83
58 1-Chlorohexane	55	8.197	8.197	(1.477)	115240	15.8102	15.81
59 Chlorobenzene	112	8.208	8.208	(1.003)	419958	18.6320	18.63
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	140482	18.5448	18.54
61 Ethylbenzene	106	8.305	8.305	(1.015)	191746	18.9991	18.99
62 m,p-Xylenes	106	8.406	8.407	(1.027)	476800	37.5691	37.56
63 o-Xylene	106	8.748	8.748	(1.069)	233699	17.7183	17.71
64 Styrene	104	8.759	8.759	(1.070)	380636	18.7946	18.79
66 Bromoform	173	8.916	8.920	(1.089)	97571	18.7400	18.74
67 Isopropylbenzene	105	9.062	9.063	(1.107)	556106	18.9791	18.97
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	215891	18.8644	18.86
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	559996	51.0481	51.04
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	589088	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	189681	19.4485	19.44
73 n-Propylbenzene	91	9.411	9.411	(0.926)	599835	18.4751	18.47
74 Bromobenzene	156	9.317	9.317	(0.916)	186034	19.8702	19.87
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	419360	18.9260	18.92
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	430289	19.6721	19.67
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	486600	18.9585	18.95
78 tert-Butylbenzene	119	9.835	9.839	(0.967)	383283	17.9753	17.97
79 1,2,4-Trimethylbenzene	105	9.876	9.880	(0.971)	458779	20.1429	20.14
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	483615	18.0587	18.05
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	410769	19.1469	19.14
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	312818	18.9438	18.94
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	333888	17.9965	17.99
87 n-Butylbenzene	91	10.491	10.491	(1.032)	344833	17.8892	17.88
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	318264	18.8447	18.84



89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	25935	18.2140	18.21
90	1,2,4-Trichlorobenzene	180	11.855	11.859 (1.166)	185733	19.3177	19.31

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091416.D Page 3
Report Date: 18-Sep-2023 12:31

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	(1.180)	70291	16.2940	16.29
92 Naphthalene	128	12.065	12.065	(1.187)	454194	19.0450	19.04
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	189088	20.7149	20.71
M 94 1,2-Dichloroethylene (total)	96				317570	37.2307	37.23
M 95 Xylenes (total)	106				710499	53.8033	53.80
135 1,4-Dioxane	88	6.169	6.169	(1.283)	39327	352.957	352.95
141 Cyclohexane	56	4.774	4.774	(0.993)	178387	17.8778	17.87
138 Freon TF	101	2.322	2.322	(0.483)	106704	17.6177	17.61
140 1,3-Butadiene	54	1.389	1.393	(0.289)	150104	16.5754	16.57
147 Methylcyclohexane	55	5.947	5.944	(1.072)	361278	20.4270	20.42
146 Methyl Acetate	43	2.705	2.701	(0.563)	169958	18.2866	18.28
148 Tert-Butyl alcohol	59	2.956	2.960	(0.615)	390811	416.099	416.09
149 Isopropyl Alcohol	45	2.551	2.555	(0.531)	259582	385.253	385.25
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	28003	17.3889	17.38
12 Isobutyl Alcohol	43	5.284	5.284	(1.099)	429895	398.081	398.08
13 Acetonitrile	39	2.660	2.660	(0.553)	232405	198.718	198.71
14 Allyl Chloride	41	2.660	2.664	(0.553)	522450	19.2227	19.22
25 Methacrylonitrile	41	4.489	4.489	(0.934)	111475	18.4999	18.49
40 Methyl Methacrylate	41	6.157	6.154	(1.281)	129352	20.6075	20.60
4 Propionitrile	54	4.332	4.335	(0.901)	312951	188.460	188.45(a)
136 n-Hexane	57	3.331	3.331	(0.693)	137359	16.7031	16.70
194 Acetaldehyde	44	1.449	1.445	(0.301)	130926	81.8606	81.86(M)
131 Methyl Acrylate	55	4.362	4.362	(0.907)	235494	19.7375	19.73
200 Dimethyl Disulfide	94	6.742	6.746	(0.824)	114860	17.1511	17.15
23 Chloroprene	53	2.146	2.146	(0.446)	55323	18.0370	18.03
49 Ethyl Methacrylate	69	7.289	7.293	(1.313)	206367	19.6126	19.61
166 1,2,3-Trimethylbenzene	105	10.232	10.236	(1.006)	481239	21.2423	21.24
167 Ethanol	45	2.067	2.075	(0.430)	57528	356.621	356.62
164 Dicyclopentadiene	66	10.198	10.198	(1.003)	563873	20.8952	20.89
145 alpha-Methylstyrene	118	9.752	9.752	(0.959)	161857	19.7346	19.73
142 Tetrahydrofuran	42	4.538	4.538	(0.944)	76178	39.6047	39.60
156 Diisopropyl ether	45	3.612	3.612	(0.751)	647072	19.5096	19.50
151 4-Methyl-2-pentanol	45	7.222	7.226	(1.301)	610326	427.882	427.88
150 Allyl alcohol	57	3.331	3.331	(0.693)	137359	331.471	331.47
86 Benzyl Chloride	91	10.311	10.311	(1.260)	101591	19.1685	19.16
162 Butyl acrylate	55	8.733	8.733	(1.067)	244701	20.3986	20.39
139 Diethyl ether	59	2.131	2.135	(0.443)	141962	18.6874	18.68
203 2-Ethylhexyl Acrylate	55	12.043	12.039	(1.184)	106838	21.9842	21.98
134 Cyclohexanone	55	9.156	9.156	(0.900)	150196	427.794	427.79(a)
130 Ethyl Acetate	43	4.335	4.335	(0.902)	227128	19.9200	19.91
189 n-Butyl acetate	43	7.705	7.706	(0.941)	234444	18.8564	18.85
182 Epichlorohydrin	57	6.633	6.630	(1.195)	7671	81.1755	81.17(M)
132 n-Butanol	56	5.831	5.831	(1.213)	81600	392.267	392.26(a)
133 Ethyl Acrylate	55	5.947	5.944	(1.237)	361278	20.2669	20.26
163 Butyl methacrylate	41	9.651	9.651	(0.949)	165662	19.7746	19.77
174 tert-Amyl methyl ether	73	5.284	5.284	(1.099)	390052	23.8896	23.88
175 tert-Butyl ethyl ether	59	4.039	4.043	(0.840)	443935	20.6445	20.64
188 Isopropyl acetate	43	5.284	5.284	(0.952)	429958	19.6449	19.64
179 Hexachloroethane	166	10.712	10.712	(1.053)	43898	21.1724	21.17

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

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091416.D Page 4
Report Date: 18-Sep-2023 12:31

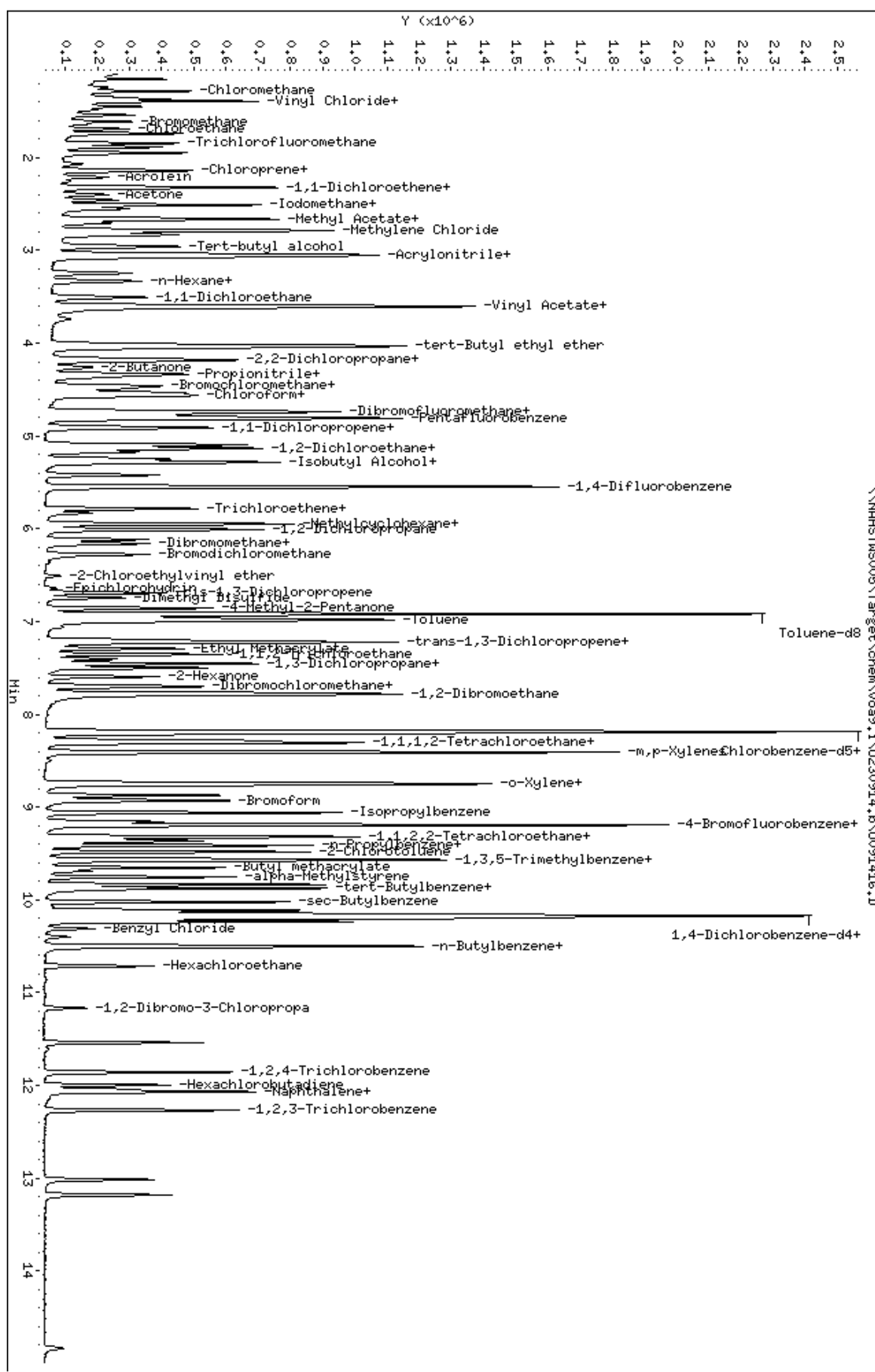
QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa3,i\U230914.b\U091416.D
 Date : 14-SEP-2023 21:20
 Client ID: WLC5M-230914
 Sample Info: WLC5M-230914;WLC5M-230914;3;JLCS
 Purge Volume: 5.0
 Column phase: DB624

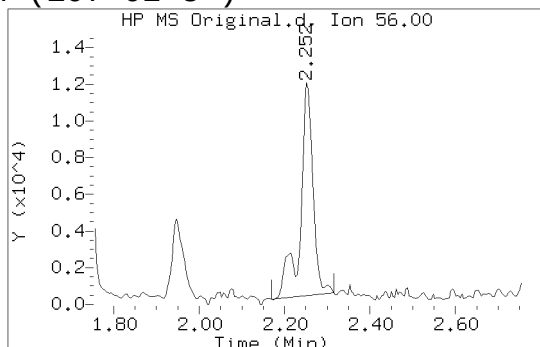
Instrument: W089.1
 Operator: PC
 Column diameter: 0.18



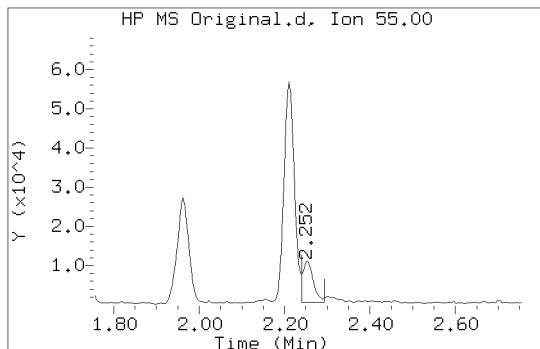
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Inj Date : 14-SEP-2023 21:20
InstruID : VOA9.i
LabSampID : VLCSW-230914

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

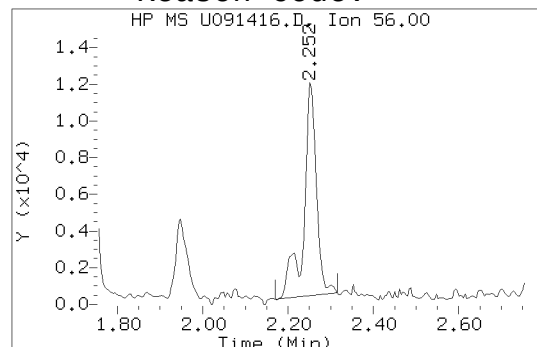
MASS
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AREA
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HEIGHT
11603
18-Sep-2023
12:31
linh

**BEFORE**

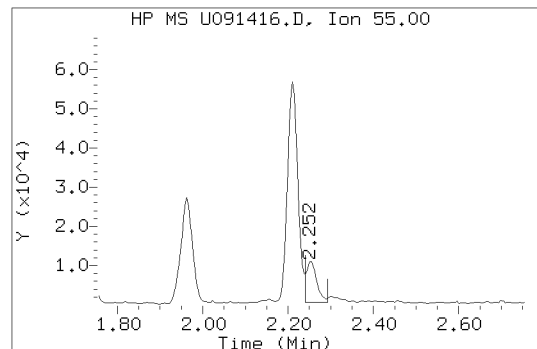
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AREA
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HEIGHT
10391
18-Sep-2023
12:31
linh
pham

**AFTER**

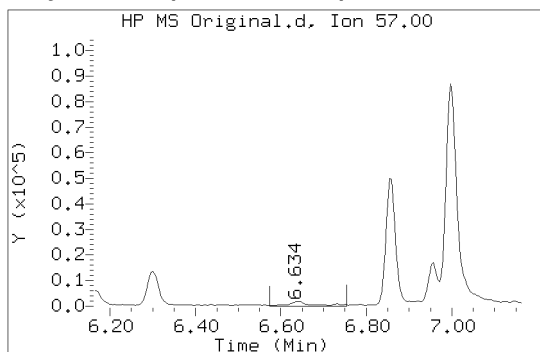
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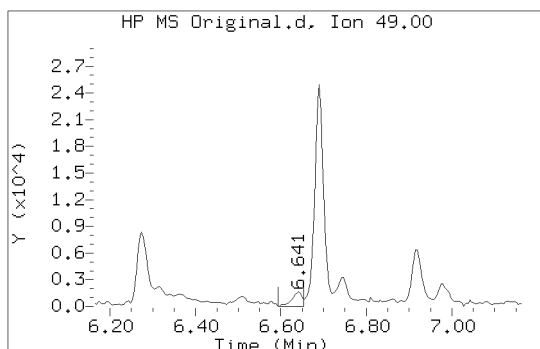
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HEIGHT
10391
18-Sep-2023
12:31
linh
pham

**Epichlorohydrin (106-89-8)****BEFORE**

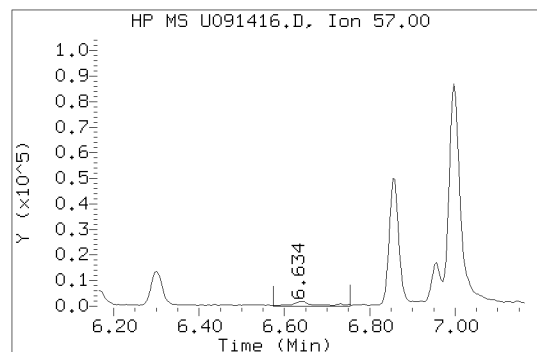
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**BEFORE**

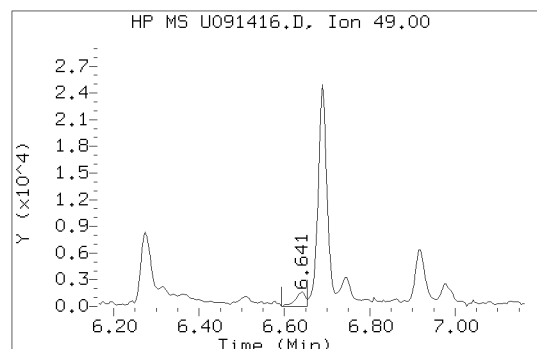
MASS
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AREA
2714
HEIGHT
1638
18-Sep-2023
12:31
linh
pham

**AFTER**

MASS
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AREA
7671
HEIGHT
1789
18-Sep-2023
12:31
linh
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**AFTER**

MASS
49
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1638
18-Sep-2023
12:31
linh
pham

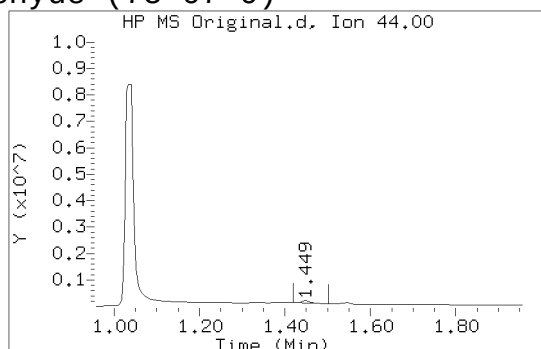


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Inj Date : 14-SEP-2023 21:20
InstruID : VOA9.i
LabSampID : VLCSW-230914

Acetaldehyde (75-07-0)

BEFORE

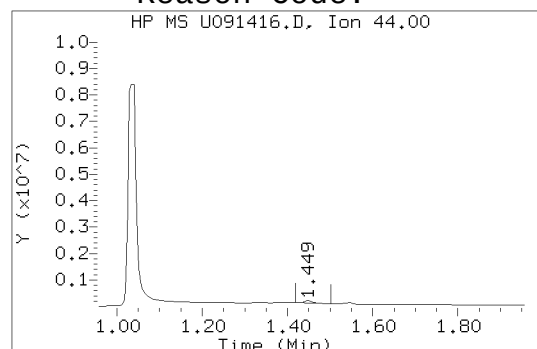
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HEIGHT
93260
18-Sep-2023
12:31
linh
pham



AFTER

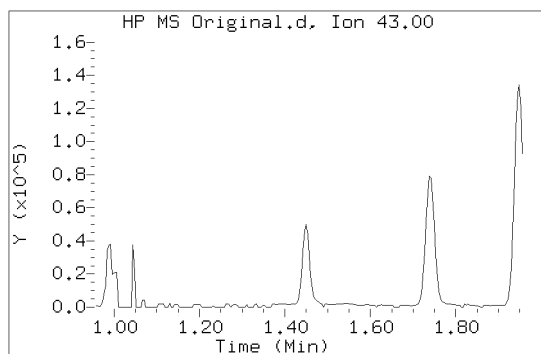
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HEIGHT
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18-Sep-2023
12:31
linh
pham

Reason Code:



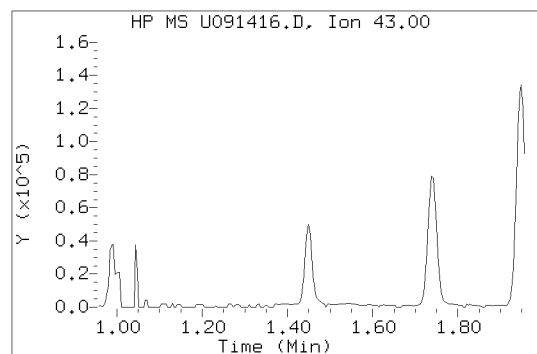
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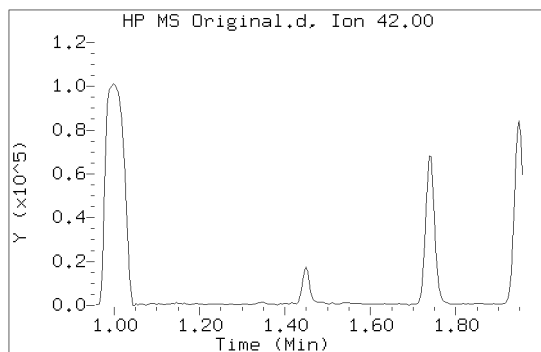
AFTER

MASS
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18-Sep-2023
12:31
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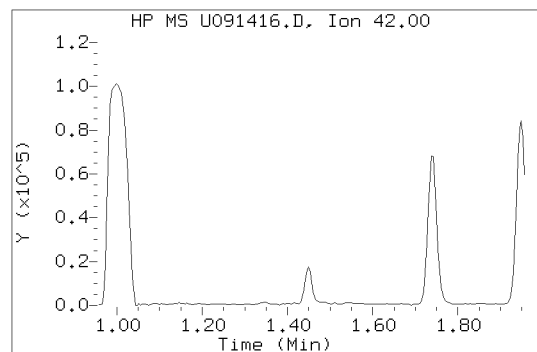
BEFORE

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18-Sep-2023
12:31
linh
pham



AFTER

MASS
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AREA
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HEIGHT
0
18-Sep-2023
12:31
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091418.D Page 1
 Report Date: 18-Sep-2023 12:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091418.D
 Lab Smp Id: VBLKW-230914 Client Smp ID: VBLKW-230914
 Inj Date : 14-SEP-2023 22:04
 Operator : PC Inst ID: VOA9.i
 Smp Info : VBLKW-230914;VBLKW-230914;3;;BLANK
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 19 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

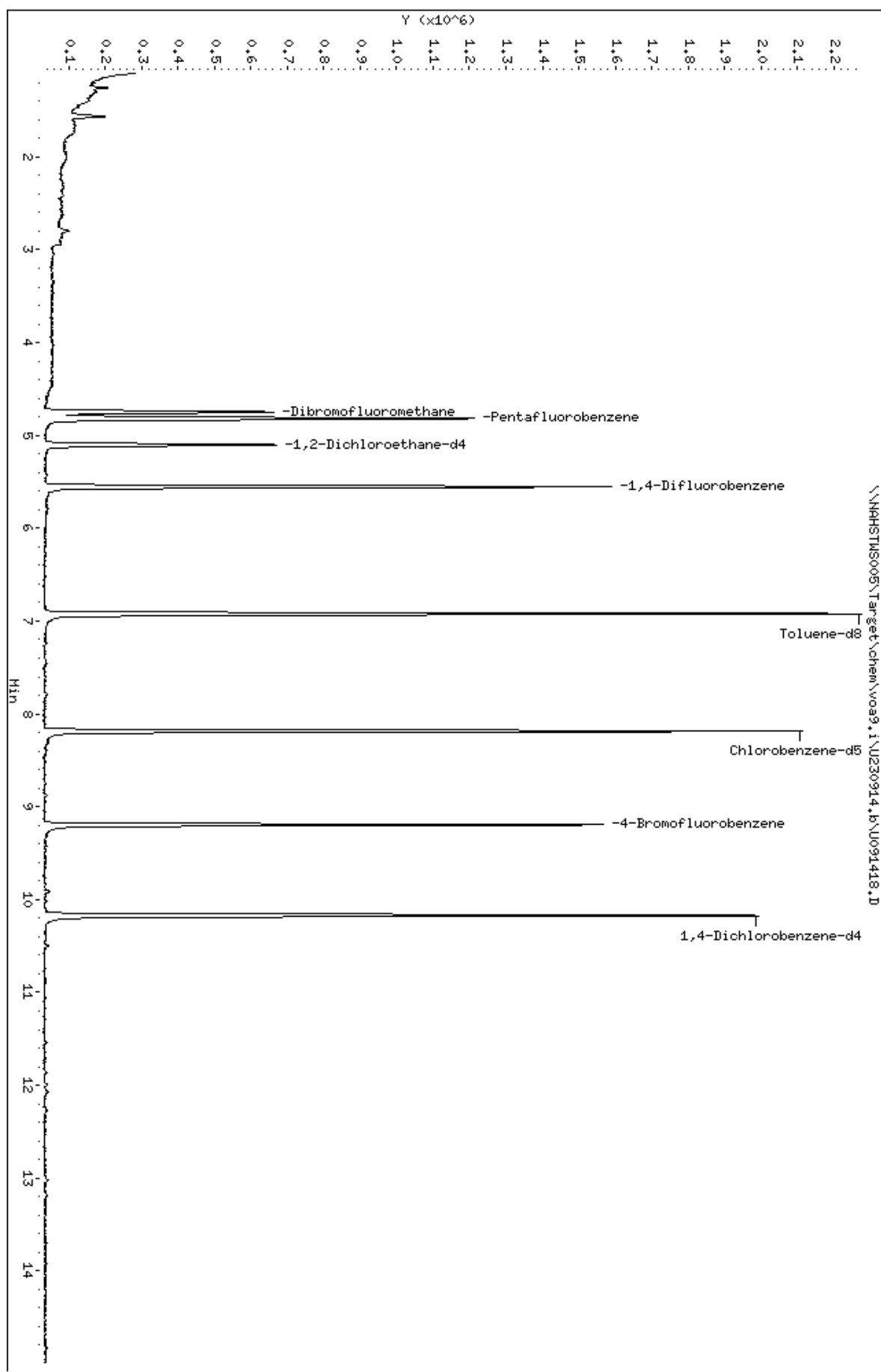
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.808	(1.000)	827641	50.0000	
\$ 30 Dibromofluoromethane	113	4.748	4.740	(0.986)	367329	48.6498	48.64
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.093	(1.059)	418334	49.0418	49.04
* 36 1,4-Difluorobenzene	114	5.554	5.546	(1.000)	1178792	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1083091	50.0000	
\$ 48 Toluene-d8	98	6.922	6.918	(0.846)	1307659	54.7635	54.76
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	462645	44.4756	44.47
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	516579	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091418.D
Date: 14-SEP-2023 22:04
Client ID: VBLKM-230914
Sample Info: VBLKM-230914;VBLKM-230914;3;BLANK
Purge Volume: 5.0
Column phase: DB624

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



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091418.D
Inj Date : 14-SEP-2023 22:04
InstruID : VOA9.i
LabSampID : VBLKW-230914

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091421.D Page 1
 Report Date: 18-Sep-2023 12:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091421.D
 Lab Smp Id: HS23090714-03 Client Smp ID: HS23090714-03
 Inj Date : 14-SEP-2023 23:12
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23090714-03;HS23090714-03;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 22
 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		4.812	4.808	(1.000)		796359	50.0000	
8 Trichlorofluoromethane	101		1.891	1.884	(0.393)		12082	0.93155	0.93(a)
\$ 30 Dibromofluoromethane	113		4.744	4.740	(0.986)		347745	47.8685	47.86
\$ 35 1,2-Dichloroethane-d4	65		5.096	5.093	(1.059)		411270	50.1108	50.11
* 36 1,4-Difluorobenzene	114		5.550	5.546	(1.000)		1123470	50.0000	
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)		1018826	50.0000	
\$ 48 Toluene-d8	98		6.922	6.918	(0.846)		1215429	54.1117	54.11
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)		419719	42.9562	42.95
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		486289	50.0000	

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091421.D

Date : 14-SEP-2023 23:12

Client ID: HS23090714-03

Sample Info: HS23090714-03;HS23090714-03;;

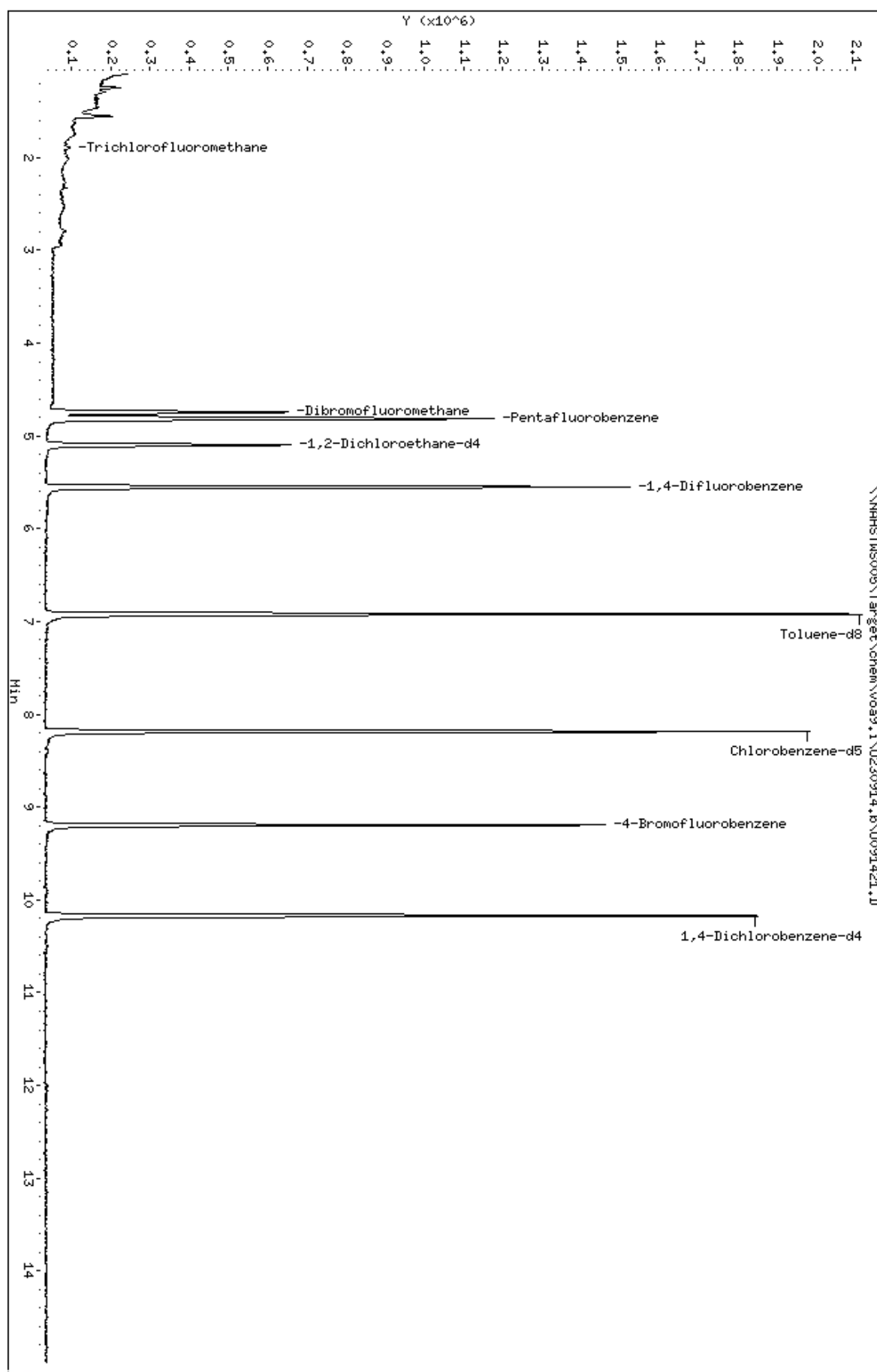
Purge Volume: 5.0

Column phase: DB624

Instrument: W0A9.i

Operator: PC

Column diameter: 0.18



Page 1

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091421.D

Page 2

Date : 14-SEP-2023 23:12

Client ID: HS23090714-03

Instrument: VOA9.i

Sample Info: HS23090714-03;HS23090714-03;;

Purge Volume: 5.0

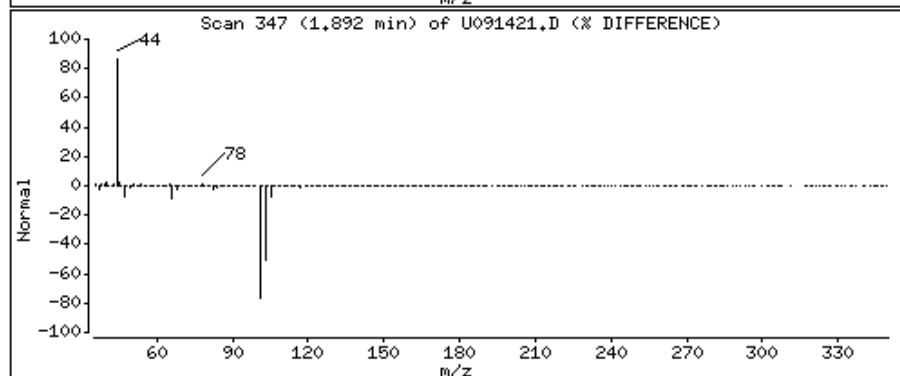
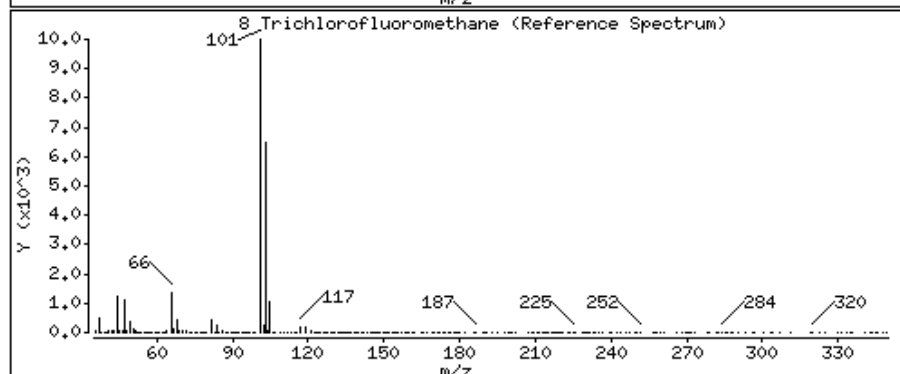
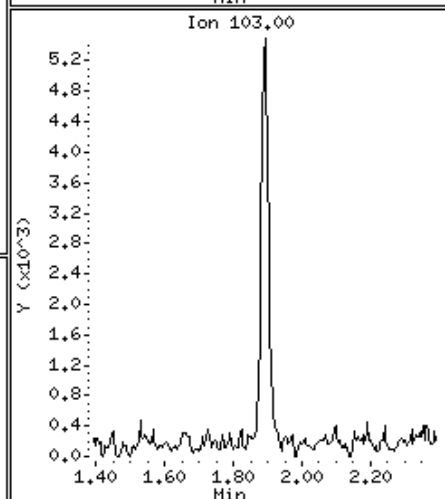
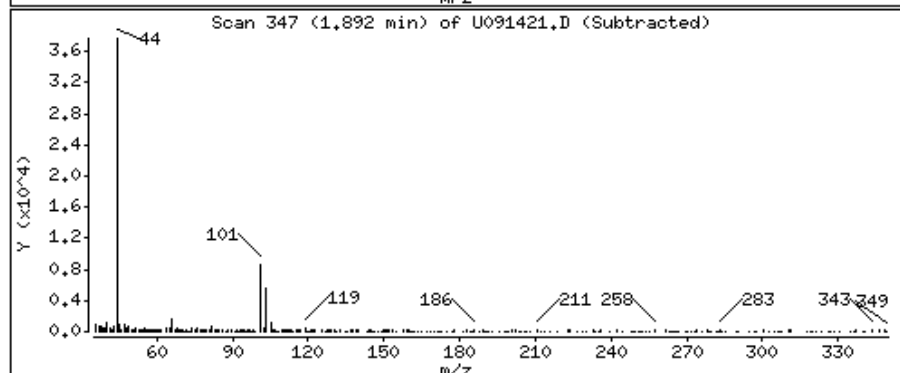
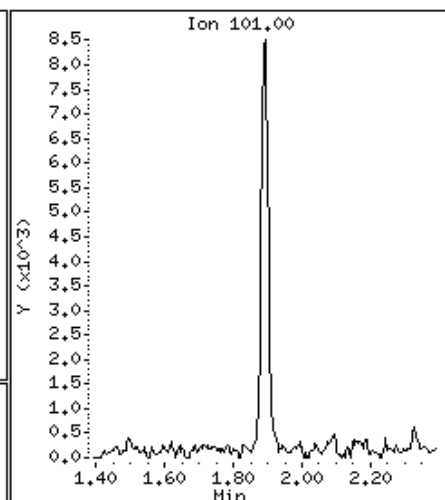
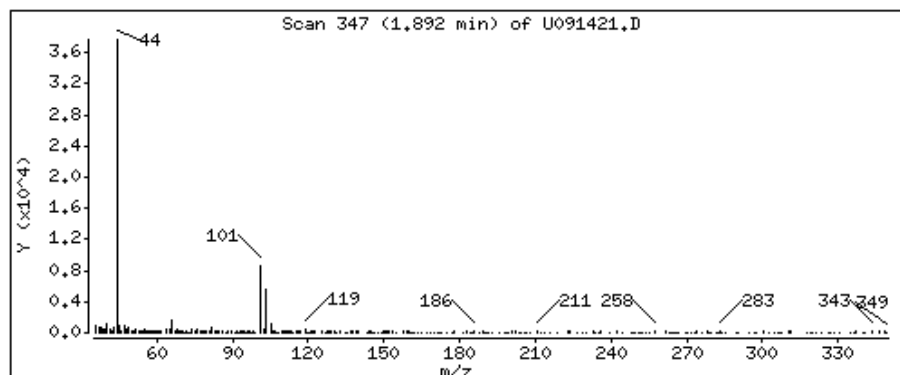
Operator: PC

Column phase: DB624

Column diameter: 0.18

8 Trichlorofluoromethane

Concentration: 0.93 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091421.D
Inj Date : 14-SEP-2023 23:12
InstruID : VOA9.i
LabSampID : HS23090714-03

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091422.D Page 1
 Report Date: 18-Sep-2023 12:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091422.D
 Lab Smp Id: HS23090714-01 Client Smp ID: HS23090714-01
 Inj Date : 14-SEP-2023 23:34
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23090714-01;HS23090714-01;;;
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 23
 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	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.811	4.808	(1.000)	788915	50.0000		
27 cis-1,2-Dichloroethene	96		4.189	4.189	(0.871)	22551	2.40774	2.40(a)	
\$ 30 Dibromofluoromethane	113		4.740	4.740	(0.985)	346027	48.0806	48.08	
\$ 35 1,2-Dichloroethane-d4	65		5.093	5.093	(1.058)	414668	51.0043	51.00	
* 36 1,4-Difluorobenzene	114		5.550	5.546	(1.000)	1126002	50.0000		
* 47 Chlorobenzene-d5	117		8.185	8.185	(1.000)	1022535	50.0000		
\$ 48 Toluene-d8	98		6.922	6.918	(0.846)	1238198	54.9254	54.92	
\$ 69 4-Bromofluorobenzene	95		9.194	9.194	(1.123)	425759	43.3981	43.39	
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)	475621	50.0000		
M 94 1,2-Dichloroethylene (total)	96					22551	2.56879	2.56(a)	

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091422.D

Date: 14-SEP-2023 23:34

Client ID: HS23090714-01

Sample Info: HS23090714-01;HS23090714-01;;

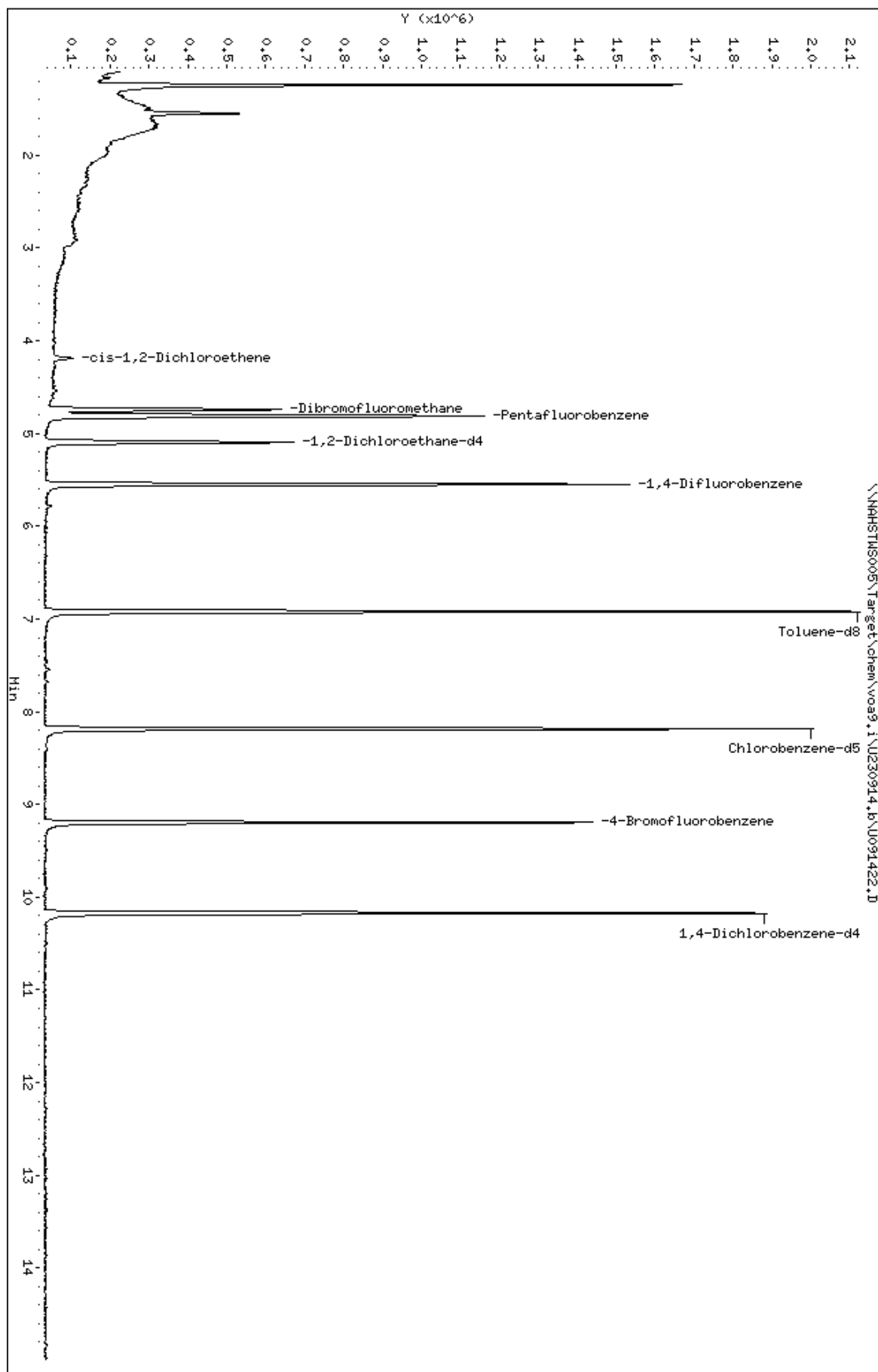
Purge Volume: 5.0

Column phase: DB624

Instrument: VDA9.i

Operator: PC

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091422.D

Page 2

Date : 14-SEP-2023 23:34

Client ID: HS23090714-01

Instrument: VOA9.i

Sample Info: HS23090714-01;HS23090714-01;;;

Purge Volume: 5.0

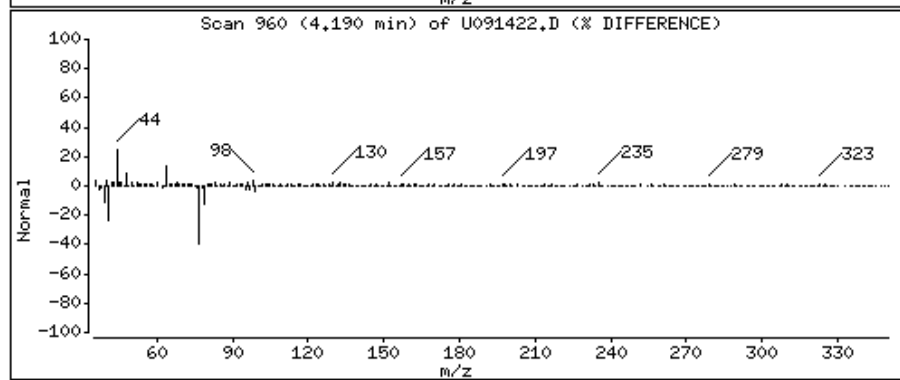
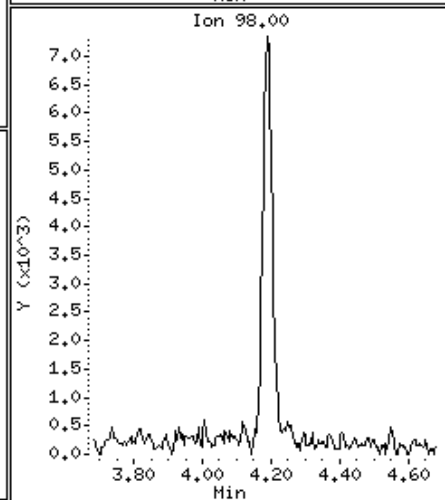
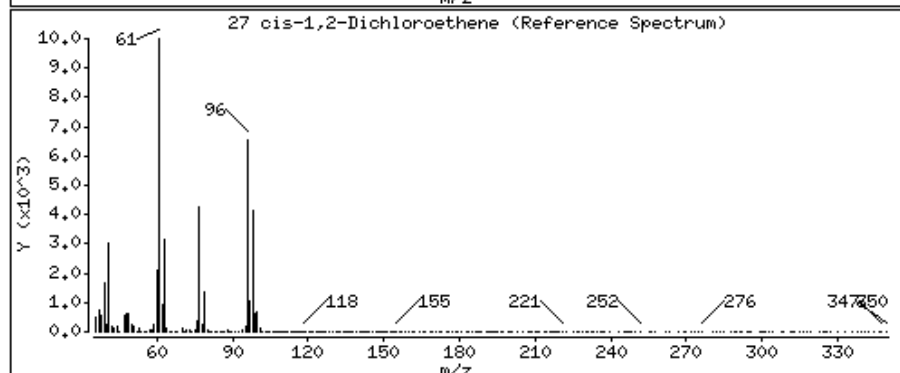
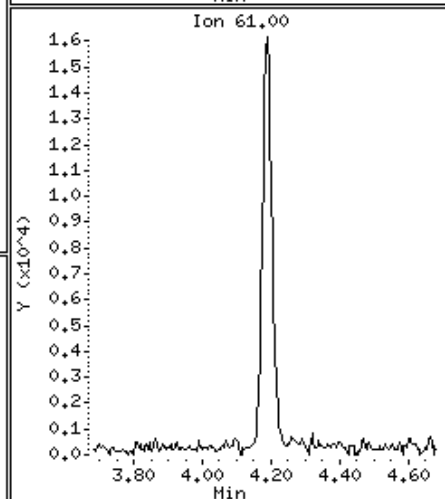
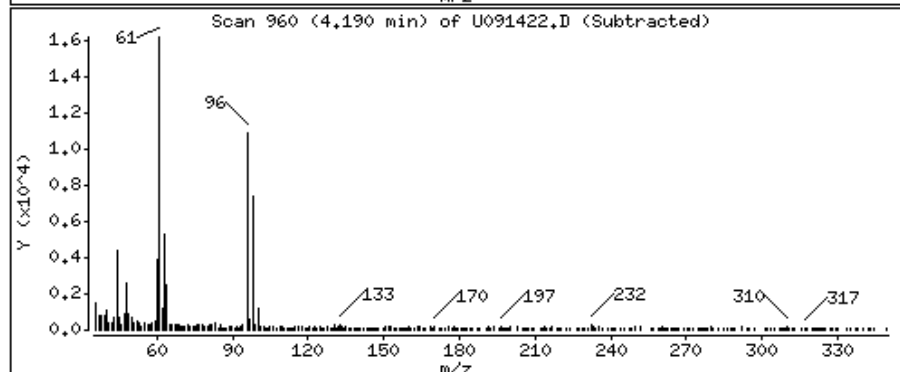
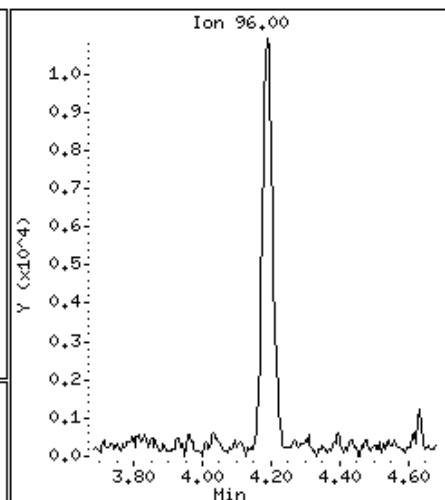
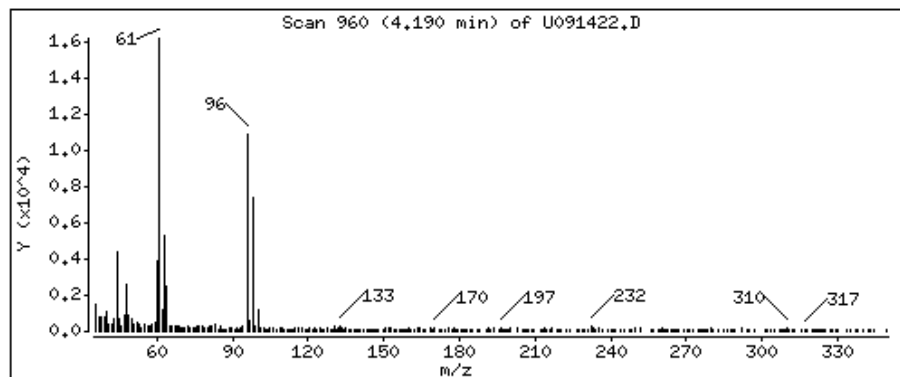
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 2.40 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091422.D
Inj Date : 14-SEP-2023 23:34
InstruID : VOA9.i
LabSampID : HS23090714-01

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091424.D Page 1
 Report Date: 18-Sep-2023 12:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091424.D
 Lab Smp Id: HS23090510-99MS Client Smp ID: HS23090510-99MS
 Inj Date : 15-SEP-2023 00:19
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23090510-99MS;HS23090510-99MS;3;;MS
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 25 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		4.812	4.808	(1.000)		794771	50.0000	
2 Dichlorodifluoromethane	85		1.160	1.153	(0.241)		110577	13.6858	13.68
3 Chloromethane	50		1.295	1.284	(0.269)		269780	17.7699	17.76
5 Vinyl Chloride	62		1.374	1.363	(0.286)		196112	19.4383	19.43
6 Bromomethane	94		1.614	1.591	(0.335)		97513	20.0841	20.08
7 Chloroethane	64		1.696	1.681	(0.353)		138644	18.6856	18.68
8 Trichlorofluoromethane	101		1.895	1.884	(0.394)		232417	17.9556	17.95
9 Acrolein	56		2.262	2.255	(0.470)		12237	17.9445	17.94
10 Acetone	43		2.405	2.397	(0.500)		142391	33.9229	33.92
11 1,1-Dichloroethene	96		2.330	2.322	(0.484)		3347365	425.510	425.51(A)
15 Iodomethane	142		2.465	2.457	(0.512)		177140	42.0427	42.04
16 Acrylonitrile	53		3.061	3.053	(0.636)		146714	31.6462	31.64
17 Methylene Chloride	84		2.791	2.784	(0.580)		181840	19.2941	19.29
18 Methyl tert-butyl ether	73		3.076	3.068	(0.639)		371318	16.6248	16.62
19 Carbon Disulfide	76		2.517	2.510	(0.523)		754289	35.4965	35.49
20 trans-1,2-Dichloroethene	96		3.057	3.050	(0.635)		151613	18.3718	18.37
21 Vinyl Acetate	43		3.608	3.597	(0.750)		633094	21.6839	21.68
22 1,1-Dichloroethane	63		3.511	3.507	(0.730)		1027876	62.1055	62.10
24 2-Butanone	43		4.264	4.257	(0.886)		169381	35.1612	35.16
26 2,2-Dichloropropane	77		4.182	4.174	(0.869)		97241	9.70325	9.70



27 cis-1,2-Dichloroethene	96	4.193	4.189 (0.871)	179583	19.0326	19.03
28 Chloroform	83	4.568	4.568 (0.949)	309274	19.2452	19.24

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091424.D Page 2
 Report Date: 18-Sep-2023 12:32

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.467	4.463	(0.928)	91420	18.4883	18.48	
\$ 30 Dibromofluoromethane	113	4.744	4.740	(0.986)	352181	48.5730	48.57	
31 1,1,1-Trichloroethane	97	4.740	4.737	(0.985)	215615	19.7574	19.75	
32 1,1-Dichloropropene	75	4.916	4.913	(0.886)	171128	18.9956	18.99	
33 1,2-Dichloroethane	62	5.175	5.171	(0.932)	235433	21.4623	21.46	
34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	118125	14.6561	14.65	
\$ 35 1,2-Dichloroethane-d4	65	5.096	5.093	(1.059)	398494	48.6468	48.64	
* 36 1,4-Difluorobenzene	114	5.550	5.546	(1.000)	1134838	50.0000		
37 Benzene	78	5.138	5.134	(0.926)	592946	20.8024	20.80	
38 Trichloroethene	130	5.786	5.782	(1.043)	153367	18.4991	18.49	
39 Bromodichloromethane	83	6.277	6.277	(1.131)	184804	19.9901	19.99	
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	165626	22.0042	22.00	
44 Dibromomethane	93	6.120	6.116	(1.103)	105905	20.4347	20.43	
45 4-Methyl-2-Pentanone	43	6.858	6.855	(0.838)	296626	38.6111	38.61	
46 cis-1,3-Dichloropropene	75	6.693	6.690	(1.206)	161743	16.3693	16.36	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1080158	50.0000		
\$ 48 Toluene-d8	98	6.922	6.918	(0.846)	1328171	55.7735	55.77	
50 Toluene	91	6.978	6.978	(0.853)	615754	21.2299	21.22	
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	132125	15.8257	15.82	
52 2-Hexanone	43	7.593	7.593	(0.928)	198970	40.6319	40.63	
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	132385	20.9318	20.93	
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	261579	20.5622	20.56	
55 Dibromochloromethane	129	7.691	7.691	(0.940)	151033	20.0629	20.06	
56 Tetrachloroethene	164	7.454	7.454	(0.911)	119594	17.6966	17.69	
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	159921	21.0393	21.03	
58 1-Chlorohexane	55	8.197	8.197	(1.477)	90048	13.1343	13.13	
59 Chlorobenzene	112	8.208	8.208	(1.003)	420658	19.6090	19.60	
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	146327	20.2954	20.29	
61 Ethylbenzene	106	8.305	8.305	(1.015)	179958	18.7348	18.73	
62 m,p-Xylenes	106	8.410	8.407	(1.027)	459529	38.0433	38.04	
63 o-Xylene	106	8.748	8.748	(1.069)	229350	18.2698	18.26	
64 Styrene	104	8.763	8.759	(1.071)	360327	18.6936	18.69	
66 Bromoform	173	8.916	8.920	(1.089)	95760	19.2132	19.21	
67 Isopropylbenzene	105	9.063	9.063	(1.107)	485586	17.5526	17.55	
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	215274	18.8887	18.88	
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	511927	49.1247	49.12	
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	586650	50.0000		
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	179085	18.4384	18.43	
73 n-Propylbenzene	91	9.411	9.411	(0.926)	505087	16.0876	16.08	
74 Bromobenzene	156	9.317	9.317	(0.916)	180833	19.3950	19.39	
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	379877	17.2154	17.21	
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	396868	18.2195	18.21	
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	454500	17.7815	17.78	
78 tert-Butylbenzene	119	9.835	9.839	(0.967)	333512	15.7061	15.70	
79 1,2,4-Trimethylbenzene	105	9.876	9.880	(0.971)	406230	17.9098	17.90	
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	387053	14.8937	14.89	
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	332788	15.9485	15.94	
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	291265	17.7119	17.71	
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	318511	17.2390	17.23	
87 n-Butylbenzene	91	10.491	10.491	(1.032)	256805	13.9391	13.93	
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	314271	18.6856	18.68	
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.166	(1.098)	25567	18.0302	18.03	



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	158134	16.5155	16.51
91 Hexachlorobutadiene	225	11.998	11.998 (1.180)	52858	12.3039	12.30

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091424.D Page 3
 Report Date: 18-Sep-2023 12:32

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	(1.187)	389089	16.7645	16.76
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	169762	18.6750	18.67
M 94 1,2-Dichloroethylene (total)	96				331196	37.4486	37.44
M 95 Xylenes (total)	106				688879	55.4610	55.46
135 1,4-Dioxane	88	6.172	6.169	(1.283)	66120	572.338	572.33
141 Cyclohexane	56	4.778	4.774	(0.993)	150474	14.6753	14.67
138 Freon TF	101	2.330	2.322	(0.484)	112856	17.9622	17.96
140 1,3-Butadiene	54	1.400	1.393	(0.291)	151203	16.1035	16.10
147 Methylcyclohexane	55	5.947	5.944	(1.072)	232082	13.9509	13.95
146 Methyl Acetate	43	2.712	2.701	(0.564)	100072	10.3847	10.38
148 Tert-Butyl alcohol	59	2.963	2.960	(0.616)	322904	331.583	331.58
149 Isopropyl Alcohol	45	2.559	2.555	(0.532)	226103	323.644	323.64
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	19712	13.1406	13.14
12 Isobutyl Alcohol	43	5.288	5.284	(1.099)	331283	305.449	305.44
13 Acetonitrile	39	2.667	2.660	(0.554)	194761	160.614	160.61
14 Allyl Chloride	41	2.671	2.664	(0.555)	438724	15.5686	15.56
25 Methacrylonitrile	41	4.493	4.489	(0.934)	105301	16.8544	16.85
40 Methyl Methacrylate	41	6.157	6.154	(1.280)	108501	16.6715	16.67
4 Propionitrile	54	4.335	4.335	(0.901)	275872	160.228	160.22(a)
136 n-Hexane	57	3.338	3.331	(0.694)	79528	9.69062	9.69
194 Acetaldehyde	44	1.456	1.445	(0.303)	108704	63.9465	63.94
131 Methyl Acrylate	55	4.369	4.362	(0.908)	200800	16.2317	16.23
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	77771	13.8693	13.86
23 Chloroprene	53	2.154	2.146	(0.448)	49514	15.5695	15.56(M)
49 Ethyl Methacrylate	69	7.293	7.293	(1.314)	173424	17.5228	17.52
166 1,2,3-Trimethylbenzene	105	10.232	10.236	(1.006)	398912	17.6815	17.68
167 Ethanol	45	2.079	2.075	(0.432)	53435	319.479	319.47
164 Dicyclopentadiene	66	10.198	10.198	(1.003)	247732	10.3212	10.32
145 alpha-Methylstyrene	118	9.752	9.752	(0.959)	78180	10.3398	10.33
142 Tetrahydrofuran	42	4.545	4.538	(0.945)	65365	32.7756	32.77
156 Diisopropyl ether	45	3.616	3.612	(0.751)	547208	15.9124	15.91
151 4-Methyl-2-pentanol	45	7.222	7.226	(1.301)	439200	334.048	334.04
150 Allyl alcohol	57	3.338	3.331	(0.694)	79528	192.959	192.95
86 Benzyl Chloride	91	10.311	10.311	(1.260)	28498	6.34731	6.34
162 Butyl acrylate	55	8.736	8.733	(1.067)	194018	17.3288	17.32
139 Diethyl ether	59	2.142	2.135	(0.445)	124257	15.7756	15.77
203 2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	65551	14.2865	14.28
134 Cyclohexanone	55	9.156	9.156	(0.900)	86780	255.858	255.85(a)
130 Ethyl Acetate	43	4.343	4.335	(0.903)	130369	11.0276	11.02
189 n-Butyl acetate	43	7.709	7.706	(0.942)	120181	11.3176	11.31
182 Epichlorohydrin	57	6.630	6.630	(1.195)	1529	17.2020	17.20(M)
132 n-Butanol	56	5.835	5.831	(1.213)	71290	341.926	341.92(a)
133 Ethyl Acrylate	55	5.947	5.944	(1.236)	232082	12.5567	12.55
163 Butyl methacrylate	41	9.651	9.651	(0.949)	138059	16.7501	16.75
174 tert-Amyl methyl ether	73	5.288	5.284	(1.099)	326834	19.6551	19.65
175 tert-Butyl ethyl ether	59	4.047	4.043	(0.841)	367441	17.0401	17.04
188 Isopropyl acetate	43	5.288	5.284	(0.953)	331828	16.1189	16.11
179 Hexachloroethane	166	10.712	10.712	(1.053)	28178	13.3911	13.39

QC Flag Legend



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

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091424.D Page 4
Report Date: 18-Sep-2023 12:32

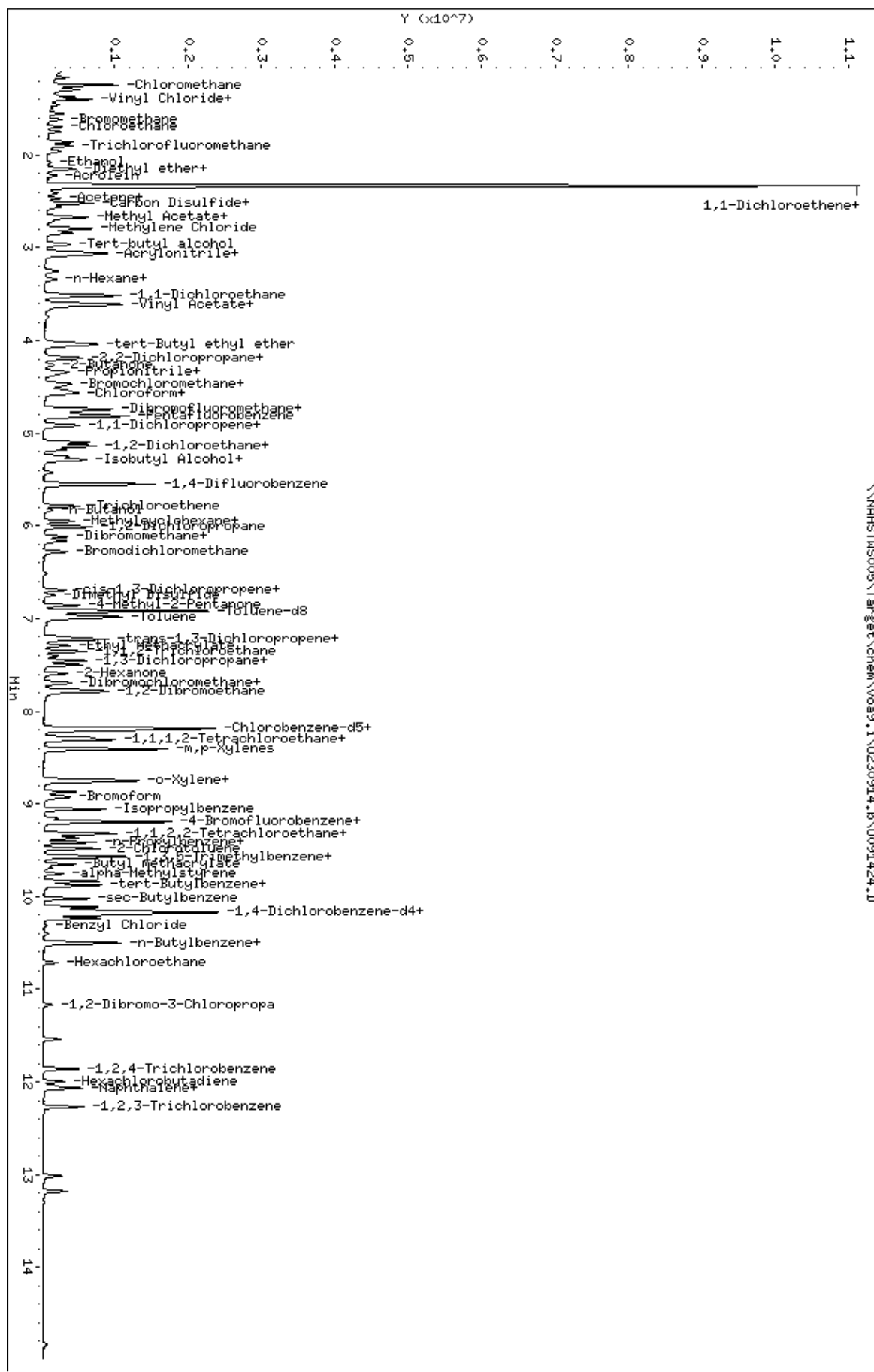
QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.1\U230914.b\U091424.D
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 Sample Info: HS23090510-99MS;HS23090510-99MS;31;MS
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 Column phase: DB624

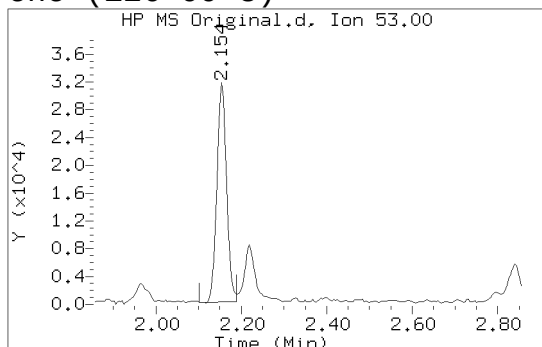
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 Operator: PC
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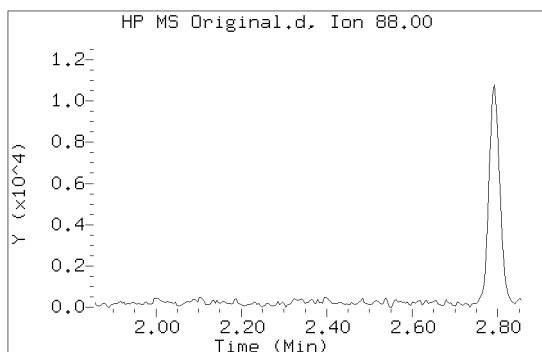
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Inj Date : 15-SEP-2023 00:19
InstruID : VOA9.i
LabSampID : HS23090510-99MS

Chloroprene (126-99-8)**BEFORE**

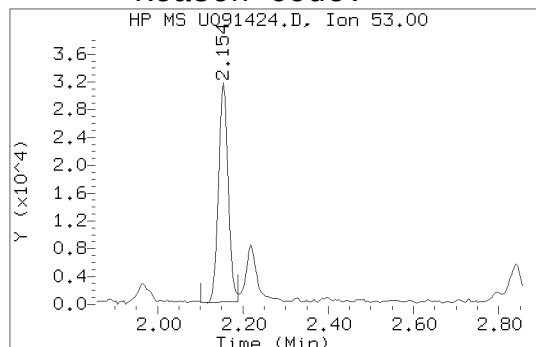
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53
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49514
HEIGHT
31570
18-Sep-2023
12:31
linh

**BEFORE**

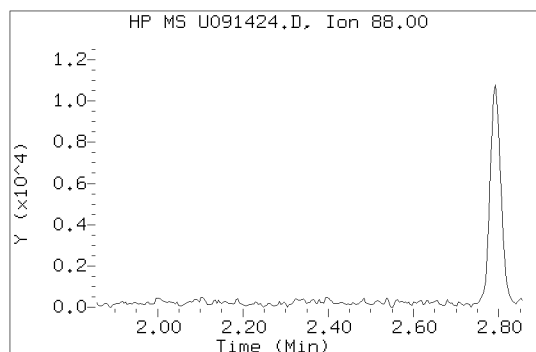
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HEIGHT
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18-Sep-2023
12:31
linh
pham

**AFTER**

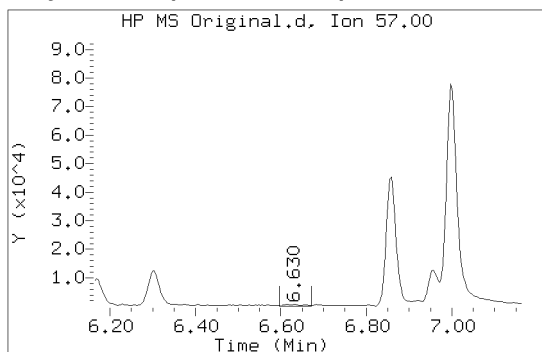
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49514
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18-Sep-2023
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**AFTER**

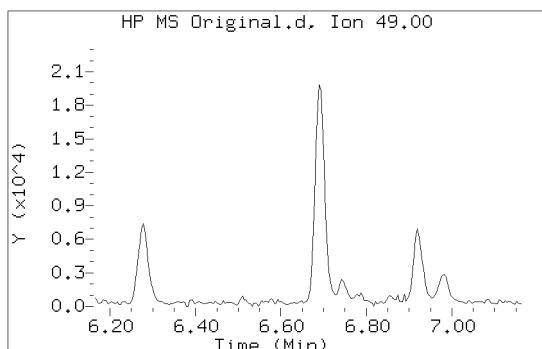
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HEIGHT
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12:31
linh
pham

**Epichlorohydrin (106-89-8)****BEFORE**

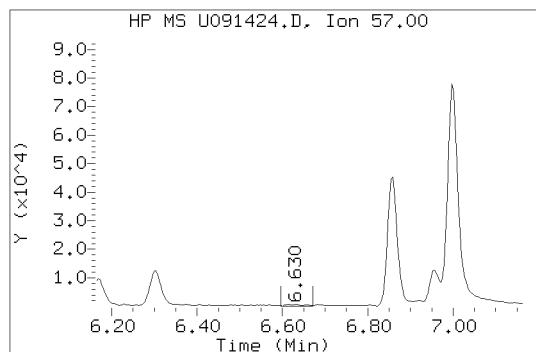
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18-Sep-2023
12:31
linh
pham

**BEFORE**

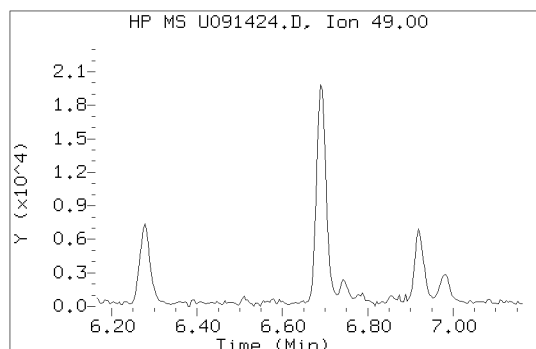
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12:31
linh
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**AFTER**

MASS
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1529
HEIGHT
627
18-Sep-2023
12:31
linh
pham

**AFTER**

MASS
49
AREA
0
HEIGHT
0
18-Sep-2023
12:31
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091425.D Page 1
 Report Date: 18-Sep-2023 12:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091425.D
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 Inj Date : 15-SEP-2023 00:41
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS23090510-99MSD;HS23090510-99MSD;3;;MSD
 Misc Info : V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:31 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 25 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		4.808	4.808	(1.000)		823551	50.0000	
2 Dichlorodifluoromethane	85		1.157	1.153	(0.241)		112364	13.4469	13.44
3 Chloromethane	50		1.288	1.284	(0.268)		271775	17.2486	17.24
5 Vinyl Chloride	62		1.367	1.363	(0.284)		197096	18.8531	18.85
6 Bromomethane	94		1.610	1.591	(0.335)		101115	20.0979	20.09
7 Chloroethane	64		1.689	1.681	(0.351)		144180	18.7526	18.75
8 Trichlorofluoromethane	101		1.888	1.884	(0.393)		233673	17.4218	17.42
9 Acrolein	56		2.259	2.255	(0.470)		12976	18.3633	18.36
10 Acetone	43		2.401	2.397	(0.499)		146845	33.7511	33.75
11 1,1-Dichloroethene	96		2.326	2.322	(0.484)		3356860	411.805	411.80(A)
15 Iodomethane	142		2.457	2.457	(0.511)		185092	42.3591	42.35
16 Acrylonitrile	53		3.057	3.053	(0.636)		149128	31.0427	31.04
17 Methylene Chloride	84		2.787	2.784	(0.580)		185867	19.0551	19.05
18 Methyl tert-butyl ether	73		3.072	3.068	(0.639)		387438	16.7403	16.74
19 Carbon Disulfide	76		2.514	2.510	(0.523)		732936	33.2863	33.28
20 trans-1,2-Dichloroethene	96		3.050	3.050	(0.634)		157813	18.4548	18.45
21 Vinyl Acetate	43		3.601	3.597	(0.749)		660555	21.8338	21.83
22 1,1-Dichloroethane	63		3.507	3.507	(0.729)		1040108	60.6484	60.64
24 2-Butanone	43		4.261	4.257	(0.886)		173338	34.7251	34.72
26 2,2-Dichloropropane	77		4.174	4.174	(0.868)		93237	8.97858	8.97



27 cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	176931	18.0962	18.09
28 Chloroform	83	4.564	4.568 (0.949)	305356	18.3373	18.33

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091425.D Page 2
 Report Date: 18-Sep-2023 12:32

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.463	4.463	(0.928)	93666	18.2805	18.28	
\$ 30 Dibromofluoromethane	113	4.740	4.740	(0.986)	362423	48.2402	48.24	
31 1,1,1-Trichloroethane	97	4.733	4.737	(0.984)	214875	19.0015	19.00	
32 1,1-Dichloropropene	75	4.917	4.913	(0.886)	171848	18.1998	18.19	
33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	238694	20.7607	20.76	
34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	104628	12.3856	12.38	
\$ 35 1,2-Dichloroethane-d4	65	5.093	5.093	(1.059)	411860	48.5211	48.52	
* 36 1,4-Difluorobenzene	114	5.550	5.546	(1.000)	1189438	50.0000		
37 Benzene	78	5.134	5.134	(0.925)	592176	19.8218	19.82	
38 Trichloroethene	130	5.786	5.782	(1.043)	157402	18.1143	18.11	
39 Bromodichloromethane	83	6.277	6.277	(1.131)	184876	19.0799	19.07	
42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	165033	20.9189	20.91	
44 Dibromomethane	93	6.116	6.116	(1.102)	106289	19.5673	19.56	
45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	313847	40.1397	40.13	
46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	167958	16.2471	16.24	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1096410	50.0000		
\$ 48 Toluene-d8	98	6.918	6.918	(0.845)	1358674	56.2087	56.20	
50 Toluene	91	6.978	6.978	(0.853)	618422	21.0058	21.00	
51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	137397	15.7204	15.72	
52 2-Hexanone	43	7.593	7.593	(0.928)	208078	41.8620	41.86	
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	135789	21.1518	21.15	
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	268720	20.8105	20.81	
55 Dibromochloromethane	129	7.691	7.691	(0.940)	150736	19.7267	19.72	
56 Tetrachloroethene	164	7.454	7.454	(0.911)	121830	17.7603	17.76	
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	163372	21.1747	21.17	
58 1-Chlorohexane	55	8.197	8.197	(1.477)	93525	13.0152	13.01	
59 Chlorobenzene	112	8.208	8.208	(1.003)	426700	19.5958	19.59	
60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	147058	20.0944	20.09	
61 Ethylbenzene	106	8.305	8.305	(1.015)	187477	19.2282	19.22	
62 m,p-Xylenes	106	8.407	8.407	(1.027)	454283	37.0515	37.05	
63 o-Xylene	106	8.744	8.748	(1.068)	231486	18.1666	18.16	
64 Styrene	104	8.759	8.759	(1.070)	359147	18.3562	18.35	
66 Bromoform	173	8.920	8.920	(1.090)	95064	18.8692	18.86	
67 Isopropylbenzene	105	9.063	9.063	(1.107)	502830	17.8725	17.87	
68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	222088	19.1838	19.18	
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	526595	49.7525	49.75	
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	595907	50.0000		
71 1,2,3-Trichloropropane	75	9.363	9.362	(0.921)	183900	18.6400	18.64	
73 n-Propylbenzene	91	9.411	9.411	(0.926)	507724	15.9517	15.95	
74 Bromobenzene	156	9.318	9.317	(0.916)	182038	19.2209	19.22	
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	374518	16.7089	16.70	
76 2-Chlorotoluene	91	9.482	9.482	(0.933)	400681	18.1088	18.10	
77 4-Chlorotoluene	91	9.576	9.576	(0.942)	458320	17.6524	17.65	
78 tert-Butylbenzene	119	9.835	9.839	(0.967)	335556	15.5569	15.55	
79 1,2,4-Trimethylbenzene	105	9.876	9.880	(0.971)	409824	17.7876	17.78	
81 sec-Butylbenzene	105	10.022	10.022	(0.986)	389438	14.7708	14.77	
82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	335656	15.8498	15.84	
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	296303	17.7383	17.73	
84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	324179	17.2732	17.27	
87 n-Butylbenzene	91	10.491	10.491	(1.032)	259217	13.8652	13.86	
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	314202	18.3913	18.39	
89 1,2-Dibromo-3-Chloropropane	155	11.166	11.166	(1.098)	25722	17.8577	17.85	



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	167756	17.2483	17.24
91 Hexachlorobutadiene	225	11.998	11.998 (1.180)	52789	12.0969	12.09

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091425.D Page 3
Report Date: 18-Sep-2023 12:32

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	(1.187)	429666	17.9873	17.98
93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	173213	18.7586	18.75
M 94 1,2-Dichloroethylene (total)	96				334744	36.5271	36.52
M 95 Xylenes (total)	106				685769	52.6762	52.67
135 1,4-Dioxane	88	6.169	6.169	(1.283)	72385	604.672	604.67
141 Cyclohexane	56	4.774	4.774	(0.993)	156037	14.6856	14.68
138 Freon TF	101	2.326	2.322	(0.484)	114502	17.5969	17.59
140 1,3-Butadiene	54	1.393	1.393	(0.290)	158477	16.2884	16.28
147 Methylcyclohexane	55	5.947	5.944	(1.072)	251879	14.4459	14.44
146 Methyl Acetate	43	2.705	2.701	(0.563)	104203	10.4355	10.43
148 Tert-Butyl alcohol	59	2.960	2.960	(0.616)	341865	338.785	338.78
149 Isopropyl Alcohol	45	2.551	2.555	(0.531)	242503	334.988	334.98
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	15488	10.3919	10.39
12 Isobutyl Alcohol	43	5.284	5.284	(1.099)	340252	303.084	303.08
13 Acetonitrile	39	2.664	2.660	(0.554)	203319	161.812	161.81
14 Allyl Chloride	41	2.664	2.664	(0.554)	455980	15.6155	15.61
25 Methacrylonitrile	41	4.489	4.489	(0.934)	109907	16.9768	16.97
40 Methyl Methacrylate	41	6.157	6.154	(1.281)	110915	16.4468	16.44
4 Propionitrile	54	4.332	4.335	(0.901)	279873	156.871	156.87(a)
136 n-Hexane	57	3.331	3.331	(0.693)	78922	9.31219	9.31
194 Acetaldehyde	44	1.449	1.445	(0.301)	79628	42.8440	42.84(M)
131 Methyl Acrylate	55	4.366	4.362	(0.908)	206062	16.0750	16.07
200 Dimethyl Disulfide	94	6.742	6.746	(0.824)	83749	14.3634	14.36
23 Chloroprene	53	2.146	2.146	(0.446)	54842	16.6422	16.64
49 Ethyl Methacrylate	69	7.293	7.293	(1.314)	179351	17.2898	17.28
166 1,2,3-Trimethylbenzene	105	10.232	10.236	(1.006)	400299	17.4674	17.46
167 Ethanol	45	2.071	2.075	(0.431)	55912	322.607	322.60
164 Dicyclopentadiene	66	10.198	10.198	(1.003)	298855	11.8981	11.89
145 alpha-Methylstyrene	118	9.752	9.752	(0.959)	83097	10.7542	10.75
142 Tetrahydrofuran	42	4.542	4.538	(0.945)	63286	30.6242	30.62
156 Diisopropyl ether	45	3.612	3.612	(0.751)	564938	15.8539	15.85
151 4-Methyl-2-pentanol	45	7.218	7.226	(1.301)	466050	337.865	337.86
150 Allyl alcohol	57	3.331	3.331	(0.693)	78922	185.489	185.48
86 Benzyl Chloride	91	10.311	10.311	(1.260)	30449	6.63521	6.63
162 Butyl acrylate	55	8.733	8.733	(1.067)	203791	17.8636	17.86
139 Diethyl ether	59	2.135	2.135	(0.444)	131907	16.1616	16.16
203 2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	72857	15.4601	15.46
134 Cyclohexanone	55	9.156	9.156	(0.900)	87899	255.178	255.17(a)
130 Ethyl Acetate	43	4.339	4.335	(0.903)	130470	10.6505	10.65
189 n-Butyl acetate	43	7.706	7.706	(0.941)	125612	11.5789	11.57
182 Epichlorohydrin	57	6.678	6.630	(1.203)	2259	24.2482	24.24(M)
132 n-Butanol	56	5.831	5.831	(1.213)	73848	341.840	341.83(a)
133 Ethyl Acrylate	55	5.947	5.944	(1.237)	251879	13.1516	13.15
163 Butyl methacrylate	41	9.651	9.651	(0.949)	145285	17.3084	17.30
174 tert-Amyl methyl ether	73	5.284	5.284	(1.099)	337937	19.6165	19.61
175 tert-Butyl ethyl ether	59	4.043	4.043	(0.841)	382604	17.1096	17.10
188 Isopropyl acetate	43	5.284	5.284	(0.952)	341695	15.8363	15.83
179 Hexachloroethane	166	10.712	10.712	(1.053)	24641	11.4282	11.42



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

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091425.D Page 4
Report Date: 18-Sep-2023 12:32

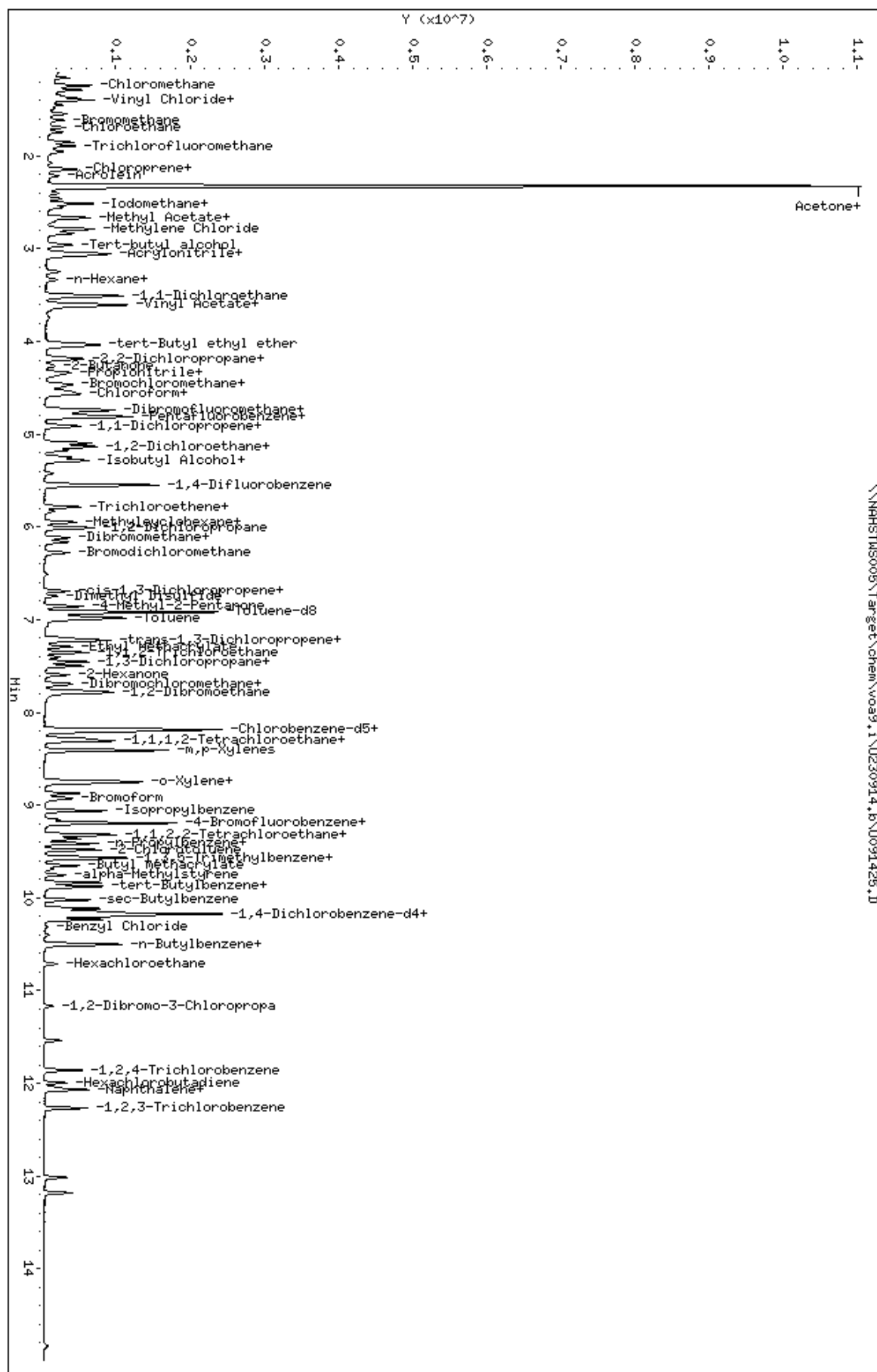
QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091425.D
 Date : 15-SEP-2023 00:41
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 Sample Info: HS23090510-99MSD\HS23090510-99MSD\3\MSD
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 Column phase: DB624

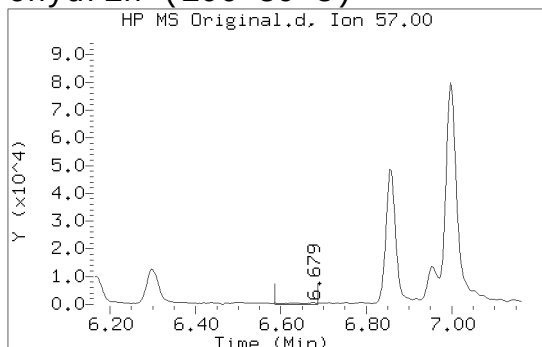
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 Operator: PC
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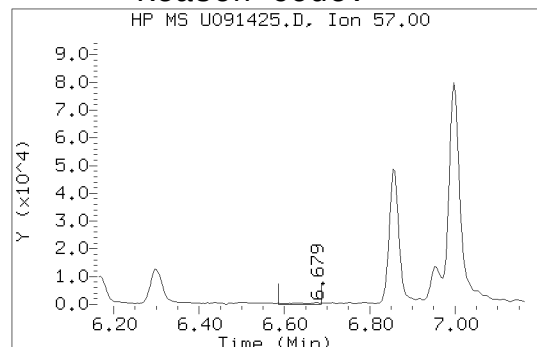
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Inj Date : 15-SEP-2023 00:41
InstruID : VOA9.i
LabSampID : HS23090510-99MSD

Epichlorohydrin (106-89-8)**BEFORE**

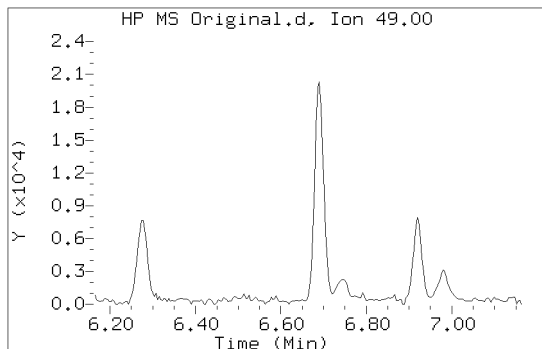
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18-Sep-2023
12:31
linh

**AFTER**

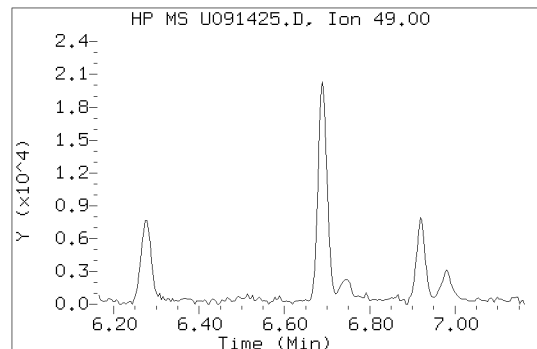
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12:31
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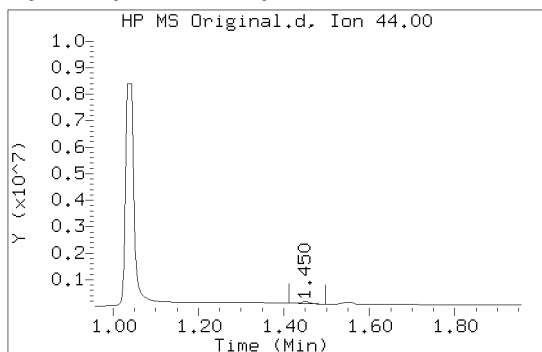
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pham

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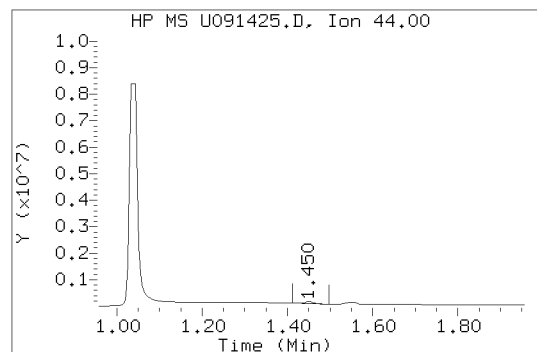
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12:31
linh
pham

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

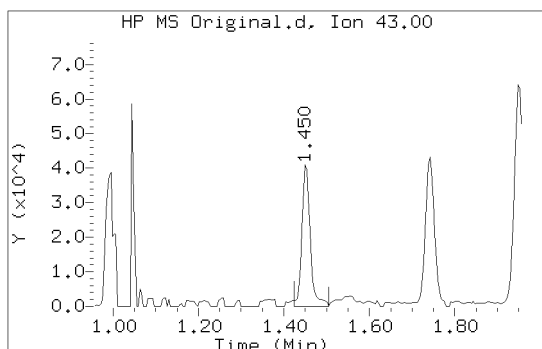
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18-Sep-2023
12:31
linh
pham

**AFTER**

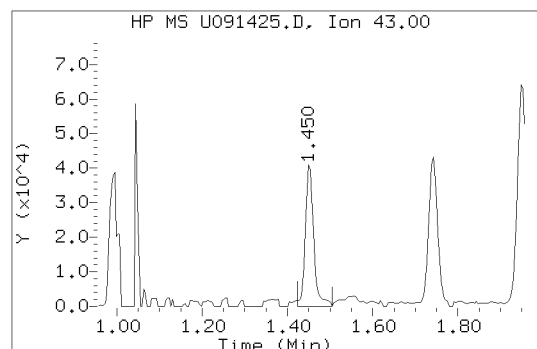
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18-Sep-2023
12:31
linh
pham

Reason Code:**BEFORE**

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18-Sep-2023
12:31
linh
pham

**AFTER**

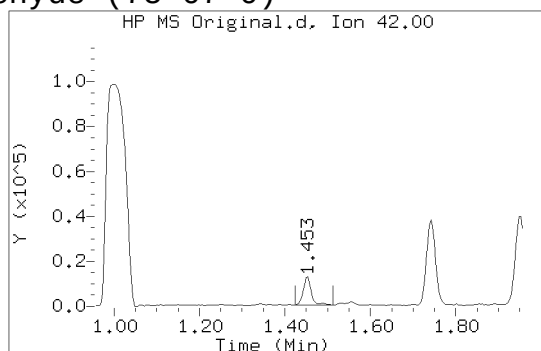
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18-Sep-2023
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pham



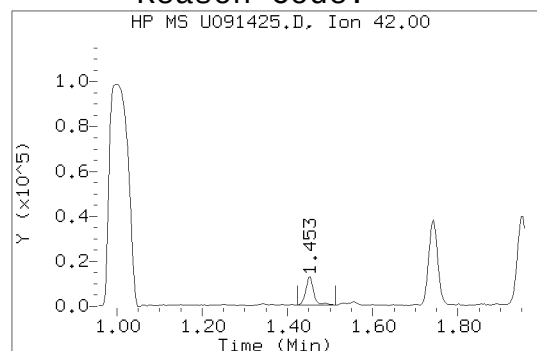
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Inj Date : 15-SEP-2023 00:41
InstruID : VOA9.i
LabSampID : HS23090510-99MSD

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

MASS
42
AREA
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HEIGHT
12702
18-Sep-2023
12:31
linh
pham

**AFTER**

MASS
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AREA
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HEIGHT
12702
18-Sep-2023
12:31
linh
pham

Reason Code:

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091426.D Page 1
 Report Date: 18-Sep-2023 12:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091426.D
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 Inj Date : 15-SEP-2023 01:03
 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\U230914.b\8260C.m
 Meth Date : 18-Sep-2023 12:32 VOA9.i Quant Type: ISTD
 Cal Date : 14-SEP-2023 19:28 Cal File: U091411.D
 Als bottle: 26 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	4.815	4.815	(1.000)	735144	50.0000	
2 Dichlorodifluoromethane	85	1.167	1.167	(0.243)	384783	50.0000	47.79
3 Chloromethane	50	1.299	1.299	(0.270)	670025	50.0000	49.35
5 Vinyl Chloride	62	1.381	1.381	(0.287)	462406	50.0000	49.55
6 Bromomethane	94	1.625	1.625	(0.338)	219581	50.0000	48.25
7 Chloroethane	64	1.703	1.703	(0.354)	322285	50.0000	46.95
8 Trichlorofluoromethane	101	1.902	1.902	(0.395)	575912	50.0000	48.10
9 Acrolein	56	2.269	2.269	(0.471)	50776	100.000	80.49(TM)
10 Acetone	43	2.412	2.412	(0.501)	330552	100.000	88.40
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	355410	50.0000	48.84
15 Iodomethane	142	2.472	2.472	(0.513)	448171	100.000	104.81
16 Acrylonitrile	53	3.068	3.068	(0.637)	384788	100.000	89.73
17 Methylene Chloride	84	2.798	2.798	(0.581)	433868	50.0000	47.09
18 Methyl tert-butyl ether	73	3.083	3.083	(0.640)	969454	50.0000	46.92
19 Carbon Disulfide	76	2.524	2.524	(0.524)	1968968	100.000	100.17
20 trans-1,2-Dichloroethene	96	3.060	3.060	(0.636)	372495	50.0000	48.79
21 Vinyl Acetate	43	3.612	3.612	(0.750)	2578826	100.000	95.49
22 1,1-Dichloroethane	63	3.518	3.518	(0.731)	746404	50.0000	48.75
24 2-Butanone	43	4.268	4.268	(0.886)	410927	100.000	92.22
26 2,2-Dichloropropane	77	4.185	4.185	(0.869)	410298	50.0000	44.26



27 cis-1,2-Dichloroethene	96	4.196	4.196 (0.872)	430388	50.0000	49.31
28 Chloroform	83	4.575	4.575 (0.950)	711327	50.0000	47.85

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091426.D Page 2
Report Date: 18-Sep-2023 12:32

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)	220367	50.0000	48.18
\$ 30 Dibromofluoromethane	113	4.747	4.747	(0.986)	369527	50.0000	55.07
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	515728	50.0000	51.09
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	435311	50.0000	46.80
33 1,2-Dichloroethane	62	5.178	5.178	(0.933)	532977	50.0000	47.05
34 Carbon Tetrachloride	117	4.912	4.912	(0.885)	376919	50.0000	45.29
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	395316	50.0000	52.18
* 36 1,4-Difluorobenzene	114	5.553	5.553	(1.000)	1171658	50.0000	
37 Benzene	78	5.141	5.141	(0.926)	1426796	50.0000	48.48
38 Trichloroethene	130	5.790	5.790	(1.043)	388887	50.0000	45.43
39 Bromodichloromethane	83	6.281	6.281	(1.131)	465732	50.0000	48.79
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	395327	50.0000	50.87
44 Dibromomethane	93	6.119	6.119	(1.102)	255721	50.0000	47.79
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	775698	100.000	93.10
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	509789	50.0000	43.49
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1125134	50.0000	
\$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1348769	50.0000	54.37
50 Toluene	91	6.982	6.982	(0.853)	1573501	50.0000	52.08
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	418956	50.0000	43.64
52 2-Hexanone	43	7.593	7.593	(0.928)	512487	100.000	100.47
53 1,1,2-Trichloroethane	83	7.356	7.356	(0.899)	308206	50.0000	46.78
54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	646572	50.0000	48.79
55 Dibromochloromethane	129	7.694	7.694	(0.940)	398570	50.0000	50.82
56 Tetrachloroethene	164	7.458	7.458	(0.911)	354157	50.0000	50.31
57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	392085	50.0000	49.52
58 1-Chlorohexane	55	8.196	8.196	(1.476)	301120	50.0000	42.54
59 Chlorobenzene	112	8.211	8.211	(1.003)	1075034	50.0000	48.10
60 1,1,1,2-Tetrachloroethane	131	8.282	8.282	(1.012)	373523	50.0000	49.73
61 Ethylbenzene	106	8.305	8.305	(1.015)	513485	50.0000	51.32
62 m,p-Xylenes	106	8.410	8.410	(1.027)	1291885	100.000	102.67
63 o-Xylene	106	8.747	8.747	(1.069)	649639	50.0000	49.68
64 Styrene	104	8.762	8.762	(1.071)	1011004	50.0000	50.35
66 Bromoform	173	8.920	8.920	(1.090)	256095	50.0000	43.74
67 Isopropylbenzene	105	9.062	9.062	(1.107)	1510040	50.0000	48.25
68 1,1,2,2-Tetrachloroethane	83	9.328	9.328	(0.917)	536997	50.0000	48.91
\$ 69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	570684	50.0000	52.40
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	565075	50.0000	
71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	465408	50.0000	49.74
73 n-Propylbenzene	91	9.411	9.411	(0.925)	1619361	50.0000	46.52
74 Bromobenzene	156	9.317	9.317	(0.916)	467813	50.0000	52.09
75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	1125404	50.0000	52.94
76 2-Chlorotoluene	91	9.482	9.482	(0.932)	1086949	50.0000	51.80
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1272778	50.0000	51.69
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	1046485	50.0000	51.16
79 1,2,4-Trimethylbenzene	105	9.879	9.879	(0.971)	1150023	50.0000	52.63
81 sec-Butylbenzene	105	10.022	10.022	(0.985)	1354113	50.0000	48.16
82 p-Isopropyltoluene	119	10.145	10.145	(0.997)	1112838	50.0000	49.44
83 1,3-Dichlorobenzene	146	10.115	10.115	(0.994)	775451	50.0000	48.95
84 1,4-Dichlorobenzene	146	10.190	10.190	(1.002)	820857	50.0000	46.12
87 n-Butylbenzene	91	10.490	10.490	(1.031)	956175	50.0000	46.60
88 1,2-Dichlorobenzene	146	10.505	10.505	(1.033)	790672	50.0000	48.80
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	69502	50.0000	50.88



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	500623	50.0000	54.28
91 Hexachlorobutadiene	225	11.997	11.997 (1.179)	196660	50.0000	47.52

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230914.b\U091426.D Page 3
 Report Date: 18-Sep-2023 12:32

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.065	12.065	(1.186)	1287172	50.0000	50.92
93 1,2,3-Trichlorobenzene	180	12.267	12.267	(1.206)	488247	50.0000	55.76
M 94 1,2-Dichloroethylene (total)	96				802883	100.000	(a)
135 1,4-Dioxane	88	6.172	6.172	(1.282)	96361	1000.00	901.75
141 Cyclohexane	56	4.781	4.781	(0.993)	487044	50.0000	48.77
138 Freon TF	101	2.337	2.337	(0.485)	300035	50.0000	49.61
140 1,3-Butadiene	54	1.407	1.407	(0.292)	423177	50.0000	48.72
147 Methylcyclohexane	55	5.951	5.951	(1.072)	732215	50.0000	42.63
146 Methyl Acetate	43	2.716	2.716	(0.564)	392605	50.0000	44.04
148 Tert-Butyl alcohol	59	2.970	2.970	(0.617)	838767	1000.00	931.17
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	594468	1000.00	919.93
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	65847	50.0000	39.06
12 Isobutyl Alcohol	43	5.291	5.291	(1.099)	1029193	1000.00	937.88
13 Acetonitrile	39	2.674	2.674	(0.555)	478091	500.000	426.24
14 Allyl Chloride	41	2.674	2.674	(0.555)	1115516	50.0000	42.79
25 Methacrylonitrile	41	4.500	4.500	(0.935)	276830	50.0000	47.90
40 Methyl Methacrylate	41	6.161	6.161	(1.279)	294776	50.0000	48.96
4 Propionitrile	54	4.343	4.343	(0.902)	720748	500.000	452.56
136 n-Hexane	57	3.345	3.345	(0.695)	377692	50.0000	45.04
194 Acetaldehyde	44	1.464	1.464	(0.304)	288819	200.000	198.76
131 Methyl Acrylate	55	4.373	4.373	(0.908)	532840	50.0000	46.56
200 Dimethyl Disulfide	94	6.745	6.745	(0.824)	321287	50.0000	37.35
23 Chloroprene	53	2.161	2.161	(0.449)	152191	50.0000	51.73
49 Ethyl Methacrylate	69	7.293	7.293	(1.313)	478803	50.0000	46.85
166 1,2,3-Trimethylbenzene	105	10.235	10.235	(1.006)	1013510	50.0000	46.63
167 Ethanol	45	2.086	2.086	(0.433)	127841	1000.00	826.33
164 Dicyclopentadiene	66	10.198	10.198	(1.003)	1043031	50.0000	38.08
145 alpha-Methylstyrene	118	9.752	9.752	(0.959)	432594	50.0000	50.86
142 Tetrahydrofuran	42	4.549	4.549	(0.945)	173176	100.000	93.87
156 Diisopropyl ether	45	3.623	3.623	(0.752)	1386809	50.0000	43.59
151 4-Methyl-2-pentanol	45	7.222	7.222	(1.300)	1386629	1000.00	942.54
150 Allyl alcohol	57	3.345	3.345	(0.695)	377692	1000.00	893.10
86 Benzyl Chloride	91	10.310	10.310	(1.260)	202395	50.0000	36.55
162 Butyl acrylate	55	8.736	8.736	(1.067)	588882	50.0000	45.73
139 Diethyl ether	59	2.150	2.150	(0.446)	315314	50.0000	43.27
203 2-Ethylhexyl Acrylate	55	12.042	12.042	(1.184)	227226	50.0000	45.35
134 Cyclohexanone	55	9.156	9.156	(0.900)	274486	1000.00	789.50
130 Ethyl Acetate	43	4.346	4.346	(0.903)	528868	50.0000	48.36
189 n-Butyl acetate	43	7.709	7.709	(0.942)	593436	50.0000	44.23
182 Epichlorohydrin	57	6.637	6.637	(1.195)	9123	200.000	99.41(T)
132 n-Butanol	56	5.834	5.834	(1.212)	203409	1000.00	903.77
133 Ethyl Acrylate	55	5.951	5.951	(1.236)	732215	50.0000	42.82
163 Butyl methacrylate	41	9.651	9.651	(0.949)	414522	50.0000	49.59
174 tert-Amyl methyl ether	73	5.291	5.291	(1.099)	932479	50.0000	56.83
175 tert-Butyl ethyl ether	59	4.054	4.054	(0.842)	995685	50.0000	44.56
188 Isopropyl acetate	43	5.291	5.291	(0.953)	1029799	50.0000	48.45
179 Hexachloroethane	166	10.712	10.712	(1.053)	82210	50.0000	42.02

QC Flag Legend

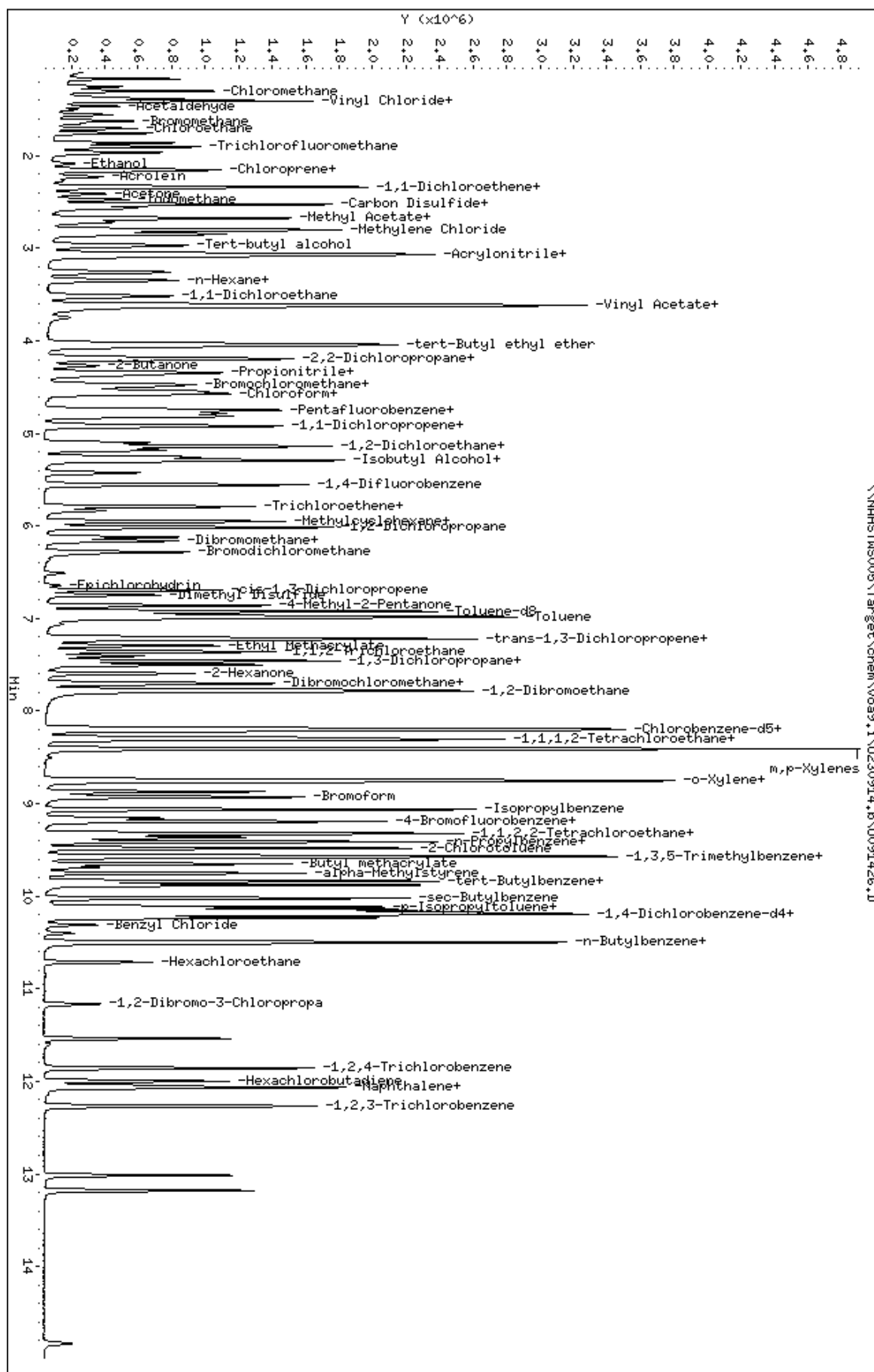
T - Target compound detected outside RT window.



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

Data File: \\NAHSTMS005\Target\chem\voa9.i\U230914.b\U091426.D
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 Client ID: CCV-END
 Sample Info: CCV-END;CCV-END;2;;
 Purge Volume: 5.0
 Column phase: DB624

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

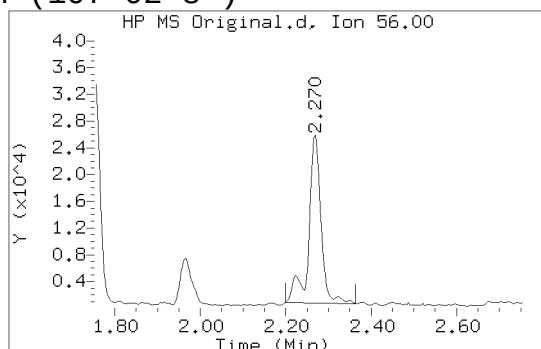


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Inj Date : 15-SEP-2023 01:03
InstruID : VOA9.i
LabSampID : CCV-END

Acrolein (107-02-8)

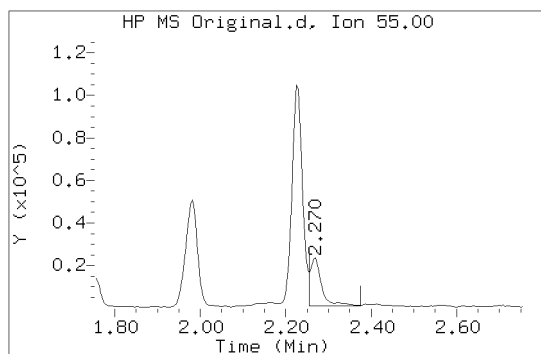
BEFORE

MASS
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AREA
50776
HEIGHT
25116
18-Sep-2023
12:31
linh



BEFORE

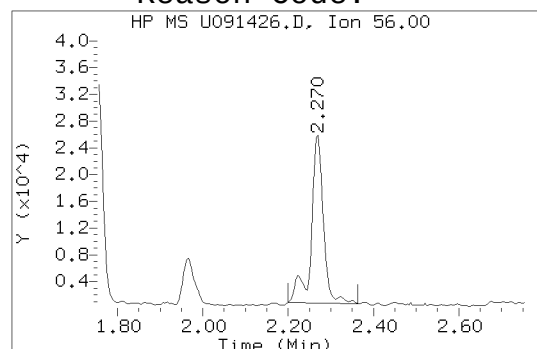
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Reason Code:

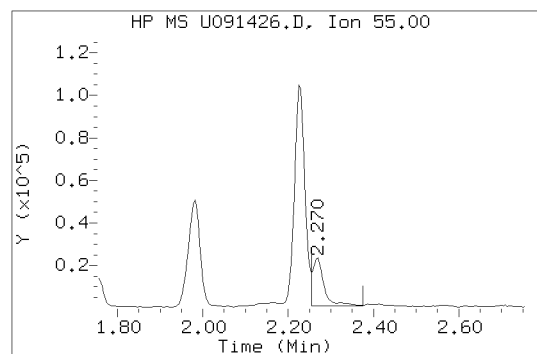
AFTER

MASS
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18-Sep-2023
12:31
linh



AFTER

MASS
55
AREA
43257
HEIGHT
22587
18-Sep-2023
12:31
linh
pham



HS23090714-MSSEMI-SW8270SIM

ALS WO# HS23090714





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Form 1

Organic Analysis Data Sheet

Semi-Volatiles by Semivolatiles SIM

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

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.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

Semi-Volatiles by Semivolatiles SIM

HS23090714-01				Collected	Received	Matrix	Prep Method	Basis				
LH18/24-SP650_091223				09/12/23 13:00	09/13/23 09:55	Water	EPA 3510	Wet				
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch	
1,4-Dioxane	ug/L	0.48	a	0.010	0.010	0.010	1	09/28/23 19:08	SV-6_447716	23.D	200383	





Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

Semi-Volatiles by Semivolatiles SIM

MBLK-200383				Collected	Received	Matrix	Prep Method	Basis			
MBLK-200383				NA	NA	Aqueous	EPA 3510	Wet			
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.030	U	0.010	0.030	0.030	1	09/29/23 12:43	SV-6_447716	05.D	200383





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Form 2

System Monitoring Compound Recovery

Semi-Volatiles by Semivolatiles SIM

Workorder

HS23090714

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Semi-Volatiles by Semivolatiles SIM

SV-6-447716

HS23090714-01	Analyzed	Conc Units	Dilution
LH18/24-SP650_091223	09/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.063	0.08	78.9		40-140
4-Terphenyl-d14	0.064	0.08	80.5		40-140
Nitrobenzene-d5	0.064	0.08	80.6		40-140

LCS1-200383	Analyzed	Conc Units	Dilution
LCS1-200383	09/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.1315	0.16	82.2		40-140
4-Terphenyl-d14	0.0893	0.16	55.8		40-140
Nitrobenzene-d5	0.1841	0.16	115		40-140

LCSD1-200383	Analyzed	Conc Units	Dilution
LCSD1-200383	09/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.1294	0.16	80.9		40-140
4-Terphenyl-d14	0.1397	0.16	87.3		40-140
Nitrobenzene-d5	0.1463	0.16	91.4		40-140

MBLK-200383	Analyzed	Conc Units	Dilution
MBLK-200383	09/29/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.0703	0.08	87.9		40-140
4-Terphenyl-d14	0.0689	0.08	86.1		40-140
Nitrobenzene-d5	0.07688	0.08	96.1		40-140





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Form 3B

Laboratory Control Sample Recovery

Semi-Volatiles by Semivolatiles SIM

Workorder

HS23090714

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

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Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

SAMPLENUM

Semi-Volatiles by Semivolatiles SIM

LCS1-200383

SV-6_447716			LCS1-200383			LCSD1-200383					
Spike Matrix	Aqueous		Run Date	09/28/23		Run Date	09/28/23				
Result Units	ug/L		Run Time	17:58		Run Time	18:16				
Prep Batch	200383		Data File	19.D		Data File	20.D				
Prep Date	09/14/23		Prep Amt	1000 mL		Prep Amt	1000 mL				
		Prep Method									
		SW3510									
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
1,4-Dioxane	40-140	0.08	0.07334	92		0.06515	81		20	11.8	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)





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Form 4

Method Blank Summary

Semi-Volatiles by Semivolatiles SIM

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

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Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

Semi-Volatiles by Semivolatiles SIM

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	BatchID
METHOD BLANK	MBLK	MBLK-200383	05.D	09/29/23 12:43	200383
LCS1-200383	LCS	LCS1-200383	19.D	09/28/23 17:58	200383
LCSD1-200383	LCSD	LCSD1-200383	20.D	09/28/23 18:16	200383
LH18/24-SP650_091223	SAMP	HS23090714-01	23.D	09/28/23 19:08	200383





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Form 5

Instrument Performance Check

Semi-Volatiles by Semivolatiles SIM

Workorder

HS23090714

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

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Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Semi-Volatiles by Semivolatiles SIM

SV-6-447894

Tune File 01.D 09/28/23 9/28/2023			This check applies to the following analyses					
m / e	Ion Abundance Criterion	%RA		Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
51	30.0 - 80.0% of mass 198	43.7 (43.69)	1	14DX-0.01	ICAL1	9/28/2023	08	14DX-0.01
68	Less than 2.0% of mass 69	0.7 (1.66) 1	2	14DX-0.03	ICAL2	9/28/2023	09	14DX-0.03
69	Mass 69 RA	41.4 (41.37)	3	14DX-0.05	ICAL3	9/28/2023	10	14DX-0.05
70	Less than 2.0% of mass 69	0.2 (0.54) 1	4	14DX-0.08	ICAL4	9/28/2023	11	14DX-0.08
127	25.0 - 75.0% of mass 198	47 (46.95)	5	14DX-0.100	ICAL5	9/28/2023	12	14DX-0.100
197	Less than 1.0% of mass 198	0 (0)	6	14DX-0.150	ICAL6	9/28/2023	13	14DX-0.150
198	Base peak, 100% RA	100 (100)	7	14DX-0.200	ICAL7	9/28/2023	14	14DX-0.200
199	5.0 - 9.0% of mass 198	6.9 (6.9)	8	14DX-0.500	ICAL8	9/28/2023	15	14DX-0.500
275	10.0 - 30.0% of mass 198	26.5 (26.48)	9	14DX ICV-	ICV	9/28/2023	16	14DX ICV-0.08
365	Greater than 0.75% of mass 198	3.3 (3.3)						
441	Present, but less than mass 443	13.1 (77.69)						
442	40.0 - 110.0% of mass 198	85 (84.99)						
443	15.0 - 24.0% of mass 442	16.9 (19.84) 2						
%RA - Percent Relative Abundance								





Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Semi-Volatiles by Semivolatiles SIM

SV-6-447716

Tune File 01.D 09/28/23 9/28/2023			This check applies to the following analyses					
m / e	Ion Abundance Criterion	%RA	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID	
51	30.0 - 80.0% of mass 198	43.7 (43.69)	1 14DX ICV-	ICV	9/28/2023	16	14DX ICV-0.08	
51	30.0 - 80.0% of mass 198	35.8 (35.8)	2 LCS1-200383	LCS	9/28/2023	19	LCS1-200383	
68	Less than 2.0% of mass 69	0.7 (1.66) 1	3 LCSD1-	LCSD	9/28/2023	20	LCSD1-200383	
68	Less than 2.0% of mass 69	0.6 (1.7) 1	4 HS23090714-	SAMP	9/28/2023	23	LH18/24-SP650_091223	
69	Mass 69 RA	41.4 (41.37)	5 14DX-CCV	CCV	9/28/2023	24	14DX-CCV END	
69	Mass 69 RA	36.1 (36.12)	6 14DX-0.08	CCV	9/29/2023	03	14DX-0.08	
70	Less than 2.0% of mass 69	0.2 (0.54) 1	7 MBLK-200383	MBLK	9/29/2023	05	MBLK-200383	
70	Less than 2.0% of mass 69	0.2 (0.53) 1	8 14DX-CCV	CCV	9/29/2023	06	14DX-CCV END	
127	25.0 - 75.0% of mass 198	47 (46.95)						
127	25.0 - 75.0% of mass 198	42.9 (42.9)						
197	Less than 1.0% of mass 198	0 (0)						
197	Less than 1.0% of mass 198	0 (0)						
198	Base peak, 100% RA	100 (100)						
198	Base peak, 100% RA	100 (81.63)						
199	5.0 - 9.0% of mass 198	6.9 (6.9)						
199	5.0 - 9.0% of mass 198	6.7 (6.69)						
275	10.0 - 30.0% of mass 198	26.5 (26.48)						
275	10.0 - 30.0% of mass 198	30.2 (30.23)						
365	Greater than 0.75% of mass 198	3.3 (3.3)						
365	Greater than 0.75% of mass 198	4.4 (4.38)						
441	Present, but less than mass 443	13.1 (77.69)						
441	Present, but less than mass 443	19 (79.31)						
442	40.0 - 110.0% of mass 198	85 (84.99)						
442	40.0 - 110.0% of mass 198	122.5 (122.5)						
443	15.0 - 24.0% of mass 442	16.9 (19.84) 2						
443	15.0 - 24.0% of mass 442	24 (19.57) 2						

%RA - Percent Relative Abundance





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Form 6

Initial Calibration Data

Semi-Volatiles by Semivolatiles SIM

Workorder

HS23090714

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

ALS Environmental–Houston Laboratory

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID
SV-6_447894

Semi-Volatiles by Semivolatiles SIM

Calibration Files

ICAL Start Date 10-MAR-2022 1025
ICAL End Date 28-SEP-2023 1648

Level 1 ..target\chem\sv6.i\230928.b\08.d
Level 2 ..target\chem\sv6.i\230928.b\09.d
Level 3 ..target\chem\sv6.i\230928.b\10.d

Level 4 ..target\chem\sv6.i\230928.b\11.d
Level 5 ..target\chem\sv6.i\230928.b\12.d
Level 6 ..target\chem\sv6.i\230928.b\13.d

Level 7 ..target\chem\sv6.i\230928.b\14.d
Level 8 ..target\chem\sv6.i\230928.b\15.d

Compound	0.20000 Level 7 0.01000 Level 1	0.50000 Level 8 0.03000 Level 2	0.05000 Level 3	0.08000 Level 4	0.10000 Level 5	0.15000 Level 6	RRF	%RSD	Q
1,4-Dioxane	0.42340 0.29190	0.30906 0.30842	0.30851	0.21613	0.28713	0.27875	0.30291	18.966	
2-Fluorophenol	0.29190 NE NE	0.30842 NE NE	NE	NE	NE	NE	0.30291	18.966	
13 Phenol-d6	NE NE	NE NE	NE	NE	NE	NE	NE	NE	
33 Nitrobenzene-d5	0.38755 0.39972	0.39566 0.38751	0.40898	0.41149	0.37614	0.36536	0.39155	4.027	
69 2-Fluorobiphenyl	1.62876 1.67213	1.71014 1.69384	2.25282	1.78677	2.45026	2.10388	1.91232	16.352	
105 2,4,6-Tribromophenol	NE NE	NE NE	NE	NE	NE	NE	NE	NE	
158 4-Terphenyl-d14	2.88200 4.13329	2.76840 3.24018	2.95864	3.21844	3.05573	3.30900	3.19571	13.230	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits





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Form 6I

Initial Calibration Verification (ICV)

Semi-Volatiles by Semivolatiles SIM

Workorder

HS23090714

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

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Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

SV-6_447894

Semi-Volatiles by Semivolatiles SIM

Sample Matrix LIQUID
Lab Smp Id 14DX ICV-0.08
Data Type MS DATA
File ID 16.D

Fraction SV
Client Smp ID 14DX ICV-0.08
SampleType METHSPIKE
Inj Date 28-SEP-2023 1706

Compound	CONC Added	CONC Recovered	% Recovered	Limits	Q
1,4-Dioxane	0.08000	0.07235	90.44	40-140	
Nitrobenzene-d5	0.08000	0.07873	98.41	40-140	
2-Fluorobiphenyl	0.08000	0.08233	102.91	40-140	
4-Terphenyl-d14	0.08000	0.08084	101.05	40-140	





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Form 7

Continuing Calibration Verification (CCV)

Semi-Volatiles by Semivolatiles SIM

Workorder

HS23090714

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

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Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

SV-6_447716

Semi-Volatiles by Semivolatiles SIM

Instrument ID SV6.i
Lab File ID 24.D
Analysis Type WATER
Lab Sample ID 14DX-CCV END

Injection Date 28-SEP-2023 1926
ICAL Date(s) 10-MAR-2022, 28-SEP-2023
ICAL Times 10:25, 16:48
Quant Type ISTD

Compound	$\overline{\text{RRF}}$ / Conc	RF0.080	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
33 Nitrobenzene-d5	0.39155	0.40879	0.010	4.40164	50.0	Averaged	
69 2-Fluorobiphenyl	1.91232	1.67852	0.010	-12.22597	50.0	Averaged	
158 4-Terphenyl-d14	3.19571	2.93470	0.010	-8.16748	50.0	Averaged	
1,4-Dioxane	0.30291	0.33158	0.010	9.46470	50.0	Averaged	





Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

SV-6_447716

Semi-Volatiles by Semivolatiles SIM

Instrument ID SV6.i
Lab File ID 03.D
Analysis Type WATER
Lab Sample ID 14DX-0.08

Injection Date 29-SEP-2023 1203
ICAL Date(s) 10-MAR-2022, 28-SEP-2023
ICAL Times 10:25, 16:48
Quant Type ISTD

Compound	$\overline{\text{RRF}}$ / Conc	RF0.080	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
33 Nitrobenzene-d5	0.39155	0.41986	0.010	7.23047	20.0	Averaged	
69 2-Fluorobiphenyl	1.91232	1.68106	0.010	-12.09317	20.0	Averaged	
158 4-Terphenyl-d14	3.19571	3.15407	0.010	-1.30310	20.0	Averaged	
1,4-Dioxane	0.30291	0.33607	0.010	10.94472	20.0	Averaged	





Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23090714

RunID

SV-6_447716

Semi-Volatiles by Semivolatiles SIM

Instrument ID SV6.i
Lab File ID 06.D
Analysis Type WATER
Lab Sample ID 14DX-CCV END

Injection Date 29-SEP-2023 1300
ICAL Date(s) 10-MAR-2022, 28-SEP-2023
ICAL Times 10:25, 16:48
Quant Type ISTD

Compound	RRF / Conc	RF0.080	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
33 Nitrobenzene-d5	0.39155	0.38928	0.010	-0.57958	50.0	Averaged	
69 2-Fluorobiphenyl	1.91232	1.68225	0.010	-12.03127	50.0	Averaged	
158 4-Terphenyl-d14	3.19571	2.84328	0.010	-11.02815	50.0	Averaged	
1,4-Dioxane	0.30291	0.40296	0.010	33.02936	50.0	Averaged	





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Form 12

Preparation Log

EPA 3510

Workorder

HS23090714

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

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Form 12 - Preparation Log

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples**HS23090714****EPA 3510**

RunID

200383

Prep Batch 200383**Prep Date** 09/14/23

	Matrix	Type	Client Sample ID	Lab Sample ID	Initial Amt (mL)	Final Amt (mL)
1	Aqueous	MBLK	MBLK-200383	MBLK-200383	1000	1
2	Aqueous	LCS	LCS1-200383	LCS1-200383	1000	1
3	Aqueous	LCSD	LCSD1-200383	LCSD1-200383	1000	1
4	Water	SAMP	LH18/24-SP650_091223	HS23090714-01	1000	1





Analysis Run Log

Semi-Volatiles by Semivolatiles SIM

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

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Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Semi-Volatiles by Semivolatiles SIM

SV-6-447894

Run ID	SV-6_447894	Start Date	09/28/23	EndDate	09/28/23		
Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF	
11:19	DFTPP	TUNE	DFTPP	01.D	09/28/23	1	
14:46	14DX-0.01	ICAL1	14DX-0.01	08.D	09/28/23	1	
15:04	14DX-0.03	ICAL2	14DX-0.03	09.D	09/28/23	1	
15:21	14DX-0.05	ICAL3	14DX-0.05	10.D	09/28/23	1	
15:38	14DX-0.08	ICAL4	14DX-0.08	11.D	09/28/23	1	
15:56	14DX-0.100	ICAL5	14DX-0.100	12.D	09/28/23	1	
16:13	14DX-0.150	ICAL6	14DX-0.150	13.D	09/28/23	1	
16:31	14DX-0.200	ICAL7	14DX-0.200	14.D	09/28/23	1	
16:48	14DX-0.500	ICAL8	14DX-0.500	15.D	09/28/23	1	
17:06	14DX ICV-0.08	ICV	14DX ICV-0.08	16.D	09/28/23	1	





Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Workorder

Project Longhorn GW Treatment Plant Monthly Effluent Samples

HS23090714

RunID

Semi-Volatiles by Semivolatiles SIM

SV-6-447716

Run ID	SV-6_447716	Start Date	09/28/23	EndDate	09/29/23		
Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF	
11:19	DFTPP	TUNE	DFTPP	01.D	09/28/23	1	
17:06	14DX ICV-0.08	ICV	14DX ICV-0.08	16.D	09/28/23	1	
17:58	LCS1-200383	LCS	LCS1-200383	19.D	09/28/23	1	
18:16	LCSD1-200383	LCSD	LCSD1-200383	20.D	09/28/23	1	
18:33	HS23090652-01	SAMP	ZZZZZZZZZZ	21.D	09/28/23	1	
18:51	HS23090706-01	SAMP	ZZZZZZZZZZ	22.D	09/28/23	1	
19:08	HS23090714-01	SAMP	LH18/24-	23.D	09/28/23	1	
19:26	14DX-CCV END	CCV	14DX-CCV END	24.D	09/28/23	1	
11:21	DFTPP	TUNE	DFTPP	01.D	09/29/23	1	
12:03	14DX-0.08	CCV	14DX-0.08	03.D	09/29/23	1	
12:43	MBLK-200383	MBLK	MBLK-200383	05.D	09/29/23	1	
13:00	14DX-CCV END	CCV	14DX-CCV END	06.D	09/29/23	1	





Raw Data SV 6 447894

Semi-Volatiles by Semivolatiles SIM

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

ALS Environmental–Houston Laboratory

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Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D
 Report Date: 28-Sep-2023 11:44

Page 1

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D
 Lab Smp Id: DFTPP Client Smp ID: DFTPP
 Inj Date : 28-SEP-2023 11:19
 Operator : smith Inst ID: SV6.i
 Smp Info : DFTPP;DFTPP;3;;DFTPP
 Misc Info :
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DFTPP.m
 Meth Date : 14-Mar-2023 15:58 Linh.Pham Quant Type: ESTD
 Cal Date : Cal File:
 Als bottle: 1 QC Sample: DFTPP
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 4.14 Sample Matrix: None
 Processing Host: NAHSTW7095

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
					(ug/L)	(ug/L)		
=====	=====	=====	=====	=====	=====	=====	=====	=====
1 dftpp								
						CAS #: 5074-71-5		
5.523	5.571	-0.048	198	790664			0.00- 100.00	100.00
5.523	6.357	-0.834	51	345433			10.00- 80.00	43.69
5.523	6.357	-0.834	68	5434			0.00- 2.00	1.66
5.523	6.357	-0.834	69	327076			0.00- 0.00	41.37
5.523	6.357	-0.834	70	1771			0.00- 2.00	0.54
5.523	6.357	-0.834	127	371240			10.00- 80.00	46.95
5.523	6.357	-0.834	197	0	0.0	0.0	0.00- 2.00	0.00
5.523	6.357	-0.834	199	54592			5.00- 9.00	6.90
5.523	6.357	-0.834	275	209386			10.00- 60.00	26.48
5.523	6.357	-0.834	365	26096			1.00- 100.00	3.30
5.523	6.357	-0.834	441	103568			0.01- 99.99	77.69
5.523	6.357	-0.834	442	672000			50.00- 150.00	84.99
5.523	6.357	-0.834	443	133312			15.00- 24.00	19.84



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	43.69
68	Less than 2.00% of mass 69	0.69 (1.66)
69	Mass 69 relative abundance	41.37
70	Less than 2.00% of mass 69	0.22 (0.54)
127	10.00 - 80.00% of mass 198	46.95
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 60.00% of mass 198	26.48
365	1.00 - 100.00% of mass 198	3.30
441	Present, but less than mass 443	13.10
442	50.00 - 150.00% of mass 198	84.99
443	15.00 - 24.00% of mass 442	16.86 (19.84)

Data File: 01.D
 Spectrum: HP ChemStation MS 01.D, Scan 549: 5.523 min. (SUB)
 Location of Maximum: 198.00
 Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	114	125.00	4538	211.00	8204	304.00	2015
37.10	1133	127.00	371200	212.90	467	305.00	1
38.10	3806	128.00	27240	214.00	345	308.00	852
39.10	23440	129.00	146624	215.00	2560	309.00	561
40.00	888	130.00	12741	216.00	4627	310.00	856
41.00	386	131.00	2275	217.00	56960	310.90	274
45.00	198	132.00	1347	218.00	7334	311.90	159
46.90	129	132.70	486	219.00	771	312.90	490
47.80	174	134.00	3621	221.00	38760	314.00	2861
49.10	2049	135.00	10674	221.70	8833	314.90	6125
50.10	87224	136.00	4353	223.00	13754	316.10	3083
51.10	345408	137.00	5647	224.00	120328	317.00	604
52.10	18344	137.80	1365	225.00	30584	319.00	163
53.10	733	139.00	654	226.10	3124	320.00	379
55.00	1516	140.00	2220	227.00	50944	321.00	2346
56.00	10120	141.00	18856	228.00	6962	322.00	1124
57.00	23808	142.00	6466	229.00	10375	323.00	18912
58.00	1089	143.00	4227	230.00	1512	324.00	3492
59.00	270	144.00	1134	231.00	4480	325.10	98
59.90	205	145.00	995	232.00	821	326.10	568
61.00	4308	146.00	3110	233.00	940	327.00	3208
62.00	4653	147.00	9844	234.00	3018	328.00	1635
63.00	13406	148.00	20536	235.00	3760	328.90	399
64.00	1995	149.00	4210	236.00	2608	332.00	1421
65.10	6432	150.00	1112	237.00	4080	332.90	1839
66.00	463	151.10	2399	237.90	575	334.00	12280
66.90	327	151.80	1223	238.90	1823	335.00	2823
68.10	5434	153.00	5599	240.00	1544	336.00	593
69.00	327040	154.00	4033	241.00	2599	339.00	394
70.10	1771	155.00	10218	242.00	6209	340.00	361
71.00	284	156.00	14836	243.00	6691	341.00	2355
71.90	160	157.10	2967	244.00	92096	341.90	605
73.00	2316	158.00	3601	245.00	13603	346.00	3793
74.00	32104	159.00	2612	246.00	18424	346.90	831
75.00	51208	160.00	5903	247.00	4047	350.00	220
76.10	16888	161.00	8788	248.00	867	351.10	314
77.10	352896	162.00	2517	249.00	3470	352.00	5264
78.10	23440	163.00	818	250.00	726	353.00	3927
79.00	22208	164.00	1058	251.00	875	354.00	6029
80.00	17192	165.00	7183	252.10	1162	354.90	1136
81.00	24920	166.00	5891	253.00	2429	359.00	483
82.00	5944	167.00	36080	255.00	478592	360.80	252
83.00	6017	168.00	15317	256.00	69600	363.10	164
83.90	373	169.00	2977	257.00	5308	365.00	26096
85.00	4120	170.00	1289	258.00	27088	366.00	3746

86.00	7366	171.00	1582	259.00	4485	366.80	274
87.00	2968	171.90	3749	259.90	909	370.00	544
88.00	1104	173.00	3975	260.90	898	371.00	1403
89.00	337	174.00	8419	263.00	377	372.00	10395
91.00	5980	175.00	15086	264.00	998	373.00	2522
92.00	6296	176.00	4640	265.00	11276	374.00	299
93.00	40504	177.00	7569	265.90	1625	377.00	379
94.00	3032	178.00	2717	266.80	192	383.00	2457
95.10	647	179.00	28392	267.90	322	384.00	734
96.00	1946	180.00	19560	270.00	651	385.00	182
97.10	708	181.00	9044	270.90	1098	390.00	1343
98.00	30200	182.00	1481	272.00	1211	391.00	788
99.00	22488	183.00	882	273.00	14588	392.00	543
100.00	1805	184.00	2404	274.00	35944	400.90	718
101.00	14537	185.00	14689	275.00	209344	402.00	3886
102.00	651	186.00	108752	276.00	27688	403.00	5479
103.00	4335	187.00	31176	277.00	18096	404.00	2000
104.00	8828	188.00	3356	278.00	2781	405.00	296
105.00	8550	189.00	6492	279.00	635	415.00	184
106.00	2518	190.00	1113	281.00	179	421.00	4805
107.00	107112	191.00	3123	282.00	651	422.00	5017
108.00	17016	192.00	9028	283.00	2147	423.00	33784
109.00	2673	193.00	10294	283.90	1239	424.00	7680
110.00	195072	194.00	2141	285.00	2948	425.00	794
111.00	29360	195.00	1547	286.00	515	432.30	152
112.00	3635	196.00	23944	287.90	221	433.20	184
113.00	1083	198.00	790656	289.00	800	434.30	456
114.20	193	199.00	54592	290.00	528	435.40	705
115.00	448	200.00	4304	291.00	339	436.60	577
116.00	5692	201.50	3877	292.10	818	437.40	766
117.00	84576	203.00	5824	293.00	3729	438.30	957
118.00	5945	204.00	32200	294.00	1163	439.30	1580
119.00	737	205.00	49488	296.00	58240	441.00	103568
120.00	1256	206.00	209216	297.00	8068	442.00	672000
120.90	448	207.00	27040	298.00	642	443.00	133312
122.00	7008	208.00	7479	301.00	841	444.00	12539
123.00	10843	209.00	2209	302.00	1183	445.00	824
124.00	4948	210.10	4037	303.00	6831		

Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D

Page 1

Date : 28-SEP-2023 11:19

Client ID: DFTPP

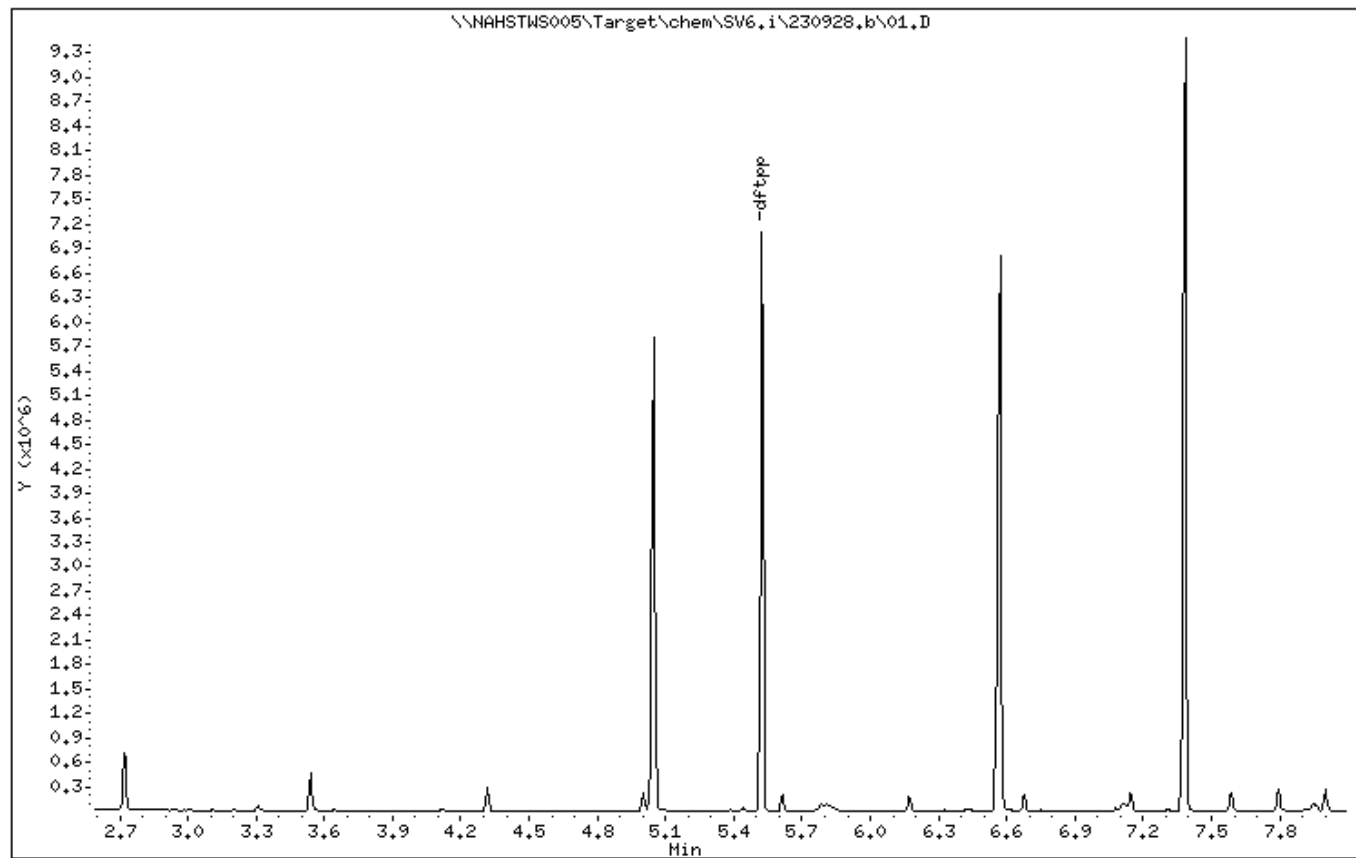
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D

Page 2

Date : 28-SEP-2023 11:19

Client ID: DFTPP

Instrument: SV6.i

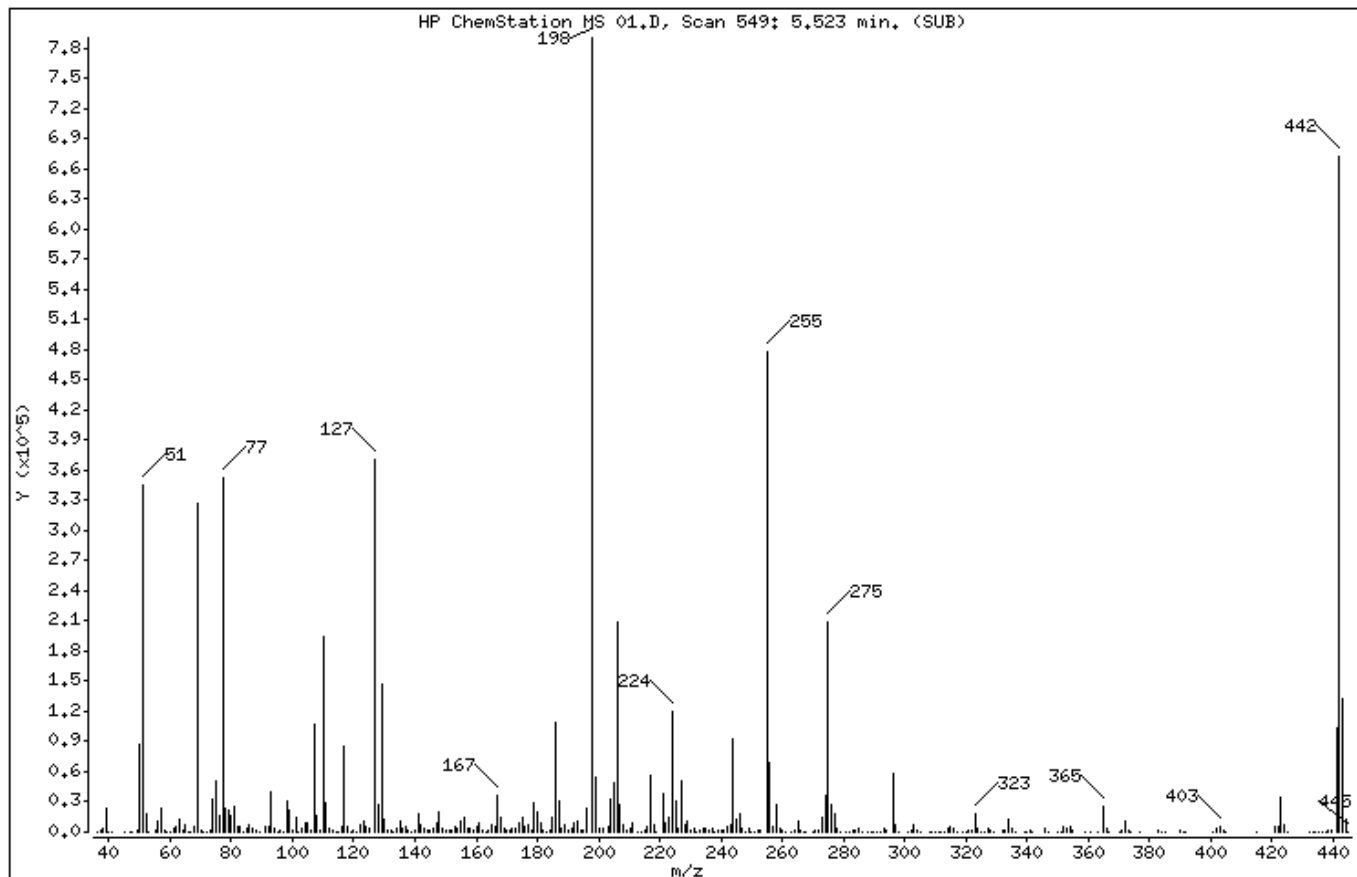
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	43.69
68	Less than 2.00% of mass 69	0.69 (1.66)
69	Mass 69 relative abundance	41.37
70	Less than 2.00% of mass 69	0.22 (0.54)
127	10.00 - 80.00% of mass 198	46.95
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 60.00% of mass 198	26.48
365	1.00 - 100.00% of mass 198	3.30
441	Present, but less than mass 443	13.10
442	50.00 - 150.00% of mass 198	84.99
443	15.00 - 24.00% of mass 442	16.86 (19.84)

Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D

Page 3

Date : 28-SEP-2023 11:19

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 01.D

Spectrum: HP ChemStation MS 01.D, Scan 549: 5.523 min. (SUB)

Location of Maximum: 198.00

Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y

36.00	114	125.00	4538	211.00	8204	304.00	2015
37.10	1133	127.00	371200	212.90	467	305.00	1
38.10	3806	128.00	27240	214.00	345	308.00	852
39.10	23440	129.00	146624	215.00	2560	309.00	561
40.00	888	130.00	12741	216.00	4627	310.00	856

41.00	386	131.00	2275	217.00	56960	310.90	274
45.00	198	132.00	1347	218.00	7334	311.90	159
46.90	129	132.70	486	219.00	771	312.90	490
47.80	174	134.00	3621	221.00	38760	314.00	2861
49.10	2049	135.00	10674	221.70	8833	314.90	6125

50.10	87224	136.00	4353	223.00	13754	316.10	3083
51.10	345408	137.00	5647	224.00	120328	317.00	604
52.10	18344	137.80	1365	225.00	30584	319.00	163
53.10	733	139.00	654	226.10	3124	320.00	379
55.00	1516	140.00	2220	227.00	50944	321.00	2346

56.00	10120	141.00	18856	228.00	6962	322.00	1124
57.00	23808	142.00	6466	229.00	10375	323.00	18912
58.00	1089	143.00	4227	230.00	1512	324.00	3492
59.00	270	144.00	1134	231.00	4480	325.10	98
59.90	205	145.00	995	232.00	821	326.10	568

61.00	4308	146.00	3110	233.00	940	327.00	3208
62.00	4653	147.00	9844	234.00	3018	328.00	1635
63.00	13406	148.00	20536	235.00	3760	328.90	399
64.00	1995	149.00	4210	236.00	2608	332.00	1421
65.10	6432	150.00	1112	237.00	4080	332.90	1839

66.00	463	151.10	2399	237.90	575	334.00	12280
66.90	327	151.80	1223	238.90	1823	335.00	2823
68.10	5434	153.00	5599	240.00	1544	336.00	593
69.00	327040	154.00	4033	241.00	2599	339.00	394
70.10	1771	155.00	10218	242.00	6209	340.00	361

71.00	284	156.00	14836	243.00	6691	341.00	2355
71.90	160	157.10	2967	244.00	92096	341.90	605
73.00	2316	158.00	3601	245.00	13603	346.00	3793
74.00	32104	159.00	2612	246.00	18424	346.90	831
75.00	51208	160.00	5903	247.00	4047	350.00	220

Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D

Page 4

Date : 28-SEP-2023 11:19

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0,25

Data File: 01.D

Spectrum: HP ChemStation MS 01.D, Scan 549: 5.523 min. (SUB)

Location of Maximum: 198.00

Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y

76.10	16888	161.00	8788	248.00	867	351.10	314
77.10	352896	162.00	2517	249.00	3470	352.00	5264
78.10	23440	163.00	818	250.00	726	353.00	3927
79.00	22208	164.00	1058	251.00	875	354.00	6029
80.00	17192	165.00	7183	252.10	1162	354.90	1136

81.00	24920	166.00	5891	253.00	2429	359.00	483
82.00	5944	167.00	36080	255.00	478592	360.80	252
83.00	6017	168.00	15317	256.00	69600	363.10	164
83.90	373	169.00	2977	257.00	5308	365.00	26096
85.00	4120	170.00	1289	258.00	27088	366.00	3746

86.00	7366	171.00	1582	259.00	4485	366.80	274
87.00	2968	171.90	3749	259.90	909	370.00	544
88.00	1104	173.00	3975	260.90	898	371.00	1403
89.00	337	174.00	8419	263.00	377	372.00	10395
91.00	5980	175.00	15086	264.00	998	373.00	2522

92.00	6296	176.00	4640	265.00	11276	374.00	299
93.00	40504	177.00	7569	265.90	1625	377.00	379
94.00	3032	178.00	2717	266.80	192	383.00	2457
95.10	647	179.00	28392	267.90	322	384.00	734
96.00	1946	180.00	19560	270.00	651	385.00	182

97.10	708	181.00	9044	270.90	1098	390.00	1343
98.00	30200	182.00	1481	272.00	1211	391.00	788
99.00	22488	183.00	882	273.00	14588	392.00	543
100.00	1805	184.00	2404	274.00	35944	400.90	718
101.00	14537	185.00	14689	275.00	209344	402.00	3886

102.00	651	186.00	108752	276.00	27688	403.00	5479
103.00	4335	187.00	31176	277.00	18096	404.00	2000
104.00	8828	188.00	3356	278.00	2781	405.00	296
105.00	8550	189.00	6492	279.00	635	415.00	184
106.00	2518	190.00	1113	281.00	179	421.00	4805

107.00	107112	191.00	3123	282.00	651	422.00	5017
108.00	17016	192.00	9028	283.00	2147	423.00	33784
109.00	2673	193.00	10294	283.90	1239	424.00	7680
110.00	195072	194.00	2141	285.00	2948	425.00	794
111.00	29360	195.00	1547	286.00	515	432.30	152

Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D

Page 5

Date : 28-SEP-2023 11:19

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0,25

Data File: 01.D

Spectrum: HP ChemStation MS 01.D, Scan 549: 5.523 min. (SUB)

Location of Maximum: 198.00

Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	3635	196.00	23944	287.90	221	433.20	184
113.00	1083	198.00	790656	289.00	800	434.30	456
114.20	193	199.00	54592	290.00	528	435.40	705
115.00	448	200.00	4304	291.00	339	436.60	577
116.00	5692	201.50	3877	292.10	818	437.40	766
117.00	84576	203.00	5824	293.00	3729	438.30	957
118.00	5945	204.00	32200	294.00	1163	439.30	1580
119.00	737	205.00	49488	296.00	58240	441.00	103568
120.00	1256	206.00	209216	297.00	8068	442.00	672000
120.90	448	207.00	27040	298.00	642	443.00	133312
122.00	7008	208.00	7479	301.00	841	444.00	12539
123.00	10843	209.00	2209	302.00	1183	445.00	824
124.00	4948	210.10	4037	303.00	6831		

Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\08.D
 Report Date: 29-Sep-2023 09:37

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\08.D
 Lab Smp Id: 14DX-0.01 Client Smp ID: 14DX-0.01
 Inj Date : 28-SEP-2023 14:46
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX-0.01
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 29-Sep-2023 09:37 SV6.i Quant Type: ISTD
 Cal Date : 28-SEP-2023 16:48 Cal File: 15.D
 Als bottle: 8 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152		3.413	3.413	(1.000)	7298	0.10000	(aM)
* 45 Naphthalene-d8	136		4.494	4.494	(1.000)	17056	0.10000	(M)
\$ 33 Nitrobenzene-d5	82		3.854	3.854	(0.857)	661	0.01000	0.009898(M)
* 86 Acenaphthene-d10	164		6.166	6.166	(1.000)	9805	0.10000	
\$ 69 2-Fluorobiphenyl	172		5.504	5.504	(0.893)	1597	0.01000	0.008517(M)
* 126 Phenanthrene-d10	188		7.625	7.625	(1.000)	20719	0.10000	(M)
* 182 Chrysene-d12	240		10.583	10.583	(1.000)	9771	0.10000	(M)
\$ 158 4-Terphenyl-d14	244		9.255	9.255	(0.874)	2816	0.01000	0.009018(M)
* 198 Perylene-d12	264		12.755	12.755	(1.000)	7778	0.10000	(M)
1 1,4-Dioxane	58		1.916	1.916	(0.561)	309	0.01000	0.01398(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).
 Q - Qualifier signal failed the ratio test.
 M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\SW6.i\230928.b\08.D

Page 1

Date : 28-SEP-2023 14:46

Client ID: 14DX-0.01

Instrument: SW6.i

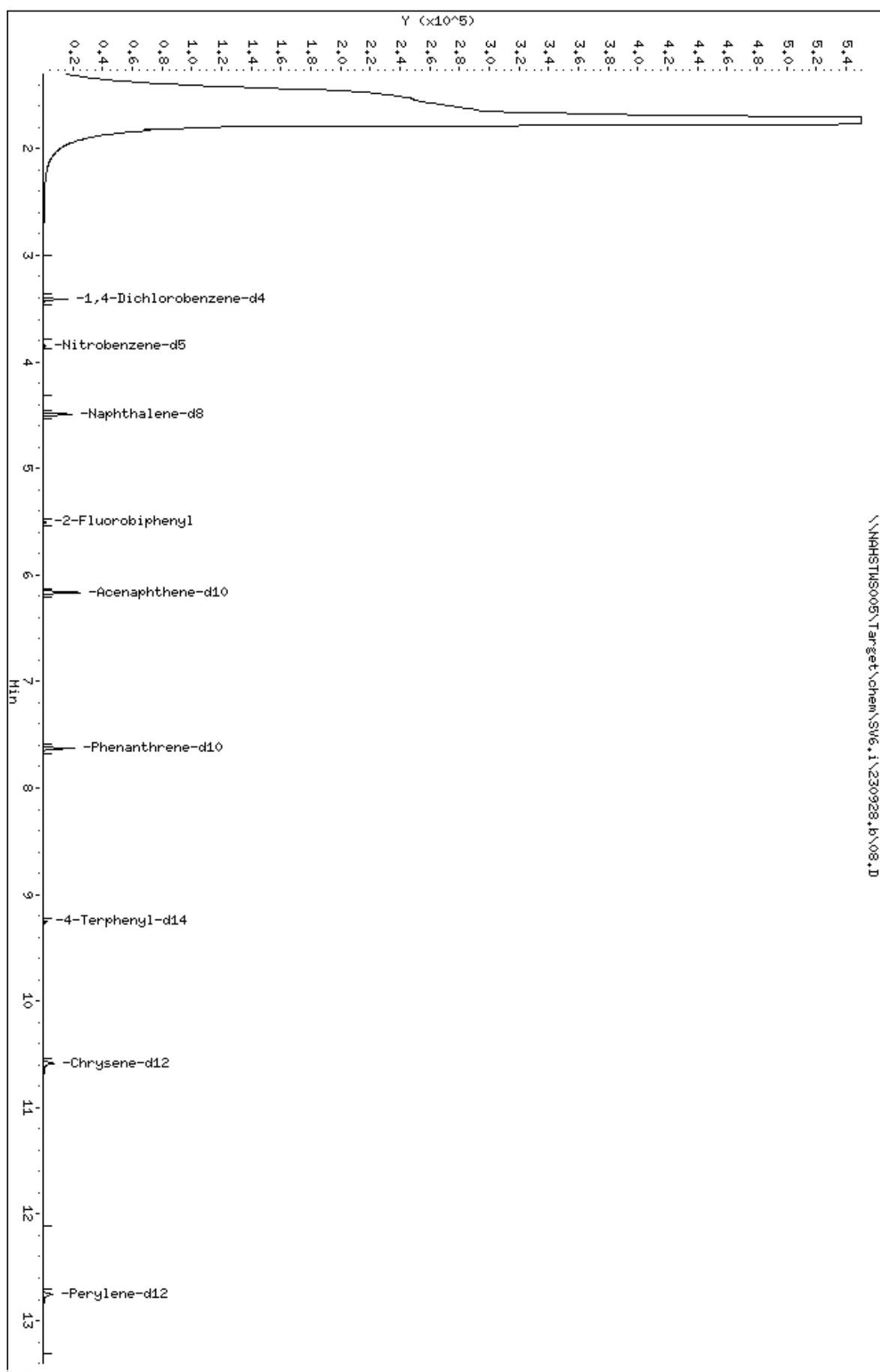
Sample Info: 14DX-0.01

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

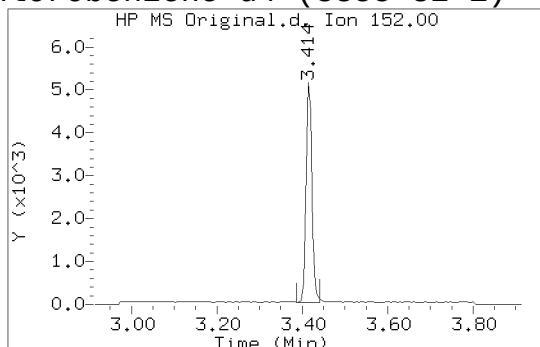


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Inj Date : 28-SEP-2023 14:46
InstruID : SV6.i
LabSampID : 14DX-0.01

1,4-Dichlorobenzene-d4 (3855-82-1)

BEFORE

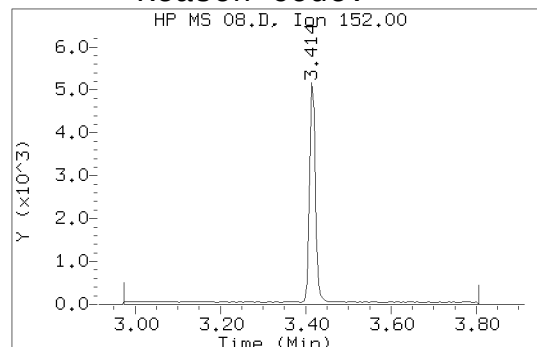
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152
AREA
4744
HEIGHT
5117
28-Sep-2023
15:00
ALSHS
Server



AFTER

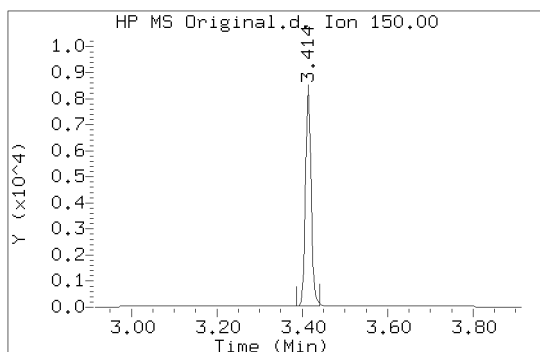
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HEIGHT
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29-Sep-2023
09:37

Reason Code:



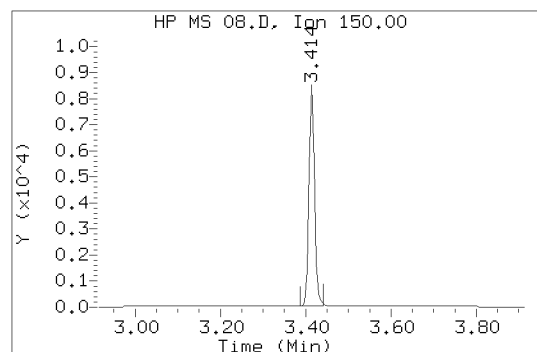
BEFORE

MASS
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AREA
7456
HEIGHT
8476
28-Sep-2023
15:00
ALSHS
Server



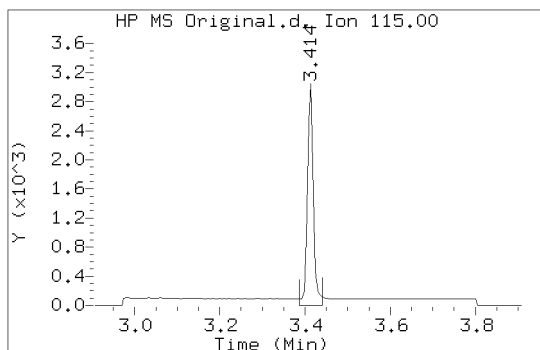
AFTER

MASS
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AREA
7456
HEIGHT
8476
29-Sep-2023
09:37



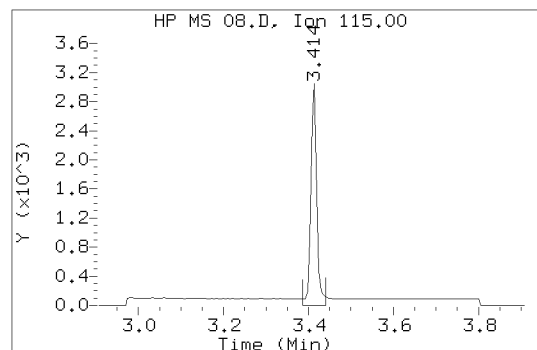
BEFORE

MASS
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AREA
3005
HEIGHT
3047
28-Sep-2023
15:00
ALSHS
Server



AFTER

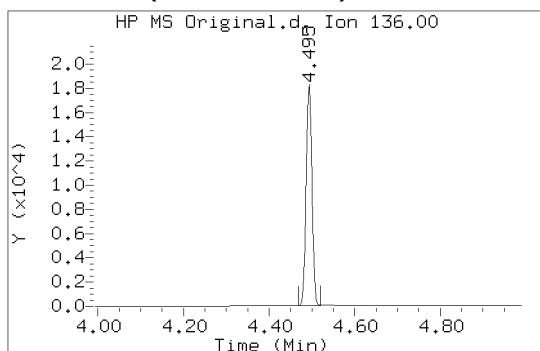
MASS
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AREA
3005
HEIGHT
3047
29-Sep-2023
09:37



Naphthalene-d8 (1146-65-2)

BEFORE

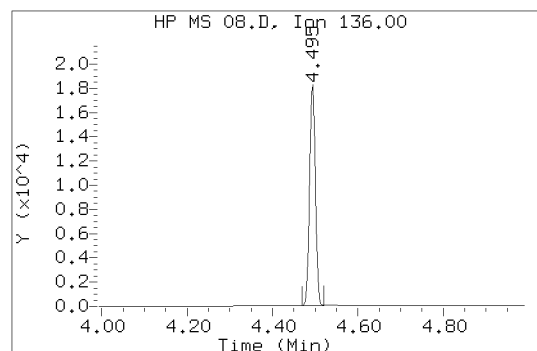
MASS
136
AREA
17056
HEIGHT
18222
28-Sep-2023
15:00
ALSHS
Server



AFTER

MASS
136
AREA
17056
HEIGHT
18222
29-Sep-2023
09:37

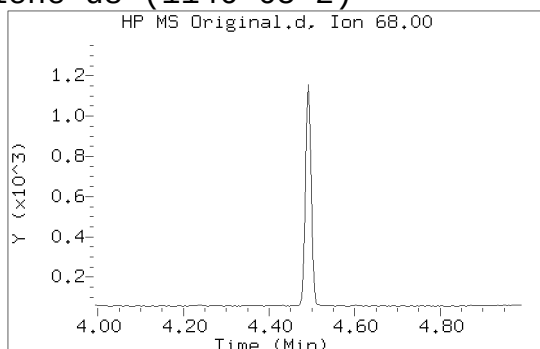
Reason Code:



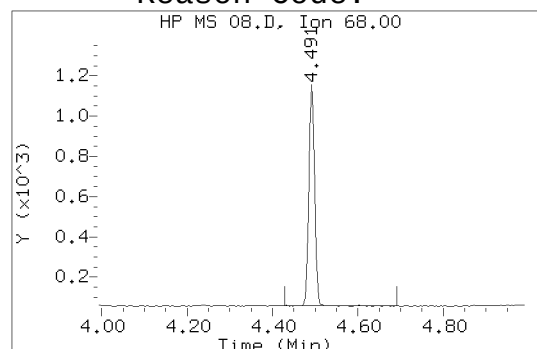
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\08.D
Inj Date : 28-SEP-2023 14:46
InstruID : SV6.i
LabSampID : 14DX-0.01

Naphthalene-d8 (1146-65-2)**BEFORE**

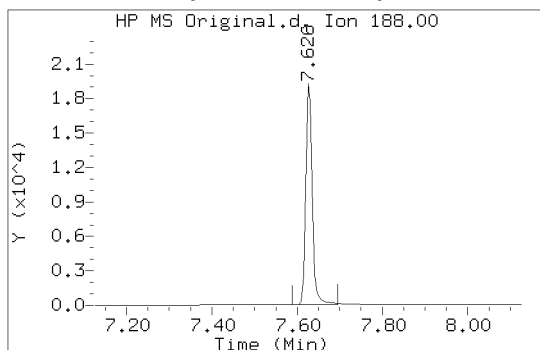
MASS
68
AREA
0
HEIGHT
0
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

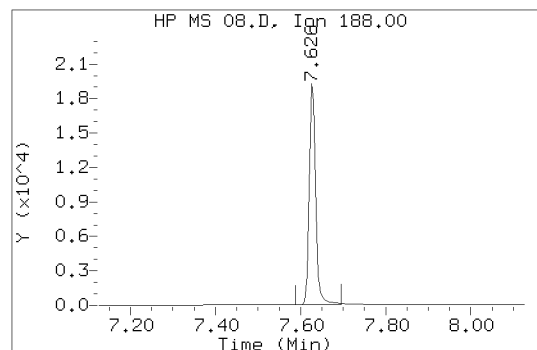
MASS
68
AREA
1001
HEIGHT
1097
29-Sep-2023
09:37

Reason Code:**Phenanthrene-d10 (1517-22-2)****BEFORE**

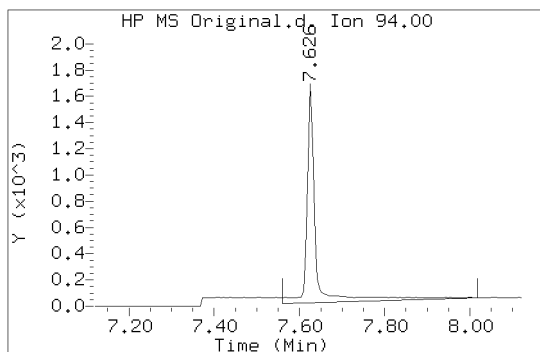
MASS
188
AREA
20719
HEIGHT
19249
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

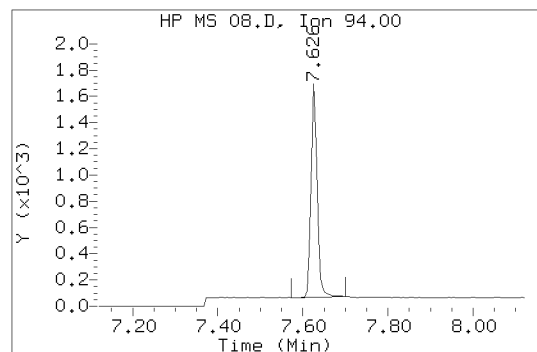
MASS
188
AREA
20719
HEIGHT
19249
29-Sep-2023
09:37

Reason Code:**BEFORE**

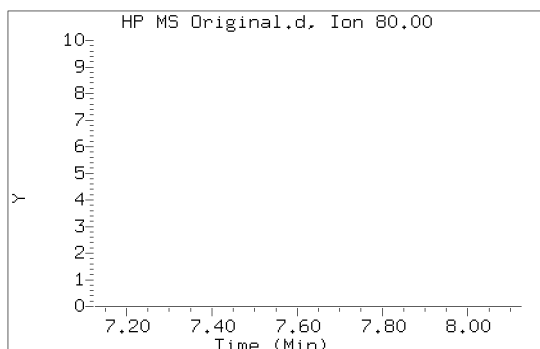
MASS
94
AREA
2315
HEIGHT
1667
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

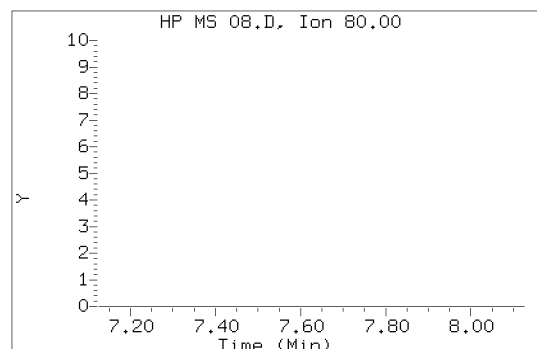
MASS
94
AREA
1616
HEIGHT
1626
29-Sep-2023
09:37

**BEFORE**

MASS
80
AREA
0
HEIGHT
0
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

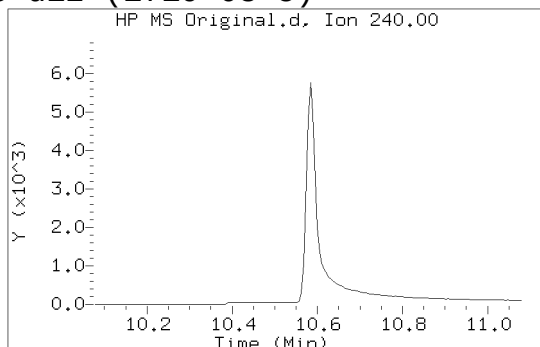
MASS
80
AREA
0
HEIGHT
0
29-Sep-2023
09:37



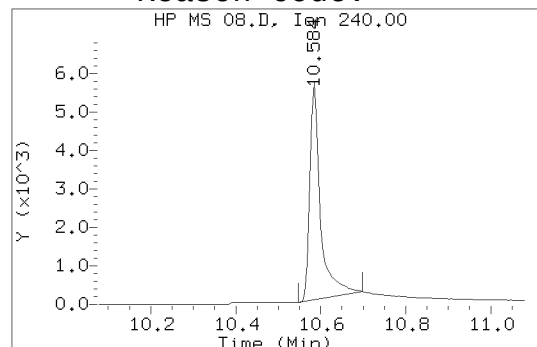
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\08.D
Inj Date : 28-SEP-2023 14:46
InstruID : SV6.i
LabSampID : 14DX-0.01

Chrysene-d12 (1719-03-5)**BEFORE**

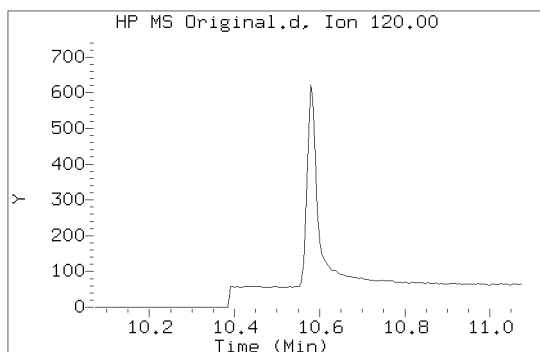
MASS
240
AREA
0
HEIGHT
0
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

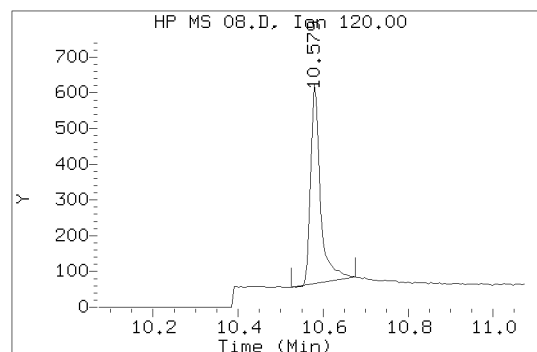
MASS
240
AREA
9771
HEIGHT
5649
29-Sep-2023
09:37

**BEFORE**

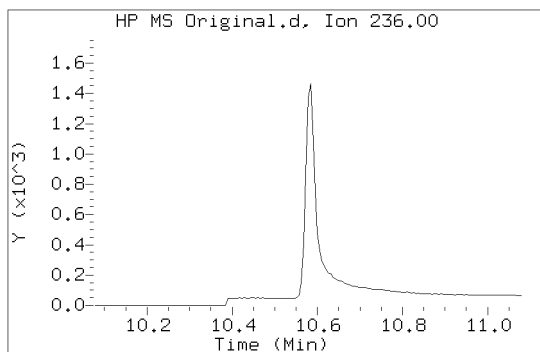
MASS
120
AREA
0
HEIGHT
0
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

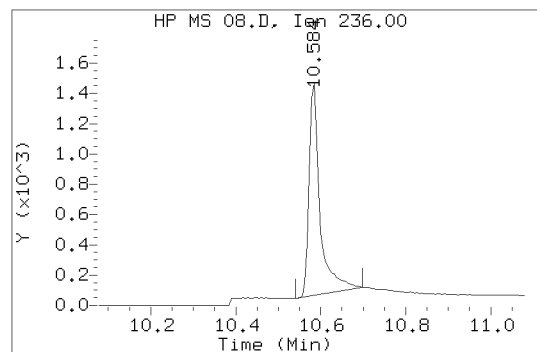
MASS
120
AREA
883
HEIGHT
555
29-Sep-2023
09:37

**BEFORE**

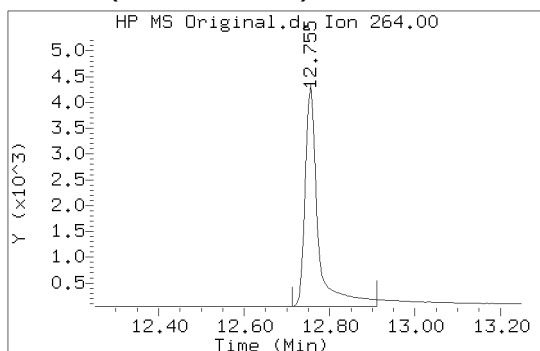
MASS
236
AREA
0
HEIGHT
0
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

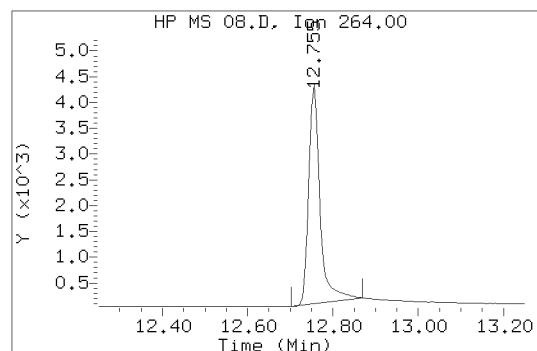
MASS
236
AREA
2490
HEIGHT
1397
29-Sep-2023
09:37

**Perylene-d12 (1520-96-3)****BEFORE**

MASS
264
AREA
8979
HEIGHT
4296
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

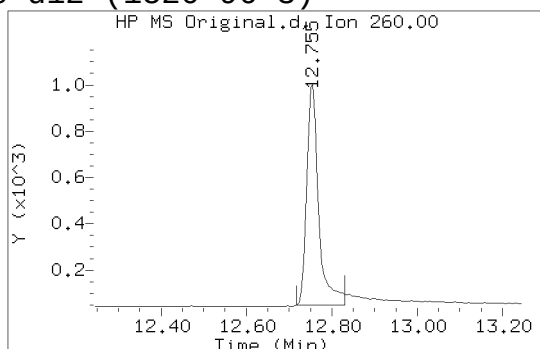
MASS
264
AREA
7778
HEIGHT
4243
29-Sep-2023
09:37



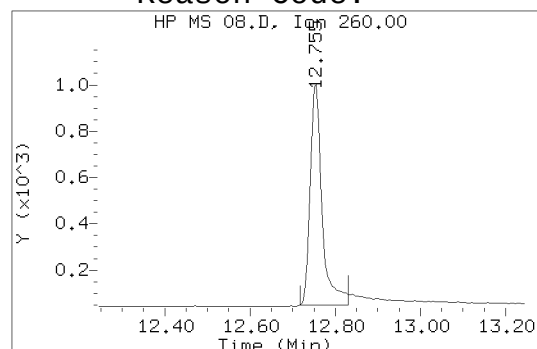
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\08.D
Inj Date : 28-SEP-2023 14:46
InstruID : SV6.i
LabSampID : 14DX-0.01

Perylene-d12 (1520-96-3)**BEFORE**

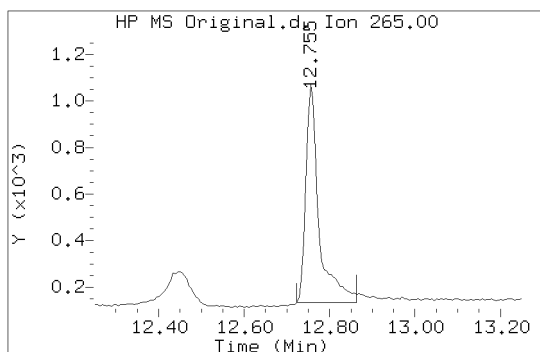
MASS
260
AREA
1860
HEIGHT
952
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

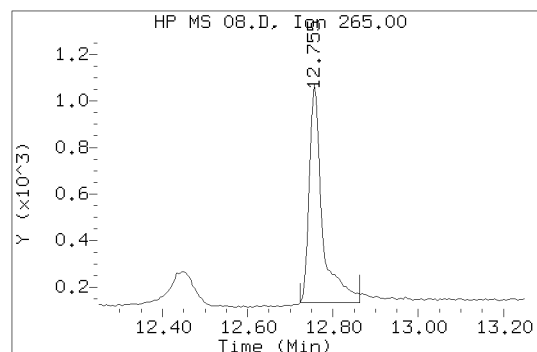
MASS
260
AREA
1860
HEIGHT
952
29-Sep-2023
09:37

**BEFORE**

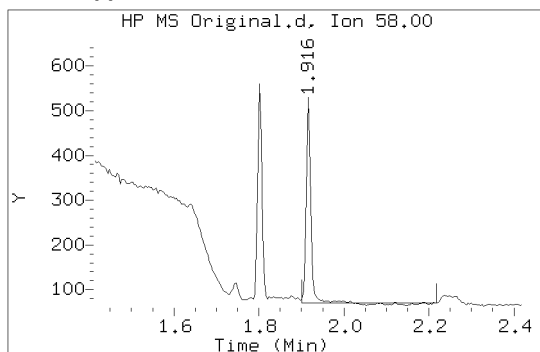
MASS
265
AREA
2012
HEIGHT
936
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

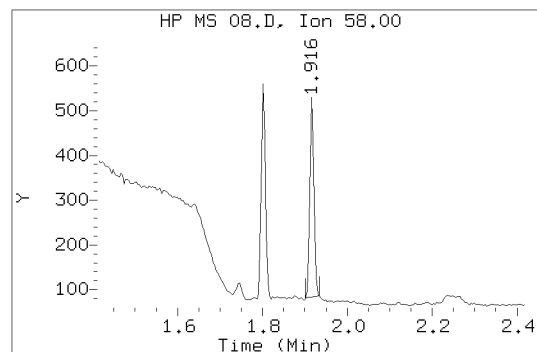
MASS
265
AREA
2012
HEIGHT
936
29-Sep-2023
09:37

**1,4-Dioxane ()****BEFORE**

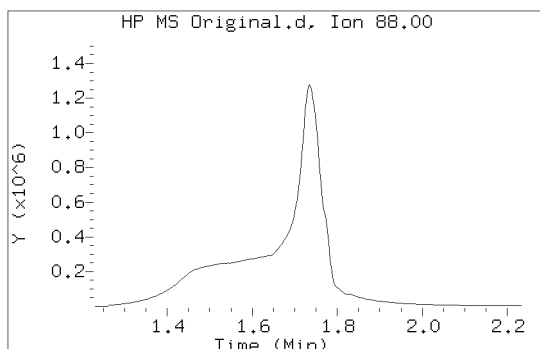
MASS
58
AREA
338
HEIGHT
460
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

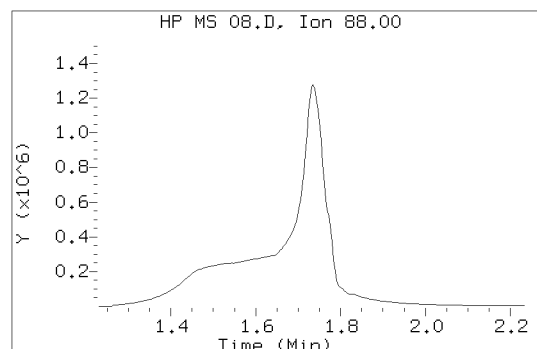
MASS
58
AREA
309
HEIGHT
446
29-Sep-2023
09:37

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

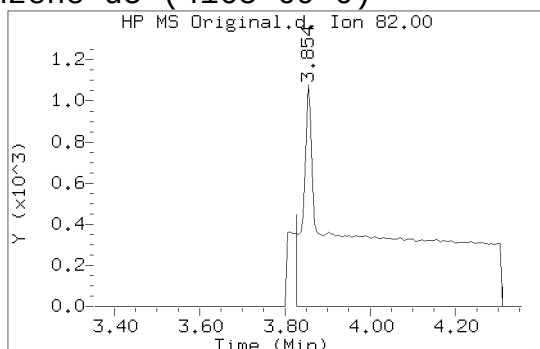
MASS
88
AREA
0
HEIGHT
0
29-Sep-2023
09:37



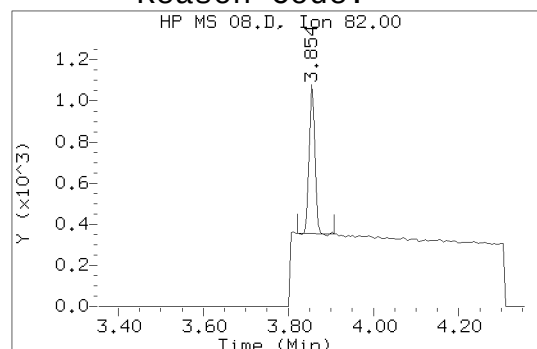
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\08.D
Inj Date : 28-SEP-2023 14:46
InstruID : SV6.i
LabSampID : 14DX-0.01

Nitrobenzene-d5 (4165-60-0)**BEFORE**

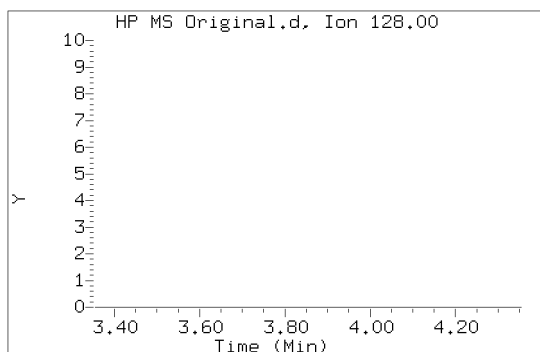
MASS
82
AREA
10214
HEIGHT
1079
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

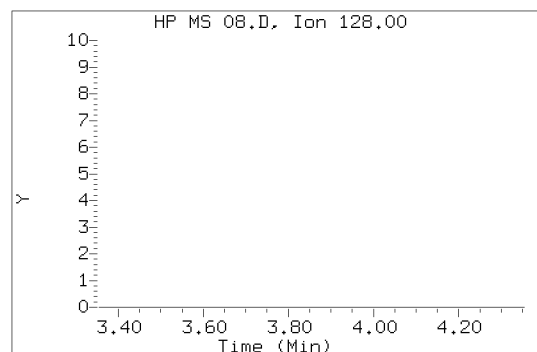
MASS
82
AREA
661
HEIGHT
723
29-Sep-2023
09:37

Reason Code:**BEFORE**

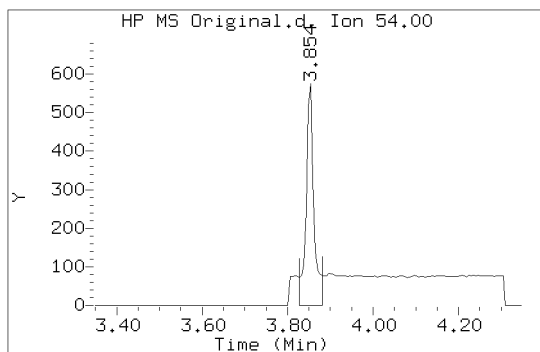
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

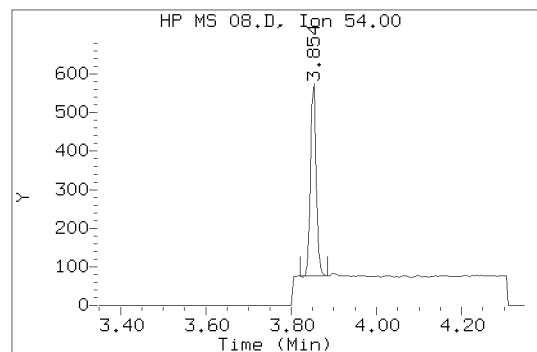
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
09:37

**BEFORE**

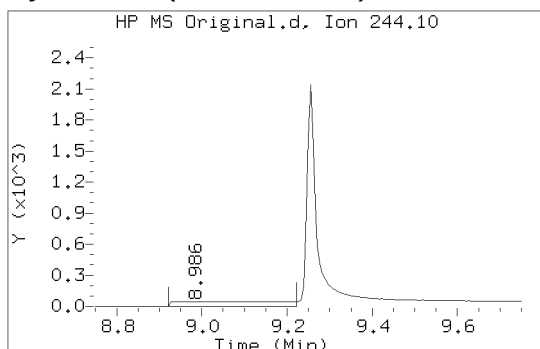
MASS
54
AREA
739
HEIGHT
575
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

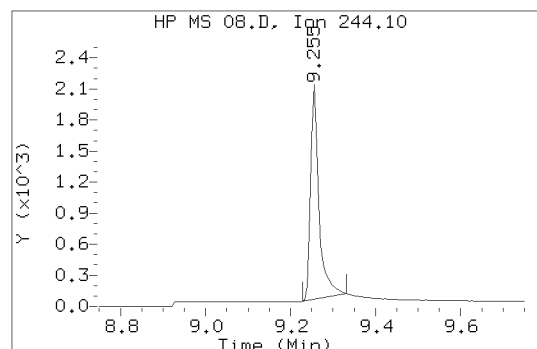
MASS
54
AREA
469
HEIGHT
499
29-Sep-2023
09:37

**4-Terphenyl-d14 (1718-51-0)****BEFORE**

MASS
244.1
AREA
813
HEIGHT
46
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

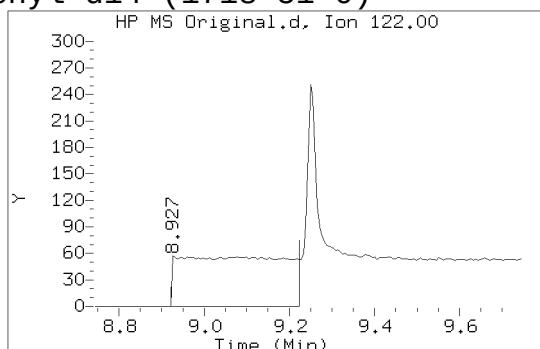
MASS
244.1
AREA
2816
HEIGHT
2073
29-Sep-2023
09:37

Reason Code:

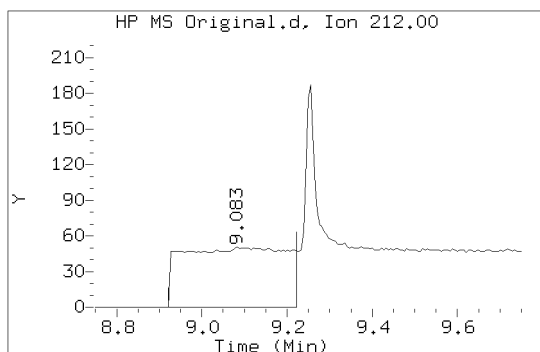
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\08.D
Inj Date : 28-SEP-2023 14:46
InstruID : SV6.i
LabSampID : 14DX-0.01

4-Terphenyl-d14 (1718-51-0)**BEFORE**

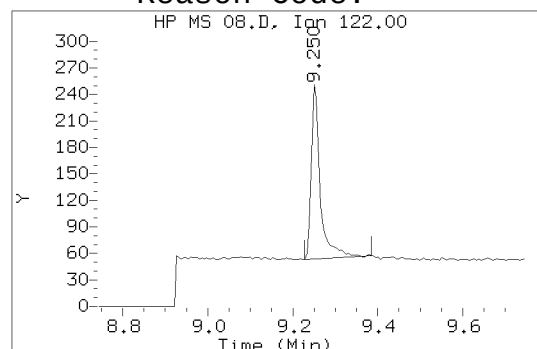
MASS
122
AREA
983
HEIGHT
57
28-Sep-2023
15:00
ALSHS

**BEFORE**

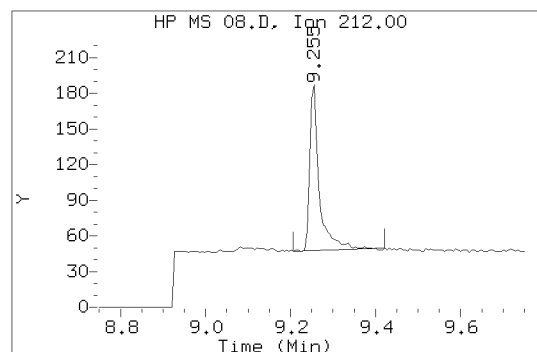
MASS
212
AREA
862
HEIGHT
51
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

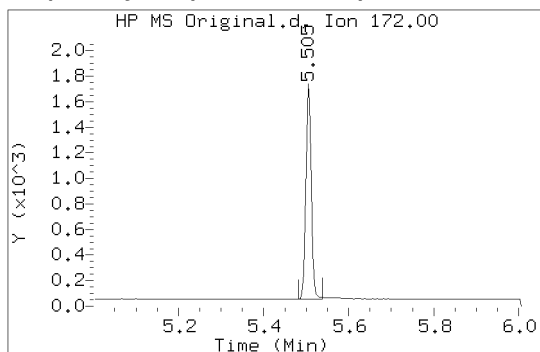
MASS
122
AREA
287
HEIGHT
197
29-Sep-2023
09:37

Reason Code:**AFTER**

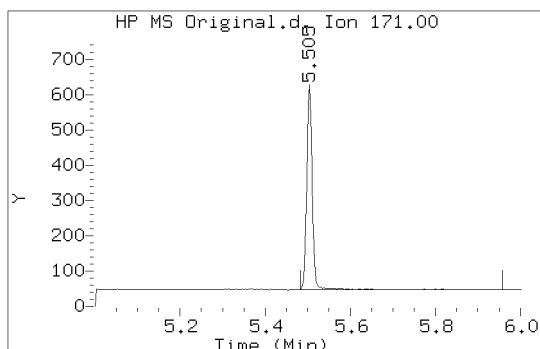
MASS
212
AREA
211
HEIGHT
139
29-Sep-2023
09:37

**2-Fluorobiphenyl (321-60-8)****BEFORE**

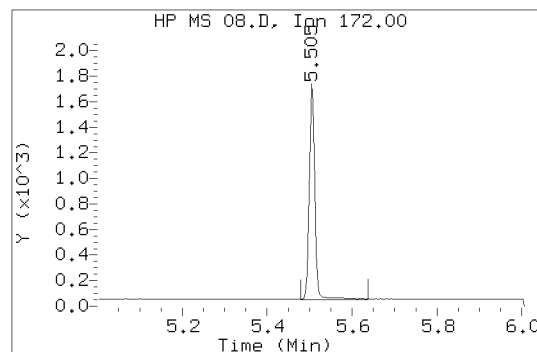
MASS
172
AREA
1510
HEIGHT
1684
28-Sep-2023
15:00
ALSHS
Server

**BEFORE**

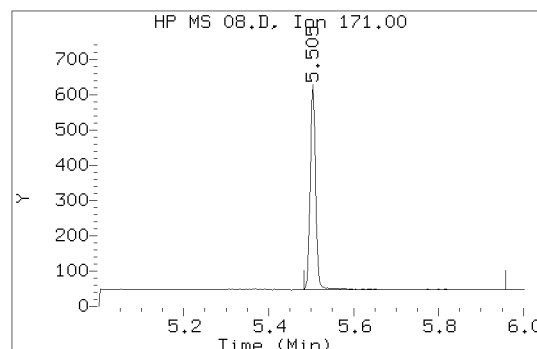
MASS
171
AREA
548
HEIGHT
581
28-Sep-2023
15:00
ALSHS
Server

**AFTER**

MASS
172
AREA
1597
HEIGHT
1690
29-Sep-2023
09:37

Reason Code:**AFTER**

MASS
171
AREA
548
HEIGHT
581
29-Sep-2023
09:37



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\09.D
 Report Date: 29-Sep-2023 09:37

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\09.D
 Lab Smp Id: 14DX-0.03 Client Smp ID: 14DX-0.03
 Inj Date : 28-SEP-2023 15:04
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX-0.03
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 29-Sep-2023 09:37 SV6.i Quant Type: ISTD
 Cal Date : 28-SEP-2023 14:46 Cal File: 08.D
 Als bottle: 9 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.414	3.414	(1.000)	6784	0.10000	(aM)
* 45 Naphthalene-d8	136	4.489	4.489	(1.000)	18307	0.10000	(M)
\$ 33 Nitrobenzene-d5	82	3.854	3.854	(0.858)	2173	0.03000	0.03031(M)
* 86 Acenaphthene-d10	164	6.164	6.164	(1.000)	6518	0.10000	
\$ 69 2-Fluorobiphenyl	172	5.503	5.503	(0.893)	3344	0.03000	0.02683(M)
* 126 Phenanthrene-d10	188	7.624	7.624	(1.000)	14008	0.10000	(M)
* 182 Chrysene-d12	240	10.582	10.582	(1.000)	6691	0.10000	(M)
\$ 158 4-Terphenyl-d14	244	9.253	9.253	(0.874)	5557	0.03000	0.02599(M)
* 198 Perylene-d12	264	12.748	12.748	(1.000)	6238	0.10000	(M)
1 1,4-Dioxane	58	1.923	1.923	(0.563)	629	0.03000	0.03061(M)

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\Sw6.i\230928.b\09.D

Date : 28-SEP-2023 15:04

Client ID: 14DX-0.03

Sample Info: 14DX-0.03

Purge Volume: 1000.0

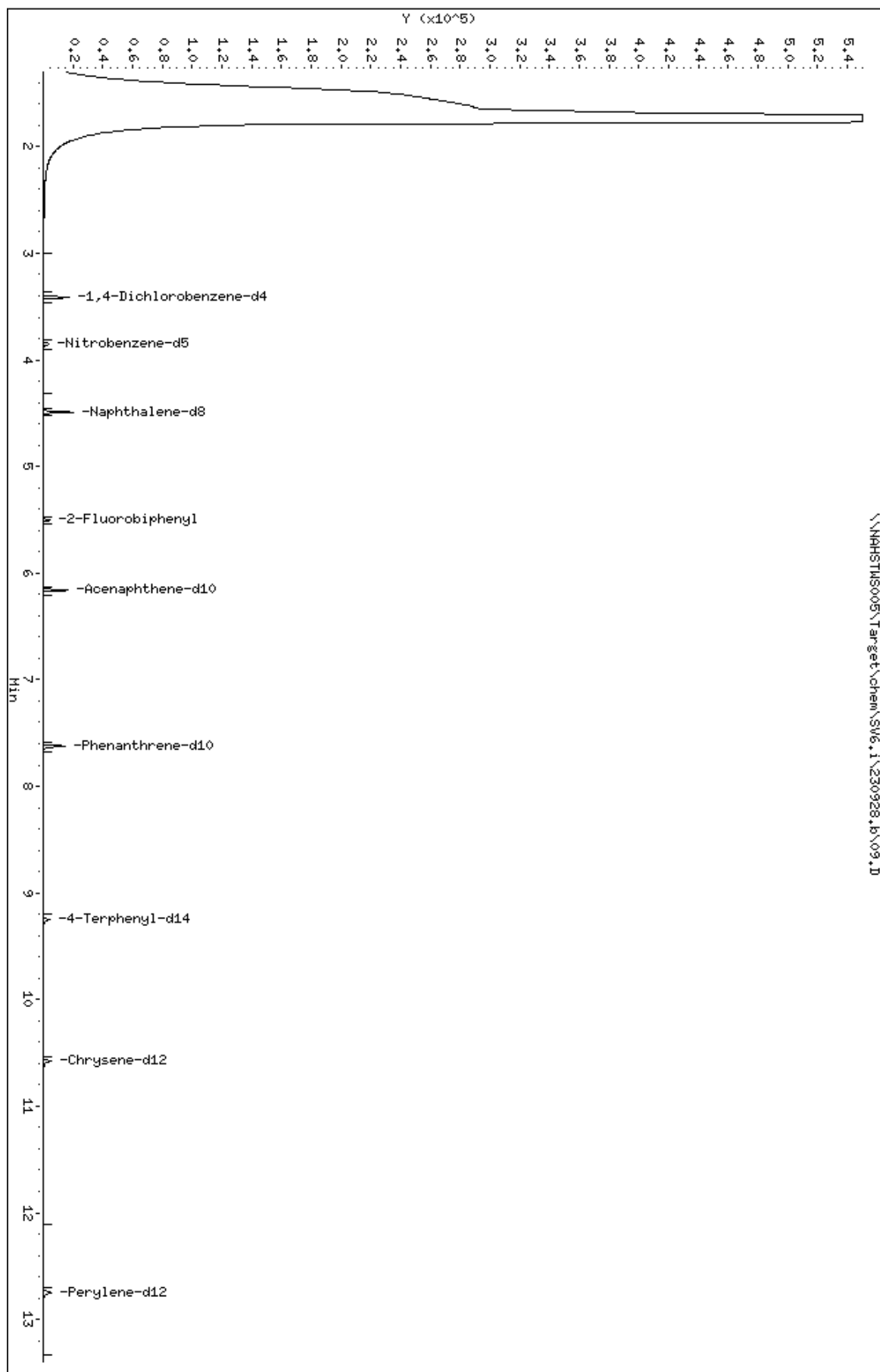
Column phase: RTX-5SIL MS

Instrument: Sw6.i

Operator: LC

Column diameter: 0.28

\\NAHSTMS005\Target\chem\Sw6.i\230928.b\09.D



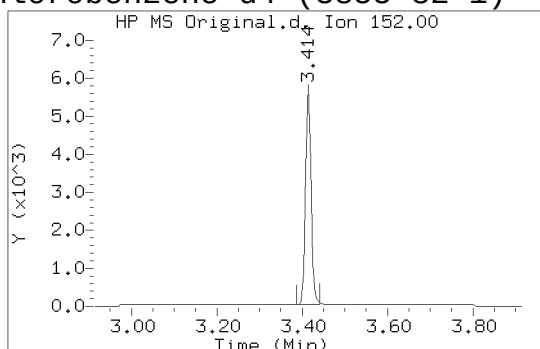
Page 1

Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\09.D
Inj Date : 28-SEP-2023 15:04
InstruID : SV6.i
LabSampID : 14DX-0.03

1,4-Dichlorobenzene-d4 (3855-82-1)

BEFORE

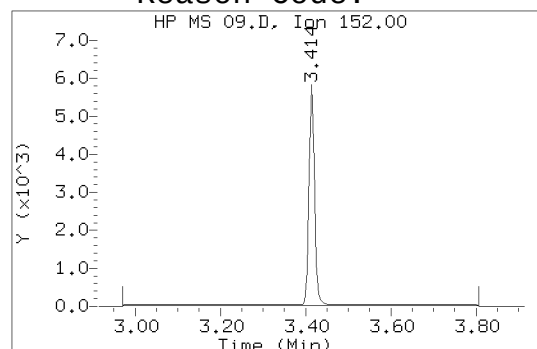
MASS
152
AREA
4994
HEIGHT
5780
28-Sep-2023
15:17
ALSHS
Server



AFTER

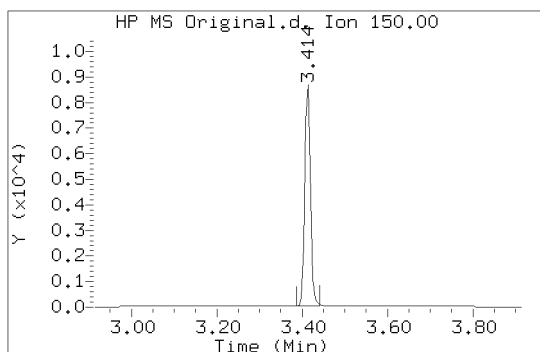
MASS
152
AREA
6784
HEIGHT
5816
29-Sep-2023
09:37

Reason Code:



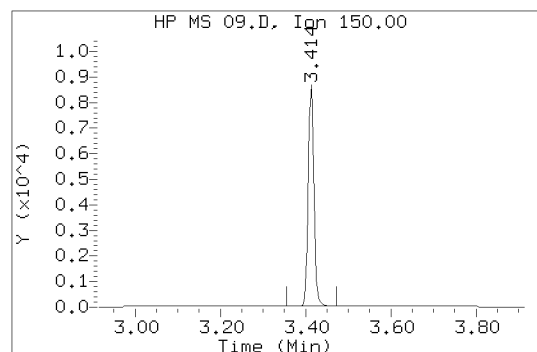
BEFORE

MASS
150
AREA
7834
HEIGHT
8640
28-Sep-2023
15:17
ALSHS
Server



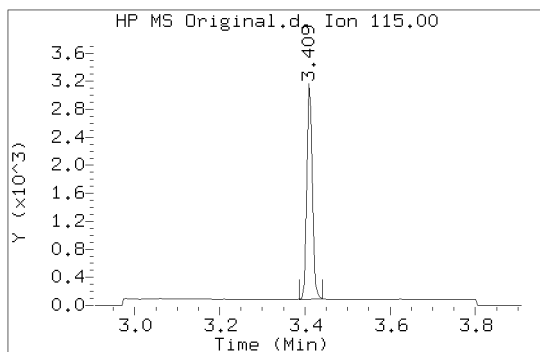
AFTER

MASS
150
AREA
7850
HEIGHT
8640
29-Sep-2023
09:37



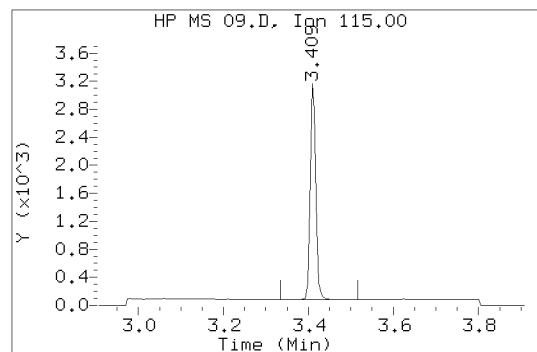
BEFORE

MASS
115
AREA
2822
HEIGHT
3079
28-Sep-2023
15:17
ALSHS
Server



AFTER

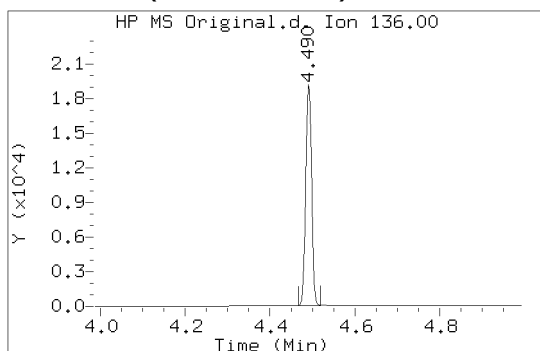
MASS
115
AREA
2802
HEIGHT
3080
29-Sep-2023
09:37



Naphthalene-d8 (1146-65-2)

BEFORE

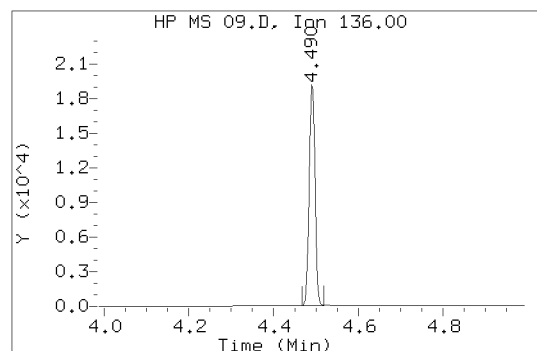
MASS
136
AREA
18307
HEIGHT
19160
28-Sep-2023
15:17
ALSHS
Server



AFTER

MASS
136
AREA
18307
HEIGHT
19160
29-Sep-2023
09:37

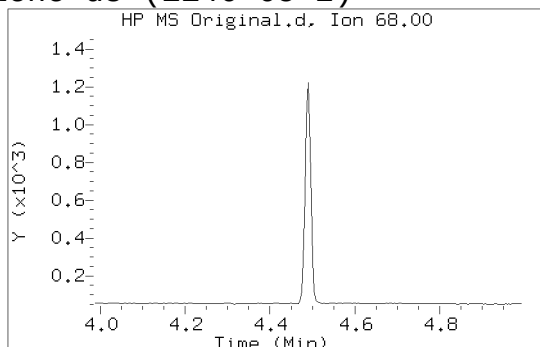
Reason Code:



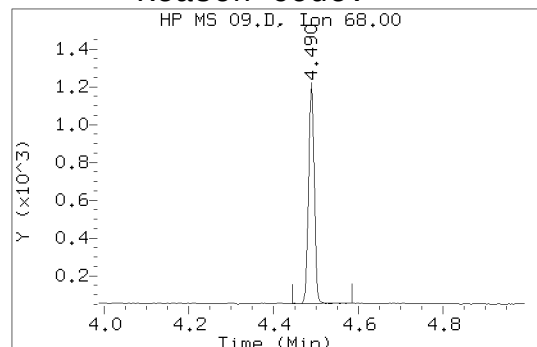
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\09.D
Inj Date : 28-SEP-2023 15:04
InstruID : SV6.i
LabSampID : 14DX-0.03

Naphthalene-d8 (1146-65-2)**BEFORE**

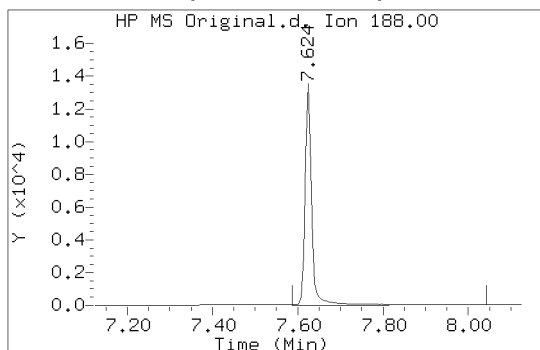
MASS
68
AREA
0
HEIGHT
0
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

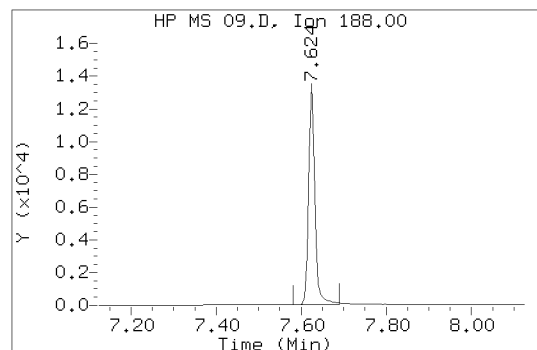
MASS
68
AREA
1079
HEIGHT
1168
29-Sep-2023
09:37

Reason Code:**Phenanthrene-d10 (1517-22-2)****BEFORE**

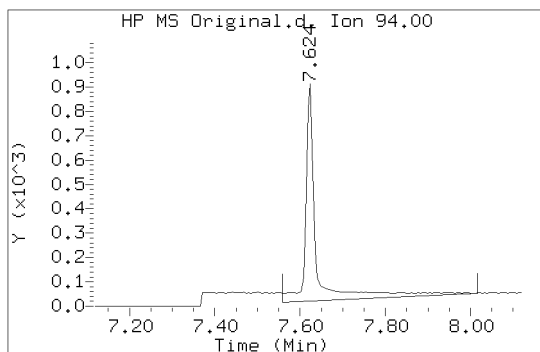
MASS
188
AREA
14702
HEIGHT
13521
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

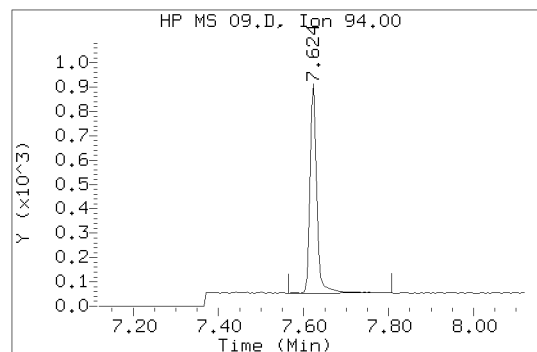
MASS
188
AREA
14008
HEIGHT
13495
29-Sep-2023
09:37

Reason Code:**BEFORE**

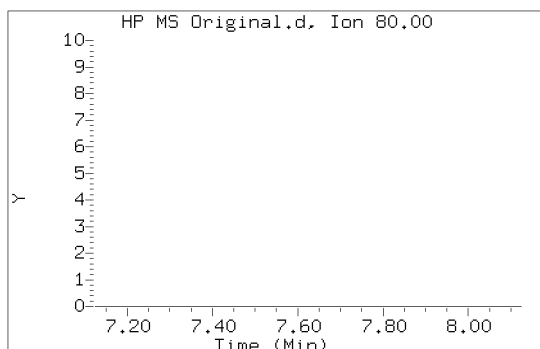
MASS
94
AREA
1473
HEIGHT
890
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

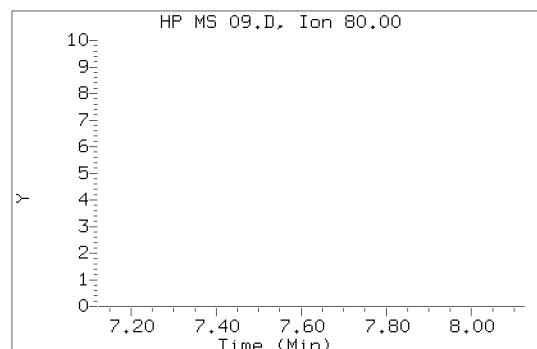
MASS
94
AREA
936
HEIGHT
858
29-Sep-2023
09:37

**BEFORE**

MASS
80
AREA
0
HEIGHT
0
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

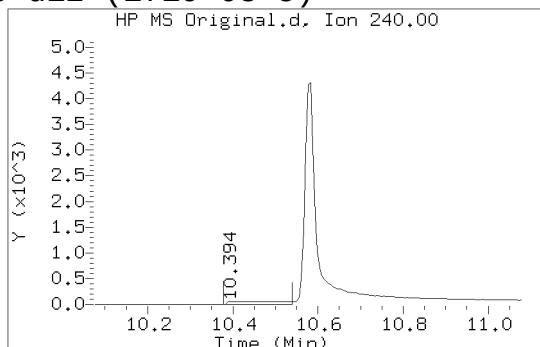
MASS
80
AREA
0
HEIGHT
0
29-Sep-2023
09:37



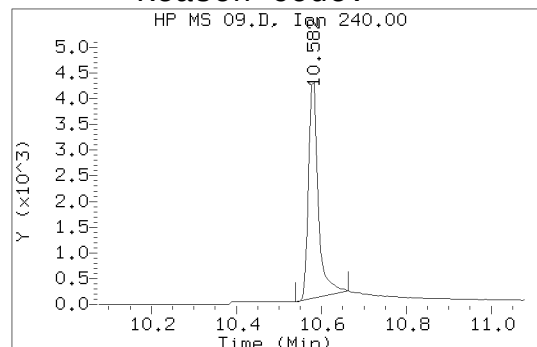
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\09.D
Inj Date : 28-SEP-2023 15:04
InstruID : SV6.i
LabSampID : 14DX-0.03

Chrysene-d12 (1719-03-5)**BEFORE**

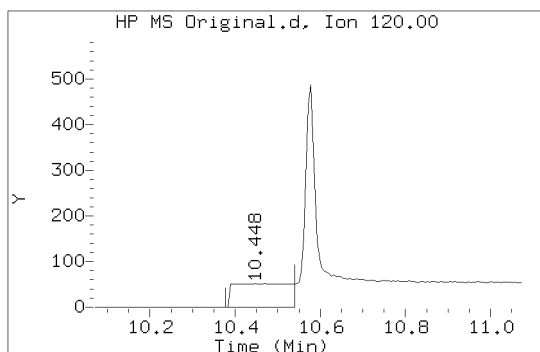
MASS
240
AREA
423
HEIGHT
46
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

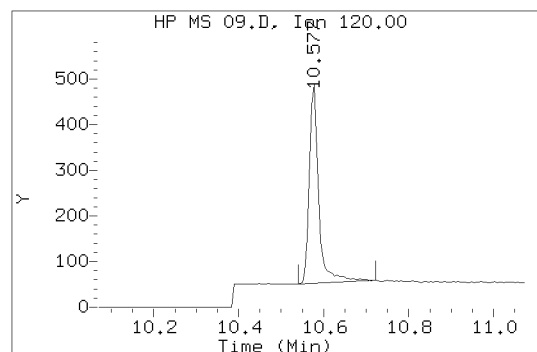
MASS
240
AREA
6691
HEIGHT
4191
29-Sep-2023
09:37

**BEFORE**

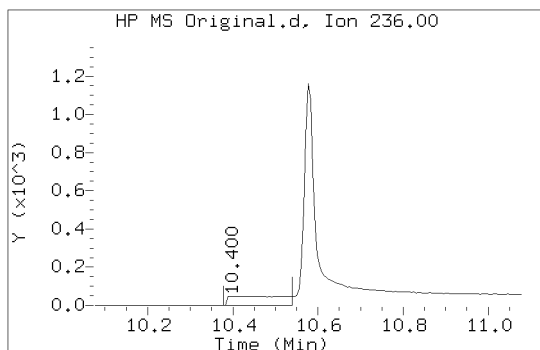
MASS
120
AREA
475
HEIGHT
52
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

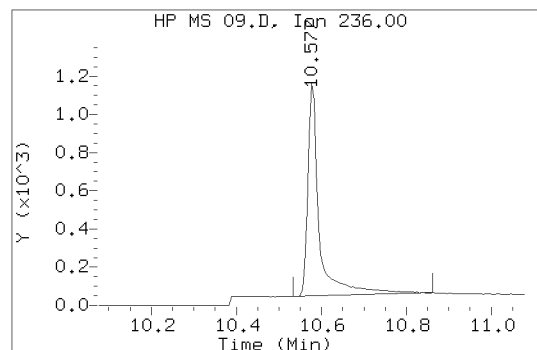
MASS
120
AREA
661
HEIGHT
434
29-Sep-2023
09:37

**BEFORE**

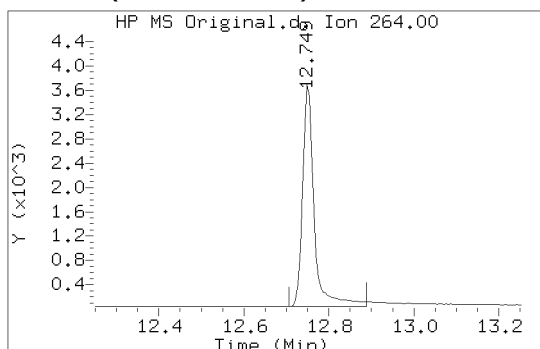
MASS
236
AREA
430
HEIGHT
47
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

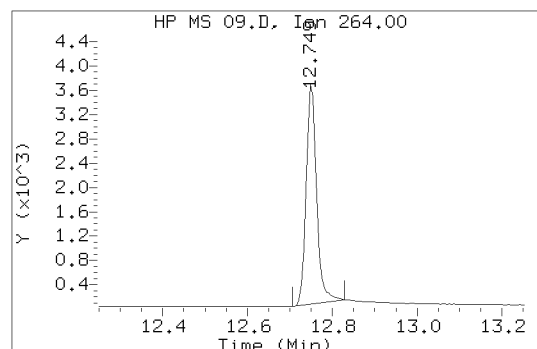
MASS
236
AREA
2084
HEIGHT
1112
29-Sep-2023
09:37

**Perylene-d12 (1520-96-3)****BEFORE**

MASS
264
AREA
6934
HEIGHT
3644
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

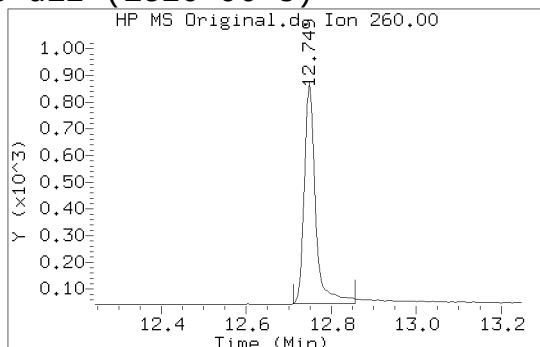
MASS
264
AREA
6238
HEIGHT
3608
29-Sep-2023
09:37



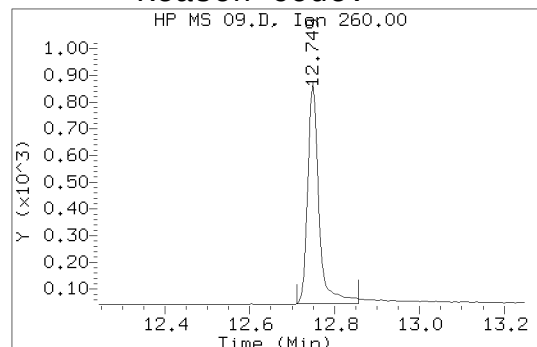
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\09.D
Inj Date : 28-SEP-2023 15:04
InstruID : SV6.i
LabSampID : 14DX-0.03

Perylene-d12 (1520-96-3)**BEFORE**

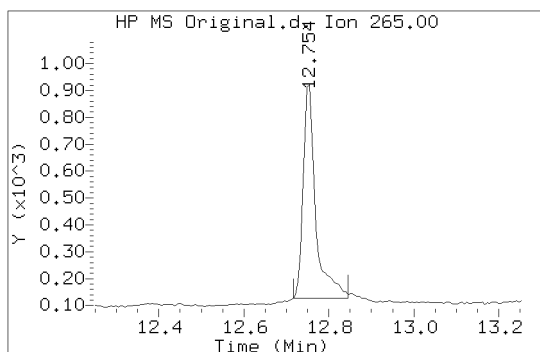
MASS
260
AREA
1534
HEIGHT
827
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

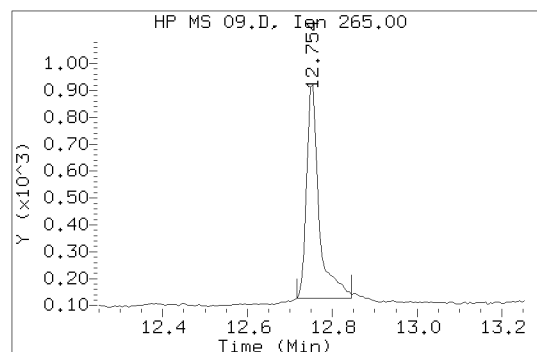
MASS
260
AREA
1534
HEIGHT
827
29-Sep-2023
09:37

**BEFORE**

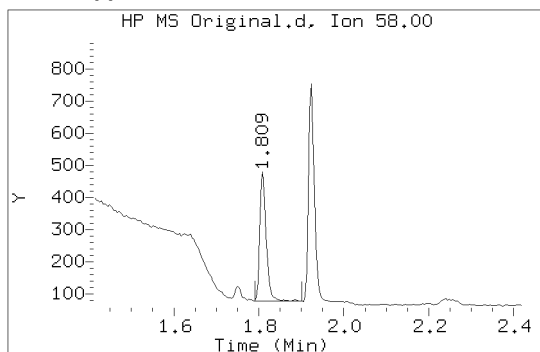
MASS
265
AREA
1641
HEIGHT
793
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

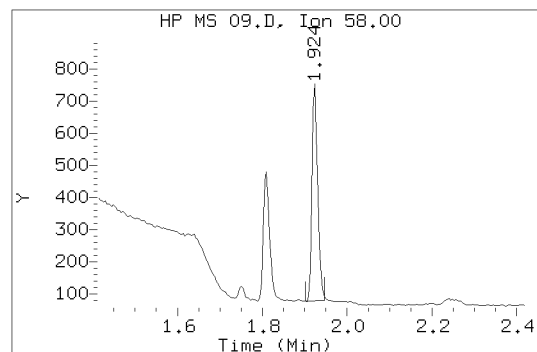
MASS
265
AREA
1641
HEIGHT
793
29-Sep-2023
09:37

**1,4-Dioxane ()****BEFORE**

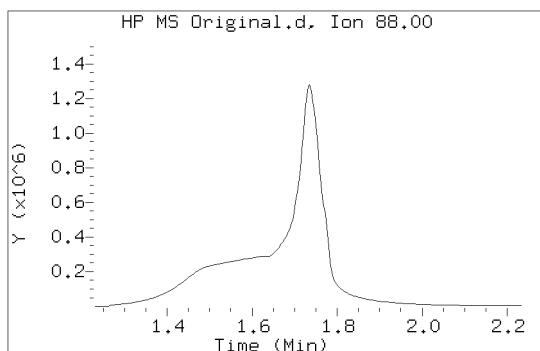
MASS
58
AREA
417
HEIGHT
403
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

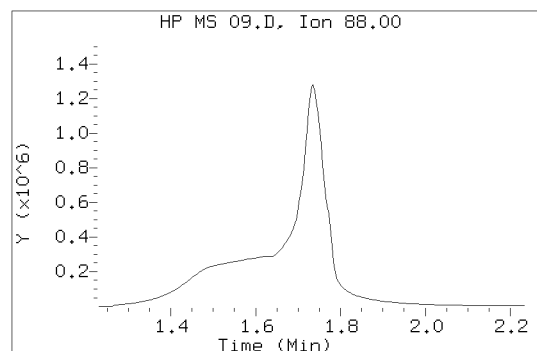
MASS
58
AREA
629
HEIGHT
674
29-Sep-2023
09:37

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

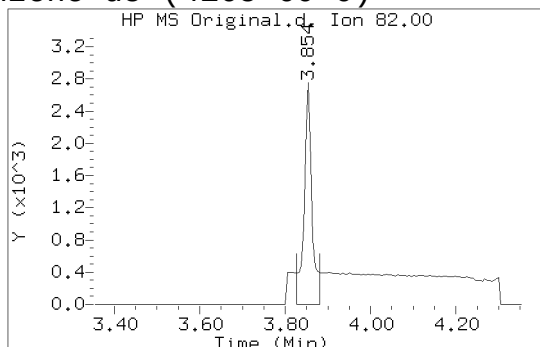
MASS
88
AREA
0
HEIGHT
0
29-Sep-2023
09:37



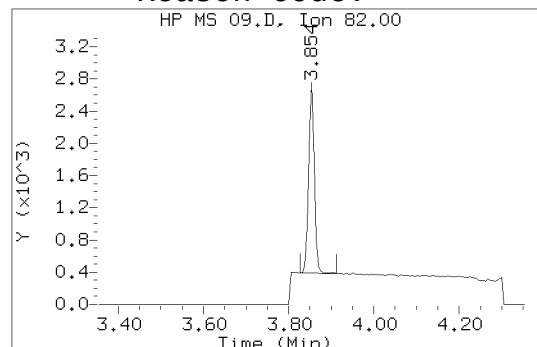
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\09.D
Inj Date : 28-SEP-2023 15:04
InstruID : SV6.i
LabSampID : 14DX-0.03

Nitrobenzene-d5 (4165-60-0)**BEFORE**

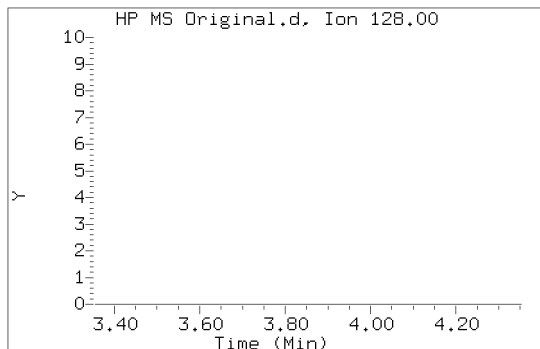
MASS
82
AREA
3550
HEIGHT
2753
28-Sep-2023
15:17
ALSHS

**AFTER**

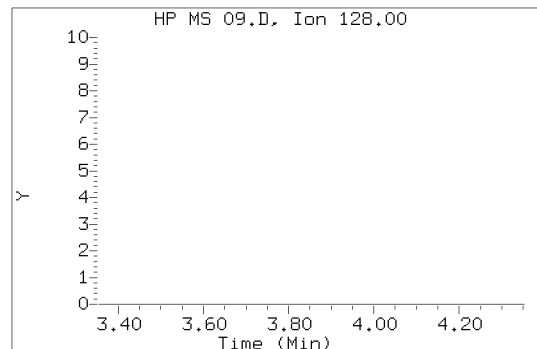
MASS
82
AREA
2173
HEIGHT
2362
29-Sep-2023
09:37

Reason Code:**BEFORE**

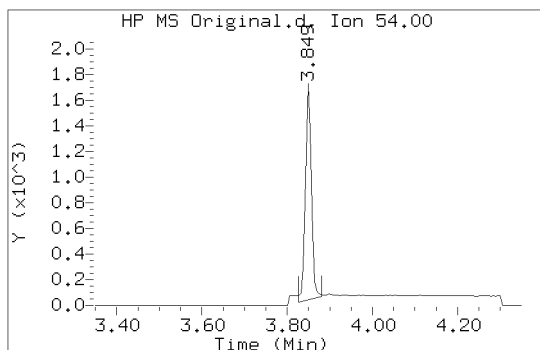
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

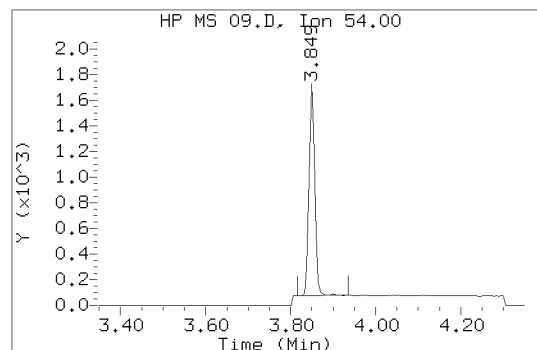
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
09:37

**BEFORE**

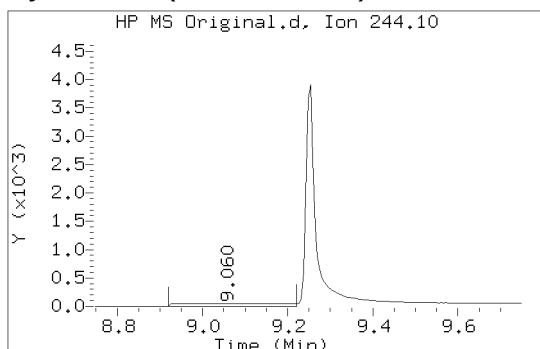
MASS
54
AREA
1625
HEIGHT
1684
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

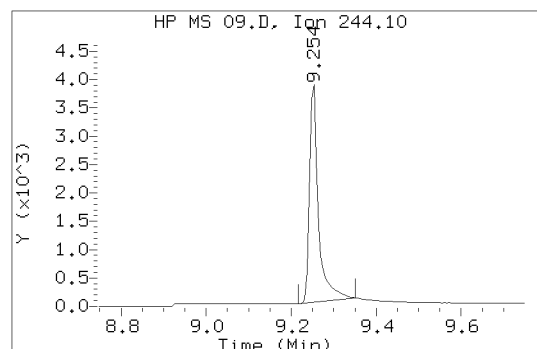
MASS
54
AREA
1530
HEIGHT
1650
29-Sep-2023
09:37

**4-Terphenyl-d14 (1718-51-0)****BEFORE**

MASS
244.1
AREA
794
HEIGHT
45
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

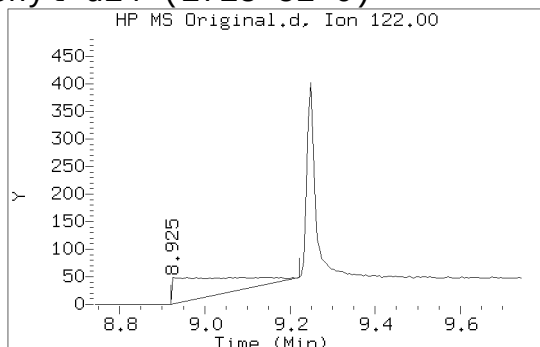
MASS
244.1
AREA
5557
HEIGHT
3836
29-Sep-2023
09:37

Reason Code:

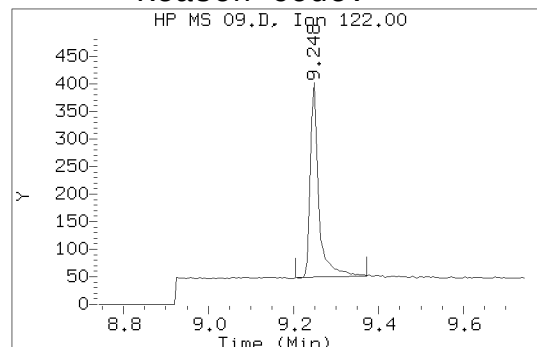
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\09.D
Inj Date : 28-SEP-2023 15:04
InstruID : SV6.i
LabSampID : 14DX-0.03

4-Terphenyl-d14 (1718-51-0)**BEFORE**

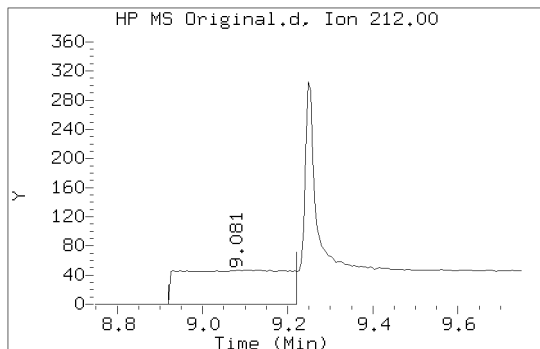
MASS
122
AREA
419
HEIGHT
48
28-Sep-2023
15:17
ALSHS

**AFTER**

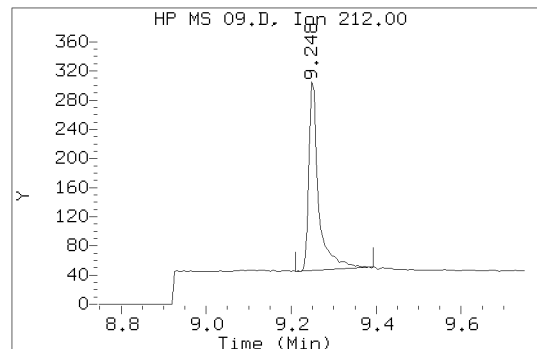
MASS
122
AREA
485
HEIGHT
352
29-Sep-2023
09:37

**BEFORE**

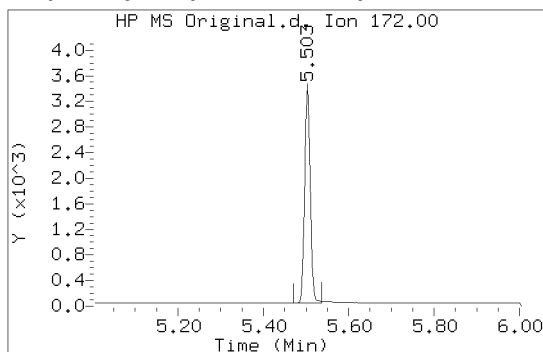
MASS
212
AREA
825
HEIGHT
47
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

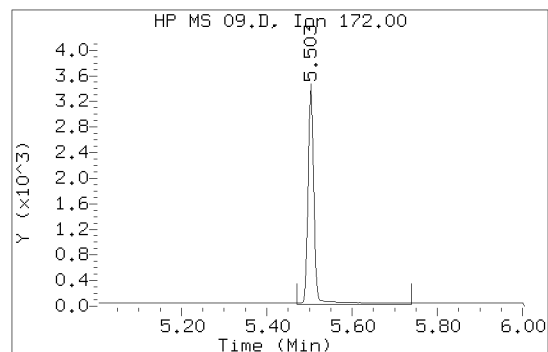
MASS
212
AREA
408
HEIGHT
258
29-Sep-2023
09:37

**2-Fluorobiphenyl (321-60-8)****BEFORE**

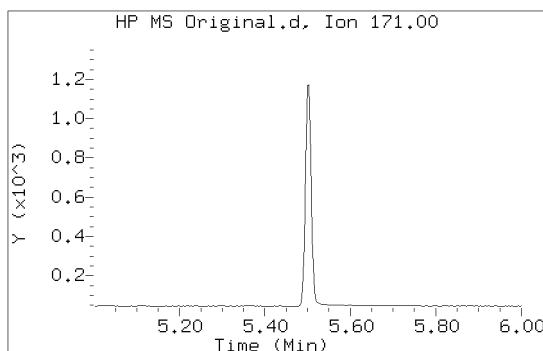
MASS
172
AREA
3026
HEIGHT
3423
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

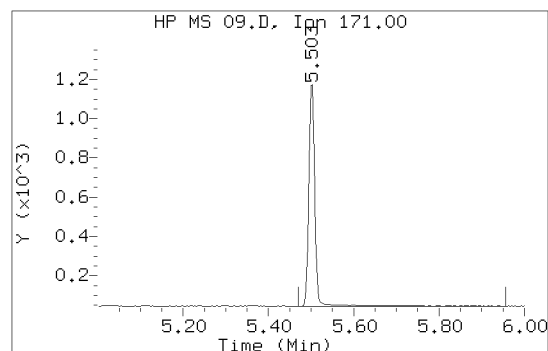
MASS
172
AREA
3344
HEIGHT
3438
29-Sep-2023
09:37

**BEFORE**

MASS
171
AREA
0
HEIGHT
0
28-Sep-2023
15:17
ALSHS
Server

**AFTER**

MASS
171
AREA
1094
HEIGHT
1128
29-Sep-2023
09:37



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\10.D
 Report Date: 02-Oct-2023 12:35

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\10.D
 Lab Smp Id: 14DX-0.05 Client Smp ID: 14DX-0.05
 Inj Date : 28-SEP-2023 15:21
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX-0.05
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 02-Oct-2023 12:35 SV6.i Quant Type: ISTD
 Cal Date : 28-SEP-2023 16:48 Cal File: 15.D
 Als bottle: 10 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152		3.413	3.413	(1.000)	8512	0.10000	(aM)
* 45 Naphthalene-d8	136		4.490	4.490	(1.000)	22216	0.10000	(M)
\$ 33 Nitrobenzene-d5	82		3.853	3.853	(0.858)	4543	0.05000	0.05223(M)
* 86 Acenaphthene-d10	164		6.160	6.160	(1.000)	8789	0.10000	
\$ 69 2-Fluorobiphenyl	172		5.501	5.501	(0.893)	9900	0.05000	0.05890(M)
* 126 Phenanthrene-d10	188		7.620	7.620	(1.000)	16875	0.10000	(M)
* 182 Chrysene-d12	240		10.578	10.578	(1.000)	7640	0.10000	(M)
\$ 158 4-Terphenyl-d14	244		9.249	9.249	(0.874)	11302	0.05000	0.04629(M)
* 198 Perylene-d12	264		12.744	12.744	(1.000)	7677	0.10000	(M)
1 1,4-Dioxane	58		1.949	1.949	(0.571)	1313	0.05000	0.05092(QM)

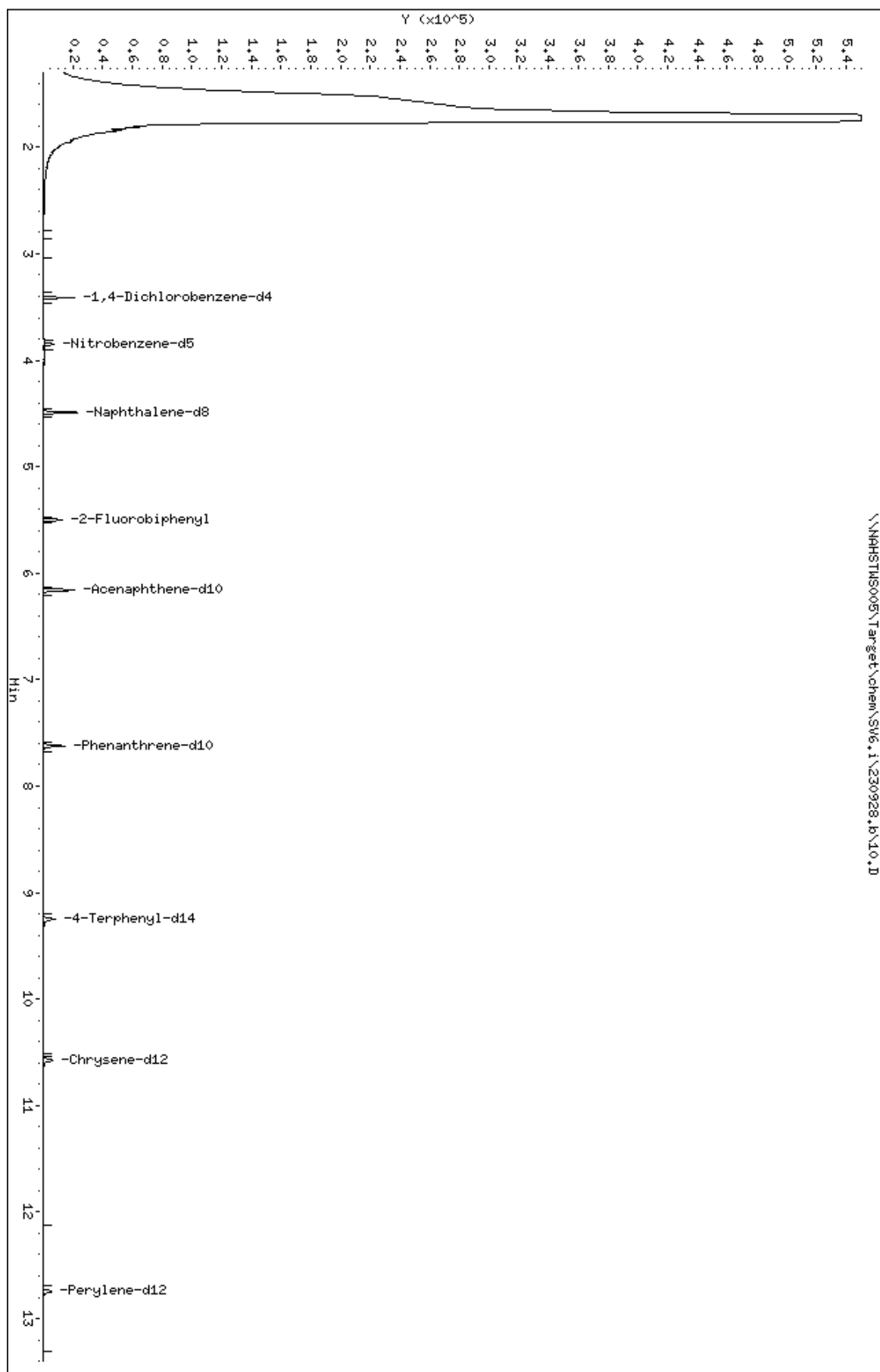
QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).
 Q - Qualifier signal failed the ratio test.
 M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\SW6.i\230928.b\10.D
Date : 28-SEP-2023 15:21
Client ID: 14DX-0.05
Sample Info: 14DX-0.05
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SW6.i
Operator: LG
Column diameter: 0.28

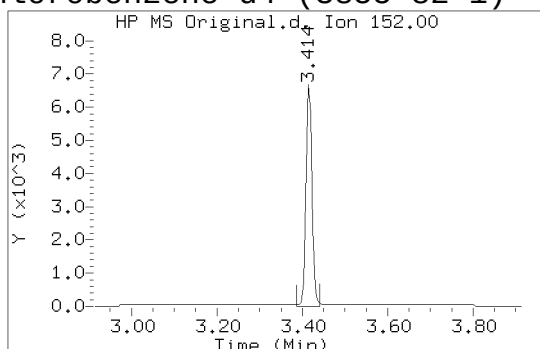


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\10.D
Inj Date : 28-SEP-2023 15:21
InstruID : SV6.i
LabSampID : 14DX-0.05

1,4-Dichlorobenzene-d4 (3855-82-1)

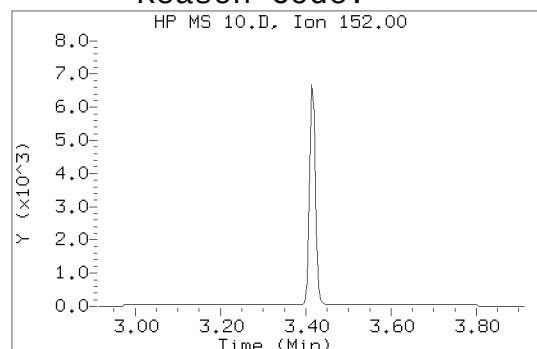
BEFORE

MASS
152
AREA
6413
HEIGHT
6678
28-Sep-2023
15:36
ALSHS
Server



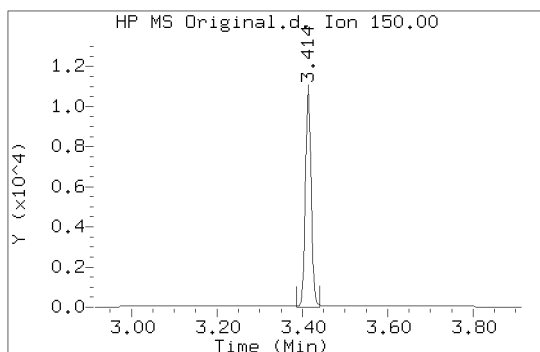
AFTER

MASS
152
AREA
8512
HEIGHT
6678
02-Oct-2023
12:35
ALSHS
Ser



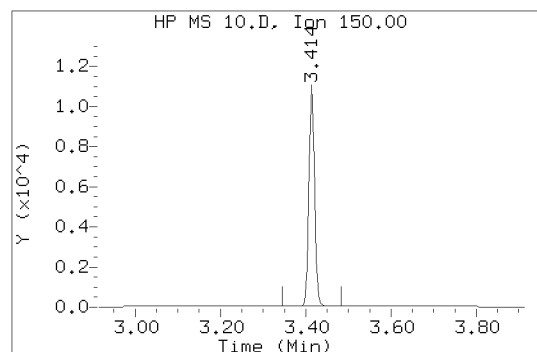
BEFORE

MASS
150
AREA
9983
HEIGHT
11075
28-Sep-2023
15:36
ALSHS
Server



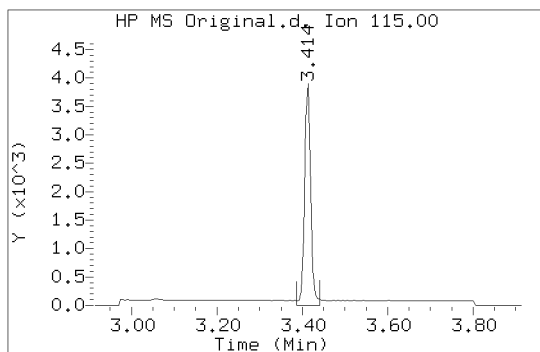
AFTER

MASS
150
AREA
9803
HEIGHT
11023
02-Oct-2023
12:35
ALSHS
Ser



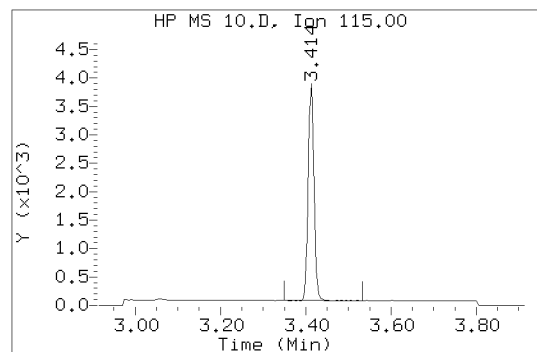
BEFORE

MASS
115
AREA
3826
HEIGHT
3900
28-Sep-2023
15:36
ALSHS
Server



AFTER

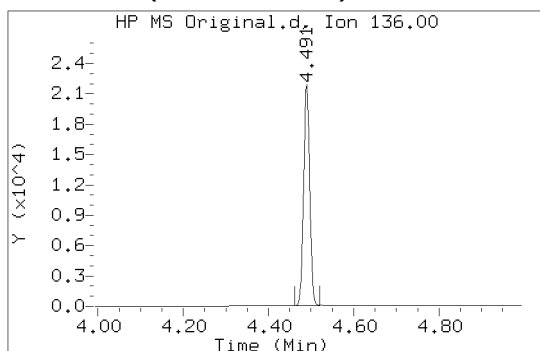
MASS
115
AREA
3528
HEIGHT
3815
02-Oct-2023
12:35
ALSHS
Ser



Naphthalene-d8 (1146-65-2)

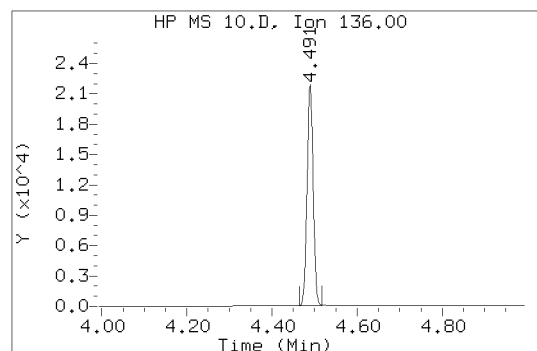
BEFORE

MASS
136
AREA
22263
HEIGHT
21833
28-Sep-2023
15:36
ALSHS
Server



AFTER

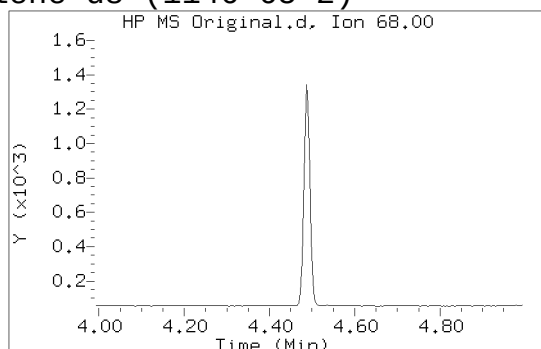
MASS
136
AREA
22216
HEIGHT
21821
02-Oct-2023
12:35
ALSHS
Ser



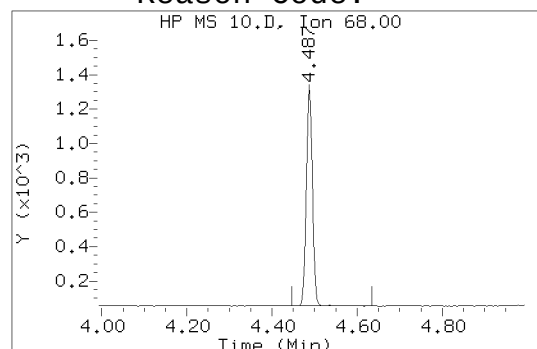
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\10.D
Inj Date : 28-SEP-2023 15:21
InstruID : SV6.i
LabSampID : 14DX-0.05

Naphthalene-d8 (1146-65-2)**BEFORE**

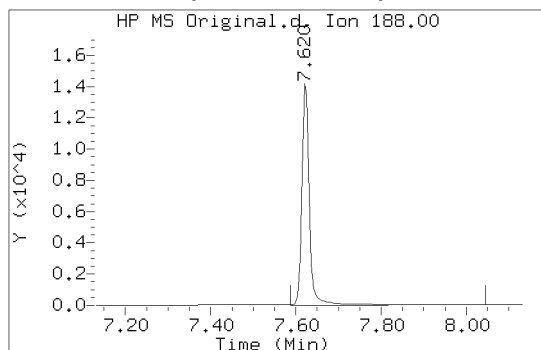
MASS
68
AREA
0
HEIGHT
0
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

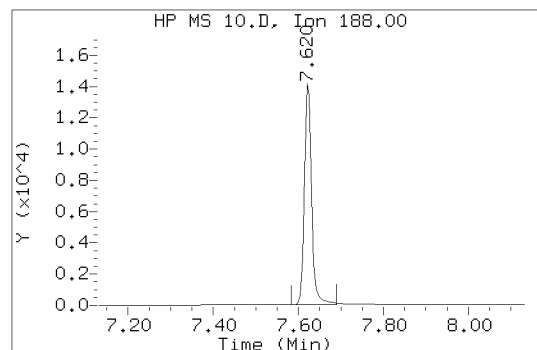
MASS
68
AREA
1299
HEIGHT
1286
02-Oct-2023
12:35
ALSHS
Ser

Reason Code:**Phenanthrene-d10 (1517-22-2)****BEFORE**

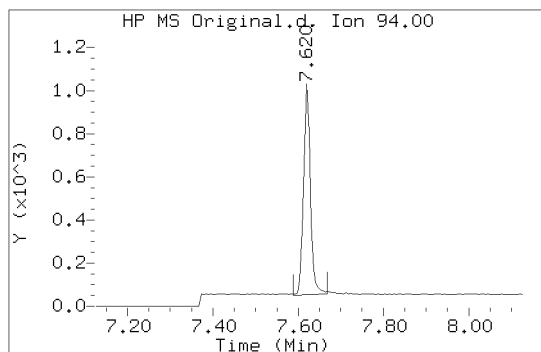
MASS
188
AREA
17558
HEIGHT
14165
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

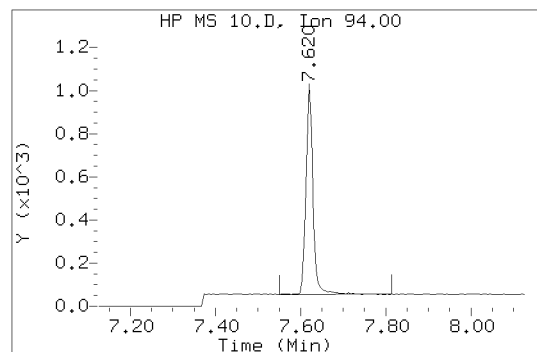
MASS
188
AREA
16875
HEIGHT
14139
02-Oct-2023
12:35
ALSHS
Ser

Reason Code:**BEFORE**

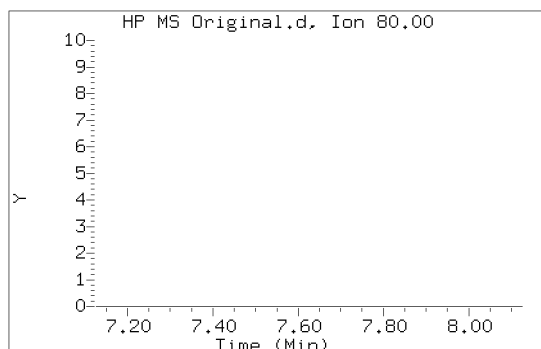
MASS
94
AREA
1100
HEIGHT
978
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

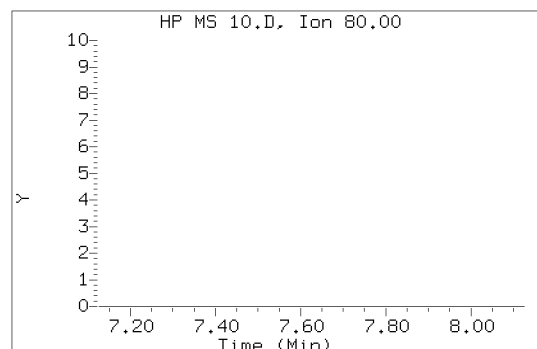
MASS
94
AREA
1112
HEIGHT
975
02-Oct-2023
12:35
ALSHS
Ser

**BEFORE**

MASS
80
AREA
0
HEIGHT
0
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

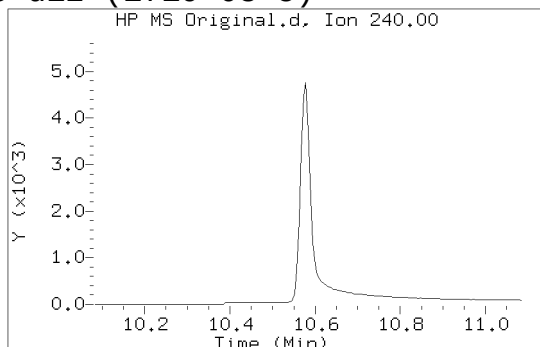
MASS
80
AREA
0
HEIGHT
0
02-Oct-2023
12:35
ALSHS
Ser



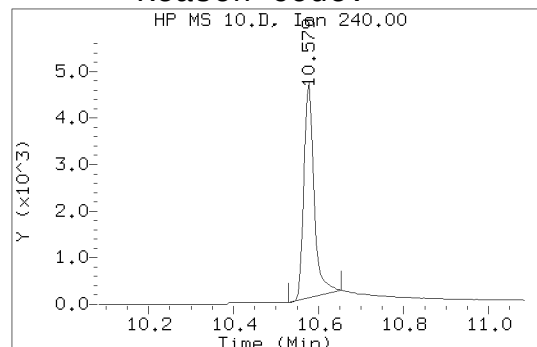
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\10.D
Inj Date : 28-SEP-2023 15:21
InstruID : SV6.i
LabSampID : 14DX-0.05

Chrysene-d12 (1719-03-5)**BEFORE**

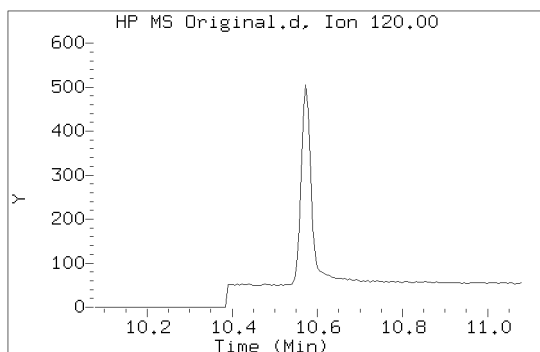
MASS
240
AREA
0
HEIGHT
0
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

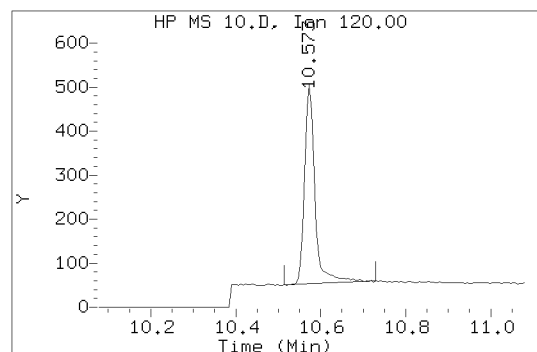
MASS
240
AREA
7640
HEIGHT
4613
02-Oct-2023
12:35
ALSHS
Ser

**BEFORE**

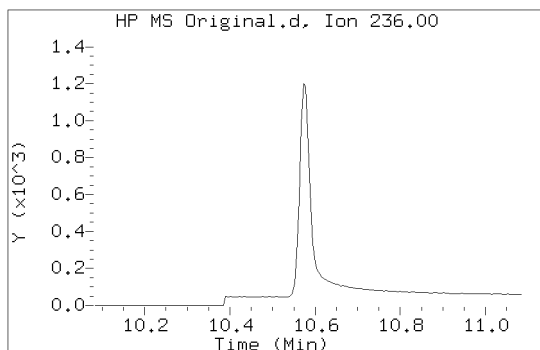
MASS
120
AREA
0
HEIGHT
0
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

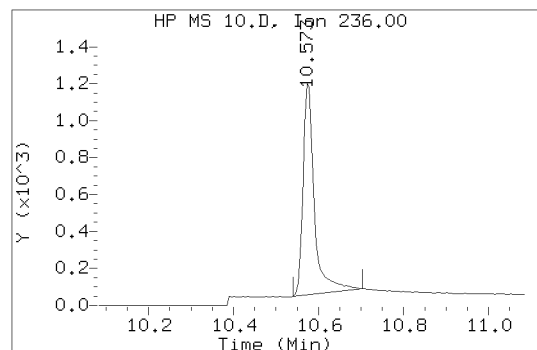
MASS
120
AREA
758
HEIGHT
451
02-Oct-2023
12:35
ALSHS
Ser

**BEFORE**

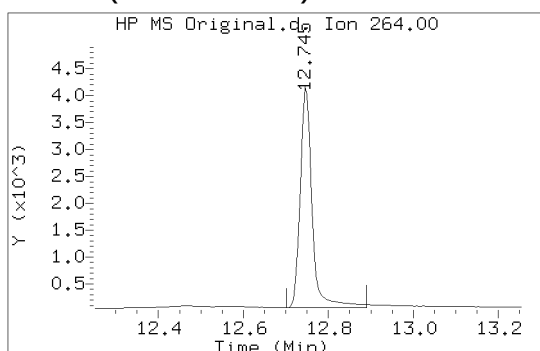
MASS
236
AREA
0
HEIGHT
0
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

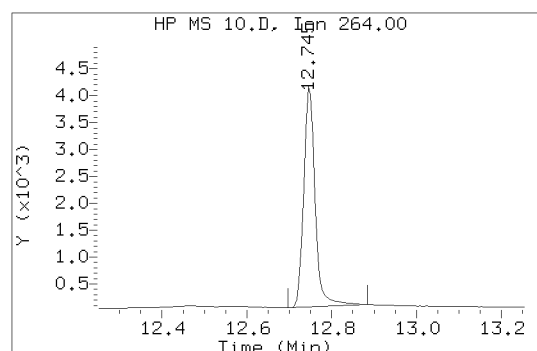
MASS
236
AREA
2117
HEIGHT
1143
02-Oct-2023
12:35
ALSHS
Ser

**Perylene-d12 (1520-96-3)****BEFORE**

MASS
264
AREA
8049
HEIGHT
4108
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

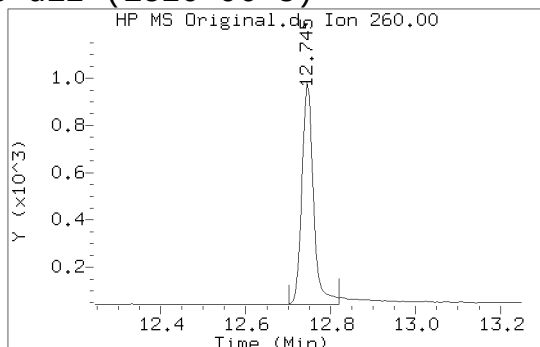
MASS
264
AREA
7677
HEIGHT
4093
02-Oct-2023
12:35
ALSHS
Ser



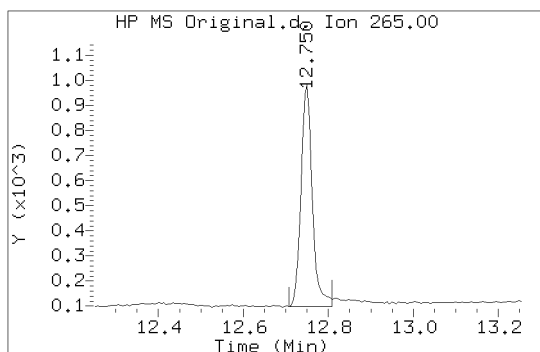
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\10.D
Inj Date : 28-SEP-2023 15:21
InstruID : SV6.i
LabSampID : 14DX-0.05

Perylene-d12 (1520-96-3)**BEFORE**

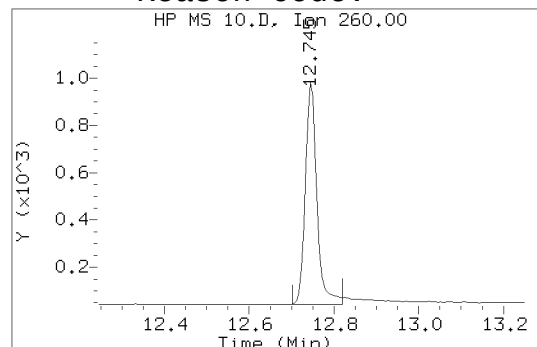
MASS
260
AREA
1782
HEIGHT
937
28-Sep-2023
15:36
ALSHS
Server

**BEFORE**

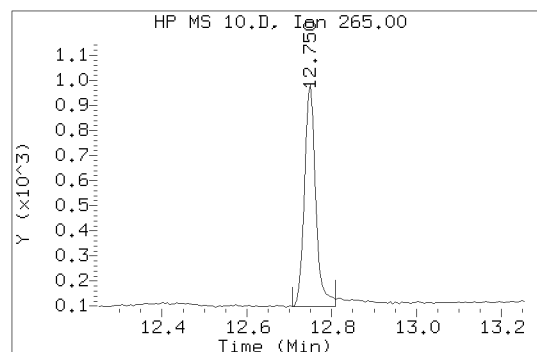
MASS
265
AREA
1647
HEIGHT
883
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

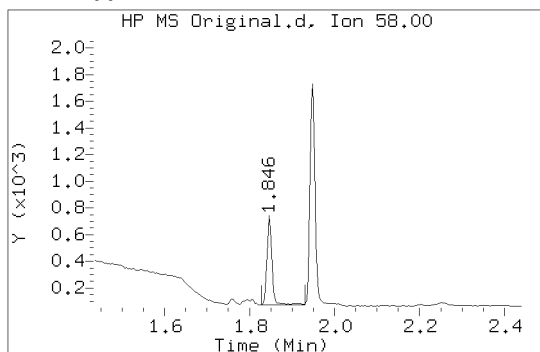
MASS
260
AREA
1782
HEIGHT
937
02-Oct-2023
12:35
ALSHS
Ser

**AFTER**

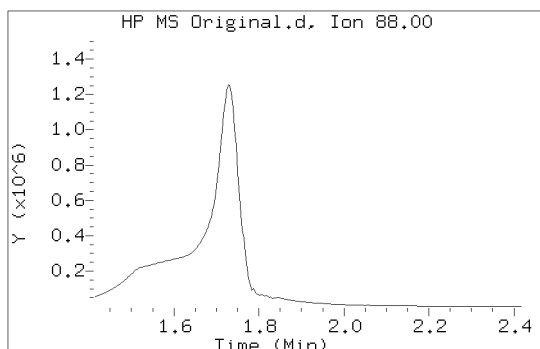
MASS
265
AREA
1647
HEIGHT
883
02-Oct-2023
12:35
ALSHS
Ser

**1,4-Dioxane ()****BEFORE**

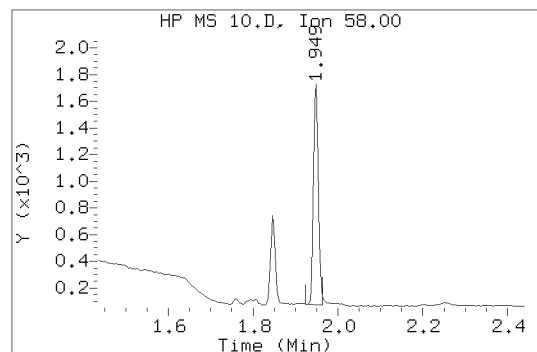
MASS
58
AREA
557
HEIGHT
666
28-Sep-2023
15:36
ALSHS
Server

**BEFORE**

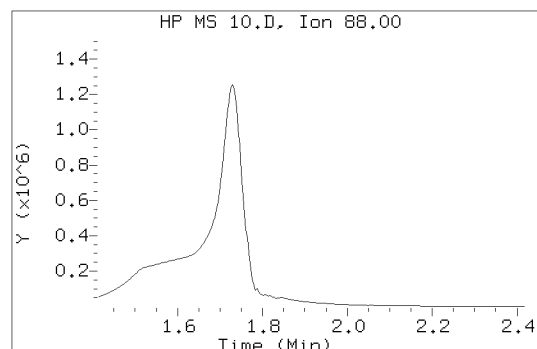
MASS
88
AREA
0
HEIGHT
0
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

MASS
58
AREA
1313
HEIGHT
1653
02-Oct-2023
12:35
ALSHS
Ser

**AFTER**

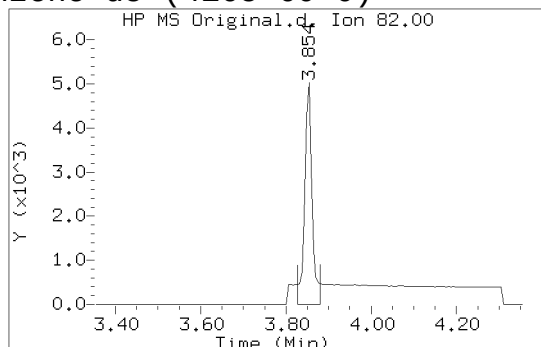
MASS
88
AREA
0
HEIGHT
0
02-Oct-2023
12:35
ALSHS
Ser



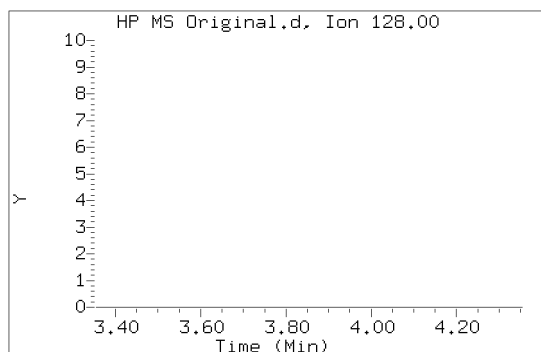
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\10.D
Inj Date : 28-SEP-2023 15:21
InstruID : SV6.i
LabSampID : 14DX-0.05

Nitrobenzene-d5 (4165-60-0)**BEFORE**

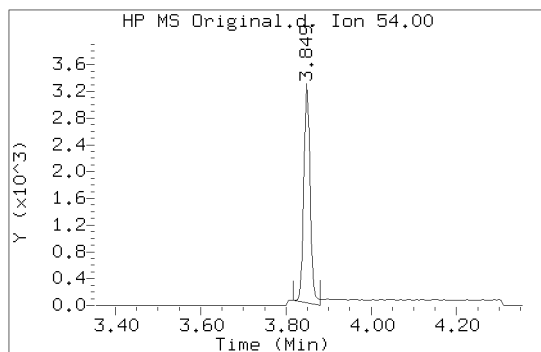
MASS
82
AREA
6061
HEIGHT
5027
28-Sep-2023
15:36
ALSHS
Server

**BEFORE**

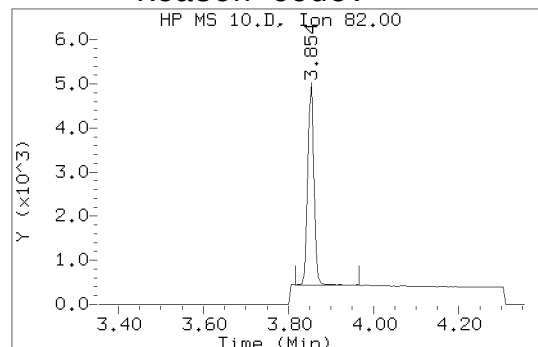
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
15:36
ALSHS
Server

**BEFORE**

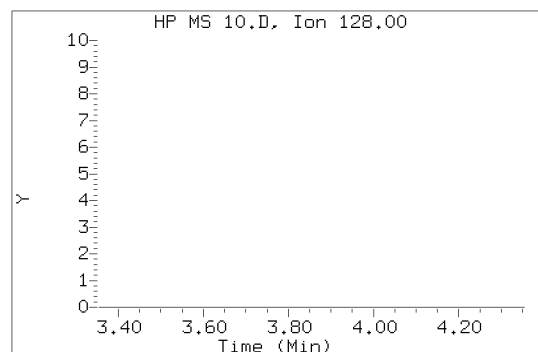
MASS
54
AREA
3310
HEIGHT
3273
28-Sep-2023
15:36
ALSHS
Server

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

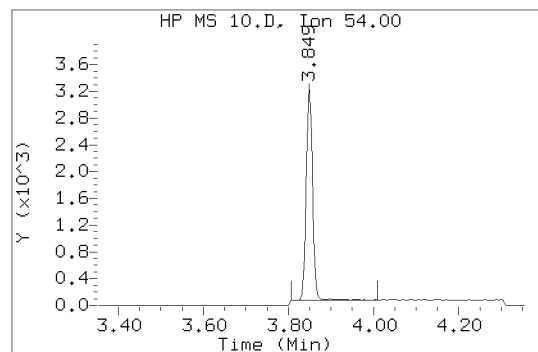
MASS
82
AREA
4543
HEIGHT
4587
02-Oct-2023
12:35
ALSHS
Ser

**AFTER**

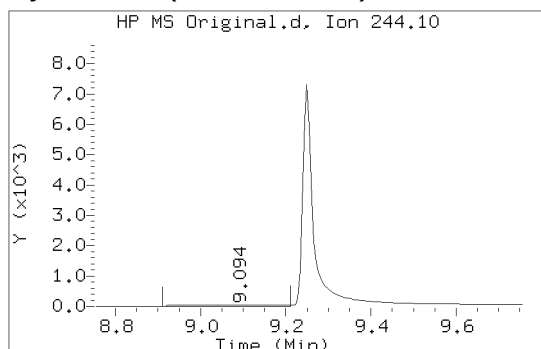
MASS
128
AREA
0
HEIGHT
0
02-Oct-2023
12:35
ALSHS
Ser

**AFTER**

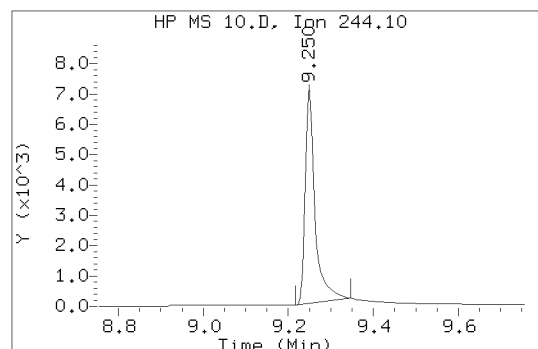
MASS
54
AREA
3175
HEIGHT
3234
02-Oct-2023
12:35
ALSHS
Ser

**4-Terphenyl-d14 (1718-51-0)****BEFORE**

MASS
244.1
AREA
781
HEIGHT
45
28-Sep-2023
15:36
ALSHS
Server

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

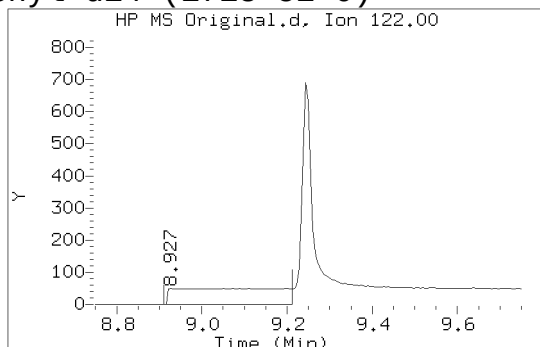
MASS
244.1
AREA
11302
HEIGHT
7207
02-Oct-2023
12:35
ALSHS
Ser



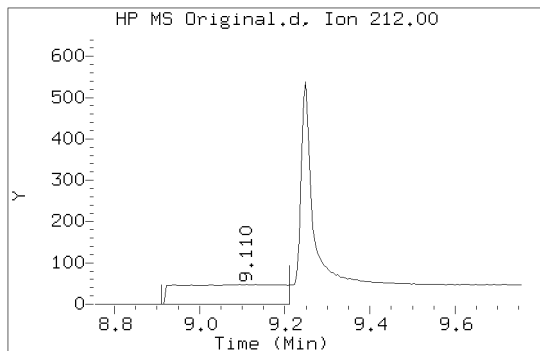
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\10.D
Inj Date : 28-SEP-2023 15:21
InstruID : SV6.i
LabSampID : 14DX-0.05

4-Terphenyl-d14 (1718-51-0)**BEFORE**

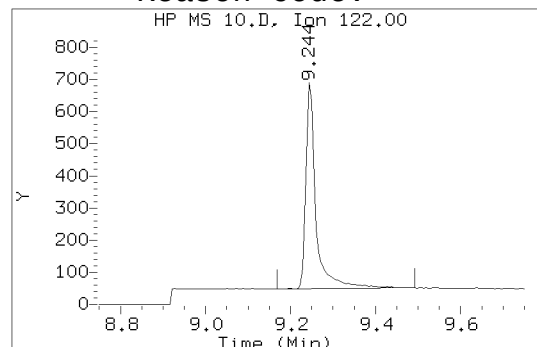
MASS
122
AREA
851
HEIGHT
49
28-Sep-2023
15:36
ALSHS
Server

**BEFORE**

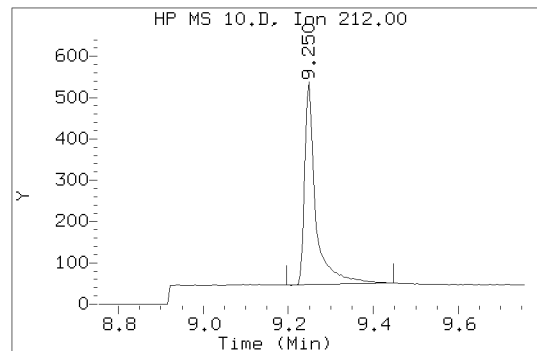
MASS
212
AREA
818
HEIGHT
49
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

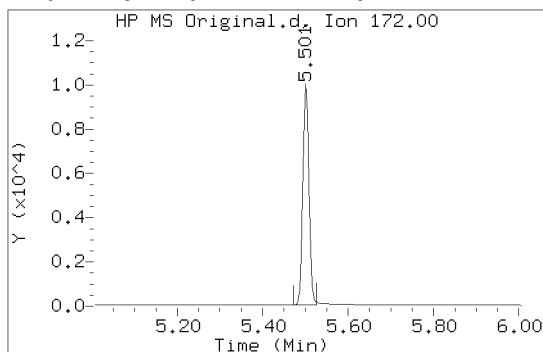
MASS
122
AREA
1038
HEIGHT
641
02-Oct-2023
12:35
ALSHS
Ser

**AFTER**

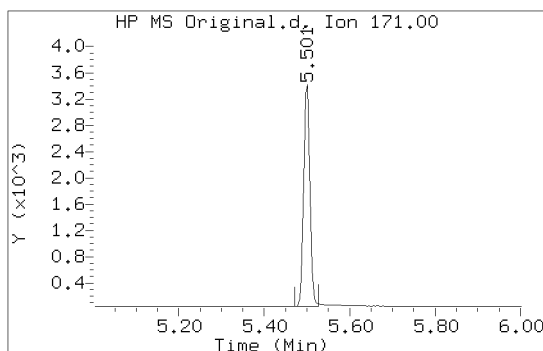
MASS
212
AREA
876
HEIGHT
489
02-Oct-2023
12:35
ALSHS
Ser

**2-Fluorobiphenyl (321-60-8)****BEFORE**

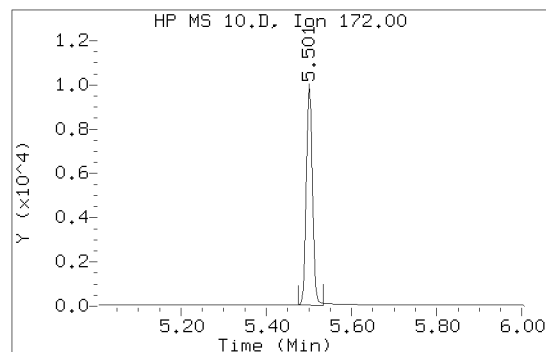
MASS
172
AREA
9852
HEIGHT
9993
28-Sep-2023
15:36
ALSHS
Server

**BEFORE**

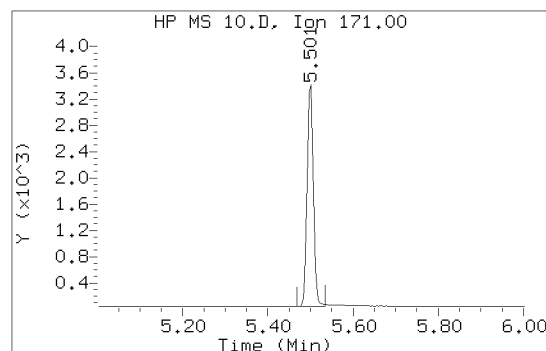
MASS
171
AREA
3389
HEIGHT
3370
28-Sep-2023
15:36
ALSHS
Server

**AFTER**

MASS
172
AREA
9900
HEIGHT
9995
02-Oct-2023
12:35
ALSHS
Ser

**AFTER**

MASS
171
AREA
3408
HEIGHT
3372
02-Oct-2023
12:35
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\11.D
 Report Date: 29-Sep-2023 09:37

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\11.D
 Lab Smp Id: 14DX-0.08 Client Smp ID: 14DX-0.08
 Inj Date : 28-SEP-2023 15:38
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX-0.08
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 29-Sep-2023 09:37 SV6.i Quant Type: ISTD
 Cal Date : 28-SEP-2023 15:21 Cal File: 10.D
 Als bottle: 11 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			RT	EXP RT	REL RT	RESPONSE	CAL - AMT	ON - COL	
	MASS						(NG)	(NG)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 20 1,4-Dichlorobenzene-d4	152		3.414	3.414 (1.000)		4355	0.10000		(aQM)
* 45 Naphthalene-d8	136		4.493	4.493 (1.000)		7163	0.10000		(M)
\$ 33 Nitrobenzene-d5	82		3.854	3.854 (0.858)		2358	0.08000	0.08407(M)	
* 86 Acenaphthene-d10	164		6.164	6.164 (1.000)		7303	0.10000		
\$ 69 2-Fluorobiphenyl	172		5.503	5.503 (0.893)		10439	0.08000	0.07475(M)	
* 126 Phenanthrene-d10	188		7.624	7.624 (1.000)		9298	0.10000		(M)
* 182 Chrysene-d12	240		10.577	10.577 (1.000)		4381	0.10000		(M)
\$ 158 4-Terphenyl-d14	244		9.253	9.253 (0.875)		11280	0.08000	0.08057(M)	
* 198 Perylene-d12	264		12.748	12.748 (1.000)		4314	0.10000		
1 1,4-Dioxane	58		1.897	1.897 (0.556)		753	0.08000	0.05708(M)	

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).
 Q - Qualifier signal failed the ratio test.
 M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\SW6.i\230928.b\11.D

Page 1

Date : 28-SEP-2023 15:38

Client ID: 14DX-0.08

Instrument: SW6.i

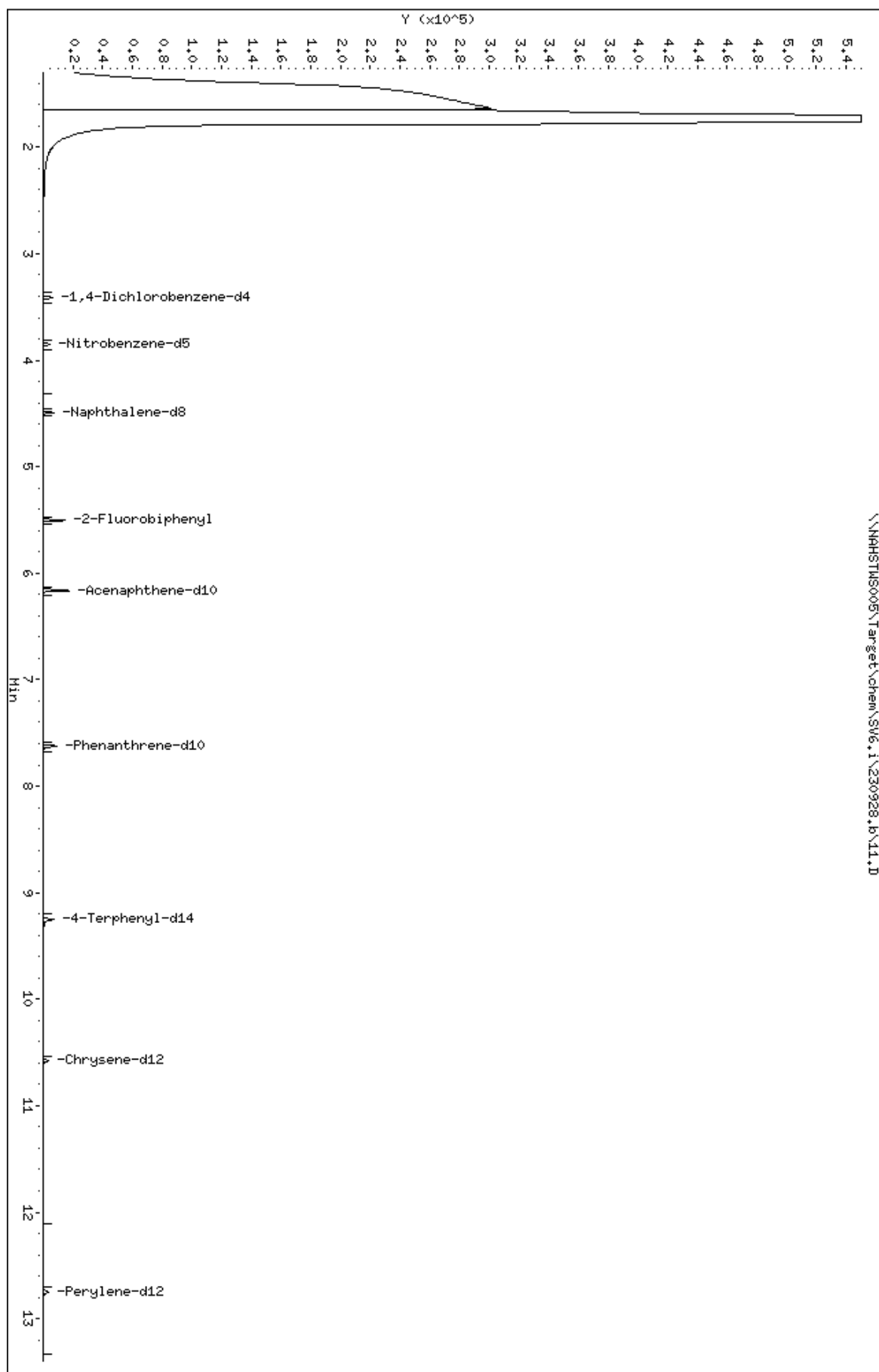
Sample Info: 14DX-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

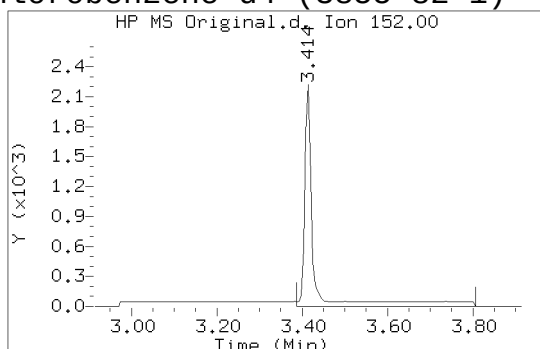
Column diameter: 0.28



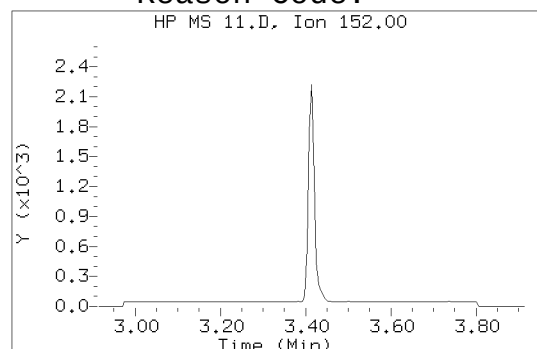
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\11.D
Inj Date : 28-SEP-2023 15:38
InstruID : SV6.i
LabSampID : 14DX-0.08

1,4-Dichlorobenzene-d4 (3855-82-1)**BEFORE**

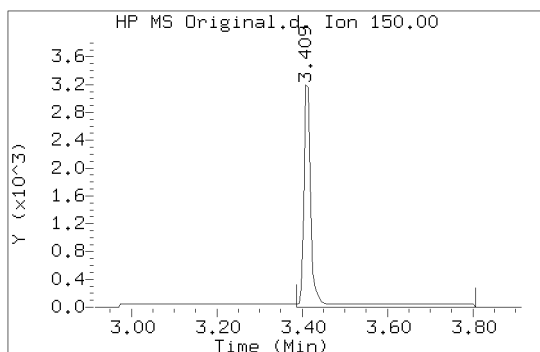
MASS
152
AREA
3283
HEIGHT
2220
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

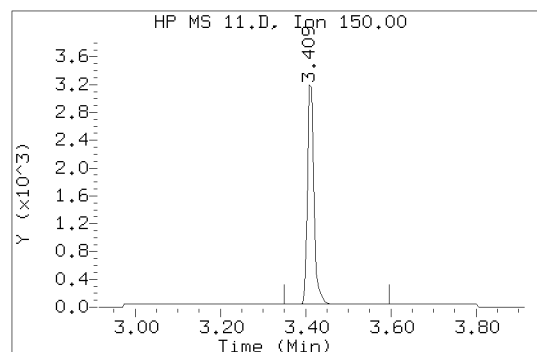
MASS
152
AREA
4355
HEIGHT
2220
29-Sep-2023
09:37

Reason Code:**BEFORE**

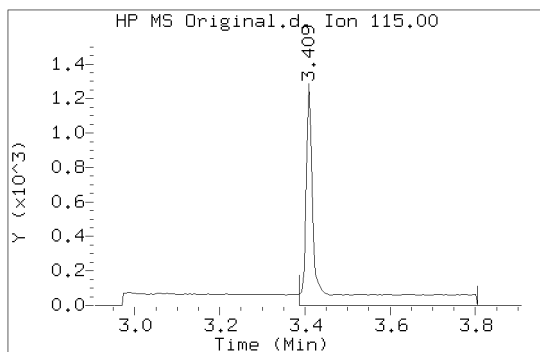
MASS
150
AREA
4455
HEIGHT
3196
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

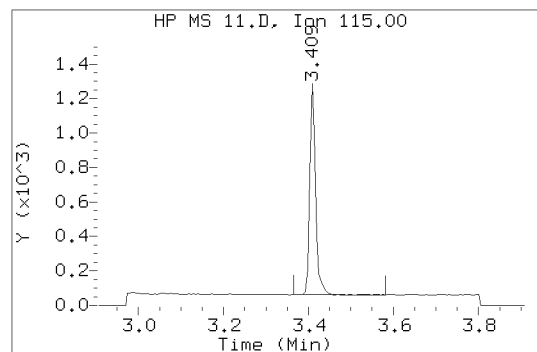
MASS
150
AREA
3274
HEIGHT
3148
29-Sep-2023
09:37

**BEFORE**

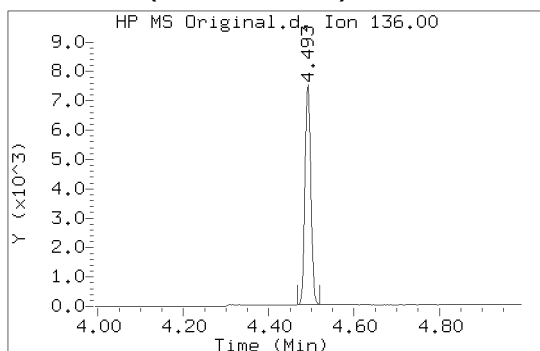
MASS
115
AREA
2728
HEIGHT
1286
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

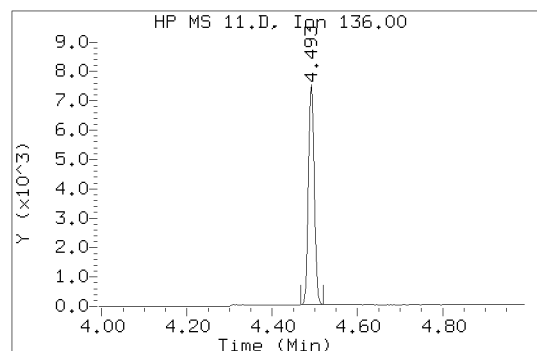
MASS
115
AREA
1190
HEIGHT
1224
29-Sep-2023
09:37

**Naphthalene-d8 (1146-65-2)****BEFORE**

MASS
136
AREA
7163
HEIGHT
7492
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

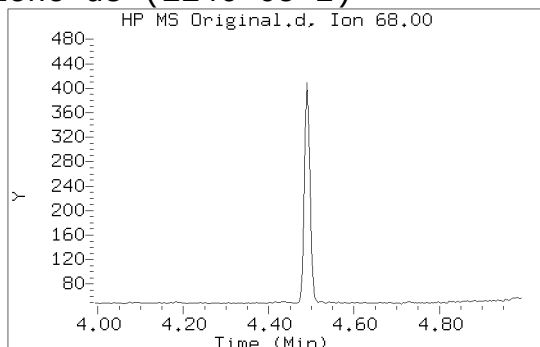
MASS
136
AREA
7163
HEIGHT
7492
29-Sep-2023
09:37

Reason Code:

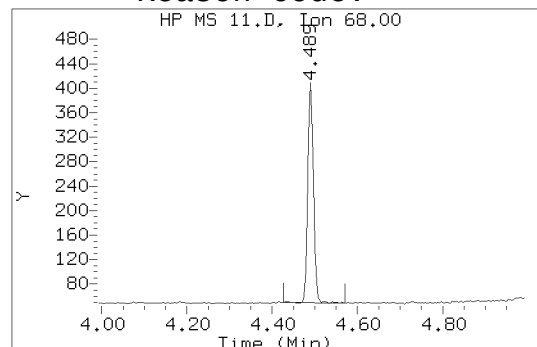
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\11.D
Inj Date : 28-SEP-2023 15:38
InstruID : SV6.i
LabSampID : 14DX-0.08

Naphthalene-d8 (1146-65-2)**BEFORE**

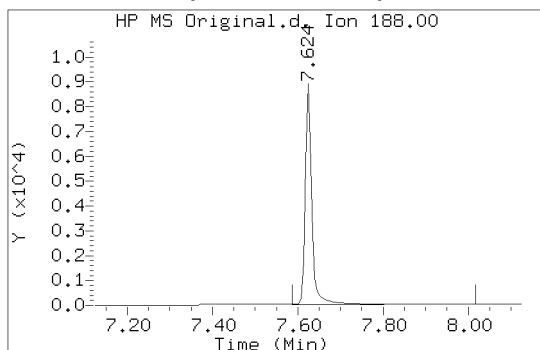
MASS
68
AREA
0
HEIGHT
0
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

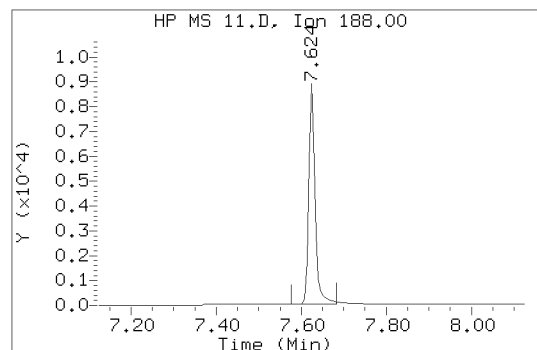
MASS
68
AREA
332
HEIGHT
359
29-Sep-2023
09:37

Reason Code:**Phenanthrene-d10 (1517-22-2)****BEFORE**

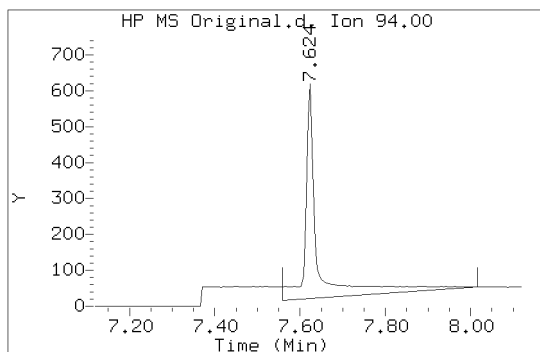
MASS
188
AREA
9930
HEIGHT
8907
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

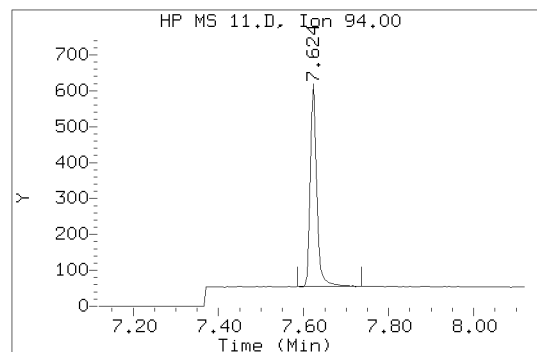
MASS
188
AREA
9298
HEIGHT
8881
29-Sep-2023
09:37

Reason Code:**BEFORE**

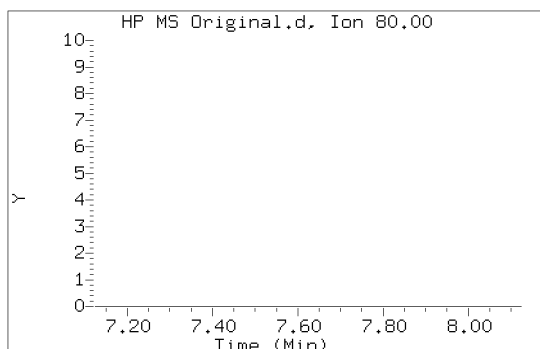
MASS
94
AREA
1124
HEIGHT
596
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

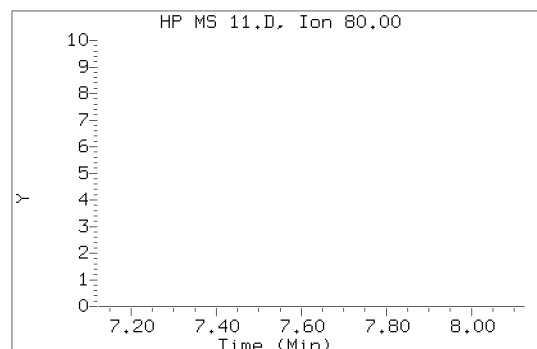
MASS
94
AREA
590
HEIGHT
563
29-Sep-2023
09:37

**BEFORE**

MASS
80
AREA
0
HEIGHT
0
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

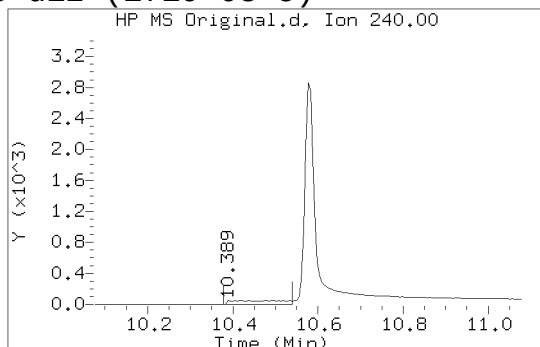
MASS
80
AREA
0
HEIGHT
0
29-Sep-2023
09:37



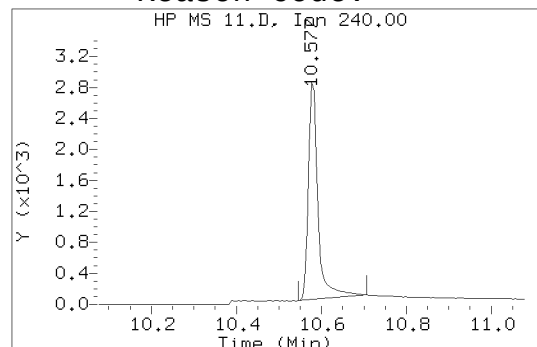
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\11.D
Inj Date : 28-SEP-2023 15:38
InstruID : SV6.i
LabSampID : 14DX-0.08

Chrysene-d12 (1719-03-5)**BEFORE**

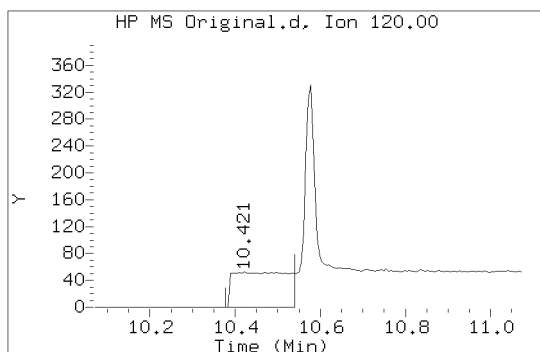
MASS
240
AREA
425
HEIGHT
46
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

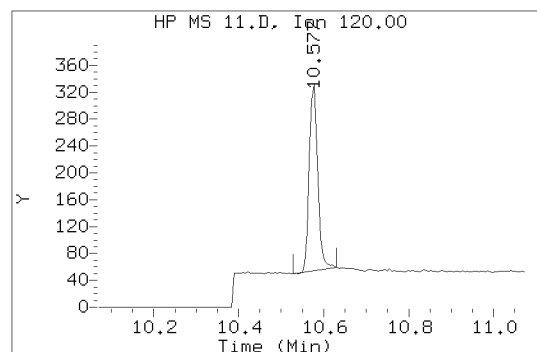
MASS
240
AREA
4381
HEIGHT
2801
29-Sep-2023
09:37

**BEFORE**

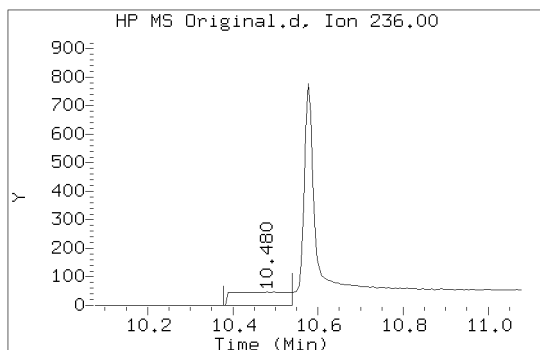
MASS
120
AREA
477
HEIGHT
53
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

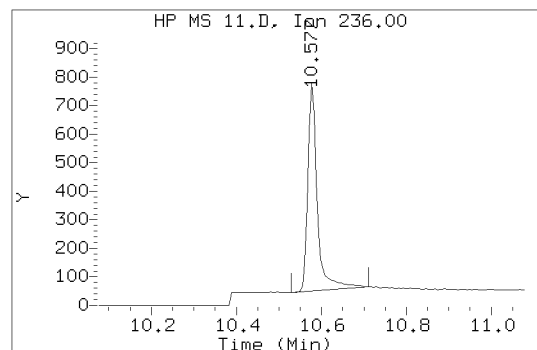
MASS
120
AREA
383
HEIGHT
276
29-Sep-2023
09:37

**BEFORE**

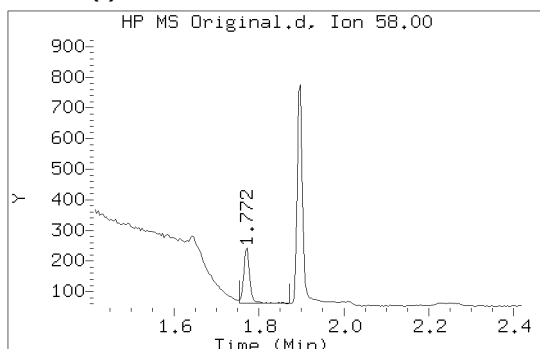
MASS
236
AREA
430
HEIGHT
47
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

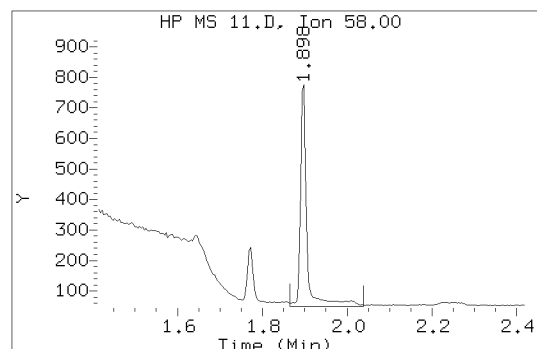
MASS
236
AREA
1103
HEIGHT
725
29-Sep-2023
09:37

**1,4-Dioxane ()****BEFORE**

MASS
58
AREA
174
HEIGHT
181
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

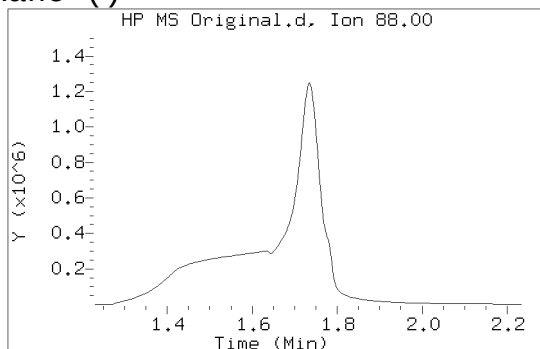
MASS
58
AREA
753
HEIGHT
726
29-Sep-2023
09:37



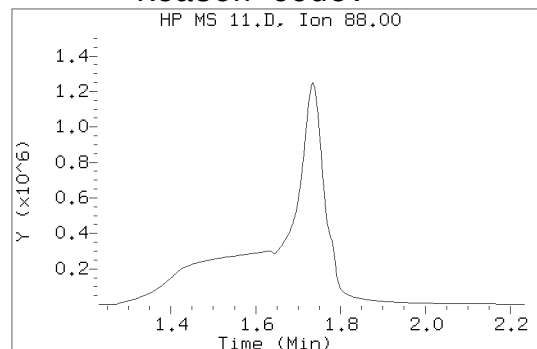
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\11.D
Inj Date : 28-SEP-2023 15:38
InstruID : SV6.i
LabSampID : 14DX-0.08

1,4-Dioxane ()**BEFORE**

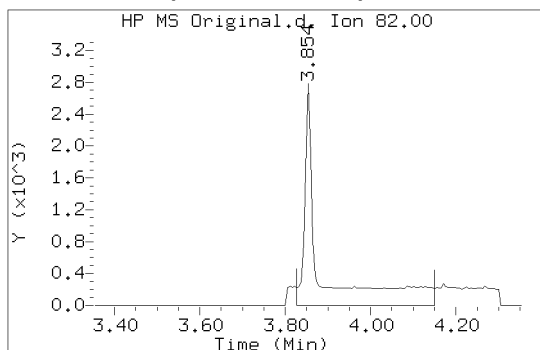
MASS
88
AREA
0
HEIGHT
0
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

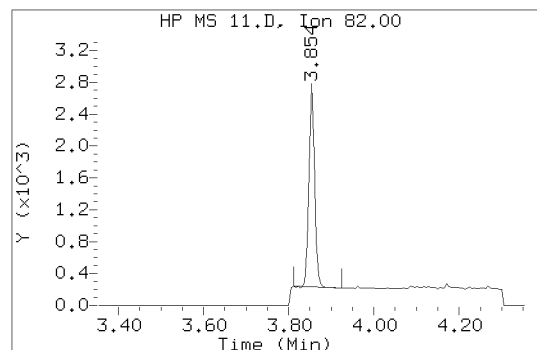
MASS
88
AREA
0
HEIGHT
0
29-Sep-2023
09:37

Reason Code:**Nitrobenzene-d5 (4165-60-0)****BEFORE**

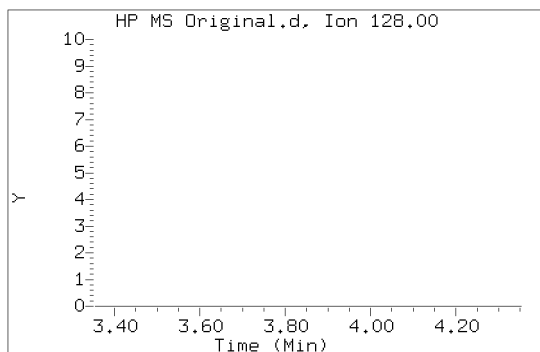
MASS
82
AREA
6706
HEIGHT
2783
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

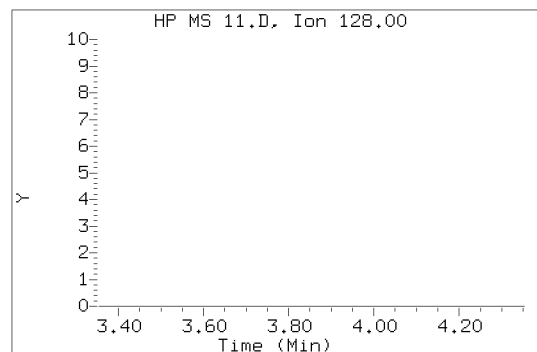
MASS
82
AREA
2358
HEIGHT
2550
29-Sep-2023
09:37

Reason Code:**BEFORE**

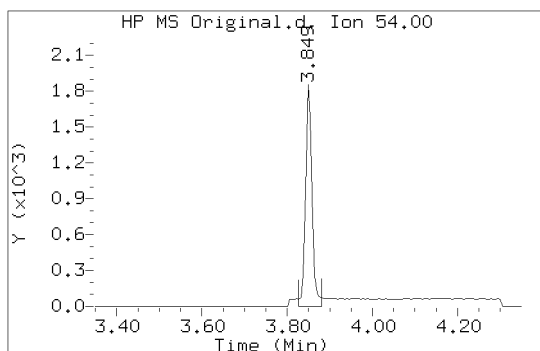
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

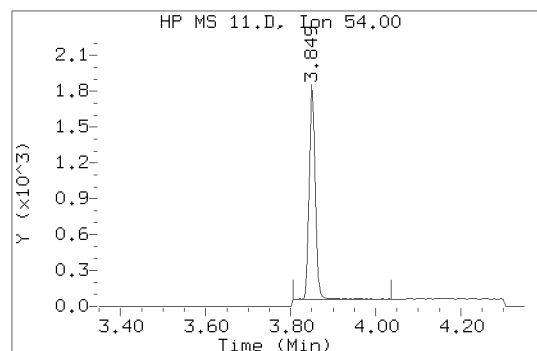
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
09:37

**BEFORE**

MASS
54
AREA
1950
HEIGHT
1855
28-Sep-2023
15:53
ALSHS
Server

**AFTER**

MASS
54
AREA
1752
HEIGHT
1794
29-Sep-2023
09:37

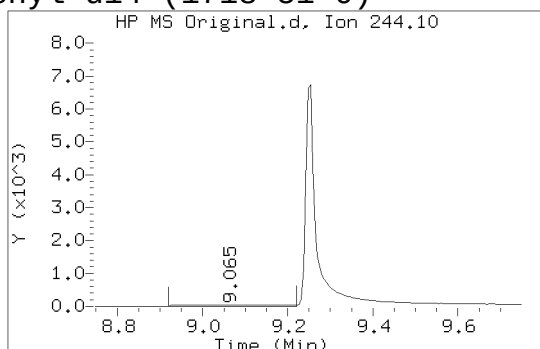


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\11.D
Inj Date : 28-SEP-2023 15:38
InstruID : SV6.i
LabSampID : 14DX-0.08

4-Terphenyl-d14 (1718-51-0)

BEFORE

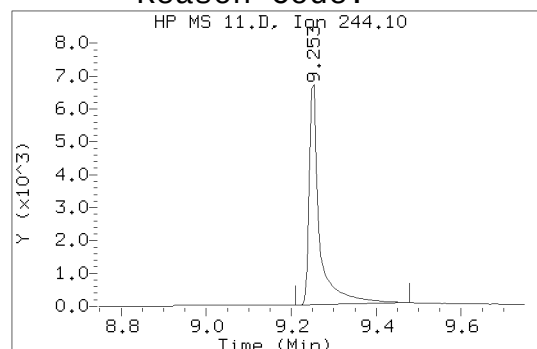
MASS
244.1
AREA
794
HEIGHT
45
28-Sep-2023
15:53
ALSHS
Server



AFTER

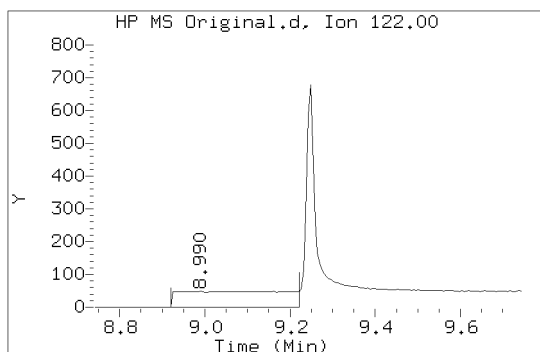
MASS
244.1
AREA
11280
HEIGHT
6683
29-Sep-2023
09:37

Reason Code:



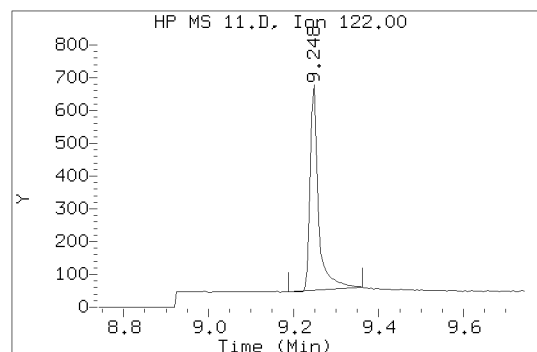
BEFORE

MASS
122
AREA
855
HEIGHT
49
28-Sep-2023
15:53
ALSHS
Server



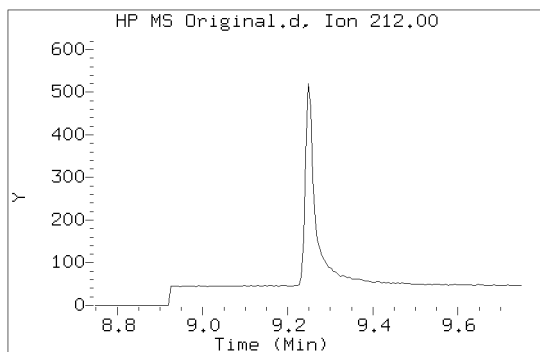
AFTER

MASS
122
AREA
843
HEIGHT
625
29-Sep-2023
09:37



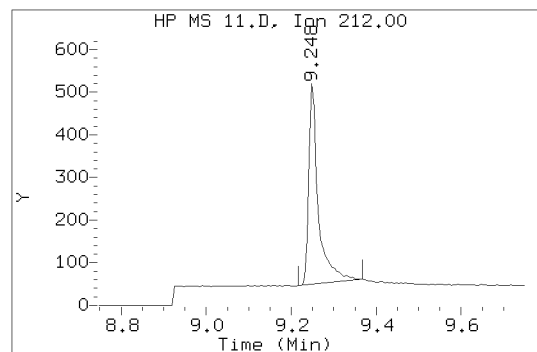
BEFORE

MASS
212
AREA
0
HEIGHT
0
28-Sep-2023
15:53
ALSHS
Server



AFTER

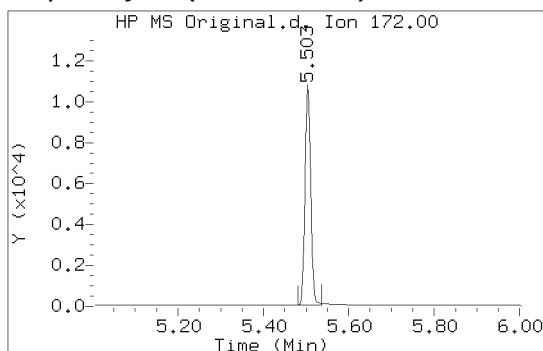
MASS
212
AREA
724
HEIGHT
470
29-Sep-2023
09:37



2-Fluorobiphenyl (321-60-8)

BEFORE

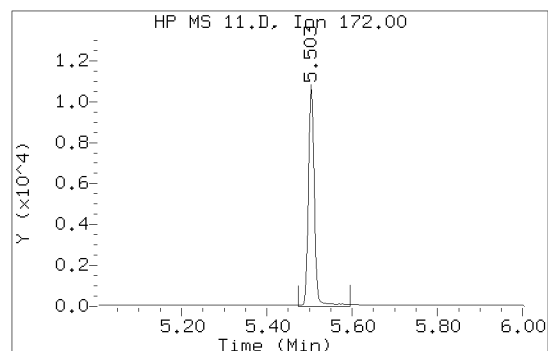
MASS
172
AREA
9810
HEIGHT
10778
28-Sep-2023
15:53
ALSHS
Server



AFTER

MASS
172
AREA
10439
HEIGHT
10840
29-Sep-2023
09:37

Reason Code:

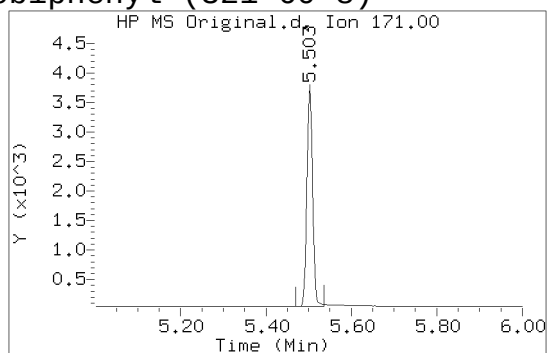


Data File : \\NAHSTWS005\Target\chem\SV6.i\230928.b\11.D
Inj Date : 28-SEP-2023 15:38
InstruID : SV6.i
LabSampID : 14DX-0.08

2-Fluorobiphenyl (321-60-8)

BEFORE

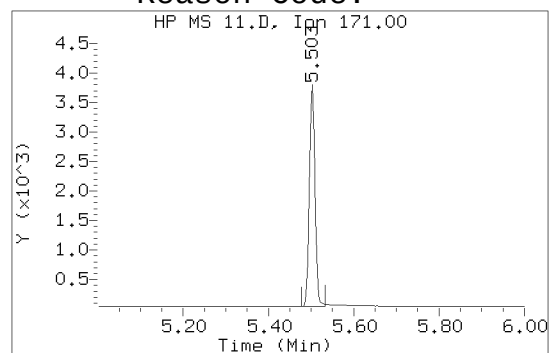
MASS
171
AREA
3393
HEIGHT
3755
28-Sep-2023
15:53
ALSHS
Server



AFTER

MASS
171
AREA
3386
HEIGHT
3755
29-Sep-2023
09:37

Reason Code:



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\12.D
 Report Date: 29-Sep-2023 09:37

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\12.D
 Lab Smp Id: 14DX-0.100 Client Smp ID: 14DX-0.100
 Inj Date : 28-SEP-2023 15:56
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX-0.100
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 29-Sep-2023 09:37 SV6.i Quant Type: ISTD
 Cal Date : 28-SEP-2023 15:38 Cal File: 11.D
 Als bottle: 12 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			RT	EXP RT	REL RT	RESPONSE	CAL - AMT	ON - COL	
	MASS						(NG)	(NG)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 20 1,4-Dichlorobenzene-d4	152		3.413	3.413	(1.000)	4538	0.10000		(aQM)
* 45 Naphthalene-d8	136		4.490	4.490	(1.000)	16196	0.10000		(M)
\$ 33 Nitrobenzene-d5	82		3.853	3.853	(0.858)	6092	0.10000	0.09606(M)	
* 86 Acenaphthene-d10	164		6.166	6.166	(1.000)	5679	0.10000		(M)
\$ 69 2-Fluorobiphenyl	172		5.504	5.504	(0.893)	13915	0.10000	0.1281(M)	
* 126 Phenanthrene-d10	188		7.625	7.625	(1.000)	11808	0.10000		(M)
* 182 Chrysene-d12	240		10.578	10.578	(1.000)	5329	0.10000		(M)
\$ 158 4-Terphenyl-d14	244		9.249	9.249	(0.874)	16284	0.10000	0.09562(M)	
* 198 Perylene-d12	264		12.750	12.750	(1.000)	5173	0.10000		(M)
1 1,4-Dioxane	58		1.916	1.916	(0.561)	1303	0.10000	0.09479(M)	

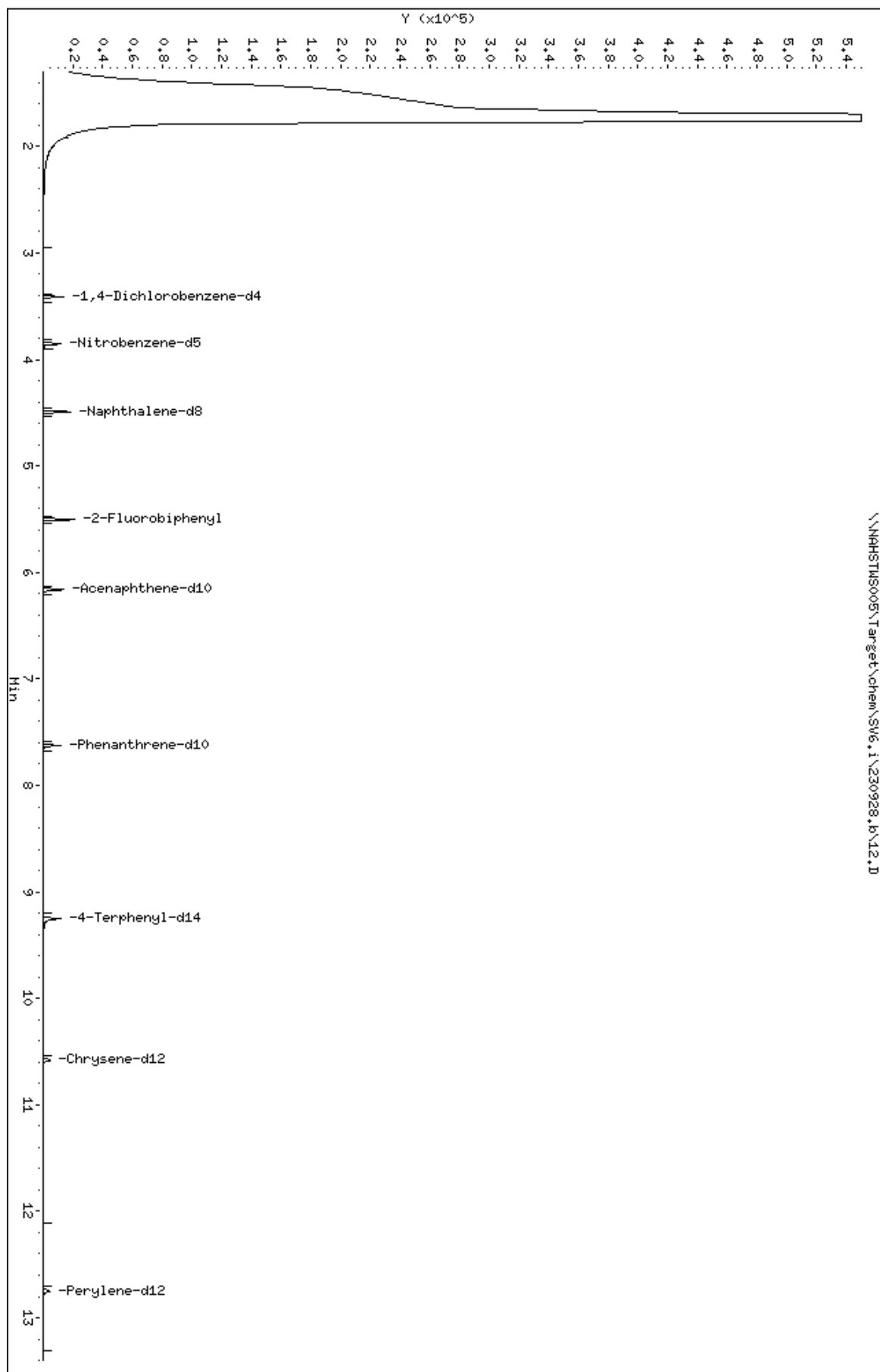
QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).
 Q - Qualifier signal failed the ratio test.
 M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\SW6.i\230928.b\12.D
Date : 28-SEP-2023 15:56
Client ID: 14DX-0.100
Sample Info: 14DX-0.100
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SW6.i
Operator: LG
Column diameter: 0.28

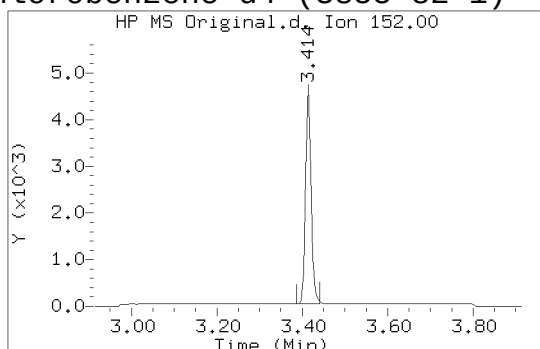


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\12.D
Inj Date : 28-SEP-2023 15:56
InstruID : SV6.i
LabSampID : 14DX-0.100

1,4-Dichlorobenzene-d4 (3855-82-1)

BEFORE

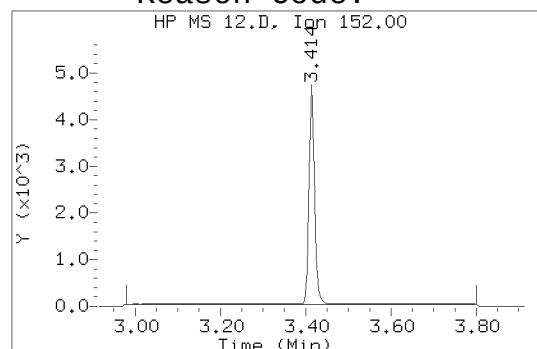
MASS
152
AREA
4061
HEIGHT
4700
28-Sep-2023
16:10
ALSHS
Server



AFTER

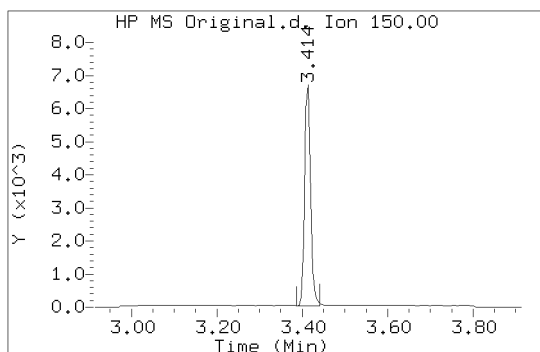
MASS
152
AREA
4538
HEIGHT
4710
29-Sep-2023
09:37

Reason Code:



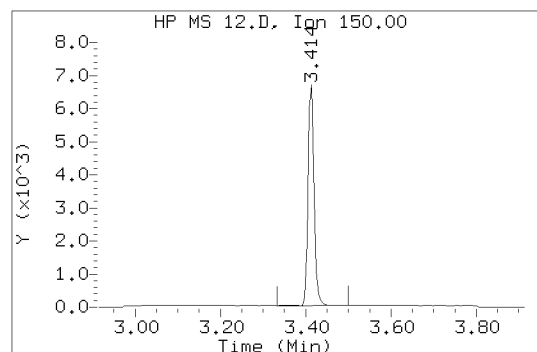
BEFORE

MASS
150
AREA
6364
HEIGHT
6670
28-Sep-2023
16:10
ALSHS
Server



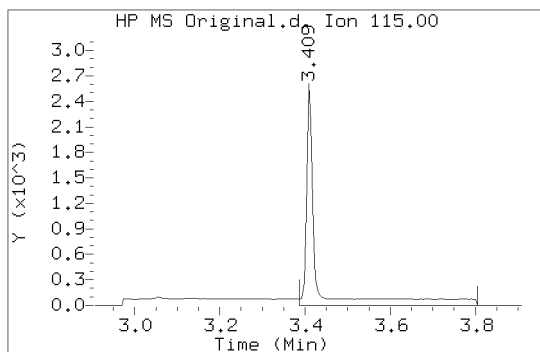
AFTER

MASS
150
AREA
6381
HEIGHT
6669
29-Sep-2023
09:37



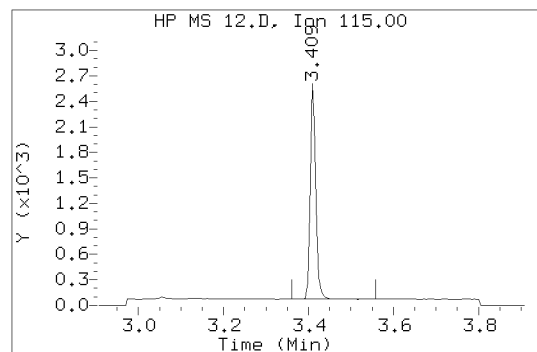
BEFORE

MASS
115
AREA
4123
HEIGHT
2608
28-Sep-2023
16:10
ALSHS
Server



AFTER

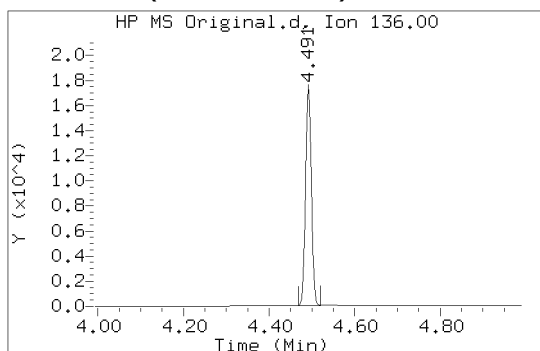
MASS
115
AREA
2268
HEIGHT
2531
29-Sep-2023
09:37



Naphthalene-d8 (1146-65-2)

BEFORE

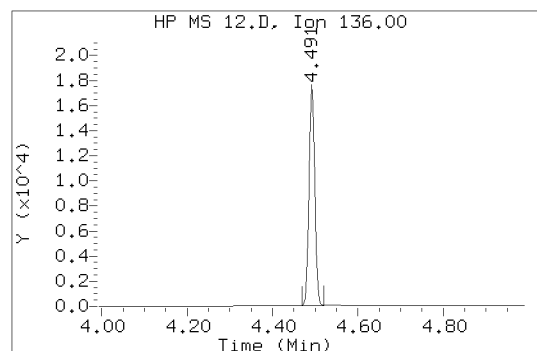
MASS
136
AREA
16196
HEIGHT
17592
28-Sep-2023
16:10
ALSHS
Server



AFTER

MASS
136
AREA
16196
HEIGHT
17592
29-Sep-2023
09:37

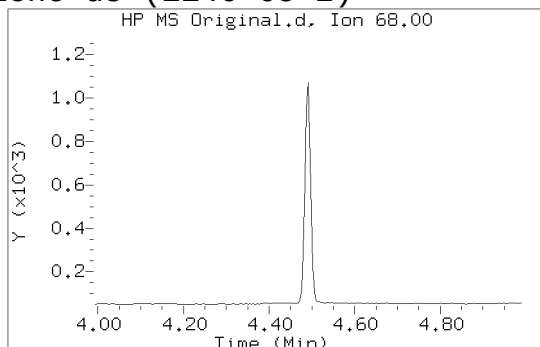
Reason Code:



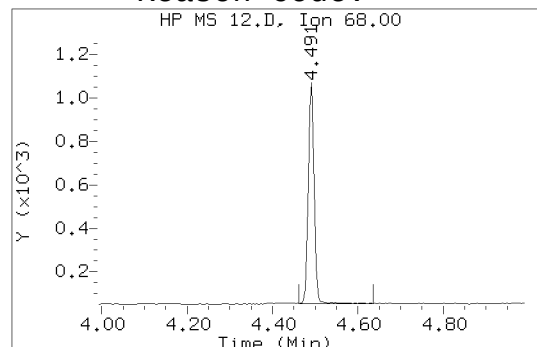
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\12.D
Inj Date : 28-SEP-2023 15:56
InstruID : SV6.i
LabSampID : 14DX-0.100

Naphthalene-d8 (1146-65-2)**BEFORE**

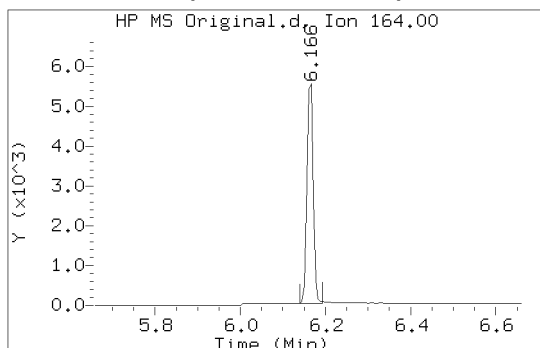
MASS
68
AREA
0
HEIGHT
0
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

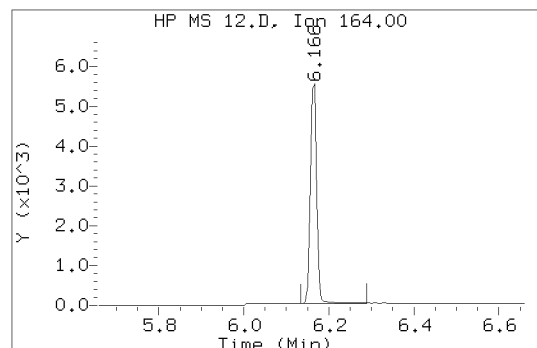
MASS
68
AREA
951
HEIGHT
1015
29-Sep-2023
09:37

Reason Code:**Acenaphthene-d10 (15067-26-2)****BEFORE**

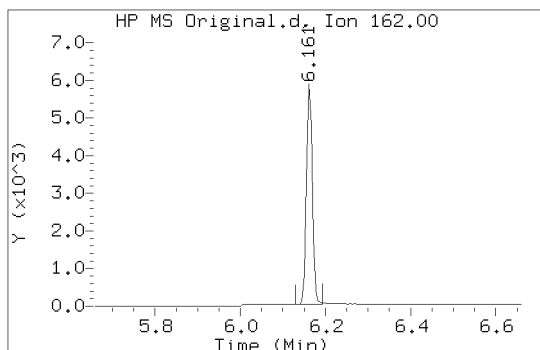
MASS
164
AREA
5495
HEIGHT
5515
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

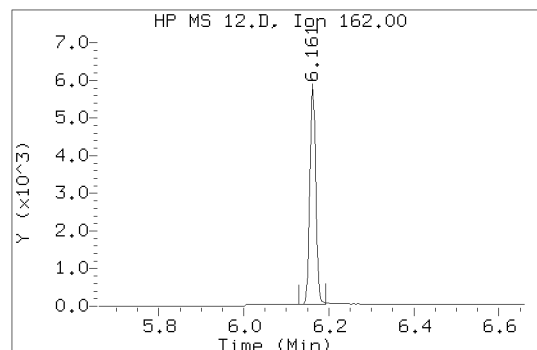
MASS
164
AREA
5679
HEIGHT
5527
29-Sep-2023
09:37

Reason Code:**BEFORE**

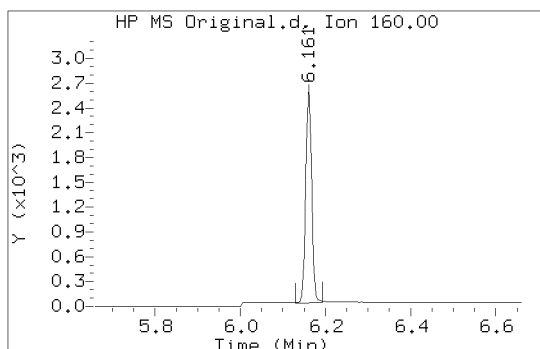
MASS
162
AREA
5491
HEIGHT
5859
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

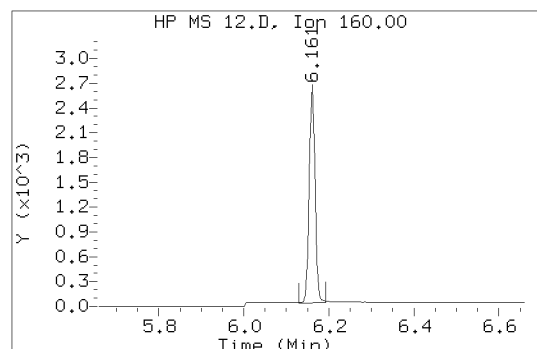
MASS
162
AREA
5491
HEIGHT
5859
29-Sep-2023
09:37

**BEFORE**

MASS
160
AREA
2440
HEIGHT
2638
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

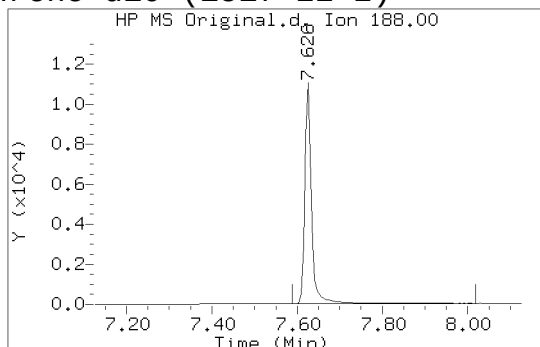
MASS
160
AREA
2440
HEIGHT
2638
29-Sep-2023
09:37



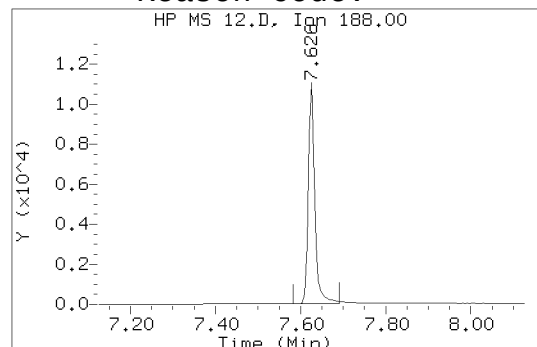
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\12.D
Inj Date : 28-SEP-2023 15:56
InstruID : SV6.i
LabSampID : 14DX-0.100

Phenanthrene-d10 (1517-22-2)**BEFORE**

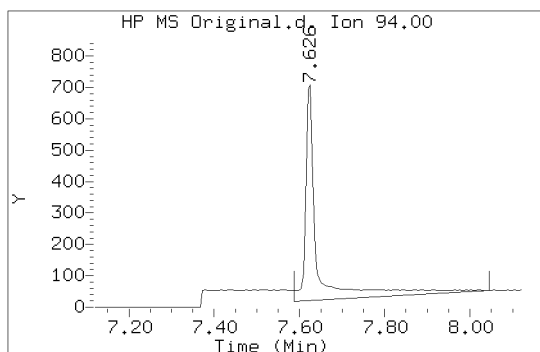
MASS
188
AREA
12475
HEIGHT
11054
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

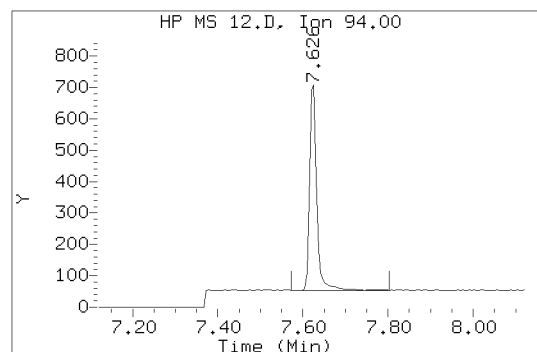
MASS
188
AREA
11808
HEIGHT
11029
29-Sep-2023
09:37

Reason Code:**BEFORE**

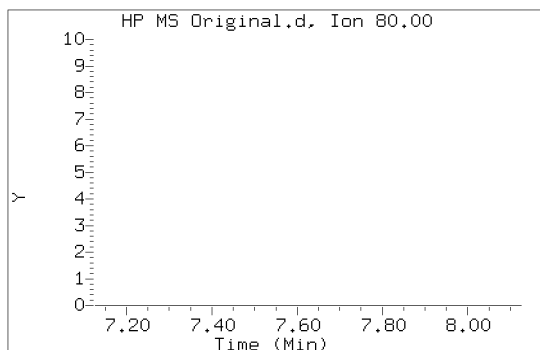
MASS
94
AREA
1261
HEIGHT
687
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

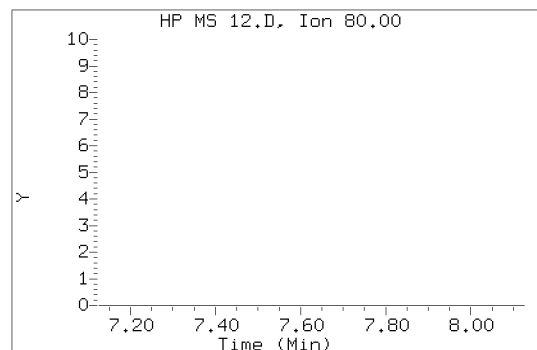
MASS
94
AREA
756
HEIGHT
654
29-Sep-2023
09:37

**BEFORE**

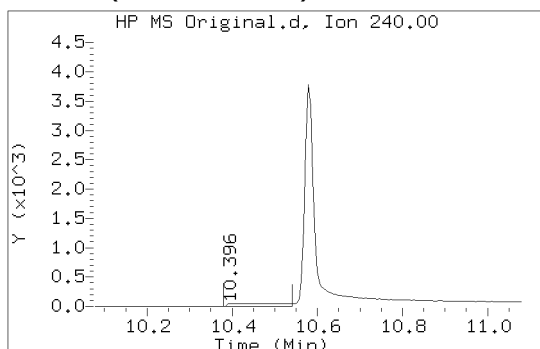
MASS
80
AREA
0
HEIGHT
0
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

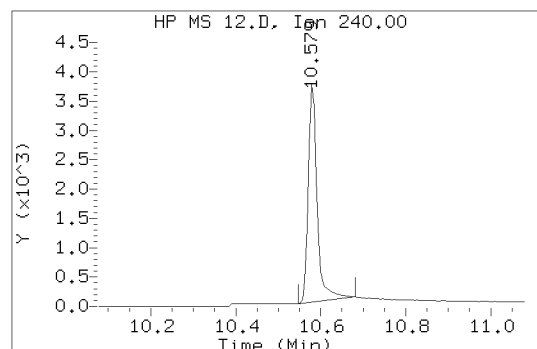
MASS
80
AREA
0
HEIGHT
0
29-Sep-2023
09:37

**Chrysene-d12 (1719-03-5)****BEFORE**

MASS
240
AREA
426
HEIGHT
46
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

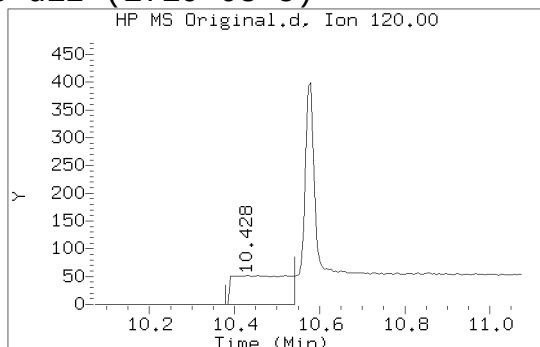
MASS
240
AREA
5329
HEIGHT
3706
29-Sep-2023
09:37

Reason Code:

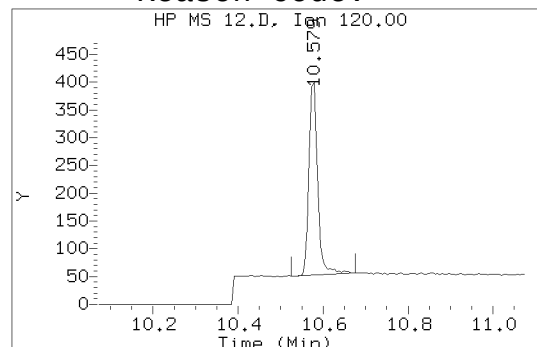
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\12.D
Inj Date : 28-SEP-2023 15:56
InstruID : SV6.i
LabSampID : 14DX-0.100

Chrysene-d12 (1719-03-5)**BEFORE**

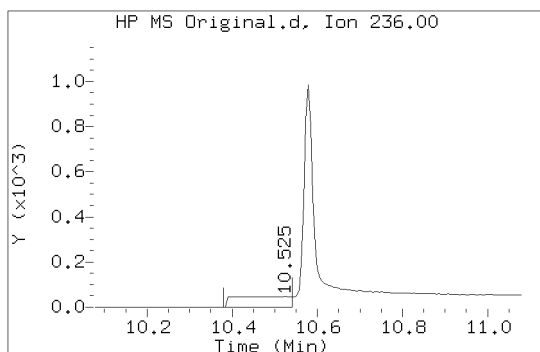
MASS
120
AREA
477
HEIGHT
52
28-Sep-2023
16:10
ALSHS

**AFTER**

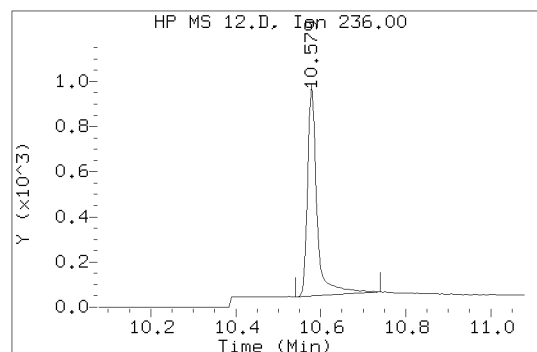
MASS
120
AREA
489
HEIGHT
345
29-Sep-2023
09:37

Reason Code:**BEFORE**

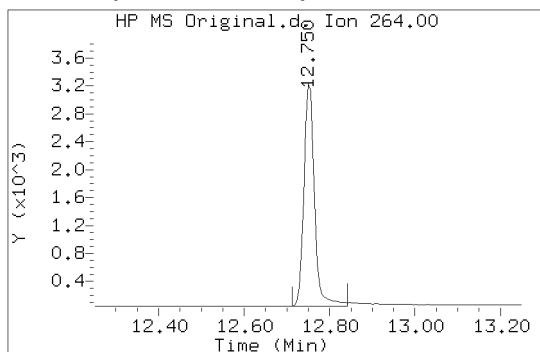
MASS
236
AREA
429
HEIGHT
47
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

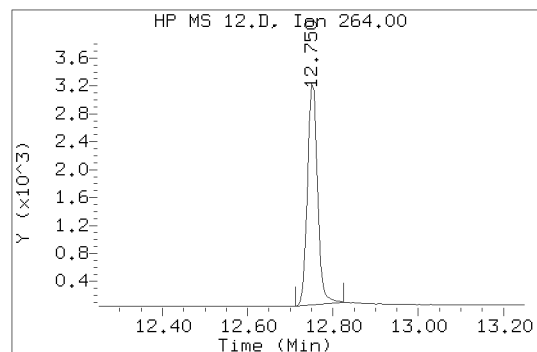
MASS
236
AREA
1423
HEIGHT
935
29-Sep-2023
09:37

**Perylene-d12 (1520-96-3)****BEFORE**

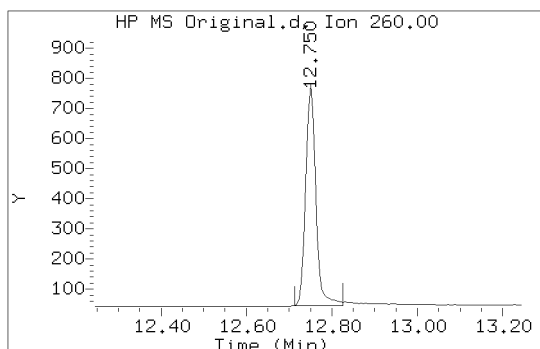
MASS
264
AREA
5415
HEIGHT
3181
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

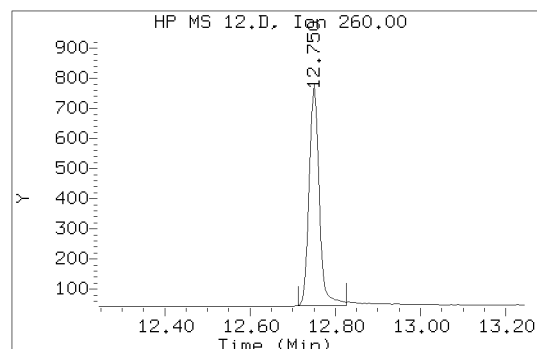
MASS
264
AREA
5173
HEIGHT
3162
29-Sep-2023
09:37

Reason Code:**BEFORE**

MASS
260
AREA
1209
HEIGHT
734
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

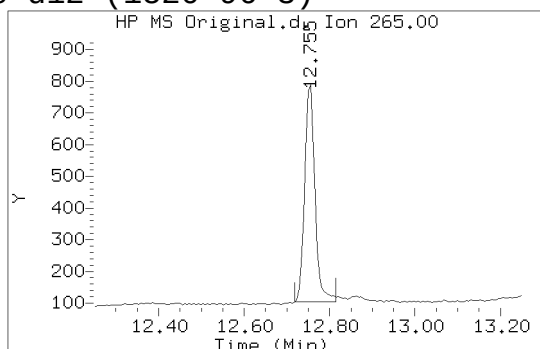
MASS
260
AREA
1209
HEIGHT
734
29-Sep-2023
09:37



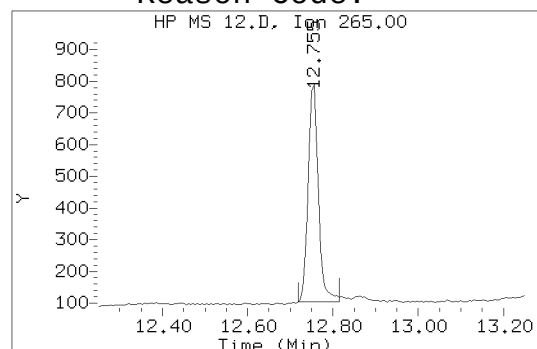
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\12.D
Inj Date : 28-SEP-2023 15:56
InstruID : SV6.i
LabSampID : 14DX-0.100

Perylene-d12 (1520-96-3)**BEFORE**

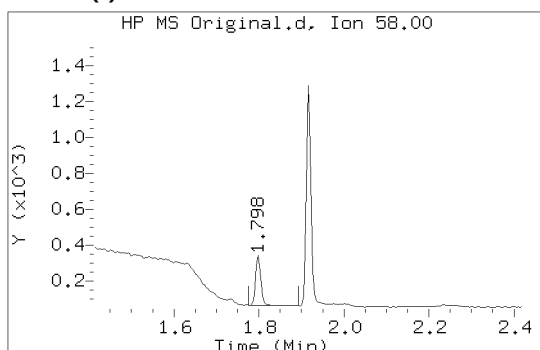
MASS
265
AREA
1141
HEIGHT
685
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

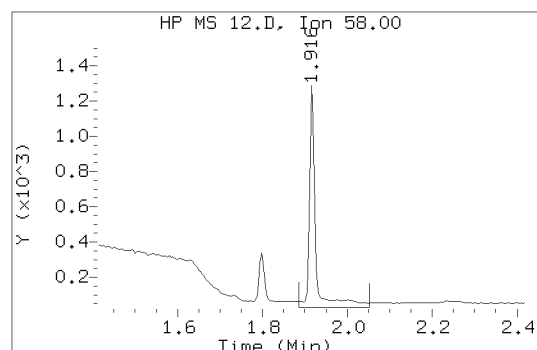
MASS
265
AREA
1141
HEIGHT
685
29-Sep-2023
09:37

Reason Code:**1,4-Dioxane ()****BEFORE**

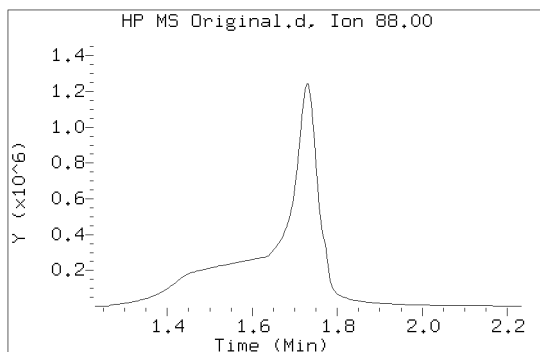
MASS
58
AREA
245
HEIGHT
279
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

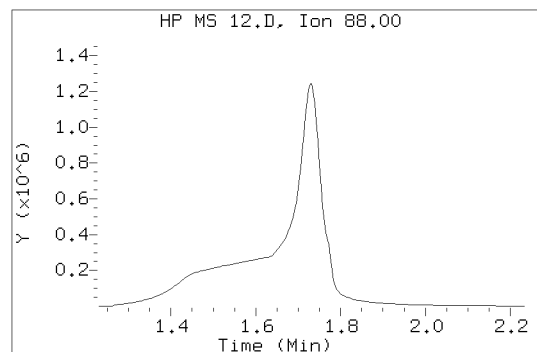
MASS
58
AREA
1303
HEIGHT
1257
29-Sep-2023
09:37

Reason Code:**BEFORE**

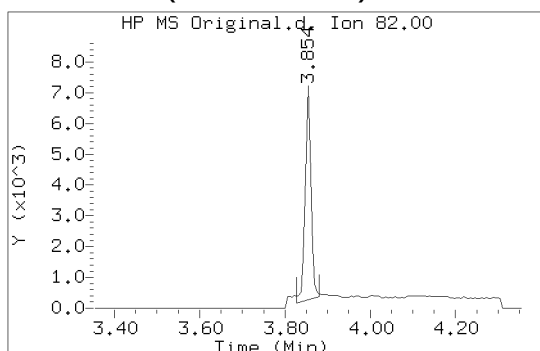
MASS
88
AREA
0
HEIGHT
0
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

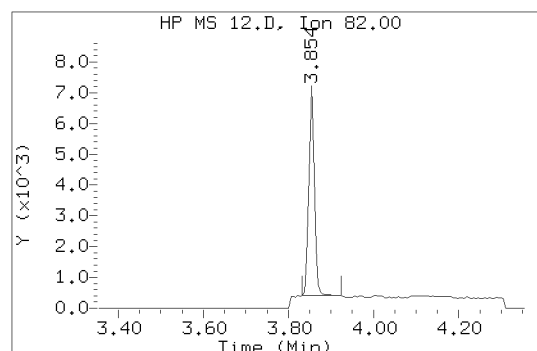
MASS
88
AREA
0
HEIGHT
0
29-Sep-2023
09:37

**Nitrobenzene-d5 (4165-60-0)****BEFORE**

MASS
82
AREA
6543
HEIGHT
6949
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

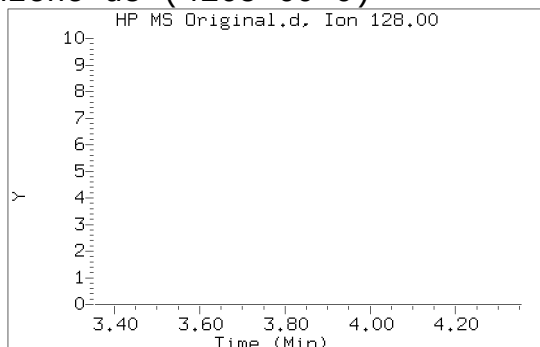
MASS
82
AREA
6092
HEIGHT
6808
29-Sep-2023
09:37

Reason Code:

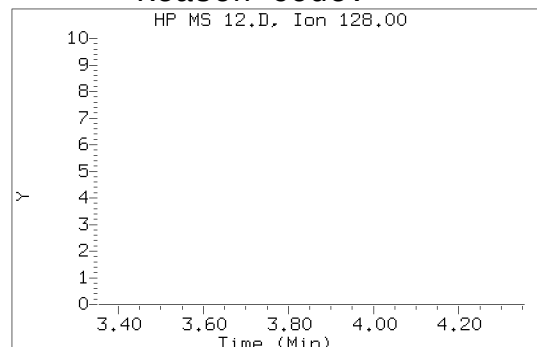
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\12.D
Inj Date : 28-SEP-2023 15:56
InstruID : SV6.i
LabSampID : 14DX-0.100

Nitrobenzene-d5 (4165-60-0)**BEFORE**

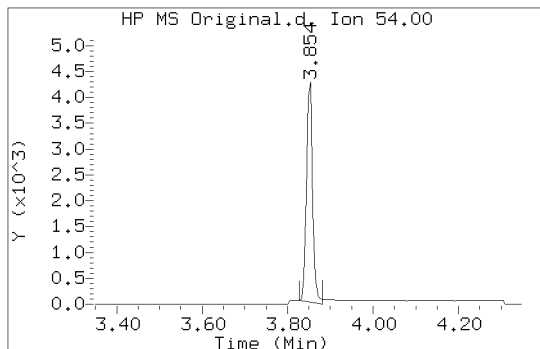
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
16:10
ALSHS

**AFTER**

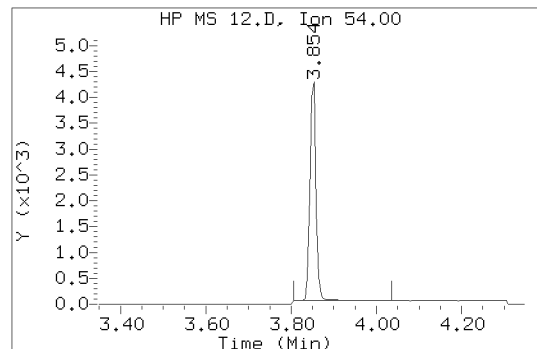
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
09:37

Reason Code:**BEFORE**

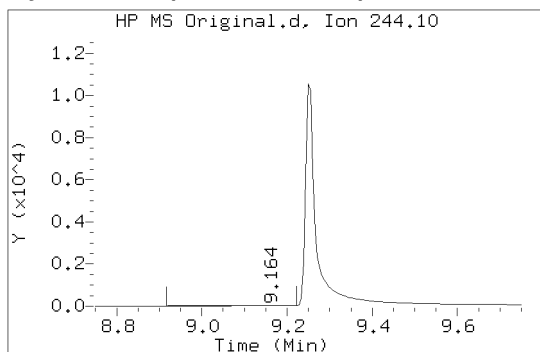
MASS
54
AREA
4318
HEIGHT
4262
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

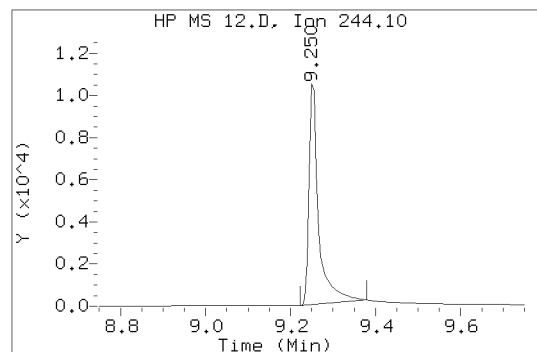
MASS
54
AREA
4223
HEIGHT
4226
29-Sep-2023
09:37

**4-Terphenyl-d14 (1718-51-0)****BEFORE**

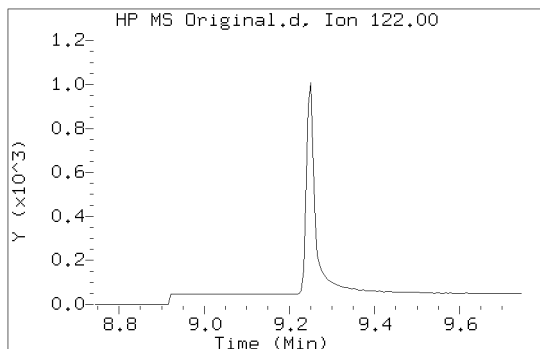
MASS
244.1
AREA
386
HEIGHT
8
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

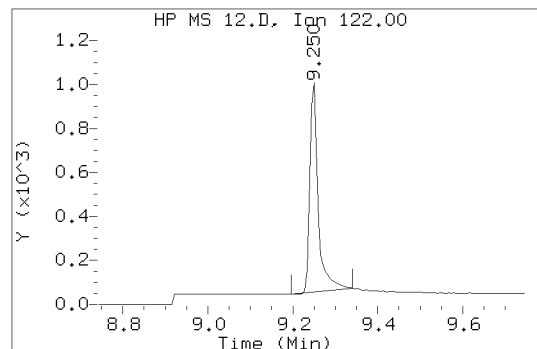
MASS
244.1
AREA
16284
HEIGHT
10463
29-Sep-2023
09:37

Reason Code:**BEFORE**

MASS
122
AREA
0
HEIGHT
0
28-Sep-2023
16:10
ALSHS
Server

**AFTER**

MASS
122
AREA
1277
HEIGHT
951
29-Sep-2023
09:37

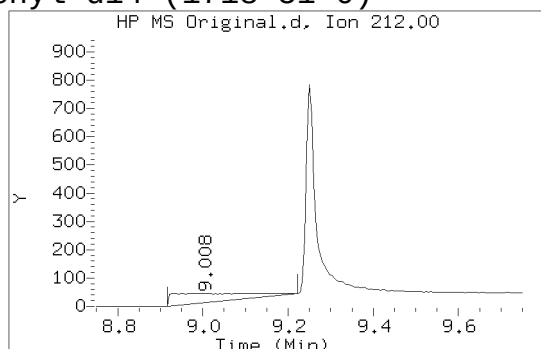


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\12.D
Inj Date : 28-SEP-2023 15:56
InstruID : SV6.i
LabSampID : 14DX-0.100

4-Terphenyl-d14 (1718-51-0)

BEFORE

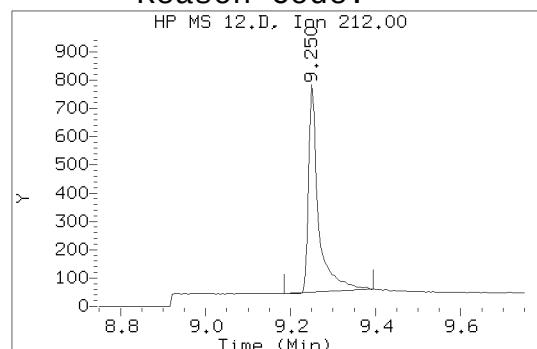
MASS
212
AREA
402
HEIGHT
32
28-Sep-2023
16:10
ALSHS
Server



AFTER

MASS
212
AREA
1166
HEIGHT
733
29-Sep-2023
09:37

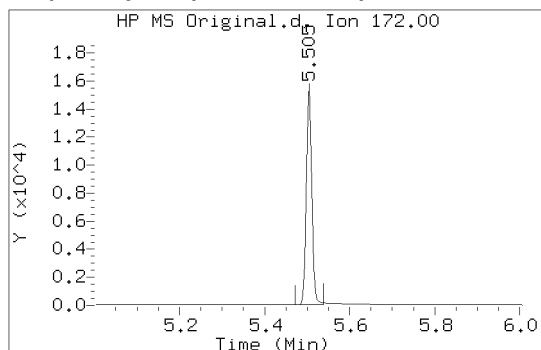
Reason Code:



2-Fluorobiphenyl (321-60-8)

BEFORE

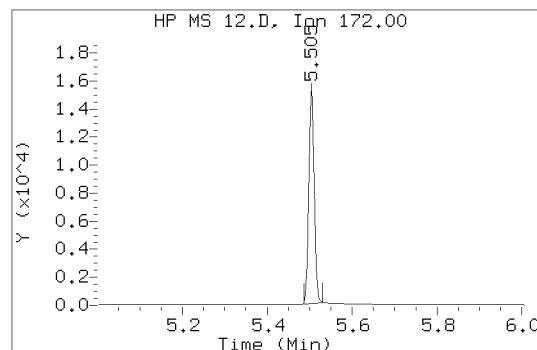
MASS
172
AREA
14201
HEIGHT
15757
28-Sep-2023
16:10
ALSHS
Server



AFTER

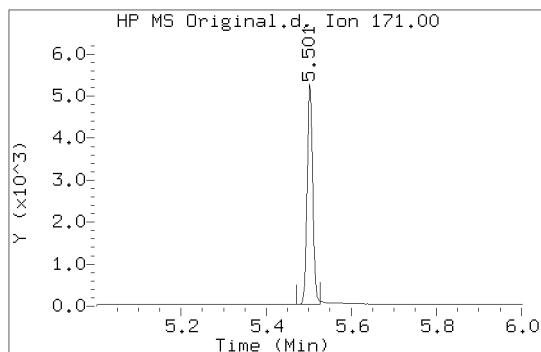
MASS
172
AREA
13915
HEIGHT
15686
29-Sep-2023
09:37

Reason Code:



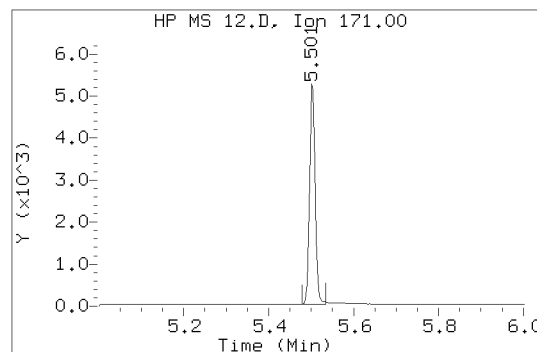
BEFORE

MASS
171
AREA
4861
HEIGHT
5243
28-Sep-2023
16:10
ALSHS
Server



AFTER

MASS
171
AREA
4878
HEIGHT
5241
29-Sep-2023
09:37



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\13.D
 Report Date: 29-Sep-2023 09:37

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\13.D
 Lab Smp Id: 14DX-0.150 Client Smp ID: 14DX-0.150
 Inj Date : 28-SEP-2023 16:13
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX-0.150
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 29-Sep-2023 09:37 SV6.i Quant Type: ISTD
 Cal Date : 28-SEP-2023 15:56 Cal File: 12.D
 Als bottle: 13 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152		3.413	3.413	(1.000)	4360	0.10000	(aM)
* 45 Naphthalene-d8	136		4.490	4.490	(1.000)	16371	0.10000	
\$ 33 Nitrobenzene-d5	82		3.853	3.853	(0.858)	8972	0.15000	0.1400(M)
* 86 Acenaphthene-d10	164		6.160	6.160	(1.000)	6103	0.10000	
\$ 69 2-Fluorobiphenyl	172		5.501	5.501	(0.893)	19260	0.15000	0.1650(AM)
* 126 Phenanthrene-d10	188		7.625	7.625	(1.000)	13266	0.10000	(M)
* 182 Chrysene-d12	240		10.578	10.578	(1.000)	5862	0.10000	(M)
\$ 158 4-Terphenyl-d14	244		9.249	9.249	(0.874)	29096	0.15000	0.1553(AM)
* 198 Perylene-d12	264		12.750	12.750	(1.000)	5852	0.10000	(M)
1 1,4-Dioxane	58		1.938	1.938	(0.568)	1823	0.15000	0.1380(M)

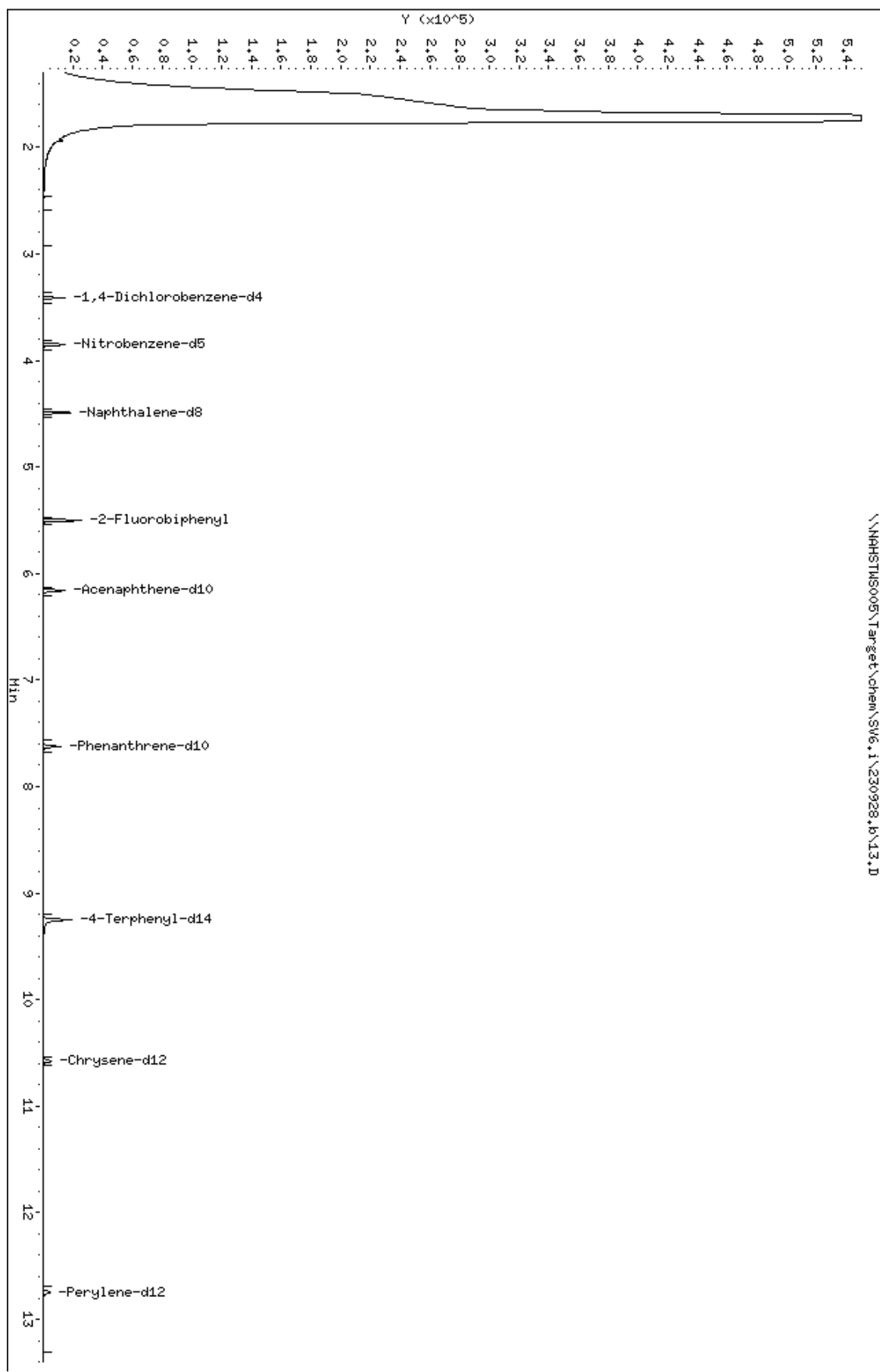
QC Flag Legend

- 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.



Data File: \\NAHSTMS0005\Target\chem\SW6.i\230928.b\13.D
Date : 28-SEP-2023 16:13
Client ID: 14DX-0.150
Sample Info: 14DX-0.150
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SW6.i
Operator: LG
Column diameter: 0.28

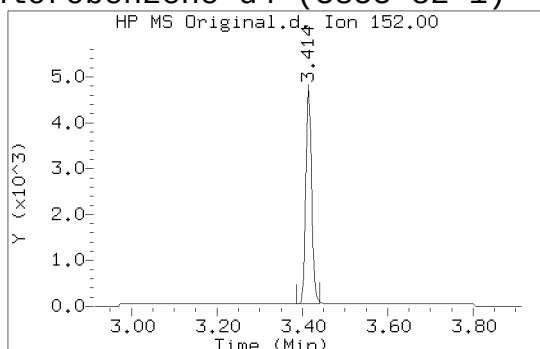


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\13.D
Inj Date : 28-SEP-2023 16:13
InstruID : SV6.i
LabSampID : 14DX-0.150

1,4-Dichlorobenzene-d4 (3855-82-1)

BEFORE

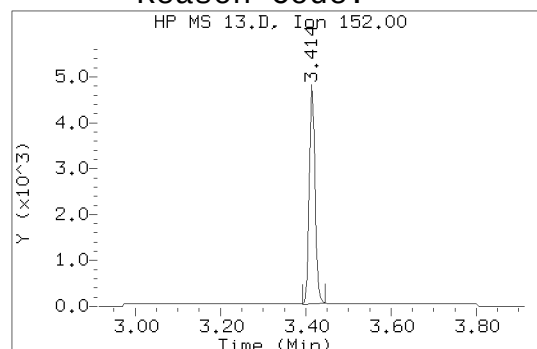
MASS
152
AREA
4366
HEIGHT
4781
28-Sep-2023
16:29
ALSHS
Server



AFTER

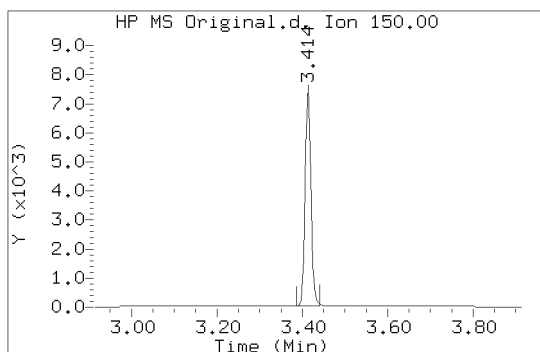
MASS
152
AREA
4360
HEIGHT
4780
29-Sep-2023
09:37

Reason Code:



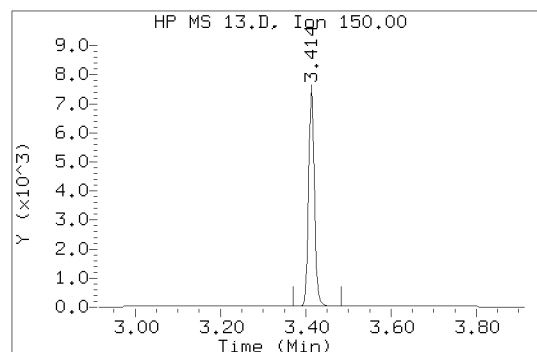
BEFORE

MASS
150
AREA
6868
HEIGHT
7603
28-Sep-2023
16:29
ALSHS
Server



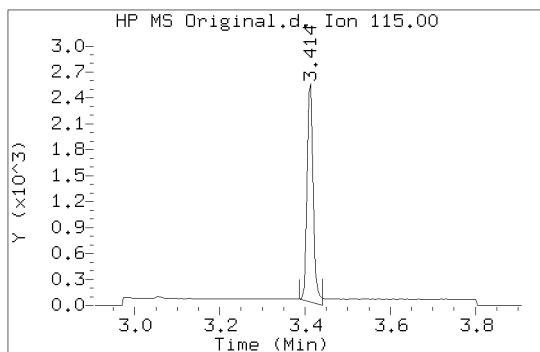
AFTER

MASS
150
AREA
6868
HEIGHT
7601
29-Sep-2023
09:37



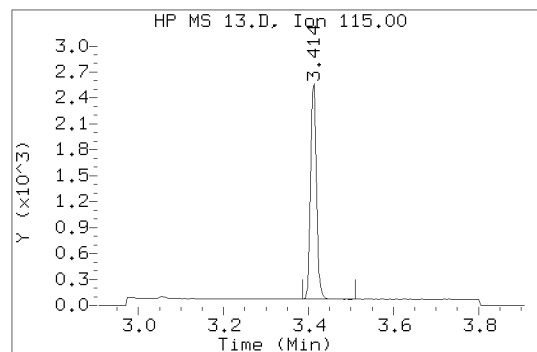
BEFORE

MASS
115
AREA
2584
HEIGHT
2528
28-Sep-2023
16:29
ALSHS
Server



AFTER

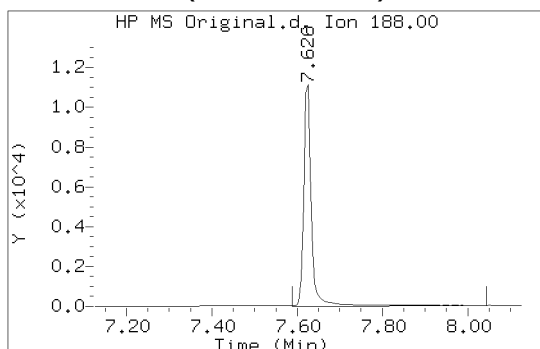
MASS
115
AREA
2453
HEIGHT
2491
29-Sep-2023
09:37



Phenanthrene-d10 (1517-22-2)

BEFORE

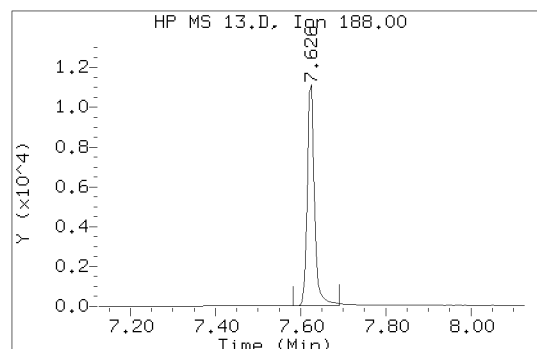
MASS
188
AREA
13955
HEIGHT
11118
28-Sep-2023
16:29
ALSHS
Server



AFTER

MASS
188
AREA
13266
HEIGHT
11092
29-Sep-2023
09:37

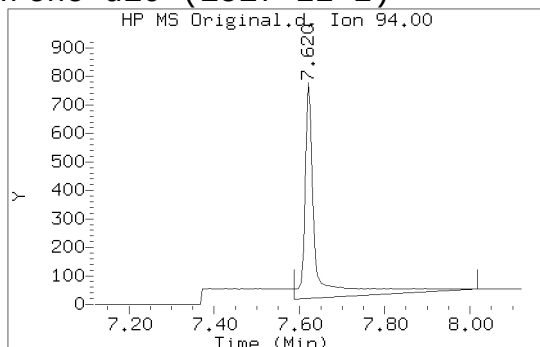
Reason Code:



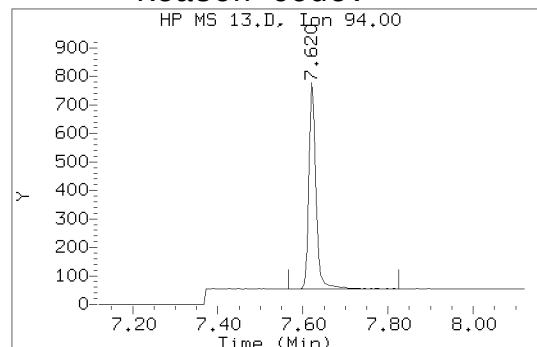
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\13.D
Inj Date : 28-SEP-2023 16:13
InstruID : SV6.i
LabSampID : 14DX-0.150

Phenanthrene-d10 (1517-22-2)**BEFORE**

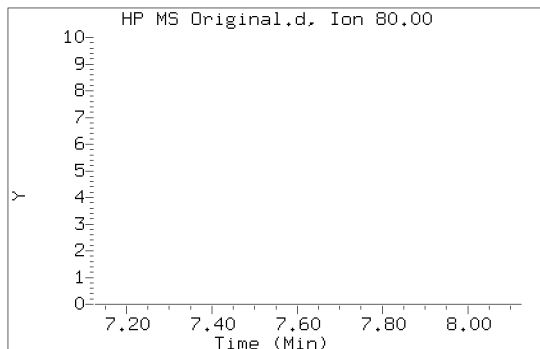
MASS
94
AREA
1309
HEIGHT
756
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

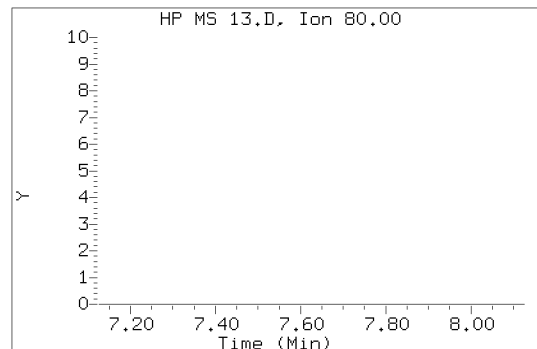
MASS
94
AREA
839
HEIGHT
723
29-Sep-2023
09:37

**BEFORE**

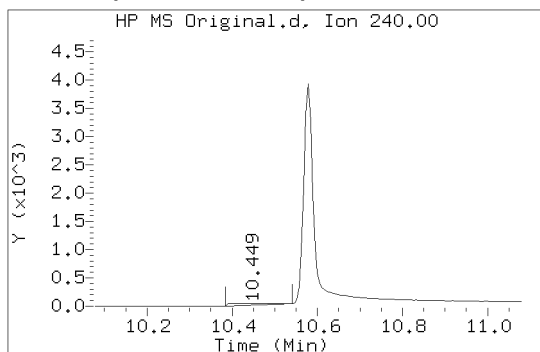
MASS
80
AREA
0
HEIGHT
0
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

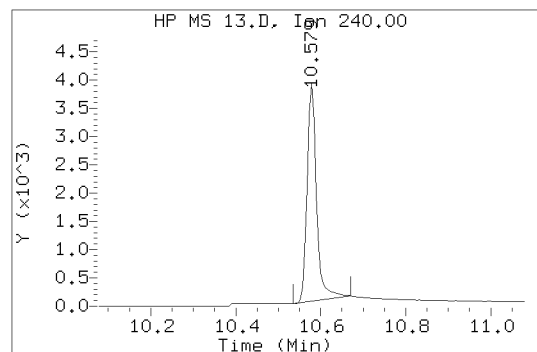
MASS
80
AREA
0
HEIGHT
0
29-Sep-2023
09:37

**Chrysene-d12 (1719-03-5)****BEFORE**

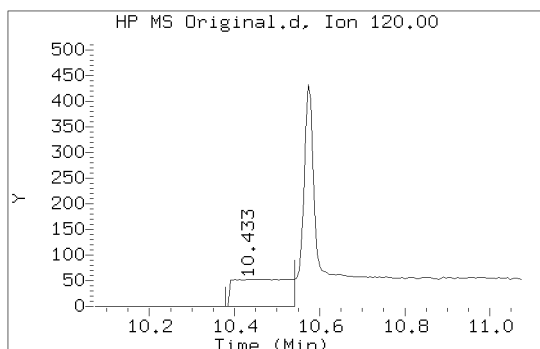
MASS
240
AREA
204
HEIGHT
27
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

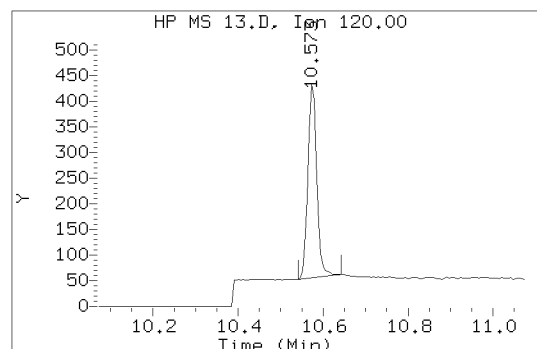
MASS
240
AREA
5862
HEIGHT
3844
29-Sep-2023
09:37

**BEFORE**

MASS
120
AREA
485
HEIGHT
53
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

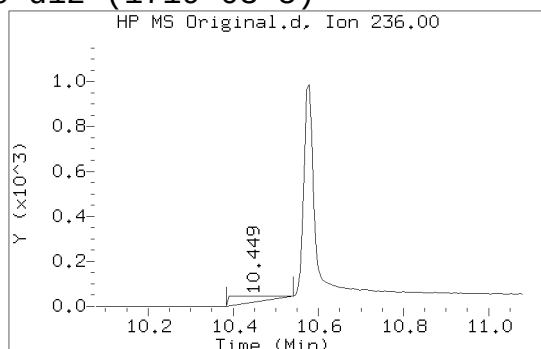
MASS
120
AREA
543
HEIGHT
376
29-Sep-2023
09:37



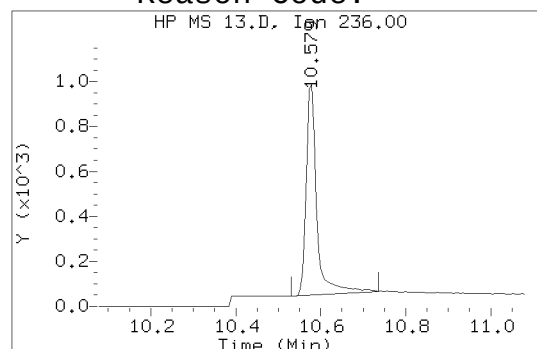
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\13.D
Inj Date : 28-SEP-2023 16:13
InstruID : SV6.i
LabSampID : 14DX-0.150

Chrysene-d12 (1719-03-5)**BEFORE**

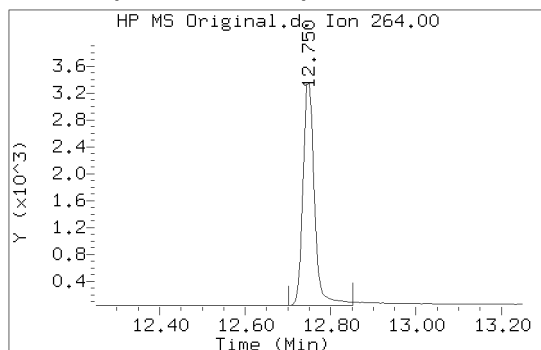
MASS
236
AREA
204
HEIGHT
27
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

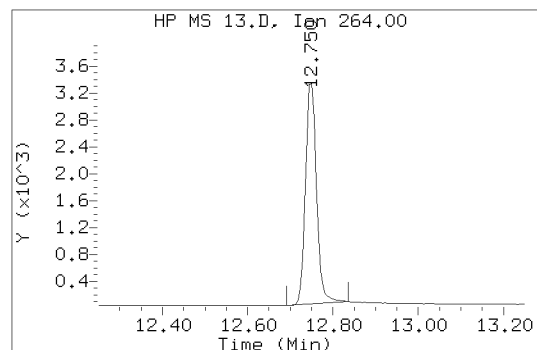
MASS
236
AREA
1598
HEIGHT
935
29-Sep-2023
09:37

**Perylene-d12 (1520-96-3)****BEFORE**

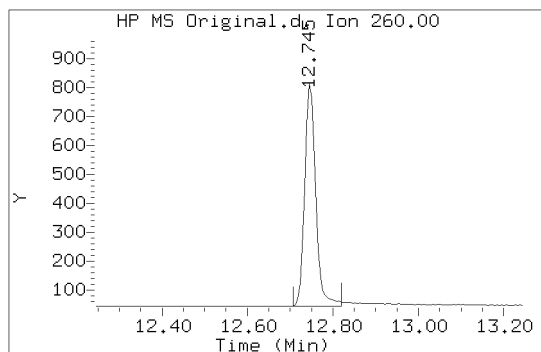
MASS
264
AREA
6157
HEIGHT
3293
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

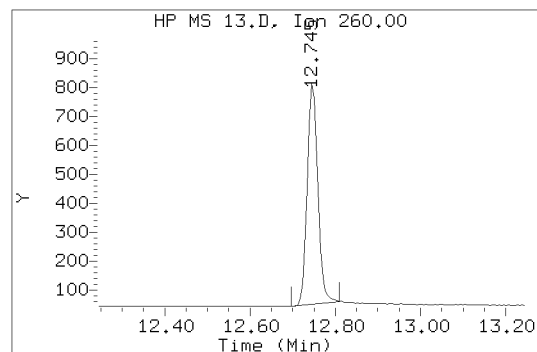
MASS
264
AREA
5852
HEIGHT
3269
29-Sep-2023
09:37

**BEFORE**

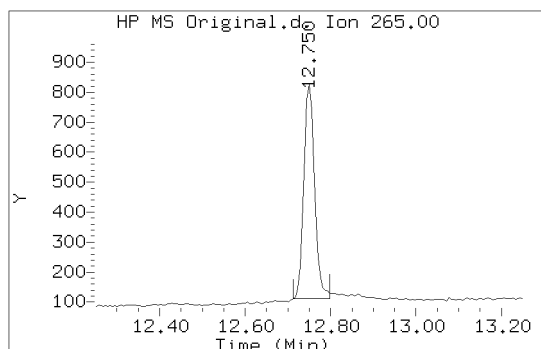
MASS
260
AREA
1368
HEIGHT
768
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

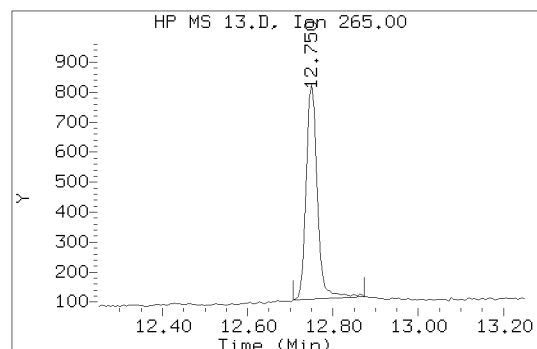
MASS
260
AREA
1309
HEIGHT
762
29-Sep-2023
09:37

**BEFORE**

MASS
265
AREA
1257
HEIGHT
714
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

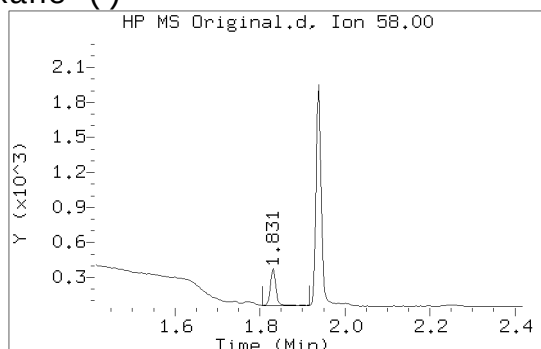
MASS
265
AREA
1300
HEIGHT
714
29-Sep-2023
09:37



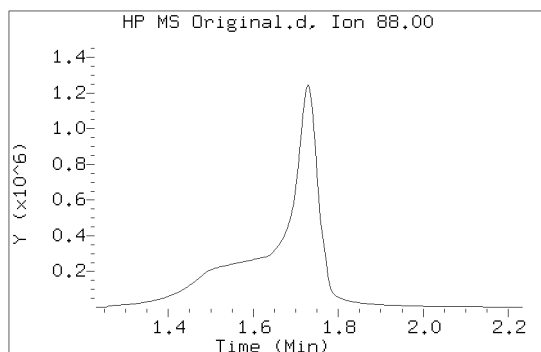
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\13.D
Inj Date : 28-SEP-2023 16:13
InstruID : SV6.i
LabSampID : 14DX-0.150

1,4-Dioxane ()**BEFORE**

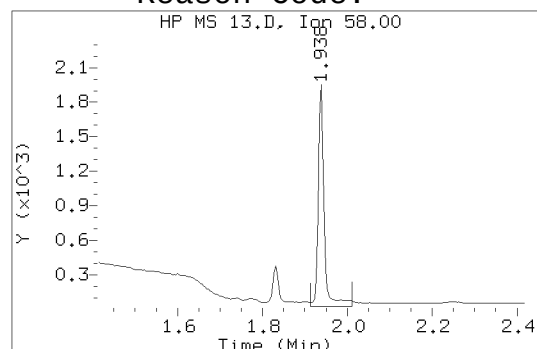
MASS
58
AREA
280
HEIGHT
318
28-Sep-2023
16:29
ALSHS

**BEFORE**

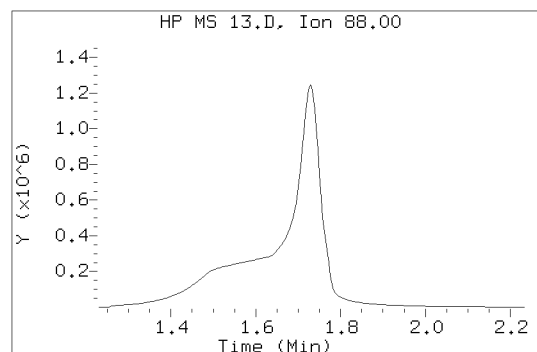
MASS
88
AREA
0
HEIGHT
0
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

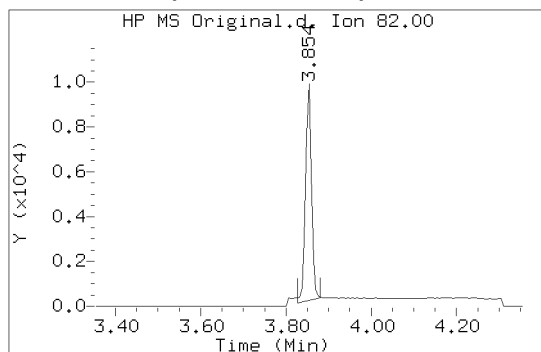
MASS
58
AREA
1823
HEIGHT
1926
29-Sep-2023
09:37

**AFTER**

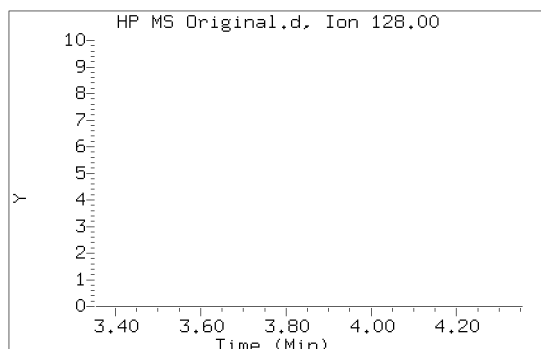
MASS
88
AREA
0
HEIGHT
0
29-Sep-2023
09:37

**Nitrobenzene-d5 (4165-60-0)****BEFORE**

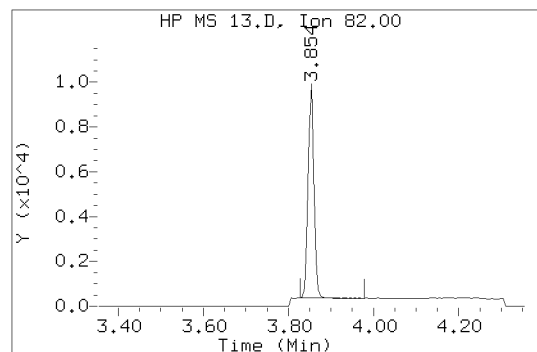
MASS
82
AREA
9299
HEIGHT
9668
28-Sep-2023
16:29
ALSHS
Server

**BEFORE**

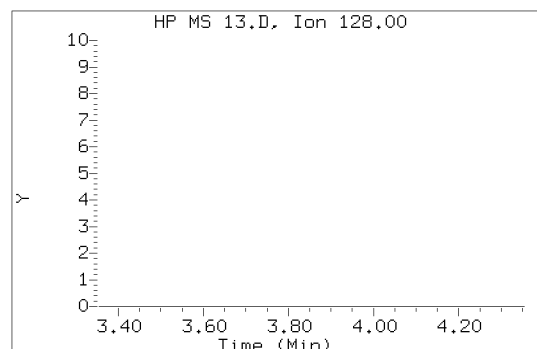
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

MASS
82
AREA
8972
HEIGHT
9564
29-Sep-2023
09:37

**AFTER**

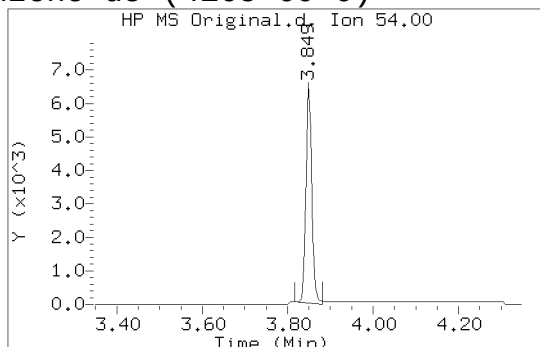
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
09:37



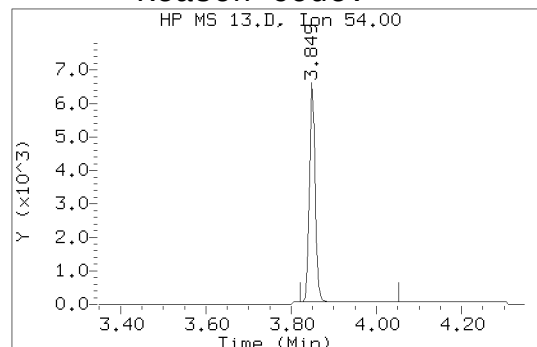
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\13.D
Inj Date : 28-SEP-2023 16:13
InstruID : SV6.i
LabSampID : 14DX-0.150

Nitrobenzene-d5 (4165-60-0)**BEFORE**

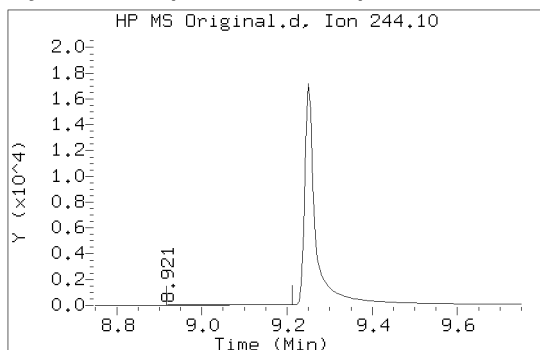
MASS
54
AREA
6328
HEIGHT
6585
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

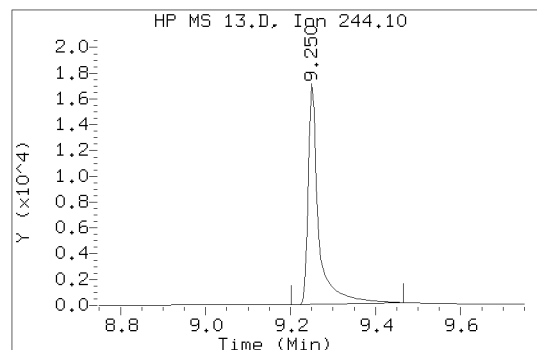
MASS
54
AREA
6227
HEIGHT
6550
29-Sep-2023
09:37

Reason Code:**4-Terphenyl-d14 (1718-51-0)****BEFORE**

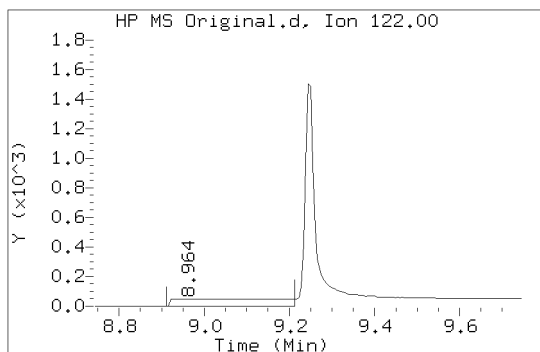
MASS
244.1
AREA
383
HEIGHT
43
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

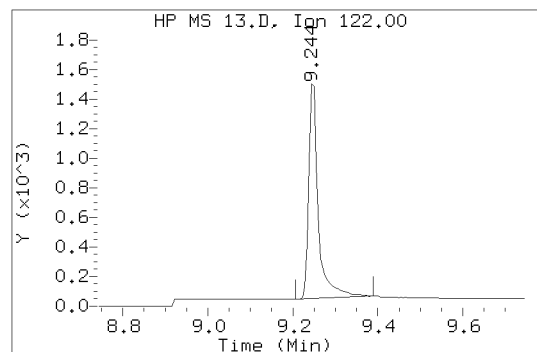
MASS
244.1
AREA
29096
HEIGHT
17109
29-Sep-2023
09:37

Reason Code:**BEFORE**

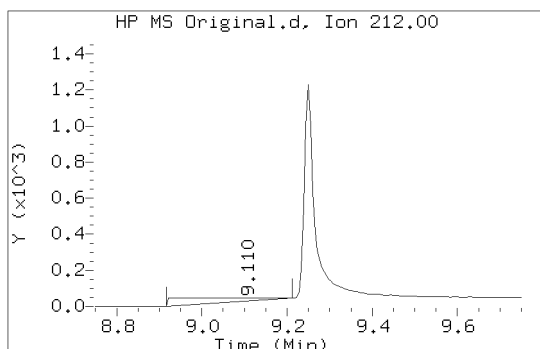
MASS
122
AREA
848
HEIGHT
49
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

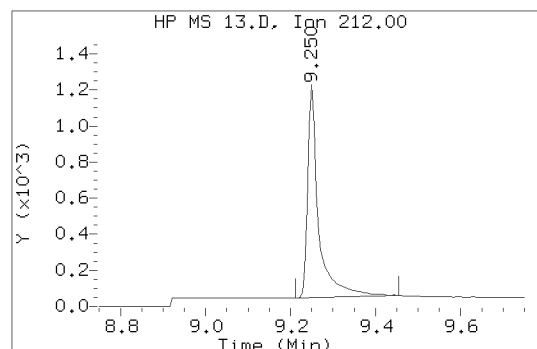
MASS
122
AREA
2241
HEIGHT
1450
29-Sep-2023
09:37

**BEFORE**

MASS
212
AREA
384
HEIGHT
16
28-Sep-2023
16:29
ALSHS
Server

**AFTER**

MASS
212
AREA
2074
HEIGHT
1179
29-Sep-2023
09:37

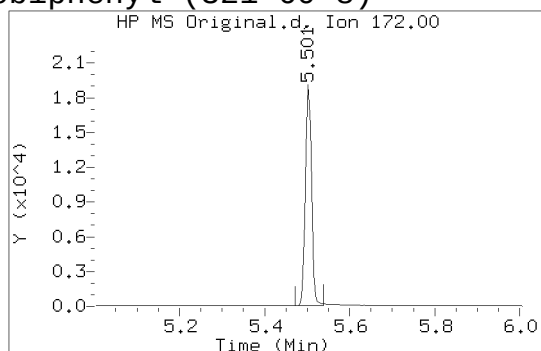


Data File : \\NAHSTWS005\Target\chem\SV6.i\230928.b\13.D
Inj Date : 28-SEP-2023 16:13
InstruID : SV6.i
LabSampID : 14DX-0.150

2-Fluorobiphenyl (321-60-8)

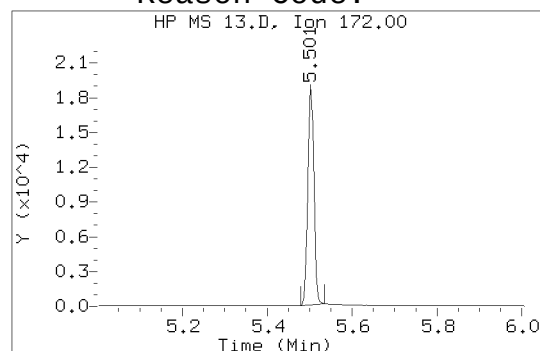
BEFORE

MASS
172
AREA
19650
HEIGHT
19079
28-Sep-2023
16:29
ALSHS
Server



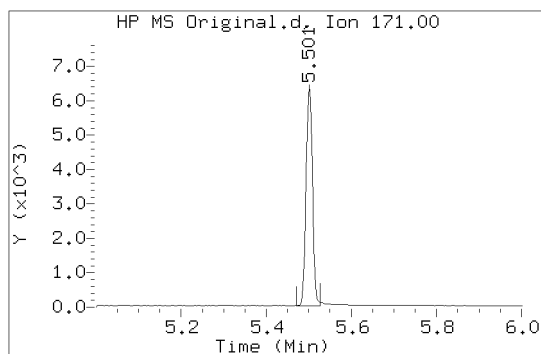
AFTER

MASS
172
AREA
19260
HEIGHT
18995
29-Sep-2023
09:37



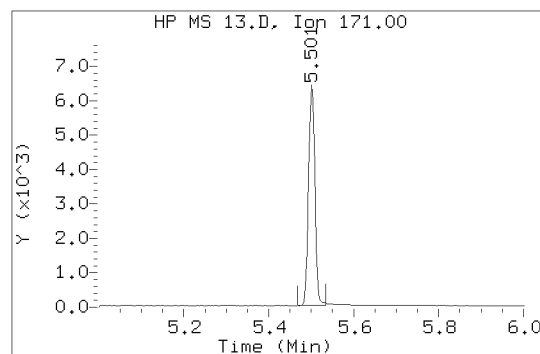
BEFORE

MASS
171
AREA
6809
HEIGHT
6416
28-Sep-2023
16:29
ALSHS
Server



AFTER

MASS
171
AREA
6836
HEIGHT
6415
29-Sep-2023
09:37



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\14.D
 Report Date: 29-Sep-2023 09:37

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\14.D
 Lab Smp Id: 14DX-0.200 Client Smp ID: 14DX-0.200
 Inj Date : 28-SEP-2023 16:31
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX-0.200
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 29-Sep-2023 09:37 SV6.i Quant Type: ISTD
 Cal Date : 28-SEP-2023 16:13 Cal File: 13.D
 Als bottle: 14 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152		3.414	3.414	(1.000)	2679	0.10000	(aQM)
* 45 Naphthalene-d8	136		4.493	4.493	(1.000)	6811	0.10000	(M)
\$ 33 Nitrobenzene-d5	82		3.854	3.854	(0.858)	5445	0.20000	0.2042(AM)
* 86 Acenaphthene-d10	164		6.164	6.164	(1.000)	6167	0.10000	(M)
\$ 69 2-Fluorobiphenyl	172		5.503	5.503	(0.893)	20624	0.20000	0.1749(AM)
* 126 Phenanthrene-d10	188		7.624	7.624	(1.000)	12860	0.10000	(M)
* 182 Chrysene-d12	240		10.577	10.577	(1.000)	3845	0.10000	(M)
\$ 158 4-Terphenyl-d14	244		9.253	9.253	(0.875)	31785	0.20000	0.2587(AM)
* 198 Perylene-d12	264		12.748	12.748	(1.000)	3965	0.10000	(M)
1 1,4-Dioxane	58		1.901	1.901	(0.557)	1564	0.20000	0.1927(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.
- Q - Qualifier signal failed the ratio test.



M - Compound response manually integrated.

Data File: \\NAHSTMS005\Target\chem\SW6.i\230928.b\14.D

Date: 28-SEP-2023 16:31

Client ID: 14DX-0.200

Sample Info: 14DX-0.200

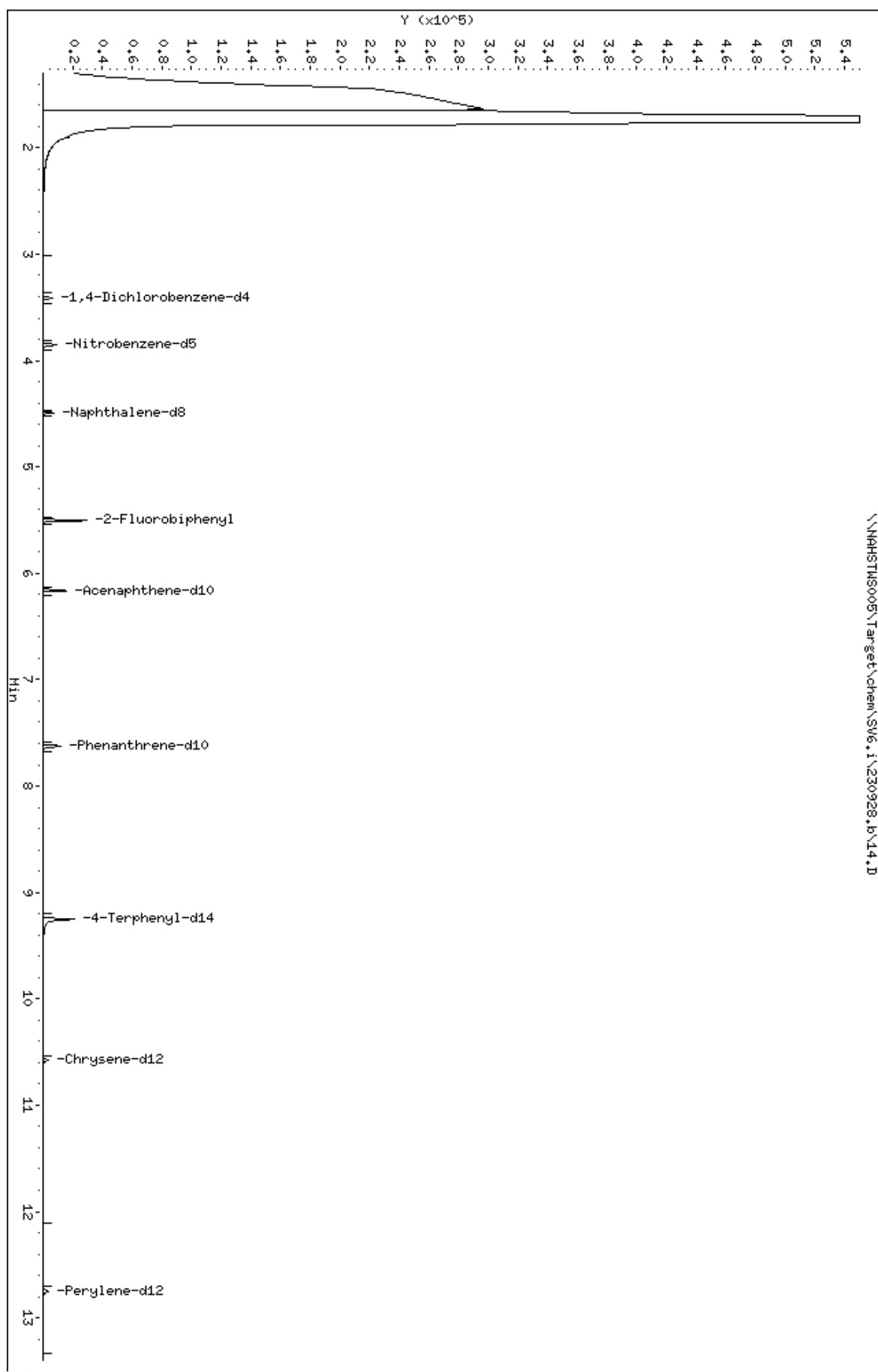
Purge Volume: 1000.0

Column phase: RTX-5SIL MS

Instrument: SW6.i

Operator: LG

Column diameter: 0.28

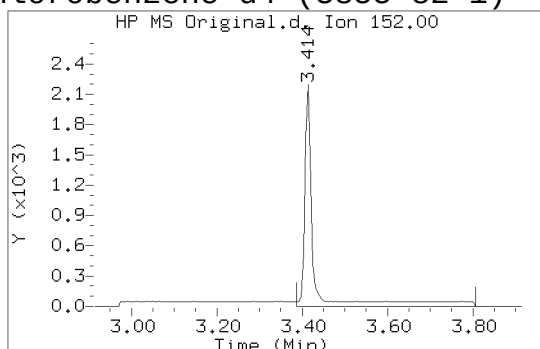


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\14.D
Inj Date : 28-SEP-2023 16:31
InstruID : SV6.i
LabSampID : 14DX-0.200

1,4-Dichlorobenzene-d4 (3855-82-1)

BEFORE

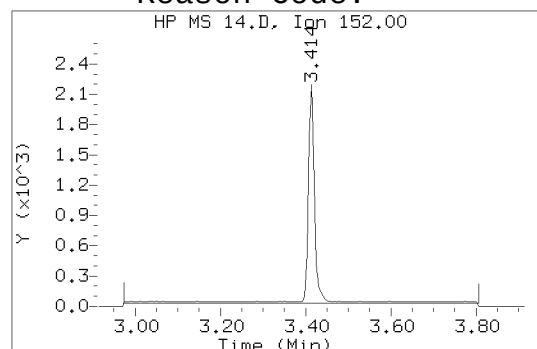
MASS
152
AREA
3172
HEIGHT
2195
28-Sep-2023
16:45
ALSHS
Server



AFTER

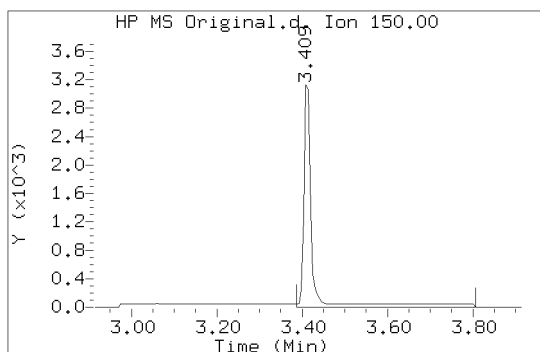
MASS
152
AREA
2679
HEIGHT
2162
29-Sep-2023
09:37

Reason Code:



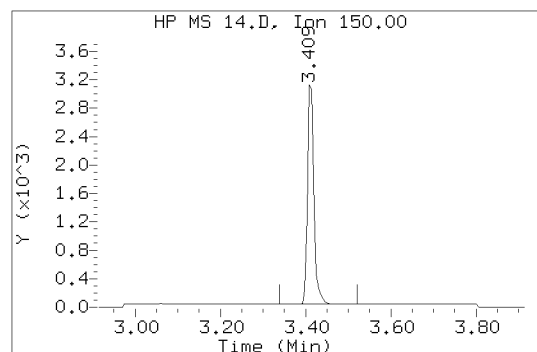
BEFORE

MASS
150
AREA
4296
HEIGHT
3127
28-Sep-2023
16:45
ALSHS
Server



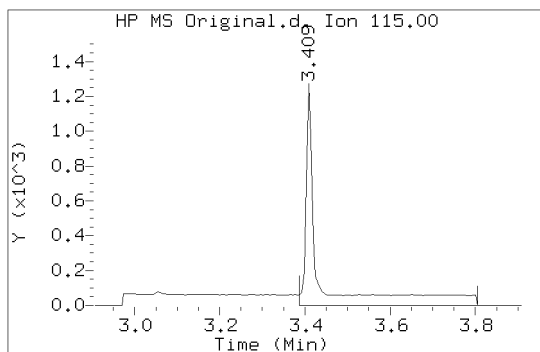
AFTER

MASS
150
AREA
3130
HEIGHT
3080
29-Sep-2023
09:37



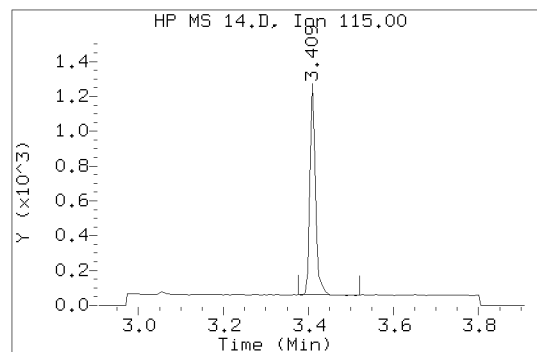
BEFORE

MASS
115
AREA
2601
HEIGHT
1273
28-Sep-2023
16:45
ALSHS
Server



AFTER

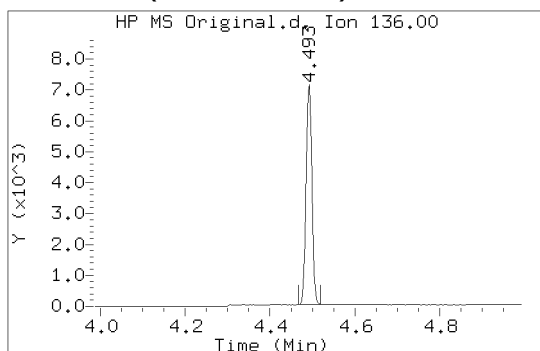
MASS
115
AREA
1110
HEIGHT
1211
29-Sep-2023
09:37



Naphthalene-d8 (1146-65-2)

BEFORE

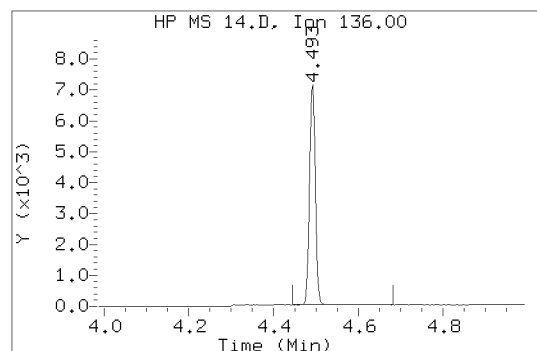
MASS
136
AREA
6783
HEIGHT
7117
28-Sep-2023
16:45
ALSHS
Server



AFTER

MASS
136
AREA
6811
HEIGHT
7117
29-Sep-2023
09:37

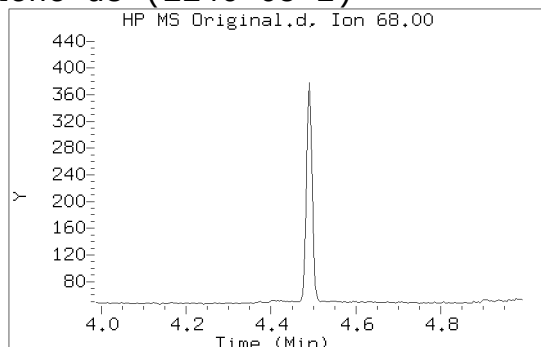
Reason Code:



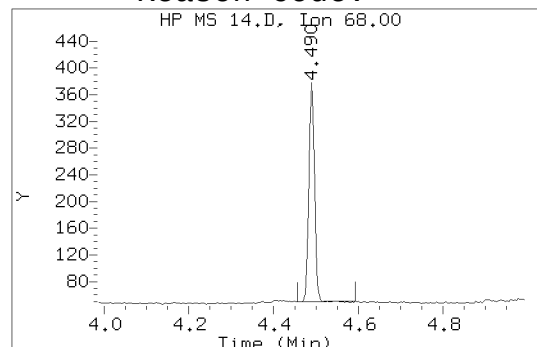
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\14.D
Inj Date : 28-SEP-2023 16:31
InstruID : SV6.i
LabSampID : 14DX-0.200

Naphthalene-d8 (1146-65-2)**BEFORE**

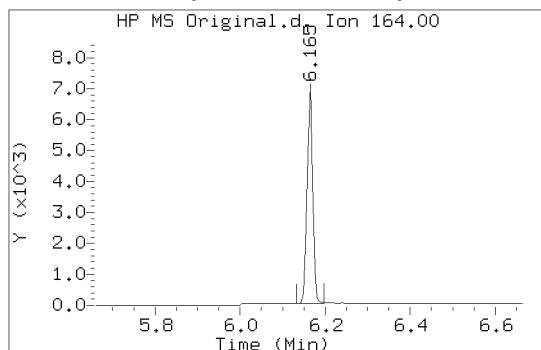
MASS
68
AREA
0
HEIGHT
0
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

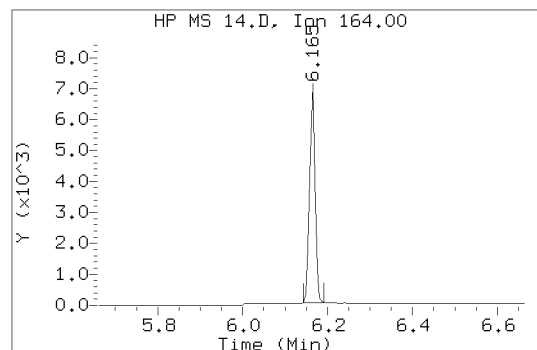
MASS
68
AREA
297
HEIGHT
327
29-Sep-2023
09:37

Reason Code:**Acenaphthene-d10 (15067-26-2)****BEFORE**

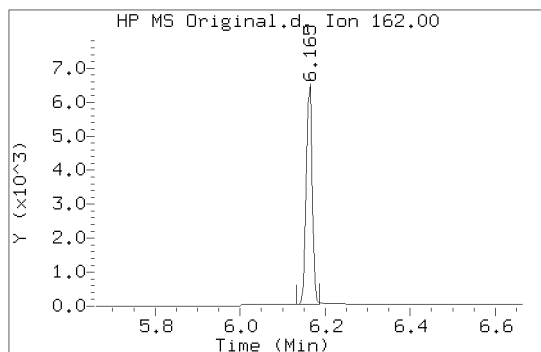
MASS
164
AREA
6268
HEIGHT
7105
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

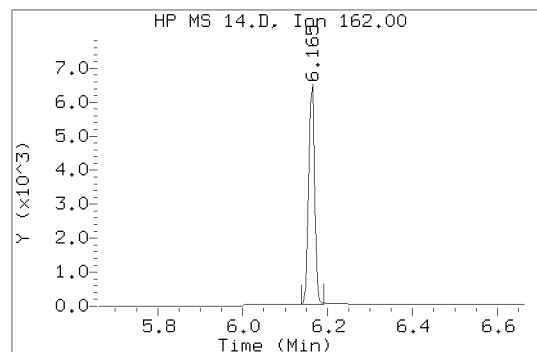
MASS
164
AREA
6167
HEIGHT
7078
29-Sep-2023
09:37

Reason Code:**BEFORE**

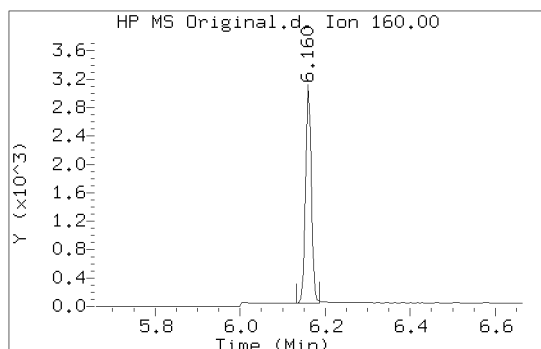
MASS
162
AREA
6235
HEIGHT
6486
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

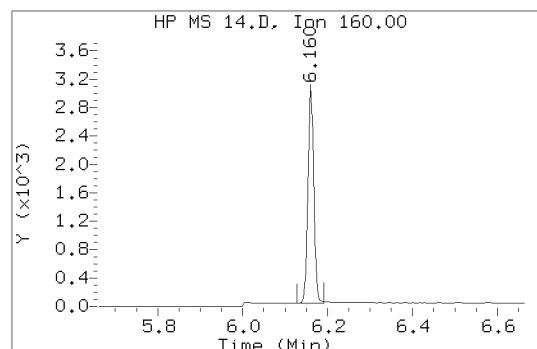
MASS
162
AREA
6235
HEIGHT
6483
29-Sep-2023
09:37

**BEFORE**

MASS
160
AREA
2803
HEIGHT
3077
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

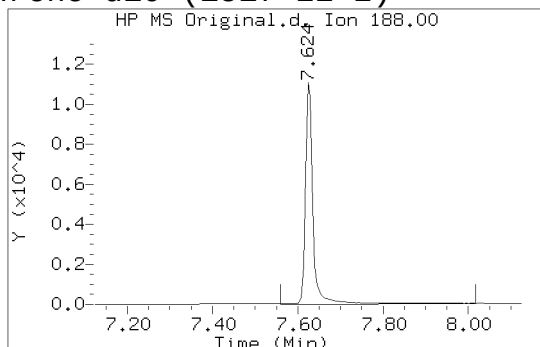
MASS
160
AREA
2815
HEIGHT
3078
29-Sep-2023
09:37



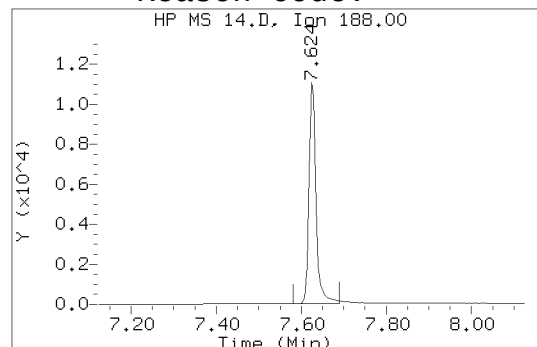
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\14.D
Inj Date : 28-SEP-2023 16:31
InstruID : SV6.i
LabSampID : 14DX-0.200

Phenanthrene-d10 (1517-22-2)**BEFORE**

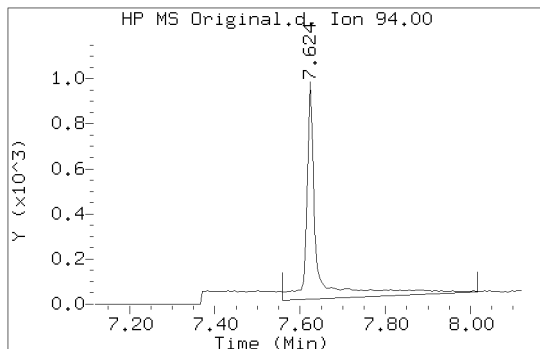
MASS
188
AREA
13674
HEIGHT
11061
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

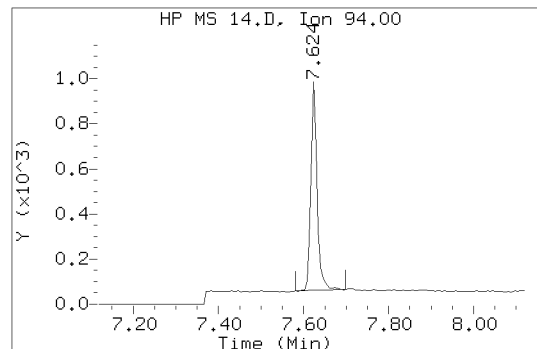
MASS
188
AREA
12860
HEIGHT
11035
29-Sep-2023
09:37

Reason Code:**BEFORE**

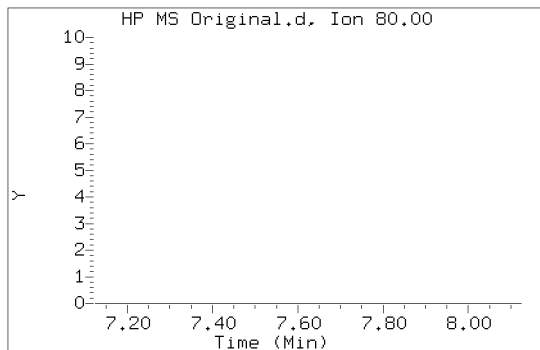
MASS
94
AREA
1641
HEIGHT
962
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

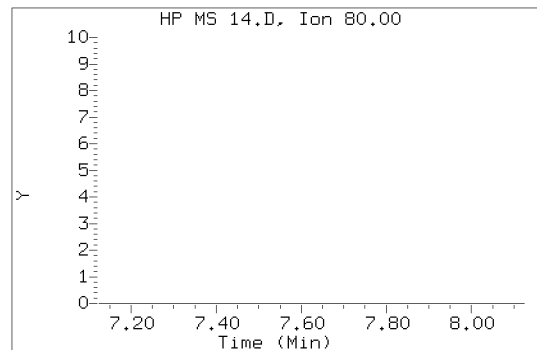
MASS
94
AREA
952
HEIGHT
924
29-Sep-2023
09:37

**BEFORE**

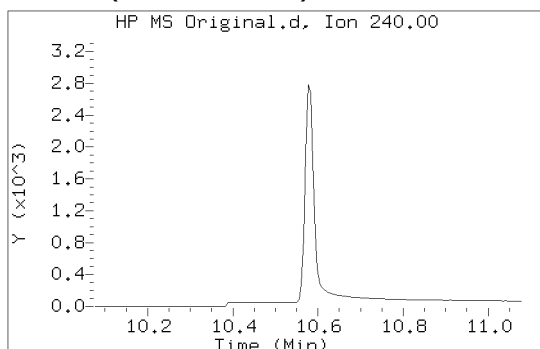
MASS
80
AREA
0
HEIGHT
0
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

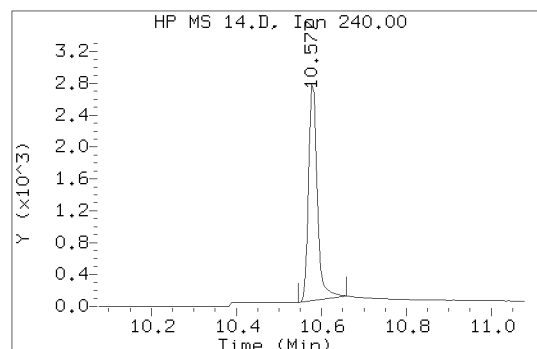
MASS
80
AREA
0
HEIGHT
0
29-Sep-2023
09:37

**Chrysene-d12 (1719-03-5)****BEFORE**

MASS
240
AREA
0
HEIGHT
0
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

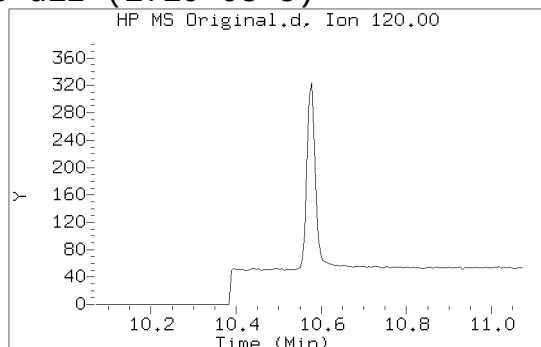
MASS
240
AREA
3845
HEIGHT
2712
29-Sep-2023
09:37

Reason Code:

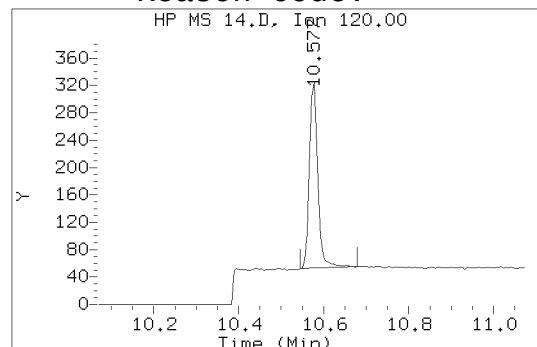
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\14.D
Inj Date : 28-SEP-2023 16:31
InstruID : SV6.i
LabSampID : 14DX-0.200

Chrysene-d12 (1719-03-5)**BEFORE**

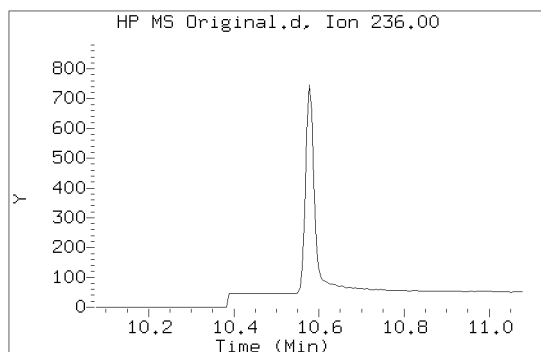
MASS
120
AREA
0
HEIGHT
0
28-Sep-2023
16:45
ALSHS

**AFTER**

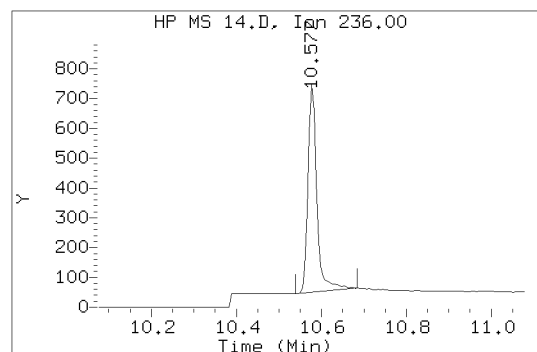
MASS
120
AREA
371
HEIGHT
271
29-Sep-2023
09:37

**BEFORE**

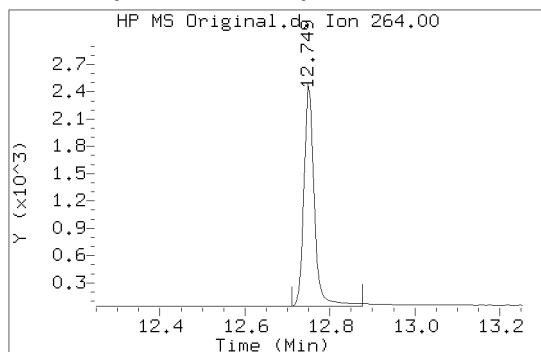
MASS
236
AREA
0
HEIGHT
0
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

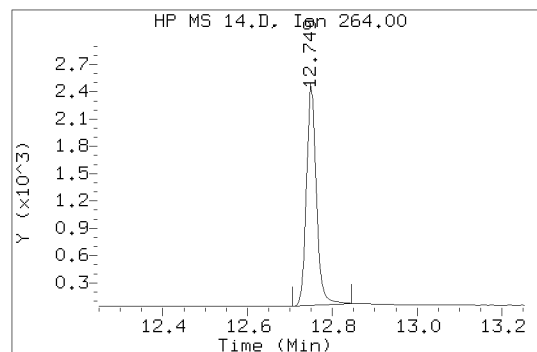
MASS
236
AREA
1000
HEIGHT
696
29-Sep-2023
09:37

**Perylene-d12 (1520-96-3)****BEFORE**

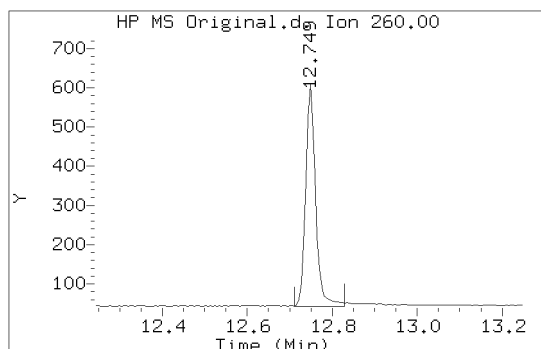
MASS
264
AREA
4130
HEIGHT
2439
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

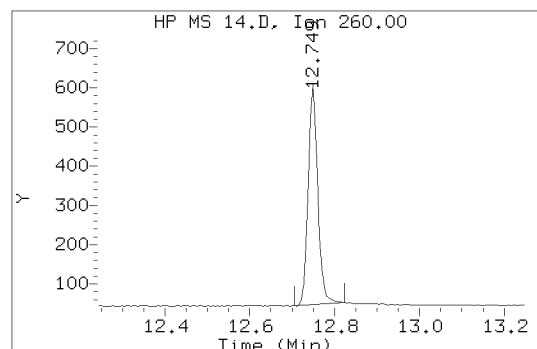
MASS
264
AREA
3965
HEIGHT
2431
29-Sep-2023
09:37

**BEFORE**

MASS
260
AREA
928
HEIGHT
565
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

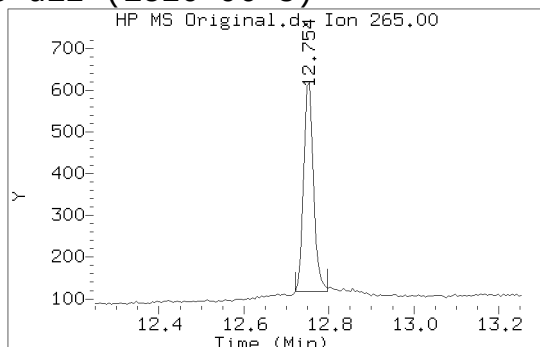
MASS
260
AREA
885
HEIGHT
560
29-Sep-2023
09:37



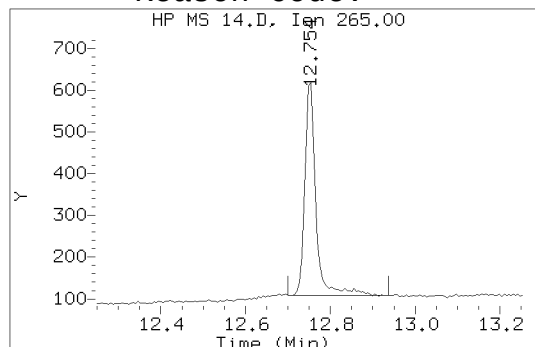
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\14.D
Inj Date : 28-SEP-2023 16:31
InstruID : SV6.i
LabSampID : 14DX-0.200

Perylene-d12 (1520-96-3)**BEFORE**

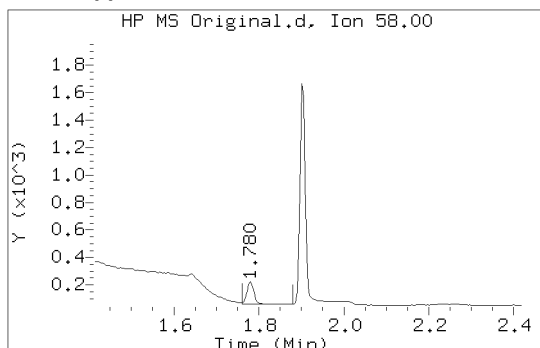
MASS
265
AREA
823
HEIGHT
501
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

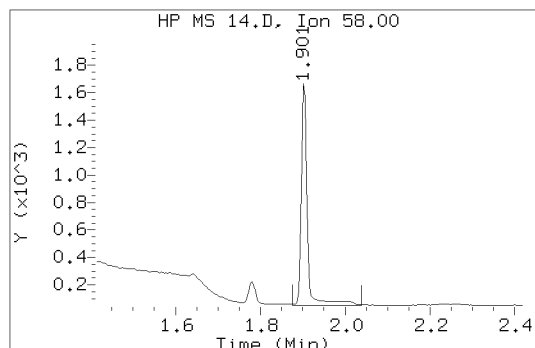
MASS
265
AREA
931
HEIGHT
509
29-Sep-2023
09:37

Reason Code:**1,4-Dioxane ()****BEFORE**

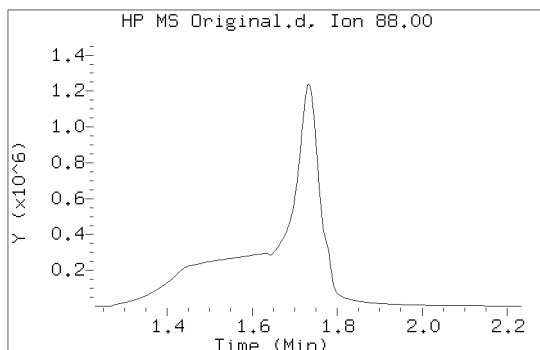
MASS
58
AREA
185
HEIGHT
163
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

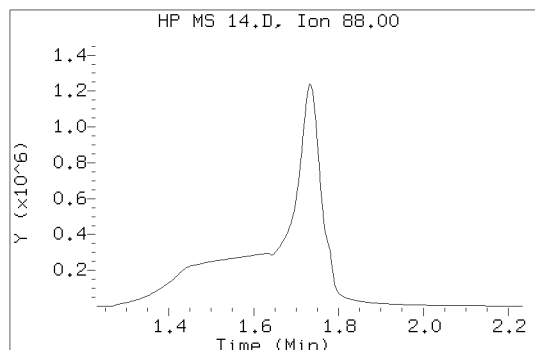
MASS
58
AREA
1564
HEIGHT
1615
29-Sep-2023
09:37

Reason Code:**BEFORE**

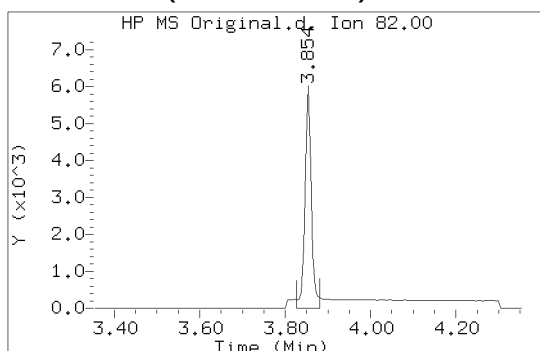
MASS
88
AREA
0
HEIGHT
0
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

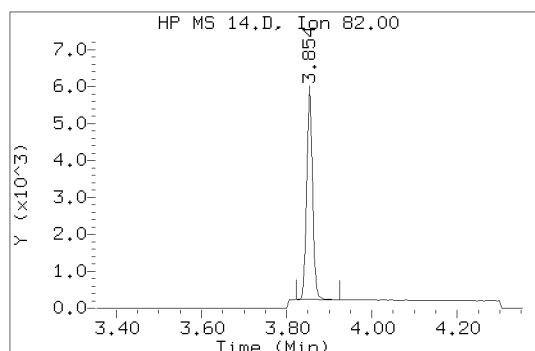
MASS
88
AREA
0
HEIGHT
0
29-Sep-2023
09:37

**Nitrobenzene-d5 (4165-60-0)****BEFORE**

MASS
82
AREA
6273
HEIGHT
6015
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

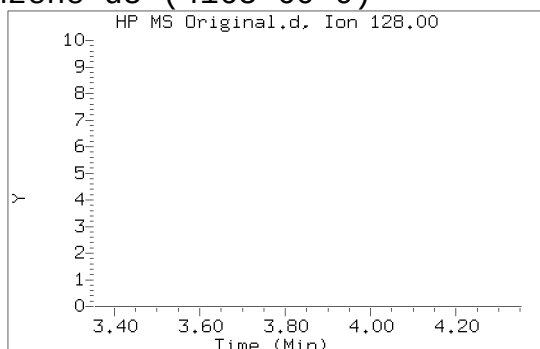
MASS
82
AREA
5445
HEIGHT
5778
29-Sep-2023
09:37

Reason Code:

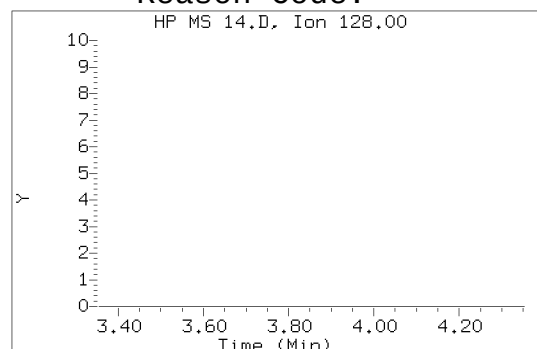
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\14.D
Inj Date : 28-SEP-2023 16:31
InstruID : SV6.i
LabSampID : 14DX-0.200

Nitrobenzene-d5 (4165-60-0)**BEFORE**

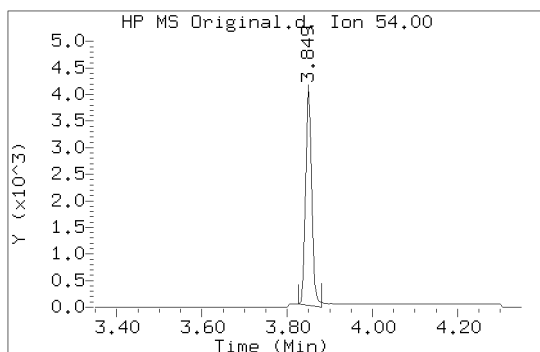
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
16:45
ALSHS

**AFTER**

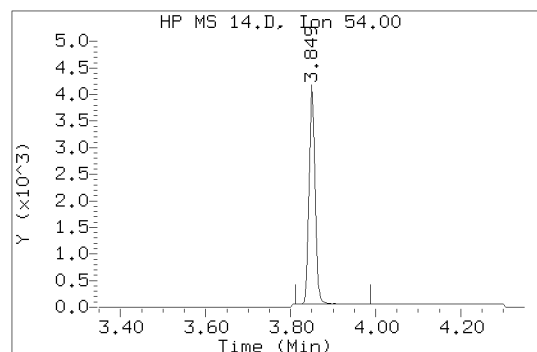
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
09:37

**BEFORE**

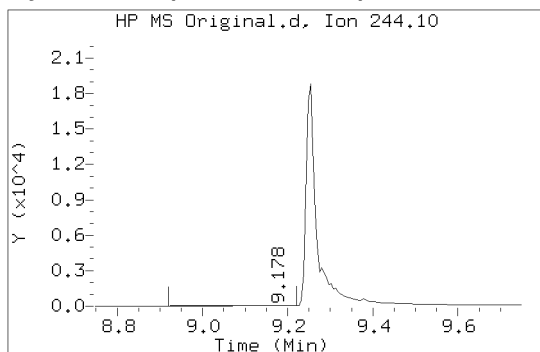
MASS
54
AREA
4064
HEIGHT
4143
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

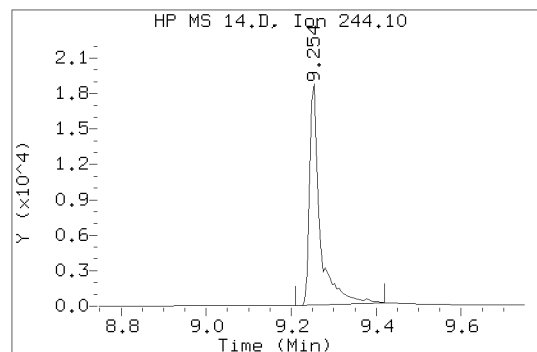
MASS
54
AREA
3984
HEIGHT
4122
29-Sep-2023
09:37

**4-Terphenyl-d14 (1718-51-0)****BEFORE**

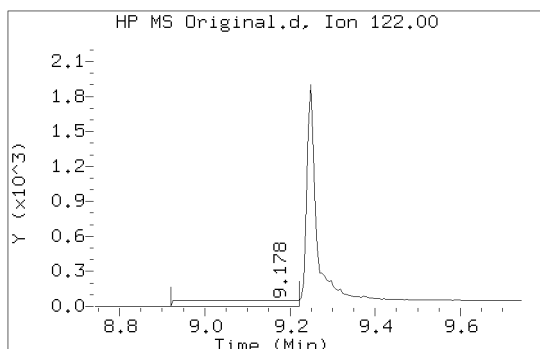
MASS
244.1
AREA
380
HEIGHT
6
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

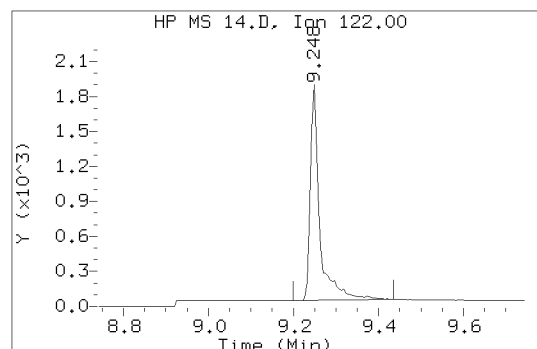
MASS
244.1
AREA
31785
HEIGHT
18720
29-Sep-2023
09:37

**BEFORE**

MASS
122
AREA
888
HEIGHT
52
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

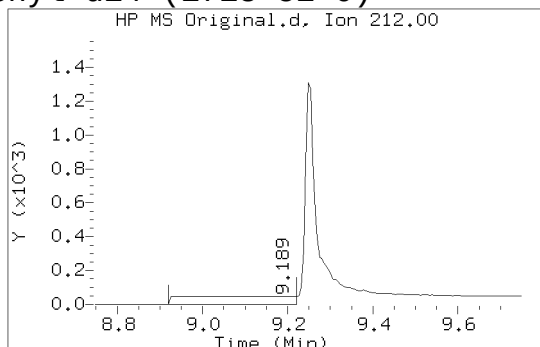
MASS
122
AREA
2822
HEIGHT
1848
29-Sep-2023
09:37



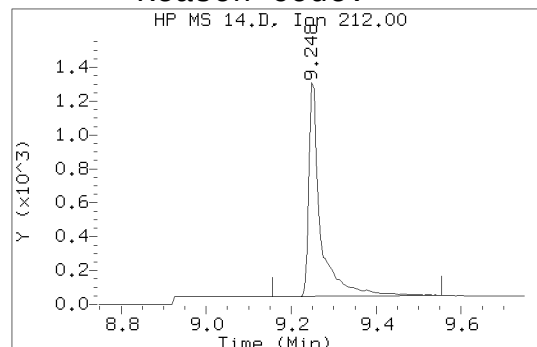
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\14.D
Inj Date : 28-SEP-2023 16:31
InstruID : SV6.i
LabSampID : 14DX-0.200

4-Terphenyl-d14 (1718-51-0)**BEFORE**

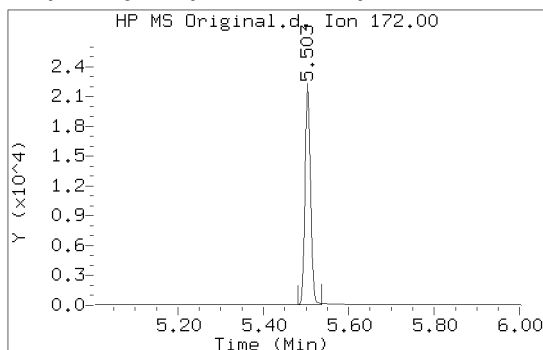
MASS
212
AREA
822
HEIGHT
47
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

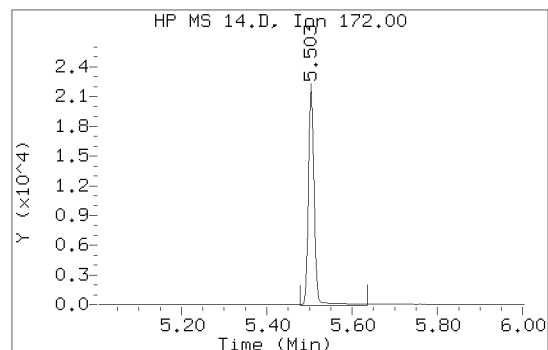
MASS
212
AREA
2404
HEIGHT
1262
29-Sep-2023
09:37

**2-Fluorobiphenyl (321-60-8)****BEFORE**

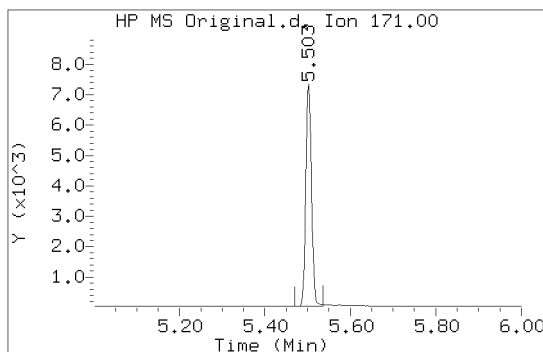
MASS
172
AREA
19421
HEIGHT
22235
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

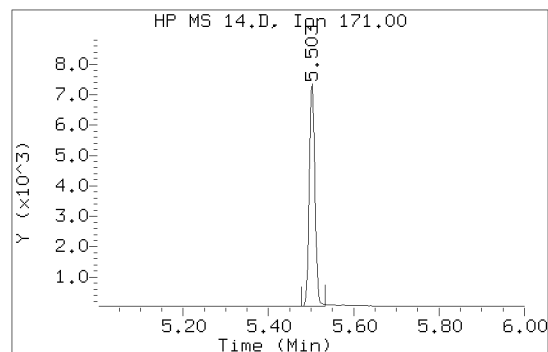
MASS
172
AREA
20624
HEIGHT
22326
29-Sep-2023
09:37

**BEFORE**

MASS
171
AREA
6645
HEIGHT
7309
28-Sep-2023
16:45
ALSHS
Server

**AFTER**

MASS
171
AREA
6630
HEIGHT
7308
29-Sep-2023
09:37



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\15.D
 Report Date: 29-Sep-2023 09:37

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\15.D
 Lab Smp Id: 14DX-0.500 Client Smp ID: 14DX-0.500
 Inj Date : 28-SEP-2023 16:48
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX-0.500
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 29-Sep-2023 09:37 SV6.i Quant Type: ISTD
 Cal Date : 28-SEP-2023 16:31 Cal File: 14.D
 Als bottle: 15 Calibration Sample, Level: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			RT	EXP RT	REL RT	RESPONSE	CAL - AMT	ON - COL	
	MASS						(NG)	(NG)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 20 1,4-Dichlorobenzene-d4	152		3.413	3.413	(1.000)	3241	0.10000		(aM)
* 45 Naphthalene-d8	136		4.490	4.490	(1.000)	12732	0.10000		(M)
\$ 33 Nitrobenzene-d5	82		3.853	3.853	(0.858)	24669	0.50000	0.4948	(AM)
* 86 Acenaphthene-d10	164		6.160	6.160	(1.000)	7647	0.10000		
\$ 69 2-Fluorobiphenyl	172		5.504	5.504	(0.893)	64764	0.50000	0.4429	(AM)
* 126 Phenanthrene-d10	188		7.625	7.625	(1.000)	16258	0.10000		(M)
* 182 Chrysene-d12	240		10.578	10.578	(1.000)	5067	0.10000		(M)
\$ 158 4-Terphenyl-d14	244		9.249	9.249	(0.874)	82090	0.50000	0.5070	(AM)
* 198 Perylene-d12	264		12.750	12.750	(1.000)	5008	0.10000		(M)
1 1,4-Dioxane	58		1.916	1.916	(0.561)	4998	0.50000	0.5091	(AQM)

QC Flag Legend

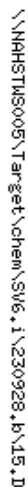
- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- Q - Qualifier signal failed the ratio test.



M - Compound response manually integrated.



```
Instrument: SV6.i
Operator: LG
Column diameter: 0.28
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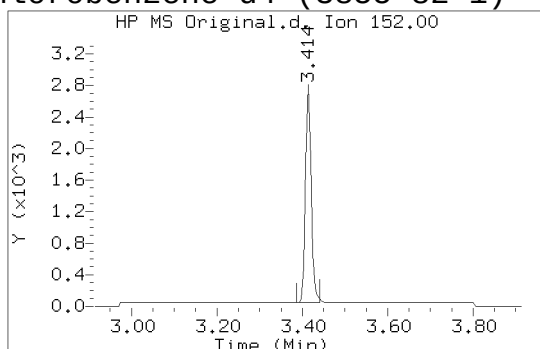


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\15.D
Inj Date : 28-SEP-2023 16:48
InstruID : SV6.i
LabSampID : 14DX-0.500

1,4-Dichlorobenzene-d4 (3855-82-1)

BEFORE

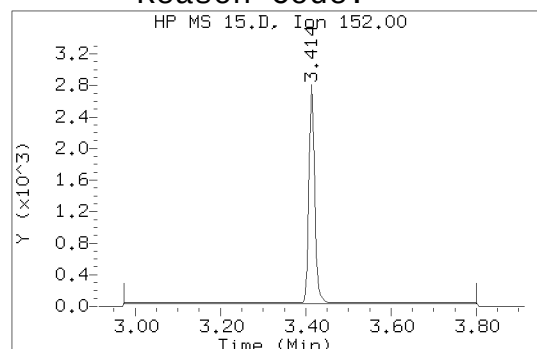
MASS
152
AREA
2506
HEIGHT
2762
28-Sep-2023
17:04
ALSHS
Server



AFTER

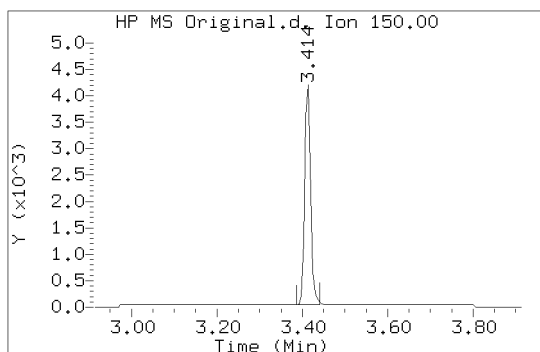
MASS
152
AREA
3241
HEIGHT
2776
29-Sep-2023
09:37

Reason Code:



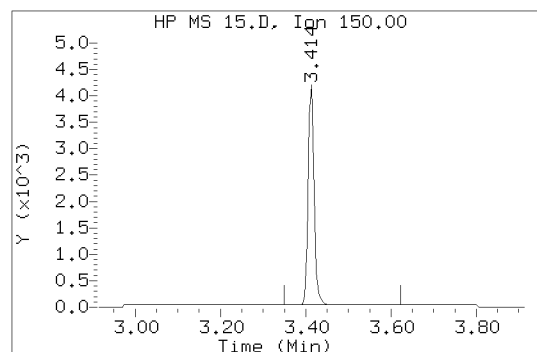
BEFORE

MASS
150
AREA
3939
HEIGHT
4161
28-Sep-2023
17:04
ALSHS
Server



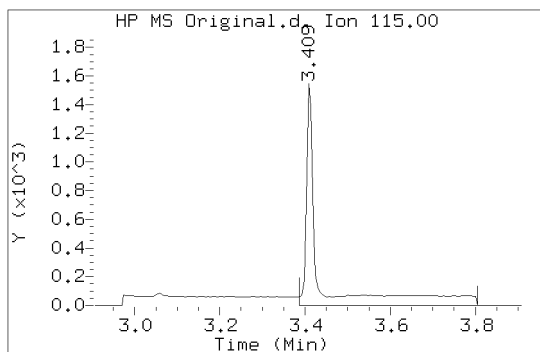
AFTER

MASS
150
AREA
3949
HEIGHT
4161
29-Sep-2023
09:37



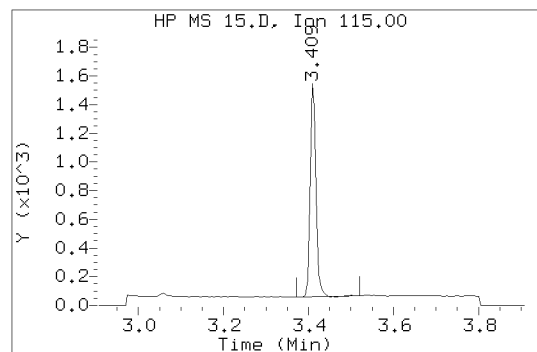
BEFORE

MASS
115
AREA
3041
HEIGHT
1546
28-Sep-2023
17:04
ALSHS
Server



AFTER

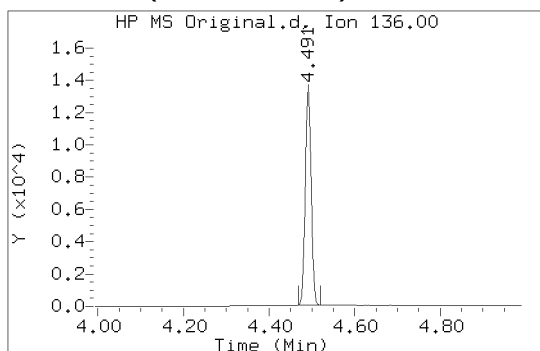
MASS
115
AREA
1408
HEIGHT
1484
29-Sep-2023
09:37



Naphthalene-d8 (1146-65-2)

BEFORE

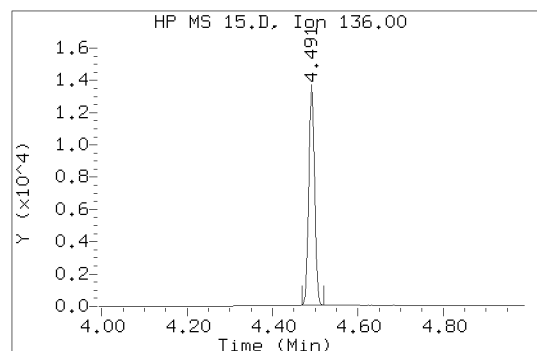
MASS
136
AREA
12732
HEIGHT
13661
28-Sep-2023
17:04
ALSHS
Server



AFTER

MASS
136
AREA
12732
HEIGHT
13661
29-Sep-2023
09:37

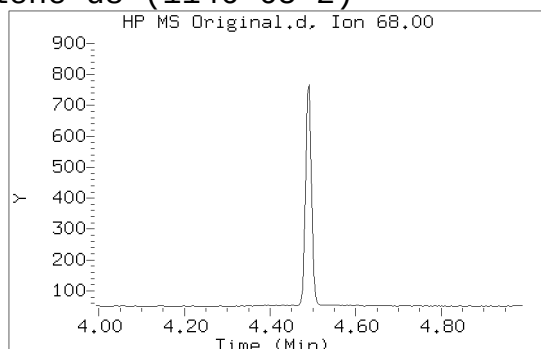
Reason Code:



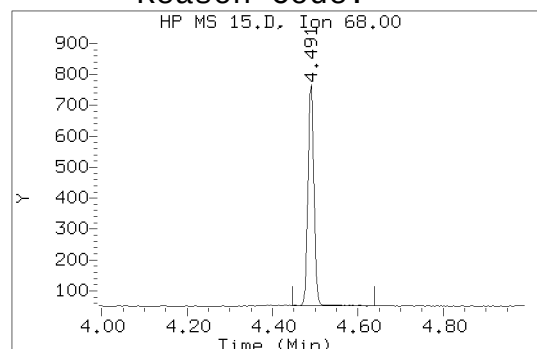
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\15.D
Inj Date : 28-SEP-2023 16:48
InstruID : SV6.i
LabSampID : 14DX-0.500

Naphthalene-d8 (1146-65-2)**BEFORE**

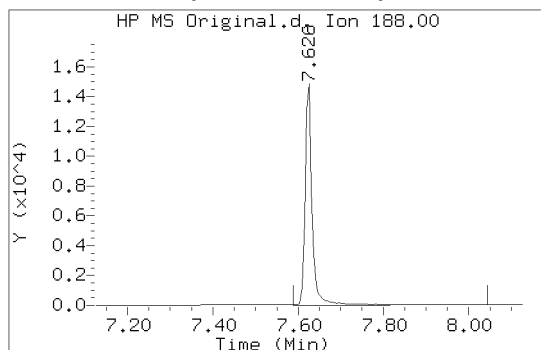
MASS
68
AREA
0
HEIGHT
0
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

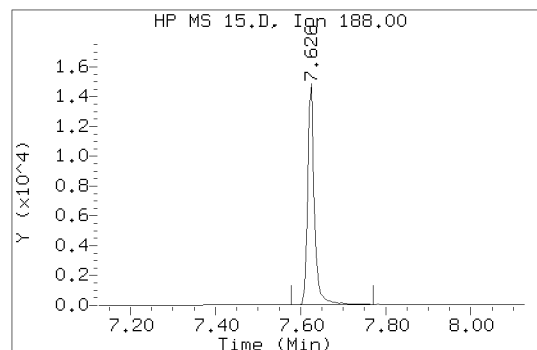
MASS
68
AREA
682
HEIGHT
714
29-Sep-2023
09:37

Reason Code:**Phenanthrene-d10 (1517-22-2)****BEFORE**

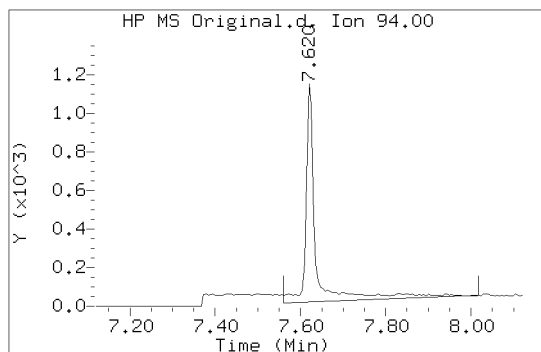
MASS
188
AREA
16895
HEIGHT
14852
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

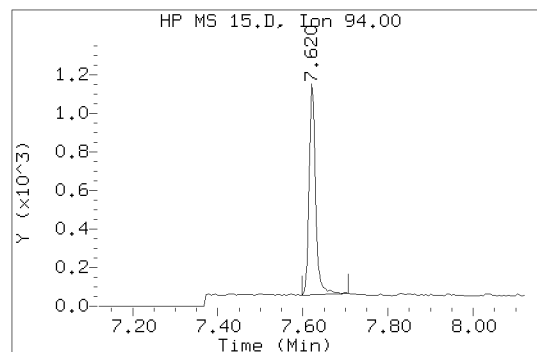
MASS
188
AREA
16258
HEIGHT
14819
29-Sep-2023
09:37

Reason Code:**BEFORE**

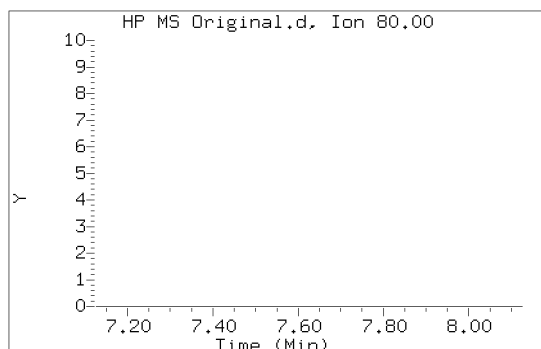
MASS
94
AREA
1807
HEIGHT
1131
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

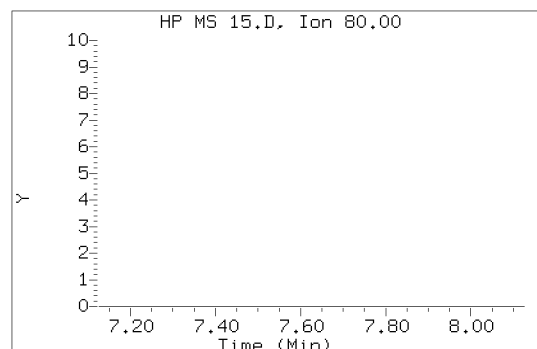
MASS
94
AREA
1169
HEIGHT
1094
29-Sep-2023
09:37

**BEFORE**

MASS
80
AREA
0
HEIGHT
0
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

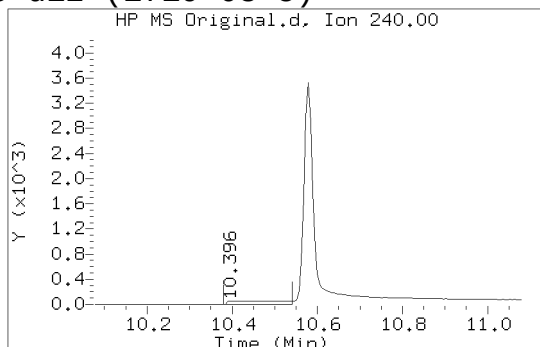
MASS
80
AREA
0
HEIGHT
0
29-Sep-2023
09:37



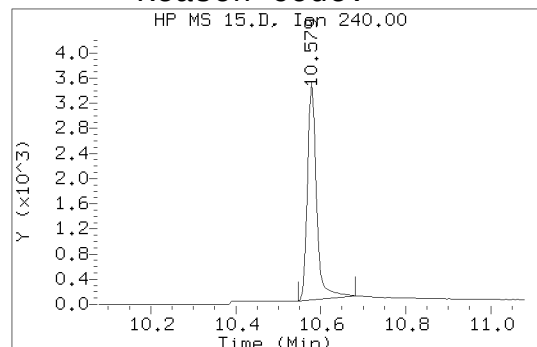
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\15.D
Inj Date : 28-SEP-2023 16:48
InstruID : SV6.i
LabSampID : 14DX-0.500

Chrysene-d12 (1719-03-5)**BEFORE**

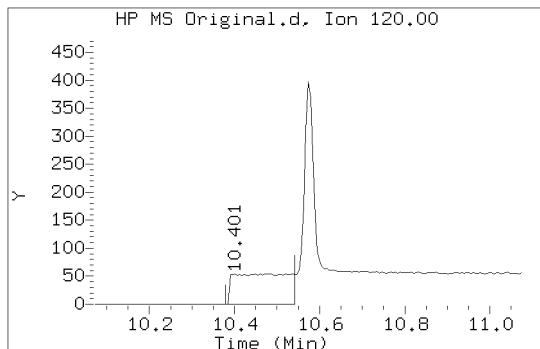
MASS
240
AREA
439
HEIGHT
48
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

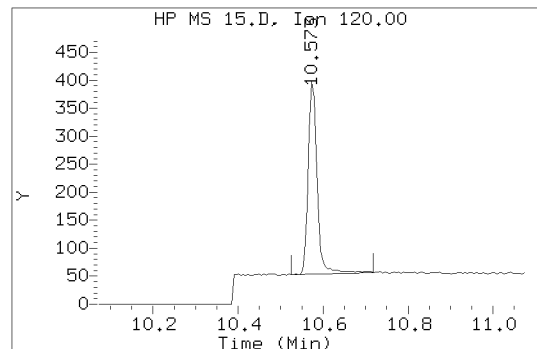
MASS
240
AREA
5067
HEIGHT
3456
29-Sep-2023
09:37

**BEFORE**

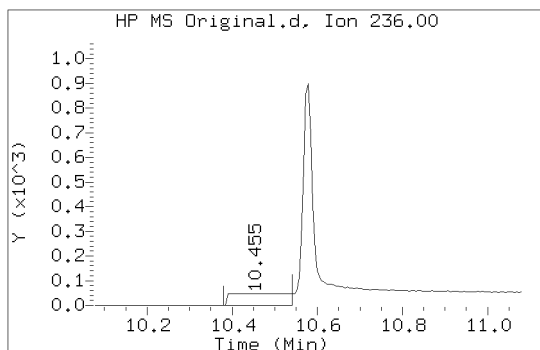
MASS
120
AREA
496
HEIGHT
54
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

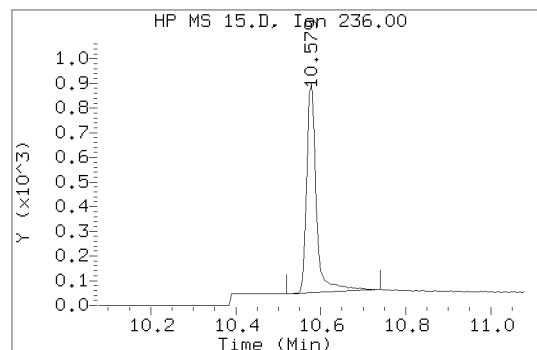
MASS
120
AREA
502
HEIGHT
343
29-Sep-2023
09:37

**BEFORE**

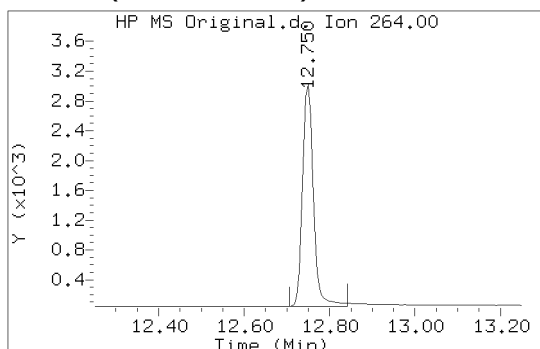
MASS
236
AREA
439
HEIGHT
48
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

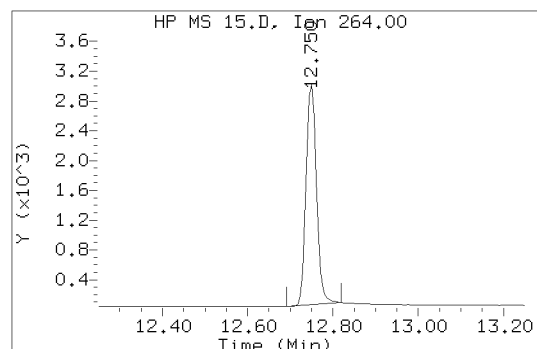
MASS
236
AREA
1330
HEIGHT
847
29-Sep-2023
09:37

**Perylene-d12 (1520-96-3)****BEFORE**

MASS
264
AREA
5252
HEIGHT
2972
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

MASS
264
AREA
5008
HEIGHT
2950
29-Sep-2023
09:37

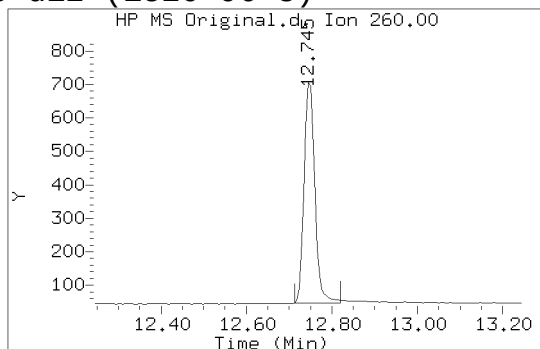


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\15.D
Inj Date : 28-SEP-2023 16:48
InstruID : SV6.i
LabSampID : 14DX-0.500

Perylene-d12 (1520-96-3)

BEFORE

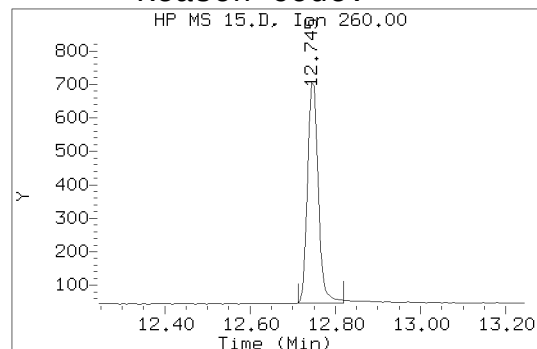
MASS
260
AREA
1156
HEIGHT
659
28-Sep-2023
17:04
ALSHS
Server



AFTER

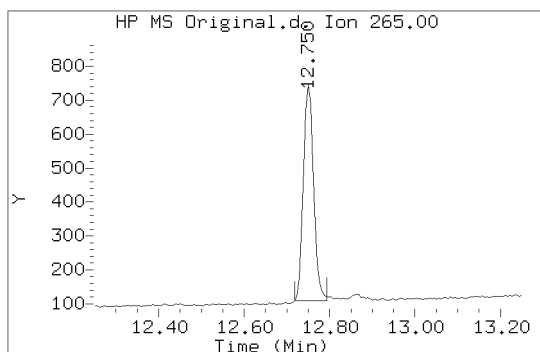
MASS
260
AREA
1156
HEIGHT
659
29-Sep-2023
09:37

Reason Code:



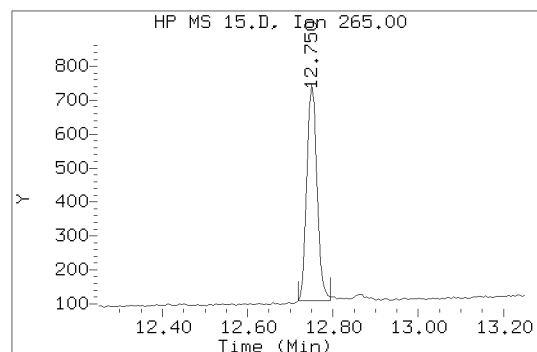
BEFORE

MASS
265
AREA
1061
HEIGHT
637
28-Sep-2023
17:04
ALSHS
Server



AFTER

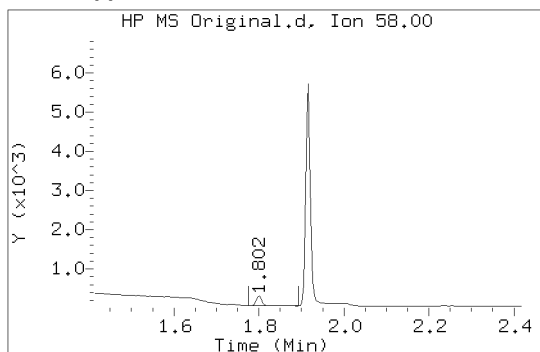
MASS
265
AREA
1061
HEIGHT
637
29-Sep-2023
09:37



1,4-Dioxane ()

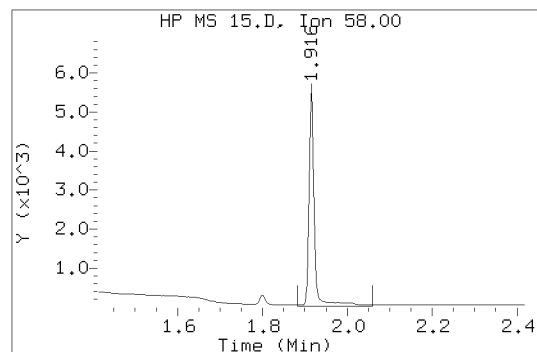
BEFORE

MASS
58
AREA
248
HEIGHT
250
28-Sep-2023
17:04
ALSHS
Server



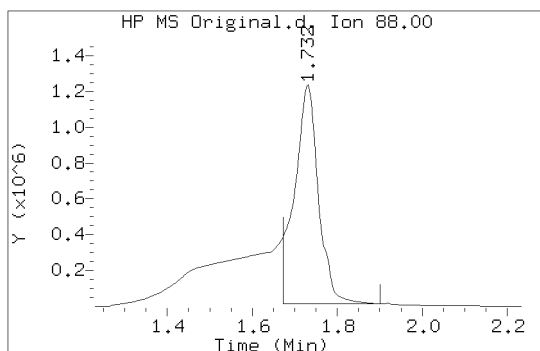
AFTER

MASS
58
AREA
4998
HEIGHT
5693
29-Sep-2023
09:37



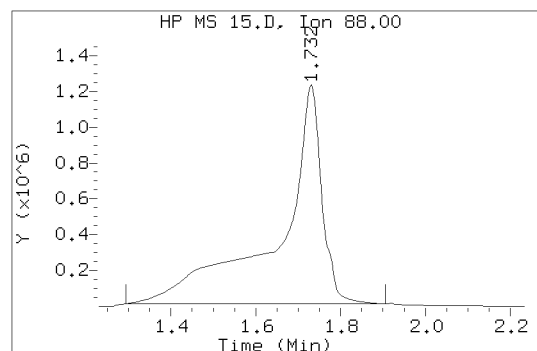
BEFORE

MASS
88
AREA
4799585
HEIGHT
1224390
28-Sep-2023
17:04
ALSHS
Server



AFTER

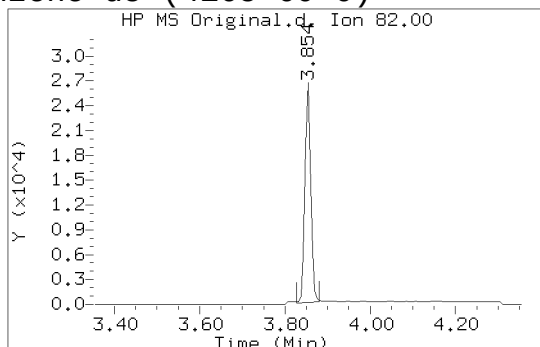
MASS
88
AREA
8750933
HEIGHT
1224700
29-Sep-2023
09:37



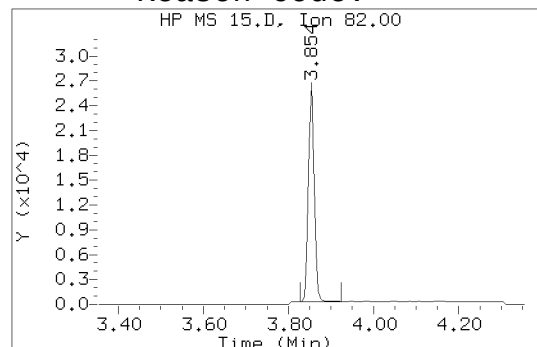
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\15.D
Inj Date : 28-SEP-2023 16:48
InstruID : SV6.i
LabSampID : 14DX-0.500

Nitrobenzene-d5 (4165-60-0)**BEFORE**

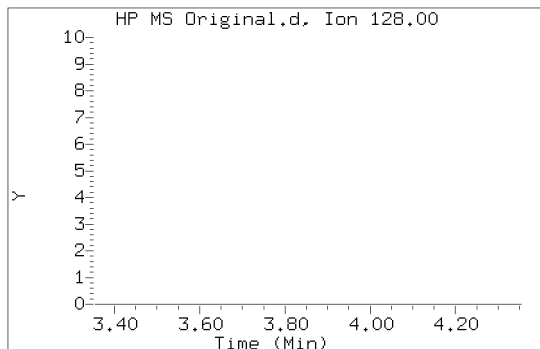
MASS
82
AREA
24774
HEIGHT
26523
28-Sep-2023
17:04
ALSHS

**AFTER**

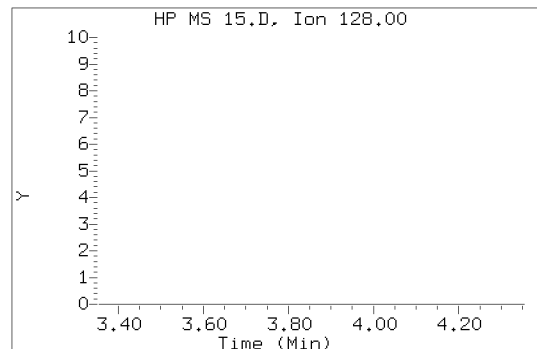
MASS
82
AREA
24669
HEIGHT
26455
29-Sep-2023
09:37

Reason Code:**BEFORE**

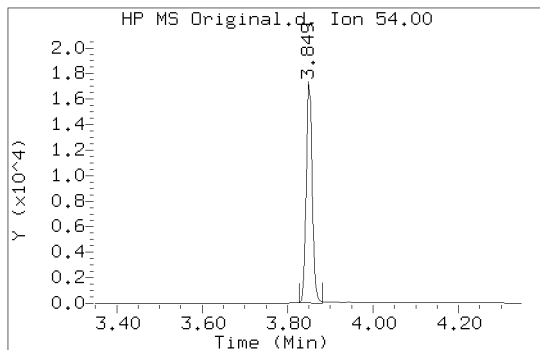
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

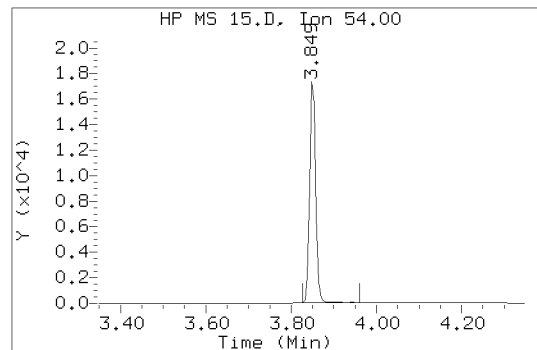
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
09:37

**BEFORE**

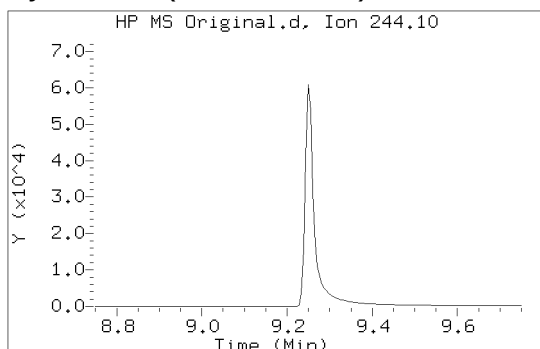
MASS
54
AREA
17195
HEIGHT
17317
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

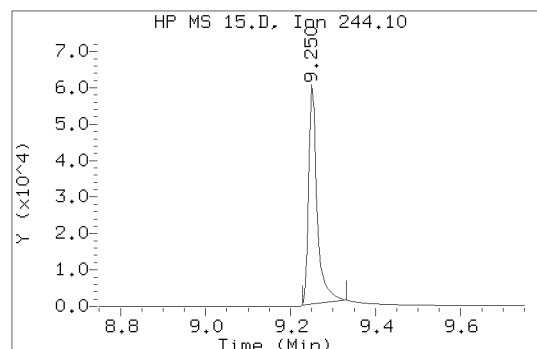
MASS
54
AREA
17111
HEIGHT
17288
29-Sep-2023
09:37

**4-Terphenyl-d14 (1718-51-0)****BEFORE**

MASS
244.1
AREA
0
HEIGHT
0
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

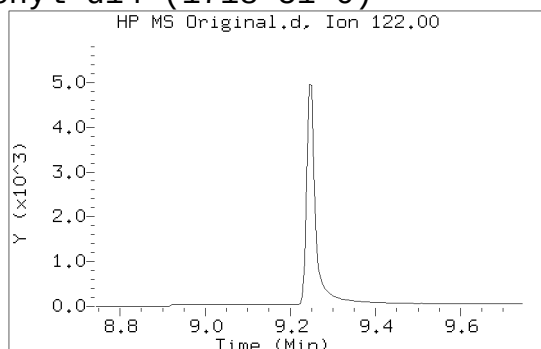
MASS
244.1
AREA
82090
HEIGHT
60167
29-Sep-2023
09:37

Reason Code:

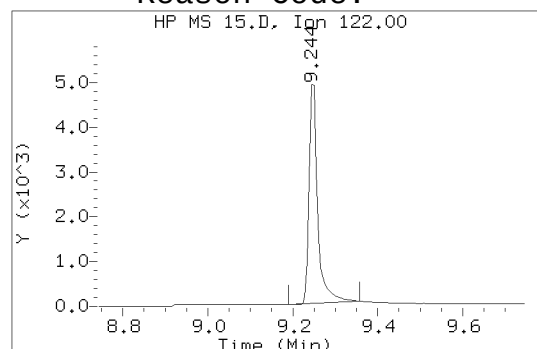
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\15.D
Inj Date : 28-SEP-2023 16:48
InstruID : SV6.i
LabSampID : 14DX-0.500

4-Terphenyl-d14 (1718-51-0)**BEFORE**

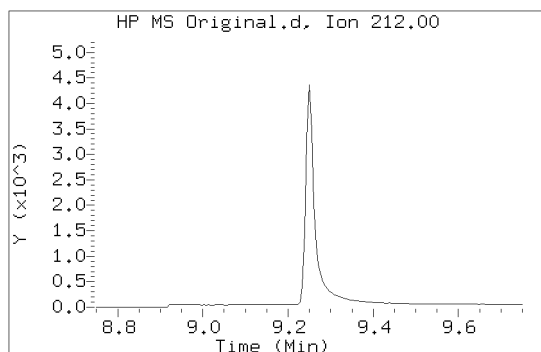
MASS
122
AREA
0
HEIGHT
0
28-Sep-2023
17:04
ALSHS

**AFTER**

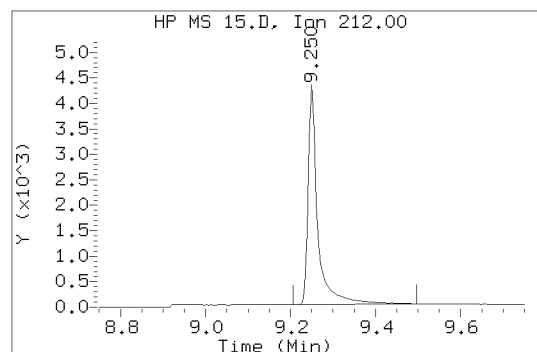
MASS
122
AREA
6836
HEIGHT
4884
29-Sep-2023
09:37

Reason Code:**BEFORE**

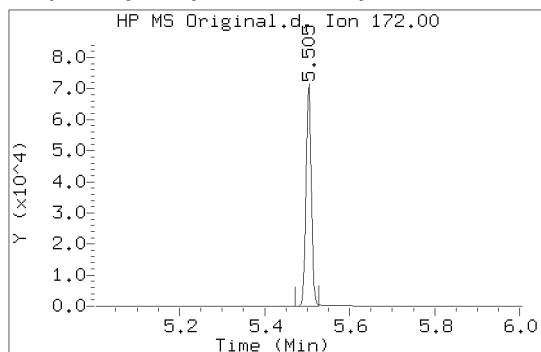
MASS
212
AREA
0
HEIGHT
0
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

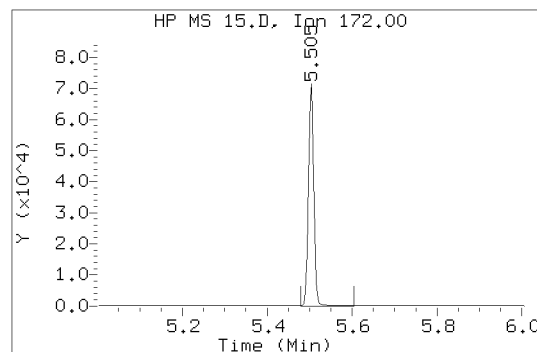
MASS
212
AREA
6713
HEIGHT
4314
29-Sep-2023
09:37

**2-Fluorobiphenyl (321-60-8)****BEFORE**

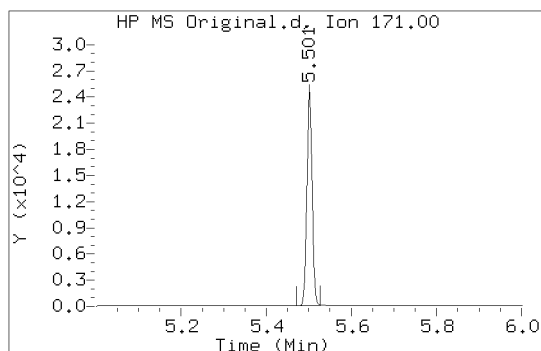
MASS
172
AREA
63161
HEIGHT
71455
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

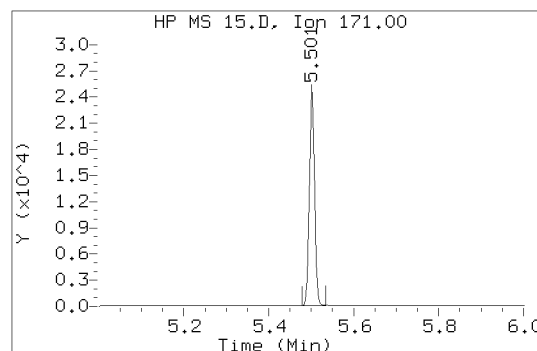
MASS
172
AREA
64764
HEIGHT
71575
29-Sep-2023
09:37

**Reason Code:****BEFORE**

MASS
171
AREA
21842
HEIGHT
25371
28-Sep-2023
17:04
ALSHS
Server

**AFTER**

MASS
171
AREA
21855
HEIGHT
25364
29-Sep-2023
09:37



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\16.D
 Report Date: 29-Sep-2023 09:40

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GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\16.D
 Lab Smp Id: 14DX ICV-0.08 Client Smp ID: 14DX ICV-0.08
 Inj Date : 28-SEP-2023 17:06
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX ICV-0.08
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 29-Sep-2023 09:38 Marco.Guti Quant Type: ISTD
 Cal Date : 28-SEP-2023 16:48 Cal File: 15.D
 Als bottle: 16 QC Sample: METHSPIKE
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152		3.413	3.414	(1.000)	4841	0.10000	(aM)
* 45 Naphthalene-d8	136		4.489	4.491	(1.000)	17835	0.10000	(M)
\$ 33 Nitrobenzene-d5	82		3.854	3.854	(0.858)	5498	0.07873	0.07873(M)
* 86 Acenaphthene-d10	164		6.159	6.161	(1.000)	8687	0.10000	
\$ 69 2-Fluorobiphenyl	172		5.503	5.505	(0.893)	13677	0.08233	0.08233
* 126 Phenanthrene-d10	188		7.624	7.626	(1.000)	14529	0.10000	(M)
* 182 Chrysene-d12	240		10.576	10.578	(1.000)	6548	0.10000	(M)
\$ 158 4-Terphenyl-d14	244		9.248	9.250	(0.874)	16917	0.08084	0.08084(M)
* 198 Perylene-d12	264		12.748	12.750	(1.000)	6717	0.10000	
1 1,4-Dioxane	58		1.949	1.916	(0.571)	1061	0.07235	0.07235(M)

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\SW6.i\230928.b\16.D

Date : 28-SEP-2023 17:06

Client ID: 14DX ICV-0.08

Sample Info: 14DX ICV-0.08

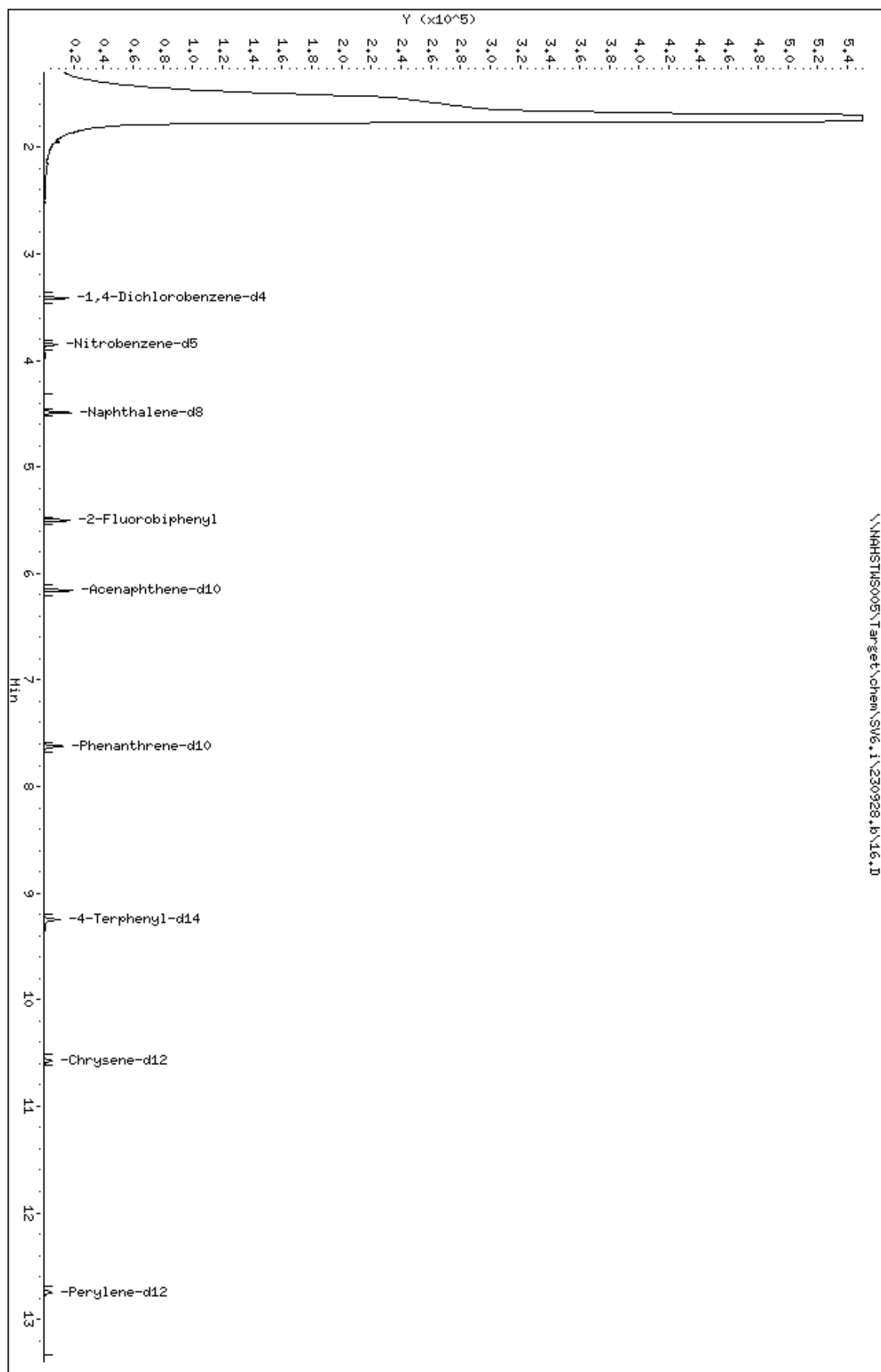
Purge Volume: 1000.0

Column phase: RTX-5SIL MS

Instrument: SW6.i

Operator: LG

Column diameter: 0.28





right solutions.
right partner.

Raw Data SV 6 447716

Semi-Volatiles by Semivolatiles SIM

Workorder
HS23090714

Client
Bhate Environmental Associates, Inc.

Project
Longhorn GW Treatment Plant Monthly
Effluent Samples

10/02/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D
 Report Date: 28-Sep-2023 11:44

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ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D
 Lab Smp Id: DFTPP Client Smp ID: DFTPP
 Inj Date : 28-SEP-2023 11:19
 Operator : smith Inst ID: SV6.i
 Smp Info : DFTPP;DFTPP;3;;DFTPP
 Misc Info :
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DFTPP.m
 Meth Date : 14-Mar-2023 15:58 Linh.Pham Quant Type: ESTD
 Cal Date : Cal File:
 Als bottle: 1 QC Sample: DFTPP
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 4.14 Sample Matrix: None
 Processing Host: NAHSTW7095

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
					(ug/L)	(ug/L)		
=====	=====	=====	=====	=====	=====	=====	=====	=====
1 dftpp								
						CAS #: 5074-71-5		
5.523	5.571	-0.048	198	790664			0.00- 100.00	100.00
5.523	6.357	-0.834	51	345433			10.00- 80.00	43.69
5.523	6.357	-0.834	68	5434			0.00- 2.00	1.66
5.523	6.357	-0.834	69	327076			0.00- 0.00	41.37
5.523	6.357	-0.834	70	1771			0.00- 2.00	0.54
5.523	6.357	-0.834	127	371240			10.00- 80.00	46.95
5.523	6.357	-0.834	197	0	0.0	0.0	0.00- 2.00	0.00
5.523	6.357	-0.834	199	54592			5.00- 9.00	6.90
5.523	6.357	-0.834	275	209386			10.00- 60.00	26.48
5.523	6.357	-0.834	365	26096			1.00- 100.00	3.30
5.523	6.357	-0.834	441	103568			0.01- 99.99	77.69
5.523	6.357	-0.834	442	672000			50.00- 150.00	84.99
5.523	6.357	-0.834	443	133312			15.00- 24.00	19.84



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	43.69
68	Less than 2.00% of mass 69	0.69 (1.66)
69	Mass 69 relative abundance	41.37
70	Less than 2.00% of mass 69	0.22 (0.54)
127	10.00 - 80.00% of mass 198	46.95
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 60.00% of mass 198	26.48
365	1.00 - 100.00% of mass 198	3.30
441	Present, but less than mass 443	13.10
442	50.00 - 150.00% of mass 198	84.99
443	15.00 - 24.00% of mass 442	16.86 (19.84)

Data File: 01.D
 Spectrum: HP ChemStation MS 01.D, Scan 549: 5.523 min. (SUB)
 Location of Maximum: 198.00
 Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	114	125.00	4538	211.00	8204	304.00	2015
37.10	1133	127.00	371200	212.90	467	305.00	1
38.10	3806	128.00	27240	214.00	345	308.00	852
39.10	23440	129.00	146624	215.00	2560	309.00	561
40.00	888	130.00	12741	216.00	4627	310.00	856
41.00	386	131.00	2275	217.00	56960	310.90	274
45.00	198	132.00	1347	218.00	7334	311.90	159
46.90	129	132.70	486	219.00	771	312.90	490
47.80	174	134.00	3621	221.00	38760	314.00	2861
49.10	2049	135.00	10674	221.70	8833	314.90	6125
50.10	87224	136.00	4353	223.00	13754	316.10	3083
51.10	345408	137.00	5647	224.00	120328	317.00	604
52.10	18344	137.80	1365	225.00	30584	319.00	163
53.10	733	139.00	654	226.10	3124	320.00	379
55.00	1516	140.00	2220	227.00	50944	321.00	2346
56.00	10120	141.00	18856	228.00	6962	322.00	1124
57.00	23808	142.00	6466	229.00	10375	323.00	18912
58.00	1089	143.00	4227	230.00	1512	324.00	3492
59.00	270	144.00	1134	231.00	4480	325.10	98
59.90	205	145.00	995	232.00	821	326.10	568
61.00	4308	146.00	3110	233.00	940	327.00	3208
62.00	4653	147.00	9844	234.00	3018	328.00	1635
63.00	13406	148.00	20536	235.00	3760	328.90	399
64.00	1995	149.00	4210	236.00	2608	332.00	1421
65.10	6432	150.00	1112	237.00	4080	332.90	1839
66.00	463	151.10	2399	237.90	575	334.00	12280
66.90	327	151.80	1223	238.90	1823	335.00	2823
68.10	5434	153.00	5599	240.00	1544	336.00	593
69.00	327040	154.00	4033	241.00	2599	339.00	394
70.10	1771	155.00	10218	242.00	6209	340.00	361
71.00	284	156.00	14836	243.00	6691	341.00	2355
71.90	160	157.10	2967	244.00	92096	341.90	605
73.00	2316	158.00	3601	245.00	13603	346.00	3793
74.00	32104	159.00	2612	246.00	18424	346.90	831
75.00	51208	160.00	5903	247.00	4047	350.00	220
76.10	16888	161.00	8788	248.00	867	351.10	314
77.10	352896	162.00	2517	249.00	3470	352.00	5264
78.10	23440	163.00	818	250.00	726	353.00	3927
79.00	22208	164.00	1058	251.00	875	354.00	6029
80.00	17192	165.00	7183	252.10	1162	354.90	1136
81.00	24920	166.00	5891	253.00	2429	359.00	483
82.00	5944	167.00	36080	255.00	478592	360.80	252
83.00	6017	168.00	15317	256.00	69600	363.10	164
83.90	373	169.00	2977	257.00	5308	365.00	26096
85.00	4120	170.00	1289	258.00	27088	366.00	3746

86.00	7366	171.00	1582	259.00	4485	366.80	274
87.00	2968	171.90	3749	259.90	909	370.00	544
88.00	1104	173.00	3975	260.90	898	371.00	1403
89.00	337	174.00	8419	263.00	377	372.00	10395
91.00	5980	175.00	15086	264.00	998	373.00	2522
92.00	6296	176.00	4640	265.00	11276	374.00	299
93.00	40504	177.00	7569	265.90	1625	377.00	379
94.00	3032	178.00	2717	266.80	192	383.00	2457
95.10	647	179.00	28392	267.90	322	384.00	734
96.00	1946	180.00	19560	270.00	651	385.00	182
97.10	708	181.00	9044	270.90	1098	390.00	1343
98.00	30200	182.00	1481	272.00	1211	391.00	788
99.00	22488	183.00	882	273.00	14588	392.00	543
100.00	1805	184.00	2404	274.00	35944	400.90	718
101.00	14537	185.00	14689	275.00	209344	402.00	3886
102.00	651	186.00	108752	276.00	27688	403.00	5479
103.00	4335	187.00	31176	277.00	18096	404.00	2000
104.00	8828	188.00	3356	278.00	2781	405.00	296
105.00	8550	189.00	6492	279.00	635	415.00	184
106.00	2518	190.00	1113	281.00	179	421.00	4805
107.00	107112	191.00	3123	282.00	651	422.00	5017
108.00	17016	192.00	9028	283.00	2147	423.00	33784
109.00	2673	193.00	10294	283.90	1239	424.00	7680
110.00	195072	194.00	2141	285.00	2948	425.00	794
111.00	29360	195.00	1547	286.00	515	432.30	152
112.00	3635	196.00	23944	287.90	221	433.20	184
113.00	1083	198.00	790656	289.00	800	434.30	456
114.20	193	199.00	54592	290.00	528	435.40	705
115.00	448	200.00	4304	291.00	339	436.60	577
116.00	5692	201.50	3877	292.10	818	437.40	766
117.00	84576	203.00	5824	293.00	3729	438.30	957
118.00	5945	204.00	32200	294.00	1163	439.30	1580
119.00	737	205.00	49488	296.00	58240	441.00	103568
120.00	1256	206.00	209216	297.00	8068	442.00	672000
120.90	448	207.00	27040	298.00	642	443.00	133312
122.00	7008	208.00	7479	301.00	841	444.00	12539
123.00	10843	209.00	2209	302.00	1183	445.00	824
124.00	4948	210.10	4037	303.00	6831		

Data File: \\NAHSTWS005\Target\chem\SV6.i\230928,b\01.D

Page 1

Date : 28-SEP-2023 11:19

Client ID: DFTPP

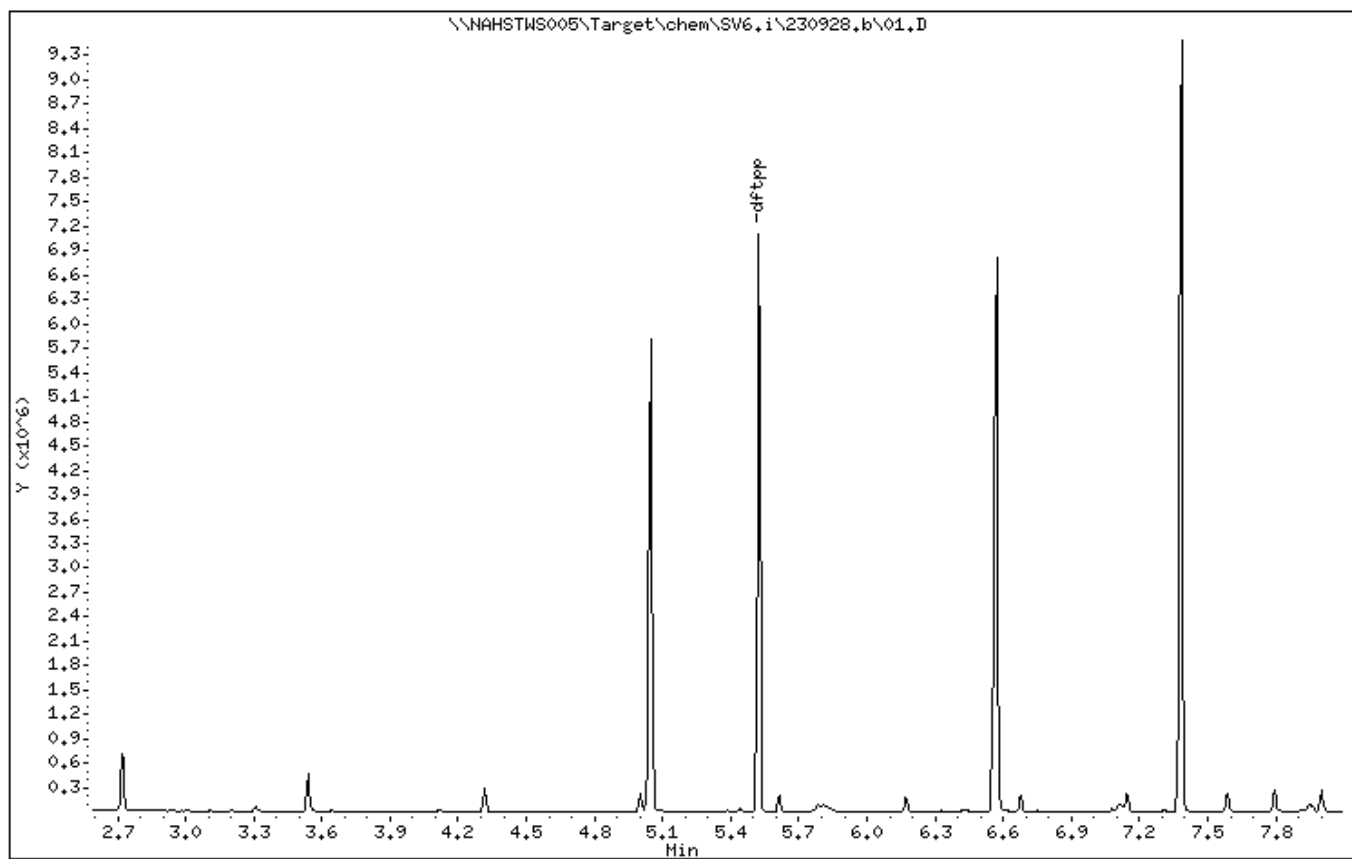
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0,25



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D

Page 2

Date : 28-SEP-2023 11:19

Client ID: DFTPP

Instrument: SV6.i

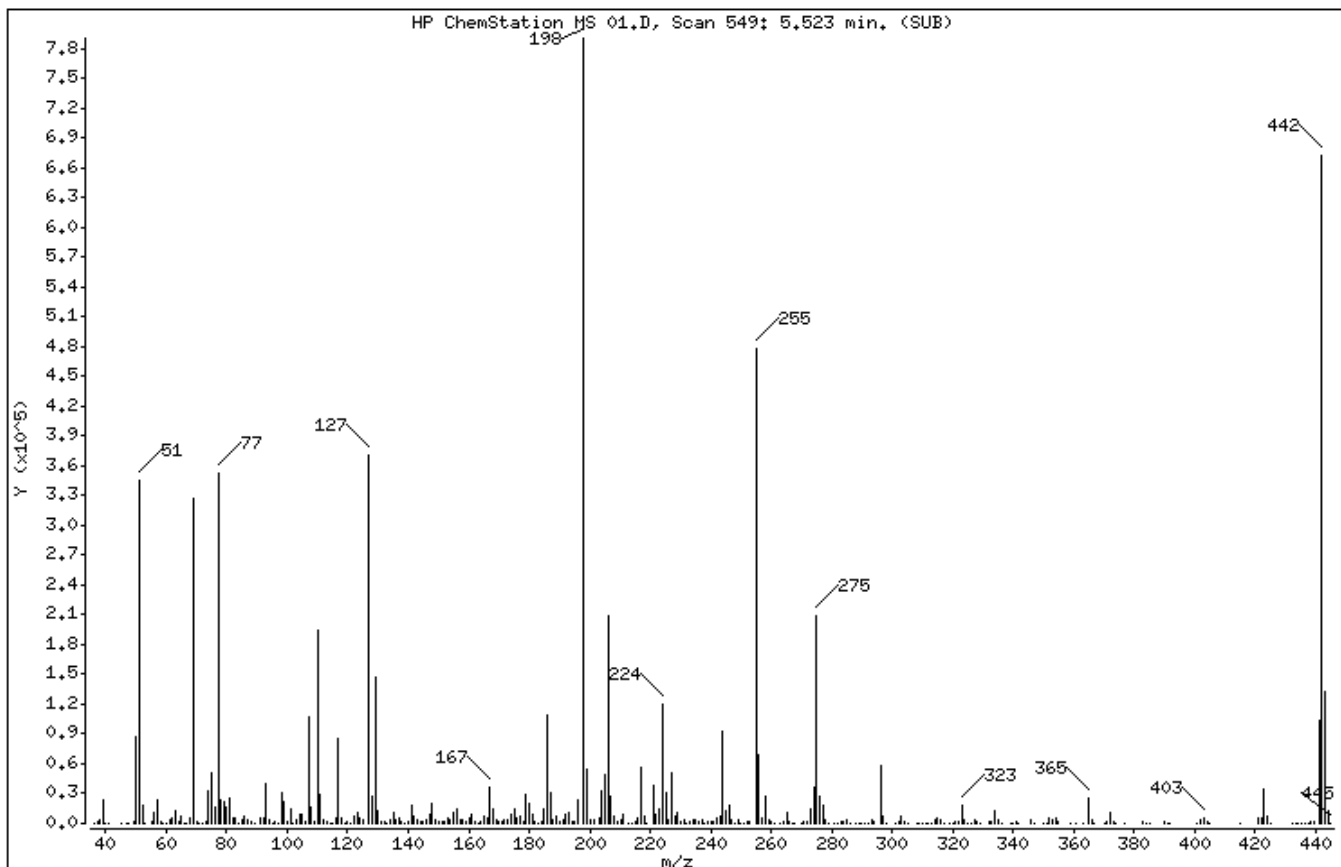
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	43.69
68	Less than 2.00% of mass 69	0.69 (1.66)
69	Mass 69 relative abundance	41.37
70	Less than 2.00% of mass 69	0.22 (0.54)
127	10.00 - 80.00% of mass 198	46.95
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 60.00% of mass 198	26.48
365	1.00 - 100.00% of mass 198	3.30
441	Present, but less than mass 443	13.10
442	50.00 - 150.00% of mass 198	84.99
443	15.00 - 24.00% of mass 442	16.86 (19.84)

Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D

Page 3

Date : 28-SEP-2023 11:19

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 01.D

Spectrum: HP ChemStation MS 01.D, Scan 549: 5.523 min. (SUB)

Location of Maximum: 198.00

Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y

36.00	114	125.00	4538	211.00	8204	304.00	2015
37.10	1133	127.00	371200	212.90	467	305.00	1
38.10	3806	128.00	27240	214.00	345	308.00	852
39.10	23440	129.00	146624	215.00	2560	309.00	561
40.00	888	130.00	12741	216.00	4627	310.00	856

41.00	386	131.00	2275	217.00	56960	310.90	274
45.00	198	132.00	1347	218.00	7334	311.90	159
46.90	129	132.70	486	219.00	771	312.90	490
47.80	174	134.00	3621	221.00	38760	314.00	2861
49.10	2049	135.00	10674	221.70	8833	314.90	6125

50.10	87224	136.00	4353	223.00	13754	316.10	3083
51.10	345408	137.00	5647	224.00	120328	317.00	604
52.10	18344	137.80	1365	225.00	30584	319.00	163
53.10	733	139.00	654	226.10	3124	320.00	379
55.00	1516	140.00	2220	227.00	50944	321.00	2346

56.00	10120	141.00	18856	228.00	6962	322.00	1124
57.00	23808	142.00	6466	229.00	10375	323.00	18912
58.00	1089	143.00	4227	230.00	1512	324.00	3492
59.00	270	144.00	1134	231.00	4480	325.10	98
59.90	205	145.00	995	232.00	821	326.10	568

61.00	4308	146.00	3110	233.00	940	327.00	3208
62.00	4653	147.00	9844	234.00	3018	328.00	1635
63.00	13406	148.00	20536	235.00	3760	328.90	399
64.00	1995	149.00	4210	236.00	2608	332.00	1421
65.10	6432	150.00	1112	237.00	4080	332.90	1839

66.00	463	151.10	2399	237.90	575	334.00	12280
66.90	327	151.80	1223	238.90	1823	335.00	2823
68.10	5434	153.00	5599	240.00	1544	336.00	593
69.00	327040	154.00	4033	241.00	2599	339.00	394
70.10	1771	155.00	10218	242.00	6209	340.00	361

71.00	284	156.00	14836	243.00	6691	341.00	2355
71.90	160	157.10	2967	244.00	92096	341.90	605
73.00	2316	158.00	3601	245.00	13603	346.00	3793
74.00	32104	159.00	2612	246.00	18424	346.90	831
75.00	51208	160.00	5903	247.00	4047	350.00	220

Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D

Page 4

Date : 28-SEP-2023 11:19

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0,25

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 549: 5.523 min. (SUB)
Location of Maximum: 198.00
Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.10	16888	161.00	8788	248.00	867	351.10	314
77.10	352896	162.00	2517	249.00	3470	352.00	5264
78.10	23440	163.00	818	250.00	726	353.00	3927
79.00	22208	164.00	1058	251.00	875	354.00	6029
80.00	17192	165.00	7183	252.10	1162	354.90	1136
81.00	24920	166.00	5891	253.00	2429	359.00	483
82.00	5944	167.00	36080	255.00	478592	360.80	252
83.00	6017	168.00	15317	256.00	69600	363.10	164
83.90	373	169.00	2977	257.00	5308	365.00	26096
85.00	4120	170.00	1289	258.00	27088	366.00	3746
86.00	7366	171.00	1582	259.00	4485	366.80	274
87.00	2968	171.90	3749	259.90	909	370.00	544
88.00	1104	173.00	3975	260.90	898	371.00	1403
89.00	337	174.00	8419	263.00	377	372.00	10395
91.00	5980	175.00	15086	264.00	998	373.00	2522
92.00	6296	176.00	4640	265.00	11276	374.00	299
93.00	40504	177.00	7569	265.90	1625	377.00	379
94.00	3032	178.00	2717	266.80	192	383.00	2457
95.10	647	179.00	28392	267.90	322	384.00	734
96.00	1946	180.00	19560	270.00	651	385.00	182
97.10	708	181.00	9044	270.90	1098	390.00	1343
98.00	30200	182.00	1481	272.00	1211	391.00	788
99.00	22488	183.00	882	273.00	14588	392.00	543
100.00	1805	184.00	2404	274.00	35944	400.90	718
101.00	14537	185.00	14689	275.00	209344	402.00	3886
102.00	651	186.00	108752	276.00	27688	403.00	5479
103.00	4335	187.00	31176	277.00	18096	404.00	2000
104.00	8828	188.00	3356	278.00	2781	405.00	296
105.00	8550	189.00	6492	279.00	635	415.00	184
106.00	2518	190.00	1113	281.00	179	421.00	4805
107.00	107112	191.00	3123	282.00	651	422.00	5017
108.00	17016	192.00	9028	283.00	2147	423.00	33784
109.00	2673	193.00	10294	283.90	1239	424.00	7680
110.00	195072	194.00	2141	285.00	2948	425.00	794
111.00	29360	195.00	1547	286.00	515	432.30	152

Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\01.D

Page 5

Date : 28-SEP-2023 11:19

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0,25

Data File: 01.D

Spectrum: HP ChemStation MS 01.D, Scan 549: 5.523 min. (SUB)

Location of Maximum: 198.00

Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
+-----+-----+-----+-----+-----+-----+-----+-----+							
112,00	3635	196,00	23944	287,90	221	433,20	184
113,00	1083	198,00	790656	289,00	800	434,30	456
114,20	193	199,00	54592	290,00	528	435,40	705
115,00	448	200,00	4304	291,00	339	436,60	577
116,00	5692	201,50	3877	292,10	818	437,40	766
+-----+-----+-----+-----+-----+-----+-----+-----+							
117,00	84576	203,00	5824	293,00	3729	438,30	957
118,00	5945	204,00	32200	294,00	1163	439,30	1580
119,00	737	205,00	49488	296,00	58240	441,00	103568
120,00	1256	206,00	209216	297,00	8068	442,00	672000
120,90	448	207,00	27040	298,00	642	443,00	133312
+-----+-----+-----+-----+-----+-----+-----+-----+							
122,00	7008	208,00	7479	301,00	841	444,00	12539
123,00	10843	209,00	2209	302,00	1183	445,00	824
124,00	4948	210,10	4037	303,00	6831		
+-----+-----+-----+-----+-----+-----+-----+-----+							

Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\16.D
 Report Date: 29-Sep-2023 09:40

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\16.D
 Lab Smp Id: 14DX ICV-0.08 Client Smp ID: 14DX ICV-0.08
 Inj Date : 28-SEP-2023 17:06
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX ICV-0.08
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 29-Sep-2023 09:38 Marco.Guti Quant Type: ISTD
 Cal Date : 28-SEP-2023 16:48 Cal File: 15.D
 Als bottle: 16 QC Sample: METHSPIKE
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152		3.413	3.414	(1.000)	4841	0.10000	(aM)
* 45 Naphthalene-d8	136		4.489	4.491	(1.000)	17835	0.10000	(M)
\$ 33 Nitrobenzene-d5	82		3.854	3.854	(0.858)	5498	0.07873	0.07873(M)
* 86 Acenaphthene-d10	164		6.159	6.161	(1.000)	8687	0.10000	
\$ 69 2-Fluorobiphenyl	172		5.503	5.505	(0.893)	13677	0.08233	0.08233
* 126 Phenanthrene-d10	188		7.624	7.626	(1.000)	14529	0.10000	(M)
* 182 Chrysene-d12	240		10.576	10.578	(1.000)	6548	0.10000	(M)
\$ 158 4-Terphenyl-d14	244		9.248	9.250	(0.874)	16917	0.08084	0.08084(M)
* 198 Perylene-d12	264		12.748	12.750	(1.000)	6717	0.10000	
1 1,4-Dioxane	58		1.949	1.916	(0.571)	1061	0.07235	0.07235(M)

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\SW6.i\230928.b\16.D

Date : 28-SEP-2023 17:06

Client ID: 14DX ICV-0.08

Sample Info: 14DX ICV-0.08

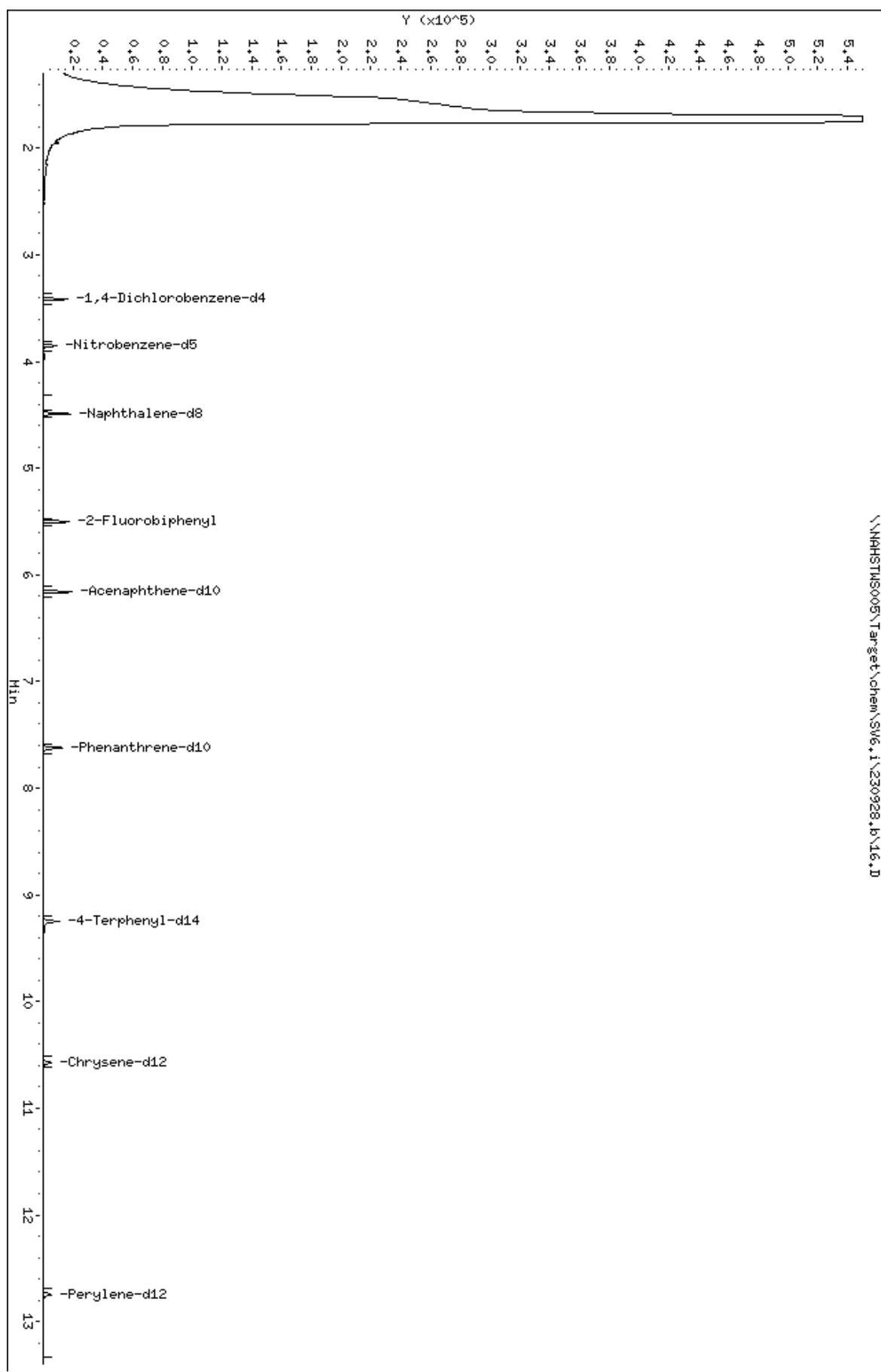
Purge Volume: 1000.0

Column phase: RTX-5SIL MS

Instrument: SW6.i

Operator: LG

Column diameter: 0.28

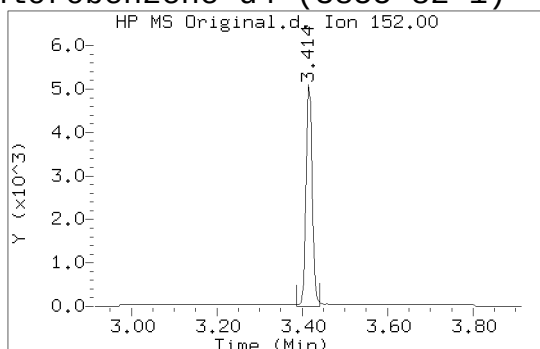


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\16.D
Inj Date : 28-SEP-2023 17:06
InstruID : SV6.i
LabSampID : 14DX ICV-0.08

1,4-Dichlorobenzene-d4 (3855-82-1)

BEFORE

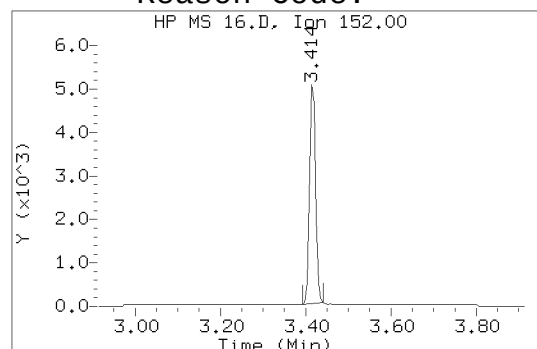
MASS
152
AREA
5079
HEIGHT
5101
28-Sep-2023
17:20
ALSHS
Server



AFTER

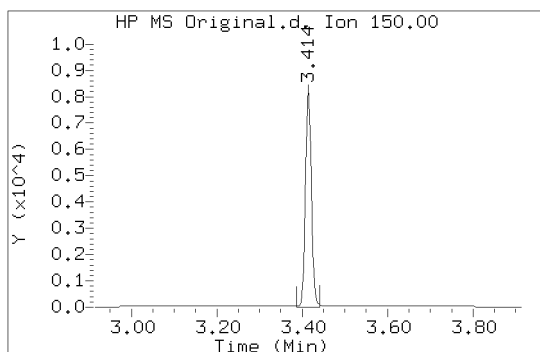
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152
AREA
4841
HEIGHT
5034
29-Sep-2023
09:40

Reason Code:



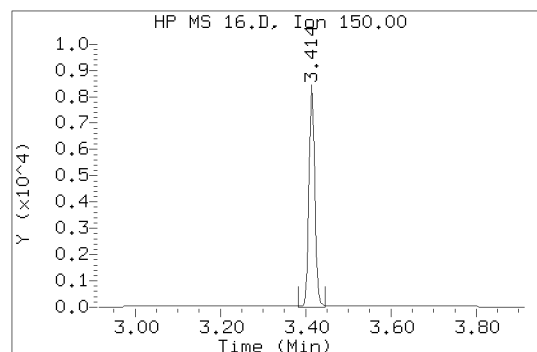
BEFORE

MASS
150
AREA
7842
HEIGHT
8448
28-Sep-2023
17:20
ALSHS
Server



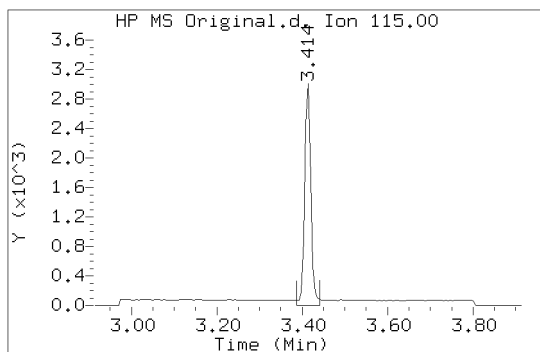
AFTER

MASS
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AREA
7876
HEIGHT
8448
29-Sep-2023
09:40



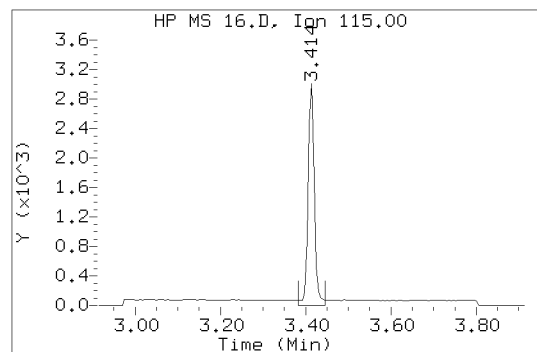
BEFORE

MASS
115
AREA
2996
HEIGHT
3008
28-Sep-2023
17:20
ALSHS
Server



AFTER

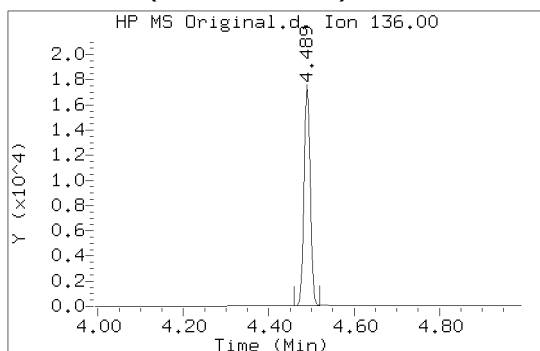
MASS
115
AREA
3039
HEIGHT
3008
29-Sep-2023
09:40



Naphthalene-d8 (1146-65-2)

BEFORE

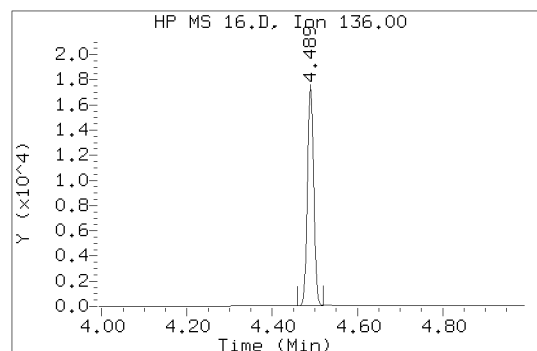
MASS
136
AREA
17835
HEIGHT
17549
28-Sep-2023
17:20
ALSHS
Server



AFTER

MASS
136
AREA
17835
HEIGHT
17549
29-Sep-2023
09:40

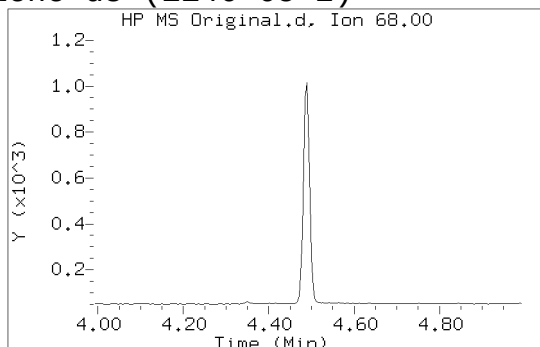
Reason Code:



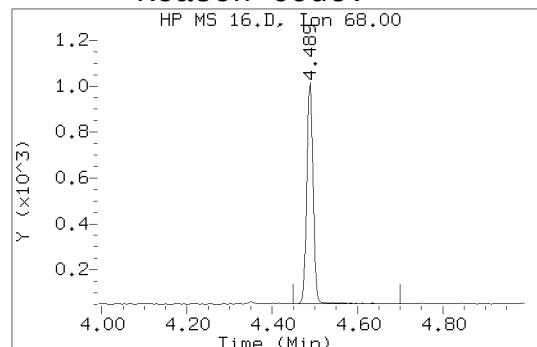
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Inj Date : 28-SEP-2023 17:06
InstruID : SV6.i
LabSampID : 14DX ICV-0.08

Naphthalene-d8 (1146-65-2)**BEFORE**

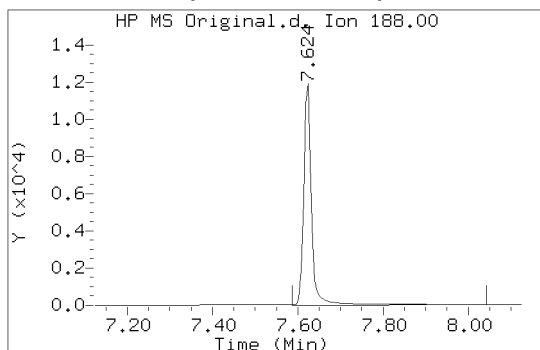
MASS
68
AREA
0
HEIGHT
0
28-Sep-2023
17:20
ALSHS
Server

**AFTER**

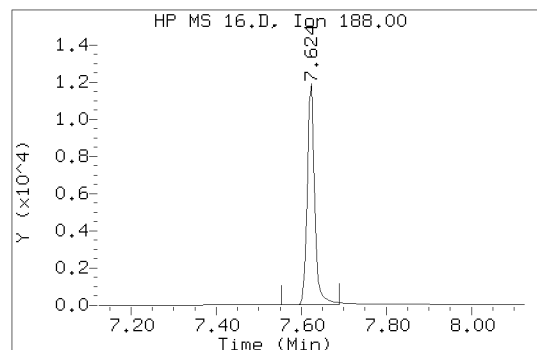
MASS
68
AREA
1007
HEIGHT
962
29-Sep-2023
09:40

Reason Code:**Phenanthrene-d10 (1517-22-2)****BEFORE**

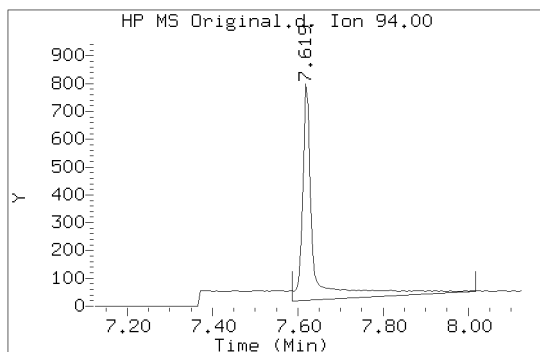
MASS
188
AREA
15255
HEIGHT
11895
28-Sep-2023
17:20
ALSHS
Server

**AFTER**

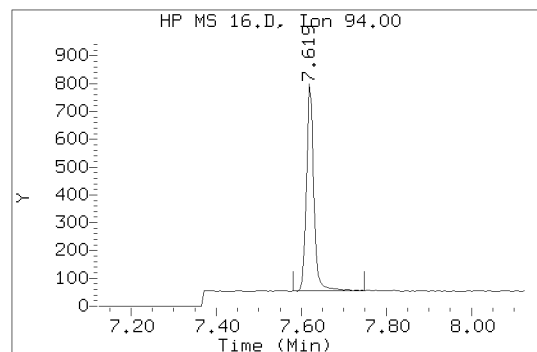
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AREA
14529
HEIGHT
11869
29-Sep-2023
09:40

Reason Code:**BEFORE**

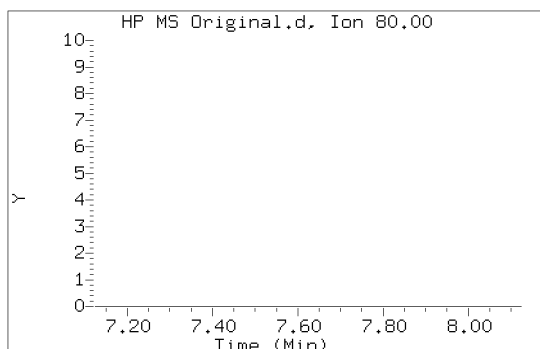
MASS
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AREA
1385
HEIGHT
777
28-Sep-2023
17:20
ALSHS
Server

**AFTER**

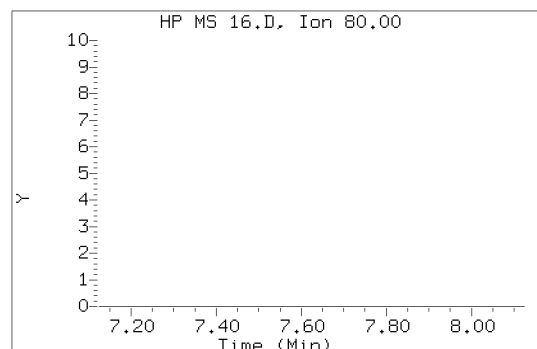
MASS
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AREA
891
HEIGHT
743
29-Sep-2023
09:40

**BEFORE**

MASS
80
AREA
0
HEIGHT
0
28-Sep-2023
17:20
ALSHS
Server

**AFTER**

MASS
80
AREA
0
HEIGHT
0
29-Sep-2023
09:40

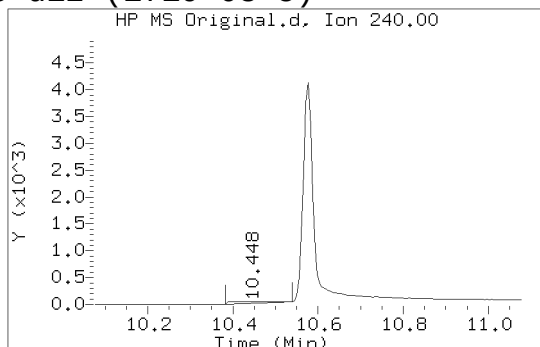


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\16.D
Inj Date : 28-SEP-2023 17:06
InstruID : SV6.i
LabSampID : 14DX ICV-0.08

Chrysene-d12 (1719-03-5)

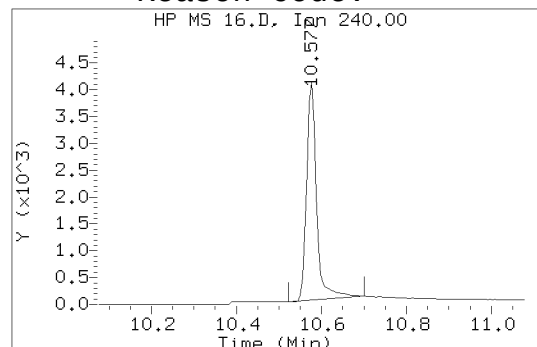
BEFORE

MASS
240
AREA
201
HEIGHT
28
28-Sep-2023
17:20
ALSHS
Server



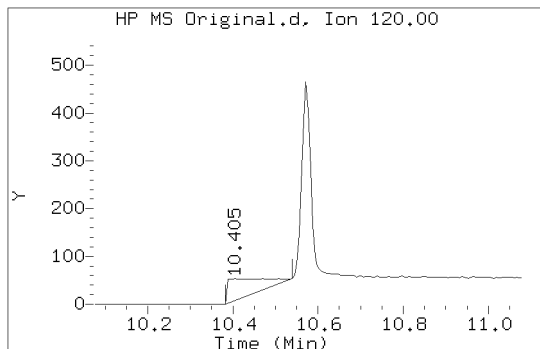
AFTER

MASS
240
AREA
6548
HEIGHT
4054
29-Sep-2023
09:40



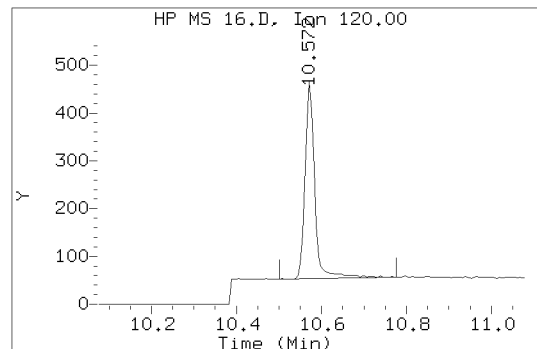
BEFORE

MASS
120
AREA
232
HEIGHT
46
28-Sep-2023
17:20
ALSHS
Server



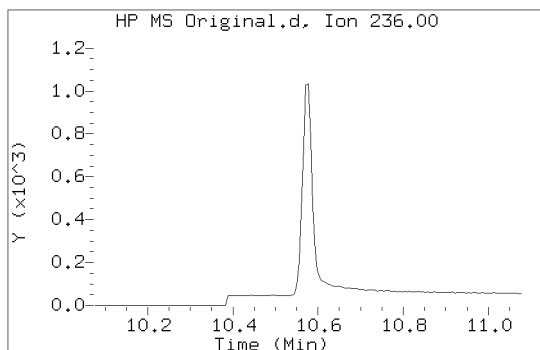
AFTER

MASS
120
AREA
637
HEIGHT
410
29-Sep-2023
09:40



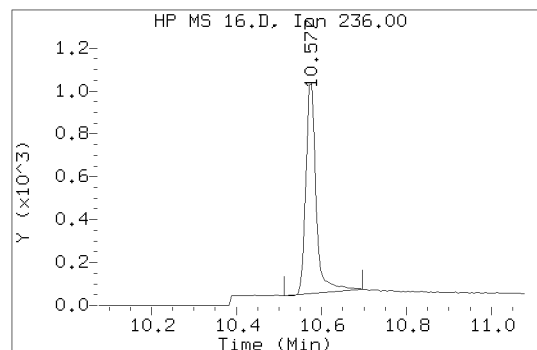
BEFORE

MASS
236
AREA
0
HEIGHT
0
28-Sep-2023
17:20
ALSHS
Server



AFTER

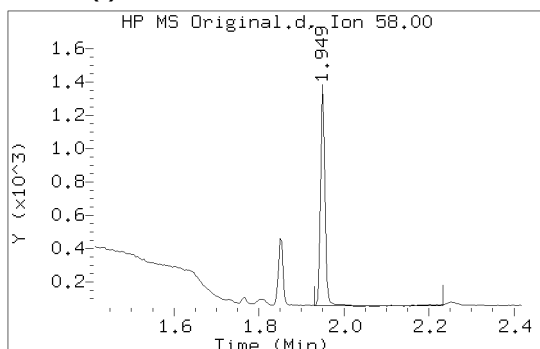
MASS
236
AREA
1628
HEIGHT
978
29-Sep-2023
09:40



1,4-Dioxane ()

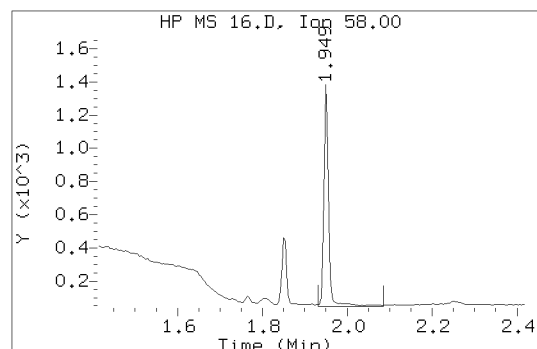
BEFORE

MASS
58
AREA
968
HEIGHT
1325
28-Sep-2023
17:20
ALSHS
Server



AFTER

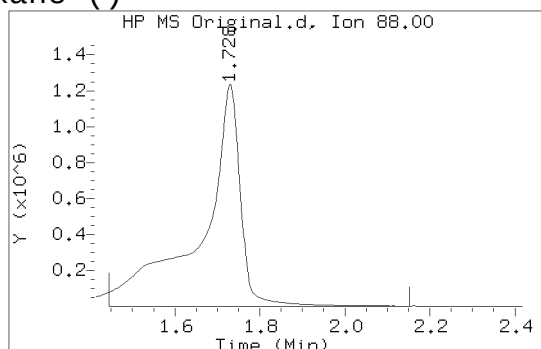
MASS
58
AREA
1061
HEIGHT
1335
29-Sep-2023
09:40



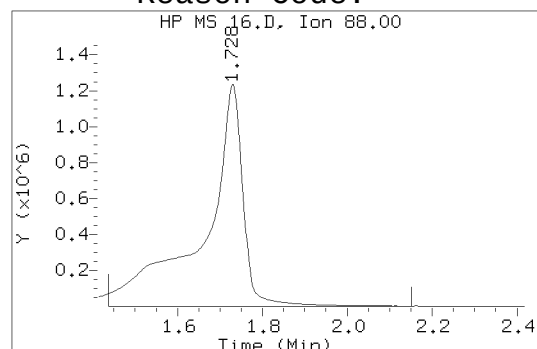
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\16.D
Inj Date : 28-SEP-2023 17:06
InstruID : SV6.i
LabSampID : 14DX ICV-0.08

1,4-Dioxane ()**BEFORE**

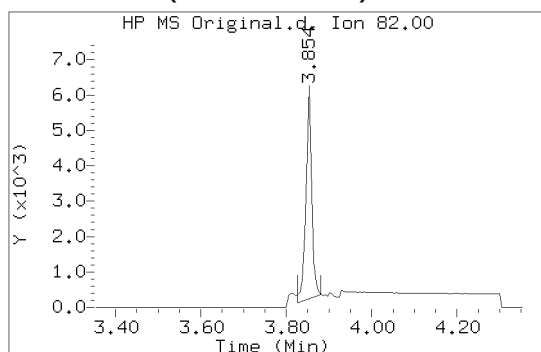
MASS
88
AREA
7855439
HEIGHT
1231545
28-Sep-2023
17:20
ALSHS
Server

**AFTER**

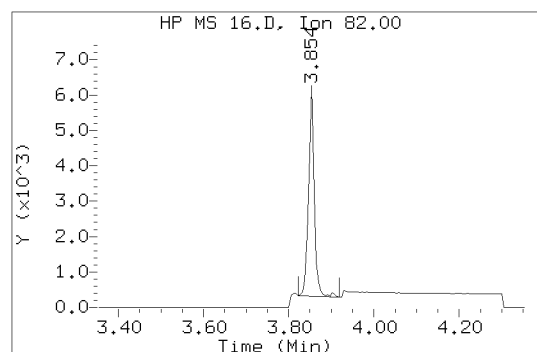
MASS
88
AREA
7886820
HEIGHT
1231545
29-Sep-2023
09:40

Reason Code:**Nitrobenzene-d5 (4165-60-0)****BEFORE**

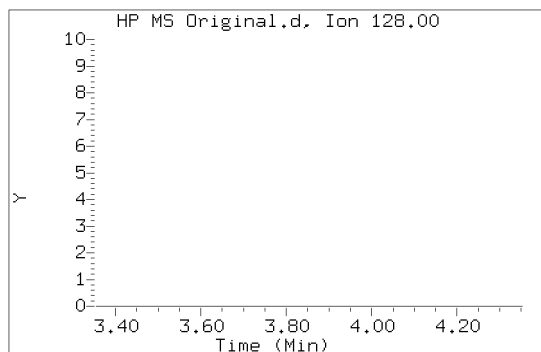
MASS
82
AREA
5653
HEIGHT
6017
28-Sep-2023
17:20
ALSHS
Server

**AFTER**

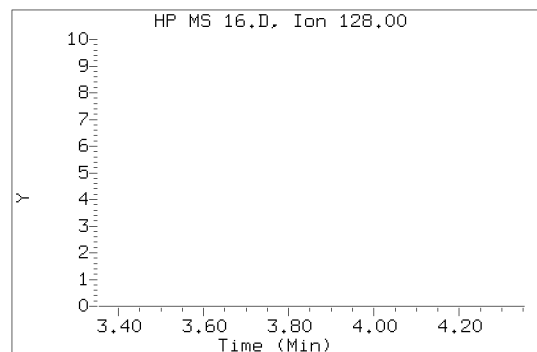
MASS
82
AREA
5498
HEIGHT
5948
29-Sep-2023
09:40

Reason Code:**BEFORE**

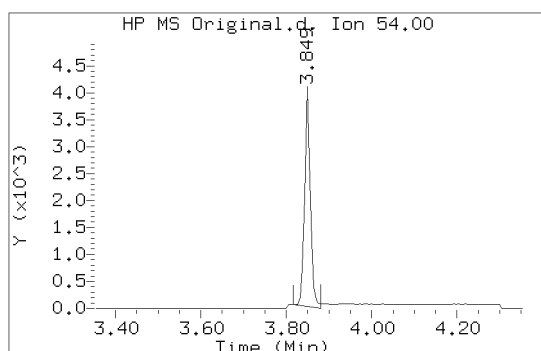
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
17:20
ALSHS
Server

**AFTER**

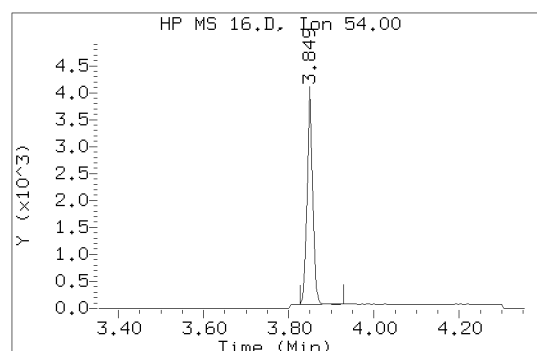
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
09:40

**BEFORE**

MASS
54
AREA
3743
HEIGHT
4077
28-Sep-2023
17:20
ALSHS
Server

**AFTER**

MASS
54
AREA
3557
HEIGHT
4034
29-Sep-2023
09:40

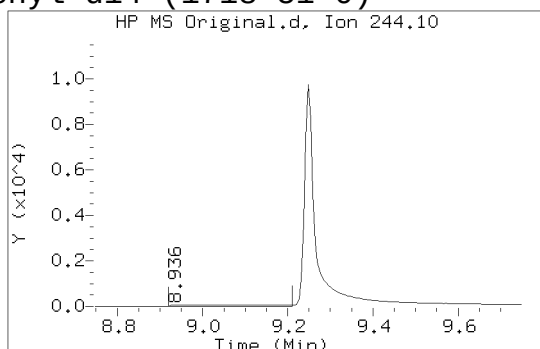


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\16.D
 Inj Date : 28-SEP-2023 17:06
 InstruID : SV6.i
 LabSampID : 14DX ICV-0.08

4-Terphenyl-d14 (1718-51-0)

BEFORE

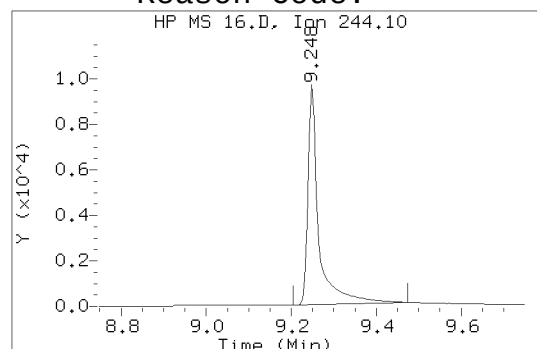
MASS
244.1
AREA
767
HEIGHT
45
28-Sep-2023
17:20
ALSHS
Server



AFTER

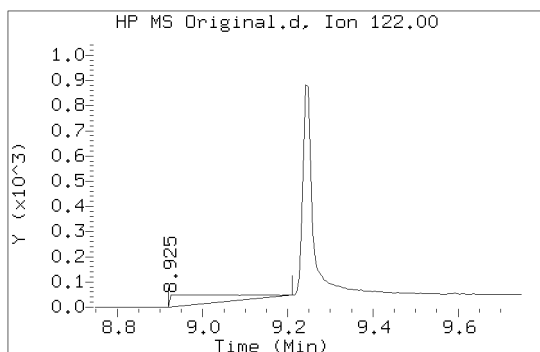
MASS
244.1
AREA
16917
HEIGHT
9682
29-Sep-2023
09:40

Reason Code:



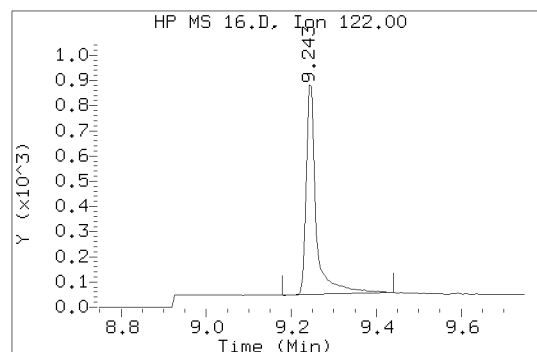
BEFORE

MASS
122
AREA
405
HEIGHT
48
28-Sep-2023
17:20
ALSHS
Server



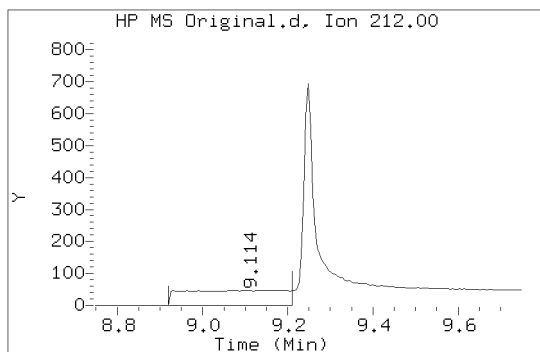
AFTER

MASS
122
AREA
1344
HEIGHT
831
29-Sep-2023
09:40



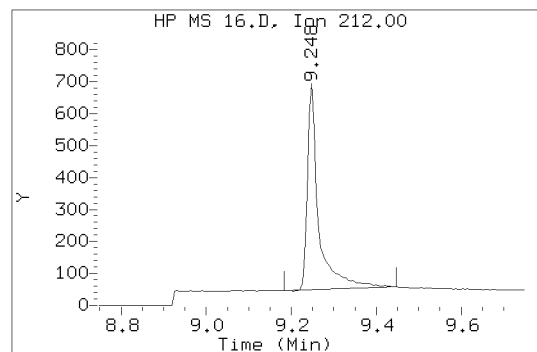
BEFORE

MASS
212
AREA
795
HEIGHT
47
28-Sep-2023
17:20
ALSHS
Server



AFTER

MASS
212
AREA
1165
HEIGHT
644
29-Sep-2023
09:40



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\19.D
 Report Date: 29-Sep-2023 11:32

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ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\19.D
 Lab Smp Id: LCS1-200383 Client Smp ID: LCS1-200383
 Inj Date : 28-SEP-2023 17:58
 Operator : LG Inst ID: SV6.i
 Smp Info : LCS1-200383
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 29-Sep-2023 09:38 Marco.Guti Quant Type: ISTD
 Cal Date : 28-SEP-2023 16:48 Cal File: 15.D
 Als bottle: 19 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152		3.413	3.414	(1.000)	4911	0.10000	(aQ)
* 45 Naphthalene-d8	136		4.489	4.491	(1.000)	13734	0.10000	(M)
\$ 33 Nitrobenzene-d5	82		3.854	3.854	(0.858)	9901	0.18412	0.1841(ARM)
* 86 Acenaphthene-d10	164		6.159	6.161	(1.000)	8008	0.10000	
\$ 69 2-Fluorobiphenyl	172		5.499	5.505	(0.893)	20136	0.13149	0.1315(R)
* 126 Phenanthrene-d10	188		7.618	7.626	(1.000)	17382	0.10000	
* 182 Chrysene-d12	240		10.576	10.578	(1.000)	9340	0.10000	(M)
\$ 158 4-Terphenyl-d14	244		9.248	9.250	(0.880)	26653	0.08930	0.08930(M)
* 198 Perylene-d12	264		12.743	12.750	(1.000)	8388	0.10000	
1 1,4-Dioxane	58		1.975	1.916	(0.579)	1091	0.07334	0.07334(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.
- Q - Qualifier signal failed the ratio test.



R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\Sw6.i\230928.b\19.D

Date : 28-SEP-2023 17:58

Client ID: LCS1-200383

Sample Info: LCS1-200383

Purge Volume: 1000.0

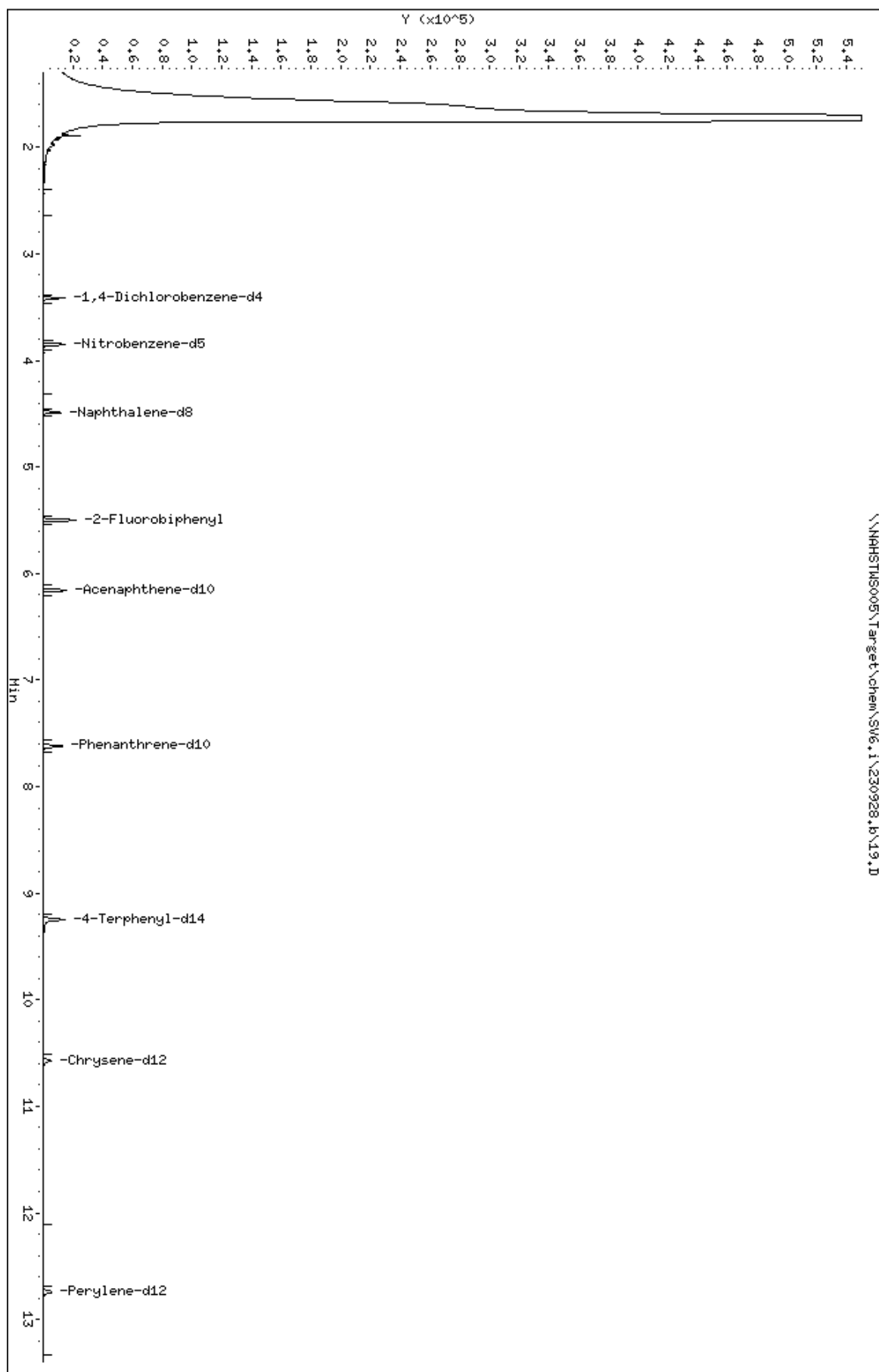
Column phase: RTX-5SIL MS

Instrument: Sw6.i

Operator: LG

Column diameter: 0.28

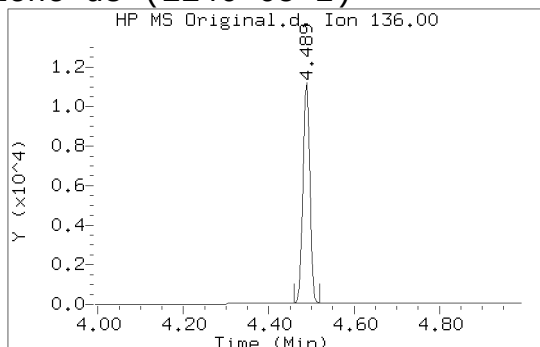
\\NAHSTMS005\Target\chem\Sw6.i\230928.b\19.D



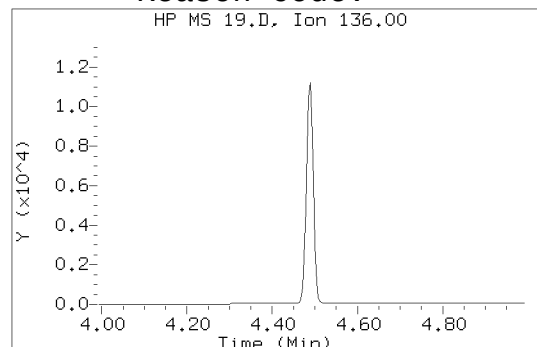
Data File : \\NAHSTWS005\Target\chem\SV6.i\230928.b\19.D
Inj Date : 28-SEP-2023 17:58
InstruID : SV6.i
LabSampID : LCS1-200383

Naphthalene-d8 (1146-65-2)**BEFORE**

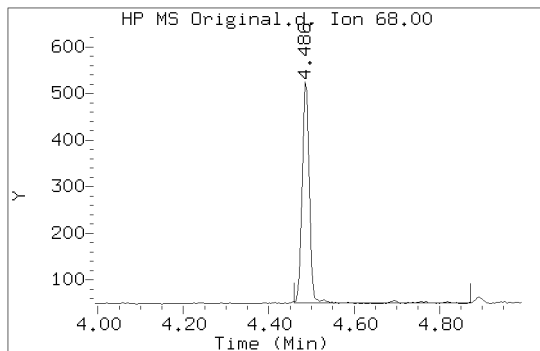
MASS
136
AREA
12740
HEIGHT
11149
28-Sep-2023
18:13
ALSHS
Server

**AFTER**

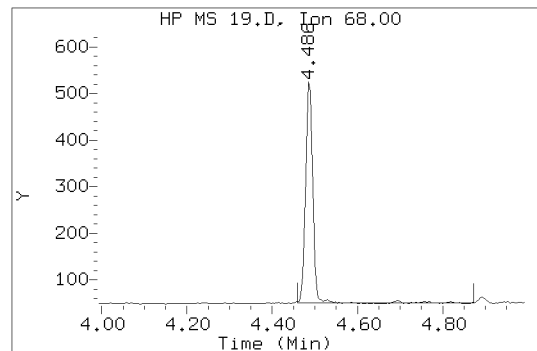
MASS
136
AREA
13734
HEIGHT
11176
29-Sep-2023
11:32

**BEFORE**

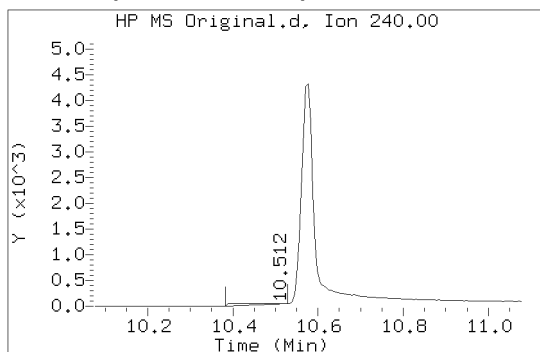
MASS
68
AREA
559
HEIGHT
474
28-Sep-2023
18:13
ALSHS
Server

**AFTER**

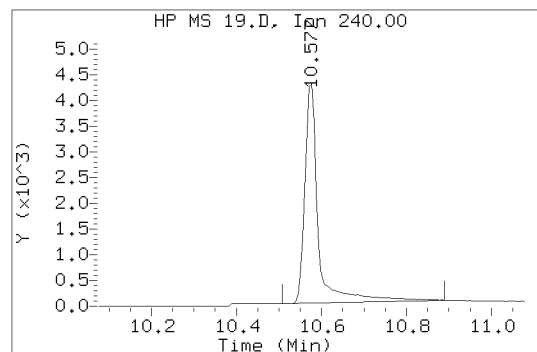
MASS
68
AREA
559
HEIGHT
474
29-Sep-2023
11:32

**Chrysene-d12 (1719-03-5)****BEFORE**

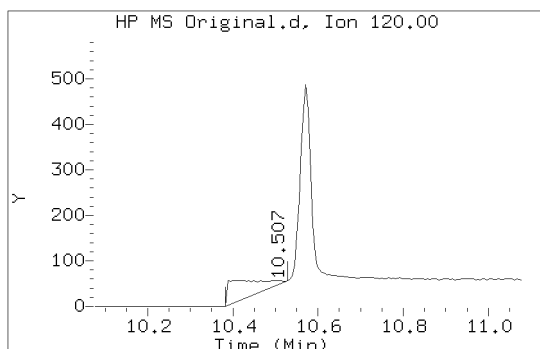
MASS
240
AREA
194
HEIGHT
5
28-Sep-2023
18:13
ALSHS
Server

**AFTER**

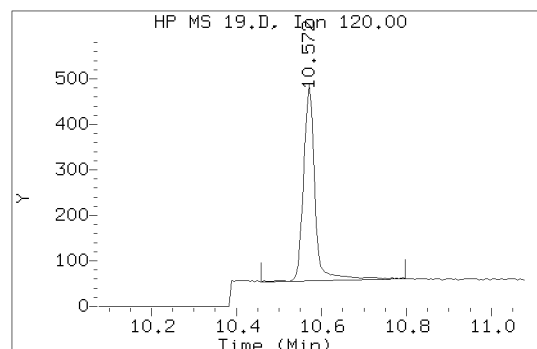
MASS
240
AREA
9340
HEIGHT
4266
29-Sep-2023
11:32

**BEFORE**

MASS
120
AREA
226
HEIGHT
8
28-Sep-2023
18:13
ALSHS
Server

**AFTER**

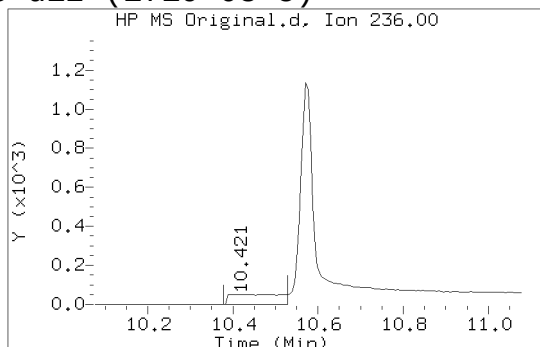
MASS
120
AREA
798
HEIGHT
430
29-Sep-2023
11:32



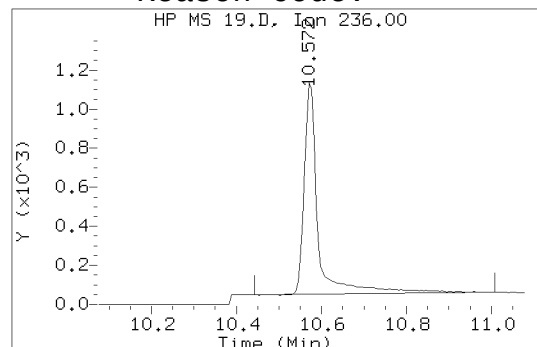
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\19.D
Inj Date : 28-SEP-2023 17:58
InstruID : SV6.i
LabSampID : LCS1-200383

Chrysene-d12 (1719-03-5)**BEFORE**

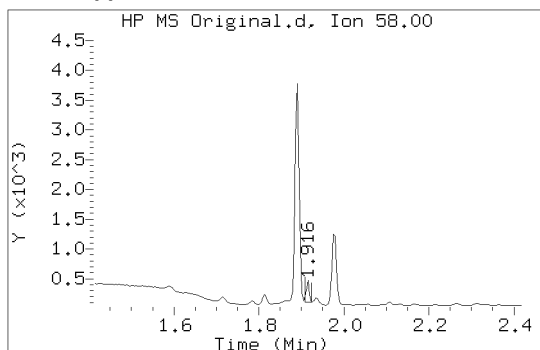
MASS
236
AREA
423
HEIGHT
50
28-Sep-2023
18:13
ALSHS
Server

**AFTER**

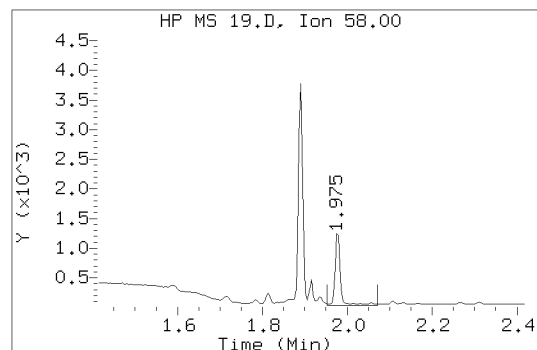
MASS
236
AREA
2458
HEIGHT
1084
29-Sep-2023
11:32

**1,4-Dioxane ()****BEFORE**

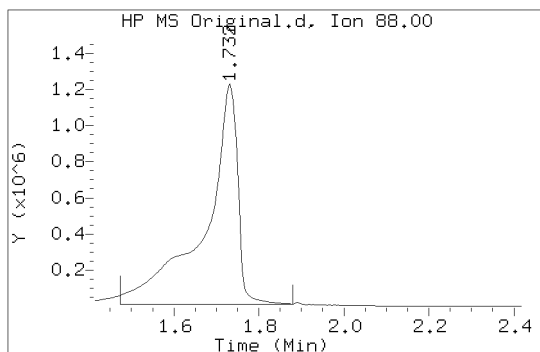
MASS
58
AREA
181
HEIGHT
360
28-Sep-2023
18:13
ALSHS
Server

**AFTER**

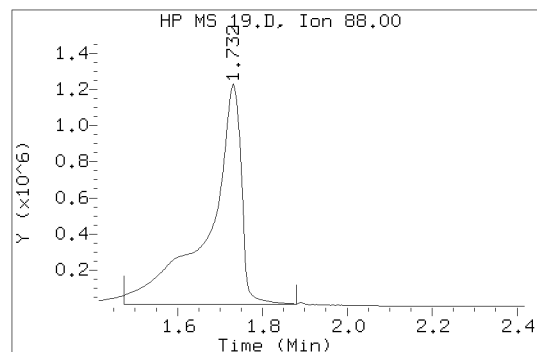
MASS
58
AREA
1091
HEIGHT
1212
29-Sep-2023
11:32

**BEFORE**

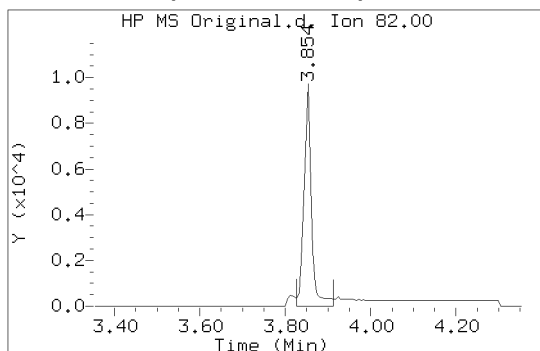
MASS
88
AREA
6514833
HEIGHT
1218914
28-Sep-2023
18:13
ALSHS
Server

**AFTER**

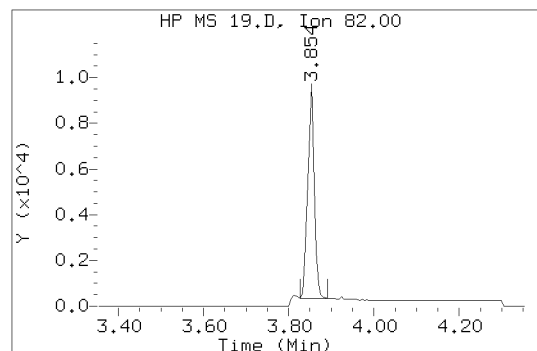
MASS
88
AREA
6514845
HEIGHT
1218914
29-Sep-2023
11:32

**Nitrobenzene-d5 (4165-60-0)****BEFORE**

MASS
82
AREA
11756
HEIGHT
9722
28-Sep-2023
18:13
ALSHS
Server

**AFTER**

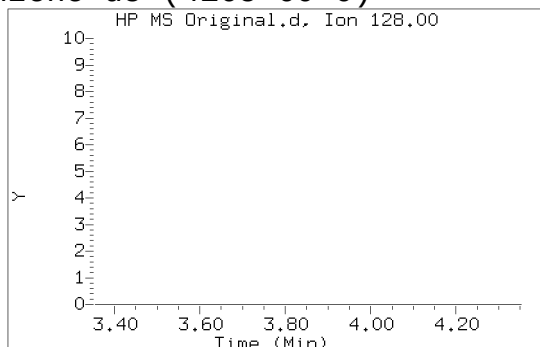
MASS
82
AREA
9901
HEIGHT
9378
29-Sep-2023
11:32



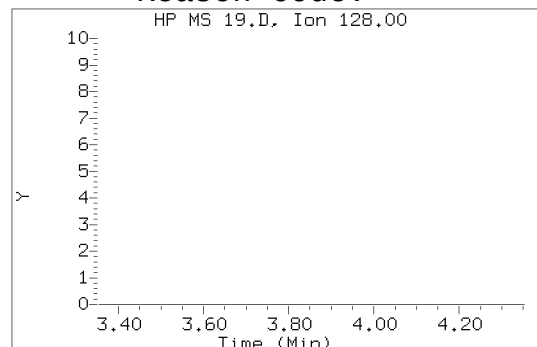
Data File : \\NAHSTWS005\Target\chem\SV6.i\230928.b\19.D
Inj Date : 28-SEP-2023 17:58
InstruID : SV6.i
LabSampID : LCS1-200383

Nitrobenzene-d5 (4165-60-0)**BEFORE**

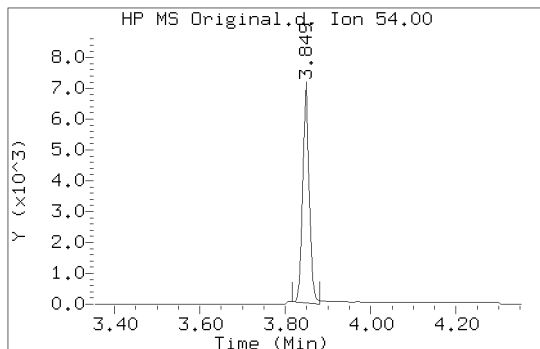
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
18:13
ALSHS

**AFTER**

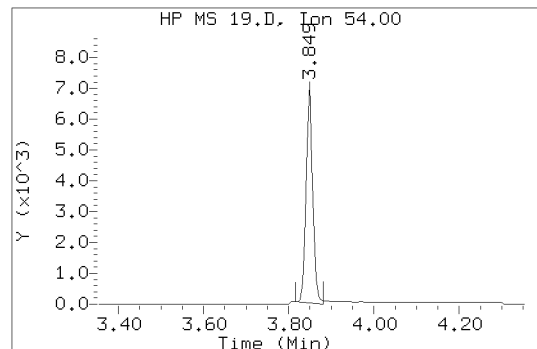
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
11:32

**BEFORE**

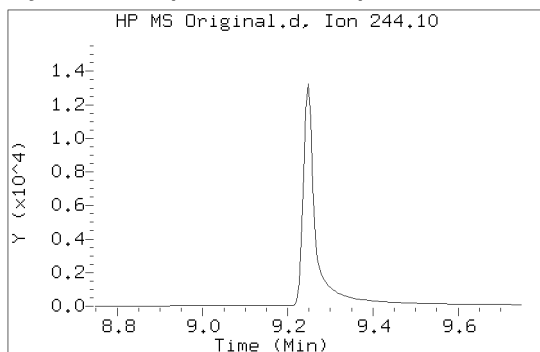
MASS
54
AREA
7442
HEIGHT
7169
28-Sep-2023
18:13
ALSHS
Server

**AFTER**

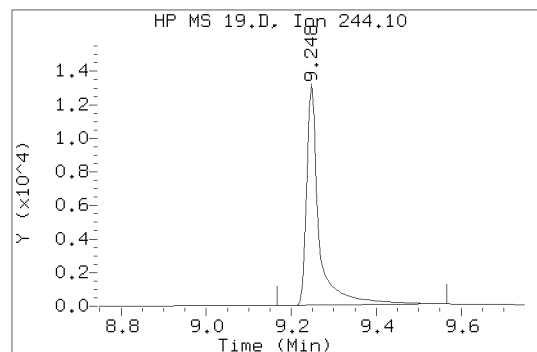
MASS
54
AREA
7442
HEIGHT
7169
29-Sep-2023
11:32

**4-Terphenyl-d14 (1718-51-0)****BEFORE**

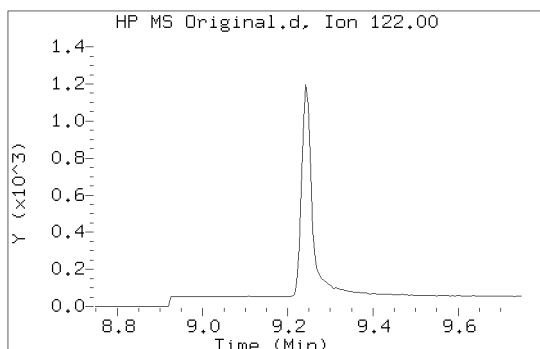
MASS
244.1
AREA
0
HEIGHT
0
28-Sep-2023
18:13
ALSHS
Server

**AFTER**

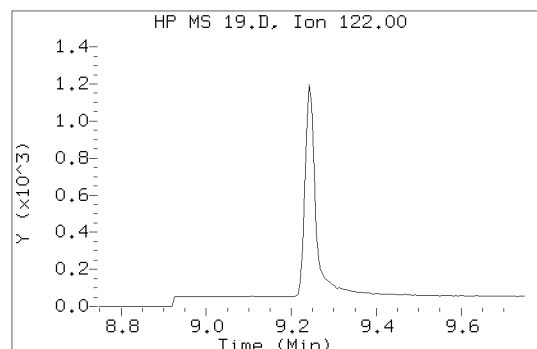
MASS
244.1
AREA
26653
HEIGHT
13181
29-Sep-2023
11:32

**BEFORE**

MASS
122
AREA
0
HEIGHT
0
28-Sep-2023
18:13
ALSHS
Server

**AFTER**

MASS
122
AREA
2135
HEIGHT
1142
29-Sep-2023
11:32

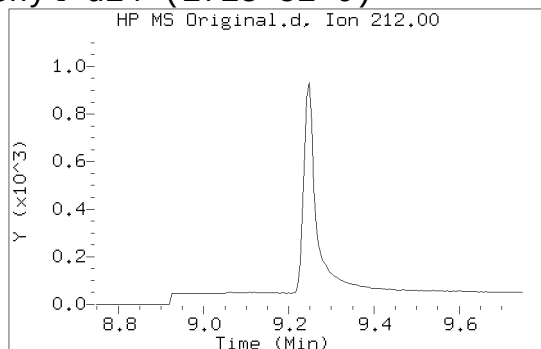


Data File : \\NAHSTWS005\Target\chem\SV6.i\230928.b\19.D
Inj Date : 28-SEP-2023 17:58
InstruID : SV6.i
LabSampID : LCS1-200383

4-Terphenyl-d14 (1718-51-0)

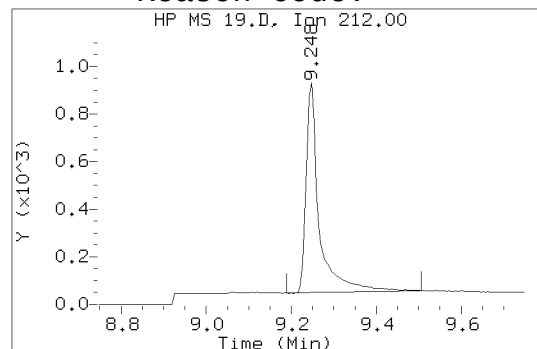
BEFORE

MASS
212
AREA
0
HEIGHT
0
28-Sep-2023
18:13
ALSHS
Server



AFTER

MASS
212
AREA
1883
HEIGHT
882
29-Sep-2023
11:32



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\20.D
Report Date: 02-Oct-2023 12:35

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ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\20.D
Lab Smp Id: LCSD1-200383 Client Smp ID: LCSD1-200383
Inj Date : 28-SEP-2023 18:16
Operator : LG Inst ID: SV6.i
Smp Info : LCSD1-200383
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
Meth Date : 02-Oct-2023 12:35 SV6.i Quant Type: ISTD
Cal Date : 28-SEP-2023 15:21 Cal File: 10.D
Als bottle: 20 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
	MASS						(NG)	(ug/L)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 20 1,4-Dichlorobenzene-d4	152		3.414	3.413 (1.000)		4819	0.10000		(aQ)
* 45 Naphthalene-d8	136		4.489	4.490 (1.000)		14252	0.10000		(M)
\$ 33 Nitrobenzene-d5	82		3.854	3.853 (0.858)		8162	0.14626	0.1463(RM)	
* 86 Acenaphthene-d10	164		6.159	6.160 (1.000)		10449	0.10000		
\$ 69 2-Fluorobiphenyl	172		5.503	5.501 (0.893)		25857	0.12940	0.1294(R)	
* 126 Phenanthrene-d10	188		7.624	7.620 (1.000)		21800	0.10000		
* 182 Chrysene-d12	240		10.577	10.578 (1.000)		7883	0.10000		(M)
\$ 158 4-Terphenyl-d14	244		9.248	9.249 (0.874)		35188	0.13968	0.1397(RM)	
* 198 Perylene-d12	264		12.748	12.744 (1.000)		8227	0.10000		
1 1,4-Dioxane	58		1.949	1.949 (0.571)		951	0.06515	0.06515(M)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\SW6.i\230928.b\20.D

Date : 28-SEP-2023 18:16

Client ID: LCSD1-200383

Sample Info: LCSD1-200383

Purge Volume: 1000.0

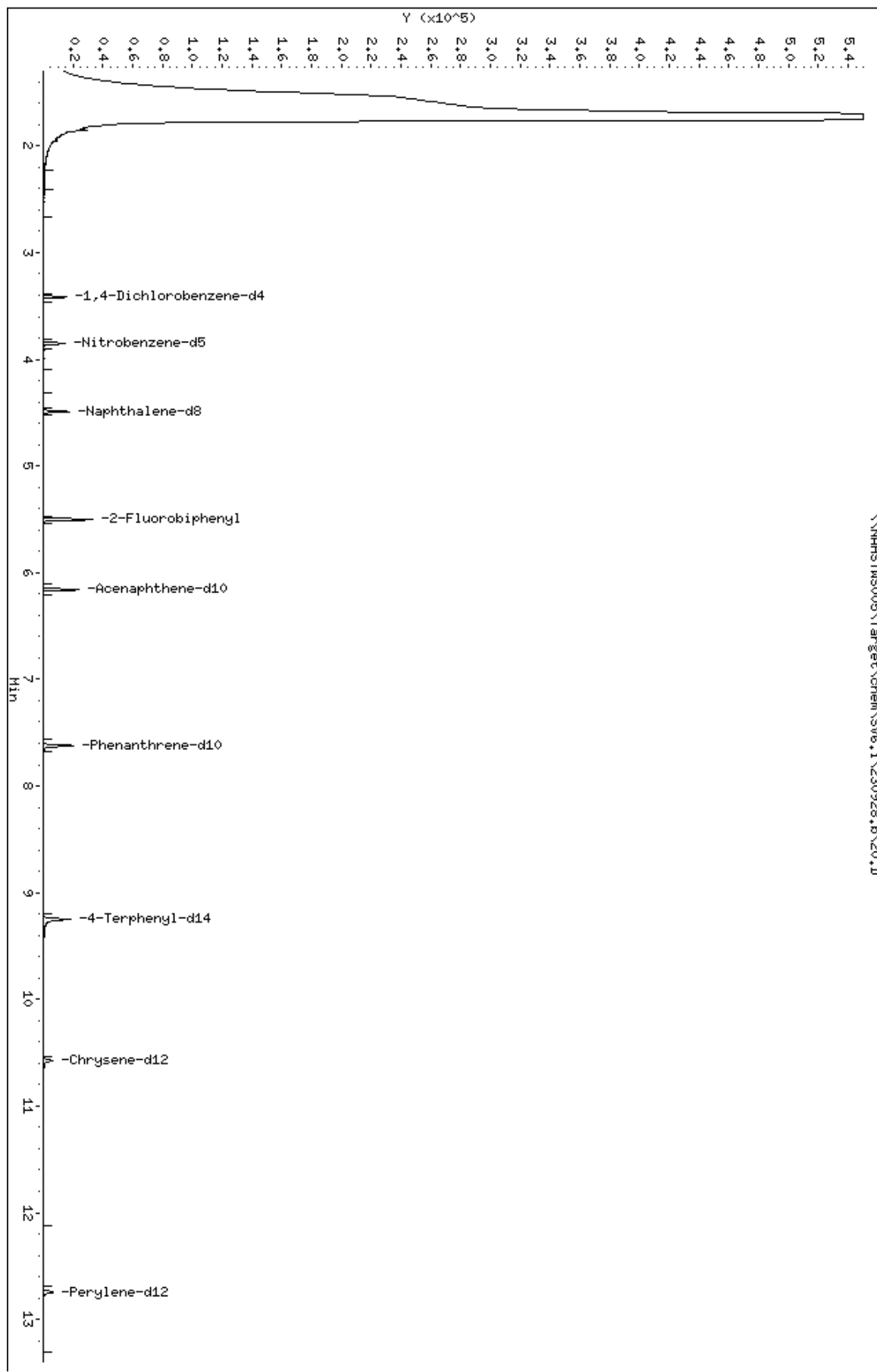
Column phase: RTX-5SIL MS

Instrument: SW6.i

Operator: LG

Column diameter: 0.28

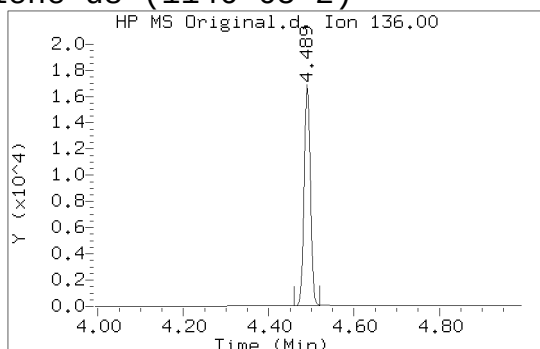
\\NAHSTMS005\Target\chem\SW6.i\230928.b\20.D



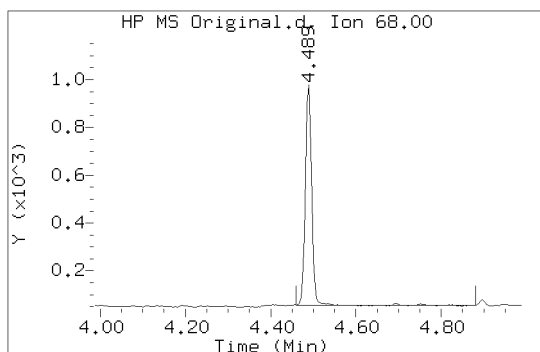
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\20.D
Inj Date : 28-SEP-2023 18:16
InstruID : SV6.i
LabSampID : LCSD1-200383

Naphthalene-d8 (1146-65-2)**BEFORE**

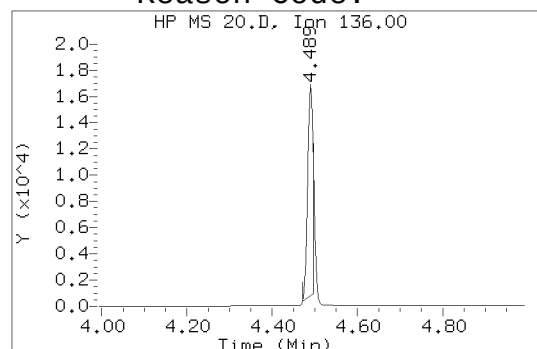
MASS
136
AREA
17215
HEIGHT
16838
28-Sep-2023
18:30
ALSHS
Server

**BEFORE**

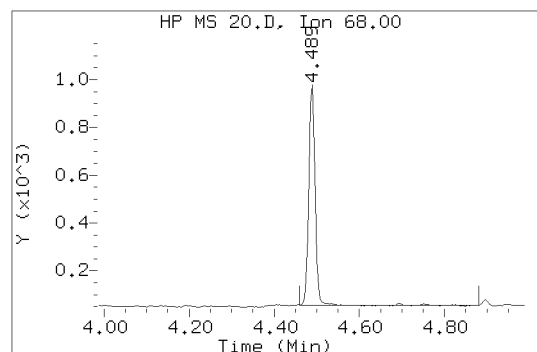
MASS
68
AREA
930
HEIGHT
921
28-Sep-2023
18:30
ALSHS
Server

**AFTER**

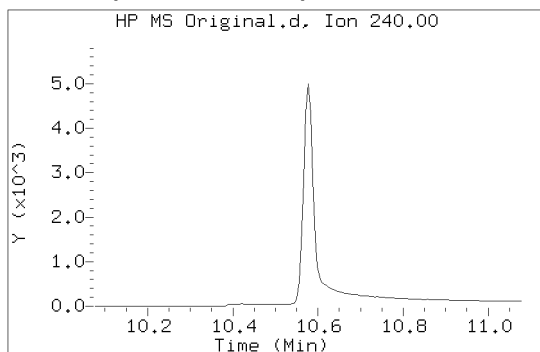
MASS
136
AREA
14252
HEIGHT
16099
02-Oct-2023
12:35
ALSHS
Ser

**AFTER**

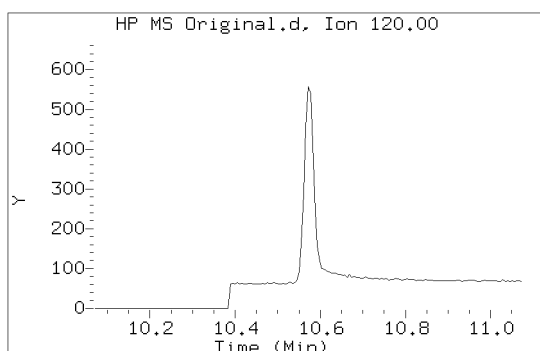
MASS
68
AREA
930
HEIGHT
921
02-Oct-2023
12:35
ALSHS
Ser

**Chrysene-d12 (1719-03-5)****BEFORE**

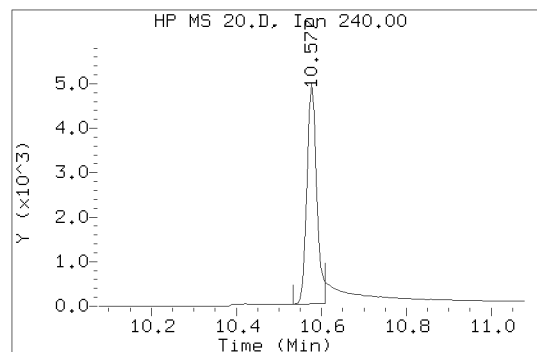
MASS
240
AREA
0
HEIGHT
0
28-Sep-2023
18:30
ALSHS
Server

**BEFORE**

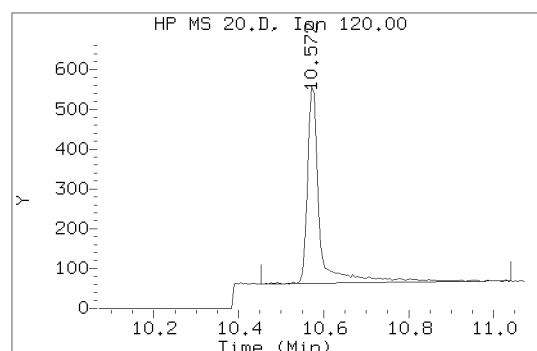
MASS
120
AREA
0
HEIGHT
0
28-Sep-2023
18:30
ALSHS
Server

**AFTER**

MASS
240
AREA
7883
HEIGHT
4942
02-Oct-2023
12:35
ALSHS
Ser

**AFTER**

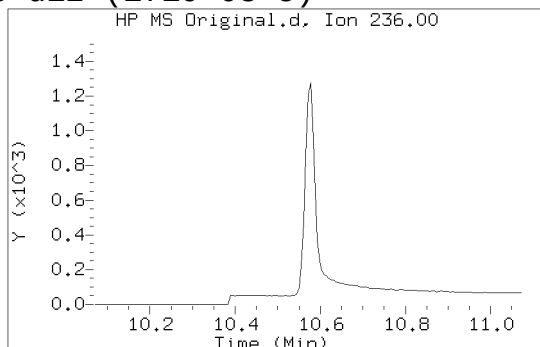
MASS
120
AREA
987
HEIGHT
493
02-Oct-2023
12:35
ALSHS
Ser



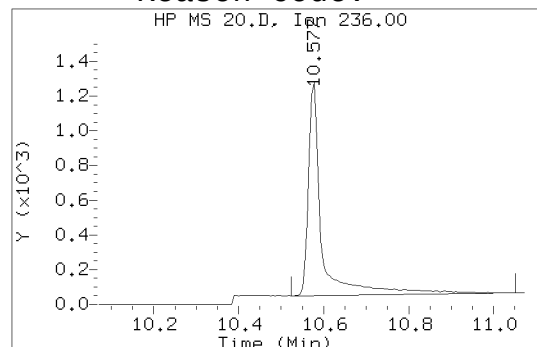
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\20.D
Inj Date : 28-SEP-2023 18:16
InstruID : SV6.i
LabSampID : LCSD1-200383

Chrysene-d12 (1719-03-5)**BEFORE**

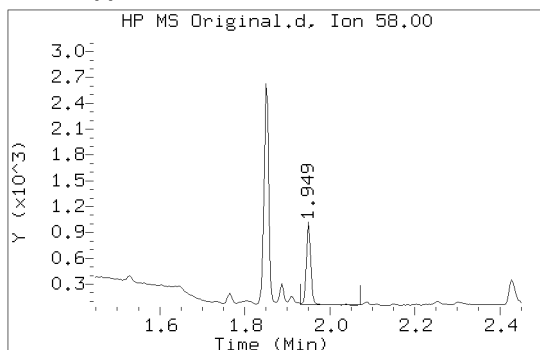
MASS
236
AREA
0
HEIGHT
0
28-Sep-2023
18:30
ALSHS
Server

**AFTER**

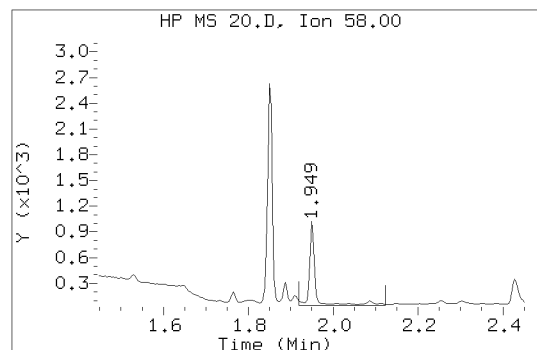
MASS
236
AREA
2692
HEIGHT
1226
02-Oct-2023
12:35
ALSHS
Ser

Reason Code:**1,4-Dioxane ()****BEFORE**

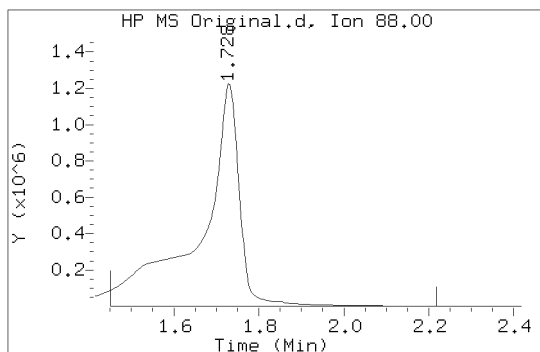
MASS
58
AREA
697
HEIGHT
958
28-Sep-2023
18:30
ALSHS
Server

**AFTER**

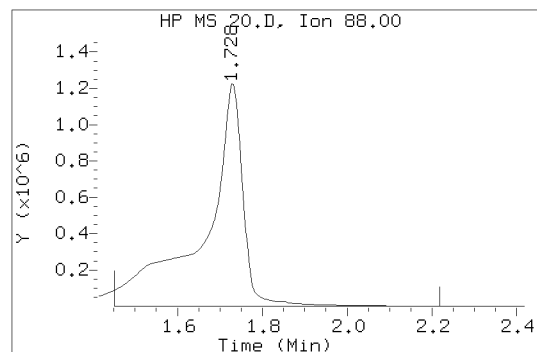
MASS
58
AREA
951
HEIGHT
976
02-Oct-2023
12:35
ALSHS
Ser

**BEFORE**

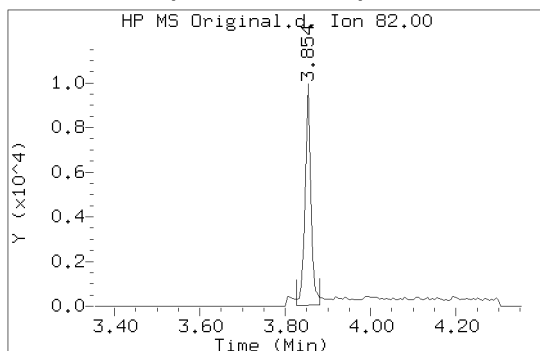
MASS
88
AREA
7790292
HEIGHT
1223035
28-Sep-2023
18:30
ALSHS
Server

**AFTER**

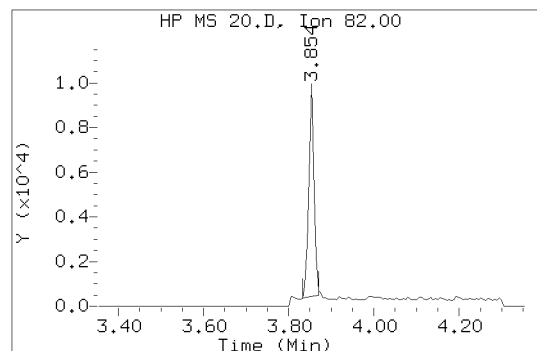
MASS
88
AREA
7790292
HEIGHT
1223035
02-Oct-2023
12:35
ALSHS
Ser

**Nitrobenzene-d5 (4165-60-0)****BEFORE**

MASS
82
AREA
9565
HEIGHT
9920
28-Sep-2023
18:30
ALSHS
Server

**AFTER**

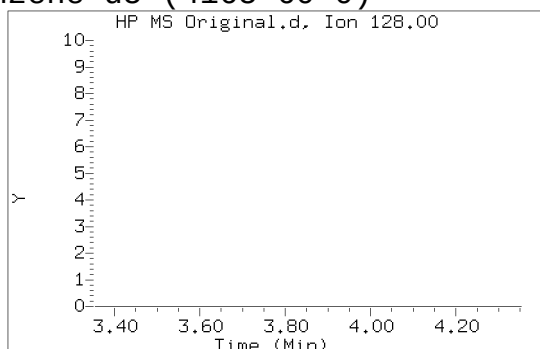
MASS
82
AREA
8162
HEIGHT
9516
02-Oct-2023
12:35
ALSHS
Ser

**Reason Code:**

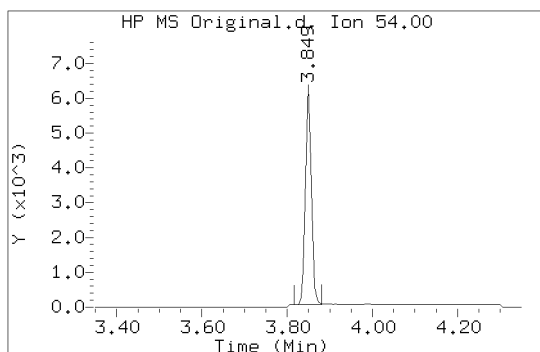
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\20.D
Inj Date : 28-SEP-2023 18:16
InstruID : SV6.i
LabSampID : LCSD1-200383

Nitrobenzene-d5 (4165-60-0)**BEFORE**

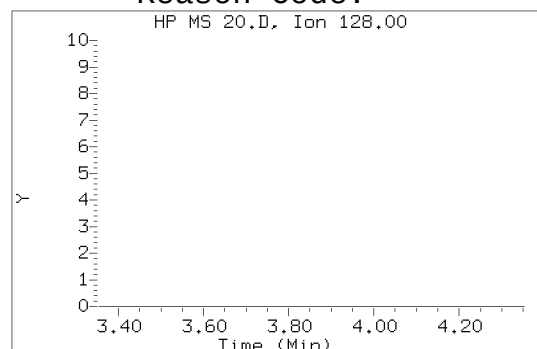
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
18:30
ALSHS

**BEFORE**

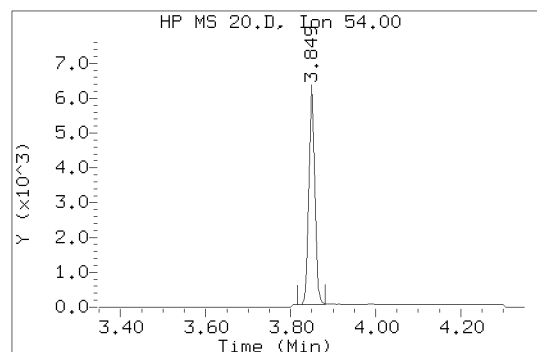
MASS
54
AREA
6035
HEIGHT
6310
28-Sep-2023
18:30
ALSHS
Server

**AFTER**

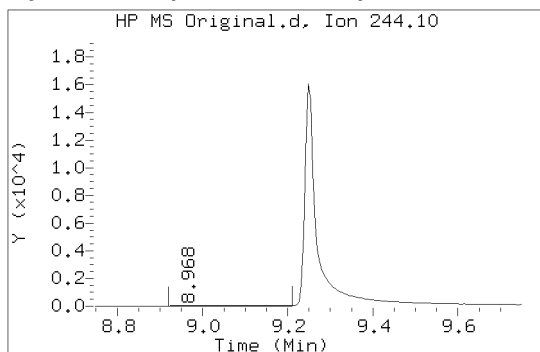
MASS
128
AREA
0
HEIGHT
0
02-Oct-2023
12:35
ALSHS

**AFTER**

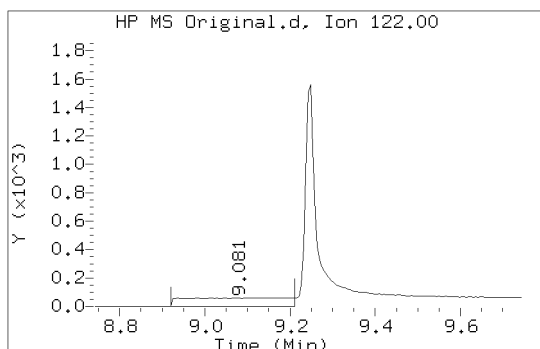
Ser
MASS
54
AREA
6035
HEIGHT
6310
02-Oct-2023
12:35
ALSHS
Ser

**4-Terphenyl-d14 (1718-51-0)****BEFORE**

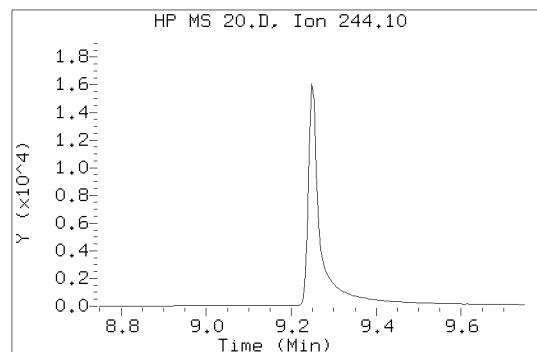
MASS
244.1
AREA
781
HEIGHT
46
28-Sep-2023
18:30
ALSHS
Server

**BEFORE**

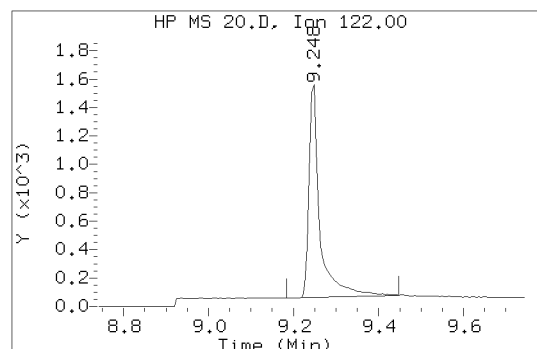
MASS
122
AREA
999
HEIGHT
60
28-Sep-2023
18:30
ALSHS
Server

**AFTER**

MASS
244.1
AREA
35188
HEIGHT
16030
02-Oct-2023
12:35
ALSHS

**AFTER**

Ser
MASS
122
AREA
2656
HEIGHT
1498
02-Oct-2023
12:35
ALSHS
Ser

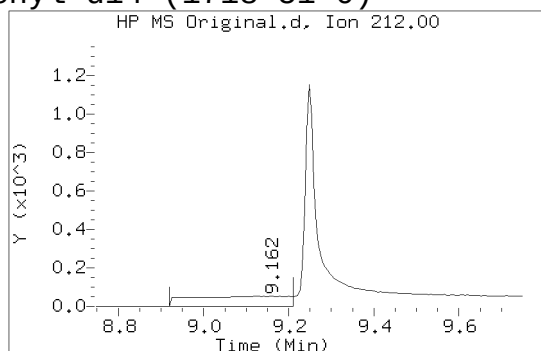


Data File : \\NAHSTWS005\Target\chem\SV6.i\230928.b\20.D
Inj Date : 28-SEP-2023 18:16
InstruID : SV6.i
LabSampID : LCSD1-200383

4-Terphenyl-d14 (1718-51-0)

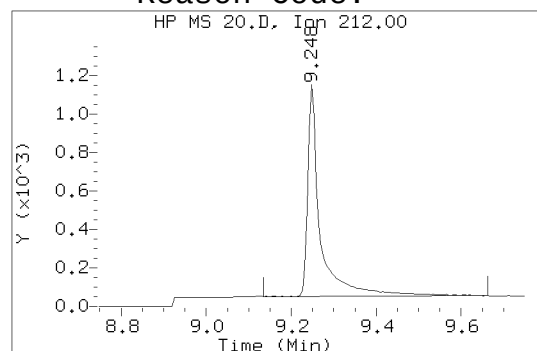
BEFORE

MASS
212
AREA
855
HEIGHT
53
28-Sep-2023
18:30
ALSHS
Server



AFTER

MASS
212
AREA
2248
HEIGHT
1101
02-Oct-2023
12:35
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\23.D
 Report Date: 29-Sep-2023 11:23

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\23.D
 Lab Smp Id: HS23090714-01 Client Smp ID: HS23090714-01
 Inj Date : 28-SEP-2023 19:08
 Operator : LG Inst ID: SV6.i
 Smp Info : HS23090714-01
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
 Meth Date : 29-Sep-2023 09:38 Marco.Guti Quant Type: ISTD
 Cal Date : 28-SEP-2023 16:48 Cal File: 15.D
 Als bottle: 23
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
	MASS						(NG)	(ug/L)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 20 1,4-Dichlorobenzene-d4	152		3.413	3.414 (1.000)		4264	0.10000		(aM)
* 45 Naphthalene-d8	136		4.493	4.491 (1.000)		7204	0.10000		(M)
\$ 33 Nitrobenzene-d5	82		3.854	3.854 (0.858)		1819	0.06449	0.06449(M)	
* 86 Acenaphthene-d10	164		6.164	6.161 (1.000)		3778	0.10000		
\$ 69 2-Fluorobiphenyl	172		5.506	5.505 (0.893)		4563	0.06316	0.06316	
* 126 Phenanthrene-d10	188		7.629	7.626 (1.000)		8079	0.10000		
* 182 Chrysene-d12	240		10.582	10.578 (1.000)		3465	0.10000		(M)
\$ 158 4-Terphenyl-d14	244		9.253	9.250 (0.874)		7135	0.06444	0.06444(M)	
* 198 Perylene-d12	264		12.753	12.750 (1.000)		3833	0.10000		
1 1,4-Dioxane	58		1.890	1.916 (0.554)		6237	0.48288	0.4829(M)	

QC Flag Legend

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



Data File: \\NAHSTMS0005\Target\chem\SW6.i\230928.b\23.D

Page 1

Date : 28-SEP-2023 19:08

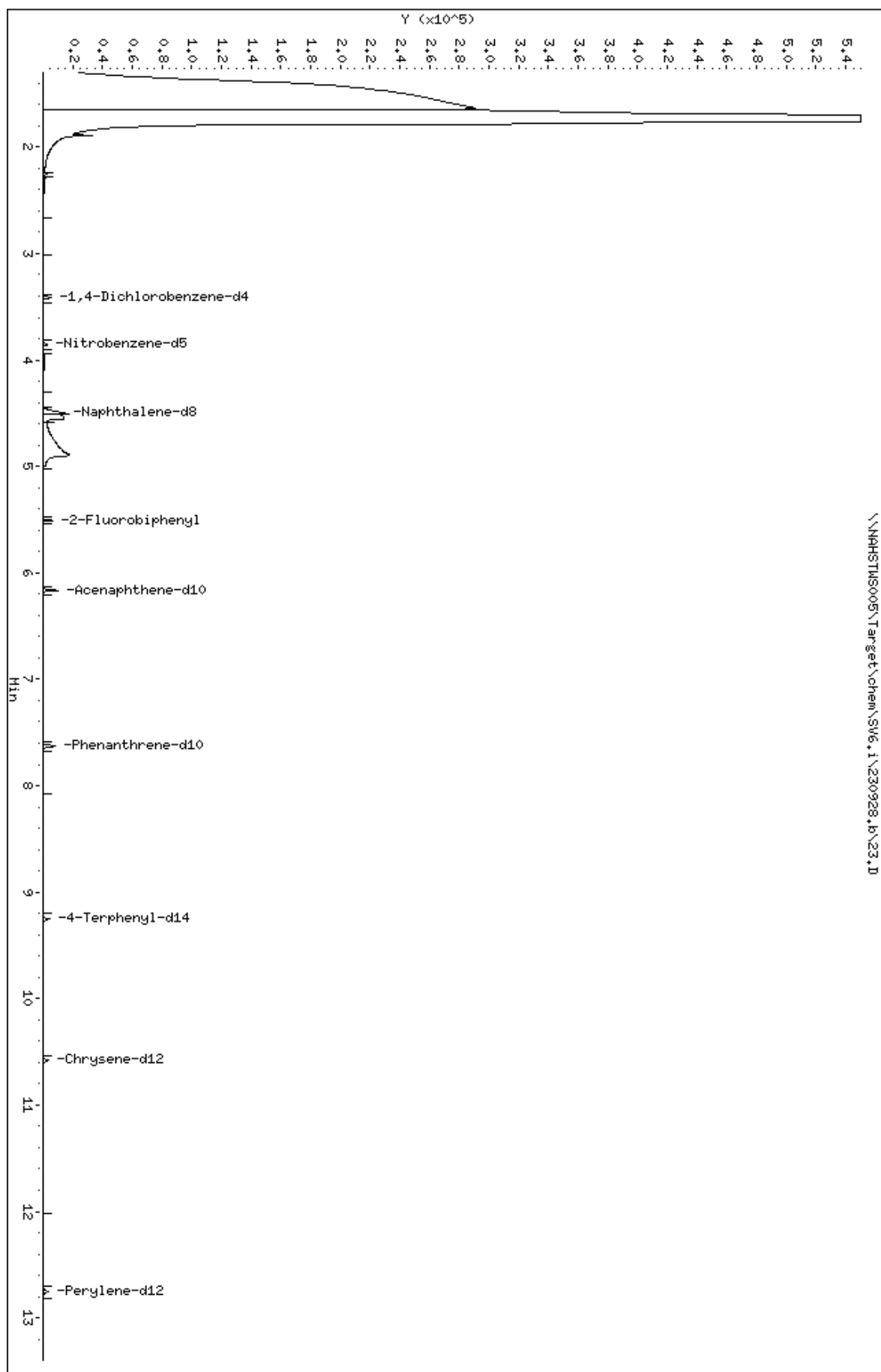
Client ID: HS23090714-01

Instrument: SW6.i

Sample Info: HS23090714-01

Purge Volume: 1000.0

Column phase: RTX-5SIL MS

Operator: LG
Column diameter: 0.28

Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\23.D

Page 2

Date : 28-SEP-2023 19:08

Client ID: HS23090714-01

Instrument: SV6.i

Sample Info: HS23090714-01

Purge Volume: 1000.0

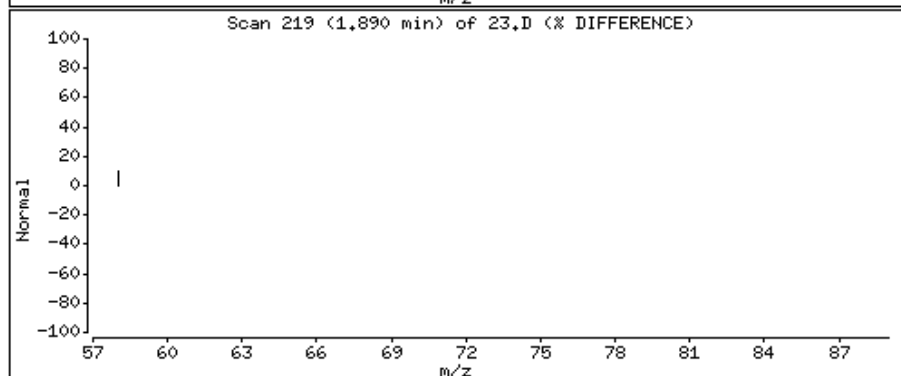
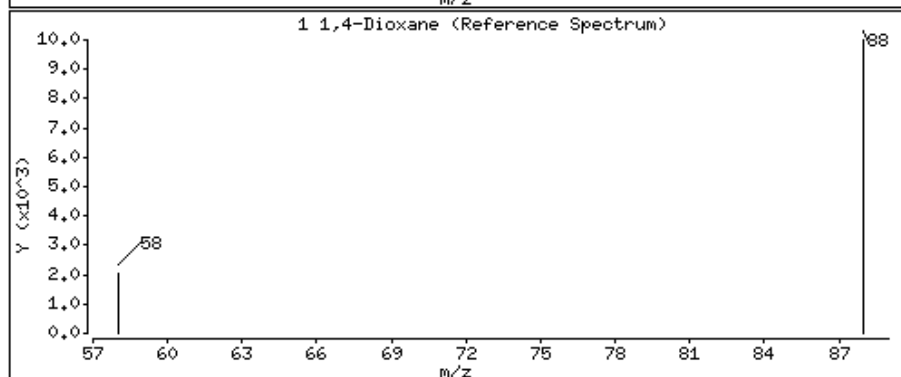
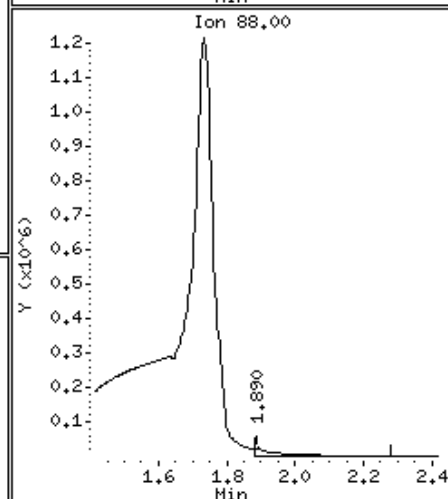
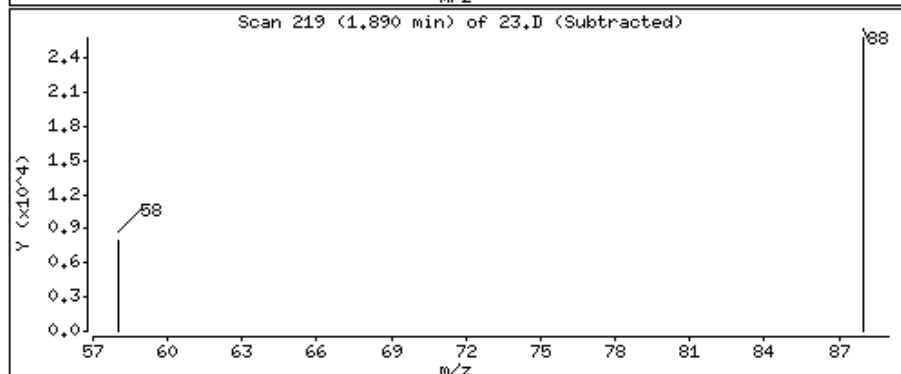
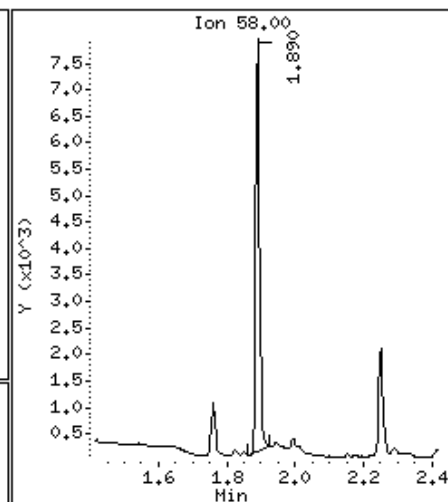
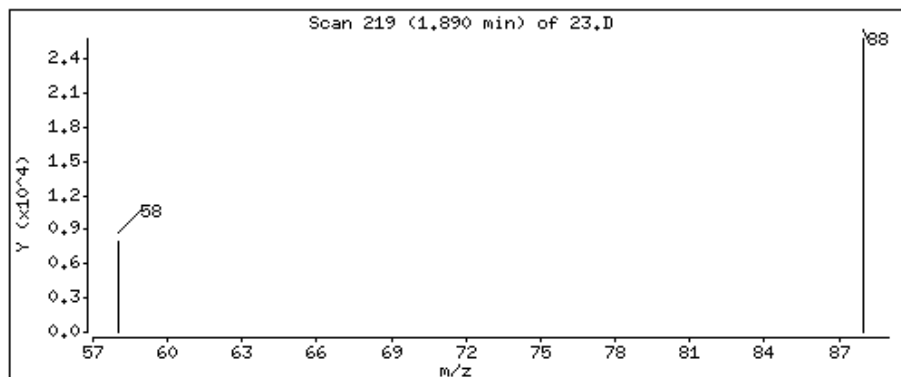
Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

1 1,4-Dioxane

Concentration: 0.4829 ug/L

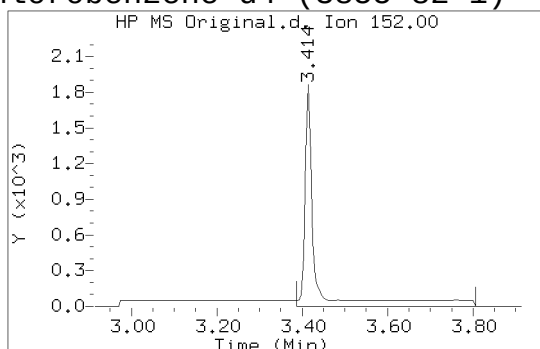


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\23.D
Inj Date : 28-SEP-2023 19:08
InstruID : SV6.i
LabSampID : HS23090714-01

1,4-Dichlorobenzene-d4 (3855-82-1)

BEFORE

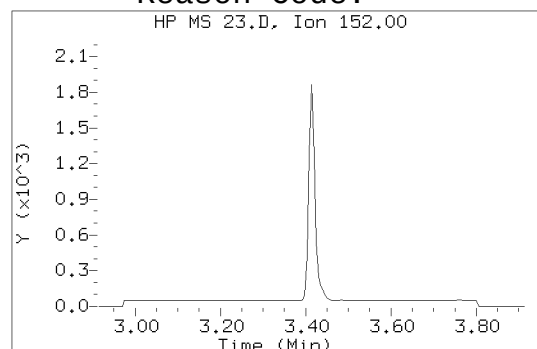
MASS
152
AREA
3075
HEIGHT
1863
28-Sep-2023
19:24
ALSHS
Server



AFTER

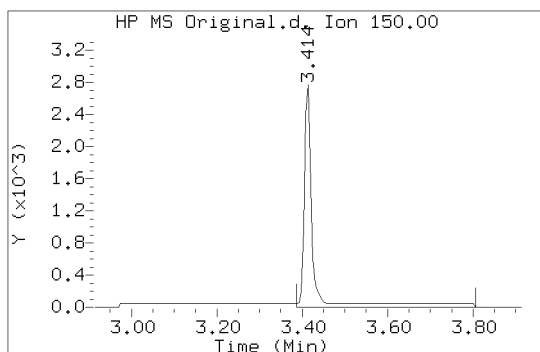
MASS
152
AREA
4264
HEIGHT
1863
29-Sep-2023
11:23

Reason Code:



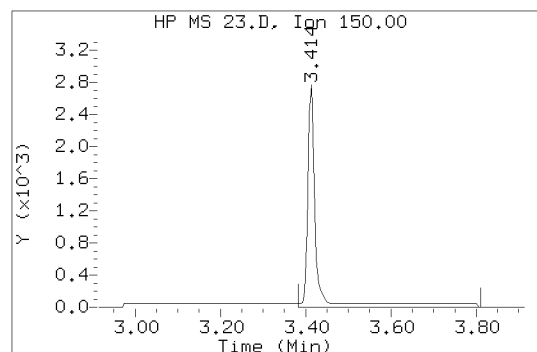
BEFORE

MASS
150
AREA
4006
HEIGHT
2769
28-Sep-2023
19:24
ALSHS
Server



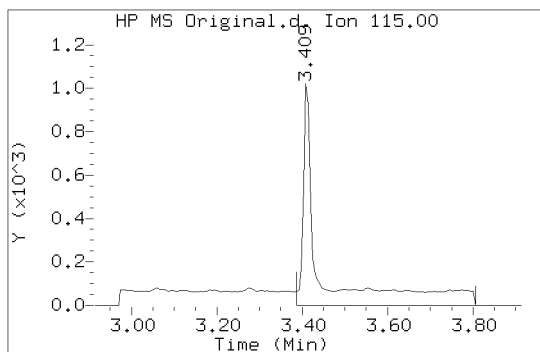
AFTER

MASS
150
AREA
4021
HEIGHT
2769
29-Sep-2023
11:23



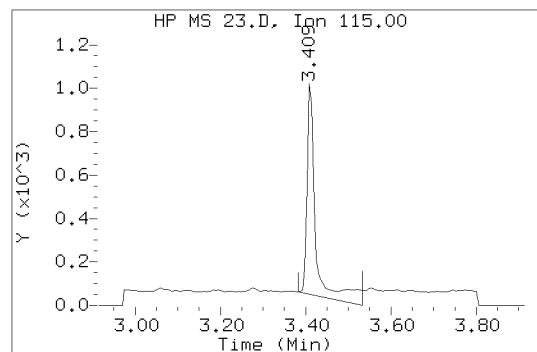
BEFORE

MASS
115
AREA
2698
HEIGHT
1021
28-Sep-2023
19:24
ALSHS
Server



AFTER

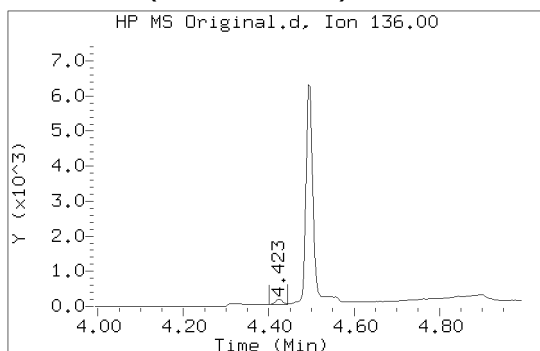
MASS
115
AREA
1356
HEIGHT
970
29-Sep-2023
11:23



Naphthalene-d8 (1146-65-2)

BEFORE

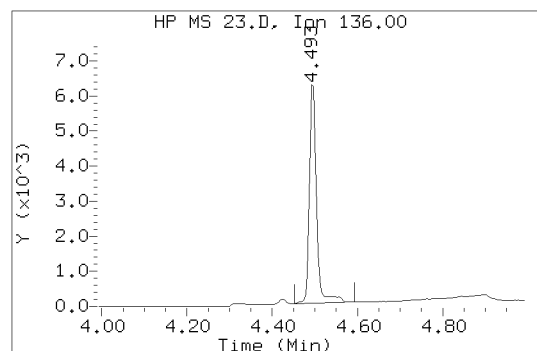
MASS
136
AREA
175
HEIGHT
151
28-Sep-2023
19:24
ALSHS
Server



AFTER

MASS
136
AREA
7204
HEIGHT
6229
29-Sep-2023
11:23

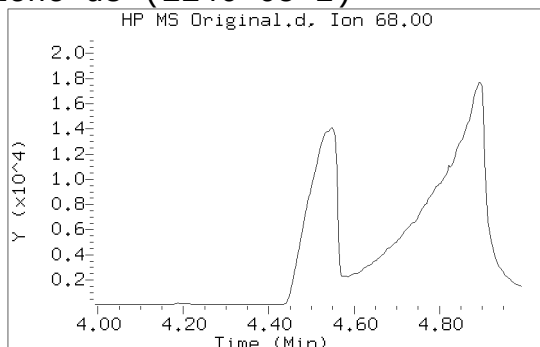
Reason Code:



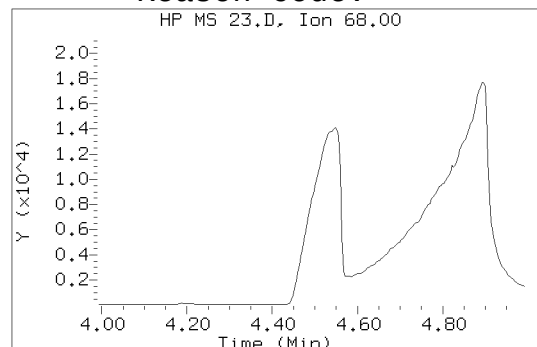
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\23.D
Inj Date : 28-SEP-2023 19:08
InstruID : SV6.i
LabSampID : HS23090714-01

Naphthalene-d8 (1146-65-2)**BEFORE**

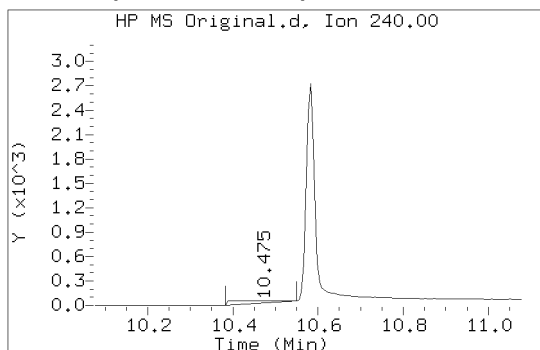
MASS
68
AREA
0
HEIGHT
0
28-Sep-2023
19:24
ALSHS
Server

**AFTER**

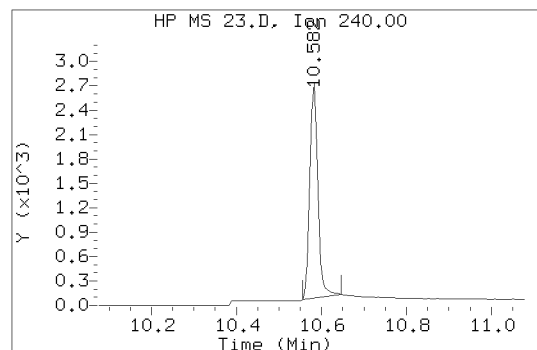
MASS
68
AREA
0
HEIGHT
0
29-Sep-2023
11:23

Reason Code:**Chrysene-d12 (1719-03-5)****BEFORE**

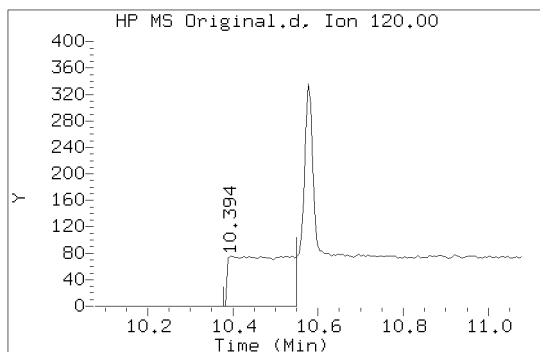
MASS
240
AREA
248
HEIGHT
24
28-Sep-2023
19:24
ALSHS
Server

**AFTER**

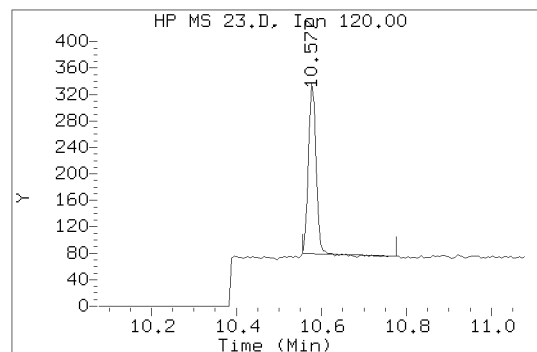
MASS
240
AREA
3465
HEIGHT
2637
29-Sep-2023
11:23

Reason Code:**BEFORE**

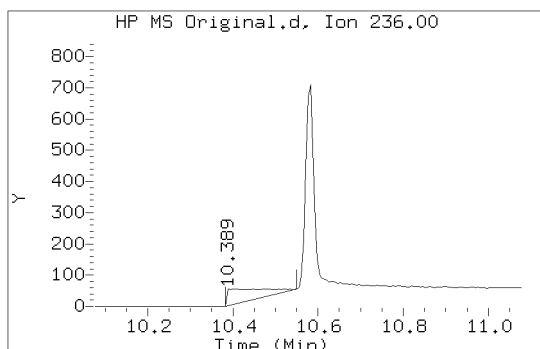
MASS
120
AREA
739
HEIGHT
76
28-Sep-2023
19:24
ALSHS
Server

**AFTER**

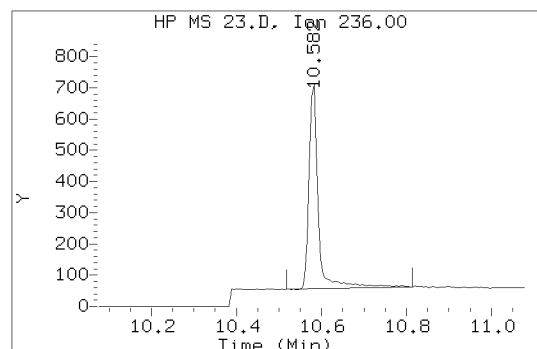
MASS
120
AREA
308
HEIGHT
256
29-Sep-2023
11:23

**BEFORE**

MASS
236
AREA
255
HEIGHT
54
28-Sep-2023
19:24
ALSHS
Server

**AFTER**

MASS
236
AREA
984
HEIGHT
653
29-Sep-2023
11:23

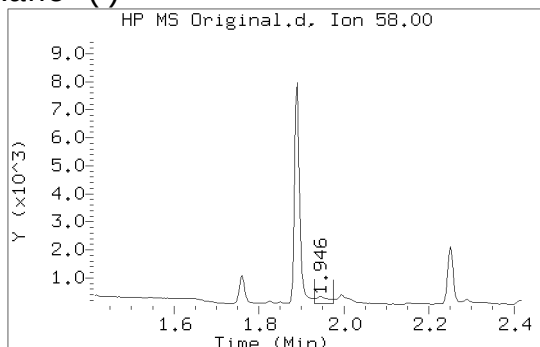


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\23.D
Inj Date : 28-SEP-2023 19:08
InstruID : SV6.i
LabSampID : HS23090714-01

1,4-Dioxane ()

BEFORE

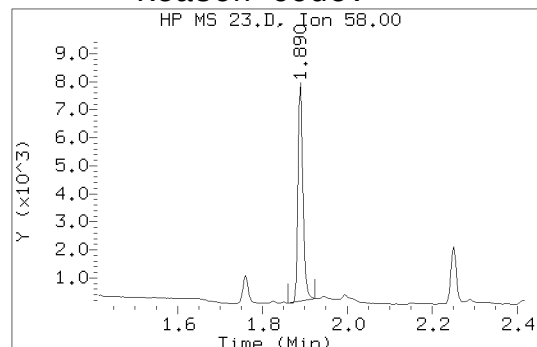
MASS
58
AREA
541
HEIGHT
241
28-Sep-2023
19:24
ALSHS



AFTER

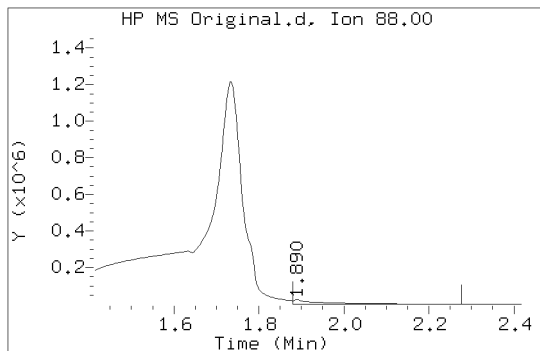
MASS
58
AREA
6237
HEIGHT
7780
29-Sep-2023
11:23

Reason Code:



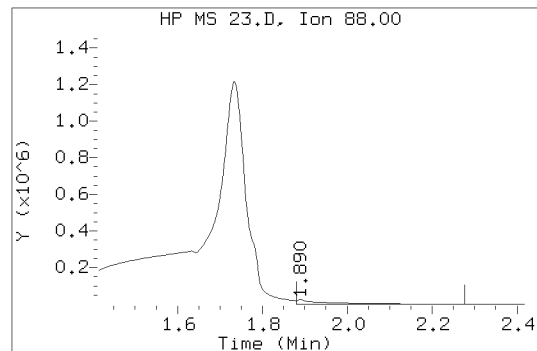
BEFORE

MASS
88
AREA
107005
HEIGHT
24850
28-Sep-2023
19:24
ALSHS
Server



AFTER

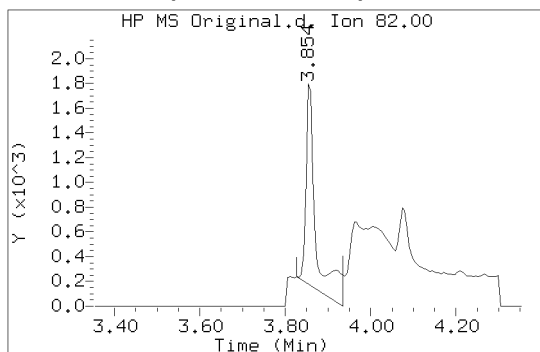
MASS
88
AREA
107005
HEIGHT
24850
29-Sep-2023
11:23



Nitrobenzene-d5 (4165-60-0)

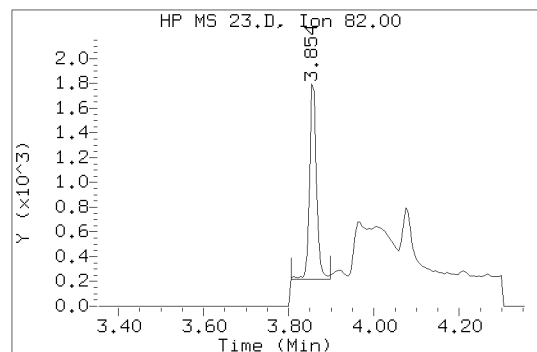
BEFORE

MASS
82
AREA
2592
HEIGHT
1616
28-Sep-2023
19:24
ALSHS
Server



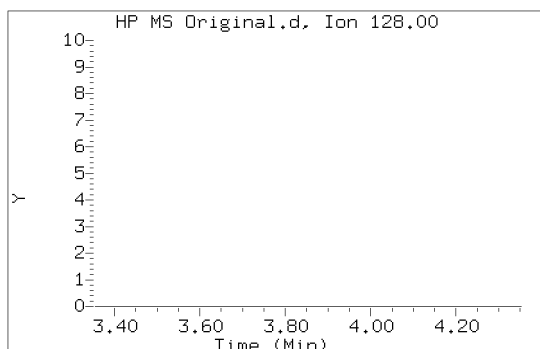
AFTER

MASS
82
AREA
1819
HEIGHT
1577
29-Sep-2023
11:23



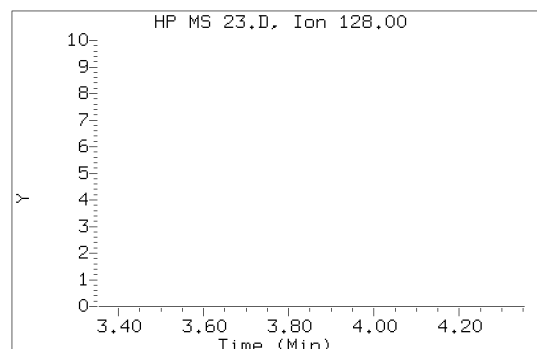
BEFORE

MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
19:24
ALSHS
Server



AFTER

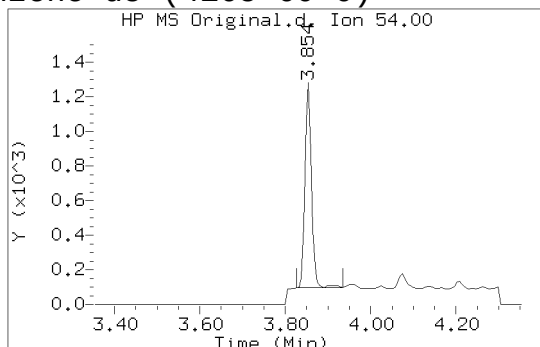
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
11:23



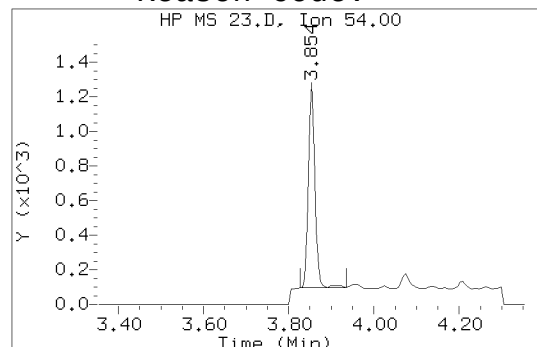
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\23.D
Inj Date : 28-SEP-2023 19:08
InstruID : SV6.i
LabSampID : HS23090714-01

Nitrobenzene-d5 (4165-60-0)**BEFORE**

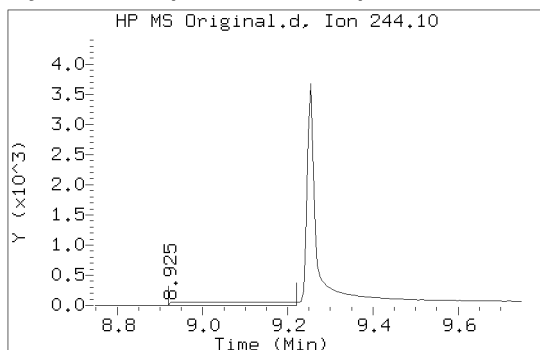
MASS
54
AREA
1262
HEIGHT
1185
28-Sep-2023
19:24
ALSHS
Server

**AFTER**

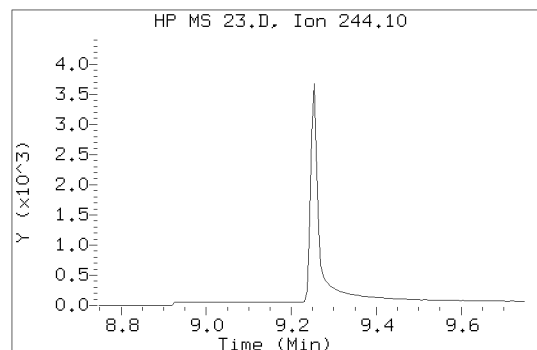
MASS
54
AREA
1262
HEIGHT
1185
29-Sep-2023
11:23

Reason Code:**4-Terphenyl-d14 (1718-51-0)****BEFORE**

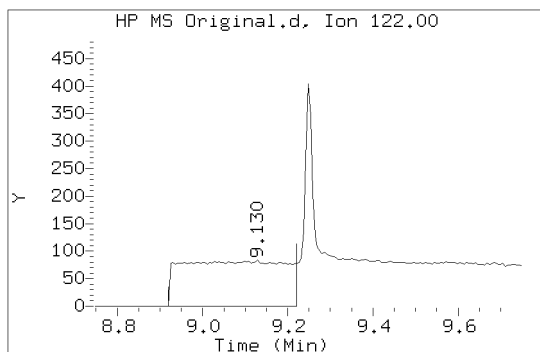
MASS
244.1
AREA
918
HEIGHT
53
28-Sep-2023
19:24
ALSHS
Server

**AFTER**

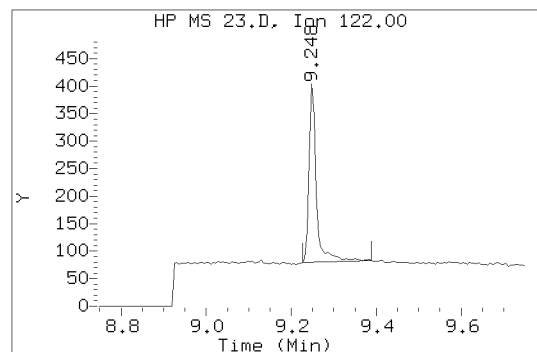
MASS
244.1
AREA
7135
HEIGHT
3643
29-Sep-2023
11:23

Reason Code:**BEFORE**

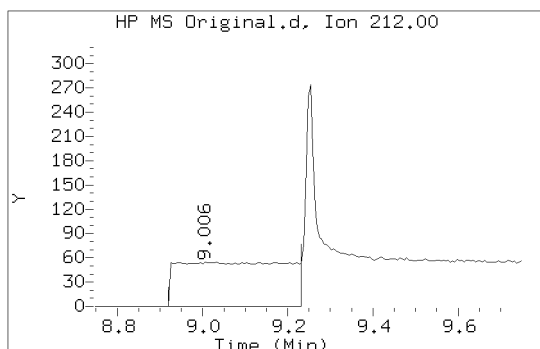
MASS
122
AREA
1422
HEIGHT
84
28-Sep-2023
19:24
ALSHS
Server

**AFTER**

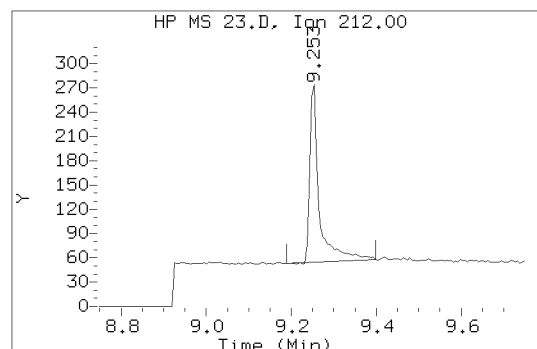
MASS
122
AREA
383
HEIGHT
324
29-Sep-2023
11:23

**BEFORE**

MASS
212
AREA
994
HEIGHT
55
28-Sep-2023
19:24
ALSHS
Server

**AFTER**

MASS
212
AREA
333
HEIGHT
219
29-Sep-2023
11:23



Data File: \\NAHSTWS005\Target\chem\SV6.i\230928.b\24.D
Report Date: 02-Oct-2023 12:04

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GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230928.b\24.D
Lab Smp Id: 14DX-CCV END Client Smp ID: 14DX-CCV END
Inj Date : 28-SEP-2023 19:26
Operator : LG Inst ID: SV6.i
Smp Info : 14DX-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230928.b\DXSIM.m
Meth Date : 02-Oct-2023 12:04 SV6.i Quant Type: ISTD
Cal Date : 28-SEP-2023 16:48 Cal File: 15.D
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152		3.414	3.414	(1.000)	3046	0.10000	(aQ)
* 45 Naphthalene-d8	136		4.493	4.493	(1.000)	9941	0.10000	
\$ 33 Nitrobenzene-d5	82		3.854	3.854	(0.858)	3251	0.08000	0.08352(M)
* 86 Acenaphthene-d10	164		6.164	6.164	(1.000)	5904	0.10000	
\$ 69 2-Fluorobiphenyl	172		5.507	5.507	(0.893)	7928	0.08000	0.07022
* 126 Phenanthrene-d10	188		7.629	7.629	(1.000)	12406	0.10000	(M)
* 182 Chrysene-d12	240		10.582	10.582	(1.000)	6631	0.10000	(M)
\$ 158 4-Terphenyl-d14	244		9.253	9.253	(0.874)	15568	0.08000	0.07347(M)
* 198 Perylene-d12	264		12.753	12.753	(1.000)	6344	0.10000	
1 1,4-Dioxane	58		1.938	1.938	(0.568)	808	0.08000	0.08757(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\SW6.1\230928.b\24.D

Date : 28-SEP-2023 19:26

Client ID: 14DX-CCV END

Sample Info: 14DX-0.08

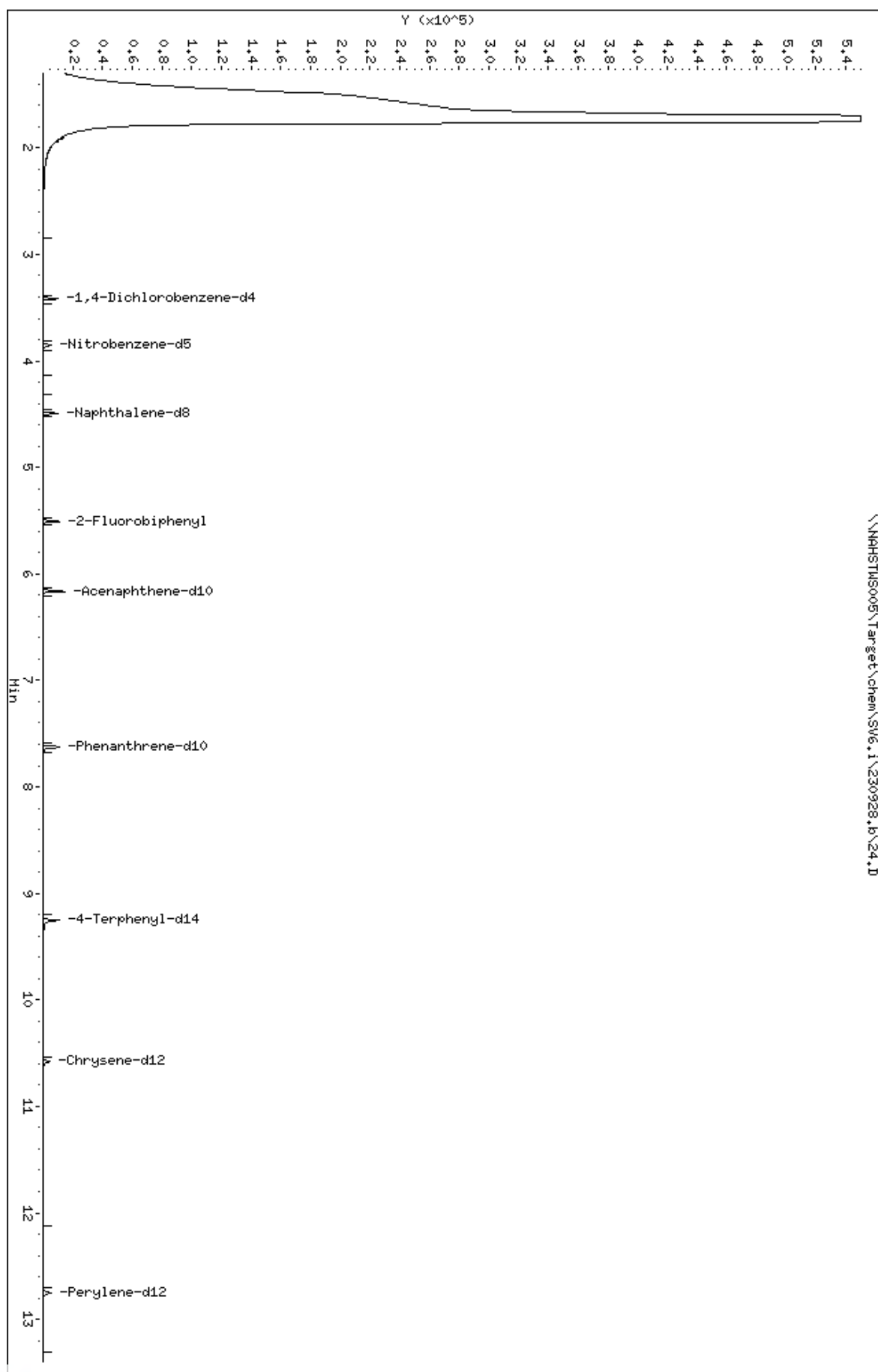
Purge Volume: 1000.0

Column phase: RTX-5SIL MS

Instrument: SW6.1

Operator: LG

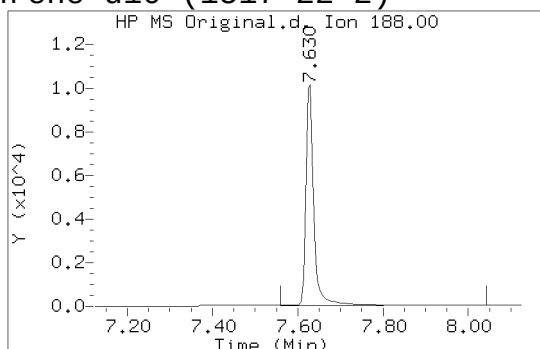
Column diameter: 0.28



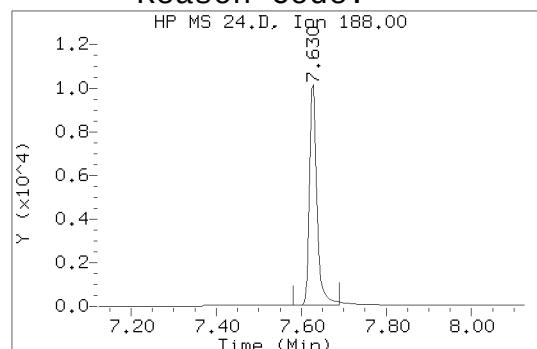
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\24.D
Inj Date : 28-SEP-2023 19:26
InstruID : SV6.i
LabSampID : 14DX-CCV END

Phenanthrene-d10 (1517-22-2)**BEFORE**

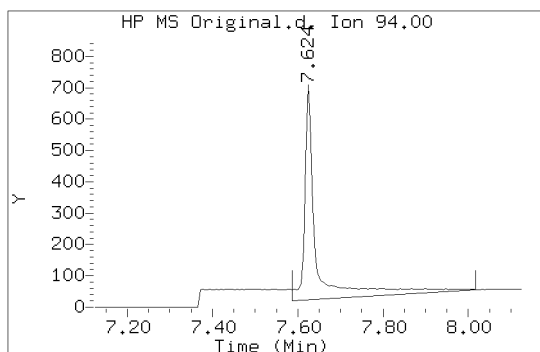
MASS
188
AREA
13340
HEIGHT
10137
28-Sep-2023
19:40
ALSHS
Server

**AFTER**

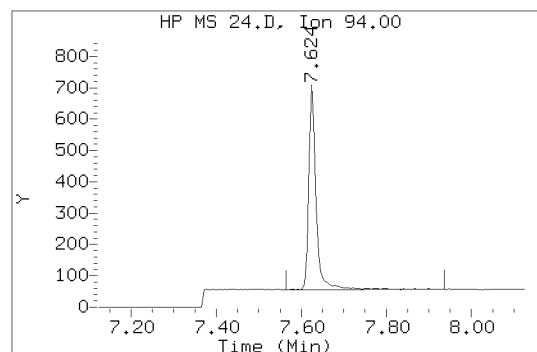
MASS
188
AREA
12406
HEIGHT
10111
02-Oct-2023
12:04
ALSHS
Ser

**BEFORE**

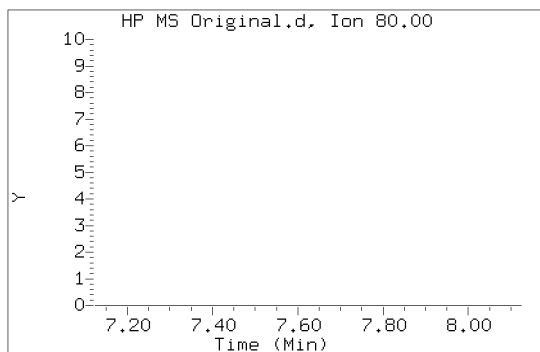
MASS
94
AREA
1269
HEIGHT
685
28-Sep-2023
19:40
ALSHS
Server

**AFTER**

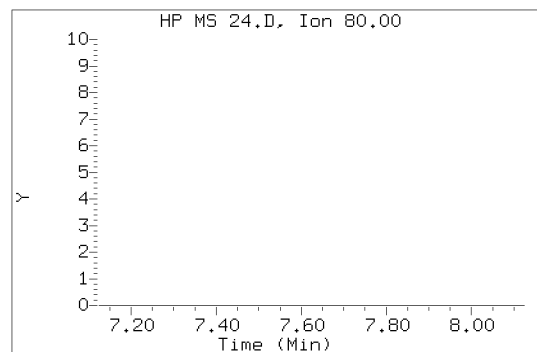
MASS
94
AREA
781
HEIGHT
653
02-Oct-2023
12:04
ALSHS
Ser

**BEFORE**

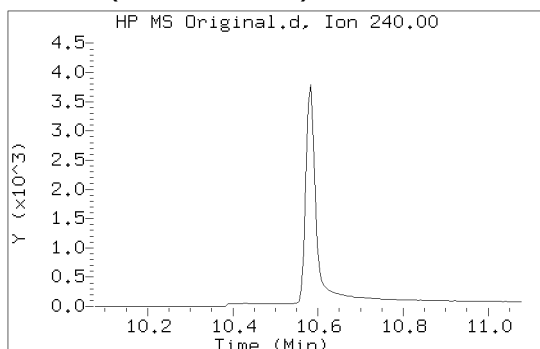
MASS
80
AREA
0
HEIGHT
0
28-Sep-2023
19:40
ALSHS
Server

**AFTER**

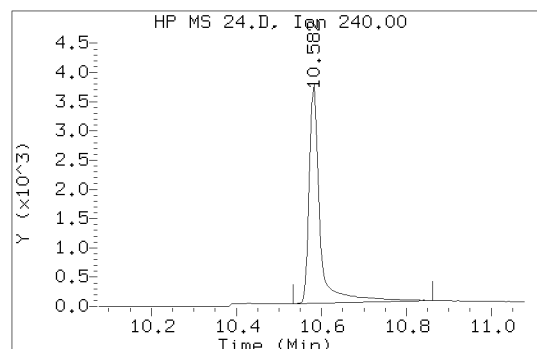
MASS
80
AREA
0
HEIGHT
0
02-Oct-2023
12:04
ALSHS
Ser

**Chrysene-d12 (1719-03-5)****BEFORE**

MASS
240
AREA
0
HEIGHT
0
28-Sep-2023
19:40
ALSHS
Server

**AFTER**

MASS
240
AREA
6631
HEIGHT
3735
02-Oct-2023
12:04
ALSHS
Ser

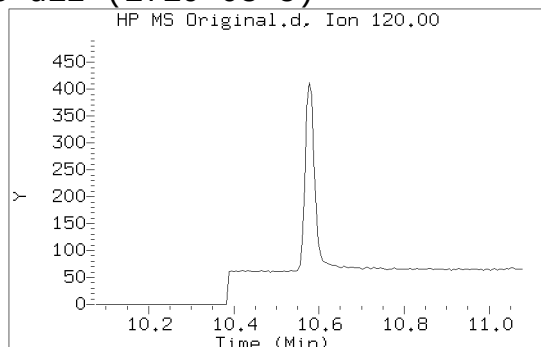


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\24.D
Inj Date : 28-SEP-2023 19:26
InstruID : SV6.i
LabSampID : 14DX-CCV END

Chrysene-d12 (1719-03-5)

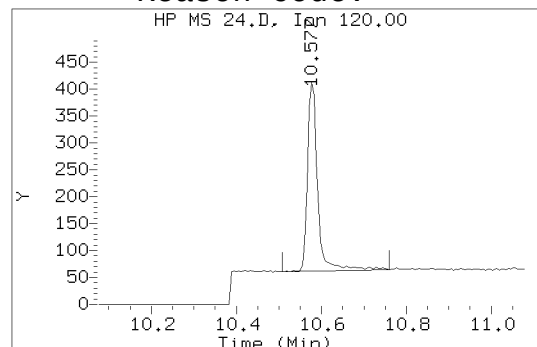
BEFORE

MASS
120
AREA
0
HEIGHT
0
28-Sep-2023
19:40
ALSHS



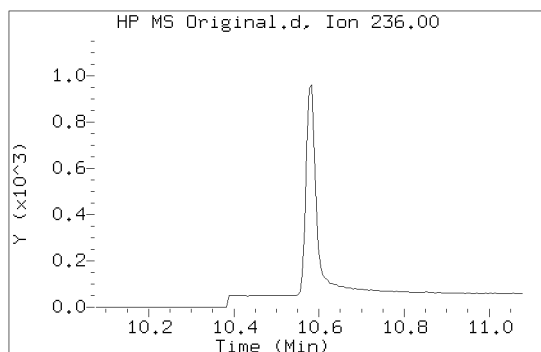
AFTER

MASS
120
AREA
580
HEIGHT
350
02-Oct-2023
12:04
ALSHS



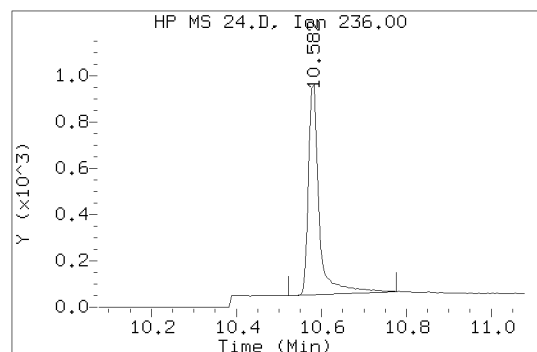
BEFORE

MASS
236
AREA
0
HEIGHT
0
28-Sep-2023
19:40
ALSHS
Server



AFTER

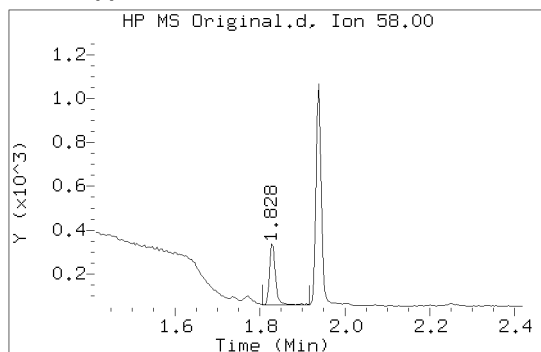
MASS
236
AREA
1594
HEIGHT
907
02-Oct-2023
12:04
ALSHS
Ser



1,4-Dioxane ()

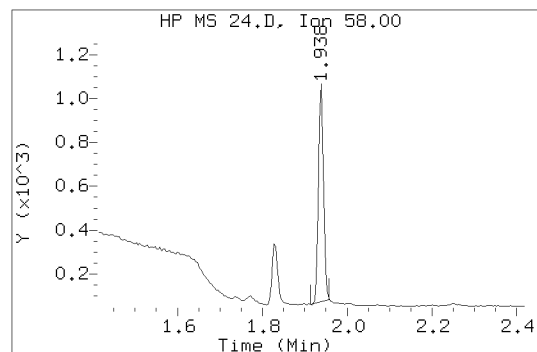
BEFORE

MASS
58
AREA
278
HEIGHT
279
28-Sep-2023
19:40
ALSHS
Server



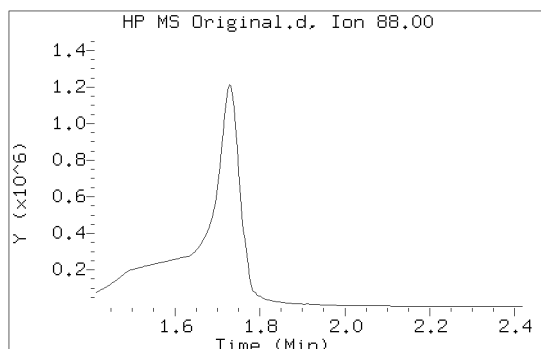
AFTER

MASS
58
AREA
808
HEIGHT
995
02-Oct-2023
12:04
ALSHS
Ser



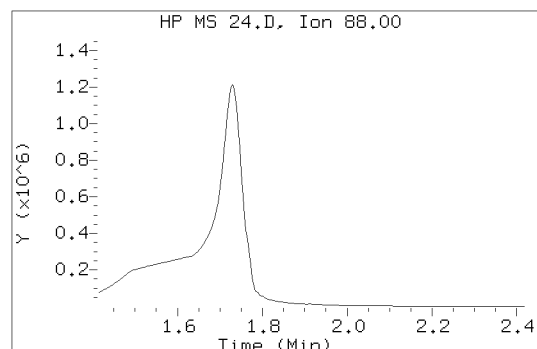
BEFORE

MASS
88
AREA
0
HEIGHT
0
28-Sep-2023
19:40
ALSHS
Server



AFTER

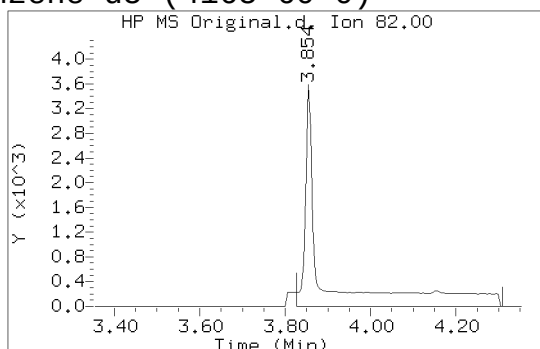
MASS
88
AREA
0
HEIGHT
0
02-Oct-2023
12:04
ALSHS
Ser



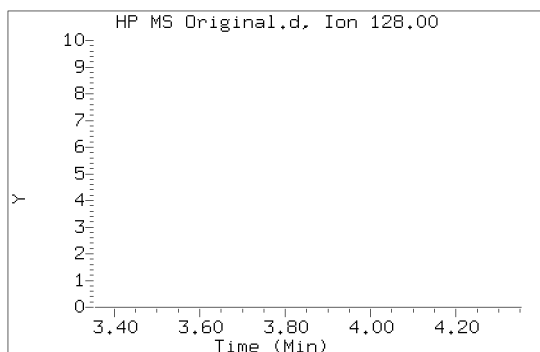
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230928.b\\24.D
Inj Date : 28-SEP-2023 19:26
InstruID : SV6.i
LabSampID : 14DX-CCV END

Nitrobenzene-d5 (4165-60-0)**BEFORE**

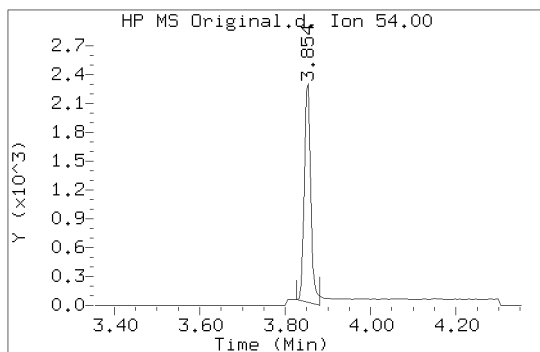
MASS
82
AREA
9447
HEIGHT
3586
28-Sep-2023
19:40
ALSHS

**BEFORE**

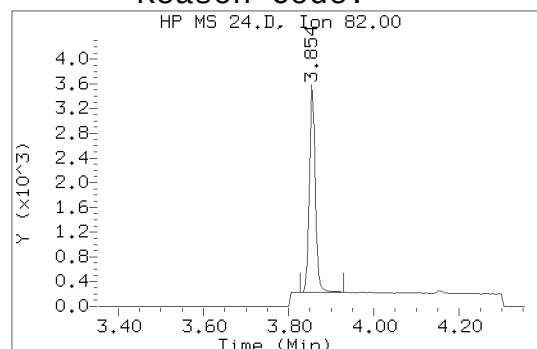
MASS
128
AREA
0
HEIGHT
0
28-Sep-2023
19:40
ALSHS
Server

**BEFORE**

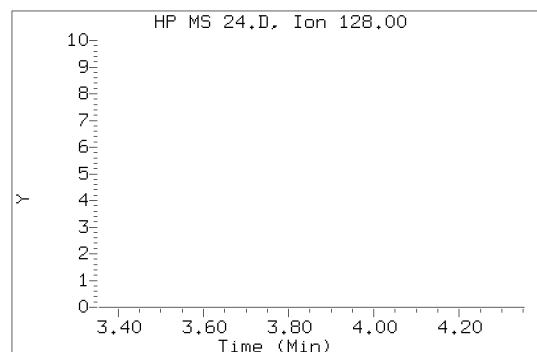
MASS
54
AREA
2420
HEIGHT
2276
28-Sep-2023
19:40
ALSHS
Server

**AFTER**

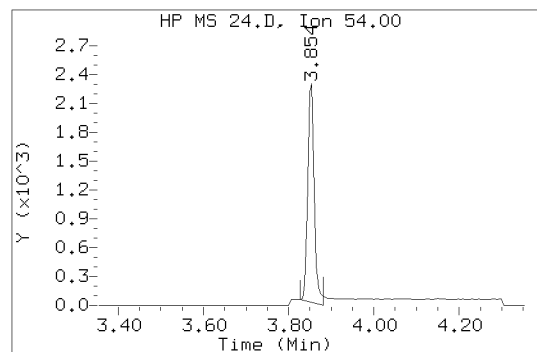
MASS
82
AREA
3251
HEIGHT
3357
02-Oct-2023
12:04
ALSHS

**AFTER**

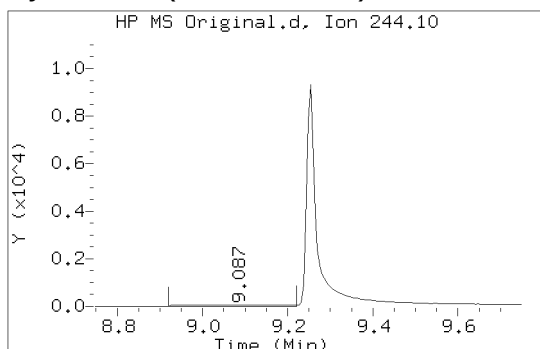
MASS
128
AREA
0
HEIGHT
0
02-Oct-2023
12:04
ALSHS
Ser

**AFTER**

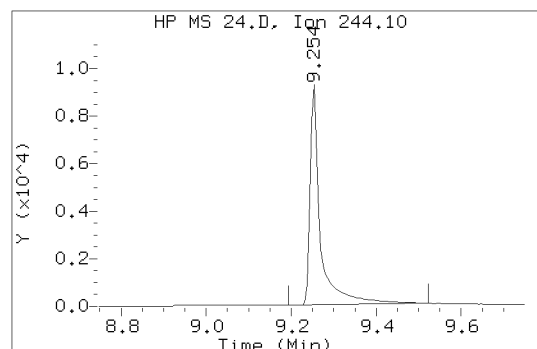
MASS
54
AREA
2420
HEIGHT
2276
02-Oct-2023
12:04
ALSHS
Ser

**4-Terphenyl-d14 (1718-51-0)****BEFORE**

MASS
244.1
AREA
825
HEIGHT
47
28-Sep-2023
19:40
ALSHS
Server

**AFTER**

MASS
244.1
AREA
15568
HEIGHT
9261
02-Oct-2023
12:04
ALSHS
Ser

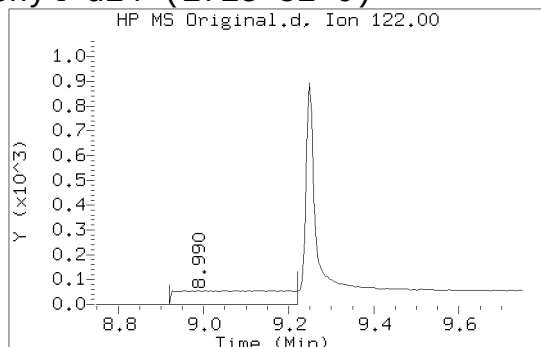


Data File : \\NAHSTWS005\Target\chem\SV6.i\230928.b\24.D
Inj Date : 28-SEP-2023 19:26
InstruID : SV6.i
LabSampID : 14DX-CCV END

4-Terphenyl-d14 (1718-51-0)

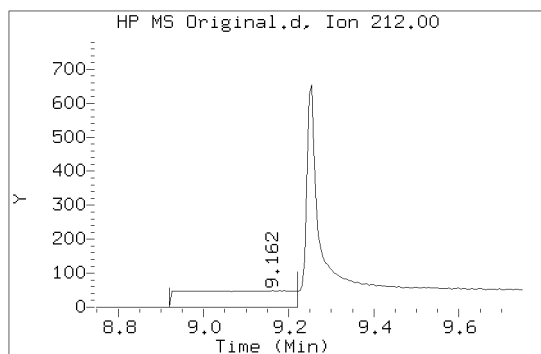
BEFORE

MASS
122
AREA
952
HEIGHT
54
28-Sep-2023
19:40
ALSHS
Server



BEFORE

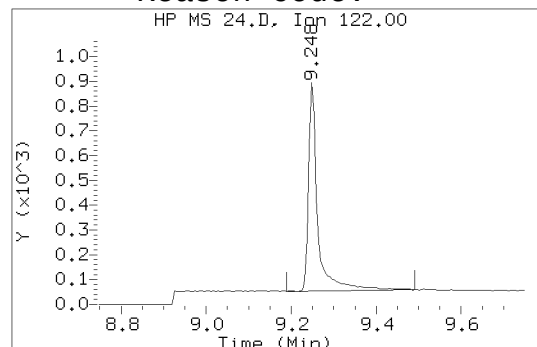
MASS
212
AREA
861
HEIGHT
49
28-Sep-2023
19:40
ALSHS
Server



AFTER

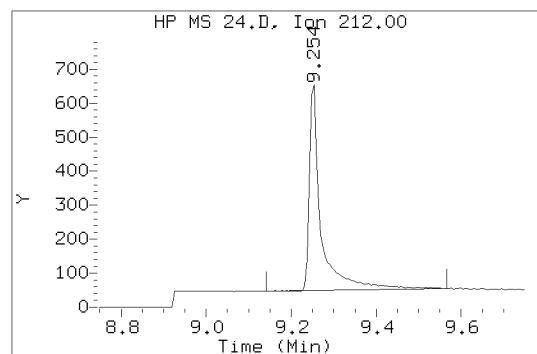
MASS
122
AREA
1248
HEIGHT
840
02-Oct-2023
12:04
ALSHS

Reason Code:



Ser AFTER

MASS
212
AREA
1153
HEIGHT
604
02-Oct-2023
12:04
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\SV6.i\230929.b\01.D
 Report Date: 29-Sep-2023 11:38

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Data file : \\NAHSTWS005\Target\chem\SV6.i\230929.b\01.D
 Lab Smp Id: DFTPP Client Smp ID: DFTPP
 Inj Date : 29-SEP-2023 11:21
 Operator : smith Inst ID: SV6.i
 Smp Info : DFTPP;DFTPP;3;;DFTPP
 Misc Info :
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230929.b\DFTPP.m
 Meth Date : 14-Mar-2023 15:58 Linh.Pham Quant Type: ESTD
 Cal Date : Cal File:
 Als bottle: 1 QC Sample: DFTPP
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 4.14 Sample Matrix: None
 Processing Host: NAHSTW7095

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	DLT RT	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET	RANGE	RATIO
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 dftpp					CAS #: 5074-71-5				
5.496	5.571	-0.075	198	352192			0.00-	100.00	81.63
5.496	6.357	-0.861	51	126088			10.00-	80.00	35.80
5.496	6.357	-0.861	68	2165			0.00-	2.00	1.70
5.496	6.357	-0.861	69	127216			0.00-	0.00	36.12
5.496	6.357	-0.861	70	676			0.00-	2.00	0.53
5.496	6.357	-0.861	127	151104			10.00-	80.00	42.90
5.496	6.357	-0.861	197	0	0.0	0.0	0.00-	2.00	0.00
5.496	6.357	-0.861	199	23552			5.00-	9.00	6.69
5.496	6.357	-0.861	275	106472			10.00-	60.00	30.23
5.496	6.357	-0.861	365	15422			1.00-	100.00	4.38
5.496	6.357	-0.861	441	66968			0.01-	99.99	79.31
5.496	6.357	-0.861	442	431424			50.00-	150.00	122.50
5.496	6.357	-0.861	443	84440			15.00-	24.00	19.57



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	35.80
68	Less than 2.00% of mass 69	0.61 (1.70)
69	Mass 69 relative abundance	36.12
70	Less than 2.00% of mass 69	0.19 (0.53)
127	10.00 - 80.00% of mass 198	42.90
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.69
275	10.00 - 60.00% of mass 198	30.23
365	1.00 - 100.00% of mass 198	4.38
441	Present, but less than mass 443	19.01
442	50.00 - 150.00% of mass 198	122.50
443	15.00 - 24.00% of mass 442	23.98 (19.57)

Data File: 01.D
 Spectrum: Avg. Scans 543-545 (5.50), Background Scan 538 (SUB)
 Location of Maximum: 442.00
 Number of points: 324

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	522	132.00	585	217.00	27936	309.00	292
38.00	1456	133.00	269	218.00	3490	310.00	348
39.00	8508	134.00	1765	219.00	444	311.00	56
40.00	422	135.00	4571	220.00	202	312.00	56
41.00	355	136.00	2049	221.00	17640	313.00	362
45.00	230	137.00	2343	222.00	4118	314.00	1466
49.00	505	138.00	569	223.00	6479	315.00	3404
50.00	33984	139.00	293	224.00	57920	316.00	1833
51.00	126088	140.00	868	225.00	14462	317.00	342
52.00	6468	141.00	8700	226.00	1671	320.00	139
53.00	226	142.00	2589	227.00	25440	321.00	999
55.00	695	143.00	1683	228.00	3627	322.00	394
56.00	3864	144.00	521	229.00	5353	323.00	10471
57.00	8896	145.00	342	230.00	780	324.00	1970
58.00	388	146.00	1398	231.00	2089	325.00	214
61.00	1569	147.00	4165	232.00	397	326.00	142
62.00	1802	148.00	9273	233.00	503	327.00	1972
63.00	5475	149.00	1953	234.00	1583	328.00	1083
64.00	870	150.00	460	235.00	1765	329.00	107
65.00	2555	151.00	970	236.00	1085	332.00	818
66.00	138	152.00	590	237.00	1818	333.00	1130
67.00	139	153.00	2600	238.00	357	334.00	6833
68.00	2165	154.00	1968	239.00	1035	335.00	1834
69.00	127216	155.00	4560	240.00	738	336.00	177
70.00	676	156.00	6660	241.00	1432	339.00	188
71.00	52	157.00	1309	242.00	3067	340.00	171
73.00	1006	158.00	1645	243.00	3388	341.00	1115
74.00	13270	159.00	1151	244.00	44296	342.00	262
75.00	20344	160.00	2807	245.00	6006	346.00	2389
76.00	6614	161.00	4063	246.00	9335	347.00	429
77.00	131072	162.00	1058	247.00	1826	351.00	176
78.00	8869	163.00	374	248.00	440	352.00	3390
79.00	9843	164.00	424	249.00	1729	353.00	2135
80.00	7397	165.00	3222	250.00	389	354.00	3295
81.00	10408	166.00	2719	251.00	452	355.00	574
82.00	2612	167.00	16896	252.00	511	359.00	231
83.00	2106	168.00	6534	253.00	1106	365.00	15422
84.00	74	169.00	1299	255.00	240704	366.00	2123
85.00	1666	170.00	548	256.00	34920	367.00	68
86.00	3103	171.00	781	257.00	2640	370.00	277
87.00	1294	172.00	1708	258.00	13808	371.00	885
88.00	452	173.00	2006	259.00	2306	372.00	5889
89.00	173	174.00	3573	260.00	353	373.00	1323
91.00	2277	175.00	7012	261.00	503	374.00	168
92.00	2438	176.00	2050	263.00	90	377.00	126

93.00	17264	177.00	3300	264.00	541	383.00	1518
94.00	1074	178.00	1191	265.00	5747	384.00	478
95.00	308	179.00	13832	266.00	766	385.00	130
96.00	686	180.00	8951	267.00	51	390.00	796
97.00	251	181.00	4057	268.00	144	391.00	680
98.00	13479	182.00	769	269.00	53	392.00	353
99.00	9382	183.00	376	270.00	365	401.00	392
100.00	856	184.00	1295	271.00	584	402.00	2446
101.00	5578	185.00	6668	272.00	831	403.00	3425
102.00	362	186.00	50096	273.00	7199	404.00	1063
103.00	1786	187.00	14442	274.00	19064	405.00	135
104.00	3849	188.00	1451	275.00	106472	410.00	53
105.00	3444	189.00	3330	276.00	13628	415.00	143
106.00	1253	190.00	617	277.00	8985	420.00	63
107.00	45664	191.00	1466	278.00	1404	421.00	3013
108.00	6708	192.00	4127	279.00	326	422.00	3067
109.00	1361	193.00	5041	282.00	248	423.00	22240
110.00	76072	194.00	1117	283.00	1037	424.00	4045
111.00	12055	195.00	240	284.00	751	425.00	469
112.00	1301	196.00	10630	285.00	1639	432.00	105
113.00	432	198.00	352192	286.00	324	433.00	67
115.00	215	199.00	23552	288.00	76	434.00	73
116.00	2585	200.00	2025	289.00	390	435.00	151
117.00	38472	201.00	1730	290.00	329	436.00	596
118.00	2618	203.00	2800	291.00	218	437.00	458
119.00	284	204.00	14030	292.00	505	438.00	749
120.00	489	205.00	24152	293.00	2008	439.00	1343
121.00	158	206.00	98976	294.00	613	440.00	262
122.00	3108	207.00	12809	296.00	31552	441.00	66968
123.00	4612	208.00	3259	297.00	4212	442.00	431424
124.00	2229	209.00	1059	298.00	226	443.00	84440
125.00	1964	210.00	1674	301.00	454	444.00	8136
127.00	151104	211.00	4085	302.00	588	445.00	544
128.00	11527	212.00	325	303.00	3495		
129.00	63312	213.00	269	304.00	1024		
130.00	5155	215.00	1231	305.00	58		
131.00	1040	216.00	2505	308.00	484		

Data File: \\NAHSTWS005\Target\chem\SV6.i\230929,b\01.D

Page 1

Date : 29-SEP-2023 11:21

Client ID: DFTPP

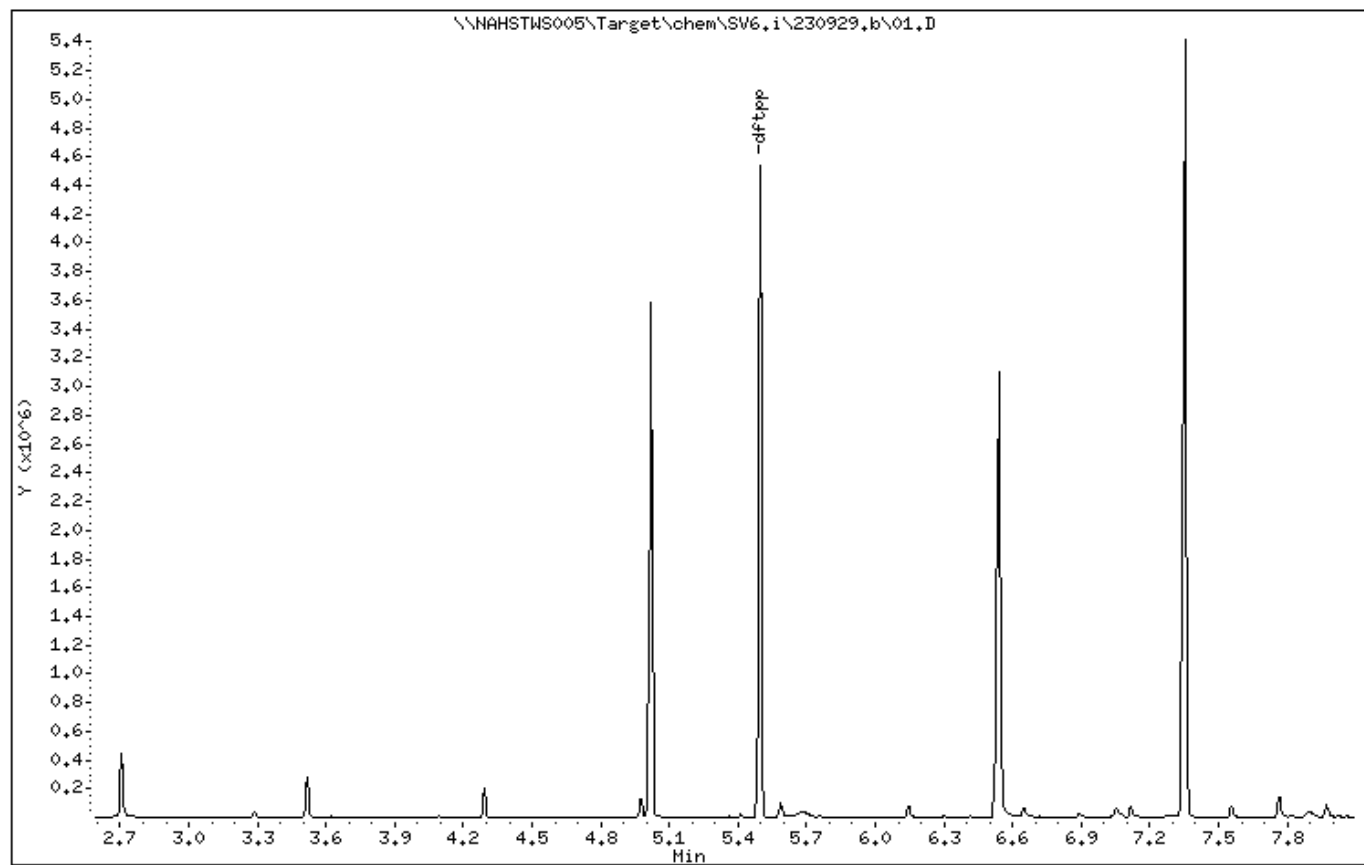
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0,25



Data File: \\NAHSTWS005\Target\chem\SV6.i\230929.b\01.D

Page 2

Date : 29-SEP-2023 11:21

Client ID: DFTPP

Instrument: SV6.i

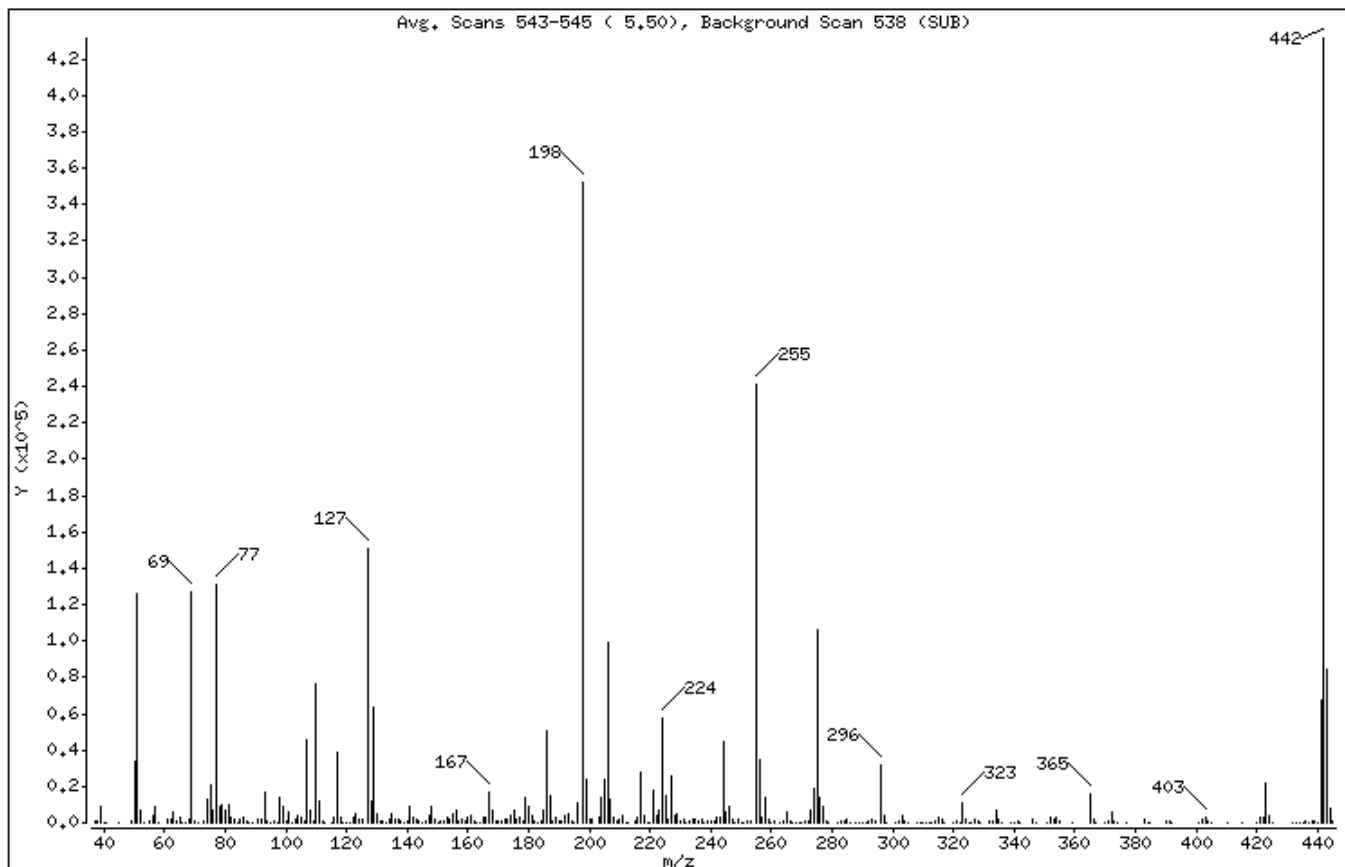
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
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70	Less than 2.00% of mass 69	0.19 (0.53)
127	10.00 - 80.00% of mass 198	42.90
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.69
275	10.00 - 60.00% of mass 198	30.23
365	1.00 - 100.00% of mass 198	4.38
441	Present, but less than mass 443	19.01
442	50.00 - 150.00% of mass 198	122.50
443	15.00 - 24.00% of mass 442	23.98 (19.57)

Data File: \\NAHSTWS005\Target\chem\SV6.i\230929.b\01.D

Page 3

Date : 29-SEP-2023 11:21

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 01.D

Spectrum: Avg. Scans 543-545 (5.50), Background Scan 538 (SUB)

Location of Maximum: 442.00

Number of points: 324

m/z	Y	m/z	Y	m/z	Y	m/z	Y

37.00	522	132.00	585	217.00	27936	309.00	292
38.00	1456	133.00	269	218.00	3490	310.00	348
39.00	8508	134.00	1765	219.00	444	311.00	56
40.00	422	135.00	4571	220.00	202	312.00	56
41.00	355	136.00	2049	221.00	17640	313.00	362

45.00	230	137.00	2343	222.00	4118	314.00	1466
49.00	505	138.00	569	223.00	6479	315.00	3404
50.00	33984	139.00	293	224.00	57920	316.00	1833
51.00	126088	140.00	868	225.00	14462	317.00	342
52.00	6468	141.00	8700	226.00	1671	320.00	139

53.00	226	142.00	2589	227.00	25440	321.00	999
55.00	695	143.00	1683	228.00	3627	322.00	394
56.00	3864	144.00	521	229.00	5353	323.00	10471
57.00	8896	145.00	342	230.00	780	324.00	1970
58.00	388	146.00	1398	231.00	2089	325.00	214

61.00	1569	147.00	4165	232.00	397	326.00	142
62.00	1802	148.00	9273	233.00	503	327.00	1972
63.00	5475	149.00	1953	234.00	1583	328.00	1083
64.00	870	150.00	460	235.00	1765	329.00	107
65.00	2555	151.00	970	236.00	1085	332.00	818

66.00	138	152.00	590	237.00	1818	333.00	1130
67.00	139	153.00	2600	238.00	357	334.00	6833
68.00	2165	154.00	1968	239.00	1035	335.00	1834
69.00	127216	155.00	4560	240.00	738	336.00	177
70.00	676	156.00	6660	241.00	1432	339.00	188

71.00	52	157.00	1309	242.00	3067	340.00	171
73.00	1006	158.00	1645	243.00	3388	341.00	1115
74.00	13270	159.00	1151	244.00	44296	342.00	262
75.00	20344	160.00	2807	245.00	6006	346.00	2389
76.00	6614	161.00	4063	246.00	9335	347.00	429

77.00	131072	162.00	1058	247.00	1826	351.00	176
78.00	8869	163.00	374	248.00	440	352.00	3390
79.00	9843	164.00	424	249.00	1729	353.00	2135
80.00	7397	165.00	3222	250.00	389	354.00	3295
81.00	10408	166.00	2719	251.00	452	355.00	574



Data File: \\NAHSTWS005\Target\chem\SV6.i\230929.b\01.D

Page 4

Date : 29-SEP-2023 11:21

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 01.D

Spectrum: Avg. Scans 543-545 (5.50), Background Scan 538 (SUB)

Location of Maximum: 442.00

Number of points: 324

m/z	Y	m/z	Y	m/z	Y	m/z	Y

82.00	2612	167.00	16896	252.00	511	359.00	231
83.00	2106	168.00	6534	253.00	1106	365.00	15422
84.00	74	169.00	1299	255.00	240704	366.00	2123
85.00	1666	170.00	548	256.00	34920	367.00	68
86.00	3103	171.00	781	257.00	2640	370.00	277

87.00	1294	172.00	1708	258.00	13808	371.00	885
88.00	452	173.00	2006	259.00	2306	372.00	5889
89.00	173	174.00	3573	260.00	353	373.00	1323
91.00	2277	175.00	7012	261.00	503	374.00	168
92.00	2438	176.00	2050	263.00	90	377.00	126

93.00	17264	177.00	3300	264.00	541	383.00	1518
94.00	1074	178.00	1191	265.00	5747	384.00	478
95.00	308	179.00	13832	266.00	766	385.00	130
96.00	686	180.00	8951	267.00	51	390.00	796
97.00	251	181.00	4057	268.00	144	391.00	680

98.00	13479	182.00	769	269.00	53	392.00	353
99.00	9382	183.00	376	270.00	365	401.00	392
100.00	856	184.00	1295	271.00	584	402.00	2446
101.00	5578	185.00	6668	272.00	831	403.00	3425
102.00	362	186.00	50096	273.00	7199	404.00	1063

103.00	1786	187.00	14442	274.00	19064	405.00	135
104.00	3849	188.00	1451	275.00	106472	410.00	53
105.00	3444	189.00	3330	276.00	13628	415.00	143
106.00	1253	190.00	617	277.00	8985	420.00	63
107.00	45664	191.00	1466	278.00	1404	421.00	3013

108.00	6708	192.00	4127	279.00	326	422.00	3067
109.00	1361	193.00	5041	282.00	248	423.00	22240
110.00	76072	194.00	1117	283.00	1037	424.00	4045
111.00	12055	195.00	240	284.00	751	425.00	469
112.00	1301	196.00	10630	285.00	1639	432.00	105

113.00	432	198.00	352192	286.00	324	433.00	67
115.00	215	199.00	23552	288.00	76	434.00	73
116.00	2585	200.00	2025	289.00	390	435.00	151
117.00	38472	201.00	1730	290.00	329	436.00	596
118.00	2618	203.00	2800	291.00	218	437.00	458

Data File: \\NAHSTMS005\Target\chem\SV6.i\230929.b\01.D

Page 5

Date : 29-SEP-2023 11:21

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 01.D

Spectrum: Avg. Scans 543-545 (5.50), Background Scan 538 (SUB)

Location of Maximum: 442.00

Number of points: 324

m/z	Y	m/z	Y	m/z	Y	m/z	Y
119.00	284	204.00	14030	292.00	505	438.00	749
120.00	489	205.00	24152	293.00	2008	439.00	1343
121.00	158	206.00	98976	294.00	613	440.00	262
122.00	3108	207.00	12809	296.00	31552	441.00	66968
123.00	4612	208.00	3259	297.00	4212	442.00	431424
124.00	2229	209.00	1059	298.00	226	443.00	84440
125.00	1964	210.00	1674	301.00	454	444.00	8136
127.00	151104	211.00	4085	302.00	588	445.00	544
128.00	11527	212.00	325	303.00	3495		
129.00	63312	213.00	269	304.00	1024		
130.00	5155	215.00	1231	305.00	58		
131.00	1040	216.00	2505	308.00	484		

Data File: \\NAHSTWS005\Target\chem\SV6.i\230929.b\03.D
 Report Date: 29-Sep-2023 12:20

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230929.b\03.D
 Lab Smp Id: 14DX-0.08 Client Smp ID: 14DX-0.08
 Inj Date : 29-SEP-2023 12:03
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX-0.08
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230929.b\DXSIM.m
 Meth Date : 29-Sep-2023 12:19 marco.guti Quant Type: ISTD
 Cal Date : 28-SEP-2023 16:48 Cal File: 15.D
 Als bottle: 3 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14
 Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.392	3.392	(1.000)	4270	0.10000	(aM)
* 45 Naphthalene-d8	136	4.461	4.461	(1.000)	12644	0.10000	(M)
\$ 33 Nitrobenzene-d5	82	3.826	3.826	(0.858)	4247	0.08000	0.08578
* 86 Acenaphthene-d10	164	6.133	6.133	(1.000)	7670	0.10000	
\$ 69 2-Fluorobiphenyl	172	5.475	5.475	(0.893)	10315	0.08000	0.07032
* 126 Phenanthrene-d10	188	7.593	7.593	(1.000)	16689	0.10000	(M)
* 182 Chrysene-d12	240	10.535	10.535	(1.000)	8300	0.10000	(M)
\$ 158 4-Terphenyl-d14	244	9.211	9.211	(0.874)	20943	0.08000	0.07896(M)
* 198 Perylene-d12	264	12.696	12.696	(1.000)	8583	0.10000	(M)
1 1,4-Dioxane	58	1.956	1.956	(0.577)	1148	0.08000	0.08876(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).
 Q - Qualifier signal failed the ratio test.
 M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\Sw6.i\230929.b\03.D

Date : 29-SEP-2023 12:03

Client ID: 14DX-0.08

Sample Info: 14DX-0.08

Purge Volume: 1000.0

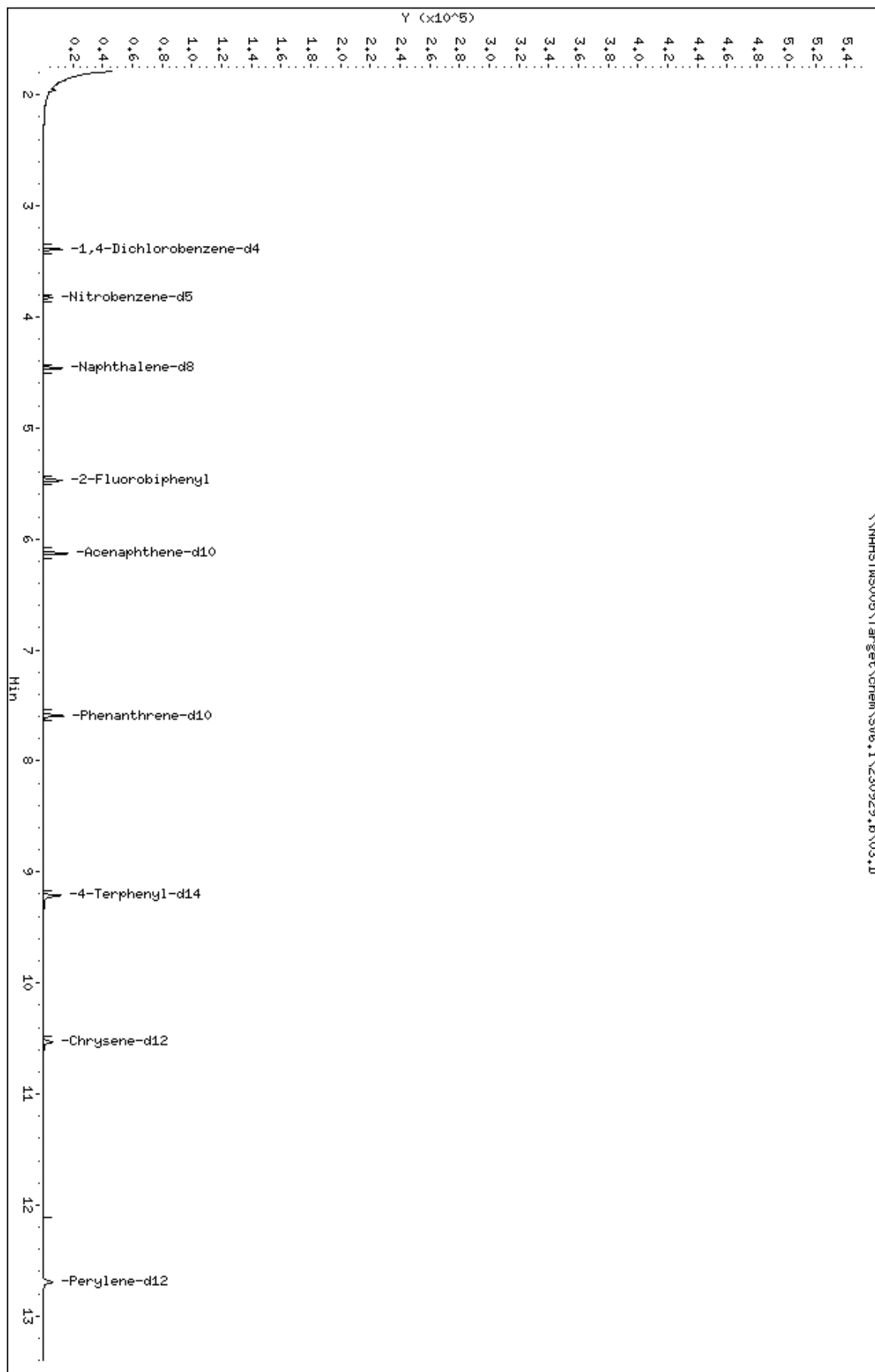
Column phase: RTX-5SIL MS

Instrument: Sw6.i

Operator: LG

Column diameter: 0.28

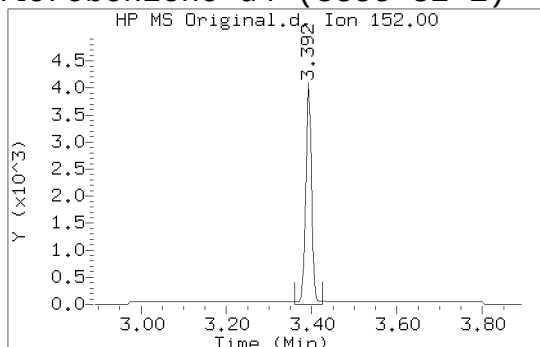
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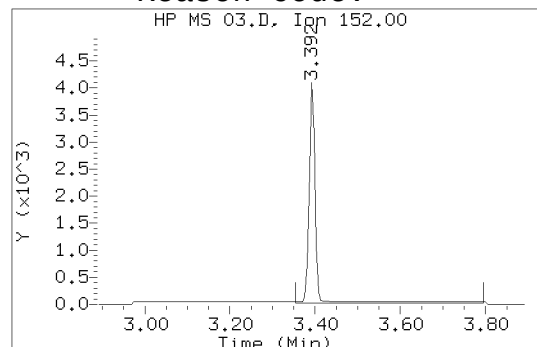
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Inj Date : 29-SEP-2023 12:03
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LabSampID : 14DX-0.08

1,4-Dichlorobenzene-d4 (3855-82-1)**BEFORE**

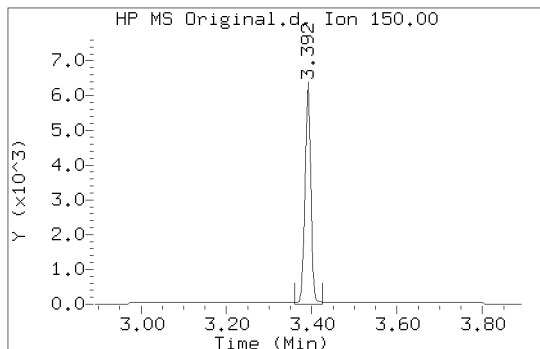
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AREA
3941
HEIGHT
4097
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

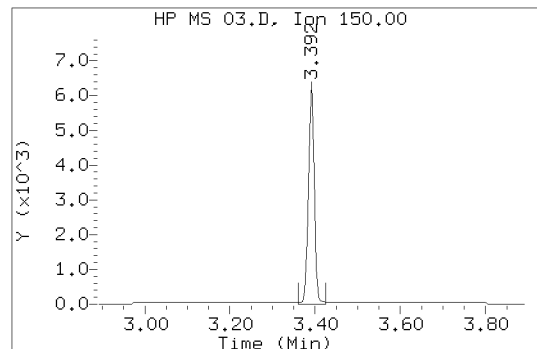
MASS
152
AREA
4270
HEIGHT
4068
29-Sep-2023
12:20

**BEFORE**

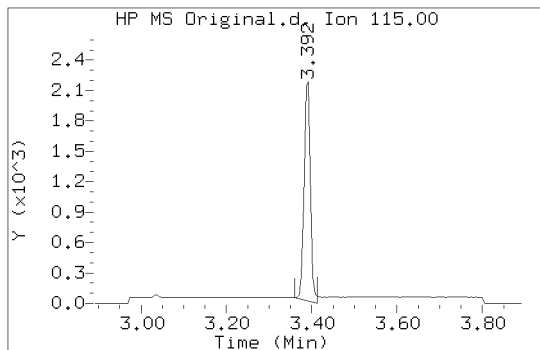
MASS
150
AREA
6099
HEIGHT
6393
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

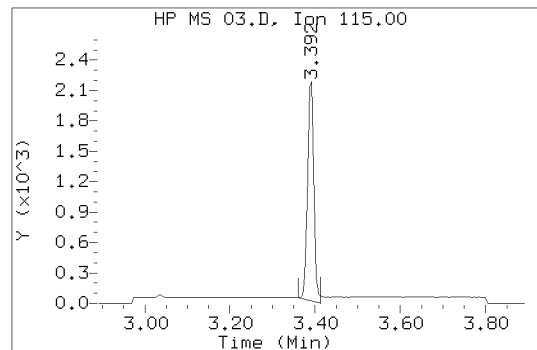
MASS
150
AREA
6099
HEIGHT
6393
29-Sep-2023
12:20

**BEFORE**

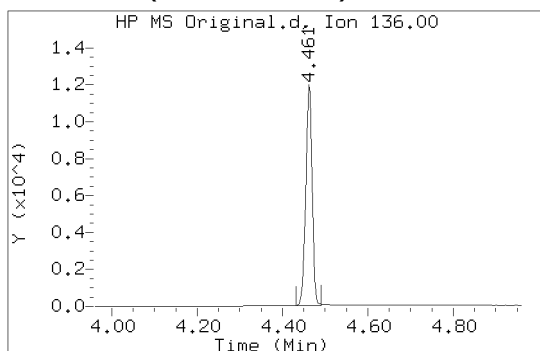
MASS
115
AREA
2232
HEIGHT
2164
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

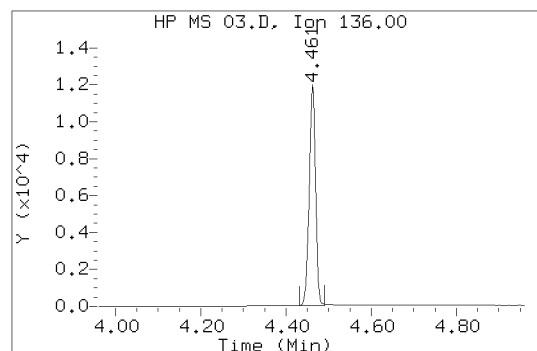
MASS
115
AREA
2232
HEIGHT
2164
29-Sep-2023
12:20

**Naphthalene-d8 (1146-65-2)****BEFORE**

MASS
136
AREA
12644
HEIGHT
11958
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

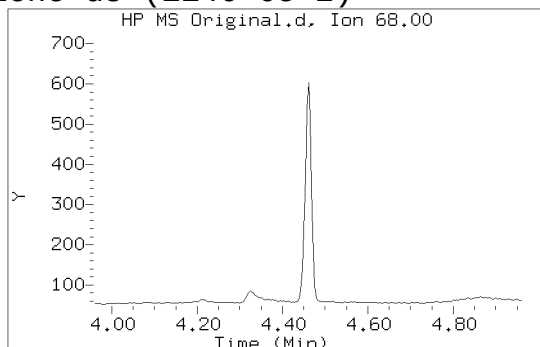
MASS
136
AREA
12644
HEIGHT
11958
29-Sep-2023
12:20



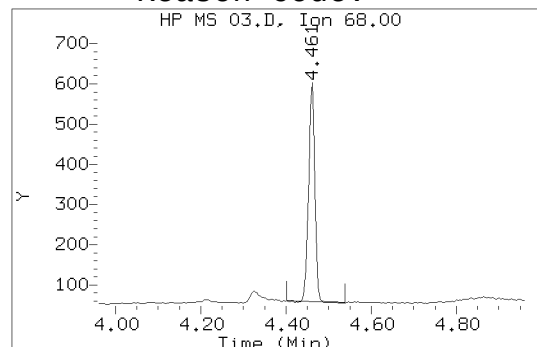
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230929.b\\03.D
Inj Date : 29-SEP-2023 12:03
InstruID : SV6.i
LabSampID : 14DX-0.08

Naphthalene-d8 (1146-65-2)**BEFORE**

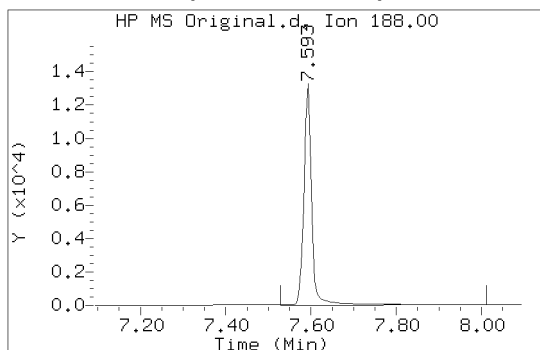
MASS
68
AREA
0
HEIGHT
0
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

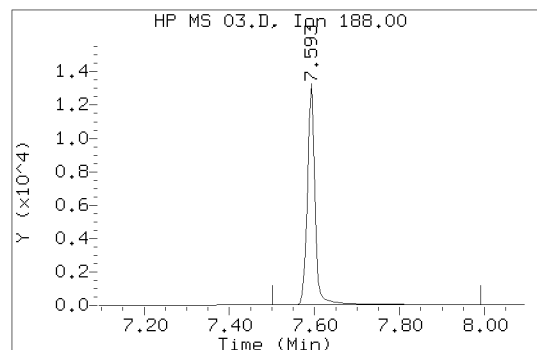
MASS
68
AREA
565
HEIGHT
544
29-Sep-2023
12:20

Reason Code:**Phenanthrene-d10 (1517-22-2)****BEFORE**

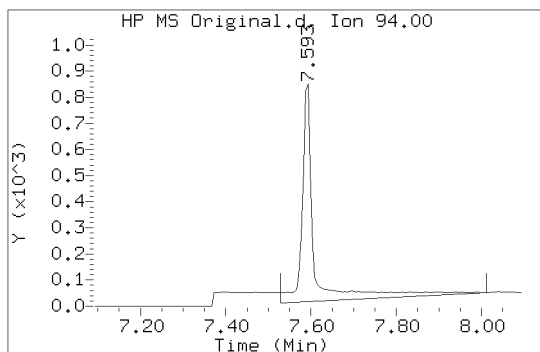
MASS
188
AREA
17252
HEIGHT
13262
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

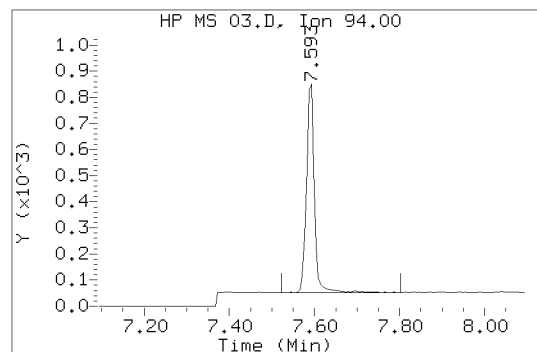
MASS
188
AREA
16689
HEIGHT
13232
29-Sep-2023
12:20

Reason Code:**BEFORE**

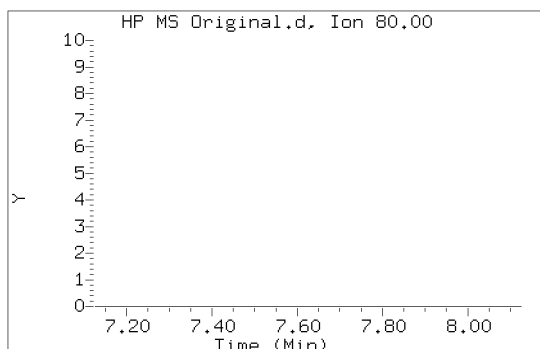
MASS
94
AREA
1646
HEIGHT
833
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

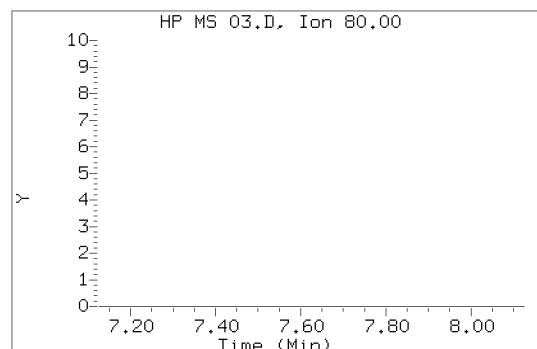
MASS
94
AREA
1056
HEIGHT
800
29-Sep-2023
12:20

**BEFORE**

MASS
80
AREA
0
HEIGHT
0
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

MASS
80
AREA
0
HEIGHT
0
29-Sep-2023
12:20

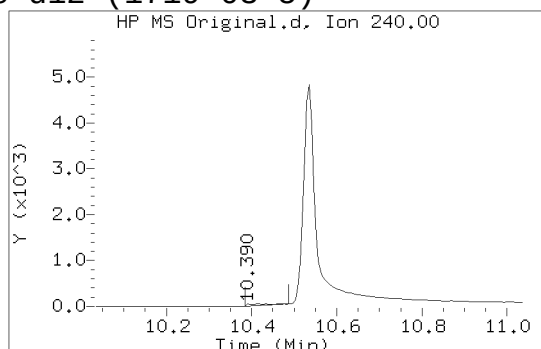


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230929.b\\03.D
 Inj Date : 29-SEP-2023 12:03
 InstruID : SV6.i
 LabSampID : 14DX-0.08

Chrysene-d12 (1719-03-5)

BEFORE

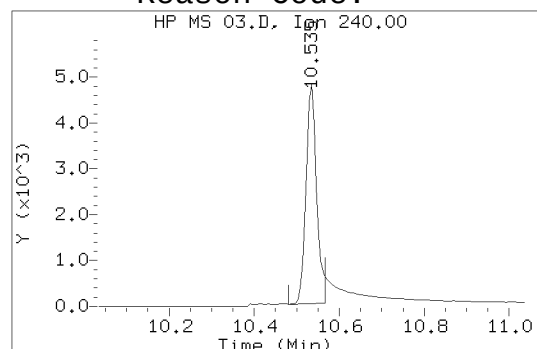
MASS
240
AREA
138
HEIGHT
46
29-Sep-2023
12:18
ALSHS
Server



AFTER

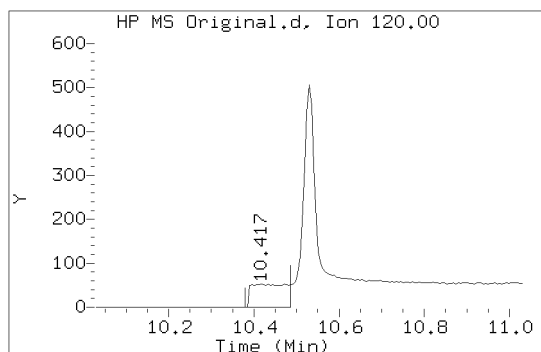
MASS
240
AREA
8300
HEIGHT
4775
29-Sep-2023
12:20

Reason Code:



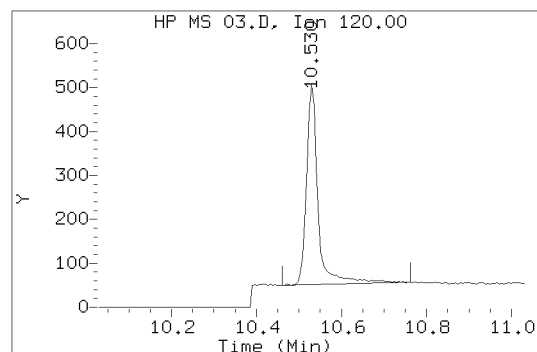
BEFORE

MASS
120
AREA
310
HEIGHT
52
29-Sep-2023
12:18
ALSHS
Server



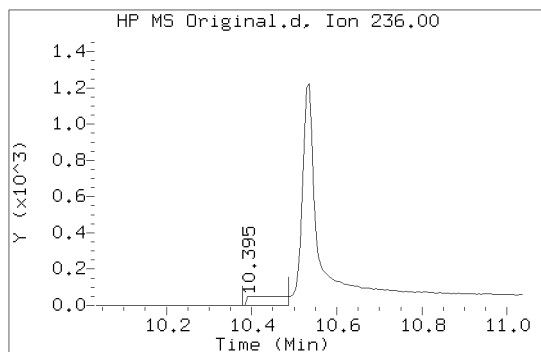
AFTER

MASS
120
AREA
853
HEIGHT
454
29-Sep-2023
12:20



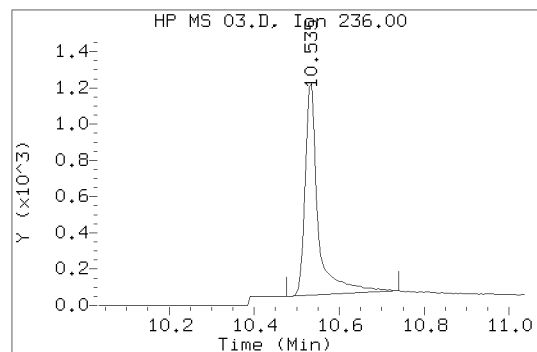
BEFORE

MASS
236
AREA
300
HEIGHT
50
29-Sep-2023
12:18
ALSHS
Server



AFTER

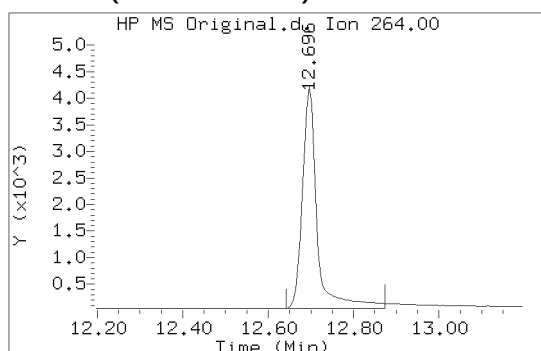
MASS
236
AREA
2496
HEIGHT
1167
29-Sep-2023
12:20



Perylene-d12 (1520-96-3)

BEFORE

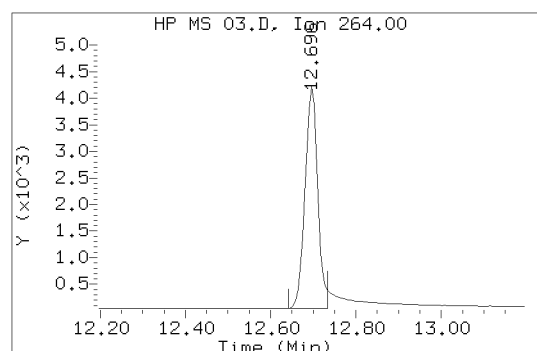
MASS
264
AREA
9800
HEIGHT
4165
29-Sep-2023
12:18
ALSHS
Server



AFTER

MASS
264
AREA
8583
HEIGHT
4165
29-Sep-2023
12:20

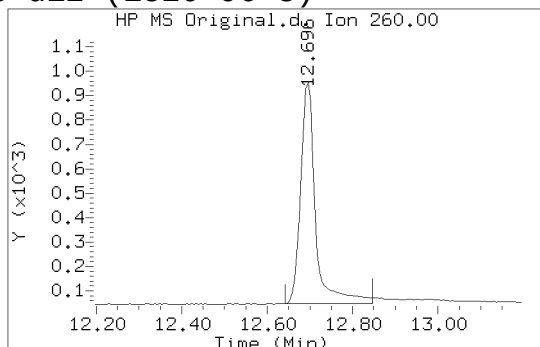
Reason Code:



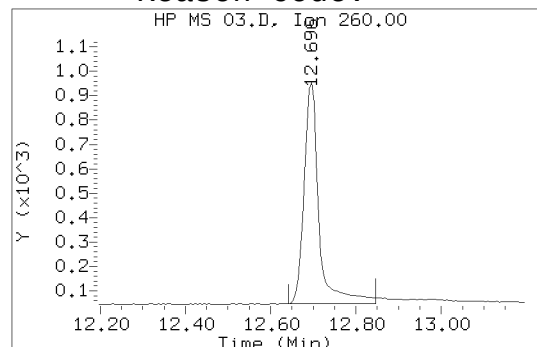
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230929.b\\03.D
Inj Date : 29-SEP-2023 12:03
InstruID : SV6.i
LabSampID : 14DX-0.08

Perylene-d12 (1520-96-3)**BEFORE**

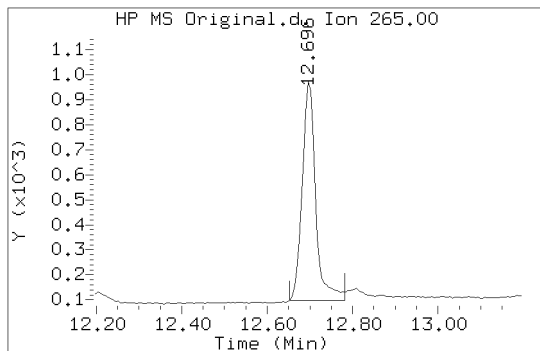
MASS
260
AREA
2189
HEIGHT
905
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

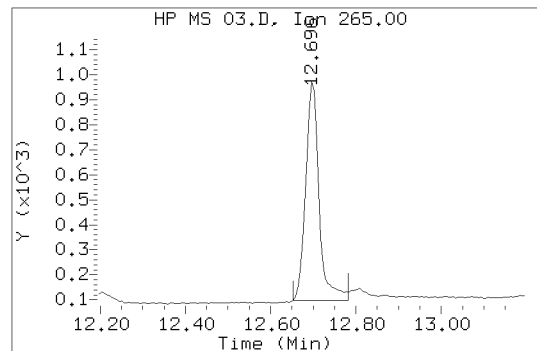
MASS
260
AREA
2189
HEIGHT
905
29-Sep-2023
12:20

**BEFORE**

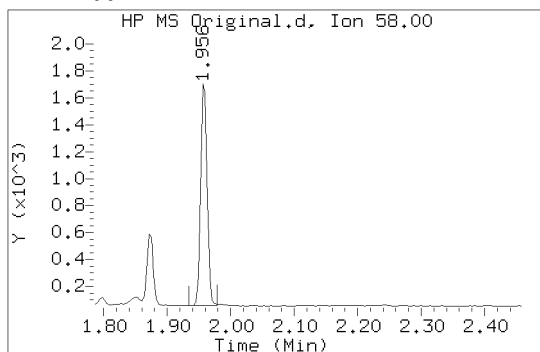
MASS
265
AREA
1903
HEIGHT
873
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

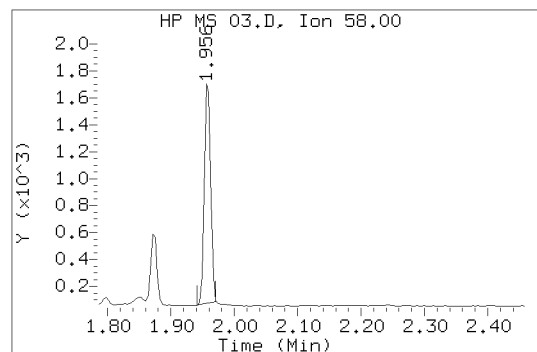
MASS
265
AREA
1903
HEIGHT
873
29-Sep-2023
12:20

**1,4-Dioxane ()****BEFORE**

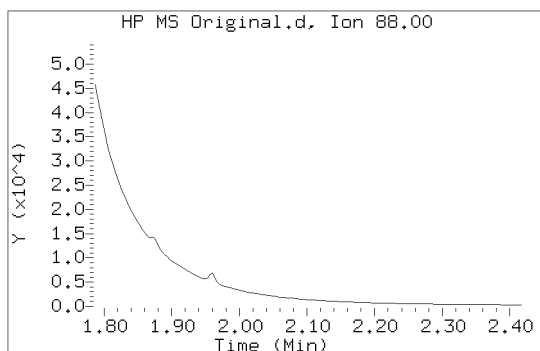
MASS
58
AREA
1193
HEIGHT
1647
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

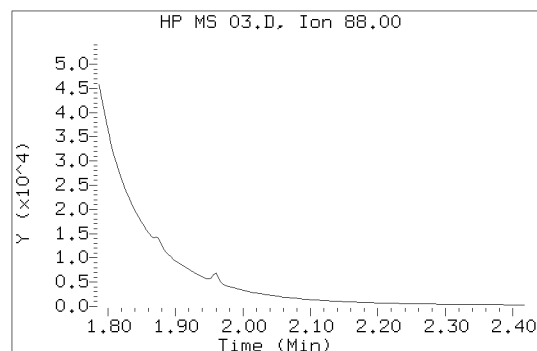
MASS
58
AREA
1148
HEIGHT
1628
29-Sep-2023
12:20

**BEFORE**

MASS
88
AREA
0
HEIGHT
0
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

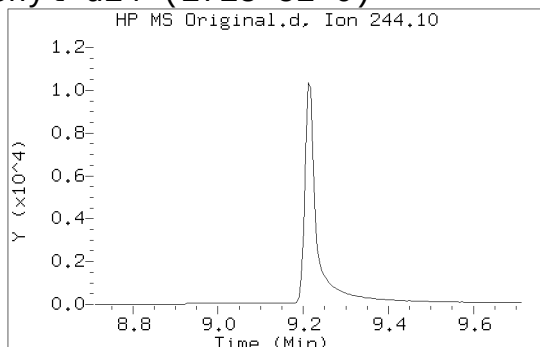
MASS
88
AREA
0
HEIGHT
0
29-Sep-2023
12:20



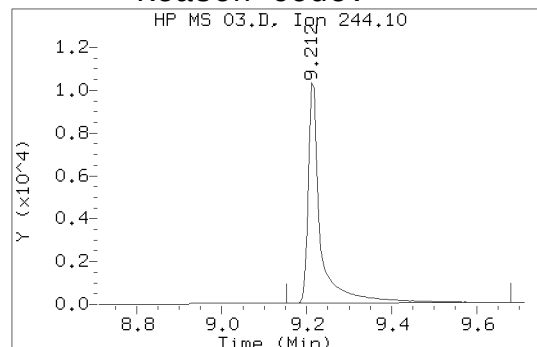
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230929.b\\03.D
Inj Date : 29-SEP-2023 12:03
InstruID : SV6.i
LabSampID : 14DX-0.08

4-Terphenyl-d14 (1718-51-0)**BEFORE**

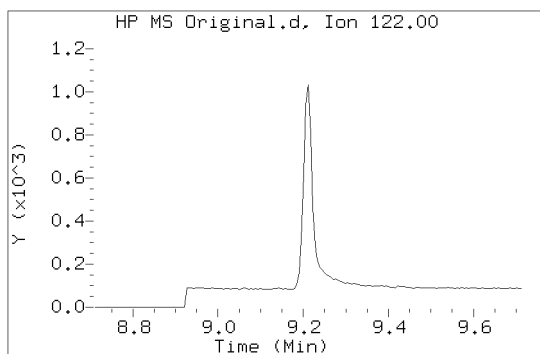
MASS
244.1
AREA
0
HEIGHT
0
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

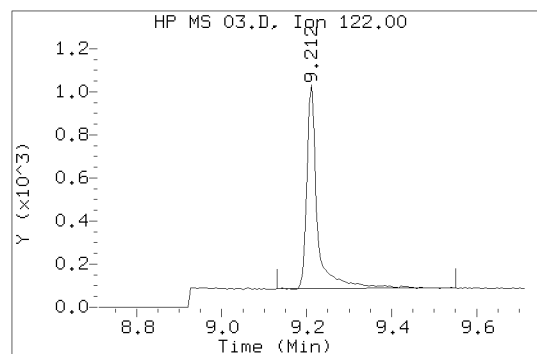
MASS
244.1
AREA
20943
HEIGHT
10300
29-Sep-2023
12:20

Reason Code:**BEFORE**

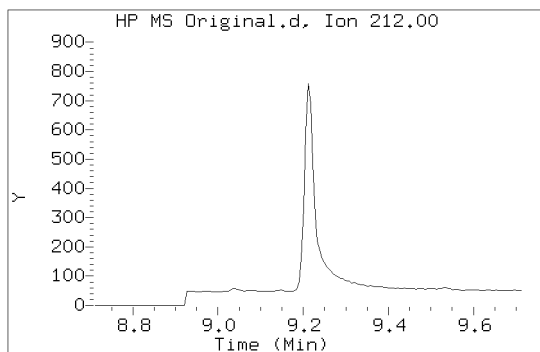
MASS
122
AREA
0
HEIGHT
0
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

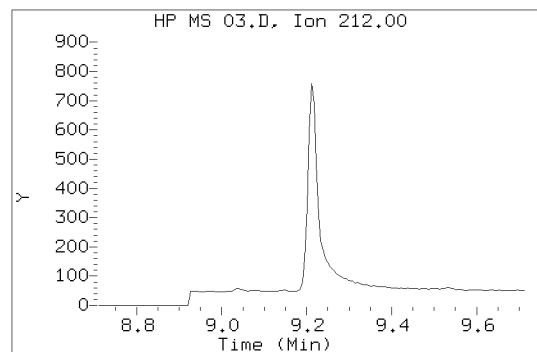
MASS
122
AREA
1604
HEIGHT
943
29-Sep-2023
12:20

**BEFORE**

MASS
212
AREA
0
HEIGHT
0
29-Sep-2023
12:18
ALSHS
Server

**AFTER**

MASS
212
AREA
1536
HEIGHT
709
29-Sep-2023
12:20



Data File: \\NAHSTWS005\Target\chem\SV6.i\230929.b\05.D
 Report Date: 29-Sep-2023 13:24

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230929.b\05.D
 Lab Smp Id: MBLK-200383
 Inj Date : 29-SEP-2023 12:43
 Operator : LG
 Smp Info : MBLK-200383RR
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230929.b\DXSIM.m
 Meth Date : 29-Sep-2023 12:19 marco.guti Quant Type: ISTD
 Cal Date : 28-SEP-2023 16:48 Cal File: 15.D
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: NAHSTW7095

Inst ID: SV6.i

Compound Sublist: 14dx.sub

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152		3.387	3.392	(1.000)	2684	0.10000	(aQ)
* 45 Naphthalene-d8	136		4.461	4.461	(1.000)	8478	0.10000	
\$ 33 Nitrobenzene-d5	82		3.827	3.826	(0.858)	2552	0.07688	0.07688(M)
* 86 Acenaphthene-d10	164		6.134	6.133	(1.000)	4983	0.10000	
\$ 69 2-Fluorobiphenyl	172		5.471	5.475	(0.892)	6699	0.07030	0.07030(M)
* 126 Phenanthrene-d10	188		7.593	7.593	(1.000)	10420	0.10000	
* 182 Chrysene-d12	240		10.535	10.535	(1.000)	4414	0.10000	(M)
\$ 158 4-Terphenyl-d14	244		9.211	9.211	(0.874)	9719	0.06890	0.06890(M)
* 198 Perylene-d12	264		12.691	12.696	(1.000)	5385	0.10000	

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).
 Q - Qualifier signal failed the ratio test.
 M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\SW6.i\230929.b\05.D

Date : 29-SEP-2023 12:43

Client ID:

Sample Info: HBLK-200383RR

Purge Volume: 1000.0

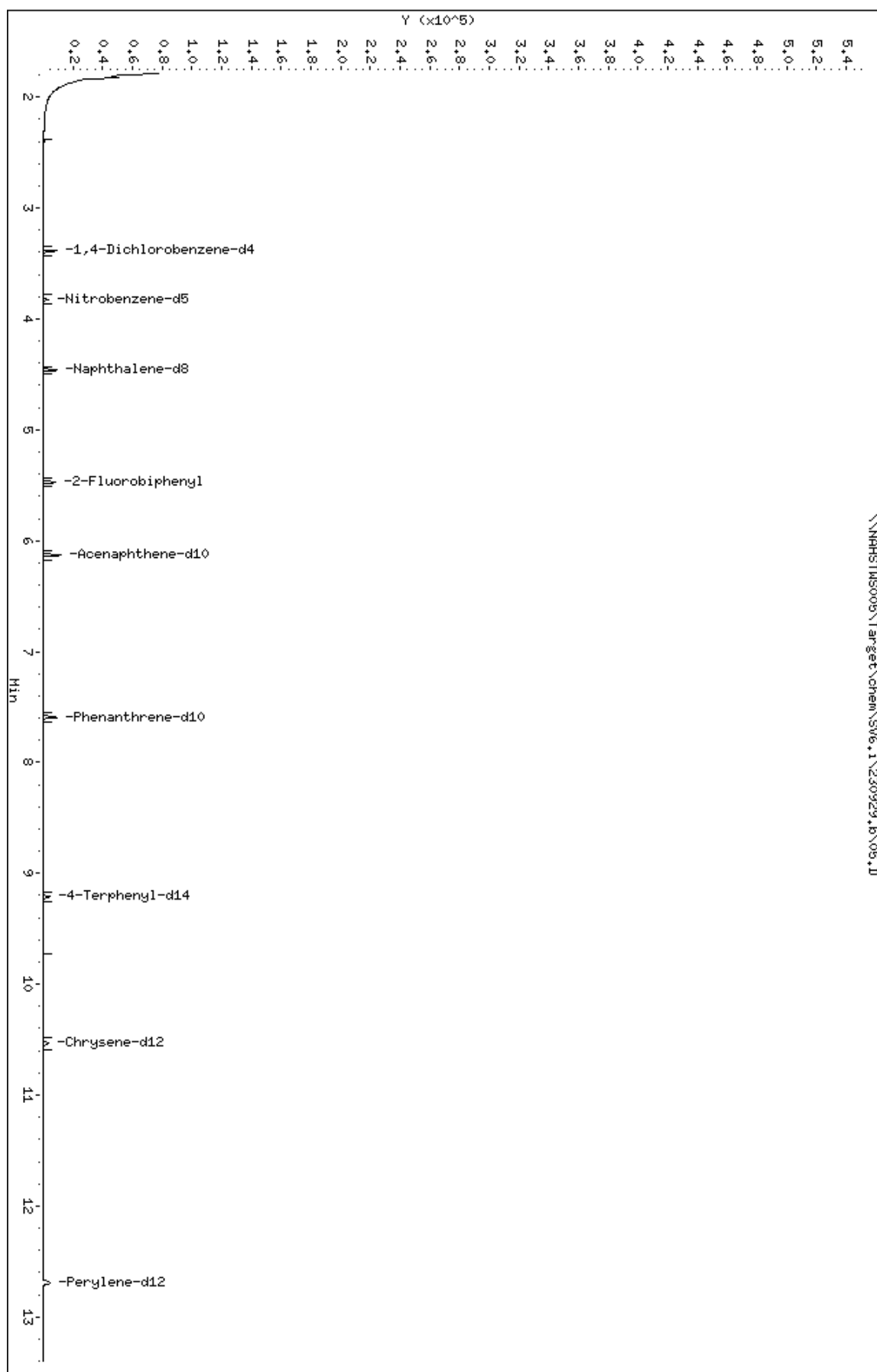
Column phase: RTX-5SIL MS

Instrument: SW6.i

Operator: LG

Column diameter: 0.28

Page 1

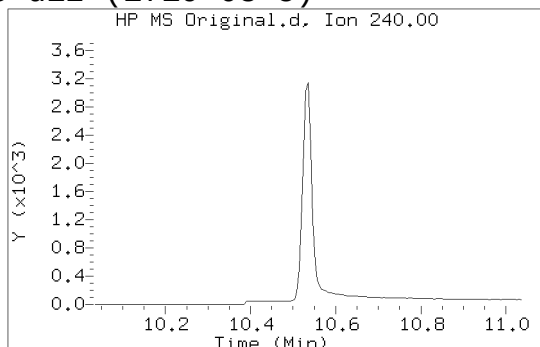


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230929.b\\05.D
Inj Date : 29-SEP-2023 12:43
InstruID : SV6.i
LabSampID : MBLK-200383

Chrysene-d12 (1719-03-5)

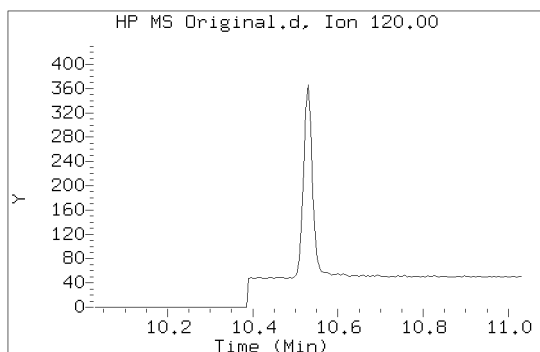
BEFORE

MASS
240
AREA
0
HEIGHT
0
29-Sep-2023
12:57
ALSHS



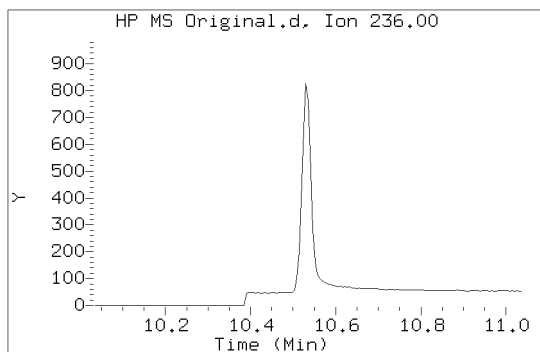
BEFORE

MASS
120
AREA
0
HEIGHT
0
29-Sep-2023
12:57
ALSHS
Server



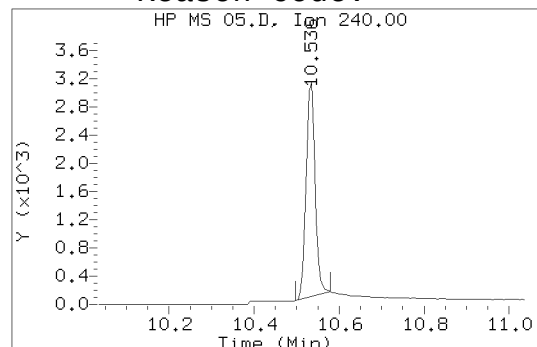
BEFORE

MASS
236
AREA
0
HEIGHT
0
29-Sep-2023
12:57
ALSHS
Server



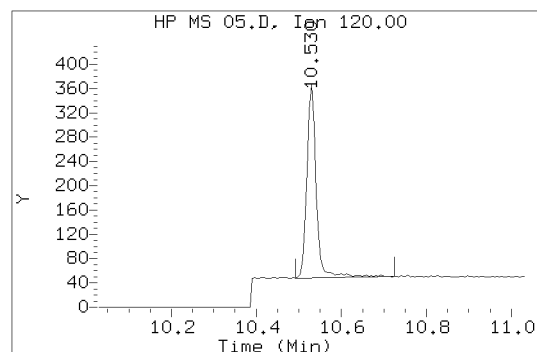
AFTER

MASS
240
AREA
4414
HEIGHT
3033
29-Sep-2023
13:24



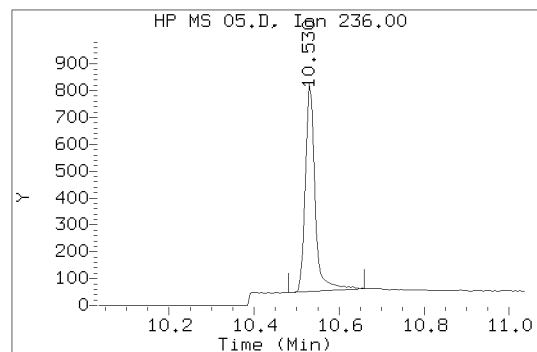
AFTER

MASS
120
AREA
477
HEIGHT
317
29-Sep-2023
13:24



AFTER

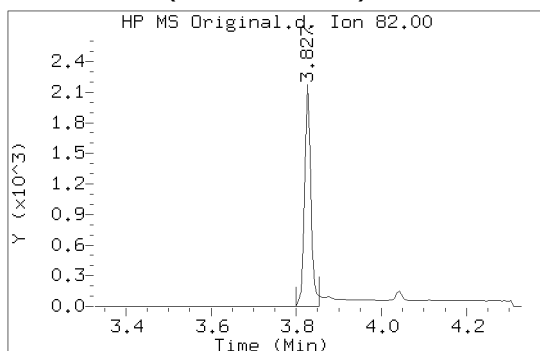
MASS
236
AREA
1216
HEIGHT
774
29-Sep-2023
13:24



Nitrobenzene-d5 (4165-60-0)

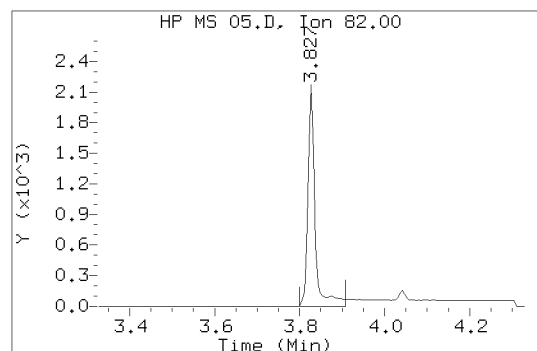
BEFORE

MASS
82
AREA
2286
HEIGHT
2173
29-Sep-2023
12:57
ALSHS
Server



AFTER

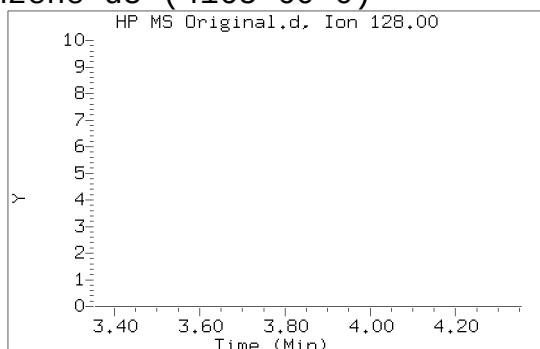
MASS
82
AREA
2552
HEIGHT
2173
29-Sep-2023
13:24



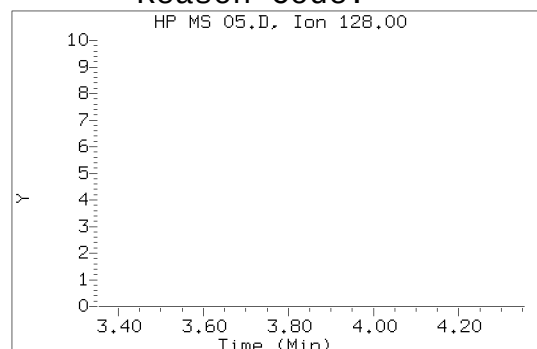
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230929.b\\05.D
Inj Date : 29-SEP-2023 12:43
InstruID : SV6.i
LabSampID : MBLK-200383

Nitrobenzene-d5 (4165-60-0)**BEFORE**

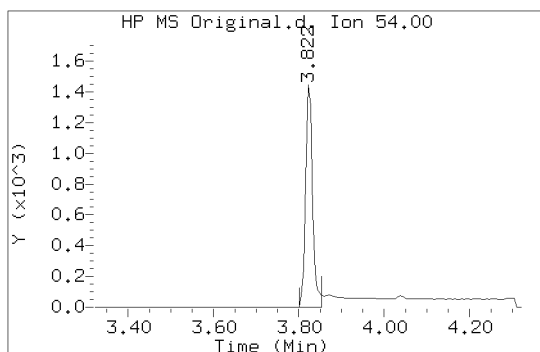
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
12:57
ALSHS

**AFTER**

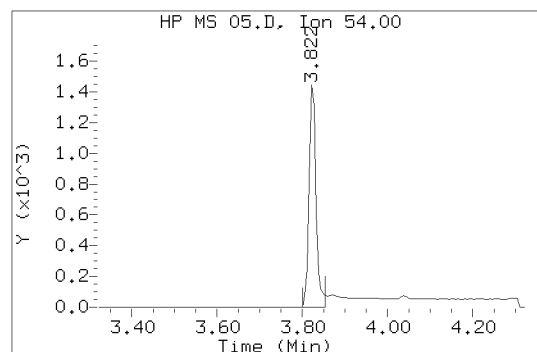
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
13:24

**BEFORE**

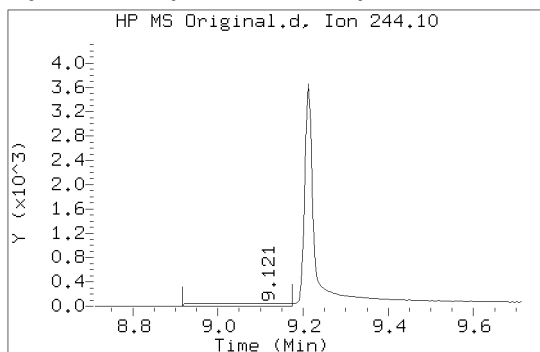
MASS
54
AREA
1622
HEIGHT
1445
29-Sep-2023
12:57
ALSHS
Server

**AFTER**

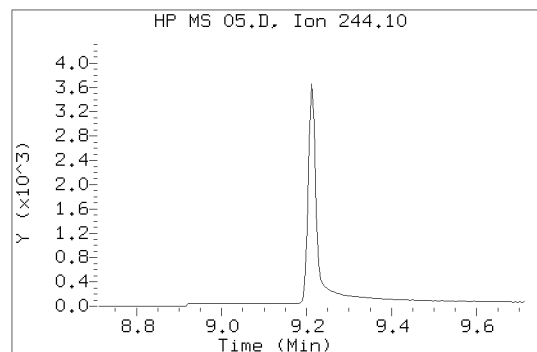
MASS
54
AREA
1622
HEIGHT
1445
29-Sep-2023
13:24

**4-Terphenyl-d14 (1718-51-0)****BEFORE**

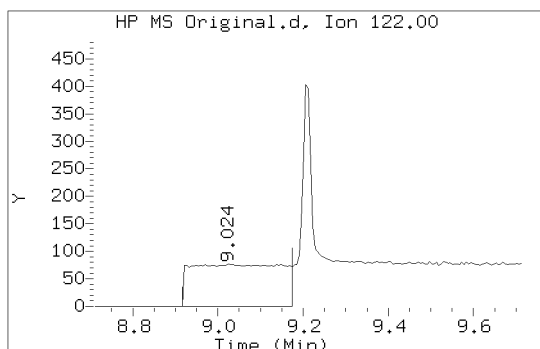
MASS
244.1
AREA
682
HEIGHT
45
29-Sep-2023
12:57
ALSHS
Server

**AFTER**

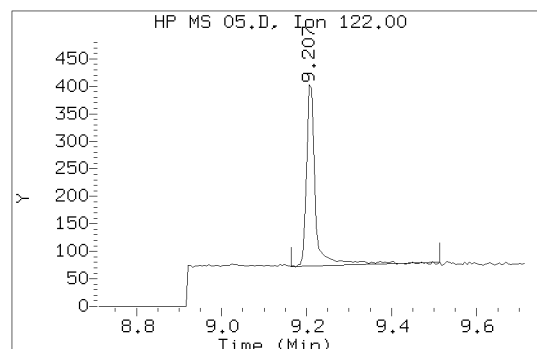
MASS
244.1
AREA
9719
HEIGHT
3658
29-Sep-2023
13:24

**BEFORE**

MASS
122
AREA
1146
HEIGHT
77
29-Sep-2023
12:57
ALSHS
Server

**AFTER**

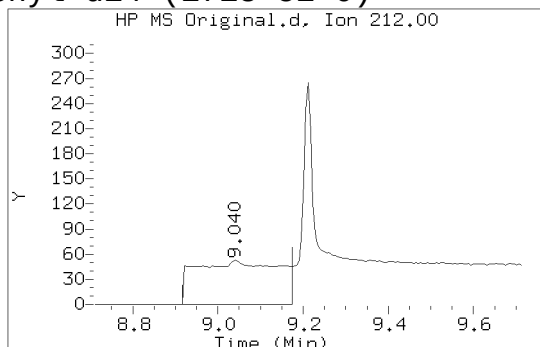
MASS
122
AREA
475
HEIGHT
330
29-Sep-2023
13:24



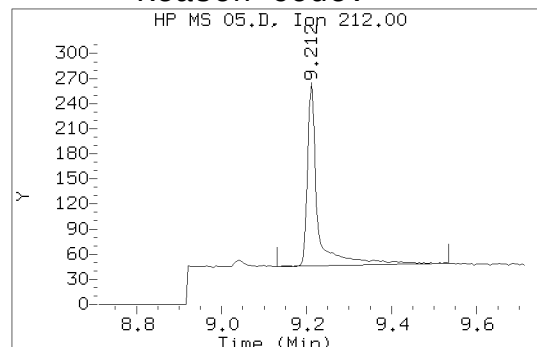
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230929.b\\05.D
Inj Date : 29-SEP-2023 12:43
InstruID : SV6.i
LabSampID : MBLK-200383

4-Terphenyl-d14 (1718-51-0)**BEFORE**

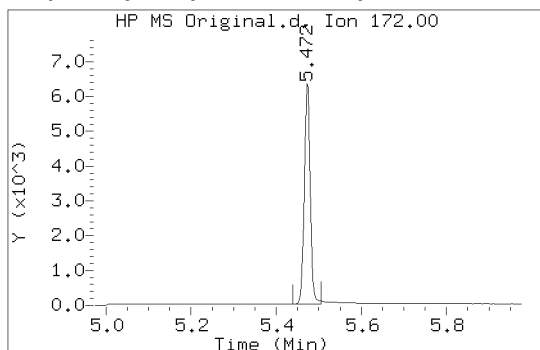
MASS
212
AREA
714
HEIGHT
53
29-Sep-2023
12:57
ALSHS
Server

**AFTER**

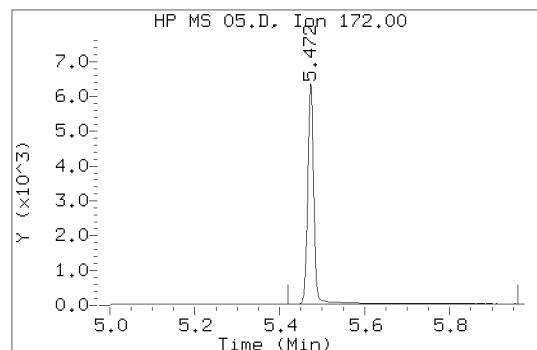
MASS
212
AREA
368
HEIGHT
219
29-Sep-2023
13:24

Reason Code:**2-Fluorobiphenyl (321-60-8)****BEFORE**

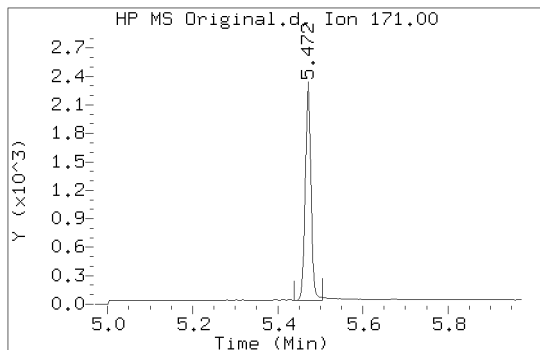
MASS
172
AREA
6218
HEIGHT
6322
29-Sep-2023
12:57
ALSHS
Server

**AFTER**

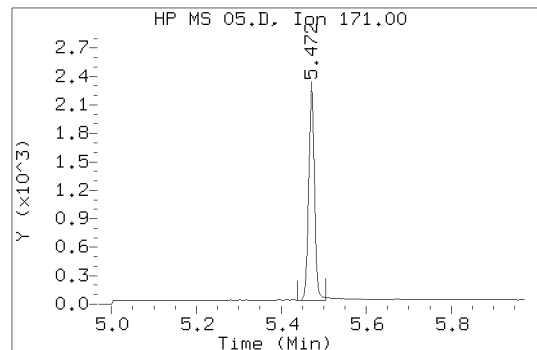
MASS
172
AREA
6699
HEIGHT
6322
29-Sep-2023
13:24

Reason Code:**BEFORE**

MASS
171
AREA
2174
HEIGHT
2298
29-Sep-2023
12:57
ALSHS
Server

**AFTER**

MASS
171
AREA
2174
HEIGHT
2298
29-Sep-2023
13:24



Data File: \\NAHSTWS005\Target\chem\SV6.i\230929.b\06.D
 Report Date: 02-Oct-2023 12:15

Page 1

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230929.b\06.D
 Lab Smp Id: 14DX-CCV END Client Smp ID: 14DX-CCV END
 Inj Date : 29-SEP-2023 13:00
 Operator : LG Inst ID: SV6.i
 Smp Info : 14DX-0.08
 Misc Info : ;;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\SV6.i\230929.b\DXSIM.m
 Meth Date : 02-Oct-2023 12:11 SV6.i Quant Type: ISTD
 Cal Date : 28-SEP-2023 16:48 Cal File: 15.D
 Als bottle: 6 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 14dx.sub
 Target Version: 4.14

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	AMOUNTS					
		CAL - AMT	ON - COL				
	MASS	RT	EXP RT	REL RT	RESPONSE	(NG)	(NG)
=====	=====	=====	=====	=====	=====	=====	=====
* 20 1,4-Dichlorobenzene-d4	152	3.392	3.392 (1.000)		3679	0.10000	(aQ)
* 45 Naphthalene-d8	136	4.461	4.461 (1.000)		11990	0.10000	
\$ 33 Nitrobenzene-d5	82	3.827	3.827 (0.858)		3734	0.08000	0.07954(M)
* 86 Acenaphthene-d10	164	6.128	6.128 (1.000)		7007	0.10000	
\$ 69 2-Fluorobiphenyl	172	5.471	5.471 (0.893)		9430	0.08000	0.07037(M)
* 126 Phenanthrene-d10	188	7.587	7.587 (1.000)		15548	0.10000	
* 182 Chrysene-d12	240	10.530	10.530 (1.000)		7807	0.10000	(M)
\$ 158 4-Terphenyl-d14	244	9.211	9.211 (0.875)		17758	0.08000	0.07118(M)
* 198 Perylene-d12	264	12.691	12.691 (1.000)		9273	0.10000	
1 1,4-Dioxane	58	1.956	1.956 (0.577)		1186	0.08000	0.1064(QH)

QC Flag Legend

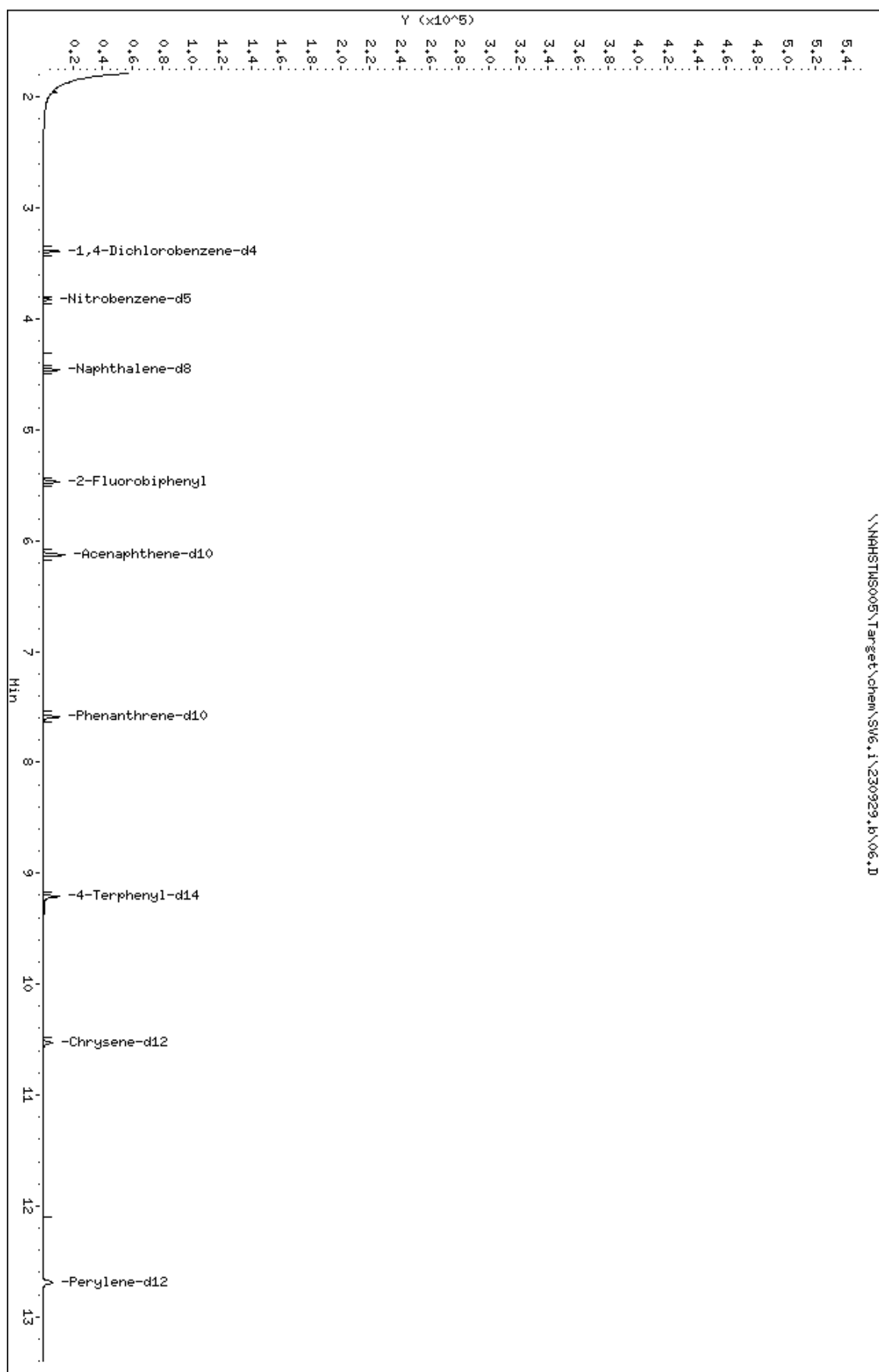
a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).
 Q - Qualifier signal failed the ratio test.
 M - Compound response manually integrated.
 H - Operator selected an alternate compound hit.



Data File: \\NAHSTMS0005\Target\chem\SW6.i\230929.b\06.D
Date: 29-SEP-2023 13:00
Client ID: 14DX-CCV END
Sample Info: 14DX-0.08
Purge Volume: 1000.0
Column phase: RTX-5SIL HS

Instrument: SW6.i
Operator: LG
Column diameter: 0.28

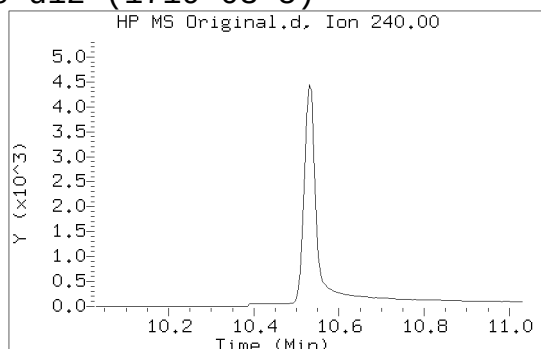
Page 1



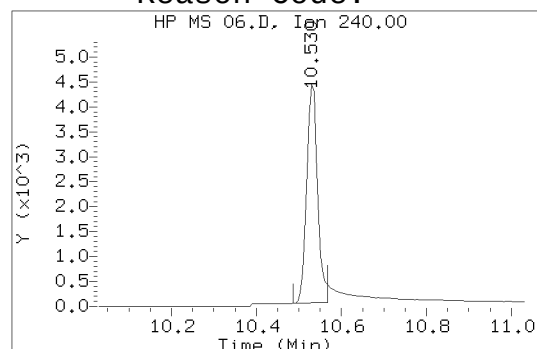
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230929.b\\06.D
Inj Date : 29-SEP-2023 13:00
InstruID : SV6.i
LabSampID : 14DX-CCV END

Chrysene-d12 (1719-03-5)**BEFORE**

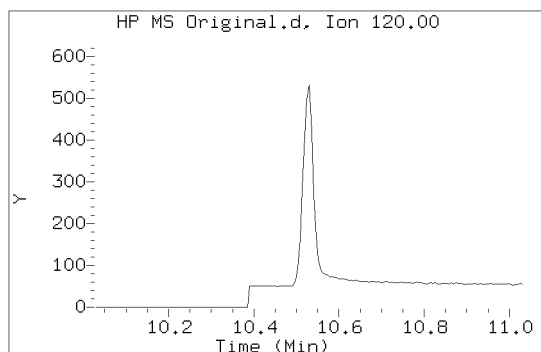
MASS
240
AREA
0
HEIGHT
0
29-Sep-2023
13:17
ALSHS
Server

**AFTER**

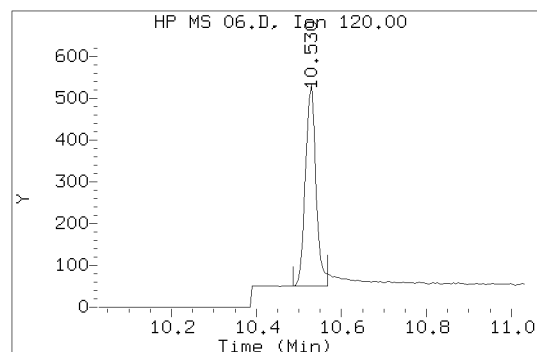
MASS
240
AREA
7807
HEIGHT
4373
02-Oct-2023
12:15
ALSHS
Ser

**BEFORE**

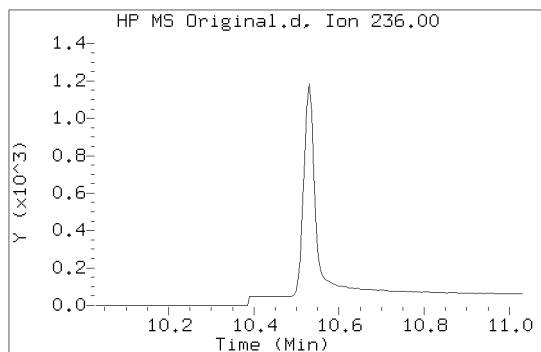
MASS
120
AREA
0
HEIGHT
0
29-Sep-2023
13:17
ALSHS
Server

**AFTER**

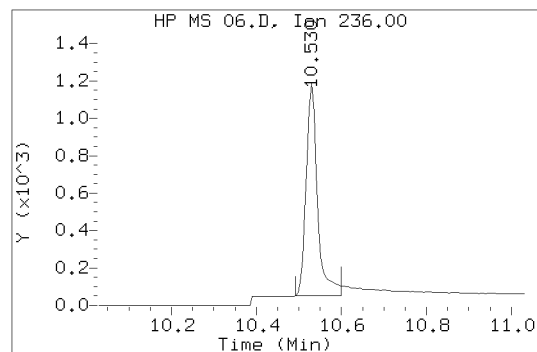
MASS
120
AREA
826
HEIGHT
481
02-Oct-2023
12:15
ALSHS
Ser

**BEFORE**

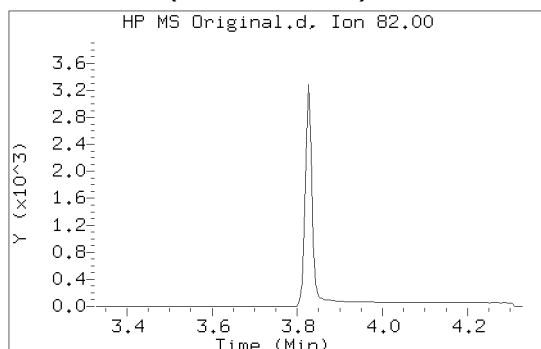
MASS
236
AREA
0
HEIGHT
0
29-Sep-2023
13:17
ALSHS
Server

**AFTER**

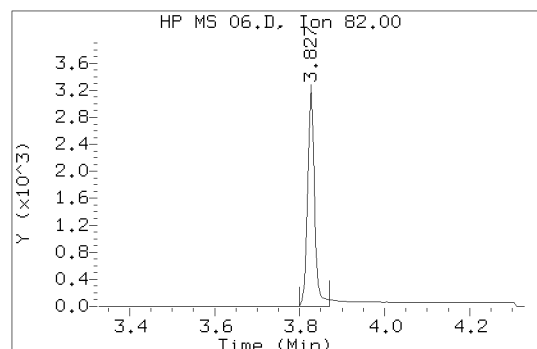
MASS
236
AREA
2097
HEIGHT
1133
02-Oct-2023
12:15
ALSHS
Ser

**Nitrobenzene-d5 (4165-60-0)****BEFORE**

MASS
82
AREA
0
HEIGHT
0
29-Sep-2023
13:17
ALSHS
Server

**AFTER**

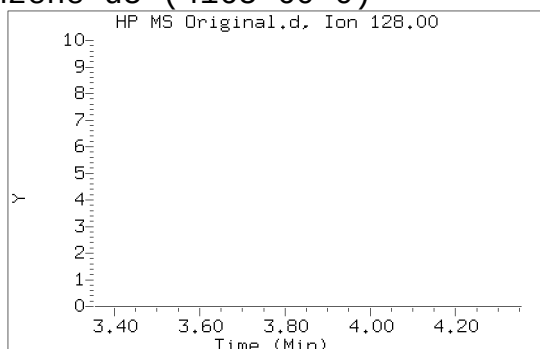
MASS
82
AREA
3734
HEIGHT
3284
02-Oct-2023
12:15
ALSHS
Ser



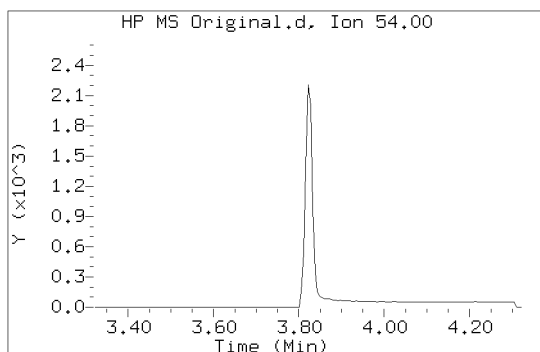
Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230929.b\\06.D
Inj Date : 29-SEP-2023 13:00
InstruID : SV6.i
LabSampID : 14DX-CCV END

Nitrobenzene-d5 (4165-60-0)**BEFORE**

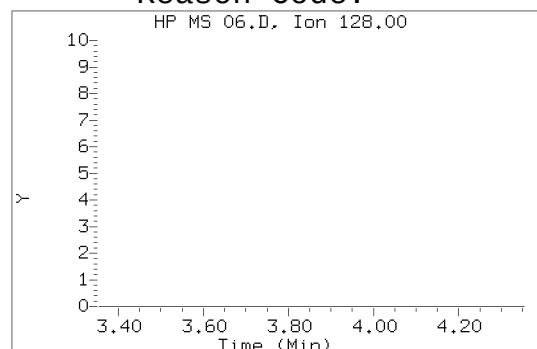
MASS
128
AREA
0
HEIGHT
0
29-Sep-2023
13:17
ALSHS

**BEFORE**

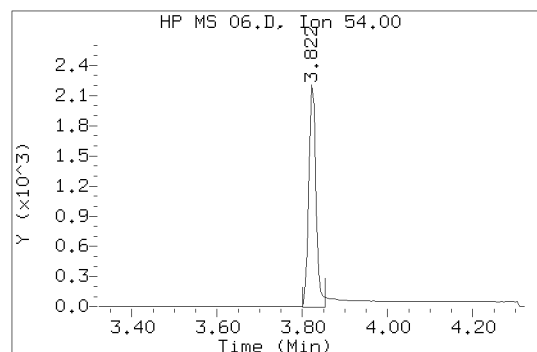
MASS
54
AREA
0
HEIGHT
0
29-Sep-2023
13:17
ALSHS
Server

**AFTER**

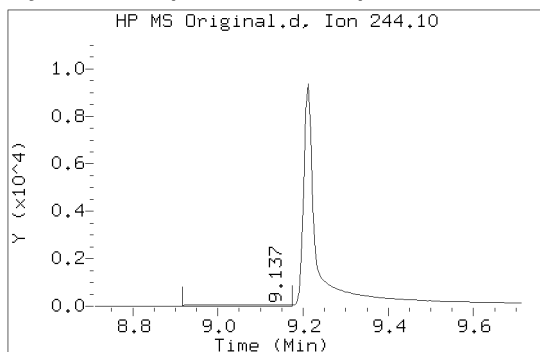
MASS
128
AREA
0
HEIGHT
0
02-Oct-2023
12:15
ALSHS

**AFTER**

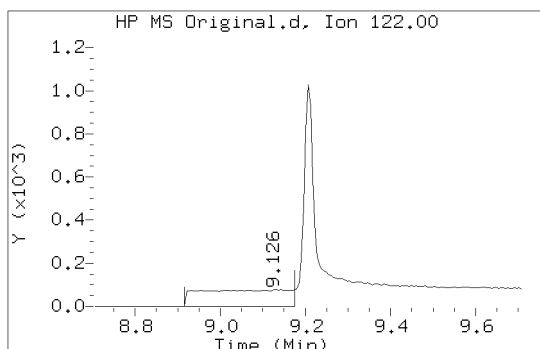
Ser
MASS
54
AREA
2576
HEIGHT
2208
02-Oct-2023
12:15
ALSHS
Ser

**4-Terphenyl-d14 (1718-51-0)****BEFORE**

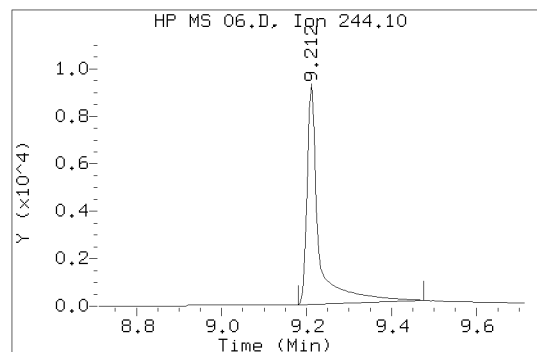
MASS
244.1
AREA
681
HEIGHT
45
29-Sep-2023
13:17
ALSHS
Server

**BEFORE**

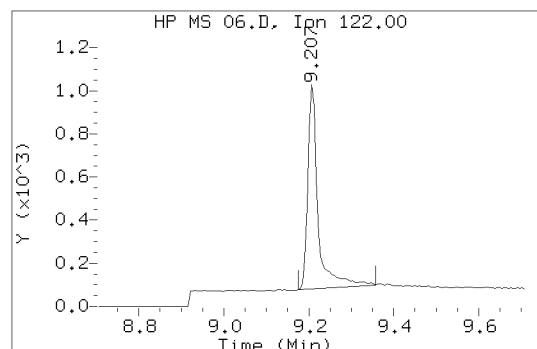
MASS
122
AREA
1128
HEIGHT
77
29-Sep-2023
13:17
ALSHS
Server

**AFTER**

MASS
244.1
AREA
17758
HEIGHT
9285
02-Oct-2023
12:15
ALSHS
Ser

**AFTER**

Ser
MASS
122
AREA
1579
HEIGHT
947
02-Oct-2023
12:15
ALSHS
Ser

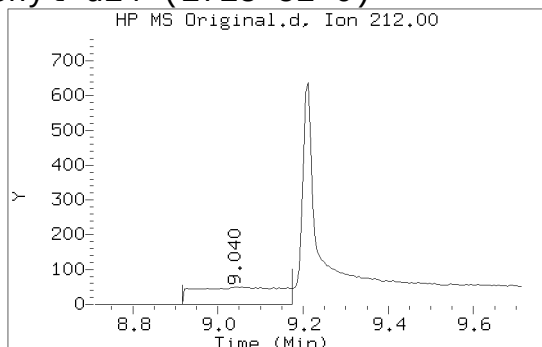


Data File : \\NAHSTWS005\\Target\\chem\\SV6.i\\230929.b\\06.D
Inj Date : 29-SEP-2023 13:00
InstruID : SV6.i
LabSampID : 14DX-CCV END

4-Terphenyl-d14 (1718-51-0)

BEFORE

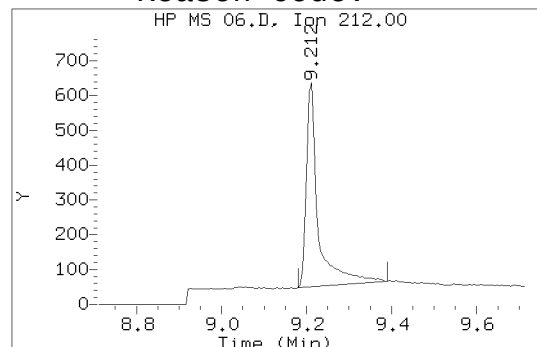
MASS
212
AREA
713
HEIGHT
49
29-Sep-2023
13:17
ALSHS
Server



AFTER

MASS
212
AREA
1119
HEIGHT
586
02-Oct-2023
12:15
ALSHS
Ser

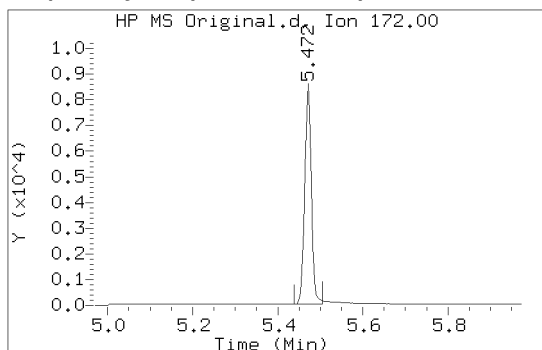
Reason Code:



2-Fluorobiphenyl (321-60-8)

BEFORE

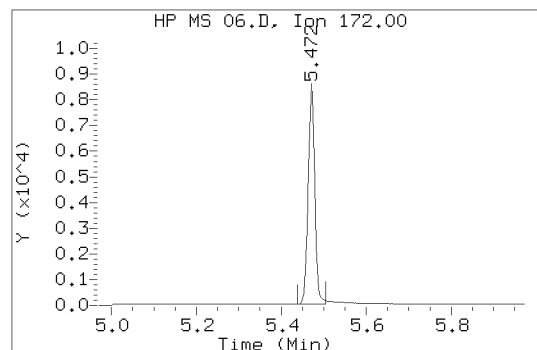
MASS
172
AREA
9430
HEIGHT
8583
29-Sep-2023
13:17
ALSHS
Server



AFTER

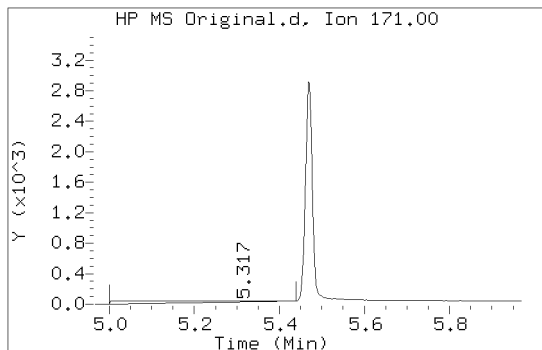
MASS
172
AREA
9430
HEIGHT
8583
02-Oct-2023
12:15
ALSHS
Ser

Reason Code:



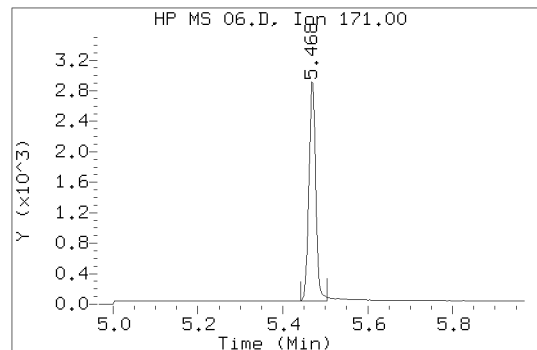
BEFORE

MASS
171
AREA
560
HEIGHT
12
29-Sep-2023
13:17
ALSHS
Server



AFTER

MASS
171
AREA
3272
HEIGHT
2872
02-Oct-2023
12:15
ALSHS
Ser



HS23090714 - ME - ICP_W_DOD

ALS WO# HS23090714



FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714
Start Date: 30-Sep-2023 **End Date:** 30-Sep-2023

Run ID: ICPMS07_447812
Instrument: ICPMS07
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS07_447812_Tune	1	30-Sep-2023 00:00	ICPMS07_447812_Tune_1	
CAL BLK	1	30-Sep-2023 10:12	012CALB.d_7576802	AG BA PB SE
2/10/200	1	30-Sep-2023 10:15	013CALS.d_7576803	AG BA PB SE
5/25/500	1	30-Sep-2023 10:17	014CALS.d_7576804	AG BA PB SE
CAL BLK	1	30-Sep-2023 10:24	017CALB.d_7576807	AG BA PB SE
10/50/100	1	30-Sep-2023 10:30	020CALS.d_7576810	AG BA PB SE
100/500/10K	1	30-Sep-2023 10:33	021CALS.d_7576811	AG BA PB SE
200/1000/20K	1	30-Sep-2023 10:35	022CALS.d_7576812	AG BA PB SE
ICV	1	30-Sep-2023 10:44	026_ICV.d_7576816	AG BA PB SE
LLICV2	1	30-Sep-2023 10:49	028LCV2.d_7576818	AG BA PB SE
LLICV5	1	30-Sep-2023 10:51	029LCV5.d_7576819	AG BA PB SE
ICB	1	30-Sep-2023 10:56	031_ICB.d_7576821	AG BA PB SE
ICSA	1	30-Sep-2023 10:58	032ICSA.d_7576822	AG BA PB SE
ICSAB	1	30-Sep-2023 11:00	033ICSB.d_7576823	AG BA PB SE
CCV 1	1	30-Sep-2023 15:28	138_CCV.d_7577477	AG BA PB SE
CCB 1	1	30-Sep-2023 15:30	139_CCB.d_7577478	AG BA PB SE
LCS-201061	1	30-Sep-2023 15:39	143SMPL.d_7577485	AG BA PB SE
ZZZZZZSD	5	30-Sep-2023 15:41	144SMPL.d_7577486	AG BA PB SE
ZZZZZZMS	1	30-Sep-2023 15:48	146SMPL.d_7577488	AG BA PB SE
ZZZZZZMSD	1	30-Sep-2023 15:50	147SMPL.d_7577489	AG BA PB SE
ZZZZZZPDS	1	30-Sep-2023 15:52	148SMPL.d_7577490	AG BA PB SE
CCV 2	1	30-Sep-2023 15:57	150_CCV.d_7577492	AG BA PB SE
CCB 2	1	30-Sep-2023 15:59	151_CCB.d_7577493	AG BA PB SE
CCV 3	1	30-Sep-2023 16:31	162_CCV.d_7577507	AG BA PB SE
CCB 3	1	30-Sep-2023 16:33	163_CCB.d_7577508	AG BA PB SE
MBLK-201061	1	30-Sep-2023 16:35	164SMPL.d_7577515	AG BA PB SE
ZZZZZZSD	100	30-Sep-2023 16:40	166SMPL.d_7577517	
ZZZZZZPDS	20	30-Sep-2023 16:42	167SMPL.d_7577518	
LH18/24-SP650_091223	1	30-Sep-2023 16:46	169SMPL.d_7577520	AG BA PB SE
CCV 4	1	30-Sep-2023 17:02	174_CCV.d_7577513	AG BA PB SE
CCB 4	1	30-Sep-2023 17:04	175_CCB.d_7577514	AG BA PB SE



FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714
Start Date: 02-Oct-2023 End Date: 02-Oct-2023

Run ID: ICPMS07_447882
Instrument: ICPMS07
Method: SW6020A

Sample No.	D/F	Time	FileID	Analytes
LCS-201061	1	02-Oct-2023 11:32	038SMPL.d_7578651	
LCS-201061	1	02-Oct-2023 11:36	040SMPL.d_7578652	

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

Run ID: ICPMS07_447812
Instrument: ICPMS07
Method: SW6020A

ICV		Date: 30-Sep-2023 10:44		Seq: 7576816		ICV	Units: ug/L
Analyte	True	Found	%R	Control Limits	Flag		
Barium	100	104.862	105	90-110			
Lead	100	100.16	100	90-110			
Selenium	100	106.754	107	90-110			
Silver	100	107.378	107	90-110			
CCV1		Date: 30-Sep-2023 15:28		Seq: 7577477		CCV	Units: ug/L
Analyte	True	Found	%R	Control Limits	Flag		
Barium	100	97.354	97	90-110			
Lead	100	95.911	96	90-110			
Selenium	100	98.871	99	90-110			
Silver	100	100.186	100	90-110			
CCV2		Date: 30-Sep-2023 15:57		Seq: 7577492		CCV	Units: ug/L
Analyte	True	Found	%R	Control Limits	Flag		
Barium	100	97.539	98	90-110			
Lead	100	95.678	96	90-110			
Selenium	100	96.06	96	90-110			
Silver	100	97.427	97	90-110			
CCV3		Date: 30-Sep-2023 16:31		Seq: 7577507		CCV	Units: ug/L
Analyte	True	Found	%R	Control Limits	Flag		
Barium	100	100.346	100	90-110			
Lead	100	96.345	96	90-110			
Selenium	100	101.154	101	90-110			
Silver	100	98.926	99	90-110			
CCV4		Date: 30-Sep-2023 17:02		Seq: 7577513		CCV	Units: ug/L
Analyte	True	Found	%R	Control Limits	Flag		
Barium	100	95.363	95	90-110			
Lead	100	90.997	91	90-110			
Selenium	100	92.259	92	90-110			
Silver	100	90.638	91	90-110			

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

Run ID: ICPMS07_447812
Instrument: ICPMS07
Method: SW6020A

ICB	Date: 30-Sep-2023 10:56	Seq: 7576821	ICB	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Barium	5	1.9	5	U
Lead	5	0.6	5	U
Selenium	5	1.1	5	U
Silver	5	0.2	5	U

CCB1	Date: 30-Sep-2023 15:30	Seq: 7577478	CCB	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Barium	4	1.9	4	U
Lead	2	0.6	2	U
Selenium	2	1.1	2	U
Silver	2	0.2	2	U

CCB2	Date: 30-Sep-2023 15:59	Seq: 7577493	CCB	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Barium	4	1.9	4	U
Lead	2	0.6	2	U
Selenium	2	1.1	2	U
Silver	2	0.2	2	U

CCB3	Date: 30-Sep-2023 16:33	Seq: 7577508	CCB	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Barium	4	1.9	4	U
Lead	2	0.6	2	U
Selenium	2	1.1	2	U
Silver	2	0.2	2	U

MBLK-201061	Date: 30-Sep-2023 16:35	Seq: 7577515	MBLK	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Barium	5	1.9	5	U
Lead	5	0.6	5	U
Selenium	5	1.1	5	U
Silver	5	0.2	5	U

CCB4	Date: 30-Sep-2023 17:04	Seq: 7577514	CCB	Units: ug/L
Analyte	Result	MDL	Report Limit	Qual
Barium	4	1.9	4	U
Lead	2	0.6	2	U
Selenium	2	1.1	2	U
Silver	2	0.2	2	U

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

Run ID: ICPMS07_447812
Instrument: ICPMS07
Method: SW6020A

ICSA	Date: 30-Sep-2023 10:58	Seq: 7576822	ICSA	Units: ug/L
Analyte	True	Found	%R	
Barium		0.601	0	
Lead		0.093	0	
Selenium		0.48	0	
Silver		0.152	0	

ICSAB	Date: 30-Sep-2023 11:00	Seq: 7576823	ICSAB	Units: ug/L
Analyte	True	Found	%R	
Barium	100	105.2	105	
Lead	100	101.9	102	
Selenium	100	104.3	104	
Silver	100	95.95	95.9	

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

Date Analyzed: 30-Sep-2023 15:50
Date Extracted: 27-Sep-2023 12:00
Units: ug/L

Matrix Spike: HS23090958-01MS					Analysis Method: SW6020A				
Client Sample ID:									
Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD RPD Limit
Barium	20.64	72.27	50.00	103	71.53	50.00	102	86-114	1.03 20
Lead	5.000	45.56	50.00	91.4	45.63	50.00	91.6	88-115	0.154 20
Selenium	6.519	59.27	50.00	106	58.19	50.00	103	80-120	1.85 20
Silver	5.000	46.20	50.00	92.4	45.91	50.00	91.8	85-116	0.617 20

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

Date Analyzed: 30-Sep-2023 15:52
Date Extracted: 27-Sep-2023 12:00
Units: ug/L

Lab Sample ID: HS23090958-01PDS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Barium	20.64	121.6	100	101	80-120
Lead	0	95.36	100	96	80-120
Selenium	6.519	106.4	100	100	80-120
Silver	0	96.88	100	97	80-120

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

Date Analyzed: 30-Sep-2023 15:39
Date Extracted: 27-Sep-2023 12:00
Units: ug/L

Lab Sample ID: LCS-201061

Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Barium	50	49.05	98	86-114
Lead	50	45.7	91	88-115
Selenium	50	51.7	103	80-120
Silver	50	46.74	94	85-116

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23090714

Date Analyzed: 30-Sep-2023 15:41
Date Extracted: 27-Sep-2023 12:00
Units: ug/L

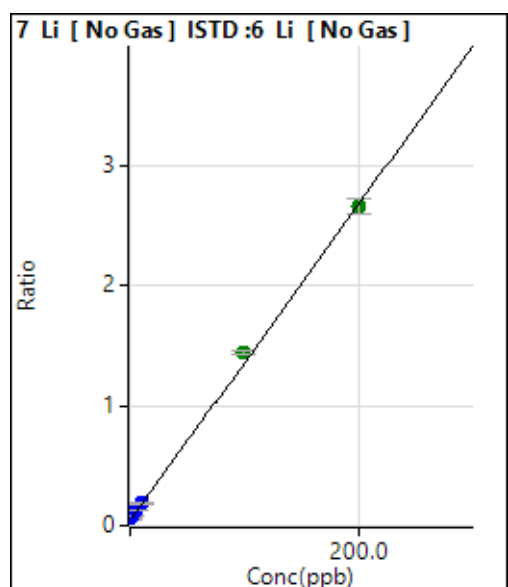
Lab Sample ID: HS23090958-01SD
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	C	SD Result	C	RPD	Q
Barium	20.64		21.13	J	2	
Lead	0	U	0	U	0	
Selenium	6.519		0	U	0	
Silver	0	U	0	U	0	

Batch Folder: C:\Agilent\ICPMH\1\DATA\093023.b\
Analysis File: 093023.batch.bin
DA Date-Time: 9/30/2023 12:56:59 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	017CALB.d	CAL BLK	9/30/2023 10:24:03 AM
2	013CALS.d	2/10/200	9/30/2023 10:15:00 AM
3	014CALS.d	5/25/500	9/30/2023 10:17:16 AM
4	020CALS.d	10/50/100	9/30/2023 10:30:53 AM
5	021CALS.d	100/500/10K	9/30/2023 10:33:09 AM
6	022CALS.d	200/1000/20K	9/30/2023 10:35:21 AM



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	38688.09	0.0565	P	1.9	
2	☐	2.000	2.005	56104.91	0.0829	P	0.9	0.2
3	☐	5.000	5.309	82991.47	0.1265	P	3.3	6.2
4	☐	10.000	9.818	123895.91	0.1860	P	3.5	-1.8
5	☐	100.000	104.756	934523.97	1.4383	A	2.2	4.8
6	☐	200.000	197.623	1724677.47	2.6634	A	4.7	-1.2

$$y = 0.0132 * x + 0.0565$$

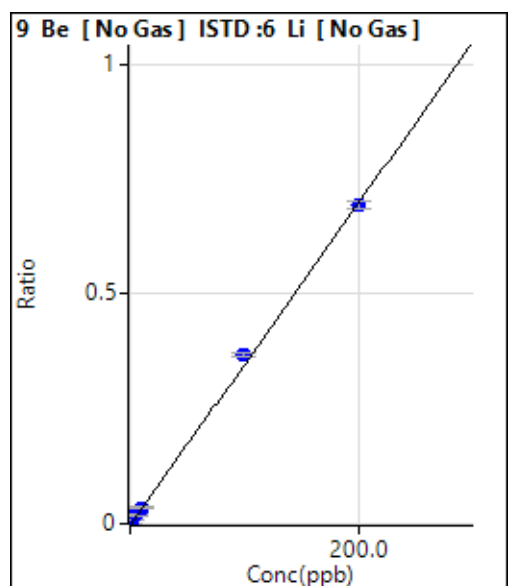
$$R = 0.9996$$

$$DL = 0.2406 \text{ ppb}$$

$$BEC = 4.28 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21.67	0.0000	P	53.1	
2	☐	2.000	2.005	4779.19	0.0071	P	5.3	0.2
3	☐	5.000	5.437	12532.33	0.0191	P	6.2	8.7
4	☐	10.000	10.032	23469.65	0.0352	P	3.5	0.3
5	☐	100.000	104.515	238227.50	0.3667	P	1.9	4.5
6	☐	200.000	197.730	449063.01	0.6937	P	3.0	-1.1

$$y = 0.0035 * x + 3.1597E-005$$

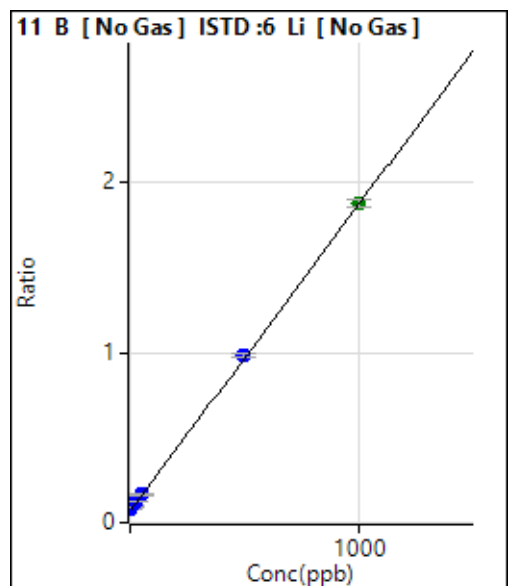
$$R = 0.9996$$

$$DL = 0.01435 \text{ ppb}$$

$$BEC = 0.009007 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	53021.44	0.0774	P	1.1	
2	☐	10.000	10.745	65490.15	0.0968	P	1.0	7.5
3	☐	25.000	27.647	83520.28	0.1273	P	2.9	10.6
4	☐	50.000	48.617	110014.01	0.1652	P	1.4	-2.8
5	☐	500.000	502.375	639582.78	0.9845	P	1.8	0.5
6	☐	1000.000	998.808	1217848.94	1.8810	A	2.2	-0.1

$$y = 0.0018 * x + 0.0774$$

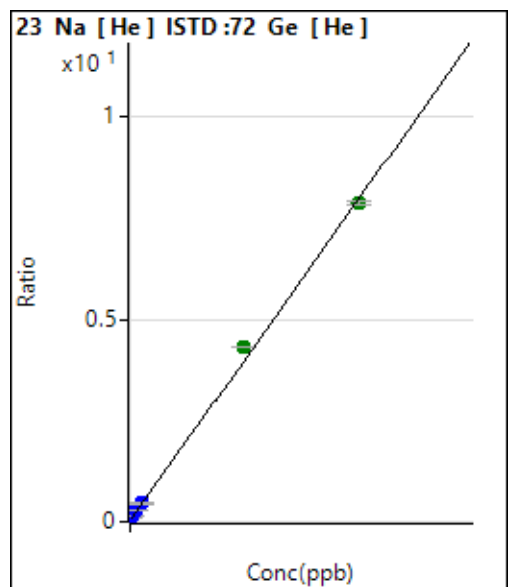
$$R = 1.0000$$

$$DL = 1.459 \text{ ppb}$$

$$BEC = 42.84 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	99311.68	0.0734	P	0.4	
2	☐	200.000	214.541	212989.95	0.1586	P	0.7	7.3
3	☐	500.000	532.851	384987.72	0.2849	P	1.8	6.6
4	☐	1000.000	966.708	611714.69	0.4571	P	2.9	-3.3
5	☐	10000.00	10686.85	5783186.58	4.3144	A	0.5	6.9
6	☐	20000.00	19657.27	10476235.0	7.8742	A	1.4	-1.7

$$y = 3.9684E-004 * x + 0.0734$$

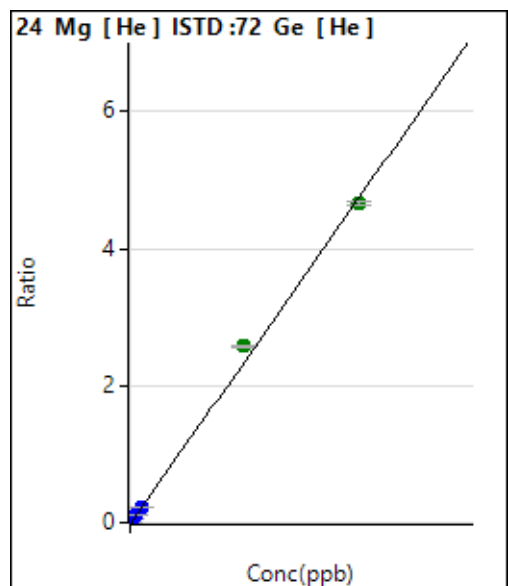
$$R = 0.9992$$

$$DL = 2.314 \text{ ppb}$$

$$BEC = 185.1 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	263.34	0.0002	P	19.0	
2	☐	200.000	203.002	65192.24	0.0485	P	2.2	1.5
3	☐	500.000	518.391	167075.77	0.1236	P	2.1	3.7
4	☐	1000.000	945.720	301657.89	0.2254	P	4.1	-5.4
5	☐	10000.00	10830.56	3457156.93	2.5793	A	1.1	8.3
6	☐	20000.00	19586.94	6205667.20	4.6644	A	1.0	-2.1

$$y = 2.3813E-004 * x + 1.9460E-004$$

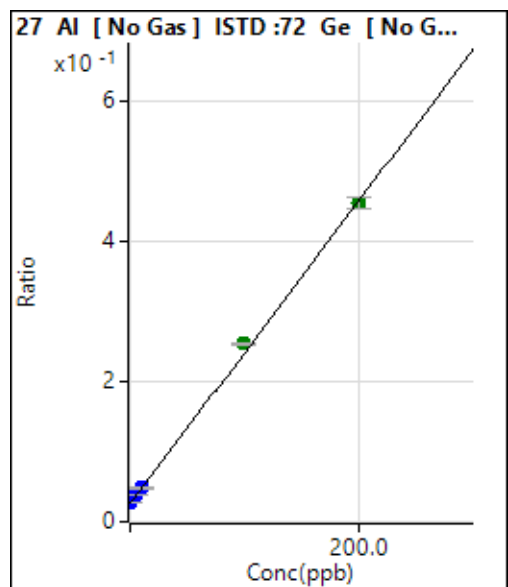
$$R = 0.9987$$

$$DL = 0.4649 \text{ ppb}$$

$$BEC = 0.8172 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	136819.12	0.0278	P	1.1	
2	☐	2.000	5.134	190010.16	0.0389	P	1.6	156.7
3	☐	5.000	4.910	186021.97	0.0384	P	1.2	-1.8
4	☐	10.000	9.400	235859.03	0.0481	P	3.0	-6.0
5	☐	100.000	104.664	1228793.89	0.2536	A	1.8	4.7
6	☐	200.000	197.669	2166779.45	0.4542	A	3.3	-1.2

$$y = 0.0022 * x + 0.0278$$

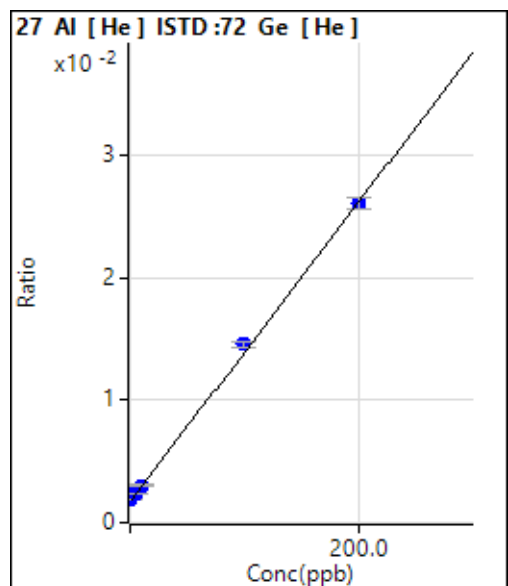
$$R = 0.9995$$

$$DL = 0.4074 \text{ ppb}$$

$$BEC = 12.89 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2493.60	0.0018	P	2.6	
2	☐	2.000	5.149	3323.79	0.0025	P	4.3	157.5
3	☐	5.000	4.321	3207.11	0.0024	P	4.6	-13.6
4	☐	10.000	9.488	4024.00	0.0030	P	4.2	-5.1
5	☐	100.000	103.809	19524.06	0.0146	P	3.8	3.8
6	☐	200.000	198.106	34733.86	0.0261	P	4.1	-0.9

$$y = 1.2250E-004 * x + 0.0018$$

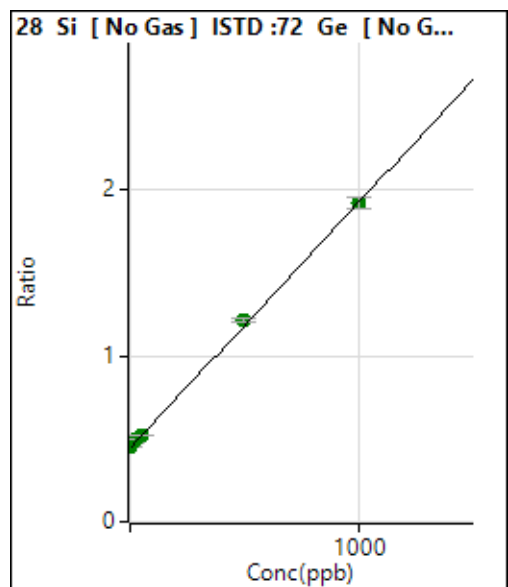
$$R = 0.9996$$

$$DL = 1.168 \text{ ppb}$$

$$BEC = 15.05 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2238097.47	0.4548	A	0.8	
2	☐	10.000	16.313	2340868.56	0.4790	A	0.6	63.1
3	☐	25.000	31.189	2426864.76	0.5010	A	0.6	24.8
4	☐	50.000	45.393	2560766.89	0.5220	A	1.4	-9.2
5	☐	500.000	516.401	5904729.08	1.2185	A	1.5	3.3
6	☐	1000.000	991.812	9166798.20	1.9216	A	3.2	-0.8

$$y = 0.0015 * x + 0.4548$$

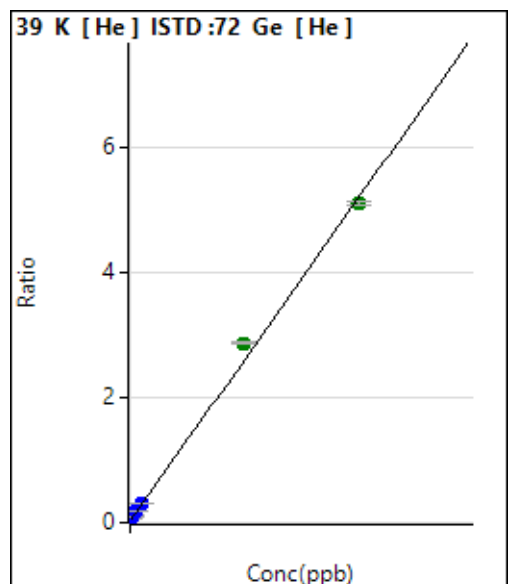
$$R = 0.9998$$

$$DL = 7.002 \text{ ppb}$$

$$BEC = 307.6 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	69980.45	0.0517	P	1.3	
2	☐	200.000	213.397	143533.07	0.1069	P	1.5	6.7
3	☐	500.000	529.117	254598.88	0.1884	P	1.4	5.8
4	☐	1000.000	958.391	400542.79	0.2993	P	3.5	-4.2
5	☐	10000.00	10900.36	3843652.55	2.8671	A	1.6	9.0
6	☐	20000.00	19551.03	6787013.44	5.1014	A	1.1	-2.2

$$y = 2.5828E-004 * x + 0.0517$$

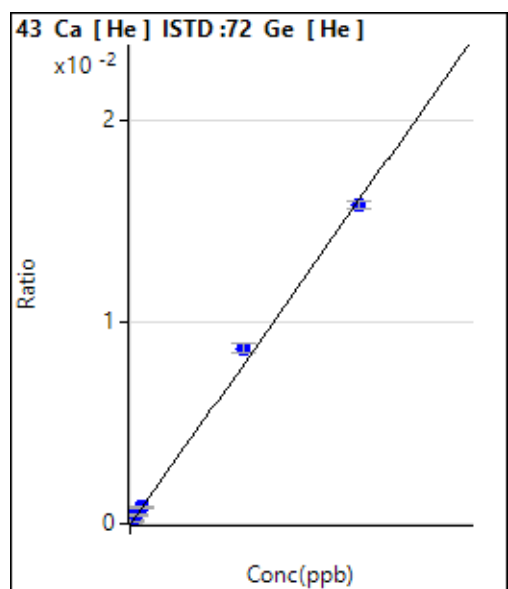
$$R = 0.9985$$

$$DL = 7.808 \text{ ppb}$$

$$BEC = 200.4 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	36.67	0.0000	P	16.1	
2	☐	200.000	163.588	213.34	0.0002	P	23.5	-18.2
3	☐	500.000	514.530	596.69	0.0004	P	14.9	2.9
4	☐	1000.000	998.783	1113.40	0.0008	P	5.8	-0.1
5	☐	10000.00	10750.83	11641.82	0.0087	P	5.5	7.5
6	☐	20000.00	19624.64	21079.72	0.0158	P	2.9	-1.9

$$y = 8.0568E-007 * x + 2.7126E-005$$

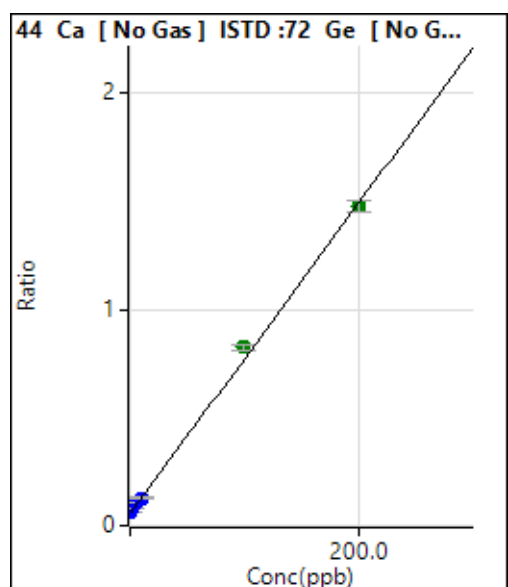
$$R = 0.9990$$

$$DL = 16.26 \text{ ppb}$$

$$BEC = 33.67 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	309320.64	0.0629	P	0.6	
2	☐	2.000	2.852	407426.60	0.0834	P	1.7	42.6
3	☐	5.000	5.964	512261.35	0.1057	P	0.4	19.3
4	☐	10.000	9.189	632466.54	0.1289	P	3.2	-8.1
5	☐	100.000	106.168	4003047.96	0.8261	A	2.9	6.2
6	☐	200.000	196.924	7053709.48	1.4786	A	3.9	-1.5

$$y = 0.0072 * x + 0.0629$$

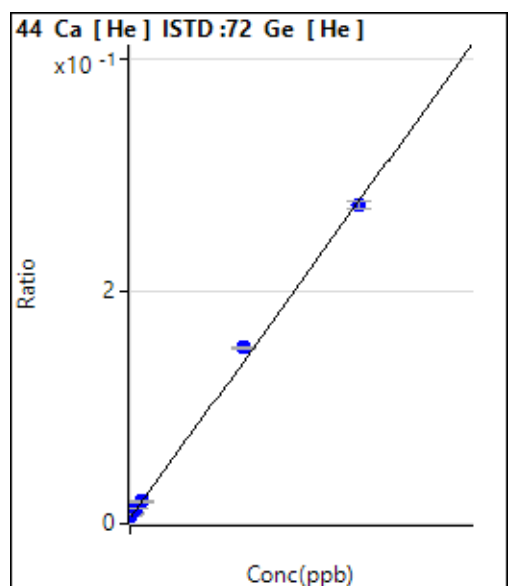
$$R = 0.9993$$

$$DL = 0.1471 \text{ ppb}$$

$$BEC = 8.744 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	8409.39	0.0062	P	3.8	
2	☐	200.000	211.435	12222.31	0.0091	P	4.8	5.7
3	☐	500.000	527.160	18112.18	0.0134	P	3.9	5.4
4	☐	1000.000	951.403	25677.57	0.0192	P	4.7	-4.9
5	☐	10000.00	10654.64	203018.91	0.1515	P	1.4	6.5
6	☐	20000.00	19674.31	365039.79	0.2744	P	1.9	-1.6

$$y = 1.3631E-005 * x + 0.0062$$

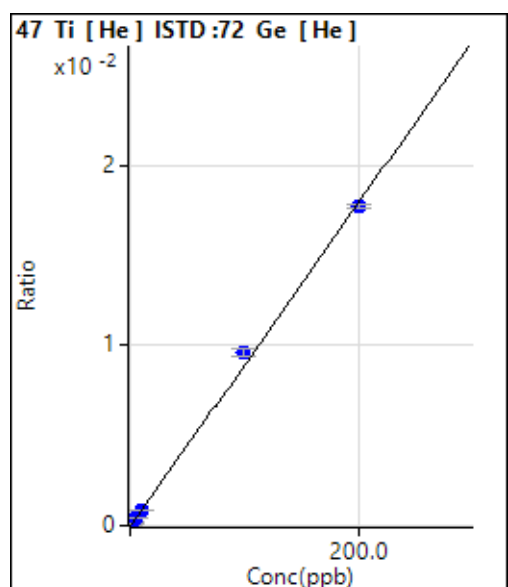
$$R = 0.9992$$

$$DL = 51.45 \text{ ppb}$$

$$BEC = 456.2 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	36.67	0.0000	P	109.8	
2	☐	2.000	1.630	233.34	0.0002	P	28.8	-18.5
3	☐	5.000	4.521	586.69	0.0004	P	5.8	-9.6
4	☐	10.000	9.162	1140.07	0.0009	P	11.7	-8.4
5	☐	100.000	106.636	12909.63	0.0096	P	4.8	6.6
6	☐	200.000	196.740	23600.60	0.0177	P	1.8	-1.6

$$y = 9.0034E-005 * x + 2.7098E-005$$

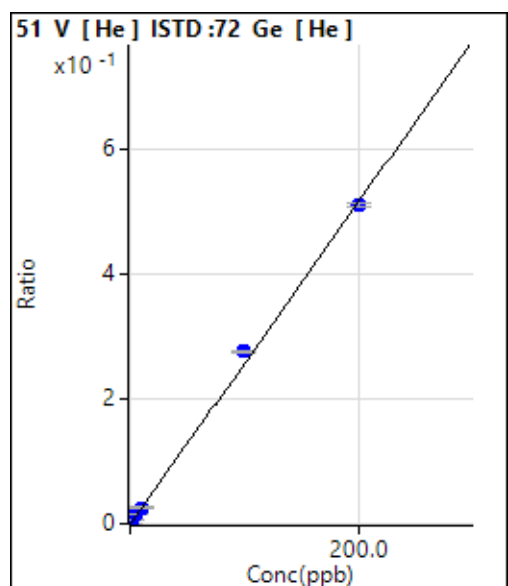
$$R = 0.9992$$

$$DL = 0.9911 \text{ ppb}$$

$$BEC = 0.301 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1775.68	0.0013	P	1.5	
2	☐	2.000	2.091	9033.02	0.0067	P	1.3	4.6
3	☐	5.000	5.217	20020.23	0.0148	P	2.3	4.3
4	☐	10.000	9.580	34938.84	0.0261	P	1.8	-4.2
5	☐	100.000	106.124	369910.46	0.2760	P	0.9	6.1
6	☐	200.000	196.953	679853.52	0.5110	P	1.0	-1.5

$$y = 0.0026 * x + 0.0013$$

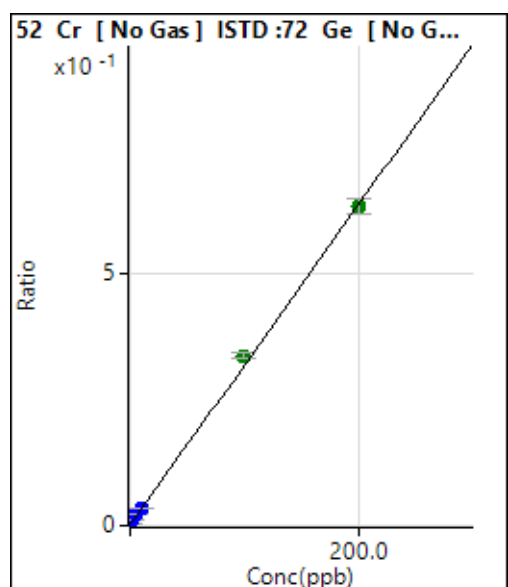
$$R = 0.9993$$

$$DL = 0.02301 \text{ ppb}$$

$$BEC = 0.5074 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21804.32	0.0044	P	2.6	
2	☐	2.000	2.138	54840.06	0.0112	P	2.7	6.9
3	☐	5.000	5.320	103325.25	0.0213	P	2.4	6.4
4	☐	10.000	9.673	172446.69	0.0352	P	4.7	-3.3
5	☐	100.000	104.467	1629374.92	0.3363	A	3.8	4.5
6	☐	200.000	197.774	3018150.58	0.6327	A	4.3	-1.1

$$y = 0.0032 * x + 0.0044$$

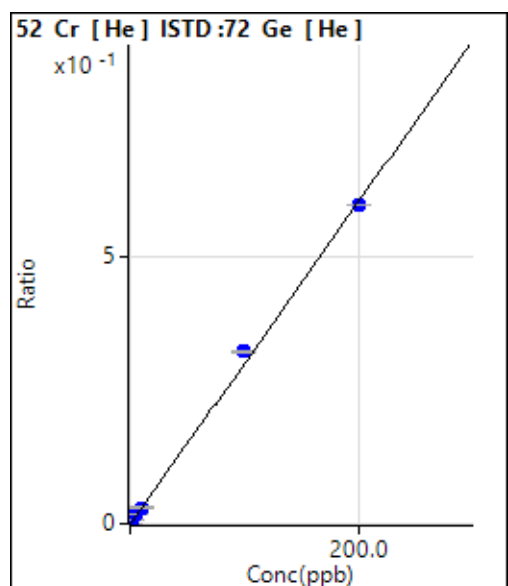
$$R = 0.9996$$

$$DL = 0.1083 \text{ ppb}$$

$$BEC = 1.395 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1960.18	0.0014	P	3.5	
2	☐	2.000	2.029	10217.31	0.0076	P	0.9	1.5
3	☐	5.000	5.379	24011.29	0.0178	P	1.6	7.6
4	☐	10.000	9.480	40433.62	0.0302	P	4.7	-5.2
5	☐	100.000	106.207	433873.43	0.3237	P	0.5	6.2
6	☐	200.000	196.912	796809.65	0.5989	P	0.1	-1.5

$$y = 0.0030 * x + 0.0014$$

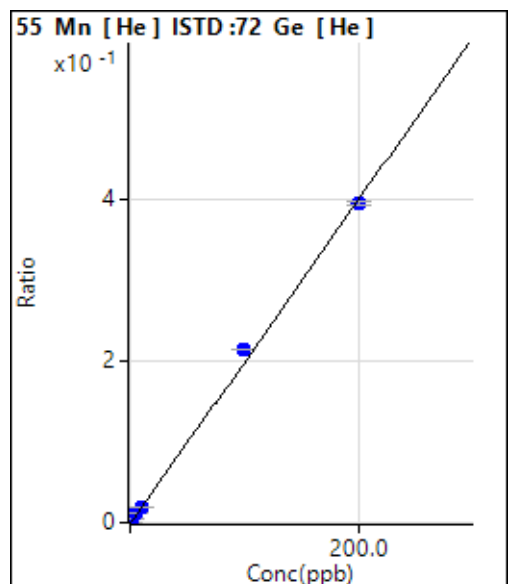
$$R = 0.9993$$

$$DL = 0.04959 \text{ ppb}$$

$$BEC = 0.4778 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	353.35	0.0003	P	26.3	
2	☐	2.000	2.188	6241.52	0.0046	P	5.3	9.4
3	☐	5.000	5.398	14971.74	0.0111	P	2.2	8.0
4	☐	10.000	9.577	26038.51	0.0195	P	4.5	-4.2
5	☐	100.000	106.657	286907.01	0.2140	P	0.5	6.7
6	☐	200.000	196.681	524898.22	0.3945	P	0.7	-1.7

$$y = 0.0020 * x + 2.6108E-004$$

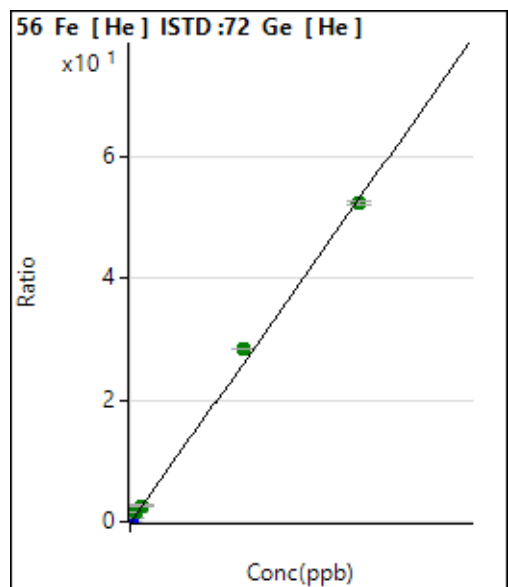
$$R = 0.9992$$

$$DL = 0.1027 \text{ ppb}$$

$$BEC = 0.1303 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	14177.58	0.0105	P	3.7	
2	☐	200.000	213.614	776430.43	0.5781	P	1.7	6.8
3	☐	500.000	553.707	2002297.00	1.4817	A	2.0	10.7
4	☐	1000.000	991.119	3538442.55	2.6439	A	4.4	-0.9
5	☐	10000.00	10643.61	37923346.9	28.290	A	0.6	6.4
6	☐	20000.00	19677.15	69575352.3	52.293	A	0.9	-1.6

$$y = 0.0027 * x + 0.0105$$

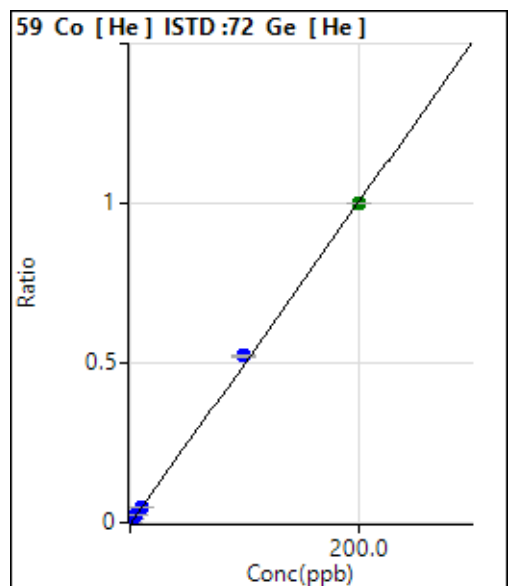
$$R = 0.9993$$

$$DL = 0.436 \text{ ppb}$$

$$BEC = 3.946 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	60.00	0.0000	P	44.9	
2	☐	2.000	2.014	13703.81	0.0102	P	4.3	0.7
3	☐	5.000	5.064	34577.77	0.0256	P	2.3	1.3
4	☐	10.000	9.336	63083.05	0.0471	P	5.5	-6.6
5	☐	100.000	103.444	699516.92	0.5218	P	0.6	3.4
6	☐	200.000	198.309	1330955.76	1.0003	A	0.5	-0.8

$$y = 0.0050 * x + 4.4464E-005$$

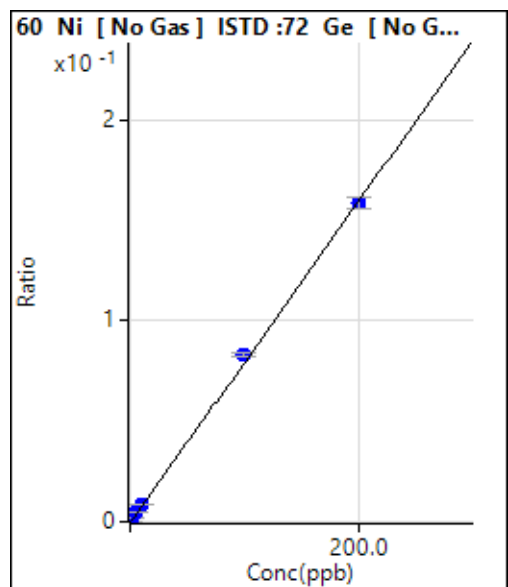
$$R = 0.9998$$

$$DL = 0.01187 \text{ ppb}$$

$$BEC = 0.008815 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	916.71	0.0002	P	11.3	
2	☐	2.000	2.159	9353.37	0.0019	P	2.5	8.0
3	☐	5.000	5.532	22342.04	0.0046	P	2.1	10.6
4	☐	10.000	10.257	41166.03	0.0084	P	5.0	2.6
5	☐	100.000	104.098	404466.75	0.0835	P	2.5	4.1
6	☐	200.000	197.923	756320.43	0.1585	P	3.9	-1.0

$$y = 8.0007E-004 * x + 1.8637E-004$$

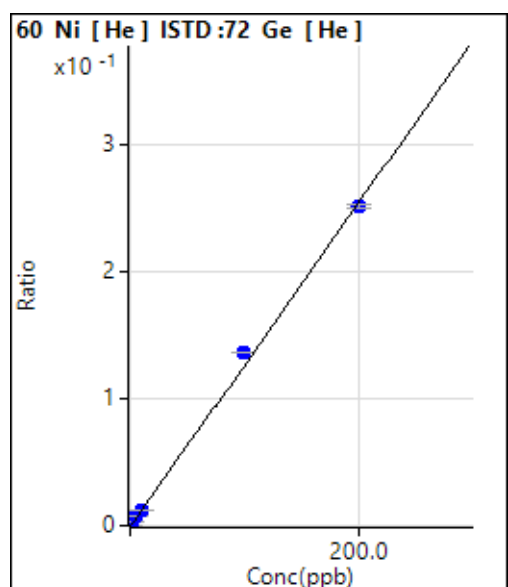
$$R = 0.9997$$

$$DL = 0.07869 \text{ ppb}$$

$$BEC = 0.2329 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	350.01	0.0003	P	3.0	
2	☐	2.000	2.175	4074.04	0.0030	P	3.4	8.7
3	☐	5.000	5.498	9827.04	0.0073	P	3.0	10.0
4	☐	10.000	9.643	16810.68	0.0126	P	3.3	-3.6
5	☐	100.000	106.415	182318.19	0.1360	P	0.4	6.4
6	☐	200.000	196.796	334326.06	0.2513	P	1.5	-1.6

$$y = 0.0013 * x + 2.5884E-004$$

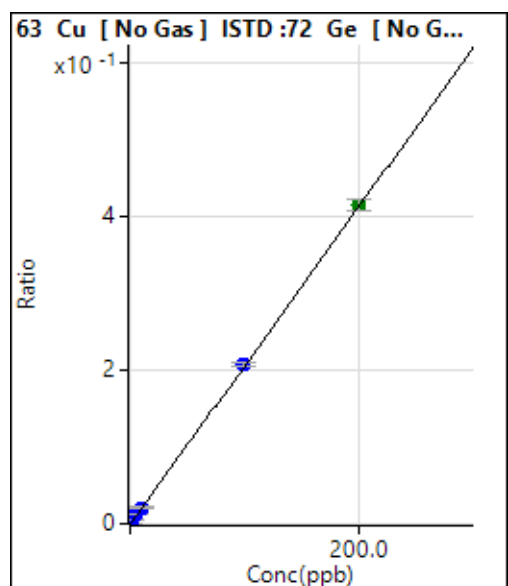
$$R = 0.9993$$

$$DL = 0.01799 \text{ ppb}$$

$$BEC = 0.2029 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	4530.84	0.0009	P	5.8	
2	☐	2.000	2.164	26345.83	0.0054	P	3.3	8.2
3	☐	5.000	5.284	57351.03	0.0118	P	2.6	5.7
4	☐	10.000	9.673	102555.82	0.0209	P	4.9	-3.3
5	☐	100.000	99.562	1001347.38	0.2067	P	2.4	-0.4
6	☐	200.000	200.227	1978336.33	0.4147	A	3.1	0.1

$$y = 0.0021 * x + 9.2061E-004$$

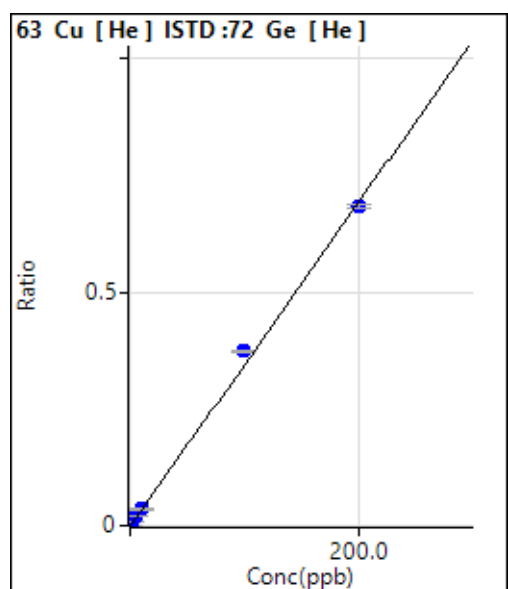
$$R = 1.0000$$

$$DL = 0.07686 \text{ ppb}$$

$$BEC = 0.4455 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2486.94	0.0018	P	2.5	
2	☐	2.000	2.317	13263.32	0.0099	P	2.2	15.9
3	☐	5.000	5.389	27745.48	0.0205	P	6.3	7.8
4	☐	10.000	9.717	47566.82	0.0355	P	4.0	-2.8
5	☐	100.000	106.958	499731.20	0.3728	P	0.7	7.0
6	☐	200.000	196.522	909285.25	0.6834	P	1.0	-1.7

$$y = 0.0035 * x + 0.0018$$

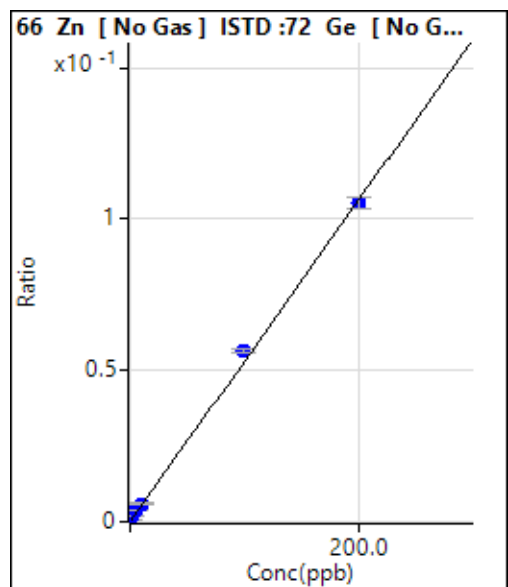
$$R = 0.9991$$

$$DL = 0.04056 \text{ ppb}$$

$$BEC = 0.5302 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2626.97	0.0005	P	3.9	
2	☐	2.000	2.638	9460.18	0.0019	P	6.0	31.9
3	☐	5.000	6.067	18215.79	0.0038	P	3.0	21.3
4	☐	10.000	10.166	29125.00	0.0059	P	5.1	1.7
5	☐	100.000	105.643	274717.18	0.0567	P	2.5	5.6
6	☐	200.000	197.137	502493.18	0.1053	P	3.6	-1.4

$$y = 5.3161\text{E-}004 * x + 5.3389\text{E-}004$$

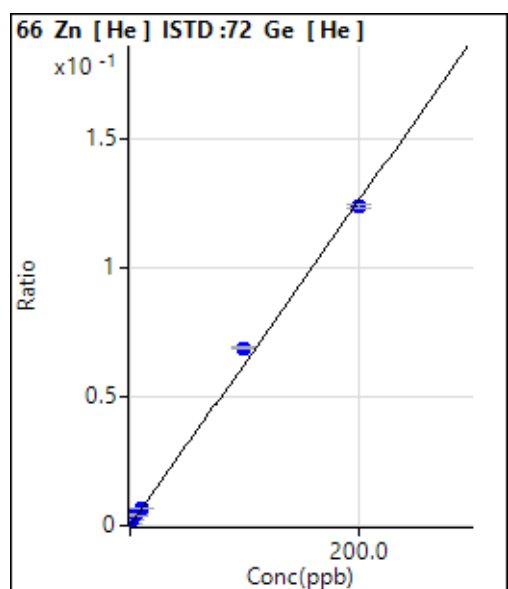
$$R = 0.9995$$

$$DL = 0.1178 \text{ ppb}$$

$$BEC = 1.004 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	820.04	0.0006	P	20.1	
2	☐	2.000	2.576	2990.38	0.0022	P	10.6	28.8
3	☐	5.000	5.578	5557.89	0.0041	P	3.3	11.6
4	☐	10.000	9.631	8913.08	0.0067	P	5.6	-3.7
5	☐	100.000	108.585	92312.82	0.0689	P	1.8	8.6
6	☐	200.000	195.706	164464.43	0.1236	P	1.6	-2.1

$$y = 6.2854\text{E-}004 * x + 6.0682\text{E-}004$$

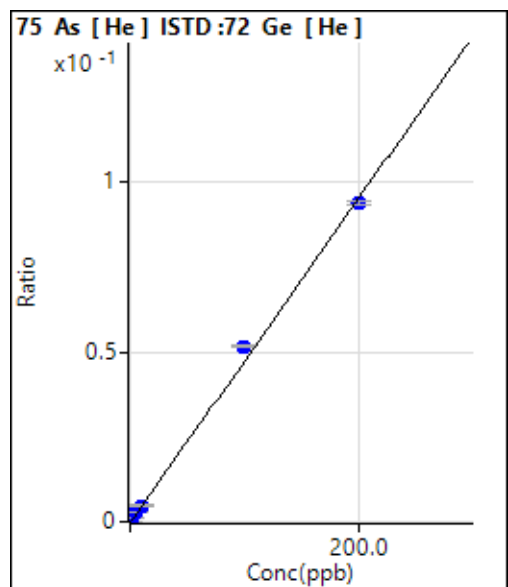
$$R = 0.9987$$

$$DL = 0.5828 \text{ ppb}$$

$$BEC = 0.9654 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	130.00	0.0001	P	28.8	
2	☐	2.000	2.127	1495.65	0.0011	P	1.0	6.4
3	☐	5.000	5.387	3611.62	0.0027	P	4.2	7.7
4	☐	10.000	9.839	6427.11	0.0048	P	2.9	-1.6
5	☐	100.000	107.713	69194.04	0.0516	P	1.0	7.7
6	☐	200.000	196.141	124940.29	0.0939	P	1.3	-1.9

$$y = 4.7831\text{E-}004 * x + 9.6080\text{E-}005$$

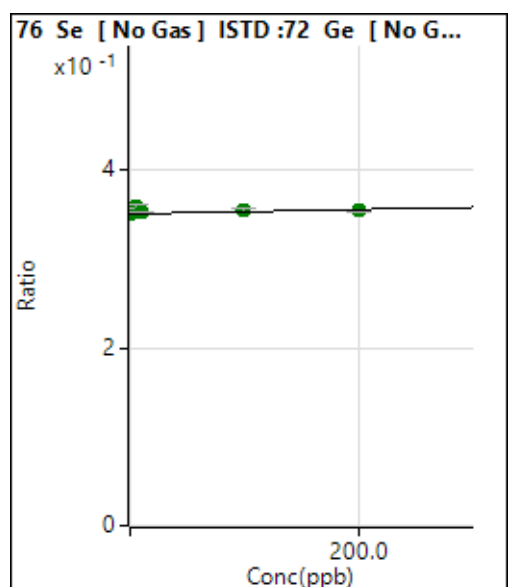
$$R = 0.9989$$

$$DL = 0.1733 \text{ ppb}$$

$$BEC = 0.2009 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1726357.89	0.3508	A	0.4	
2	☐	2.000	124.569	1729762.27	0.3539	A	1.0	6128.5
3	☐	5.000	341.342	1740538.05	0.3593	A	1.5	6726.8
4	☐	10.000	61.312	1728993.20	0.3524	A	0.7	513.1
5	☐	100.000	161.953	1719717.94	0.3549	A	1.3	62.0
6	☐	200.000	156.824	1692680.02	0.3547	A	0.5	-21.6

$$y = 2.4813E-005 * x + 0.3508$$

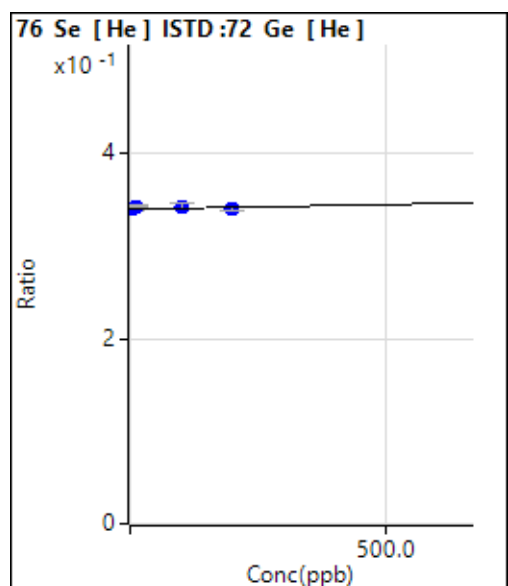
$$R = 0.1146$$

$$DL = 180.7 \text{ ppb}$$

$$BEC = 1.414E+04 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	459985.69	0.3402	P	0.7	
2	☐	2.000	-45.977	456241.39	0.3397	P	0.1	-2398.8
3	☐	5.000	-19.732	459385.50	0.3400	P	0.6	-494.6
4	☐	10.000	285.899	459247.28	0.3431	P	0.7	2759.0
5	☐	100.000	320.089	460355.64	0.3435	P	2.0	220.1
6	☐	200.000	77.259	453609.16	0.3410	P	1.3	-61.4

$$y = 1.0412E-005 * x + 0.3402$$

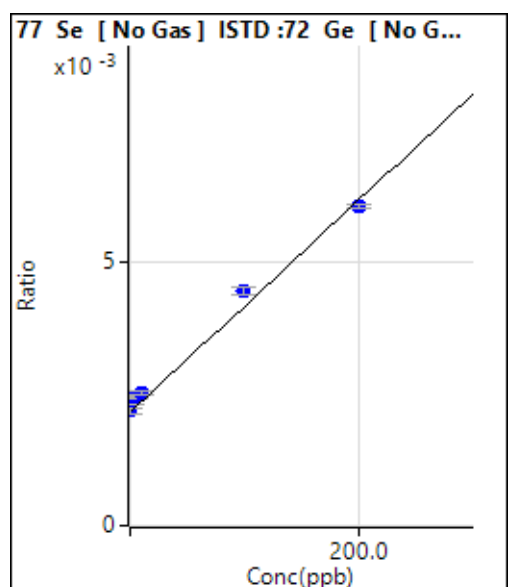
$$R = 0.2666$$

$$DL = 644.6 \text{ ppb}$$

$$BEC = 3.267E+04 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	10767.84	0.0022	P	5.5	
2	☐	2.000	8.786	11555.14	0.0024	P	4.5	339.3
3	☐	5.000	12.375	11805.35	0.0024	P	1.3	147.5
4	☐	10.000	17.079	12419.29	0.0025	P	3.2	70.8
5	☐	100.000	113.212	21647.75	0.0045	P	3.6	13.2
6	☐	200.000	192.788	28964.77	0.0061	P	1.7	-3.6

$$y = 2.0140E-005 * x + 0.0022$$

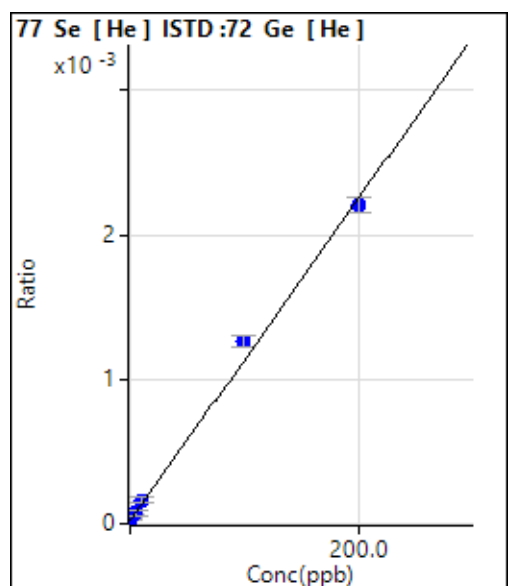
$$R = 0.9969$$

$$DL = 17.88 \text{ ppb}$$

$$BEC = 108.6 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	43.33	0.0000	P	57.7	
2	☐	2.000	2.246	76.67	0.0001	P	26.8	12.3
3	☐	5.000	3.989	103.33	0.0001	P	47.9	-20.2
4	☐	10.000	11.868	220.01	0.0002	P	27.5	18.7
5	☐	100.000	110.321	1693.48	0.0013	P	7.0	10.3
6	☐	200.000	194.769	2937.04	0.0022	P	4.6	-2.6

$$y = 1.1165E-005 * x + 3.1971E-005$$

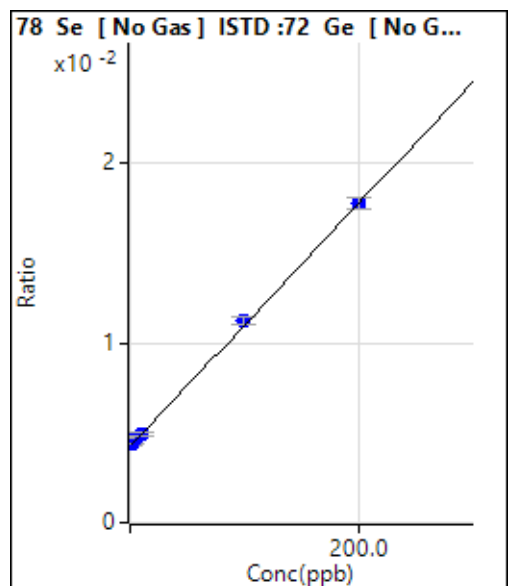
$$R = 0.9980$$

$$DL = 4.955 \text{ ppb}$$

$$BEC = 2.864 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21373.94	0.0043	P	2.5	
2	☐	2.000	0.503	21397.33	0.0044	P	1.1	-74.8
3	☐	5.000	5.678	22906.44	0.0047	P	0.6	13.6
4	☐	10.000	8.924	24275.45	0.0049	P	3.1	-10.8
5	☐	100.000	102.456	54647.58	0.0113	P	3.3	2.5
6	☐	200.000	198.824	84920.13	0.0178	P	3.5	-0.6

$$y = 6.7681E-005 * x + 0.0043$$

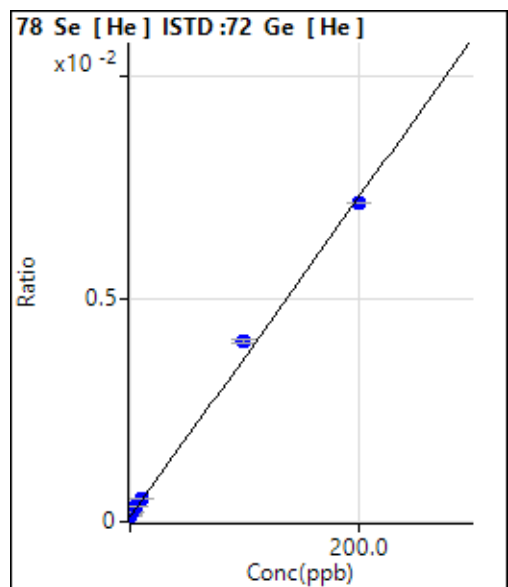
$$R = 0.9998$$

$$DL = 4.773 \text{ ppb}$$

$$BEC = 64.19 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	193.33	0.0001	P	11.3	
2	☐	2.000	2.258	300.67	0.0002	P	5.6	12.9
3	☐	5.000	5.679	468.01	0.0003	P	7.9	13.6
4	☐	10.000	10.266	683.35	0.0005	P	2.7	2.7
5	☐	100.000	108.982	5422.44	0.0040	P	2.1	9.0
6	☐	200.000	195.476	9502.03	0.0071	P	0.4	-2.3

$$y = 3.5802E-005 * x + 1.4302E-004$$

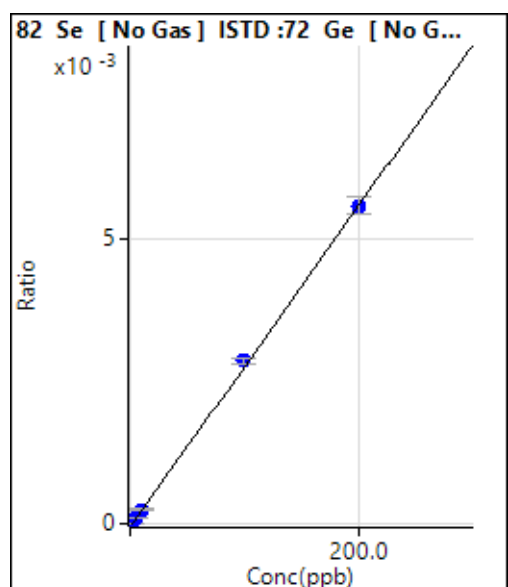
$$R = 0.9986$$

$$DL = 1.351 \text{ ppb}$$

$$BEC = 3.995 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	-111.20	0.0000	P	-169.	
2	☐	2.000	1.074	38.23	0.0000	P	76.1	-46.3
3	☐	5.000	5.060	582.51	0.0001	P	14.6	1.2
4	☐	10.000	10.013	1275.18	0.0003	P	13.4	0.1
5	☐	100.000	102.373	13870.11	0.0029	P	4.2	2.4
6	☐	200.000	198.820	26623.44	0.0056	P	5.2	-0.6

$$y = 2.8182E-005 * x - 2.2421E-005$$

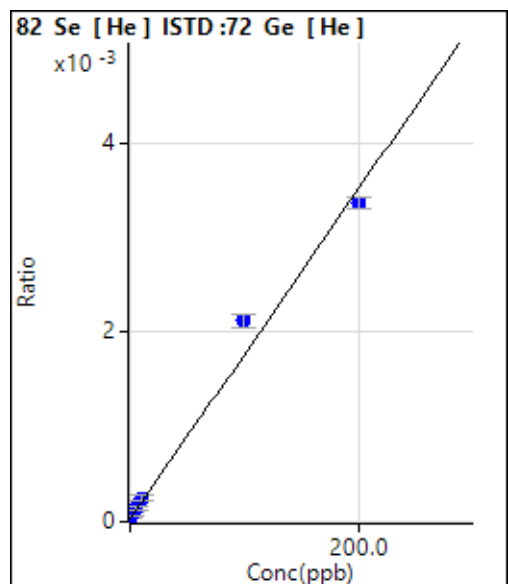
$$R = 0.9999$$

$$DL = 4.043 \text{ ppb}$$

$$BEC = -0.7956 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	60.00	0.0000	P	44.5	
2	☐	2.000	1.726	100.00	0.0001	P	56.0	-13.7
3	☐	5.000	6.080	203.34	0.0002	P	25.4	21.6
4	☐	10.000	11.874	336.68	0.0003	P	29.0	18.7
5	☐	100.000	119.128	2847.03	0.0021	P	7.1	19.1
6	☐	200.000	190.318	4477.49	0.0034	P	3.3	-4.8

$$y = 1.7446E-005 * x + 4.4431E-005$$

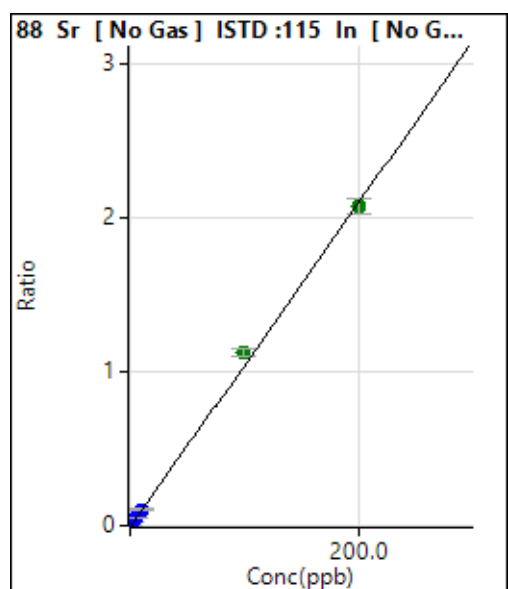
$$R = 0.9934$$

$$DL = 3.399 \text{ ppb}$$

$$BEC = 2.547 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1240.08	0.0006	P	5.6	
2	☐	2.000	2.031	44357.31	0.0220	P	5.2	1.6
3	☐	5.000	4.988	107530.89	0.0531	P	4.6	-0.2
4	☐	10.000	9.881	208793.90	0.1047	P	5.9	-1.2
5	☐	100.000	106.461	2209020.90	1.1217	A	4.9	6.5
6	☐	200.000	196.775	4087427.23	2.0728	A	4.5	-1.6

$$y = 0.0105 * x + 6.0762E-004$$

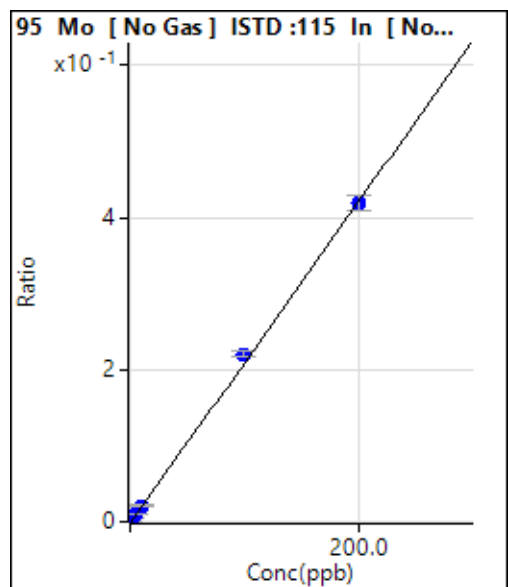
$$R = 0.9992$$

$$DL = 0.009643 \text{ ppb}$$

$$BEC = 0.0577 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	80.00	0.0000	P	12.8	
2	☐	2.000	1.985	8556.23	0.0042	P	1.5	-0.7
3	☐	5.000	5.017	21567.79	0.0107	P	6.4	0.3
4	☐	10.000	10.024	42404.32	0.0213	P	3.7	0.2
5	☐	100.000	104.006	433666.23	0.2202	P	3.8	4.0
6	☐	200.000	197.995	826305.48	0.4191	P	4.9	-1.0

$$y = 0.0021 * x + 3.9206E-005$$

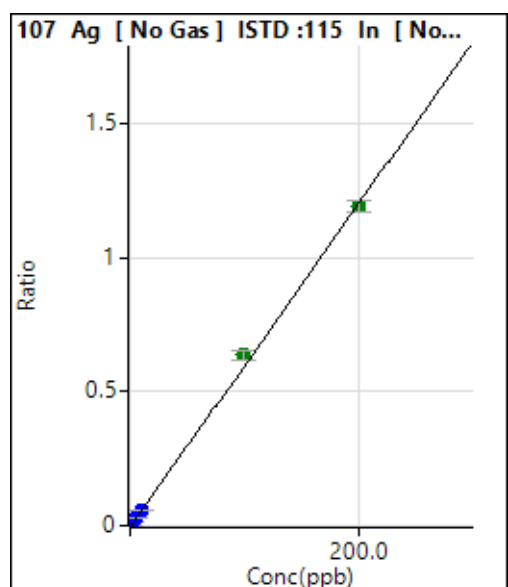
$$R = 0.9997$$

$$DL = 0.00712 \text{ ppb}$$

$$BEC = 0.01852 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	253.34	0.0001	P	16.6	
2	☐	2.000	1.937	23845.28	0.0118	P	3.5	-3.1
3	☐	5.000	4.850	59530.84	0.0294	P	4.1	-3.0
4	☐	10.000	9.665	116693.34	0.0585	P	5.7	-3.3
5	☐	100.000	105.312	1252609.96	0.6361	A	6.0	5.3
6	☐	200.000	197.365	2350700.69	1.1921	A	4.1	-1.3

$$y = 0.0060 * x + 1.2414E-004$$

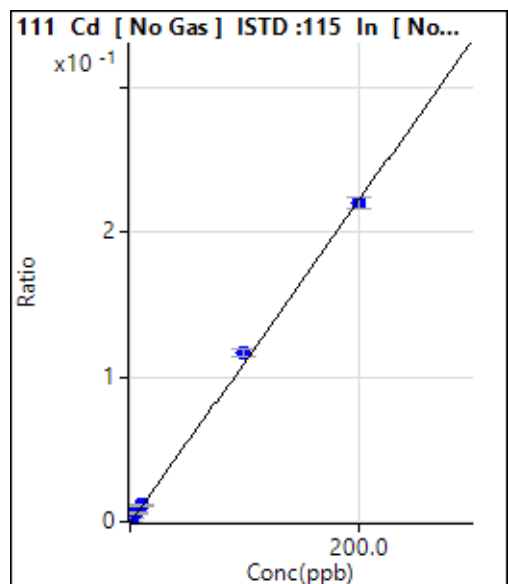
$$R = 0.9995$$

$$DL = 0.01022 \text{ ppb}$$

$$BEC = 0.02056 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	10.00	0.0000	P	173.2	
2	☐	2.000	2.110	4750.92	0.0024	P	7.9	5.5
3	☐	5.000	5.389	12169.16	0.0060	P	3.8	7.8
4	☐	10.000	10.240	22783.47	0.0114	P	6.7	2.4
5	☐	100.000	104.943	230417.52	0.1170	P	4.7	4.9
6	☐	200.000	197.506	434221.56	0.2202	P	3.9	-1.2

$$y = 0.0011 * x + 4.8983E-006$$

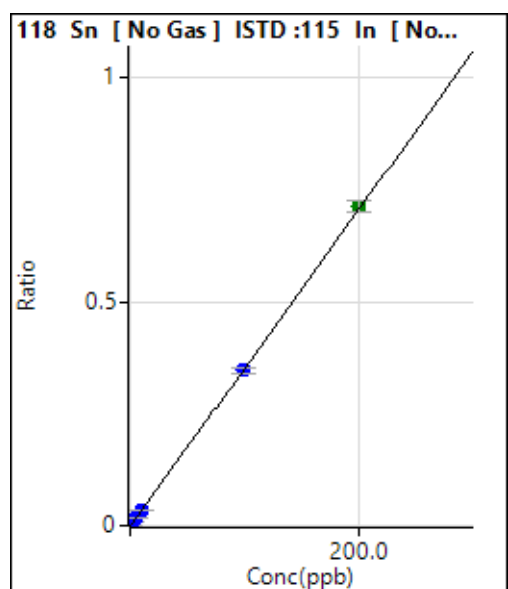
$$R = 0.9996$$

$$DL = 0.02283 \text{ ppb}$$

$$BEC = 0.004394 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2987.06	0.0015	P	5.1	
2	☐	2.000	1.956	16924.60	0.0084	P	2.2	-2.2
3	☐	5.000	4.831	37584.08	0.0186	P	3.4	-3.4
4	☐	10.000	9.427	69510.22	0.0348	P	4.6	-5.7
5	☐	100.000	97.660	684033.09	0.3472	P	3.4	-2.3
6	☐	200.000	201.203	1407667.27	0.7139	A	4.2	0.6

$$y = 0.0035 * x + 0.0015$$

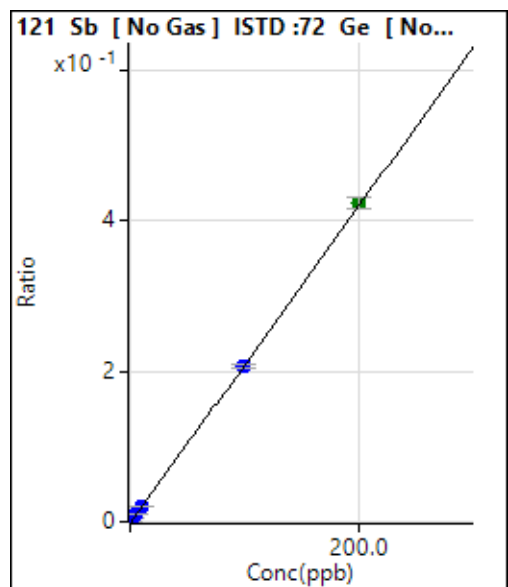
$$R = 0.9999$$

$$DL = 0.06384 \text{ ppb}$$

$$BEC = 0.4134 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	276.68	0.0001	P	10.9	
2	☐	2.000	1.916	20022.35	0.0041	P	0.5	-4.2
3	☐	5.000	5.171	53111.09	0.0110	P	1.9	3.4
4	☐	10.000	9.481	98377.74	0.0201	P	4.9	-5.2
5	☐	100.000	98.059	1002472.77	0.2069	P	2.0	-1.9
6	☐	200.000	200.993	2022671.74	0.4240	A	4.0	0.5

$$y = 0.0021 * x + 5.6247E-005$$

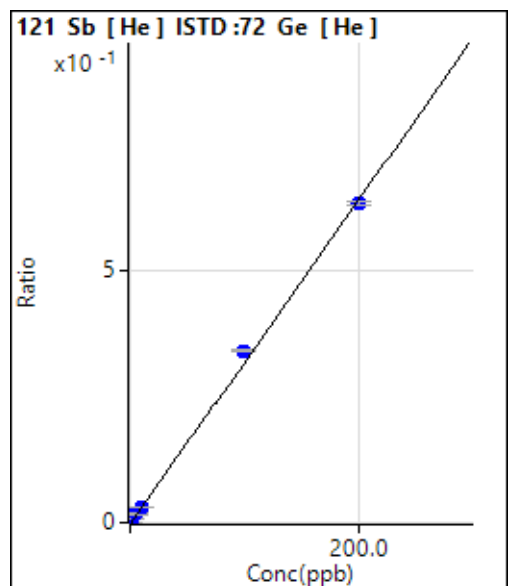
$$R = 0.9999$$

$$DL = 0.008709 \text{ ppb}$$

$$BEC = 0.02667 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	150.00	0.0001	P	47.0	
2	☐	2.000	1.995	8799.80	0.0066	P	2.2	-0.2
3	☐	5.000	5.357	23518.10	0.0174	P	4.5	7.1
4	☐	10.000	9.680	41967.46	0.0314	P	3.6	-3.2
5	☐	100.000	106.093	459251.65	0.3426	P	1.1	6.1
6	☐	200.000	196.961	846075.30	0.6359	P	0.6	-1.5

$$y = 0.0032 * x + 1.1109E-004$$

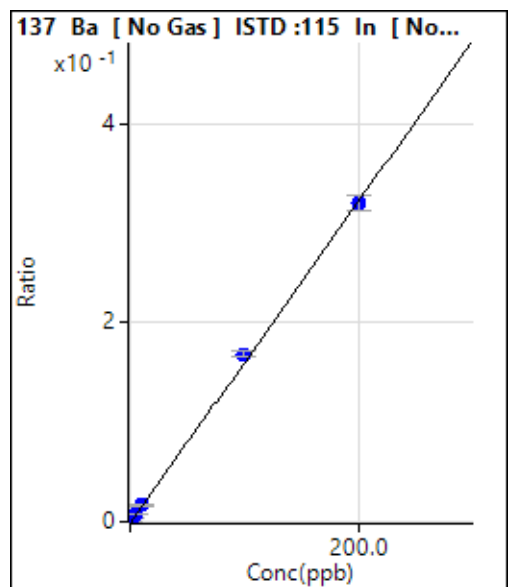
$$R = 0.9993$$

$$DL = 0.04854 \text{ ppb}$$

$$BEC = 0.03441 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	176.67	0.0001	P	20.3	
2	☐	2.000	2.033	6815.26	0.0034	P	3.2	1.7
3	☐	5.000	5.155	17068.14	0.0084	P	2.0	3.1
4	☐	10.000	10.147	32942.27	0.0165	P	6.8	1.5
5	☐	100.000	104.238	332554.14	0.1688	P	4.0	4.2
6	☐	200.000	197.870	631741.67	0.3204	P	5.0	-1.1

$$y = 0.0016 * x + 8.6595E-005$$

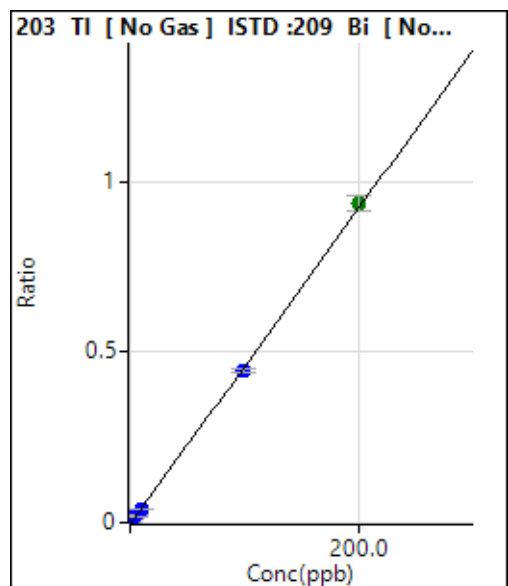
$$R = 0.9997$$

$$DL = 0.03254 \text{ ppb}$$

$$BEC = 0.05349 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	153.34	0.0001	P	26.3	
2	☐	2.000	1.950	18066.64	0.0091	P	0.7	-2.5
3	☐	5.000	4.271	39452.69	0.0199	P	3.4	-14.6
4	☐	10.000	8.498	78352.63	0.0395	P	4.6	-15.0
5	☐	100.000	96.085	854681.86	0.4457	P	3.5	-3.9
6	☐	200.000	202.051	1764339.50	0.9372	A	5.0	1.0

$$y = 0.0046 * x + 7.7807E-005$$

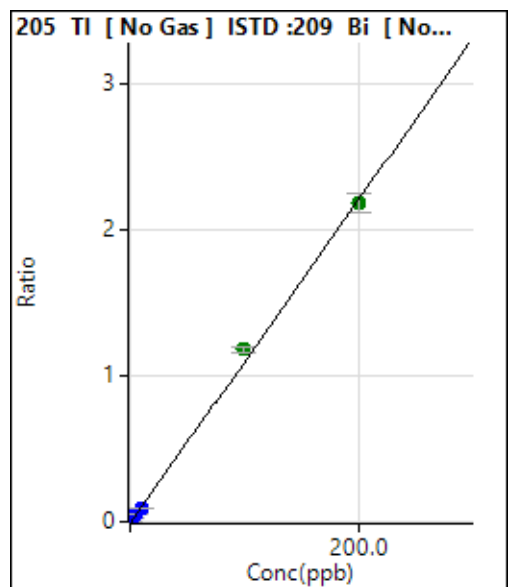
$$R = 0.9997$$

$$DL = 0.01325 \text{ ppb}$$

$$BEC = 0.01678 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	473.35	0.0002	P	10.5	
2	☐	2.000	2.010	44613.49	0.0225	P	1.5	0.5
3	☐	5.000	4.321	95518.50	0.0481	P	1.7	-13.6
4	☐	10.000	8.557	188655.93	0.0951	P	3.6	-14.4
5	☐	100.000	106.240	2258492.36	1.1778	A	2.9	6.2
6	☐	200.000	196.969	4110000.77	2.1834	A	5.9	-1.5

$$y = 0.0111 * x + 2.4070E-004$$

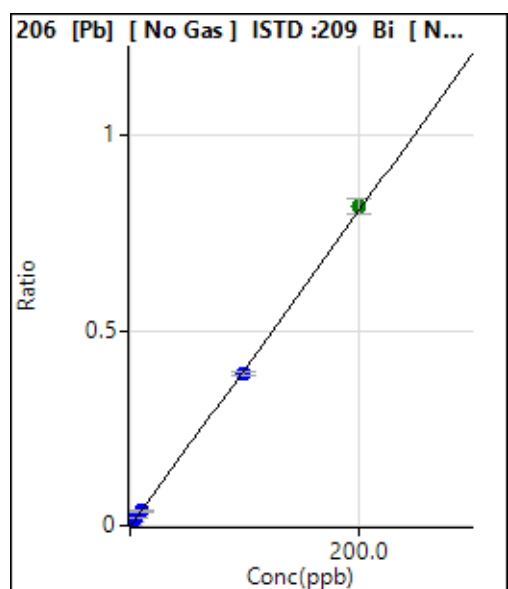
$$R = 0.9992$$

$$DL = 0.006847 \text{ ppb}$$

$$BEC = 0.02172 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2096.90	0.0011	P	4.7	
2	☐	2.000	1.992	18073.41	0.0091	P	3.1	-0.4
3	☐	5.000	4.916	41579.72	0.0210	P	2.4	-1.7
4	☐	10.000	9.015	74475.69	0.0375	P	4.6	-9.9
5	☐	100.000	95.896	746034.88	0.3891	P	3.1	-4.1
6	☐	200.000	202.103	1541515.61	0.8188	A	4.5	1.1

$$y = 0.0040 * x + 0.0011$$

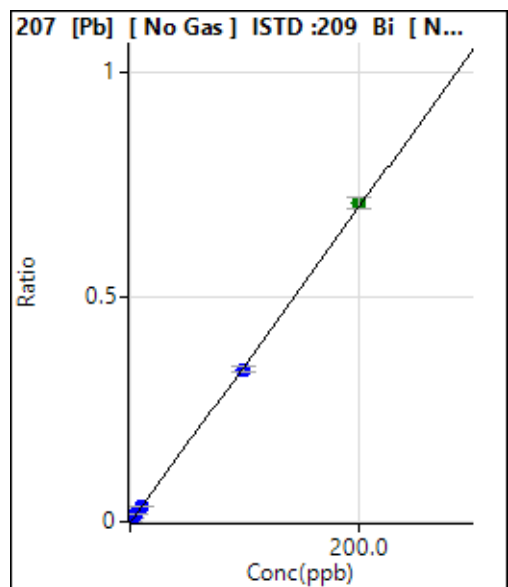
$$R = 0.9997$$

$$DL = 0.03739 \text{ ppb}$$

$$BEC = 0.2634 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1703.48	0.0009	P	7.6	
2	☐	2.000	1.991	15573.34	0.0079	P	3.9	-0.5
3	☐	5.000	4.966	36333.52	0.0183	P	4.3	-0.7
4	☐	10.000	9.164	65603.00	0.0331	P	2.7	-8.4
5	☐	100.000	96.406	651247.54	0.3396	P	3.1	-3.6
6	☐	200.000	201.840	1336827.69	0.7101	A	4.0	0.9

$$y = 0.0035 * x + 8.6544E-004$$

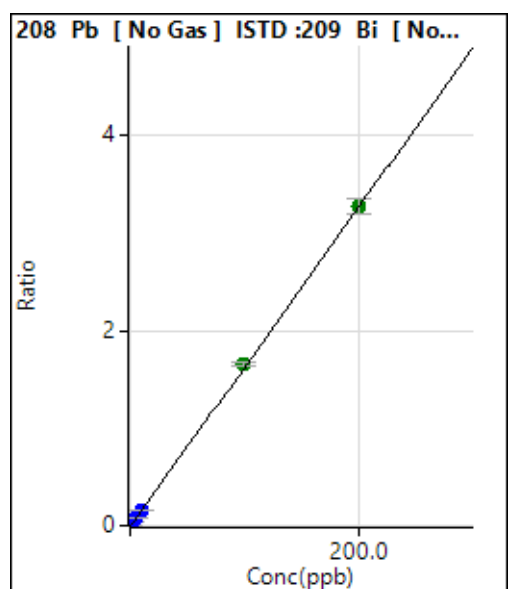
$$R = 0.9998$$

$$DL = 0.05598 \text{ ppb}$$

$$BEC = 0.2463 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	8371.31	0.0043	P	2.7	
2	☐	2.000	1.959	72016.29	0.0364	P	2.3	-2.1
3	☐	5.000	4.862	166531.17	0.0839	P	3.3	-2.8
4	☐	10.000	9.068	303283.51	0.1529	P	3.3	-9.3
5	☐	100.000	100.906	3179334.43	1.6581	A	3.4	0.9
6	☐	200.000	199.597	6166604.71	3.2756	A	4.7	-0.2

$$y = 0.0164 * x + 0.0043$$

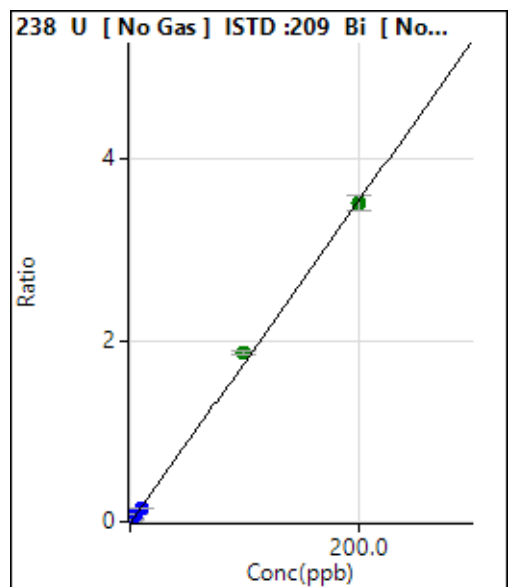
$$R = 1.0000$$

$$DL = 0.02087 \text{ ppb}$$

$$BEC = 0.2595 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	223.34	0.0001	P	14.0	
2	☐	2.000	1.794	63478.08	0.0320	P	2.3	-10.3
3	☐	5.000	4.507	159386.96	0.0803	P	2.5	-9.9
4	☐	10.000	8.713	307897.04	0.1552	P	3.2	-12.9
5	☐	100.000	104.574	3569780.47	1.8614	A	2.4	4.6
6	☐	200.000	197.792	6628278.86	3.5206	A	5.3	-1.1

$$y = 0.0178 * x + 1.1345E-004$$

$$R = 0.9996$$

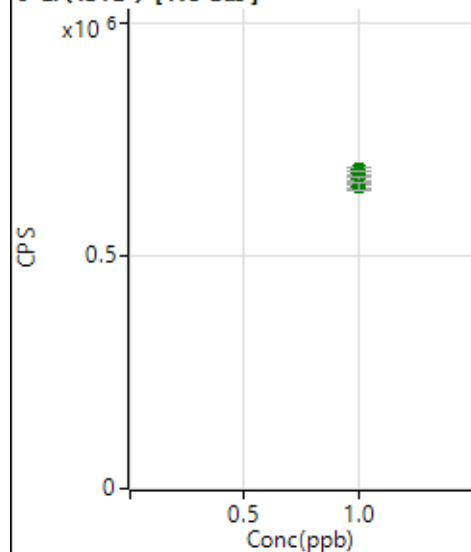
$$DL = 0.002674 \text{ ppb}$$

$$BEC = 0.006374 \text{ ppb}$$

Weight: <None>

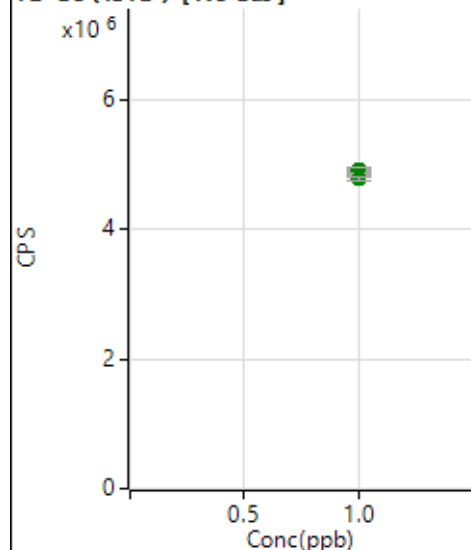
Min Conc: <None>

6 Li (ISTD) [No Gas]



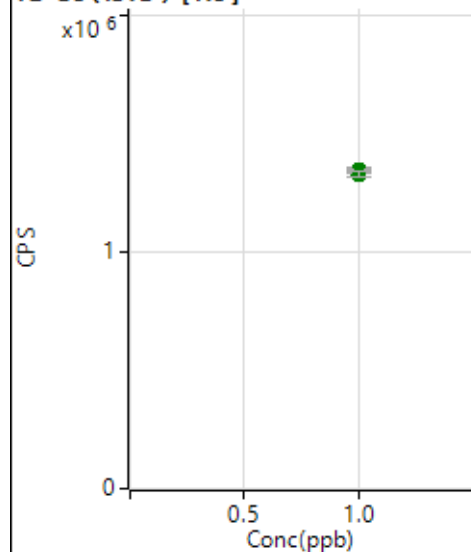
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		685402.54		A	1.7	
2	☐	1.000		676827.39		A	1.1	
3	☐	1.000		656347.14		A	1.7	
4	☐	1.000		666149.62		A	1.2	
5	☐	1.000		649726.27		A	1.3	
6	☐	1.000		647527.07		A	2.6	

72 Ge (ISTD) [No Gas]



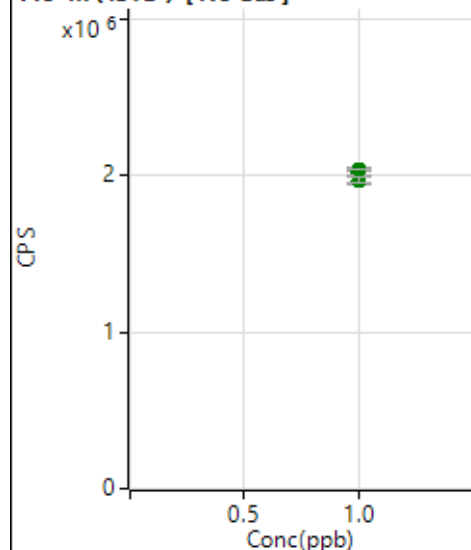
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		4920574.41		A	0.7	
2	☐	1.000		4887487.74		A	0.8	
3	☐	1.000		4844560.03		A	0.9	
4	☐	1.000		4906601.07		A	1.4	
5	☐	1.000		4846155.24		A	0.8	
6	☐	1.000		4771549.51		A	1.2	

72 Ge (ISTD) [He]

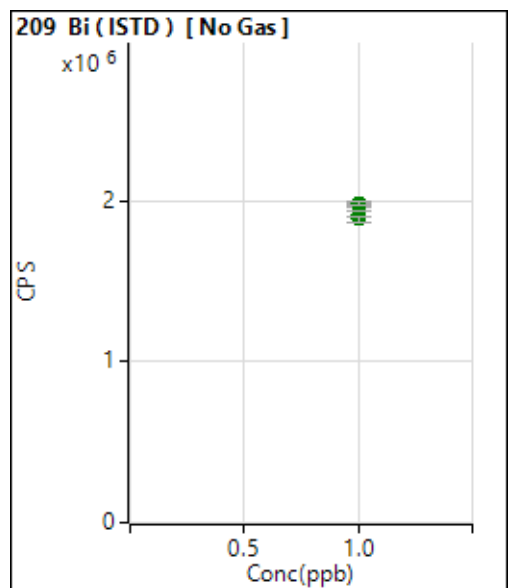


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1352312.64		A	0.7	
2	☐	1.000		1343150.14		A	0.4	
3	☐	1.000		1351308.00		A	0.3	
4	☐	1.000		1338403.11		A	0.3	
5	☐	1.000		1340444.51		A	1.2	
6	☐	1.000		1330555.86		A	1.5	

115 In (ISTD) [No Gas]



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		2041149.66		A	0.7	
2	☐	1.000		2017956.57		A	2.7	
3	☐	1.000		2024732.85		A	1.4	
4	☐	1.000		1995355.68		A	0.8	
5	☐	1.000		1971111.37		A	2.8	
6	☐	1.000		1972823.10		A	1.9	



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1967910.60		A	1.0	
2	☐	1.000		1980977.16		A	0.6	
3	☐	1.000		1984216.95		A	1.0	
4	☐	1.000		1983669.71		A	1.0	
5	☐	1.000		1918248.56		A	1.9	
6	☐	1.000		1883684.24		A	2.4	

Calibration Blank Report

Sample Table

Sample Name CAL BLK
 Data File Name 012CALB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:12:43-05:00
 Sample Type CalBlk
 Level 1
 Dilution 1
 Comment

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	38982	0.00
Be	9	1	No Gas	15	444.44
V	51	2	He	1712	0.10
Cr	52	2	He	2197	0.64
Fe	56	2	He	13941	0.02
Se	78	2	He	187	5.30
As	75	2	He	138	17.68
Ca	44	2	He	8026	0.12
Na	23	2	He	100997	0.00
Mg	24	2	He	190	9.60
K	39	2	He	70265	0.00
Mn	55	2	He	347	5.08
Co	59	2	He	123	36.21
Ni	60	2	He	627	2.42
Cu	63	2	He	3014	0.07
Zn	66	2	He	1140	0.48
Al	27	2	He	1933	0.19
B	11	1	No Gas	54492	0.00
Al	27	1	No Gas	117638	0.00
Si	28	1	No Gas	2223066	0.00
Ag	107	1	No Gas	247	13.98
Cd	111	1	No Gas	7	1299.04
Sr	88	1	No Gas	687	1.30
Mo	95	1	No Gas	90	32.66
Sn	118	1	No Gas	3681	0.19
Sb	121	1	No Gas	403	5.58
Ba	137	1	No Gas	120	48.61
Tl	205	1	No Gas	510	2.03
Tl	203	1	No Gas	193	4.09
Pb	208	1	No Gas	10715	0.01
U	238	1	No Gas	227	1.12
Ca	43	2	He	3	5196.15
Sb	121	2	He	213	5.53
Ti	47	2	He	13	324.76
Cu	63	1	No Gas	4951	0.19

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
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Calibration Blank Report

Li	6	1	No Gas	664357	1.08
Ge	72	2	He	1327709	1.04
Ge	72	1	No Gas	4895939	1.37
In	115	1	No Gas	2005778	1.59



Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	1951418	1.35



Calibration Standard Report

Sample Table

Sample Name 2/10/200
 Data File Name 013CAL.S.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:15:00-05:00
 Sample Type CalStd
 Level 2
 Dilution 1
 Comment
 ISTD Ref File Name 012CALB.d
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	4779	0.09
V	51	2	He	9033	0.02
Cr	52	2	He	10217	0.01
Fe	56	2	He	776430	0.00
Se	78	2	He	301	1.88
As	75	2	He	1496	0.06
Ca	44	2	He	12222	0.04
Na	23	2	He	212990	0.00
Mg	24	2	He	65192	0.00
K	39	2	He	143533	0.00
Mn	55	2	He	6242	0.08
Co	59	2	He	13704	0.03
Ni	60	2	He	4074	0.09
Cu	63	2	He	13263	0.01
Zn	66	2	He	2990	0.37
Al	27	2	He	3324	0.12
B	11	1	No Gas	65490	0.00
Al	27	1	No Gas	190010	0.00
Si	28	1	No Gas	2340869	0.00
Ag	107	1	No Gas	23845	0.01
Cd	111	1	No Gas	4751	0.11
Sr	88	1	No Gas	44357	0.01
Mo	95	1	No Gas	8556	0.03
Sn	118	1	No Gas	16925	0.01
Sb	121	1	No Gas	20022	0.00
Ba	137	1	No Gas	6815	0.05
Tl	205	1	No Gas	44613	0.00
Tl	203	1	No Gas	18067	0.00
Pb	208	1	No Gas	72016	0.00
U	238	1	No Gas	63478	0.00
Ca	43	2	He	213	10.84
Sb	121	2	He	8800	0.02
Cu	63	1	No Gas	26346	0.01

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	676827	1.13	664357	101.88	70	120	
Ge	72	2	He	1343150	0.39	1327709	101.16	70	120	
Ge	72	1	No Gas	4887488	0.80	4895939	99.83	70	120	



Calibration Standard Report

In	115	1	No Gas	2017957	2.71	2005778	100.61	70	120	
Bi	209	1	No Gas	1980977	0.60	1951418	101.51	70	120	



Calibration Standard Report

Sample Table

Sample Name 5/25/500
 Data File Name 014CAL.S.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:17:16-05:00
 Sample Type CalStd
 Level 3
 Dilution 1
 Comment
 ISTD Ref File Name 012CALB.d
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	12532	0.04
V	51	2	He	20020	0.01
Cr	52	2	He	24011	0.01
Fe	56	2	He	2002297	0.00
Se	78	2	He	468	1.67
As	75	2	He	3612	0.12
Ca	44	2	He	18112	0.02
Na	23	2	He	384988	0.00
Mg	24	2	He	167076	0.00
K	39	2	He	254599	0.00
Mn	55	2	He	14972	0.01
Co	59	2	He	34578	0.01
Ni	60	2	He	9827	0.03
Cu	63	2	He	27745	0.02
Zn	66	2	He	5558	0.06
Al	27	2	He	3207	0.14
B	11	1	No Gas	83520	0.00
Al	27	1	No Gas	186022	0.00
Si	28	1	No Gas	2426865	0.00
Ag	107	1	No Gas	59531	0.00
Cd	111	1	No Gas	12169	0.02
Sr	88	1	No Gas	107531	0.00
Mo	95	1	No Gas	21568	0.02
Sn	118	1	No Gas	37584	0.01
Sb	121	1	No Gas	53111	0.00
Ba	137	1	No Gas	17068	0.01
Tl	205	1	No Gas	95519	0.00
Tl	203	1	No Gas	39453	0.01
Pb	208	1	No Gas	166531	0.00
U	238	1	No Gas	159387	0.00
Ca	43	2	He	597	2.45
Sb	121	2	He	23518	0.02
Cu	63	1	No Gas	57351	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	656347	1.71	664357	98.79	70	120	
Ge	72	2	He	1351308	0.25	1327709	101.78	70	120	
Ge	72	1	No Gas	4844560	0.93	4895939	98.95	70	120	



Calibration Standard Report

In	115	1	No Gas	2024733	1.42	2005778	100.94	70	120	
Bi	209	1	No Gas	1984217	0.98	1951418	101.68	70	120	



Calibration Blank Report

Sample Table

Sample Name CAL BLK
 Data File Name 017CALB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:24:03-05:00
 Sample Type CalBlk
 Level 1
 Dilution 1
 Comment

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	38688	0.00
Be	9	1	No Gas	22	245.97
V	51	2	He	1776	0.11
Cr	52	2	He	1960	0.16
Fe	56	2	He	14178	0.02
Se	78	2	He	193	5.57
As	75	2	He	130	22.41
Ca	44	2	He	8409	0.05
Na	23	2	He	99312	0.00
Mg	24	2	He	263	7.40
K	39	2	He	69980	0.00
Mn	55	2	He	353	7.57
Co	59	2	He	60	73.49
Ni	60	2	He	350	0.82
Cu	63	2	He	2487	0.12
Zn	66	2	He	820	2.39
Al	27	2	He	2494	0.09
B	11	1	No Gas	53021	0.00
Al	27	1	No Gas	136819	0.00
Si	28	1	No Gas	2238097	0.00
Ag	107	1	No Gas	253	6.49
Cd	111	1	No Gas	10	1732.05
Sr	88	1	No Gas	1240	0.43
Mo	95	1	No Gas	80	15.63
Sn	118	1	No Gas	2987	0.15
Sb	121	1	No Gas	277	3.77
Ba	137	1	No Gas	177	11.25
Tl	205	1	No Gas	473	2.01
Tl	203	1	No Gas	153	17.71
Pb	208	1	No Gas	8371	0.04
U	238	1	No Gas	223	6.45
Ca	43	2	He	37	42.94
Sb	121	2	He	150	31.11
Ti	47	2	He	37	300.60
Cu	63	1	No Gas	4531	0.14

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
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Calibration Blank Report

Li	6	1	No Gas	685403	1.73
Ge	72	2	He	1352313	0.73
Ge	72	1	No Gas	4920574	0.70
In	115	1	No Gas	2041150	0.73



Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	1967911	0.99



Calibration Standard Report

Sample Table

Sample Name 10/50/100
 Data File Name 020CAL.S.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:30:53-05:00
 Sample Type CalStd
 Level 4
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	23470	0.02
V	51	2	He	34939	0.00
Cr	52	2	He	40434	0.01
Fe	56	2	He	3538443	0.00
Se	78	2	He	683	0.39
As	75	2	He	6427	0.05
Ca	44	2	He	25678	0.02
Na	23	2	He	611715	0.00
Mg	24	2	He	301658	0.00
K	39	2	He	400543	0.00
Mn	55	2	He	26039	0.02
Co	59	2	He	63083	0.01
Ni	60	2	He	16811	0.02
Cu	63	2	He	47567	0.01
Zn	66	2	He	8913	0.06
Al	27	2	He	4024	0.11
B	11	1	No Gas	110014	0.00
Al	27	1	No Gas	235859	0.00
Si	28	1	No Gas	2560767	0.00
Ag	107	1	No Gas	116693	0.00
Cd	111	1	No Gas	22783	0.03
Sr	88	1	No Gas	208794	0.00
Mo	95	1	No Gas	42404	0.01
Sn	118	1	No Gas	69510	0.01
Sb	121	1	No Gas	98378	0.00
Ba	137	1	No Gas	32942	0.02
Tl	205	1	No Gas	188656	0.00
Tl	203	1	No Gas	78353	0.01
Pb	208	1	No Gas	303284	0.00
U	238	1	No Gas	307897	0.00
Ca	43	2	He	1113	0.54
Sb	121	2	He	41967	0.01
Cu	63	1	No Gas	102556	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	666150	1.18	685403	97.19	70	120	
Ge	72	2	He	1338403	0.29	1352313	98.97	70	120	
Ge	72	1	No Gas	4906601	1.44	4920574	99.72	70	120	



Calibration Standard Report

In	115	1	No Gas	1995356	0.75	2041150	97.76	70	120	
Bi	209	1	No Gas	1983670	0.97	1967911	100.80	70	120	



Calibration Standard Report

Sample Table

Sample Name 100/500/10K
 Data File Name 021CAL.S.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:33:09-05:00
 Sample Type CalStd
 Level 5
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	238227	0.00
V	51	2	He	369910	0.00
Cr	52	2	He	433873	0.00
Fe	56	2	He	37923347	0.00
Se	78	2	He	5422	0.05
As	75	2	He	69194	0.00
Ca	44	2	He	203019	0.00
Na	23	2	He	5783187	0.00
Mg	24	2	He	3457157	0.00
K	39	2	He	3843653	0.00
Mn	55	2	He	286907	0.00
Co	59	2	He	699517	0.00
Ni	60	2	He	182318	0.00
Cu	63	2	He	499731	0.00
Zn	66	2	He	92313	0.00
Al	27	2	He	19524	0.03
B	11	1	No Gas	639583	0.00
Al	27	1	No Gas	1228794	0.00
Si	28	1	No Gas	5904729	0.00
Ag	107	1	No Gas	1252610	0.00
Cd	111	1	No Gas	230418	0.00
Sr	88	1	No Gas	2209021	0.00
Mo	95	1	No Gas	433666	0.00
Sn	118	1	No Gas	684033	0.00
Sb	121	1	No Gas	1002473	0.00
Ba	137	1	No Gas	332554	0.00
Tl	205	1	No Gas	2258492	0.00
Tl	203	1	No Gas	854682	0.00
Pb	208	1	No Gas	3179334	0.00
U	238	1	No Gas	3569780	0.00
Ca	43	2	He	11642	0.04
Sb	121	2	He	459252	0.00
Cu	63	1	No Gas	1001347	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	649726	1.28	685403	94.79	70	120	
Ge	72	2	He	1340445	1.22	1352313	99.12	70	120	
Ge	72	1	No Gas	4846155	0.82	4920574	98.49	70	120	



Calibration Standard Report

In	115	1	No Gas	1971111	2.80	2041150	96.57	70	120	
Bi	209	1	No Gas	1918249	1.91	1967911	97.48	70	120	



Calibration Standard Report

Sample Table

Sample Name 200/1000/20K
 Data File Name 022CAL.S.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:35:21-05:00
 Sample Type CalStd
 Level 6
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	449063	0.00
V	51	2	He	679854	0.00
Cr	52	2	He	796810	0.00
Fe	56	2	He	69575352	0.00
Se	78	2	He	9502	0.02
As	75	2	He	124940	0.00
Ca	44	2	He	365040	0.00
Na	23	2	He	10476235	0.00
Mg	24	2	He	6205667	0.00
K	39	2	He	6787013	0.00
Mn	55	2	He	524898	0.00
Co	59	2	He	1330956	0.00
Ni	60	2	He	334326	0.00
Cu	63	2	He	909285	0.00
Zn	66	2	He	164464	0.00
Al	27	2	He	34734	0.01
B	11	1	No Gas	1217849	0.00
Al	27	1	No Gas	2166779	0.00
Si	28	1	No Gas	9166798	0.00
Ag	107	1	No Gas	2350701	0.00
Cd	111	1	No Gas	434222	0.00
Sr	88	1	No Gas	4087427	0.00
Mo	95	1	No Gas	826305	0.00
Sn	118	1	No Gas	1407667	0.00
Sb	121	1	No Gas	2022672	0.00
Ba	137	1	No Gas	631742	0.00
Tl	205	1	No Gas	4110001	0.00
Tl	203	1	No Gas	1764340	0.00
Pb	208	1	No Gas	6166605	0.00
U	238	1	No Gas	6628279	0.00
Ca	43	2	He	21080	0.02
Sb	121	2	He	846075	0.00
Cu	63	1	No Gas	1978336	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	647527	2.58	685403	94.47	70	120	
Ge	72	2	He	1330556	1.53	1352313	98.39	70	120	
Ge	72	1	No Gas	4771550	1.17	4920574	96.97	70	120	



Calibration Standard Report

In	115	1	No Gas	1972823	1.90	2041150	96.65	70	120	
Bi	209	1	No Gas	1883684	2.42	1967911	95.72	70	120	



Initial Calibration Verification (ICV) Report

Sample Table

Sample Name ICV
 Data File Name 026_ICV.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:44:55-05:00
 Sample Type ICV
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	105.032	2.390	922753	0.92	100	105.0	90	110	
Be	9	1	No Gas	103.922	3.120	233283	1.48	100	103.9	90	110	
V	51	2	He	103.764	1.320	355187	1.14	100	103.8	90	110	
Cr	52	2	He	104.858	1.086	420647	1.01	100	104.9	90	110	
Fe	56	2	He	10408.168	1.328	36415116	1.23	10000	104.1	90	110	
Se	78	2	He	106.754	3.762	5220	4.03	100	106.8	90	110	
As	75	2	He	105.561	0.459	66588	0.81	100	105.6	90	110	
Ca	44	2	He	10437.918	1.503	195465	1.53	10000	104.4	90	110	
Na	23	2	He	10421.310	1.703	5540185	1.50	10000	104.2	90	110	
Mg	24	2	He	10576.422	2.285	3315466	2.46	10000	105.8	90	110	
K	39	2	He	10756.097	0.891	3725011	1.38	10000	107.6	90	110	
Mn	55	2	He	104.341	0.924	275630	0.76	100	104.3	90	110	
Co	59	2	He	101.603	1.315	674646	1.22	100	101.6	90	110	
Ni	60	2	He	105.144	1.009	176887	0.50	100	105.1	90	110	
Cu	63	2	He	104.984	0.828	481696	0.22	100	105.0	90	110	
Zn	66	2	He	105.637	0.520	88195	0.16	100	105.6	90	110	
Al	27	2	He	105.080	1.374	19370	0.74	100	105.1	90	110	
B	11	1	No Gas	506.263	1.827	634567	0.60	500	101.3	90	110	
Al	27	1	No Gas	103.229	1.944	1204695	1.34	100	103.2	90	110	
Si	28	1	No Gas	515.416	3.184	5853173	1.38	500	103.1	90	110	
Ag	107	1	No Gas	107.378	3.824	1260296	3.16	100	107.4	90	110	
Cd	111	1	No Gas	104.619	1.433	226660	0.55	100	104.6	90	110	
Sr	88	1	No Gas	106.397	3.220	2178271	2.36	100	106.4	90	110	
Mo	95	1	No Gas	104.204	2.190	428634	1.37	100	104.2	90	110	
Sn	118	1	No Gas	97.990	1.643	677049	0.74	100	98.0	90	110	
Sb	121	1	No Gas	97.576	1.561	990084	0.98	100	97.6	90	110	
Ba	137	1	No Gas	104.862	2.325	330034	1.47	100	104.9	90	110	
Tl	205	1	No Gas	104.998	4.022	2227828	2.50	100	105.0	90	110	
Tl	203	1	No Gas	95.467	3.214	847682	1.70	100	95.5	90	110	
Pb	208	1	No Gas	100.160	3.372	3150151	1.71	100	100.2	90	110	
U	238	1	No Gas	103.743	4.100	3534200	2.47	100	103.7	90	110	
Ca	43	2	He	10324.101	3.774	10985	3.77	10000	103.2	90	110	
Sb	121	2	He	104.735	1.275	445164	0.98	100	104.7	90	110	
Ti	47	2	He	103.347	3.099	12282	2.64	100	103.3	90	110	
Cu	63	1	No Gas	99.437	2.026	992617	1.45	100	99.4	90	110	
Se	82	1	No Gas	104.867	1.543	14107	1.92	100	104.9	90	110	

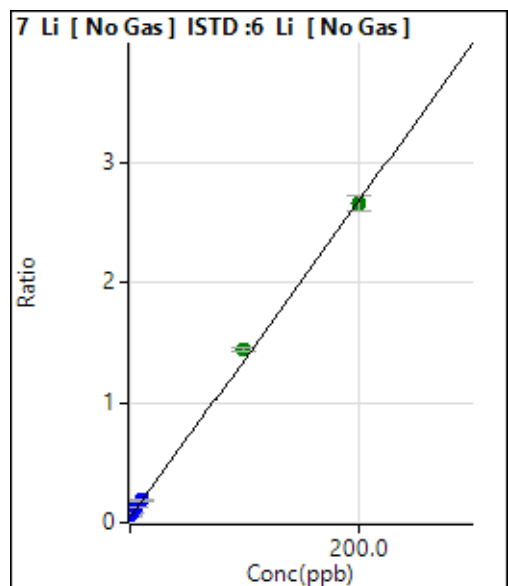
QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	640080	1.65	685403	93.39	70	120	
Ge	72	2	He	1316302	0.61	1352313	97.34	70	120	
Ge	72	1	No Gas	4809701	0.68	4920574	97.75	70	120	
In	115	1	No Gas	1943424	0.89	2041150	95.21	70	120	
Bi	209	1	No Gas	1914744	1.76	1967911	97.30	70	120	



Batch Folder: C:\Agilent\ICPMH\1\DATA\093023.b\
Analysis File: 093023.batch.bin
DA Date-Time: 9/30/2023 12:56:59 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	017CALB.d	CAL BLK	9/30/2023 10:24:03 AM
2	013CALS.d	2/10/200	9/30/2023 10:15:00 AM
3	014CALS.d	5/25/500	9/30/2023 10:17:16 AM
4	020CALS.d	10/50/100	9/30/2023 10:30:53 AM
5	021CALS.d	100/500/10K	9/30/2023 10:33:09 AM
6	022CALS.d	200/1000/20K	9/30/2023 10:35:21 AM



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	38688.09	0.0565	P	1.9	
2	☐	2.000	2.005	56104.91	0.0829	P	0.9	0.2
3	☐	5.000	5.309	82991.47	0.1265	P	3.3	6.2
4	☐	10.000	9.818	123895.91	0.1860	P	3.5	-1.8
5	☐	100.000	104.756	934523.97	1.4383	A	2.2	4.8
6	☐	200.000	197.623	1724677.47	2.6634	A	4.7	-1.2

$$y = 0.0132 * x + 0.0565$$

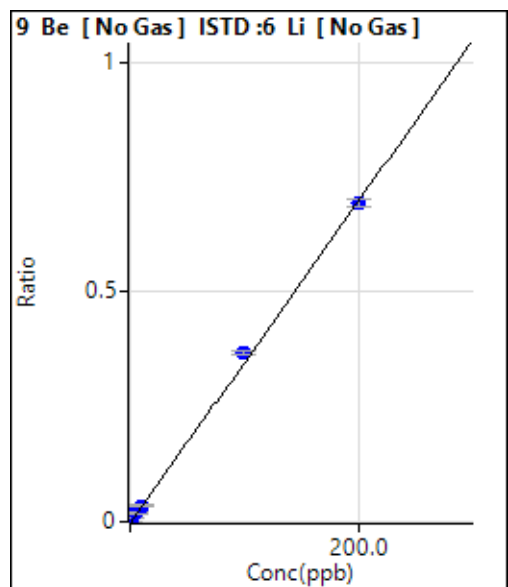
$$R = 0.9996$$

$$DL = 0.2406 \text{ ppb}$$

$$BEC = 4.28 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21.67	0.0000	P	53.1	
2	☐	2.000	2.005	4779.19	0.0071	P	5.3	0.2
3	☐	5.000	5.437	12532.33	0.0191	P	6.2	8.7
4	☐	10.000	10.032	23469.65	0.0352	P	3.5	0.3
5	☐	100.000	104.515	238227.50	0.3667	P	1.9	4.5
6	☐	200.000	197.730	449063.01	0.6937	P	3.0	-1.1

$$y = 0.0035 * x + 3.1597E-005$$

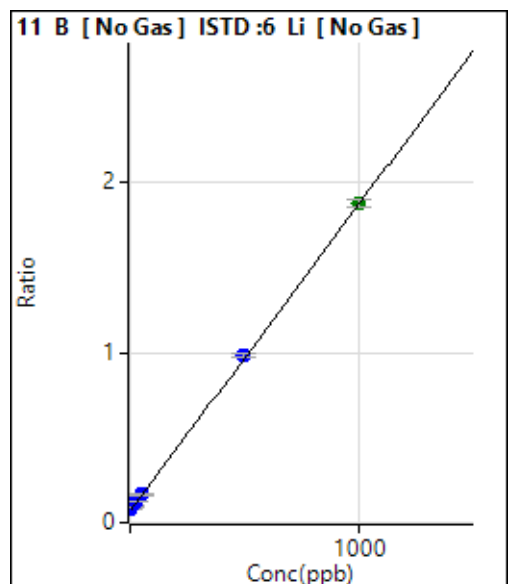
$$R = 0.9996$$

$$DL = 0.01435 \text{ ppb}$$

$$BEC = 0.009007 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	53021.44	0.0774	P	1.1	
2	☐	10.000	10.745	65490.15	0.0968	P	1.0	7.5
3	☐	25.000	27.647	83520.28	0.1273	P	2.9	10.6
4	☐	50.000	48.617	110014.01	0.1652	P	1.4	-2.8
5	☐	500.000	502.375	639582.78	0.9845	P	1.8	0.5
6	☐	1000.000	998.808	1217848.94	1.8810	A	2.2	-0.1

$$y = 0.0018 * x + 0.0774$$

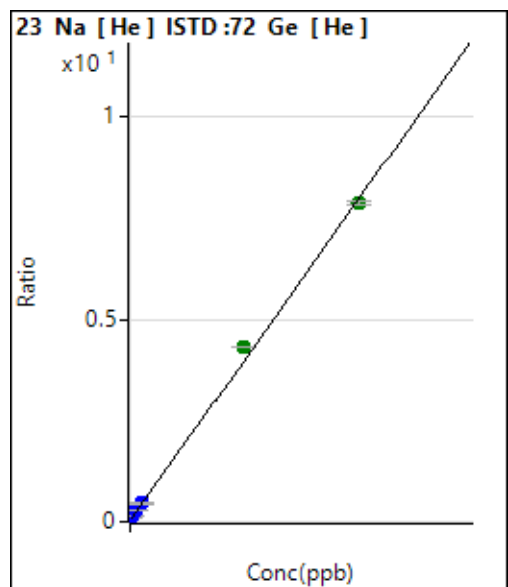
$$R = 1.0000$$

$$DL = 1.459 \text{ ppb}$$

$$BEC = 42.84 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	99311.68	0.0734	P	0.4	
2	☐	200.000	214.541	212989.95	0.1586	P	0.7	7.3
3	☐	500.000	532.851	384987.72	0.2849	P	1.8	6.6
4	☐	1000.000	966.708	611714.69	0.4571	P	2.9	-3.3
5	☐	10000.00	10686.85	5783186.58	4.3144	A	0.5	6.9
6	☐	20000.00	19657.27	10476235.0	7.8742	A	1.4	-1.7

$$y = 3.9684E-004 * x + 0.0734$$

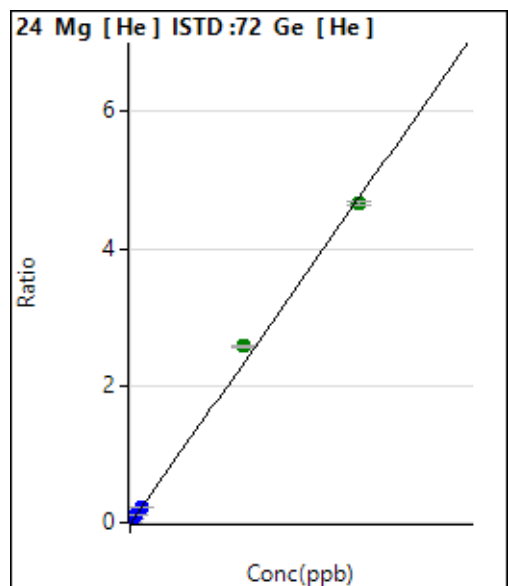
$$R = 0.9992$$

$$DL = 2.314 \text{ ppb}$$

$$BEC = 185.1 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	263.34	0.0002	P	19.0	
2	☐	200.000	203.002	65192.24	0.0485	P	2.2	1.5
3	☐	500.000	518.391	167075.77	0.1236	P	2.1	3.7
4	☐	1000.000	945.720	301657.89	0.2254	P	4.1	-5.4
5	☐	10000.00	10830.56	3457156.93	2.5793	A	1.1	8.3
6	☐	20000.00	19586.94	6205667.20	4.6644	A	1.0	-2.1

$$y = 2.3813E-004 * x + 1.9460E-004$$

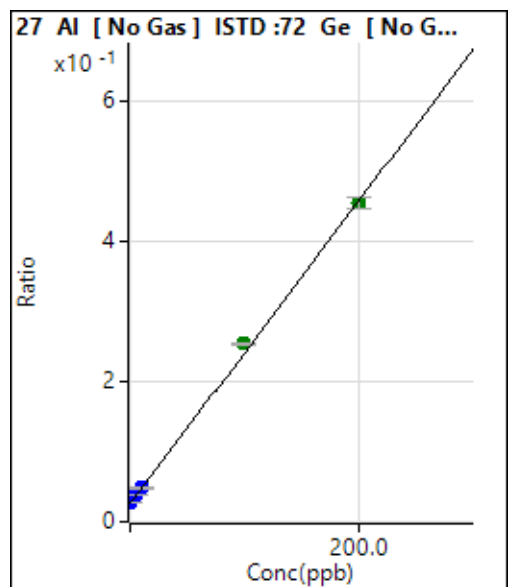
$$R = 0.9987$$

$$DL = 0.4649 \text{ ppb}$$

$$BEC = 0.8172 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	136819.12	0.0278	P	1.1	
2	☐	2.000	5.134	190010.16	0.0389	P	1.6	156.7
3	☐	5.000	4.910	186021.97	0.0384	P	1.2	-1.8
4	☐	10.000	9.400	235859.03	0.0481	P	3.0	-6.0
5	☐	100.000	104.664	1228793.89	0.2536	A	1.8	4.7
6	☐	200.000	197.669	2166779.45	0.4542	A	3.3	-1.2

$$y = 0.0022 * x + 0.0278$$

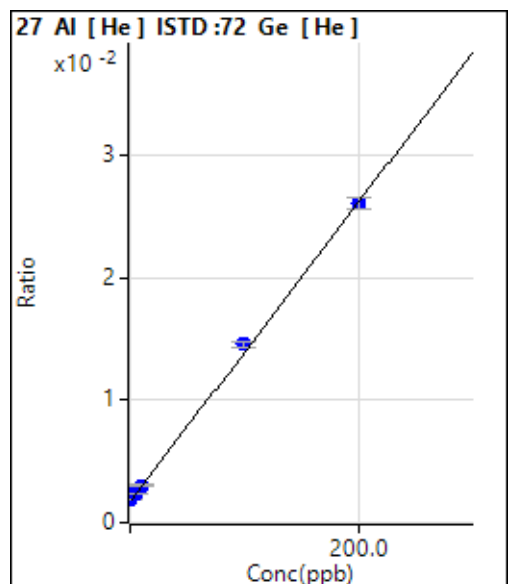
$$R = 0.9995$$

$$DL = 0.4074 \text{ ppb}$$

$$BEC = 12.89 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2493.60	0.0018	P	2.6	
2	☐	2.000	5.149	3323.79	0.0025	P	4.3	157.5
3	☐	5.000	4.321	3207.11	0.0024	P	4.6	-13.6
4	☐	10.000	9.488	4024.00	0.0030	P	4.2	-5.1
5	☐	100.000	103.809	19524.06	0.0146	P	3.8	3.8
6	☐	200.000	198.106	34733.86	0.0261	P	4.1	-0.9

$$y = 1.2250E-004 * x + 0.0018$$

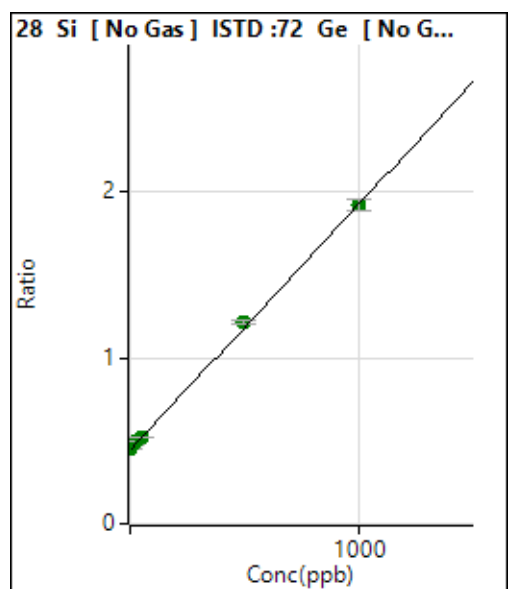
$$R = 0.9996$$

$$DL = 1.168 \text{ ppb}$$

$$BEC = 15.05 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2238097.47	0.4548	A	0.8	
2	☐	10.000	16.313	2340868.56	0.4790	A	0.6	63.1
3	☐	25.000	31.189	2426864.76	0.5010	A	0.6	24.8
4	☐	50.000	45.393	2560766.89	0.5220	A	1.4	-9.2
5	☐	500.000	516.401	5904729.08	1.2185	A	1.5	3.3
6	☐	1000.000	991.812	9166798.20	1.9216	A	3.2	-0.8

$$y = 0.0015 * x + 0.4548$$

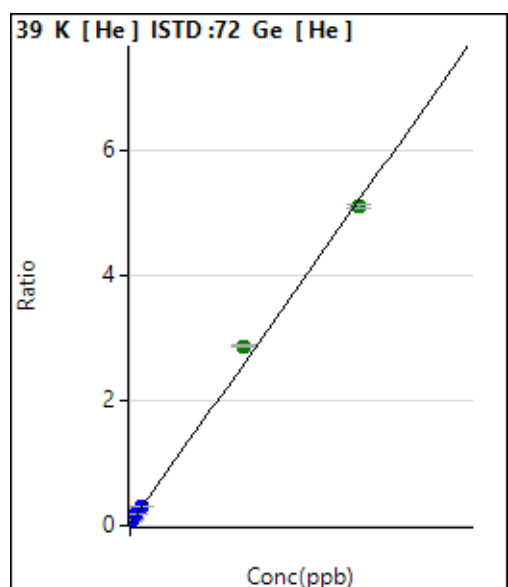
$$R = 0.9998$$

$$DL = 7.002 \text{ ppb}$$

$$BEC = 307.6 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	69980.45	0.0517	P	1.3	
2	☐	200.000	213.397	143533.07	0.1069	P	1.5	6.7
3	☐	500.000	529.117	254598.88	0.1884	P	1.4	5.8
4	☐	1000.000	958.391	400542.79	0.2993	P	3.5	-4.2
5	☐	10000.00	10900.36	3843652.55	2.8671	A	1.6	9.0
6	☐	20000.00	19551.03	6787013.44	5.1014	A	1.1	-2.2

$$y = 2.5828\text{E-}004 * x + 0.0517$$

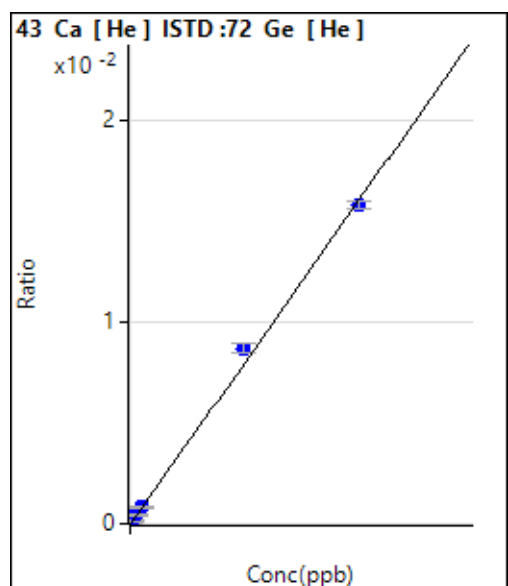
$$R = 0.9985$$

$$\text{DL} = 7.808 \text{ ppb}$$

$$\text{BEC} = 200.4 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	36.67	0.0000	P	16.1	
2	☐	200.000	163.588	213.34	0.0002	P	23.5	-18.2
3	☐	500.000	514.530	596.69	0.0004	P	14.9	2.9
4	☐	1000.000	998.783	1113.40	0.0008	P	5.8	-0.1
5	☐	10000.00	10750.83	11641.82	0.0087	P	5.5	7.5
6	☐	20000.00	19624.64	21079.72	0.0158	P	2.9	-1.9

$$y = 8.0568\text{E-}007 * x + 2.7126\text{E-}005$$

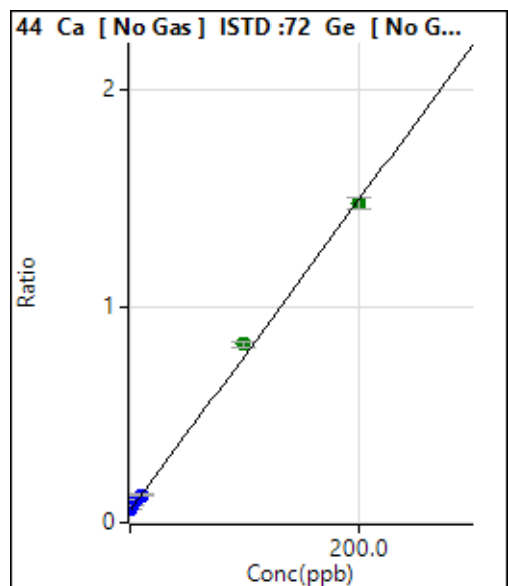
$$R = 0.9990$$

$$\text{DL} = 16.26 \text{ ppb}$$

$$\text{BEC} = 33.67 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	309320.64	0.0629	P	0.6	
2	☐	2.000	2.852	407426.60	0.0834	P	1.7	42.6
3	☐	5.000	5.964	512261.35	0.1057	P	0.4	19.3
4	☐	10.000	9.189	632466.54	0.1289	P	3.2	-8.1
5	☐	100.000	106.168	4003047.96	0.8261	A	2.9	6.2
6	☐	200.000	196.924	7053709.48	1.4786	A	3.9	-1.5

$$y = 0.0072 * x + 0.0629$$

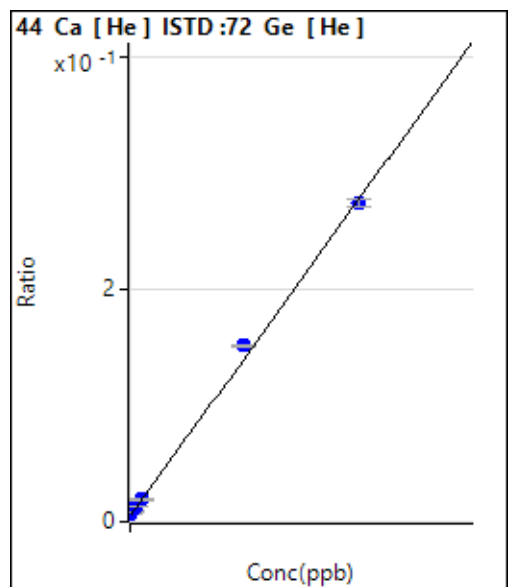
$$R = 0.9993$$

$$DL = 0.1471 \text{ ppb}$$

$$BEC = 8.744 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	8409.39	0.0062	P	3.8	
2	☐	200.000	211.435	12222.31	0.0091	P	4.8	5.7
3	☐	500.000	527.160	18112.18	0.0134	P	3.9	5.4
4	☐	1000.000	951.403	25677.57	0.0192	P	4.7	-4.9
5	☐	10000.00	10654.64	203018.91	0.1515	P	1.4	6.5
6	☐	20000.00	19674.31	365039.79	0.2744	P	1.9	-1.6

$$y = 1.3631E-005 * x + 0.0062$$

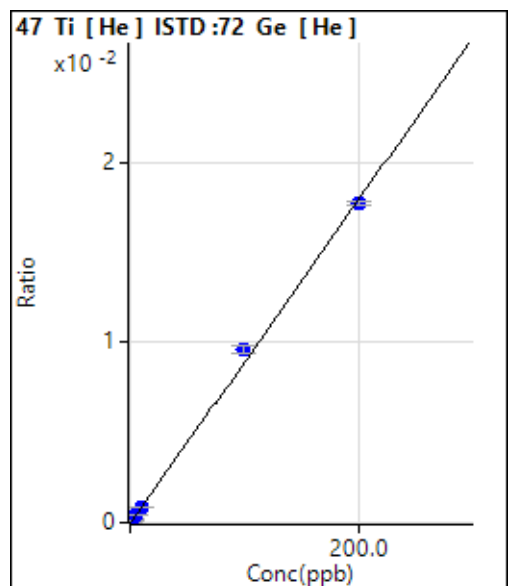
$$R = 0.9992$$

$$DL = 51.45 \text{ ppb}$$

$$BEC = 456.2 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	36.67	0.0000	P	109.8	
2	☐	2.000	1.630	233.34	0.0002	P	28.8	-18.5
3	☐	5.000	4.521	586.69	0.0004	P	5.8	-9.6
4	☐	10.000	9.162	1140.07	0.0009	P	11.7	-8.4
5	☐	100.000	106.636	12909.63	0.0096	P	4.8	6.6
6	☐	200.000	196.740	23600.60	0.0177	P	1.8	-1.6

$$y = 9.0034E-005 * x + 2.7098E-005$$

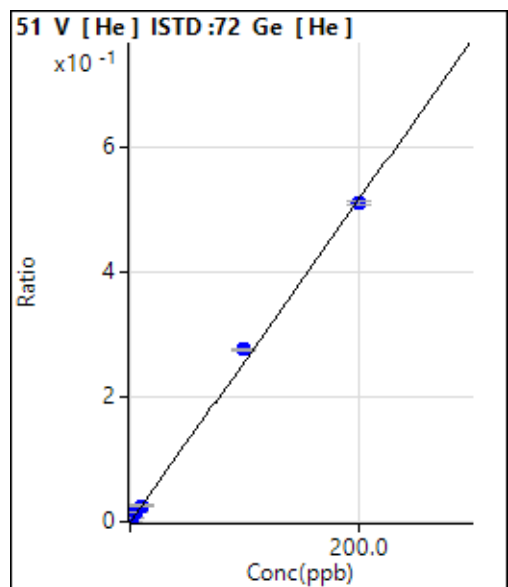
$$R = 0.9992$$

$$DL = 0.9911 \text{ ppb}$$

$$BEC = 0.301 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1775.68	0.0013	P	1.5	
2	☐	2.000	2.091	9033.02	0.0067	P	1.3	4.6
3	☐	5.000	5.217	20020.23	0.0148	P	2.3	4.3
4	☐	10.000	9.580	34938.84	0.0261	P	1.8	-4.2
5	☐	100.000	106.124	369910.46	0.2760	P	0.9	6.1
6	☐	200.000	196.953	679853.52	0.5110	P	1.0	-1.5

$$y = 0.0026 * x + 0.0013$$

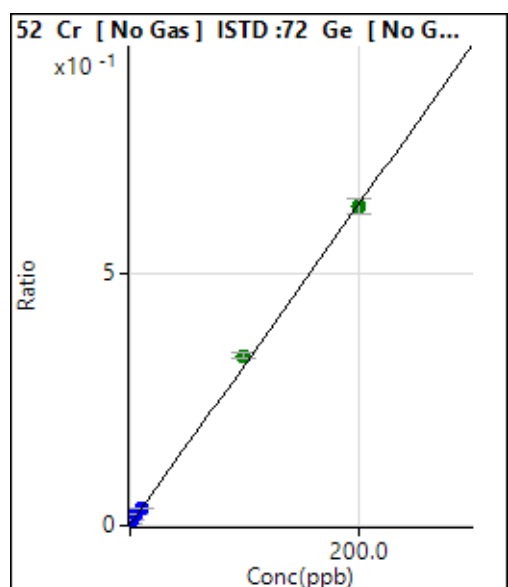
$$R = 0.9993$$

$$DL = 0.02301 \text{ ppb}$$

$$BEC = 0.5074 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21804.32	0.0044	P	2.6	
2	☐	2.000	2.138	54840.06	0.0112	P	2.7	6.9
3	☐	5.000	5.320	103325.25	0.0213	P	2.4	6.4
4	☐	10.000	9.673	172446.69	0.0352	P	4.7	-3.3
5	☐	100.000	104.467	1629374.92	0.3363	A	3.8	4.5
6	☐	200.000	197.774	3018150.58	0.6327	A	4.3	-1.1

$$y = 0.0032 * x + 0.0044$$

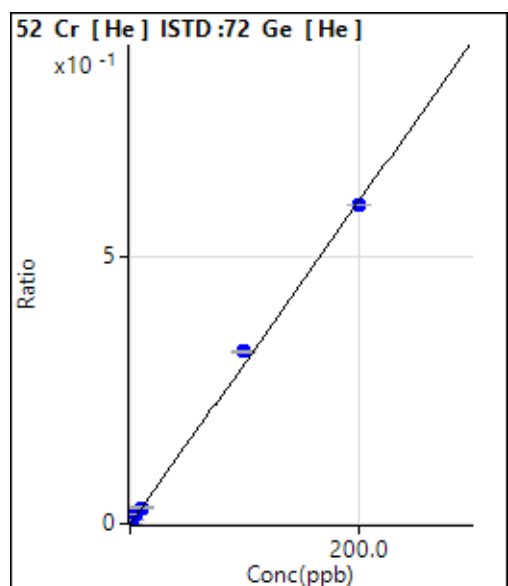
$$R = 0.9996$$

$$DL = 0.1083 \text{ ppb}$$

$$BEC = 1.395 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1960.18	0.0014	P	3.5	
2	☐	2.000	2.029	10217.31	0.0076	P	0.9	1.5
3	☐	5.000	5.379	24011.29	0.0178	P	1.6	7.6
4	☐	10.000	9.480	40433.62	0.0302	P	4.7	-5.2
5	☐	100.000	106.207	433873.43	0.3237	P	0.5	6.2
6	☐	200.000	196.912	796809.65	0.5989	P	0.1	-1.5

$$y = 0.0030 * x + 0.0014$$

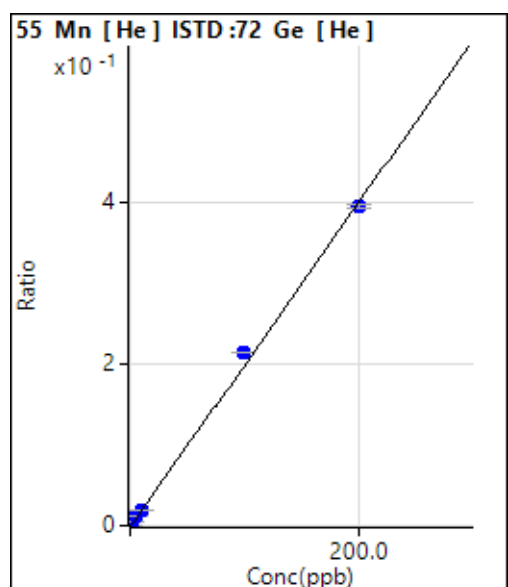
$$R = 0.9993$$

$$DL = 0.04959 \text{ ppb}$$

$$BEC = 0.4778 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	353.35	0.0003	P	26.3	
2	☐	2.000	2.188	6241.52	0.0046	P	5.3	9.4
3	☐	5.000	5.398	14971.74	0.0111	P	2.2	8.0
4	☐	10.000	9.577	26038.51	0.0195	P	4.5	-4.2
5	☐	100.000	106.657	286907.01	0.2140	P	0.5	6.7
6	☐	200.000	196.681	524898.22	0.3945	P	0.7	-1.7

$$y = 0.0020 * x + 2.6108E-004$$

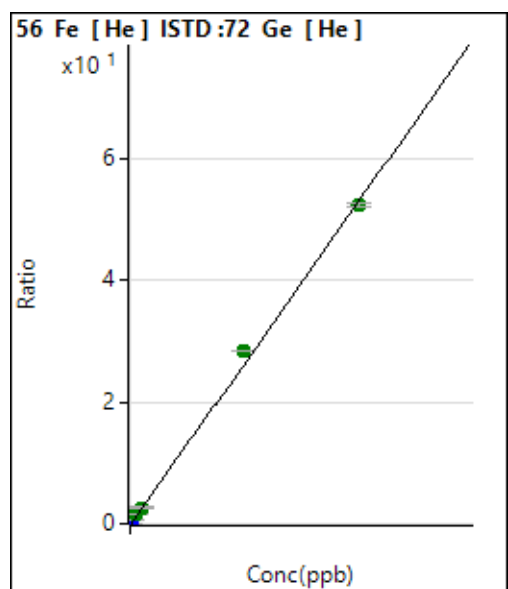
$$R = 0.9992$$

$$DL = 0.1027 \text{ ppb}$$

$$BEC = 0.1303 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	14177.58	0.0105	P	3.7	
2	☐	200.000	213.614	776430.43	0.5781	P	1.7	6.8
3	☐	500.000	553.707	2002297.00	1.4817	A	2.0	10.7
4	☐	1000.000	991.119	3538442.55	2.6439	A	4.4	-0.9
5	☐	10000.00	10643.61	37923346.9	28.290	A	0.6	6.4
6	☐	20000.00	19677.15	69575352.3	52.293	A	0.9	-1.6

$$y = 0.0027 * x + 0.0105$$

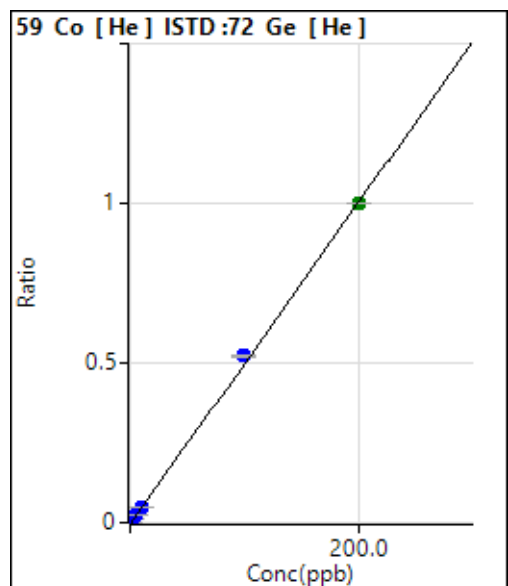
$$R = 0.9993$$

$$DL = 0.436 \text{ ppb}$$

$$BEC = 3.946 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	60.00	0.0000	P	44.9	
2	☐	2.000	2.014	13703.81	0.0102	P	4.3	0.7
3	☐	5.000	5.064	34577.77	0.0256	P	2.3	1.3
4	☐	10.000	9.336	63083.05	0.0471	P	5.5	-6.6
5	☐	100.000	103.444	699516.92	0.5218	P	0.6	3.4
6	☐	200.000	198.309	1330955.76	1.0003	A	0.5	-0.8

$$y = 0.0050 * x + 4.4464E-005$$

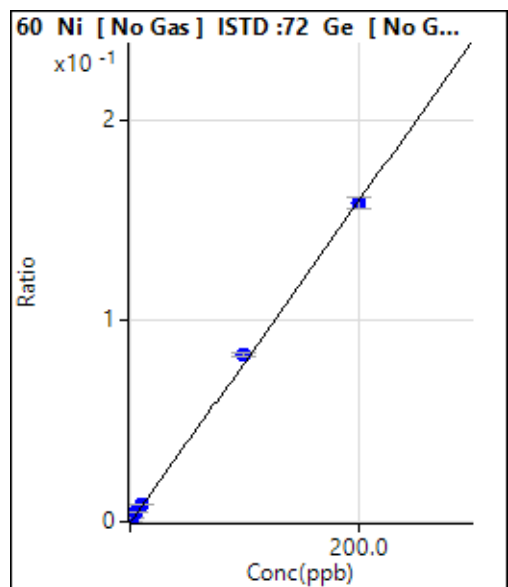
$$R = 0.9998$$

$$DL = 0.01187 \text{ ppb}$$

$$BEC = 0.008815 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	916.71	0.0002	P	11.3	
2	☐	2.000	2.159	9353.37	0.0019	P	2.5	8.0
3	☐	5.000	5.532	22342.04	0.0046	P	2.1	10.6
4	☐	10.000	10.257	41166.03	0.0084	P	5.0	2.6
5	☐	100.000	104.098	404466.75	0.0835	P	2.5	4.1
6	☐	200.000	197.923	756320.43	0.1585	P	3.9	-1.0

$$y = 8.0007E-004 * x + 1.8637E-004$$

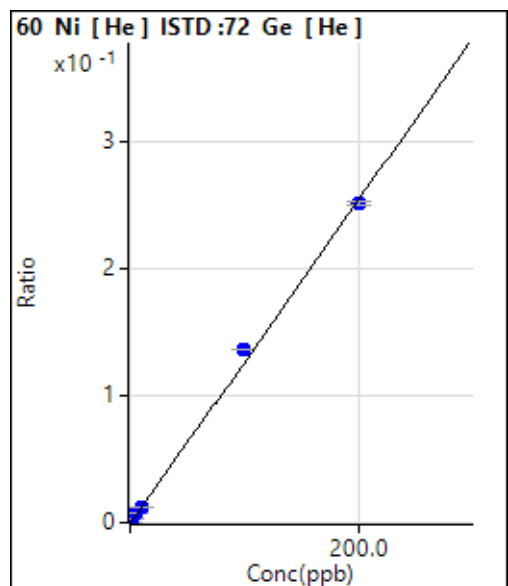
$$R = 0.9997$$

$$DL = 0.07869 \text{ ppb}$$

$$BEC = 0.2329 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	350.01	0.0003	P	3.0	
2	☐	2.000	2.175	4074.04	0.0030	P	3.4	8.7
3	☐	5.000	5.498	9827.04	0.0073	P	3.0	10.0
4	☐	10.000	9.643	16810.68	0.0126	P	3.3	-3.6
5	☐	100.000	106.415	182318.19	0.1360	P	0.4	6.4
6	☐	200.000	196.796	334326.06	0.2513	P	1.5	-1.6

$$y = 0.0013 * x + 2.5884E-004$$

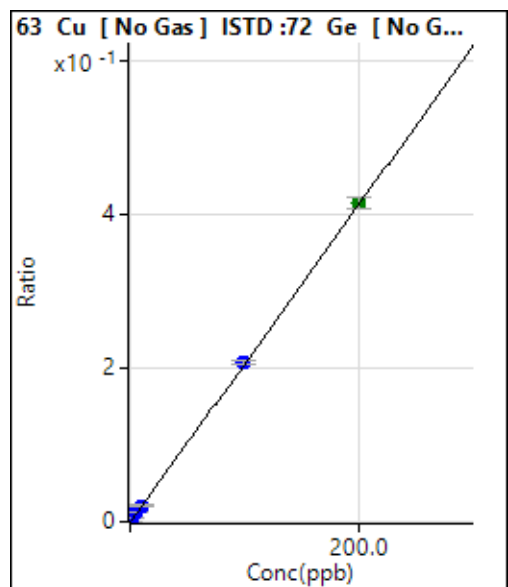
$$R = 0.9993$$

$$DL = 0.01799 \text{ ppb}$$

$$BEC = 0.2029 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	4530.84	0.0009	P	5.8	
2	☐	2.000	2.164	26345.83	0.0054	P	3.3	8.2
3	☐	5.000	5.284	57351.03	0.0118	P	2.6	5.7
4	☐	10.000	9.673	102555.82	0.0209	P	4.9	-3.3
5	☐	100.000	99.562	1001347.38	0.2067	P	2.4	-0.4
6	☐	200.000	200.227	1978336.33	0.4147	A	3.1	0.1

$$y = 0.0021 * x + 9.2061E-004$$

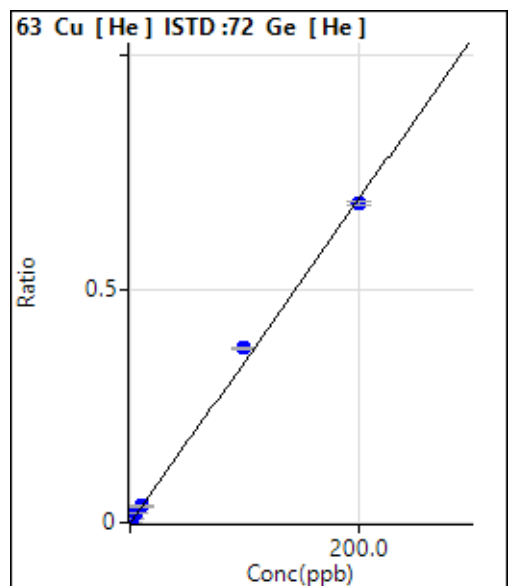
$$R = 1.0000$$

$$DL = 0.07686 \text{ ppb}$$

$$BEC = 0.4455 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2486.94	0.0018	P	2.5	
2	☐	2.000	2.317	13263.32	0.0099	P	2.2	15.9
3	☐	5.000	5.389	27745.48	0.0205	P	6.3	7.8
4	☐	10.000	9.717	47566.82	0.0355	P	4.0	-2.8
5	☐	100.000	106.958	499731.20	0.3728	P	0.7	7.0
6	☐	200.000	196.522	909285.25	0.6834	P	1.0	-1.7

$$y = 0.0035 * x + 0.0018$$

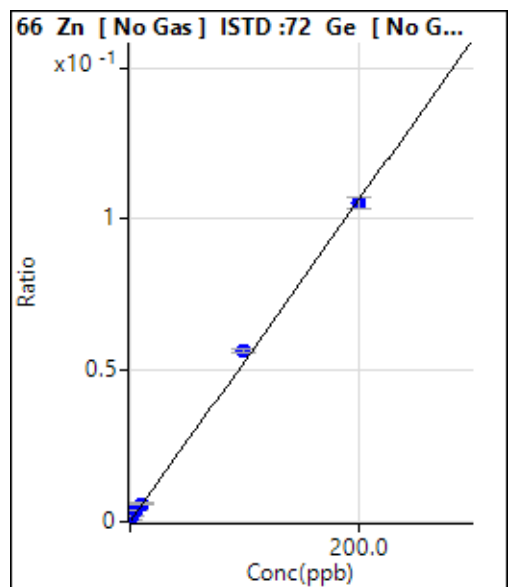
$$R = 0.9991$$

$$DL = 0.04056 \text{ ppb}$$

$$BEC = 0.5302 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2626.97	0.0005	P	3.9	
2	☐	2.000	2.638	9460.18	0.0019	P	6.0	31.9
3	☐	5.000	6.067	18215.79	0.0038	P	3.0	21.3
4	☐	10.000	10.166	29125.00	0.0059	P	5.1	1.7
5	☐	100.000	105.643	274717.18	0.0567	P	2.5	5.6
6	☐	200.000	197.137	502493.18	0.1053	P	3.6	-1.4

$$y = 5.3161\text{E-}004 * x + 5.3389\text{E-}004$$

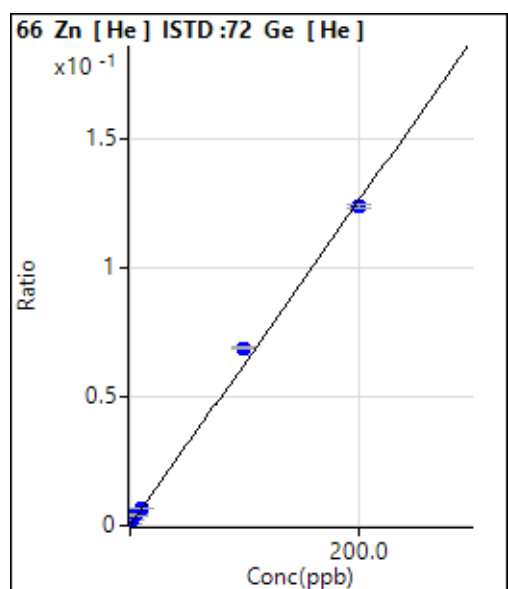
$$R = 0.9995$$

$$DL = 0.1178 \text{ ppb}$$

$$BEC = 1.004 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	820.04	0.0006	P	20.1	
2	☐	2.000	2.576	2990.38	0.0022	P	10.6	28.8
3	☐	5.000	5.578	5557.89	0.0041	P	3.3	11.6
4	☐	10.000	9.631	8913.08	0.0067	P	5.6	-3.7
5	☐	100.000	108.585	92312.82	0.0689	P	1.8	8.6
6	☐	200.000	195.706	164464.43	0.1236	P	1.6	-2.1

$$y = 6.2854\text{E-}004 * x + 6.0682\text{E-}004$$

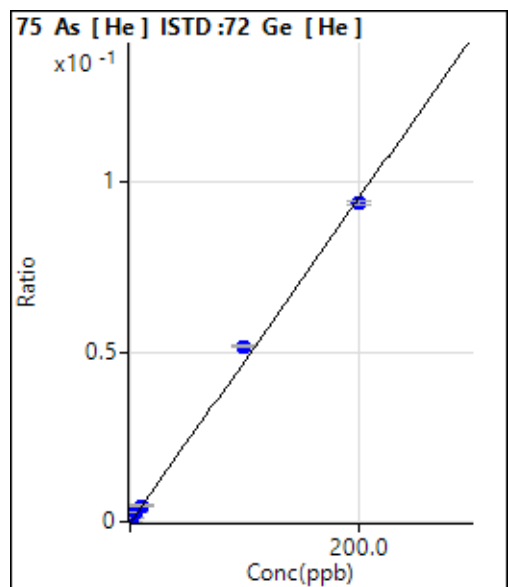
$$R = 0.9987$$

$$\text{DL} = 0.5828 \text{ ppb}$$

$$\text{BEC} = 0.9654 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	130.00	0.0001	P	28.8	
2	☐	2.000	2.127	1495.65	0.0011	P	1.0	6.4
3	☐	5.000	5.387	3611.62	0.0027	P	4.2	7.7
4	☐	10.000	9.839	6427.11	0.0048	P	2.9	-1.6
5	☐	100.000	107.713	69194.04	0.0516	P	1.0	7.7
6	☐	200.000	196.141	124940.29	0.0939	P	1.3	-1.9

$$y = 4.7831\text{E-}004 * x + 9.6080\text{E-}005$$

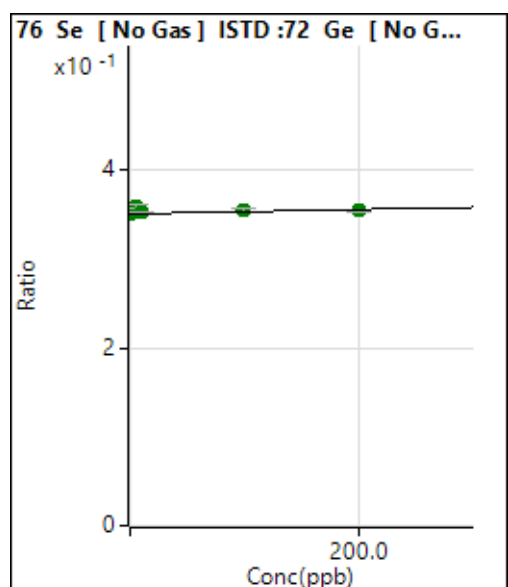
$$R = 0.9989$$

$$\text{DL} = 0.1733 \text{ ppb}$$

$$\text{BEC} = 0.2009 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1726357.89	0.3508	A	0.4	
2	☐	2.000	124.569	1729762.27	0.3539	A	1.0	6128.5
3	☐	5.000	341.342	1740538.05	0.3593	A	1.5	6726.8
4	☐	10.000	61.312	1728993.20	0.3524	A	0.7	513.1
5	☐	100.000	161.953	1719717.94	0.3549	A	1.3	62.0
6	☐	200.000	156.824	1692680.02	0.3547	A	0.5	-21.6

$$y = 2.4813E-005 * x + 0.3508$$

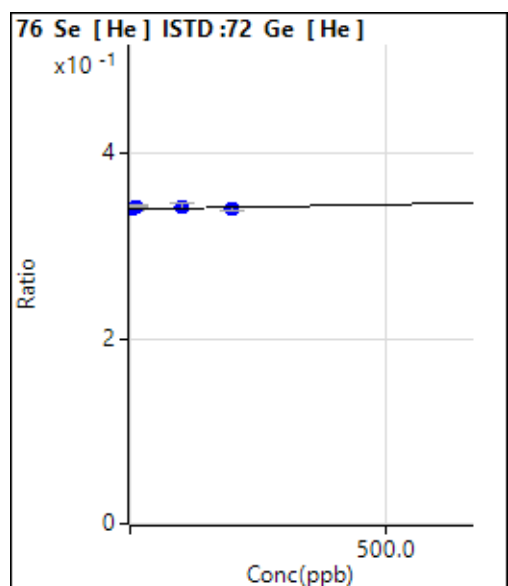
$$R = 0.1146$$

$$DL = 180.7 \text{ ppb}$$

$$BEC = 1.414E+04 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	459985.69	0.3402	P	0.7	
2	☐	2.000	-45.977	456241.39	0.3397	P	0.1	-2398.8
3	☐	5.000	-19.732	459385.50	0.3400	P	0.6	-494.6
4	☐	10.000	285.899	459247.28	0.3431	P	0.7	2759.0
5	☐	100.000	320.089	460355.64	0.3435	P	2.0	220.1
6	☐	200.000	77.259	453609.16	0.3410	P	1.3	-61.4

$$y = 1.0412E-005 * x + 0.3402$$

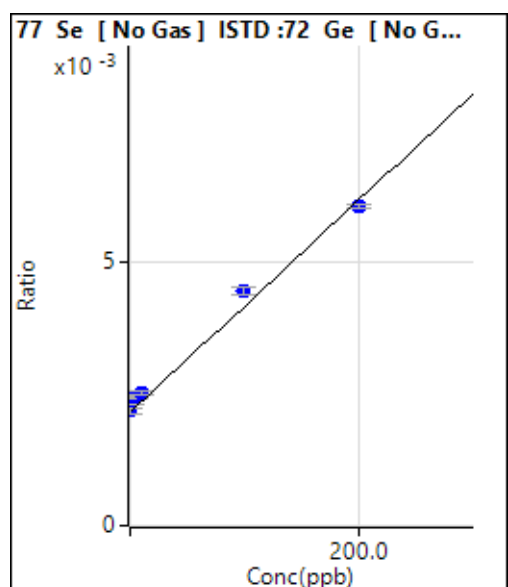
$$R = 0.2666$$

$$DL = 644.6 \text{ ppb}$$

$$BEC = 3.267E+04 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	10767.84	0.0022	P	5.5	
2	☐	2.000	8.786	11555.14	0.0024	P	4.5	339.3
3	☐	5.000	12.375	11805.35	0.0024	P	1.3	147.5
4	☐	10.000	17.079	12419.29	0.0025	P	3.2	70.8
5	☐	100.000	113.212	21647.75	0.0045	P	3.6	13.2
6	☐	200.000	192.788	28964.77	0.0061	P	1.7	-3.6

$$y = 2.0140E-005 * x + 0.0022$$

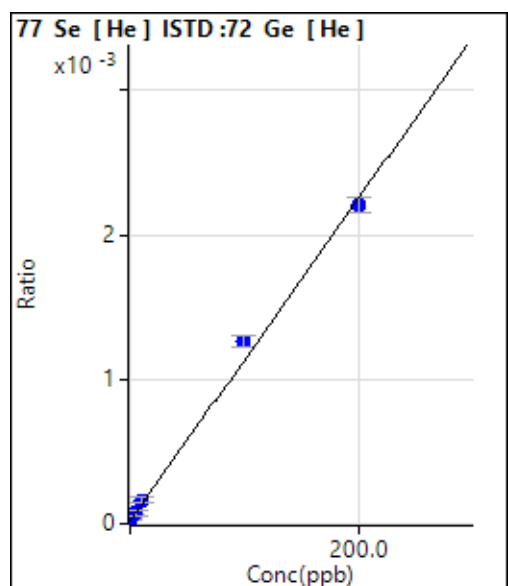
$$R = 0.9969$$

$$DL = 17.88 \text{ ppb}$$

$$BEC = 108.6 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	43.33	0.0000	P	57.7	
2	☐	2.000	2.246	76.67	0.0001	P	26.8	12.3
3	☐	5.000	3.989	103.33	0.0001	P	47.9	-20.2
4	☐	10.000	11.868	220.01	0.0002	P	27.5	18.7
5	☐	100.000	110.321	1693.48	0.0013	P	7.0	10.3
6	☐	200.000	194.769	2937.04	0.0022	P	4.6	-2.6

$$y = 1.1165E-005 * x + 3.1971E-005$$

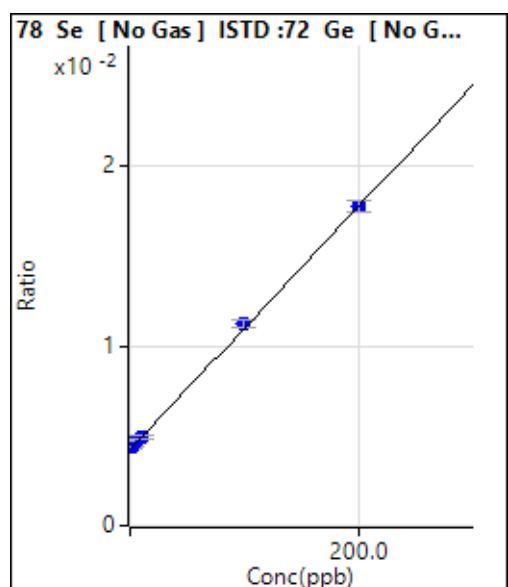
$$R = 0.9980$$

$$DL = 4.955 \text{ ppb}$$

$$BEC = 2.864 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	21373.94	0.0043	P	2.5	
2	☐	2.000	0.503	21397.33	0.0044	P	1.1	-74.8
3	☐	5.000	5.678	22906.44	0.0047	P	0.6	13.6
4	☐	10.000	8.924	24275.45	0.0049	P	3.1	-10.8
5	☐	100.000	102.456	54647.58	0.0113	P	3.3	2.5
6	☐	200.000	198.824	84920.13	0.0178	P	3.5	-0.6

$$y = 6.7681E-005 * x + 0.0043$$

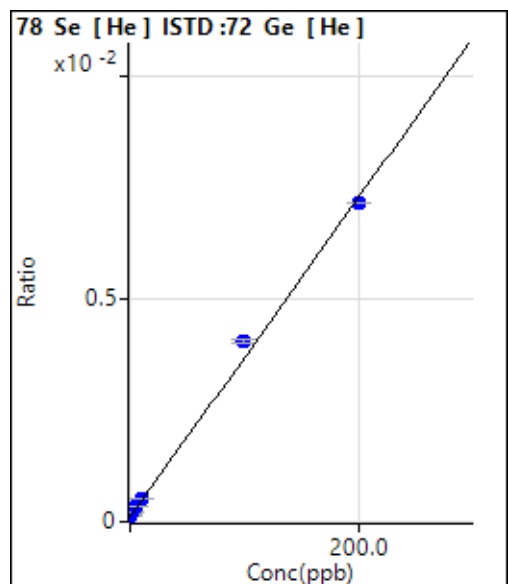
$$R = 0.9998$$

$$DL = 4.773 \text{ ppb}$$

$$BEC = 64.19 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	193.33	0.0001	P	11.3	
2	☐	2.000	2.258	300.67	0.0002	P	5.6	12.9
3	☐	5.000	5.679	468.01	0.0003	P	7.9	13.6
4	☐	10.000	10.266	683.35	0.0005	P	2.7	2.7
5	☐	100.000	108.982	5422.44	0.0040	P	2.1	9.0
6	☐	200.000	195.476	9502.03	0.0071	P	0.4	-2.3

$$y = 3.5802E-005 * x + 1.4302E-004$$

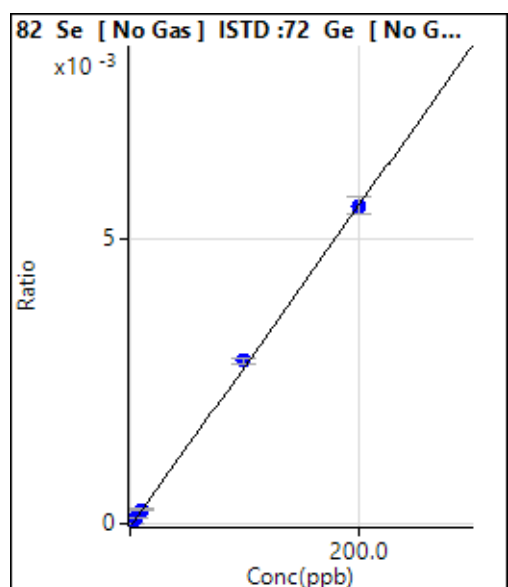
$$R = 0.9986$$

$$DL = 1.351 \text{ ppb}$$

$$BEC = 3.995 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	-111.20	0.0000	P	-169.	
2	☐	2.000	1.074	38.23	0.0000	P	76.1	-46.3
3	☐	5.000	5.060	582.51	0.0001	P	14.6	1.2
4	☐	10.000	10.013	1275.18	0.0003	P	13.4	0.1
5	☐	100.000	102.373	13870.11	0.0029	P	4.2	2.4
6	☐	200.000	198.820	26623.44	0.0056	P	5.2	-0.6

$$y = 2.8182\text{E-}005 * x - 2.2421\text{E-}005$$

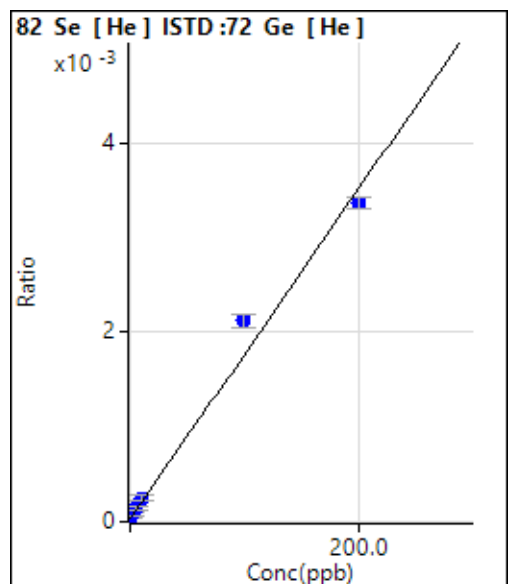
$$R = 0.9999$$

$$\text{DL} = 4.043 \text{ ppb}$$

$$\text{BEC} = -0.7956 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	60.00	0.0000	P	44.5	
2	☐	2.000	1.726	100.00	0.0001	P	56.0	-13.7
3	☐	5.000	6.080	203.34	0.0002	P	25.4	21.6
4	☐	10.000	11.874	336.68	0.0003	P	29.0	18.7
5	☐	100.000	119.128	2847.03	0.0021	P	7.1	19.1
6	☐	200.000	190.318	4477.49	0.0034	P	3.3	-4.8

$$y = 1.7446\text{E-}005 * x + 4.4431\text{E-}005$$

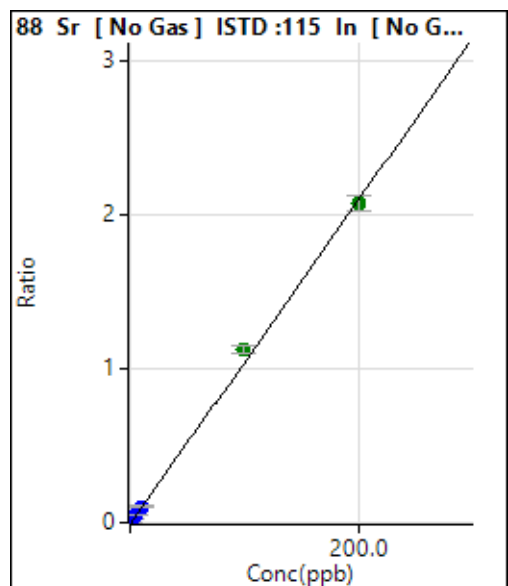
$$R = 0.9934$$

$$\text{DL} = 3.399 \text{ ppb}$$

$$\text{BEC} = 2.547 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1240.08	0.0006	P	5.6	
2	☐	2.000	2.031	44357.31	0.0220	P	5.2	1.6
3	☐	5.000	4.988	107530.89	0.0531	P	4.6	-0.2
4	☐	10.000	9.881	208793.90	0.1047	P	5.9	-1.2
5	☐	100.000	106.461	2209020.90	1.1217	A	4.9	6.5
6	☐	200.000	196.775	4087427.23	2.0728	A	4.5	-1.6

$$y = 0.0105 * x + 6.0762E-004$$

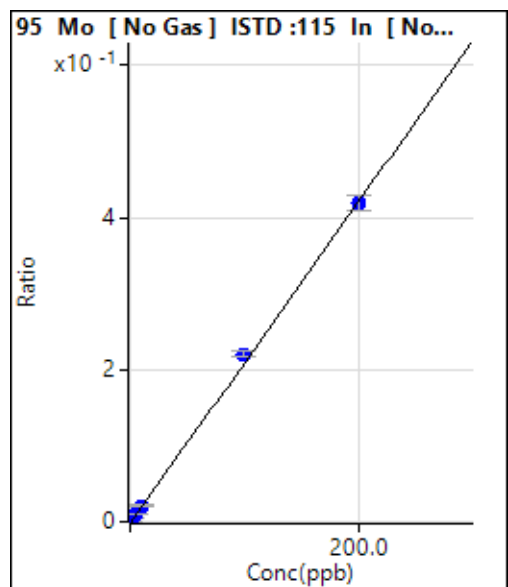
$$R = 0.9992$$

$$DL = 0.009643 \text{ ppb}$$

$$BEC = 0.0577 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	80.00	0.0000	P	12.8	
2	☐	2.000	1.985	8556.23	0.0042	P	1.5	-0.7
3	☐	5.000	5.017	21567.79	0.0107	P	6.4	0.3
4	☐	10.000	10.024	42404.32	0.0213	P	3.7	0.2
5	☐	100.000	104.006	433666.23	0.2202	P	3.8	4.0
6	☐	200.000	197.995	826305.48	0.4191	P	4.9	-1.0

$$y = 0.0021 * x + 3.9206E-005$$

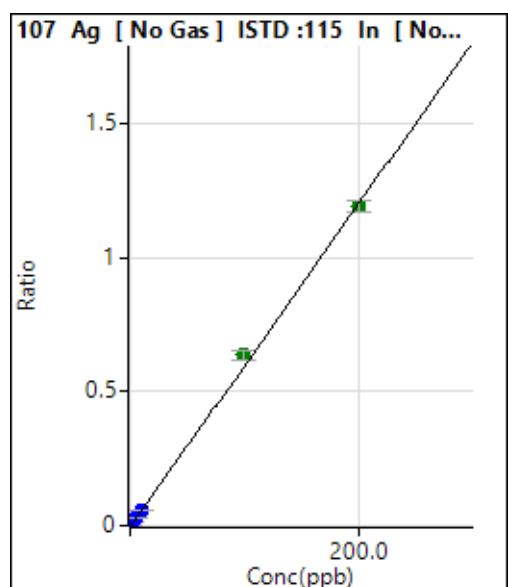
$$R = 0.9997$$

$$DL = 0.00712 \text{ ppb}$$

$$BEC = 0.01852 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	253.34	0.0001	P	16.6	
2	☐	2.000	1.937	23845.28	0.0118	P	3.5	-3.1
3	☐	5.000	4.850	59530.84	0.0294	P	4.1	-3.0
4	☐	10.000	9.665	116693.34	0.0585	P	5.7	-3.3
5	☐	100.000	105.312	1252609.96	0.6361	A	6.0	5.3
6	☐	200.000	197.365	2350700.69	1.1921	A	4.1	-1.3

$$y = 0.0060 * x + 1.2414E-004$$

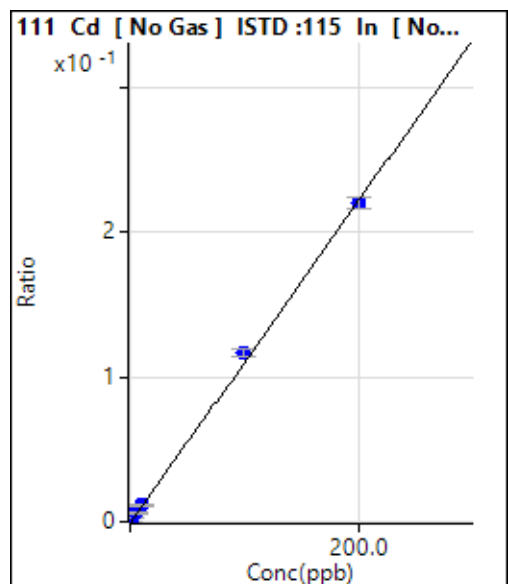
$$R = 0.9995$$

$$DL = 0.01022 \text{ ppb}$$

$$BEC = 0.02056 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	10.00	0.0000	P	173.2	
2	☐	2.000	2.110	4750.92	0.0024	P	7.9	5.5
3	☐	5.000	5.389	12169.16	0.0060	P	3.8	7.8
4	☐	10.000	10.240	22783.47	0.0114	P	6.7	2.4
5	☐	100.000	104.943	230417.52	0.1170	P	4.7	4.9
6	☐	200.000	197.506	434221.56	0.2202	P	3.9	-1.2

$$y = 0.0011 * x + 4.8983E-006$$

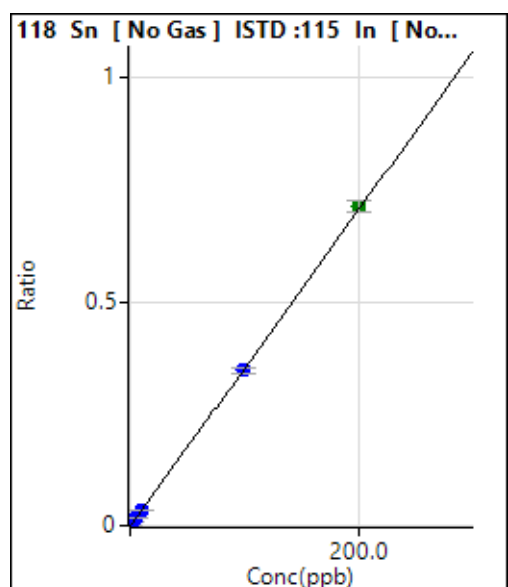
$$R = 0.9996$$

$$DL = 0.02283 \text{ ppb}$$

$$BEC = 0.004394 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2987.06	0.0015	P	5.1	
2	☐	2.000	1.956	16924.60	0.0084	P	2.2	-2.2
3	☐	5.000	4.831	37584.08	0.0186	P	3.4	-3.4
4	☐	10.000	9.427	69510.22	0.0348	P	4.6	-5.7
5	☐	100.000	97.660	684033.09	0.3472	P	3.4	-2.3
6	☐	200.000	201.203	1407667.27	0.7139	A	4.2	0.6

$$y = 0.0035 * x + 0.0015$$

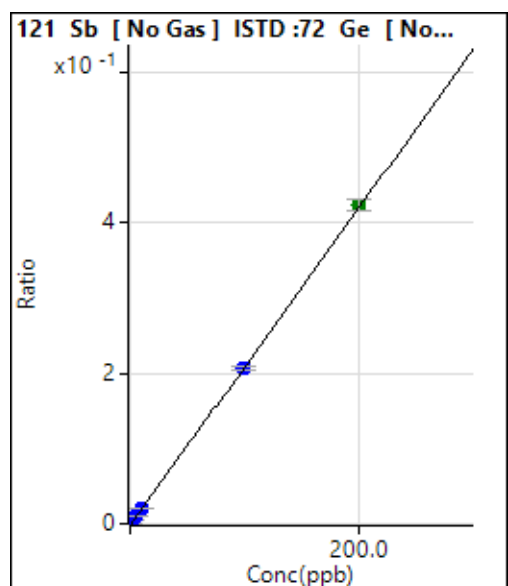
$$R = 0.9999$$

$$DL = 0.06384 \text{ ppb}$$

$$BEC = 0.4134 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	276.68	0.0001	P	10.9	
2	☐	2.000	1.916	20022.35	0.0041	P	0.5	-4.2
3	☐	5.000	5.171	53111.09	0.0110	P	1.9	3.4
4	☐	10.000	9.481	98377.74	0.0201	P	4.9	-5.2
5	☐	100.000	98.059	1002472.77	0.2069	P	2.0	-1.9
6	☐	200.000	200.993	2022671.74	0.4240	A	4.0	0.5

$$y = 0.0021 * x + 5.6247E-005$$

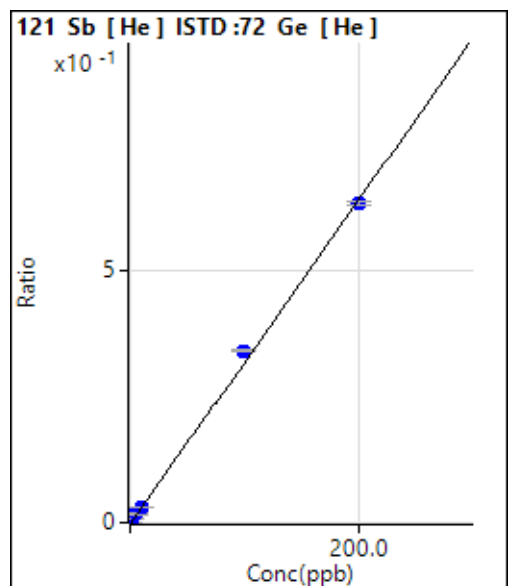
$$R = 0.9999$$

$$DL = 0.008709 \text{ ppb}$$

$$BEC = 0.02667 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	150.00	0.0001	P	47.0	
2	☐	2.000	1.995	8799.80	0.0066	P	2.2	-0.2
3	☐	5.000	5.357	23518.10	0.0174	P	4.5	7.1
4	☐	10.000	9.680	41967.46	0.0314	P	3.6	-3.2
5	☐	100.000	106.093	459251.65	0.3426	P	1.1	6.1
6	☐	200.000	196.961	846075.30	0.6359	P	0.6	-1.5

$$y = 0.0032 * x + 1.1109E-004$$

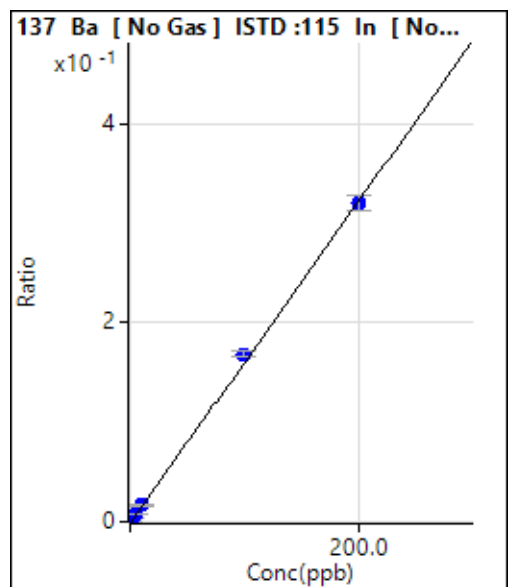
$$R = 0.9993$$

$$DL = 0.04854 \text{ ppb}$$

$$BEC = 0.03441 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	176.67	0.0001	P	20.3	
2	☐	2.000	2.033	6815.26	0.0034	P	3.2	1.7
3	☐	5.000	5.155	17068.14	0.0084	P	2.0	3.1
4	☐	10.000	10.147	32942.27	0.0165	P	6.8	1.5
5	☐	100.000	104.238	332554.14	0.1688	P	4.0	4.2
6	☐	200.000	197.870	631741.67	0.3204	P	5.0	-1.1

$$y = 0.0016 * x + 8.6595E-005$$

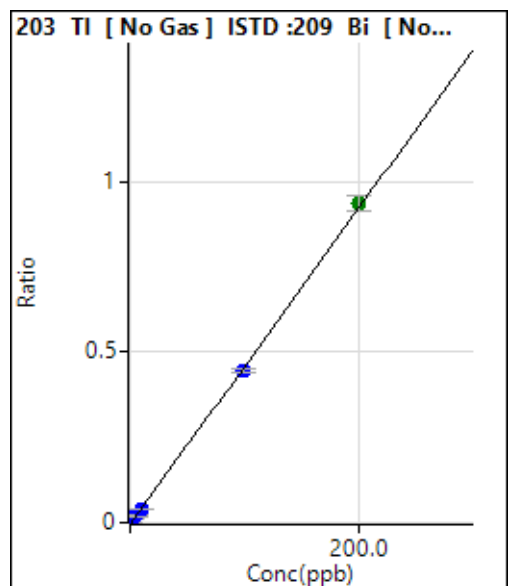
$$R = 0.9997$$

$$DL = 0.03254 \text{ ppb}$$

$$BEC = 0.05349 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	153.34	0.0001	P	26.3	
2	☐	2.000	1.950	18066.64	0.0091	P	0.7	-2.5
3	☐	5.000	4.271	39452.69	0.0199	P	3.4	-14.6
4	☐	10.000	8.498	78352.63	0.0395	P	4.6	-15.0
5	☐	100.000	96.085	854681.86	0.4457	P	3.5	-3.9
6	☐	200.000	202.051	1764339.50	0.9372	A	5.0	1.0

$$y = 0.0046 * x + 7.7807E-005$$

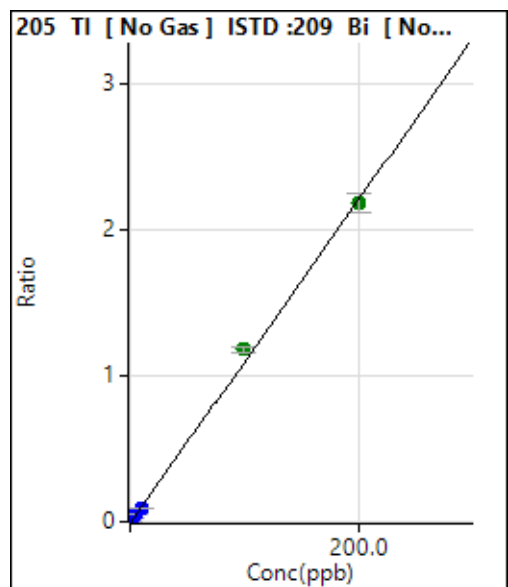
$$R = 0.9997$$

$$DL = 0.01325 \text{ ppb}$$

$$BEC = 0.01678 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	473.35	0.0002	P	10.5	
2	☐	2.000	2.010	44613.49	0.0225	P	1.5	0.5
3	☐	5.000	4.321	95518.50	0.0481	P	1.7	-13.6
4	☐	10.000	8.557	188655.93	0.0951	P	3.6	-14.4
5	☐	100.000	106.240	2258492.36	1.1778	A	2.9	6.2
6	☐	200.000	196.969	4110000.77	2.1834	A	5.9	-1.5

$$y = 0.0111 * x + 2.4070E-004$$

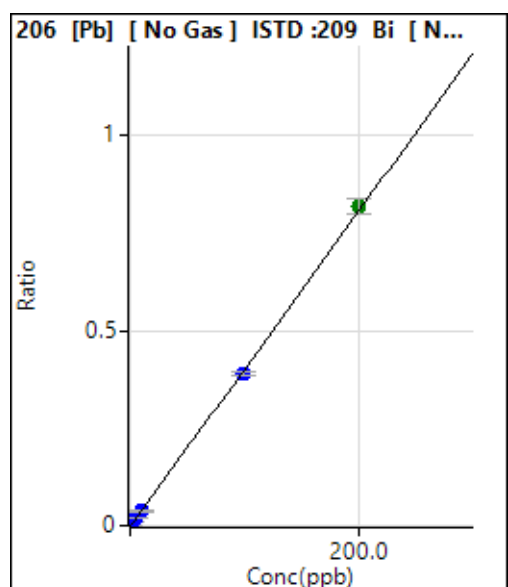
$$R = 0.9992$$

$$DL = 0.006847 \text{ ppb}$$

$$BEC = 0.02172 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2096.90	0.0011	P	4.7	
2	☐	2.000	1.992	18073.41	0.0091	P	3.1	-0.4
3	☐	5.000	4.916	41579.72	0.0210	P	2.4	-1.7
4	☐	10.000	9.015	74475.69	0.0375	P	4.6	-9.9
5	☐	100.000	95.896	746034.88	0.3891	P	3.1	-4.1
6	☐	200.000	202.103	1541515.61	0.8188	A	4.5	1.1

$$y = 0.0040 * x + 0.0011$$

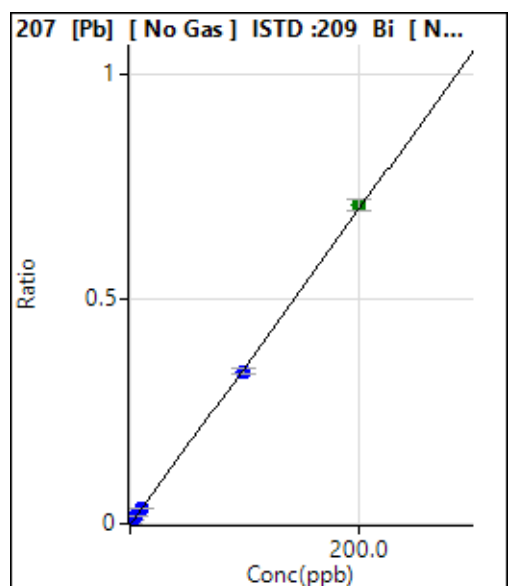
$$R = 0.9997$$

$$DL = 0.03739 \text{ ppb}$$

$$BEC = 0.2634 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1703.48	0.0009	P	7.6	
2	☐	2.000	1.991	15573.34	0.0079	P	3.9	-0.5
3	☐	5.000	4.966	36333.52	0.0183	P	4.3	-0.7
4	☐	10.000	9.164	65603.00	0.0331	P	2.7	-8.4
5	☐	100.000	96.406	651247.54	0.3396	P	3.1	-3.6
6	☐	200.000	201.840	1336827.69	0.7101	A	4.0	0.9

$$y = 0.0035 * x + 8.6544E-004$$

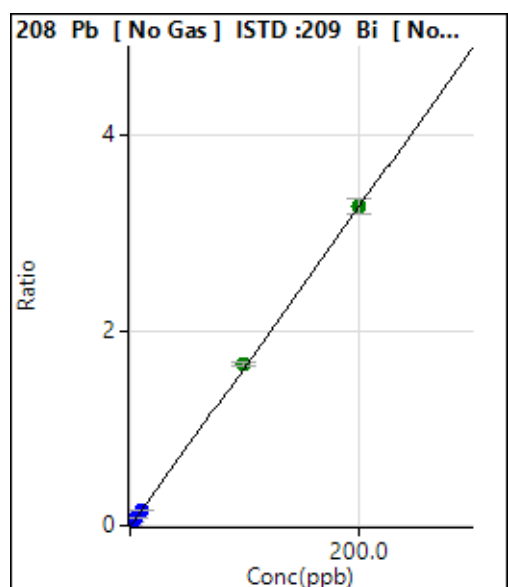
$$R = 0.9998$$

$$DL = 0.05598 \text{ ppb}$$

$$BEC = 0.2463 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	8371.31	0.0043	P	2.7	
2	☐	2.000	1.959	72016.29	0.0364	P	2.3	-2.1
3	☐	5.000	4.862	166531.17	0.0839	P	3.3	-2.8
4	☐	10.000	9.068	303283.51	0.1529	P	3.3	-9.3
5	☐	100.000	100.906	3179334.43	1.6581	A	3.4	0.9
6	☐	200.000	199.597	6166604.71	3.2756	A	4.7	-0.2

$$y = 0.0164 * x + 0.0043$$

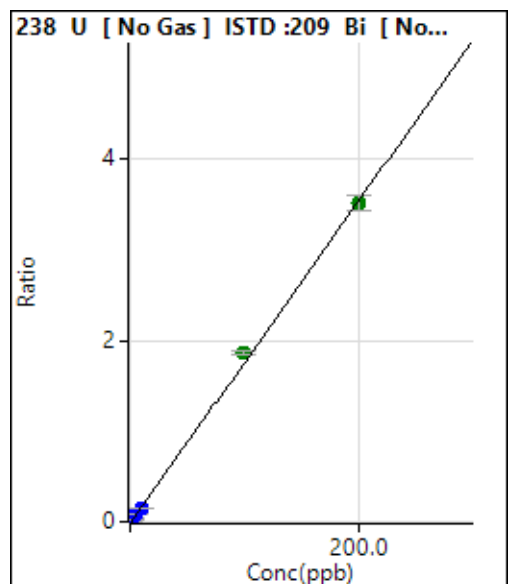
$$R = 1.0000$$

$$DL = 0.02087 \text{ ppb}$$

$$BEC = 0.2595 \text{ ppb}$$

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	223.34	0.0001	P	14.0	
2	☐	2.000	1.794	63478.08	0.0320	P	2.3	-10.3
3	☐	5.000	4.507	159386.96	0.0803	P	2.5	-9.9
4	☐	10.000	8.713	307897.04	0.1552	P	3.2	-12.9
5	☐	100.000	104.574	3569780.47	1.8614	A	2.4	4.6
6	☐	200.000	197.792	6628278.86	3.5206	A	5.3	-1.1

$$y = 0.0178 * x + 1.1345E-004$$

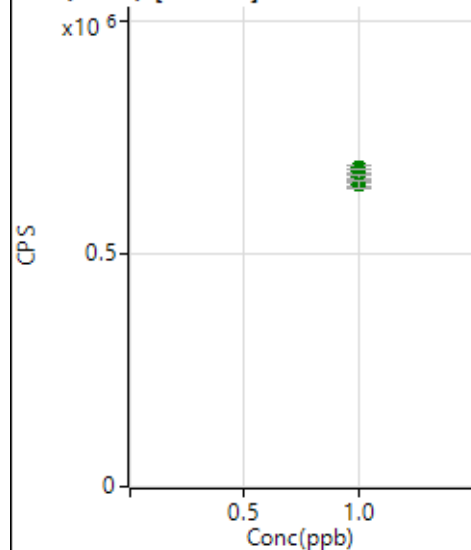
$$R = 0.9996$$

$$DL = 0.002674 \text{ ppb}$$

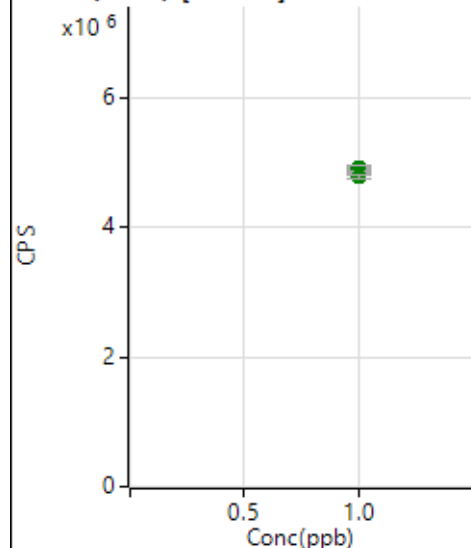
$$BEC = 0.006374 \text{ ppb}$$

Weight: <None>

Min Conc: <None>

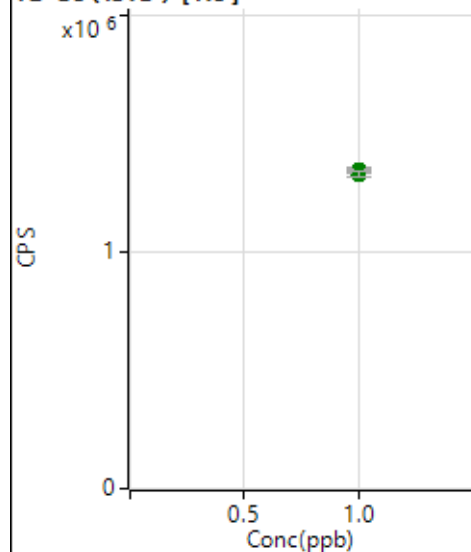
6 Li (ISTD) [No Gas]

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		685402.54		A	1.7	
2	☐	1.000		676827.39		A	1.1	
3	☐	1.000		656347.14		A	1.7	
4	☐	1.000		666149.62		A	1.2	
5	☐	1.000		649726.27		A	1.3	
6	☐	1.000		647527.07		A	2.6	

72 Ge (ISTD) [No Gas]

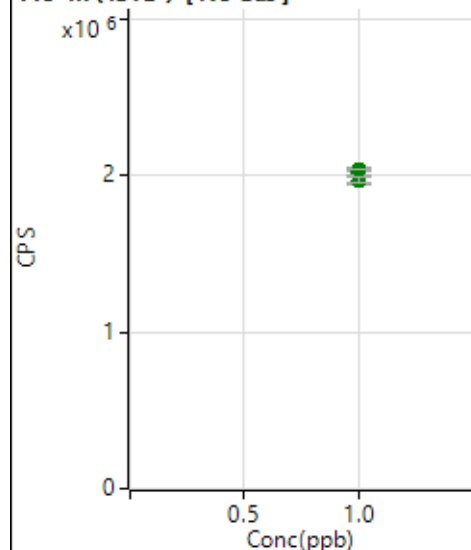
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		4920574.41		A	0.7	
2	☐	1.000		4887487.74		A	0.8	
3	☐	1.000		4844560.03		A	0.9	
4	☐	1.000		4906601.07		A	1.4	
5	☐	1.000		4846155.24		A	0.8	
6	☐	1.000		4771549.51		A	1.2	

72 Ge (ISTD) [He]

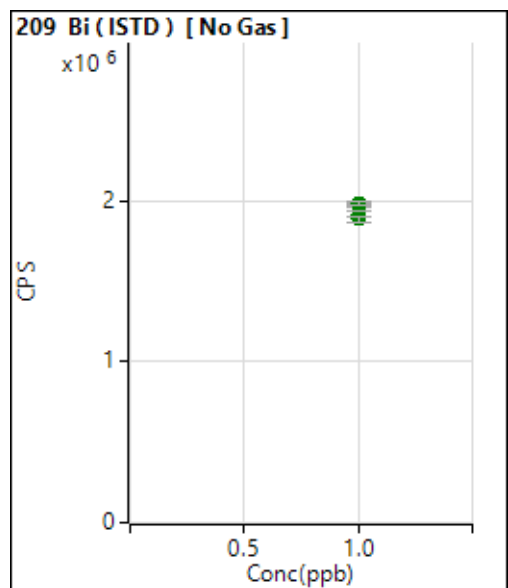


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1352312.64		A	0.7	
2	☐	1.000		1343150.14		A	0.4	
3	☐	1.000		1351308.00		A	0.3	
4	☐	1.000		1338403.11		A	0.3	
5	☐	1.000		1340444.51		A	1.2	
6	☐	1.000		1330555.86		A	1.5	

115 In (ISTD) [No Gas]



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		2041149.66		A	0.7	
2	☐	1.000		2017956.57		A	2.7	
3	☐	1.000		2024732.85		A	1.4	
4	☐	1.000		1995355.68		A	0.8	
5	☐	1.000		1971111.37		A	2.8	
6	☐	1.000		1972823.10		A	1.9	



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1967910.60		A	1.0	
2	☐	1.000		1980977.16		A	0.6	
3	☐	1.000		1984216.95		A	1.0	
4	☐	1.000		1983669.71		A	1.0	
5	☐	1.000		1918248.56		A	1.9	
6	☐	1.000		1883684.24		A	2.4	

Sample Report

Sample Table

Sample Name LLICV2
 Data File Name 028LCV2.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:49:23-05:00
 Sample Type LLCCV2
 Dilution 1
 Comment
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	2.096	2.096	6.63	55303	0.00	2	
Be	9	1	No Gas	2.037	2.037	6.26	4716	0.04	2	
V	51	2	He	1.959	1.959	5.26	8498	0.02	2	
Cr	52	2	He	2.241	2.241	3.10	10985	0.02	2	
Fe	56	2	He	217.691	217.691	2.43	784313	0.03	200	
Se	78	2	He	2.421	2.421	10.38	306	0.79	2	
As	75	2	He	2.067	2.067	12.36	1445	0.14	2	
Ca	44	2	He	222.522	222.522	4.33	12322	1.81	200	
Na	23	2	He	219.713	219.713	3.63	213929	0.10	200	
Mg	24	2	He	208.606	208.606	2.89	66418	0.31	200	
K	39	2	He	218.337	218.337	4.22	144022	0.15	200	
Mn	55	2	He	2.270	2.270	2.47	6408	0.04	2	
Co	59	2	He	2.076	2.076	1.39	14007	0.01	2	
Ni	60	2	He	2.171	2.171	7.46	4034	0.05	2	
Cu	63	2	He	2.111	2.111	3.82	12202	0.02	2	
Zn	66	2	He	2.162	2.162	12.64	2617	0.08	2	
Al	27	2	He	6.243	6.243	22.32	3474	0.18	2	NewName Main CR1 Failed
B	11	1	No Gas	23.650	23.650	8.35	78946	0.03	10	NewName Main CR1 Failed
Al	27	1	No Gas	5.327	5.327	3.21	190672	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	10.562	10.562	27.59	2282687	0.00	10	
Ag	107	1	No Gas	1.962	1.962	1.17	24089	0.01	2	
Cd	111	1	No Gas	2.106	2.106	6.12	4734	0.04	2	
Sr	88	1	No Gas	2.042	2.042	2.61	44487	0.00	2	
Mo	95	1	No Gas	2.061	2.061	4.12	8856	0.02	2	
Sn	118	1	No Gas	2.017	2.017	1.58	17315	0.01	2	
Sb	121	1	No Gas	1.995	1.995	3.45	20690	0.01	2	
Ba	137	1	No Gas	2.202	2.202	5.64	7349	0.03	2	
Tl	205	1	No Gas	2.002	2.002	3.16	44366	0.00	2	
Tl	203	1	No Gas	2.081	2.081	2.97	19238	0.01	2	
Pb	208	1	No Gas	1.857	1.857	2.41	68596	0.00	2	
U	238	1	No Gas	1.825	1.825	2.81	64450	0.00	2	
Ca	43	2	He	202.223	202.223	19.94	253	79.82	200	
Sb	121	2	He	2.091	2.091	1.57	9140	0.02	2	
Ti	47	2	He	1.893	1.893	25.09	263	0.72	200	
Cu	63	1	No Gas	2.108	2.108	1.17	25601	0.01	2	
Se	82	1	No Gas	2.917	2.917	54.88	289	1.01	2	NewName Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	657754	2.16	685403	95.97	70	120	
Ge	72	2	He	1331927	0.72	1352313	98.49	70	120	
Ge	72	1	No Gas	4852368	1.40	4920574	98.61	70	120	
In	115	1	No Gas	2012206	0.19	2041150	98.58	70	120	
Bi	209	1	No Gas	1977494	0.17	1967911	100.49	70	120	

Sample Report

Sample Table

Sample Name LLICV5
 Data File Name 029LCV5.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:51:39-05:00
 Sample Type LLCCV5
 Dilution 1
 Comment
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	4.987	4.987	2.95	81379	0.01	5	
Be	9	1	No Gas	5.275	5.275	4.72	12341	0.04	5	
V	51	2	He	5.090	5.090	2.90	19469	0.03	5	
Cr	52	2	He	5.465	5.465	4.12	24232	0.02	5	
Fe	56	2	He	564.224	564.224	3.29	2029119	0.03	500	
Se	78	2	He	5.365	5.365	19.22	450	1.19	5	
As	75	2	He	5.258	5.258	3.09	3509	0.15	5	
Ca	44	2	He	527.608	527.608	3.21	18032	2.93	500	
Na	23	2	He	544.993	544.993	3.76	389408	0.14	500	
Mg	24	2	He	524.770	524.770	3.25	168222	0.31	500	
K	39	2	He	542.774	542.774	2.33	258015	0.21	500	
Mn	55	2	He	5.419	5.419	5.36	14945	0.04	5	
Co	59	2	He	5.279	5.279	5.14	35841	0.01	5	
Ni	60	2	He	5.354	5.354	1.38	9530	0.06	5	
Cu	63	2	He	5.542	5.542	5.81	28300	0.02	5	
Zn	66	2	He	5.591	5.591	3.04	5541	0.10	5	
Al	27	2	He	6.792	6.792	8.01	3597	0.19	5	NewName2 Main CR1 Failed
B	11	1	No Gas	35.748	35.748	0.27	94479	0.04	25	NewName2 Main CR1 Failed
Al	27	1	No Gas	4.692	4.692	8.52	186046	0.00	5	
Si	28	1	No Gas	26.427	26.427	23.18	2423177	0.00	25	
Ag	107	1	No Gas	5.038	5.038	1.06	62484	0.01	5	
Cd	111	1	No Gas	5.417	5.417	0.89	12363	0.04	5	
Sr	88	1	No Gas	5.077	5.077	0.11	110595	0.00	5	
Mo	95	1	No Gas	5.291	5.291	2.29	22987	0.02	5	
Sn	118	1	No Gas	5.037	5.037	1.87	39470	0.01	5	
Sb	121	1	No Gas	5.064	5.064	2.08	52673	0.01	5	
Ba	137	1	No Gas	5.172	5.172	2.99	17302	0.03	5	
Tl	205	1	No Gas	4.450	4.450	4.90	97775	0.00	5	
Tl	203	1	No Gas	4.431	4.431	5.61	40690	0.01	5	
Pb	208	1	No Gas	4.818	4.818	5.05	164195	0.00	5	
U	238	1	No Gas	4.685	4.685	4.38	164760	0.00	5	
Ca	43	2	He	530.427	530.427	19.17	610	86.95	500	
Sb	121	2	He	5.458	5.458	4.20	23825	0.02	5	
Ti	47	2	He	4.658	4.658	8.48	600	0.78	5	
Cu	63	1	No Gas	5.146	5.146	3.80	56668	0.01	5	
Se	82	1	No Gas	5.301	5.301	14.06	623	0.85	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	665730	1.00	685403	97.13	70	120	
Ge	72	2	He	1344520	1.67	1352313	99.42	70	120	
Ge	72	1	No Gas	4906358	1.22	4920574	99.71	70	120	
In	115	1	No Gas	2045301	0.77	2041150	100.20	70	120	
Bi	209	1	No Gas	1974828	3.17	1967911	100.35	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name ICB
 Data File Name 031_ICB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:56:10-05:00
 Sample Type ICB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.138	44.9	38254	2.3	0.5	
Be	9	1	No Gas	0.001	94.5	23	12.4	0.5	
V	51	2	He	-0.127	-1.9	1329	0.5	2.5	
Cr	52	2	He	0.026	142.7	2067	8.5	2.5	
Fe	56	2	He	1.099	20.6	18113	3.9	100	
Se	78	2	He	-0.051	-812.7	191	9.5	1	
As	75	2	He	-0.046	-26.3	100	8.8	2.5	
Ca	44	2	He	-10.231	-170.6	8213	3.5	100	
Na	23	2	He	5.036	49.3	101928	1.2	100	
Mg	24	2	He	0.759	31.4	507	14.3	100	
K	39	2	He	-4.070	-123.8	68493	1.9	100	
Mn	55	2	He	0.061	22.5	517	6.2	2.5	
Co	59	2	He	0.009	29.5	120	14.4	2.5	
Ni	60	2	He	0.060	48.8	453	12.1	2.5	
Cu	63	2	He	0.066	61.9	2794	6.0	1	
Zn	66	2	He	0.094	48.6	900	4.4	2.5	
Al	27	2	He	-1.022	-72.6	2324	6.3	5	
B	11	1	No Gas	12.887	14.9	66029	0.1	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-0.469	-59.7	130649	2.1	5	
Si	28	1	No Gas	87.083	2.4	2845895	0.8	10	ICB Main CR1 Failed
Ag	107	1	No Gas	0.003	84.4	280	12.4	2.5	
Cd	111	1	No Gas	0.002	309.4	13	86.6	1	
Sr	88	1	No Gas	0.023	81.5	1690	23.5	2.5	
Mo	95	1	No Gas	0.014	23.1	137	8.4	2.5	
Sn	118	1	No Gas	0.158	46.0	4011	10.9	5	
Sb	121	1	No Gas	0.013	13.5	410	4.2	2.5	
Ba	137	1	No Gas	0.068	33.0	390	16.8	2.5	
Tl	205	1	No Gas	0.002	188.3	513	14.6	1	
Tl	203	1	No Gas	0.009	30.9	230	11.5	1	
Pb	208	1	No Gas	-0.060	-13.8	6391	5.4	2.5	
U	238	1	No Gas	0.003	48.3	317	14.9	2.5	
Ca	43	2	He	3.108	597.7	40	50.0	100	
Sb	121	2	He	0.030	36.5	280	16.4	2.5	
Ti	47	2	He	-0.108	-193.5	23	107.9	2.5	
Se	82	1	No Gas	0.327	79.4	-64	-55.7	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	656663	3.58	685403	95.81	70	120	
Ge	72	2	He	1351237	1.04	1352313	99.92	70	120	
Ge	72	1	No Gas	4876201	0.31	4920574	99.10	70	120	
In	115	1	No Gas	1986470	2.31	2041150	97.32	70	120	
Bi	209	1	No Gas	1955641	1.24	1967911	99.38	70	120	



Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name ICSA
 Data File Name 0321CSA.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T10:58:27-05:00
 Sample Type ICSA
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.368	23.4	41381	2.6	0	ICSA Main CR1 Failed
Be	9	1	No Gas	-0.004	-34.0	12	24.7	0	ICSA Main CR1 Failed
V	51	2	He	-0.252	-2.3	867	2.4	0	ICSA Main CR1 Failed
Cr	52	2	He	1.319	6.8	7149	5.1	0	ICSA Main CR1 Failed
Fe	56	2	He	100064.783	1.3	348570475	1.3	0	
Se	78	2	He	0.480	36.1	210	3.8	0	ICSA Main CR1 Failed
As	75	2	He	0.198	37.3	250	18.5	0	ICSA Main CR1 Failed
Ca	44	2	He	100799.140	2.3	1809451	2.5	0	
Na	23	2	He	99853.571	1.3	52045403	1.4	0	
Mg	24	2	He	99961.295	1.9	31206406	2.0	0	
K	39	2	He	99522.222	1.5	33766097	1.5	0	
Mn	55	2	He	0.325	5.9	1197	4.3	0	ICSA Main CR1 Failed
Co	59	2	He	0.213	6.4	1467	6.0	0	ICSA Main CR1 Failed
Ni	60	2	He	0.628	4.8	1390	3.7	0	ICSA Main CR1 Failed
Cu	63	2	He	0.477	11.6	4578	5.4	0	ICSA Main CR1 Failed
Zn	66	2	He	1.830	9.3	2304	6.0	0	ICSA Main CR1 Failed
Al	27	2	He	95644.333	1.6	15362632	1.7	0	
B	11	1	No Gas	16.687	23.0	72458	2.7	0	
Al	27	1	No Gas	96763.601	3.2	1005413852	2.8	0	
Si	28	1	No Gas	7.382	49.1	2243343	1.5	0	ICSA Main CR1 Failed
Ag	107	1	No Gas	0.152	7.4	2027	6.2	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.119	10.3	2440	8.6	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	4.438	4.8	92288	3.6	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	2101.341	4.1	8670604	2.8	0	
Sn	118	1	No Gas	0.444	1.7	5918	2.2	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.255	9.5	2864	8.4	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.601	7.3	2064	5.0	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.009	42.6	653	11.9	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.025	10.5	370	7.2	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.093	15.1	11085	3.3	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.012	23.3	640	14.9	0	ICSA Main CR1 Failed
Ca	43	2	He	95568.254	0.8	100979	0.9	0	
Sb	121	2	He	0.268	14.1	1280	12.4	0	ICSA Main CR1 Failed
Ti	47	2	He	1985.232	1.2	234359	1.2	0	
Se	82	1	No Gas	-0.124	-278.0	-125	-37.3	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	675153	3.86	685403	98.50	70	120	
Ge	72	2	He	1310979	0.15	1352313	96.94	70	120	
Ge	72	1	No Gas	4816408	0.34	4920574	97.88	70	120	
In	115	1	No Gas	1950311	1.58	2041150	95.55	70	120	
Bi	209	1	No Gas	1920484	0.86	1967911	97.59	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name ICSAB
 Data File Name 033ICS8.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T11:00:44-05:00
 Sample Type ICSB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	97.317	6.247	920248	4.84	100	97.3	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	96.743	5.855	233048	4.67	100	96.7	80	120	
V	51	2	He	105.178	0.379	352020	0.02	100	105.2	80	120	
Cr	52	2	He	104.710	0.622	410733	0.25	100	104.7	80	120	
Fe	56	2	He	112931.607	0.433	386217954	0.44	100	112931.6	80	120	ICSB Main CR1 Failed
Se	78	2	He	104.332	2.202	4992	1.93	100	104.3	80	120	
As	75	2	He	104.549	0.734	64485	0.36	100	104.5	80	120	
Ca	44	2	He	115269.392	0.794	2030311	0.95	100	115269.4	80	120	ICSB Main CR1 Failed
Na	23	2	He	114114.859	0.272	58380696	0.50	100	114114.9	80	120	ICSB Main CR1 Failed
Mg	24	2	He	113585.840	0.241	34813094	0.23	100	113585.8	80	120	ICSB Main CR1 Failed
K	39	2	He	113188.751	0.336	37693694	0.38	100	113188.8	80	120	ICSB Main CR1 Failed
Mn	55	2	He	103.447	0.090	267210	0.29	100	103.4	80	120	
Co	59	2	He	100.272	0.396	651038	0.20	100	100.3	80	120	
Ni	60	2	He	102.313	0.388	168319	0.31	100	102.3	80	120	
Cu	63	2	He	101.910	0.763	457292	0.39	100	101.9	80	120	
Zn	66	2	He	103.299	1.782	84351	2.04	100	103.3	80	120	
Al	27	2	He	98607.160	1.090	15549372	0.84	100	98607.2	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	521.813	2.439	700357	1.56	100	521.8	80	120	
Al	27	1	No Gas	97758.058	3.484	991769985	3.58	100	97758.1	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	538.282	3.454	5881959	2.17	100	538.3	80	120	
Ag	107	1	No Gas	95.946	7.812	1111509	6.41	100	95.9	80	120	
Cd	111	1	No Gas	104.340	5.923	223130	4.49	100	104.3	80	120	
Sr	88	1	No Gas	110.802	6.186	2239215	4.74	100	110.8	80	120	
Mo	95	1	No Gas	2196.178	5.979	8915622	4.54	100	2196.2	80	120	
Sn	118	1	No Gas	97.390	5.375	664253	3.91	100	97.4	80	120	
Sb	121	1	No Gas	99.142	4.152	983578	4.20	100	99.1	80	120	
Ba	137	1	No Gas	105.228	5.929	326915	4.49	100	105.2	80	120	
Tl	205	1	No Gas	91.253	4.368	1841796	4.54	100	91.3	80	120	
Tl	203	1	No Gas	83.358	3.825	703955	3.71	100	83.4	80	120	
Pb	208	1	No Gas	101.858	3.788	3047005	3.98	100	101.9	80	120	
U	238	1	No Gas	108.739	5.262	3523153	4.88	100	108.7	80	120	
Ca	43	2	He	110939.629	0.613	115078	0.76	100	110939.6	80	120	ICSB Main CR1 Failed
Sb	121	2	He	104.517	0.452	434393	0.49	100	104.5	80	120	
Ti	47	2	He	2169.045	0.510	251390	0.83	100	2169.0	80	120	ICSB Main CR1 Failed
Cu	63	1	No Gas	97.211	3.927	948934	4.03	100	97.2	80	120	
Se	82	1	No Gas	100.872	3.630	13262	3.67	100	100.9	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	686986	1.59	685403	100.23	70	120	
Ge	72	2	He	1287086	0.37	1352313	95.18	70	120	
Ge	72	1	No Gas	4702391	0.66	4920574	95.57	70	120	
In	115	1	No Gas	1919210	1.46	2041150	94.03	70	120	
Bi	209	1	No Gas	1820532	1.05	1967911	92.51	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name CCV
 Data File Name 138_CCV.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:28:02-05:00
 Sample Type CCV
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	95.384	6.196	885098	3.23	100	95.4	90	110	
Be	9	1	No Gas	93.479	6.061	220773	3.09	100	93.5	90	110	
V	51	2	He	97.992	3.557	348331	0.31	100	98.0	90	110	
Cr	52	2	He	98.556	2.977	410625	0.48	100	98.6	90	110	
Fe	56	2	He	9806.581	3.312	35622234	0.13	10000	98.1	90	110	
Se	78	2	He	98.871	2.745	5034	0.82	100	98.9	90	110	
As	75	2	He	97.518	3.259	63875	0.25	100	97.5	90	110	
Ca	44	2	He	9733.705	3.055	189832	0.76	10000	97.3	90	110	
Na	23	2	He	10071.806	2.978	5562919	0.61	10000	100.7	90	110	
Mg	24	2	He	10015.858	3.473	3260190	2.52	10000	100.2	90	110	
K	39	2	He	10060.743	3.618	3621742	1.31	10000	100.6	90	110	
Mn	55	2	He	97.355	3.193	267034	0.28	100	97.4	90	110	
Co	59	2	He	96.212	3.096	663305	0.69	100	96.2	90	110	
Ni	60	2	He	99.832	3.847	174373	0.95	100	99.8	90	110	
Cu	63	2	He	99.855	3.414	475794	0.50	100	99.9	90	110	
Zn	66	2	He	97.593	2.764	84670	1.11	100	97.6	90	110	
Al	27	2	He	98.133	5.369	18943	1.61	100	98.1	90	110	
B	11	1	No Gas	456.585	4.061	607402	0.59	500	91.3	90	110	
Al	27	1	No Gas	95.456	4.646	1171431	2.36	100	95.5	90	110	
Si	28	1	No Gas	459.598	5.689	5686871	1.79	5000	9.2	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.186	3.165	1252788	2.19	100	100.2	90	110	
Cd	111	1	No Gas	96.600	3.561	222945	2.64	100	96.6	90	110	
Sr	88	1	No Gas	99.480	4.571	2169670	3.51	100	99.5	90	110	
Mo	95	1	No Gas	95.903	4.423	420193	3.12	100	95.9	90	110	
Sn	118	1	No Gas	91.082	3.778	670558	2.48	100	91.1	90	110	
Sb	121	1	No Gas	93.012	4.598	983524	2.92	100	93.0	90	110	
Ba	137	1	No Gas	97.354	4.564	326387	3.37	100	97.4	90	110	
Tl	205	1	No Gas	99.794	1.158	2202025	1.16	100	99.8	90	110	
Tl	203	1	No Gas	88.979	0.967	821720	2.52	100	89.0	90	110	CCV Main CR1-2 Failed
Pb	208	1	No Gas	95.911	1.867	3138184	3.59	100	95.9	90	110	
U	238	1	No Gas	98.327	2.093	3484523	3.51	100	98.3	90	110	
Ca	43	2	He	9798.097	2.580	10828	1.80	10000	98.0	90	110	
Sb	121	2	He	97.723	2.831	431299	0.63	100	97.7	90	110	
Ti	47	2	He	99.572	4.280	12286	1.14	100	99.6	90	110	
Cu	63	1	No Gas	91.967	4.053	957145	2.45	100	92.0	90	110	
Se	82	1	No Gas	96.258	1.267	13489	0.54	100	96.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	674040	3.21	685403	98.34	70	120	
Ge	72	2	He	1367621	3.47	1352313	101.13	70	120	
Ge	72	1	No Gas	5014610	1.83	4920574	101.91	70	120	
In	115	1	No Gas	2070672	1.67	2041150	101.45	70	120	
Bi	209	1	No Gas	1990552	1.72	1967911	101.15	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name CCB
 Data File Name 139_CCB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:30:15-05:00
 Sample Type CCB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.055	-269.6	37873	0.9	0.5	
Be	9	1	No Gas	-0.003	-35.0	13	21.7	0.5	
V	51	2	He	-0.334	-4.5	621	9.7	2.5	
Cr	52	2	He	0.039	124.5	2167	9.3	2.5	
Fe	56	2	He	1.540	4.5	20152	0.9	100	
Se	78	2	He	0.046	522.2	200	6.0	2	
As	75	2	He	-0.091	-33.0	72	26.6	2.5	
Ca	44	2	He	27.554	59.4	9113	2.2	100	
Na	23	2	He	4.210	65.8	103838	2.1	100	
Mg	24	2	He	0.286	38.3	363	10.4	100	
K	39	2	He	-15.344	-22.3	66051	1.0	100	
Mn	55	2	He	0.102	46.3	643	20.7	2.5	
Co	59	2	He	0.002	337.5	73	55.1	2.5	
Ni	60	2	He	0.132	47.2	590	17.9	2.5	
Cu	63	2	He	0.050	114.3	2780	9.5	2	
Zn	66	2	He	0.501	39.2	1273	12.6	2.5	
Al	27	2	He	-2.357	-6.6	2150	1.9	5	
B	11	1	No Gas	11.148	28.4	66221	2.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.198	-8.0	127593	0.3	5	
Si	28	1	No Gas	-10.225	-67.8	2224698	2.7	10	
Ag	107	1	No Gas	0.004	105.2	313	18.4	2.5	
Cd	111	1	No Gas	0.000	-4098.2	10	100.0	1	
Sr	88	1	No Gas	-0.017	-15.7	900	6.7	2.5	
Mo	95	1	No Gas	0.030	62.8	217	38.7	2.5	
Sn	118	1	No Gas	0.024	88.2	3247	5.5	5	
Sb	121	1	No Gas	0.101	19.6	1357	15.1	2.5	
Ba	137	1	No Gas	0.049	4.7	347	1.7	2.5	
Tl	205	1	No Gas	0.159	53.1	4158	45.2	1	
Tl	203	1	No Gas	0.150	59.1	1603	51.8	1	
Pb	208	1	No Gas	-0.188	-1.7	2440	4.7	2.5	
U	238	1	No Gas	0.006	29.7	457	13.2	2.5	
Ca	43	2	He	-15.840	-111.9	20	100.0	100	
Sb	121	2	He	0.086	10.7	537	6.5	2.5	
Ti	47	2	He	-0.141	-112.3	20	100.0	2.5	
Cu	63	1	No Gas	-0.018	-136.3	4471	6.1	2.5	
Se	82	1	No Gas	-0.055	-1736.1	-121	-112.3	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	680231	3.94	685403	99.25	70	120	
Ge	72	2	He	1382460	1.16	1352313	102.23	70	120	
Ge	72	1	No Gas	5059087	0.54	4920574	102.81	70	120	
In	115	1	No Gas	2094011	0.71	2041150	102.59	70	120	
Bi	209	1	No Gas	2085270	1.54	1967911	105.96	70	120	



Sample Report

Sample Table

Sample Name LCS-201061
 Data File Name 143SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:39:39-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	96.424	96.424	2.13	936277	0.01	2000	
Be	9	1	No Gas	48.534	48.534	1.84	120016	0.04	2000	
V	51	2	He	50.705	50.705	4.89	190347	0.03	2000	
Cr	52	2	He	51.582	51.582	4.74	226845	0.02	2000	
Fe	56	2	He	5170.265	5170.265	4.34	19747751	0.03	200000	
Se	78	2	He	51.703	51.703	2.46	2865	1.80	2000	
As	75	2	He	53.427	53.427	5.38	36841	0.15	2000	
Ca	44	2	He	5350.347	5350.347	3.61	113697	4.71	200000	
Na	23	2	He	5302.273	5302.273	3.23	3128258	0.17	200000	
Mg	24	2	He	5379.014	5379.014	5.04	1839864	0.29	200000	
K	39	2	He	5412.306	5412.306	3.94	2082272	0.26	200000	
Mn	55	2	He	55.594	55.594	5.23	160417	0.03	2000	
Co	59	2	He	50.071	50.071	4.42	362835	0.01	2000	
Ni	60	2	He	51.722	51.722	3.78	95154	0.05	2000	
Cu	63	2	He	52.993	52.993	4.07	266645	0.02	2000	
Zn	66	2	He	56.541	56.541	3.45	51923	0.11	2000	
Al	27	2	He	155.782	155.782	3.68	30063	0.52	2000	
B	11	1	No Gas	462.870	462.870	1.78	643641	0.07	2000	
Al	27	1	No Gas	151.484	151.484	1.10	1854884	0.01	2000	
Si	28	1	No Gas	394.844	394.844	4.10	5433349	0.01	2000	
Ag	107	1	No Gas	46.738	46.738	1.22	620457	0.01	2000	
Cd	111	1	No Gas	50.851	50.851	1.97	124568	0.04	2000	
Sr	88	1	No Gas	99.034	99.034	2.41	2292680	0.00	2000	
Mo	95	1	No Gas	47.673	47.673	1.50	221773	0.02	2000	
Sn	118	1	No Gas	91.673	91.673	1.85	716362	0.01	2000	
Sb	121	1	No Gas	48.713	48.713	2.99	537687	0.01	2000	
Ba	137	1	No Gas	49.046	49.046	2.18	174641	0.03	2000	
Tl	205	1	No Gas	34.147	34.147	3.28	799972	0.00	2000	
Tl	203	1	No Gas	34.098	34.098	2.12	334286	0.01	2000	
Pb	208	1	No Gas	45.701	45.701	2.88	1591240	0.00	2000	
U	238	1	No Gas	97.066	97.066	1.72	3650435	0.00	2000	
Ca	43	2	He	5324.422	5324.422	9.11	6198	85.90	200000	
Sb	121	2	He	50.902	50.902	4.31	236179	0.02	2000	
Ti	47	2	He	151.653	151.653	4.44	19651	0.77	2000	
Cu	63	1	No Gas	49.341	49.341	2.53	538114	0.01	2000	
Zn	66	1	No Gas	55.973	55.973	2.70	158433	0.04	2000	
Se	82	1	No Gas	51.780	51.780	7.44	7514	0.69	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	704944	1.98	685403	102.85	70	120	
Ge	72	2	He	1437106	1.93	1352313	106.27	70	120	
Ge	72	1	No Gas	5231544	1.15	4920574	106.32	70	120	
In	115	1	No Gas	2197272	0.57	2041150	107.65	70	120	



Sample Report

Bi	209	1	No Gas	2113217	2.01	1967911	107.38	70	120	
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Sample Report

Sample Table

Sample Name HS23090958-01SD
 Data File Name 144SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:41:52-05:00
 Sample Type Sample
 Dilution 5
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	17.412	87.059	4.35	188528	0.01	2000	
Be	9	1	No Gas	-0.003	-0.016	-136.51	13	-0.02	2000	
V	51	2	He	3.317	16.586	4.41	13870	0.02	2000	
Cr	52	2	He	0.122	0.610	24.83	2550	0.00	2000	
Fe	56	2	He	1.127	5.633	5.88	18890	0.01	200000	
Se	78	2	He	1.001	5.005	51.04	251	0.40	2000	
As	75	2	He	0.208	1.042	59.77	274	0.08	2000	
Ca	44	2	He	8059.009	40295.043	2.98	162660	4.95	200000	
Na	23	2	He	62237.322	311186.610	4.00	34714704	0.18	200000	
Mg	24	2	He	7151.520	35757.600	3.96	2386799	0.30	200000	
K	39	2	He	1079.771	5398.857	4.57	463341	0.23	200000	
Mn	55	2	He	0.394	1.971	8.04	1473	0.03	2000	
Co	59	2	He	0.021	0.107	36.47	213	0.01	2000	
Ni	60	2	He	0.133	0.664	40.51	600	0.02	2000	
Cu	63	2	He	0.018	0.092	149.66	2667	0.00	2000	
Zn	66	2	He	1.286	6.432	7.28	1984	0.06	2000	
Al	27	2	He	2.988	14.939	50.90	3097	0.10	2000	
B	11	1	No Gas	191.185	955.926	2.63	278476	0.07	2000	
Al	27	1	No Gas	4.545	22.726	6.28	190623	0.00	2000	
Si	28	1	No Gas	807.256	4036.282	1.57	8356382	0.01	2000	
Ag	107	1	No Gas	0.005	0.024	119.83	317	0.00	2000	
Cd	111	1	No Gas	0.009	0.043	50.26	30	0.03	2000	
Sr	88	1	No Gas	346.739	1733.695	2.22	7550529	0.00	2000	
Mo	95	1	No Gas	1.250	6.249	9.59	5548	0.02	2000	
Sn	118	1	No Gas	0.079	0.395	37.47	3604	0.00	2000	
Sb	121	1	No Gas	0.068	0.339	26.86	1010	0.01	2000	
Ba	137	1	No Gas	4.226	21.131	1.45	14325	0.03	2000	
Tl	205	1	No Gas	0.293	1.464	49.26	7146	0.00	2000	
Tl	203	1	No Gas	0.292	1.461	49.88	2937	0.01	2000	
Pb	208	1	No Gas	-0.189	-0.943	-3.16	2383	-0.01	2000	
U	238	1	No Gas	2.281	11.403	2.78	83421	0.00	2000	
Ca	43	2	He	8539.556	42697.782	2.76	9680	88.22	200000	
Sb	121	2	He	0.058	0.292	23.22	420	0.01	2000	
Ti	47	2	He	-0.037	-0.184	-247.59	33	-0.11	2000	
Cu	63	1	No Gas	0.191	0.954	23.56	6665	0.00	2000	
Zn	66	1	No Gas	1.227	6.135	6.76	6011	0.02	2000	
Se	82	1	No Gas	1.110	5.550	39.30	45	2.46	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	659100	1.55	685403	96.16	70	120	
Ge	72	2	He	1401429	0.15	1352313	103.63	70	120	
Ge	72	1	No Gas	5068900	1.12	4920574	103.01	70	120	
In	115	1	No Gas	2067605	0.56	2041150	101.30	70	120	



Sample Report

Bi	209	1	No Gas	2049210	0.28	1967911	104.13	70	120	
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Sample Report

Sample Table

Sample Name HS23090958-01MS
 Data File Name 146SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:48:15-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	187.675	187.675	0.74	1765205	0.01	2000	
Be	9	1	No Gas	49.020	49.020	1.15	119896	0.04	2000	
V	51	2	He	69.751	69.751	4.05	260621	0.03	2000	
Cr	52	2	He	50.127	50.127	4.16	220061	0.02	2000	
Fe	56	2	He	5057.214	5057.214	3.87	19276319	0.03	200000	
Se	78	2	He	59.274	59.274	3.96	3247	1.83	2000	
As	75	2	He	54.468	54.468	4.07	37483	0.15	2000	
Ca	44	2	He	50685.587	50685.587	3.92	999224	5.07	200000	
Na	23	2	He	336204.324	336204.324	3.39	191363537	0.18	200000	>LDR
Mg	24	2	He	41631.559	41631.559	3.43	14211335	0.29	200000	
K	39	2	He	11285.368	11285.368	2.99	4252808	0.27	200000	
Mn	55	2	He	49.567	49.567	3.05	142804	0.03	2000	
Co	59	2	He	48.354	48.354	4.21	349673	0.01	2000	
Ni	60	2	He	49.518	49.518	3.33	90936	0.05	2000	
Cu	63	2	He	50.307	50.307	3.49	252775	0.02	2000	
Zn	66	2	He	50.355	50.355	2.55	46249	0.11	2000	
Al	27	2	He	110.374	110.374	6.36	22021	0.50	2000	
B	11	1	No Gas	1407.490	1407.490	1.74	1825674	0.08	2000	
Al	27	1	No Gas	110.587	110.587	3.26	1363354	0.01	2000	
Si	28	1	No Gas	4590.313	4590.313	1.77	37075294	0.01	2000	>LDR
Ag	107	1	No Gas	46.199	46.199	1.05	579263	0.01	2000	
Cd	111	1	No Gas	50.399	50.399	1.31	116618	0.04	2000	
Sr	88	1	No Gas	1872.352	1872.352	0.84	40919007	0.00	2000	>LDR
Mo	95	1	No Gas	55.786	55.786	0.52	245103	0.02	2000	
Sn	118	1	No Gas	95.222	95.222	0.53	702715	0.01	2000	
Sb	121	1	No Gas	48.459	48.459	1.69	523463	0.01	2000	
Ba	137	1	No Gas	72.272	72.272	1.64	242978	0.03	2000	
Tl	205	1	No Gas	33.811	33.811	0.81	749978	0.00	2000	
Tl	203	1	No Gas	33.366	33.366	0.67	309657	0.01	2000	
Pb	208	1	No Gas	45.564	45.564	1.20	1501975	0.00	2000	
U	238	1	No Gas	115.014	115.014	1.25	4094480	0.00	2000	
Ca	43	2	He	50977.197	50977.197	3.47	58913	86.53	200000	
Sb	121	2	He	50.515	50.515	3.09	233922	0.02	2000	
Ti	47	2	He	150.410	150.410	2.03	19454	0.77	2000	
Cu	63	1	No Gas	48.434	48.434	1.96	517010	0.01	2000	
Zn	66	1	No Gas	51.416	51.416	1.25	142654	0.04	2000	
Se	82	1	No Gas	56.221	56.221	3.21	7995	0.70	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	697147	0.64	685403	101.71	70	120	
Ge	72	2	He	1433918	1.45	1352313	106.03	70	120	
Ge	72	1	No Gas	5119225	0.96	4920574	104.04	70	120	
In	115	1	No Gas	2075311	0.98	2041150	101.67	70	120	
Bi	209	1	No Gas	2000020	1.01	1967911	101.63	70	120	



Sample Report

Sample Table

Sample Name HS23090958-01MSD
 Data File Name 147SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:50:29-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	188.349	188.349	0.66	1778131	0.01	2000	
Be	9	1	No Gas	48.830	48.830	0.39	119893	0.04	2000	
V	51	2	He	71.053	71.053	3.84	259692	0.03	2000	
Cr	52	2	He	51.194	51.194	4.08	219822	0.02	2000	
Fe	56	2	He	5143.984	5143.984	3.55	19181053	0.03	200000	
Se	78	2	He	58.186	58.186	0.31	3122	1.86	2000	
As	75	2	He	55.811	55.811	4.07	37568	0.15	2000	
Ca	44	2	He	52274.384	52274.384	4.26	1007934	5.19	200000	
Na	23	2	He	339486.083	339486.083	3.37	189023824	0.18	200000	>LDR
Mg	24	2	He	41899.308	41899.308	3.91	13991230	0.30	200000	
K	39	2	He	11262.397	11262.397	2.72	4151863	0.27	200000	
Mn	55	2	He	50.565	50.565	3.74	142492	0.04	2000	
Co	59	2	He	49.112	49.112	3.57	347454	0.01	2000	
Ni	60	2	He	50.609	50.609	1.82	90906	0.06	2000	
Cu	63	2	He	51.600	51.600	3.48	253547	0.02	2000	
Zn	66	2	He	51.225	51.225	3.05	46005	0.11	2000	
Al	27	2	He	112.217	112.217	3.13	21864	0.51	2000	
B	11	1	No Gas	1420.547	1420.547	1.84	1849100	0.08	2000	
Al	27	1	No Gas	108.666	108.666	2.10	1346485	0.01	2000	
Si	28	1	No Gas	4591.219	4591.219	1.43	37193883	0.01	2000	>LDR
Ag	107	1	No Gas	45.915	45.915	2.60	579222	0.01	2000	
Cd	111	1	No Gas	50.336	50.336	2.36	117180	0.04	2000	
Sr	88	1	No Gas	1844.040	1844.040	2.19	40547995	0.00	2000	>LDR
Mo	95	1	No Gas	55.387	55.387	2.27	244846	0.02	2000	
Sn	118	1	No Gas	94.707	94.707	2.13	703209	0.01	2000	
Sb	121	1	No Gas	48.874	48.874	0.82	529556	0.01	2000	
Ba	137	1	No Gas	71.528	71.528	2.29	241969	0.03	2000	
Tl	205	1	No Gas	34.792	34.792	1.66	768692	0.00	2000	
Tl	203	1	No Gas	34.623	34.623	1.77	320056	0.01	2000	
Pb	208	1	No Gas	45.634	45.634	1.44	1498399	0.00	2000	
U	238	1	No Gas	114.685	114.685	0.78	4066678	0.00	2000	
Ca	43	2	He	51358.152	51358.152	4.80	58059	88.46	200000	
Sb	121	2	He	51.324	51.324	3.89	232486	0.02	2000	
Ti	47	2	He	150.463	150.463	3.02	19037	0.79	2000	
Cu	63	1	No Gas	49.523	49.523	1.57	530116	0.01	2000	
Zn	66	1	No Gas	51.542	51.542	0.41	143426	0.04	2000	
Se	82	1	No Gas	57.347	57.347	2.57	8182	0.70	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	699793	0.73	685403	102.10	70	120	
Ge	72	2	He	1402574	0.86	1352313	103.72	70	120	
Ge	72	1	No Gas	5134476	0.89	4920574	104.35	70	120	
In	115	1	No Gas	2088499	1.73	2041150	102.32	70	120	
Bi	209	1	No Gas	1992136	0.36	1967911	101.23	70	120	



Sample Report

Sample Table

Sample Name HS23090958-01PDS
 Data File Name 148SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:52:44-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	86.088	86.088	1.23	850581	0.01	2000	
Be	9	1	No Gas	95.239	95.239	1.58	238394	0.04	2000	
V	51	2	He	119.554	119.554	4.43	443187	0.03	2000	
Cr	52	2	He	99.360	99.360	4.01	432058	0.02	2000	
Fe	56	2	He	10032.053	10032.053	3.87	38037313	0.03	200000	
Se	78	2	He	106.389	106.389	6.01	5637	1.89	2000	
As	75	2	He	105.722	105.722	3.87	72270	0.15	2000	
Ca	44	2	He	54374.672	54374.672	5.01	1066045	5.10	200000	
Na	23	2	He	330623.538	330623.538	3.48	187264937	0.18	200000	>LDR
Mg	24	2	He	45709.439	45709.439	3.60	15527119	0.29	200000	
K	39	2	He	16050.404	16050.404	3.14	5987456	0.27	200000	
Mn	55	2	He	98.674	98.674	3.38	282503	0.03	2000	
Co	59	2	He	95.063	95.063	3.67	684076	0.01	2000	
Ni	60	2	He	96.892	96.892	3.71	176689	0.05	2000	
Cu	63	2	He	98.576	98.576	3.60	490336	0.02	2000	
Zn	66	2	He	97.888	97.888	4.36	88625	0.11	2000	
Al	27	2	He	107.316	107.316	6.33	21380	0.50	2000	
B	11	1	No Gas	886.890	886.890	2.51	1197715	0.07	2000	
Al	27	1	No Gas	107.169	107.169	1.85	1341696	0.01	2000	
Si	28	1	No Gas	4131.715	4131.715	0.24	34009456	0.01	2000	>LDR
Ag	107	1	No Gas	96.881	96.881	3.19	1204453	0.01	2000	
Cd	111	1	No Gas	100.687	100.687	2.12	231049	0.04	2000	
Sr	88	1	No Gas	1734.908	1734.908	1.65	37604800	0.00	2000	
Mo	95	1	No Gas	105.360	105.360	2.14	459038	0.02	2000	
Sn	118	1	No Gas	0.061	0.061	34.98	3454	0.00	2000	
Sb	121	1	No Gas	84.601	84.601	0.83	924707	0.01	2000	
Ba	137	1	No Gas	121.621	121.621	1.61	405413	0.03	2000	
Tl	205	1	No Gas	107.335	107.335	2.25	2364303	0.00	2000	
Tl	203	1	No Gas	97.484	97.484	2.02	898574	0.01	2000	
Pb	208	1	No Gas	95.362	95.362	2.46	3114147	0.00	2000	
U	238	1	No Gas	11.659	11.659	1.52	412557	0.00	2000	
Ca	43	2	He	55279.722	55279.722	5.02	63563	86.97	200000	
Sb	121	2	He	88.392	88.392	4.21	407170	0.02	2000	
Ti	47	2	He	98.075	98.075	1.95	12636	0.78	2000	
Cu	63	1	No Gas	93.448	93.448	0.86	1005104	0.01	2000	
Zn	66	1	No Gas	98.771	98.771	0.76	274779	0.04	2000	
Se	82	1	No Gas	106.559	106.559	2.33	15442	0.69	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	713662	2.31	685403	104.12	70	120	
Ge	72	2	He	1426844	1.19	1352313	105.51	70	120	
Ge	72	1	No Gas	5180491	0.38	4920574	105.28	70	120	
In	115	1	No Gas	2058303	0.52	2041150	100.84	70	120	
Bi	209	1	No Gas	1987318	1.57	1967911	100.99	70	120	



Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name CCV
 Data File Name 150_CCV.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:57:13-05:00
 Sample Type CCV
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	95.431	4.847	914339	3.78	100	95.4	90	110	
Be	9	1	No Gas	91.389	2.569	222910	1.89	100	91.4	90	110	
V	51	2	He	96.316	2.698	344404	3.07	100	96.3	90	110	
Cr	52	2	He	96.965	2.060	406326	2.43	100	97.0	90	110	
Fe	56	2	He	9695.047	1.709	35420119	2.08	10000	97.0	90	110	
Se	78	2	He	96.060	4.784	4924	4.78	100	96.1	90	110	
As	75	2	He	96.014	2.383	63254	2.77	100	96.0	90	110	
Ca	44	2	He	9590.450	1.250	188220	1.55	10000	95.9	90	110	
Na	23	2	He	9845.855	2.614	5471333	2.95	10000	98.5	90	110	
Mg	24	2	He	9865.418	2.808	3229255	3.20	10000	98.7	90	110	
K	39	2	He	9876.015	2.070	3577071	2.42	10000	98.8	90	110	
Mn	55	2	He	95.947	2.341	264689	2.71	100	95.9	90	110	
Co	59	2	He	94.021	2.526	651908	2.90	100	94.0	90	110	
Ni	60	2	He	97.446	2.312	171214	2.69	100	97.4	90	110	
Cu	63	2	He	97.069	2.247	465268	2.63	100	97.1	90	110	
Zn	66	2	He	96.214	1.903	83952	2.18	100	96.2	90	110	
Al	27	2	He	94.642	2.835	18469	2.65	100	94.6	90	110	
B	11	1	No Gas	454.128	1.165	623991	0.99	500	90.8	90	110	
Al	27	1	No Gas	96.740	2.960	1177085	2.43	100	96.7	90	110	
Si	28	1	No Gas	468.797	3.012	5714723	1.82	5000	9.4	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	97.427	3.368	1209118	1.90	100	97.4	90	110	
Cd	111	1	No Gas	96.641	3.371	221362	1.89	100	96.6	90	110	
Sr	88	1	No Gas	97.891	5.284	2118782	3.83	100	97.9	90	110	
Mo	95	1	No Gas	95.013	3.163	413234	1.71	100	95.0	90	110	
Sn	118	1	No Gas	90.820	3.528	663657	2.05	100	90.8	90	110	
Sb	121	1	No Gas	92.412	2.755	970451	2.64	100	92.4	90	110	
Ba	137	1	No Gas	97.539	3.955	324572	2.49	100	97.5	90	110	
Tl	205	1	No Gas	98.833	3.560	2146564	2.96	100	98.8	90	110	
Tl	203	1	No Gas	88.886	2.900	807848	2.30	100	88.9	90	110	CCV Main CR1-2 Failed
Pb	208	1	No Gas	95.678	4.040	3079648	2.09	100	95.7	90	110	
U	238	1	No Gas	98.322	2.479	3428655	1.29	100	98.3	90	110	
Ca	43	2	He	9717.184	1.748	10798	2.07	10000	97.2	90	110	
Sb	121	2	He	96.063	1.525	426370	1.91	100	96.1	90	110	
Ti	47	2	He	93.607	4.880	11622	5.26	100	93.6	90	110	
Cu	63	1	No Gas	92.140	2.366	952264	2.22	100	92.1	90	110	
Se	82	1	No Gas	96.368	2.735	13407	2.72	100	96.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	695391	1.68	685403	101.46	70	120	
Ge	72	2	He	1374388	0.39	1352313	101.63	70	120	
Ge	72	1	No Gas	4977504	0.21	4920574	101.16	70	120	
In	115	1	No Gas	2055200	1.49	2041150	100.69	70	120	
Bi	209	1	No Gas	1959806	2.59	1967911	99.59	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name CCB
 Data File Name 151_CCB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T15:59:26-05:00
 Sample Type CCB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.016	-478.8	39634	0.8	0.5	
Be	9	1	No Gas	-0.002	-247.9	18	56.8	0.5	
V	51	2	He	-0.289	-3.4	789	5.8	2.5	
Cr	52	2	He	0.027	39.8	2140	1.6	2.5	
Fe	56	2	He	1.024	18.3	18443	4.6	100	
Se	78	2	He	-0.023	-1359.1	199	9.4	2	
As	75	2	He	-0.061	-14.7	93	6.2	2.5	
Ca	44	2	He	-2.044	-1010.4	8643	4.7	100	
Na	23	2	He	53.791	8.1	132343	2.3	100	
Mg	24	2	He	0.418	59.7	410	19.1	100	
K	39	2	He	-3.987	-20.6	70811	1.1	100	
Mn	55	2	He	0.110	19.0	673	9.1	2.5	
Co	59	2	He	0.007	33.1	110	15.7	2.5	
Ni	60	2	He	0.131	47.1	593	17.0	2.5	
Cu	63	2	He	0.084	55.0	2970	6.1	2	
Zn	66	2	He	0.524	16.6	1307	5.8	2.5	
Al	27	2	He	-1.450	-7.7	2327	2.2	5	
B	11	1	No Gas	17.508	4.0	76811	2.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.183	-15.0	125608	1.8	5	
Si	28	1	No Gas	-2.527	-276.3	2243558	2.3	10	
Ag	107	1	No Gas	0.009	73.3	377	23.8	2.5	
Cd	111	1	No Gas	0.004	1.8	20	0.0	1	
Sr	88	1	No Gas	-0.008	-7.4	1083	1.1	2.5	
Mo	95	1	No Gas	0.052	27.6	310	19.6	2.5	
Sn	118	1	No Gas	0.052	65.4	3437	6.6	5	
Sb	121	1	No Gas	0.128	10.9	1623	8.7	2.5	
Ba	137	1	No Gas	0.052	19.4	357	9.8	2.5	
Tl	205	1	No Gas	0.113	45.0	3044	37.8	1	
Tl	203	1	No Gas	0.129	36.2	1373	32.1	1	
Pb	208	1	No Gas	-0.186	-2.3	2450	5.7	2.5	
U	238	1	No Gas	0.005	39.6	413	17.2	2.5	
Ca	43	2	He	-16.064	-109.1	20	100.0	100	
Sb	121	2	He	0.125	30.1	717	22.3	2.5	
Ti	47	2	He	-0.063	-210.8	30	57.7	2.5	
Cu	63	1	No Gas	0.107	14.6	5675	3.0	2.5	
Se	82	1	No Gas	-0.714	-150.3	-212	-71.3	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	704760	1.67	685403	102.82	70	120	
Ge	72	2	He	1396254	1.49	1352313	103.25	70	120	
Ge	72	1	No Gas	4973492	0.34	4920574	101.08	70	120	
In	115	1	No Gas	2084476	0.88	2041150	102.12	70	120	
Bi	209	1	No Gas	2035766	0.36	1967911	103.45	70	120	



Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name CCV
 Data File Name 162_CCV.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:31:00-05:00
 Sample Type CCV
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	100.089	4.551	974427	1.93	100	100.1	90	110	
Be	9	1	No Gas	96.385	4.212	239336	1.78	100	96.4	90	110	
V	51	2	He	100.677	1.199	350029	1.62	100	100.7	90	110	
Cr	52	2	He	100.183	1.010	408225	1.55	100	100.2	90	110	
Fe	56	2	He	10108.982	1.048	35918398	1.49	10000	101.1	90	110	
Se	78	2	He	101.154	2.915	5032	2.31	100	101.2	90	110	
As	75	2	He	99.962	0.421	64041	1.10	100	100.0	90	110	
Ca	44	2	He	10112.741	0.470	192567	0.44	10000	101.1	90	110	
Na	23	2	He	10459.320	1.051	5646483	1.45	10000	104.6	90	110	
Mg	24	2	He	10378.138	0.594	3303610	0.43	10000	103.8	90	110	
K	39	2	He	10266.754	2.583	3613841	2.84	10000	102.7	90	110	
Mn	55	2	He	100.576	1.257	269836	1.96	100	100.6	90	110	
Co	59	2	He	98.197	0.563	662153	0.90	100	98.2	90	110	
Ni	60	2	He	102.407	2.361	174978	2.79	100	102.4	90	110	
Cu	63	2	He	102.183	0.220	476199	0.93	100	102.2	90	110	
Zn	66	2	He	100.738	0.376	85448	0.67	100	100.7	90	110	
Al	27	2	He	101.762	3.189	19130	3.35	100	101.8	90	110	
B	11	1	No Gas	472.916	4.523	659373	3.26	500	94.6	90	110	
Al	27	1	No Gas	101.083	2.991	1186209	1.50	100	101.1	90	110	
Si	28	1	No Gas	507.756	3.603	5817501	0.99	5000	10.2	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.926	3.421	1211473	3.29	100	98.9	90	110	
Cd	111	1	No Gas	99.185	0.593	224191	0.44	100	99.2	90	110	
Sr	88	1	No Gas	100.641	1.897	2149884	1.73	100	100.6	90	110	
Mo	95	1	No Gas	97.761	0.922	419562	0.76	100	97.8	90	110	
Sn	118	1	No Gas	93.688	1.161	675486	1.02	100	93.7	90	110	
Sb	121	1	No Gas	97.653	2.366	994022	0.86	100	97.7	90	110	
Ba	137	1	No Gas	100.346	1.478	329514	1.34	100	100.3	90	110	
Tl	205	1	No Gas	98.804	2.397	2215345	1.20	100	98.8	90	110	
Tl	203	1	No Gas	89.734	2.508	841900	1.32	100	89.7	90	110	CCV Main CR1-2 Failed
Pb	208	1	No Gas	96.345	2.637	3202167	1.51	100	96.3	90	110	
U	238	1	No Gas	100.951	1.919	3634394	0.71	100	101.0	90	110	
Ca	43	2	He	10212.331	5.028	11038	5.91	10000	102.1	90	110	
Sb	121	2	He	101.570	0.693	438427	1.01	100	101.6	90	110	
Ti	47	2	He	101.275	1.604	12226	2.37	100	101.3	90	110	
Cu	63	1	No Gas	96.677	3.161	968213	1.61	100	96.7	90	110	
Se	82	1	No Gas	97.587	1.141	13166	2.66	100	97.6	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	708282	2.49	685403	103.34	70	120	
Ge	72	2	He	1336717	0.89	1352313	98.85	70	120	
Ge	72	1	No Gas	4825932	1.56	4920574	98.08	70	120	
In	115	1	No Gas	2027406	0.16	2041150	99.33	70	120	
Bi	209	1	No Gas	2022861	1.22	1967911	102.79	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name CCB
 Data File Name 163_CCB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:33:13-05:00
 Sample Type CCB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.073	-119.9	40965	1.9	0.5	
Be	9	1	No Gas	0.004	80.8	33	22.9	0.5	
V	51	2	He	-0.110	-23.1	1375	5.8	2.5	
Cr	52	2	He	0.056	31.3	2167	2.3	2.5	
Fe	56	2	He	0.881	10.4	17158	1.7	100	
Se	78	2	He	0.138	304.0	198	10.7	2	
As	75	2	He	0.004	1175.9	131	23.1	2.5	
Ca	44	2	He	21.387	79.6	8710	4.1	100	
Na	23	2	He	58.950	4.0	129533	0.6	100	
Mg	24	2	He	0.457	61.1	407	22.8	100	
K	39	2	He	-6.368	-10.4	67026	1.0	100	
Mn	55	2	He	0.121	20.4	673	9.7	2.5	
Co	59	2	He	0.007	79.5	107	35.5	2.5	
Ni	60	2	He	0.139	10.1	583	4.3	2.5	
Cu	63	2	He	0.345	3.7	4061	2.2	2	
Zn	66	2	He	0.656	9.3	1363	3.7	2.5	
Al	27	2	He	-1.770	-3.0	2177	0.7	5	
B	11	1	No Gas	13.487	32.1	74976	3.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.229	-26.2	123270	0.9	5	
Si	28	1	No Gas	-6.587	-52.3	2181830	1.4	10	
Ag	107	1	No Gas	0.024	14.0	550	9.1	2.5	
Cd	111	1	No Gas	-0.002	-331.4	7	173.2	1	
Sr	88	1	No Gas	-0.017	-19.1	873	6.5	2.5	
Mo	95	1	No Gas	0.051	6.2	303	5.0	2.5	
Sn	118	1	No Gas	0.211	145.7	4557	50.1	5	
Sb	121	1	No Gas	0.114	17.5	1457	12.1	2.5	
Ba	137	1	No Gas	0.068	48.6	403	24.8	2.5	
Tl	205	1	No Gas	0.153	58.8	4054	50.6	1	
Tl	203	1	No Gas	0.156	56.3	1674	50.0	1	
Pb	208	1	No Gas	-0.195	-2.5	2200	8.7	2.5	
U	238	1	No Gas	0.004	20.0	403	7.2	2.5	
Ca	43	2	He	-8.810	-267.9	27	94.4	100	
Sb	121	2	He	0.127	21.4	700	17.8	2.5	
Ti	47	2	He	-0.079	-163.6	27	57.3	2.5	
Cu	63	1	No Gas	0.310	3.3	7652	3.2	2.5	
Se	82	1	No Gas	-0.294	-278.7	-151	-76.5	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	738546	3.86	685403	107.75	70	120	
Ge	72	2	He	1337792	1.07	1352313	98.93	70	120	
Ge	72	1	No Gas	4902459	2.03	4920574	99.63	70	120	
In	115	1	No Gas	2055863	2.54	2041150	100.72	70	120	
Bi	209	1	No Gas	2095421	1.16	1967911	106.48	70	120	



Sample Report

Sample Table

Sample Name MBLK-201061
 Data File Name 164SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:35:29-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	-0.008	-0.008	-2044.87	43285	0.00	2000	
Be	9	1	No Gas	-0.007	-0.007	-26.86	5	-0.14	2000	
V	51	2	He	0.011	0.011	266.82	1841	0.00	2000	
Cr	52	2	He	-0.028	-0.028	-101.80	1874	0.00	2000	
Fe	56	2	He	0.660	0.660	8.99	16794	0.00	200000	
Se	78	2	He	-0.493	-0.493	-40.92	172	-0.29	2000	
As	75	2	He	0.009	0.009	94.90	138	0.01	2000	
Ca	44	2	He	-4.328	-4.328	-388.05	8453	-0.05	200000	
Na	23	2	He	53.150	53.150	4.67	129722	0.04	200000	
Mg	24	2	He	13.977	13.977	0.48	4834	0.29	200000	
K	39	2	He	-3.632	-3.632	-45.87	69726	-0.01	200000	
Mn	55	2	He	0.106	0.106	22.77	650	0.02	2000	
Co	59	2	He	-0.002	-0.002	-108.30	47	0.00	2000	
Ni	60	2	He	-0.028	-0.028	-61.64	307	-0.01	2000	
Cu	63	2	He	0.190	0.190	23.68	3430	0.01	2000	
Zn	66	2	He	-0.339	-0.339	-34.22	540	-0.06	2000	
Al	27	2	He	3.627	3.627	7.03	3140	0.12	2000	
B	11	1	No Gas	3.072	3.072	39.12	63707	0.00	2000	
Al	27	1	No Gas	4.669	4.669	5.29	192414	0.00	2000	
Si	28	1	No Gas	42.660	42.660	4.85	2631131	0.00	2000	
Ag	107	1	No Gas	0.016	0.016	5.48	467	0.00	2000	
Cd	111	1	No Gas	-0.002	-0.002	-157.81	7	-0.02	2000	
Sr	88	1	No Gas	-0.010	-0.010	-31.13	1080	0.00	2000	
Mo	95	1	No Gas	0.021	0.021	14.76	177	0.01	2000	
Sn	118	1	No Gas	0.102	0.102	32.34	3891	0.00	2000	
Sb	121	1	No Gas	0.031	0.031	3.12	617	0.01	2000	
Ba	137	1	No Gas	0.019	0.019	180.33	250	0.01	2000	
Tl	205	1	No Gas	-0.005	-0.005	-25.74	410	0.00	2000	
Tl	203	1	No Gas	0.002	0.002	130.37	187	0.00	2000	
Pb	208	1	No Gas	-0.198	-0.198	-1.54	2177	-0.01	2000	
U	238	1	No Gas	0.000	0.000	1057.15	253	0.00	2000	
Ca	43	2	He	5.573	5.573	678.91	43	12.86	200000	
Sb	121	2	He	0.016	0.016	22.76	223	0.01	2000	
Ti	47	2	He	0.022	0.022	717.99	40	0.06	2000	
Cu	63	1	No Gas	0.241	0.241	6.39	7205	0.00	2000	
Zn	66	1	No Gas	-0.299	-0.299	-27.32	1904	-0.02	2000	
Se	82	1	No Gas	0.489	0.489	229.95	-44	-1.11	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	768741	2.94	685403	112.16	70	120	
Ge	72	2	He	1372269	0.54	1352313	101.48	70	120	



Sample Report

Ge	72	1	No Gas	5080271	0.84	4920574	103.25	70	120	
In	115	1	No Gas	2135732	2.26	2041150	104.63	70	120	
Bi	209	1	No Gas	2159308	2.55	1967911	109.73	70	120	



Sample Report

Sample Table

Sample Name HS23090958-01SD
 Data File Name 166SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:40:01-05:00
 Sample Type Sample
 Dilution 100
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.712	71.171	14.45	49018	0.00	2000	
Be	9	1	No Gas	-0.007	-0.710	-26.83	5	-0.14	2000	
V	51	2	He	0.251	25.126	17.34	2594	0.01	2000	
Cr	52	2	He	0.025	2.538	108.54	2017	0.00	2000	
Fe	56	2	He	0.155	15.470	10.29	14404	0.00	200000	
Se	78	2	He	-0.526	-52.648	-52.29	164	-0.32	2000	
As	75	2	He	0.019	1.893	72.18	139	0.01	2000	
Ca	44	2	He	478.199	47819.882	3.69	16834	2.84	200000	
Na	23	2	He	3579.305	357930.503	3.85	1974185	0.18	200000	
Mg	24	2	He	373.613	37361.337	3.49	117839	0.32	200000	
K	39	2	He	55.325	5532.516	20.03	87262	0.06	200000	
Mn	55	2	He	0.064	6.428	74.76	517	0.01	2000	
Co	59	2	He	0.000	0.020	2018.60	60	0.00	2000	
Ni	60	2	He	0.171	17.096	15.23	630	0.03	2000	
Cu	63	2	He	0.135	13.463	15.77	3047	0.00	2000	
Zn	66	2	He	-0.140	-13.971	-65.18	687	-0.02	2000	
Al	27	2	He	-1.162	-116.244	-63.02	2250	-0.05	2000	
B	11	1	No Gas	9.018	901.773	4.32	69720	0.01	2000	
Al	27	1	No Gas	-0.374	-37.448	-70.78	130834	0.00	2000	
Si	28	1	No Gas	34.213	3421.345	12.13	2449768	0.00	2000	
Ag	107	1	No Gas	0.010	1.015	50.36	380	0.00	2000	
Cd	111	1	No Gas	0.000	-0.003	-14302.14	10	0.00	2000	
Sr	88	1	No Gas	17.508	1750.781	3.65	379331	0.00	2000	
Mo	95	1	No Gas	0.068	6.827	12.29	377	0.02	2000	
Sn	118	1	No Gas	-0.101	-10.081	-24.88	2270	0.00	2000	
Sb	121	1	No Gas	0.013	1.316	56.85	407	0.00	2000	
Ba	137	1	No Gas	0.218	21.766	12.97	900	0.02	2000	
Tl	205	1	No Gas	-0.006	-0.622	-41.84	357	0.00	2000	
Tl	203	1	No Gas	-0.003	-0.260	-86.74	137	0.00	2000	
Pb	208	1	No Gas	-0.211	-21.123	-1.05	1643	-0.01	2000	
U	238	1	No Gas	0.124	12.445	8.58	4838	0.00	2000	
Ca	43	2	He	464.635	46463.484	18.77	530	87.66	200000	
Sb	121	2	He	0.020	1.972	128.54	230	0.01	2000	
Ti	47	2	He	-0.049	-4.894	-346.18	30	-0.16	2000	
Cu	63	1	No Gas	0.132	13.233	17.22	5788	0.00	2000	
Zn	66	1	No Gas	-0.198	-19.839	-10.53	2077	-0.01	2000	
Se	82	1	No Gas	0.870	87.019	152.95	10	9.08	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	744500	0.46	685403	108.62	70	120	
Ge	72	2	He	1321840	1.57	1352313	97.75	70	120	
Ge	72	1	No Gas	4846762	1.10	4920574	98.50	70	120	
In	115	1	No Gas	2050869	0.71	2041150	100.48	70	120	



Sample Report

Bi	209	1	No Gas	2076659	1.22	1967911	105.53	70	120	
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Sample Report

Sample Table

Sample Name HS23090958-01PDS
 Data File Name 167SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:42:16-05:00
 Sample Type Sample
 Dilution 20
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Pass
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	4.291	85.830	5.03	82473	0.01	2000	
Be	9	1	No Gas	94.906	1898.113	3.72	242843	0.04	2000	
V	51	2	He	99.812	1996.245	4.71	350066	0.03	2000	
Cr	52	2	He	98.144	1962.876	4.66	403441	0.02	2000	
Fe	56	2	He	10027.246	200544.922	5.15	35938497	0.03	200000	
Se	78	2	He	98.390	1967.792	2.49	4944	1.99	2000	
As	75	2	He	102.078	2041.555	4.27	65969	0.15	2000	
Ca	44	2	He	11915.000	238300.007	4.89	227381	5.24	200000	
Na	23	2	He	26582.417	531648.346	4.61	14323664	0.19	200000	
Mg	24	2	He	12321.113	246422.268	5.66	3956091	0.31	200000	
K	39	2	He	10442.832	208856.639	3.92	3707033	0.28	200000	
Mn	55	2	He	98.583	1971.652	5.38	266775	0.04	2000	
Co	59	2	He	95.671	1913.425	4.58	650793	0.01	2000	
Ni	60	2	He	98.917	1978.345	4.83	170504	0.06	2000	
Cu	63	2	He	99.140	1982.803	4.85	466137	0.02	2000	
Zn	66	2	He	98.333	1966.659	6.05	84154	0.12	2000	
Al	27	2	He	96.270	1925.397	7.18	18386	0.52	2000	
B	11	1	No Gas	42.372	847.448	2.66	112255	0.04	2000	
Al	27	1	No Gas	105.317	2106.343	4.66	1240083	0.01	2000	
Si	28	1	No Gas	204.925	4098.508	4.14	3686819	0.01	2000	
Ag	107	1	No Gas	102.601	2052.028	3.27	1255743	0.01	2000	
Cd	111	1	No Gas	102.778	2055.568	2.23	232191	0.04	2000	
Sr	88	1	No Gas	91.347	1826.935	3.24	1950555	0.00	2000	
Mo	95	1	No Gas	99.897	1997.946	3.20	428469	0.02	2000	
Sn	118	1	No Gas	-0.092	-1.834	-41.11	2310	0.00	2000	
Sb	121	1	No Gas	94.618	1892.357	3.92	970854	0.01	2000	
Ba	137	1	No Gas	103.428	2068.567	2.39	339453	0.03	2000	
Tl	205	1	No Gas	108.353	2167.056	0.51	2442751	0.00	2000	
Tl	203	1	No Gas	99.535	1990.705	2.06	939052	0.01	2000	
Pb	208	1	No Gas	98.359	1967.188	0.45	3286848	0.00	2000	
U	238	1	No Gas	0.604	12.087	1.35	22104	0.00	2000	
Ca	43	2	He	11607.952	232159.044	5.38	12646	91.79	200000	
Sb	121	2	He	95.177	1903.547	4.52	414444	0.02	2000	
Ti	47	2	He	98.302	1966.037	5.05	11972	0.82	2000	
Cu	63	1	No Gas	97.039	1940.773	3.10	979764	0.01	2000	
Zn	66	1	No Gas	101.991	2039.823	3.64	266297	0.04	2000	
Se	82	1	No Gas	99.318	1986.350	3.88	13504	0.74	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	729584	1.32	685403	106.45	70	120	
Ge	72	2	He	1348882	1.31	1352313	99.75	70	120	
Ge	72	1	No Gas	4865455	1.64	4920574	98.88	70	120	
In	115	1	No Gas	2026569	1.08	2041150	99.29	70	120	



Sample Report

Bi	209	1	No Gas	2033502	1.43	1967911	103.33	70	120	
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Sample Report

Sample Table

Sample Name HS23090714-01
 Data File Name 169SMPL.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T16:46:45-05:00
 Sample Type Sample
 Dilution 1
 Comment TW DOD 201061
 ISTD Ref FileName 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	36.025	36.025	4.05	399748	0.01	2000	
Be	9	1	No Gas	-0.005	-0.005	-33.78	10	-0.05	2000	
V	51	2	He	0.134	0.134	12.21	2319	0.01	2000	
Cr	52	2	He	0.240	0.240	15.89	3037	0.01	2000	
Fe	56	2	He	174.595	174.595	3.43	662149	0.03	200000	
Se	78	2	He	0.045	0.045	1073.98	202	0.02	2000	
As	75	2	He	0.258	0.258	10.42	307	0.08	2000	
Ca	44	2	He	20994.772	20994.772	3.37	408119	5.14	200000	
Na	23	2	He	714347.428	714347.428	3.97	395754994	0.18	200000	>LDR
Mg	24	2	He	19339.599	19339.599	3.64	6428493	0.30	200000	
K	39	2	He	3317.995	3317.995	3.97	1268342	0.26	200000	
Mn	55	2	He	48.748	48.748	3.64	136754	0.04	2000	
Co	59	2	He	0.193	0.193	9.01	1417	0.01	2000	
Ni	60	2	He	0.763	0.763	1.58	1720	0.04	2000	
Cu	63	2	He	1.946	1.946	6.25	11986	0.02	2000	
Zn	66	2	He	8.970	8.970	4.44	8720	0.10	2000	
Al	27	2	He	9.923	9.923	28.79	4267	0.23	2000	
B	11	1	No Gas	32.287	32.287	7.13	102025	0.03	2000	
Al	27	1	No Gas	8.728	8.728	3.82	234455	0.00	2000	
Si	28	1	No Gas	8344.026	8344.026	2.92	64317447	0.01	2000	>LDR
Ag	107	1	No Gas	0.020	0.020	65.26	503	0.00	2000	
Cd	111	1	No Gas	0.010	0.010	51.32	33	0.03	2000	
Sr	88	1	No Gas	448.812	448.812	3.26	9737048	0.00	2000	
Mo	95	1	No Gas	0.073	0.073	16.08	400	0.02	2000	
Sn	118	1	No Gas	-0.075	-0.075	-10.80	2467	0.00	2000	
Sb	121	1	No Gas	0.106	0.106	16.40	1403	0.01	2000	
Ba	137	1	No Gas	258.325	258.325	2.69	861659	0.03	2000	
Tl	205	1	No Gas	-0.013	-0.013	-15.47	187	-0.01	2000	
Tl	203	1	No Gas	-0.007	-0.007	-77.08	90	-0.01	2000	
Pb	208	1	No Gas	-0.187	-0.187	-1.24	2300	-0.01	2000	
U	238	1	No Gas	0.011	0.011	8.11	607	0.00	2000	
Ca	43	2	He	21228.130	21228.130	5.73	23908	88.79	200000	
Sb	121	2	He	0.122	0.122	18.33	703	0.02	2000	
Ti	47	2	He	-0.010	-0.010	-1933.63	37	-0.03	2000	
Cu	63	1	No Gas	3.179	3.179	2.41	37649	0.01	2000	
Zn	66	1	No Gas	8.762	8.762	5.34	26095	0.03	2000	
Se	82	1	No Gas	1.648	1.648	51.99	120	1.37	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	752472	3.36	685403	109.79	70	120	
Ge	72	2	He	1396339	2.05	1352313	103.26	70	120	
Ge	72	1	No Gas	5028015	1.01	4920574	102.18	70	120	
In	115	1	No Gas	2060607	1.69	2041150	100.95	70	120	
Bi	209	1	No Gas	1923667	0.64	1967911	97.75	70	120	



Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name CCV
 Data File Name 174_CCV.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T17:02:34-05:00
 Sample Type CCV
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	92.517	6.620	923047	5.75	100	92.5	90	110	
Be	9	1	No Gas	88.015	3.904	223243	3.38	100	88.0	90	110	CCV Main CR1-2 Failed
V	51	2	He	91.096	1.951	319894	1.62	100	91.1	90	110	
Cr	52	2	He	91.567	2.851	376810	2.36	100	91.6	90	110	
Fe	56	2	He	9131.347	2.321	32753878	1.98	10000	91.3	90	110	
Se	78	2	He	92.259	2.072	4650	1.50	100	92.3	90	110	
As	75	2	He	89.459	2.056	57869	1.55	100	89.5	90	110	CCV Main CR1-2 Failed
Ca	44	2	He	9156.214	1.684	176812	1.37	10000	91.6	90	110	
Na	23	2	He	9521.056	2.004	5197520	1.33	10000	95.2	90	110	
Mg	24	2	He	9447.945	2.056	3036276	1.90	10000	94.5	90	110	
K	39	2	He	9294.218	1.469	3309182	1.12	10000	92.9	90	110	
Mn	55	2	He	91.782	1.562	248603	1.22	100	91.8	90	110	
Co	59	2	He	88.352	1.963	601438	1.54	100	88.4	90	110	CCV Main CR1-2 Failed
Ni	60	2	He	91.531	1.684	157910	1.14	100	91.5	90	110	
Cu	63	2	He	91.267	1.589	429641	1.34	100	91.3	90	110	
Zn	66	2	He	91.899	3.384	78758	2.72	100	91.9	90	110	
Al	27	2	He	89.194	4.438	17231	3.20	100	89.2	90	110	CCV Main CR1-2 Failed
B	11	1	No Gas	425.072	2.416	610908	1.58	500	85.0	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	97.114	5.517	1147862	3.16	100	97.1	90	110	
Si	28	1	No Gas	469.011	6.691	5555796	2.33	5000	9.4	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	90.638	7.529	1106718	6.69	100	90.6	90	110	
Cd	111	1	No Gas	94.829	3.666	213747	2.72	100	94.8	90	110	
Sr	88	1	No Gas	95.262	4.717	2029238	3.73	100	95.3	90	110	
Mo	95	1	No Gas	92.567	4.426	396150	3.49	100	92.6	90	110	
Sn	118	1	No Gas	88.306	4.123	635058	3.15	100	88.3	90	110	CCV Main CR1-2 Failed
Sb	121	1	No Gas	91.364	5.119	932417	3.40	100	91.4	90	110	
Ba	137	1	No Gas	95.363	5.103	312260	4.15	100	95.4	90	110	
Tl	205	1	No Gas	93.400	6.370	2096248	4.69	100	93.4	90	110	
Tl	203	1	No Gas	84.423	5.914	792871	4.09	100	84.4	90	110	CCV Main CR1-2 Failed
Pb	208	1	No Gas	90.997	4.746	3028482	3.16	100	91.0	90	110	
U	238	1	No Gas	94.715	4.562	3413787	2.94	100	94.7	90	110	
Ca	43	2	He	9196.900	6.324	10034	5.75	10000	92.0	90	110	
Sb	121	2	He	91.965	1.784	400762	1.51	100	92.0	90	110	
Ti	47	2	He	89.116	0.771	10864	1.36	100	89.1	90	110	CCV Main CR1-2 Failed
Cu	63	1	No Gas	89.869	5.128	902724	3.39	100	89.9	90	110	CCV Main CR1-2 Failed
Se	82	1	No Gas	94.264	8.198	12739	6.76	100	94.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	723080	0.63	685403	105.50	70	120	
Ge	72	2	He	1349499	0.67	1352313	99.79	70	120	
Ge	72	1	No Gas	4839999	1.73	4920574	98.36	70	120	
In	115	1	No Gas	2022217	1.02	2041150	99.07	70	120	
Bi	209	1	No Gas	2025930	1.97	1967911	102.95	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name CCB
 Data File Name 175_CCB.d
 Data Path Name C:\Agilent\ICPMH\1\DATA\093023.b
 Acq Date Time 2023-09-30T17:04:46-05:00
 Sample Type CCB
 Dilution 1
 Comment
 ISTD Ref File Name 017CALB.d
 Sample QC Pass/Fail Fail
 ISTD Pass/Fail Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.074	-45.9	41123	0.3	0.5	
Be	9	1	No Gas	-0.003	-59.4	15	33.3	0.5	
V	51	2	He	-0.005	-459.1	1768	4.0	2.5	
Cr	52	2	He	-0.003	-1659.7	1960	8.9	2.5	
Fe	56	2	He	0.442	18.2	15879	3.0	100	
Se	78	2	He	-0.111	-42.4	189	1.6	2	
As	75	2	He	0.031	71.3	151	10.2	2.5	
Ca	44	2	He	-10.011	-149.3	8283	4.6	100	
Na	23	2	He	52.713	8.5	128450	0.9	100	
Mg	24	2	He	0.479	79.8	420	29.0	100	
K	39	2	He	-13.637	-33.9	65646	1.3	100	
Mn	55	2	He	0.050	37.8	493	11.9	2.5	
Co	59	2	He	0.005	66.7	93	24.7	2.5	
Ni	60	2	He	0.089	68.2	507	20.7	2.5	
Cu	63	2	He	0.035	30.2	2667	2.2	2	
Zn	66	2	He	0.206	64.4	1003	12.2	2.5	
Al	27	2	He	-1.983	-47.9	2180	7.5	5	
B	11	1	No Gas	7.379	16.3	67220	2.3	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.248	-17.8	121181	0.9	5	
Si	28	1	No Gas	-6.747	-37.4	2146938	1.9	10	
Ag	107	1	No Gas	0.009	33.8	373	10.1	2.5	
Cd	111	1	No Gas	0.000	-8855.9	10	100.0	1	
Sr	88	1	No Gas	-0.023	-9.4	753	6.5	2.5	
Mo	95	1	No Gas	0.039	22.8	250	16.0	2.5	
Sn	118	1	No Gas	-0.003	-848.3	3000	7.0	5	
Sb	121	1	No Gas	0.108	14.4	1367	10.1	2.5	
Ba	137	1	No Gas	0.025	66.3	263	20.9	2.5	
Tl	205	1	No Gas	0.145	58.3	3757	48.4	1	
Tl	203	1	No Gas	0.149	43.6	1567	36.9	1	
Pb	208	1	No Gas	-0.200	-4.0	1997	11.7	2.5	
U	238	1	No Gas	0.004	28.9	387	12.2	2.5	
Ca	43	2	He	-18.446	-103.7	17	124.9	100	
Sb	121	2	He	0.072	20.0	467	12.4	2.5	
Ti	47	2	He	-0.112	-109.1	23	65.5	2.5	
Cu	63	1	No Gas	0.041	104.7	4851	9.7	2.5	
Se	82	1	No Gas	0.446	210.7	-48	-267.9	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	741226	0.64	685403	108.14	70	120	
Ge	72	2	He	1361528	1.29	1352313	100.68	70	120	
Ge	72	1	No Gas	4825913	1.45	4920574	98.08	70	120	
In	115	1	No Gas	2064835	0.75	2041150	101.16	70	120	
Bi	209	1	No Gas	2052383	2.22	1967911	104.29	70	120	

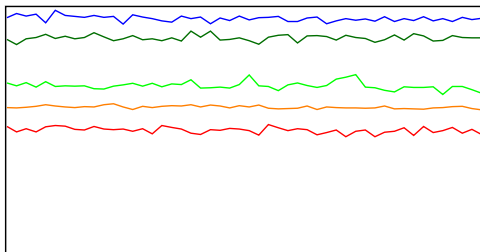


Tune Check Report

Operator Name ALSHS NoUser
Acq/Data Batch C:\Agilent\ICPMH\1\DATA\093023.b
Acq. Date-Time 9/30/2023 9:14:38 AM
Report Comment ---
Instrument Name G8422A SG22121190

[No Gas]

Sensitivity



Sampling Period [sec] 0.514

Integration Time [sec] 0.1

Mass	Range	Count	Resp [cps/(ug/L)]	Resp (Required) [cps/(ug/L)]	Resp (Flag)
9	5000	2514	25139.68		
24	20000	13667	136672.07		
59	20000	19128	191281.60		
115	50000	29828	298283.04		
208	20000	17548	175482.80		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.418	5.000	
24	2.312	5.000	
59	1.188	5.000	
115	0.971	5.000	
208	1.369	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	5.700		
24	1.200		
59	0.700		
115	1.900		
208	4.200		

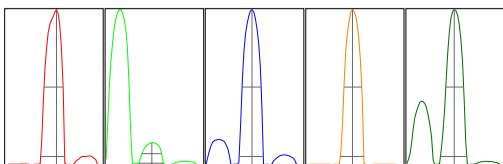
Oxide/Doubly Charged Ratio

Oxide 156 / 140 0.596 %

Doubly Charged 70 / 140 5.076 %

Tune Check Report

Resolution/Axis



Integration Time [sec] 0.1
 Acquisition Time [sec] 37.4
 Y Axis Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	2540.38	9.10	8.90 - 9.10	
24	13172.82	23.95	23.90 - 24.10	
59	19191.78	58.95	58.90 - 59.10	
115	29627.58	114.95	114.90 - 115.10	
208	17478.39	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.58	0.730		
24	0.60	0.740		
59	0.58	0.737		
115	0.54	0.715		
208	0.55	0.805		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.80 L/min	Dilution Gas	0.27 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.0 V	Deflect	14.0 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-85 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	123	Axis Gain	0.9994	QP Bias	-3.0 V
Mass Offset	127	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	0.0 mm	Torch V	-0.2 mm
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EM

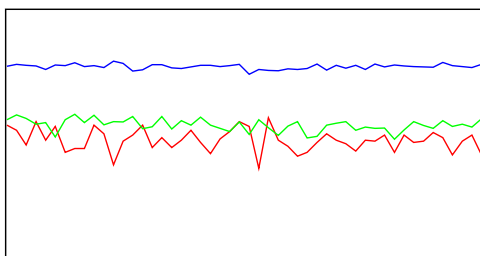
Discriminator	4.0 mV	Analog HV	2244 V	Pulse HV	1336 V
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[He]



Tune Check Report

Sensitivity



Sampling Period [sec] 0.306

Integration Time [sec] 0.1

Mass	Range	Count	Resp [cps/(ug/L)]	Resp (Required) [cps/(ug/L)]	Resp (Flag)
9	200	95	947.63		
24	1000	536	5361.03		
59	10000	7729	77287.96		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	9.421	5.000	Fail
24	4.644	5.000	
59	1.324	5.000	

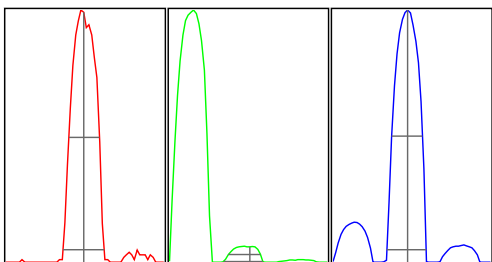
Mass	Background	Background (Required)	Background (Flag)
9	0.600		
24	0.200		
59	0.100		

Oxide/Doubly Charged Ratio

Oxide 156 / 140 0.338 %

Doubly Charged 70 / 140 2.474 %

Resolution/Axis



Integration Time [sec] 0.1

Acquisition Time [sec] 22.24

Y Axis Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	101.51	9.00	8.90 - 9.10	
24	488.85	24.05	23.90 - 24.10	
59	7810.56	58.95	58.90 - 59.10	
Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.57	0.773		
24	0.60	0.737		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.57	0.734		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.80 L/min	Dilution Gas	0.27 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.0 V	Deflect	1.0 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-95 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	123	Axis Gain	0.9994	QP Bias	-15.0 V
Mass Offset	127	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	0.0 mm	Torch V	-0.2 mm
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EM

Discriminator	4.0 mV	Analog HV	2244 V	Pulse HV	1336 V
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HS23090714 Wetchem Cr6_W

ALS WO# HS23090714

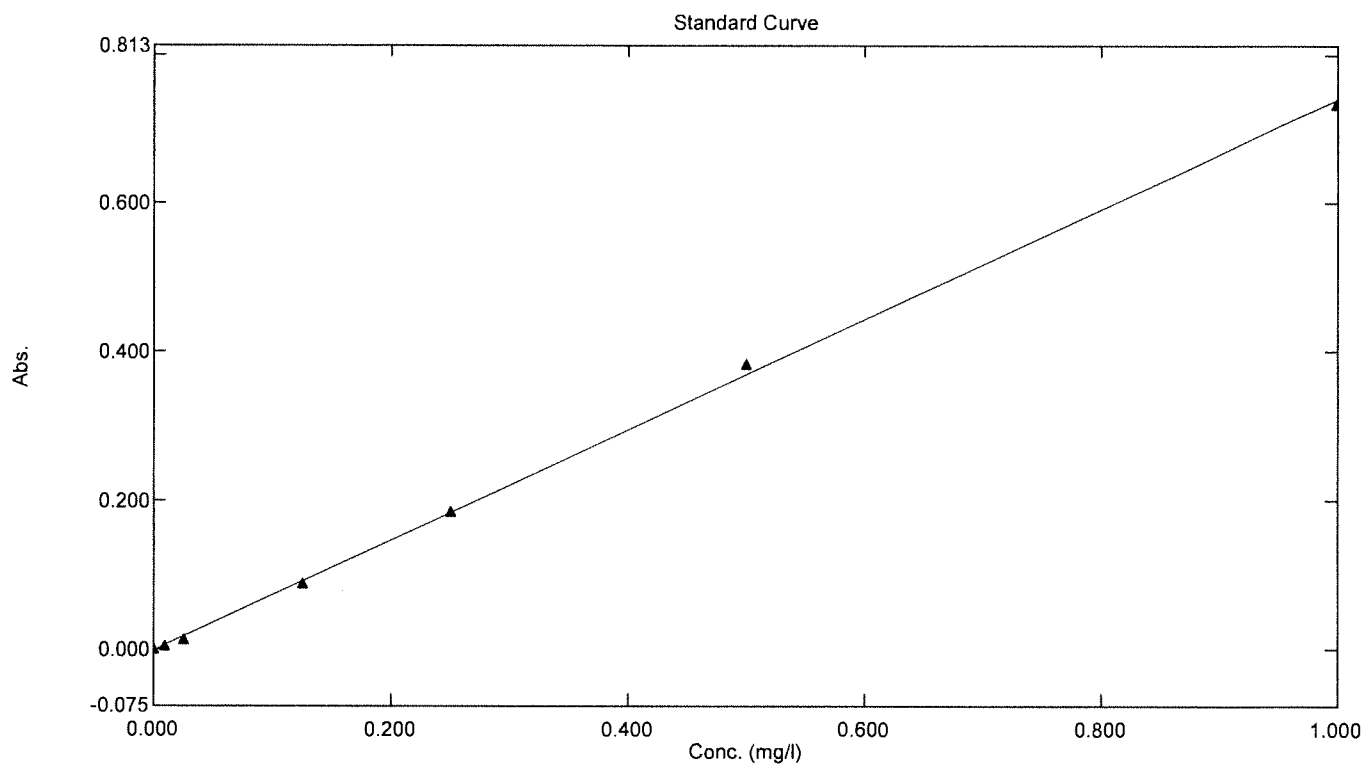


Standard Table Report

09/19/2023 05:06:08 PM

File Name: C:\Program Files

(x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\09132023CR6_Wpho..pho

Correlation Coefficient $r^2 = 0.99935$

Standard Table

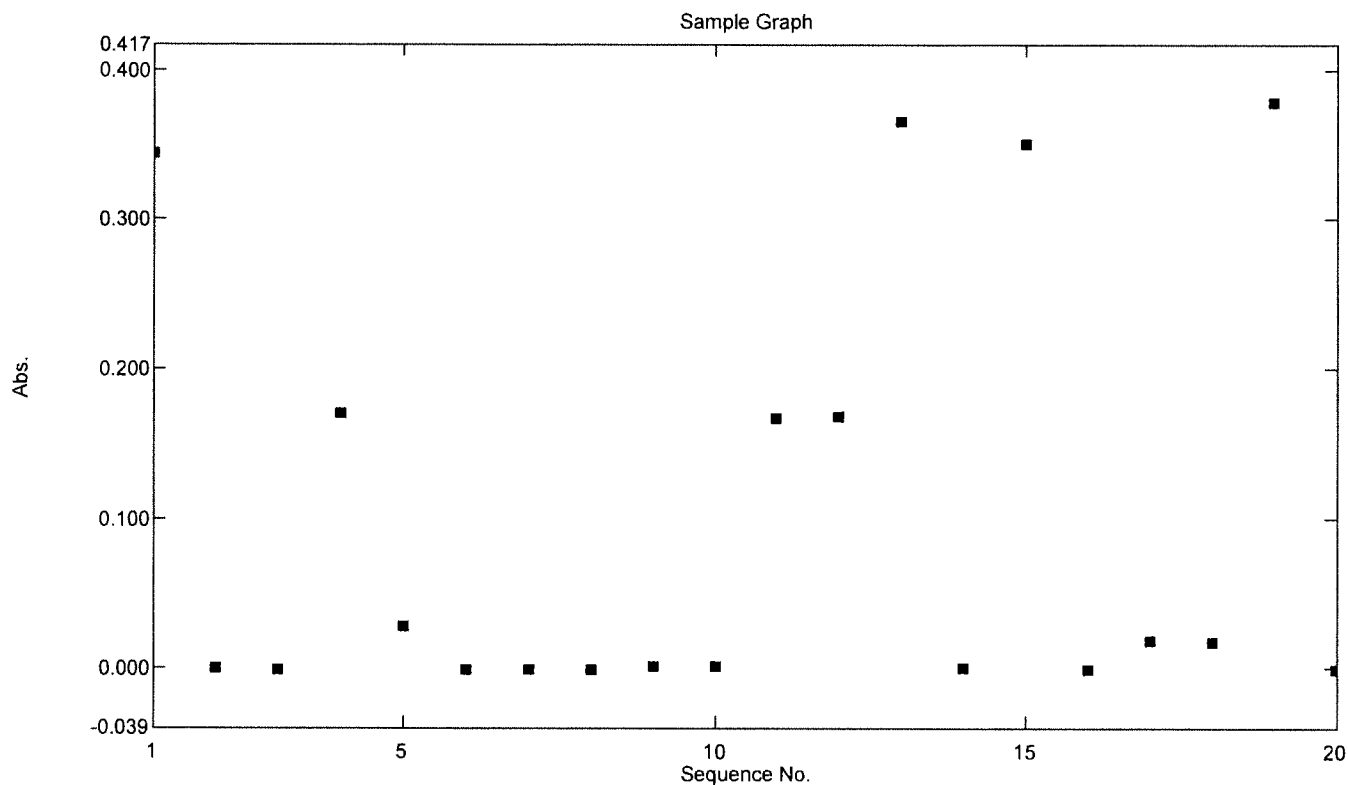
	Sample ID	Type	Ex	Conc	WL540.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	0.000	1.000	
2	STD2	Standard		0.010	0.004	1.000	
3	STD3	Standard		0.025	0.013	1.000	
4	STD4	Standard		0.125	0.089	1.000	
5	STD5	Standard		0.250	0.186	1.000	
6	STD6	Standard		0.500	0.383	1.000	
7	STD7	Standard		1.000	0.733	1.000	10/13/2023
8							

Sample Table Report

09/19/2023 05:06:10 PM

File Name: C:\Program Files

(x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\09132023CR6_Wpho..pho



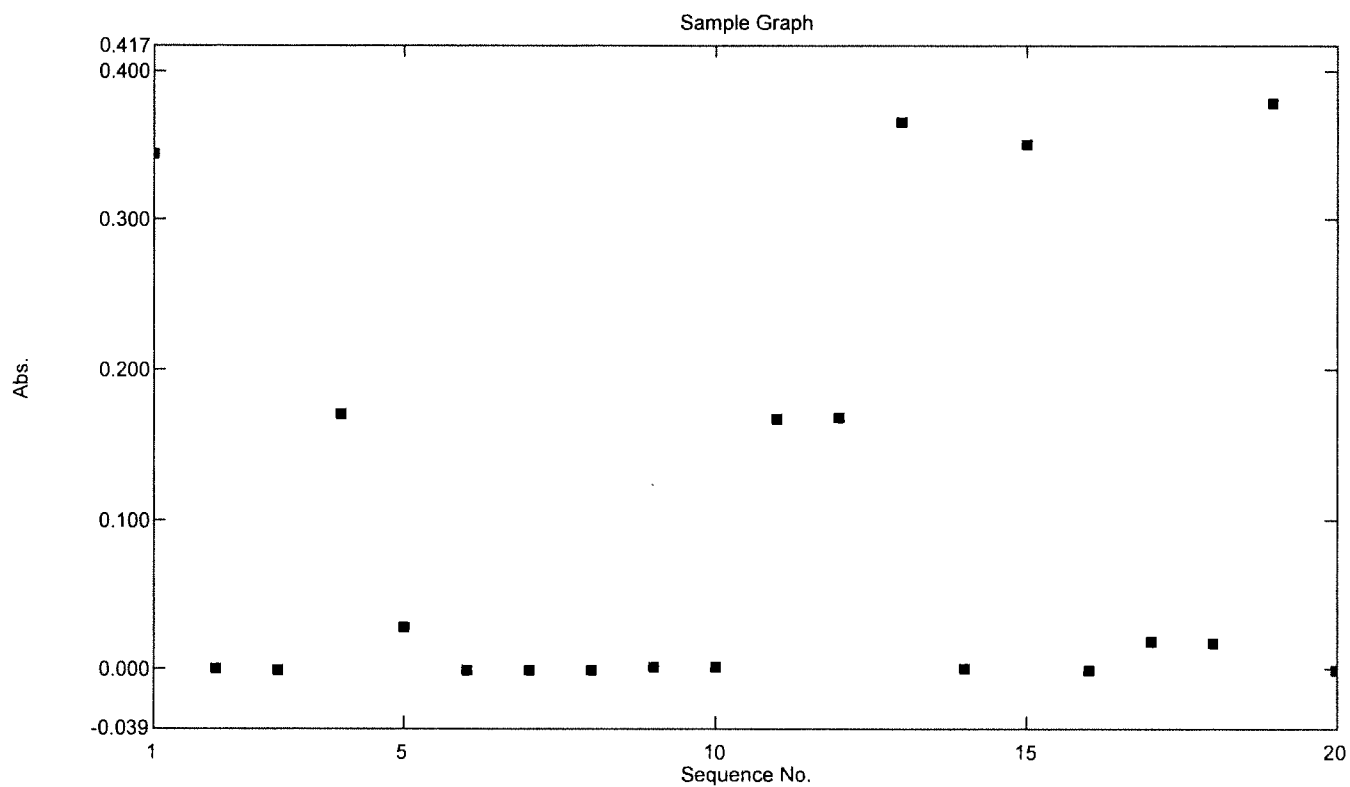
Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
1	CCV	Unknown		09/13/2023	12:09:33 PM	0.466	0.344	322144902 IC-4
2	CCB	Unknown		09/13/2023	12:09:44 PM	0.001	0.000	31000606911
3	MBLK	Unknown		09/13/2023	12:09:46 PM	0.001	-0.000	322144901 IC-4
4	LCS	Unknown		09/13/2023	12:10:16 PM	0.231	0.170	322145003 UV-03
5	HS23090652.01	Unknown		09/13/2023	12:17:02 PM	0.039	0.028	
6	HS23090652.01BKG	Unknown		09/13/2023	12:17:08 PM	0.000	-0.001	0.039
7	HS23090714.01	Unknown		09/13/2023	12:17:32 PM	-0.000	-0.001	
8	HS3090714.01BKG	Unknown		09/13/2023	12:17:34 PM	0.000	-0.001	
9	HS23090713.01	Unknown		09/13/2023	12:17:56 PM	0.004	0.002	
10	HS23090713.01BKG	Unknown		09/13/2023	12:17:58 PM	0.003	0.001	0.001
11	HS23090713.01MS	Unknown		09/13/2023	12:18:25 PM	0.227	0.167	
12	HS23090713.01MSD	Unknown		09/13/2023	12:18:27 PM	0.228	0.168	
13	CCV3	Unknown		09/13/2023	12:18:53 PM	0.495	0.366	
14	CCB3	Unknown		09/13/2023	12:19:02 PM	0.001	0.000	
15	CCV4	Unknown		09/13/2023	04:59:57 PM	0.474	0.350	
16	CCB4	Unknown		09/13/2023	05:00:12 PM	0.001	-0.000	
17	HS23090731.01	Unknown		09/13/2023	05:00:39 PM	0.026	0.018	0.001
18	HS23090731.01BKG	Unknown		09/13/2023	05:01:05 PM	0.025	0.018	
19	CCV5	Unknown		09/13/2023	05:01:27 PM	0.513	0.379	

Sample Table Report

09/19/2023 05:06:11 PM

File Name: C:\Program Files
(x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\09132023CR6_Wpho..pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
20	CCB5	Unknown		09/13/2023	05:01:39 PM	0.001	-0.000	
21								

HS23090714 E2300827 PERCH Final Report Level IV

ALS WO# HS23090714





September 14, 2023

Service Request No:E2300827

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS23090714

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory September 13, 2023
For your reference, these analyses have been assigned our service request number **E2300827**.

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 2190. You may also contact me via email at hussam.kelany@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Hussam Kelany
Project Manager

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





Client: ALS Environmental - US
Project: HS23090714
Sample Matrix: Water

Service Request No.: E2300827
Date Received: 09/13/23

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

One sample was received for analysis at ALS Environmental in Houston on 03/07/23.

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

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300447: 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: HS23090714

Service Request:E2300827

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E2300827-001	LH18/24-SP650_091223_AIX	9/12/2023	1300



Service Request Summary

Folder #: E2300827
Client Name: ALS Environmental - US
Project Name: HS23090714
Project Number:
Report To: James Guin
 ALS Environmental - US
 10450 Standcliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/13/23
Internal Due Date: 9/20/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090714
EDD: BASIC_WQC_CASNo
 _LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

				HOUSTON
				CIO4 DOD/6850
Lab Samp No.	Client Samp No	Matrix	Collected	
E2300827-001	LH18/24-SP650_091223_AIX	Water	09/12/23 1300	IV



Service Request Summary

Folder #: E2300827
Client Name: ALS Environmental - US
Project Name: HS23090714
Project Number:

Report To: James Guin
 ALS Environmental - US
 10450 Standcliff Rd #210
 Houston, TX 77099
 USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/13/23
Internal Due Date: 9/20/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23090714
EDD: BASIC_WQC_CASNo
 _LOD

1 120 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	Level IV due 9/27



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
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L23-358	5/31/2025
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
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	343-2023	6/30/2024
Michigan Department of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Conservation	TN04016-2023	4/30/2024
Texas Commission on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932023-14	7/31/2024
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





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Houston, TX 77099
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Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense

COC ID: 23146

SUBCONTRACT TO:

ALS Environmental
10450 Standliff Road Suite 210
Houston, TX 77084

Phone: +1 281 530 5656

**CUSTOMER
INFORMATION:**

Company: ALS Houston
Contact: James Guin
Address: 10450 Standliff Rd, Ste 210
Phone: +1 281 530 5656
Email: James.Guin@alsglobal.com
**Alternate
Contact:** Jumoke M. Lawal
Email: jumoke.lawal@alsglobal.com

**INVOICE
INFORMATION:**

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Standliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS23090714
TSR: Houston House Acct

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
1. HS23090714-02	LH18/24-SP650_091223_AIX	Water	12 Sep 2023 13:00
	Provide Level II and Level IV reports in separate pdf		20 Sep 2023

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

QC Level: DOD IV (DoD Data Package)

E2300827
ALS Environmental - US
HS23090714

5



Relinquished By:

PK

Date/Time:

Received By:

J (4)

Date/Time:

9-15-23 1223

Cooler ID(s):

Temperature(s):





Cooler Receipt Form

Project Chemist HClient/Project ALC Thermometer ID 11231Date/Time Received: 9-13-23 Initials: gj Date/Time Logged in: 9-13-23 Initials: gj1. Method of delivery: ☐ US Mail ☐ Fed Ex ☐ UPS ☐ DHL ☒ ^{ALS} Courier ☐ Client2. Samples received in: ☒ Cooler ☐ Box ☐ Envelope ☐ Other3. 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 ☐ Other5. Foreign or Regulated Soil? ☐ Yes ☐ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
-		9-13-23	1223	gj	3.3	☐
						☐
						☐
						☐

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:

E2300827**5**ALS Environmental - US
HS23090714

HS-HRMSCoolerReceipt R1.0

ALS Environmental - Houston HRMS





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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

Prep Run#: 426475
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method:

Status: Prepped
Prep Date/Time: 9/14/23 08:10

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300814-001	130_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
2	E2300814-002	17WW03_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
3	E2300814-003	17WW01_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
4	E2300814-004	17WW02_090723	.01	6850/CIO4 DOD			Ground Water	10mL	
5	E2300814-005	17WW02_090723_a	.01	6850/CIO4 DOD			Ground Water	10mL	
6	E2300814-006	17WW06_090723	.02	6850/CIO4 DOD			Ground Water	10mL	
7	E2300826-001	LH18/24-SP650_091223_BIX	.01	6850/CIO4 DOD			Water	10mL	
8	E2300826-002	LH18/24-SP650_091223_AIX	.01	6850/CIO4 DOD			Water	10mL	
9	E2300827-001	LH18/24-SP650_091223_AIX	.01	6850/CIO4 DOD			Water	10mL	
10	E2300828-001	LH18/24-SP140_091223	.01	6850/CIO4 DOD			Water	10mL	
11	EQ2300447-01	MB		6850/CIO4			Liquid	10mL	
12	EQ2300447-02	LCS		6850/CIO4			Liquid	10mL	
13	EQ2300447-03	DLCS		6850/CIO4			Liquid	10mL	
14	EQ2300447-04	17WW06_090723 MS	.02	6850/CIO4 DOD			Liquid	10mL	
15	EQ2300447-05	17WW06_090723 DMS	.02	6850/CIO4 DOD			Liquid	10mL	
16	K2310104-001	LGAC-INF-091123	.01	6850/CIO4			Water	10mL	
17	K2310104-002	LGAC-INT1-091123	.01	6850/CIO4			Water	10mL	
18	K2310104-003	LGAC-INT2-091123	.01	6850/CIO4			Water	10mL	

Spiking Solutions

Name:	Perchlorate Intermediate Stock1	Inventory ID	230342	Logbook Ref:	Perchlorate (1st Source)	Expires On:	03/07/2024
-------	---------------------------------	--------------	--------	--------------	--------------------------	-------------	------------

EQ2300447-02 1.00µL EQ2300447-02 1.00µL EQ2300447-03 1.00µL EQ2300447-03 1.00µL EQ2300447-04 1.00µL EQ2300447-05 1.00µL

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	230372	Logbook Ref:	Perchlorate Internal Standard	Expires On:	04/30/2024
-------	--------------------------------------	--------------	--------	--------------	-------------------------------	-------------	------------

E2300814-001 100.00µL E2300814-002 100.00µL E2300814-003 100.00µL E2300814-004 100.00µL E2300814-005 100.00µL E2300814-006 100.00µL
E2300826-001 100.00µL E2300826-002 100.00µL E2300827-001 100.00µL E2300828-001 100.00µL EQ2300447-01 100.00µL EQ2300447-01 100.00µL
EQ2300447-02 100.00µL EQ2300447-02 100.00µL EQ2300447-03 100.00µL EQ2300447-03 100.00µL EQ2300447-04 100.00µL EQ2300447-05 100.00µL
K2310104-001 100.00µL K2310104-002 100.00µL K2310104-003 100.00µL

Preparation Materials

Water HPLC Grade HPLC water 5/18/23CG (229315) 6850 Amber Glass screw vial 2mL Screw Top Vial (221894) 6850 0.45um syringe filters 6850 0.45 SYRING FILTER (229979)
6850 20mM amonium acetate in H2O (230746) 6850 Luer-Lok Syringes luer-lock syringes (228116)



Preparation Information Benchsheet

Prep Run#: 426475
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method:

Status: Prepped
Prep Date/Time: 9/14/23 08:10

Preparation Steps

Step: Preparation
Started: 9/14/23 08:10
Finished: 9/14/23 09:10
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____	Date: _____	<u>Extracts Examined</u>
Received By: _____	Date: _____	Yes No



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: HS23090714
Sample Matrix: Water
Sample Name: LH18/24-SP650_091223_AIX
Lab Code: E2300827-001

Service Request: E2300827
Date Collected: 9/12/23 1300
Date Received: 9/13/23
Units: µg/L
Basis: NA

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

Analytical Method: 6850

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	0.0578	J	0.100	0.0500	0.0250	1	9/14/23	9/14/23 11:43	426475	817192	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090714
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: EQ2300447-01

Service Request: E2300827
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

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	9/14/23	9/14/23 10:51	426475	817192	





Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
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Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com



Client: ALS Environmental - US
Project: HS23090714
Sample Matrix: Water

Service Request: E2300827
Date Analyzed: 9/14/23

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

Analytical Method: 6850
Prep Method:

Units: µg/L
Basis: NA

Extraction Lot: 426475

Analyte Name	Lab Control Sample EQ2300447-02			Duplicate Lab Control Sample EQ2300447-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perchlorate	0.108	0.100	108	0.114	0.100	114	84 - 119	6	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: HS23090714
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: EQ2300447-02

Service Request: E2300827
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

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	0.108		0.100	0.0500	0.0250	1	9/14/23	9/14/23 11:26	426475	817192	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: HS23090714
Sample Matrix: Water
Sample Name: Duplicate Lab Control Sample
Lab Code: EQ2300447-03

Service Request: E2300827
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

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	0.114		0.100	0.0500	0.0250	1	9/14/23	9/14/23 11:02	426475	817192	





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





20230802

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM

2nd Review: KN

ICAL Date: 8/2/2023

Cal. Std. xp: 03/07/2024

ICAL ID: EC2300012

Mobile Phases : A:20mM ammonium acetate in water 230388 B:Acetonitrile 229152

	Sample Name	File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB	2230802-001	Perchlorate6850c.lcm	1x		8/2/2023 13:05
2	IB	2230802-002	Perchlorate6850c.lcm	1x		8/2/2023 13:11
3	Perchlorate ICAL 1	2230802-003	Perchlorate6850c.lcm	1x	230373	8/2/2023 13:17
4	Perchlorate ICAL 2	2230802-004	Perchlorate6850c.lcm	1x	230375	8/2/2023 13:23
5	Perchlorate ICAL 3	2230802-005	Perchlorate6850c.lcm	1x	230376	8/2/2023 13:28
6	Perchlorate ICAL 4	2230802-006	Perchlorate6850c.lcm	1x	230377	8/2/2023 13:34
7	Perchlorate ICAL 5	2230802-007	Perchlorate6850c.lcm	1x	230378	8/2/2023 13:39
8	Perchlorate ICAL 6	2230802-008	Perchlorate6850c.lcm	1x	230379	8/2/2023 13:45
9	Perchlorate ICAL 7	2230802-009	Perchlorate6850c.lcm	1x	230380	8/2/2023 13:50
10	Perchlorate ICAL 8	2230802-010	Perchlorate6850c.lcm	1x	230381	8/2/2023 13:56
11	Perchlorate ICAL 9	2230802-011	Perchlorate6850c.lcm	1x	230382	8/2/2023 14:02
12	Perchlorate ICAL 10	2230802-012	Perchlorate6850c.lcm	1x	230383	8/2/2023 14:07
13	PerchlorateICV	2230802-013	Perchlorate6850c.lcm	1x	230385	8/2/2023 14:19



Initial Calibration - Detailed Report

Calibration ID: EC2300012

Instrument ID: E-LCMS-01

Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300012-01	Perchlorate ICAL 1	2230802-003	08/02/2023 13:17
02	EC2300012-02	Perchlorate ICAL 2	2230802-004	08/02/2023 13:23
03	EC2300012-03	Perchlorate ICAL 3	2230802-005	08/02/2023 13:28
04	EC2300012-04	Perchlorate ICAL 4	2230802-006	08/02/2023 13:34
05	EC2300012-05	Perchlorate ICAL 5	2230802-007	08/02/2023 13:39
06	EC2300012-06	Perchlorate ICAL 6	2230802-008	08/02/2023 13:45
07	EC2300012-07	Perchlorate ICAL 7	2230802-009	08/02/2023 13:50
08	EC2300012-08	Perchlorate ICAL 8	2230802-010	08/02/2023 13:56
09	EC2300012-09	Perchlorate ICAL 9	2230802-011	08/02/2023 14:02
10	EC2300012-10	Perchlorate ICAL 10	2230802-012	08/02/2023 14:07

Analyte**Curve Fit****Weighting****Perchlorate****Average RF**

RSD = 2.086

Average RF = 0.1475

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1428	02	0.5000	0.1421	03	0.7000	0.1457	04	1.0000	0.149
05	2.0000	0.1515	06	5.0000	0.1475	07	10.0000	0.1503	08	20.0000	0.1477
09	30.0000	0.1485	10	50.0000	0.1496						

Analyte**Perchlorate**

RSE = 2.09

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0968	-3.2	02	0.5000	0.482	-3.6	03	0.7000	0.692	-1.2
04	1.0000	1.01	1.0	05	2.0000	2.05	2.7	06	5.0000	5.00	-0.0
07	10.0000	10.2	1.9	08	20.0000	20.0	0.2	09	30.0000	30.2	0.7
10	50.0000	50.7	1.4								



Initial Calibration Verification Summary Report

Calibration ID:	EC2300012	Instrument ID:	E-LCMS-01
Datafile ID:	2230802-013	Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300012-11	T	Average RF	10	10.670	ng/mL	6.7	<= 15



Insight Report

Printed at 8/3/2023 9:30:46 AM

Method File: I:\LCMS01\DATA\20230802\20230802ICAL.lcm

Project File: I:\LCMS01\DATA\20230802\20230802ICAL.dam\p

Perchlorate ICAL 1

Sample ID: Perchlorate ICAL 1

Date Acquired: 8/2/2023 1:17:39 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\20230802-003.lcd

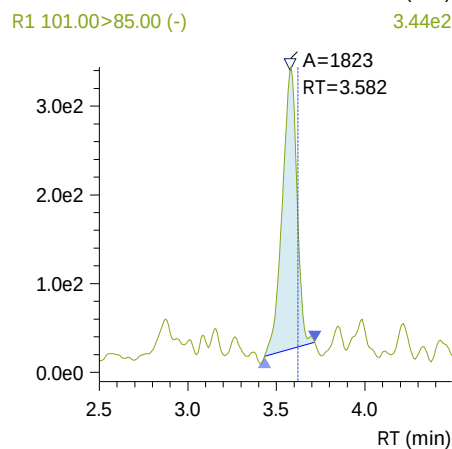
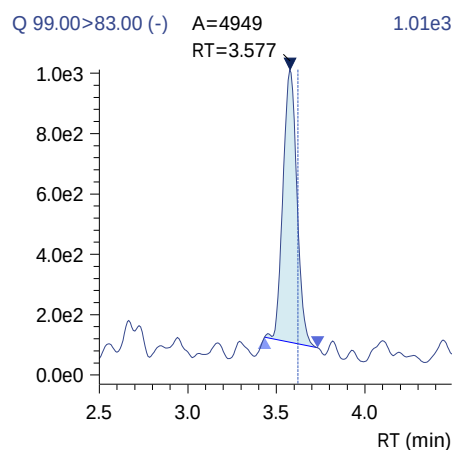
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.577	4949	346538	0.0968	ng/mL	101.00 >85.00	36.83	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.572	346538	346538	1.0000	ng/mL	----	----	

Perchlorate

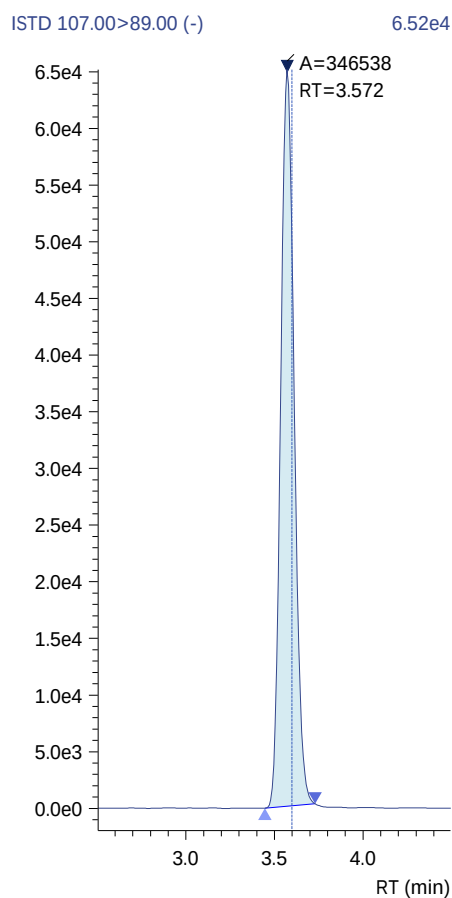
Conc 0.0968

R#1 36.83 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

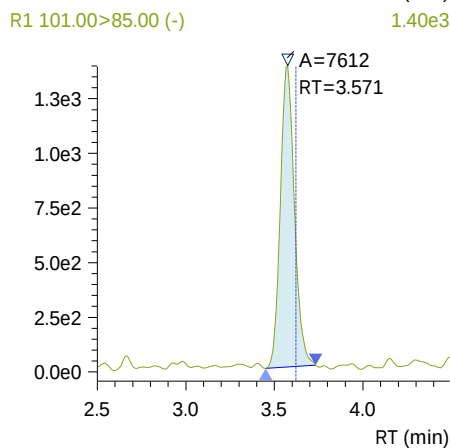
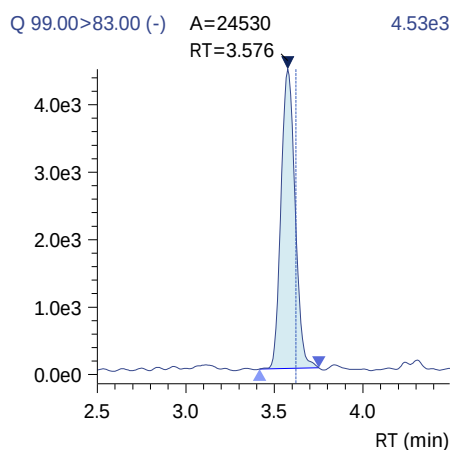
Perchlorate ICAL 2

Sample ID: Perchlorate ICAL 2
Date Acquired: 8/2/2023 1:23:13 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-004.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.576	24530	345149	0.4820	ng/mL	101.00 >85.00	31.03	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.571	345149	345149	1.0000	ng/mL	----	----	

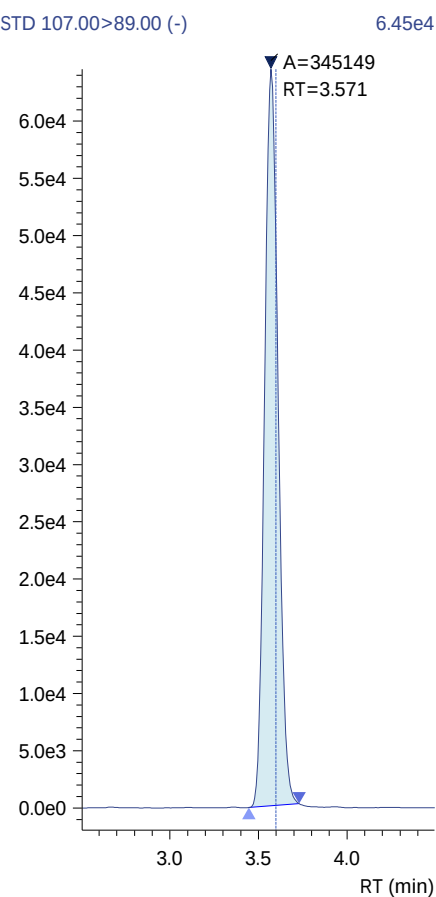
Perchlorate

Conc 0.4820
R#1 31.03 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 3

Sample ID: Perchlorate ICAL 3

Date Acquired: 8/2/2023 1:28:44 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-005.lcd

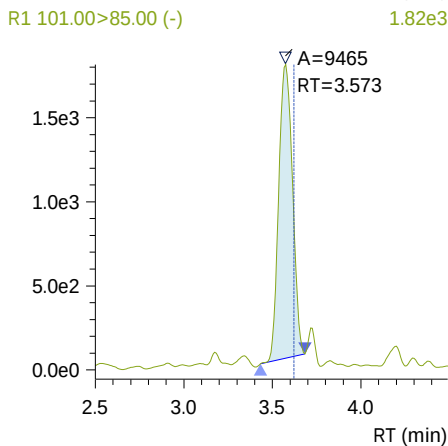
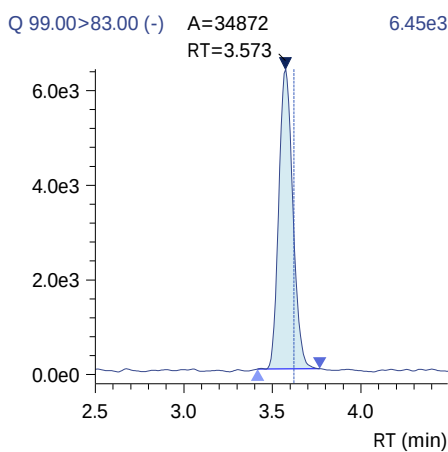
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	34872	341974	0.6915	ng/mL	101.00 >85.00	27.14	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	341974	341974	1.0000	ng/mL	----	----	

Perchlorate

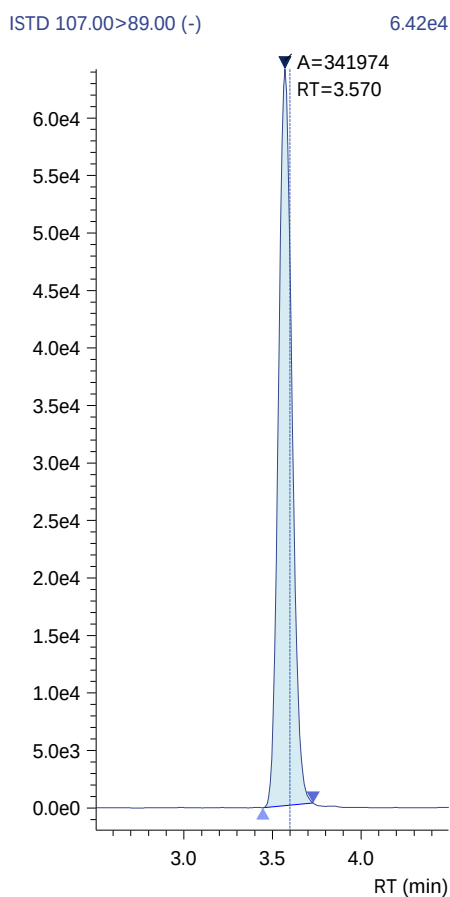
Conc 0.6915

R#1 27.14 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 4

Sample ID: Perchlorate ICAL 4

Date Acquired: 8/2/2023 1:34:20 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-006.lcd

Vial: 4 | Inj. Volume: 10.0000uL | Tray: 1

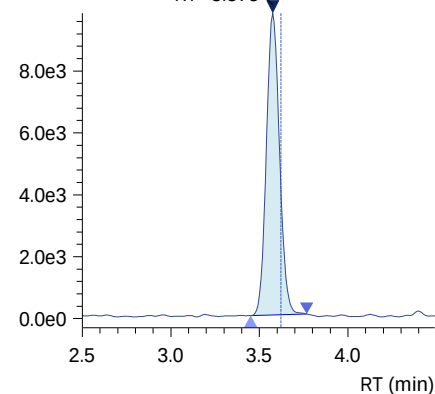
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	50483	338838	1.0104	ng/mL	101.00 >85.00	28.12	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	338838	338838	1.0000	ng/mL	----	----	

Perchlorate

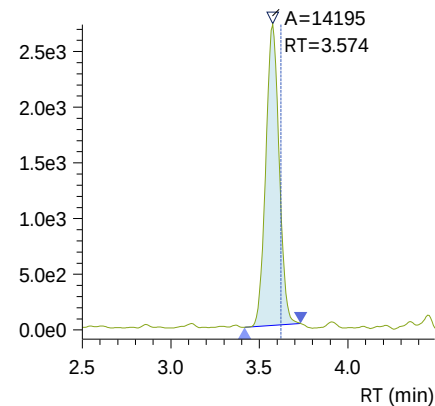
Conc 1.0104

R#1 28.12 (30.41)

Q 99.00>83.00 (-)

A=50483
RT=3.575

R1 101.00>85.00 (-)

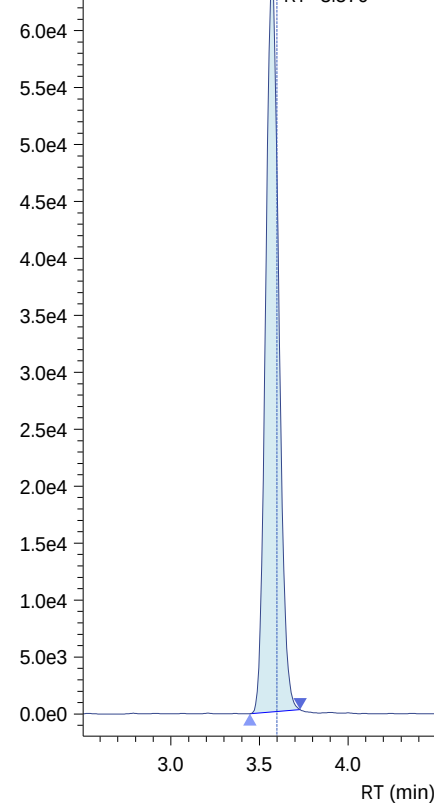
A=14195
RT=3.574

Sodium Perchlorate-18O4_IS

Conc 1.0000

9.87e3 ISTD 107.00>89.00 (-)

6.49e4

A=338838
RT=3.570

Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 5

Sample ID: Perchlorate ICAL 5

Date Acquired: 8/2/2023 1:39:51 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-007.lcd

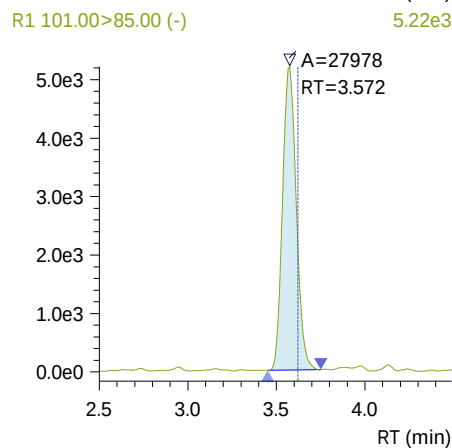
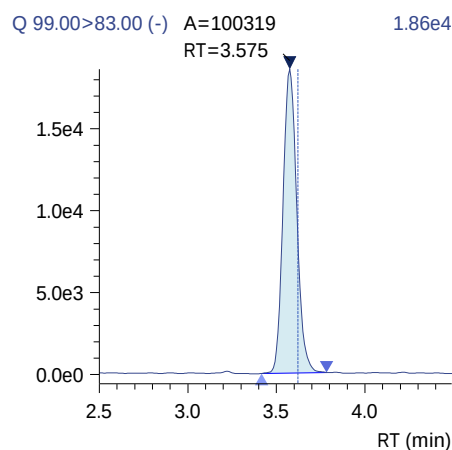
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	100319	331124	2.0545	ng/mL	101.00 >85.00	27.89	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	331124	331124	1.0000	ng/mL	----	----	

Perchlorate

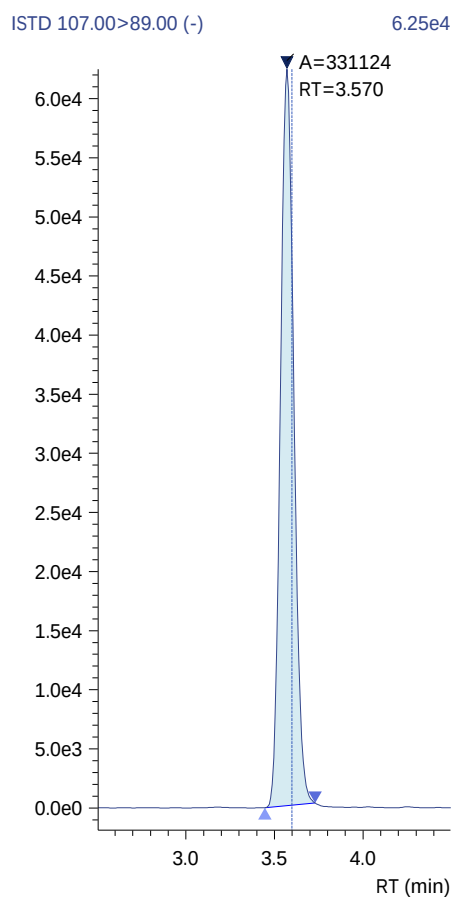
Conc 2.0545

R#1 27.89 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 6

Sample ID: Perchlorate ICAL 6

Date Acquired: 8/2/2023 1:45:24 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-008.lcd

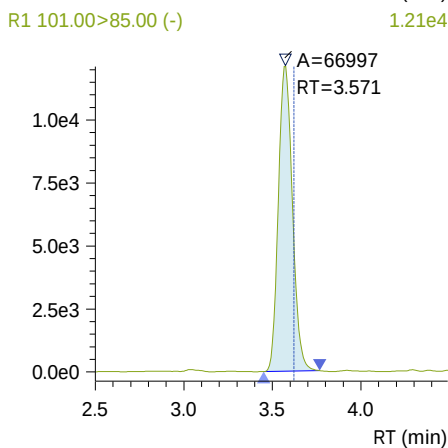
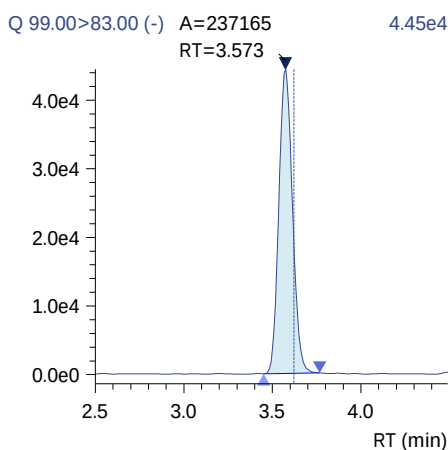
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	237165	321666	5.0000	ng/mL	101.00 >85.00	28.25	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	321666	321666	1.0000	ng/mL	----	----	

Perchlorate

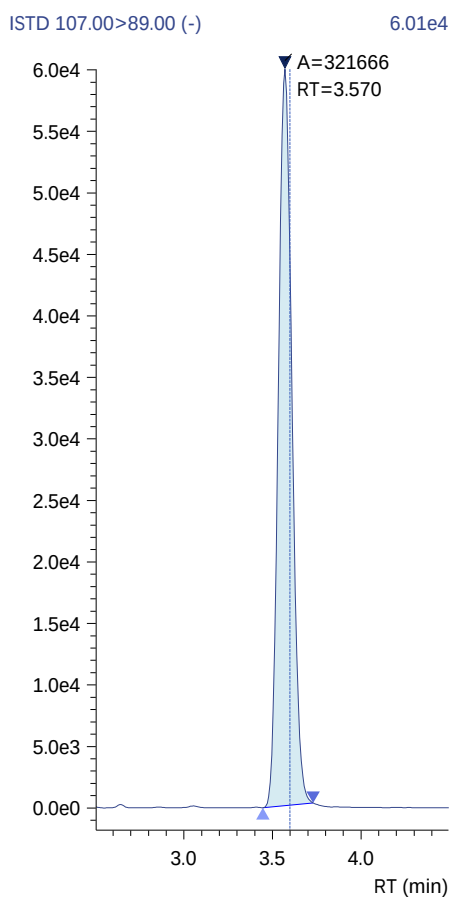
Conc 5.0000

R#1 28.25 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 7

Sample ID: Perchlorate ICAL 7

Date Acquired: 8/2/2023 1:50:57 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-009.lcd

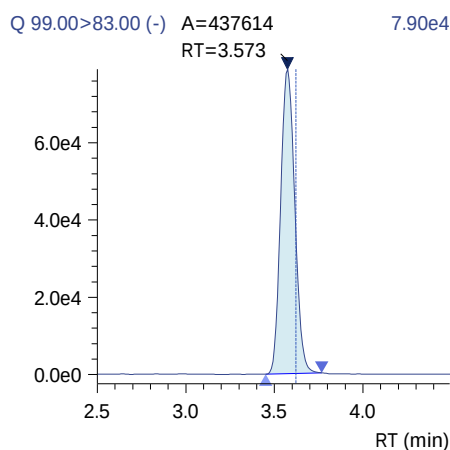
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	437614	291215	10.1905	ng/mL	101.00 >85.00	28.36	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291215	291215	1.0000	ng/mL	----	----	

Perchlorate

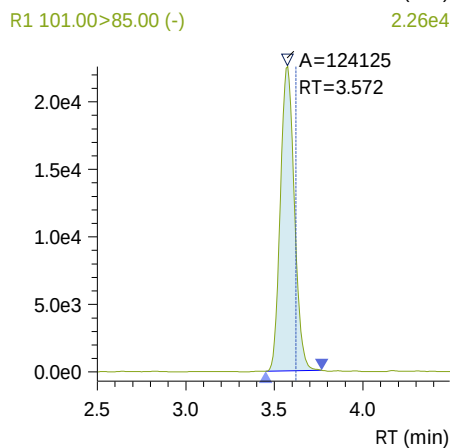
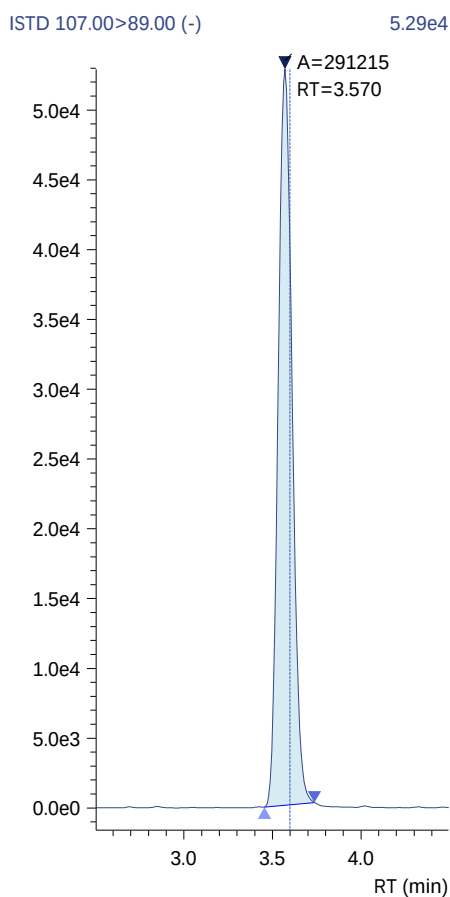
Conc 10.1905

R#1 28.36 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 8

Sample ID: Perchlorate ICAL 8

Date Acquired: 8/2/2023 1:56:33 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-010.lcd

Vial: 8 | Inj. Volume: 10.0000uL | Tray: 1

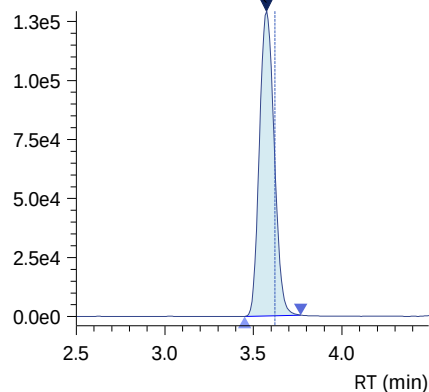
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	749856	253829	20.0336	ng/mL	101.00 >85.00	28.56	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.569	253829	253829	1.0000	ng/mL	----	----	

Perchlorate

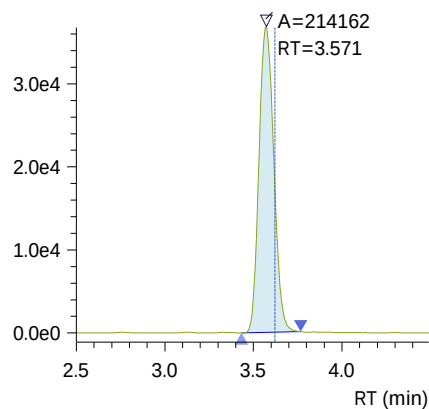
Conc 20.0336

R#1 28.56 (30.41)

Q 99.00>83.00 (-) A=749856 RT=3.574 1.29e5 ISTD 107.00>89.00 (-) 4.37e4



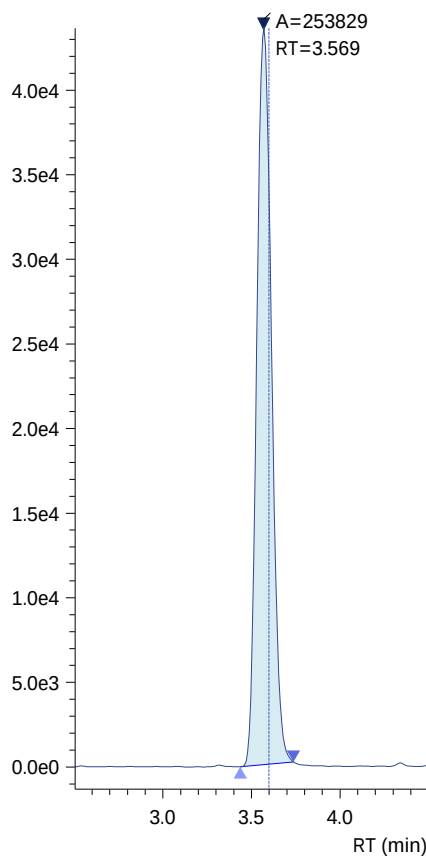
R1 101.00>85.00 (-) 3.68e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.37e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 9

Sample ID: Perchlorate ICAL 9

Date Acquired: 8/2/2023 2:02:07 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-011.lcd

Vial: 9 | Inj. Volume: 10.0000uL | Tray: 1

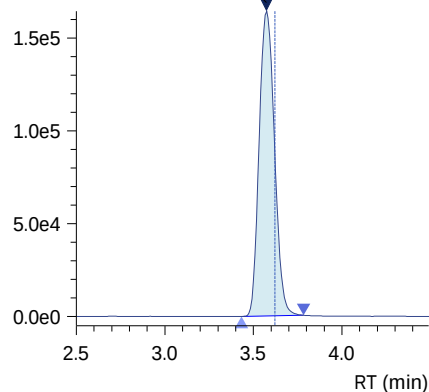
Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	990671	222379	30.2105	ng/mL	101.00 >85.00	27.95	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.568	222379	222379	1.0000	ng/mL	----	----	

Perchlorate

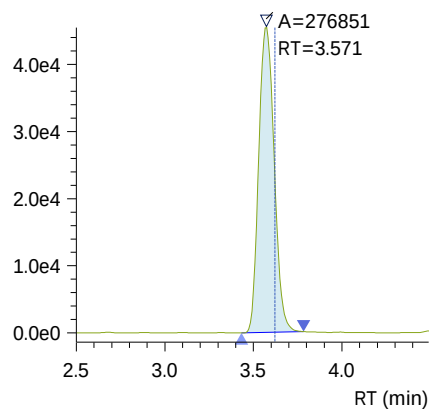
Conc 30.2105

R#1 27.95 (30.41)

Q 99.00>83.00 (-) A=990671 RT=3.574 1.64e5 ISTD 107.00>89.00 (-) 3.69e4



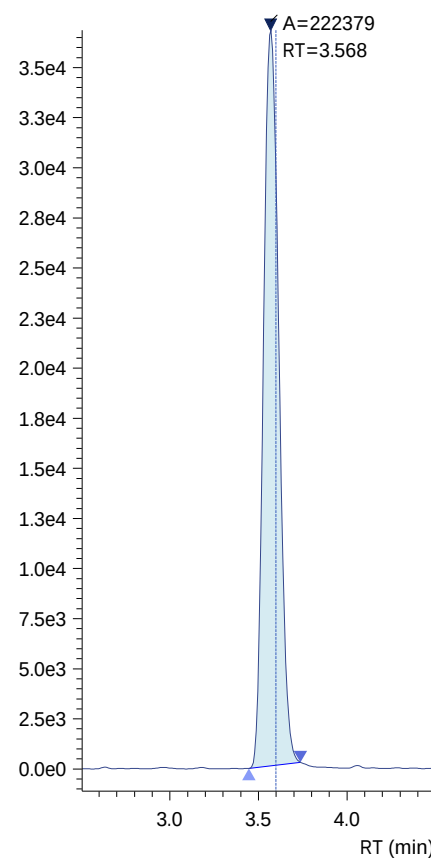
R1 101.00>85.00 (-) 4.55e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.69e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 10

Sample ID: Perchlorate ICAL 10

Date Acquired: 8/2/2023 2:07:39 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-012.lcd

Vial: 10 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	1335647	178573	50.72 20	ng/mL	101.00 >85.00	28.04	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.567	178573	178573	1.0000	ng/mL	----	----	

Perchlorate

Conc 50.7220

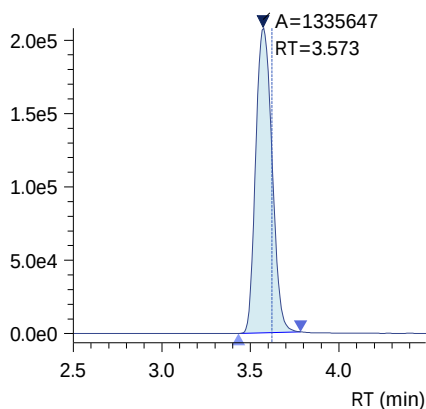
R#1 28.04 (30.41)

Q 99.00>83.00 (-)

2.08e5

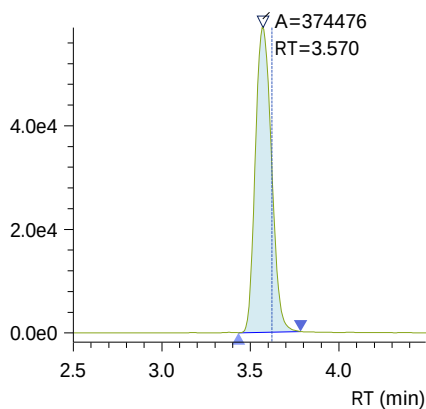
ISTD 107.00>89.00 (-)

2.78e4



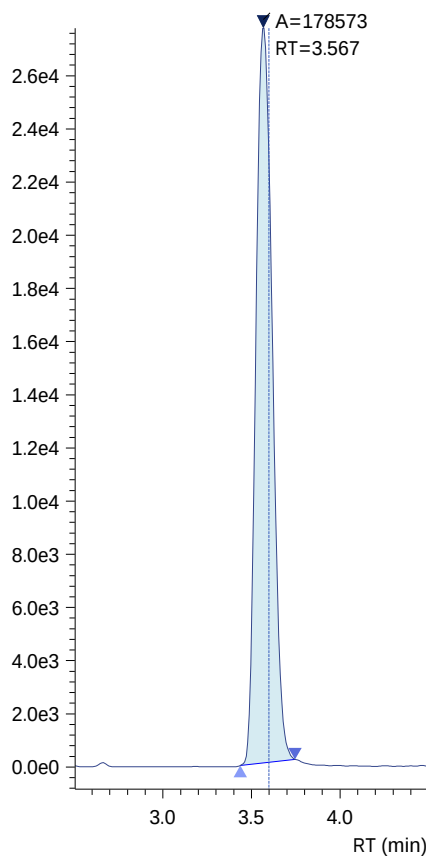
R1 101.00>85.00 (-)

5.90e4



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

PerchlorateICV

Sample ID: PerchlorateICV

Date Acquired: 8/2/2023 2:19:46 PM

Acquired by: System Administrator

Data File: I:\LCMS01\DATA\20230802\2230802-013.lcd

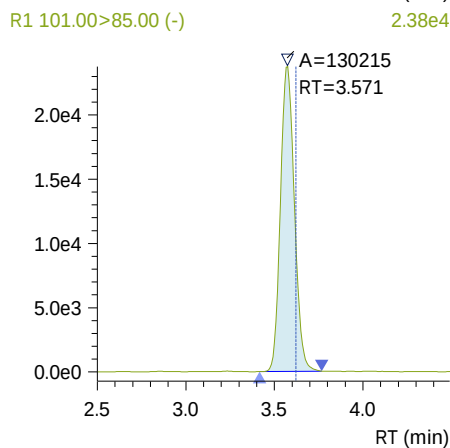
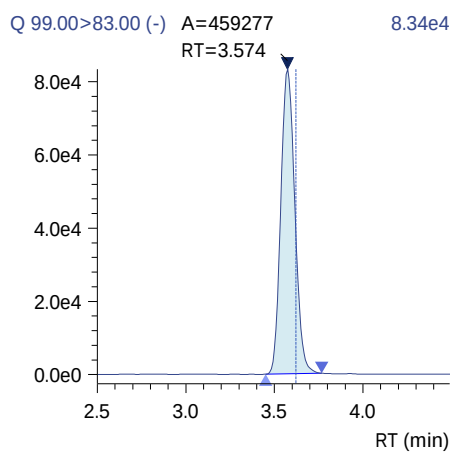
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	459277	291890	10.6703	ng/mL	101.00 >85.00	28.35	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291890	291890	1.0000	ng/mL	----	----	

Perchlorate

Conc 10.6703

R#1 28.35 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000

